



Earthwork			31	15
Earth Moving			31 20	
Embankments			31 24	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 24 13 00-0003		Cutting, Shaping, And Rough Grading (31 24 13 00-0002)		
31 24 13 00-0004	CY	Cut, Shape, and Rough Grading for Roadways, Parking Areas, Landscaping and Embankments by Machine in Soil	7.53	
		For Up To 20, Add	7.53	
		For >20 To 50, Add	5.65	
		For >50 To 250, Add	3.01	
		For >250 To 500, Add	1.13	
		For >1,000, Deduct	-1.13	
31 24 13 00-0005	CY	Cut, Shape, and Rough Grading for Roadways, Parking Areas, Landscaping and Embankments by Machine in Loose Rock.....	9.34	
		Note: Includes compacted aggregate		
		For Up To 20, Add	9.34	
		For >20 To 50, Add	7.01	
		For >50 To 250, Add	3.74	
		For >250 To 500, Add	1.40	
		For >1,000, Deduct	-1.40	
31 24 13 00-0006		Cutting, Shaping, And Rough Grading By Hand (31 24 13 00-0002)		
31 24 13 00-0007	SY	Shape Embankment/Slope By Hand Up To 1 On 4 Slope	7.47	
31 24 13 00-0008	SY	Shape Embankment/Slope By Hand Greater Than 1 On 4 Slope	9.72	
31 24 13 00-0009		Scarify Soil (31 24 13 00-0001)		
		Note: For roadways, parking areas, landscaping and embankments by machine.		
31 24 13 00-0010	CSF	Scarify Soil For Roadways, Parking Areas, Landscaping And Embankments By Machine	6.98	
		For Up To 20, Add	3.49	
		For >20 To 50, Add	1.75	
		For >250 To 500, Deduct	-0.70	
		For >500, Deduct	-1.40	
31 24 13 00-0011		Relocating On Site Excavated Material (31 24 13 00-0001)		
31 24 13 00-0012	CY	>500' To 1,000', Relocating On Site Excavated Material For Roadways, Parking Areas, Landscaping And Embankments By Machine	13.56	
		For Up To 20, Add	13.56	
		For >20 To 50, Add	10.17	
		For >50 To 250, Add	5.42	
		For >250 To 500, Add	2.03	
		For >1,000, Deduct	-2.03	
31 24 13 00-0013	CY	>1,000', Relocating On Site Excavated Material For Roadways, Parking Areas, Landscaping And Embankments By Machine.....	18.08	
		For Up To 20, Add	18.08	
		For >20 To 50, Add	13.56	
		For >50 To 250, Add	7.23	
		For >250 To 500, Add	2.71	
		For >1,000, Deduct	-2.71	
31 24 13 00-0014		Spread And Shape Imported Or Stockpiled Material (31 24 13 00-0001)		
		Note: For roadways, parking areas, landscaping and embankments. See CSI section 31 23 16 36-0032 for spreading material by hand.		
31 24 13 00-0015	CY	Spread And Shape Imported Or Stockpiled Material For Roadways, Parking Areas, Landscaping and Embankments By Machine	8.29	
		For Up To 20, Add	8.29	
		For >20 To 50, Add	6.22	
		For >50 To 250, Add	3.32	
		For >250 To 500, Add	1.24	
		For >1,000, Deduct	-1.24	
31 24 13 00-0016		Grading (31 24 13 00-0001)		
		Note: For roadways, parking areas, landscaping and embankments by machine.		
31 24 13 00-0017	SY	Rough Grade Roadway, Parking Areas, Landscaping And Embankments By Machine.....	0.85	
31 24 13 00-0018	SY	Finish Grade Roadway, Parking Areas, Landscaping And Embankments By Machine.....	1.13	
31 24 13 00-0019	LF	Finish Grade For Curb	1.27	
31 24 13 00-0020	LF	Finish Grade For Curb And Gutter.....	1.56	
31 24 13 00-0021		Compaction Of Fill Or Subbase (31 24 13 00-0001)		
		Note: For roadways, parking areas, landscaping and embankments by machine, per lift.		
31 24 13 00-0022	SY	Compaction Of Fill Or Subbase For Roadways, Parking Areas, Landscaping And Embankments By Machine Per Lift.....	0.76	
		For Up To 250, Add	0.76	
		For >250 To 500, Add	0.57	
		For >500 To 1,000, Add	0.30	
		For >5,000, Deduct	-0.11	
31 24 13 00-0023		Loading Excess Material For Removal From Excavation (31 24 13 00-0001)		
		Note: For roadways, parking areas, landscaping and embankments by machine. Includes hand work by laborer for clean-up.		



MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

31 24 13 00-0024	CY	Load Excess Material For Removal For Roadways, Parking Areas, Landscaping and Embankments by Machine	6.22
		For Up To 20, Add	6.22
		For >20 To 50, Add	4.67
		For >50 To 250, Add	2.49
		For >250 To 500, Add	0.93
		For >1,000, Deduct	-0.93

31 25 Erosion and Sedimentation Controls ^(31 20)

31 25 14 Stabilization Measures for Erosion and Sedimentation Control ^(31 25)

31 25 14 13 Hydraulically-Applied Erosion Control ^(31 25 14)

31 25 14 13-0001 Bonded Fiber Matrix ^(31 25 14 13)

31 25 14 13-0002	MSF	Up To 25,000 SF Bonded Fiber Matrix, Hydraulically Applied	63.93
31 25 14 13-0003	MSF	>25,000 To 50,000 SF Bonded Fiber Matrix, Hydraulically Applied	58.64
31 25 14 13-0004	MSF	>50,000 To 100,000 SF Bonded Fiber Matrix, Hydraulically Applied	54.14
31 25 14 13-0005	MSF	>100,000 Bonded Fiber Matrix, Hydraulically Applied	51.58

31 25 14 16 Rolled Erosion Control Mats and Blankets ^(31 25 14)

Note: Includes all staples and stakes for erosion control blankets and turf reinforcement mats.

31 25 14 16-0001 Erosion Control Blankets And Turf Reinforcement Mats ^(31 25 14 16)

31 25 14 16-0002 Erosion Control Blankets, Short Term, Light Duty ^(31 25 14 16-0001)

31 25 14 16-0003	SY	S75 Single Net Erosion Control Blanket	3.29
		Note: Straw matrix with degradable thread to a single standard photodegradable polypropylene netting as manufactured by North American Green.	
31 25 14 16-0004	SY	S75BN Single Net Erosion Control Blanket	4.23
		Note: Straw Matrix with Biodegradable Thread to a Single Natural Fiber Netting as manufactured by North American Green.	
31 25 14 16-0005	SY	Curlex 1, Single Net Erosion Control Blanket	3.12
		Note: As manufactured by American Excelsior	
31 25 14 16-0006	SY	Curlex 1, Single Net Erosion Control Blanket	3.29
		Note: As manufactured by American Green	
31 25 14 16-0007	SY	Futerra Erosion Control Blanket, Wood Fibers With Biodegradable Netting	2.92

31 25 14 16-0008 Erosion Control Blankets, Intermediate Duration ^(31 25 14 16-0001)

31 25 14 16-0009	SY	S150 Double Net Erosion Control Blanket	4.24
		Note: Straw matrix with degradable thread to a double standard photodegradable polypropylene netting as manufactured by North American Green.	
31 25 14 16-0010	SY	S150 BN Double Net Erosion Control Blanket	5.72
		Note: Straw matrix with biodegradable thread to a double natural fiber netting as manufactured by North American Green.	
31 25 14 16-0011	SY	Curlex II, Double Net Erosion Control Blanket, Natural	3.54
		Note: As manufactured by American Excelsior.	
31 25 14 16-0012	SY	Curlex II, Double Net Erosion Control Blanket, Green	3.70
		Note: As manufactured by American Excelsior.	
31 25 14 16-0013	SY	Enforcer Double Net Erosion Control Blanket	3.95
		Note: As manufactured by American Excelsior.	

31 25 14 16-0014 Turf Reinforcement Mats (TRM) ^(31 25 14 16-0001)

Note: Permanent, UV stabilized.

31 25 14 16-0015	SY	P300 Permanent Polypropylene Turf Reinforcement Mat	14.90
		Note: 100% synthetic, UV stabilized, two layer netting.	
31 25 14 16-0016	SY	C350 Permanent Turf Reinforcement Mat	13.73
		Note: 100% synthetic, UV stabilized netting incorporating natural coconut fibers as manufactured by North American Green.	
31 25 14 16-0017	SY	Recyclex TRM, Permanent Turf Reinforcement Mat	17.47
		Note: As manufactured by American Excelsior, 100% recycled	

31 25 14 16-0018 Jute Mesh Erosion Control Blankets ^(31 25 14 16-0001)

31 25 14 16-0019	SY	Jute Mesh, Open Uniform Weave	5.65

31 25 14 16-0020 Revegetation Mat ^(31 25 14 16-0001)

31 25 14 16-0021	SY	3-Dimensional Webbed Revegetation Mat, Polyolefin Fiber	11.45
		Note: Polyolefin fibers oriented and mechanically bonded between two nets. Landlok TRM 450 or equal.	
31 25 14 16-0022	SY	Webbed Revegetation Mat, Polypropylene Fiber	16.36
		Note: Polypropylene fibers positioned between two high strength biaxially oriented nets and mechanically held together by parallel stitching with polypropylene thread. Landlok TRM 1060 or equal.	

31 25 14 23 Stabilization Measures for Erosion Control ^(31 25 14)

See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

31 25 14 23-0001 Sand Bags ^(31 25 14 23)

Note: Bags filled on site with delivered material. Includes material and placement of bags.



	Earthwork	31	
	Earth Moving	31 20	
	Erosion and Sedimentation Controls	31 25	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 25 14 23-0002	BAG	50 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	7.26 -0.61 -1.34	3.07
31 25 14 23-0003	BAG	75 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	9.34 -0.76 -1.70	3.82
31 25 14 23-0004	BAG	100 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	11.75 -0.91 -2.09	4.56
31 25 14 23-0005	BAG	125 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	14.47 -1.14 -2.59	5.71
31 25 14 23-0006	BAG	150 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	17.60 -1.37 -3.13	6.84
31 25 14 23-0007	BAG	175 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	20.50 -1.56 -3.61	7.78
31 25 14 23-0008	BAG	2,000 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	159.44 -9.63 -25.57	53.24
31 25 14 23-0009	BAG	3,000 LB Capacity Sand Bag With Sand For >2,500 To 5,000, Deduct For >5,000, Deduct	205.72 -10.59 -31.16	58.56
31 25 14 23-0010		Gravel Bags (31 25 14 23) Note: Bags filled on site with delivered material. Includes material and placement of bags.		
31 25 14 23-0011	BAG	30 LB Capacity Gravel Bag With Gravel For >2,500 To 5,000, Deduct For >5,000, Deduct	6.32 -0.41 -1.04	2.04
31 25 14 23-0012	BAG	50 LB Capacity Gravel Bag With Gravel For >2,500 To 5,000, Deduct For >5,000, Deduct	11.41 -0.61 -1.76	3.07
31 25 14 23-0013		Floating Turbidity Curtain (31 25 14 23) Note: Type 2 DOT fabric - 18 oz nominal laminated vinyl/polyester. EPS flotation, 6 in. x 6 in., 13.5 lb./ft. buoyancy in fresh water and 14.4 lb./ft buoyancy in saltwater.		
31 25 14 23-0014	LF	3' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	27.80 -4.23 -2.58 3.13	
31 25 14 23-0015	LF	4' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	30.12 -4.66 -2.84 3.44	
31 25 14 23-0016	LF	5' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	33.31 -5.28 -3.21 3.90	
31 25 14 23-0017	LF	6' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	36.04 -5.79 -3.52 4.28	
31 25 14 23-0018	LF	7' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	37.82 -6.07 -3.69 4.49	
31 25 14 23-0019	LF	8' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	39.61 -6.35 -3.87 4.70	
31 25 14 23-0020	LF	9' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	41.68 -6.69 -4.07 4.95	
31 25 14 23-0021	LF	10' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	44.52 -7.20 -4.38 5.32	
31 25 14 23-0022	LF	12' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	46.78 -7.57 -4.61 5.59	
31 25 14 23-0023	LF	13' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	49.81 -8.10 -4.93 5.99	
31 25 14 23-0024	LF	14' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain For Type 1, Deduct For 13 Oz PVC Fabric, Type 2, Deduct For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add	52.62 -8.58 -5.22 6.34	

31 Earthwork**31 20 Earth Moving****31 25 Erosion and Sedimentation Controls**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 25 14 23-0025	LF	15' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	55.35	
		<i>For Type 1, Deduct</i>	-9.03	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-5.50	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	6.68	
31 25 14 23-0026	LF	16' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	60.20	
		<i>For Type 1, Deduct</i>	-9.97	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-6.07	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	7.37	
31 25 14 23-0027	LF	17' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	63.13	
		<i>For Type 1, Deduct</i>	-10.45	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-6.36	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	7.72	
31 25 14 23-0028	LF	18' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	65.99	
		<i>For Type 1, Deduct</i>	-10.90	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-6.63	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	8.05	
31 25 14 23-0029	LF	19' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	69.00	
		<i>For Type 1, Deduct</i>	-11.38	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-6.93	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	8.41	
31 25 14 23-0030	LF	20' High, 18 Oz PVC Coated Polyester, Type 2 DOT Turbidity Curtain.....	71.94	
		<i>For Type 1, Deduct</i>	-11.83	
		<i>For 13 Oz PVC Fabric, Type 2, Deduct</i>	-7.20	
		<i>For 22 Oz PVC Fabric, Type 2 Heavy Duty, Add</i>	8.74	
31 25 14 23-0031		Turbidity Curtain Anchors (31 25 14 23)		
31 25 14 23-0032	EA	14 LB, Turbidity Curtain Anchor System.....	737.75	
		Note: Includes anchor, anchor chain, and marker buoy and rope.		
31 25 14 23-0033	EA	25 LB, Turbidity Curtain Anchor System.....	1,010.29	
		Note: Includes anchor, anchor chain, and marker buoy and rope.		
31 25 14 23-0034	EA	40 LB, Turbidity Curtain Anchor System.....	1,284.02	
		Note: Includes anchor, anchor chain, and marker buoy and rope.		
31 25 14 23-0035	EA	65 LB, Turbidity Curtain Anchor System.....	1,678.23	
		Note: Includes anchor, anchor chain, and marker buoy and rope.		
31 25 14 23-0036		Filter Bags (31 25 14 23)		
31 25 14 23-0037		Non-Woven Filter Bags (31 25 14 23-0036)		
31 25 14 23-0038	EA	6' x 15' Non-Woven Filter Bag.....	251.82	
31 25 14 23-0039	EA	13' x 15' Non-Woven Filter Bag.....	364.19	
31 25 14 23-0040	EA	15' x 15' Non-Woven Filter Bag.....	418.94	
31 25 14 23-0041		Monofilament Filter Bags (31 25 14 23-0036)		
31 25 14 23-0042	EA	5' x 15' Monofilament Filter Bag.....	261.75	
31 25 14 23-0043	EA	10' x 15' Monofilament Filter Bag.....	362.17	
31 25 14 23-0044		Cable Articulating Concrete Block (31 25 14 23)		
		Note: 4000 PSI Compressive strength, 12 LB/CF maximum absorption. Interlocking block with longitudinal revetment cable. Includes anchoring block to 12" x 12" x 6" concrete pier every 5' with anchor and filling cells with stockpiled material. Excludes site preparation and imported materials.		
31 25 14 23-0045	SF	4.75" Open Cell Articulated Concrete Block With Earth Backfill.....	39.40	
		<i>For Up To 500, Add</i>	9.12	
		<i>For >500 To 1,000, Add</i>	5.18	
31 25 14 23-0046	SF	6" Open Cell Articulated Concrete Block With Earth Backfill.....	44.56	
		<i>For Up To 500, Add</i>	10.27	
		<i>For >500 To 1,000, Add</i>	5.81	
31 25 14 23-0047	SF	7.5" Open Cell Articulated Concrete Block With Earth Backfill.....	50.52	
		<i>For Up To 500, Add</i>	11.59	
		<i>For >500 To 1,000, Add</i>	6.54	
31 25 14 23-0048	SF	9" Open Cell Articulated Concrete Block With Earth Backfill.....	56.78	
		<i>For Up To 500, Add</i>	13.01	
		<i>For >500 To 1,000, Add</i>	7.33	
31 25 14 23-0049	SF	4.75" Closed Cell Articulated Concrete Block.....	41.60	
		<i>For Up To 500, Add</i>	9.56	
		<i>For >500 To 1,000, Add</i>	5.40	
31 25 14 23-0050	SF	6" Closed Cell Articulated Concrete Block.....	47.18	
		<i>For Up To 500, Add</i>	10.79	
		<i>For >500 To 1,000, Add</i>	6.07	
31 25 14 23-0051	SF	7.5" Closed Cell Articulated Concrete Block.....	53.63	
		<i>For Up To 500, Add</i>	12.22	
		<i>For >500 To 1,000, Add</i>	6.85	
31 25 14 23-0052	SF	9" Closed Cell Articulated Concrete Block.....	60.33	
		<i>For Up To 500, Add</i>	13.72	
		<i>For >500 To 1,000, Add</i>	7.69	

31 25 14 26 Stabilization Measures for Sedimentation Control (31 25 14)**31 25 14 26-0001 Silt Fences And Dike Barriers** (31 25 14 26)

Note: Includes stakes and embedding.



		Earthwork	31	15
		Earth Moving	31 20	
		Erosion and Sedimentation Controls	31 25	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
31 25 14 26-0002	Silt Fences 2' High ^(31 25 14 26-0001) See CSI section 31 25 14 26-0014 for removal of silt fence.			
31 25 14 26-0003	LF 2' High Silt Fence with Stakes at 4' On Center		4.14	
31 25 14 26-0004	LF 2' High Silt Fence with Stakes at 6' On Center		3.29	
31 25 14 26-0005	LF 2' High Silt Fence with Stakes at 8' On Center		2.41	
31 25 14 26-0006	LF 2' High Silt Fence with Stakes at 10' On Center		2.15	
31 25 14 26-0007	Silt Fences 3' High ^(31 25 14 26-0001) See CSI section 31 25 14 26-0014 for removal of silt fence.			
31 25 14 26-0008	LF 3' High Silt Fence with Stakes at 4' On Center		4.33	
31 25 14 26-0009	LF 3' High Silt Fence with Stakes at 6' On Center		3.66	
31 25 14 26-0010	LF 3' High Silt Fence with Stakes at 8' On Center		2.55	
31 25 14 26-0011	LF 3' High Silt Fence with Stakes at 10' On Center		2.28	
31 25 14 26-0012	Silt Dike Barrier ^(31 25 14 26-0001)			
31 25 14 26-0013	LF Silt Dike Barrier With Stakes		5.49	
31 25 14 26-0014	Silt Fences Removal ^(31 25 14 26-0001)			
31 25 14 26-0015	LF Removal Of Silt Fence And Stakes		0.97	
31 25 14 26-0016	Hay And Straw Bales ^(31 25 14 26) Note: Includes trench for placement, and stakes.			
31 25 14 26-0017	LF Place Sterilized Straw Bales		4.45	
31 25 14 26-0018	LF Place Hay Bales		4.26	
31 25 14 26-0019	LF Removal Of Hay Or Straw Bales		1.74	
31 25 14 26-0020	Sediment Logs (Degradable) ^(31 25 14 26)			
31 25 14 26-0021	Sediment Logs (Degradable) ^(31 25 14 26-0020) Note: Includes stakes and removal after use. Curlex sediment logs as manufactured by American Excelsior.			
31 25 14 26-0022	LF 9" Sediment Fiber Roll Log		7.52	
31 25 14 26-0023	LF 12" Sediment Fiber Roll Log		8.74	
31 25 14 26-0024	LF 20" Sediment Fiber Roll Log		13.79	
31 25 14 26-0025	Wattles (Degradable) With UV Stabilized Synthetic Netting ^(31 25 14 26-0020) Note: Includes trench for placement, 24" wood staking at 4' on-center			
31 25 14 26-0026	EA Wattles (Sterile Straw Filled Rolls), 8" x 25'		140.85	
31 25 14 26-0027	EA Wattles (Sterile Straw Filled Rolls), 9" x 25'		149.05	
31 25 14 26-0028	EA Wattles (Sterile Straw Filled Rolls), 12" x 20'		163.25	
31 25 14 26-0029	EA Wattles (Sterile Straw Filled Rolls), 20" x 10'		185.02	
31 25 14 26-0030	Fiber Roll (CALTRANS Type 1) ^(31 25 14 26) Note: Includes furrow trench for placement, 24" wood staking at 4' on-center			
31 25 14 26-0031	LF 8" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 1		7.41	
	For >1,000 To 10,000, Deduct		-0.66	
	For >10,000, Deduct		-1.45	
31 25 14 26-0032	LF 9" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 1		7.78	
	For >1,000 To 10,000, Deduct		-0.87	
	For >10,000, Deduct		-1.48	
31 25 14 26-0033	LF 12" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 1		10.42	
	For >1,000 To 10,000, Deduct		-1.06	
	For >10,000, Deduct		-1.80	
31 25 14 26-0034	Fiber Roll (CALTRANS Type 2) ^(31 25 14 26) Note: Includes 24" wood stakes at 2' on-center off-set on sides with ropes.			
31 25 14 26-0035	LF 8" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 2		5.94	
	For >1,000 To 10,000, Deduct		-0.64	
	For >10,000, Deduct		-1.08	
31 25 14 26-0036	LF 9" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 2		6.50	
	For >1,000 To 10,000, Deduct		-0.68	
	For >10,000, Deduct		-1.16	
31 25 14 26-0037	LF 12" Diameter Fiber Roll, (Sterile Straw Filled Rolls, With Natural Fiber Wrapping), CALTRANS Type 2		8.47	
	For >1,000 To 10,000, Deduct		-0.76	
	For >10,000, Deduct		-1.31	
31 25 14 26-0038	Inlet Protection Sediment Bags ^(31 25 14 26) Note: Includes removal, cleaning, and replacement per each location.			
31 25 14 26-0039	EA 2' x 2' x 3' Inlet Protection Sediment Bag		88.59	
31 25 14 26-0040	EA 2' x 3' x 3' Inlet Protection Sediment Bag		103.72	
31 25 14 26-0041	EA 2' x 4' x 3' Inlet Protection Sediment Bag		113.38	

31	31	Earthwork
	31 20	Earth Moving
	31 25	Erosion and Sedimentation Controls



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 25 14 26-0042			Clean Sediment Logs/Wattles ^(31 25 14 26) Note: Includes removal, cleaning, and replacement per each location.		
31 25 14 26-0043	EA		Clean Sediment Logs/Wattles.....	97.21	

31 30 Earthwork Methods ⁽³¹⁾

31 31 Soil Treatment ^(31 30)

31 31 16 Termite Control ^(31 31)

31 31 16 13 Chemical Termite Control ^(31 31 16)

31 31 16 13-0001 Commercial Use ^(31 31 16 13)

31 31 16 13-0002	SF	Termite Pretreatment, Commercial Soil Poisoning Under Slab	1.01
31 31 16 13-0003	SF	Termite Pretreatment, Commercial Slab And Walls.....	1.40

31 31 16 13-0004 Residential Use ^(31 31 16 13)

31 31 16 13-0005	SF	Termite Pretreatment, Residential General Spraying Walls And Slab	1.36
31 31 16 13-0006	SF	Termite Treatment, Existing Residential Structure.....	1.47

31 31 19 Vegetation Control ^(31 31)

31 31 19 13 Chemical Vegetation Control ^(31 31 19)

31 31 19 13-0001 Soil Sterilants ^(31 31 19 13)

31 31 19 13-0002	MSF	Soil Sterilant.....	33.36
Note: Use only in areas where complete control of all vegetation is desired, such as industrial sites, right-of-way, lumberyards, petroleum tank farms, around farm buildings, along fence lines, etc. When applied to the soil, this product usually inhibits plant growth for a year or more.			
		For >45 To 90, Deduct	-0.51
		For >90 To 225, Deduct	-2.68
		For >225, Deduct	-3.69

31 32 Soil Stabilization ^(31 30)

31 32 13 Soil Mixing Stabilization ^(31 32)

31 32 13 16 Cement Soil Stabilization ^(31 32 13)

31 32 13 16-0001 Cementitious Soil Binder ^(31 32 13 16)

31 32 13 16-0002	CY	Cementitious Soil Binder, 4% Cement Mix By Volume	38.56
31 32 13 16-0003	CY	Cementitious Soil Binder, 6% Cement Mix By Volume	43.38
31 32 13 16-0004	CY	Cementitious Soil Binder, 9% Cement Mix By Volume	51.32
31 32 13 16-0005	CY	Cementitious Soil Binder, 12% Cement Mix By Volume	59.15

31 32 13 19 Lime Soil Stabilization ^(31 32 13)

Note: Includes delivery up to 15 miles from the closest approved source, the cost for loading, and dumping. The price excludes the cost for spreading or backfilling. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

31 32 13 19-0001 Lime Slurry ^(31 32 13 19)

31 32 13 19-0002	LCY	Soil Stabilization With Lime Slurry 10% Lime Slurry By Volume	35.35
31 32 13 19-0003	TON	Cement Stabilized Base Material.....	74.96
31 32 13 19-0004	CWT	Lime For Soil Stabilization	10.99
Note: Excludes the cost for spreading or backfilling			
31 32 13 19-0005	LCY	Roller, Grader - Lime Stabilization	19.00
31 32 13 19-0006	LCY	Roller, Grader - Cement Stabilization	4.42

31 32 13 19-0007 Lime Stabilized Subgrade ^(31 32 13 19)

Note: Based on soil weight of 110 LB/CF using lime weight of 5.5 LB/CF (5%).

31 32 13 19-0008	SY	6" Thick Lime Stabilized Subgrade, 25 LB	9.43
		For 4% Lime Instead Of 5%, Deduct	-0.20
		For 6% Lime Instead Of 5%, Add	0.20
31 32 13 19-0009	SY	7" Thick Lime Stabilized Subgrade, 29 LB	10.96
		For 4% Lime Instead Of 5%, Deduct	-0.23
		For 6% Lime Instead Of 5%, Add	0.23
31 32 13 19-0010	SY	8" Thick Lime Stabilized Subgrade, 33 LB	12.51
		For 4% Lime Instead Of 5%, Deduct	-0.26
		For 6% Lime Instead Of 5%, Add	0.26

31 32 13 29 Liquid Soil Stabilization ^(31 32 13)

31 32 13 29-0001	GAL	Polyacrylamide And Calcium Solution	2.40
31 32 13 29-0002	GAL	Synthetic, Liquid Dust Suppression Fluid With GTL Technology (Soil Works Durasoil)	10.41
Note: GTL (Gas-to-Liquid)			
31 32 13 29-0003	GAL	Biodegradable, Liquid Copolymer Dust Suppression Fluid (Soil Works Gorilla-Shot)	5.01



Earthwork			31
Earthwork Methods			31 30
Soil Stabilization			31 32

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 16 Chemical Treatment Soil Stabilization (31 32)

31 32 16 13 Polymer Emulsion Soil Stabilization (31 32 16)

31 32 16 13-0001 Blended Co-Polymer Paving Systems (TechniSoil) (31 32 16 13)

31 32 16 13-0002	SF	3" Thick, Blended Co-Polymer Paving System Premixed With Decomposed Granite (TechniSoil)	8.94
31 32 16 13-0003	SF	Blended Co-Polymer Topical Spray (TechniSoil)	3.21

31 32 19 Geosynthetic Soil Stabilization and Layer Separation (31 32)

31 32 19 13 Geogrid Soil Stabilization (31 32 19)

31 32 19 13-0001 Geogrid Fabrics (31 32 19 13)

Note: For reinforcement of over steepened earth slopes, segmental retaining walls and other mechanically stabilized earth applications.

31 32 19 13-0002	SY	5.3 Ounce/SY, 1,700 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric (Carthage Mills GX-150)	5.45
		For Up To 50, Add	1.21
		For >50 To 150, Add	0.90
		For >150 To 250, Add	0.59
		For >250 To 500, Add	0.29
31 32 19 13-0003	SY	6.9 Ounce/SY, 3,100 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric (Carthage Mills GX-300)	6.22
		For Up To 50, Add	1.37
		For >50 To 150, Add	1.02
		For >150 To 250, Add	0.66
		For >250 To 500, Add	0.33
31 32 19 13-0004	SY	8.7 Ounce/SY, 4,280 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric (Carthage Mills GX-500)	6.79
		For Up To 50, Add	1.49
		For >50 To 150, Add	1.11
		For >150 To 250, Add	0.72
		For >250 To 500, Add	0.36
31 32 19 13-0005	SY	12.6 Ounce/SY, 7,315 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric (Carthage Mills GX-800)	9.77
		For Up To 50, Add	2.09
		For >50 To 150, Add	1.56
		For >150 To 250, Add	1.02
		For >250 To 500, Add	0.51
31 32 19 13-0006	SY	14.1 Ounce/SY, 9,790 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric (Carthage Mills GX-1000)	11.18
		For Up To 50, Add	2.38
		For >50 To 150, Add	1.77
		For >150 To 250, Add	1.17
		For >250 To 500, Add	0.58
31 32 19 13-0007	SY	4.3 Ounce/SY, 1,658 LB/FT Wide Width Tensile Ultimate Bi-Axial Extruded Polypropylene Geogrid Fabric (Carthage Mills Enkagrid Max 20)	5.54
		For Up To 50, Add	1.23
		For >50 To 150, Add	0.91
		For >150 To 250, Add	0.59
		For >250 To 500, Add	0.30
31 32 19 13-0008	SY	5.9 Ounce/SY, 2,192 LB/FT Wide Width Tensile Ultimate Bi-Axial Extruded Polypropylene Geogrid Fabric (Carthage Mills Enkagrid Max 30)	8.16
		For Up To 50, Add	1.76
		For >50 To 150, Add	1.31
		For >150 To 250, Add	0.86
		For >250 To 500, Add	0.43

31 32 19 16 Geotextile Soil Stabilization (31 32 19)

31 32 19 16-0001 Nonwoven Polypropylene Geotextiles (31 32 19 16)

Note: For drainage, filtration and separation.

31 32 19 16-0002	SY	3.0 Ounce/SY, 40 Mil, 80 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-30HS)	1.70
		For Up To 50, Add	0.39
		For >50 To 150, Add	0.29
		For >150 To 250, Add	0.19
		For >250 To 500, Add	0.09
31 32 19 16-0003	SY	3.5 Ounce/SY, 50 Mil, 95 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-35HS)	1.82
		For Up To 50, Add	0.41
		For >50 To 150, Add	0.31
		For >150 To 250, Add	0.20
		For >250 To 500, Add	0.10
31 32 19 16-0004	SY	4.0 Ounce/SY, 60 Mil, 115 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-40HS)	1.97
		For Up To 50, Add	0.44
		For >50 To 150, Add	0.33
		For >150 To 250, Add	0.21
		For >250 To 500, Add	0.11
31 32 19 16-0005	SY	4.5 Ounce/SY, 55 Mil, 120 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-45HS)	2.12
		For Up To 50, Add	0.47
		For >50 To 150, Add	0.35
		For >150 To 250, Add	0.23
		For >250 To 500, Add	0.11

31	Earthwork
31 30	Earthwork Methods
31 32	Soil Stabilization



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 32 19 16-0006	SY	6.0 Ounce/SY, 70 Mil, 160 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-60HS)	2.52		
		For Up To 50, Add	0.55		
		For >50 To 150, Add	0.41		
		For >150 To 250, Add	0.27		
		For >250 To 500, Add	0.13		
31 32 19 16-0007	SY	7.0 Ounce/SY, 85 Mil, 180 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-70HS)	2.94		
		For Up To 50, Add	0.65		
		For >50 To 150, Add	0.48		
		For >150 To 250, Add	0.31		
		For >250 To 500, Add	0.16		
31 32 19 16-0008	SY	8.0 Ounce/SY, 85 Mil, 205 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-80HS)	3.24		
		For Up To 50, Add	0.71		
		For >50 To 150, Add	0.52		
		For >150 To 250, Add	0.34		
		For >250 To 500, Add	0.17		
31 32 19 16-0009	SY	10 Ounce/SY, 115 Mil, 250 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric (Carthage Mills FX-100HS)	4.00		
		For Up To 50, Add	0.86		
		For >50 To 150, Add	0.64		
		For >150 To 250, Add	0.42		
		For >250 To 500, Add	0.21		
31 32 19 16-0010	SY	16 Ounce/SY, 175 Mil, 425 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric	6.85		
		For Up To 50, Add	1.43		
		For >50 To 150, Add	1.07		
		For >150 To 250, Add	0.70		
		For >250 To 500, Add	0.35		
31 32 19 16-0011		Woven Geotextiles Fabric (31 32 19 16)			
31 32 19 16-0012	SY	200 LB Grab Tensile Woven Silt Film Geotextile Fabric (Carthage Mills FX-55)	2.46		
		For Up To 50, Add	0.54		
		For >50 To 150, Add	0.40		
		For >150 To 250, Add	0.26		
		For >250 To 500, Add	0.13		
31 32 19 16-0013	SY	315 LB Grab Tensile Woven Silt Film Geotextile Fabric (Carthage Mills FX-66)	3.45		
		For Up To 50, Add	0.74		
		For >50 To 150, Add	0.55		
		For >150 To 250, Add	0.36		
		For >250 To 500, Add	0.18		
31 32 19 16-0014	SY	4 To 6% Open Area, 370 x 250 LB Grab Tensile Woven Monofilament Geotextile Fabric (Carthage Mills Carthage 6%)	6.08		
		For Up To 50, Add	1.27		
		For >50 To 150, Add	0.95		
		For >150 To 250, Add	0.63		
		For >250 To 500, Add	0.31		
31 32 19 16-0015	SY	11 To 15% Open Area, 370 x 220 LB Grab Tensile Woven Monofilament Geotextile Fabric (Carthage Mills Carthage 15%)	5.93		
		For Up To 50, Add	1.24		
		For >50 To 150, Add	0.93		
		For >150 To 250, Add	0.61		
		For >250 To 500, Add	0.31		
31 32 19 16-0016	SY	6.9 Oz/SY, 250 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric (Carthage Mills FX-250TF)	5.18		
		For Up To 50, Add	1.09		
		For >50 To 150, Add	0.82		
		For >150 To 250, Add	0.54		
		For >250 To 500, Add	0.27		
31 32 19 16-0017	SY	9.1 Oz/SY, 333 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric (Carthage Mills FX-330TF)	5.54		
		For Up To 50, Add	1.17		
		For >50 To 150, Add	0.87		
		For >150 To 250, Add	0.57		
		For >250 To 500, Add	0.29		
31 32 19 16-0018	SY	12.1 Oz/SY, 400 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric (Carthage Mills FX-400TF)	7.08		
		For Up To 50, Add	1.47		
		For >50 To 150, Add	1.10		
		For >150 To 250, Add	0.73		
		For >250 To 500, Add	0.36		
31 32 19 16-0019	SY	12.1 Oz/SY, 400 LB/IN Wide Width Tensile Ultimate Woven Monofilament And Fibrillated Geotextile Fabric (Carthage Mills FX-400MF)	10.10		
		For Up To 50, Add	2.08		
		For >50 To 150, Add	1.55		
		For >150 To 250, Add	1.03		
		For >250 To 500, Add	0.51		
31 32 19 16-0020		Geomembranes (31 32 19 16)			
31 32 19 16-0021		Polyvinyl Chloride (PVC) Geomembrane (31 32 19 16-0020)			
31 32 19 16-0022	SF	20 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	1.46		
31 32 19 16-0023	SF	30 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	1.69		
31 32 19 16-0024	SF	40 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	2.05		
31 32 19 16-0025	SF	50 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	2.46		
31 32 19 16-0026	SF	60 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	2.81		
31 32 19 16-0027	SF	70 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	3.07		



		Earthwork	31	15
		Earthwork Methods	31 30	
		Soil Stabilization	31 32	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 32 19 16-0028	SF	80 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	3.33	
31 32 19 16-0029	SF	90 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	3.68	
31 32 19 16-0030	SF	100 Mil Polyvinyl Chloride (PVC) Geomembrane (US Fabrics)	4.02	
31 32 19 16-0031 High Density Polyethylene (HDPE) Geomembrane (31 32 19 16-0020)				
31 32 19 16-0032	SF	20 Mil High Density Polyethylene Membrane (US Fabrics)	1.35	
31 32 19 16-0033	SF	30 Mil High Density Polyethylene Membrane (US Fabrics)	0.89	
31 32 19 16-0034	SF	40 Mil High Density Polyethylene Membrane (US Fabrics)	0.99	
31 32 19 16-0035	SF	50 Mil High Density Polyethylene Membrane (US Fabrics)	1.41	
31 32 19 16-0036	SF	60 Mil High Density Polyethylene Membrane (US Fabrics)	1.17	
31 32 19 16-0037	SF	80 Mil High Density Polyethylene Membrane (US Fabrics)	1.36	
31 32 19 16-0038	SF	100 Mil High Density Polyethylene Membrane (US Fabrics)	1.56	
31 32 19 16-0039	SF	120 Mil High Density Polyethylene Membrane (US Fabrics)	2.54	
31 32 19 16-0040	SF	140 Mil High Density Polyethylene Membrane (US Fabrics)	2.63	
31 32 19 26 Geoweb Cellular Confinement System (31 32 19)				
Note: Includes staples, stakes and filling cells with stockpiled material. Excludes site preparation and imported materials.				
31 32 19 26-0001 Geoweb Cellular Confinement System (31 32 19 26)				
Note: Includes staples, stakes and filling cells with stockpiled material. Excludes site preparation and imported materials.				
31 32 19 26-0002	SF	4" Geoweb Cellular Confinement System (Presto Geosystems)	7.86	
		For >20,000, Deduct	-0.19	
		For >2:1 Slope, Add	1.33	
31 32 19 26-0003	SF	6" Geoweb Cellular Confinement System (Presto Geosystems)	9.58	
		For >20,000, Deduct	-0.28	
		For >2:1 Slope, Add	1.33	
31 32 19 26-0004	SF	8" Geoweb Cellular Confinement System (Presto Geosystems)	11.63	
		For >20,000, Deduct	-0.38	
		For >2:1 Slope, Add	1.33	
31 32 36 Soil Nailing (31 32)				
31 32 36 11 Soil Nailing Stabilization (31 32 36)				
31 32 36 11-0001 Landslide and Slip-Out Stabilization (31 32 36 11)				
Note: Work shall consist of the Contractor stabilizing identified slides by internally reinforcing the soil mass with reinforcing elements (nails) by using one or more of the installation methods specified in this contract. The Owner will identify locations for work to be performed as specified herein. The Contractor shall review all locations with Owner representatives to determine the method to be used. The Contractor will provide all necessary engineering plans and details required to successfully repair slides as noted. These plans shall be stamped by a registered professional engineer with a current California license who is knowledgeable in the design and implementation of slope stabilization with soil nails and related work. The contractor shall furnish all labor, materials, and equipment required to complete the work. Any necessary installation methods and associated costs are the responsibility of the contractor. The Contractor and the Contractor's Engineer will also warrant the stability of the repaired roadway section for a period of 5 years.				
31 32 36 11-0002 BioWall® (31 32 36 11-0001)				
Note: Furnish and install the BioWall® to integrate with Launched Soil Nails™, SuperNails® or Self Drilling SuperNails®. The BioWall® is a confined soil/compost mass capable of sustaining vegetation at slope angles up to ¼(H):1(V), and is composed of 2 layers of galvanized wire mesh and 2 layers of lightweight geosynthetic encasing a seeded compost and/or topsoil mix, tied to the soil nails by steel plates. Furnish equipment and incidentals necessary to complete the work. BioWall® to soil nail connection details will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals. Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).				
31 32 36 11-0003	SF	BioWall® Construction	25.00	
31 32 36 11-0004 Green Terra Mesh (31 32 36 11-0001)				
Note: Furnish and install the Green Terra Mesh. Furnish equipment and incidentals necessary to complete the work. Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).				
31 32 36 11-0005	EA	Green Terra Mesh	635.25	

31	31	Earthwork
	31 30	Earthwork Methods
	31 32	Soil Stabilization



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 36 11-0006		GeoSynthetically Confined Soil™ (GCS®) Components (31 32 36 11-0001) Note: Furnish and install geosynthetic reinforcement, backfill and facing element to construct a Geosynthetically Confined Soil Wall™ (GCS®). Designs shall comply with the Design Standards for Geosynthetically Confined Soil Walls (adapted from the NCHRP Report 556 – Design and Construction Guidelines for Geosynthetic – Reinforced Soil Bridge Abutments with a Flexible Facing) noted below. Reinforcement Selection and Placement: Geosynthetic reinforcement shall consist of high-tenacity geotextiles manufactured for soil reinforcement applications. Geotextiles shall not be exposed to sunlight and extreme temperatures for an extended period of time. Damaged or improperly handled geosynthetic reinforcement shall be rejected. Use a woven polypropylene geotextile with ultimate tensile strength of 2400 lbs/ft (Amoco 2044 or similar) in the cross-machine direction (as per ASTM D4595). The geosynthetic reinforcement perpendicular to the wall face should consist of one continuous piece of material. Overlap of reinforcement in the design strength direction is not permitted. Adjacent sections of geosynthetic reinforcement should be placed so as to ensure that horizontal coverage shown on the plans is provided. Tracked construction equipment shall not be operated directly on the geosynthetic reinforcement. A minimum backfill thickness of 150 mm (6 in.) is required before operation of tracked vehicles over the geosynthetic reinforcement. Turning of tracked vehicles should be kept to a minimum to prevent displacing the fill and damaging or moving the geosynthetic reinforcement. Rubber-tired equipment may pass over the geosynthetic reinforcement at slow speeds less than 17 km/hr (10 miles/hr). Sudden braking and sharp turning should be avoided. Backfill Specifications: Structure backfill material should consist of material free from organic or other unsuitable material as determined by the Contractor's Engineer. Grading of the backfill should be as follows: 100 percent passing 100 mm (4 in.) sieve, 0-60 percent passing No. 40 (0.425 mm) sieve, and 0-15 percent passing No. 200 (0.075mm) sieve; plasticity index (PI) as determined by AASHTO T90, should not exceed 6. The backfill should exhibit an angle of internal friction of not less than 34 degrees, as determined by the standard direct shear test on the portion finer than 2 mm (No.10) sieve, using a sample compacted to 95 percent of AASHTO T-99, Methods C or D, at optimum moisture content. No testing is required for backfills where 80 percent of sizes are greater than 19 mm. The backfill should be substantially free of shale or other soft, poor durability particles and should have an organic content not larger than 1 percent. The backfill should have a pH between 4.5 and 9. Backfill Placement: Reinforced fill should be placed as specified in construction plans in compacted lift thickness of 8in, but in no case in lifts greater than 12in. Reinforced fill should be placed and compacted at or within 2 percent dry of the optimum moisture content. If the reinforced fill is free draining (i.e., with less than 5 percent passing a No. 200 sieve), water content of the fill may be within ±3 percent of the optimum. A minimum density of 90 percent of standard Proctor density is required. Optimum compaction is 100 percent of AASHTO T-99 (or 95 percent of AASHTO T-180) but this may not be possible throughout the wall structure. If significant percentage of the backfill is coarse material (i.e., greater than 30 percent retained on the 19 mm, or 3/4 in., sieve), a procedural specification may be used to verify compaction, (no less than two passes with a conventional vibratory plate compaction equipment). Backfill should be placed, spread, and compacted so as to prevent the development of wrinkles or movement of the geosynthetic reinforcement and the wall facing units. Only hand-operated compaction equipment should be allowed within 0.5 m (1.5 ft) of the front of th See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		
31 32 36 11-0007	SF	GeoSynthetically Confined Soil™ (GCS®) Wall Construction Note: Installation sold per square face foot (excludes materials)	23.75	
31 32 36 11-0008	EA	GeoSynthetically Confined Soil™ (GCS®) Wall Galvanized Wire Basket Units (approximately 10" x 120")	108.50	
31 32 36 11-0009	EA	GeoSynthetically Confined Soil™ (GCS®) Wall Concrete Masonry Units (approximately 8" x 8" x 16")	6.50	
31 32 36 11-0010	SF	GeoSynthetically Confined Soil™ (GCS®) Wall Woven Geotextile	0.75	
31 32 36 11-0011		Turf (31 32 36 11-0001) Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		
31 32 36 11-0012		Permanent Turf Reinforcing Mat (TRM) (31 32 36 11-0011) Note: Furnish a web of mechanically bonded synthetic fibers that are entangled to form a strong and dimensionally stable mat. Place fibers between 2 or 3 high-strength, biaxially oriented nets mechanically bound together by stitching with polyolefin thread. The netting material must be resistant to biological, chemical, and ultra-violet degradation.		
31 32 36 11-0013	SF	Permanent Turf Reinforcement Mat..... Note: sold per square face foot	1.50	
31 32 36 11-0014		Biodegradable Turf Reinforcing Mat (TRM) (31 32 36 11-0011) Note: Furnish a geotextile composed of seed free processed natural fiber matrix mechanically bound together with 100% degradable binding fiber or netting to form a continuous matrix.		
31 32 36 11-0015	SF	Biodegradable Turf Reinforcement Mat Note: sold per square face foot	0.75	
31 32 36 11-0016		Shotcrete or Gunite (31 32 36 11-0001) Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		



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	Earthwork Methods	31 30	
	Soil Stabilization	31 32	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 32 36 11-0017	Wet-Mix Shotcrete for use with Launched Soil Nails™, SuperNails®, SuperMicropiles™, Self-Drilling SuperNails® / SuperMicropiles™ (31 32 36 11-0016) Note: Furnish steel reinforced shotcrete to integrate with Launched Soil Nails™, SuperNails®, SuperMicropiles™, Self Drilling SuperMicropiles™ or Self Drilling SuperNails® and complying with the requirements of ACI 506.2, "Specifications for Materials, Proportioning and Application of Shotcrete", except as otherwise specified. Shotcreting consists applying of one or more layers of concrete conveyed through a hose pneumatically projected at a high velocity against a prepared surface. Produce shotcrete by a wet-mix. The wet-mix process consists of thoroughly mixing all the ingredients except accelerating admixtures, but including the mixing water, introducing the mixture into the delivery equipment and delivering it, by positive displacement, to the nozzle. Air jet the wet-mix shotcrete from the nozzle at high velocity onto the surface. For additional descriptive information, refer to the American Concrete Institute ACI 506R "Guide to Shotcrete." The Contractor's Engineer shall provide all necessary details required to successfully construct the temporary or permanent facing and facing drainage system to satisfy the design intent of the facing. Comply with AASHTO Specifications, or accepted industry standards for any specific items that may not be addressed herein or elsewhere in this Contract Document. Use materials for shotcrete conforming to the following requirements: Cement AASHTO M85/ ASTM C150, Type I, II, III or V. Fine Aggregate AASHTO M6/ASTM C33 clean, natural. Coarse Aggregate AASHTO M80, Class B for quality Water Clean and Potable. AASHTO M157/ASTM C94 Chemical Admixtures Accelerator Fluid type, applied at nozzle, meeting requirements of AASHTO M194/ASTM C494/ASTM C1141. Water-reducer and Superplasticizer AASHTO M194/ASTM C494 Type A, C, D, E, F, or G Retarders AASHTO M194/ ASTM C494 Type B or D. Mineral Admixtures Fly Ash AASHTO M295/ASTM C618 Type F or C, cement replacement up to 35 percent by weight of cement. Silica Fume ASTM C1240, 90 percent minimum silicon dioxide solids content, not to exceed 12 percent by weight of cement. Welded Wire Fabric AASHTO M55/ASTM A185 or A497. Double twisted hexagonal ASTM A975-97 guidelines for Double Twisted Hexagonal Mesh Gabions Prepackaged Shotcrete ASTM C928. PVC Drain Pipes: Pipe ASTM 1785 Schedule 40 PVC, solid and perforated wall, cell classification 12454-B or 12354-C, wall thickness SDR 35, with solvent weld or elastomeric gasket joints. Deliver, store and handle materials to prevent contamination, segregation, corrosion or damage. Store liquid admixtures to prevent evaporation and freezing. Use aggregate for shotcrete meeting the strength and durability requirements of AASHTO M6/M80, as applicable, and the following gradation requirements: Sieve Size Percent Passing by Weight: 1/2" 100 3/8" 90-100 No. 4 70-85 No. 8 100 Proportion the shotcrete to be pumpable with the concrete pump furnished for the work, with a cementing materials content of at least 390 kilograms per cubic meter and water/cement ratio not greater than 0.50. Do not use admixtures unless approved by the Contractor's Engineer. Thoroughly mix admixtures into the shotcrete at the rate specified by the manufacturer. Use only accelerators compatible with the cement used, non-corrosive to steel, and not promoting other detrimental effects such as cracking or excessive shrinkage. The maximum allowable chloride ion content of all ingredients is 0.10% when tested to AASHTO T260. Air entrainment is not required for temporary shotcrete construction facings. Provide shotcrete with a design compressive strength of 2000 psi in 3 days and 4000 psi in 28 days. Batch aggregate and cement by weight or by volume in accordance with the requirements of ASTM C94 or AASHTO M241/ASTM C685. Use mixing equipment that thoroughly blends the materials in sufficient quantity to maintain placing continuity. Produce ready mix shotcrete complying		
31 32 36 11-0018	SFI Wet-Mix Reinforced Shotcrete Note: sold per inch thickness over one square face foot of area (includes reinforcing steel).	5.50	

31	31	Earthwork
	31 30	Earthwork Methods
	31 32	Soil Stabilization



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 36 11-0019		Dry-Mix Shotcrete for use with Launched Soil Nails™, SuperNails®, SuperMicropiles™, Self-Drilling SuperNails® / SuperMicropiles™ (31 32 36 11-0016) Note: Furnish steel reinforced shotcrete to integrate with Launched Soil Nails™, SuperNails®, SuperMicropiles™, Self Drilling SuperMicropiles™ or Self Drilling SuperNails® and complying with the requirements of ACI 506.2, "Specifications for Materials, Proportioning and Application of Shotcrete", except as otherwise specified. Shotcreting consists applying of one or more layers of concrete conveyed through a hose pneumatically projected at a high velocity against a prepared surface. Produce shotcrete by a dry-mix. The dry-mix process consists of thoroughly mixing Portland cement and aggregate (and or synthetic fiber) thoroughly mixed dry, passed through a cement gun and conveyed by air through a flexible tube, hydrated at a nozzle at the end of such flexible tube and deposited by air pressure in its place of final repose. For additional descriptive information, refer to the American Concrete Institute ACI 506R "Guide to Shotcrete." The Contractor's Engineer shall provide all necessary details required to successfully construct the temporary or permanent facing and facing drainage system to satisfy the design intent of the facing. Comply with AASHTO Specifications, or accepted industry standards for any specific items that may not be addressed herein or elsewhere in this Contract Document. Use materials for shotcrete conforming to the following requirements: Cement AASHTO M85/ ASTM C150, Type I, II, or III. Fine Aggregate AASHTO M80, Class B for quality Fiber M6/ASTM C33 clean, natural. Coarse Aggregate ASTM C116-00 Reinforcement Water Clean and Potable. AASHTO M157/ASTM C94 and shall be maintained at a uniform pressure which shall be at least 15 pounds per square inch above air pressure at the nozzle. Chemical Admixtures Accelerator Fluid type, applied at nozzle, meeting requirements of AASHTO M194/ASTM C494/ASTM C1141. Water-reducer and Superplastisizer AASHTO M194/ASTM C494 Type A, C, D, E, F, or G Retarders AASHTO M194/ASTM C494 Type B or D. Mineral Admixtures Fly Ash AASHTO M295/ASTM C618 Type F or C, cement replacement up to 35 percent by weight of cement. Silica Fume ASTM C1240, 90 percent minimum silicon dioxide solids content, not to exceed 12 percent by weight of cement. Welded Wire Fabric AASHTO M55/ASTM A185 or A497. Double twisted hexagonal ASTM A975-97 guidelines for Double Twisted Hexagonal Mesh Gabions Prepackaged Shotcrete ASTM C928. PVC Drain Pipes: Pipe ASTM 1785 Schedule 40 PVC, solid and perforated wall, cell classification 12454-B or 12354-C, wall thickness SDR 35, with solvent weld or elastomeric gasket joints. Deliver, store and handle materials to prevent contamination, segregation, corrosion or damage. Store liquid admixtures to prevent evaporation and freezing. Use aggregate for shotcrete meeting the strength and durability requirements of AASHTO M6/M80, as applicable, and the following gradation requirements: Sieve Size Percent Passing by Weight 1/2" 100 3/8" 100 90-100 No. 4 70-85 No. 8 100 Proportion the shotcrete to be pumpable with the concrete pump furnished for the work, with a cementing materials content of at least 390 kilograms per cubic meter and water/cement ratio not greater than 0.50. Do not use admixtures unless approved by the Contractor's Engineer. Thoroughly mix admixtures into the shotcrete at the rate specified by the manufacturer. Use only accelerators compatible with the cement used, non-corrosive to steel, and not promoting other detrimental effects such as cracking or excessive shrinkage. The maximum allowable chloride ion content of all ingredients is 0.10% when tested to AASHTO T260. Air entrainment is not required for temporary shotcrete construction facings. Provide shotcrete with a design compressive strength of 2000 psi in 3 days and 4000 psi in 28 days. Batch aggregate and cement by weight or by volume in accordance with the requirements of ASTM C94 or AASHTO M241/ASTM C6		
31 32 36 11-0020	SFI	Dry-Mix Reinforced Gunite..... Note: sold per inch thickness over one square face foot of area (includes reinforcing steel).	8.50	
31 32 36 11-0021		Steel Fiber Reinforcement for use with Launched Soil Nails™, SuperNails®, SuperMicropiles™, Self-Drilling SuperNails® / SuperMicropiles™ (31 32 36 11-0016)		
31 32 36 11-0022	SFI	Steel Fiber Reinforcement..... Note: sold per inch thickness over one square face foot of area	1.25	
31 32 36 11-0023		Steel Mesh and Steel Plates for use with Launched Soil Nails™, SuperNails® and Self Drilling SuperNails® (31 32 36 11-0001) Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		
31 32 36 11-0024		Steel Mesh Surface Treatment for use with Launched Soil Nails™, SuperNails® and Self Drilling SuperNails® (31 32 36 11-0023) Note: Furnish Galfan® Coated Steel Mesh for use with Launched Soil Nails™, SuperNails®, or Self Drilling SuperNails® that is a double twisted hexagonal galvanized steel wire mesh manufactured according to ASTM A975-97 guidelines for Double Twisted Hexagonal Mesh Gabions. Alternately, the mesh may be a diamond shaped, three dimensional mesh made with high capacity 3-millimeter diameter wire. Furnish steel plates to connect the mesh to the nail systems described herein. Furnish equipment and incidentals necessary to complete the work. Soil Nail to mesh connection details will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.		
31 32 36 11-0025	SF	High Capacity Diamond Mesh..... Note: sold per square face foot	11.00	
31 32 36 11-0026	SF	Double Twist Wire Mesh..... Note: sold per square face foot	13.75	
31 32 36 11-0027		Steel Plates (31 32 36 11-0023)		
31 32 36 11-0028	EA	Galvanized Steel Plates (8x8).....	35.00	
31 32 36 11-0029	EA	Galvanized Steel Plates (10x10).....	54.75	
31 32 36 11-0030	EA	Galvanized Steel Plates (12x12).....	78.75	
31 32 36 11-0031	EA	Epoxy Coated Steel Plates (8x8).....	76.00	
31 32 36 11-0032	EA	Epoxy Coated Steel Plates (10x10).....	89.25	
31 32 36 11-0033	EA	Epoxy Coated Steel Plates (12x12).....	105.25	



		Earthwork	31	15
		Earthwork Methods	31 30	
		Soil Stabilization	31 32	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 36 11-0034

Drilled Horizontal Drains (31 32 36 11-0001)

Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31 32 36 11-0035	LF	Drilled PVC Horizontal Drains (up to 2" Diameter).....	26.00
31 32 36 11-0036	LF	Stripdrain - 6" Wide.....	3.25
31 32 36 11-0037	LF	Stripdrain - 12" Wide.....	4.00
31 32 36 11-0038	LF	PVC Drain Collector Pipe System.....	26.75

31 32 36 11-0039

Rockfall Stabilization (31 32 36 11-0001)

Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31 32 36 11-0040	SF	Scaling.....	3.75
31 32 36 11-0041	SF	Trim Blasting.....	155.00
31 32 36 11-0042	SY	Slope Drape - Double Twist Wire Mesh.....	45.00
31 32 36 11-0043	SY	Slope Drape - Cable Net.....	135.00
31 32 36 11-0044	SY	Slope Drape - Tecco Mesh (4mm).....	135.00
31 32 36 11-0045	LF	Temporary Rockfall Barrier.....	500.00
31 32 36 11-0046	LF	Low Reach Drilling (<25 feet).....	25.00
31 32 36 11-0047	LF	High Reach Drilling (>25 feet).....	45.00
31 32 36 11-0048	LF	Limited Access Drilling.....	100.00
31 32 36 11-0049	LF	F&I Rock Dowel - #8 Grade 75 All-Thread Bar (Galvanized).....	18.50
31 32 36 11-0050	LF	F&I Rock Dowel - #8 Grade 75 All-Thread Bar (Epoxy Coated).....	15.25
31 32 36 11-0051	LF	F&I Rock Dowel - #8 Grade 150 All-Thread Bar (Galvanized).....	23.25
31 32 36 11-0052	LF	F&I Rock Dowel - #8 Grade 150 All-Thread Bar (Epoxy Coated).....	17.25
31 32 36 11-0053	LF	F&I Rock Dowel - #10 Grade 75 All-Thread Bar (Galvanized).....	23.50
31 32 36 11-0054	LF	F&I Rock Dowel - #10 Grade 75 All-Thread Bar (Epoxy Coated).....	18.75
31 32 36 11-0055	LF	F&I Rock Dowel - #10 Grade 150 All-Thread Bar (Galvanized).....	26.50
31 32 36 11-0056	LF	F&I Rock Dowel - #10 Grade 150 All-Thread Bar (Epoxy Coated).....	21.00
31 32 36 11-0057	LF	F&I Rock Dowel - #11 Grade 75 All-Thread Bar (Galvanized).....	29.25
31 32 36 11-0058	LF	F&I Rock Dowel - #11 Grade 75 All-Thread Bar (Epoxy Coated).....	21.00
31 32 36 11-0059	LF	F&I Rock Dowel - #11 Grade 150 All-Thread Bar (Galvanized).....	34.50
31 32 36 11-0060	LF	F&I Rock Dowel - #11 Grade 150 All-Thread Bar (Epoxy Coated).....	31.75
31 32 36 11-0061	EA	Rock Anchor Testing.....	825.00

31 32 36 11-0062

Mobilization / Demobilization (31 32 36 11-0001)

31 32 36 11-0063	EA	Mobilization - In State.....	10,000.00
31 32 36 11-0064	EA	Mobilization - Out Of State.....	25,000.00
31 32 36 11-0065	EA	Mobilization - Specialty Equipment Adder.....	9,800.00

31 32 36 11-0066

Daily Crew Rates (DCR) (31 32 36 11-0001)

31 32 36 11-0067	DAY	Soils Stabilization Crew - DCR, Per Workday.....	13,150.00
31 32 36 11-0068	DAY	Rockfall Stabilization Crew - DCR, Per Workday.....	15,200.00
31 32 36 11-0069	DAY	Compaction Grouting Crew - DCR, Per Workday.....	12,925.00
31 32 36 11-0070	DAY	Additional Crew Member/Crew - DCR, Per Workday.....	2,050.00
31 32 36 11-0071	EA	Out of State Crew Rotation.....	4,950.00
31 32 36 11-0072	EA	Spider Excavation.....	5,500.00

31 32 36 13

Driven Soil Nailing (31 32 36)

31 32 36 13-0001

Large Diameter Micropiles (31 32 36 13)

Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31 32 36 13-0002	LF	5" Micropiles (with up to 5.5" steel casing).....	94.50
31 32 36 13-0003	LF	7" Micropiles (with up to 7.625" steel casing).....	130.25
31 32 36 13-0004	LF	10" Micropiles (with up to 9.625" steel casing).....	166.50
31 32 36 13-0005	LF	12" Micropiles (with up to 11.875" steel casing).....	213.25

31 32 36 16

Grouted Soil Nailing (31 32 36)

31 32 36 16-0001

Grouting (31 32 36 16)

Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31	31	Earthwork
	31 30	Earthwork Methods
	31 32	Soil Stabilization



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 36 16-0002		Compaction Grouting (31 32 36 16-0001)		
		Note: A. Furnish compaction grout material manufactured on-site (at the project location) in volumetric batching equipment so that grout rheology can be controlled real-time. The grout shall have a slump of 0.50" to 3.0" depending on the specific requirements of the project and shall conform to the engineering plans developed and submitted by the Contractor. Grout components shall consist of Type I/II cement, potable water and aggregate. Fly Ash may be added to the mix per the engineering plans. All aggregate for the compaction grout material shall meet the following requirements: a. 100% passing the 1/2" sieve b. Less than 2% organics c. No bentonite or other clay of medium to high plasticity shall be used. Site conditions and re-leveling requirements shall determine the exact proportions of cement, water and soil. The grout mix shall generally consist of aggregate with up to 12% cement by weight and water to form a very stiff mortar-like mixture. No admixtures shall be used without the Project Manager's approval, and previous testing. Mix design and test results of grout mixture must be submitted and approved by the Project Manager 15 Days prior to the commencement of the work. A. Gradations of the aggregate material to be utilized shall be submitted as part of the submittal process and prior to any work taking place. B. The compaction grouting mixer shall be of a type to ensure complete mixing of the stiff grout, as approved by the Project Manager. The compaction grout mixer shall be of sufficient capacity to continuously deliver grout having a slump of less than 1.5 inches at pressures up to 1,000 psi, at flow rates ranging from 0.1 to 5.0 cubic feet per minute. Gauges shall be provided at the pump and the grout pipe head to measure pressure the rate of flow. Type and location of gauges shall be as specified by the Contractor. A dial gauge or meter capable of measuring to 0.5 cubic feet or less shall be provided to measure the amount of grout pumped into the hole. A pressure gauge shall be graduated in 10-psi increments or less and used to measure the applied pressure. Compaction grout hose shall have a minimum inside diameter of 2 inches with non-restrictive full flow couplings. The hose shall be of sufficient strength for the pressures anticipated, and shall be in good condition.		
31 32 36 16-0003	LF	Compaction Grouting Casing Installation.....	52.75	
31 32 36 16-0004	CF	Compaction Grout Injection for Soils Densification	55.50	
31 32 36 16-0005	CF	Compaction Grout For Void Fill.....	39.00	

31 32 36 16-0006		Polyurethane Grouting (31 32 36 16-0001)		
		Note: The material shall be a two part 1:1 ratio by volume, polyurethane-forming mixture, having a water insoluble diluent, which permits the formation of polyurethanes in excess water. The material shall reach 90% Compressive strength in 30 minutes such that traffic may be returned to roadway within 30 minutes after last injection of material. Polyurethane Free-rise Physical Properties Property I Units ASTM Minimum Maximum Density - lb/cf D 1622 3.0 lb/cf 6.0 lb/cf Tensile Strength - psi D 1623 80 psi Compressive Strength at Yield Point - psi D 1621 60 psi Furnish equipment and incidentals necessary to complete the work. Polyurethane grout shall not be used for deep injection (deeper than 3 ft below bottom of structure) or soils densification, it shall only be used for void filling under structures and for re-leveling. The Contractor shall prepare a profile to determine the areas that require void filling and re-leveling and determine the locations of the injection holes for each treated area. The Contractor shall obtain approval for the final proposed grades and the location of injection holes. The Contractor shall submit a plan for approval of the proposed polyurethane injection methods for the designated project areas. The plan shall include, but not be limited to: proposed diameter of casing (if required), depth of placement, angle of inclination, injection tube spacing, and project staging. The plan shall include monitoring procedures to ensure that damage will not occur to any existing structures due to the injection process. Monitoring devices shall be installed on mechanically stabilized earth retaining systems and between approach slabs and approach slab footings or other components to help prevent damage. The Contractor shall drill a pattern of holes as proposed in his plan. The holes shall be located in a manner that the void filling and structure lifting process does not affect any adjoining structures, such as mechanically stabilized earth retaining walls. Holes shall not be drilled within 4" of the edge of the slab, construction joints or major cracks. No more holes shall be drilled and tubes installed during the day than can be filled during that day. On bridge approach and roadway projects, and as applicable, the initial lift shall be at the sleeper footer. The Contractor shall lift the sleeper footer and the approach slab to the desired elevation by injecting material under the structures with care to assure that polyurethane material is not placed between the sleeper footer and the approach slab. The amount of rise shall be controlled by regulating the rate of injection of the high density polyurethane material. When the nozzle is removed from the hole, any excessive polyurethane material shall be removed from the area.		
31 32 36 16-0007	LB	Polyurethane Grouting For Void Fill and Re-Leveling.....	11.50	

31 32 36 19 Corrosion-Protected Soil Nailing (31 32 36)

31 32 36 19-0001		Self-Drilling SuperNails® / SuperMicropiles™ (31 32 36 19)		
		Note: Furnish Self-Drilling SuperNails® / SuperMicropiles™ that consist of a hollow, threaded bar with a sacrificial drill bit. Multiple bars may be coupled to produce final length. Bar thread pattern should be continuous and conform to the pullout requirements of ASTM A 615 (Williams Form Engineering B7X or Ischebeck Titan bars, or approved equivalent). R-thread bars, bars/couplers made from high carbon (>0.20%) or high phosphorous (>0.06%) steels, or bars/couplers made from steels that do not meet the tensile ductility requirements of ASTM A 615 shall not be used for any tensile applications. Bar outer diameters shall be a minimum of 1.5 inches and up to and 3 inches depending on design load. Corrosion Protection for Self Drilling Nails shall follow current FHWA guidance. Inserted length and spacing of Self-Drilling SuperNails® / SuperMicropiles™ will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals. Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		
31 32 36 19-0002		Self-Drilling SuperNails® (31 32 36 19-0001)		
31 32 36 19-0003	EA	Self Drilling SuperNails® Up To 10 Ft. Length.....	559.00	
31 32 36 19-0004	EA	Self Drilling SuperNails® Up To 20 Ft. Length.....	939.25	
31 32 36 19-0005	EA	Self Drilling SuperNails® Up To 30 Ft. Length.....	1,305.75	
31 32 36 19-0006	EA	Self Drilling SuperNails® Up To 40 Ft. Length.....	1,735.75	
31 32 36 19-0007	EA	Self Drilling SuperNails® Up To 50 Ft. Length.....	2,119.75	
31 32 36 19-0008	EA	Self Drilling SuperNails® Up To 60 Ft. Length.....	2,459.25	
31 32 36 19-0009	EA	Self Drilling SuperNails® Up To 70 Ft. Length.....	2,879.25	
31 32 36 19-0010	EA	Self Drilling SuperNails® Up To 80 Ft. Length.....	3,253.50	
31 32 36 19-0011	EA	Additional Cost for 10' High Capacity X-51 Bar.....	129.50	

31 32 36 19-0012		SuperNail® Testing (31 32 36 19)		
		Note: Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).		



	Earthwork	31	
	Earthwork Methods	31 30	
	Soil Stabilization	31 32	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 32 36 19-0013	EA	SuperNail® Proof Testing	769.00	
31 32 36 19-0014	EA	SuperNail® Verification Testing.....	2,339.75	

31 32 36 26 Launched Soil Nailing (31 32 36)

31 32 36 26-0001 Launched SuperDrain™ (Horizontal Drains) (31 32 36 26)

Note: Furnish Launched SuperDrain™ up to 20 feet in length composed of a tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized 36ksi steel (ASTM A513) that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities). Drainage perforations consist of 0.5-inch diameter holes drilled or torch-cut at 6 inch spacing along the distal 5 feet of nail. Every other hole is rotated 90° about the longitudinal axis of the nail. Furnish equipment and incidentals necessary to complete the work. Insert Launched SuperDrain™ with a single stroke at initial velocities in excess of 200 miles per hour. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals. Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31 32 36 26-0002	EA	GalvaDized™ SuperDrain™ - Up To 20'	605.00	
		Note: perforated GalvaDized™ steel tube up to 20 ft. length.		
31 32 36 26-0003	EA	Fiberglass SuperNail® - Up To 20'	621.50	
		Note: perforated fiberglass tube up to 20 ft. length, pressure grouted with #6 epoxy coated inner Bar.		
31 32 36 26-0004	EA	GalvaDized™ SuperNail® - Up To 20'	478.50	
		Note: perforated GalvaDized™ steel tube up to 20 ft. length, pressure grouted with #6 epoxy coated inner Bar.		
31 32 36 26-0005	EA	Temporary Launched Soil Nail	379.50	
		Note: bare steel tube up to 20 ft. length.		
31 32 36 26-0006	EA	Fiberglass SuperDrain™	495.00	
		Note: perforated fiberglass tube up to 20 ft. length.		
31 32 36 26-0007	EA	GalvaDized™ SuperDrain™	379.50	
		Note: perforated GalvaDized™ steel tube up to 20 ft. length.		

31 32 36 29 Drilled Soil Nailing (31 32 36)

31 32 36 29-0001 Drilled SuperNails® (Permanently Cased Soil Nails) (31 32 36 29)

Note: Furnish SuperNails® that are a three stage construction including installation of (1) an outer tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized steel tube that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities); (2) neat cement grout that completely encases and fills the outer tube; and (3) immediately install an epoxy coated, #6 (or greater) grade 75 threadbar as the inner bar. SuperNails® may be in lengths up to 60 feet. Although field adjustments in design may be allowed on certain projects (subject to approval by the Contractor's Engineer and the Owner) bidding an equivalent system is not allowed (i.e. the winning bidder must have the ability to install the above system). Furnish equipment and incidentals necessary to complete the work. Insert SuperNail® outer tubes with a single stroke at initial velocities in excess of 200 miles per hour or by drilling a hole to a prescribed depth and inserting the outer tube. Fill the outer tube with neat cement grout and immediately insert a #6 or larger epoxy coated inner threadbar. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals. Unit Pricing excludes Daily Crew Rates for items See CSI section 31 32 36 11-0066 for Daily Crew Rates (DCR).

31 32 36 29-0002	EA	Drilled GalvaDized™ SuperNail® Up To 10 Ft. Length	602.25	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0003	EA	Drilled GalvaDized™ SuperNail® Up To 20 Ft. Length	693.50	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0004	EA	Drilled GalvaDized™ SuperNail® Up To 30 Ft. Length	921.50	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0005	EA	Drilled GalvaDized™ SuperNail® Up To 40 Ft. Length	1,056.00	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0006	EA	Drilled GalvaDized™ SuperNail® Up To 50 Ft. Length	1,171.50	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0007	EA	Drilled GalvaDized™ SuperNail® Up To 60 Ft. Length	1,376.50	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0008	EA	Drilled GalvaDized™ SuperNail® Up To 70 Ft. Length	1,624.75	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		
31 32 36 29-0009	EA	Drilled GalvaDized™ SuperNail® Up To 80 Ft. Length	1,872.75	
		Note: GalvaDized™ steel tube, drilled and grouted with #6 epoxy coated inner Bar.		

31 32 36 33 Drilled / Launched Soil Nailing (31 32 36)

31 32 36 33-0001 Drilled / Launched SuperMicropiles™ (31 32 36 33)

Note: Furnish SuperMicropiles™ that are a three stage construction including installation of (1) an outer tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized steel tube that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities); (2) neat cement grout that completely encases and fills the outer tube; and (3) immediately install an epoxy coated, #6 (or greater) grade 75 threadbar as the inner bar. SuperMicropiles™ may be in lengths up to 60 feet. Although field adjustments in design may be allowed on certain projects (subject to approval by the Contractor's Engineer and the Owner) bidding an equivalent system is not allowed (i.e. the winning bidder must have the ability to install the above system). Furnish equipment and incidentals necessary to complete the work. Insert SuperMicropile™ outer tubes with a single stroke at initial velocities in excess of 200 miles per hour or by drilling a hole to a prescribed depth and inserting the outer tube. Fill the outer tube with neat cement grout and immediately insert a #6 or larger epoxy coated inner threadbar. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.

31 32 36 33-0002	EA	Drilled / Launched GalvaDized™ SuperMicropiles™ Up To 20 Ft. Length	695.00	
		Note: GalvaDized™ steel tube, grouted with #6 epoxy coated inner Bar.		
31 32 36 33-0003	EA	Drilled / Launched GalvaDized™ SuperMicropiles™ Up To 30 Ft. Length	1,020.00	
		Note: GalvaDized™ steel tube, grouted with #6 epoxy coated inner Bar.		
31 32 36 33-0004	EA	Drilled / Launched GalvaDized™ SuperMicropiles™ Up To 40 Ft. Length	1,280.00	
		Note: GalvaDized™ steel tube, grouted with #6 epoxy coated inner Bar.		
31 32 36 33-0005	EA	Drilled / Launched GalvaDized™ SuperMicropiles™ Up To 50 Ft. Length	1,540.00	
		Note: GalvaDized™ steel tube, grouted with #6 epoxy coated inner Bar.		

31	31	Earthwork
	31 30	Earthwork Methods
	31 32	Soil Stabilization



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 35 Slope Protection (31 30)

31 35 19 Geosynthetic Slope Protection (31 35)

31 35 19 19 Slope Protection with Mulch Control Netting (31 35 19)

31 35 19 19-0001 Erosion Control Fabric (31 35 19 19)

31 35 19 19-0002	SY	26.6 OZ/SY Erosion Control Fabric (Belton Industries Geocoir 900)	5.41

31 36 Gabions (31 30)

Note: Includes the cost for loading, hauling up to 15 miles from the closest approved source, unloading and placing. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

31 36 13 Gabion Boxes (31 36)

31 36 13 00-0001 Stone Filled Gabion Slope Protection (31 36 13)

Note: Machine placed by SY of total top face area for depth indicated.

31 36 13 00-0002	SY	6" Deep Stone Filled Gabion Slope Protection	77.03
31 36 13 00-0003	SY	9" Deep Stone Filled Gabion Slope Protection	90.90
31 36 13 00-0004	SY	12" Deep Stone Filled Gabion Slope Protection	109.62
31 36 13 00-0005	SY	15" Deep Stone Filled Gabion Slope Protection	129.52
31 36 13 00-0006	SY	18" Deep Stone Filled Gabion Slope Protection	152.09
31 36 13 00-0007	SY	24" Deep Stone Filled Gabion Slope Protection	208.15
31 36 13 00-0008	SY	36" Deep Stone Filled Gabion Slope Protection	263.08

31 37 Riprap (31 30)

Note: Includes the cost for loading, hauling up to 15 miles from the closest approved source, and dumping. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

31 37 13 Machined Riprap (31 37)

31 37 13 00-0001 Random - Filter Stone (31 37 13)

31 37 13 00-0002	CY	10 To 50 LB Average Pieces Random, Dumped From Truck, Rip Rap	86.39
		For Chinking Material, Add	14.27
31 37 13 00-0003	CY	>50 To 100 LB Average Pieces Random, Dumped From Truck, Rip Rap	101.09
		For Chinking Material, Add	14.27
31 37 13 00-0004	CY	>100 To 200 LB Average Pieces Random, Dumped From Truck, Rip Rap	108.02
		For Chinking Material, Add	14.27
31 37 13 00-0005	CY	>200 To 300 LB Average Pieces Random, Dumped From Truck, Rip Rap	115.91
		For Chinking Material, Add	14.27
31 37 13 00-0006	CY	>300 To 600 LB Average Pieces Random, Dumped From Truck, Rip Rap	122.26
		For Chinking Material, Add	14.27
31 37 13 00-0007	CY	>600 LB Average Pieces Random, Dumped From Truck, Rip Rap	132.67
31 37 13 00-0008	CY	3/8 To 1/4 CY Pieces Random, Dumped From Truck, Machine Spread And Placed Slope Protection (Keyed) Rip Rap	150.67
31 37 13 00-0009	TON	10 To 50 LB Average Pieces Random, Dumped From Truck, Rip Rap	56.82
31 37 13 00-0010	TON	>50 To 100 LB Average Pieces Random, Dumped From Truck, Rip Rap	66.15
31 37 13 00-0011	TON	>100 To 200 LB Average Pieces Random, Dumped From Truck, Rip Rap	70.55
31 37 13 00-0012	TON	>200 To 300 LB Average Pieces Random, Dumped From Truck, Rip Rap	75.56
31 37 13 00-0013	TON	>300 To 600 LB Average Pieces Random, Dumped From Truck, Rip Rap	79.60
31 37 13 00-0014	TON	>600 LB Average Pieces Random, Dumped From Truck, Rip Rap	86.28
31 37 13 00-0015	TON	3/8 To 1/4 CY Pieces Random, Dumped From Truck, Machine Spread And Placed Slope Protection (Keyed) Rip Rap	100.91
31 37 13 00-0016	TON	Spread Of Rip Rap By Machine	17.28
		Note: Excludes material	
31 37 13 00-0017	TON	Key Rip Rap	129.56
		Note: Excludes material.	
31 37 13 00-0018	CY	Grout For Rip Rap	188.32
31 37 13 00-0019	TON	Additional Cost For Placement Of Rip-Rap By Barge Instead Of Truck	148.53

31 37 16 Non-Machined Riprap (31 37)

31 37 16 13 Rubble-Stone Riprap (31 37 16)

31 37 16 13-0001 Rock Slope Protection (31 37 16 13)

31 37 16 13-0002	TON	1 LB Average Pieces Random, Dumped From Truck, Rock Slope Protection	51.32
31 37 16 13-0003	TON	5 LB Average Pieces Random, Dumped From Truck, Rock Slope Protection	54.62
31 37 16 13-0004	TON	25 LB Average Pieces Random, Dumped From Truck, Rock Slope Protection	56.82
31 37 16 13-0005	TON	75 LB Average Pieces Random, Dumped From Truck, Rock Slope Protection	66.15
31 37 16 13-0006	TON	200 LB Average Pieces Random, Dumped From Truck, Rock Slope Protection	70.55
31 37 16 13-0007	TON	1/4 Ton Average Pieces Random, Dumped From Truck, Rock Slope Protection	79.60
31 37 16 13-0008	TON	1 Ton Average Pieces Random, Dumped From Truck, Rock Slope Protection	86.28
31 37 16 13-0009	TON	2 Ton Average Pieces Random, Dumped From Truck, Rock Slope Protection	93.62
31 37 16 13-0010	TON	4 Ton Average Pieces Random, Dumped From Truck, Rock Slope Protection	104.64

31 40 Shoring and Underpinning (31)



		Earthwork	31
		Shoring and Underpinning	31 40
		Shoring	31 41

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 41 Shoring (31 40)

31 41 13 Timber Shoring (31 41)

31 41 13 00-0001 Wood Sheet Piling (31 41 13)

31 41 13 00-0002 Pull And Salvage (31 41 13 00-0001)

Note: Includes soldier beams and lagging (wales, braces and spacers). Excludes tie-backs (rock bolting) where required.

31 41 13 00-0003	SF 8' Deep Excavation, Wood Shoring, Pull And Salvage	14.29
	For Wood Sheeting Left In Place	-1.50
31 41 13 00-0004	SF 10' Deep Excavation, Wood Shoring, Pull And Salvage	15.46
	For Wood Sheeting Left In Place	-1.74
31 41 13 00-0005	SF 12' Deep Excavation, Wood Shoring, Pull And Salvage	16.77
	For Wood Sheeting Left In Place	-1.99
31 41 13 00-0006	SF 14' Deep Excavation, Wood Shoring, Pull And Salvage	18.17
	For Wood Sheeting Left In Place	-2.28
31 41 13 00-0007	SF 16' Deep Excavation, Wood Shoring, Pull And Salvage	19.70
	For Wood Sheeting Left In Place	-2.59
31 41 13 00-0008	SF 18' Deep Excavation, Wood Shoring, Pull And Salvage	21.36
	For Wood Sheeting Left In Place	-2.94
31 41 13 00-0009	SF 20' Deep Excavation, Wood Shoring, Pull And Salvage	23.16
	For Wood Sheeting Left In Place	-3.32

31 41 16 Sheet Piling (31 41)

31 41 16 13 Steel Sheet Piling (31 41 16)

31 41 16 13-0001 Standard Carbon Grade Steel Sheeting - Pull And Salvage (31 41 16 13)

Note: Up to 3 months. 38.5 KSI steel per SF minimum. PSF indicated is for the weight of the material per square foot. Includes soldier beams and lagging (wales, braces and spacers). Excludes tie-backs (rock bolting) where required.

31 41 16 13-0002	TON Driven Steel Sheet Piling, 15' Excavation, 22 PSF Steel Sheeting, Pull And Salvage	2,047.02
	For Standard Sheeting Left In Place, Add	1,190.79
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	1,147.37
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27
31 41 16 13-0003	TON Driven Steel Sheet Piling, 20' Excavation, 27 PSF Steel Sheeting, Pull And Salvage	2,128.07
	For Standard Sheeting Left In Place, Add	1,150.26
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	1,106.85
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27
31 41 16 13-0004	TON Driven Steel Sheet Piling, 25' Excavation, 38 PSF Steel Sheeting, Pull And Salvage	2,504.85
	For Standard Sheeting Left In Place, Add	961.87
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	918.46
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27
31 41 16 13-0005	TON Driven Steel Sheet Piling, 30' Excavation, 38 PSF Steel Sheeting, Pull And Salvage	2,867.41
	For Standard Sheeting Left In Place, Add	780.59
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	737.18
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27
31 41 16 13-0006	TON Driven Steel Sheet Piling, 35' Excavation, 38 PSF Steel Sheeting, Pull And Salvage	3,080.69
	For Standard Sheeting Left In Place, Add	673.95
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	630.54
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27
31 41 16 13-0007	TON Driven Steel Sheet Piling, 40' Excavation, 38 PSF Steel Sheeting, Pull And Salvage	3,298.23
	For Standard Sheeting Left In Place, Add	565.18
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF Left In Place, Add	521.77
	For High Strength Sheeting 45,000 To 50,000 PSI Grade, Add	97.69
	For High Strength Sheeting 55,000 PSI Grade, Add	108.54
	For Lightweight Steel Sheeting 8.6 And 9.2 PSF, Add	336.49
	For Each Additional Month >3 Months, Add	54.27

31 43 Concrete Raising (31 40)

31 43 13 Pressure Grouting (31 43)

31 43 13 16 Polyurethane Pressure Grouting (31 43 13)

31 43 13 16-0001 PolyLift™ Concrete Injection For Lifting And Leveling (31 43 13 16)

31 43 13 16-0002	EA Mobilization PolyLift™ Concrete Lifting And Leveling Minimum Charge	3,627.38

13	31	Earthwork
	31 40	Shoring and Underpinning
	31 43	Concrete Raising



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

31 43 13 16-0003	LB	Up To 1,000 Lbs PolyLift™ Concrete Injection For Lifting And Leveling.....	30.94	
		Note: Per pound of material.		
31 43 13 16-0004	LB	>1,000 Lbs PolyLift™ Concrete Injection For Lifting And Leveling	25.92	
		Note: Per pound of material.		

31 45 Vibroflotation and Densification (31 40)

31 45 13 Vibroflotation (31 45)

31 45 13 00-0001	LCY	Soil Stabilization, Vibroflotation.....	16.15	

31 50 Excavation Support and Protection (31)

31 52 Cofferdams (31 50)

31 52 21 Portable Cofferdams (31 52)

31 52 21 00-0001		Portable Cofferdams (31 52 21) Note: Excludes dewatering and pumps.		
31 52 21 00-0002		Portable Cofferdam Rental (31 52 21 00-0001) Note: Excludes delivery and installation.		
31 52 21 00-0003	LF	3' High x 7' Width, Portable Cofferdam, Rental Per Month	50.18	
		Note: Minimum 40'		
31 52 21 00-0004	LF	4' High x 9' Width, Portable Cofferdam, Rental Per Month	64.23	
		Note: Minimum 40'		
31 52 21 00-0005	LF	5' High x 11' Width, Portable Cofferdam, Rental Per Month	90.32	
		Note: Minimum 40'		
31 52 21 00-0006	LF	6' High x 13' Width, Portable Cofferdam, Rental Per Month	116.42	
		Note: Minimum 40'		
31 52 21 00-0007	LF	8' High x 17' Width, Portable Cofferdam, Rental Per Month	150.54	
		Note: Minimum 40'		
31 52 21 00-0008	LF	10' High x 21' Width, Portable Cofferdam, Rental Per Month	301.08	
		Note: Minimum 40'		
31 52 21 00-0009	LF	12' High x 25' Width, Portable Cofferdam, Rental Per Month	421.51	
		Note: Minimum 40'		
31 52 21 00-0010	LF	16' High x 33' Width, Portable Cofferdam, Rental Per Month	596.14	
		Note: Minimum 40'		
31 52 21 00-0011		Portable Cofferdam Delivery And Set-up (31 52 21 00-0001) Note: Excludes crane usage where required. See CSI section 01 22 23 00-0968 for crane lifting equipment.		
31 52 21 00-0012	LF	Up To 5' High, Portable Cofferdam, Delivery And Set-up In Dynamic (Rivers Or Streams) Water	12.15	
31 52 21 00-0013	LF	6' To 8' High, Portable Cofferdam, Delivery And Set-up In Dynamic (Rivers Or Streams) Water	19.44	
31 52 21 00-0014	LF	10' To 12' High, Portable Cofferdam, Delivery And Set-up In Dynamic (Rivers Or Streams) Water	29.16	
31 52 21 00-0015	LF	16' High, Portable Cofferdam, Delivery And Set-up In Dynamic (Rivers Or Streams) Water	38.89	
31 52 21 00-0016	LF	Up To 5' High, Portable Cofferdam, Delivery And Set-up In Static (Lakes Or Ponds) Water	7.29	
31 52 21 00-0017	LF	6' To 8' High, Portable Cofferdam, Delivery And Set-up In Static (Lakes Or Ponds) Water	12.15	
31 52 21 00-0018	LF	10' To 12' High, Portable Cofferdam, Delivery And Set-up In Static (Lakes Or Ponds) Water	19.44	
31 52 21 00-0019	LF	16' High, Portable Cofferdam, Delivery And Set-up In Static (Lakes Or Ponds) Water	26.74	
31 52 21 00-0020		Portable Cofferdam Repositioning (31 52 21 00-0001)		
31 52 21 00-0021	LF	Up To 5' High, Portable Cofferdam, Repositioning	6.08	
31 52 21 00-0022	LF	6' To 8' High, Portable Cofferdam, Repositioning	9.72	
31 52 21 00-0023	LF	10' To 12' High, Portable Cofferdam, Repositioning	14.59	
31 52 21 00-0024	LF	16' High, Portable Cofferdam, Repositioning	19.44	

31 60 Special Foundations and Load-bearing Elements (31)

31 62 Driven Piles (31 60)

31 62 13 Concrete Piles (31 62)

31 62 13 23 Prestressed Concrete Piles (31 62 13)

31 62 13 23-0001		Square Prestressed Driven Concrete Piles (31 62 13 23)		
31 62 13 23-0002	VLF	10" Square Prestressed Driven Concrete Pile	32.87	
		For Piles Driven In Water, Add	15.44	
31 62 13 23-0003	VLF	12" Square Prestressed Driven Concrete Pile	41.41	
		For Piles Driven In Water, Add	17.43	
31 62 13 23-0004	VLF	14" Square Prestressed Driven Concrete Pile	50.34	
		For Piles Driven In Water, Add	19.21	
31 62 13 23-0005	VLF	16" Square Prestressed Driven Concrete Pile	61.85	
		For Piles Driven In Water, Add	21.38	
31 62 13 23-0006	VLF	18" Square Prestressed Driven Concrete Pile	75.26	
		For Piles Driven In Water, Add	23.89	
31 62 13 23-0007	VLF	20" Square Prestressed Driven Concrete Pile	87.14	
		For Piles Driven In Water, Add	26.44	
31 62 13 23-0008	VLF	24" Square Prestressed Driven Concrete Pile	111.42	
		For Piles Driven In Water, Add	30.47	



Earthwork		31
Special Foundations and Load-bearing Elements		31 60
Driven Piles		31 62

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 62 13 23-0009 Octagonal Prestressed Driven Concrete Piles (31 62 13 23)		
31 62 13 23-0010 VLF 12" Octagonal Prestressed Driven Concrete Pile	36.80	
For Piles Driven In Water, Add	16.19	
31 62 13 23-0011 VLF 14" Octagonal Prestressed Driven Concrete Pile	45.30	
For Piles Driven In Water, Add	17.82	
31 62 13 23-0012 VLF 16" Octagonal Prestressed Driven Concrete Pile	53.92	
For Piles Driven In Water, Add	19.57	
31 62 13 23-0013 VLF 18" Octagonal Prestressed Driven Concrete Pile	64.59	
For Piles Driven In Water, Add	21.65	
31 62 13 23-0014 VLF 20" Octagonal Prestressed Driven Concrete Pile	68.74	
For Piles Driven In Water, Add	23.24	
31 62 13 23-0015 VLF 24" Octagonal Prestressed Driven Concrete Pile	73.12	
For Piles Driven In Water, Add	25.03	
31 62 13 23-0016 Straight Cylinder Prestressed Driven Concrete Piles (31 62 13 23)		
31 62 13 23-0017 VLF 12" Diameter, 2-3/8" Wall, Straight Cylinder Prestressed Driven Concrete Pile	53.26	
For Piles Driven In Water, Add	17.14	
31 62 13 23-0018 VLF 14" Diameter, 2-1/2" Wall, Straight Cylinder Prestressed Driven Concrete Pile	63.19	
For Piles Driven In Water, Add	18.83	
31 62 13 23-0019 VLF 16" Diameter, 3" Wall, Straight Cylinder Prestressed Driven Concrete Pile	74.96	
For Piles Driven In Water, Add	20.79	
31 62 13 23-0020 VLF 18" Diameter, 3-1/2" Wall, Straight Cylinder Prestressed Driven Concrete Pile	84.86	
For Piles Driven In Water, Add	22.66	
31 62 13 23-0021 VLF 20" Diameter, 4" Wall, Straight Cylinder Prestressed Driven Concrete Pile	106.80	
For Piles Driven In Water, Add	25.87	
31 62 13 23-0022 VLF 24" Diameter, 5" Wall, Straight Cylinder Prestressed Driven Concrete Pile	132.12	
For Piles Driven In Water, Add	29.57	
31 62 16 Steel Piles (31 62)		
31 62 16 16 Steel H Piles (31 62 16)		
31 62 16 16-0001 Rolled, Driven Steel H Piles (31 62 16 16)		
31 62 16 16-0002 VLF 8" x 8" x 36 LB/FT, Rolled, Driven Steel H Pile	33.55	
For Piles Driven In Water, Add	16.65	
31 62 16 16-0003 VLF 10" x 10" x 42 LB/FT, Rolled, Driven Steel H Pile	37.41	
For Piles Driven In Water, Add	17.69	
31 62 16 16-0004 VLF 10" x 10" x 57 LB/FT, Rolled, Driven Steel H Pile	45.24	
For Piles Driven In Water, Add	18.47	
31 62 16 16-0005 VLF 12" x 12" x 53 LB/FT, Rolled, Driven Steel H Pile	43.61	
For Piles Driven In Water, Add	18.73	
31 62 16 16-0006 VLF 12" x 12" x 63 LB/FT, Rolled, Driven Steel H Pile	48.83	
For Piles Driven In Water, Add	19.25	
31 62 16 16-0007 VLF 12" x 12" x 74 LB/FT, Rolled, Driven Steel H Pile	55.90	
For Piles Driven In Water, Add	21.15	
31 62 16 16-0008 VLF 12" x 12" x 84 LB/FT, Rolled, Driven Steel H Pile	61.11	
For Piles Driven In Water, Add	21.67	
31 62 16 16-0009 VLF 14" x 14" x 73 LB/FT, Rolled, Driven Steel H Pile	55.81	
For Piles Driven In Water, Add	21.53	
31 62 16 16-0010 VLF 14" x 14" x 89 LB/FT, Rolled, Driven Steel H Pile	64.67	
For Piles Driven In Water, Add	22.42	
31 62 16 16-0011 VLF 14" x 14" x 102 LB/FT, Rolled, Driven Steel H Pile	72.42	
For Piles Driven In Water, Add	24.52	
31 62 16 16-0012 VLF 14" x 14" x 117 LB/FT, Rolled, Driven Steel H Pile	80.76	
For Piles Driven In Water, Add	25.36	
31 62 16 16-0013 Splices, Caps, And Points For H-Piles (31 62 16 16)		
31 62 16 16-0014 Rolled Steel H Pile Splices (31 62 16 16-0013)		
31 62 16 16-0015 EA 8" Rolled Steel H Pile Splice	310.34	
31 62 16 16-0016 EA 10" Rolled Steel H Pile Splice	347.40	
31 62 16 16-0017 EA 12" Rolled Steel H Pile Splice	476.66	
31 62 16 16-0018 EA 14" Rolled Steel H Pile Splice	495.19	
31 62 16 16-0019 Rolled Steel H Driving Caps (31 62 16 16-0013)		
31 62 16 16-0020 EA 8" Rolled Steel H Driving Cap	3,082.66	
31 62 16 16-0021 EA 10" Rolled Steel H Driving Cap	3,082.66	
31 62 16 16-0022 EA 12" Rolled Steel H Driving Cap	3,140.78	
31 62 16 16-0023 EA 14" Rolled Steel H Driving Cap	4,715.69	
31 62 16 16-0024 Rolled Steel H Standard Pile Points (31 62 16 16-0013)		
31 62 16 16-0025 EA 8" Rolled Steel H Standard Pile Point	328.87	
31 62 16 16-0026 EA 10" Rolled Steel H Standard Pile Point	347.40	
31 62 16 16-0027 EA 12" Rolled Steel H Standard Pile Point	476.66	
31 62 16 16-0028 EA 14" Rolled Steel H Standard Pile Point	532.24	
31 62 16 16-0029 EA 10" Rolled Steel H Standard Pile Point	476.66	

13	31	Earthwork
	31 60	Special Foundations and Load-bearing Elements
	31 62	Driven Piles



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 62 16 16-0030	EA	14" Rolled Steel H Standard Pile Point	568.13	
31 62 16 19 Unfilled Tubular Steel Piles (31 62 16 19)				
31 62 16 19-0001 Unfilled Tubular Driven Steel Piles (31 62 16 19)				
31 62 16 19-0002	VLF	8" Diameter x 29 LB/FT, Unfilled Tubular Driven Steel Pile	60.66	
		<i>For Piles Driven In Water, Add</i>	23.08	
31 62 16 19-0003	VLF	8" Diameter x 36 LB/FT, Unfilled Tubular Driven Steel Pile	71.10	
		<i>For Piles Driven In Water, Add</i>	24.12	
31 62 16 19-0004	VLF	8" Diameter x 43 LB/FT, Unfilled Tubular Driven Steel Pile	82.37	
		<i>For Piles Driven In Water, Add</i>	25.25	
31 62 16 19-0005	VLF	10" Diameter x 34 LB/FT, Unfilled Tubular Driven Steel Pile	71.10	
		<i>For Piles Driven In Water, Add</i>	24.12	
31 62 16 19-0006	VLF	10" Diameter x 41 LB/FT, Unfilled Tubular Driven Steel Pile	81.02	
		<i>For Piles Driven In Water, Add</i>	25.11	
31 62 16 19-0007	VLF	10" Diameter x 55 LB/FT, Unfilled Tubular Driven Steel Pile	102.94	
		<i>For Piles Driven In Water, Add</i>	27.30	
31 62 16 19-0008	VLF	12" Diameter x 42 LB/FT, Unfilled Tubular Driven Steel Pile	84.39	
		<i>For Piles Driven In Water, Add</i>	26.35	
31 62 16 19-0009	VLF	12" Diameter x 50 LB/FT, Unfilled Tubular Driven Steel Pile	96.00	
		<i>For Piles Driven In Water, Add</i>	27.51	
31 62 16 19-0010	VLF	12" Diameter x 54 LB/FT, Unfilled Tubular Driven Steel Pile	102.45	
		<i>For Piles Driven In Water, Add</i>	28.16	
31 62 16 19-0011	VLF	12" Diameter x 65 LB/FT, Unfilled Tubular Driven Steel Pile	120.51	
		<i>For Piles Driven In Water, Add</i>	29.96	
31 62 16 19-0012	VLF	14" Diameter x 46 LB/FT, Unfilled Tubular Driven Steel Pile	91.11	
		<i>For Piles Driven In Water, Add</i>	28.89	
31 62 16 19-0013	VLF	14" Diameter x 55 LB/FT, Unfilled Tubular Driven Steel Pile	104.25	
		<i>For Piles Driven In Water, Add</i>	30.21	
31 62 16 19-0014	VLF	14" Diameter x 64 LB/FT, Unfilled Tubular Driven Steel Pile	117.38	
		<i>For Piles Driven In Water, Add</i>	31.52	
31 62 16 19-0015	VLF	14" Diameter x 72 LB/FT, Unfilled Tubular Driven Steel Pile	130.52	
		<i>For Piles Driven In Water, Add</i>	32.83	
31 62 16 19-0016	VLF	16" Diameter x 52 LB/FT, Unfilled Tubular Driven Steel Pile	101.34	
		<i>For Piles Driven In Water, Add</i>	32.23	
31 62 16 19-0017	VLF	16" Diameter x 63 LB/FT, Unfilled Tubular Driven Steel Pile	116.70	
		<i>For Piles Driven In Water, Add</i>	33.77	
31 62 16 19-0018	VLF	16" Diameter x 83 LB/FT, Unfilled Tubular Driven Steel Pile	146.64	
		<i>For Piles Driven In Water, Add</i>	36.76	
31 62 16 19-0019	VLF	18" Diameter x 59 LB/FT, Unfilled Tubular Driven Steel Pile	126.39	
		<i>For Piles Driven In Water, Add</i>	36.61	
31 62 16 19-0020	VLF	18" Diameter x 71 LB/FT, Unfilled Tubular Driven Steel Pile	146.34	
		<i>For Piles Driven In Water, Add</i>	38.60	
31 62 16 19-0021	VLF	18" Diameter x 93 LB/FT, Unfilled Tubular Driven Steel Pile	184.24	
		<i>For Piles Driven In Water, Add</i>	42.39	
31 62 16 19-0022 Splices And Points For Pipe Piles (31 62 16 19)				
31 62 16 19-0023 Steel Pipe Pile Splices (31 62 16 19-0022)				
31 62 16 19-0024	EA	8" Diameter, Steel Pipe Pile Splice	480.53	
31 62 16 19-0025	EA	10" Diameter, Steel Pipe Pile Splice	545.41	
31 62 16 19-0026	EA	12" Diameter, Steel Pipe Pile Splice	681.36	
31 62 16 19-0027	EA	14" Diameter, Steel Pipe Pile Splice	745.35	
31 62 16 19-0028	EA	16" Diameter, Steel Pipe Pile Splice	941.74	
31 62 16 19-0029	EA	18" Diameter, Steel Pipe Pile Splice	1,177.43	
31 62 16 19-0030 Steel Pipe Standard Pile Points (31 62 16 19-0022)				
31 62 16 19-0031	EA	8" Diameter, Steel Pipe Standard Pile Point	421.36	
31 62 16 19-0032	EA	10" Diameter, Steel Pipe Standard Pile Point	473.32	
31 62 16 19-0033	EA	12" Diameter, Steel Pipe Standard Pile Point	548.01	
31 62 16 19-0034	EA	14" Diameter, Steel Pipe Standard Pile Point	690.90	
31 62 16 19-0035	EA	16" Diameter, Steel Pipe Standard Pile Point	820.81	
31 62 16 19-0036	EA	18" Diameter, Steel Pipe Standard Pile Point	936.12	
31 62 16 19-0037 Steel Pipe Heavy Duty Pile Points (31 62 16 19-0022)				
31 62 16 19-0038	EA	10" Diameter, Steel Pipe Heavy Duty Pile Point	586.36	
31 62 16 19-0039	EA	12" Diameter, Steel Pipe Heavy Duty Pile Point	651.32	
31 62 16 19-0040	EA	14" Diameter, Steel Pipe Heavy Duty Pile Point	747.87	
31 62 16 19-0041	EA	16" Diameter, Steel Pipe Heavy Duty Pile Point	1,007.68	
31 62 16 19-0042	EA	18" Diameter, Steel Pipe Heavy Duty Pile Point	1,196.18	
31 62 19 Timber Piles (31 62)				
31 62 19 00-0001 Friction Or End Bearing, Driven Treated Wood Piles (31 62 19)				
Note: 12 LB Penta-treated/CF.				



Earthwork			31
Special Foundations and Load-bearing Elements			31 60
Driven Piles			31 62

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
31 62 19 00-0002	LF Up To 30', 12" Butt x 8" Tip, Friction Or End Bearing, Driven Treated Wood Pile	31.88		
	For Piles Driven In Water, Add	15.01		
	For Untreated Pile, Deduct	-6.94		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 19 00-0003	LF >30' To 39', 12" Butt x 8" Tip, Friction Or End Bearing, Driven Treated Wood Pile	33.73		
	For Piles Driven In Water, Add	16.67		
	For Untreated Pile, Deduct	-7.02		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 19 00-0004	LF 39' To 49', 12" Butt x 7" Tip, Friction Or End Bearing, Driven Treated Wood Pile	35.57		
	For Piles Driven In Water, Add	17.73		
	For Untreated Pile, Deduct	-7.33		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 19 00-0005	LF >49' To 59', 13" Butt x 7" Tip, Friction Or End Bearing, Driven Treated Wood Pile	38.43		
	For Piles Driven In Water, Add	19.79		
	For Untreated Pile, Deduct	-7.66		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 19 00-0006	LF >59' To 69', 13" Butt x 6" Tip, Friction Or End Bearing, Driven Treated Wood Pile	47.40		
	For Piles Driven In Water, Add	22.46		
	For Untreated Pile, Deduct	-10.25		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 19 00-0007	LF >69' To 79', 13" Butt x 6" Tip, Friction Or End Bearing, Driven Treated Wood Pile	59.07		
	For Piles Driven In Water, Add	27.17		
	For Untreated Pile, Deduct	-13.11		
	For Each Pile Tip Point, Add	12.50		
	For Each Pile Butt, Driving Cap, Add	20.10		
	For Each Splice For Pile >50', Add	139.40		
31 62 23 Composite Piles (31 62)				
31 62 23 13 Concrete-Filled Steel Piles (31 62 23)				
31 62 23 13-0001 Concrete-Filled Driven Steel Pipe Piles (31 62 23 13)				
Note: Includes 4,000 PSI concrete grout. Excludes reinforcing.				
31 62 23 13-0002	VLF 8" Diameter x 29 LB/FT, Concrete-Filled Driven Steel Pipe Pile	64.09		
	For 5,000 PSI Concrete Grout Fill, Add	6.75		
	For Piles Driven In Water, Add	24.90		
31 62 23 13-0003	VLF 8" Diameter x 36 LB/FT, Concrete-Filled Driven Steel Pipe Pile	74.53		
	For 5,000 PSI Concrete Grout Fill, Add	7.80		
	For Piles Driven In Water, Add	25.95		
31 62 23 13-0004	VLF 8" Diameter x 43 LB/FT, Concrete-Filled Driven Steel Pipe Pile	85.80		
	For 5,000 PSI Concrete Grout Fill, Add	8.93		
	For Piles Driven In Water, Add	27.08		
31 62 23 13-0005	VLF 10" Diameter x 34 LB/FT, Concrete-Filled Driven Steel Pipe Pile	76.04		
	For 5,000 PSI Concrete Grout Fill, Add	9.24		
	For Piles Driven In Water, Add	26.51		
31 62 23 13-0006	VLF 10" Diameter x 41 LB/FT, Concrete-Filled Driven Steel Pipe Pile	85.96		
	For 5,000 PSI Concrete Grout Fill, Add	10.24		
	For Piles Driven In Water, Add	27.51		
31 62 23 13-0007	VLF 10" Diameter x 55 LB/FT, Concrete-Filled Driven Steel Pipe Pile	107.88		
	For 5,000 PSI Concrete Grout Fill, Add	12.43		
	For Piles Driven In Water, Add	29.70		
31 62 23 13-0008	VLF 12" Diameter x 42 LB/FT, Concrete-Filled Driven Steel Pipe Pile	91.31		
	For 5,000 PSI Concrete Grout Fill, Add	12.24		
	For Piles Driven In Water, Add	29.62		
31 62 23 13-0009	VLF 12" Diameter x 50 LB/FT, Concrete-Filled Driven Steel Pipe Pile	102.92		
	For 5,000 PSI Concrete Grout Fill, Add	13.41		
	For Piles Driven In Water, Add	30.79		
31 62 23 13-0010	VLF 12" Diameter x 54 LB/FT, Concrete-Filled Driven Steel Pipe Pile	109.37		
	For 5,000 PSI Concrete Grout Fill, Add	14.05		
	For Piles Driven In Water, Add	31.43		
31 62 23 13-0011	VLF 12" Diameter x 65 LB/FT, Concrete-Filled Driven Steel Pipe Pile	127.42		
	For 5,000 PSI Concrete Grout Fill, Add	15.86		
	For Piles Driven In Water, Add	33.24		
31 62 23 13-0012	VLF 14" Diameter x 46 LB/FT, Concrete-Filled Driven Steel Pipe Pile	100.59		
	For 5,000 PSI Concrete Grout Fill, Add	14.72		
	For Piles Driven In Water, Add	34.03		
31 62 23 13-0013	VLF 14" Diameter x 55 LB/FT, Concrete-Filled Driven Steel Pipe Pile	113.72		
	For 5,000 PSI Concrete Grout Fill, Add	16.03		
	For Piles Driven In Water, Add	35.34		
31 62 23 13-0014	VLF 14" Diameter x 64 LB/FT, Concrete-Filled Driven Steel Pipe Pile	126.86		
	For 5,000 PSI Concrete Grout Fill, Add	17.34		
	For Piles Driven In Water, Add	36.65		
31 62 23 13-0015	VLF 14" Diameter x 72 LB/FT, Concrete-Filled Driven Steel Pipe Pile	139.99		
	For 5,000 PSI Concrete Grout Fill, Add	18.66		
	For Piles Driven In Water, Add	37.97		

13	31	Earthwork
	31 60	Special Foundations and Load-bearing Elements
	31 62	Driven Piles



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 62 23 13-0016	VLF		16" Diameter x 52 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	111.37 17.89 36.53	
31 62 23 13-0017	VLF		16" Diameter x 63 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	126.73 19.42 38.06	
31 62 23 13-0018	VLF		16" Diameter x 83 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	156.68 22.42 41.06	
31 62 23 13-0019	VLF		18" Diameter x 59 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	138.39 22.92 41.28	
31 62 23 13-0020	VLF		18" Diameter x 71 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	158.34 24.92 43.28	
31 62 23 13-0021	VLF		18" Diameter x 93 LB/FT, Concrete-Filled Driven Steel Pipe Pile..... <i>For 5,000 PSI Concrete Grout Fill, Add</i> <i>For Piles Driven In Water, Add</i>	196.24 28.71 47.07	
31 62 23 13-0022			7 Gauge, Constant Diameter Concrete-Filled Driven Steel Piles (31 62 23 13) Note: End bearing, with fluted steel casing, up to 50'. Includes 4,000 PSI concrete. Excludes reinforcing.		
31 62 23 13-0023	VLF		12" Diameter, 7 Gauge, Constant Diameter Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	87.64 22.94	
31 62 23 13-0024	VLF		14" Diameter, 7 Gauge, Constant Diameter Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	107.16 25.91	
31 62 23 13-0025	VLF		16" Diameter, 7 Gauge, Constant Diameter Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	121.64 28.53	
31 62 23 13-0026	VLF		18" Diameter, 7 Gauge, Constant Diameter Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	132.34 30.96	
31 62 23 13-0027			Tapered Friction Concrete-Filled Driven Steel Piles (31 62 23 13) Note: With fluted steel casing, up to 50'. Includes 4,000 PSI concrete. Excludes reinforcing.		
31 62 23 13-0028	VLF		12" Diameter, 7 Gauge, Tapered Friction Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	85.87 22.76	
31 62 23 13-0029	VLF		14" Diameter, 7 Gauge, Tapered Friction Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	87.88 23.98	
31 62 23 13-0030	VLF		16" Diameter, 7 Gauge, Tapered Friction Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	108.13 27.18	
31 62 23 13-0031	VLF		18" Diameter, 7 Gauge, Tapered Friction Concrete-Filled Driven Steel Pile..... <i>For Piles Driven In Water, Add</i>	125.20 30.24	
31 62 23 13-0032			Thin Wall Shell Straight Sided Driven Steel Piles (31 62 23 13)		
31 62 23 13-0033	VLF		8" Diameter, 16 Gauge, Thin Wall Shell Straight Sided Driven Steel Pile..... <i>For Piles Driven In Water, Add</i> <i>For Thick Wall Shell, Add</i>	50.23 16.98 0.09	
31 62 23 13-0034	VLF		10" Diameter, 16 Gauge, Thin Wall Shell Straight Sided Driven Steel Pile..... <i>For Piles Driven In Water, Add</i> <i>For Thick Wall Shell, Add</i>	55.42 18.84 0.10	
31 62 23 13-0035	VLF		12" Diameter, 16 Gauge, Thin Wall Shell Straight Sided Driven Steel Pile..... <i>For Piles Driven In Water, Add</i> <i>For Thick Wall Shell, Add</i>	60.56 20.68 0.11	
31 62 23 13-0036	VLF		14" Diameter, 16 Gauge, Thin Wall Shell Straight Sided Driven Steel Pile..... <i>For Piles Driven In Water, Add</i> <i>For Thick Wall Shell, Add</i>	65.74 22.52 0.12	
31 62 23 13-0037	VLF		16" Diameter, 16 Gauge, Thin Wall Shell Straight Sided Driven Steel Pile..... <i>For Piles Driven In Water, Add</i> <i>For Thick Wall Shell, Add</i>	70.93 24.37 0.13	
31 63			Bored Piles (31 60)		
31 63 36			Drilled Steel Piles (31 63)		
31 63 36 00-0001			Drill Hole (31 63 36) Note: Excludes removal of excess material.		
31 63 36 00-0002			Drilling Mobilization (31 63 36 00-0001)		
31 63 36 00-0003	EA		>12" To 24" Diameter Hole, Drilling Mobilization	997.98	
31 63 36 00-0004	EA		>24" Diameter Hole, Drilling Mobilization.....	1,330.62	
31 63 36 00-0005			Drill Hole In Soil (31 63 36 00-0001)		
31 63 36 00-0006	LF		18" Diameter, Up To 24' Depth, Drilled/Augered Hole	56.52	
31 63 36 00-0007	LF		20" Diameter, Up To 24' Depth, Drilled/Augered Hole	65.72	
31 63 36 00-0008	LF		22" Diameter, Up To 24' Depth, Drilled/Augered Hole	77.22	
31 63 36 00-0009	LF		24" Diameter, Up To 24' Depth, Drilled/Augered Hole	91.03	
31 63 36 00-0010	LF		26" Diameter, Up To 24' Depth, Drilled/Augered Hole	98.39	
31 63 36 00-0011	LF		28" Diameter, Up To 24' Depth, Drilled/Augered Hole	108.24	
31 63 36 00-0012	LF		30" Diameter, Up To 24' Depth, Drilled/Augered Hole	118.56	



Earthwork		31
Special Foundations and Load-bearing Elements		31 60
Bored Piles		31 63

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 63 36 00-0013	Steel H Piles (31 63 36)		
31 63 36 00-0014	Placed In Drilled Hole, Rolled Steel H-Section Piles (31 63 36 00-0013)		
Note: Includes guides, bracing and alignment.			
31 63 36 00-0015	VLF 8" x 8" x 36 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	31.79	
	For >2,400 To 3,600, Deduct	-1.12	
	For >3,600 To 4,800, Deduct	-2.24	
	For >4,800 To 6,000, Deduct	-3.83	
	For >6,000, Deduct	-5.42	
31 63 36 00-0016	VLF 10" x 10" x 42 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	35.57	
	For >2,400 To 3,600, Deduct	-1.23	
	For >3,600 To 4,800, Deduct	-2.46	
	For >4,800 To 6,000, Deduct	-4.24	
	For >6,000, Deduct	-6.02	
31 63 36 00-0017	VLF 10" x 10" x 57 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	43.40	
	For >2,400 To 3,600, Deduct	-1.43	
	For >3,600 To 4,800, Deduct	-2.85	
	For >4,800 To 6,000, Deduct	-5.02	
	For >6,000, Deduct	-7.19	
31 63 36 00-0018	VLF 12" x 12" x 53 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	41.71	
	For >2,400 To 3,600, Deduct	-1.39	
	For >3,600 To 4,800, Deduct	-2.79	
	For >4,800 To 6,000, Deduct	-4.87	
	For >6,000, Deduct	-6.96	
31 63 36 00-0019	VLF 12" x 12" x 63 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	46.93	
	For >2,400 To 3,600, Deduct	-1.52	
	For >3,600 To 4,800, Deduct	-3.05	
	For >4,800 To 6,000, Deduct	-5.40	
	For >6,000, Deduct	-7.74	
31 63 36 00-0020	VLF 12" x 12" x 74 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	53.84	
	For >2,400 To 3,600, Deduct	-1.73	
	For >3,600 To 4,800, Deduct	-3.45	
	For >4,800 To 6,000, Deduct	-6.15	
	For >6,000, Deduct	-8.84	
31 63 36 00-0021	VLF 12" x 12" x 84 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	59.05	
	For >2,400 To 3,600, Deduct	-1.86	
	For >3,600 To 4,800, Deduct	-3.71	
	For >4,800 To 6,000, Deduct	-6.67	
	For >6,000, Deduct	-9.62	
31 63 36 00-0022	VLF 14" x 14" x 73 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	53.69	
	For >2,400 To 3,600, Deduct	-1.73	
	For >3,600 To 4,800, Deduct	-3.46	
	For >4,800 To 6,000, Deduct	-6.15	
	For >6,000, Deduct	-8.83	
31 63 36 00-0023	VLF 14" x 14" x 89 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	62.55	
	For >2,400 To 3,600, Deduct	-1.95	
	For >3,600 To 4,800, Deduct	-3.91	
	For >4,800 To 6,000, Deduct	-7.04	
	For >6,000, Deduct	-10.16	
31 63 36 00-0024	VLF 14" x 14" x 102 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	70.13	
	For >2,400 To 3,600, Deduct	-2.18	
	For >3,600 To 4,800, Deduct	-4.35	
	For >4,800 To 6,000, Deduct	-7.86	
	For >6,000, Deduct	-11.37	
31 63 36 00-0025	VLF 14" x 14" x 117 LB/FT, Placed In Drilled Hole, Rolled Steel H Pile.....	78.47	
	For >2,400 To 3,600, Deduct	-2.38	
	For >3,600 To 4,800, Deduct	-4.77	
	For >4,800 To 6,000, Deduct	-8.69	
	For >6,000, Deduct	-12.62	
31 63 36 00-0026	Welded Steel Stud Pins (31 63 36 00-0013)		
Note: Includes welding to steel piles.			
31 63 36 00-0027	EA 5/8" Diameter x 2-1/2" Long, Welded Steel Stud Pins.....	14.52	
	For >50 To 150, Deduct	-0.60	
	For >150 To 250, Deduct	-1.26	
	For >250 To 500, Deduct	-1.93	
	For >500, Deduct	-2.59	
31 63 36 00-0028	EA 5/8" Diameter x 5" Long, Welded Steel Stud Pins.....	17.08	
	For >50 To 150, Deduct	-0.60	
	For >150 To 250, Deduct	-1.33	
	For >250 To 500, Deduct	-2.06	
	For >500, Deduct	-2.78	
31 63 36 00-0029	EA 5/8" Diameter x 7" Long, Welded Steel Stud Pins.....	19.55	
	For >50 To 150, Deduct	-0.60	
	For >150 To 250, Deduct	-1.39	
	For >250 To 500, Deduct	-2.18	
	For >500, Deduct	-2.97	
31 63 36 00-0030	EA 3/4" Diameter x 2-1/2" Long, Welded Steel Stud Pins.....	16.65	
	For >50 To 150, Deduct	-0.63	
	For >150 To 250, Deduct	-1.36	
	For >250 To 500, Deduct	-2.09	
	For >500, Deduct	-2.83	

31 Earthwork**31 60 Special Foundations and Load-bearing Elements****31 63 Bored Piles**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 63 36 00-0031	EA	3/4" Diameter x 5" Long, Welded Steel Stud Pins	20.53	
		For >50 To 150, Deduct	-0.63	
		For >150 To 250, Deduct	-1.46	
		For >250 To 500, Deduct	-2.29	
		For >500, Deduct	-3.12	
31 63 36 00-0032	EA	3/4" Diameter x 7" Long, Welded Steel Stud Pins	23.25	
		For >50 To 150, Deduct	-0.63	
		For >150 To 250, Deduct	-1.53	
		For >250 To 500, Deduct	-2.42	
		For >500, Deduct	-3.32	
31 63 36 00-0033	EA	7/8" Diameter x 2-1/2" Long, Welded Steel Stud Pins	19.46	
		For >50 To 150, Deduct	-0.66	
		For >150 To 250, Deduct	-1.47	
		For >250 To 500, Deduct	-2.29	
		For >500, Deduct	-3.10	
31 63 36 00-0034	EA	7/8" Diameter x 5" Long, Welded Steel Stud Pins	25.78	
		For >50 To 150, Deduct	-0.66	
		For >150 To 250, Deduct	-1.63	
		For >250 To 500, Deduct	-2.60	
		For >500, Deduct	-3.58	
31 63 36 00-0035	EA	7/8" Diameter x 7" Long, Welded Steel Stud Pins	28.87	
		For >50 To 150, Deduct	-0.66	
		For >150 To 250, Deduct	-1.71	
		For >250 To 500, Deduct	-2.76	
		For >500, Deduct	-3.81	
31 63 36 00-0036		Concrete Fill (31 63 36)		
		See CSI section 03 37 16 00-0001 for pumping equipment.		
31 63 36 00-0037	VLF	18" Diameter Hole Pumped Concrete Fill For Drilled Pile	39.25	
31 63 36 00-0038	VLF	20" Diameter Hole Pumped Concrete Fill For Drilled Pile	43.61	
31 63 36 00-0039	VLF	22" Diameter Hole Pumped Concrete Fill For Drilled Pile	47.96	
31 63 36 00-0040	VLF	24" Diameter Hole Pumped Concrete Fill For Drilled Pile	52.33	
31 63 36 00-0041	VLF	26" Diameter Hole Pumped Concrete Fill For Drilled Pile	56.68	
31 63 36 00-0042	VLF	28" Diameter Hole Pumped Concrete Fill For Drilled Pile	61.06	
31 63 36 00-0043	VLF	30" Diameter Hole Pumped Concrete Fill For Drilled Pile	72.91	

31 64 Caissons (31 60)**31 64 13 Box Caissons** (31 64)**31 64 13 00-0001 Caisson In Stable Ground No Casing Or Ground Water** (31 64 13)

Note: Up to 50' deep. See CSI section 31 64 13 00-0070 for equipment set-up.

31 64 13 00-0002 Caisson In Stable Ground (31 64 13 00-0001)

Note: Includes 3000 PSI concrete and reinforcing.

31 64 13 00-0003	VLF	18" Diameter Caisson, No Casing Stable Ground, No Ground Water	57.16	
		Note: 0.066 CY Concrete per VLF, 9 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	5.39	
		For >100' To 150' Deep, Add	14.29	
		For >150' To 200' Deep, Add	18.88	
		For Right Angle Drilling, Add	15.67	
31 64 13 00-0004	VLF	24" Diameter Caisson, No Casing Stable Ground, No Ground Water	70.29	
		Note: 0.116 CY Concrete per VLF, 14 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	7.23	
		For >100' To 150' Deep, Add	17.57	
		For >150' To 200' Deep, Add	23.98	
		For Right Angle Drilling, Add	17.38	
31 64 13 00-0005	VLF	30" Diameter Caisson, No Casing Stable Ground, No Ground Water	98.48	
		Note: 0.182 CY Concrete per VLF, 23 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	10.58	
		For >100' To 150' Deep, Add	24.62	
		For >150' To 200' Deep, Add	34.16	
		For Right Angle Drilling, Add	22.93	
31 64 13 00-0006	VLF	36" Diameter Caisson, No Casing Stable Ground, No Ground Water	129.20	
		Note: 0.262 CY Concrete per VLF, 33 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	14.35	
		For >100' To 150' Deep, Add	32.30	
		For >150' To 200' Deep, Add	45.39	
		For Right Angle Drilling, Add	28.64	
31 64 13 00-0007	VLF	42" Diameter Caisson, No Casing Stable Ground, No Ground Water	164.15	
		Note: 0.356 CY Concrete per VLF, 48 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	18.93	
		For >100' To 150' Deep, Add	41.04	
		For >150' To 200' Deep, Add	58.55	
		For Right Angle Drilling, Add	34.19	
31 64 13 00-0008	VLF	48" Diameter Caisson No Casing Stable Ground, No Ground Water	196.11	
		Note: 0.465 CY Concrete per VLF, 57 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	23.04	
		For >100' To 150' Deep, Add	49.03	
		For >150' To 200' Deep, Add	70.48	
		For Right Angle Drilling, Add	39.52	



		Earthwork	31
		Special Foundations and Load-bearing Elements	31 60
		Caissons	31 64

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
31 64 13 00-0009	VLF 54" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 0.589 CY Concrete per VLF, 76 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	234.88 28.51 58.72 85.55 44.50		
31 64 13 00-0010	VLF 60" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 0.727 CY Concrete per VLF, 93 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	274.09 34.03 68.52 100.79 49.53		
31 64 13 00-0011	VLF 66" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 0.88 CY Concrete per VLF, 113 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	318.58 40.27 79.65 116.03 55.36		
31 64 13 00-0012	VLF 72" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 1.047 CY Concrete per VLF, 134 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	369.75 47.50 92.44 137.94 61.87		
31 64 13 00-0013	VLF 78" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 1.229 CY Concrete per VLF, 157 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	420.23 54.79 105.06 157.78 67.80		
31 64 13 00-0014	VLF 84" Diameter Caisson No Casing Stable Ground, No Ground Water Note: 1.425 CY Concrete per VLF, 183 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	473.97 62.60 118.49 178.97 73.94		
31 64 13 00-0015	For Bell Excavation And Concrete, Add (31 64 13 00-0001)			
31 64 13 00-0016	EA Bell Excavation And Concrete, 4' Bell Diameter Stable Ground, 24" Shaft, 0.44 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	450.01 35.64 112.50 140.18		
31 64 13 00-0017	EA Bell Excavation And Concrete, 6' Bell Diameter Stable Ground, 30" Shaft, 1.57 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	1,581.39 125.42 395.35 492.82		
31 64 13 00-0018	EA Bell Excavation And Concrete, 7' Bell Diameter Stable Ground, 36" Shaft, 2.33 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	2,383.33 191.60 595.83 745.96		
31 64 13 00-0019	EA Bell Excavation And Concrete, 8' Bell Diameter Stable Ground, 42" Shaft, 3.30 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	3,306.81 266.29 826.70 1,035.57		
31 64 13 00-0020	EA Bell Excavation And Concrete, 9' Bell Diameter Stable Ground, 48" Shaft, 4.48 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	4,505.81 357.28 1,126.45 1,404.08		
31 64 13 00-0021	EA Bell Excavation And Concrete, 10' Bell Diameter Stable Ground, 60" Shaft, 5.24 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	5,298.71 419.99 1,324.68 1,650.97		
31 64 13 00-0022	EA Bell Excavation And Concrete, 12' Bell Diameter Stable Ground, 72" Shaft, 8.74 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	8,990.54 711.40 2,247.64 2,799.74		
31 64 13 00-0023	EA Bell Excavation And Concrete, 14' Bell Diameter Stable Ground, 84" Shaft, 13.6 CY For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add	12,969.61 1,035.18 3,242.40 4,050.02		
31 64 13 00-0024	Caisson In Wet Ground, Casing Pulled (31 64 13) Note: Up to 50' deep. See CSI section 31 64 13 00-0070 for equipment set-up.			
31 64 13 00-0025	Caisson In Wet Ground (31 64 13 00-0024) Note: Includes 3000 PSI concrete and reinforcing.			
31 64 13 00-0026	VLF 18" Diameter Caisson Wet Ground, Casing Pulled Note: 0.066 CY Concrete per VLF, 9 lbs rebar per VLF. For >50' To 100' Deep, Add For >100' To 150' Deep, Add For >150' To 200' Deep, Add For Right Angle Drilling, Add	63.62 5.83 15.91 20.81 17.95		

31	31	Earthwork
	31 60	Special Foundations and Load-bearing Elements
	31 64	Caissons



MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
31 64 13 00-0027	VLF	24" Diameter Caisson Wet Ground, Casing Pulled.....	106.19		
		Note: 0.116 CY Concrete per VLF, 14 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	9.75		
		For >100' To 150' Deep, Add	26.55		
		For >150' To 200' Deep, Add	34.75		
		For Right Angle Drilling, Add	29.94		
31 64 13 00-0028	VLF	30" Diameter Caisson Wet Ground, Casing Pulled.....	138.87		
		Note: 0.182 CY Concrete per VLF, 23 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	13.41		
		For >100' To 150' Deep, Add	34.72		
		For >150' To 200' Deep, Add	46.28		
		For Right Angle Drilling, Add	37.07		
31 64 13 00-0029	VLF	36" Diameter Caisson Wet Ground, Casing Pulled.....	189.99		
		Note: 0.262 CY Concrete per VLF, 33 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	18.61		
		For >100' To 150' Deep, Add	47.50		
		For >150' To 200' Deep, Add	63.63		
		For Right Angle Drilling, Add	49.91		
31 64 13 00-0030	VLF	42" Diameter Caisson Wet Ground, Casing Pulled.....	239.17		
		Note: 0.356 CY Concrete per VLF, 48 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	24.19		
		For >100' To 150' Deep, Add	59.79		
		For >150' To 200' Deep, Add	81.06		
		For Right Angle Drilling, Add	60.45		
31 64 13 00-0031	VLF	48" Diameter Caisson Wet Ground, Casing Pulled.....	285.07		
		Note: 0.465 CY Concrete per VLF, 57 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	29.27		
		For >100' To 150' Deep, Add	71.27		
		For >150' To 200' Deep, Add	97.17		
		For Right Angle Drilling, Add	70.66		
31 64 13 00-0032	VLF	54" Diameter Caisson Wet Ground, Casing Pulled.....	368.18		
		Note: 0.589 CY Concrete per VLF, 76 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	37.84		
		For >100' To 150' Deep, Add	92.05		
		For >150' To 200' Deep, Add	125.54		
		For Right Angle Drilling, Add	91.16		
31 64 13 00-0033	VLF	60" Diameter Caisson Wet Ground, Casing Pulled.....	450.56		
		Note: 0.727 CY Concrete per VLF, 93 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	46.39		
		For >100' To 150' Deep, Add	112.64		
		For >150' To 200' Deep, Add	153.73		
		For Right Angle Drilling, Add	111.30		
31 64 13 00-0034	VLF	66" Diameter Caisson Wet Ground, Casing Pulled.....	511.63		
		Note: 0.87 CY Concrete per VLF, 113 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	53.78		
		For >100' To 150' Deep, Add	127.91		
		For >150' To 200' Deep, Add	175.95		
		For Right Angle Drilling, Add	122.93		
31 64 13 00-0035	VLF	72" Diameter Caisson Wet Ground, Casing Pulled.....	579.32		
		Note: 1.047 CY Concrete per VLF, 134 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	62.17		
		For >100' To 150' Deep, Add	144.83		
		For >150' To 200' Deep, Add	200.82		
		For Right Angle Drilling, Add	135.21		
31 64 13 00-0036	VLF	78" Diameter Caisson Wet Ground, Casing Pulled.....	657.16		
		Note: 1.229 CY Concrete per VLF, 157 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	71.37		
		For >100' To 150' Deep, Add	164.29		
		For >150' To 200' Deep, Add	228.86		
		For Right Angle Drilling, Add	150.73		
31 64 13 00-0037	VLF	84" Diameter Caisson Wet Ground, Casing Pulled.....	738.74		
		Note: 1.425 CY Concrete per VLF, 183 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	81.13		
		For >100' To 150' Deep, Add	184.69		
		For >150' To 200' Deep, Add	258.40		
		For Right Angle Drilling, Add	166.61		
31 64 13 00-0038		For Bell Excavation And Concrete, Add (31 64 13 00-0024)			
31 64 13 00-0039	EA	Bell Excavation And Concrete, 4' Bell Diameter Wet Ground 24" Shaft, 0.44 CY.....	520.14		
		For >50' To 100' Deep, Add	40.55		
		For >100' To 150' Deep, Add	130.04		
		For >150' To 200' Deep, Add	161.22		
31 64 13 00-0040	EA	Bell Excavation And Concrete, 6' Bell Diameter Wet Ground, 30" Shaft, 1.57 CY.....	1,811.05		
		For >50' To 100' Deep, Add	141.50		
		For >100' To 150' Deep, Add	452.76		
		For >150' To 200' Deep, Add	561.72		
31 64 13 00-0041	EA	Bell Excavation And Concrete, 7' Bell Diameter Wet Ground, 36" Shaft, 2.33 CY.....	2,526.45		
		For >50' To 100' Deep, Add	186.28		
		For >100' To 150' Deep, Add	631.61		
		For >150' To 200' Deep, Add	769.73		
31 64 13 00-0042	EA	Bell Excavation And Concrete, 8' Bell Diameter Wet Ground, 42" Shaft, 3.3 CY.....	3,970.22		
		For >50' To 100' Deep, Add	312.73		
		For >100' To 150' Deep, Add	992.56		
		For >150' To 200' Deep, Add	1,234.59		



Earthwork			31
Special Foundations and Load-bearing Elements			31 60
Caissons			31 64

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
31 64 13 00-0043	EA	Bell Excavation And Concrete, 9' Bell Diameter Wet Ground, 48" Shaft, 4.48 CY.....	5,160.33	
		For >50' To 100' Deep, Add	403.10	
		For >100' To 150' Deep, Add	1,290.08	
		For >150' To 200' Deep, Add	1,600.44	
31 64 13 00-0044	EA	Bell Excavation And Concrete, 10' Bell Diameter Wet Ground, 60" Shaft, 5.24 CY.....	6,068.74	
		For >50' To 100' Deep, Add	473.89	
		For >100' To 150' Deep, Add	1,517.19	
		For >150' To 200' Deep, Add	1,881.98	
31 64 13 00-0045	EA	Bell Excavation And Concrete, 12' Bell Diameter Wet Ground, 72" Shaft, 8.74 CY.....	10,299.58	
		For >50' To 100' Deep, Add	803.03	
		For >100' To 150' Deep, Add	2,574.90	
		For >150' To 200' Deep, Add	3,192.45	
31 64 13 00-0046	EA	Bell Excavation And Concrete, 14' Bell Diameter Wet Ground, 84" Shaft, 13.6 CY.....	14,839.68	
		For >50' To 100' Deep, Add	1,166.08	
		For >100' To 150' Deep, Add	3,709.92	
		For >150' To 200' Deep, Add	4,611.04	
31 64 13 00-0047		Caisson In Soft Rock And Medium Hard Shale (31 64 13)		
		Note: Up to 50' deep. See CSI section 31 64 13 00-0070 for equipment set-up.		
31 64 13 00-0048		Caisson In Soft Rock (31 64 13 00-0047)		
		Note: Includes 3000 PSI concrete and reinforcing.		
31 64 13 00-0049	VLF	18" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	255.05	
		Note: 0.066 CY Concrete per VLF, 9 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	19.23	
		For >100' To 150' Deep, Add	63.76	
		For >150' To 200' Deep, Add	78.24	
		For Right Angle Drilling, Add	84.96	
31 64 13 00-0050	VLF	24" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	425.29	
		Note: 0.116 CY Concrete per VLF, 14 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	32.08	
		For >100' To 150' Deep, Add	106.32	
		For >150' To 200' Deep, Add	130.48	
		For Right Angle Drilling, Add	141.63	
31 64 13 00-0051	VLF	30" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	640.66	
		Note: 0.182 CY Concrete per VLF, 23 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	48.54	
		For >100' To 150' Deep, Add	160.17	
		For >150' To 200' Deep, Add	196.81	
		For Right Angle Drilling, Add	212.70	
31 64 13 00-0052	VLF	36" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	817.31	
		Note: 0.262 CY Concrete per VLF, 33 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	62.52	
		For >100' To 150' Deep, Add	204.33	
		For >150' To 200' Deep, Add	251.83	
		For Right Angle Drilling, Add	269.47	
31 64 13 00-0053	VLF	42" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	1,049.41	
		Note: 0.356 CY Concrete per VLF, 48 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	80.90	
		For >100' To 150' Deep, Add	262.35	
		For >150' To 200' Deep, Add	324.13	
		For Right Angle Drilling, Add	344.03	
31 64 13 00-0054	VLF	48" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	1,264.10	
		Note: 0.465 CY Concrete per VLF, 57 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	97.80	
		For >100' To 150' Deep, Add	316.03	
		For >150' To 200' Deep, Add	390.88	
		For Right Angle Drilling, Add	413.32	
31 64 13 00-0055	VLF	54" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	1,544.79	
		Note: 0.589 CY Concrete per VLF, 76 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	120.20	
		For >100' To 150' Deep, Add	386.20	
		For >150' To 200' Deep, Add	478.52	
		For Right Angle Drilling, Add	502.97	
31 64 13 00-0056	VLF	60" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	1,825.03	
		Note: 0.727 CY Concrete per VLF, 93 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	142.60	
		For >100' To 150' Deep, Add	456.26	
		For >150' To 200' Deep, Add	566.07	
		For Right Angle Drilling, Add	592.36	
31 64 13 00-0057	VLF	66" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	2,001.10	
		Note: 0.88 CY Concrete per VLF, 113 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	158.04	
		For >100' To 150' Deep, Add	500.28	
		For >150' To 200' Deep, Add	622.79	
		For Right Angle Drilling, Add	644.24	
31 64 13 00-0058	VLF	72" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	2,182.92	
		Note: 1.047 CY Concrete per VLF, 134 lbs rebar per VLF.		
		For >50' To 100' Deep, Add	174.42	
		For >100' To 150' Deep, Add	545.73	
		For >150' To 200' Deep, Add	681.90	
		For Right Angle Drilling, Add	696.47	

31	31 Earthwork
	31 60 Special Foundations and Load-bearing Elements
	31 64 Caissons



MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST		UNIT COST
31 64 13 00-0059	VLF	78" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	2,229.85		
		Note: 1.229 CY Concrete per VLF, 157 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	181.46		
		For >100' To 150' Deep, Add	557.46		
		For >150' To 200' Deep, Add	700.67		
		For Right Angle Drilling, Add	701.17		
31 64 13 00-0060	VLF	84" Diameter Caisson, Soft Rock Medium Shale, No Casing/Ground Water.....	2,664.51		
		Note: 1.425 CY Concrete per VLF, 183 lbs rebar per VLF.			
		For >50' To 100' Deep, Add	215.94		
		For >100' To 150' Deep, Add	666.13		
		For >150' To 200' Deep, Add	836.13		
		For Right Angle Drilling, Add	840.63		
31 64 13 00-0061 For Bell Excavation And Concrete, Add (31 64 13 00-0047)					
31 64 13 00-0062	EA	Bell Excavation And Concrete, 4' Bell Diameter Soft Rock/Shale 24" Shaft 0.44 CY	902.58		
		For >50' To 100' Deep, Add	67.32		
		For >100' To 150' Deep, Add	225.65		
		For >150' To 200' Deep, Add	275.95		
31 64 13 00-0063	EA	Bell Excavation And Concrete, 6' Bell Diameter Soft Rock/Shale 30" Shaft 1.57 CY	3,175.62		
		For >50' To 100' Deep, Add	237.02		
		For >100' To 150' Deep, Add	793.91		
		For >150' To 200' Deep, Add	971.09		
31 64 13 00-0064	EA	Bell Excavation And Concrete, 7' Bell Diameter Soft Rock/Shale 36" Shaft 2.33 CY	4,749.35		
		For >50' To 100' Deep, Add	357.23		
		For >100' To 150' Deep, Add	1,187.34		
		For >150' To 200' Deep, Add	1,455.77		
31 64 13 00-0065	EA	Bell Excavation And Concrete, 8' Bell Diameter Soft Rock/Shale 42" Shaft 3.3 CY	6,763.53		
		For >50' To 100' Deep, Add	508.26		
		For >100' To 150' Deep, Add	1,690.88		
		For >150' To 200' Deep, Add	2,072.58		
31 64 13 00-0066	EA	Bell Excavation And Concrete, 9' Bell Diameter Soft Rock/Shale 48" Shaft 4.48 CY	8,954.18		
		For >50' To 100' Deep, Add	668.67		
		For >100' To 150' Deep, Add	2,238.55		
		For >150' To 200' Deep, Add	2,738.60		
31 64 13 00-0067	EA	Bell Excavation And Concrete, 10' Bell Diameter Soft Rock/Shale 60" Shaft 5.24 CY	10,917.80		
		For >50' To 100' Deep, Add	813.33		
		For >100' To 150' Deep, Add	2,729.45		
		For >150' To 200' Deep, Add	3,336.69		
31 64 13 00-0068	EA	Bell Excavation And Concrete, 12' Bell Diameter Soft Rock/Shale 72" Shaft 8.74 CY	16,482.15		
		For >50' To 100' Deep, Add	1,235.81		
		For >100' To 150' Deep, Add	4,120.54		
		For >150' To 200' Deep, Add	5,047.22		
31 64 13 00-0069	EA	Bell Excavation And Concrete, 14' Bell Diameter Soft Rock/Shale 84" Shaft 13.6 CY	24,775.95		
		For >50' To 100' Deep, Add	1,861.62		
		For >100' To 150' Deep, Add	6,193.99		
		For >150' To 200' Deep, Add	7,591.92		
31 64 13 00-0070 Caisson Setup And Removal (31 64 13)					
		Note: Includes mobilization of equipment, erection, dismantling of equipment, move off of site.			
31 64 13 00-0071	EA	Erect, Set Up, Dismantle And Removal Of Caisson 18" To 36" Diameter, Complete	3,719.91		
31 64 13 00-0072	EA	Erect, Set Up, Dismantle And Removal Of Caisson 48" To 84" Diameter, Complete	5,194.03		
31 64 13 00-0073	EA	Dismantle, Relocate, Erect And Set Up On Site At Different Location (During Same Phase Of Work), Caisson 18" To 36" Diameter.....	1,772.15		
31 64 13 00-0074	EA	Dismantle, Relocate, Erect And Set Up On Site At Different Location (During Same Phase Of Work), Caisson 48" To 84" Diameter.....	2,362.86		
31 64 13 00-0075	EA	Relocate Caisson Equipment To Different Hole On-Site Without Dismantling.....	147.68		
31 66 Special Foundation (31 60)					
31 66 15 Helical Foundation Piles (31 66)					
31 66 15 00-0001 Helical Pier Restoration (Atlas) (31 66 15)					
31 66 15 00-0002	EA	Structural Steel Piers (Atlas Pier System Or Equal).....	5,567.76		
		Note: Includes heavy duty bracket, pier platform, and 14' of 3.5" diameter pier sections, non-corrosive coating, hydraulic lifting, fasteners, and other related activities and materials. Excludes excavation and core drilling			
31 66 15 00-0003	EA	Pressure Injecting Grout For Slab Repairs, Per Location	582.18		
		Note: Includes preparation, installing and removing grout injection pipes, and finishing. Excludes grout and core drilling.			
31 66 15 00-0004	CY	Pressure Injected Non-Shrink Grout	582.18		
31 68 Foundation Anchors (31 60)					
31 68 13 Rock Foundation Anchors (31 68)					
31 68 13 00-0001		Materials And Placement (31 68 13)			
31 68 13 00-0002		Hollow Core Prestressable Anchor, ASTM A615 (31 68 13 00-0001)			
		Note: Pricing includes only material and labor to install anchors. See CSI section 31 68 13 00-0091 for head assembly, 31 68 13 00-0118 for steel plates and washers, 31 68 13 00-0154 for drilling operation, 31 68 13 00-0176 for tools, 31 68 13 00-0198 for grouting, 31 68 13 00-0207 for rock bolt testing.			



Earthwork		31
Special Foundations and Load-bearing Elements		31 60
Foundation Anchors		31 68

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 68 13 00-0003	3/4" Diameter (31 68 13 00-0002)		
31 68 13 00-0004	EA 3/4" Rock Bolt, 5' Hollow Core Prestressable Anchor.....	208.93	
31 68 13 00-0005	EA 3/4" Rock Bolt, 10' Hollow Core Prestressable Anchor.....	301.59	
31 68 13 00-0006	EA 3/4" Rock Bolt, 15' Hollow Core Prestressable Anchor.....	371.74	
31 68 13 00-0007	EA 3/4" Rock Bolt, 20' Hollow Core Prestressable Anchor.....	486.90	
31 68 13 00-0008	1" Diameter (31 68 13 00-0002)		
31 68 13 00-0009	EA 1" Rock Bolt, 5' Hollow Core Prestressable Anchor.....	267.56	
31 68 13 00-0010	EA 1" Rock Bolt, 10' Hollow Core Prestressable Anchor.....	414.33	
31 68 13 00-0011	EA 1" Rock Bolt, 15' Hollow Core Prestressable Anchor.....	538.60	
31 68 13 00-0012	EA 1" Rock Bolt, 20' Hollow Core Prestressable Anchor.....	707.91	
31 68 13 00-0013	1-3/8" Diameter (31 68 13 00-0002)		
31 68 13 00-0014	EA 1-3/8" Rock Bolt, 5' Hollow Core Prestressable Anchor.....	448.36	
31 68 13 00-0015	EA 1-3/8" Rock Bolt, 10' Hollow Core Prestressable Anchor.....	698.81	
31 68 13 00-0016	EA 1-3/8" Rock Bolt, 15' Hollow Core Prestressable Anchor.....	926.79	
31 68 13 00-0017	EA 1-3/8" Rock Bolt, 20' Hollow Core Prestressable Anchor.....	1,199.73	
31 68 13 00-0018	2" Diameter (31 68 13 00-0002)		
31 68 13 00-0019	EA 2" Rock Bolt, 5' Hollow Core Prestressable Anchor.....	998.23	
31 68 13 00-0020	EA 2" Rock Bolt, 10' Hollow Core Prestressable Anchor.....	1,485.48	
31 68 13 00-0021	EA 2" Rock Bolt, 15' Hollow Core Prestressable Anchor.....	1,950.16	
31 68 13 00-0022	EA 2" Rock Bolt, 20' Hollow Core Prestressable Anchor.....	2,459.90	
31 68 13 00-0023	Super High-Tensile Anchors, ASTM A-108 (31 68 13 00-0001)		
Note: Pricing includes only material and labor to install anchors. See CSI section 31 68 13 00-0091 for head assembly, 31 68 13 00-0118 for steel plates and washers, 31 68 13 00-0154 for drilling operation, 31 68 13 00-0176 for tools, 31 68 13 00-0198 for grouting, 31 68 13 00-0207 for rock bolt testing.			
31 68 13 00-0024	3/4" Diameter (31 68 13 00-0023)		
31 68 13 00-0025	EA 3/4" Rock Bolt, 5' Super High-Tensile Anchor.....	149.60	
31 68 13 00-0026	EA 3/4" Rock Bolt, 10' Super High-Tensile Anchor.....	199.59	
31 68 13 00-0027	EA 3/4" Rock Bolt, 15' Super High-Tensile Anchor.....	226.98	
31 68 13 00-0028	EA 3/4" Rock Bolt, 20' Super High-Tensile Anchor.....	297.41	
31 68 13 00-0029	1" Diameter (31 68 13 00-0023)		
31 68 13 00-0030	EA 1" Rock Bolt, 5' Super High-Tensile Anchor.....	180.04	
31 68 13 00-0031	EA 1" Rock Bolt, 10' Super High-Tensile Anchor.....	250.87	
31 68 13 00-0032	EA 1" Rock Bolt, 15' Super High-Tensile Anchor.....	296.75	
31 68 13 00-0033	EA 1" Rock Bolt, 20' Super High-Tensile Anchor.....	387.64	
31 68 13 00-0034	1-1/4" Diameter (31 68 13 00-0023)		
31 68 13 00-0035	EA 1-1/4" Rock Bolt, 5' Super High-Tensile Anchor.....	269.42	
31 68 13 00-0036	EA 1-1/4" Rock Bolt, 10' Super High-Tensile Anchor.....	378.99	
31 68 13 00-0037	EA 1-1/4" Rock Bolt, 15' Super High-Tensile Anchor.....	465.51	
31 68 13 00-0038	EA 1-1/4" Rock Bolt, 20' Super High-Tensile Anchor.....	593.41	
31 68 13 00-0039	2" Diameter (31 68 13 00-0023)		
31 68 13 00-0040	EA 2" Rock Bolt, 5' Super High-Tensile Anchor.....	724.40	
31 68 13 00-0041	EA 2" Rock Bolt, 10' Super High-Tensile Anchor.....	1,030.67	
31 68 13 00-0042	EA 2" Rock Bolt, 15' Super High-Tensile Anchor.....	1,261.42	
31 68 13 00-0043	EA 2" Rock Bolt, 20' Super High-Tensile Anchor.....	1,551.14	
31 68 13 00-0044	Solid Rebar Anchors, ASTM A615 (31 68 13 00-0001)		
Note: Pricing includes only material and labor to install anchors. See CSI section 31 68 13 00-0091 for head assembly, 31 68 13 00-0118 for steel plates and washers, 31 68 13 00-0154 for drilling operation, 31 68 13 00-0176 for tools, 31 68 13 00-0198 for grouting, 31 68 13 00-0207 for rock bolt testing.			
31 68 13 00-0045	3/4" Diameter (31 68 13 00-0044)		
31 68 13 00-0046	EA 3/4" Rock Bolt, 5' Solid Rebar Anchor.....	139.83	
31 68 13 00-0047	EA 3/4" Rock Bolt, 10' Solid Rebar Anchor.....	178.93	
31 68 13 00-0048	EA 3/4" Rock Bolt, 15' Solid Rebar Anchor.....	195.50	
31 68 13 00-0049	EA 3/4" Rock Bolt, 20' Solid Rebar Anchor.....	257.10	
31 68 13 00-0050	1" Diameter (31 68 13 00-0044)		
31 68 13 00-0051	EA 1" Rock Bolt, 5' Solid Rebar Anchor.....	158.64	
31 68 13 00-0052	EA 1" Rock Bolt, 10' Solid Rebar Anchor.....	210.03	
31 68 13 00-0053	EA 1" Rock Bolt, 15' Solid Rebar Anchor.....	238.96	
31 68 13 00-0054	EA 1" Rock Bolt, 20' Solid Rebar Anchor.....	312.82	

31	31	Earthwork
	31 60	Special Foundations and Load-bearing Elements
	31 68	Foundation Anchors



MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
31 68 13 00-0055	1-1/4" Diameter (31 68 13 00-0044)			
31 68 13 00-0056	EA 1-1/4" Rock Bolt, 5' Solid Rebar Anchor		233.87	
31 68 13 00-0057	EA 1-1/4" Rock Bolt, 10' Solid Rebar Anchor		301.52	
31 68 13 00-0058	EA 1-1/4" Rock Bolt, 15' Solid Rebar Anchor		346.77	
31 68 13 00-0059	EA 1-1/4" Rock Bolt, 20' Solid Rebar Anchor		436.99	
31 68 13 00-0060	Resin Anchoring With Grade 60 Rebar (31 68 13 00-0001)			
Note: Pricing includes only material and labor to install anchors.. See CSI section 31 68 13 00-0081 for rebar collars, 31 68 13 00-0083 for resin cartridges, 31 68 13 00-0118 for steel plates and washers, 31 68 13 00-0154 for drilling operation, 31 68 13 00-0176 for tools, 31 68 13 00-0207 for rock bolt testing.				
31 68 13 00-0061	Rebar #6 (31 68 13 00-0060)			
31 68 13 00-0062	EA #6 Rebar Rock Anchor, 5' Resin Anchor With Grade 60 Rebar		73.80	
31 68 13 00-0063	EA #6 Rebar Rock Anchor, 10' Resin Anchor With Grade 60 Rebar		102.61	
31 68 13 00-0064	EA #6 Rebar Rock Anchor, 15' Resin Anchor With Grade 60 Rebar		108.91	
31 68 13 00-0065	EA #6 Rebar Rock Bolt, 20' Resin Anchor With Grade 60 Rebar		147.61	
31 68 13 00-0066	Rebar #8 (31 68 13 00-0060)			
31 68 13 00-0067	EA #8 Rebar Rock Bolt, 5' Resin Anchor With Grade 60 Rebar		78.71	
31 68 13 00-0068	EA #8 Rebar Rock Bolt, 10' Resin Anchor With Grade 60 Rebar		112.42	
31 68 13 00-0069	EA #8 Rebar Rock Bolt, 15' Resin Anchor With Grade 60 Rebar		123.62	
31 68 13 00-0070	EA #8 Rebar Rock Bolt, 20' Resin Anchor With Grade 60 Rebar		179.83	
31 68 13 00-0071	Rebar #10 (31 68 13 00-0060)			
31 68 13 00-0072	EA #10 Rebar Rock Bolt, 5' Resin Anchor With Grade 60 Rebar		85.71	
31 68 13 00-0073	EA #10 Rebar Rock Bolt, 10' Resin Anchor With Grade 60 Rebar		126.43	
31 68 13 00-0074	EA #10 Rebar Rock Bolt, 15' Resin Anchor With Grade 60 Rebar		144.64	
31 68 13 00-0075	EA #10 Rebar Rock Bolt, 20' Resin Anchor With Grade 60 Rebar		207.85	
31 68 13 00-0076	Rebar #14 (31 68 13 00-0060)			
31 68 13 00-0077	EA #14 Rebar Rock Bolt, 5' Resin Anchor With Grade 60 Rebar		102.53	
31 68 13 00-0078	EA #14 Rebar Rock Bolt, 10' Resin Anchor With Grade 60 Rebar		160.05	
31 68 13 00-0079	EA #14 Rebar Rock Bolt, 15' Resin Anchor With Grade 60 Rebar		195.08	
31 68 13 00-0080	EA #14 Rebar Rock Bolt, 20' Resin Anchor With Grade 60 Rebar		275.10	
31 68 13 00-0081	Plastic Rebar Collars, Sizes #6-#14 (31 68 13 00-0060)			
31 68 13 00-0082	EA Plastic Rebar Collars For Rebar #4 To #14		2.48	
31 68 13 00-0083	12" Long Resin Cartridges (31 68 13 00-0001)			
31 68 13 00-0084	EA 7/8" Resin Cartridge 12" Long		1.91	
31 68 13 00-0085	EA 1" Resin Cartridge 12" Long		2.62	
31 68 13 00-0086	EA 1-1/16" Resin Cartridge 12" Long		2.81	
31 68 13 00-0087	EA 1-1/4" Resin Cartridge 12" Long		3.03	
31 68 13 00-0088	EA 1-3/8" Resin Cartridge 12" Long		3.48	
31 68 13 00-0089	EA 1-9/16" Resin Cartridge 12" Long		4.36	
31 68 13 00-0090	EA 1-3/4" Resin Cartridge 12" Long		5.99	
31 68 13 00-0091	Head Assembly (31 68 13 00-0001)			
31 68 13 00-0092	3/4" Rod Diameter (31 68 13 00-0091)			
31 68 13 00-0093	EA 3/4" Rod Head Assembly 1-5/8" Short Cone and Shell		30.65	
31 68 13 00-0094	EA 3/4" Rod Head Assembly 1-3/4" Short Cone and Shell		25.81	
31 68 13 00-0095	EA 3/4" Rod Head Assembly 1-7/8" Short Cone and Shell		27.07	
31 68 13 00-0096	EA 3/4" Rod Head Assembly 1-3/4" Long Cone and Shell		48.61	
31 68 13 00-0097	EA 3/4" Rod Head Assembly 1-7/8" Long Cone and Shell		48.61	
31 68 13 00-0098	EA 3/4" Rod Head Assembly 1-3/4" Long Cone and Shell		46.06	
31 68 13 00-0099	1" Rod Diameter (31 68 13 00-0091)			
31 68 13 00-0100	EA 1" Rod Head Assembly 1-5/8" Short Cone and Shell		33.03	
31 68 13 00-0101	EA 1" Rod Head Assembly 1-3/4" Short Cone and Shell		28.27	
31 68 13 00-0102	EA 1" Rod Head Assembly 1-7/8" Short Cone and Shell		29.53	
31 68 13 00-0103	EA 1" Rod Head Assembly 1-3/4" Long Cone and Shell		51.14	
31 68 13 00-0104	EA 1" Rod Head Assembly 1-7/8" Long Cone and Shell		51.14	
31 68 13 00-0105	EA 1" Rod Head Assembly 1-3/4" Long Cone and Shell		48.76	
31 68 13 00-0106	1-1/4" Rod Diameter (31 68 13 00-0091)			
31 68 13 00-0107	EA 1-1/4" Rod Head Assembly 2" Short Cone and Shell		73.69	
31 68 13 00-0108	EA 1-1/4" Rod Head Assembly 2-1/4" Short Cone and Shell		86.09	
31 68 13 00-0109	EA 1-1/4" Rod Head Assembly 2-1/2" Short Cone and Shell		87.32	
31 68 13 00-0110	EA 1-1/4" Rod Head Assembly 2-1/4" Long Cone and Shell		77.44	



		Earthwork	31
		Special Foundations and Load-bearing Elements	31 60
		Foundation Anchors	31 68

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 68 13 00-0111 EA 1-1/4" Rod Head Assembly 2-1/2" Long Cone and Shell.....	90.29	
31 68 13 00-0112 1-7/8" Rod Diameter (31 68 13 00-0091)		
31 68 13 00-0113 EA 1-7/8" Rod Head Assembly 3-1/2" Long Cone/Shell/Fl.....	290.04	
31 68 13 00-0114 EA 1-7/8" Rod Head Assembly 3" Long Cone and Shell.....	199.96	
31 68 13 00-0115 2" Rod Diameter (31 68 13 00-0091)		
31 68 13 00-0116 EA 2" Rod Head Assembly 3-1/2" Long Cone/Shell/Fl.....	290.04	
31 68 13 00-0117 EA 2" Rod Head Assembly 3" Long Cone and Shell.....	199.96	
31 68 13 00-0118 Steel Plates With Standard Hole And Washers (31 68 13 00-0001)		
31 68 13 00-0119 Steel Plates (31 68 13 00-0118)		
31 68 13 00-0120 EA 1/4" x 4" x 4" Steel Plate For Rock Bolt With Washer.....	3.67	
31 68 13 00-0121 EA 1/4" x 6" x 6" Steel Plate For Rock Bolt With Washer.....	6.77	
31 68 13 00-0122 EA 3/8" x 6" x 6" Steel Plate For Rock Bolt With Washer.....	9.43	
31 68 13 00-0123 EA 3/8" x 8" x 8" Steel Plate For Rock Bolt With Washer.....	16.53	
31 68 13 00-0124 EA 1/2" x 5" x 5" Steel Plate For Rock Bolt With Washer.....	6.42	
31 68 13 00-0125 EA 1/2" x 8" x 8" Steel Plate For Rock Bolt With Washer.....	16.86	
31 68 13 00-0126 EA 3/4" x 7" x 7" Steel Plate For Rock Bolt With Washer.....	27.98	
31 68 13 00-0127 EA 3/4" x 8" x 8" Steel Plate For Rock Bolt With Washer.....	39.65	
31 68 13 00-0128 EA 1" x 4" x 7" Steel Plate For Rock Bolt With Washer.....	23.80	
31 68 13 00-0129 EA 1" x 9" x 9" Steel Plate For Rock Bolt With Washer.....	67.33	
31 68 13 00-0130 EA 1" x 12" x 12" Steel Plate For Rock Bolt With Washer.....	99.21	
31 68 13 00-0131 EA 1-1/4" x 5" x 8" Steel Plate For Rock Bolt With Washer.....	43.55	
31 68 13 00-0132 EA 1-1/4" x 11" x 11" Steel Plate For Rock Bolt With Washer.....	117.79	
31 68 13 00-0133 EA 1-1/2" x 5" x 10" Steel Plate For Rock Bolt With Washer.....	58.91	
31 68 13 00-0134 EA 1-1/2" x 12" x 12" Steel Plate For Rock Bolt With Washer.....	141.68	
31 68 13 00-0135 EA 1-3/4" x 5" x 10" Steel Plate For Rock Bolt With Washer.....	65.02	
31 68 13 00-0136 EA 1-3/4" x 12" x 12" Steel Plate For Rock Bolt With Washer.....	157.13	
31 68 13 00-0137 Hardened Washers (31 68 13 00-0118)		
31 68 13 00-0138 EA Hardened Washer For 3/4" Diameter Rock Bolt.....	1.02	
31 68 13 00-0139 EA Hardened Washer For 1" Diameter Rock Bolt.....	1.40	
31 68 13 00-0140 EA Hardened Washer For 1-1/4" Diameter Rock Bolt.....	3.92	
31 68 13 00-0141 EA Hardened Washer For 2" Diameter Rock Bolt.....	9.77	
31 68 13 00-0142 Beveled Washers (31 68 13 00-0118)		
31 68 13 00-0143 EA Beveled Washer For 3/4" Diameter Rock Bolt.....	2.56	
31 68 13 00-0144 EA Beveled Washer For 7/8" To 1-1/8" Diameter Rock Bolt.....	2.52	
31 68 13 00-0145 EA Beveled Wash For 1-1/4" To 1-3/8" Diameter Rock Bolt.....	3.82	
31 68 13 00-0146 EA Beveled Washer For 1-1/2" Diameter Rock Bolt.....	16.32	
31 68 13 00-0147 EA Beveled Washer For 2" Diameter Rock Bolt.....	11.28	
31 68 13 00-0148 Hex Nuts (31 68 13 00-0118)		
31 68 13 00-0149 EA Hex Nut For 3/4" Diameter Rock Bolt.....	2.00	
31 68 13 00-0150 EA Hex Nut For 1" Diameter Rock Bolt.....	3.26	
31 68 13 00-0151 EA Hex Nut For 1-1/4" Diameter Rock Bolt.....	13.34	
31 68 13 00-0152 EA Hex Nut For 1-1/2" Diameter Rock Bolt.....	8.41	
31 68 13 00-0153 EA Hex Nut For 2" Diameter Rock Bolt.....	53.62	
31 68 13 00-0154 Drilling Operation For Rockbolts (31 68 13)		
31 68 13 00-0155 Drill Holes For Rock Bolts (31 68 13 00-0154)		
31 68 13 00-0156 3/4" Diameter Bolt, 1-3/4" Hole (31 68 13 00-0155)		
31 68 13 00-0157 EA Drill 1-3/4" Diameter Hole x 5' Long For 3/4" Diameter Rock Bolts.....	199.11	
31 68 13 00-0158 EA Drill 1-3/4" Diameter Hole x 10' Long For 3/4" Diameter Rock Bolts.....	376.09	
31 68 13 00-0159 EA Drill 1-3/4" Diameter Hole x 15' Long For 3/4" Diameter Rock Bolts.....	564.14	
31 68 13 00-0160 EA Drill 1-3/4" Diameter Hole x 20' Long For 3/4" Diameter Rock Bolts.....	676.96	
31 68 13 00-0161 1" Diameter Bolt, 2" Hole (31 68 13 00-0155)		
31 68 13 00-0162 EA Drill 2" Diameter Hole x 5' Long For 1" Diameter Rock Bolt.....	260.38	
31 68 13 00-0163 EA Drill 2" Diameter Hole x 10' Long For 1" Diameter Rock Bolt.....	483.55	
31 68 13 00-0164 EA Drill 2" Diameter Hole x 15' Long For 1" Diameter Rock Bolt.....	676.96	
31 68 13 00-0165 EA Drill 2" Diameter Hole x 20' Long For 1" Diameter Rock Bolt.....	846.21	
31 68 13 00-0166 1-1/4" Diameter Bolt, 2-1/4" Hole (31 68 13 00-0155)		
31 68 13 00-0167 EA Drill 2-1/4" Diameter Hole x 5' Long For 1-1/4" Diameter Rock Bolt.....	282.07	
31 68 13 00-0168 EA Drill 2-1/4" Diameter Hole x 10' Long For 1-1/4" Diameter Rock Bolt.....	564.14	
31 68 13 00-0169 EA Drill 2-1/4" Diameter Hole x 15' Long For 1-1/4" Diameter Rock Bolt.....	846.21	

31	31	Earthwork
	31 60	Special Foundations and Load-bearing Elements
	31 68	Foundation Anchors



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
31 68 13 00-0170	EA	Drill 2-1/4" Diameter Hole x 20' Long For 1-1/4" Diameter Rock Bolt	1,128.27	
31 68 13 00-0171		2" Diameter Bolt, 3-1/2" Hole (31 68 13 00-0155)		
31 68 13 00-0172	EA	Drill 3-1/2" Diameter Hole x 5 Long For 2" Diameter Rock Bolt	338.48	
31 68 13 00-0173	EA	Drill 3-1/2" Diameter Hole x 10' Long For 2" Diameter Rock Bolt	676.96	
31 68 13 00-0174	EA	Drill 3-1/2" Diameter Hole x 15' Long For 2" Diameter Rock Bolts	1,128.27	
31 68 13 00-0175	EA	Drill 3-1/2" Diameter Hole x 20' Long For 2" Diameter Rock Bolt	1,692.42	
31 68 13 00-0176		Tools (31 68 13)		
31 68 13 00-0177		Hydraulic Jacks, Monthly Rental (31 68 13 00-0176)		
31 68 13 00-0178	EA	1/2" To 1", 30 Ton Hydraulic Jack For Rock Bolt, 2" Stroke	731.99	
31 68 13 00-0179	EA	1-1/8" To 1-3/8", 60 Ton Hydraulic Jack For Rock Bolt, 3" Stroke	1,078.73	
31 68 13 00-0180	EA	1-1/8" To 1-3/8", 60 Ton Hydraulic Jack For Rock Bolt, 10" Stroke	1,809.69	
31 68 13 00-0181	EA	1-7/8" To 2", 100 Ton Hydraulic Jack For Rock Bolt, 10" Stroke	2,709.33	
31 68 13 00-0182	EA	1-7/8" To 2", 150 Ton Hydraulic Jack For Rock Bolt, 12" Stroke	4,049.95	
31 68 13 00-0183		Torque Wrenches And Ratchet Adapter, Monthly Rental (31 68 13 00-0176)		
31 68 13 00-0184		0-500 Foot Pounds (0-678J) (31 68 13 00-0183)		
31 68 13 00-0185	EA	1/2" To 1" Bolt Diameter Torque Wrench 0 To 500 Foot Pounds, Monthly Rental	256.15	
31 68 13 00-0186	EA	Torque Wrench Ratchet Adapter Monthly Rental, 0 To 500 Foot Pounds	160.56	
31 68 13 00-0187	EA	Torque Wrench With Adapter 0 To 500 Foot Pounds, Monthly Rental	417.02	
31 68 13 00-0188		0-600 Foot Pounds (0-814J) (31 68 13 00-0183)		
31 68 13 00-0189	EA	0 To 600 Foot Pounds Torque Wrench Self-Ratcheting, Monthly Rental	290.82	
31 68 13 00-0190		Up To 1,000 Foot Pounds (0-1356J) (31 68 13 00-0183)		
31 68 13 00-0191	EA	1-1/8" To 2" Bolt Diameter Torque Wrench 0 To 1,000 Foot Pounds, Monthly Rental	558.53	
31 68 13 00-0192	EA	Torque Wrench Ratchet Adapter 0 To 1,000 Foot Pounds, Monthly Rental	137.76	
31 68 13 00-0193	EA	Torque Wrench With Ratchet 0 To 1,000 Foot Pounds, Monthly Rental	696.29	
31 68 13 00-0194		Torque Multiplier, 4:1 Multiplier (31 68 13 00-0176)		
31 68 13 00-0195	EA	Torque Multiplier, 4 To 1 Ratio	715.34	
31 68 13 00-0196		Pneumatic Drive Torque Wrench (31 68 13 00-0176)		
31 68 13 00-0197	EA	Pneumatic Drive Torque Wrench 250 To 900 Foot Pounds (339J - 1220J)	1,530.64	
31 68 13 00-0198		Grouting (31 68 13)		
31 68 13 00-0199		Grouting With Pumps (31 68 13 00-0198)		
		Note: Grout material and labor only.		
31 68 13 00-0200	GAL	Rock Bolt Grouting, Hand Pump 1 To 2 GPM Delivery	21.45	
31 68 13 00-0201	GAL	Rock Bolt Grouting, Air Pump 3 To 4 GPM Continuous Delivery	32.45	
31 68 13 00-0202	GAL	Rock Bolt Grout, Air/Piston Pump 2 To 4 GPM Delivery	30.09	
31 68 13 00-0203		Grout Pumps, Monthly Rental (31 68 13 00-0198)		
31 68 13 00-0204	EA	Hand Grout Pump, Monthly Rental	159.70	
31 68 13 00-0205	EA	Air Powered Programmable Feed Grout Pump Monthly Rental	1,343.43	
31 68 13 00-0206	EA	Air Powered, Piston Drive Grout Pump Monthly Rental	2,345.50	
31 68 13 00-0207		Rock Bolt Testing (31 68 13)		
31 68 13 00-0208	EA	Rock Bolt Test, Low To Medium Capacity LF >100 Bolts Need Testing	604.30	

END OF SECTION 31



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

32 Exterior Improvements

32 01 Operation and Maintenance of Exterior Improvements ⁽³²⁾

32 01 11 Paving Cleaning ^(32 01)

32 01 11 53 Paint Removal from Paving ^(32 01 11)

32 01 11 53-0001 Remove Painted Or Epoxy Pavement Markings ^(32 01 11 53)

Note: Includes stripe removal by grinding, vacuuming of removed striped area and containment of debris.

32 01 11 53-0002	LF	Removal Of 4" Wide Painted Or Epoxy Pavement Striping	2.41
		For Up To 250, Add	1.21
		For >250 To 1,000, Add	0.60
		For >5,000 To 10,000, Deduct	-0.36
		For >10,000 To 25,000, Deduct	-0.60
		For >25,000 To 50,000, Deduct	-0.84
		For >50,000, Deduct	-0.96
32 01 11 53-0003	LF	Removal Of 6" Wide Painted Or Epoxy Pavement Striping	2.90
		For Up To 250, Add	1.45
		For >250 To 1,000, Add	0.73
		For >5,000 To 10,000, Deduct	-0.44
		For >10,000 To 25,000, Deduct	-0.73
		For >25,000 To 50,000, Deduct	-1.02
		For >50,000, Deduct	-1.16
32 01 11 53-0004	LF	Removal Of 8" Wide Painted Or Epoxy Pavement Striping	3.47
		For Up To 250, Add	1.74
		For >250 To 1,000, Add	0.87
		For >5,000 To 10,000, Deduct	-0.52
		For >10,000 To 25,000, Deduct	-0.87
		For >25,000 To 50,000, Deduct	-1.21
		For >50,000, Deduct	-1.39
32 01 11 53-0005	LF	Removal Of 12" Wide Painted Or Epoxy Pavement Striping	4.16
		For Up To 250, Add	2.08
		For >250 To 1,000, Add	1.04
		For >5,000 To 10,000, Deduct	-0.62
		For >10,000 To 25,000, Deduct	-1.04
		For >25,000 To 50,000, Deduct	-1.46
		For >50,000, Deduct	-1.66
32 01 11 53-0006	LF	Remove Paint From Curb	7.45
32 01 11 53-0007	SF	Removal Of Painted Or Epoxy Pavement Marking, Letters Or Symbols	4.16
		For Up To 250, Add	2.08
		For >250 To 1,000, Add	1.04
		For >5,000 To 10,000, Deduct	-0.62
		For >10,000 To 25,000, Deduct	-1.04
		For >25,000 To 50,000, Deduct	-1.46
		For >50,000, Deduct	-1.66
32 01 11 53-0008	LF	Removal Of 4" Wide Thermoplastic Pavement Striping	3.10
		For Up To 250, Add	1.55
		For >250 To 1,000, Add	0.78
		For >5,000 To 10,000, Deduct	-0.47
		For >10,000 To 25,000, Deduct	-0.78
		For >25,000 To 50,000, Deduct	-1.09
		For >50,000, Deduct	-1.24
32 01 11 53-0009	LF	Removal Of 6" Wide Thermoplastic Pavement Striping	3.67
		For Up To 250, Add	1.84
		For >250 To 1,000, Add	0.92
		For >5,000 To 10,000, Deduct	-0.55
		For >10,000 To 25,000, Deduct	-0.92
		For >25,000 To 50,000, Deduct	-1.28
		For >50,000, Deduct	-1.47
32 01 11 53-0010	LF	Removal Of 8" Wide Thermoplastic Pavement Striping	4.42
		For Up To 250, Add	2.21
		For >250 To 1,000, Add	1.11
		For >5,000 To 10,000, Deduct	-0.66
		For >10,000 To 25,000, Deduct	-1.11
		For >25,000 To 50,000, Deduct	-1.55
		For >50,000, Deduct	-1.77
32 01 11 53-0011	LF	Removal Of 12" Wide Thermoplastic Pavement Striping	5.29
		For Up To 250, Add	2.65
		For >250 To 1,000, Add	1.32
		For >5,000 To 10,000, Deduct	-0.79
		For >10,000 To 25,000, Deduct	-1.32
		For >25,000 To 50,000, Deduct	-1.85
		For >50,000, Deduct	-2.12
32 01 11 53-0012	SF	Removal Of Thermoplastic Pavement Marking, Letters Or Symbols	5.29
		For Up To 250, Add	2.65
		For >250 To 1,000, Add	1.32
		For >5,000 To 10,000, Deduct	-0.79
		For >10,000 To 25,000, Deduct	-1.32
		For >25,000 To 50,000, Deduct	-1.85
		For >50,000, Deduct	-2.12

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 13 Flexible Paving Surface Treatment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 01 13 Flexible Paving Surface Treatment (32 01)**32 01 13 61 Slurry Seal (Latex Modified)** (32 01 13)**32 01 13 61-0001 Asphalt Seal Coating, For Roads And Parking Lot** (32 01 13 61)

Note: Includes sweeping and cleaning of area.

32 01 13 61-0002	EA	Asphalt Seal Coating Minimum Charge	826.17	
		Note: For projects where the total charges are less than the minimum set-up charge, use this task exclusively.		
		This task should not be used in conjunction with any other tasks in this section.		
32 01 13 61-0003	SY	Up To 500 SY, Type O Asphalt Seal Coating, No Aggregate, Per Coat	3.22	
32 01 13 61-0004	SY	>500 To 1,000 SY, Type O Asphalt Seal Coating, No Aggregate, Per Coat	2.97	
32 01 13 61-0005	SY	>1,000 SY, Type O Asphalt Seal Coating, No Aggregate, Per Coat	2.77	
32 01 13 61-0006	SY	Up To 500 SY, Type I Slurry Seal Asphalt Coating, Per Coat	3.29	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.31	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.37	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.47	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0007	SY	>500 To 1,000 SY, Type I Slurry Seal Asphalt Coating, Per Coat	3.09	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.30	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.36	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.46	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0008	SY	>1,000 To 5,000 SY, Type I Slurry Seal Asphalt Coating, Per Coat	2.93	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.29	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.35	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.45	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0009	SY	>5,000 To 20,000 SY, Type I Slurry Seal Asphalt Coating, Per Coat	2.79	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.28	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.34	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.44	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0010	SY	>20,000 To 50,000 SY, Type I Slurry Seal Asphalt Coating, Per Coat	2.79	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.28	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.34	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.44	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0011	SY	>50,000 SY, Type I Slurry Seal Asphalt Coating, Per Coat	2.53	
		Note: 1/8" thick.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.27	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.33	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.43	
		For Each 0.5% Of Latex Addition, Add	0.29	
32 01 13 61-0012	SY	Up To 500 SY, Type II Slurry Seal Asphalt Coating, Per Coat	4.44	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.33	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.39	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.49	
		For Each 0.5% Of Latex Addition, Add	0.43	
32 01 13 61-0013	SY	>500 To 1,000 SY, Type II Slurry Seal Asphalt Coating, Per Coat	4.13	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.32	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.38	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.48	
		For Each 0.5% Of Latex Addition, Add	0.43	
32 01 13 61-0014	SY	>1,000 To 5,000 SY, Type II Slurry Seal Asphalt Coating, Per Coat	3.88	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.30	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.36	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.46	
		For Each 0.5% Of Latex Addition, Add	0.43	
32 01 13 61-0015	SY	>5,000 To 20,000 SY, Type II Slurry Seal Asphalt Coating, Per Coat	3.66	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.29	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.35	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.45	
		For Each 0.5% Of Latex Addition, Add	0.43	
32 01 13 61-0016	SY	>20,000 To 50,000 SY, Type II Slurry Seal Asphalt Coating, Per Coat	3.45	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.28	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.34	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.44	
		For Each 0.5% Of Latex Addition, Add	0.43	
32 01 13 61-0017	SY	>50,000 SY, Type II Slurry Seal Asphalt Coating, Per Coat	3.27	
		Note: 1/4" thick, 14 to 18 Lbs/SY.		
		For Tire Rubber Modified Slurry Seal (TRMSS), Add	0.27	
		For Rubberized Emulsion Aggregate Slurry (REAS), Add	0.33	
		For Rubberized Polymer Modified Emulsion (RPME), Add	0.43	
		For Each 0.5% Of Latex Addition, Add	0.43	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 01 13 61-0018	SY		Up To 500 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	5.57 0.34 0.40 0.50 0.69	
32 01 13 61-0019	SY		>500 To 1,000 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	5.23 0.33 0.39 0.49 0.69	
32 01 13 61-0020	SY		>1,000 To 5,000 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	4.97 0.31 0.37 0.47 0.69	
32 01 13 61-0021	SY		>5,000 To 20,000 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	4.74 0.30 0.36 0.46 0.69	
32 01 13 61-0022	SY		>20,000 To 50,000 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	4.51 0.29 0.35 0.45 0.69	
32 01 13 61-0023	SY		>50,000 SY, Type III Slurry Seal Asphalt Coating, Per Coat Note: 3/8" thick, 25 to 30 Lbs/SY. For Tire Rubber Modified Slurry Seal (TRMSS), Add For Rubberized Emulsion Aggregate Slurry (REAS), Add For Rubberized Polymer Modified Emulsion (RPME), Add For Each 0.5% Of Latex Addition, Add	4.31 0.28 0.34 0.44 0.69	

32 01 13 62 Asphalt Surface Treatment (32 01 13)

32 01 13 62-0001		Polymer-Modified, Microsurfacing Emulsion (MSE Microsurfacing) (32 01 13 62) Note: Use a blend of emulsified quick-set polymer-modified emulsion asphalt and latex-based polymer. Includes sweeping and cleaning of area.	
32 01 13 62-0002	SY	Up To 200 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	10.00
32 01 13 62-0003	SY	Up To 500 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	9.48
32 01 13 62-0004	SY	>500 To 1,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	9.02
32 01 13 62-0005	SY	>1,000 To 5,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	8.64
32 01 13 62-0006	SY	>5,000 To 10,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	8.29
32 01 13 62-0007	SY	>10,000 To 20,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	7.98
32 01 13 62-0008	SY	>20,000 To 50,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	7.76
32 01 13 62-0009	SY	>50,000 SY, 3/8" Polymer-Modified Microsurfacing Emulsion (MSE).....	7.64

32 01 16 Flexible Paving Rehabilitation (32 01)

32 01 16 71 Cold Milling Asphalt Pavement (32 01 16)

32 01 16 71-0001		Removal Of Asphalt Surface Course (32 01 16 71) Note: Includes direct loading into truck.	
32 01 16 71-0002		Production Cold Milling Of Roads And Parking Areas (32 01 16 71-0001) Note: For removal of entire lanes of roads or parking areas. Includes work around man holes, scuppers, drainage structures, catch basins, etc. Includes sweeping and loading into truck. See CSI section 01 74 19 00-0048 for hauling.	
32 01 16 71-0003	SY	Up To 3" Depth, Production Cold Milling Of Asphalt..... For Up To 2,500, Add For >2,500 To 5,000, Add For >10,000 To 25,000, Deduct For >25,000, Deduct	4.76 3.57 1.19 -0.48 -0.71
32 01 16 71-0004	SY	>3" To 6" Depth, Production Cold Milling Of Asphalt..... For Up To 2,500, Add For >2,500 To 5,000, Add For >10,000 To 25,000, Deduct For >25,000, Deduct	6.35 4.76 1.59 -0.64 -0.95
32 01 16 71-0005	SY	>6" To 12" Depth, Production Cold Milling Of Asphalt..... For Up To 2,500, Add For >2,500 To 5,000, Add For >10,000 To 25,000, Deduct For >25,000, Deduct	8.44 6.33 2.11 -0.84 -1.27

32 01 16 71-0006		Limited Production Cold Milling (32 01 16 71-0001) Note: For cross sections of roadways, trenching, partial shoulders, and other small or narrow areas. Includes work around man holes, scuppers, drainage structures, catch basins, etc. Includes sweeping and loading into truck. See CSI section 01 74 19 00-0048 for hauling.	

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 16 Flexible Paving Rehabilitation**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 01 16 71-0007 SY Up To 3" Depth, Limited Cold Milling Of Asphalt..... <i>For >100 To 1,000, Deduct</i>	30.10 -15.05 -22.58	
32 01 16 71-0008 SY >3" To 6" Depth, Limited Cold Milling Of Asphalt..... <i>For >100 To 1,000, Deduct</i>	39.84 -19.92 -29.88	
32 01 16 71-0009 SY >6" To 12" Depth, Limited Cold Milling Of Asphalt..... <i>For >100 To 1,000, Deduct</i>	53.07 -26.54 -39.80	
32 01 16 71-0010 Grind, Leave In-Place Asphalt Grindings (32 01 16 71) Note: For use as subbase material, includes spreading and rolling.		
32 01 16 71-0011 SY Grind, Leave In-Place As Subbase Course, 6-9" Depth	8.06	
32 01 16 71-0012 Wedge Grinding Cold Milling (32 01 16 71) Note: Includes work around man holes, scuppers, drainage structures, catch basins, etc. Includes water truck. Excludes mobilization, sweeping and cleaning and hauling and disposal. See CSI section 01 74 16 00-0001 for sweeping and cleaning .		
32 01 16 71-0013 LF 5' Wedge Gringing/Cold Milling Of Asphalt Up To 3" Depth.....	8.36	
32 01 16 71-0014 LF 10' Wedge Gringing/Cold Milling Of Asphalt Up To 3" Depth.....	16.72	
32 01 16 71-0015 Cutback Ramp (32 01 16 71)		
32 01 16 71-0016 LF 1" Differential, 5' Length, Cutback Ramp	13.59	
32 01 16 71-0017 LF 1-1/2" Differential, 5' Length, Cutback Ramp	16.55	
32 01 16 71-0018 LF 2" Differential, 5' Length, Cutback Ramp	19.27	
32 01 16 73 In Place Cold Reused Asphalt Paving (32 01 16)		
32 01 16 73-0001 Cold-In-Place-Partial Depth Recycling Process With Foam Asphalt (32 01 16 73) Note: Includes milling between 3"-6" of existing AC surface, computerized metered injection of liquid asphalt, cement, and water mix together as binder with milled material, spread and place with paver, follow by vibratory steel drum roller, Cat CB534D or equivalent, then follow by rubber tired roller, Hypac C560A or equivalent. The Contractor will provide all the necessary engineering, preconstruction soil analysis, stamped mix design, in-place compaction testing of recycled material and any other QC/QA during construction. The recycled material (from milled surface mixed with liquid asphalt, cement, and water) shall meet Class II AB (3/4" max.) gradation and shall compact at 96% relative compaction or higher. The Contractor's process shall be capable of producing between 450-500 tons per hour of recycled, in-place material. The Contractor shall warranty their work for a period of two years. Excludes traffic control, grading, utilities adjustment and wearing course of either Chip Seal or HMA overlay of the finished surface.		
32 01 16 73-0002 SF Up To 30,000 SF Cold In Place Recycling Process With Foam Asphalt.....	4.44	
32 01 16 73-0003 SF >30,000 To 42,000 SF Cold In Place Recycling Process With Foam Asphalt	4.12	
32 01 16 73-0004 SF >42,000 To 71,000 SF Cold In Place Recycling Process With Foam Asphalt	3.42	
32 01 16 73-0005 SF >71,000 To 130,000 SF Cold In Place Recycling Process With Foam Asphalt	2.87	
32 01 16 73-0006 SF >130,000 To 250,000 SF Cold In Place Recycling Process With Foam Asphalt	2.54	
32 01 16 73-0007 SF >250,000 To 500,000 SF Cold In Place Recycling Process With Foam Asphalt	2.30	
32 01 16 73-0008 SF >500,000 SF Cold In Place Recycling Process With Foam Asphalt	2.16	
32 01 16 73-0009 Cold-In-Place-Full Depth Reclamation With Foam Asphalt (FDR-FA) (32 01 16 73) Note: Includes milling Up To 12" of existing AC surface. Excludes traffic control, grading, utilities adjustment and wearing course of either Chip Seal or HMA overlay of the finished surface.		
32 01 16 73-0010 SF Up To 30,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	5.39	
32 01 16 73-0011 SF >30,000 To 42,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	5.04	
32 01 16 73-0012 SF >42,000 To 71,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	4.26	
32 01 16 73-0013 SF >71,000 To 130,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	3.65	
32 01 16 73-0014 SF >130,000 To 250,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	3.28	
32 01 16 73-0015 SF >250,000 To 500,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	3.04	
32 01 16 73-0016 SF >500,000 SF Cold In Place Full Depth Reclamation With Foam Asphalt (FDR-FA)	2.88	
32 01 16 73-0017 Cold-In-Place-Full Depth Reclamation Process With Cement (FDR-C) (32 01 16 73) Note: Includes milling Up To 12" of existing AC surface. Excludes traffic control, grading, utilities adjustment and wearing course of either Chip Seal or HMA overlay of the finished surface.		
32 01 16 73-0018 SF Up To 30,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	5.16 1.74	
32 01 16 73-0019 SF >42,000 To 71,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	4.03 1.40	
32 01 16 73-0020 SF >71,000 To 130,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	3.42 1.21	
32 01 16 73-0021 SF >130,000 To 250,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	3.05 1.10	
32 01 16 73-0022 SF >250,000 To 500,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	2.81 1.03	
32 01 16 73-0023 SF >500,000 SF Cold In Place Full Depth Reclamation With Cement (FDR-C)..... <i>For >12" To 18" Depth, Add</i>	2.65 0.98	
32 01 16 73-0024 Supplemental Aggregate (32 01 16 73)		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 01 16 73-0025	TON		Supplemental Aggregate	67.44	
32 01 16 73-0026			Cold-In-Place Recycling (CALTRAN) ^(32 01 16 73)		
32 01 16 73-0027	TON		Sand Cover (CIPR)	58.00	
			For >500 To 1,000, Deduct	-1.45	
			For >1,000 To 2,500, Deduct	-2.90	
			For >2,500 To 5,000, Deduct	-4.06	
			For >5,000, Deduct	-5.22	
32 01 16 73-0028	SY		Cold In Place Recycling (CIPR)	6.50	
			For >10,000 To 25,000, Deduct	-0.65	
			For >25,000, Deduct	-0.98	
32 01 16 73-0029	TON		Cement (CIPR)	135.00	
			For >500 To 1,000, Deduct	-3.38	
			For >1,000 To 2,500, Deduct	-6.75	
			For >2,500 To 5,000, Deduct	-9.45	
			For >5,000, Deduct	-12.15	
32 01 16 73-0030	TON		Emulsified Recycling Agent (CIPR)	610.00	
			For >500 To 1,000, Deduct	-15.25	
			For >1,000 To 2,500, Deduct	-30.50	
			For >2,500 To 5,000, Deduct	-42.70	
			For >5,000, Deduct	-54.90	
32 01 16 73-0031	TON		Asphaltic Emulsion (CIPR)	610.00	
			For >500 To 1,000, Deduct	-15.25	
			For >1,000 To 2,500, Deduct	-30.50	
			For >2,500 To 5,000, Deduct	-42.70	
			For >5,000, Deduct	-54.90	
32 01 16 74			In Place Hot Reused Asphalt Paving ^(32 01 16)		
32 01 16 74-0001			Rejuvenate, Respread Asphalt Pavement ^(32 01 16 74)		
			Note: Includes direct loading into truck.		
32 01 16 74-0002	SY		Removal, Rejuvenation, And Respreading Of Asphalt Grindings To 1/2" Deep	10.84	
32 01 16 74-0003	SY		Removal, Rejuvenation, And Respreading Of Asphalt Grindings To 1/2" Deep, Previously Sealed Cold Tar	12.57	
32 01 16 74-0004	TON		Removal, Rejuvenation, And Respreading Of Asphalt Grindings	202.65	
32 01 16 74-0005			Reclamation, Pulverize And Blending With Existing ^(32 01 16 74)		
			Note: Includes direct loading into truck.		
32 01 16 74-0006	SY		Up To 2" Thick Pavement, Up To 1,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	16.21	
32 01 16 74-0007	SY		Up To 2" Thick Pavement, >1,000 To 5,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	8.10	
32 01 16 74-0008	SY		Up To 2" Thick Pavement, >5,000 To 15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.06	
32 01 16 74-0009	SY		Up To 2" Thick Pavement, >15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	3.84	
32 01 16 74-0010	SY		>2" To 3" Thick Pavement, >5,000 To 15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.42	
32 01 16 74-0011	SY		>2" To 3" Thick Pavement, Up To 1,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	17.68	
32 01 16 74-0012	SY		>2" To 3" Thick Pavement, >1,000 To 5,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	8.85	
32 01 16 74-0013	SY		>2" To 3" Thick Pavement, >15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.17	
32 01 16 74-0014	SY		>3" To 4" Thick Pavement, Up To 1,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	19.46	
32 01 16 74-0015	SY		>3" To 4" Thick Pavement, >1,000 To 5,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	9.73	
32 01 16 74-0016	SY		>3" To 4" Thick Pavement, >5,000 To 15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.86	
32 01 16 74-0017	SY		>3" To 4" Thick Pavement, >15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.49	
32 01 16 74-0018	SY		>4" To 8" Thick Pavement, Up To 1,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	21.22	
32 01 16 74-0019	SY		>4" To 8" Thick Pavement, >1,000 To 5,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	10.61	
32 01 16 74-0020	SY		>4" To 8" Thick Pavement, >5,000 To 15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	5.30	
32 01 16 74-0021	SY		>4" To 8" Thick Pavement, >15,000 SY, Reclamation, Pulverizing And Blending With Existing Base; Aggregate Base	4.94	
32 01 16 74-0022	EA		Mobilization And Demobilization For Reclamation, Pulverizing And Blending Crew	1,823.71	
32 01 17			Flexible Paving Repair ^(32 01)		
			See CSI section 32 12 16 00-0000 for large area resurfacing.		
32 01 17 61			Sealing Cracks in Asphalt Paving ^(32 01 17)		
			Note: Includes removing loose materials and cleaning.		
32 01 17 61-0001			Hot-Applied, Pourable, Self-Adhesive Asphalt Binder Compounded With Standard Weight Aggregate Longitudinal Crack And Sealing Repair ^(32 01 17 61)		
			Note: Includes removing loose materials and cleaning.		

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 17 Flexible Paving Repair**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 01 17 61-0002	LF	Up To 200 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	1.86	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.54	
		For 1" x 1/2" Fill, Add	1.02	
		For Backer Rod, Add	1.14	
32 01 17 61-0003	LF	>200 To 500 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	1.52	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.45	
		For 1" x 1/2" Fill, Add	0.85	
		For Backer Rod, Add	1.03	
32 01 17 61-0004	LF	>500 To 2,000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	1.21	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.36	
		For 1" x 1/2" Fill, Add	0.69	
		For Backer Rod, Add	0.92	
32 01 17 61-0005	LF	>2,000 To 5,000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	1.05	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.32	
		For 1" x 1/2" Fill, Add	0.61	
		For Backer Rod, Add	0.86	
32 01 17 61-0006	LF	>5,000 To 10,000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	0.93	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.28	
		For 1" x 1/2" Fill, Add	0.54	
		For Backer Rod, Add	0.81	
32 01 17 61-0007	LF	>10,000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	0.85	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
		For 3/4" x 1/2" Fill, Add	0.26	
		For 1" x 1/2" Fill, Add	0.49	
		For Backer Rod, Add	0.77	
32 01 17 61-0008	LF	Up To 200 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	3.44	
		For 3/8" x 1/4" Fill, Add	0.80	
		For 1/2" x 1/4" Fill, Add	1.47	
		For 1/2" x 1/2" Fill, Add	3.48	
32 01 17 61-0009	LF	>200 To 500 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	2.77	
		For 3/8" x 1/4" Fill, Add	0.66	
		For 1/2" x 1/4" Fill, Add	1.21	
		For 1/2" x 1/2" Fill, Add	2.90	
32 01 17 61-0010	LF	>500 To 2,000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	2.15	
		For 3/8" x 1/4" Fill, Add	0.52	
		For 1/2" x 1/4" Fill, Add	0.97	
		For 1/2" x 1/2" Fill, Add	2.34	
32 01 17 61-0011	LF	>2,000 To 5,000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.89	
		For 3/8" x 1/4" Fill, Add	0.46	
		For 1/2" x 1/4" Fill, Add	0.86	
		For 1/2" x 1/2" Fill, Add	2.08	
32 01 17 61-0012	LF	>5,000 To 10,000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.70	
		For 3/8" x 1/4" Fill, Add	0.41	
		For 1/2" x 1/4" Fill, Add	0.76	
		For 1/2" x 1/2" Fill, Add	1.85	
32 01 17 61-0013	LF	>10,000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.57	
		For 3/8" x 1/4" Fill, Add	0.38	
		For 1/2" x 1/4" Fill, Add	0.69	
		For 1/2" x 1/2" Fill, Add	1.67	
32 01 17 61-0014	LF	For Routing And Cleaning Of Crack, Add Per 1/2" Depth.....	0.57	
32 01 17 61-0015	LF	Crack Fill Backer Material, Up To 1" Diameter, As Required.....	1.88	

32 01 17 63 Flexible Pavement Repair (32 01 17)

32 01 17 63-0001		Temporary Pot Hole Repair (32 01 17 63)		
		Note: Includes removal of loose material and moisture, bonding agent, compaction, safety cones and hauling up to 15 miles. Excludes signage, barricades, flagmen, field survey or marking. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.		
32 01 17 63-0002	EA	Temporary Pot Hole Repairs With Cold Mix Modified, Up To 3 Tons.....	1,678.91	
32 01 17 63-0003	TON	Temporary Pot Hole Repairs With Cold Mix Modified.....	503.21	
		Note: Use for each ton over 3 tons.		
32 01 17 63-0004	EA	Temporary Pot Hole Repairs With Cold Mix, Up To 3 Tons.....	1,620.27	
32 01 17 63-0005	TON	Temporary Pot Hole Repairs With Cold Mix.....	483.66	
		Note: Use for each ton over 3 tons.		
32 01 17 63-0006	EA	Temporary Pot Hole Repairs With Hot Mix Modified, Up To 3 Tons.....	1,590.95	
32 01 17 63-0007	TON	Temporary Pot Hole Repairs With Hot Mix Modified.....	473.89	
		Note: Use for each ton over 3 tons.		
32 01 17 63-0008	EA	Temporary Pot Hole Repairs With Hot Mix, Up To 3 Tons.....	1,561.63	
32 01 17 63-0009	TON	Temporary Pot Hole Repairs With Hot Mix.....	464.12	
		Note: Use for each ton over 3 tons.		

32 01 17 63-0010 Permanent Pot Hole Repair (32 01 17 63)

		Note: Includes removal of loose material and moisture, saw cutting, chipping, squaring off, bonding agent, compaction and hauling up to 15 miles Tasks do not include signage, barricades, flagmen, field survey or marking. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.		
32 01 17 63-0011	EA	Permanent Pot Hole Repairs With Cold Mix, Up To 3 Tons.....	1,825.06	
32 01 17 63-0012	TON	Permanent Pot Hole Repairs With Cold Mix.....	592.19	
		Note: Use for each ton over 3 tons.		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 01 17 63-0013 EA Permanent Pot Hole Repairs With Hot Mix Modified, Up To 3 Tons.....	1,795.74	
32 01 17 63-0014 TON Permanent Pot Hole Repairs With Hot Mix Modified Note: Use for each ton over 3 tons.	582.42	
32 01 17 63-0015 EA Permanent Pot Hole Repairs With Hot Mix, Up To 3 Tons	1,766.42	
32 01 17 63-0016 TON Permanent Pot Hole Repairs With Hot Mix Note: Use for each ton over 3 tons.	572.65	
32 01 17 63-0017 Asphalt Placement For Small Repairs (32 01 17 63) Note: This section is used for placing up to 100 tons of asphalt after a small area of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc. Includes mobilization of paving equipment such as a roller, placing the asphalt, compaction and hauling up to 15 miles. Excludes saw cutting, demolition of existing pavement, and new subbase material. Use approximately 0.055 tons per square yard per inch of depth. See CSI section 02 41 19 13-0059 for saw cutting, 32 12 16 13-0000 for areas requiring more than 100 tons.		
32 01 17 63-0018 EA Asphalt Placement For Small Repair Areas, Cold Mix Modified, Up To 3 Tons..... Note: For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	2,415.09	
32 01 17 63-0019 TON Asphalt Placement For Small Repair Areas, Cold Mix Modified Note: For each ton over 3 to 100 tons. For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	304.96	
32 01 17 63-0020 EA Asphalt Placement For Small Repair Areas, Cold Mix, Up To 3 Tons..... Note: For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	2,356.45	
32 01 17 63-0021 TON Asphalt Placement For Small Repair Areas, Cold Mix..... Note: For each ton over 3 to 100 tons. For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	285.41	
32 01 17 63-0022 EA Asphalt Placement For Small Repair Areas, Hot Mix Modified, Up To 3 Tons Note: For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	2,327.13	
32 01 17 63-0023 TON Asphalt Placement For Small Repair Areas, Hot Mix Modified..... Note: For each ton over 3 to 100 tons. For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	275.64	
32 01 17 63-0024 EA Asphalt Placement For Small Repair Areas, Hot Mix, Up To 3 Tons..... Note: For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	2,297.81	
32 01 17 63-0025 TON Asphalt Placement For Small Repair Areas, Hot Mix..... Note: For each ton over 3 to 100 tons. For small areas of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc.	265.87	
32 01 17 63-0026 Grind Asphalt (32 01 17 63)		
32 01 17 63-0027 SY Grinding Asphalt To Level Bump Or Raised Area.....	24.24	
32 01 26 Rigid Paving Rehabilitation (32 01)		
32 01 26 71 Grooving of Concrete Paving (32 01 26)		
32 01 26 71-0001 Roadway Grooving (32 01 26 71)		
32 01 26 71-0002 EA First 500 SY Of Pavement Grooving, Concrete, Longitudinal.....	4,158.06	
32 01 26 71-0003 SY Each SY Over First 500 SY Of Pavement Grooving, Concrete, Longitudinal	3.85	
32 01 26 71-0004 EA First 500 SY Of Pavement Grooving, Concrete, Traverse.....	4,632.23	
32 01 26 71-0005 SY Each SY Over First 500 SY Of Pavement Grooving, Concrete, Traverse	5.02	
32 01 26 71-0006 Rumble Strips (32 01 26 71)		
32 01 26 71-0007 EA First 5280 LF Of MIARDS, Rumble Strips, Asphalt.....	4,877.01	
32 01 26 71-0008 LF Each LF Over First 5280 LF Of MIARDS, Rumble Strips, Asphalt.....	0.88	
32 01 26 71-0009 EA First 2000 LF Of MIARDS, Rumble Strips, Concrete.....	5,434.97	
32 01 26 71-0010 LF Each LF Over First 2000 LF Of MIARDS, Rumble Strips, Concrete.....	1.00	
32 01 26 73 Milling Of Concrete Paving (32 01 26)		
32 01 26 73-0001 Removal Of Concrete (32 01 26 73) Note: Includes direct loading into truck.		
32 01 26 73-0002 Production Milling Of Roads And Parking Areas (32 01 26 73-0001) Note: For removal of entire lanes of roads or parking areas. Includes work around man holes, scuppers, drainage structures, catch basins, etc. Includes sweeping and loading into truck. See CSI section 01 74 19 00-0048 for hauling.		
32 01 26 73-0003 SY Production Milling Of Concrete Per Inch.....	7.21	
32 01 26 73-0004 Limited Production Milling (32 01 26 73-0001) Note: For cross sections of roadways, trenching, partial shoulders, and other small or narrow areas. Includes work around man holes, scuppers, drainage structures, catch basins, etc. Includes sweeping and loading into truck. See CSI section 01 74 19 00-0048 for hauling.		
32 01 26 73-0005 SY Limited Production Milling Of Concrete Per Inch	45.23	

32 01 29 Rigid Paving Repair (32 01)

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 29 Rigid Paving Repair**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 01 29 61 Partial Depth Patching of Rigid Paving (32 01 29)**32 01 29 61-0001 Hot Applied Flexible Concrete Repair (32 01 29 61)**

Note: Excludes saw cutting (where required), flagmen.

32 01 29 61-0002	EA	Hot Applied Flexible Concrete Repair Minimum Charge.....	1,273.74
		Note: For projects where the total Hot Applied Flexible Concrete Repair In Asphaltcharge is less than the minimum charge, use task "Minimum Charge For Hot Applied Flexible Concrete Repair" exclusively. Task "Minimum Charge For Hot Applied Flexible Concrete Repair" should not be used in conjunction with any other tasks in this section.	
32 01 29 61-0003	SF	Up To 2" Depth, Hot Applied Flexible Concrete Repair	69.73
		For >25 SF Quantity, Deduct	-6.97
32 01 29 61-0004	SF	>2" To 4" Depth, Hot Applied Flexible Concrete Repair	130.78
		For >25 SF Quantity, Deduct	-13.08
32 01 29 61-0005	SF	>4" To 6" Depth, Hot Applied Flexible Concrete Repair	191.26
		For >25 SF Quantity, Deduct	-19.13
32 01 29 61-0006	SF	>6" To 8" Depth, Hot Applied Flexible Concrete Repair	251.73
		For >25 SF Quantity, Deduct	-25.17
32 01 29 61-0007	SF	>8" To 10" Depth, Hot Applied Flexible Concrete Repair	312.21
		For >25 SF Quantity, Deduct	-31.22
32 01 29 61-0008	CF	>10" Depth, Hot Applied Flexible Concrete Repair	372.11

32 01 29 61-0009 Cold Applied Flexible Concrete Repair (32 01 29 61)

32 01 29 61-0010	SF	1/8" To 1/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with water)	6.93
32 01 29 61-0011	SF	1/4" To 1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with water)	9.95
32 01 29 61-0012	SF	1/2" To 3/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with water)	13.06
32 01 29 61-0013	SF	3/4" To 1" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with water)	16.30
32 01 29 61-0014	SF	1" To 1-1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with water)	23.23
32 01 29 61-0015	SF	1/8" To 1/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with SikaLatex R)	7.02
32 01 29 61-0016	SF	1/4" To 1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with SikaLatex R)	10.03
32 01 29 61-0017	SF	1/2" To 3/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with SikaLatex R)	13.15
32 01 29 61-0018	SF	3/4" To 1" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with SikaLatex R)	16.39
32 01 29 61-0019	SF	1" To 1-1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with SikaLatex R)	23.32
32 01 29 61-0020	SF	1/8" To 1/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with diluted SikaLatex R)	6.98
32 01 29 61-0021	SF	1/4" To 1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with diluted SikaLatex R)	9.99
32 01 29 61-0022	SF	1/2" To 3/4" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with diluted SikaLatex R)	13.10
32 01 29 61-0023	SF	3/4" To 1" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with diluted SikaLatex R)	16.35
32 01 29 61-0024	SF	1" To 1-1/2" Thick, Portland Cement Concrete Patching (SikaRepair-223 mixed with diluted SikaLatex R)	23.27

32 01 90 Operation and Maintenance of Planting (32 01)

Note: These tasks are to be used as requested by the owner to maintain existing conditions.

32 01 90 13 Fertilizing (32 01 90)

32 01 90 13-0001	MSF	Fertilizer - 2 LB Of Nitrogen/MSF (Granular)	16.31
32 01 90 13-0002	MSF	Fertilizer - 2 LB Of Nitrogen/MSF (Liquid)	12.08
32 01 90 13-0003	MSF	Fertilizer - 0.5 LB Of Nitrogen/MSF (Granular)	13.16
32 01 90 13-0004	MSF	Fertilizer - 0.5 LB Of Nitrogen/MSF (Liquid)	10.85

32 01 90 19 Mowing (32 01 90)

32 01 90 19-0001	ACR	Vegetation Cutting By Bush Hog	214.71
		Note: Includes normal debris removal, cutting, and trimming.	
		For <1 Acre, Add	53.68
32 01 90 19-0002	MSF	Mowing Vegetation With Riding Mower, >20,000 To 45,000 SF	7.62
32 01 90 19-0003	MSF	Mowing Vegetation With Riding Mower, >45,000 SF	5.91
32 01 90 19-0004	MSF	Clear Vegetation With Weed Trimmer, Up To 1,000 SF	27.32
		For Work On Slopes >2:1, Add	6.83
		For Clearing Light Brush, Add	4.10
32 01 90 19-0005	MSF	Clear Vegetation With Weed Trimmer, >1,000 SF	22.95
		For Work On Slopes >2:1, Add	5.74
		For Clearing Light Brush, Add	3.44
32 01 90 19-0006	MSF	Blow Or Vacuum Dispersed Non-Native Seed After Bulk Of Biomass Removed	22.48

32 01 90 23 Pruning (32 01 90)**32 01 90 23-0001 Tree Pruning (32 01 90 23)**

Note: Types of pruning for mature trees (these standards are established by the ISA - International Society of Arboriculture). Includes loading onto truck or dumpster.

32 01 90 23-0002 Tree Pruning; Crown Cleaning (32 01 90 23-0001)

Note: Crown cleaning or cleaning out is the removal of dead, dying, diseased, crowded, weakly attached, and low-vigor branches and waterspouts from a tree crown.

32 01 90 23-0003	EA	1-1/2" Caliper, Tree Pruning (Crown Cleaning), By Hand	34.73
32 01 90 23-0004	EA	2" Caliper, Tree Pruning (Crown Cleaning), By Hand	39.68
32 01 90 23-0005	EA	2-1/2" Caliper, Tree Pruning (Crown Cleaning), By Hand	44.65
32 01 90 23-0006	EA	3" Caliper, Tree Pruning (Crown Cleaning), By Hand	49.61
32 01 90 23-0007	EA	4" Caliper, Tree Pruning (Crown Cleaning), By Hand	75.39
32 01 90 23-0008	EA	4" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment	122.95
32 01 90 23-0009	EA	6" Caliper, Tree Pruning (Crown Cleaning), By Hand	131.93
32 01 90 23-0010	EA	6" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment	234.15
32 01 90 23-0011	EA	9" Caliper, Tree Pruning (Crown Cleaning), By Hand	211.27



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

32 01 90 23-0012	EA		9" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	374.56	
32 01 90 23-0013	EA		12" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	244.13	
32 01 90 23-0014	EA		12" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	433.16	
32 01 90 23-0015	EA		18" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	283.79	
32 01 90 23-0016	EA		18" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	503.39	
32 01 90 23-0017	EA		24" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	345.45	
32 01 90 23-0018	EA		24" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	608.86	
32 01 90 23-0019	EA		30" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	429.12	
32 01 90 23-0020	EA		30" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	767.35	
32 01 90 23-0021	EA		36" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	587.75	
32 01 90 23-0022	EA		36" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	1,040.00	
32 01 90 23-0023	EA		48" Caliper, Tree Pruning (Crown Cleaning), By Hand.....	932.44	
32 01 90 23-0024	EA		48" Caliper, Tree Pruning (Crown Cleaning), Aerial Lift Equipment.....	1,672.50	

32 01 90 23-0025

Tree Pruning; Crown Thinning (32 01 90 23-0001)

Note: Crown thinning includes crown cleaning and the selective removal of branches to increase light penetration and air movement into the crown. Increased light and air stimulates and maintains interior foliage, which in turn improves branch taper and strength. Thinning reduces the wind-sail effect of the crown and the weight of the heavy limbs. Thinning the crown can emphasize the structural beauty of the trunk and branches as well as improve the growth of plants beneath the tree by increasing light penetration. When thinning the crown of mature trees, seldom should more than one-third of the live foliage be removed. At least one-half of the foliage should be on branches that arise in the lower two-thirds of the trees. Likewise, when thinning laterals from a limb, an effort should be made to retain inner lateral branches and leave the same distribution of foliage along the branch. Trees and branches so pruned will have stress more evenly distributed throughout the tree or along a branch.

32 01 90 23-0026	EA		1-1/2" Caliper, Tree Pruning (Crown Thinning), By Hand.....	42.56	
32 01 90 23-0027	EA		2" Caliper, Tree Pruning (Crown Thinning), By Hand.....	48.61	
32 01 90 23-0028	EA		2-1/2" Caliper, Tree Pruning (Crown Thinning), By Hand.....	54.66	
32 01 90 23-0029	EA		3" Caliper, Tree Pruning (Crown Thinning), By Hand.....	60.82	
32 01 90 23-0030	EA		4" Caliper, Tree Pruning (Crown Thinning), By Hand.....	92.36	
32 01 90 23-0031	EA		4" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	150.55	
32 01 90 23-0032	EA		6" Caliper, Tree Pruning (Crown Thinning), By Hand.....	161.61	
32 01 90 23-0033	EA		6" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	286.84	
32 01 90 23-0034	EA		9" Caliper, Tree Pruning (Crown Thinning), By Hand.....	258.84	
32 01 90 23-0035	EA		9" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	458.82	
32 01 90 23-0036	EA		12" Caliper, Tree Pruning (Crown Thinning), By Hand.....	299.03	
32 01 90 23-0037	EA		12" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	530.59	
32 01 90 23-0038	EA		18" Caliper, Tree Pruning (Crown Thinning), By Hand.....	347.64	
32 01 90 23-0039	EA		18" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	616.64	
32 01 90 23-0040	EA		24" Caliper, Tree Pruning (Crown Thinning), By Hand.....	423.14	
32 01 90 23-0041	EA		24" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	745.89	
32 01 90 23-0042	EA		30" Caliper, Tree Pruning (Crown Thinning), By Hand.....	525.62	
32 01 90 23-0043	EA		30" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	940.00	
32 01 90 23-0044	EA		36" Caliper, Tree Pruning (Crown Thinning), By Hand.....	719.98	
32 01 90 23-0045	EA		36" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	1,274.01	
32 01 90 23-0046	EA		48" Caliper, Tree Pruning (Crown Thinning), By Hand.....	1,142.23	
32 01 90 23-0047	EA		48" Caliper, Tree Pruning (Crown Thinning), Aerial Lift Equipment.....	2,048.81	

32 01 90 23-0048

Tree Pruning; Crown Raising (32 01 90 23-0001)

Note: Crown raising removes the lower branches of a tree in order to provide clearance for buildings, vehicles, pedestrians, and vistas. It is important that a tree have at least one-half of its foliage on branches that originate in the lower two-thirds of its trunk to ensure a well-formed, tapered structure and to uniformly distribute stress within a tree. When pruning for view, it is preferable to develop "windows" through the foliage of the tree, rather than to severely raise or reduce the crown.

32 01 90 23-0049	EA		1-1/2" Caliper, Tree Pruning (Crown Raising), By Hand.....	46.92	
32 01 90 23-0050	EA		2" Caliper, Tree Pruning (Crown Raising), By Hand.....	53.58	
32 01 90 23-0051	EA		2-1/2" Caliper, Tree Pruning (Crown Raising), By Hand.....	60.33	
32 01 90 23-0052	EA		3" Caliper, Tree Pruning (Crown Raising), By Hand.....	66.97	
32 01 90 23-0053	EA		4" Caliper, Tree Pruning (Crown Raising), By Hand.....	101.79	
32 01 90 23-0054	EA		4" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	166.01	
32 01 90 23-0055	EA		6" Caliper, Tree Pruning (Crown Raising), By Hand.....	178.09	
32 01 90 23-0056	EA		6" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	316.10	
32 01 90 23-0057	EA		9" Caliper, Tree Pruning (Crown Raising), By Hand.....	285.23	
32 01 90 23-0058	EA		9" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	505.64	
32 01 90 23-0059	EA		12" Caliper, Tree Pruning (Crown Raising), By Hand.....	329.58	
32 01 90 23-0060	EA		12" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	584.79	
32 01 90 23-0061	EA		18" Caliper, Tree Pruning (Crown Raising), By Hand.....	383.16	
32 01 90 23-0062	EA		18" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	679.62	
32 01 90 23-0063	EA		24" Caliper, Tree Pruning (Crown Raising), By Hand.....	466.39	
32 01 90 23-0064	EA		24" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	821.98	
32 01 90 23-0065	EA		30" Caliper, Tree Pruning (Crown Raising), By Hand.....	579.29	
32 01 90 23-0066	EA		30" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	1,035.88	
32 01 90 23-0067	EA		36" Caliper, Tree Pruning (Crown Raising), By Hand.....	793.49	
32 01 90 23-0068	EA		36" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	1,403.97	
32 01 90 23-0069	EA		48" Caliper, Tree Pruning (Crown Raising), By Hand.....	1,258.80	
32 01 90 23-0070	EA		48" Caliper, Tree Pruning (Crown Raising), Aerial Lift Equipment.....	2,257.91	

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 90 Operation and Maintenance of Planting**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 01 90 23-0071**Tree Pruning; Crown Reduction** (32 01 90 23-0001)

Note: Crown reduction is used to reduce the height and/or spread of a tree. Thinning cuts are most effective in maintaining the structural integrity and natural form of a tree and in delaying the time when it will need to be pruned again. The lateral to which a branch or trunk is cut should be at least one-half the diameter of the cut being made.

32 01 90 23-0072	EA	1-1/2" Caliper, Tree Pruning (Crown Reduction), By Hand	50.40
32 01 90 23-0073	EA	2" Caliper, Tree Pruning (Crown Reduction), By Hand	57.54
32 01 90 23-0074	EA	2-1/2" Caliper, Tree Pruning (Crown Reduction), By Hand	64.79
32 01 90 23-0075	EA	3" Caliper, Tree Pruning (Crown Reduction), By Hand	71.93
32 01 90 23-0076	EA	4" Caliper, Tree Pruning (Crown Reduction), By Hand	109.33
32 01 90 23-0077	EA	4" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	178.31
32 01 90 23-0078	EA	6" Caliper, Tree Pruning (Crown Reduction), By Hand	191.28
32 01 90 23-0079	EA	6" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	339.51
32 01 90 23-0080	EA	9" Caliper, Tree Pruning (Crown Reduction), By Hand	306.37
32 01 90 23-0081	EA	9" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	543.12
32 01 90 23-0082	EA	12" Caliper, Tree Pruning (Crown Reduction), By Hand	353.99
32 01 90 23-0083	EA	12" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	628.10
32 01 90 23-0084	EA	18" Caliper, Tree Pruning (Crown Reduction), By Hand	411.53
32 01 90 23-0085	EA	18" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	729.96
32 01 90 23-0086	EA	24" Caliper, Tree Pruning (Crown Reduction), By Hand	500.92
32 01 90 23-0087	EA	24" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	882.86
32 01 90 23-0088	EA	30" Caliper, Tree Pruning (Crown Reduction), By Hand	622.26
32 01 90 23-0089	EA	30" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	1,112.68
32 01 90 23-0090	EA	36" Caliper, Tree Pruning (Crown Reduction), By Hand	852.23
32 01 90 23-0091	EA	36" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	1,508.05
32 01 90 23-0092	EA	48" Caliper, Tree Pruning (Crown Reduction), By Hand	1,352.06
32 01 90 23-0093	EA	48" Caliper, Tree Pruning (Crown Reduction), Aerial Lift Equipment	2,425.09

32 01 90 23-0094**Tree Pruning; Crown Restoration** (32 01 90 23-0001)

Note: Crown restoration can improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One to three sprouts on main branch stubs should be selected to reform a more natural appearing crown. Selected vigorous sprouts may need to be thinned to a lateral, or even headed, to control length growth in order to ensure adequate attachment for the size of the sprout. Restoration may require several pruning's over a number of years.

32 01 90 23-0095	EA	1-1/2" Caliper, Tree Pruning (Crown Restoration), By Hand	57.84
32 01 90 23-0096	EA	2" Caliper, Tree Pruning (Crown Restoration), By Hand	66.17
32 01 90 23-0097	EA	2-1/2" Caliper, Tree Pruning (Crown Restoration), By Hand	74.41
32 01 90 23-0098	EA	3" Caliper, Tree Pruning (Crown Restoration), By Hand	82.65
32 01 90 23-0099	EA	4" Caliper, Tree Pruning (Crown Restoration), By Hand	125.61
32 01 90 23-0100	EA	4" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	204.88
32 01 90 23-0101	EA	6" Caliper, Tree Pruning (Crown Restoration), By Hand	219.85
32 01 90 23-0102	EA	6" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	390.21
32 01 90 23-0103	EA	9" Caliper, Tree Pruning (Crown Restoration), By Hand	352.10
32 01 90 23-0104	EA	9" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	624.25
32 01 90 23-0105	EA	12" Caliper, Tree Pruning (Crown Restoration), By Hand	406.87
32 01 90 23-0106	EA	12" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	721.88
32 01 90 23-0107	EA	18" Caliper, Tree Pruning (Crown Restoration), By Hand	472.95
32 01 90 23-0108	EA	18" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	838.96
32 01 90 23-0109	EA	24" Caliper, Tree Pruning (Crown Restoration), By Hand	575.73
32 01 90 23-0110	EA	24" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	1,014.80
32 01 90 23-0111	EA	30" Caliper, Tree Pruning (Crown Restoration), By Hand	715.22
32 01 90 23-0112	EA	30" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	1,278.93
32 01 90 23-0113	EA	36" Caliper, Tree Pruning (Crown Restoration), By Hand	979.62
32 01 90 23-0114	EA	36" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	1,733.41
32 01 90 23-0115	EA	48" Caliper, Tree Pruning (Crown Restoration), By Hand	1,554.05
32 01 90 23-0116	EA	48" Caliper, Tree Pruning (Crown Restoration), Aerial Lift Equipment	2,787.56

32 01 90 23-0117**Palm Tree Pruning** (32 01 90 23)

32 01 90 23-0118	EA	Trim Mexican Palm Tree	105.19
32 01 90 23-0119	EA	Trim Date Palm Tree	237.35
32 01 90 23-0120	LF	Skin Palm Tree	26.97
32 01 90 23-0121	EA	Trim And Skin Palm Tree, Up To 30' Height	99.51
32 01 90 23-0122	EA	Trim And Skin Palm Tree, >30' To 60' Height	122.93
32 01 90 23-0123	EA	Trim And Skin Palm Tree, >60' To 80' Height	137.57

32 01 90 23-0124**Shrub Pruning** (32 01 90 23)

32 01 90 23-0125	MSF	Shrub Pruning, Prune, Shrub Bed	113.05
32 01 90 23-0126	EA	Shrub Pruning, Prune, Shrub Under 3' Height	3.97
32 01 90 23-0127	EA	Shrub Pruning, Prune, Shrub 4' Height	8.93
32 01 90 23-0128	EA	Shrub Pruning, Prune, Shrub Over 6'	15.87
32 01 90 23-0129	EA	Shrub Pruning, Prune Trees From Ground	39.68
32 01 90 23-0130	EA	Shrub Pruning, Prune Trees From Ground, High Work	99.21



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 01 90	23-0131		Root Pruning (32 01 90 23) Note: Cut roots cleanly after excavation with clean, sharp tools, to promote callus formation and wound closure. Wounds to be dressed with a tree rooting hormone compound. Mix soil improvements (e.g., peat moss) with fill soil to promote new root growth. Backfill the excavation and water the soil around the roots to avoid leaving air pockets.		
32 01 90	23-0132	EA	Root Pruning, One Side Of Up To 1-1/2" Caliper Tree	19.84	
32 01 90	23-0133	EA	Root Pruning, One Side Of 2" Caliper Tree	24.81	
32 01 90	23-0134	EA	Root Pruning, One Side Of 2-1/2" Caliper Tree	29.76	
32 01 90	23-0135	EA	Root Pruning, One Side Of 3" Caliper Tree	39.68	
32 01 90	23-0136	EA	Root Pruning, One Side Of 4" Caliper Tree	59.53	
32 01 90	23-0137	EA	Root Pruning, One Side Of >4" To 6" Caliper Tree.....	74.41	
32 01 90	23-0138	EA	Root Pruning, One Side Of >6" To 9" Caliper Tree.....	104.18	
32 01 90	23-0139	EA	Root Pruning, One Side Of >9" To 12" Caliper Tree.....	119.05	
32 01 90	23-0140	EA	Root Pruning, One Side Of >12" To 18" Caliper Tree.....	138.90	
32 01 90	23-0141	EA	Root Pruning, One Side Of >18" To 24" Caliper Tree	173.62	
32 01 90	23-0142	EA	Root Pruning, One Side Of >24" To 30" Caliper Tree.....	213.31	
32 01 90	23-0143	EA	Root Pruning, One Side Of >30" To 36" Caliper Tree.....	248.03	
32 01 90	23-0144	EA	Root Pruning, One Side Of >36" To 42" Caliper Tree.....	272.84	
32 01 90	23-0145	EA	Root Pruning, One Side Of >42" To 48" Caliper Tree.....	297.63	
32 01 90	26		Watering (32 01 90) Note: Includes delivered water. Not to be used as basis if watering with irrigation system or on-site owner provided water from hose or hydrant.		
32 01 90	26-0001		Watering Lawns, Plants And Trees (32 01 90 26) Note: Includes delivered water and watering truck. Not to be used as basis if watering with irrigation system or on-site owner provided water from hose or hydrant. These tasks are to be used as requested by the owner for extended watering period for lawns, plants and trees.		
32 01 90	26-0002	MSF	Watering Sod/Grass, Per Inch Of Water	48.30	
32 01 90	26-0003	CSF	Watering Groundcover.....	7.44	
32 01 90	26-0004	CSF	Watering Annuals And Perennials.....	13.17	
32 01 90	26-0005	EA	Watering Trees, 1-1/2" To 5" Diameter By Hand	25.42	
32 01 90	26-0006	EA	Watering Trees, 6" To 12" Diameter By Hand	33.43	
32 01 90	26-0007	EA	Watering Trees, 13" To 18" Diameter By Hand	41.42	
32 01 90	26-0008	EA	Watering Trees, >18" Diameter By Hand.....	50.99	
32 01 90	26-0009	EA	Watering Shrub Or Bush By Hand	12.78	
32 01 90	36		Weed and Brush Control (32 01 90) Note: Includes pre and post emergent.		
32 01 90	36-0001		Herbicide, Push Or Hand Spreader Applied (32 01 90 36)		
32 01 90	36-0002	MSF	Non-Selective Post Emergent Weed Herbicide (70.4 oz/acre or 1.62 oz/MSF).....	9.10	
			For >45 To 90, Deduct	-0.50	
			For >90 To 225, Deduct	-1.41	
			For >225 To 870, Deduct	-2.32	
			For >870, Deduct	-2.81	
32 01 90	36-0003	MSF	Non-Selective Post Emergent Woody Brush And Tree Herbicide (128 oz/acre or 2.94 oz/MSF).....	9.76	
			For >45 To 90, Deduct	-0.56	
			For >90 To 225, Deduct	-1.54	
			For >225 To 870, Deduct	-2.51	
			For >870, Deduct	-3.08	
32 01 90	36-0004	MSF	Selective Weed Herbicide (56 oz/Acre or 1.28 oz/MSF).....	9.72	
			Note: Includes pre and post emergent.		
			For >45 To 90, Deduct	-0.56	
			For >90 To 225, Deduct	-1.53	
			For >225 To 870, Deduct	-2.50	
			For >870, Deduct	-3.06	
32 01 90	36-0005	MSF	Selective Woody Brush And Tree Herbicide (72 oz/acre or 1.65 oz/MSF)	10.13	
			Note: Includes pre and post emergents.		
			For >45 To 90, Deduct	-0.60	
			For >90 To 225, Deduct	-1.61	
			For >225 To 870, Deduct	-2.62	
			For >870, Deduct	-3.22	
32 01 90	39		Pesticides (32 01 90)		
32 01 90	39-0001	MSF	Pesticide - Surface Eating	12.53	
32 01 90	39-0002	MSF	Pesticide - Subsurface Eating.....	12.57	
32 01 90	39-0003	MSF	Pesticide - Fungicide Application	13.50	
32 01 90	43		Weed and Cultivate Beds (32 01 90)		
32 01 90	43-0001	MSF	Weed Mulched Bed	48.60	
32 01 90	43-0002	MSF	Weed Unmulched Bed.....	138.86	
32 01 90	43-0003	MSF	Cultivate Bed	74.77	
32 01 90	46		Hedge Trimming (32 01 90)		
32 01 90	46-0001	LF	Trim 0-5' High Hedge, 0-3' Wide.....	6.41	
32 01 90	46-0002	LF	Trim 0-5' High Hedge, 4-6' Wide.....	9.61	
32 01 90	46-0003	LF	Trim 5-10' High Hedge, 0-3' Wide.....	14.56	
32 01 90	46-0004	LF	Trim 5-10' High Hedge, 4-6' Wide.....	14.83	

32 Exterior Improvements**32 01 Operation and Maintenance of Exterior Improvements****32 01 90 Operation and Maintenance of Planting**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 01 90 53 Plant Growth Regulator Application (32 01 90)

32 01 90 53-0001 EA Plant Growth Regulator Application 6.93

32 05 Common Work Results for Exterior Improvements (32)**32 05 23 Cement and Concrete for Exterior Improvements (32 05)****32 05 23 00-0001 Common Public Works Assemblies (32 05 23)**

Note: Assembly task as per GreenBook Specifications

32 05 23 00-0002 SF PCC Sidewalk 7.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0003 LF Curb And Gutter 34.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0004 UNT Surface Preparation And Crack Seal (Based on 3% of total cost of asphalt) 1,000.00
Note: Assembly task as per GreenBook Specifications. County Representative to decide value.
32 05 23 00-0005 TON >200 Ton Base Repair 175.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0006 TON <200 Ton Base Repair 150.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0007 SF Grinding 0.40
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0008 SF AC Taper with Key 0.62
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0009 TON Miscellaneous Paving 112.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0010 MI Shoulder Backing 15,940.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0011 UNT Traffic Control And Signage 1,000.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0012 EA Tree Removal Less Than 100" Girth 2,000.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0013 EA Tree Removal Over Than 100" Girth 4,000.00
Note: Assembly task as per GreenBook Specifications.
32 05 23 00-0014 EA Asphalt Index Adjustment 1.00
Note: Assembly task as per GreenBook Specifications.

32 05 33 Common Work Results for Planting (32 05)**32 05 33 00-0001 Decorative Landscape Boulders (32 05 33)**

Note: Includes delivery of materials and placement.

32 05 33 00-0002 EA 2' x 3' x 2' Oval Shape Boulders (approx 1000 lbs each) 344.02
32 05 33 00-0003 EA 3' x 3' x 2' Oval Shape Boulders (approx 1500 lbs each) 516.04
32 05 33 00-0004 EA 3' x 4' x 3' Oval Shape Boulders (approx 3000 lbs each) 1,032.07
32 05 33 00-0005 TON Landscape Boulders 688.04

32 10 Bases, Ballasts, and Paving (32)**32 11 Base Courses (32 10)****32 11 16 Subbase Courses (32 11)****32 11 16 16 Aggregate Subbase Courses (32 11 16)****32 11 16 16-0001 Base And Subbase Courses For Roadways And Parking Areas (32 11 16 16)**

Note: Includes 3/4" To 1-1/2" aggregate material, hauling up to 15 miles, dumping, spreading, grading, compacting and watering. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

32 11 16 16-0002 Base And Subbase Courses By The CY (32 11 16 16-0001)

32 11 16 16-0003 CY Class II Graded Crushed Aggregate Roadway Base Course 109.13
32 11 16 16-0004 CY Class III Graded Crushed Aggregate Roadway Base Course 104.62

32 11 16 16-0005 Class II Base Courses By The SY (32 11 16 16-0001)

32 11 16 16-0006 SY 2" Class II Graded Crushed Aggregate Base Course 6.01
For Up To 500, Add 1.53
For >500 To 1,000, Add 0.60
For >5,000 To 10,000, Deduct -0.23
For >10,000, Deduct -0.39
32 11 16 16-0007 SY 4" Class II Crushed Aggregate Base Course 12.01
For Up To 500, Add 3.05
For >500 To 1,000, Add 1.20
For >5,000 To 10,000, Deduct -0.46
For >10,000, Deduct -0.78
32 11 16 16-0008 SY 6" Class II Crushed Aggregate Base Course 18.02
For Up To 500, Add 4.58
For >500 To 1,000, Add 1.80
For >5,000 To 10,000, Deduct -0.68
For >10,000, Deduct -1.17



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Base Courses			32 11

32

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 11 16 16-0009	SY		9" Class II Crushed Aggregate Base Course.....	27.04	
			For Up To 500, Add	6.87	
			For >500 To 1,000, Add	2.70	
			For >5,000 To 10,000, Deduct	-1.03	
			For >10,000, Deduct	-1.76	
32 11 16 16-0010	SY		12" Class II Crushed Aggregate Base Course.....	36.04	
			For Up To 500, Add	9.16	
			For >500 To 1,000, Add	3.60	
			For >5,000 To 10,000, Deduct	-1.37	
			For >10,000, Deduct	-2.34	
32 11 23 Aggregate Base Courses (32 11)					
32 11 23 16 Aggregate Base Courses (32 11 23)					
32 11 23 16-0001 Base Courses For Sidewalk (Asphalt Or Concrete) (32 11 23 16)					
Note: Includes material, hauling up to 15 miles, placement, spreading, grading, and compaction. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.					
32 11 23 16-0002	SF		2" Crushed Aggregate Base Course For Sidewalks	0.74	
			For Up To 1,000, Add	0.20	
			For >1,000 To 2,500, Add	0.07	
32 11 23 16-0003	SF		3" Crushed Aggregate Base Course For Sidewalks	1.05	
			For Up To 1,000, Add	0.29	
			For >1,000 To 2,500, Add	0.11	
32 11 23 16-0004	SF		4" Crushed Aggregate Base Course For Sidewalks	1.35	
			For Up To 1,000, Add	0.37	
			For >1,000 To 2,500, Add	0.14	
32 11 23 16-0005	SF		5" Crushed Aggregate Base Course For Sidewalks	1.77	
			For Up To 1,000, Add	0.49	
			For >1,000 To 2,500, Add	0.18	
32 11 23 16-0006	SF		6" Crushed Aggregate Base Course For Sidewalks	2.18	
			For Up To 1,000, Add	0.60	
			For >1,000 To 2,500, Add	0.22	
32 11 23 16-0007	SF		7" Crushed Aggregate Base Course For Sidewalks	2.49	
			For Up To 1,000, Add	0.69	
			For >1,000 To 2,500, Add	0.25	
32 11 23 16-0008	SF		8" Crushed Aggregate Base Course For Sidewalks	2.83	
			For Up To 1,000, Add	0.78	
			For >1,000 To 2,500, Add	0.28	
32 11 26 Asphaltic Base Courses (32 11)					
32 11 26 19 Bituminous-Stabilized Base Courses (32 11 26)					
32 11 26 19-0001 Bituminous-Stabilized Base Courses (32 11 26 19)					
32 11 26 19-0002	CY		Bituminous Stabilized Base Course.....	90.21	
Note: 3/4" ASTM C33.					
32 12 Flexible Paving (32 10)					
32 12 13 Preparatory Coats (32 12)					
32 12 13 13 Tack Coats (32 12 13)					
32 12 13 13-0001	SY		Tack Coat, 0.04 Gallon/SY	0.65	
			For Up To 150, Add	0.12	
			For >150 To 300, Add	0.07	
			For >300 To 500, Add	0.03	
			For >3,500 To 5,000, Deduct	-0.02	
			For >5,000, Deduct	-0.04	
32 12 13 13-0002	SY		Tack Coat, 0.05 Gallon/SY	0.72	
			For Up To 150, Add	0.14	
			For >150 To 300, Add	0.07	
			For >300 To 500, Add	0.04	
			For >3,500 To 5,000, Deduct	-0.02	
			For >5,000, Deduct	-0.04	
32 12 13 13-0003	SY		Tack Coat, 0.07 Gallon/SY	0.85	
			For Up To 150, Add	0.17	
			For >150 To 300, Add	0.09	
			For >300 To 500, Add	0.04	
			For >3,500 To 5,000, Deduct	-0.02	
			For >5,000, Deduct	-0.05	
32 12 13 13-0004	SY		Tack Coat, 0.08 Gallon/SY	0.92	
			For Up To 150, Add	0.19	
			For >150 To 300, Add	0.09	
			For >300 To 500, Add	0.05	
			For >3,500 To 5,000, Deduct	-0.02	
			For >5,000, Deduct	-0.06	
32 12 13 13-0005	SY		Tack Coat, 0.10 Gallon/SY	1.06	
			For Up To 150, Add	0.23	
			For >150 To 300, Add	0.11	
			For >300 To 500, Add	0.05	
			For >3,500 To 5,000, Deduct	-0.03	
			For >5,000, Deduct	-0.07	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 12 Flexible Paving**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 13 13-0006	SY		Tack Coat, 0.11 Gallon/SY	1.12	
			For Up To 150, Add	0.24	
			For >150 To 300, Add	0.11	
			For >300 To 500, Add	0.06	
			For >3,500 To 5,000, Deduct	-0.03	
			For >5,000, Deduct	-0.07	
32 12 13 19			Prime Coats (32 12 13)		
32 12 13 19-0001	SY		Surface Prime Coat, 0.26 Gallon/SY.....	1.88	
			For Up To 150, Add	0.42	
			For >150 To 300, Add	0.19	
			For >300 To 500, Add	0.09	
			For >3,500 To 5,000, Deduct	-0.05	
			For >5,000, Deduct	-0.13	
32 12 13 19-0002	SY		Surface Prime Coat, 0.28 Gallon/SY.....	1.99	
			For Up To 150, Add	0.45	
			For >150 To 300, Add	0.20	
			For >300 To 500, Add	0.10	
			For >3,500 To 5,000, Deduct	-0.05	
			For >5,000, Deduct	-0.14	
32 12 13 19-0003	SY		Surface Prime Coat, 0.30 Gallon/SY.....	2.09	
			For Up To 150, Add	0.48	
			For >150 To 300, Add	0.21	
			For >300 To 500, Add	0.10	
			For >3,500 To 5,000, Deduct	-0.05	
			For >5,000, Deduct	-0.15	
32 12 16			Asphalt Paving (32 12)		
32 12 16 13			Plant-Mix Asphalt Paving (32 12 16)		
			Note: Includes delivery up to 15 miles, placement, rolling, finishing and sweeping. Excludes base, tack or price coat, seal coats and roadway fabrics (where required). See CSI section 01 74 19 00-0048 for hauling greater than 15 miles, 32 11 00 00-0000 for base courses, 32 12 13 13-0000 for tack coats, 32 12 13 19-0000 for prime coats, 32 12 16 39-0000 for roadway fabrics, 32 12 36 00-0000 for seal coats.		
32 12 16 13-0001			Intermediate Binder Courses, Hot Mix Asphalt (HMA) (32 12 16 13)		
			Note: Meets Caltrans requirements.		
32 12 16 13-0002	TON		Bituminous Hot Mix Intermediate Binder Course 3,954 LB/CY.....	124.18	
			Note: Includes Type A and Type B with 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. Used for applications not described elsewhere in this section.		
			For PG64-10 Asphalt, Add	13.47	
			For Warm Mix Additive, Add	5.84	
			For Up To 25, Add	18.61	
			For >25 To 50, Add	10.51	
			For >500 To 1,000, Deduct	-4.99	
			For >1,000 To 2,500, Deduct	-9.09	
			For >2,500 To 5,000, Deduct	-14.08	
			For >5,000, Deduct	-20.22	
32 12 16 13-0003	SY		1" Thick Bituminous Hot Mix Intermediate Binder Course	7.10	
			Note: Includes placement, rolling, finishing and sweeping.		
			For PG64-10 Asphalt, Add	0.74	
			For Up To 1,000, Add	1.10	
			For >1,000 To 2,000, Add	0.63	
			For >10,000 To 20,000, Deduct	-0.29	
			For >20,000 To 50,000, Deduct	-0.53	
			For >50,000 To 100,000, Deduct	-0.82	
			For >100,000, Deduct	-1.18	
32 12 16 13-0004	SY		1-1/2" Thick Bituminous Hot Mix Intermediate Binder Course	10.51	
			Note: Includes placement, rolling, finishing and sweeping.		
			For PG64-10 Asphalt, Add	1.11	
			For Up To 700, Add	1.61	
			For >700 To 1,400, Add	0.91	
			For >7,000 To 14,000, Deduct	-0.43	
			For >14,000 To 32,000, Deduct	-0.79	
			For >32,000 To 64,000, Deduct	-1.22	
			For >64,000, Deduct	-1.76	
32 12 16 13-0005	SY		2" Thick Bituminous Hot Mix Intermediate Binder Course	13.45	
			Note: Includes placement, rolling, finishing and sweeping.		
			For PG64-10 Asphalt, Add	1.48	
			For Up To 500, Add	1.99	
			For >500 To 1,000, Add	1.12	
			For >5,000 To 10,000, Deduct	-0.56	
			For >10,000 To 24,000, Deduct	-1.03	
			For >24,000 To 48,000, Deduct	-1.60	
			For >48,000, Deduct	-2.30	
32 12 16 13-0006	SY		2-1/2" Thick Bituminous Hot Mix Intermediate Binder Course	17.05	
			Note: Includes placement, rolling, finishing and sweeping.		
			For PG64-10 Asphalt, Add	1.85	
			For Up To 400, Add	2.55	
			For >400 To 800, Add	1.44	
			For >4,000 To 8,000, Deduct	-0.71	
			For >8,000 To 20,000, Deduct	-1.30	
			For >20,000 To 40,000, Deduct	-2.01	
			For >40,000, Deduct	-2.89	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 16 13-0007	SY		3" Thick Bituminous Hot Mix Intermediate Binder Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 340, Add For >340 To 680, Add For >3,400 To 6,800, Deduct For >6,800 To 17,000, Deduct For >17,000 To 34,000, Deduct For >34,000, Deduct	20.46 2.22 3.07 2.47 -0.85 -1.56 -2.41 -3.47	
32 12 16 13-0008	SY		3-1/2" Thick Bituminous Hot Mix Intermediate Binder Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 280, Add For >280 To 560, Add For >2,800 To 5,600, Deduct For >5,600 To 14,000, Deduct For >14,000 To 28,000, Deduct For >28,000, Deduct	23.87 2.59 3.58 2.02 -1.00 -1.82 -2.81 -4.05	
32 12 16 13-0009	SY		4" Thick Bituminous Hot Mix Intermediate Binder Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 250, Add For >250 To 500, Add For >2,500 To 5,000, Deduct For >5,000 To 12,000, Deduct For >12,000 To 24,000, Deduct For >24,000, Deduct	27.27 2.96 4.09 2.31 -1.14 -2.08 -3.21 -4.62	
32 12 16 13-0010	SY		5" Thick Bituminous Hot Mix Intermediate Binder Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 200, Add For >200 To 400, Add For >2,000 To 4,000, Deduct For >4,000 To 10,000, Deduct For >10,000 To 20,000, Deduct For >20,000, Deduct	34.09 3.70 5.11 2.88 -1.42 -2.60 -4.02 -5.78	
32 12 16 13-0011	SY		6" Thick Bituminous Hot Mix Intermediate Binder Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 160, Add For >160 To 320, Add For >1,600 To 3,200, Deduct For >3,200 To 8,000, Deduct For >8,000 To 16,000, Deduct For >16,000, Deduct	40.91 4.44 6.13 3.46 -1.71 -3.12 -4.82 -6.94	
32 12 16 13-0012			Surface Wearing Courses, Hot Mix Asphalt (HMA) (32 12 16 13) Note: Meets Caltrans requirements.		
32 12 16 13-0013	TON		Bituminous Hot Mix Surface Course 3954 LB/CY Note: Includes Type A and Type B with 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. Used for applications not described elsewhere in this section. For PG64-10 Asphalt, Add For Warm Mix Additive, Add For Up To 25, Add For >25 To 50, Add For >500 To 1,000, Deduct For >1,000 To 2,500, Deduct For >2,500 To 5,000, Deduct For >5,000, Deduct	128.67 2.14 5.57 20.60 11.81 -4.91 -8.97 -13.88 -19.97	
32 12 16 13-0014	TON		Tire Rubber Modified Paving Asphalt (TRMAC) Surface Course (MAC-15TR) Note: Includes 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. For Warm Mix Additive, Add For Up To 25, Add For >25 To 50, Add For >500 To 1,000, Deduct For >1,000 To 2,500, Deduct For >2,500 To 5,000, Deduct For >5,000, Deduct	143.55 6.07 23.38 13.45 -5.40 -9.87 -15.28 -21.98	
32 12 16 13-0015	TON		Asphalt Rubberized Hot Mix (ARHM) Surface Course Note: Includes 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. For Warm Mix Additive, Add For Up To 25, Add For >25 To 50, Add For >500 To 1,000, Deduct For >1,000 To 2,500, Deduct For >2,500 To 5,000, Deduct For >5,000, Deduct	152.12 6.63 24.24 13.87 -5.83 -10.65 -16.48 -23.70	
32 12 16 13-0016	SY		1" Thick Bituminous Hot Mix Surface Wearing Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 1,000, Add For >1,000 To 2,000, Add For >10,000 To 20,000, Deduct For >20,000 To 50,000, Deduct For >50,000 To 100,000, Deduct For >100,000, Deduct	7.08 0.11 1.17 0.68 -0.28 -0.51 -0.78 -1.13	

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 16 13-0017	SY	1-1/2" Thick Bituminous Hot Mix Surface Wearing Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 700, Add For >700 To 1,400, Add For >7,000 To 14,000, Deduct For >14,000 To 32,000, Deduct For >32,000 To 64,000, Deduct For >64,000, Deduct	10.46 0.17 1.72 0.99 -0.41 -0.76 -1.17 -1.68	
32 12 16 13-0018	SY	2" Thick Bituminous Hot Mix Surface Wearing Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 500, Add For >500 To 1,000, Add For >5,000 To 10,000, Deduct For >10,000 To 24,000, Deduct For >24,000 To 48,000, Deduct For >48,000, Deduct	13.27 0.22 2.10 1.20 -0.53 -0.98 -1.51 -2.18	
32 12 16 13-0019	SY	2-1/2" Thick Bituminous Hot Mix Surface Wearing Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 400, Add For >400 To 800, Add For >4,000 To 8,000, Deduct For >8,000 To 20,000, Deduct For >20,000 To 40,000, Deduct For >40,000, Deduct	16.86 0.28 2.70 1.55 -0.67 -1.24 -1.91 -2.75	
32 12 16 13-0020	SY	3" Thick Bituminous Hot Mix Surface Wearing Course Note: Includes placement, rolling, finishing and sweeping. For PG64-10 Asphalt, Add For Up To 340, Add For >340 To 680, Add For >3,400 To 6,800, Deduct For >6,800 To 17,000, Deduct For >17,000 To 34,000, Deduct For >34,000, Deduct	20.23 0.34 3.24 2.53 -0.81 -1.48 -2.29 -3.30	
32 12 16 13-0021	CSF	Type F Asphalt Surface Cap 1/8" To 1/4" Thick For Use Only On Top Concrete Filled Trench.....	96.77	
32 12 16 13-0022		Hand Placed, Hot Mix Asphalt (HMA) (32 12 16 13)		
32 12 16 13-0023	TON	Hand Placed Hot Mixed Asphalt 3,954 LB/CY Note: For small areas not reachable by machine. Includes placement, rolling, finishing and sweeping.	367.17	
32 12 16 19		Cold-Mix Asphalt Paving (32 12 16)		
		Note: 0.5 Gal asphalt/SY per inch depth; well graded granular aggregate.		
32 12 16 19-0001		Cold Mix Asphalt (CMA) Pavement (32 12 16 19)		
		Note: 0.5 Gal asphalt/SY per inch depth; well graded granular aggregate.		
32 12 16 19-0002	SY	Cold Laid Asphalt Pavement, Traveling Plant Mixed In Windrows, Compacted 4" Course.....	11.38	
32 12 16 19-0003	SY	Cold Laid Asphalt Pavement, Rotary Plant Mixed In Place, Compacted 4" Course.....	10.97	
32 12 16 19-0004	SY	Cold Laid Asphalt Pavement, Central Stationary Plant, Mixed, Compacted 4" Course	16.34	
32 12 16 39		Paving Fabrics (32 12 16)		
		See CSI section 31 32 19 16-0000 for geotextile fabric.		
32 12 16 39-0001		Geotextile Paving Fabrics (32 12 16 39)		
32 12 16 39-0002	SY	3.6 Ounce/SY, 90 LB Grab Tensile Nonwoven Polypropylene Geotextile Paving Fabric (Carthage Mills FX-38A/O) For Up To 50, Add For >50 To 150, Add For >150 To 250, Add For >250 To 500, Add	1.97 0.44 0.33 0.21 0.11	
32 12 16 39-0003	SY	4.1 Ounce/SY, 101 LB Grab Tensile Nonwoven Polypropylene Geotextile Paving Fabric (Carthage Mills FX-42 A/O) For Up To 50, Add For >50 To 150, Add For >150 To 250, Add For >250 To 500, Add	2.12 0.47 0.35 0.23 0.11	
32 12 16 43		Waterproofing Membranes (32 12 16)		
32 12 16 43-0001		Waterproofing Membranes (32 12 16 43)		
32 12 16 43-0002	SY	Up To 500 SY, Preformed Rubberized Asphalt Membrane	34.73	
32 12 16 43-0003	SY	>500 To 1,000 SY, Preformed Rubberized Asphalt Membrane.....	25.52	
32 12 16 43-0004	SY	>1,000 SY, Preformed Rubberized Asphalt Membrane	15.00	
32 12 33		Flexible Paving Surface Treatments (32 12)		
32 12 33 00-0001		Bituminous Surface Treatment For Roadways (32 12 33)		
		Note: 0.25 Gal bitumen per SY and 30 lb of gravel/SY.		
32 12 33 00-0002	SY	Single Course Bituminous Treatment, Prepare And Clean Surface Roadway.....	2.76	
32 12 33 00-0003	SY	Double Course Bituminous Treatment, Prepare And Clean Surface Roadway	5.05	



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 33 00-0004 Bituminous Surface Treatment For Trails ^(32 12 33) Note: 0.25 Gal bitumen per SY and 20 lb of gravel/SY.		
32 12 33 00-0005 SY Bituminous Surface Treatment, For Trails	1.78	
32 12 36 Seal Coats ^(32 12) See CSI section 32 01 13 62-0000 for slurry seal.		
32 12 36 13 Asphaltic Seal and Fog Coats ^(32 12 36)		
32 12 36 13-0001 Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13) Note: Includes initial sweeping prior to placement, cleaning of area, rolling and final sweeping. Excludes crack repair, fog sealer, and any additional consecutive days sweeping following final sweeping.		
32 12 36 13-0002 Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13-0001) Note: 12 to 20 Pounds Per SY of 1/4" No. 10 with 0.15 to 0.30 gallons asphalt emulsion per SY.		
32 12 36 13-0003 SY Up To 200 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.77	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0004 SY >200 To 500 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.27	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0005 SY >500 To 1,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.05	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0006 SY >1,000 To 5,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.80	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0007 SY >5,000 To 10,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.67	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0008 SY >10,000 To 20,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.56	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0009 SY >20,000 To 50,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.43	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0010 SY >50,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.36	
For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0011 Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13-0001) Note: 16 to 25 Pounds Per SY of 5/16" No. 8 with 0.25 to 0.35 gallons asphalt emulsion per SY.		
32 12 36 13-0012 SY Up To 200 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	5.56	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0013 SY >200 To 500 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	5.00	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0014 SY >500 To 1,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.72	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0015 SY >1,000 To 5,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.57	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0016 SY >5,000 To 10,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.27	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0017 SY >10,000 To 20,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.08	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0018 SY >20,000 To 50,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.92	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0019 SY >50,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	3.83	
For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0020 Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13-0001) Note: 20 to 30 Pounds Per SY of 3/8" No. 6 with 0.25 to 0.40 gallons asphalt emulsion per SY.		
32 12 36 13-0021 SY Up To 200 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	6.30	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0022 SY >200 To 500 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	5.66	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0023 SY >500 To 1,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	5.34	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0024 SY >1,000 To 5,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.98	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0025 SY >5,000 To 10,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.79	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0026 SY >10,000 To 20,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.52	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0027 SY >20,000 To 50,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.34	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0028 SY >50,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	4.25	
For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0029 Course Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13-0001) Note: 23 to 35 Pounds Per SY of 1/2" No. 4 with 0.30 to 0.40 gallons asphalt emulsion per SY.		
32 12 36 13-0030 SY Up To 200 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal)	6.37	
For Each Additional 0.5% Latex Additive, Add	0.92	

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 36 13-0031	SY	>200 To 500 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	5.74	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0032	SY	>500 To 1,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	5.42	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0033	SY	>1,000 To 5,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	5.07	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0034	SY	>5,000 To 10,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	4.88	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0035	SY	>10,000 To 20,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	4.70	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0036	SY	>20,000 To 50,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	4.44	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0037	SY	>50,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	4.33	
		For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0038		Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal) ^(32 12 36 13-0038)		
		Note: First coat 23 to 30 Pounds Per SY of 1/2" No. 4 with 0.20 to 0.35 gallons asphalt emulsion per SY, Second coat 12 to 20 Pounds Per SY of 1/4" No. 10 with 0.20 to 0.30 gallons asphalt emulsion per SY.		
32 12 36 13-0039	SY	Up To 200 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	9.52	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0040	SY	>200 To 500 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	8.70	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0041	SY	>500 To 1,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	8.24	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0042	SY	>1,000 To 5,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	7.71	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0043	SY	>5,000 To 10,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	7.42	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0044	SY	>10,000 To 20,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	7.08	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0045	SY	>20,000 To 50,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	6.79	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0046	SY	>50,000 SY, Double Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Chip Seal).....	6.67	
		For Each Additional 0.5% Latex Additive, Add	1.34	
32 12 36 13-0047		Asphalt Emulsion Seal Coat (Scrub Seal) ^(32 12 36 13)		
		Note: Includes initial sweeping prior to placement, cleaning of area, towed broom sled of scrub brush and final sweeping. Excludes crack repair, fog sealer, and any additional consecutive days sweeping following final sweeping. See CSI section 32 12 36 13-0084 for fog seal.		
32 12 36 13-0048		Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal) ^(32 12 36 13-0048)		
		Note: 12 to 20 Pounds Per SY of 1/4" No. 10 with 0.15 to 0.30 gallons asphalt emulsion per SY.		
32 12 36 13-0049	SY	Up To 200 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.28	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0050	SY	>200 To 500 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.00	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0051	SY	>500 To 1,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.80	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0052	SY	>1,000 To 5,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.58	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0053	SY	>5,000 To 10,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.48	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0054	SY	>10,000 To 20,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.37	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0055	SY	>20,000 To 50,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.27	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0056	SY	>50,000 SY, Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.22	
		For Each Additional 0.5% Latex Additive, Add	0.54	
32 12 36 13-0057		Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal) ^(32 12 36 13-0057)		
		Note: 16 to 25 Pounds Per SY of 5/16" No. 8 with 0.25 to 0.35 gallons asphalt emulsion per SY.		
32 12 36 13-0058	SY	Up To 200 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	5.09	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0059	SY	>200 To 500 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.76	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0060	SY	>500 To 1,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.54	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0061	SY	>1,000 To 5,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.39	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0062	SY	>5,000 To 10,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	4.08	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0063	SY	>10,000 To 20,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.90	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0064	SY	>20,000 To 50,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.77	
		For Each Additional 0.5% Latex Additive, Add	0.67	
32 12 36 13-0065	SY	>50,000 SY, Medium Fine Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal).....	3.70	
		For Each Additional 0.5% Latex Additive, Add	0.67	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
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MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 12 36 13-0066 Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal) (32 12 36 13-0047) Note: 20 to 30 Pounds Per SY of 3/8" No. 6 with 0.25 to 0.40 gallons asphalt emulsion per SY.			
32 12 36 13-0067	SY Up To 200 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.88	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0068	SY >200 To 500 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.45	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0069	SY >500 To 1,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.15	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0070	SY >1,000 To 5,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.81	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0071	SY >5,000 To 10,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.62	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0072	SY >10,000 To 20,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.35	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0073	SY >20,000 To 50,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.19	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0074	SY >50,000 SY, Medium Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.12	
	For Each Additional 0.5% Latex Additive, Add	0.80	
32 12 36 13-0075 Course Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal) (32 12 36 13-0047) Note: 23 to 35 Pounds Per SY of 1/2" No. 4 with 0.30 to 0.40 gallons asphalt emulsion per SY.			
32 12 36 13-0076	SY Up To 200 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.97	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0077	SY >200 To 500 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.54	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0078	SY >500 To 1,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	5.23	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0079	SY >1,000 To 5,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.87	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0080	SY >5,000 To 10,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.70	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0081	SY >10,000 To 20,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.53	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0082	SY >20,000 To 50,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.28	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0083	SY >50,000 SY, Coarse Screenings - PMCRS-2h, Asphalt Emulsion Seal Coat (Scrub Seal)	4.21	
	For Each Additional 0.5% Latex Additive, Add	0.92	
32 12 36 13-0084 Fog Seal, CQS-1h (32 12 36 13) Note: A fog seal is a light application of diluted, slow-setting asphalt emulsion without aggregate cover. Includes sweeping and cleaning of area.			
32 12 36 13-0085	SY Up To 200 SY, CQS-1h, Fog Seal	1.93	
32 12 36 13-0086	SY >200 To 500 SY, CQS-1h, Fog Seal	1.39	
32 12 36 13-0087	SY >500 To 1,000 SY, CQS-1h, Fog Seal	1.18	
32 12 36 13-0088	SY >1,000 To 5,000 SY, CQS-1h, Fog Seal	1.01	
32 12 36 13-0089	SY >5,000 To 10,000 SY, CQS-1h, Fog Seal	0.91	
32 12 36 13-0090	SY >10,000 To 20,000 SY, CQS-1h, Fog Seal	0.84	
32 12 36 13-0091	SY >20,000 To 50,000 SY, CQS-1h, Fog Seal	0.78	
32 12 36 13-0092	SY >50,000 SY, CQS-1h, Fog Seal	0.75	
32 12 36 13-0093 Sand Sealer (32 12 36 13) Note: A sand seal is an application of asphalt binder followed by placement of a layer of sand or fine aggregate, and then rolled to embed the sand or fine aggregate into the binder. Includes sweeping and cleaning of area.			
32 12 36 13-0094	SY Up To 200 SY, Sand Seal	2.81	
32 12 36 13-0095	SY >200 To 500 SY, Sand Seal	1.84	
32 12 36 13-0096	SY >500 To 1,000 SY, Sand Seal	1.83	
32 12 36 13-0097	SY >1,000 To 5,000 SY, Sand Seal	1.60	
32 12 36 13-0098	SY >5,000 To 10,000 SY, Sand Seal	1.49	
32 12 36 13-0099	SY >10,000 To 20,000 SY, Sand Seal	1.39	
32 12 36 13-0100	SY >20,000 To 50,000 SY, Sand Seal	1.32	
32 12 36 13-0101	SY >50,000 SY, Sand Seal	1.29	
32 12 36 16 Coal Tar Seal Coats (32 12 36) 32 12 36 16-0001 Thermoplastic Coal-Tar Asphalt Seal (32 12 36 16) Note: Includes sweeping and cleaning of area.			
32 12 36 16-0002	SY Up To 500 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	15.47	
32 12 36 16-0003	SY >500 To 1,000 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	14.54	
32 12 36 16-0004	SY >1,000 To 5,000 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	12.81	
32 12 36 16-0005	SY >5,000 To 20,000 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	11.49	
32 12 36 16-0006	SY >20,000 To 50,000 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	9.76	
32 12 36 16-0007	SY >50,000 SY, Type I Thermoplastic Coal-Tar Asphalt Seal	8.03	
32 12 36 16-0008	SY Up To 500 SY, Type II Thermoplastic Coal-Tar Asphalt Seal	18.77	
32 12 36 16-0009	SY >500 To 1,000 SY, Type II Thermoplastic Coal-Tar Asphalt Seal	17.73	
32 12 36 16-0010	SY >1,000 To 5,000 SY, Type II Thermoplastic Coal-Tar Asphalt Seal	15.66	
32 12 36 16-0011	SY >5,000 To 20,000 SY, Type II Thermoplastic Coal-Tar Asphalt Seal	14.11	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 12 Flexible Paving**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 12 36 16-0012	SY	>20,000 To 50,000 SY, Type II Thermoplastic Coal-Tar Asphalt Seal.....	12.04
32 12 36 16-0013	SY	>50,000 SY, Type II Thermoplastic Coal-Tar Asphalt Seal.....	9.97

32 12 36 23 Fuel-Resistant Sealers (32 12 36)**32 12 36 23-0001 Guardtop Seal Coat (32 12 36 23)**

Note: Includes sweeping and cleaning of area.

32 12 36 23-0002	SY	GuardTop® Asphalt Based Sealcoat (Two Coats).....	3.26
		For 3% Polyglass Additive, Add.....	0.40
		For 6% Polyglass Additive, Add.....	0.72
		For Guardtop Black Sand 60 Mesh Additive (At 3 Pounds Per Gallon), Add.....	0.27
32 12 36 23-0003	LF	GuardTop® Cold Pour Crack Filler.....	1.36
32 12 36 23-0004	LF	GuardTop® Hot Pour Crack Filler.....	1.56
32 12 36 23-0005	SY	GuardTop® Oil Spot Primer For Asphalt.....	5.97
32 12 36 23-0006	SY	GuardTop® Ultra, Polymer Modified, Asphalt Based Sealcoat (Two Coats).....	4.34
		For 3% Polyglass Additive, Add.....	0.40
		For 6% Polyglass Additive, Add.....	0.72
		For Guardtop Black Sand 60 Mesh Additive (At 3 Pounds Per Gallon), Add.....	0.27

32 12 43 Porous Flexible Paving (32 12)**32 12 43 00-0001 Flexible Recycled Plastic Porous Grid (32 12 43)**

Note: Includes sand fill in rings. Excludes base, earth work and grass or sod.

32 12 43 00-0002	SY	1" Thick, Recycled Plastic Flexible Pavement With Sand Fill.....	37.14
		Note: Includes sand fill in rings. Excludes base, earth work and grass or sod. Invisible Structures, Inc., Grasspave2.....	
		For Up To 100, Add.....	12.24
		For >100 To 500, Add.....	3.04
		For >1,000 To 5,000, Deduct.....	-1.18
		For >5,000, Deduct.....	-2.53

32 12 73 Asphalt Paving Joint Sealants (32 12)**32 12 73 00-0001 Expansion Joint In Sidewalk (32 12 73)**

32 12 73 00-0002	LF	For Hot Asphalt Poured Over Expansion Joint In Sidewalk.....	3.28

32 13 Rigid Paving (32 10)**32 13 13 Concrete Paving (32 13)**

Note: The following section includes spreading and placing delivered Portland cement concrete mix.

32 13 13 33 Plain Concrete Paving (32 13 13)**32 13 13 33-0001 Concrete Paving Assemblies (32 13 13 33)**

Note: Includes forms, wire mesh (where necessary), two mat layers #3-#6 reinforcing rods at 12" on center with chairs (where necessary), vapor barrier, concrete, curing, latex or hot asphalt expansion joints, control joints, screed, float and finish. Excludes excavation, base and earthwork. Includes concrete paving machine. To be used for roadways, driveways, parking areas, or other areas of vehicular traffic. See CSI section 03 05 13 00-0001 for color additive.

32 13 13 33-0002 4,500 PSI Concrete Paving Assembly (32 13 13 33-0001)

32 13 13 33-0003	SY	4" 4,500 PSI Concrete Paving Assembly.....	57.39
		For 2,500 PSI Concrete, Deduct.....	-2.99
		For 3,000 PSI Concrete, Deduct.....	-1.95
		For 3,500 PSI Concrete, Deduct.....	-1.56
		For 4,000 PSI Concrete, Deduct.....	-0.68
		For 5,000 PSI Concrete, Add.....	0.42
		For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add.....	3.38
		For <12' Wide Pass, Add.....	10.45
		For 24' Or Greater Wide Pass, Deduct.....	-11.48
		For Air Entrainment, Add.....	1.30
		For Slipforming, Deduct.....	-5.74
		For Up To 100, Add.....	24.03
		For >100 To 250, Add.....	13.32
		For >250 To 500, Add.....	6.66
		For >1,000 To 2,000, Deduct.....	-1.30
		For >2,000 To 5,000, Deduct.....	-2.74
		For >5,000 To 10,000, Deduct.....	-4.17
		For >10,000 To 20,000, Deduct.....	-5.60
		For >20,000, Deduct.....	-7.04



Exterior Improvements		32
Bases, Ballasts, and Paving		32 10
Rigid Paving		32 13

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 13 13 33-0004	SY		5" 4,500 PSI Concrete Paving Assembly.....	67.52	
			For 2,500 PSI Concrete, Deduct	-3.75	
			For 3,000 PSI Concrete, Deduct	-2.45	
			For 3,500 PSI Concrete, Deduct	-1.96	
			For 4,000 PSI Concrete, Deduct	-0.85	
			For 5,000 PSI Concrete, Add	0.52	
			For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	4.24	
			For <12' Wide Pass, Add	11.98	
			For 24' Or Greater Wide Pass, Deduct	-13.50	
			For Air Entrainment, Add	1.63	
			For Slipforming, Deduct	-6.75	
			For Up To 100, Add	27.45	
			For >100 To 250, Add	15.36	
			For >250 To 500, Add	7.68	
			For >1,000 To 2,000, Deduct	-1.63	
			For >2,000 To 5,000, Deduct	-3.32	
			For >5,000 To 10,000, Deduct	-5.01	
			For >10,000 To 20,000, Deduct	-6.70	
			For >20,000, Deduct	-8.38	
32 13 13 33-0005	SY		6" 4,500 PSI Concrete Paving Assembly.....	72.20	
			For 2,500 PSI Concrete, Deduct	-3.96	
			For 3,000 PSI Concrete, Deduct	-2.58	
			For 3,500 PSI Concrete, Deduct	-2.07	
			For 4,000 PSI Concrete, Deduct	-0.90	
			For 5,000 PSI Concrete, Add	0.55	
			For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	4.48	
			For <12' Wide Pass, Add	12.89	
			For 24' Or Greater Wide Pass, Deduct	-14.44	
			For Air Entrainment, Add	1.72	
			For Slipforming, Deduct	-7.22	
			For Up To 100, Add	29.55	
			For >100 To 250, Add	16.50	
			For >250 To 500, Add	8.25	
			For >1,000 To 2,000, Deduct	-1.72	
			For >2,000 To 5,000, Deduct	-3.53	
			For >5,000 To 10,000, Deduct	-5.33	
			For >10,000 To 20,000, Deduct	-7.14	
			For >20,000, Deduct	-8.94	
32 13 13 33-0006	SY		7" 4,500 PSI Concrete Paving Assembly.....	85.27	
			For 2,500 PSI Concrete, Deduct	-4.99	
			For 3,000 PSI Concrete, Deduct	-3.26	
			For 3,500 PSI Concrete, Deduct	-2.61	
			For 4,000 PSI Concrete, Deduct	-1.13	
			For 5,000 PSI Concrete, Add	0.69	
			For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	5.65	
			For <12' Wide Pass, Add	14.80	
			For 24' Or Greater Wide Pass, Deduct	-17.05	
			For Air Entrainment, Add	2.17	
			For Slipforming, Deduct	-8.53	
			For Up To 100, Add	33.79	
			For >100 To 250, Add	19.07	
			For >250 To 500, Add	9.53	
			For >1,000 To 2,000, Deduct	-2.17	
			For >2,000 To 5,000, Deduct	-4.30	
			For >5,000 To 10,000, Deduct	-6.44	
			For >10,000 To 20,000, Deduct	-8.57	
			For >20,000, Deduct	-10.70	
32 13 13 33-0007	SY		8" 4,500 PSI Concrete Paving Assembly.....	97.87	
			For 2,500 PSI Concrete, Deduct	-5.48	
			For 3,000 PSI Concrete, Deduct	-3.57	
			For 3,500 PSI Concrete, Deduct	-2.86	
			For 4,000 PSI Concrete, Deduct	-1.24	
			For 5,000 PSI Concrete, Add	0.76	
			For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	6.20	
			For <12' Wide Pass, Add	17.32	
			For 24' Or Greater Wide Pass, Deduct	-19.57	
			For Air Entrainment, Add	2.38	
			For Slipforming, Deduct	-9.79	
			For Up To 100, Add	39.66	
			For >100 To 250, Add	22.21	
			For >250 To 500, Add	11.11	
			For >1,000 To 2,000, Deduct	-2.38	
			For >2,000 To 5,000, Deduct	-4.83	
			For >5,000 To 10,000, Deduct	-7.28	
			For >10,000 To 20,000, Deduct	-9.72	
			For >20,000, Deduct	-12.17	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 13 Rigid Paving**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 13 13 33-0008	SY 9" 4,500 PSI Concrete Paving Assembly.....	110.51
	For 2,500 PSI Concrete, Deduct	-6.33
	For 3,000 PSI Concrete, Deduct	-4.13
	For 3,500 PSI Concrete, Deduct	-3.30
	For 4,000 PSI Concrete, Deduct	-1.43
	For 5,000 PSI Concrete, Add	0.88
	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	7.16
	For <12' Wide Pass, Add	19.37
	For 24' Or Greater Wide Pass, Deduct	-22.10
	For Air Entrainment, Add	2.75
	For Slipforming, Deduct	-11.05
	For Up To 100, Add	44.27
	For >100 To 250, Add	24.89
	For >250 To 500, Add	12.45
	For >1,000 To 2,000, Deduct	-2.75
	For >2,000 To 5,000, Deduct	-5.52
	For >5,000 To 10,000, Deduct	-8.28
	For >10,000 To 20,000, Deduct	-11.04
	For >20,000, Deduct	-13.81
32 13 13 33-0009	SY 10" 4,500 PSI Concrete Paving Assembly.....	123.33
	For 2,500 PSI Concrete, Deduct	-6.97
	For 3,000 PSI Concrete, Deduct	-4.54
	For 3,500 PSI Concrete, Deduct	-3.63
	For 4,000 PSI Concrete, Deduct	-1.58
	For 5,000 PSI Concrete, Add	0.97
	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	7.88
	For <12' Wide Pass, Add	21.75
	For 24' Or Greater Wide Pass, Deduct	24.67
	For Air Entrainment, Add	3.03
	For Slipforming, Deduct	-12.33
	For Up To 100, Add	49.77
	For >100 To 250, Add	27.91
	For >250 To 500, Add	13.96
	For >1,000 To 2,000, Deduct	-3.03
	For >2,000 To 5,000, Deduct	-6.11
	For >5,000 To 10,000, Deduct	-9.20
	For >10,000 To 20,000, Deduct	-12.28
	For >20,000, Deduct	-15.36
32 13 13 33-0010	SY 12" 4,500 PSI Concrete Paving Assembly.....	147.04
	For 2,500 PSI Concrete, Deduct	-8.25
	For 3,000 PSI Concrete, Deduct	-5.38
	For 3,500 PSI Concrete, Deduct	-4.30
	For 4,000 PSI Concrete, Deduct	-1.87
	For 5,000 PSI Concrete, Add	1.15
	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	9.33
	For <12' Wide Pass, Add	26.00
	For 24' Or Greater Wide Pass, Deduct	-29.41
	For Air Entrainment, Add	3.59
	For Slipforming, Deduct	-14.70
	For Up To 100, Add	59.53
	For >100 To 250, Add	33.35
	For >250 To 500, Add	16.68
	For >1,000 To 2,000, Deduct	-3.59
	For >2,000 To 5,000, Deduct	-7.26
	For >5,000 To 10,000, Deduct	-10.94
	For >10,000 To 20,000, Deduct	-14.62
	For >20,000, Deduct	-18.29
32 13 13 33-0011	SY 15" 4,500 PSI Concrete Paving Assembly.....	188.04
	For 2,500 PSI Concrete, Deduct	-10.13
	For 3,000 PSI Concrete, Deduct	-6.61
	For 3,500 PSI Concrete, Deduct	-5.29
	For 4,000 PSI Concrete, Deduct	-2.29
	For 5,000 PSI Concrete, Add	1.41
	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	11.45
	For <12' Wide Pass, Add	33.80
	For 24' Or Greater Wide Pass, Deduct	-37.61
	For Air Entrainment, Add	4.41
	For Slipforming, Deduct	-18.80
	For Up To 100, Add	77.58
	For >100 To 250, Add	43.20
	For >250 To 500, Add	21.60
	For >1,000 To 2,000, Deduct	-4.41
	For >2,000 To 5,000, Deduct	-9.11
	For >5,000 To 10,000, Deduct	-13.81
	For >10,000 To 20,000, Deduct	-18.51
	For >20,000, Deduct	-23.21

32 13 16 Decorative Concrete Paving (32 13)**32 13 16 13 Patterned Concrete Paving (32 13 16)**

See CSI section 32 17 26 00-0000 for tactile warning surfaces.

32 13 16 13-0001	SF For Patterned (Tactile) Finish In Concrete Sidewalk.....	4.99

32 13 43 Pervious Concrete Paving (32 13)



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Rigid Paving			32 13

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MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
32 13 43 00-0001	Pervious Concrete Assemblies (32 13 43) Note: Pervious concrete is a special concrete mix with high porosity that allows water to pass through it. For paving and sidewalks.			
32 13 43 00-0002	SF 6" Thick, 15-25% Porosity, Minimum 115 PCF, Pervious Concrete Paving..... Note: Includes filter fabric, concrete, curing, finish, and control joints. Excludes excavation, base, forms and expansion joints along existing. For >5,000 To 30,000, Deduct For >30,000 To 100,000, Deduct For >100,000, Deduct		18.61 -1.99 -3.65 -4.53	
32 13 43 00-0003	SF 9" Thick, 15-25% Porosity, Minimum 115 PCF, Pervious Concrete Paving..... Note: Includes filter fabric, concrete, curing, finish, and control joints. Excludes excavation, base, forms and expansion joints along existing. For >5,000 To 30,000, Deduct For >30,000 To 100,000, Deduct For >100,000, Deduct		23.59 -2.45 -4.42 -5.49	
32 13 73	Concrete Paving Joint Sealants (32 13)			
32 13 73 13	Fuel-Resistant Concrete Paving Joint Sealants (32 13 73)			
32 13 73 13-0001	Concrete Pavement Joint And Crack Repair (32 13 73 13) Note: Includes cutting joint, removal of existing material, sweeping and cleaning area.			
32 13 73 13-0002	Silicone Concrete Pavement Joint And Crack Repair (32 13 73 13-0001)			
32 13 73 13-0003	CLF 1/4" x 1/4" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		648.72 21.94 31.99 18.28	
32 13 73 13-0004	CLF 1/4" x 3/8" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		731.57 32.91 47.99 27.42	
32 13 73 13-0005	CLF 1/4" x 1/2" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		814.44 43.88 63.99 36.56	
32 13 73 13-0006	CLF 3/8" x 3/8" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		837.29 49.36 71.98 41.13	
32 13 73 13-0007	CLF 3/8" x 1/2" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		924.42 65.81 95.98 54.84	
32 13 73 13-0008	CLF 3/8" x 5/8" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,011.55 82.27 119.97 68.56	
32 13 73 13-0009	CLF 3/8" x 3/4" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,117.27 98.72 143.97 82.27	
32 13 73 13-0010	CLF 1/2" x 1/2" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,034.40 87.75 127.97 73.13	
32 13 73 13-0011	CLF 1/2" x 5/8" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,200.11 109.69 159.96 91.41	
32 13 73 13-0012	CLF 1/2" x 3/4" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,328.68 131.63 191.96 109.69	
32 13 73 13-0013	CLF 1/2" x 7/8" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,457.25 153.57 223.95 127.97	
32 13 73 13-0014	CLF 1/2" x 1" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,567.23 175.50 255.94 146.25	
32 13 73 13-0015	CLF 3/4" x 3/4" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		1,677.21 197.44 287.93 164.53	
32 13 73 13-0016	CLF 3/4" x 1" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		2,034.30 274.22 399.91 228.52	
32 13 73 13-0017	CLF 1" x 1" Joint, Silicone Concrete Pavement Joint And Crack Repair..... For Custom Match Coloring, Add For 1 Part Mildew Resistant, Add For High-Modulus Non-Acid Curing, Add		2,391.38 351.01 511.89 292.51	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 13 Rigid Paving**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST**32 13 73 16 Field-Molded Concrete Paving Joint Sealants (32 13 73)****32 13 73 16-0001 Preformed Elastomeric Concrete Pavement Joint And Crack Repair (32 13 73 16)**

Note: Includes cutting joint, removal of existing material, sweeping and cleaning area.

32 13 73 16-0002 LF Joint Sealing, Concrete Pavement Preformed Elastomeric 13.10

32 13 73 19 Compression Concrete Paving Joint Sealants (32 13 73)**32 13 73 19-0001 Silicone Joint Sealant For Concrete Pavement (32 13 73 19)**

Note: Installation includes high pressure water wash, sand blast, sweeping, cleaning area, backer rod and Dow Corning 888 silicone sealant. Demolition includes removal of existing material where saw cutting is not required. Excludes saw cutting.

32 13 73 19-0002	LF	1/4" x 1/4" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	11.91	2.76
32 13 73 19-0003	LF	3/8" x 1/4" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	12.53	2.82
32 13 73 19-0004	LF	1/2" x 1/4" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	13.35	2.88
32 13 73 19-0005	LF	3/4" x 3/8" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	16.05	2.93
32 13 73 19-0006	LF	1" x 1/2" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	18.90	3.00
32 13 73 19-0007	LF	1-1/2" x 1/2" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	24.13	3.05
32 13 73 19-0008	LF	2" x 1/2" Expansion And Contraction Silicone Joint Sealant For Concrete Pavement	35.25	3.12

32 14 Unit Paving (32 10)**32 14 09 Paver Restraints (32 14)****32 14 09 00-0001 Paver Restraints (32 14 09)**

Note: Paver restraints are used along the edge of a group of pavers as a locking border. Flexible or rigid sections. Includes stakes and connecting devices. Excludes pavers, bedding, excavation, base course and compaction.

32 14 09 00-0002	LF	Up To 2" Height, Vinyl Paver Restraint	5.26	1.23
		For >1,000 To 2,000, Deduct	-0.73	
		For >2,000 To 4,000, Deduct	-1.06	
		For >4,000, Deduct	-1.35	
32 14 09 00-0003	LF	Up To 2" Height, Galvanized Steel Paver Restraint	5.70	1.23
		For >500 To 1,000, Deduct	-0.19	
		For >1,000 To 2,000, Deduct	-0.37	
		For >2,000, Deduct	-0.56	
32 14 09 00-0004	LF	Up To 1" Height, Aluminum Paver Restraint	5.48	1.23
		For >250 To 500, Deduct	-0.35	
		For >500 To 1,000, Deduct	-0.53	
		For >1,000 To 1,500, Deduct	-0.88	
32 14 09 00-0005	LF	>1" To 2" Height, Aluminum Paver Restraint	6.47	1.23
		For >250 To 500, Deduct	-0.45	
		For >500 To 1,000, Deduct	-0.68	
		For >1,000 To 1,500, Deduct	-1.13	
32 14 09 00-0006	LF	>2" To 3" Height, Aluminum Paver Restraint	8.36	1.23
		For >250 To 500, Deduct	-0.64	
		For >500 To 1,000, Deduct	-0.96	
		For >1,000 To 1,500, Deduct	-1.60	
32 14 09 00-0007	LF	>3" To 4" Height, Aluminum Paver Restraint	9.82	1.23
		For >250 To 500, Deduct	-0.79	
		For >500 To 1,000, Deduct	-1.18	
		For >1,000 To 1,500, Deduct	-1.97	

32 14 11 Bedding for Unit Paving (32 14)**32 14 11 00-0001 Bedding For Brick, Precast Concrete Paver And Stone Sidewalk (32 14 11)**

Note: Includes delivery up to 15 miles from the closest approved source, the cost for loading, and dumping. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

32 14 11 00-0002	SF	1" To 2" Sand Bedding, Screeded	0.99	
		For Up To 100, Add	0.44	
		For >100 To 500, Add	0.12	
		For >1,000 To 5,000, Deduct	-0.08	
		For >5,000, Deduct	-0.12	
32 14 11 00-0003	SF	1" To 2" Stone Dust Bedding, Screeded	1.19	
		For Up To 100, Add	0.49	
		For >100 To 500, Add	0.13	
		For >1,000 To 5,000, Deduct	-0.08	
		For >5,000, Deduct	-0.13	
32 14 11 00-0004	SF	3" Stone Dust Bedding, Screeded	1.55	
		For Up To 100, Add	0.61	
		For >100 To 500, Add	0.17	
		For >1,000 To 5,000, Deduct	-0.09	
		For >5,000, Deduct	-0.15	
32 14 11 00-0005	SF	4" Stone Dust Bedding, Screeded	1.97	
		For Up To 100, Add	0.77	
		For >100 To 500, Add	0.21	
		For >1,000 To 5,000, Deduct	-0.11	
		For >5,000, Deduct	-0.19	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Unit Paving			32 14

32

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 14 11 00-0006	SF	1" Mortar Bedding.....		3.00	
		For Up To 100, Add		1.37	
		For >100 To 500, Add		0.40	
		For >1,000 To 5,000, Deduct		-0.25	
		For >5,000, Deduct		-0.39	
32 14 11 00-0007	SF	2" Mortar Bedding.....		4.38	
		For Up To 100, Add		1.92	
		For >100 To 500, Add		0.55	
		For >1,000 To 5,000, Deduct		-0.33	
		For >5,000, Deduct		-0.53	
32 14 11 00-0008	SF	Thin-Set Latex Portland Cement Mortar		1.55	
		For Up To 100, Add		0.72	
		For >100 To 500, Add		0.21	
		For >1,000 To 5,000, Deduct		-0.13	
		For >5,000, Deduct		-0.20	
32 14 13 Precast Concrete Unit Paving (32 14)					
32 14 13 16 Precast Concrete Unit Paving Slabs (32 14 13)					
32 14 13 16-0001			Precast Concrete Paver Sidewalk (32 14 13 16)		
			Note: Square, rectangular, or interlocking pervious pavers. Includes sand joints and all finishes. Excludes bedding, excavation, base course and compaction. See CSI section 32 11 23 16-0001 for base course, 32 14 11 00-0001 for bedding.		
32 14 13 16-0002	SF	2-3/8" Thick, Up To 32 SI Precast Concrete Paver.....		10.57	3.07
		Note: Includes 2-1/2" x 5", 4" x 4", 4" x 6", 5" x 5", 4" x 8" and other similar size pavers.			
		For 2-3/4" Concrete Paver, Add		0.97	
		For 3-1/8" Concrete Paver, Add		1.56	
		For Cement/Sand Mix Or Polymeric Sand Joints, Add		0.84	
		For Up To 100, Add		4.18	
		For >100 To 500, Add		1.14	
		For >1,000 To 5,000, Deduct		-0.62	
		For >5,000, Deduct		-1.06	
32 14 13 16-0003	SF	2-3/8" Thick, >32 To 64 SI Precast Concrete Paver		10.01	2.80
		Note: Includes 5" x 7", 6" x 6", 8" x 8" and other similar size pavers.			
		For 2-3/4" Concrete Paver, Add		0.94	
		For 3-1/8" Concrete Paver, Add		1.52	
		For Cement/Sand Mix Or Polymeric Sand Joints, Add		0.78	
		For Up To 100, Add		3.90	
		For >100 To 500, Add		1.06	
		For >1,000 To 5,000, Deduct		-0.56	
		For >5,000, Deduct		-0.97	
32 14 13 16-0004	SF	2-3/8" Thick, >64 To 144 SI Precast Concrete Paver		9.49	2.22
		Note: Includes 6" x 12", 12" x 12" and other similar size pavers.			
		For 2-3/4" Concrete Paver, Add		0.92	
		For 3-1/8" Concrete Paver, Add		1.48	
		For Cement/Sand Mix Or Polymeric Sand Joints, Add		0.73	
		For Up To 100, Add		3.64	
		For >100 To 500, Add		0.98	
		For >1,000 To 5,000, Deduct		-0.51	
		For >5,000, Deduct		-0.89	
32 14 13 16-0005	SF	2-3/8" Thick, >144 SI Precast Concrete Paver		9.03	2.31
		Note: Includes 16" x 16", 12" x 24", 18" x 18", 24" x 24", 24" x 36", 36" x 36" and other similar size pavers.			
		For 2-3/4" Concrete Paver, Add		0.89	
		For 3-1/8" Concrete Paver, Add		1.45	
		For Cement/Sand Mix Or Polymeric Sand Joints, Add		0.68	
		For Up To 100, Add		3.41	
		For >100 To 500, Add		0.91	
		For >1,000 To 5,000, Deduct		-0.46	
		For >5,000, Deduct		-0.83	
32 14 13 16-0006	SF	2-3/8" Thick, Precast Concrete Paver, Combinations And Patterns		9.74	2.66
		Note: Patterns made by combining pavers from two or more size groups.			
		For 2-3/4" Concrete Paver, Add		0.93	
		For 3-1/8" Concrete Paver, Add		1.50	
		For Cement/Sand Mix Or Polymeric Sand Joints, Add		0.75	
		For Up To 100, Add		3.77	
		For >100 To 500, Add		1.02	
		For >1,000 To 5,000, Deduct		-0.53	
		For >5,000, Deduct		-0.93	
32 14 13 19 Porous Precast Concrete Unit Paving (32 14 13)					
32 14 13 19-0001			Turf Block (32 14 13 19)		
			Note: Grass grid, open-cell unit paver, geoblock.		
32 14 13 19-0002	SF	3-1/8" Thick, Precast Concrete Turf Block		12.00	2.66
		For Up To 100, Add		4.33	
		For >100 To 500, Add		1.13	
		For >1,000 To 5,000, Deduct		-0.53	
		For >5,000, Deduct		-1.00	
32 14 16 Brick Unit Paving (32 14)					

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 14 Unit Paving**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
32 14 16 00-0001	Brick Paver Sidewalk (32 14 16) Note: Includes sand joints. Excludes bedding, excavation, base course and compaction. See CSI section 32 11 23 16-0001 for base course, 32 14 11 00-0001 for bedding.			
32 14 16 00-0002	SF 4" x 8" x 2-1/4" Brick Paver, Laid Flat For 1-3/8" Thick Paver, Deduct For 2-3/4" Thick Paver (Vehicular), Add For Cement/Sand Mix Or Polymeric Sand Joints, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	14.93 -3.38 7.79 1.05 5.27 1.36 -0.62 -1.19	3.07	
32 14 16 00-0003	SF 4" x 8" x 2-1/4" Brick, Laid On Edge For 1-3/8" Thick Paver, Deduct For 2-3/4" Thick Paver (Vehicular), Add For Cement/Sand Mix Or Polymeric Sand Joints, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	22.59 -5.81 13.65 1.48 7.40 1.83 -0.70 -1.52	3.51	
32 14 33 Plastic Paving (32 14)				
32 14 33 13 Permeable Plastic Paving (32 14 33)				
32 14 33 13-0001	Turf Block Plastic Paving (32 14 33 13)			
32 14 33 13-0002	SF 4" Thick Recycled Polyvinyl Chloride (PVC) Plastic Turf Block For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	18.56 5.97 1.46 -0.53 -1.20	2.66	
32 14 40 Stone Paving (32 14)				
32 14 40 00-0001	Slate Paver Sidewalk (32 14 40) Note: Includes sand joints and all finishes. Excludes bedding, excavation, base course and compaction. See CSI section 32 11 23 16-0001 for base course, 32 14 11 00-0001 for bedding.			
32 14 40 00-0002	SF 1" Thick, Up to 54 SI Slate Paver Note: Includes 3" x 9", 6" x 6", 6" x 9" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 1/4" Thick Paver, Deduct For 1/2" Thick Paver, Deduct For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	15.54 1.03 -7.96 -5.57 5.16 1.29 -0.51 -1.08	2.55	
32 14 40 00-0003	SF 1" Thick, >54 to 108 SI Slate Paver Note: Includes 6" x 12", 9" x 9", 6" x 18", 9" x 12" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 1/4" Thick Paver, Deduct For 1/2" Thick Paver, Deduct For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	15.08 0.99 -7.85 -5.50 4.93 1.22 -0.46 -1.01	2.31	
32 14 40 00-0004	SF 1" Thick, >108 to 216 SI Slate Paver Note: Includes 12" x 12", 6" x 24", 9" x 18", 9" x 24", 12" x 18" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 1/4" Thick Paver, Deduct For 1/2" Thick Paver, Deduct For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	14.28 0.91 -7.65 -5.38 4.53 1.10 -0.38 -0.89	1.91	
32 14 40 00-0005	SF 1" Thick, >216 SI Slate Paver Note: Includes 16" x 16", 12" x 24", 18" x 18", 24" x 24", 24" x 36", 36" x 36" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 1/4" Thick Paver, Deduct For 1/2" Thick Paver, Deduct For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	13.94 0.87 -7.56 -5.33 4.36 1.05 -0.35 -0.84	1.74	
32 14 40 00-0006	SF 1" Thick, Slate Paver, Combinations And Patterns Note: Patterns made by combining pavers from two or more size groups. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 1/4" Thick Paver, Deduct For 1/2" Thick Paver, Deduct For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	14.64 0.94 -7.74 -5.44 4.71 1.15 -0.42 -0.94	2.09	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Unit Paving			32 14

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

32 14 40 00-0007			Granite Paver Sidewalk ^(32 14 40) Note: Includes sand joints and all finishes. Excludes bedding, excavation, base course and compaction. See CSI section 32 11 23 16-0001 for base course, 32 14 11 00-0001 for bedding.		
32 14 40 00-0008	SF	1" Thick, Up to 54 SI Granite Paver	Note: Includes 3" x 9", 6" x 6", 6" x 9" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 2" Granite Paver, Add For 3" Granite Paver, Add For 4" Granite Paver, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	22.32 1.37 1.12 2.23 2.49 6.85 1.62 -0.51 -1.28	2.55
32 14 40 00-0009	SF	1" Thick, >54 to 108 SI Granite Paver	Note: Includes 6" x 12", 9" x 9", 6" x 18", 9" x 12" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 2" Granite Paver, Add For 3" Granite Paver, Add For 4" Granite Paver, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	21.86 1.32 1.09 2.19 2.42 6.62 1.56 -0.46 -1.21	2.31
32 14 40 00-0010	SF	1" Thick, >108 to 216 SI Granite Paver	Note: Includes 12" x 12", 6" x 24", 9" x 18", 9" x 24", 12" x 18" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 2" Granite Paver, Add For 3" Granite Paver, Add For 4" Granite Paver, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	21.06 1.24 1.05 2.11 2.30 6.22 1.44 -0.38 -1.09	1.91
32 14 40 00-0011	SF	1" Thick, >216 SI Granite Paver	Note: Includes 16" x 16", 12" x 24", 18" x 18", 24" x 24" and other similar size pavers. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 2" Granite Paver, Add For 3" Granite Paver, Add For 4" Granite Paver, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	20.72 1.21 1.04 2.07 2.25 6.05 1.38 -0.35 -1.04	1.74
32 14 40 00-0012	SF	1" Thick, Granite Paver, Combinations And Patterns	Note: Patterns made by combining pavers from two or more size groups. For Cement/Sand Mix Or Polymeric Sand Joints, Add For 2" Granite Paver, Add For 3" Granite Paver, Add For 4" Granite Paver, Add For Up To 100, Add For >100 To 500, Add For >1,000 To 5,000, Deduct For >5,000, Deduct	21.42 1.28 1.07 2.14 2.35 6.40 1.49 -0.42 -1.14	2.09

32 15 Aggregate Surfacing ^(32 10)

32 15 40 Crushed Stone Surfacing ^(32 15)

Note: Includes delivery up to 15 miles from supplier, placement, rolling and compaction water. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

32 15 40 00-0001			Gravel Surfacing And Spreading ^(32 15 40) Note: Includes delivered material, placement, rolling and compaction water.		
32 15 40 00-0002	CY	Gravel Surfacing And Spreading		105.05	
32 15 40 00-0003			Limestone Screenings ^(32 15 40) Note: Includes delivered material, placement, rolling and compaction water. For trail maintenance.		
32 15 40 00-0004	CY	Limestone Screenings For Trail		60.09	
32 15 40 00-0005			Decomposed Granite ^(32 15 40) Note: Includes delivered material, placement, rolling and compaction water.		
32 15 40 00-0006	SY	3" To 4" Thick Decomposed Granite Screenings With Stabilizer Pathway	Note: Placed in 2 lifts. For Additional 2" Lift For >45 To 180, Deduct For >180 To 450, Deduct For >450, Deduct	19.65 9.83 -1.31 -1.65 -1.98	

32 16 Curbs, Gutters, Sidewalks, and Driveways ^(32 10)

32 16 13 Curbs and Gutters ^(32 16)

Note: Includes transitions. Demolition Includes two saw cuts (each end) of curbs and gutters for lengths up to 100'. See CSI

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 16 Curbs, Gutters, Sidewalks, and Driveways**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

section 02 41 19 13-0059 for additional saw cuts within the 100'.

32 16 13 13 Cast-In-Place Concrete Curbs and Gutters (32 16 13)

Note: Includes concrete, forms, rebar (where required), rebar chairs (where necessary), expansion joints, finish and curing.

32 16 13 13-0001 Cast In Place Concrete Curbs Assemblies (32 16 13 13)

Note: Includes delivered concrete, forms, rebar, chairs (where necessary), expansion joints, finish and curing.

32 16 13 13-0002	LF	6" x 12" Cast In Place Concrete Curb (Type A1-6)	21.47	10.51
		For Mountable Curb, Add	1.42	
		For Up To 20, Add	12.70	
		For >20 To 50, Add	7.19	
		For >50 To 100, Add	2.75	
		For >500 To 1,000, Deduct	-2.75	
		For >1,000, Deduct	-4.67	
32 16 13 13-0003	LF	6" x 12" Cast In Place Concrete Curb - Radius (Type A1-6)	24.42	12.09
		For Mountable Curb, Add	1.67	
		For Up To 20, Add	14.61	
		For >20 To 50, Add	8.28	
		For >50 To 100, Add	3.17	
		For >500 To 1,000, Deduct	-3.17	
		For >1,000, Deduct	-5.36	
32 16 13 13-0004	LF	6" x 14" Cast In Place Concrete Curb (Type A1-8)	23.43	10.51
		For Mountable Curb, Add	1.56	
		For Up To 20, Add	13.88	
		For >20 To 50, Add	7.86	
		For >50 To 100, Add	3.01	
		For >500 To 1,000, Deduct	-3.01	
		For >1,000, Deduct	-5.10	
32 16 13 13-0005	LF	6" x 14" Cast In Place Concrete Curb - Radius (Type A1-8)	26.67	12.09
		For Mountable Curb, Add	1.83	
		For Up To 20, Add	15.98	
		For >20 To 50, Add	9.05	
		For >50 To 100, Add	3.46	
		For >500 To 1,000, Deduct	-3.46	
		For >1,000, Deduct	-5.86	
32 16 13 13-0006	LF	6" x 16" Cast In Place Concrete Curb	25.59	10.51
		For Mountable Curb, Add	1.69	
		For Up To 20, Add	15.10	
		For >20 To 50, Add	8.55	
		For >50 To 100, Add	3.28	
		For >500 To 1,000, Deduct	-3.28	
		For >1,000, Deduct	-5.55	
32 16 13 13-0007	LF	6" x 16" Cast In Place Concrete Curb - Radius	29.05	15.77
		For Mountable Curb, Add	1.99	
		For Up To 20, Add	17.37	
		For >20 To 50, Add	9.84	
		For >50 To 100, Add	3.76	
		For >500 To 1,000, Deduct	-3.76	
		For >1,000, Deduct	-6.37	
32 16 13 13-0008	LF	6" x 18" Cast In Place Concrete Curb	27.30	10.51
		For Mountable Curb, Add	1.79	
		For Up To 20, Add	16.08	
		For >20 To 50, Add	9.10	
		For >50 To 100, Add	3.49	
		For >500 To 1,000, Deduct	-3.49	
		For >1,000, Deduct	-5.92	
32 16 13 13-0009	LF	6" x 18" Cast In Place Concrete Curb - Radius	30.68	12.09
		For Mountable Curb, Add	2.06	
		For Up To 20, Add	18.23	
		For >20 To 50, Add	10.32	
		For >50 To 100, Add	3.95	
		For >500 To 1,000, Deduct	-3.95	
		For >1,000, Deduct	-6.70	
32 16 13 13-0010	LF	6" x 24" Cast In Place Concrete Curb	30.99	11.57
		For Mountable Curb, Add	1.92	
		For Up To 20, Add	17.88	
		For >20 To 50, Add	10.11	
		For >50 To 100, Add	3.89	
		For >500 To 1,000, Deduct	-3.89	
		For >1,000, Deduct	-6.60	
32 16 13 13-0011	LF	6" x 24" Cast In Place Concrete Curb - Radius	34.50	13.14
		For Mountable Curb, Add	2.18	
		For Up To 20, Add	20.04	
		For >20 To 50, Add	11.33	
		For >50 To 100, Add	4.35	
		For >500 To 1,000, Deduct	-4.35	
		For >1,000, Deduct	-7.39	
32 16 13 13-0012	LF	12" x 24" Cast In Place Concrete Curb	39.13	13.14
		For Mountable Curb, Add	1.92	
		For Up To 20, Add	20.97	
		For >20 To 50, Add	11.80	
		For >50 To 100, Add	4.58	
		For >500 To 1,000, Deduct	-4.58	
		For >1,000, Deduct	-7.86	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Curbs, Gutters, Sidewalks, and Driveways			32 16

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 13-0013	LF		12" x 24" Cast In Place Concrete Curb - Radius.....	43.42	14.71
			For Mountable Curb, Add	2.18	
			For Up To 20, Add	23.40	
			For >20 To 50, Add	13.17	
			For >50 To 100, Add	5.12	
			For >500 To 1,000, Deduct	-5.12	
			For >1,000, Deduct	-8.76	
32 16 13 13-0014	EA		Additional Finish For Handicap Drop Section In Curb.....	78.83	
32 16 13 13-0015 Cast In Place Concrete Curb And Gutter Assemblies (32 16 13 13)					
Note: Includes concrete, forms, rebar, chairs (where necessary), transitions, expansion joints, finish and curing.					
32 16 13 13-0016	LF		6" x 12" Cast In Place Concrete Gutter With 6" Curb And Face - Straight.....	28.65	12.69
			For Up To 20, Add	19.41	
			For >20 To 50, Add	10.82	
			For >50 To 100, Add	4.30	
			For >500 To 1,000, Deduct	-3.65	
			For >1,000, Deduct	-6.20	
			For Mountable Or Rolled Curb And Gutter, Add	1.87	
32 16 13 13-0017	LF		6" x 12" Cast In Place Concrete Gutter With 6" Curb And Face - Radius.....	31.10	16.93
			For Up To 20, Add	21.09	
			For >20 To 50, Add	11.76	
			For >50 To 100, Add	4.67	
			For >500 To 1,000, Deduct	-3.99	
			For >1,000, Deduct	-6.76	
			For Mountable Or Rolled Curb And Gutter, Add	2.06	
32 16 13 13-0018	LF		6" x 18" Cast In Place Concrete Gutter With 6" Curb And Face - Straight.....	35.91	14.07
			For Up To 20, Add	24.35	
			For >20 To 50, Add	13.58	
			For >50 To 100, Add	5.39	
			For >500 To 1,000, Deduct	-4.60	
			For >1,000, Deduct	-7.80	
			For Mountable Or Rolled Curb And Gutter, Add	2.37	
32 16 13 13-0019	LF		6" x 18" Cast In Place Concrete Gutter With 6" Curb And Face - Radius.....	39.54	15.66
			For Up To 20, Add	26.85	
			For >20 To 50, Add	14.98	
			For >50 To 100, Add	5.93	
			For >500 To 1,000, Deduct	-5.10	
			For >1,000, Deduct	-8.64	
			For Mountable Or Rolled Curb And Gutter, Add	2.66	
32 16 13 13-0020	LF		6" x 24" Cast In Place Concrete Gutter With 6" Curb And Face - Straight (Type A3-6).....	43.15	16.93
			For Up To 20, Add	29.27	
			For >20 To 50, Add	16.33	
			For >50 To 100, Add	6.47	
			For >500 To 1,000, Deduct	-5.54	
			For >1,000, Deduct	-9.39	
			For Mountable Or Rolled Curb And Gutter, Add	2.87	
32 16 13 13-0021	LF		6" x 24" Cast In Place Concrete Gutter With 6" Curb And Face - Radius (Type A3-6).....	47.95	19.05
			For Up To 20, Add	32.58	
			For >20 To 50, Add	18.19	
			For >50 To 100, Add	7.19	
			For >500 To 1,000, Deduct	-6.20	
			For >1,000, Deduct	-10.51	
			For Mountable Or Rolled Curb And Gutter, Add	3.26	
32 16 13 13-0022	LF		6" x 24" Cast In Place Concrete Gutter With 6" Curb And 8" Face - Straight.....	45.26	16.93
			For Up To 20, Add	30.71	
			For >20 To 50, Add	17.13	
			For >50 To 100, Add	6.79	
			For >500 To 1,000, Deduct	-5.82	
			For >1,000, Deduct	-9.86	
			For Mountable Or Rolled Curb And Gutter, Add	3.02	
			For Tapered Gutter With Level Bottom (Type A2-6 Or 8), Add	0.97	
32 16 13 13-0023	LF		6" x 24" Cast In Place Concrete Gutter With 6" Curb And 8" Face - Radius.....	50.30	19.05
			For Up To 20, Add	34.18	
			For >20 To 50, Add	19.09	
			For >50 To 100, Add	7.55	
			For >500 To 1,000, Deduct	-6.51	
			For >1,000, Deduct	-11.03	
			For Mountable Or Rolled Curb And Gutter, Add	3.43	
			For Tapered Gutter With Level Bottom (Type A2-6 Or 8), Add	1.03	
32 16 13 13-0024	LF		6" x 30" Cast In Place Concrete Gutter With 6" Curb And Face - Straight.....	50.94	20.10
			For Up To 20, Add	34.58	
			For >20 To 50, Add	19.30	
			For >50 To 100, Add	7.64	
			For >500 To 1,000, Deduct	-6.57	
			For >1,000, Deduct	-11.12	
			For Mountable Or Rolled Curb And Gutter, Add	3.43	
32 16 13 13-0025	LF		6" x 30" Cast In Place Concrete Gutter With 6" Curb And Face - Radius.....	55.87	22.22
			For Up To 20, Add	37.97	
			For >20 To 50, Add	21.20	
			For >50 To 100, Add	8.38	
			For >500 To 1,000, Deduct	-7.24	
			For >1,000, Deduct	-12.25	
			For Mountable Or Rolled Curb And Gutter, Add	3.81	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 16 Curbs, Gutters, Sidewalks, and Driveways**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 13-0026 LF 6" x 36" Cast In Place Concrete Gutter With 6" Curb And Face - Straight.....	58.72	23.27
For Up To 20, Add	39.89	
For >20 To 50, Add	22.27	
For >50 To 100, Add	8.81	
For >500 To 1,000, Deduct	-7.59	
For >1,000, Deduct	-12.85	
For Mountable Or Rolled Curb And Gutter, Add	3.98	
32 16 13 13-0027 LF 6" x 36" Cast In Place Concrete Gutter With 6" Curb And Face - Radius.....	63.77	25.39
For Up To 20, Add	43.34	
For >20 To 50, Add	24.21	
For >50 To 100, Add	9.57	
For >500 To 1,000, Deduct	-8.27	
For >1,000, Deduct	-13.99	
For Mountable Or Rolled Curb And Gutter, Add	4.36	
32 16 13 13-0028 LF 6" x 42" Cast In Place Concrete Gutter With 6" Curb And Face - Straight.....	66.51	26.44
For Up To 20, Add	45.20	
For >20 To 50, Add	25.24	
For >50 To 100, Add	9.98	
For >500 To 1,000, Deduct	-8.61	
For >1,000, Deduct	-14.58	
For Mountable Or Rolled Curb And Gutter, Add	4.54	
32 16 13 13-0029 LF 6" x 42" Cast In Place Concrete Gutter With 6" Curb And Face - Radius.....	73.78	29.62
For Up To 20, Add	50.19	
For >20 To 50, Add	28.06	
For >50 To 100, Add	11.07	
For >500 To 1,000, Deduct	-9.61	
For >1,000, Deduct	-16.26	
For Mountable Or Rolled Curb And Gutter, Add	5.12	
32 16 13 13-0030 Curb And Parkway Drains (32 16 13 13)		
Note: Includes concrete, forms, rebar, expansion joints, finish and curing.		
32 16 13 13-0031 EA Case I Inlet Structure For Curb Drain.....	2,341.58	
32 16 13 13-0032 EA Case II Inlet Structure For Curb Drain.....	2,055.95	
32 16 13 13-0033 EA Up To 30" Wide Inlet Type I Structure For Parkway Drain.....	2,404.84	
32 16 13 13-0034 EA 36" Wide Inlet Type I Structure For Parkway Drain.....	2,452.01	
32 16 13 13-0035 EA 42" Wide Inlet Type I Structure For Parkway Drain.....	2,500.09	
32 16 13 13-0036 EA 48" Wide Inlet Type I Structure For Parkway Drain.....	2,543.62	
32 16 13 13-0037 EA 54" Wide Inlet Type I Structure For Parkway Drain.....	2,612.71	
32 16 13 13-0038 EA 60" Wide Inlet Type I Structure For Parkway Drain.....	2,663.91	
32 16 13 13-0039 EA 66" Wide Inlet Type I Structure For Parkway Drain.....	2,710.23	
32 16 13 13-0040 EA 72" Wide Inlet Type I Structure For Parkway Drain.....	2,758.99	
32 16 13 13-0041 LF Up To 30" Wide x 4" Concrete Duct For Parkway Drain.....	150.48	
32 16 13 13-0042 LF 42" Wide x 4" Concrete Duct For Parkway Drain.....	171.37	
32 16 13 13-0043 LF 48" Wide x 4" Concrete Duct For Parkway Drain.....	192.25	
32 16 13 13-0044 LF 54" Wide x 4" Concrete Duct For Parkway Drain.....	213.13	
32 16 13 13-0045 LF 60" Wide x 4" Concrete Duct For Parkway Drain.....	234.02	
32 16 13 13-0046 LF 66" Wide x 4" Concrete Duct For Parkway Drain.....	254.90	
32 16 13 13-0047 LF 72" Wide x 4" Concrete Duct For Parkway Drain.....	275.79	
32 16 13 14 Machine Formed, Slip Form Curbs (32 16 13)		
Note: Includes delivered concrete, steel, expansion joints and finish.		
32 16 13 14-0001 Curbs, Machine Formed, Slip Form (32 16 13 14)		
Note: Includes delivered concrete, steel, expansion joints and finish.		
32 16 13 14-0002 EA Machine Formed Concrete Curb Minimum Set-Up Charge (One Time Per Job).....	1,571.72	
Note: For projects where the total curbing charge is less than the minimum set-up charge, use this task exclusively. This task shall not be used in conjunction with any other tasks in this section.		
32 16 13 14-0003 LF 6" x 12" Straight Concrete Curb, Machine Formed.....	11.37	
32 16 13 14-0004 LF 6" x 12" Curved Concrete Curb, Machine Formed.....	15.94	
32 16 13 14-0005 LF 6" x 18" Straight Concrete Curb, Machine Formed.....	14.93	
32 16 13 14-0006 LF 6" x 18" Curved Concrete Curb, Machine Formed.....	20.48	
32 16 13 16 Steel Faced Curbs (32 16 13)		
Note: Fabrication includes handicap and other curb access cuts.		
32 16 13 16-0001 Sidewalk/Curb Facing (32 16 13 16)		
Note: Fabrication includes handicap and other curb access cuts.		
32 16 13 16-0002 LF 3" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	17.21	5.79
For Curved Section, Add	3.88	
32 16 13 16-0003 LF 4" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	18.98	6.58
For Curved Section, Add	4.37	
32 16 13 16-0004 LF 6" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	25.36	7.37
For Curved Section, Add	5.32	
32 16 13 16-0005 LF 8" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	30.98	8.29
For Curved Section, Add	6.19	
32 16 13 16-0006 LF 10" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	37.74	9.08
For Curved Section, Add	7.17	
32 16 13 16-0007 LF 12" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	49.30	11.58
For Curved Section, Add	9.25	
32 16 13 16-0008 LF 13" Steel Sidewalk/Curb Facing, With Steel Anchor, 12" On Center.....	57.10	15.01
For Curved Section, Add	11.32	
32 16 13 16-0009 EA Sidewalk/Curb Steel Facing, Pedestrian Ramps, Two Drops Per Section.....	176.01	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 19			Cast-In-Place Concrete Drainage Ditches (32 16 13)		
Note: Includes concrete, forms, rebar (where required), rebar chairs (where necessary), expansion joints, finish and curing.					
32 16 13 19-0001			Valley Gutter, Cast In Place (32 16 13 19)		
Note: Includes concrete, forms, rebar, expansion joints, finish and curing.					
32 16 13 19-0002	LF		1' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	15.78	
32 16 13 19-0003	LF		2' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	21.58	
			For Up To 20, Add	10.56	
			For >20 To 50, Add	5.90	
			For >50 To 100, Add	2.33	
			For >500 To 1,000, Deduct	-2.83	
			For >1,000, Deduct	-4.03	
32 16 13 19-0004	LF		2-1/2' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	26.40	
			For Up To 20, Add	12.79	
			For >20 To 50, Add	7.15	
			For >50 To 100, Add	2.82	
			For >500 To 1,000, Deduct	-2.82	
			For >1,000, Deduct	-4.89	
32 16 13 19-0005	LF		3' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	31.16	
			For Up To 20, Add	14.99	
			For >20 To 50, Add	8.37	
			For >50 To 100, Add	3.31	
			For >500 To 1,000, Deduct	-3.31	
			For >1,000, Deduct	-5.74	
32 16 13 19-0006	LF		3-1/2' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	35.90	
			For Up To 20, Add	17.17	
			For >20 To 50, Add	9.58	
			For >50 To 100, Add	3.79	
			For >500 To 1,000, Deduct	-3.79	
			For >1,000, Deduct	-6.59	
32 16 13 19-0007	LF		4' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	40.64	
			For Up To 20, Add	19.35	
			For >20 To 50, Add	10.80	
			For >50 To 100, Add	4.28	
			For >500 To 1,000, Deduct	-4.28	
			For >1,000, Deduct	-7.43	
32 16 13 19-0008	LF		5' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	48.00	
			For Up To 20, Add	22.22	
			For >20 To 50, Add	12.37	
			For >50 To 100, Add	4.92	
			For >500 To 1,000, Deduct	-4.92	
			For >1,000, Deduct	-8.59	
32 16 13 19-0009	LF		6' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	55.04	
			For Up To 20, Add	24.87	
			For >20 To 50, Add	13.82	
			For >50 To 100, Add	5.53	
			For >500 To 1,000, Deduct	-5.53	
			For >1,000, Deduct	-9.66	
32 16 13 19-0010	SF		>6' Wide Cast In Place Concrete Valley Gutter, 6" Thick.....	9.17	
			For Up To 100, Add	4.14	
			For >100 To 250, Add	2.30	
			For >250 To 500, Add	0.92	
			For >2,500 To 5,000, Deduct	-0.92	
			For >5,000, Deduct	-1.61	
32 16 13 19-0011	LF		1' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	17.07	
			For Up To 20, Add	9.33	
			For >20 To 50, Add	5.26	
			For >50 To 100, Add	2.04	
			For >500 To 1,000, Deduct	-2.04	
			For >1,000, Deduct	-3.48	
32 16 13 19-0012	LF		2' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	23.61	
			For Up To 20, Add	11.29	
			For >20 To 50, Add	6.30	
			For >50 To 100, Add	2.49	
			For >500 To 1,000, Deduct	-2.49	
			For >1,000, Deduct	-4.33	
32 16 13 19-0013	LF		2-1/2' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	29.12	
			For Up To 20, Add	13.84	
			For >20 To 50, Add	7.72	
			For >50 To 100, Add	3.06	
			For >500 To 1,000, Deduct	-3.06	
			For >1,000, Deduct	-5.32	
32 16 13 19-0014	LF		3' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	34.18	
			For Up To 20, Add	16.07	
			For >20 To 50, Add	8.96	
			For >50 To 100, Add	3.56	
			For >500 To 1,000, Deduct	-3.56	
			For >1,000, Deduct	-6.19	
32 16 13 19-0015	LF		3-1/2' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	39.41	
			For Up To 20, Add	18.42	
			For >20 To 50, Add	10.27	
			For >50 To 100, Add	4.08	
			For >500 To 1,000, Deduct	-4.08	
			For >1,000, Deduct	-7.10	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 16 Curbs, Gutters, Sidewalks, and Driveways**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 19-0016	LF		4' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	44.64	
			For Up To 20, Add.....	20.77	
			For >20 To 50, Add.....	11.57	
			For >50 To 100, Add.....	4.60	
			For >500 To 1,000, Deduct.....	-4.60	
			For >1,000, Deduct.....	-8.02	
32 16 13 19-0017	LF		5' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	52.82	
			For Up To 20, Add.....	23.88	
			For >20 To 50, Add.....	13.27	
			For >50 To 100, Add.....	5.31	
			For >500 To 1,000, Deduct.....	-5.31	
			For >1,000, Deduct.....	-9.28	
32 16 13 19-0018	LF		6' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	60.69	
			For Up To 20, Add.....	26.77	
			For >20 To 50, Add.....	14.85	
			For >50 To 100, Add.....	5.96	
			For >500 To 1,000, Deduct.....	-5.96	
			For >1,000, Deduct.....	-10.46	
32 16 13 19-0019	SF		>6' Wide Cast In Place Concrete Valley Gutter, 7" Thick.....	10.12	
			For Up To 100, Add.....	4.46	
			For >100 To 250, Add.....	2.48	
			For >250 To 500, Add.....	0.99	
			For >2,500 To 5,000, Deduct.....	-0.99	
			For >5,000, Deduct.....	-1.74	
32 16 13 19-0020	LF		1' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	17.49	
32 16 13 19-0021	LF		2' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	23.89	
			For Up To 20, Add.....	11.69	
			For >20 To 50, Add.....	6.54	
			For >50 To 100, Add.....	2.58	
			For >500 To 1,000, Deduct.....	-2.58	
			For >1,000, Deduct.....	-4.46	
32 16 13 19-0022	LF		2-1/2' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	29.25	
			For Up To 20, Add.....	14.19	
			For >20 To 50, Add.....	7.93	
			For >50 To 100, Add.....	3.13	
			For >500 To 1,000, Deduct.....	-3.13	
			For >1,000, Deduct.....	-5.43	
32 16 13 19-0023	LF		3' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	34.52	
			For Up To 20, Add.....	16.62	
			For >20 To 50, Add.....	9.28	
			For >50 To 100, Add.....	3.67	
			For >500 To 1,000, Deduct.....	-3.67	
			For >1,000, Deduct.....	-6.37	
32 16 13 19-0024	LF		3-1/2' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	39.79	
			For Up To 20, Add.....	19.05	
			For >20 To 50, Add.....	10.64	
			For >50 To 100, Add.....	4.21	
			For >500 To 1,000, Deduct.....	-4.21	
			For >1,000, Deduct.....	-7.31	
32 16 13 19-0025	LF		4' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	45.06	
			For Up To 20, Add.....	21.48	
			For >20 To 50, Add.....	11.99	
			For >50 To 100, Add.....	4.75	
			For >500 To 1,000, Deduct.....	-4.75	
			For >1,000, Deduct.....	-8.25	
32 16 13 19-0026	LF		5' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	53.20	
32 16 13 19-0027	LF		6' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	60.98	
32 16 13 19-0028	SF		>6' Wide Cast In Place Concrete Valley Gutter, 8" Thick.....	10.17	
			For Up To 100, Add.....	4.60	
			For >100 To 250, Add.....	2.56	
			For >250 To 500, Add.....	1.02	
			For >2,500 To 5,000, Deduct.....	-1.02	
			For >5,000, Deduct.....	-1.79	

32 16 13 23 Precast Concrete Curbs and Gutters (32 16 13)**32 16 13 23-0001 Precast Concrete Curb (32 16 13 23)**

32 16 13 23-0002	LF	6" x 18" Precast Concrete Curb.....	41.55	11.10
32 16 13 23-0003	LF	6" x 18" Precast Concrete Curb, Radius.....	49.18	12.75
32 16 13 23-0004	LF	6" x 20" Precast Concrete Curb.....	43.77	11.10
32 16 13 23-0005	LF	6" x 20" Precast Concrete Curb, Radius.....	52.11	12.75
32 16 13 23-0006	LF	7" x 18" Precast Concrete Curb.....	44.78	11.10
32 16 13 23-0007	LF	7" x 18" Precast Concrete Curb, Radius.....	53.28	12.75
32 16 13 23-0008	LF	7" x 20" Precast Concrete Curb.....	47.28	11.10
32 16 13 23-0009	LF	7" x 20" Precast Concrete Curb, Radius.....	56.46	12.75

32 16 13 33 Asphalt Curbs (32 16 13)**32 16 13 33-0001 Asphalt Curbs (32 16 13 33)**

32 16 13 33-0002	LF	6" Wide x 6" High Asphalt Curb 64 LF/TON, Bituminous, Plain.....	13.65	5.92
32 16 13 33-0003	LF	8" Wide x 6" High Asphalt Curb 50 LF/TON, Bituminous, Plain.....	15.30	6.58
32 16 13 33-0004	LF	8" Wide x 8" High Asphalt Curb 44 LF/TON, Bituminous, Plain.....	16.86	7.24



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Curbs, Gutters, Sidewalks, and Driveways			32 16

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 43			Stone Curbs (32 16 13)		
32 16 13 43-0001			Granite Curbs (32 16 13 43)		
32 16 13 43-0002			Split Face Granite Curbs (32 16 13 43-0001)		
32 16 13 43-0003	LF		4" To 5" x 12" To 14" Split Face Granite Curb, Straight Section	27.20	9.12
			For Up To 20, Add	11.54	
			For >20 To 50, Add	6.38	
			For >50 To 100, Add	2.58	
			For >500 To 1,000, Deduct	-2.58	
			For >1,000, Deduct	-4.55	
32 16 13 43-0004	LF		6" To 8" x 12" To 14" Split Face Granite Curb, Straight Section	32.06	9.96
			For Up To 20, Add	13.04	
			For >20 To 50, Add	7.18	
			For >50 To 100, Add	2.93	
			For >500 To 1,000, Deduct	-2.93	
			For >1,000, Deduct	-5.19	
32 16 13 43-0005	LF		4" To 5" x 16" To 18" Split Face Granite Curb, Straight Section	35.35	10.71
			For Up To 20, Add	14.20	
			For >20 To 50, Add	7.81	
			For >50 To 100, Add	3.19	
			For >500 To 1,000, Deduct	-3.19	
			For >1,000, Deduct	-5.67	
32 16 13 43-0006	LF		6" To 8" x 16" To 18" Split Face Granite Curb, Straight Section	41.72	11.56
			For Up To 20, Add	16.00	
			For >20 To 50, Add	8.77	
			For >50 To 100, Add	3.62	
			For >500 To 1,000, Deduct	-3.62	
			For >1,000, Deduct	-6.47	
32 16 13 43-0007	LF		4" To 5" x 12" To 14" Split Face Granite Curb, Curved Section	33.37	9.96
			For Up To 20, Add	13.27	
			For >20 To 50, Add	7.29	
			For >50 To 100, Add	2.99	
			For >500 To 1,000, Deduct	-2.99	
			For >1,000, Deduct	-5.32	
32 16 13 43-0008	LF		6" To 8" x 12" To 14" Split Face Granite Curb, Curved Section	38.23	10.71
			For Up To 20, Add	14.77	
			For >20 To 50, Add	8.10	
			For >50 To 100, Add	3.34	
			For >500 To 1,000, Deduct	-3.34	
			For >1,000, Deduct	-5.96	
32 16 13 43-0009	LF		4" To 5" x 16" To 18" Split Face Granite Curb, Curved Section	41.58	11.56
			For Up To 20, Add	15.97	
			For >20 To 50, Add	8.75	
			For >50 To 100, Add	3.61	
			For >500 To 1,000, Deduct	-3.61	
			For >1,000, Deduct	-6.45	
32 16 13 43-0010	LF		6" To 8" x 16" To 18" Split Face Granite Curb, Curved Section	47.94	12.30
			For Up To 20, Add	17.77	
			For >20 To 50, Add	9.70	
			For >50 To 100, Add	4.03	
			For >500 To 1,000, Deduct	-4.03	
			For >1,000, Deduct	-7.25	
32 16 13 43-0011			Sawn Face Granite Curbs (32 16 13 43-0001)		
32 16 13 43-0012	LF		4" To 5" x 12" To 14" Sawn Face Granite Curb, Straight Section	27.20	9.12
			For Up To 20, Add	11.54	
			For >20 To 50, Add	6.38	
			For >50 To 100, Add	2.58	
			For >500 To 1,000, Deduct	-2.58	
			For >1,000, Deduct	-4.55	
32 16 13 43-0013	LF		6" To 8" x 12" To 14" Sawn Face Granite Curb, Straight Section	32.06	9.96
			For Up To 20, Add	13.04	
			For >20 To 50, Add	7.18	
			For >50 To 100, Add	2.93	
			For >500 To 1,000, Deduct	-2.93	
			For >1,000, Deduct	-5.19	
32 16 13 43-0014	LF		4" To 5" x 16" To 18" Sawn Face Granite Curb, Straight Section	35.41	10.71
			For Up To 20, Add	14.24	
			For >20 To 50, Add	7.83	
			For >50 To 100, Add	3.20	
			For >500 To 1,000, Deduct	-3.20	
			For >1,000, Deduct	-5.69	
32 16 13 43-0015	LF		6" To 8" x 16" To 18" Sawn Face Granite Curb, Straight Section	41.78	11.56
			For Up To 20, Add	16.04	
			For >20 To 50, Add	8.79	
			For >50 To 100, Add	3.63	
			For >500 To 1,000, Deduct	-3.63	
			For >1,000, Deduct	-6.48	
32 16 13 43-0016	LF		4" To 5" x 12" To 14" Sawn Face Granite Curb, Curved Section	37.62	9.96
			For Up To 20, Add	14.15	
			For >20 To 50, Add	7.74	
			For >50 To 100, Add	3.21	
			For >500 To 1,000, Deduct	-3.21	
			For >1,000, Deduct	-5.75	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 16 Curbs, Gutters, Sidewalks, and Driveways**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 16 13 43-0017	LF		6" To 8" x 12" To 14" Sawn Face Granite Curb, Curved Section.....	44.82	10.71
			For Up To 20, Add	16.12	
			For >20 To 50, Add	8.78	
			For >50 To 100, Add	3.67	
			For >500 To 1,000, Deduct	-3.67	
			For >1,000, Deduct	-6.63	
32 16 13 43-0018	LF		4" To 5" x 16" To 18" Sawn Face Granite Curb, Curved Section.....	49.61	11.56
			For Up To 20, Add	17.61	
			For >20 To 50, Add	9.58	
			For >50 To 100, Add	4.02	
			For >500 To 1,000, Deduct	-4.02	
			For >1,000, Deduct	-7.27	
32 16 13 43-0019	LF		6" To 8" x 16" To 18" Sawn Face Granite Curb, Curved Section.....	59.29	12.30
			For Up To 20, Add	20.08	
			For >20 To 50, Add	10.86	
			For >50 To 100, Add	4.61	
			For >500 To 1,000, Deduct	-4.61	
			For >1,000, Deduct	-8.40	
32 16 13 43-0020			Granite Base And Curbs (32 16 13 43-0001)		
32 16 13 43-0021	LF		4" High Granite Base	30.21	11.30
			For Up To 20, Add	13.55	
			For >20 To 50, Add	7.52	
			For >50 To 100, Add	3.01	
			For >500 To 1,000, Deduct	-3.01	
			For >1,000, Deduct	-5.27	
32 16 13 43-0022	LF		6" High Granite Base	35.58	14.79
			For Up To 20, Add	16.97	
			For >20 To 50, Add	9.47	
			For >50 To 100, Add	3.75	
			For >500 To 1,000, Deduct	-3.75	
			For >1,000, Deduct	-6.51	
32 16 13 43-0023			Remove And Reset Stone And Precast Curbing (32 16 13 43)		
			Note: Includes storage and cleaning.		
32 16 13 43-0024	LF		Removal And Resetting Of Stone Or Precast Curbing	34.99	
			Note: Includes storage and cleaning		
32 16 23			Sidewalks (32 16)		
32 16 23 00-0001			Cast In Place Concrete Sidewalk Assemblies (32 16 23)		
			Note: Includes finish grading, delivered concrete (up to 3500 PSI) by chute, formwork, 1/4" radius joints and edges, polyethylene sheeting, control joints, expansion joints, sealer, screed, broom finish, and curing. Excludes excavation, base, base compaction and welded wire reinforcement. For bar or fiber reinforcing, add bar or fiber reinforcing tasks. See CSI section 02 41 13 13-0000 for sidewalk removal, 03 05 13 00-0001 for color additive, 03 21 00 00-0000 for reinforcing steel, 03 31 13 00-0079 for buggies, 03 31 13 00-0086 for small quantity purchases, 03 37 16 00-0001 for pumping with boom truck, 31 23 16 36-0000 for excavation, 32 11 23 16-0001 for base course.		
32 16 23 00-0002	SF		4" Cast In Place Concrete Sidewalk	8.71	
			For Up To 100, Add	3.81	
			For >100 To 500, Add	1.09	
			For >1,000 To 5,000, Deduct	-0.65	
			For >5,000, Deduct	-1.41	
			For 3,500 PSI Concrete, Add	0.10	
			For 4,000 PSI Concrete, Add	0.18	
			For 4,500 PSI Concrete, Add	0.20	
			For Welded Wire Reinforcement, Add	0.98	
32 16 23 00-0003	SF		5" Cast In Place Concrete Sidewalk	9.43	
			For Up To 100, Add	4.05	
			For >100 To 500, Add	1.15	
			For >1,000 To 5,000, Deduct	-0.68	
			For >5,000, Deduct	-1.48	
			For 3,500 PSI Concrete, Add	0.12	
			For 4,000 PSI Concrete, Add	0.21	
			For 4,500 PSI Concrete, Add	0.25	
			For Welded Wire Reinforcement, Add	0.98	
32 16 23 00-0004	SF		6" Cast In Place Concrete Sidewalk	10.17	
			For Up To 100, Add	4.29	
			For >100 To 500, Add	1.21	
			For >1,000 To 5,000, Deduct	-0.70	
			For >5,000, Deduct	-1.56	
			For 3,500 PSI Concrete, Add	0.15	
			For 4,000 PSI Concrete, Add	0.25	
			For 4,500 PSI Concrete, Add	0.30	
			For Welded Wire Reinforcement, Add	0.98	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Curbs, Gutters, Sidewalks, and Driveways			32 16

32

MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
32 16 23 00-0005	SF	7" Cast In Place Concrete Sidewalk	11.80		
		For Up To 100, Add	4.93		
		For >100 To 500, Add	1.38		
		For >1,000 To 5,000, Deduct	-0.79		
		For >5,000, Deduct	-1.78		
		For 3,500 PSI Concrete, Add	0.18		
		For 4,000 PSI Concrete, Add	0.31		
		For 4,500 PSI Concrete, Add	0.36		
		For Welded Wire Reinforcement, Add	0.98		
32 16 23 00-0006	SF	8" Cast In Place Concrete Sidewalk	12.43		
		For Up To 100, Add	5.13		
		For >100 To 500, Add	1.43		
		For >1,000 To 5,000, Deduct	-0.81		
		For >5,000, Deduct	-1.83		
		For 3,500 PSI Concrete, Add	0.20		
		For 4,000 PSI Concrete, Add	0.35		
		For 4,500 PSI Concrete, Add	0.41		
		For Welded Wire Reinforcement, Add	0.98		
32 16 23 00-0007	SF	For Exposed Aggregate Finish In Sidewalk	2.49		
32 16 23 00-0008	EA	Finish Concrete Handicap Drop Section In Sidewalk	149.63		
		Note: Excludes patterned (tactile) finish.			
32 16 23 00-0009	LF	For Hand Trowel Finish At Sidewalk Edges (Picture Frame).....	2.49		
32 16 23 00-0010	Bituminous Sidewalk Assemblies (32 16 23)				
	Note: Includes finish grading, delivered asphalt, formwork, control joints, expansion joints, and compaction. Excludes excavation, base, and base compaction. See CSI section 32 11 23 16-0001 for base course.				
32 16 23 00-0011	SY	1" Bituminous Sidewalk	8.91		
		For Up To 100, Add	3.54		
		For >100 To 500, Add	0.97		
		For >1,000 To 5,000, Deduct	-0.53		
		For >5,000, Deduct	-0.97		
32 16 23 00-0012	SY	1-1/2" Bituminous Sidewalk	11.08		
		For Up To 100, Add	4.34		
		For >100 To 500, Add	1.18		
		For >1,000 To 5,000, Deduct	-0.63		
		For >5,000, Deduct	-1.18		
32 16 23 00-0013	SY	2" Bituminous Sidewalk	15.09		
		For Up To 100, Add	5.72		
		For >100 To 500, Add	1.53		
		For >1,000 To 5,000, Deduct	-0.78		
		For >5,000, Deduct	-1.53		
32 16 23 00-0014	SY	2-1/2" Bituminous Sidewalk	18.84		
		For Up To 100, Add	7.13		
		For >100 To 500, Add	1.91		
		For >1,000 To 5,000, Deduct	-0.97		
		For >5,000, Deduct	-1.91		
32 16 23 00-0015	SY	3" Bituminous Sidewalk	21.48		
		For Up To 100, Add	7.99		
		For >100 To 500, Add	2.12		
		For >1,000 To 5,000, Deduct	-1.05		
		For >5,000, Deduct	-2.12		
32 16 23 00-0016	SY	3-1/2" Bituminous Sidewalk	24.65		
		For Up To 100, Add	9.05		
		For >100 To 500, Add	2.39		
		For >1,000 To 5,000, Deduct	-1.15		
		For >5,000, Deduct	-2.39		
32 16 43	Asphalt Dike (32 16)				
32 16 43 00-0001	Asphalt Dike (32 16 43)				
32 16 43 00-0002	LF	Type A, Asphalt Dike, 11" Base, 5" Top, 6" Height.....	6.74		
32 16 43 00-0003	LF	Type B, Asphalt Dike, 13" Base, 5" Top, 8" Height.....	9.13		
32 16 43 00-0004	LF	Type C-6, Asphalt Dike, 18" Base, 6" Top, 6" Height.....	9.13		
32 16 43 00-0005	LF	Type C-8, Asphalt Dike, 22" Base, 6" Top, 8" Height.....	12.90		
32 16 43 00-0006	LF	Type C-9, Asphalt Dike, 24" Base, 6" Top, 9" Height.....	15.24		
32 16 43 00-0007	LF	Type D, Asphalt Dike, 8" Base, 4" Top, 2" Height.....	3.82		
32 16 43 00-0008	LF	Type E, Mountable Asphalt Dike, 16" Base, 12" Top, 2" Height Front, 6" Height Back	9.41		
32 16 43 00-0009	LF	Type F, Mountable Asphalt Dike, 26" Base, 20" Top, 2" Height Front, 8" Height Back	14.56		
32 16 43 00-0010	LF	CALTRANS Type A, Asphalt Dike, 11" Base, 5" Top, 6" Height.....	6.74		
32 16 43 00-0011	LF	CALTRANS Type C, Asphalt Dike, 8" Base, 4" Top, 2" Height.....	3.82		
32 16 43 00-0012	LF	CALTRANS Type D, Mountable Asphalt Dike, 26" Base, 20" Top, 2" Height Front, 8" Height Back	14.56		
32 16 43 00-0013	LF	CALTRANS Type E, Mountable Asphalt Dike, 16" Base, 12" Top, 2" Height Front, 6" Height Back	9.41		
32 16 43 00-0014	LF	CALTRANS Type F, Asphalt Dike, 8" Base, 4" Top, 4" Height.....	5.53		
32 17	Paving Specialties (32 10)				
32 17 13	Parking Bumpers (32 17)				
	Note: Includes dowels set.				
32 17 13 16	Plastic Parking Bumpers (32 17 13)				
32 17 13 16-0001	EA	4" x 6" x 4' Recycled Plastic Wheel Stop	192.53	8.08	
32 17 13 16-0002	EA	4" x 6" x 6' Recycled Plastic Wheel Stop	218.03	8.08	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 17 13 19 Precast Concrete Parking Bumpers (32 17 13)

32 17 13 19-0001	EA	6" x 8" x 4' Precast Concrete Wheel Stop With Dowels	71.96	24.34
32 17 13 19-0002	EA	6" x 6" x 6' Precast Concrete Wheel Stop With Dowels	82.35	24.34
32 17 13 19-0003	EA	6" x 8" x 6' Precast Concrete Wheel Stop With Dowels	85.34	24.34
32 17 13 19-0004	EA	6" x 10" x 6' Precast Concrete Wheel Stop With Dowels	89.21	24.34
32 17 13 19-0005	EA	4-7/8" x 7-5/8" x 6' Precast Concrete Wheel Stop With Dowels	83.47	24.34
32 17 13 19-0006	EA	8" x 13" x 6' Precast Concrete Wheel Stop With Dowels	104.79	24.34
32 17 13 19-0007	EA	Removal And Relocation Of Precast Concrete Wheel Stop	38.94	
32 17 13 19-0008	EA	Removal And Relocation Of Plastic Or Wood Wheel Stop	25.32	

32 17 13 23 Rubber Parking Bumpers (32 17 13)

32 17 13 23-0001	EA	3' Recycled Rubber Wheel Stop	32.76	8.08
32 17 13 23-0002	EA	4' Recycled Rubber Wheel Stop	37.91	8.08
32 17 13 23-0003	EA	5' Recycled Rubber Wheel Stop	39.97	8.08
32 17 13 23-0004	EA	6' Recycled Rubber Wheel Stop	43.06	8.08

32 17 13 26 Wood Parking Bumpers (32 17 13)

32 17 13 26-0001	LF	4" x 4" Timber Barrier With Saddles For Cars, Pressure Treated	10.48	1.95
32 17 13 26-0002	LF	6" x 6" Timber Barriers With Saddle For Trucks, Pressure Treated	13.21	1.95

32 17 16 Manufactured Traffic-Calming Devices (32 17)**32 17 16 00-0001 Modular Rubber Speed Tables (32 17 16)**

Note: 3" high flat topped speed humps, 18" x 42" modular rubber construction. Trafficlogix.

32 17 16 00-0002	SF	Up To 24' Road Width x 7' Run Modular Rubber Speed Table	64.44	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0003	SF	Up To 24' Road Width x 14' Run Modular Rubber Speed Table	56.29	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0004	SF	Up To 24' Road Width x 21' Run Modular Rubber Speed Table	52.91	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0005	SF	>24' To 30' Road Width x 7' Run Modular Rubber Speed Table	61.68	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0006	SF	>24' To 30' Road Width x 14' Run Modular Rubber Speed Table	54.31	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0007	SF	>24' To 30' Road Width x 21' Run Modular Rubber Speed Table	51.34	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0008	SF	>30' To 40' Road Width x 7' Run Modular Rubber Speed Table	58.96	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0009	SF	>30' To 40' Road Width x 14' Run Modular Rubber Speed Table	52.75	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
32 17 16 00-0010	SF	>30' To 40' Road Width x 21' Run Modular Rubber Speed Table	50.03	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		

32 17 16 00-0011 Asphalt Speed Table (32 17 16)

Note: Excludes pavement markings or reflectors.

32 17 16 00-0012	LF	Up to 36" Run, Asphalt Speed Table With 3" Center Crown	39.98	
		Note: Tapered on edges to roadway.		
32 17 16 00-0013	LF	>36" To 48" Run, Asphalt Speed Table With 3" Center Crown	47.01	
		Note: Tapered on edges to roadway.		
32 17 16 00-0014	LF	Up to 36" Run, Asphalt Speed Table With 4" Center Crown	50.16	
		Note: Tapered on edges to roadway.		
32 17 16 00-0015	LF	>36" To 48" Run, Asphalt Speed Table With 4" Center Crown	59.01	
		Note: Tapered on edges to roadway.		
32 17 16 00-0016	LF	Up to 36" Run, Asphalt Speed Table With 6" Center Crown	61.99	
		Note: Tapered on edges to roadway.		
32 17 16 00-0017	LF	>36" To 48" Run, Asphalt Speed Table With 6" Center Crown	69.02	
		Note: Tapered on edges to roadway.		

32 17 16 00-0018 Concrete Speed Table (32 17 16)

32 17 16 00-0019	SF	Concrete Speed Table	13.50	
		Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		

32 17 16 00-0020 Speed Bumps (32 17 16)

Note: Excludes pavement markings or reflectors.

32 17 16 00-0021	LF	2-1/4" High x 10-1/2" Wide, Asphalt Speed Bump	31.18	1.95



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Paving Specialties			32 17

32

MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 17 16 00-0022	LF	2-1/4" High x 12" Wide, Recycled Rubber Speed Bump.....	30.91	1.30
32 17 16 00-0023	LF	2-5/8" High x 12" Wide, Recycled Plastic Speed Bump.....	196.03	1.30
32 17 23 Pavement Markings (32 17)				
32 17 23 13 Painted Pavement Markings (32 17 23)				
32 17 23 13-0001		Pavement Striping, Letters, Symbols And Markers For Roads (32 17 23 13)		
Note: Includes primers, adhesive and glass beads where required. For broken line quantities use total lane length. Per Coat.				
32 17 23 13-0002		Epoxy Reflective Pavement Marking (32 17 23 13-0001)		
Note: 15 mil thickness.				
32 17 23 13-0003	LF	Single 4" Wide Solid Line, Epoxy Reflective Pavement Striping.....	0.72	
For 20 Mil Thickness, Add			0.18	
For Up To 5,000 LF, Add			0.14	
For >25,000 LF, Deduct			-0.11	
For Broken Line, Deduct			-0.38	
32 17 23 13-0004	LF	Single 6" Wide Solid Line, Epoxy Reflective Pavement Striping.....	1.02	
For 20 Mil Thickness, Add			0.26	
For Up To 5,000 LF, Add			0.20	
For >25,000 LF, Deduct			-0.15	
For Broken Line, Deduct			-0.56	
32 17 23 13-0005	LF	Single 8" Wide Solid Line, Epoxy Reflective Pavement Striping.....	1.24	
For 20 Mil Thickness, Add			0.32	
For Up To 5,000 LF, Add			0.25	
For >25,000 LF, Deduct			-0.19	
For Broken Line, Deduct			-0.68	
32 17 23 13-0006	LF	Single 12" Wide Solid Line, Epoxy Reflective Pavement Striping.....	1.92	
For 20 Mil Thickness, Add			0.51	
For Up To 5,000 LF, Add			0.38	
For >25,000 LF, Deduct			-0.29	
For Broken Line, Deduct			-1.10	
32 17 23 13-0007	LF	Double 4" Wide Solid Lines, Epoxy Reflective Pavement Striping.....	1.20	
For 20 Mil Thickness, Add			0.34	
For Up To 5,000 LF, Add			0.24	
For >25,000 LF, Deduct			-0.18	
For Broken Line On One Side, Deduct			-0.37	
For Double Broken Line, Deduct			-0.74	
32 17 23 13-0008	LF	Double 6" Wide Solid Lines, Epoxy Reflective Pavement Striping.....	1.75	
For 20 Mil Thickness, Add			0.51	
For Up To 5,000 LF, Add			0.35	
For >25,000 LF, Deduct			-0.26	
For Broken Line On One Side, Deduct			-0.56	
For Double Broken Line, Deduct			-1.11	
32 17 23 13-0009	SF	Solid Area, Epoxy Reflective Pavement Marking.....	7.33	
Note: Use this task for: lines >12" wide, stop bars, transverse lines, diagonal lines, crossing lanes, etc.				
For 20 Mil Thickness, Add			1.12	
32 17 23 13-0010	EA	6" High, Letter/Number, Epoxy Reflective Pavement Marking.....	4.26	
For 20 Mil Thickness, Add			0.51	
For <10, Add			0.48	
For >50 To 100, Deduct			-0.24	
For >100 To 200, Deduct			-0.32	
For >200, Deduct			-0.64	
32 17 23 13-0011	EA	12" High, Letter/Number, Epoxy Reflective Pavement Marking.....	8.68	
For 20 Mil Thickness, Add			1.52	
For <10, Add			0.73	
For >50 To 100, Deduct			-0.36	
For >100 To 200, Deduct			-0.49	
For >200, Deduct			-0.97	
32 17 23 13-0012	EA	24" High, Letter/Number, Epoxy Reflective Pavement Marking.....	14.76	
For 20 Mil Thickness, Add			2.64	
For <10, Add			1.21	
For >50 To 100, Deduct			-0.60	
For >100 To 200, Deduct			-0.81	
For >200, Deduct			-1.61	
32 17 23 13-0013	EA	36" High, Letter/Number, Epoxy Reflective Pavement Marking.....	27.89	
For 20 Mil Thickness, Add			4.74	
For <10, Add			2.41	
For >50 To 100, Deduct			-1.21	
For >100 To 200, Deduct			-1.61	
For >200, Deduct			-3.22	
32 17 23 13-0014	EA	48" High, Letter/Number, Epoxy Reflective Pavement Marking.....	33.39	
For 20 Mil Thickness, Add			6.02	
For <10, Add			2.71	
For >50 To 100, Deduct			-1.35	
For >100 To 200, Deduct			-1.81	
For >200, Deduct			-3.61	
32 17 23 13-0015	EA	72" High, Letter/Number, Epoxy Reflective Pavement Marking.....	60.13	
For 20 Mil Thickness, Add			10.94	
For <10, Add			4.82	
For >50 To 100, Deduct			-2.41	
For >100 To 200, Deduct			-3.21	
For >200, Deduct			-6.42	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR
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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 17 23 13-0016	EA	96" High, Letter/Number, Epoxy Reflective Pavement Marking.....	79.99	
		<i>For 20 Mil Thickness, Add</i>	14.44	
		<i>For <10, Add</i>	6.47	
		<i>For >50 To 100, Deduct</i>	-3.23	
		<i>For >100 To 200, Deduct</i>	-4.31	
		<i>For >200, Deduct</i>	-8.62	
32 17 23 13-0017	EA	120" High, Letter/Number, Epoxy Reflective Pavement Marking.....	135.72	
		<i>For 20 Mil Thickness, Add</i>	30.10	
		<i>For <10, Add</i>	8.01	
		<i>For >50 To 100, Deduct</i>	-4.01	
		<i>For >100 To 200, Deduct</i>	-5.34	
		<i>For >200, Deduct</i>	-10.69	
32 17 23 13-0018	SF	Letter/Number, Epoxy Reflective Pavement Marking.....	7.50	
		<i>For 20 Mil Thickness, Add</i>	1.13	
32 17 23 13-0019	SF	Symbols, Epoxy Reflective Pavement Marking.....	9.13	
		Note: Handicap, railroad, diamond, arrows, etc.		
		<i>For 20 Mil Thickness, Add</i>	1.21	
32 17 23 13-0020	EA	Bike Lane Symbol, Epoxy Reflective Pavement Marking.....	116.19	
		Note: Approximate overall dimensions: 4' width x 8' height.		
		<i>For 20 Mil Thickness, Add</i>	29.88	
32 17 23 13-0021	EA	Railroad Crossing Symbol, Epoxy Reflective Pavement Marking.....	502.85	
		Note: Approximate overall dimensions: 8' width x 20' height. Excludes transverse lines.		
		<i>For 20 Mil Thickness, Add</i>	145.47	
32 17 23 13-0022	EA	Preferential Lane Symbol (Diamond), Epoxy Reflective Pavement Marking.....	132.67	
		Note: Approximate overall dimensions: 3' width x 12' height.		
		<i>For 20 Mil Thickness, Add</i>	33.71	
32 17 23 13-0023	EA	Through Lane Arrow, Epoxy Reflective Pavement Marking.....	136.03	
		Note: Approximate overall dimensions: 3-1/2' width x 10' height.		
		<i>For 20 Mil Thickness, Add</i>	33.12	
32 17 23 13-0024	EA	Turn Lane Arrow, Epoxy Reflective Pavement Marking.....	170.54	
		Note: Approximate overall dimensions: 6' width x 8' height.		
		<i>For 20 Mil Thickness, Add</i>	44.63	
32 17 23 13-0025	EA	Dual Turn Lane Arrow, Epoxy Reflective Pavement Marking.....	279.69	
		Note: Approximate overall dimensions: 11' width x 8' height.		
		<i>For 20 Mil Thickness, Add</i>	80.16	
32 17 23 13-0026	EA	Turn And Through Lane Arrow, Epoxy Reflective Pavement Marking.....	287.66	
		Note: Approximate overall dimensions: 7' width x 13' height.		
		<i>For 20 Mil Thickness, Add</i>	82.82	
32 17 23 13-0027	EA	Dual Turn And Through Lane Arrow, Epoxy Reflective Pavement Marking.....	406.02	
		Note: Approximate overall dimensions: 9' width x 15' height.		
		<i>For 20 Mil Thickness, Add</i>	121.83	
32 17 23 13-0028	EA	Elongated Through Lane Arrow, Epoxy Reflective Pavement Marking.....	103.66	
		Note: Approximate overall dimensions: 5-1/2' width x 12' height.		
		<i>For 20 Mil Thickness, Add</i>	20.16	
32 17 23 13-0029	EA	Elongated Turn Lane Arrow, Epoxy Reflective Pavement Marking.....	146.34	
		Note: Approximate overall dimensions: 3' width x 12' height.		
		<i>For 20 Mil Thickness, Add</i>	34.39	
32 17 23 13-0030	EA	Elongated Dual Turn Lane Arrow, Epoxy Reflective Pavement Marking.....	193.36	
		Note: Approximate overall dimensions: 5-1/2' width x 12' height.		
		<i>For 20 Mil Thickness, Add</i>	48.96	
32 17 23 13-0031	EA	Elongated Turn And Through Lane Arrow, Epoxy Reflective Pavement Marking.....	199.11	
		Note: Approximate overall dimensions: 3-1/2' width x 20' height.		
		<i>For 20 Mil Thickness, Add</i>	50.87	
32 17 23 13-0032	EA	Elongated Dual Turn And Through Lane Arrow, Epoxy Reflective Pavement Marking.....	349.03	
		Note: Approximate overall dimensions: 3-1/2' width x 20' height.		
		<i>For 20 Mil Thickness, Add</i>	100.18	
32 17 23 13-0033	EA	Lane-Reduction Arrow, Epoxy Reflective Pavement Marking.....	311.15	
		Note: Approximate overall dimensions: 5-1/2' width x 18' height.		
		<i>For 20 Mil Thickness, Add</i>	89.32	
32 17 23 13-0034	EA	Wrong-Way Arrow, Epoxy Reflective Pavement Marking.....	298.42	
		Note: Approximate overall dimensions: 6' width x 24' height.		
		<i>For 20 Mil Thickness, Add</i>	85.96	

32 17 23 13-0035 Painted Reflective Pavement Marking (32 17 23 13-0001)

Note: 15 mil thickness.

32 17 23 13-0036	LF	Single 4" Wide Solid Line, Painted Reflective Pavement Striping.....	0.31	
		<i>For Up To 5,000 LF, Add</i>	0.06	
		<i>For >25,000 LF, Deduct</i>	-0.05	
		<i>For Broken Line, Deduct</i>	-0.07	
32 17 23 13-0037	LF	Single 6" Wide Solid Line, Painted Reflective Pavement Striping.....	0.40	
		<i>For Up To 5,000 LF, Add</i>	0.08	
		<i>For >25,000 LF, Deduct</i>	-0.06	
		<i>For Broken Line, Deduct</i>	-0.10	
32 17 23 13-0038	LF	Single 8" Wide Solid Line, Painted Reflective Pavement Striping.....	0.50	
		<i>For Up To 5,000 LF, Add</i>	0.10	
		<i>For >25,000 LF, Deduct</i>	-0.08	
		<i>For Broken Line, Deduct</i>	-0.12	
32 17 23 13-0039	LF	Single 12" Wide Solid Line, Painted Reflective Pavement Striping.....	0.69	
		<i>For Up To 5,000 LF, Add</i>	0.14	
		<i>For >25,000 LF, Deduct</i>	-0.10	
		<i>For Broken Line, Deduct</i>	-0.18	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Paving Specialties			32 17

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 13-0040	LF		Double 4" Wide Solid Lines, Painted Reflective Pavement Striping	0.45	
			For Up To 5,000 LF, Add	0.09	
			For >25,000 LF, Deduct	-0.07	
			For Broken Line On One Side, Deduct	-0.06	
			For Double Broken Line, Deduct	-0.12	
32 17 23 13-0041	LF		Double 6" Wide Solid Lines, Painted Reflective Pavement Striping	0.68	
			For Up To 5,000 LF, Add	0.14	
			For >25,000 LF, Deduct	-0.10	
			For Broken Line On One Side, Deduct	-0.09	
			For Double Broken Line, Deduct	-0.18	
32 17 23 13-0042	SF		Solid Area, Painted Reflective Pavement Striping	4.92	
			Note: Use this task for: lines >12" wide, stop bars, transverse lines, diagonal lines, crossing lanes, etc.		
32 17 23 13-0043	EA		6" High, Letter/Number, Painted Reflective Pavement Marking	3.77	
			For <10, Add	0.48	
			For >50 To 100, Deduct	-0.24	
			For >100 To 200, Deduct	-0.32	
			For >200, Deduct	-0.64	
32 17 23 13-0044	EA		12" High, Letter/Number, Painted Reflective Pavement Marking	6.90	
			For <10, Add	0.73	
			For >50 To 100, Deduct	-0.36	
			For >100 To 200, Deduct	-0.49	
			For >200, Deduct	-0.97	
32 17 23 13-0045	EA		24" High, Letter/Number, Painted Reflective Pavement Marking	11.65	
			For <10, Add	1.21	
			For >50 To 100, Deduct	-0.60	
			For >100 To 200, Deduct	-0.81	
			For >200, Deduct	-1.61	
32 17 23 13-0046	EA		36" High, Letter/Number, Painted Reflective Pavement Marking	22.41	
			For <10, Add	2.41	
			For >50 To 100, Deduct	-1.21	
			For >100 To 200, Deduct	-1.61	
			For >200, Deduct	-3.22	
32 17 23 13-0047	EA		48" High, Letter/Number, Painted Reflective Pavement Marking	26.27	
			For <10, Add	2.71	
			For >50 To 100, Deduct	-1.35	
			For >100 To 200, Deduct	-1.81	
			For >200, Deduct	-3.61	
32 17 23 13-0048	EA		72" High, Letter/Number, Painted Reflective Pavement Marking	47.12	
			For <10, Add	4.82	
			For >50 To 100, Deduct	-2.41	
			For >100 To 200, Deduct	-3.21	
			For >200, Deduct	-6.42	
32 17 23 13-0049	EA		96" High, Letter/Number, Painted Reflective Pavement Marking	62.87	
			For <10, Add	6.47	
			For >50 To 100, Deduct	-3.23	
			For >100 To 200, Deduct	-4.31	
			For >200, Deduct	-8.62	
32 17 23 13-0050	EA		120" High, Letter/Number, Painted Reflective Pavement Marking	97.52	
			For <10, Add	8.01	
			For >50 To 100, Deduct	-4.01	
			For >100 To 200, Deduct	-5.34	
			For >200, Deduct	-10.69	
32 17 23 13-0051	SF		Letter/Number, Painted Reflective Pavement Marking	6.27	
			Note: Includes solvent based and latex paints.		
32 17 23 13-0052	SF		Symbols, Painted Reflective Pavement Marking	7.35	
			Note: Handicap, railroad, diamond, arrows, etc. Includes solvent based and latex paints.		
32 17 23 13-0053	EA		Bike Lane Symbol, Painted Reflective Pavement Marking	76.75	
			Note: Approximate overall dimensions: 4' width x 8' height.		
32 17 23 13-0054	EA		Railroad Crossing Symbol, Painted Reflective Pavement Marking	305.69	
			Note: Approximate overall dimensions: 8' width x 20' height. Excludes transverse lines.		
32 17 23 13-0055	EA		Preferential Lane Symbol (Diamond), Painted Reflective Pavement Marking	88.31	
			Note: Approximate overall dimensions: 3' width x 12' height.		
32 17 23 13-0056	EA		Through Lane Arrow, Painted Reflective Pavement Marking	92.90	
			Note: Approximate overall dimensions: 3-1/2' width x 10' height.		
32 17 23 13-0057	EA		Turn Lane Arrow, Painted Reflective Pavement Marking	111.39	
			Note: Approximate overall dimensions: 6' width x 8' height.		
32 17 23 13-0058	EA		Dual Turn Lane Arrow, Painted Reflective Pavement Marking	171.25	
			Note: Approximate overall dimensions: 11' width x 8' height.		
32 17 23 13-0059	EA		Turn And Through Lane Arrow, Painted Reflective Pavement Marking	175.52	
			Note: Approximate overall dimensions: 7' width x 13' height.		
32 17 23 13-0060	EA		Dual Turn And Through Lane Arrow, Painted Reflective Pavement Marking	239.66	
			Note: Approximate overall dimensions: 9' width x 15' height.		
32 17 23 13-0061	EA		Elongated Through Lane Arrow, Painted Reflective Pavement Marking	79.11	
			Note: Approximate overall dimensions: 5-1/2' width x 12' height.		
32 17 23 13-0062	EA		Elongated Turn Lane Arrow, Painted Reflective Pavement Marking	101.98	
			Note: Approximate overall dimensions: 3' width x 12' height.		
32 17 23 13-0063	EA		Elongated Dual Turn Lane Arrow, Painted Reflective Pavement Marking	148.55	
			Note: Approximate overall dimensions: 5-1/2' width x 12' height.		
32 17 23 13-0064	EA		Elongated Turn And Through Lane Arrow, Painted Reflective Pavement Marking	154.24	
			Note: Approximate overall dimensions: 3-1/2' width x 20' height.		
32 17 23 13-0065	EA		Elongated Dual Turn And Through Lane Arrow, Painted Reflective Pavement Marking	213.48	
			Note: Approximate overall dimensions: 3-1/2' width x 20' height.		
32 17 23 13-0066	EA		Lane-Reduction Arrow, Painted Reflective Pavement Marking	191.59	
			Note: Approximate overall dimensions: 5-1/2' width x 18' height.		
32 17 23 13-0067	EA		Wrong-Way Arrow, Painted Reflective Pavement Marking	252.46	
			Note: Approximate overall dimensions: 6' width x 24' height.		

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 17 23 13-0068		Painted Reflective Pavement Marking (CALTRANS) (32 17 23 13-0001)	
		Note: Per LF of detail.	
32 17 23 13-0069	LF	CALTRANS Detail 1 Centerline, Painted Reflective Pavement Striping	0.25
		For Up To 5,000 LF, Add	0.05
		For >25,000 LF, Deduct	-0.04
32 17 23 13-0070	LF	CALTRANS Detail 2 Centerline, Painted Reflective Pavement Striping	0.42
		For Up To 5,000 LF, Add	0.08
		For >25,000 LF, Deduct	-0.06
32 17 23 13-0071	LF	CALTRANS Detail 4 Centerline	1.03
		For Up To 5,000 LF, Add	0.21
		For >25,000 LF, Deduct	-0.15
32 17 23 13-0072	LF	CALTRANS Detail 5 Centerline, Painted Reflective Pavement Striping	0.24
		For Up To 5,000 LF, Add	0.05
		For >25,000 LF, Deduct	-0.04
32 17 23 13-0073	LF	CALTRANS Detail 6 Centerline, Painted Reflective Pavement Striping	0.43
		For Up To 5,000 LF, Add	0.09
		For >25,000 LF, Deduct	-0.06
32 17 23 13-0074	LF	CALTRANS Detail 7 Centerline	0.74
		For Up To 5,000 LF, Add	0.15
		For >25,000 LF, Deduct	-0.11
32 17 23 13-0075	LF	CALTRANS Detail 8 Lanelines, Painted Reflective Pavement Striping	0.25
		For Up To 5,000 LF, Add	0.05
		For >25,000 LF, Deduct	-0.04
32 17 23 13-0076	LF	CALTRANS Detail 9 Lanelines, Painted Reflective Pavement Striping	0.42
		For Up To 5,000 LF, Add	0.08
		For >25,000 LF, Deduct	-0.06
32 17 23 13-0077	LF	CALTRANS Detail 10 Lanelines	1.03
		For Up To 5,000 LF, Add	0.21
		For >25,000 LF, Deduct	-0.15
32 17 23 13-0078	LF	CALTRANS Detail 11 Lanelines, Painted Reflective Pavement Striping	0.24
		For Up To 5,000 LF, Add	0.05
		For >25,000 LF, Deduct	-0.04
32 17 23 13-0079	LF	CALTRANS Detail 12 Lanelines, Painted Reflective Pavement Striping	0.41
		For Up To 5,000 LF, Add	0.08
		For >25,000 LF, Deduct	-0.06
32 17 23 13-0080	LF	CALTRANS Detail 13 Lanelines	0.74
		For Up To 5,000 LF, Add	0.15
		For >25,000 LF, Deduct	-0.11
32 17 23 13-0081	LF	CALTRANS Detail 14 Lanelines	0.74
		For Up To 5,000 LF, Add	0.15
		For >25,000 LF, Deduct	-0.11
32 17 23 13-0082	LF	CALTRANS Detail 14A Lanelines, Painted Reflective Pavement Striping	0.41
		For Up To 5,000 LF, Add	0.08
		For >25,000 LF, Deduct	-0.06
32 17 23 13-0083	LF	CALTRANS Detail 15 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.34
		For Up To 5,000 LF, Add	0.07
		For >25,000 LF, Deduct	-0.05
		For Broken Line On One Side, Deduct	-0.05
		For Double Broken Line, Deduct	-0.09
32 17 23 13-0084	LF	CALTRANS Detail 16 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	1.04
		For Up To 5,000 LF, Add	0.21
		For >25,000 LF, Deduct	-0.16
32 17 23 13-0085	LF	CALTRANS Detail 17 No Passing Zones-One Direction Lanelines	2.99
		For Up To 5,000 LF, Add	0.60
		For >25,000 LF, Deduct	-0.45
32 17 23 13-0086	LF	CALTRANS Detail 18 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.34
		For Up To 5,000 LF, Add	0.07
		For >25,000 LF, Deduct	-0.05
		For Broken Line On One Side, Deduct	-0.05
		For Double Broken Line, Deduct	-0.09
32 17 23 13-0087	LF	CALTRANS Detail 19 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.85
		For Up To 5,000 LF, Add	0.17
		For >25,000 LF, Deduct	-0.13
32 17 23 13-0088	LF	CALTRANS Detail 20 No Passing Zones-One Direction Lanelines	2.53
		For Up To 5,000 LF, Add	0.51
		For >25,000 LF, Deduct	-0.38
32 17 23 13-0089	LF	CALTRANS Detail 21 No Passing Zones-Two Direction Lanelines, Painted Reflective Pavement Striping	0.41
		For Up To 5,000 LF, Add	0.08
		For >25,000 LF, Deduct	-0.06
		For Broken Line On One Side, Deduct	-0.07
		For Double Broken Line, Deduct	-0.14
32 17 23 13-0090	LF	CALTRANS Detail 22 No Passing Zones-Two Direction Lanelines, Painted Reflective Pavement Striping	1.11
		For Up To 5,000 LF, Add	0.22
		For >25,000 LF, Deduct	-0.17
32 17 23 13-0091	LF	CALTRANS Detail 23 No Passing Zones-Two Direction Lanelines	3.56
		For Up To 5,000 LF, Add	0.71
		For >25,000 LF, Deduct	-0.53
32 17 23 13-0092	LF	CALTRANS Detail 24 Left Edgelines, Painted Reflective Pavement Striping	0.32
		For Up To 5,000 LF, Add	0.06
		For >25,000 LF, Deduct	-0.05
32 17 23 13-0093	LF	CALTRANS Detail 25 Left Edgelines, Painted Reflective Pavement Striping	0.48
		For Up To 5,000 LF, Add	0.10
		For >25,000 LF, Deduct	-0.07



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Bases, Ballasts, and Paving			32 10
Paving Specialties			32 17

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 13-0094	LF		CALTRANS Detail 25A Left Edgelines, Painted Reflective Pavement Striping	0.65	
			For Up To 5,000 LF, Add	0.13	
			For >25,000 LF, Deduct	-0.10	
32 17 23 13-0095	LF		CALTRANS Detail 26 Left Edgelines.....	0.17	
			For Up To 5,000 LF, Add	0.03	
			For >25,000 LF, Deduct	-0.03	
32 17 23 13-0096	LF		CALTRANS Detail 27 Left Edgelines, Painted Reflective Pavement Striping	0.58	
			For Up To 5,000 LF, Add	0.12	
			For >25,000 LF, Deduct	-0.09	
32 17 23 13-0097	LF		CALTRANS Detail 27B Right Edgelines, Painted Reflective Pavement Striping	0.32	
			For Up To 5,000 LF, Add	0.06	
			For >25,000 LF, Deduct	-0.05	
32 17 23 13-0098	LF		CALTRANS Detail 27C Right Edgeline Extension Through Intersections, Painted Reflective Pavement Striping	0.24	
			For Up To 5,000 LF, Add	0.05	
			For >25,000 LF, Deduct	-0.04	
32 17 23 13-0099	LF		CALTRANS Detail 28 Median Islands, Painted Reflective Pavement Striping	0.83	
			For Up To 5,000 LF, Add	0.17	
			For >25,000 LF, Deduct	-0.12	
			For Broken Line On One Side, Deduct	-0.14	
			For Double Broken Line, Deduct	-0.29	
32 17 23 13-0100	LF		CALTRANS Detail 29 Median Islands, Painted Reflective Pavement Striping	1.51	
			For Up To 5,000 LF, Add	0.30	
			For >25,000 LF, Deduct	-0.23	
32 17 23 13-0101	LF		CALTRANS Detail 30 Median Islands	7.13	
			For Up To 5,000 LF, Add	1.43	
			For >25,000 LF, Deduct	-1.07	
32 17 23 13-0102	LF		CALTRANS Detail 31 Two-Way Left Turn Lanes, Painted Reflective Pavement Striping	0.69	
			For Up To 5,000 LF, Add	0.14	
			For >25,000 LF, Deduct	-0.10	
			For Broken Line On One Side, Deduct	-0.09	
			For Double Broken Line, Deduct	-0.18	
32 17 23 13-0103	LF		CALTRANS Detail 32 Two-Way Left Turn Lanes, Painted Reflective Pavement Striping	1.55	
			For Up To 5,000 LF, Add	0.31	
			For >25,000 LF, Deduct	-0.23	
32 17 23 13-0104	LF		CALTRANS Detail 33 Two-Way Left Turn Lanes	4.88	
			For Up To 5,000 LF, Add	0.98	
			For >25,000 LF, Deduct	-0.73	
32 17 23 13-0105	LF		CALTRANS Detail 34 Intersection Treatments, Painted Reflective Pavement Striping	0.85	
			For Up To 5,000 LF, Add	0.17	
			For >25,000 LF, Deduct	-0.13	
32 17 23 13-0106	LF		CALTRANS Detail 34A Intersection Treatments, Painted Reflective Pavement Striping.....	0.34	
			For Up To 5,000 LF, Add	0.07	
			For >25,000 LF, Deduct	-0.05	
32 17 23 13-0107	LF		CALTRANS Detail 35 Intersection Treatments, Painted Reflective Pavement Striping	1.05	
			For Up To 5,000 LF, Add	0.21	
			For >25,000 LF, Deduct	-0.16	
32 17 23 13-0108	LF		CALTRANS Detail 35A Intersection Treatments, Painted Reflective Pavement Striping.....	0.34	
			For Up To 5,000 LF, Add	0.07	
			For >25,000 LF, Deduct	-0.05	
32 17 23 13-0109	LF		CALTRANS Detail 36 Exit Ramp Neutral Area (Gore) Treatment, Painted Reflective Pavement Striping	1.69	
			For Up To 5,000 LF, Add	0.34	
			For >25,000 LF, Deduct	-0.25	
32 17 23 13-0110	LF		CALTRANS Detail 36A Entrance Ramp Neutral Area (Merge) Treatment, Painted Reflective Pavement Striping	1.07	
			For Up To 5,000 LF, Add	0.21	
			For >25,000 LF, Deduct	-0.16	
32 17 23 13-0111	LF		CALTRANS Detail 36B Entrance Ramp Neutral Area (Acceleration Lane) Treatment, Painted Reflective Pavement Striping	1.15	
			For Up To 5,000 LF, Add	0.23	
			For >25,000 LF, Deduct	-0.17	
32 17 23 13-0112	LF		CALTRANS Detail 37 Lane Drop At Exit Ramps, Painted Reflective Pavement Striping	1.06	
			For Up To 5,000 LF, Add	0.21	
			For >25,000 LF, Deduct	-0.16	
32 17 23 13-0113	LF		CALTRANS Detail 37A Lane Drop At Exit Ramps.....	2.39	
			For Up To 5,000 LF, Add	0.48	
			For >25,000 LF, Deduct	-0.36	
32 17 23 13-0114	LF		CALTRANS Detail 37B Lane Drop At Intersections, Painted Reflective Pavement Striping.....	1.06	
			For Up To 5,000 LF, Add	0.21	
			For >25,000 LF, Deduct	-0.16	
32 17 23 13-0115	LF		CALTRANS Detail 37C Lane Drop At Intersections.....	2.39	
			For Up To 5,000 LF, Add	0.48	
			For >25,000 LF, Deduct	-0.36	
32 17 23 13-0116	LF		CALTRANS Detail 38 Channelizing Line, Painted Reflective Pavement Striping	0.98	
			For Up To 5,000 LF, Add	0.20	
			For >25,000 LF, Deduct	-0.15	
32 17 23 13-0117	LF		CALTRANS Detail 38A Channelizing Line, Painted Reflective Pavement Striping.....	0.64	
			For Up To 5,000 LF, Add	0.13	
			For >25,000 LF, Deduct	-0.10	
32 17 23 13-0118	LF		CALTRANS Detail 38B Channelizing Line, Painted Reflective Pavement Striping.....	1.33	
			For Up To 5,000 LF, Add	0.27	
			For >25,000 LF, Deduct	-0.20	
32 17 23 13-0119	LF		CALTRANS Detail 38C Channelizing Line	3.56	
			For Up To 5,000 LF, Add	0.71	
			For >25,000 LF, Deduct	-0.53	
32 17 23 13-0120	LF		CALTRANS Detail 39 Bike Lane Line, Painted Reflective Pavement Striping.....	0.39	
			For Up To 5,000 LF, Add	0.08	
			For >25,000 LF, Deduct	-0.06	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 13-0121	LF	CALTRANS Detail 39A Intersection Line Bike Lane, Painted Reflective Pavement Striping	0.31	
		For Up To 5,000 LF, Add	0.06	
		For >25,000 LF, Deduct	-0.05	
32 17 23 13-0122	LF	CALTRANS Detail 40 Lane Line Extensions Through Intersections, Painted Reflective Pavement Striping	0.23	
		For Up To 5,000 LF, Add	0.05	
		For >25,000 LF, Deduct	-0.03	
32 17 23 13-0123	LF	CALTRANS Detail 40A Lane Line Extensions Through Intersections	1.73	
		For Up To 5,000 LF, Add	0.35	
		For >25,000 LF, Deduct	-0.26	
32 17 23 13-0124	LF	CALTRANS Detail 41 Center Line Extensions Through Intersections, Painted Reflective Pavement Striping	0.23	
		For Up To 5,000 LF, Add	0.05	
		For >25,000 LF, Deduct	-0.03	
32 17 23 13-0125	LF	CALTRANS Detail 41A Center Line Extensions Through Intersections	1.73	
		For Up To 5,000 LF, Add	0.35	
		For >25,000 LF, Deduct	-0.26	
32 17 23 13-0126	EA	CALTRANS 10' Arrow, Type I, Painted Reflective Pavement Marking	98.64	
		For <10, Add	11.72	
		For >50 To 100, Deduct	-5.86	
		For >100 To 200, Deduct	-7.81	
		For >200, Deduct	-15.62	
32 17 23 13-0127	EA	CALTRANS 18' Arrow, Type I, Painted Reflective Pavement Marking	173.35	
		For <10, Add	20.51	
		For >50 To 100, Deduct	-10.25	
		For >100 To 200, Deduct	-13.67	
		For >200, Deduct	-27.34	
32 17 23 13-0128	EA	CALTRANS 24' Arrow, Type I, Painted Reflective Pavement Marking	217.30	
		For <10, Add	25.78	
		For >50 To 100, Deduct	-12.89	
		For >100 To 200, Deduct	-17.19	
		For >200, Deduct	-34.37	
32 17 23 13-0129	EA	CALTRANS 24' Arrow With Single (L or R) Turn Arrow, Type II, Painted Reflective Pavement Marking	315.93	
		For <10, Add	37.50	
		For >50 To 100, Deduct	-18.75	
		For >100 To 200, Deduct	-25.00	
		For >200, Deduct	-50.00	
32 17 23 13-0130	EA	CALTRANS 24' Arrow With Both (L and R) Turn Arrows, Type II, Painted Reflective Pavement Marking	414.57	
		For <10, Add	49.22	
		For >50 To 100, Deduct	-24.61	
		For >100 To 200, Deduct	-32.81	
		For >200, Deduct	-65.62	
32 17 23 13-0131	EA	CALTRANS 24' Arrow Single (L or R) Turn Arrow, Type III, Painted Reflective Pavement Marking	292.00	
		For <10, Add	34.57	
		For >50 To 100, Deduct	-17.28	
		For >100 To 200, Deduct	-23.05	
		For >200, Deduct	-46.09	
32 17 23 13-0132	EA	CALTRANS 24' Arrow Both (L and R) Turn Arrows, Type III, Painted Reflective Pavement Marking	509.30	
		For <10, Add	60.35	
		For >50 To 100, Deduct	-30.17	
		For >100 To 200, Deduct	-40.23	
		For >200, Deduct	-80.46	
32 17 23 13-0133	EA	CALTRANS 8' Turn Arrow (L or R), Type IV, Painted Reflective Pavement Marking	104.01	
		For <10, Add	12.30	
		For >50 To 100, Deduct	-6.15	
		For >100 To 200, Deduct	-8.20	
		For >200, Deduct	-16.41	
32 17 23 13-0134	EA	CALTRANS 24' Arrow, Type V, Painted Reflective Pavement Marking	228.04	
		For <10, Add	26.95	
		For >50 To 100, Deduct	-13.48	
		For >100 To 200, Deduct	-17.97	
		For >200, Deduct	-35.94	
32 17 23 13-0135	EA	CALTRANS 18' Arrow, Type VI, Painted Reflective Pavement Marking	292.00	
		For <10, Add	34.57	
		For >50 To 100, Deduct	-17.28	
		For >100 To 200, Deduct	-23.05	
		For >200, Deduct	-46.09	
32 17 23 13-0136	EA	CALTRANS 13' Arrow With Single (L or R) Turn Arrow, Type VII, Painted Reflective Pavement Marking	188.20	
		For <10, Add	22.26	
		For >50 To 100, Deduct	-11.13	
		For >100 To 200, Deduct	-14.84	
		For >200, Deduct	-29.69	
32 17 23 13-0137	EA	CALTRANS 15' Arrow With Both (L and R) Turn Arrows, Type VIII, Painted Reflective Pavement Marking	248.06	
		For <10, Add	29.30	
		For >50 To 100, Deduct	-14.65	
		For >100 To 200, Deduct	-19.53	
		For >200, Deduct	-39.06	
32 17 23 13-0138	EA	CALTRANS 5' Arrow, Bike Lane, Painted Reflective Pavement Marking	49.32	
		For <10, Add	5.86	
		For >50 To 100, Deduct	-2.93	
		For >100 To 200, Deduct	-3.91	
		For >200, Deduct	-7.81	
32 17 23 13-0139	EA	CALTRANS Railroad Crossing Symbol, Painted Reflective Pavement Marking	473.67	
		Note: Excludes variable width transverse lines.		
		For <10, Add	55.66	
		For >50 To 100, Deduct	-27.83	
		For >100 To 200, Deduct	-37.11	
		For >200, Deduct	-74.22	



Exterior Improvements		32
Bases, Ballasts, and Paving		32 10
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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 13-0140	SF		CALTRANS Solid Area, Painted Reflective Pavement Marking	6.24	
32 17 23 13-0141	EA		CALTRANS Bike Lane Symbol Without Person, Painted Reflective Pavement Marking.....	53.70	
			Note: Approximate overall dimensions: 4' width x 8' height.		
			For <10, Add	4.22	
			For >50 To 100, Deduct	-2.11	
			For >100 To 200, Deduct	-2.81	
			For >200, Deduct	-5.62	
32 17 23 13-0142	EA		CALTRANS Bike Lane Symbol With Person, Painted Reflective Pavement Marking.....	57.04	
			Note: Approximate overall dimensions: 4' width x 8' height.		
			For <10, Add	4.45	
			For >50 To 100, Deduct	-2.23	
			For >100 To 200, Deduct	-2.97	
			For >200, Deduct	-5.94	
32 17 23 13-0143	EA		CALTRANS Diamond Symbol, Painted Reflective Pavement Marking	78.62	
			For <10, Add	9.38	
			For >50 To 100, Deduct	-4.69	
			For >100 To 200, Deduct	-6.25	
			For >200, Deduct	-12.50	
32 17 23 13-0144	EA		CALTRANS International Symbol Of Accessibility (ISA) Marking, Painted Reflective Pavement Marking	160.26	
			For <10, Add	18.98	
			For >50 To 100, Deduct	-9.49	
			For >100 To 200, Deduct	-12.66	
			For >200, Deduct	-25.31	
32 17 23 13-0145	EA		CALTRANS Bike Loop Detector Symbol, Painted Reflective Pavement Marking	32.53	
			Note: Approximate overall dimensions: 4' width x 8' height.		
			For <10, Add	4.45	
			For >50 To 100, Deduct	-2.23	
			For >100 To 200, Deduct	-2.97	
			For >200, Deduct	-5.94	
32 17 23 13-0146	SF		CALTRANS Letter/Number, Painted Reflective Pavement Marking	6.32	
32 17 23 13-0147	SF		CALTRANS Symbols, Painted Reflective Pavement Marking	6.94	
			Note: Handicap, railroad, diamond, arrows, etc.		
32 17 23 13-0148			Pavement Striping, Letters And Symbols For Parking Areas (32 17 23 13)		
			Note: Includes primers. Per Coat.		
32 17 23 13-0149			Painted Pavement Marking For Parking Areas (32 17 23 13-0148)		
			Note: 15 mil thickness.		
32 17 23 13-0150	LF		Single 4" Wide Solid Line, Painted Pavement Striping For Parking Areas.....	1.13	
32 17 23 13-0151	LF		Single 6" Wide Solid Line, Painted Pavement Striping For Parking Areas.....	1.23	
32 17 23 13-0152	LF		Single 8" Wide Solid Line, Painted Pavement Striping For Parking Areas.....	1.32	
32 17 23 13-0153	LF		Single 12" Wide Solid Line, Painted Pavement Striping For Parking Areas.....	1.48	
32 17 23 13-0154	SF		Solid Area, Painted Pavement Marking For Parking Areas	4.88	
			Note: Use task for lines >12" wide, stop bars, transverse lines, diagonal lines, crossing lanes, etc.		
32 17 23 13-0155	EA		6" High, Letter/Number, Painted Pavement Marking For Parking Areas.....	3.68	
			For Up To 10, Add	0.47	
			For >50 To 100, Deduct	-0.23	
			For >100 To 200, Deduct	-0.31	
			For >200, Deduct	-0.63	
32 17 23 13-0156	EA		12" High, Letter/Number, Painted Pavement Marking For Parking Areas.....	6.68	
			For Up To 10, Add	0.70	
			For >50 To 100, Deduct	-0.35	
			For >100 To 200, Deduct	-0.47	
			For >200, Deduct	-0.94	
32 17 23 13-0157	EA		24" High, Letter/Number, Painted Pavement Marking For Parking Areas.....	11.31	
			For Up To 10, Add	1.17	
			For >50 To 100, Deduct	-0.59	
			For >100 To 200, Deduct	-0.78	
			For >200, Deduct	-1.56	
32 17 23 13-0158	EA		36" High, Letter/Number, Painted Pavement Marking For Parking Areas.....	20.99	
			For Up To 10, Add	2.23	
			For >50 To 100, Deduct	-1.11	
			For >100 To 200, Deduct	-1.48	
			For >200, Deduct	-2.97	
32 17 23 13-0159	EA		42" High, Letter/Number, Painted Pavement Marking For Parking Areas.....	27.38	
			For Up To 10, Add	3.05	
			For >50 To 100, Deduct	-1.52	
			For >100 To 200, Deduct	-2.03	
			For >200, Deduct	-4.06	
32 17 23 13-0160	EA		48" High, Letter/Number/Arrow, Painted Pavement Marking For Parking Areas	32.99	
			For Up To 10, Add	3.75	
			For >50 To 100, Deduct	-1.88	
			For >100 To 200, Deduct	-2.50	
			For >200, Deduct	-5.00	
32 17 23 13-0161	EA		72" High, Letter/Number/Arrow, Painted Pavement Marking For Parking Areas	45.85	
			For Up To 10, Add	4.69	
			For >50 To 100, Deduct	-2.34	
			For >100 To 200, Deduct	-3.12	
			For >200, Deduct	-6.25	
32 17 23 13-0162	EA		Through Lane Arrow, Painted Pavement Marking For Parking Areas	91.55	
			Note: Approximate overall dimensions: 3-1/2' width x 10' height.		
32 17 23 13-0163	EA		Turn Lane Arrow, Painted Pavement Marking For Parking Areas	109.54	
			Note: Approximate overall dimensions: 6' width x 8' height.		
32 17 23 13-0164	EA		Dual Turn Lane Arrow, Painted Pavement Marking For Parking Areas	167.86	
			Note: Approximate overall dimensions: 11' width x 8' height.		

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 13-0165	EA	Turn And Through Lane Arrow, Painted Pavement Marking For Parking Areas..... Note: Approximate overall dimensions: 7' width x 13' height.	172.01	
32 17 23 13-0166	EA	Dual Turn And Through Lane Arrow, Painted Pavement Marking For Parking Areas Note: Approximate overall dimensions: 9' width x 15' height.	234.45	
32 17 23 13-0167	EA	Handicap Symbol For Standard Parking Stalls, Painted Pavement Marking For Parking Areas Note: Approximate overall dimensions: 2-2/3' width x 3' height. White or blue symbol. Excludes striping.	33.57	
		For Blue Background With White Symbol, Add	31.00	
		For Blue Background With White Symbol And Border, Add	38.75	
32 17 23 13-0168	EA	Handicap Symbol For Van Parking Stalls, Painted Pavement Marking For Parking Areas..... Note: Approximate overall dimensions: 4-1/3' width x 5' height. White or blue symbol. Excludes striping.	55.20	
		For Blue Background With White Symbol, Add	69.87	
		For Blue Background With White Symbol And Border, Add	87.34	
32 17 23 13-0169		Painted Curbs (32 17 23 13)		
		Note: All colors.		
32 17 23 13-0170	LF	Reflective Painted Curb	2.92	
32 17 23 13-0171	LF	Reflective Painted Curb And Gutter.....	5.64	
32 17 23 13-0172	LF	Painted Curb.....	2.38	
32 17 23 13-0173	LF	Painted Curb And Gutter.....	5.18	
32 17 23 13-0174		Markings For Outdoor Play Areas, Courts (32 17 23 13)		
32 17 23 13-0175	LF	2" Wide Marking For Outdoor Play Areas	1.17	
32 17 23 13-0176	LF	3" Wide Marking For Outdoor Play Areas	1.31	
32 17 23 13-0177	LF	4" Wide Marking For Outdoor Play Areas	1.48	
32 17 23 13-0178	LF	6" Wide Marking For Outdoor Play Areas	1.73	
32 17 23 13-0179	EA	Layout And Paint Playground Game Lines And Background On Asphalt Or Concrete (Hop Scotch, 4 Square, Numbers Games, Etcetera).....	285.99	
32 17 23 23		Raised Pavement Markings (32 17 23)		
32 17 23 23-0001		Raised Pavement Markers (RPMs) (32 17 23 23)		
		Note: White, Red, Yellow/Amber, Green or Blue		
32 17 23 23-0002	EA	One-Way Reflective, Raised Pavement Marker (RPM)..... Note: Type G, H or R	7.79	2.94
		For >100, Deduct	-0.78	
32 17 23 23-0003	EA	Two-Way Reflective, Raised Pavement Marker (RPM)..... Note: Type B, C, D, AC, RA or RR	8.26	2.94
		For >100, Deduct	-0.83	
32 17 23 23-0004	EA	4" Diameter, Round Reflective, Raised Pavement Marker (RPM)..... For >100, Deduct	10.19 -1.02	2.94
32 17 23 23-0005	EA	4" Diameter, Non-Reflective, Raised Pavement Marker (RPM)..... Note: Type A or AY	7.18	2.94
		For >100, Deduct	-0.72	
32 17 23 23-0006		Snowplowable Pavement Markers (32 17 23 23)		
32 17 23 23-0007	EA	One-Way Reflective, Snowplowable Pavement Marker With Center Rail..... Note: Type G, H or R	81.17	34.84
32 17 23 23-0008	EA	Two-Way Reflective, Snowplowable Pavement Marker With Center Rail..... Note: Type B, C, D, AC, RA or RR	81.59	34.84
32 17 23 23-0009	EA	Removal And Replacement Of Reflector For One-Way Reflective, Recessed (Plowable) Pavement Marker	23.43	
32 17 23 23-0010	EA	Removal And Replacement Of Reflectors For Two-Way Reflective, Recessed (Plowable) Pavement Marker	29.65	
32 17 23 33		Plastic Pavement Markings (32 17 23)		
32 17 23 33-0001		Thermoplastic Pavement Striping, Letters, Symbols And Markers For Roads (32 17 23 33)		
		Note: Includes primers, adhesive and glass beads where required. For broken line modifier quantity use total lane length.		
32 17 23 33-0002		Thermoplastic Reflective Pavement Marking (32 17 23 33-0001)		
		Note: 90 mil thickness.		
32 17 23 33-0003	LF	Single 4" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	1.45	
		For Up To 5,000 LF, Add	0.29	
		For >25,000 LF, Deduct	-0.22	
		For 60 mils Thick, Deduct	-0.20	
		For 125 mils Thick, Add	0.26	
		For Broken Line, Deduct	-0.87	
32 17 23 33-0004	LF	Single 6" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	2.09	
		Note: Includes yellow or white.		
		For Up To 5,000 LF, Add	0.42	
		For >25,000 LF, Deduct	-0.31	
		For 60 mils Thick, Deduct	-0.30	
		For 125 mils Thick, Add	0.39	
		For Broken Line, Deduct	-1.30	



		Exterior Improvements	32
		Bases, Ballasts, and Paving	32 10
		Paving Specialties	32 17

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 33-0005	LF		Single 8" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	2.76	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.55	
			For >25,000 LF, Deduct	-0.41	
			For 60 mils Thick, Deduct	-0.40	
			For 125 mils Thick, Add	0.52	
			For Broken Line, Deduct	-1.73	
32 17 23 33-0006	LF		Single 12" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	4.06	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.81	
			For >25,000 LF, Deduct	-0.61	
			For 60 mils Thick, Deduct	-0.61	
			For 125 mils Thick, Add	0.78	
			For Broken Line, Deduct	-2.60	
32 17 23 33-0007	LF		Double 4" Wide Solid Lines, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	2.76	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.55	
			For >25,000 LF, Deduct	-0.41	
			For 60 mils Thick, Deduct	-0.40	
			For 125 mils Thick, Add	0.52	
			For Broken Line On One Side, Deduct	-0.87	
			For Double Broken Line, Deduct	-1.73	
32 17 23 33-0008	LF		Double 6" Wide Solid Lines, 90 Mil Thick, Thermoplastic Reflective Pavement Striping	4.06	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.81	
			For >25,000 LF, Deduct	-0.61	
			For 60 mils Thick, Deduct	-0.61	
			For 125 mils Thick, Add	0.78	
			For Broken Line On One Side, Deduct	-1.30	
			For Double Broken Line, Deduct	-2.60	
32 17 23 33-0009	SF		Solid Area, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	8.13	
			Note: Includes yellow or white.		
			For 60 mils Thick, Deduct	-0.60	
			For 125 mils Thick, Add	0.78	
32 17 23 33-0010	EA		6" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	5.37	
			For Up To 10, Add	0.53	
			For >50 To 100, Deduct	-0.26	
			For >100 To 200, Deduct	-0.35	
			For >200, Deduct	-0.70	
			For 60 mils Thick, Deduct	-0.32	
			For 125 mils Thick, Add	0.42	
32 17 23 33-0011	EA		12" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	11.99	
			For Up To 10, Add	0.80	
			For >50 To 100, Deduct	-0.40	
			For >100 To 200, Deduct	-0.53	
			For >200, Deduct	-1.06	
			For 60 mils Thick, Deduct	-1.17	
			For 125 mils Thick, Add	1.50	
32 17 23 33-0012	EA		24" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	20.53	
			For Up To 10, Add	1.32	
			For >50 To 100, Deduct	-0.66	
			For >100 To 200, Deduct	-0.88	
			For >200, Deduct	-1.77	
			For 60 mils Thick, Deduct	-2.05	
			For 125 mils Thick, Add	2.63	
32 17 23 33-0013	EA		36" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	38.30	
			For Up To 10, Add	2.66	
			For >50 To 100, Deduct	-1.33	
			For >100 To 200, Deduct	-1.77	
			For >200, Deduct	-3.55	
			For 60 mils Thick, Deduct	-3.60	
			For 125 mils Thick, Add	4.63	
32 17 23 33-0014	EA		48" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	46.58	
			For Up To 10, Add	2.98	
			For >50 To 100, Deduct	-1.49	
			For >100 To 200, Deduct	-1.98	
			For >200, Deduct	-3.97	
			For 60 mils Thick, Deduct	-4.68	
			For 125 mils Thick, Add	6.02	
32 17 23 33-0015	EA		72" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	84.16	
			For Up To 10, Add	5.30	
			For >50 To 100, Deduct	-2.65	
			For >100 To 200, Deduct	-3.53	
			For >200, Deduct	-7.06	
			For 60 mils Thick, Deduct	-8.55	
			For 125 mils Thick, Add	10.99	
32 17 23 33-0016	EA		96" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	111.69	
			For Up To 10, Add	7.11	
			For >50 To 100, Deduct	-3.56	
			For >100 To 200, Deduct	-4.74	
			For >200, Deduct	-9.48	
			For 60 mils Thick, Deduct	-11.25	
			For 125 mils Thick, Add	14.46	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 17 23 33-0017	EA 120" High, Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	202.21	
	For Up To 10, Add	8.81	
	For >50 To 100, Deduct	-4.41	
	For >100 To 200, Deduct	-5.88	
	For >200, Deduct	-11.75	
	For 60 mils Thick, Deduct	-25.11	
	For 125 mils Thick, Add	32.28	
32 17 23 33-0018	SF Letter/Number, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	9.94	
	For 60 mils Thick, Deduct	-0.81	
	For 125 mils Thick, Add	1.04	
32 17 23 33-0019	SY Cross Hatch, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	27.29	
	Note: Per SY of area.		
	For 60 mils Thick, Deduct	-1.36	
	For 125 mils Thick, Add	1.75	
32 17 23 33-0020	EA Handicap Symbol, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	255.57	
	For 60 mils Thick, Deduct	-18.63	
	For 125 mils Thick, Add	23.95	
32 17 23 33-0021	EA Railroad Symbol, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	761.41	
	For 60 mils Thick, Deduct	-56.69	
	For 125 mils Thick, Add	72.89	
32 17 23 33-0022	EA Bike Lane Symbol, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	177.95	
	Note: Approximate overall dimensions: 4' width x 8' height.		
	For 60 mils Thick, Deduct	-25.67	
	For 125 mils Thick, Add	33.01	
32 17 23 33-0023	EA Diamond Symbol, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	122.24	
	For 60 mils Thick, Deduct	-8.91	
	For 125 mils Thick, Add	11.45	
32 17 23 33-0024	SF Symbols, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	11.11	
	Note: Handicap, railroad, diamond, arrows, etc.		
	For 60 mils Thick, Deduct	-0.81	
	For 125 mils Thick, Add	1.04	
32 17 23 33-0025	EA 10' Arrow, Type I, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	155.56	
	For 60 mils Thick, Deduct	-11.34	
	For 125 mils Thick, Add	14.58	
32 17 23 33-0026	EA 18' Arrow, Type I, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	277.79	
	For 60 mils Thick, Deduct	-20.25	
	For 125 mils Thick, Add	26.03	
32 17 23 33-0027	EA 24' Arrow, Type I, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	344.47	
	For 60 mils Thick, Deduct	-25.11	
	For 125 mils Thick, Add	32.28	
32 17 23 33-0028	EA 24' Arrow With Single (L or R) Turn Arrow, Type II, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	500.03	
	For 60 mils Thick, Deduct	-36.44	
	For 125 mils Thick, Add	46.86	
32 17 23 33-0029	EA 24' Arrow With Both (L and R) Turn Arrows, Type II, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	655.60	
	For 60 mils Thick, Deduct	-47.78	
	For 125 mils Thick, Add	61.43	
32 17 23 33-0030	EA 24' Arrow Single (L or R) Turn Arrow, Type III, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	466.69	
	For 60 mils Thick, Deduct	-34.01	
	For 125 mils Thick, Add	43.73	
32 17 23 33-0031	EA 24' Arrow Both (L and R) Turn Arrows, Type III, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	811.16	
	For 60 mils Thick, Deduct	-59.12	
	For 125 mils Thick, Add	76.01	
32 17 23 33-0032	EA 8' Turn Arrow (L or R), Type IV, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	166.68	
	For 60 mils Thick, Deduct	-12.15	
	For 125 mils Thick, Add	15.62	
32 17 23 33-0033	EA 24' Arrow, Type V, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	366.69	
	For 60 mils Thick, Deduct	-26.73	
	For 125 mils Thick, Add	34.36	
32 17 23 33-0034	EA 18' Arrow, Type VI, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	466.69	
	For 60 mils Thick, Deduct	-34.01	
	For 125 mils Thick, Add	43.73	
32 17 23 33-0035	EA 13' Arrow With Single (L or R) Turn Arrow, Type VII, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	300.02	
	For 60 mils Thick, Deduct	-21.87	
	For 125 mils Thick, Add	28.11	
32 17 23 33-0036	EA 15' Arrow With Both (L and R) Turn Arrows, Type VIII, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	400.02	
	For 60 mils Thick, Deduct	-29.16	
	For 125 mils Thick, Add	37.49	
32 17 23 33-0037	EA 5' Arrow, Bike Lane, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	77.78	
	For 60 mils Thick, Deduct	-5.67	
	For 125 mils Thick, Add	7.29	
32 17 23 33-0038	EA Lane-Reduction Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	504.65	
	Note: Approximate overall dimensions: 5-1/2' width x 18' height.		
	For 60 mils Thick, Deduct	-79.43	
	For 125 mils Thick, Add	102.12	
32 17 23 33-0039	EA Wrong-Way Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking	707.83	
	Note: Approximate overall dimensions: 6' width x 24' height.		
	For 60 mils Thick, Deduct	-115.53	
	For 125 mils Thick, Add	148.54	
32 17 23 33-0040	EA Preferential Lane Symbol (Diamond), 90 Mil Thick, Thermoplastic Reflective Pavement Marking	202.15	
	Note: Approximate overall dimensions: 3' width x 12' height.		
	For 60 mils Thick, Deduct	-28.88	
	For 125 mils Thick, Add	37.13	

32 17 23 33-0041 Thermoplastic Reflective Pavement Striping By Hand For Repairs (32 17 23 33-0001)



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Paving Specialties			32 17

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 33-0042	LF		Single 4" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping By Hand For Repairs	2.81	
			For 60 mils Thick, Deduct	-0.20	
			For 125 mils Thick, Add	0.26	
32 17 23 33-0043	LF		Single 6" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping By Hand For Repairs	3.61	
			For 60 mils Thick, Deduct	-0.30	
			For 125 mils Thick, Add	0.39	
32 17 23 33-0044	LF		Single 8" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping By Hand For Repairs	4.50	
			For 60 mils Thick, Deduct	-0.40	
			For 125 mils Thick, Add	0.52	
32 17 23 33-0045	LF		Single 12" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping By Hand For Repairs	6.51	
			For 60 mils Thick, Deduct	-0.61	
			For 125 mils Thick, Add	0.78	
32 17 23 33-0046	LF		Single 24" Wide Solid Line, 90 Mil Thick, Thermoplastic Reflective Pavement Striping By Hand For Repairs	11.88	
			For 60 mils Thick, Deduct	-1.21	
			For 125 mils Thick, Add	1.56	
32 17 23 33-0047			Preformed, Patterned Reflective Pavement Marking Tape (32 17 23 33-0001)		
			Note: Applied with pressure sensitive adhesive. Includes adhesive. 60 mil thickness. (3M Stamark 380 Series).		
32 17 23 33-0048	LF		Single 4" Wide Solid Line, 60 Mil Thick, Preformed Patterned Thermoplastic Reflective Pavement Striping	3.14	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.63	
			For >25,000 LF, Deduct	-0.47	
32 17 23 33-0049	LF		Single 6" Wide Solid Line, 60 Mil Thick, Preformed Patterned Thermoplastic Reflective Pavement Striping	4.66	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	0.93	
			For >25,000 LF, Deduct	-0.70	
32 17 23 33-0050	LF		Single 8" Wide Solid Line, 60 Mil Thick, Preformed Patterned Thermoplastic Reflective Pavement Striping	6.18	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	1.24	
			For >25,000 LF, Deduct	-0.93	
32 17 23 33-0051	LF		Single 12" Wide Solid Line, 60 Mil Thick, Preformed Patterned Thermoplastic Reflective Pavement Striping	9.19	
			Note: Includes yellow or white.		
			For Up To 5,000 LF, Add	1.84	
			For >25,000 LF, Deduct	-1.38	
32 17 23 33-0052	SF		Solid Area, 60 Mil Thick, Preformed Patterned Thermoplastic Reflective Pavement Marking Tape	24.41	
			Note: Includes yellow or white.		
32 17 23 33-0053	EA		6" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	36.42	
			For <10, Add	0.96	
			For >50 To 100, Deduct	-0.48	
			For >100 To 200, Deduct	-0.64	
			For >200, Deduct	-1.28	
32 17 23 33-0054	EA		12" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	65.26	
			For <10, Add	1.22	
			For >50 To 100, Deduct	-0.61	
			For >100 To 200, Deduct	-0.61	
			For >200, Deduct	-1.63	
32 17 23 33-0055	EA		24" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	111.47	
			For <10, Add	2.41	
			For >50 To 100, Deduct	-1.21	
			For >100 To 200, Deduct	-1.61	
			For >200, Deduct	-3.22	
32 17 23 33-0056	EA		36" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	158.27	
			For <10, Add	4.83	
			For >50 To 100, Deduct	-2.41	
			For >100 To 200, Deduct	-3.22	
			For >200, Deduct	-6.44	
32 17 23 33-0057	EA		48" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	185.99	
			For <10, Add	5.41	
			For >50 To 100, Deduct	-2.71	
			For >100 To 200, Deduct	-3.61	
			For >200, Deduct	-7.22	
32 17 23 33-0058	EA		72" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	232.71	
			For <10, Add	9.63	
			For >50 To 100, Deduct	-4.82	
			For >100 To 200, Deduct	-6.42	
			For >200, Deduct	-12.84	
32 17 23 33-0059	EA		96" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	295.40	
			For <10, Add	12.94	
			For >50 To 100, Deduct	-6.47	
			For >100 To 200, Deduct	-8.62	
			For >200, Deduct	-17.25	
32 17 23 33-0060	EA		120" High, Preformed Letter/Number, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	370.64	
			For <10, Add	16.03	
			For >50 To 100, Deduct	-8.02	
			For >100 To 200, Deduct	-10.69	
			For >200, Deduct	-21.37	
32 17 23 33-0061	SF		Preformed Arrow, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	25.04	
32 17 23 33-0062	SF		Preformed Symbol, 60 Mil Thick, Patterned Thermoplastic Reflective Pavement Marking Tape	26.21	
			Note: Handicap, railroad, diamond symbol, etc.		
32 17 23 33-0063			Preformed, Thermoplastic Reflective Pavement Marking (32 17 23 33-0001)		
			Note: Heat applied. (Flint PreMark or HotTape Series).		
32 17 23 33-0064	EA		Preformed Bike Lane Symbol, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape	400.84	
			Note: Approximate overall dimensions: 4' width x 8' height.		

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 17 Paving Specialties**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 17 23 33-0065	EA	Preformed Railroad Crossing Symbol, 125 Mil Thick, Thermoplastic Reflective Pavement Marking Tape.....1,064.88 Note: Approximate overall dimensions: 8' width x 20' height. Excludes transverse lines.	1,064.88	
32 17 23 33-0066	EA	Preformed Preferential Lane Symbol (Diamond), 125 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 204.52 Note: Approximate overall dimensions: 3-1/4' width x 13' height.	204.52	
32 17 23 33-0067	EA	6' Height, Preformed Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 169.33 Note: Approximate overall dimensions: 2' width x 6' height.	169.33	
32 17 23 33-0068	EA	9-1/2' Height, Preformed Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 342.38 Note: Approximate overall dimensions: 3-1/4' width x 9-1/2' height.	342.38	
32 17 23 33-0069	EA	4' Height, Preformed Turn Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 198.90 Note: Approximate overall dimensions: 3' width x 4' height.	198.90	
32 17 23 33-0070	EA	8' Height, Preformed Turn Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 383.03 Note: Approximate overall dimensions: 6' width x 8' height.	383.03	
32 17 23 33-0071	EA	Preformed Turn And Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape.....665.09 Note: Approximate overall dimensions: 7-1/4' width x 12-3/4' height.	665.09	
32 17 23 33-0072	EA	Preformed Dual Turn And Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 1,009.63 Note: Approximate overall dimensions: 11-1/4' width x 13-1/4' height.	1,009.63	
32 17 23 33-0073	EA	Preformed Elongated Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 350.04 Note: Approximate overall dimensions: 1-2/3' width x 12' height.	350.04	
32 17 23 33-0074	EA	Preformed Elongated Turn Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 390.69 Note: Approximate overall dimensions: 3' width x 12' height.	390.69	
32 17 23 33-0075	EA	Preformed Elongated Dual Turn Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 734.49 Note: Approximate overall dimensions: 5-1/2' width x 12' height.	734.49	
32 17 23 33-0076	EA	Preformed Elongated Turn And Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 673.68 Note: Approximate overall dimensions: 3-1/2' width x 20' height.	673.68	
32 17 23 33-0077	EA	Preformed Elongated Dual Turn And Through Lane Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 676.03 Note: Approximate overall dimensions: 5-1/2' width x 20' height.	676.03	
32 17 23 33-0078	EA	Preformed Lane-Reduction Arrow, 90 Mil Thick, Thermoplastic Reflective Pavement Marking Tape 939.86 Note: Approximate overall dimensions: 5-1/2' width x 18' height.	939.86	
32 17 23 33-0079		Thermoplastic Pavement Striping, Letters And Symbols For Parking Areas (32 17 23 33)		
32 17 23 33-0080		Thermoplastic Pavement Marking Symbols For Parking Areas (32 17 23 33-0079) Note: Heat applied. (Flint PreMark Series).		
32 17 23 33-0081	EA	28" Handicap Symbol For Standard Parking Stalls, 90 Mil Thick, Thermoplastic Pavement Marking Tape For Parking Areas 133.28 Note: White or blue symbol. Excludes striping.	133.28	
32 17 23 33-0082	EA	39" Handicap Symbol For Standard Parking Stalls, 90 Mil Thick, Thermoplastic Pavement Marking Tape For Parking Areas 519.03	519.03	
32 17 23 33-0083	EA	40" x 40" Handicap Symbol For Van Parking Stalls, 90 Mil Thick, Thermoplastic Pavement Marking Tape For Parking Areas 290.29 Note: White symbol on blue background. Excludes striping.	290.29	
32 17 23 33-0084	EA	45" x 45" Handicap Symbol For Van Parking Stalls, 90 Mil Thick, Thermoplastic Pavement Marking Tape For Parking Areas 349.88 Note: White symbol on blue background. Excludes striping.	349.88	
32 17 23 33-0085	EA	48" x 48" Handicap Symbol For Van Parking Stalls, 90 Mil Thick, Thermoplastic Pavement Marking Tape For Parking Areas 366.88	366.88	
32 17 26		Tactile Warning Surfaces (32 17)		
32 17 26 00-0001		Vitrified Polymer Composite (VPC); (Armor Tile) (32 17 26) Note: Truncated dome, raised strips or directional bars. All colors.		
32 17 26 00-0002	SF	Surface Applied VPC Truncated Dome Detectable Warning Surface 66.75 Note: Includes adhesive, fasteners and sealant at perimeter. Also raised strips or directional bars. All colors.	66.75	8.78
32 17 26 00-0003	SF	Embedded, VPC Truncated Dome Detectable Warning Surface 55.34 Note: Also raised strips or directional bars. All colors.	55.34	8.78
32 17 26 00-0004		Fiber-Reinforced, Polymermodified Cement And Coated With Acrylic Resin Emulsion (SatetyStep TD) (32 17 26) Note: Pre-molded tactile dome sheet. All colors.		
32 17 26 00-0005	SF	Up To 15' SF, Surface Applied Pre-Molded Tactile Warning Mat (SSTD-MAT) 76.46 Note: Includes surface preparation, SSTD-589 adhesive, SSTD-100 topcoat sealer and SSTD-1250 finish . All colors. 2' or 3' width.	76.46	8.78
32 17 26 00-0006	SF	>15 To 36 SF, Surface Applied Pre-Molded Tactile Warning Mat (SSTD-MAT) 68.56 Note: Includes surface preparation, SSTD-589 adhesive, SSTD-100 top coat sealer and SSTD-1250 finish . All colors. 2' or 3' width.	68.56	8.78
32 18		Athletic and Recreational Surfacing (32 10)		
32 18 16		Synthetic Resilient Surfacing (32 18)		
32 18 16 13		Playground Protective Surfacing (32 18 16)		
32 18 16 13-0001		Tile Playground Surface Material (32 18 16 13) Note: Black. With or without channel bottom. Includes transition section and curbs. Excludes sub base.		



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Athletic and Recreational Surfacing			32 18

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 16 13-0002	SF	1-3/4" Thick, Resilient Rubber Tile Playground Surfacing		23.05	2.66
		For Manufacturer's Standard Colors, Add	.....	1.36	
		For Interlocking Tiles, Add	.....	3.02	
		For Mechanically Fastened, Add	.....	1.99	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0003	SF	2" Thick, Resilient Rubber Tile Playground Surfacing	.....	23.55	2.81
		For Manufacturer's Standard Colors, Add	.....	1.36	
		For Interlocking Tiles, Add	.....	3.02	
		For Mechanically Fastened, Add	.....	2.09	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0004	SF	2-1/4" Thick, Resilient Rubber Tile Playground Surfacing	.....	24.55	3.14
		For Manufacturer's Standard Colors, Add	.....	1.36	
		For Interlocking Tiles, Add	.....	3.02	
		For Mechanically Fastened, Add	.....	2.29	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0005	SF	2-1/2" Thick, Resilient Rubber Tile Playground Surfacing	.....	25.54	3.48
		For Manufacturer's Standard Colors, Add	.....	1.36	
		For Interlocking Tiles, Add	.....	3.02	
		For Mechanically Fastened, Add	.....	2.49	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0006	SF	2-3/4" Thick, Resilient Rubber Tile Playground Surfacing	.....	28.48	3.81
		For Manufacturer's Standard Colors, Add	.....	1.02	
		For Interlocking Tiles, Add	.....	3.41	
		For Mechanically Fastened, Add	.....	2.69	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0007	SF	3" Thick, Resilient Rubber Tile Playground Surfacing	.....	29.58	4.18
		For Manufacturer's Standard Colors, Add	.....	1.02	
		For Interlocking Tiles, Add	.....	3.41	
		For Mechanically Fastened, Add	.....	2.91	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0008	SF	3-1/4" Thick, Resilient Rubber Tile Playground Surfacing	.....	30.72	4.55
		For Manufacturer's Standard Colors, Add	.....	1.02	
		For Interlocking Tiles, Add	.....	3.41	
		For Mechanically Fastened, Add	.....	3.14	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0009	SF	3-1/2" Thick, Resilient Rubber Tile Playground Surfacing	.....	33.75	4.87
		For Manufacturer's Standard Colors, Add	.....	0.57	
		For Interlocking Tiles, Add	.....	3.80	
		For Mechanically Fastened, Add	.....	3.35	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0010	SF	3-3/4" Thick, Resilient Rubber Tile Playground Surfacing	.....	34.74	5.27
		For Manufacturer's Standard Colors, Add	.....	0.57	
		For Interlocking Tiles, Add	.....	3.80	
		For Mechanically Fastened, Add	.....	3.54	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0011	SF	4" Thick, Resilient Rubber Tile Playground Surfacing	.....	35.84	5.57
		For Manufacturer's Standard Colors, Add	.....	0.57	
		For Interlocking Tiles, Add	.....	3.80	
		For Mechanically Fastened, Add	.....	3.76	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0012	SF	4-1/2" Thick, Resilient Rubber Tile Playground Surfacing	.....	41.19	6.27
		For Manufacturer's Standard Colors, Add	.....	0.56	
		For Interlocking Tiles, Add	.....	4.46	
		For Mechanically Fastened, Add	.....	4.18	
		For Ethylene Propylene Diene Monomer (EPDM) Top Wearing Surface, Add	.....	1.50	
32 18 16 13-0013		Loose Laid Playground Surface Material (32 18 16 13)			
		Note: Excludes sub base.			
32 18 16 13-0014	SF	3" Loose Laid Wood Fiber Safety Playground Surfacing	.....	2.11	0.40
32 18 16 13-0015	SF	6" Loose Laid Wood Fiber Safety Playground Surfacing	.....	2.87	0.49
32 18 16 13-0016	SF	9" Loose Laid Wood Fiber Safety Playground Surfacing	.....	3.71	0.60
32 18 16 13-0017	SF	12" Loose Laid Wood Fiber Safety Playground Surfacing	.....	5.22	0.90
32 18 16 13-0018	SF	3" Loose Laid Synthetic Fiber Safety Playground Surfacing	.....	3.45	0.40
32 18 16 13-0019	SF	6" Loose Laid Synthetic Fiber Safety Playground Surfacing	.....	4.27	0.49
32 18 16 13-0020	SF	9" Loose Laid Synthetic Fiber Safety Playground Surfacing	.....	6.76	0.60
32 18 16 13-0021	SF	12" Loose Laid Synthetic Fiber Safety Playground Surfacing	.....	8.31	0.90
32 18 16 13-0022	SF	8" FIBAR System Playground Surfacing	.....	14.04	1.49
		Note: Includes drainage system on 6" centers, felt, edge railing and 8" wood fiber.			
32 18 16 13-0023	SF	12" FIBAR System Playground Surfacing	.....	17.75	1.99
		Note: Includes drainage system on 6" centers, felt, edge railing and 12" wood fiber.			
32 18 16 13-0024		Poured In Place Playground Surfacing (32 18 16 13)			
		Note: Includes SBR base mat, 100% color ethylene propylene diene monomer (EPDM) top surface and 5 year warranty. Includes primer for base mat and top surface. Includes all colors. Excludes base preparation.			
32 18 16 13-0025	SF	1-3/4" Thick, Up To 4' Critical Fall Height, Poured In Place Rubber Playground Surfacing	.....	18.44	2.87
		For Up To 2,000, Add	.....	3.83	
		For >2,000 To 3,000, Add	.....	2.70	
		For >3,000 To 4,000, Add	.....	1.83	
		For >4,000 To 5,000, Add	.....	1.17	
		For >5,000 To 7,000, Add	.....	0.49	
		For Aliphatic (Non-Yellowing) Binder, Add	.....	4.28	
		For Each 10% Of Area In Black Instead Of Color, Deduct	.....	-0.58	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 18 Athletic and Recreational Surfacing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 16 13-0026	SF	2" Thick, 5' Critical Fall Height, Poured In Place Rubber Playground Surfacing	19.02	3.18	
		For Up To 2,000, Add	3.95		
		For >2,000 To 3,000, Add	2.78		
		For >3,000 To 4,000, Add	1.89		
		For >4,000 To 5,000, Add	1.21		
		For >5,000 To 7,000, Add	0.50		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0027	SF	2-1/2" Thick, 6' Critical Fall Height, Poured In Place Rubber Playground Surfacing	20.53	3.63	
		For Up To 2,000, Add	4.26		
		For >2,000 To 3,000, Add	3.00		
		For >3,000 To 4,000, Add	2.04		
		For >4,000 To 5,000, Add	1.30		
		For >5,000 To 7,000, Add	0.54		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0028	SF	3" Thick, 7' Critical Fall Height, Poured In Place Rubber Playground Surfacing	22.18	3.87	
		For Up To 2,000, Add	4.61		
		For >2,000 To 3,000, Add	3.24		
		For >3,000 To 4,000, Add	2.21		
		For >4,000 To 5,000, Add	1.41		
		For >5,000 To 7,000, Add	0.58		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0029	SF	3-1/2" Thick, 8' Critical Fall Height, Poured In Place Rubber Playground Surfacing	23.82	4.07	
		For Up To 2,000, Add	4.95		
		For >2,000 To 3,000, Add	3.48		
		For >3,000 To 4,000, Add	2.37		
		For >4,000 To 5,000, Add	1.51		
		For >5,000 To 7,000, Add	0.63		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0030	SF	4" Thick, 9' Critical Fall Height, Poured In Place Rubber Playground Surfacing	25.21	4.30	
		For Up To 2,000, Add	5.24		
		For >2,000 To 3,000, Add	3.69		
		For >3,000 To 4,000, Add	2.51		
		For >4,000 To 5,000, Add	1.60		
		For >5,000 To 7,000, Add	0.66		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0031	SF	4-1/2" Thick, 10' Critical Fall Height, Poured In Place Rubber Playground Surfacing	26.85	4.54	
		For Up To 2,000, Add	5.58		
		For >2,000 To 3,000, Add	3.93		
		For >3,000 To 4,000, Add	2.67		
		For >4,000 To 5,000, Add	1.70		
		For >5,000 To 7,000, Add	0.71		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0032	SF	5-1/2" Thick, 12' Critical Fall Height, Poured In Place Rubber Playground Surfacing	30.12	5.09	
		For Up To 2,000, Add	6.26		
		For >2,000 To 3,000, Add	4.40		
		For >3,000 To 4,000, Add	3.00		
		For >4,000 To 5,000, Add	1.91		
		For >5,000 To 7,000, Add	0.79		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0033	SF	1/2" Top Only, Poured In Place Playground Surfacing	12.05		
		Note: Not used with new surfacing system tasks.			
		For Up To 2,000, Add	3.79		
		For >2,000 To 3,000, Add	2.45		
		For >3,000 To 4,000, Add	1.49		
		For >4,000 To 5,000, Add	0.90		
		For >5,000 To 7,000, Add	0.41		
		For Aliphatic (Non-Yellowing) Binder, Add	4.28		
		For Each 10% Of Area In Black Instead Of Color, Deduct	-0.58		
32 18 16 13-0034	EA	Simple Graphics Including Hopscotch, Four Square Or Geometric Shapes (5 Per 1,000 SF) For Poured In Place Playground Surfacing	2,826.54		
32 18 16 13-0035		Synthetic Playground Turf (Sporturf) (32 18 16 13)			
		Note: Excludes base preparation, aggregate, or drainage.			
32 18 16 13-0036	SF	60 OZ/SY Face Weight, Tufted Polyethylene Monofilament Classic Spine/ Texturized Polypropylene Synthetic Turf (Sporturf PL929)	10.71		
32 18 16 13-0037	SF	71 OZ/SY Face Weight, Tufted Polyethylene Monofilament Classic Spine/ Texturized Polypropylene Synthetic Turf (Mirage PL906)	9.44		
32 18 16 13-0038	SF	2" Foam Padding (Sporturf)	6.11		
32 18 16 13-0039	CF	Sand/Ruber Infill (Sporturf)	58.83		

32 18 23 Athletic Surfacing (32 18)**32 18 23 13 Baseball Field Surfacing** (32 18 23)**32 18 23 13-0001 Infield Dust** (32 18 23 13)

32 18 23 13-0002	SF	4" Deep Red Brick Infield Mix	4.96	0.72	



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Athletic and Recreational Surfacing			32 18

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 23	13-0003	Clay Infield Maintenance (32 18 23 13)		
32 18 23	13-0004	MSF Playing Field Maintenance (Clay - Nail Drag).....	12.90	
32 18 23	13-0005	MSF Playing Field Maintenance (Clay - Screen Drag).....	12.90	
32 18 23	13-0006	CY Playing Field Maintenance Of Clay.....	110.65	
32 18 23	13-0007	Ton Medium Pro Baseball Infield Mix (Diamond Select 60/40 Pro Infield Mix)	184.31	
32 18 23	23	Field Sport Surfacing (32 18 23)		
32 18 23	23-0001	Turf Field Maintenance (32 18 23 23)		
32 18 23	23-0002	ACR Turf Aeration (Minimum 6" Penetration).....	173.61	
32 18 23	23-0003	MSF Top Dressing 1/8" - 1/4" Sand	16.46	
32 18 23	23-0004	BAG Envirofill, 50 LB Bag	126.71	
32 18 23	29	Synthetic Field Sport Surfacing (32 18 23)		
32 18 23	29-0001	Synthetic Field Sport Surfacing (32 18 23 29)		
32 18 23	29-0002	Synthetic Turf (AstroTurf) (32 18 23 29-0001) Note: Includes labor, equipment and material required to install the task.		
32 18 23	29-0003	Tufted Monofilament Polyethylene Synthetic Turf (AstroTurf® GameDay Grass™ MT) (32 18 23 29-0002)		
32 18 23	29-0004	38 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf (AstroTurf® GameDay Grass™ MT 38) (32 18 23 29-0003)		
32 18 23	29-0005	SF 38 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Ambient Rubber Infill (AstroTurf® GameDay Grass™ MT 38)	8.47	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.26	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.31	
		For Cryo Rubber And Sand Infill, Add	0.36	
32 18 23	29-0006	EA Football Markings For AstroTurf® GameDay Grass™ MT 38 Fields	27,453.10	
32 18 23	29-0007	EA Baseball Markings For AstroTurf® GameDay Grass™ MT 38 Fields	22,376.87	
32 18 23	29-0008	EA Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ MT 38 Fields.....	6,733.78	
		Note: Per sport.		
32 18 23	29-0009	EA Endzone Lettering For AstroTurf® GameDay Grass™ MT 38 Fields	2,486.32	
		Note: Per letter. Excludes outline.		
32 18 23	29-0010	EA Colored Endzone For AstroTurf® GameDay Grass™ MT 38 Fields.....	2,382.72	
		Note: Per endzone.		
32 18 23	29-0011	EA Simple Logo For AstroTurf® GameDay Grass™ MT 38 Fields	20,719.32	
		Note: Block letter.		
32 18 23	29-0012	EA Deluxe Logo For AstroTurf® GameDay Grass™ MT 38 Fields	30,043.01	
		Note: Graphic.		
32 18 23	29-0013	41 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf (AstroTurf® GameDay Grass™ MT 41) (32 18 23 29-0003)		
32 18 23	29-0014	SF 41 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Ambient Rubber Infill (AstroTurf® GameDay Grass™ MT 41)	9.72	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.26	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.31	
		For Cryo Rubber And Sand Infill, Add	0.36	
32 18 23	29-0015	EA Football Markings For AstroTurf® GameDay Grass™ MT 41 Fields	27,971.25	
32 18 23	29-0016	EA Baseball Markings For AstroTurf® GameDay Grass™ MT 41 Fields	23,205.78	
32 18 23	29-0017	EA Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ MT 41 Fields.....	7,251.81	
		Note: Per sport.		
32 18 23	29-0018	EA Endzone Lettering For AstroTurf® GameDay Grass™ MT 41 Fields	2,693.53	
		Note: Per letter. Excludes outline.		
32 18 23	29-0019	EA Colored Endzone For AstroTurf® GameDay Grass™ MT 41 Fields.....	2,486.33	
		Note: Per endzone.		
32 18 23	29-0020	EA Simple Logo For AstroTurf® GameDay Grass™ MT 41 Fields	21,755.42	
		Note: Block letter.		
32 18 23	29-0021	EA Deluxe Logo For AstroTurf® GameDay Grass™ MT 41 Fields	31,545.35	
		Note: Graphic.		
32 18 23	29-0022	45 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf (AstroTurf® GameDay Grass™ MT 45) (32 18 23 29-0003)		
32 18 23	29-0023	SF 45 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Ambient Rubber Infill (AstroTurf® GameDay Grass™ MT 45)	9.90	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.26	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.31	
		For Cryo Rubber And Sand Infill, Add	0.36	
32 18 23	29-0024	EA Football Markings For AstroTurf® GameDay Grass™ MT 45 Fields	28,489.24	
32 18 23	29-0025	EA Baseball Markings For AstroTurf® GameDay Grass™ MT 45 Fields	25,070.53	
32 18 23	29-0026	EA Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ MT 45 Fields.....	7,769.79	
		Note: Per sport.		

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 18 Athletic and Recreational Surfacing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 23 29-0027	EA	Endzone Lettering For AstroTurf® GameDay Grass™ MT 45 Fields Note: Per letter. Excludes outline.	2,900.72	
32 18 23 29-0028	EA	Colored Endzone For AstroTurf® GameDay Grass™ MT 45 Fields..... Note: Per endzone.	2,589.93	
32 18 23 29-0029	EA	Simple Logo For AstroTurf® GameDay Grass™ MT 45 Fields Note: Block letter.	22,791.39	
32 18 23 29-0030	EA	Deluxe Logo For AstroTurf® GameDay Grass™ MT 45 Fields Note: Graphic.	33,047.51	
32 18 23 29-0031		Tufted Monofilament Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ 3D) (32 18 23 29-0002)		
32 18 23 29-0032		52 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ 3DX 52) (32 18 23 29-0031)		
32 18 23 29-0033	SF	52 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ 3DX 52) For Ambient Rubber And Sand Infill, Add For Cryo Rubber Infill, Add For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add For Cryo Rubber And Sand Infill, Add	11.07 0.10 0.20 0.25 0.30	
32 18 23 29-0034	EA	Football Markings For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Per sport.	29,525.03	
32 18 23 29-0035	EA	Baseball Markings For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Per sport.	31,493.37	
32 18 23 29-0036	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Per sport.	8,805.71	
32 18 23 29-0037	EA	Endzone Lettering For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Per letter. Excludes outline.	3,315.09	
32 18 23 29-0038	EA	Colored Endzone For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Per endzone.	2,797.11	
32 18 23 29-0039	EA	Simple Logo For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Block letter.	24,863.18	
32 18 23 29-0040	EA	Deluxe Logo For AstroTurf® GameDay Grass™ 3DX 52 Fields Note: Graphic.	36,051.62	
32 18 23 29-0041		60 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ 3DX 60) (32 18 23 29-0031)		
32 18 23 29-0042	SF	60 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ 3DX 60) For Ambient Rubber And Sand Infill, Add For Cryo Rubber Infill, Add For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add For Cryo Rubber And Sand Infill, Add	11.45 0.10 0.20 0.25 0.30	
32 18 23 29-0043	EA	Football Markings For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Per sport.	30,043.01	
32 18 23 29-0044	EA	Baseball Markings For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Per sport.	35,015.65	
32 18 23 29-0045	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Per sport.	9,323.69	
32 18 23 29-0046	EA	Endzone Lettering For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Per letter. Excludes outline.	3,522.28	
32 18 23 29-0047	EA	Colored Endzone For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Per endzone.	2,900.70	
32 18 23 29-0048	EA	Simple Logo For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Block letter.	25,899.15	
32 18 23 29-0049	EA	Deluxe Logo For AstroTurf® GameDay Grass™ 3DX 60 Fields Note: Graphic.	37,553.77	
32 18 23 29-0050		52 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ 3D 52) (32 18 23 29-0031)		
32 18 23 29-0051	SF	52 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ 3D 52) For Ambient Rubber And Sand Infill, Add For Cryo Rubber Infill, Add For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add For Cryo Rubber And Sand Infill, Add	11.47 0.10 0.20 0.25 0.30	
32 18 23 29-0052	EA	Football Markings For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Per sport.	30,561.00	
32 18 23 29-0053	EA	Baseball Markings For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Per sport.	35,222.84	
32 18 23 29-0054	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Per sport.	9,841.68	
32 18 23 29-0055	EA	Endzone Lettering For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Per letter. Excludes outline.	3,729.48	
32 18 23 29-0056	EA	Colored Endzone For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Per endzone.	3,004.30	
32 18 23 29-0057	EA	Simple Logo For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Block letter.	26,935.12	
32 18 23 29-0058	EA	Deluxe Logo For AstroTurf® GameDay Grass™ 3D 52 Fields Note: Graphic.	39,055.92	
32 18 23 29-0059		60 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ 3D 60) (32 18 23 29-0031)		



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Athletic and Recreational Surfacing			32 18

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 23 29-0060	SF	60 Oz/SY Face Weight, Tufted Monofilament Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ 3D 60).....	11.68	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.20	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.25	
		For Cryo Rubber And Sand Infill, Add	0.30	
32 18 23 29-0061	EA	Football Markings For AstroTurf® GameDay Grass™ 3D 60 Fields	31,078.98	
32 18 23 29-0062	EA	Baseball Markings For AstroTurf® GameDay Grass™ 3D 60 Fields	37,501.97	
32 18 23 29-0063	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ 3D 60 Fields	10,359.66	
		Note: Per sport.		
32 18 23 29-0064	EA	Endzone Lettering For AstroTurf® GameDay Grass™ 3D 60 Fields.....	4,143.86	
		Note: Per letter. Excludes outline.		
32 18 23 29-0065	EA	Colored Endzone For AstroTurf® GameDay Grass™ 3D 60 Fields	3,107.90	
		Note: Per endzone.		
32 18 23 29-0066	EA	Simple Logo For AstroTurf® GameDay Grass™ 3D 60 Fields.....	27,971.08	
		Note: Block letter.		
32 18 23 29-0067	EA	Deluxe Logo For AstroTurf® GameDay Grass™ 3D 60 Fields.....	40,558.07	
		Note: Graphic.		
32 18 23 29-0068		Tufted Monofilament Polyethylene Synthetic Turf (AstroTurf® GameDay Grass™ XPe) (32 18 23 29-0002)		
32 18 23 29-0069		38 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ XPe 38) (32 18 23 29-0068)		
32 18 23 29-0070	SF	38 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ XPe 38)	9.34	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.26	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.31	
		For Cryo Rubber And Sand Infill, Add	0.36	
32 18 23 29-0071	EA	Football Markings For AstroTurf® GameDay Grass™ XPe 38 Fields	26,417.29	
32 18 23 29-0072	EA	Baseball Markings For AstroTurf® GameDay Grass™ XPe 38 Fields	19,476.28	
32 18 23 29-0073	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ XPe 38 Fields	5,697.85	
		Note: Per sport.		
32 18 23 29-0074	EA	Endzone Lettering For AstroTurf® GameDay Grass™ XPe 38 Fields.....	2,071.94	
		Note: Per letter. Excludes outline.		
32 18 23 29-0075	EA	Colored Endzone For AstroTurf® GameDay Grass™ XPe 38 Fields	2,175.54	
		Note: Per endzone.		
32 18 23 29-0076	EA	Simple Logo For AstroTurf® GameDay Grass™ XPe 38 Fields.....	18,647.50	
		Note: Block letter.		
32 18 23 29-0077	EA	Deluxe Logo For AstroTurf® GameDay Grass™ XPe 38 Fields	27,038.87	
		Note: Graphic.		
32 18 23 29-0078		42 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone (AstroTurf® GameDay Grass™ XPe 42) (32 18 23 29-0068)		
32 18 23 29-0079	SF	42 Oz/SY Face Weight, Tufted Slit-Film Polyethylene Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® GameDay Grass™ XPe 42)	8.21	
		For Ambient Rubber And Sand Infill, Add	0.10	
		For Cryo Rubber Infill, Add	0.26	
		For Ethylene Propylene Diene Monomer (EPDM) Rubber Infill, Add	0.31	
		For Cryo Rubber And Sand Infill, Add	0.36	
32 18 23 29-0080	EA	Football Markings For AstroTurf® GameDay Grass™ XPe 42 Fields	26,935.12	
32 18 23 29-0081	EA	Baseball Markings For AstroTurf® GameDay Grass™ XPe 42 Fields	20,719.32	
32 18 23 29-0082	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® GameDay Grass™ XPe 42 Fields	6,215.80	
		Note: Per sport.		
32 18 23 29-0083	EA	Endzone Lettering For AstroTurf® GameDay Grass™ XPe 42 Fields.....	2,279.13	
		Note: Per letter. Excludes outline.		
32 18 23 29-0084	EA	Colored Endzone For AstroTurf® GameDay Grass™ XPe 42 Fields	2,279.13	
		Note: Per endzone.		
32 18 23 29-0085	EA	Simple Logo For AstroTurf® GameDay Grass™ XPe 42 Fields.....	19,683.35	
		Note: Block letter.		
32 18 23 29-0086	EA	Deluxe Logo For AstroTurf® GameDay Grass™ XPe 42 Fields	28,540.86	
		Note: Graphic.		
32 18 23 29-0087		Tufted Monofilament Nylon Synthetic Turf With Nylon Root Zone And Attached Pad (AstroTurf® PureGrass®) (32 18 23 29-0002)		
32 18 23 29-0088	SF	Tufted Monofilament Nylon Synthetic Turf With Nylon Root Zone And Attached Pad (AstroTurf® PureGrass®).....	18.33	
32 18 23 29-0089	SF	Tufted Monofilament Nylon Synthetic Turf With Nylon Root Zone And Ambient Rubber Infill (AstroTurf® PureGrass®)	16.42	
32 18 23 29-0090	EA	Football Markings For AstroTurf® PureGrass® Fields	51,118.17	
32 18 23 29-0091	EA	Baseball Markings For AstroTurf® PureGrass® Fields	60,730.13	
32 18 23 29-0092	EA	Soccer, Lacrosse, Softball Or Field Hockey Markings For AstroTurf® PureGrass® Fields	14,854.85	
		Note: Per sport.		
32 18 23 29-0093	EA	Endzone Lettering For AstroTurf® PureGrass® Fields.....	5,679.80	
		Note: Per letter. Excludes outline.		
32 18 23 29-0094	EA	Colored Endzone For AstroTurf® PureGrass® Fields	4,215.93	
		Note: Per endzone.		
32 18 23 29-0095	EA	Simple Logo For AstroTurf® PureGrass® Fields.....	37,943.38	
		Note: Block letter.		

32 Exterior Improvements
32 10 Bases, Ballasts, and Paving
32 18 Athletic and Recreational Surfacing



MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 18 23 29-0096 EA Deluxe Logo For AstroTurf® PureGrass® Fields.....55,705.69
 Note: Graphic.

32 18 23 29-0097 Synthetic Turf (G9 Turf) (32 18 23 29-0001)

Note: Includes labor, equipment and material required to install the task.

32 18 23 29-0098 SF 2-1/2" Height, 53 Ounce, Tufted 3/8" Gauge Monofilament Synthetic Turf With Thatch Layer And Ethylene Propylene Diene Monomer (EPDM) Infill (G9 Turf Playmaker Turf) 10.15
 Note: For football and multi-sport fields. Excludes preparation of sub-base, grooming, sports lines and logos.

For >35,000, Deduct

-0.92

32 18 23 29-0099 SF 2" Height, 48 Ounce, Tufted 3/8" Gauge Monofilament Synthetic Turf With Thatch Layer And Ethylene Propylene Diene Monomer (EPDM) Infill (G9 Turf Striker Turf) 10.06
 Note: For all sports other than football. Excludes preparation of sub-base, grooming, sports lines and logos.

For >35,000, Deduct

-0.91

32 18 23 29-0100 SF 1-3/4" Height, 72 Ounce, Tufted 3/8" Gauge, Two-Color Monofilament Synthetic Turf With Thatch Layer And Acrylic Coated Sand Infill (G9 Turf Perennial Turf) 10.51
 Note: For landscaped areas or playgrounds. Excludes preparation of sub-base, grooming, sports lines and logos.

32 18 23 29-0101 EA Football Inlays For G9 Synthetic Turf 70,684.04
 Note: Includes field grid, numbers, arrows, coach's box and kick off lines.

32 18 23 29-0102 EA Soccer Inlays For G9 Synthetic Turf 30,629.75

32 18 23 29-0103 EA Boys Lacrosse Inlays For G9 Synthetic Turf 30,629.75

32 18 23 29-0104 EA Girls Lacrosse Inlays For G9 Synthetic Turf 30,629.75

32 18 23 29-0105 EA Field Hockey Inlays For G9 Synthetic Turf 30,629.75

32 18 23 29-0106 EA Endzone Lettering For G9 Synthetic Turf 3,534.20
 Note: Priced per letter. Includes single color outlining.

32 18 23 29-0107 SF Ethylene Propylene Diene Monomer (EPDM) Black Infill For G9 Synthetic Turf 3.31

32 18 23 29-0108 SF Ethylene Propylene Diene Monomer (EPDM) Color Infill For G9 Synthetic Turf 8.64

32 18 23 29-0109 SF Styrene-Butadiene Rubber (SBR) Infill For G9 Synthetic Turf 2.47

32 18 23 29-0110 SF Sand Infill For G9 Synthetic Turf 1.24

32 18 23 29-0111 SF Acrylic Coated Sand Infill For G9 Synthetic Turf 2.04

32 18 23 29-0112 EA Gmax Compaction And Hardness Test For G9 Synthetic Turf 2,356.13
 Note: Includes a comprehensive report.

32 18 23 29-0113 EA Safety Bridge Over Track For G9 Synthetic Turf 23,561.35

32 18 23 29-0114 SF Clean And Groom Synthetic Turf 0.77
 Note: Includes using equipment to pick up metal particles in the field, air vacuum the top 2-5 mm of infill, clean and screen to remove broken strands, dirt, bandage, etc.

For >10,000 To 30,000, Deduct

-0.31

For >30,000 To 60,000, Deduct

-0.54

For >60,000, Deduct

-0.59

32 18 23 29-0115 SF Rejuvenate Synthetic Turf And Reinstall Existing Infill 5.28
 Note: Includes using equipment to extract 10 to 20 mm of infill by delivering high pressure air into the carpet, decompacting the surface and driving out the infill leaving the fiber standing straight up. Includes reinstalling the old infill that was removed.

32 18 23 29-0116 SF Rejuvenate Synthetic Turf For Installation Of New Infill 5.87
 Note: Includes using equipment to extract 10 to 20 mm of infill by delivering high pressure air into the carpet, decompacting the surface and driving out the infill leaving the fiber standing straight up. Includes disposing of the old infill. Excludes new infill.

32 18 23 29-0117 SF Drainage Layer For G9 Synthetic Turf 4.81
 Note: Used for drainage over asphalt or on roof tops.

32 18 23 29-0118 SF 15 mm, Shock Pad For G9 Synthetic Turf 2.96
 Note: Used for additional Gmax for a stone base field.

32 18 23 29-0119 EA Single Visit Repair Call To Repair Up To 300 LF Of Inlay Lines Or Seams On G9 Synthetic Turf 4,695.60
 Note: Includes field inspection and report.

32 18 23 29-0120 LF Repair Inlay Lines Or Seams On G9 Synthetic Turf 12.91
 Note: Linear foot price for repairs over the initial repair call maximum of 300 LF.

32 18 23 29-0121 LF Nailer Used To Attach G9 Synthetic Turf 5.17

32 18 23 29-0122 SF Removal And Recycling Of Existing Field 3.64
 Note: Includes removal, shipping and recycling of infill, fibers and backing.

32 18 23 33 Running Track Surfacing (32 18 23)

32 18 23 33-0001 Running Track Surfacing (32 18 23 33)

32 18 23 33-0002 SY 2-1/2" Asphaltic Concrete Running Track Surfacing 30.80

32 18 23 33-0003 Running Track Seal And Colored Surfaces (32 18 23 33)

32 18 23 33-0004 SY 1 Seal Coat, Striping Of Track 15.72
 Note: Includes certification.

32 18 23 39 Synthetic Running Track Surfacing (32 18 23)

32 18 23 39-0001 Synthetic Running Track Surfacing And Striping (32 18 23 39)

Note: Includes labor, equipment and material required to install the task. Excludes asphalt base.

32 18 23 39-0002 SY Paved-In-Place Styrene-Butadiene Rubber (SBR) Or Ethylene Propylene Diene Monomer (EPDM) Rubber Granule Base Mat With Polyurethane Binder, Synthetic Running Track Surfacing 84.02 7.47

For >5,500, Deduct

-6.50

For Up To 4,000, Add

20.69



Exterior Improvements			32
Bases, Ballasts, and Paving			32 10
Athletic and Recreational Surfacing			32 18

32

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 23 39-0003	SY		Paved-In-Place Styrene-Butadiene Rubber (SBR) Granule Base Mat With Polyurethane Binder Finished With A Textured And Pigmented Polyurethane And Ethylene Propylene Diene Monomer (EPDM) Rubber Structural Spray Coat, Synthetic Running Track Surfacing.....	105.29	7.47
			For >5,500, Deduct	-8.72	
			For Up To 4,000, Add	27.76	
			For Custom Color Upgrade, Add	7.53	
			For Aliphatic Top Coating, Add	14.28	
32 18 23 39-0004	SY		Paved-In-Place Ethylene Propylene Diene Monomer (EPDM) Rubber Granule Base Mat With Polyurethane Binder, Two-Component Polyurethane Sealer Layer And Two-Component Polyurethane Wearing Layer With Embedded Ethylene Propylene Diene Monomer (EPDM) Rubber, Synthetic Running Track Surfacing.....	172.27	7.47
			For >5,500, Deduct	-8.00	
			For Up To 4,000, Add	46.65	
			For Custom Color Upgrade, Add	10.26	
			For Aliphatic Top Coating, Add	19.06	
32 18 23 39-0005	SY		Full Pour Two-Component Polyurethane Track System With Embedded Ethylene Propylene Diene Monomer (EPDM) Rubber Surface, Synthetic Running Track Surfacing.....	223.90	7.47
			For >5,500, Deduct	-10.33	
			For Up To 4,000, Add	60.26	
			For Custom Color Upgrade, Add	13.43	
			For Aliphatic Top Coating, Add	19.63	
32 18 23 39-0006	SY		Latex Binder, Synthetic Running Track Surfacing.....	75.74	
			For >5,500, Deduct	-10.98	
			For Up To 4,000, Add	26.51	
32 18 23 39-0007	SY		Spray Retop Running Tracks.....	66.53	
			For Up To 4,000, Add	23.29	
			For >5,500, Deduct	-6.51	
32 18 23 39-0008	SY		Sandwich Retop Running Tracks.....	128.78	
			For Up To 4,000, Add	45.07	
			For >5,500, Deduct	-13.57	
32 18 23 53 Tennis Court Surfacing (32 18 23)					
32 18 23 53-0001			Tennis Court Surfacing (32 18 23 53) See CSI section 32 18 23 61-0000 for 100% acrylic tennis court surfacing.		
32 18 23 53-0002	SY		Tennis Court Bituminous Pavement, 2-1/2" Thick	27.72	
32 18 23 53-0003 Tennis Court Markings (32 18 23 53)					
32 18 23 53-0004	EA		Paint Markings On Asphalt Tennis Court 2 Coats.....	485.53	
32 18 23 56 Natural Tennis Court Surfacing (32 18 23)					
32 18 23 56-0001	SY		Clay Tennis Court.....	37.56	
32 18 23 56-0002	SY		Tennis Court, Pulverized Natural Greenstone, Fast Dry..... Note: Includes 4" base.	41.59	
32 18 23 56-0003	SY		Tennis Court, Rubber-Cork Base Resilient Pavement.....	21.45	
32 18 23 56-0004	SY		Resurface Clay Tennis Court.....	11.80	
32 18 23 56-0005	SY		Resurface Tennis Court, Pulverized Natural Greenstone.....	10.21	
32 18 23 56-0006	SY		Resurface Tennis Court, Resilient Pavement.....	9.04	
32 18 23 61 Multi-Use, Tennis Court, Basketball Court Athletic Surfacing (32 18 23)					
32 18 23 61-0001			100% Acrylic Athletic Surfacing System (Plexipave®) (32 18 23 61) Note: Excludes asphalt or concrete sub base and repairs of sub base.		
32 18 23 61-0002			Surface Preparation For Athletic Surfacing System (Plexipave®) (32 18 23 61-0001)		
32 18 23 61-0003	SY		100% Acrylic Resurfacer, Athletic Surfacing System (California Products Plexipave® Acrylic Resurfacer), Per Coat..... Note: Includes ultra fine silica sand. Applied with rubber squeegee.	1.86	
32 18 23 61-0004	SY		Acid Etching Concrete Pre-Treatment For Plexipave® Athletic Surfacing System (California Products Plexipave® Concrete Preparer®), Per Coat..... Note: For previously uncoated portland cement concrete. Applied with broom.	1.04	
32 18 23 61-0005	SY		Two-Part, Water Based Epoxy Primer For Plexipave® Athletic Surfacing System (California Products Plexipave® Ti-Coat®), Per Coat..... Note: For new or uncoated portland cement concrete. Applied with a short nap phenolic roller.	2.70	
32 18 23 61-0006	SY		Up To 1/2" Thick, Acrylic Latex Patching Compound, Athletic Surfacing System (California Products Plexipave® Court Patch Binder), Per Coat..... Note: For patching depressions and uneven texture in new or existing asphalt or concrete surfaces. Includes ultra fine silica sand and portland cement. Applied with trowel or metal screed.	111.74	
32 18 23 61-0007			Surface Coatings For Athletic Surfacing System (Plexipave®) (32 18 23 61-0001) Note: Standard color includes dark green, Florida green, light green, maroon, Sahara sand, brown, California red, and cape gray.		
32 18 23 61-0008	SY		100% Acrylic Emulsion Color Coating, Athletic Surfacing System (California Products Fortified Plexipave®), First Coat..... Note: Includes ultra fine silica sand. Applied with rubber squeegee.	4.17	
			For Pacific Blue, Add	0.25	
			For US Open Blue, Add	0.87	

32 Exterior Improvements**32 10 Bases, Ballasts, and Paving****32 18 Athletic and Recreational Surfacing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 18 23 61-0009	SY	100% Acrylic Emulsion Color Coating, Athletic Surfacing System (California Products Fortified Plexipave®), Second Coat..... Note: Includes ultra fine silica sand. Applied with rubber squeegee.	3.33	
		For Pacific Blue, Add	0.18	
		For US Open Blue, Add	0.62	
32 18 23 61-0010	SY	100% Acrylic Emulsion Color Coating, Athletic Surfacing System (California Products Fortified Plexipave®), Third Coat..... Note: Price per coat for third or additional coats. Includes ultra fine silica sand. Applied with rubber squeegee.	2.86	
		For Pacific Blue, Add	0.14	
		For US Open Blue, Add	0.49	
32 18 23 61-0011	SY	Non-Textured, 100% Acrylic Emulsion Color Coating Finish, Athletic Surfacing System (California Products Plexipave® Plexichrome®), Per Coat..... Note: Non-textured finish coat over Plexipave® for faster playing surfaces. Applied with rubber squeegee followed by wide hair-type push broom.	3.04	
		For Pacific Blue, Add	0.08	
		For US Open Or Australian Open Blue, Add	0.57	
		For Pro Purple, Add	1.47	
32 18 23 61-0012		Line Striping For Athletic Surfacing System (Plexipave®) (32 18 23 61-0001)		
32 18 23 61-0013	SY	Tennis Or Basketball Court Line Striping For Athletic Surfacing System, Per SY Of Court (California Products Plexipave® Hi-Hide Plexicolor®)..... Note: Textured or non-textured highly reflective line marking paint.	1.71	
32 18 23 61-0014		Cushion Coatings For Athletic Surfacing System (Plexipave® Plexicushion®) (32 18 23 61-0001)		
32 18 23 61-0015	SY	Resilient Latex Undercoating Base Coat, Athletic Surfacing System (California Products Plexipave® Plexicushion® Base Coat), First Coat..... Note: Applied with rubber squeegee.	7.07	
32 18 23 61-0016	SY	Resilient Latex Undercoating Base Coat, Athletic Surfacing System (California Products Plexipave® Plexicushion® Base Coat), Second Coat..... Note: Applied with rubber squeegee.	9.80	
32 18 23 61-0017	SY	Resilient Latex Undercoating Base Coat, Athletic Surfacing System (California Products Plexipave® Plexicushion® Base Coat), Third Coat..... Note: Price per coat for third or additional coats. Applied with rubber squeegee.	8.37	
32 18 23 61-0018	SY	Resilient Latex Undercoating, Athletic Surfacing System (California Products Plexipave® Plexicushion®), First Coat..... Note: Applied with rubber squeegee.	6.17	
32 18 23 61-0019	SY	Resilient Latex Undercoating, Athletic Surfacing System (California Products Plexipave® Plexicushion®), Second Coat..... Note: Price per coat for second or additional coats. Applied with rubber squeegee.	4.61	
32 18 23 61-0020		Resurface Athletic Court (32 18 23 61)		
		Note: Excludes asphalt or concrete sub base and repairs of sub base.		
32 18 23 61-0021	SY	Court Resurfacing System, 2 Coats Resurfacer, 2 Coats Color, And Sand (SealMaster)	2.81	

32 30 Site Improvements (32)**32 31 Fences and Gates** (32 30)**32 31 11 Gate Operators** (32 31)**32 31 11 00-0001 Gate Operators** (32 31 11)

Note: Excludes gates, electrical connections, access controls and concrete foundation.

32 31 11 00-0002 Gate Operators (DKS™ DoorKing®) (32 31 11 00-0001)**32 31 11 00-0003 Swing Gate Actuator (DKS™ DoorKing®)** (32 31 11 00-0002)**32 31 11 00-0004 Single Gate, Swing Gate Actuator** (32 31 11 00-0003)

32 31 11 00-0005 EA Up To 10' Wide Gate, 1/2 HP Motor, 115 Volt AC, Single Gate, Swing Gate Actuator (DKS™ DoorKing® 6003) 2,031.55

243.04

Note: Includes one primary operator with a 10' wide gate capacity.

32 31 11 00-0006 EA Up To 14' Wide Gate, 1/2 HP Motor, 115 Volt AC, Single Gate, Swing Gate Actuator (DKS™ DoorKing® 6002) 2,701.26

243.04

Note: Includes one primary operator with a 14' wide gate capacity.

32 31 11 00-0007 Dual Gate, Swing Gate Actuator (32 31 11 00-0003)

32 31 11 00-0008 EA Up To 10' Wide Gates, 1/2 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Actuator (DKS™ DoorKing® 6003) 4,063.12

486.07

Note: Includes one primary and one secondary operator each with a 10' wide gate capacity.

32 31 11 00-0009 EA Up To 14' Wide Gates, 1/2 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Actuator (DKS™ DoorKing® 6002) 5,402.54

486.07

Note: Includes one primary and one secondary operator each with a 14' wide gate capacity.

32 31 11 00-0010 Swing Gate Operators (DKS™ DoorKing®) (32 31 11 00-0002)**32 31 11 00-0011 Single Gate, Swing Gate Operators** (32 31 11 00-0010)32 31 11 00-0012 EA 400 LB Capacity, Up To 10' Wide Gate, 1/2 HP Motor, 115 Volt AC, Single Gate, Swing Gate Operator (DKS™
DoorKing® 6050).....4,126.53

243.04

Note: Includes one primary operator with a 10' wide and 400 LB gate capacity.



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 11 00-0013	EA	500 LB Capacity, Up To 14' Wide Gate, 1/2 HP Motor, 115 Volt AC, Single Gate, Swing Gate Operator (DKS™ DoorKing® 6100).....	4,487.15	243.04	
Note: Includes one primary operator with a 14' wide and 500 LB gate capacity.					
32 31 11 00-0014	EA	700 LB Capacity, Up To 18' Wide Gate, 1/2 HP Motor, 115 Volt AC, Single Gate, Swing Gate Operator (DKS™ DoorKing® 6500).....	6,084.14	243.04	
Note: Includes one primary operator with an 18' wide and 700 LB gate capacity.					
For 208/230/460 Volt AC, Add				322.50	
32 31 11 00-0015	EA	800 LB Capacity, Up To 22' Wide Gate, 1 HP Motor, 115 Volt AC, Single Gate, Swing Gate Operator (DKS™ DoorKing® 6500).....	6,891.23	243.04	
Note: Includes one primary operator with a 22' wide and 800 LB gate capacity.					
For 208/230/460 Volt AC, Add				322.50	
32 31 11 00-0016	Dual Gate, Swing Gate Operators (32 31 11 00-0010)				
32 31 11 00-0017	EA	400 LB Capacity, Up To 10' Wide Gates, 1/2 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Operator (DKS™ DoorKing® 6050).....	7,308.63	486.07	
Note: Includes one primary and one secondary operator each with a 10' wide and 400 LB gate capacity.					
32 31 11 00-0018	EA	500 LB Capacity, Up To 14' Wide Gates, 1/2 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Operator (DKS™ DoorKing® 6100).....	8,029.85	486.07	
Note: Includes one primary and one secondary operator each with a 14' wide and 500 LB gate capacity.					
32 31 11 00-0019	EA	700 LB Capacity, Up To 14' Wide Gates, 1/2 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Operator (DKS™ DoorKing® 6500).....	11,206.67	486.07	
Note: Includes one primary and one secondary operator each with an 18' wide and 700 LB gate capacity.					
For 208/230/460 Volt AC, Add				322.50	
32 31 11 00-0020	EA	800 LB Capacity, Up To 22' Wide Gates, 1 HP Motor, 115 Volt AC, Dual Gate, Swing Gate Operator (DKS™ DoorKing® 6500).....	12,975.39	486.07	
Note: Includes one primary and one secondary operator each with a 22' wide and 800 LB gate capacity.					
For 208/230/460 Volt AC, Add				322.50	
32 31 11 00-0021	Sliding Gate Operators (DKS™ DoorKing®) (32 31 11 00-0002)				
Note: Includes 20' of chain. See CSI section 32 31 11 00-0030 for additional chain over 20'.					
32 31 11 00-0022	EA	300 LB Capacity, Up To 16' Wide Gate, 1/2 HP Motor, 115 Volt AC, Sliding Gate Operator (DKS™ DoorKing® 9050).....	2,195.68	243.04	
Note: Includes operator, chain brackets, hardware and 20' of #41 chain.					
32 31 11 00-0023	EA	1,000 LB Capacity, Up To 30' Wide Gate, 1/2 HP Motor, 115 Volt AC, Sliding Gate Operator (DKS™ DoorKing® 9100).....	3,069.99	291.64	
Note: Includes operator, chain brackets, hardware and 20' of #41 chain.					
32 31 11 00-0024	EA	1,500 LB Capacity, Up To 45' Wide Gate, 1 HP Motor, 115 Volt AC, Sliding Gate Operator (DKS™ DoorKing® 9150).....	3,795.28	291.64	
Note: Includes operator, chain brackets, hardware and 20' of #40 chain.					
32 31 11 00-0025	EA	3,000 LB Capacity, Up To 100' Wide Gate, 1 HP Motor, 115 Volt AC, Sliding Gate Operator (DKS™ DoorKing® 9210).....	4,954.53	340.25	
Note: Includes operator, chain brackets, hardware and 20' of #50 chain.					
32 31 11 00-0026	EA	2,000 LB Capacity, Up To 100' Wide Gate, 1 HP Motor, 208/230 Volt AC, Variable Speed, Sliding Gate Operator (DKS™ DoorKing® 9220).....	6,073.54	340.25	
Note: Includes operator, chain brackets, hardware and 20' of #50 chain.					
32 31 11 00-0027	EA	5,000 LB Capacity, Up To 100' Wide Gate, 3 HP Motor, 208/230 Volt AC, Variable Speed, Sliding Gate Operator (DKS™ DoorKing® 9230).....	8,284.46	388.86	
Note: Includes operator, chain brackets, hardware and 20' of #60 chain.					
32 31 11 00-0028	EA	5,000 LB Capacity, Up To 100' Wide Gate, 3 HP Motor, 208/230 Volt AC, High Speed, Sliding Gate Operator (DKS™ DoorKing® 9530).....	13,832.91	388.86	
Note: Includes operator, chain brackets, hardware and 20' of #60 chain.					
32 31 11 00-0029	EA	10,000 LB Capacity, Up To 160' Wide Gate, 5 HP Motor, 208/230 Volt AC, High Speed, Sliding Gate Operator (DKS™ DoorKing® 9550).....	23,441.74	437.47	
Note: Includes operator, chain brackets, hardware and 20' of #60 chain.					
32 31 11 00-0030	Accessories For Gate Actuators And Operators (DKS™ DoorKing®) (32 31 11 00-0002)				
32 31 11 00-0031	EA	Single Channel Detector Loop For Gate Actuators And Operators (DKS™ DoorKing® 9410).....	682.83		
32 31 11 00-0032	EA	Two Channel Detector Loop For Gate Actuators And Operators (DKS™ DoorKing® 9409).....	1,329.61		
32 31 11 00-0033	EA	Heater Kit For Gate Actuators And Operators (DKS™ DoorKing® 1601).....	881.31		
32 31 11 00-0034	EA	Photoelectric Eye For Gate Actuators And Operators (DKS™ DoorKing® 8080-031).....	961.35		
32 31 11 00-0035	EA	Reversing Edge Sensor For Gate Actuators And Operators (DKS™ DoorKing® 8080-020).....	858.32		
32 31 11 00-0036	EA	Post Mount Base Plate For Gate Actuators And Operators (DKS™ DoorKing® 9310).....	609.32		
32 31 11 00-0037	LF	#40 Chain For Sliding Gate Operators.....	6.91		
32 31 11 00-0038	LF	#41 Chain For Sliding Gate Operators.....	7.22		
32 31 11 00-0039	LF	#50 Chain For Sliding Gate Operators.....	9.23		
32 31 11 00-0040	LF	#60 Chain For Sliding Gate Operators.....	14.21		
32 31 11 00-0041	EA	Exterior Keypad Gate Operator (Linear AK-11).....	731.57	153.98	
32 31 11 00-0042	Sliding Gate Operator (LiftMaster) (32 31 11 00-0001)				
32 31 11 00-0043	EA	Up To 1,500 LB Capacity, 120/230 Volt, Single Phase, Sliding Gate Operator With 24 Volt DC Motor (Liftmaster® CSL24U).....	2,904.09	297.63	
Note: Includes 30' Chain, Retro-Reflective Photoelectric Sensor and Reflector Hoods (LMRRUL) and 5' Resistive Safety Edge (S505AL).					
For Monitored Wireless Edge Receiver And Transmitter Option (Liftmaster LMWEKITU), Add				191.03	
For Plug-In Loop Detector Option (Liftmaster LOOPDETL), Add				136.74	
For LED Strobe Light With Siren (Liftmaster SL-1301-SAQ), Add				67.34	
For 10 Watt Solar Panel (Liftmaster SP10W12V), Add				270.67	
For Each Additional 10' Chain, Add				40.54	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 13 Chain Link Fences and Gates (32 31)**32 31 13 13 Chain Link Fences and Gates (32 31 13)****32 31 13 13-0001****Post Holes (32 31 13 13)**

Note: Excludes spreading of excess material on site or loading and removal of excavated material from site. See CSI section 02 41 19 13-0083 for core drilling in concrete, 02 41 19 13-0221 for core drilling in asphalt.

32 31 13 13-0002**Auger By Machine Fence Post Hole In Soil (32 31 13 13-0001)**

32 31 13 13-0003	VLF	Up To 2-1/2" Diameter Hole, Auger By Machine Fence Post Hole In Soil	10.55
32 31 13 13-0004	VLF	2-1/2" Diameter Hole, Auger By Machine Fence Post Hole In Soil	11.86
32 31 13 13-0005	VLF	3" Diameter Hole, Auger By Machine Fence Post Hole In Soil	14.06
32 31 13 13-0006	VLF	4" Diameter Hole, Auger By Machine Fence Post Hole In Soil	15.82
32 31 13 13-0007	VLF	6" Diameter Hole, Auger By Machine Fence Post Hole In Soil	17.26
32 31 13 13-0008	VLF	8" Diameter Hole, Auger By Machine Fence Post Hole In Soil	18.99
32 31 13 13-0009	VLF	10" Diameter Hole, Auger By Machine Fence Post Hole In Soil	21.09
32 31 13 13-0010	VLF	12" Diameter Hole, Auger By Machine Fence Post Hole In Soil	23.74
32 31 13 13-0011	VLF	18" Diameter Hole, Auger By Machine Fence Post Hole In Soil	27.13
32 31 13 13-0012	VLF	24" Diameter Hole, Auger By Machine Fence Post Hole In Soil	31.65
32 31 13 13-0013	VLF	30" Diameter Hole, Auger By Machine Fence Post Hole In Soil	37.97
32 31 13 13-0014	VLF	36" Diameter Hole, Auger By Machine Fence Post Hole In Soil	47.46

32 31 13 13-0015**Post Hole In Rock (32 31 13 13-0001)**

32 31 13 13-0016	CF	Jackhammer Post Hole In Rock	80.30
32 31 13 13-0017	CF	Rock Drill Post Hole In Rock	21.90

32 31 13 13-0018**Fill For Post Holes (32 31 13 13-0001)****32 31 13 13-0019****Concrete Fill For Post Holes (32 31 13 13-0018)**

32 31 13 13-0020	VLF	Up To 2-1/2" Diameter, Concrete Fill For Post Hole	5.93
32 31 13 13-0021	VLF	2-1/2" Diameter, Concrete Fill For Post Hole	7.64
32 31 13 13-0022	VLF	3" Diameter, Concrete Fill For Post Hole	8.35
32 31 13 13-0023	VLF	4" Diameter, Concrete Fill For Post Hole	9.46
32 31 13 13-0024	VLF	6" Diameter, Concrete Fill For Post Hole	13.24
32 31 13 13-0025	VLF	8" Diameter, Concrete Fill For Post Hole	17.67
32 31 13 13-0026	VLF	10" Diameter, Concrete Fill For Post Hole	21.56
32 31 13 13-0027	VLF	12" Diameter, Concrete Fill For Post Hole	25.07
32 31 13 13-0028	VLF	18" Diameter, Concrete Fill For Post Hole	33.73
32 31 13 13-0029	VLF	24" Diameter, Concrete Fill For Post Hole	41.44
32 31 13 13-0030	VLF	30" Diameter, Concrete Fill For Post Hole	48.89
32 31 13 13-0031	VLF	36" Diameter, Concrete Fill For Post Hole	56.59

32 31 13 13-0032**Grout Fill For Post Holes (32 31 13 13-0018)**

32 31 13 13-0033	VLF	Up To 2-1/2" Diameter, Grout Fill For Post Hole	7.15
32 31 13 13-0034	VLF	2-1/2" Diameter, Grout Fill For Post Hole	9.23
32 31 13 13-0035	VLF	3" Diameter, Grout Fill For Post Hole	9.99
32 31 13 13-0036	VLF	4" Diameter, Grout Fill For Post Hole	11.09
32 31 13 13-0037	VLF	6" Diameter, Grout Fill For Post Hole	15.38
32 31 13 13-0038	VLF	8" Diameter, Grout Fill For Post Hole	20.54
32 31 13 13-0039	VLF	10" Diameter, Grout Fill For Post Hole	24.97
32 31 13 13-0040	VLF	12" Diameter, Grout Fill For Post Hole	28.89
32 31 13 13-0041	VLF	18" Diameter, Grout Fill For Post Hole	38.17
32 31 13 13-0042	VLF	24" Diameter, Grout Fill For Post Hole	46.18
32 31 13 13-0043	VLF	30" Diameter, Grout Fill For Post Hole	53.87
32 31 13 13-0044	VLF	36" Diameter, Grout Fill For Post Hole	61.69

32 31 13 13-0045**Compacted Earth Fill For Post Holes (32 31 13 13-0018)**

32 31 13 13-0046	VLF	Up To 2-1/2" Diameter, Compacted Earth Fill For Post Hole	5.41
32 31 13 13-0047	VLF	2-1/2" Diameter, Compacted Earth Fill For Post Hole	7.04
32 31 13 13-0048	VLF	3" Diameter, Compacted Earth Fill For Post Hole	7.36
32 31 13 13-0049	VLF	4" Diameter, Compacted Earth Fill For Post Hole	7.58
32 31 13 13-0050	VLF	6" Diameter, Compacted Earth Fill For Post Hole	10.12
32 31 13 13-0051	VLF	8" Diameter, Compacted Earth Fill For Post Hole	13.50
32 31 13 13-0052	VLF	10" Diameter, Compacted Earth Fill For Post Hole	16.20
32 31 13 13-0053	VLF	12" Diameter, Compacted Earth Fill For Post Hole	18.37
32 31 13 13-0054	VLF	18" Diameter, Compacted Earth Fill For Post Hole	22.38
32 31 13 13-0055	VLF	24" Diameter, Compacted Earth Fill For Post Hole	25.12
32 31 13 13-0056	VLF	30" Diameter, Compacted Earth Fill For Post Hole	27.54
32 31 13 13-0057	VLF	36" Diameter, Compacted Earth Fill For Post Hole	29.71

32 31 13 13-0058**Fence Posts (32 31 13 13)**

Note: Demolition excludes concrete footing removal on posts and excavation. See CSI section 31 23 16 36-0009 for hand excavation for footing removal (where required), 32 31 13 13-0001 for drilling for augering holes and backfill.

32 31 13 13-0059**Fence Posts (32 31 13 13-0058)**



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
32 31 13 13-0060	1-7/8" H-Beam Post Without Top Rail Fitting, Galvanized Steel (32 31 13 13-0059) Note: Includes cap and accessories.			
32 31 13 13-0061	LF 1-7/8" Galvanized H-beam Post, Up To 6' In Length For Each Top Rail Fitting, Add	20.58 0.85		3.13
32 31 13 13-0062	LF 1-7/8" Galvanized H-beam Post, 7' To 10' In Length For Each Top Rail Fitting, Add	19.69 0.85		2.66
32 31 13 13-0063	LF 1-7/8" Galvanized H-beam Post, 11' To 15' In Length For Each Top Rail Fitting, Add	18.60 0.85		2.21
32 31 13 13-0064	LF 1-7/8" Galvanized H-beam Post, 16' To 20' In Length For Each Top Rail Fitting, Add	17.74 0.85		1.74
32 31 13 13-0065	LF 1-7/8" Galvanized H-beam Post, 21' To 24' In Length For Each Top Rail Fitting, Add	17.15 0.85		1.51
32 31 13 13-0066	LF 1-7/8" Galvanized H-beam Post, >24' In Length For Each Top Rail Fitting, Add	16.24 0.85		1.04
32 31 13 13-0067	Post Without Top Rail Fitting, Galvanized Steel (1.66" Nominal) (32 31 13 13-0059) Note: 1-5/8" outside diameter, Schedule 40. Includes cap and accessories.			
32 31 13 13-0068	LF Up To 6' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	13.99 0.85 1.90 3.40 2.05 4.91 6.54 10.23 -1.64 4.51		2.90
32 31 13 13-0069	LF 7' To 10' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	13.01 0.85 1.90 3.40 2.03 4.86 6.48 10.13 -1.62 4.38		2.44
32 31 13 13-0070	LF 11' To 15' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	11.97 0.85 1.90 3.40 2.02 4.84 6.45 10.08 -1.61 4.26		1.98
32 31 13 13-0071	LF 16' To 20' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	11.17 0.85 1.90 3.40 2.01 4.82 6.43 10.05 -1.61 4.17		1.51
32 31 13 13-0072	LF 21' To 24' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	10.65 0.85 1.90 3.40 2.01 4.82 6.42 10.04 -1.61 4.12		1.28
32 31 13 13-0073	LF >24' In Length, 1-5/8" Outside Diameter Galvanized Steel Post For Each Top Rail Fitting, Add For Each Single Barbed Wire Arm, Add For Each Double Barbed Wire Arm, Add For SS40 (Hot-Dip Galvanized And Chromated), Add For Vinyl Coated, Add For Powder Coated, Add For Aluminum Coated, Add For Schedule 20, Deduct For Schedule 80, Add	10.07 0.85 1.90 3.40 2.01 4.82 6.42 10.04 -1.61 4.06		1.04
32 31 13 13-0074	Post Without Top Rail Fitting, Galvanized Steel (1.90" Nominal) (32 31 13 13-0059) Note: 2" outside diameter, Schedule 40. Includes cap and accessories.			

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0075	LF	2" Outside Diameter Galvanized Steel Post, Up To 6' In Length	16.02	3.02
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.50	
			For Vinyl Coated, Add	6.01	
			For Powder Coated, Add	8.01	
			For Aluminum Coated, Add	12.51	
			For Schedule 20, Deduct	-2.00	
			For Schedule 80, Add	5.41	
32 31 13	13-0076	LF	2" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	15.10	2.55
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.48	
			For Vinyl Coated, Add	5.94	
			For Powder Coated, Add	7.92	
			For Aluminum Coated, Add	12.38	
			For Schedule 20, Deduct	-1.98	
			For Schedule 80, Add	5.27	
32 31 13	13-0077	LF	2" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	13.99	2.09
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.46	
			For Vinyl Coated, Add	5.91	
			For Powder Coated, Add	7.88	
			For Aluminum Coated, Add	12.31	
			For Schedule 20, Deduct	-1.97	
			For Schedule 80, Add	5.14	
32 31 13	13-0078	LF	2" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	13.14	1.62
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.46	
			For Vinyl Coated, Add	5.89	
			For Powder Coated, Add	7.86	
			For Aluminum Coated, Add	12.28	
			For Schedule 20, Deduct	-1.96	
			For Schedule 80, Add	5.05	
32 31 13	13-0079	LF	2" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	12.57	1.39
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.45	
			For Vinyl Coated, Add	5.89	
			For Powder Coated, Add	7.85	
			For Aluminum Coated, Add	12.26	
			For Schedule 20, Deduct	-1.96	
			For Schedule 80, Add	4.98	
32 31 13	13-0080	LF	2" Outside Diameter Galvanized Steel Post, >24' In Length	12.05	1.17
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	2.45	
			For Vinyl Coated, Add	5.89	
			For Powder Coated, Add	7.85	
			For Aluminum Coated, Add	12.26	
			For Schedule 20, Deduct	-1.96	
			For Schedule 80, Add	4.93	
32 31 13	13-0081		Post Without Top Rail Fitting, Galvanized Steel (2.375" Nominal) (32 31 13 13-0059)		
			Note: 2-1/2" outside diameter, Schedule 40. Includes cap and accessories.		
32 31 13	13-0082	LF	2-1/2" Outside Diameter Galvanized Steel Post, Up To 6' In Length	19.57	3.25
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.31	
			For Vinyl Coated, Add	7.94	
			For Powder Coated, Add	10.59	
			For Aluminum Coated, Add	16.55	
			For Schedule 20, Deduct	-2.65	
			For Schedule 80, Add	6.99	
32 31 13	13-0083	LF	2-1/2" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	18.57	2.79
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.28	
			For Vinyl Coated, Add	7.88	
			For Powder Coated, Add	10.50	
			For Aluminum Coated, Add	16.41	
			For Schedule 20, Deduct	-2.63	
			For Schedule 80, Add	6.85	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0084	LF	2-1/2"	Outside Diameter Galvanized Steel Post, 11' To 15' In Length.....	17.42	2.21
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.27	
			For Vinyl Coated, Add	7.84	
			For Powder Coated, Add	10.46	
			For Aluminum Coated, Add	16.34	
			For Schedule 20, Deduct	-2.61	
			For Schedule 80, Add	6.71	
32 31 13 13-0085	LF	2-1/2"	Outside Diameter Galvanized Steel Post, 16' To 20' In Length.....	16.53	1.74
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.26	
			For Vinyl Coated, Add	7.82	
			For Powder Coated, Add	10.43	
			For Aluminum Coated, Add	16.30	
			For Schedule 20, Deduct	-2.61	
			For Schedule 80, Add	6.61	
32 31 13 13-0086	LF	2-1/2"	Outside Diameter Galvanized Steel Post, 21 To 24' In Length.....	15.92	1.51
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.26	
			For Vinyl Coated, Add	7.81	
			For Powder Coated, Add	10.42	
			For Aluminum Coated, Add	16.28	
			For Schedule 20, Deduct	-2.60	
			For Schedule 80, Add	6.54	
32 31 13 13-0087	LF	2-1/2"	Outside Diameter Galvanized Steel Post, >24' In Length.....	15.37	1.17
			For Each Top Rail Fitting, Add	1.35	
			For Each Single Barbed Wire Arm, Add	2.65	
			For Each Double Barbed Wire Arm, Add	4.88	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	3.26	
			For Vinyl Coated, Add	7.81	
			For Powder Coated, Add	10.42	
			For Aluminum Coated, Add	16.28	
			For Schedule 20, Deduct	-2.60	
			For Schedule 80, Add	6.48	
32 31 13 13-0088			Post Without Top Rail Fitting, Galvanized Steel (2.875" Nominal) ^(32 31 13 13-0059)		
			Note: 3" outside diameter, Schedule 40. Includes cap and accessories.		
32 31 13 13-0089	LF	3"	Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	26.93	3.49
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.99	
			For Vinyl Coated, Add	11.98	
			For Powder Coated, Add	15.98	
			For Aluminum Coated, Add	24.96	
			For Schedule 20, Deduct	-3.99	
			For Schedule 80, Add	10.28	
32 31 13 13-0090	LF	3"	Outside Diameter Galvanized Steel Post, 7' To 10' In Length.....	25.74	3.02
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.93	
			For Vinyl Coated, Add	11.84	
			For Powder Coated, Add	15.78	
			For Aluminum Coated, Add	24.66	
			For Schedule 20, Deduct	-3.95	
			For Schedule 80, Add	10.07	
32 31 13 13-0091	LF	3"	Outside Diameter Galvanized Steel Post, 11' To 15' In Length.....	24.44	2.44
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.90	
			For Vinyl Coated, Add	11.76	
			For Powder Coated, Add	15.68	
			For Aluminum Coated, Add	24.50	
			For Schedule 20, Deduct	-3.92	
			For Schedule 80, Add	9.89	
32 31 13 13-0092	LF	3"	Outside Diameter Galvanized Steel Post, 16' To 20' In Length.....	23.40	1.98
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.89	
			For Vinyl Coated, Add	11.72	
			For Powder Coated, Add	15.63	
			For Aluminum Coated, Add	24.43	
			For Schedule 20, Deduct	-3.91	
			For Schedule 80, Add	9.77	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0093	LF	3" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	22.73	1.62
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.88	
			For Vinyl Coated, Add	11.71	
			For Powder Coated, Add	15.61	
			For Aluminum Coated, Add	24.39	
			For Schedule 20, Deduct	-3.90	
			For Schedule 80, Add	9.69	
32 31 13	13-0094	LF	3" Outside Diameter Galvanized Steel Post, >24' In Length	22.12	1.28
			For Each Top Rail Fitting, Add	1.85	
			For Each Single Barbed Wire Arm, Add	3.85	
			For Each Double Barbed Wire Arm, Add	7.05	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	4.88	
			For Vinyl Coated, Add	11.70	
			For Powder Coated, Add	15.60	
			For Aluminum Coated, Add	24.38	
			For Schedule 20, Deduct	-3.90	
			For Schedule 80, Add	9.62	
32 31 13	13-0095		Post Without Top Rail Fitting, Galvanized Steel, (4.00" Nominal) (32 31 13 13-0059)		
			Note: 4" outside diameter, Schedule 40. Includes cap and accessories.		
32 31 13	13-0096	LF	4" Outside Diameter Galvanized Steel Post, Up To 6' In Length	39.90	3.71
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	8.14	
			For Vinyl Coated, Add	19.54	
			For Powder Coated, Add	26.06	
			For Aluminum Coated, Add	40.71	
			For Schedule 20, Deduct	-6.51	
			For Schedule 80, Add	16.37	
32 31 13	13-0097	LF	4" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	38.23	3.02
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	8.03	
			For Vinyl Coated, Add	19.27	
			For Powder Coated, Add	25.70	
			For Aluminum Coated, Add	40.15	
			For Schedule 20, Deduct	-6.42	
			For Schedule 80, Add	16.03	
32 31 13	13-0098	LF	4" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	36.98	2.55
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	7.98	
			For Vinyl Coated, Add	19.14	
			For Powder Coated, Add	25.52	
			For Aluminum Coated, Add	39.88	
			For Schedule 20, Deduct	-6.38	
			For Schedule 80, Add	15.82	
32 31 13	13-0099	LF	4" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	35.86	2.09
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	7.95	
			For Vinyl Coated, Add	19.07	
			For Powder Coated, Add	25.43	
			For Aluminum Coated, Add	39.74	
			For Schedule 20, Deduct	-6.36	
			For Schedule 80, Add	15.67	
32 31 13	13-0100	LF	4" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	35.80	2.09
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	7.93	
			For Vinyl Coated, Add	19.04	
			For Powder Coated, Add	25.38	
			For Aluminum Coated, Add	39.66	
			For Schedule 20, Deduct	-6.35	
			For Schedule 80, Add	15.64	
32 31 13	13-0101	LF	4" Outside Diameter Galvanized Steel Post, >24' In Length	34.62	1.51
			For Each Top Rail Fitting, Add	2.60	
			For Each Single Barbed Wire Arm, Add	5.10	
			For Each Double Barbed Wire Arm, Add	11.25	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	7.93	
			For Vinyl Coated, Add	19.03	
			For Powder Coated, Add	25.38	
			For Aluminum Coated, Add	39.65	
			For Schedule 20, Deduct	-6.34	
			For Schedule 80, Add	15.52	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0102		Post Without Top Rail Fitting, Galvanized Steel (6.625" Nominal) Note: 6-5/8" outside diameter, Schedule 40. Includes cap and accessories.		
32 31 13	13-0103	LF	6-5/8" Outside Diameter Galvanized Steel Post, Up To 6' In Length	79.06	4.06
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	17.73	
			For Vinyl Coated, Add	42.55	
			For Powder Coated, Add	56.74	
			For Aluminum Coated, Add	88.65	
			For Schedule 20, Deduct	-14.18	
			For Schedule 80, Add	34.86	
32 31 13	13-0104	LF	6-5/8" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	76.06	3.36
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	17.31	
			For Vinyl Coated, Add	41.54	
			For Powder Coated, Add	55.38	
			For Aluminum Coated, Add	86.54	
			For Schedule 20, Deduct	-13.85	
			For Schedule 80, Add	33.91	
32 31 13	13-0105	LF	6-5/8" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	74.05	2.79
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	17.10	
			For Vinyl Coated, Add	41.03	
			For Powder Coated, Add	54.71	
			For Aluminum Coated, Add	85.49	
			For Schedule 20, Deduct	-13.68	
			For Schedule 80, Add	33.39	
32 31 13	13-0106	LF	6-5/8" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	72.48	2.21
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	16.99	
			For Vinyl Coated, Add	40.78	
			For Powder Coated, Add	54.37	
			For Aluminum Coated, Add	84.95	
			For Schedule 20, Deduct	-13.59	
			For Schedule 80, Add	33.07	
32 31 13	13-0107	LF	6-5/8" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	71.61	1.98
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	16.94	
			For Vinyl Coated, Add	40.65	
			For Powder Coated, Add	54.20	
			For Aluminum Coated, Add	84.69	
			For Schedule 20, Deduct	-13.55	
			For Schedule 80, Add	32.91	
32 31 13	13-0108	LF	6-5/8" Outside Diameter Galvanized Steel Post, >24' In Length	70.93	1.62
			For Each Top Rail Fitting, Add	4.55	
			For Each Single Barbed Wire Arm, Add	7.15	
			For Each Double Barbed Wire Arm, Add	14.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	16.93	
			For Vinyl Coated, Add	40.63	
			For Powder Coated, Add	54.17	
			For Aluminum Coated, Add	84.64	
			For Schedule 20, Deduct	-13.54	
			For Schedule 80, Add	32.82	
32 31 13	13-0109		Post Without Top Rail Fitting, Galvanized Steel (8.625" Nominal) Note: 8-5/8" outside diameter, Schedule 40. Includes cap and accessories.		
32 31 13	13-0110	LF	8-5/8" Outside Diameter Galvanized Steel Post, Up To 6' In Length	154.10	4.53
			For Each Top Rail Fitting, Add	7.50	
			For Each Single Barbed Wire Arm, Add	9.15	
			For Each Double Barbed Wire Arm, Add	18.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	36.27	
			For Vinyl Coated, Add	87.04	
			For Powder Coated, Add	116.05	
			For Aluminum Coated, Add	181.33	
			For Schedule 20, Deduct	-29.01	
			For Schedule 80, Add	70.53	
32 31 13	13-0111	LF	8-5/8" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	149.27	3.83
			For Each Top Rail Fitting, Add	7.50	
			For Each Single Barbed Wire Arm, Add	9.15	
			For Each Double Barbed Wire Arm, Add	18.95	
			For SS40 (Hot-Dip Galvanized And Chromated), Add	35.43	
			For Vinyl Coated, Add	85.02	
			For Powder Coated, Add	113.36	
			For Aluminum Coated, Add	177.13	
			For Schedule 20, Deduct	-28.34	
			For Schedule 80, Add	68.77	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0112	LF	8-5/8" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	146.29	3.13
		For Each Top Rail Fitting, Add	7.50	
		For Each Single Barbed Wire Arm, Add	9.15	
		For Each Double Barbed Wire Arm, Add	18.95	
		For SS40 (Hot-Dip Galvanized And Chromated), Add	35.01	
		For Vinyl Coated, Add	84.01	
		For Powder Coated, Add	112.02	
		For Aluminum Coated, Add	175.03	
		For Schedule 20, Deduct	-28.00	
		For Schedule 80, Add	67.84	
32 31 13 13-0113	LF	8-5/8" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	144.15	2.44
		For Each Top Rail Fitting, Add	7.50	
		For Each Single Barbed Wire Arm, Add	9.15	
		For Each Double Barbed Wire Arm, Add	18.95	
		For SS40 (Hot-Dip Galvanized And Chromated), Add	34.80	
		For Vinyl Coated, Add	83.51	
		For Powder Coated, Add	111.34	
		For Aluminum Coated, Add	173.98	
		For Schedule 20, Deduct	-27.84	
		For Schedule 80, Add	67.30	
32 31 13 13-0114	LF	8-5/8" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	143.06	2.09
		For Each Top Rail Fitting, Add	7.50	
		For Each Single Barbed Wire Arm, Add	9.15	
		For Each Double Barbed Wire Arm, Add	18.95	
		For SS40 (Hot-Dip Galvanized And Chromated), Add	34.69	
		For Vinyl Coated, Add	83.26	
		For Powder Coated, Add	111.01	
		For Aluminum Coated, Add	173.45	
		For Schedule 20, Deduct	-27.75	
		For Schedule 80, Add	67.03	
32 31 13 13-0115	LF	8-5/8" Outside Diameter Galvanized Steel Post, >24' In Length	142.27	1.74
		For Each Top Rail Fitting, Add	7.50	
		For Each Single Barbed Wire Arm, Add	9.15	
		For Each Double Barbed Wire Arm, Add	18.95	
		For SS40 (Hot-Dip Galvanized And Chromated), Add	34.67	
		For Vinyl Coated, Add	83.21	
		For Powder Coated, Add	110.94	
		For Aluminum Coated, Add	173.35	
		For Schedule 20, Deduct	-27.74	
		For Schedule 80, Add	66.93	
32 31 13 13-0116		Driven Post Supports (32 31 13 13)		
		Note: OZ-Post.		
32 31 13 13-0117		Driven Post Support For Round Chain Link Fence Posts (32 31 13 13-0116)		
32 31 13 13-0118	EA	26" Driven Post Support For 1-5/8" Round Chain Link Fence Post	74.97	
		Note: OZ-Post GB-700.		
32 31 13 13-0119	EA	26" Driven Post Support For 1-7/8" To 2" Round Chain Link Fence Post	74.97	
		Note: OZ-Post HB-700.		
32 31 13 13-0120	EA	26" Driven Post Support For 2-3/8" To 2-1/2" Round Chain Link Fence Post	77.00	
		Note: OZ-Post IS-600.		
32 31 13 13-0121	EA	32" Driven Post Support For 2-3/8" To 2-1/2" Round Chain Link Fence Post	92.40	
		Note: OZ-Post ISW-850.		
32 31 13 13-0122		Driven Post Support For Square Ornamental Fence Posts (32 31 13 13-0116)		
32 31 13 13-0123	EA	34" Driven Post Support For 1-3/4" Square Ornamental Fence Post	86.31	
		Note: OZ-Post C175-850.		
32 31 13 13-0124	EA	24" Driven Post Support For 2" Square Ornamental Fence Post	83.26	
		Note: OZ-Post I2-600.		
32 31 13 13-0125	EA	34" Driven Post Support For 2" Square Ornamental Fence Post	86.92	
		Note: OZ-Post I2-850.		
32 31 13 13-0126	EA	34" Driven Post Support For 2-1/2" Square Ornamental Fence Post	92.40	
		Note: OZ-Post I25-850.		
32 31 13 13-0127	EA	34" Driven Post Support For 3" Square Ornamental Fence Post	92.40	
		Note: OZ-Post I3-850.		
32 31 13 13-0128		Driven Post Support For Wooden Fence Posts (32 31 13 13-0116)		
32 31 13 13-0129	EA	24" Driven Post Support For 3-1/2" Square Wooden Fence Post	85.80	
		Note: OZ-Post T4-600.		
32 31 13 13-0130	EA	34" Driven Post Support For 3-1/2" Square Wooden Fence Post	89.35	
		Note: OZ-Post T4-850.		
32 31 13 13-0131	EA	34" Driven Post Support For 3-3/4" Square Wooden Fence Post	96.47	
		Note: OZ-Post C4-850.		
32 31 13 13-0132	EA	34" Driven Post Support For 4" Square Wooden Fence Post	96.47	
		Note: OZ-Post P4-850.		
32 31 13 13-0133	EA	36" Driven Post Support For 4" x 6" Wooden Fence Post	109.68	
		Note: OZ-Post T46-850.		
32 31 13 13-0134	EA	36" Driven Post Support For 6" Square Wooden Fence Post	119.02	
		Note: OZ-Post T6-850.		
32 31 13 13-0135		Driven Post Support For Vinyl Fence Posts (32 31 13 13-0116)		



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MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0136	EA	24" Driven Post Support For 3-1/2" Square Vinyl Fence Post		85.80	
Note: OZ-Post T4-600.					
32 31 13 13-0137	EA	34" Driven Post Support For 3-1/2" Square Vinyl Fence Post	.....	89.35	
Note: OZ-Post T4-850.					
32 31 13 13-0138	EA	34" Driven Post Support For 4" Square Vinyl Fence Post	.....	96.47	
Note: OZ-Post P4-850.					
32 31 13 13-0139	EA	34" Driven Post Support For 5" Square Vinyl Fence Post	.....	98.09	
Note: OZ-Post P4-850.					
32 31 13 13-0140		Chain Link Fence Assemblies	(32 31 13 13)		
32 31 13 13-0141		Chain Link Fence Assembly With 2-1/2" Line Post And 3" Corner Posts	(32 31 13 13-0140)		
Note: Includes 2" 9 gauge coiled spring mesh (knuckled selvedge), tension bars, post tension bands, wire ties, truss rod (at corners or posts), 1-5/8" top rail, 1-5/8" bottom rail, 2-1/2" line post and 3" corner posts. Posts exclude drilling or augering in soil or rock, concrete or soil fill. Heights indicated are from ground to top of installed pole. Minimum 2' bury with up to one third of exposed post height to be buried in ground. Excludes grounding. Demolition excludes concrete footing removal on posts and excavation. See CSI section 26 05 26 00-0000 for grounding, 31 23 16 36-0009 for hand excavation for footing removal (where required), 32 31 13 13-0665 for barb wire attachments.					
32 31 13 13-0142		Galvanized	(32 31 13 13-0141)		
32 31 13 13-0143	LF	3' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	.....	39.86	3.94
For Surface Mount On Concrete (Excludes Drilling And Anchors), Add				2.77	
For 13 Gauge Fabric, Deduct				-8.48	
For 11 Gauge Fabric, Deduct				-4.96	
For 6 Gauge Fabric, Add				7.79	
For 1" Mesh Fabric, Add				10.62	
For 1-3/4" Mesh Fabric, Add				4.25	
For 2-1/8" Mesh Fabric, Deduct				-2.12	
For 2-3/8" Mesh Fabric, Deduct				-2.83	
For Posts 8' On Centers, Add				2.18	
For Posts 5' On Centers, Add				8.18	
For Up To 100, Add				7.52	
For >100 To 250, Add				2.77	
For >2,500 To 5,000, Deduct				-1.38	
For >5,000, Deduct				-2.77	
For 3/8" Non-Climbable Mesh, Add				31.32	
32 31 13 13-0144	LF	3'-6" Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	.....	41.46	3.94
For Surface Mount On Concrete (Excludes Drilling And Anchors), Add				2.86	
For 13 Gauge Fabric, Deduct				-8.95	
For 11 Gauge Fabric, Deduct				-5.23	
For 6 Gauge Fabric, Add				8.22	
For 1" Mesh Fabric, Add				11.21	
For 1-3/4" Mesh Fabric, Add				4.48	
For 2-1/8" Mesh Fabric, Deduct				-2.24	
For 2-3/8" Mesh Fabric, Deduct				-2.99	
For Posts 8' On Centers, Add				2.26	
For Posts 5' On Centers, Add				8.48	
For Up To 100, Add				7.79	
For >100 To 250, Add				2.86	
For >2,500 To 5,000, Deduct				-1.43	
For >5,000, Deduct				-2.86	
For 3/8" Non-Climbable Mesh, Add				35.97	
32 31 13 13-0145	LF	4' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	.....	42.86	3.94
For Surface Mount On Concrete (Excludes Drilling And Anchors), Add				2.94	
For 13 Gauge Fabric, Deduct				-9.35	
For 11 Gauge Fabric, Deduct				-5.46	
For 6 Gauge Fabric, Add				8.59	
For 1" Mesh Fabric, Add				11.71	
For 1-3/4" Mesh Fabric, Add				4.68	
For 2-1/8" Mesh Fabric, Deduct				-2.34	
For 2-3/8" Mesh Fabric, Deduct				-3.12	
For Posts 8' On Centers, Add				2.33	
For Posts 5' On Centers, Add				8.75	
For Up To 100, Add				8.02	
For >100 To 250, Add				2.94	
For >2,500 To 5,000, Deduct				-1.47	
For >5,000, Deduct				-2.94	
For 3/8" Non-Climbable Mesh, Add				40.65	

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TOTAL DIRECT DEMOLITION
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32 31 13 13-0146	LF	5' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	46.14	3.94
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.13	
		For 13 Gauge Fabric, Deduct	-10.32	
		For 11 Gauge Fabric, Deduct	-6.03	
		For 6 Gauge Fabric, Add	9.47	
		For 1" Mesh Fabric, Add	12.92	
		For 1-3/4" Mesh Fabric, Add	5.17	
		For 2-1/8" Mesh Fabric, Deduct	-2.58	
		For 2-3/8" Mesh Fabric, Deduct	-3.44	
		For Posts 8' On Centers, Add	2.50	
		For Posts 5' On Centers, Add	9.37	
		For Up To 100, Add	8.57	
		For >100 To 250, Add	3.13	
		For >2,500 To 5,000, Deduct	-1.56	
		For >5,000, Deduct	-3.13	
		For 3/8" Non-Climbable Mesh, Add	49.44	
32 31 13 13-0147	LF	6' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	50.00	3.94
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.38	
		For 13 Gauge Fabric, Deduct	-11.29	
		For 11 Gauge Fabric, Deduct	-6.59	
		For 6 Gauge Fabric, Add	10.36	
		For 1" Mesh Fabric, Add	14.13	
		For 1-3/4" Mesh Fabric, Add	5.65	
		For 2-1/8" Mesh Fabric, Deduct	-2.83	
		For 2-3/8" Mesh Fabric, Deduct	-3.77	
		For Posts 8' On Centers, Add	2.71	
		For Posts 5' On Centers, Add	10.14	
		For Up To 100, Add	9.25	
		For >100 To 250, Add	3.38	
		For >2,500 To 5,000, Deduct	-1.69	
		For >5,000, Deduct	-3.38	
		For 3/8" Non-Climbable Mesh, Add	58.27	
32 31 13 13-0148	LF	7' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	51.88	5.92
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.50	
		For 13 Gauge Fabric, Deduct	-11.71	
		For 11 Gauge Fabric, Deduct	-6.84	
		For 6 Gauge Fabric, Add	10.75	
		For 1" Mesh Fabric, Add	14.66	
		For 1-3/4" Mesh Fabric, Add	5.86	
		For 2-1/8" Mesh Fabric, Deduct	-2.93	
		For 2-3/8" Mesh Fabric, Deduct	-3.91	
		For Posts 8' On Centers, Add	2.81	
		For Posts 5' On Centers, Add	10.52	
		For Up To 100, Add	9.60	
		For >100 To 250, Add	3.50	
		For >2,500 To 5,000, Deduct	-1.75	
		For >5,000, Deduct	-3.50	
		For 3/8" Non-Climbable Mesh, Add	67.25	
32 31 13 13-0149	LF	8' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	58.96	6.90
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.92	
		For 13 Gauge Fabric, Deduct	-13.76	
		For 11 Gauge Fabric, Deduct	-8.04	
		For 6 Gauge Fabric, Add	12.63	
		For 1" Mesh Fabric, Add	17.23	
		For 1-3/4" Mesh Fabric, Add	6.89	
		For 2-1/8" Mesh Fabric, Deduct	-3.45	
		For 2-3/8" Mesh Fabric, Deduct	-4.59	
		For Posts 8' On Centers, Add	3.18	
		For Posts 5' On Centers, Add	11.87	
		For Up To 100, Add	10.78	
		For >100 To 250, Add	3.92	
		For >2,500 To 5,000, Deduct	-1.96	
		For >5,000, Deduct	-3.92	
		For 3/8" Non-Climbable Mesh, Add	76.30	
32 31 13 13-0150	LF	9' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	62.91	8.88
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.16	
		For 13 Gauge Fabric, Deduct	-14.81	
		For 11 Gauge Fabric, Deduct	-8.65	
		For 6 Gauge Fabric, Add	13.60	
		For 1" Mesh Fabric, Add	18.54	
		For 1-3/4" Mesh Fabric, Add	7.42	
		For 2-1/8" Mesh Fabric, Deduct	-3.71	
		For 2-3/8" Mesh Fabric, Deduct	-4.95	
		For Posts 8' On Centers, Add	3.39	
		For Posts 5' On Centers, Add	12.64	
		For Up To 100, Add	11.46	
		For >100 To 250, Add	4.16	
		For >2,500 To 5,000, Deduct	-2.08	
		For >5,000, Deduct	-4.16	
		For 3/8" Non-Climbable Mesh, Add	84.20	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0151	LF		10' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	66.86	9.86
			For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.40	
			For 13 Gauge Fabric, Deduct	-15.86	
			For 11 Gauge Fabric, Deduct	-9.27	
			For 6 Gauge Fabric, Add	14.56	
			For 1" Mesh Fabric, Add	19.86	
			For 1-3/4" Mesh Fabric, Add	7.94	
			For 2-1/8" Mesh Fabric, Deduct	-3.97	
			For 2-3/8" Mesh Fabric, Deduct	-5.30	
			For Posts 8' On Centers, Add	3.60	
			For Posts 5' On Centers, Add	13.41	
			For Up To 100, Add	12.15	
			For >100 To 250, Add	4.40	
			For >2,500 To 5,000, Deduct	-2.20	
			For >5,000, Deduct	-4.40	
			For 3/8" Non-Climbable Mesh, Add	92.36	
32 31 13 13-0152	LF		12' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	74.28	11.83
			For Each Additional Foot >12, Add	4.05	
			For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.86	
			For 13 Gauge Fabric, Deduct	-17.62	
			For 11 Gauge Fabric, Deduct	-10.41	
			For 6 Gauge Fabric, Add	16.36	
			For 1" Mesh Fabric, Add	22.31	
			For 1-3/4" Mesh Fabric, Add	8.92	
			For 2-1/8" Mesh Fabric, Deduct	-4.46	
			For 2-3/8" Mesh Fabric, Deduct	-5.95	
			For Posts 8' On Centers, Add	3.99	
			For Posts 5' On Centers, Add	14.86	
			For Up To 100, Add	13.44	
			For >100 To 250, Add	4.86	
			For >2,500 To 5,000, Deduct	-2.43	
			For >5,000, Deduct	-4.86	
			For 3/8" Non-Climbable Mesh, Add	100.17	
32 31 13 13-0153			Vinyl Coated (32 31 13 13-0141)		
32 31 13 13-0154	LF		4' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	44.43	3.94
			For Powder Coated Framework (Posts, Rails, Hardware), Add	4.27	
			For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.02	
			For 13 Gauge Fabric, Deduct	-9.90	
			For 11 Gauge Fabric, Deduct	-5.78	
			For 6 Gauge Fabric, Add	9.09	
			For 1" Mesh Fabric, Add	12.39	
			For 1-3/4" Mesh Fabric, Add	4.96	
			For 2-1/8" Mesh Fabric, Deduct	-2.48	
			For 2-3/8" Mesh Fabric, Deduct	-3.30	
			For Posts 8' On Centers, Add	2.41	
			For Posts 5' On Centers, Add	9.03	
			For Up To 100, Add	8.26	
			For >100 To 250, Add	3.02	
			For >2,500 To 5,000, Deduct	-1.51	
			For >5,000, Deduct	-3.02	
			For 3/8" Non-Climbable Mesh, Add	45.63	
32 31 13 13-0155	LF		5' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	48.11	3.94
			For Powder Coated Framework (Posts, Rails, Hardware), Add	4.75	
			For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.23	
			For 13 Gauge Fabric, Deduct	-11.00	
			For 11 Gauge Fabric, Deduct	-6.43	
			For 6 Gauge Fabric, Add	10.10	
			For 1" Mesh Fabric, Add	13.77	
			For 1-3/4" Mesh Fabric, Add	5.51	
			For 2-1/8" Mesh Fabric, Deduct	-2.75	
			For 2-3/8" Mesh Fabric, Deduct	-3.67	
			For Posts 8' On Centers, Add	2.60	
			For Posts 5' On Centers, Add	9.73	
			For Up To 100, Add	8.86	
			For >100 To 250, Add	3.23	
			For >2,500 To 5,000, Deduct	-1.61	
			For >5,000, Deduct	-3.23	
			For 3/8" Non-Climbable Mesh, Add	55.67	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 13 13-0156	LF	6' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	54.01	3.94
		For Powder Coated Framework (Posts, Rails, Hardware), Add	5.47	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.58	
		For 13 Gauge Fabric, Deduct	-12.68	
		For 11 Gauge Fabric, Deduct	-7.41	
		For 6 Gauge Fabric, Add	11.64	
		For 1" Mesh Fabric, Add	15.87	
		For 1-3/4" Mesh Fabric, Add	6.35	
		For 2-1/8" Mesh Fabric, Deduct	-3.17	
		For 2-3/8" Mesh Fabric, Deduct	-4.23	
		For Posts 8' On Centers, Add	2.91	
		For Posts 5' On Centers, Add	10.86	
		For Up To 100, Add	9.85	
		For >100 To 250, Add	3.58	
		For >2,500 To 5,000, Deduct	-1.79	
		For >5,000, Deduct	-3.58	
		For 3/8" Non-Climbable Mesh, Add	65.74	
32 31 13 13-0157	LF	7' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	56.54	5.92
		For Powder Coated Framework (Posts, Rails, Hardware), Add	5.75	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	3.74	
		For 13 Gauge Fabric, Deduct	-13.33	
		For 11 Gauge Fabric, Deduct	-7.79	
		For 6 Gauge Fabric, Add	12.24	
		For 1" Mesh Fabric, Add	16.69	
		For 1-3/4" Mesh Fabric, Add	6.67	
		For 2-1/8" Mesh Fabric, Deduct	-3.34	
		For 2-3/8" Mesh Fabric, Deduct	-4.45	
		For Posts 8' On Centers, Add	3.05	
		For Posts 5' On Centers, Add	11.36	
		For Up To 100, Add	10.30	
		For >100 To 250, Add	3.74	
		For >2,500 To 5,000, Deduct	-1.87	
		For >5,000, Deduct	-3.74	
		For 3/8" Non-Climbable Mesh, Add	75.97	
32 31 13 13-0158	LF	8' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	64.38	6.90
		For Powder Coated Framework (Posts, Rails, Hardware), Add	6.75	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.19	
		For 13 Gauge Fabric, Deduct	-15.64	
		For 11 Gauge Fabric, Deduct	-9.14	
		For 6 Gauge Fabric, Add	14.36	
		For 1" Mesh Fabric, Add	19.58	
		For 1-3/4" Mesh Fabric, Add	7.83	
		For 2-1/8" Mesh Fabric, Deduct	-3.92	
		For 2-3/8" Mesh Fabric, Deduct	-5.22	
		For Posts 8' On Centers, Add	3.45	
		For Posts 5' On Centers, Add	12.85	
		For Up To 100, Add	11.59	
		For >100 To 250, Add	4.19	
		For >2,500 To 5,000, Deduct	-2.09	
		For >5,000, Deduct	-4.19	
		For 3/8" Non-Climbable Mesh, Add	86.27	
32 31 13 13-0159	LF	9' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post	68.73	8.88
		For Powder Coated Framework (Posts, Rails, Hardware), Add	7.27	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.45	
		For 13 Gauge Fabric, Deduct	-16.84	
		For 11 Gauge Fabric, Deduct	-9.84	
		For 6 Gauge Fabric, Add	15.46	
		For 1" Mesh Fabric, Add	21.08	
		For 1-3/4" Mesh Fabric, Add	8.43	
		For 2-1/8" Mesh Fabric, Deduct	-4.22	
		For 2-3/8" Mesh Fabric, Deduct	-5.62	
		For Posts 8' On Centers, Add	3.68	
		For Posts 5' On Centers, Add	13.69	
		For Up To 100, Add	12.34	
		For >100 To 250, Add	4.45	
		For >2,500 To 5,000, Deduct	-2.23	
		For >5,000, Deduct	-4.45	
		For 3/8" Non-Climbable Mesh, Add	95.30	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13 13-0160	LF	10' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	73.08	9.86
		For Powder Coated Framework (Posts, Rails, Hardware), Add	7.78	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	4.71	
		For 13 Gauge Fabric, Deduct	-18.02	
		For 11 Gauge Fabric, Deduct	-10.53	
		For 6 Gauge Fabric, Add	16.55	
		For 1" Mesh Fabric, Add	22.56	
		For 1-3/4" Mesh Fabric, Add	9.03	
		For 2-1/8" Mesh Fabric, Deduct	-4.51	
		For 2-3/8" Mesh Fabric, Deduct	-6.02	
		For Posts 8' On Centers, Add	3.91	
		For Posts 5' On Centers, Add	14.53	
		For Up To 100, Add	13.08	
		For >100 To 250, Add	4.71	
		For >2,500 To 5,000, Deduct	-2.36	
		For >5,000, Deduct	-4.71	
		For 3/8" Non-Climbable Mesh, Add	104.58	
32 31 13 13-0161	LF	12' Vinyl Cover Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' On Center, 3" Corner Post.....	79.75	11.83
		For Each Additional Foot >12, Add	4.30	
		For Powder Coated Framework (Posts, Rails, Hardware), Add	8.51	
		For Surface Mount On Concrete (Excludes Drilling And Anchors), Add	5.14	
		For 13 Gauge Fabric, Deduct	-19.72	
		For 11 Gauge Fabric, Deduct	-11.52	
		For 6 Gauge Fabric, Add	18.11	
		For 1" Mesh Fabric, Add	24.69	
		For 1-3/4" Mesh Fabric, Add	9.88	
		For 2-1/8" Mesh Fabric, Deduct	-4.94	
		For 2-3/8" Mesh Fabric, Deduct	-6.58	
		For Posts 8' On Centers, Add	4.26	
		For Posts 5' On Centers, Add	15.85	
		For Up To 100, Add	14.26	
		For >100 To 250, Add	5.14	
		For >2,500 To 5,000, Deduct	-2.57	
		For >5,000, Deduct	-5.14	
		For 3/8" Non-Climbable Mesh, Add	113.42	
32 31 13 13-0162		Rails (32 31 13 13)		
		Note: Includes rail end fittings.		
32 31 13 13-0163		SS-20 Chain Link Fence Rails (32 31 13 13-0162)		
		Note: Includes tie wires.		
32 31 13 13-0164	LF	1-3/8" Galvanized Steel Rail, 0.08" Wall Thickness, Tie Wires And Fittings.....	7.23	1.28
		For SS15, Deduct	-0.46	
		For SS40, Add	1.14	
32 31 13 13-0165	LF	1-3/8" Vinyl Coated Rail, 0.08" Wall Thickness, Tie Wires And Fittings.....	8.76	1.28
		For SS40, Add	0.61	
		For Powder Coated, Add	1.22	
		For Aluminum Coated, Add	2.44	
32 31 13 13-0166	LF	1-5/8" Galvanized Steel Rail, 0.085" Wall Thickness, Tie Wires And Fittings.....	8.99	1.45
		For SS15, Deduct	-0.61	
		For SS40, Add	1.52	
32 31 13 13-0167	LF	1-5/8" Vinyl Coated Rail, 0.085" Wall Thickness, Tie Wires And Fittings.....	11.04	1.45
		For SS40, Add	0.81	
		For Powder Coated, Add	1.63	
		For Aluminum Coated, Add	3.26	
32 31 13 13-0168	LF	2" Galvanized Steel Rail, 0.09" Wall Thickness, Tie Wires And Fittings.....	10.55	1.62
		For SS40, Add	1.83	
32 31 13 13-0169	LF	2" Vinyl Coated Rail, 0.09" Wall Thickness, Tie Wires And Fittings.....	13.02	1.62
		For SS40, Add	0.98	
		For Powder Coated, Add	1.95	
		For Aluminum Coated, Add	3.91	
32 31 13 13-0170		Fabric (32 31 13 13)		
32 31 13 13-0171		Fabric, Galvanized Chain Link (32 31 13 13-0170)		
32 31 13 13-0172	LF	3' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh.....	11.39	2.32
		For 1-1/4" Mesh Fabric, Add	1.08	
		For 2 Oz Galvanized Or Zinc Coating, Add	0.96	
		For 13 Gauge Fabric, Deduct	-1.73	
		For 11 Gauge Fabric, Deduct	-0.96	
		For 6 Gauge Fabric, Add	3.08	
		For 1" Mesh Fabric, Add	2.89	
		For 1-1/4" Mesh Fabric, Add	1.93	
		For 1-3/4" Mesh Fabric, Add	1.16	
		For 2-1/8" Mesh Fabric, Deduct	-0.58	
		For 2-3/8" Mesh Fabric, Deduct	-0.77	
		For 3/8" Non-Climbable Mesh, Add	32.45	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0173	LF	3'-6" Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	12.62	2.61
			For 1-1/4" Mesh Fabric, Add	1.26	
			For 2 Oz Galvanized Or Zinc Coating, Add	1.12	
			For 13 Gauge Fabric, Deduct	-2.02	
			For 11 Gauge Fabric, Deduct	-1.12	
			For 6 Gauge Fabric, Add	3.59	
			For 1" Mesh Fabric, Add	3.37	
			For 1-1/4" Mesh Fabric, Add	2.25	
			For 1-3/4" Mesh Fabric, Add	1.35	
			For 2-1/8" Mesh Fabric, Deduct	-0.67	
			For 2-3/8" Mesh Fabric, Deduct	-0.90	
			For 3/8" Non-Climbable Mesh, Add	37.19	
32 31 13	13-0174	LF	4' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	13.64	2.90
			For 1-1/4" Mesh Fabric, Add	1.38	
			For 2 Oz Galvanized Or Zinc Coating, Add	1.24	
			For 13 Gauge Fabric, Deduct	-2.22	
			For 11 Gauge Fabric, Deduct	-1.24	
			For 6 Gauge Fabric, Add	3.95	
			For 1" Mesh Fabric, Add	3.71	
			For 1-1/4" Mesh Fabric, Add	2.47	
			For 1-3/4" Mesh Fabric, Add	1.48	
			For 2-1/8" Mesh Fabric, Deduct	-0.74	
			For 2-3/8" Mesh Fabric, Deduct	-0.99	
			For 3/8" Non-Climbable Mesh, Add	41.95	
32 31 13	13-0175	LF	5' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	15.44	3.49
			For 1-1/4" Mesh Fabric, Add	1.72	
			For 2 Oz Galvanized Or Zinc Coating, Add	1.54	
			For 13 Gauge Fabric, Deduct	-2.77	
			For 11 Gauge Fabric, Deduct	-1.54	
			For 6 Gauge Fabric, Add	4.93	
			For 1" Mesh Fabric, Add	4.62	
			For 1-1/4" Mesh Fabric, Add	3.08	
			For 1-3/4" Mesh Fabric, Add	1.85	
			For 2-1/8" Mesh Fabric, Deduct	-0.92	
			For 2-3/8" Mesh Fabric, Deduct	-1.23	
			For 3/8" Non-Climbable Mesh, Add	50.82	
32 31 13	13-0176	LF	6' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	17.35	4.06
			For 1-1/4" Mesh Fabric, Add	2.07	
			For 2 Oz Galvanized Or Zinc Coating, Add	1.85	
			For 13 Gauge Fabric, Deduct	-3.33	
			For 11 Gauge Fabric, Deduct	-1.85	
			For 6 Gauge Fabric, Add	5.92	
			For 1" Mesh Fabric, Add	5.55	
			For 1-1/4" Mesh Fabric, Add	3.70	
			For 1-3/4" Mesh Fabric, Add	2.22	
			For 2-1/8" Mesh Fabric, Deduct	-1.11	
			For 2-3/8" Mesh Fabric, Deduct	-1.48	
			For 3/8" Non-Climbable Mesh, Add	59.78	
32 31 13	13-0177	LF	7' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	19.32	4.64
			For 1-1/4" Mesh Fabric, Add	2.41	
			For 2 Oz Galvanized Or Zinc Coating, Add	2.15	
			For 13 Gauge Fabric, Deduct	-3.87	
			For 11 Gauge Fabric, Deduct	-2.15	
			For 6 Gauge Fabric, Add	6.89	
			For 1" Mesh Fabric, Add	6.46	
			For 1-1/4" Mesh Fabric, Add	4.31	
			For 1-3/4" Mesh Fabric, Add	2.58	
			For 2-1/8" Mesh Fabric, Deduct	-1.29	
			For 2-3/8" Mesh Fabric, Deduct	-1.72	
			For 3/8" Non-Climbable Mesh, Add	68.85	
32 31 13	13-0178	LF	8' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	21.45	5.81
			For 1-1/4" Mesh Fabric, Add	2.76	
			For 2 Oz Galvanized Or Zinc Coating, Add	2.46	
			For 13 Gauge Fabric, Deduct	-4.43	
			For 11 Gauge Fabric, Deduct	-2.46	
			For 6 Gauge Fabric, Add	7.88	
			For 1" Mesh Fabric, Add	7.39	
			For 1-1/4" Mesh Fabric, Add	4.93	
			For 1-3/4" Mesh Fabric, Add	2.96	
			For 2-1/8" Mesh Fabric, Deduct	-1.48	
			For 2-3/8" Mesh Fabric, Deduct	-1.97	
			For 3/8" Non-Climbable Mesh, Add	78.05	
32 31 13	13-0179	LF	10' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	25.61	6.38
			For 1-1/4" Mesh Fabric, Add	3.58	
			For 2 Oz Galvanized Or Zinc Coating, Add	3.20	
			For 13 Gauge Fabric, Deduct	-5.76	
			For 11 Gauge Fabric, Deduct	-3.20	
			For 6 Gauge Fabric, Add	10.24	
			For 1" Mesh Fabric, Add	9.60	
			For 1-1/4" Mesh Fabric, Add	6.40	
			For 1-3/4" Mesh Fabric, Add	3.84	
			For 2-1/8" Mesh Fabric, Deduct	-1.92	
			For 2-3/8" Mesh Fabric, Deduct	-2.56	
			For 3/8" Non-Climbable Mesh, Add	94.29	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		TOTAL DIRECT		DEMOLITION	
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST		
32 31 13 13-0180	LF 12' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh.....	29.26	6.96		
	For 1-1/4" Mesh Fabric, Add	4.30			
	For 2 Oz Galvanized Or Zinc Coating, Add	3.84			
	For 13 Gauge Fabric, Deduct	-6.90			
	For 11 Gauge Fabric, Deduct	-3.84			
	For 6 Gauge Fabric, Add	12.27			
	For 1" Mesh Fabric, Add	11.51			
	For 1-1/4" Mesh Fabric, Add	7.67			
	For 1-3/4" Mesh Fabric, Add	4.60			
	For 2-1/8" Mesh Fabric, Deduct	-2.30			
	For 2-3/8" Mesh Fabric, Deduct	-3.07			
	For 3/8" Non-Climbable Mesh, Add	102.25			
32 31 13 13-0181	LF 14' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh.....	32.72	8.13		
	For 1-1/4" Mesh Fabric, Add	4.61			
	For 2 Oz Galvanized Or Zinc Coating, Add	4.12			
	For 13 Gauge Fabric, Deduct	-7.42			
	For 11 Gauge Fabric, Deduct	-4.12			
	For 6 Gauge Fabric, Add	13.18			
	For 1" Mesh Fabric, Add	12.36			
	For 1-1/4" Mesh Fabric, Add	8.24			
	For 1-3/4" Mesh Fabric, Add	4.94			
	For 2-1/8" Mesh Fabric, Deduct	-2.47			
	For 2-3/8" Mesh Fabric, Deduct	-3.30			
	For 3/8" Non-Climbable Mesh, Add	111.44			
32 31 13 13-0182	LF 16' Full Height Fabric Galvanized Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh.....	36.17	9.28		
	For 1-1/4" Mesh Fabric, Add	4.93			
	For 2 Oz Galvanized Or Zinc Coating, Add	4.40			
	For 13 Gauge Fabric, Deduct	-7.92			
	For 11 Gauge Fabric, Deduct	-4.40			
	For 6 Gauge Fabric, Add	14.09			
	For 1" Mesh Fabric, Add	13.21			
	For 1-1/4" Mesh Fabric, Add	8.81			
	For 1-3/4" Mesh Fabric, Add	5.28			
	For 2-1/8" Mesh Fabric, Deduct	-2.64			
	For 2-3/8" Mesh Fabric, Deduct	-3.52			
	For 3/8" Non-Climbable Mesh, Add	120.63			
32 31 13 13-0183	Fabric, Vinyl Coated Chain Link (32 31 13 13-0170)				
32 31 13 13-0184	LF 4' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	15.20	2.32		
	For 1-1/4" Mesh Fabric, Add	1.82			
	For 13 Gauge Fabric, Deduct	-2.93			
	For 11 Gauge Fabric, Deduct	-1.63			
	For 6 Gauge Fabric, Add	5.20			
	For 1" Mesh Fabric, Add	4.88			
	For 1-1/4" Mesh Fabric, Add	3.25			
	For 1-3/4" Mesh Fabric, Add	1.95			
	For 2-1/8" Mesh Fabric, Deduct	-0.98			
	For 2-3/8" Mesh Fabric, Deduct	-1.30			
	For 3/8" Non-Climbable Mesh, Add	46.93			
	For Aluminum Coated, Add	2.60			
32 31 13 13-0185	LF 5' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	17.41	3.49		
	For 1-1/4" Mesh Fabric, Add	2.28			
	For 13 Gauge Fabric, Deduct	-3.66			
	For 11 Gauge Fabric, Deduct	-2.03			
	For 6 Gauge Fabric, Add	6.50			
	For 1" Mesh Fabric, Add	6.10			
	For 1-1/4" Mesh Fabric, Add	4.07			
	For 1-3/4" Mesh Fabric, Add	2.44			
	For 2-1/8" Mesh Fabric, Deduct	-1.22			
	For 2-3/8" Mesh Fabric, Deduct	-1.63			
	For 3/8" Non-Climbable Mesh, Add	57.05			
	For Aluminum Coated, Add	3.25			
32 31 13 13-0186	LF 6' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	21.35	4.06		
	For 1-1/4" Mesh Fabric, Add	3.19			
	For 13 Gauge Fabric, Deduct	-5.13			
	For 11 Gauge Fabric, Deduct	-2.85			
	For 6 Gauge Fabric, Add	9.12			
	For 1" Mesh Fabric, Add	8.55			
	For 1-1/4" Mesh Fabric, Add	5.70			
	For 1-3/4" Mesh Fabric, Add	3.42			
	For 2-1/8" Mesh Fabric, Deduct	-1.71			
	For 2-3/8" Mesh Fabric, Deduct	-2.28			
	For 3/8" Non-Climbable Mesh, Add	67.25			
	For Aluminum Coated, Add	4.56			
32 31 13 13-0187	LF 7' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	23.98	4.64		
	For 1-1/4" Mesh Fabric, Add	3.72			
	For 13 Gauge Fabric, Deduct	-5.97			
	For 11 Gauge Fabric, Deduct	-3.32			
	For 6 Gauge Fabric, Add	10.62			
	For 1" Mesh Fabric, Add	9.95			
	For 1-1/4" Mesh Fabric, Add	6.64			
	For 1-3/4" Mesh Fabric, Add	3.98			
	For 2-1/8" Mesh Fabric, Deduct	-1.99			
	For 2-3/8" Mesh Fabric, Deduct	-2.65			
	For 3/8" Non-Climbable Mesh, Add	77.57			
	For Aluminum Coated, Add	5.31			

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0188	LF	8' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	26.88	5.81
			For 1-1/4" Mesh Fabric, Add	4.28	
			For 13 Gauge Fabric, Deduct	-6.88	
			For 11 Gauge Fabric, Deduct	-3.82	
			For 6 Gauge Fabric, Add	12.22	
			For 1" Mesh Fabric, Add	11.46	
			For 1-1/4" Mesh Fabric, Add	7.64	
			For 1-3/4" Mesh Fabric, Add	4.58	
			For 2-1/8" Mesh Fabric, Deduct	-2.29	
			For 2-3/8" Mesh Fabric, Deduct	-3.06	
			For 3/8" Non-Climbable Mesh, Add	88.02	
			For Aluminum Coated, Add	6.11	
32 31 13	13-0189	LF	10' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	31.83	6.38
			For 1-1/4" Mesh Fabric, Add	5.33	
			For 13 Gauge Fabric, Deduct	-8.56	
			For 11 Gauge Fabric, Deduct	-4.76	
			For 6 Gauge Fabric, Add	15.22	
			For 1" Mesh Fabric, Add	14.27	
			For 1-1/4" Mesh Fabric, Add	9.51	
			For 1-3/4" Mesh Fabric, Add	5.71	
			For 2-1/8" Mesh Fabric, Deduct	-2.85	
			For 2-3/8" Mesh Fabric, Deduct	-3.80	
			For 3/8" Non-Climbable Mesh, Add	106.51	
			For Aluminum Coated, Add	7.61	
32 31 13	13-0190	LF	12' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	34.72	6.96
			For 1-1/4" Mesh Fabric, Add	5.82	
			For 13 Gauge Fabric, Deduct	-9.36	
			For 11 Gauge Fabric, Deduct	-5.20	
			For 6 Gauge Fabric, Add	16.64	
			For 1" Mesh Fabric, Add	15.60	
			For 1-1/4" Mesh Fabric, Add	10.40	
			For 1-3/4" Mesh Fabric, Add	6.24	
			For 2-1/8" Mesh Fabric, Deduct	-3.12	
			For 2-3/8" Mesh Fabric, Deduct	-4.16	
			For 3/8" Non-Climbable Mesh, Add	115.50	
			For Aluminum Coated, Add	8.32	
32 31 13	13-0191	LF	14' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	39.14	8.13
			For 1-1/4" Mesh Fabric, Add	6.41	
			For 13 Gauge Fabric, Deduct	-10.31	
			For 11 Gauge Fabric, Deduct	-5.73	
			For 6 Gauge Fabric, Add	18.32	
			For 1" Mesh Fabric, Add	17.18	
			For 1-1/4" Mesh Fabric, Add	11.45	
			For 1-3/4" Mesh Fabric, Add	6.87	
			For 2-1/8" Mesh Fabric, Deduct	-3.44	
			For 2-3/8" Mesh Fabric, Deduct	-4.58	
			For 3/8" Non-Climbable Mesh, Add	125.72	
			For Aluminum Coated, Add	9.16	
32 31 13	13-0192	LF	16' Full Height Vinyl Coated Fabric Chain Link #9 Gauge Fused, 2" Mesh	43.65	9.28
			For 1-1/4" Mesh Fabric, Add	7.03	
			For 13 Gauge Fabric, Deduct	-11.29	
			For 11 Gauge Fabric, Deduct	-6.27	
			For 6 Gauge Fabric, Add	20.07	
			For 1" Mesh Fabric, Add	18.82	
			For 1-1/4" Mesh Fabric, Add	12.55	
			For 1-3/4" Mesh Fabric, Add	7.53	
			For 2-1/8" Mesh Fabric, Deduct	-3.76	
			For 2-3/8" Mesh Fabric, Deduct	-5.02	
			For 3/8" Non-Climbable Mesh, Add	135.94	
			For Aluminum Coated, Add	10.04	
32 31 13	13-0193		Fabric, Aluminized Steel Chain Link (32 31 13 13-0170)		
32 31 13	13-0194	LF	3' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	10.92	2.32
			For 6 Gauge Fabric, Add	2.70	
			For 1" Mesh Fabric, Add	3.55	
32 31 13	13-0195	LF	3'-6" Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	12.05	2.61
			For 6 Gauge Fabric, Add	3.14	
			For 1" Mesh Fabric, Add	4.12	
32 31 13	13-0196	LF	4' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	13.19	2.90
			For 6 Gauge Fabric, Add	3.59	
			For 1" Mesh Fabric, Add	4.71	
32 31 13	13-0197	LF	5' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	14.89	3.49
			For 6 Gauge Fabric, Add	4.49	
			For 1" Mesh Fabric, Add	5.89	
32 31 13	13-0198	LF	6' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	16.66	4.06
			For 6 Gauge Fabric, Add	5.37	
			For 1" Mesh Fabric, Add	7.05	
32 31 13	13-0199	LF	7' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	18.56	4.64
			For 6 Gauge Fabric, Add	6.28	
			For 1" Mesh Fabric, Add	8.24	
32 31 13	13-0200	LF	8' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh	20.56	5.81
			For 6 Gauge Fabric, Add	7.17	
			For 1" Mesh Fabric, Add	9.41	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0201	LF	10' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	24.01 8.96 11.76	6.38
32 31 13 13-0202	LF	12' Full Height Fabric Chain Link #9 Gauge, Aluminized Steel, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	27.36 10.75 14.11	6.96
32 31 13 13-0203 Fabric, All Aluminum Chain Link (32 31 13 13-0170)				
32 31 13 13-0204	LF	3' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	16.37 7.06 9.27	2.32
32 31 13 13-0205	LF	3'-6" Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	18.43 8.24 10.82	2.61
32 31 13 13-0206	LF	4' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	20.47 9.42 12.36	2.90
32 31 13 13-0207	LF	5' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	23.99 11.77 15.45	3.49
32 31 13 13-0208	LF	6' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	27.61 14.13 18.54	4.06
32 31 13 13-0209	LF	7' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	31.31 16.48 21.63	4.64
32 31 13 13-0210	LF	8' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	35.14 18.83 24.72	5.81
32 31 13 13-0211	LF	10' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	42.24 23.54 30.90	6.38
32 31 13 13-0212	LF	12' Full Height Fabric Chain Link #9 Gauge, All Aluminum, 2" Mesh..... For 6 Gauge Fabric, Add For 1" Mesh Fabric, Add	49.23 28.25 37.08	6.96
32 31 13 13-0213 Fence Inserts (32 31 13 13-0170) Note: For use with new or existing chain link fence, per lf of fence.				
32 31 13 13-0214 Vinyl Plastic Fence Inserts (32 31 13 13-0213) Note: Assorted colors.				
32 31 13 13-0215	LF	3' High Fence, Vinyl Plastic Fence Insert.....	9.94	
32 31 13 13-0216	LF	3-1/2' High Fence, Vinyl Plastic Fence Insert.....	11.36	
32 31 13 13-0217	LF	4' High Fence, Vinyl Plastic Fence Insert.....	12.52	
32 31 13 13-0218	LF	5' High Fence, Vinyl Plastic Fence Insert.....	15.70	
32 31 13 13-0219	LF	6' High Fence, Vinyl Plastic Fence Insert.....	18.78	
32 31 13 13-0220	LF	7' High Fence, Vinyl Plastic Fence Insert.....	21.97	
32 31 13 13-0221	LF	8' High Fence, Vinyl Plastic Fence Insert.....	25.04	
32 31 13 13-0222	LF	10' High Fence, Vinyl Plastic Fence Insert.....	30.36	
32 31 13 13-0223 Aluminum Fence Inserts (32 31 13 13-0213) Note: Assorted colors.				
32 31 13 13-0224	LF	3' High Fence, Aluminum Fence Insert.....	32.99	
32 31 13 13-0225	LF	3-1/2' High Fence, Aluminum Fence Insert.....	36.21	
32 31 13 13-0226	LF	4' High Fence, Aluminum Fence Insert.....	41.22	
32 31 13 13-0227	LF	5' High Fence, Aluminum Fence Insert.....	51.58	
32 31 13 13-0228	LF	6' High Fence, Aluminum Fence Insert.....	61.90	
32 31 13 13-0229	LF	7' High Fence, Aluminum Fence Insert.....	67.35	
32 31 13 13-0230	LF	8' High Fence, Aluminum Fence Insert.....	82.50	
32 31 13 13-0231	LF	10' High Fence, Aluminum Fence Insert.....	102.56	
32 31 13 13-0232 Redwood Fence Inserts (32 31 13 13-0213)				
32 31 13 13-0233	LF	4' High Fence, Redwood Fence Insert.....	14.74	
32 31 13 13-0234	LF	5' High Fence, Redwood Fence Insert.....	18.66	
32 31 13 13-0235	LF	6' High Fence, Redwood Fence Insert.....	22.41	
32 31 13 13-0236	LF	7' High Fence, Redwood Fence Insert.....	26.08	
32 31 13 13-0237	LF	8' High Fence, Redwood Fence Insert.....	29.85	
32 31 13 13-0238 Diagonal Flexible Polyethylene Inserts (32 31 13 13-0213)				
32 31 13 13-0239	SF	Diagonal Polyethylene Fence Weave.....	3.97	
32 31 13 13-0240 Hedge Link Fence Inserts (32 31 13 13-0213)				
32 31 13 13-0241	LF	3' High Fence, Hedge Link Fence Insert.....	21.11	
32 31 13 13-0242	LF	3-1/2' High Fence, Hedge Link Fence Insert.....	24.04	
32 31 13 13-0243	LF	4' High Fence, Hedge Link Fence Insert.....	28.20	
32 31 13 13-0244	LF	5' High Fence, Hedge Link Fence Insert.....	34.79	
32 31 13 13-0245	LF	6' High Fence, Hedge Link Fence Insert.....	39.83	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
32 31 13 13-0246	LF	7' High Fence, Hedge Link Fence Insert.....	50.26		
32 31 13 13-0247	LF	8' High Fence, Hedge Link Fence Insert.....	57.07		
32 31 13 13-0248	LF	10' High Fence, Hedge Link Fence Insert.....	68.18		
32 31 13 13-0249	LF	12' High Fence, Hedge Link Fence Insert.....	78.20		
32 31 13 13-0250 Fence Windscreen Fabric (32 31 13 13-0170)					
Note: Includes plastic wire clips.					
32 31 13 13-0251	SF	Vinyl Coated Polyester Windscreen For Fence, 7 Oz Per SY.....	1.35		0.62
		For Sewn Boxed Vent (Each), Add	28.17		
		For Welded Boxed Vent (Each), Add	14.09		
		For 4' x 4' One Color Logo (Each), Add	586.95		
32 31 13 13-0252 Non-Climbable Fabric, Galvanized Chain Link (32 31 13 13-0170)					
32 31 13 13-0253	LF	3' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	32.45		2.32
		For 11 Gauge, Deduct	-4.98		
		For 10 Gauge, Deduct	-1.99		
		For 7 Gauge, Add	2.99		
		For 6 Gauge, Add	6.97		
		For 1/2" Mesh Fabric, Deduct	-1.25		
		For 5/8" Mesh Fabric, Deduct	-2.74		
		For 3/4" Mesh Fabric, Deduct	-3.99		
32 31 13 13-0254	LF	3'-6" Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	37.19		2.61
		For 11 Gauge, Deduct	-5.81		
		For 10 Gauge, Deduct	-2.32		
		For 7 Gauge, Add	3.49		
		For 6 Gauge, Add	8.14		
		For 1/2" Mesh Fabric, Deduct	-1.45		
		For 5/8" Mesh Fabric, Deduct	-3.20		
		For 3/4" Mesh Fabric, Deduct	-4.65		
32 31 13 13-0255	LF	4' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	41.95		2.90
		For 11 Gauge, Deduct	-6.65		
		For 10 Gauge, Deduct	-2.66		
		For 7 Gauge, Add	3.99		
		For 6 Gauge, Add	9.31		
		For 1/2" Mesh Fabric, Deduct	-1.66		
		For 5/8" Mesh Fabric, Deduct	-3.66		
		For 3/4" Mesh Fabric, Deduct	-5.32		
32 31 13 13-0256	LF	5' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	50.82		3.49
		For 11 Gauge, Deduct	-8.31		
		For 10 Gauge, Deduct	-3.32		
		For 7 Gauge, Add	4.98		
		For 6 Gauge, Add	11.63		
		For 1/2" Mesh Fabric, Deduct	-2.08		
		For 5/8" Mesh Fabric, Deduct	-4.57		
		For 3/4" Mesh Fabric, Deduct	-6.65		
32 31 13 13-0257	LF	6' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	59.78		4.06
		For 11 Gauge, Deduct	-9.97		
		For 10 Gauge, Deduct	-3.99		
		For 7 Gauge, Add	5.98		
		For 6 Gauge, Add	13.95		
		For 1/2" Mesh Fabric, Deduct	-2.49		
		For 5/8" Mesh Fabric, Deduct	-5.48		
		For 3/4" Mesh Fabric, Deduct	-7.97		
32 31 13 13-0258	LF	7' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	68.85		4.64
		For 11 Gauge, Deduct	-11.63		
		For 10 Gauge, Deduct	-4.65		
		For 7 Gauge, Add	6.98		
		For 6 Gauge, Add	16.28		
		For 1/2" Mesh Fabric, Deduct	-2.91		
		For 5/8" Mesh Fabric, Deduct	-6.40		
		For 3/4" Mesh Fabric, Deduct	-9.30		
32 31 13 13-0259	LF	8' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	78.05		5.81
		For 11 Gauge, Deduct	-13.29		
		For 10 Gauge, Deduct	-5.32		
		For 7 Gauge, Add	7.97		
		For 6 Gauge, Add	18.61		
		For 1/2" Mesh Fabric, Deduct	-3.32		
		For 5/8" Mesh Fabric, Deduct	-7.31		
		For 3/4" Mesh Fabric, Deduct	-10.63		
32 31 13 13-0260	LF	9' Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh.....	86.14		6.09
		For 11 Gauge, Deduct	-14.79		
		For 10 Gauge, Deduct	-5.92		
		For 7 Gauge, Add	8.88		
		For 6 Gauge, Add	20.71		
		For 1/2" Mesh Fabric, Deduct	-3.70		
		For 5/8" Mesh Fabric, Deduct	-8.14		
		For 3/4" Mesh Fabric, Deduct	-11.83		



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0261	LF	10'	Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh For 11 Gauge, Deduct For 10 Gauge, Deduct For 7 Gauge, Add For 6 Gauge, Add For 1/2" Mesh Fabric, Deduct For 5/8" Mesh Fabric, Deduct For 3/4" Mesh Fabric, Deduct	94.29 -16.30 -6.52 9.78 22.81 -4.07 -8.96 -13.04	6.38
32 31 13 13-0262	LF	12'	Non-Climbable Fabric Galvanized Chain Link #9 Gauge, 3/8" Mesh For 11 Gauge, Deduct For 10 Gauge, Deduct For 7 Gauge, Add For 6 Gauge, Add For 1/2" Mesh Fabric, Deduct For 5/8" Mesh Fabric, Deduct For 3/4" Mesh Fabric, Deduct	102.25 -17.67 -7.07 10.60 24.73 -4.42 -9.72 -14.13	6.96
32 31 13 13-0263			Gates (32 31 13 13) Note: Posts exclude drilling or augering in soil or rock. For barbed wire attached directly to posts and gates, select gates and posts sizes for full finished height of gate above grade (top rail to be at lower height, includes barb wire at top area where mesh would be). See CSI section 32 31 13 13-0001 for drilling for augering holes and backfill.		
32 31 13 13-0264			Galvanized Steel Without Barbed Wire (32 31 13 13-0263) Note: Industrial swing gate. Includes posts (3" diameter posts for up to 6' wide gate, 4" diameter for > 6' To 12' wide, 6-5/8" diameter for >12' To 18' wide, 8-5/8" diameter for over 18' wide), 2" diameter schedule pipe frame, offset hinges, cap and hardware (drop rod, center locking device, gate keeper, catch bolt and tension bands). Fabric: galvanized chain link 2" mesh # 9 gauge, galvanized 1.2 ounce coating.		
32 31 13 13-0265			4' Fence Height (32 31 13 13-0264)		
32 31 13 13-0266	EA	3' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	368.22	26.06	
		For Gate With Single Barb Wire Arm, Add	31.54		
		For Gate With Double Barb Wire Arm, Add	45.88		
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-53.77		
		For Aluminized Steel Gate And Post, Add	137.64		
		For Powder Coated Gate And Post, Add	74.56		
		For 1" Mesh Fabric, Add	124.74		
		For 1-1/4" Mesh Fabric, Add	80.29		
		For 1-3/4" Mesh Fabric, Add	49.90		
		For 2-1/8" Mesh Fabric, Deduct	-24.95		
32 31 13 13-0267	EA	4' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	463.80	27.16	
		For Gate With Single Barb Wire Arm, Add	42.06		
		For Gate With Double Barb Wire Arm, Add	61.17		
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-71.69		
		For Aluminized Steel Gate And Post, Add	183.52		
		For Powder Coated Gate And Post, Add	99.41		
		For 1" Mesh Fabric, Add	166.32		
		For 1-1/4" Mesh Fabric, Add	107.06		
		For 1-3/4" Mesh Fabric, Add	66.53		
		For 2-1/8" Mesh Fabric, Deduct	-33.26		
32 31 13 13-0268	EA	5' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	548.49	28.89	
		For Gate With Single Barb Wire Arm, Add	50.78		
		For Gate With Double Barb Wire Arm, Add	73.86		
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-86.55		
		For Aluminized Steel Gate And Post, Add	221.57		
		For Powder Coated Gate And Post, Add	120.02		
		For 1" Mesh Fabric, Add	200.80		
		For 1-1/4" Mesh Fabric, Add	129.25		
		For 1-3/4" Mesh Fabric, Add	80.32		
		For 2-1/8" Mesh Fabric, Deduct	-40.16		
32 31 13 13-0269	EA	6' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	645.15	34.75	
		For Gate With Single Barb Wire Arm, Add	59.50		
		For Gate With Double Barb Wire Arm, Add	86.54		
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-101.41		
		For Aluminized Steel Gate And Post, Add	259.62		
		For Powder Coated Gate And Post, Add	140.63		
		For 1" Mesh Fabric, Add	235.28		
		For 1-1/4" Mesh Fabric, Add	151.44		
		For 1-3/4" Mesh Fabric, Add	94.11		
		For 2-1/8" Mesh Fabric, Deduct	-47.06		
32 31 13 13-0270	EA	7' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	741.79	40.51	
		For Gate With Single Barb Wire Arm, Add	68.22		
		For Gate With Double Barb Wire Arm, Add	99.22		
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-116.28		
		For Aluminized Steel Gate And Post, Add	297.67		
		For Powder Coated Gate And Post, Add	161.24		
		For 1" Mesh Fabric, Add	269.76		
		For 1-1/4" Mesh Fabric, Add	173.64		
		For 1-3/4" Mesh Fabric, Add	107.90		
		For 2-1/8" Mesh Fabric, Deduct	-53.95		

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0271	EA	8' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	841.69	46.26
			For Gate With Single Barb Wire Arm, Add	77.29	
			For Gate With Double Barb Wire Arm, Add	112.43	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-131.75	
			For Aluminized Steel Gate And Post, Add	337.28	
			For Powder Coated Gate And Post, Add	182.69	
			For 1" Mesh Fabric, Add	305.66	
			For 1-1/4" Mesh Fabric, Add	196.75	
			For 1-3/4" Mesh Fabric, Add	122.26	
			For 2-1/8" Mesh Fabric, Deduct	-61.13	
32 31 13	13-0272	EA	9' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	938.31	52.13
			For Gate With Single Barb Wire Arm, Add	86.01	
			For Gate With Double Barb Wire Arm, Add	125.11	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-146.61	
			For Aluminized Steel Gate And Post, Add	375.33	
			For Powder Coated Gate And Post, Add	203.30	
			For 1" Mesh Fabric, Add	340.14	
			For 1-1/4" Mesh Fabric, Add	218.94	
			For 1-3/4" Mesh Fabric, Add	136.06	
			For 2-1/8" Mesh Fabric, Deduct	-68.03	
32 31 13	13-0273	EA	10' Wide x 4' High Single Gate Galvanized Steel Without Barbed Wire	1,036.35	57.88
			For Gate With Single Barb Wire Arm, Add	94.89	
			For Gate With Double Barb Wire Arm, Add	138.02	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-161.74	
			For Aluminized Steel Gate And Post, Add	414.05	
			For Powder Coated Gate And Post, Add	224.28	
			For 1" Mesh Fabric, Add	375.23	
			For 1-1/4" Mesh Fabric, Add	241.53	
			For 1-3/4" Mesh Fabric, Add	150.09	
			For 2-1/8" Mesh Fabric, Deduct	-75.05	
32 31 13	13-0274	EA	10' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire	1,320.79	57.88
			For Gate With Single Barb Wire Arm, Add	126.17	
			For Gate With Double Barb Wire Arm, Add	183.52	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-215.07	
			For Aluminized Steel Gate And Post, Add	550.57	
			For Powder Coated Gate And Post, Add	298.23	
			For 1" Mesh Fabric, Add	498.95	
			For 1-1/4" Mesh Fabric, Add	321.17	
			For 1-3/4" Mesh Fabric, Add	199.58	
			For 2-1/8" Mesh Fabric, Deduct	-99.79	
32 31 13	13-0275	EA	12' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire	1,562.61	62.01
			For Gate With Single Barb Wire Arm, Add	151.41	
			For Gate With Double Barb Wire Arm, Add	220.23	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-258.08	
			For Aluminized Steel Gate And Post, Add	660.69	
			For Powder Coated Gate And Post, Add	357.87	
			For 1" Mesh Fabric, Add	598.75	
			For 1-1/4" Mesh Fabric, Add	385.40	
			For 1-3/4" Mesh Fabric, Add	239.50	
			For 2-1/8" Mesh Fabric, Deduct	-119.75	
32 31 13	13-0276	EA	14' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire	1,806.33	66.79
			For Gate With Single Barb Wire Arm, Add	176.64	
			For Gate With Double Barb Wire Arm, Add	256.93	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-301.09	
			For Aluminized Steel Gate And Post, Add	770.80	
			For Powder Coated Gate And Post, Add	417.52	
			For 1" Mesh Fabric, Add	698.54	
			For 1-1/4" Mesh Fabric, Add	449.63	
			For 1-3/4" Mesh Fabric, Add	279.41	
			For 2-1/8" Mesh Fabric, Deduct	-139.71	
32 31 13	13-0277	EA	16' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire	2,052.45	72.33
			For Gate With Single Barb Wire Arm, Add	201.88	
			For Gate With Double Barb Wire Arm, Add	293.64	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-344.11	
			For Aluminized Steel Gate And Post, Add	880.92	
			For Powder Coated Gate And Post, Add	477.16	
			For 1" Mesh Fabric, Add	798.33	
			For 1-1/4" Mesh Fabric, Add	513.87	
			For 1-3/4" Mesh Fabric, Add	319.33	
			For 2-1/8" Mesh Fabric, Deduct	-159.67	
32 31 13	13-0278	EA	18' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire	2,334.64	89.86
			For Gate With Single Barb Wire Arm, Add	227.11	
			For Gate With Double Barb Wire Arm, Add	330.34	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-387.12	
			For Aluminized Steel Gate And Post, Add	991.03	
			For Powder Coated Gate And Post, Add	536.81	
			For 1" Mesh Fabric, Add	898.12	
			For 1-1/4" Mesh Fabric, Add	578.10	
			For 1-3/4" Mesh Fabric, Add	359.25	
			For 2-1/8" Mesh Fabric, Deduct	-179.62	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		TOTAL DIRECT	DEMOLITION
CSI	UOM DESCRIPTION		
		UNIT COST	UNIT COST
32 31 13 13-0279	EA 20' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	2,583.34	96.31
	For Gate With Single Barb Wire Arm, Add	252.35	
	For Gate With Double Barb Wire Arm, Add	367.05	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-430.13	
	For Aluminized Steel Gate And Post, Add	1,101.14	
	For Powder Coated Gate And Post, Add	596.45	
	For 1" Mesh Fabric, Add	997.91	
	For 1-1/4" Mesh Fabric, Add	642.33	
	For 1-3/4" Mesh Fabric, Add	399.16	
	For 2-1/8" Mesh Fabric, Deduct	-199.58	
32 31 13 13-0280	EA 22' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	2,829.40	108.78
	For Gate With Single Barb Wire Arm, Add	276.96	
	For Gate With Double Barb Wire Arm, Add	402.86	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-472.10	
	For Aluminized Steel Gate And Post, Add	1,208.57	
	For Powder Coated Gate And Post, Add	654.64	
	For 1" Mesh Fabric, Add	1,095.27	
	For 1-1/4" Mesh Fabric, Add	705.00	
	For 1-3/4" Mesh Fabric, Add	438.11	
	For 2-1/8" Mesh Fabric, Deduct	-219.05	
32 31 13 13-0281	EA 24' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	3,079.17	112.39
	For Gate With Single Barb Wire Arm, Add	301.58	
	For Gate With Double Barb Wire Arm, Add	438.67	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-514.06	
	For Aluminized Steel Gate And Post, Add	1,316.00	
	For Powder Coated Gate And Post, Add	712.83	
	For 1" Mesh Fabric, Add	1,192.63	
	For 1-1/4" Mesh Fabric, Add	767.67	
	For 1-3/4" Mesh Fabric, Add	477.05	
	For 2-1/8" Mesh Fabric, Deduct	-238.53	
32 31 13 13-0282	EA 26' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	3,333.66	122.64
	For Gate With Single Barb Wire Arm, Add	326.20	
	For Gate With Double Barb Wire Arm, Add	474.48	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-556.03	
	For Aluminized Steel Gate And Post, Add	1,423.43	
	For Powder Coated Gate And Post, Add	771.02	
	For 1" Mesh Fabric, Add	1,289.98	
	For 1-1/4" Mesh Fabric, Add	830.33	
	For 1-3/4" Mesh Fabric, Add	515.99	
	For 2-1/8" Mesh Fabric, Deduct	-258.00	
32 31 13 13-0283	EA 28' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	3,510.36	134.92
	For Gate With Single Barb Wire Arm, Add	341.59	
	For Gate With Double Barb Wire Arm, Add	496.86	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-582.26	
	For Aluminized Steel Gate And Post, Add	1,490.57	
	For Powder Coated Gate And Post, Add	807.39	
	For 1" Mesh Fabric, Add	1,350.83	
	For 1-1/4" Mesh Fabric, Add	869.50	
	For 1-3/4" Mesh Fabric, Add	540.33	
	For 2-1/8" Mesh Fabric, Deduct	-270.17	
32 31 13 13-0284	EA 30' Wide x 4' High Double Gate Galvanized Steel Without Barbed Wire.....	3,891.07	149.85
	For Gate With Single Barb Wire Arm, Add	378.52	
	For Gate With Double Barb Wire Arm, Add	550.57	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-645.20	
	For Aluminized Steel Gate And Post, Add	1,651.71	
	For Powder Coated Gate And Post, Add	894.68	
	For 1" Mesh Fabric, Add	1,496.87	
	For 1-1/4" Mesh Fabric, Add	963.50	
	For 1-3/4" Mesh Fabric, Add	598.75	
	For 2-1/8" Mesh Fabric, Deduct	-299.37	
32 31 13 13-0285	5' Fence Height (32 31 13 13-0264)		
32 31 13 13-0286	EA 3' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire.....	441.25	28.89
	For Gate With Single Barb Wire Arm, Add	38.98	
	For Gate With Double Barb Wire Arm, Add	56.70	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-66.44	
	For Aluminized Steel Gate And Post, Add	170.10	
	For Powder Coated Gate And Post, Add	92.14	
	For 1" Mesh Fabric, Add	154.15	
	For 1-1/4" Mesh Fabric, Add	99.22	
	For 1-3/4" Mesh Fabric, Add	61.66	
	For 2-1/8" Mesh Fabric, Deduct	-30.83	
32 31 13 13-0287	EA 4' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire.....	557.81	28.89
	For Gate With Single Barb Wire Arm, Add	51.80	
	For Gate With Double Barb Wire Arm, Add	75.35	
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-88.30	
	For Aluminized Steel Gate And Post, Add	226.05	
	For Powder Coated Gate And Post, Add	122.44	
	For 1" Mesh Fabric, Add	204.85	
	For 1-1/4" Mesh Fabric, Add	131.86	
	For 1-3/4" Mesh Fabric, Add	81.94	
	For 2-1/8" Mesh Fabric, Deduct	-40.97	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0288	EA	5' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	651.85	30.74
			For Gate With Single Barb Wire Arm, Add	61.55	
			For Gate With Double Barb Wire Arm, Add	89.52	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-104.91	
			For Aluminized Steel Gate And Post, Add	268.57	
			For Powder Coated Gate And Post, Add	145.48	
			For 1" Mesh Fabric, Add	243.39	
			For 1-1/4" Mesh Fabric, Add	156.67	
			For 1-3/4" Mesh Fabric, Add	97.36	
			For 2-1/8" Mesh Fabric, Deduct	-48.68	
32 31 13	13-0289	EA	6' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	763.56	36.92
			For Gate With Single Barb Wire Arm, Add	71.81	
			For Gate With Double Barb Wire Arm, Add	104.44	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-122.40	
			For Aluminized Steel Gate And Post, Add	313.33	
			For Powder Coated Gate And Post, Add	169.72	
			For 1" Mesh Fabric, Add	283.96	
			For 1-1/4" Mesh Fabric, Add	182.78	
			For 1-3/4" Mesh Fabric, Add	113.58	
			For 2-1/8" Mesh Fabric, Deduct	-56.79	
32 31 13	13-0290	EA	7' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	865.95	43.01
			For Gate With Single Barb Wire Arm, Add	81.04	
			For Gate With Double Barb Wire Arm, Add	117.87	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-138.13	
			For Aluminized Steel Gate And Post, Add	353.62	
			For Powder Coated Gate And Post, Add	191.54	
			For 1" Mesh Fabric, Add	320.47	
			For 1-1/4" Mesh Fabric, Add	206.28	
			For 1-3/4" Mesh Fabric, Add	128.19	
			For 2-1/8" Mesh Fabric, Deduct	-64.09	
32 31 13	13-0291	EA	8' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	978.75	49.53
			For Gate With Single Barb Wire Arm, Add	91.30	
			For Gate With Double Barb Wire Arm, Add	132.79	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-155.62	
			For Aluminized Steel Gate And Post, Add	398.38	
			For Powder Coated Gate And Post, Add	215.79	
			For 1" Mesh Fabric, Add	361.03	
			For 1-1/4" Mesh Fabric, Add	232.39	
			For 1-3/4" Mesh Fabric, Add	144.41	
			For 2-1/8" Mesh Fabric, Deduct	-72.21	
32 31 13	13-0292	EA	9' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	1,085.80	55.71
			For Gate With Single Barb Wire Arm, Add	101.04	
			For Gate With Double Barb Wire Arm, Add	146.97	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-172.23	
			For Aluminized Steel Gate And Post, Add	440.90	
			For Powder Coated Gate And Post, Add	238.82	
			For 1" Mesh Fabric, Add	399.57	
			For 1-1/4" Mesh Fabric, Add	257.19	
			For 1-3/4" Mesh Fabric, Add	159.83	
			For 2-1/8" Mesh Fabric, Deduct	-79.91	
32 31 13	13-0293	EA	10' Wide x 5' High Single Gate Galvanized Steel Without Barbed Wire	1,192.85	61.80
			For Gate With Single Barb Wire Arm, Add	110.79	
			For Gate With Double Barb Wire Arm, Add	161.14	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-188.84	
			For Aluminized Steel Gate And Post, Add	483.43	
			For Powder Coated Gate And Post, Add	261.86	
			For 1" Mesh Fabric, Add	438.11	
			For 1-1/4" Mesh Fabric, Add	282.00	
			For 1-3/4" Mesh Fabric, Add	175.24	
			For 2-1/8" Mesh Fabric, Deduct	-87.62	
32 31 13	13-0294	EA	10' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire	1,607.37	62.01
			For Gate With Single Barb Wire Arm, Add	156.33	
			For Gate With Double Barb Wire Arm, Add	227.39	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-266.47	
			For Aluminized Steel Gate And Post, Add	682.17	
			For Powder Coated Gate And Post, Add	369.51	
			For 1" Mesh Fabric, Add	618.22	
			For 1-1/4" Mesh Fabric, Add	397.93	
			For 1-3/4" Mesh Fabric, Add	247.29	
			For 2-1/8" Mesh Fabric, Deduct	-123.64	
32 31 13	13-0295	EA	12' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire	1,907.05	66.79
			For Gate With Single Barb Wire Arm, Add	187.72	
			For Gate With Double Barb Wire Arm, Add	273.05	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-319.98	
			For Aluminized Steel Gate And Post, Add	819.14	
			For Powder Coated Gate And Post, Add	443.70	
			For 1" Mesh Fabric, Add	742.35	
			For 1-1/4" Mesh Fabric, Add	477.83	
			For 1-3/4" Mesh Fabric, Add	296.94	
			For 2-1/8" Mesh Fabric, Deduct	-148.47	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13	13-0296	EA 14' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,209.12 219.11 318.71 -373.48 956.12 517.90 866.48 557.73 346.59 -173.30	72.33
32 31 13	13-0297	EA 16' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,547.26 250.50 264.36 -426.99 1,093.08 592.09 990.61 637.63 396.24 -198.12	89.86
32 31 13	13-0298	EA 18' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,846.31 281.27 409.12 -479.44 1,227.37 664.83 1,112.30 715.97 444.92 -222.46	96.31
32 31 13	13-0299	EA 20' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,159.52 313.28 455.68 -534.00 1,367.03 740.47 1,238.87 797.43 495.55 -247.77	103.78
32 31 13	13-0300	EA 22' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,470.83 344.67 501.33 -587.50 1,504.00 814.67 1,363.00 877.33 545.20 -272.60	112.39
32 31 13	13-0301	EA 24' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,781.28 375.44 546.10 -639.96 1,638.29 887.41 1,484.70 955.67 593.88 -296.94	122.64
32 31 13	13-0302	EA 26' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	4,109.05 407.45 592.65 -694.51 1,777.94 963.05 1,611.26 1,037.13 644.50 -322.25	134.92
32 31 13	13-0303	EA 28' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire..... For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	4,435.88 438.45 637.74 -747.35 1,913.22 1,036.33 1,733.86 1,116.05 693.54 -346.77	149.85

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0304	EA		30' Wide x 5' High Double Gate Galvanized Steel Without Barbed Wire	4,769.83	168.58
			For Gate With Single Barb Wire Arm, Add	468.99	
			For Gate With Double Barb Wire Arm, Add	682.17	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-799.42	
			For Aluminized Steel Gate And Post, Add	2,046.51	
			For Powder Coated Gate And Post, Add	1,108.53	
			For 1" Mesh Fabric, Add	1,854.65	
			For 1-1/4" Mesh Fabric, Add	1,193.80	
			For 1-3/4" Mesh Fabric, Add	741.86	
			For 2-1/8" Mesh Fabric, Deduct	-370.93	
32 31 13 13-0305			6' Fence Height (32 31 13 13-0264)		
32 31 13 13-0306	EA		3' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	473.10	30.95
			For Gate With Single Barb Wire Arm, Add	41.80	
			For Gate With Double Barb Wire Arm, Add	60.80	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-71.25	
			For Aluminized Steel Gate And Post, Add	182.40	
			For Powder Coated Gate And Post, Add	98.80	
			For 1" Mesh Fabric, Add	165.30	
			For 1-1/4" Mesh Fabric, Add	106.40	
			For 1-3/4" Mesh Fabric, Add	66.12	
			For 2-1/8" Mesh Fabric, Deduct	-33.06	
32 31 13 13-0307	EA		4' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	598.99	30.95
			For Gate With Single Barb Wire Arm, Add	55.65	
			For Gate With Double Barb Wire Arm, Add	80.94	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-94.86	
			For Aluminized Steel Gate And Post, Add	242.83	
			For Powder Coated Gate And Post, Add	131.53	
			For 1" Mesh Fabric, Add	220.07	
			For 1-1/4" Mesh Fabric, Add	141.65	
			For 1-3/4" Mesh Fabric, Add	88.03	
			For 2-1/8" Mesh Fabric, Deduct	-44.01	
32 31 13 13-0308	EA		5' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	701.03	32.91
			For Gate With Single Barb Wire Arm, Add	66.24	
			For Gate With Double Barb Wire Arm, Add	96.35	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-112.91	
			For Aluminized Steel Gate And Post, Add	289.05	
			For Powder Coated Gate And Post, Add	156.57	
			For 1" Mesh Fabric, Add	261.95	
			For 1-1/4" Mesh Fabric, Add	168.61	
			For 1-3/4" Mesh Fabric, Add	104.78	
			For 2-1/8" Mesh Fabric, Deduct	-52.39	
32 31 13 13-0309	EA		6' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	814.20	39.75
			For Gate With Single Barb Wire Arm, Add	76.42	
			For Gate With Double Barb Wire Arm, Add	111.16	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-130.26	
			For Aluminized Steel Gate And Post, Add	333.48	
			For Powder Coated Gate And Post, Add	180.63	
			For 1" Mesh Fabric, Add	302.21	
			For 1-1/4" Mesh Fabric, Add	194.53	
			For 1-3/4" Mesh Fabric, Add	120.88	
			For 2-1/8" Mesh Fabric, Deduct	-60.44	
32 31 13 13-0310	EA		7' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	932.75	46.70
			For Gate With Single Barb Wire Arm, Add	87.19	
			For Gate With Double Barb Wire Arm, Add	126.83	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-148.62	
			For Aluminized Steel Gate And Post, Add	380.48	
			For Powder Coated Gate And Post, Add	206.09	
			For 1" Mesh Fabric, Add	344.81	
			For 1-1/4" Mesh Fabric, Add	221.94	
			For 1-3/4" Mesh Fabric, Add	137.92	
			For 2-1/8" Mesh Fabric, Deduct	-68.96	
32 31 13 13-0311	EA		8' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	1,045.55	53.22
			For Gate With Single Barb Wire Arm, Add	97.45	
			For Gate With Double Barb Wire Arm, Add	141.75	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-166.11	
			For Aluminized Steel Gate And Post, Add	425.24	
			For Powder Coated Gate And Post, Add	230.34	
			For 1" Mesh Fabric, Add	385.37	
			For 1-1/4" Mesh Fabric, Add	248.05	
			For 1-3/4" Mesh Fabric, Add	154.15	
			For 2-1/8" Mesh Fabric, Deduct	-77.07	
32 31 13 13-0312	EA		9' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire	1,159.46	60.06
			For Gate With Single Barb Wire Arm, Add	107.71	
			For Gate With Double Barb Wire Arm, Add	156.67	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-183.59	
			For Aluminized Steel Gate And Post, Add	470.00	
			For Powder Coated Gate And Post, Add	254.58	
			For 1" Mesh Fabric, Add	425.94	
			For 1-1/4" Mesh Fabric, Add	274.17	
			For 1-3/4" Mesh Fabric, Add	170.38	
			For 2-1/8" Mesh Fabric, Deduct	-85.19	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
CSI	UOM DESCRIPTION		
32 31 13 13-0313	EA 10' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	1,231.37 113.35 164.67 -193.21 494.62 267.92 448.25 288.63 179.30 -89.65	66.90
32 31 13 13-0314	EA 10' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	1,716.81 166.79 242.61 -284.31 727.83 394.24 659.59 424.57 263.84 -131.92	66.79
32 31 13 13-0315	EA 12' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,035.66 200.03 290.95 -340.96 872.86 472.80 791.03 509.17 316.41 -158.21	72.33
32 31 13 13-0316	EA 14' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,415.48 233.88 340.19 -398.66 1,020.57 552.81 924.89 595.33 369.96 -184.98	96.31
32 31 13 13-0317	EA 16' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	2,739.87 267.12 388.53 -455.31 1,165.60 631.37 1,056.32 679.93 422.53 -211.26	103.78
32 31 13 13-0318	EA 18' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,073.57 300.97 437.77 -513.01 1,313.31 711.38 1,190.19 766.10 476.08 -238.04	112.39
32 31 13 13-0319	EA 20' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,411.99 334.82 487.01 -570.71 1,461.03 791.39 1,324.06 852.27 529.62 -264.81	122.64
32 31 13 13-0320	EA 22' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	3,750.95 368.05 535.35 -627.37 1,606.06 869.95 1,455.49 936.87 582.20 -291.10	134.92

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0321	EA		24' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	4,100.89	149.85
			For Gate With Single Barb Wire Arm, Add	401.60	
			For Gate With Double Barb Wire Arm, Add	584.14	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-684.54	
			For Aluminized Steel Gate And Post, Add	1,752.43	
			For Powder Coated Gate And Post, Add	949.23	
			For 1" Mesh Fabric, Add	1,588.14	
			For 1-1/4" Mesh Fabric, Add	1,022.25	
			For 1-3/4" Mesh Fabric, Add	635.25	
			For 2-1/8" Mesh Fabric, Deduct	-317.63	
32 31 13 13-0322	EA		26' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	4,456.74	168.58
			For Gate With Single Barb Wire Arm, Add	434.77	
			For Gate With Double Barb Wire Arm, Add	632.40	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-741.09	
			For Aluminized Steel Gate And Post, Add	1,897.19	
			For Powder Coated Gate And Post, Add	1,027.64	
			For 1" Mesh Fabric, Add	1,719.33	
			For 1-1/4" Mesh Fabric, Add	1,106.69	
			For 1-3/4" Mesh Fabric, Add	687.73	
			For 2-1/8" Mesh Fabric, Deduct	-343.87	
32 31 13 13-0323	EA		28' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	4,836.56	192.63
			For Gate With Single Barb Wire Arm, Add	468.38	
			For Gate With Double Barb Wire Arm, Add	681.28	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-798.37	
			For Aluminized Steel Gate And Post, Add	2,043.83	
			For Powder Coated Gate And Post, Add	1,107.07	
			For 1" Mesh Fabric, Add	1,852.22	
			For 1-1/4" Mesh Fabric, Add	1,192.23	
			For 1-3/4" Mesh Fabric, Add	740.89	
			For 2-1/8" Mesh Fabric, Deduct	-370.44	
32 31 13 13-0324	EA		30' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	5,239.05	224.78
			For Gate With Single Barb Wire Arm, Add	502.04	
			For Gate With Double Barb Wire Arm, Add	730.25	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-855.76	
			For Aluminized Steel Gate And Post, Add	2,190.74	
			For Powder Coated Gate And Post, Add	1,186.65	
			For 1" Mesh Fabric, Add	1,985.36	
			For 1-1/4" Mesh Fabric, Add	1,277.93	
			For 1-3/4" Mesh Fabric, Add	794.14	
			For 2-1/8" Mesh Fabric, Deduct	-397.07	
32 31 13 13-0325			7' Fence Height (32 31 13 13-0324)		
32 31 13 13-0326	EA		3' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	496.58	33.34
			For Gate With Single Barb Wire Arm, Add	43.60	
			For Gate With Double Barb Wire Arm, Add	63.41	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-74.31	
			For Aluminized Steel Gate And Post, Add	190.24	
			For Powder Coated Gate And Post, Add	103.05	
			For 1" Mesh Fabric, Add	172.40	
			For 1-1/4" Mesh Fabric, Add	110.97	
			For 1-3/4" Mesh Fabric, Add	68.96	
			For 2-1/8" Mesh Fabric, Deduct	-34.48	
32 31 13 13-0327	EA		4' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	627.14	33.34
			For Gate With Single Barb Wire Arm, Add	57.96	
			For Gate With Double Barb Wire Arm, Add	84.30	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-98.79	
			For Aluminized Steel Gate And Post, Add	252.91	
			For Powder Coated Gate And Post, Add	136.99	
			For 1" Mesh Fabric, Add	229.20	
			For 1-1/4" Mesh Fabric, Add	147.53	
			For 1-3/4" Mesh Fabric, Add	91.68	
			For 2-1/8" Mesh Fabric, Deduct	-45.84	
32 31 13 13-0328	EA		5' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	737.99	35.08
			For Gate With Single Barb Wire Arm, Add	69.59	
			For Gate With Double Barb Wire Arm, Add	101.22	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-118.62	
			For Aluminized Steel Gate And Post, Add	303.67	
			For Powder Coated Gate And Post, Add	164.49	
			For 1" Mesh Fabric, Add	275.20	
			For 1-1/4" Mesh Fabric, Add	177.14	
			For 1-3/4" Mesh Fabric, Add	110.08	
			For 2-1/8" Mesh Fabric, Deduct	-55.04	
32 31 13 13-0329	EA		6' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	904.40	42.68
			For Gate With Single Barb Wire Arm, Add	85.39	
			For Gate With Double Barb Wire Arm, Add	124.20	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-145.55	
			For Aluminized Steel Gate And Post, Add	372.60	
			For Powder Coated Gate And Post, Add	201.83	
			For 1" Mesh Fabric, Add	337.67	
			For 1-1/4" Mesh Fabric, Add	217.35	
			For 1-3/4" Mesh Fabric, Add	135.07	
			For 2-1/8" Mesh Fabric, Deduct	-67.53	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13 13-0330	EA	7' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	1,069.76	49.96
		For Gate With Single Barb Wire Arm, Add	101.19	
		For Gate With Double Barb Wire Arm, Add	147.18	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-172.48	
		For Aluminized Steel Gate And Post, Add	441.55	
		For Powder Coated Gate And Post, Add	239.17	
		For 1" Mesh Fabric, Add	400.16	
		For 1-1/4" Mesh Fabric, Add	257.57	
		For 1-3/4" Mesh Fabric, Add	160.06	
		For 2-1/8" Mesh Fabric, Deduct	-80.03	
32 31 13 13-0331	EA	8' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	1,236.20	57.46
		For Gate With Single Barb Wire Arm, Add	116.99	
		For Gate With Double Barb Wire Arm, Add	170.16	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-199.41	
		For Aluminized Steel Gate And Post, Add	510.49	
		For Powder Coated Gate And Post, Add	276.52	
		For 1" Mesh Fabric, Add	462.63	
		For 1-1/4" Mesh Fabric, Add	297.79	
		For 1-3/4" Mesh Fabric, Add	185.05	
		For 2-1/8" Mesh Fabric, Deduct	-92.53	
32 31 13 13-0332	EA	9' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	1,401.57	64.73
		For Gate With Single Barb Wire Arm, Add	132.79	
		For Gate With Double Barb Wire Arm, Add	193.15	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-226.34	
		For Aluminized Steel Gate And Post, Add	579.44	
		For Powder Coated Gate And Post, Add	313.86	
		For 1" Mesh Fabric, Add	525.12	
		For 1-1/4" Mesh Fabric, Add	338.01	
		For 1-3/4" Mesh Fabric, Add	210.05	
		For 2-1/8" Mesh Fabric, Deduct	-105.02	
32 31 13 13-0333	EA	10' Wide x 7' High Single Gate Galvanized Steel Without Barbed Wire	1,542.12	72.33
		For Gate With Single Barb Wire Arm, Add	145.74	
		For Gate With Double Barb Wire Arm, Add	211.99	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-248.42	
		For Aluminized Steel Gate And Post, Add	635.96	
		For Powder Coated Gate And Post, Add	344.48	
		For 1" Mesh Fabric, Add	576.34	
		For 1-1/4" Mesh Fabric, Add	370.97	
		For 1-3/4" Mesh Fabric, Add	230.53	
		For 2-1/8" Mesh Fabric, Deduct	-115.27	
32 31 13 13-0334	EA	10' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	1,956.32	72.33
		For Gate With Single Barb Wire Arm, Add	191.30	
		For Gate With Double Barb Wire Arm, Add	278.26	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-326.08	
		For Aluminized Steel Gate And Post, Add	834.77	
		For Powder Coated Gate And Post, Add	452.17	
		For 1" Mesh Fabric, Add	756.51	
		For 1-1/4" Mesh Fabric, Add	486.95	
		For 1-3/4" Mesh Fabric, Add	302.61	
		For 2-1/8" Mesh Fabric, Deduct	-151.30	
32 31 13 13-0335	EA	12' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	2,223.04	96.31
		For Gate With Single Barb Wire Arm, Add	212.71	
		For Gate With Double Barb Wire Arm, Add	309.40	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-362.58	
		For Aluminized Steel Gate And Post, Add	928.20	
		For Powder Coated Gate And Post, Add	502.78	
		For 1" Mesh Fabric, Add	841.18	
		For 1-1/4" Mesh Fabric, Add	541.45	
		For 1-3/4" Mesh Fabric, Add	336.47	
		For 2-1/8" Mesh Fabric, Deduct	-168.24	
32 31 13 13-0336	EA	14' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	2,567.58	103.78
		For Gate With Single Barb Wire Arm, Add	248.16	
		For Gate With Double Barb Wire Arm, Add	360.97	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-423.01	
		For Aluminized Steel Gate And Post, Add	1,082.90	
		For Powder Coated Gate And Post, Add	586.57	
		For 1" Mesh Fabric, Add	981.38	
		For 1-1/4" Mesh Fabric, Add	631.69	
		For 1-3/4" Mesh Fabric, Add	392.55	
		For 2-1/8" Mesh Fabric, Deduct	-196.28	
32 31 13 13-0337	EA	16' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	2,888.93	112.39
		For Gate With Single Barb Wire Arm, Add	280.66	
		For Gate With Double Barb Wire Arm, Add	408.23	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-478.39	
		For Aluminized Steel Gate And Post, Add	1,224.69	
		For Powder Coated Gate And Post, Add	663.37	
		For 1" Mesh Fabric, Add	1,109.87	
		For 1-1/4" Mesh Fabric, Add	714.40	
		For 1-3/4" Mesh Fabric, Add	443.95	
		For 2-1/8" Mesh Fabric, Deduct	-221.97	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0338	EA	18' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	3,244.13	122.64
			For Gate With Single Barb Wire Arm, Add	316.35	
			For Gate With Double Barb Wire Arm, Add	460.15	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-539.24	
			For Aluminized Steel Gate And Post, Add	1,380.46	
			For Powder Coated Gate And Post, Add	747.75	
			For 1" Mesh Fabric, Add	1,251.04	
			For 1-1/4" Mesh Fabric, Add	805.27	
			For 1-3/4" Mesh Fabric, Add	500.42	
			For 2-1/8" Mesh Fabric, Deduct	-250.21	
32 31 13	13-0339	EA	20' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	3,599.88	134.92
			For Gate With Single Barb Wire Arm, Add	361.44	
			For Gate With Double Barb Wire Arm, Add	511.18	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-599.04	
			For Aluminized Steel Gate And Post, Add	1,533.54	
			For Powder Coated Gate And Post, Add	830.67	
			For 1" Mesh Fabric, Add	1,389.77	
			For 1-1/4" Mesh Fabric, Add	894.57	
			For 1-3/4" Mesh Fabric, Add	555.91	
			For 2-1/8" Mesh Fabric, Deduct	-277.95	
32 31 13	13-0340	EA	22' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	3,963.81	149.85
			For Gate With Single Barb Wire Arm, Add	386.52	
			For Gate With Double Barb Wire Arm, Add	562.21	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-658.84	
			For Aluminized Steel Gate And Post, Add	1,686.63	
			For Powder Coated Gate And Post, Add	913.59	
			For 1" Mesh Fabric, Add	1,528.51	
			For 1-1/4" Mesh Fabric, Add	983.87	
			For 1-3/4" Mesh Fabric, Add	611.40	
			For 2-1/8" Mesh Fabric, Deduct	-305.70	
32 31 13	13-0341	EA	24' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	4,339.00	168.58
			For Gate With Single Barb Wire Arm, Add	421.60	
			For Gate With Double Barb Wire Arm, Add	613.24	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-718.64	
			For Aluminized Steel Gate And Post, Add	1,839.72	
			For Powder Coated Gate And Post, Add	996.51	
			For 1" Mesh Fabric, Add	1,667.24	
			For 1-1/4" Mesh Fabric, Add	1,073.17	
			For 1-3/4" Mesh Fabric, Add	666.90	
			For 2-1/8" Mesh Fabric, Deduct	-333.45	
32 31 13	13-0342	EA	26' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	4,730.25	192.63
			For Gate With Single Barb Wire Arm, Add	456.68	
			For Gate With Double Barb Wire Arm, Add	664.27	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-778.44	
			For Aluminized Steel Gate And Post, Add	1,992.80	
			For Powder Coated Gate And Post, Add	1,079.43	
			For 1" Mesh Fabric, Add	1,805.98	
			For 1-1/4" Mesh Fabric, Add	1,162.47	
			For 1-3/4" Mesh Fabric, Add	722.39	
			For 2-1/8" Mesh Fabric, Deduct	-361.20	
32 31 13	13-0343	EA	28' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	5,145.61	224.78
			For Gate With Single Barb Wire Arm, Add	491.77	
			For Gate With Double Barb Wire Arm, Add	715.30	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-838.24	
			For Aluminized Steel Gate And Post, Add	2,145.89	
			For Powder Coated Gate And Post, Add	1,162.36	
			For 1" Mesh Fabric, Add	1,944.71	
			For 1-1/4" Mesh Fabric, Add	1,251.77	
			For 1-3/4" Mesh Fabric, Add	777.88	
			For 2-1/8" Mesh Fabric, Deduct	-388.94	
32 31 13	13-0344	EA	30' Wide x 7' High Double Gate Galvanized Steel Without Barbed Wire	5,599.55	269.71
			For Gate With Single Barb Wire Arm, Add	526.85	
			For Gate With Double Barb Wire Arm, Add	766.32	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-898.04	
			For Aluminized Steel Gate And Post, Add	2,298.97	
			For Powder Coated Gate And Post, Add	1,245.28	
			For 1" Mesh Fabric, Add	2,083.45	
			For 1-1/4" Mesh Fabric, Add	1,341.07	
			For 1-3/4" Mesh Fabric, Add	833.38	
			For 2-1/8" Mesh Fabric, Deduct	-416.69	
32 31 13	13-0345		8' Fence Height (32 31 13 13-0264)		
32 31 13	13-0346	EA	3' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	581.93	36.16
			For Gate With Single Barb Wire Arm, Add	52.07	
			For Gate With Double Barb Wire Arm, Add	75.73	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-88.75	
			For Aluminized Steel Gate And Post, Add	227.20	
			For Powder Coated Gate And Post, Add	123.07	
			For 1" Mesh Fabric, Add	205.90	
			For 1-1/4" Mesh Fabric, Add	132.53	
			For 1-3/4" Mesh Fabric, Add	82.36	
			For 2-1/8" Mesh Fabric, Deduct	-41.18	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13 13-0347	EA	4' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	739.72	36.16
		For Gate With Single Barb Wire Arm, Add	69.42	
		For Gate With Double Barb Wire Arm, Add	100.98	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-118.34	
		For Aluminized Steel Gate And Post, Add	302.94	
		For Powder Coated Gate And Post, Add	164.09	
		For 1" Mesh Fabric, Add	274.54	
		For 1-1/4" Mesh Fabric, Add	176.71	
		For 1-3/4" Mesh Fabric, Add	109.81	
		For 2-1/8" Mesh Fabric, Deduct	-54.91	
32 31 13 13-0348	EA	5' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	863.36	40.29
		For Gate With Single Barb Wire Arm, Add	81.65	
		For Gate With Double Barb Wire Arm, Add	118.76	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-139.17	
		For Aluminized Steel Gate And Post, Add	356.28	
		For Powder Coated Gate And Post, Add	192.99	
		For 1" Mesh Fabric, Add	322.88	
		For 1-1/4" Mesh Fabric, Add	207.83	
		For 1-3/4" Mesh Fabric, Add	129.15	
		For 2-1/8" Mesh Fabric, Deduct	-64.58	
32 31 13 13-0349	EA	6' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	990.24	45.61
		For Gate With Single Barb Wire Arm, Add	93.88	
		For Gate With Double Barb Wire Arm, Add	136.55	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-160.01	
		For Aluminized Steel Gate And Post, Add	409.64	
		For Powder Coated Gate And Post, Add	221.89	
		For 1" Mesh Fabric, Add	371.23	
		For 1-1/4" Mesh Fabric, Add	238.95	
		For 1-3/4" Mesh Fabric, Add	148.49	
		For 2-1/8" Mesh Fabric, Deduct	-74.25	
32 31 13 13-0350	EA	7' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	1,129.65	54.95
		For Gate With Single Barb Wire Arm, Add	106.10	
		For Gate With Double Barb Wire Arm, Add	154.33	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-180.86	
		For Aluminized Steel Gate And Post, Add	462.99	
		For Powder Coated Gate And Post, Add	250.79	
		For 1" Mesh Fabric, Add	419.59	
		For 1-1/4" Mesh Fabric, Add	270.08	
		For 1-3/4" Mesh Fabric, Add	167.84	
		For 2-1/8" Mesh Fabric, Deduct	-83.92	
32 31 13 13-0351	EA	8' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	1,267.96	63.97
		For Gate With Single Barb Wire Arm, Add	118.33	
		For Gate With Double Barb Wire Arm, Add	172.12	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-201.70	
		For Aluminized Steel Gate And Post, Add	516.35	
		For Powder Coated Gate And Post, Add	279.69	
		For 1" Mesh Fabric, Add	467.94	
		For 1-1/4" Mesh Fabric, Add	301.20	
		For 1-3/4" Mesh Fabric, Add	187.18	
		For 2-1/8" Mesh Fabric, Deduct	-93.59	
32 31 13 13-0352	EA	9' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	1,407.36	73.42
		For Gate With Single Barb Wire Arm, Add	130.56	
		For Gate With Double Barb Wire Arm, Add	189.90	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-222.54	
		For Aluminized Steel Gate And Post, Add	569.71	
		For Powder Coated Gate And Post, Add	308.59	
		For 1" Mesh Fabric, Add	516.30	
		For 1-1/4" Mesh Fabric, Add	332.33	
		For 1-3/4" Mesh Fabric, Add	206.52	
		For 2-1/8" Mesh Fabric, Deduct	-103.26	
32 31 13 13-0353	EA	10' Wide x 8' High Single Gate Galvanized Steel Without Barbed Wire	1,546.74	82.87
		For Gate With Single Barb Wire Arm, Add	142.79	
		For Gate With Double Barb Wire Arm, Add	207.69	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-243.38	
		For Aluminized Steel Gate And Post, Add	623.06	
		For Powder Coated Gate And Post, Add	337.49	
		For 1" Mesh Fabric, Add	564.65	
		For 1-1/4" Mesh Fabric, Add	363.45	
		For 1-3/4" Mesh Fabric, Add	225.86	
		For 2-1/8" Mesh Fabric, Deduct	-112.93	
32 31 13 13-0354	EA	10' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	2,236.39	96.31
		For Gate With Single Barb Wire Arm, Add	214.18	
		For Gate With Double Barb Wire Arm, Add	311.54	
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-365.08	
		For Aluminized Steel Gate And Post, Add	934.61	
		For Powder Coated Gate And Post, Add	506.25	
		For 1" Mesh Fabric, Add	846.99	
		For 1-1/4" Mesh Fabric, Add	545.19	
		For 1-3/4" Mesh Fabric, Add	338.80	
		For 2-1/8" Mesh Fabric, Deduct	-169.40	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0355	EA	12' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	2,633.56	103.78
			For Gate With Single Barb Wire Arm, Add	255.42	
			For Gate With Double Barb Wire Arm, Add	371.52	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-435.38	
			For Aluminized Steel Gate And Post, Add	1,114.57	
			For Powder Coated Gate And Post, Add	603.73	
			For 1" Mesh Fabric, Add	1,010.08	
			For 1-1/4" Mesh Fabric, Add	650.17	
			For 1-3/4" Mesh Fabric, Add	404.03	
			For 2-1/8" Mesh Fabric, Deduct	-202.02	
32 31 13	13-0356	EA	14' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	3,040.00	112.39
			For Gate With Single Barb Wire Arm, Add	297.28	
			For Gate With Double Barb Wire Arm, Add	432.40	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-506.72	
			For Aluminized Steel Gate And Post, Add	1,297.20	
			For Powder Coated Gate And Post, Add	702.65	
			For 1" Mesh Fabric, Add	1,175.59	
			For 1-1/4" Mesh Fabric, Add	756.70	
			For 1-3/4" Mesh Fabric, Add	470.24	
			For 2-1/8" Mesh Fabric, Deduct	-235.12	
32 31 13	13-0357	EA	16' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	3,462.35	122.64
			For Gate With Single Barb Wire Arm, Add	340.36	
			For Gate With Double Barb Wire Arm, Add	495.07	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-580.16	
			For Aluminized Steel Gate And Post, Add	1,485.20	
			For Powder Coated Gate And Post, Add	804.48	
			For 1" Mesh Fabric, Add	1,345.96	
			For 1-1/4" Mesh Fabric, Add	866.37	
			For 1-3/4" Mesh Fabric, Add	538.39	
			For 2-1/8" Mesh Fabric, Deduct	-269.19	
32 31 13	13-0358	EA	18' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	3,890.83	134.92
			For Gate With Single Barb Wire Arm, Add	383.44	
			For Gate With Double Barb Wire Arm, Add	557.73	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-653.59	
			For Aluminized Steel Gate And Post, Add	1,673.20	
			For Powder Coated Gate And Post, Add	906.32	
			For 1" Mesh Fabric, Add	1,516.34	
			For 1-1/4" Mesh Fabric, Add	976.03	
			For 1-3/4" Mesh Fabric, Add	606.53	
			For 2-1/8" Mesh Fabric, Deduct	-303.27	
32 31 13	13-0359	EA	20' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	4,321.91	149.85
			For Gate With Single Barb Wire Arm, Add	425.91	
			For Gate With Double Barb Wire Arm, Add	619.51	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-725.98	
			For Aluminized Steel Gate And Post, Add	1,858.52	
			For Powder Coated Gate And Post, Add	1,006.70	
			For 1" Mesh Fabric, Add	1,684.28	
			For 1-1/4" Mesh Fabric, Add	1,084.13	
			For 1-3/4" Mesh Fabric, Add	673.71	
			For 2-1/8" Mesh Fabric, Deduct	-336.86	
32 31 13	13-0360	EA	22' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	4,758.64	168.58
			For Gate With Single Barb Wire Arm, Add	467.76	
			For Gate With Double Barb Wire Arm, Add	680.38	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-797.32	
			For Aluminized Steel Gate And Post, Add	2,041.14	
			For Powder Coated Gate And Post, Add	1,105.62	
			For 1" Mesh Fabric, Add	1,849.79	
			For 1-1/4" Mesh Fabric, Add	1,190.67	
			For 1-3/4" Mesh Fabric, Add	739.91	
			For 2-1/8" Mesh Fabric, Deduct	-369.96	
32 31 13	13-0361	EA	24' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	5,222.63	192.63
			For Gate With Single Barb Wire Arm, Add	510.85	
			For Gate With Double Barb Wire Arm, Add	743.05	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-870.76	
			For Aluminized Steel Gate And Post, Add	2,229.14	
			For Powder Coated Gate And Post, Add	1,207.45	
			For 1" Mesh Fabric, Add	2,020.16	
			For 1-1/4" Mesh Fabric, Add	1,300.33	
			For 1-3/4" Mesh Fabric, Add	808.06	
			For 2-1/8" Mesh Fabric, Deduct	-404.03	
32 31 13	13-0362	EA	26' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire	5,710.73	224.78
			For Gate With Single Barb Wire Arm, Add	553.93	
			For Gate With Double Barb Wire Arm, Add	805.72	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-944.20	
			For Aluminized Steel Gate And Post, Add	2,417.15	
			For Powder Coated Gate And Post, Add	1,309.29	
			For 1" Mesh Fabric, Add	2,190.54	
			For 1-1/4" Mesh Fabric, Add	1,410.00	
			For 1-3/4" Mesh Fabric, Add	876.22	
			For 2-1/8" Mesh Fabric, Deduct	-438.11	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0363	EA		28' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire.....	6,231.81	269.71
			For Gate With Single Barb Wire Arm, Add	596.40	
			For Gate With Double Barb Wire Arm, Add	867.49	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,016.59	
			For Aluminized Steel Gate And Post, Add	2,602.46	
			For Powder Coated Gate And Post, Add	1,409.67	
			For 1" Mesh Fabric, Add	2,358.48	
			For 1-1/4" Mesh Fabric, Add	1,518.10	
			For 1-3/4" Mesh Fabric, Add	943.39	
			For 2-1/8" Mesh Fabric, Deduct	-471.70	
32 31 13 13-0364	EA		30' Wide x 8' High Double Gate Galvanized Steel Without Barbed Wire.....	6,820.38	337.17
			For Gate With Single Barb Wire Arm, Add	638.86	
			For Gate With Double Barb Wire Arm, Add	929.26	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,088.97	
			For Aluminized Steel Gate And Post, Add	2,787.77	
			For Powder Coated Gate And Post, Add	1,510.04	
			For 1" Mesh Fabric, Add	2,526.42	
			For 1-1/4" Mesh Fabric, Add	1,626.20	
			For 1-3/4" Mesh Fabric, Add	1,010.57	
			For 2-1/8" Mesh Fabric, Deduct	-505.28	
32 31 13 13-0365			10' Fence Height (32 31 13 13-0264)		
32 31 13 13-0366	EA		3' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	732.75	40.19
			For Gate With Single Barb Wire Arm, Add	67.33	
			For Gate With Double Barb Wire Arm, Add	97.93	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-114.77	
			For Aluminized Steel Gate And Post, Add	293.80	
			For Powder Coated Gate And Post, Add	159.14	
			For 1" Mesh Fabric, Add	266.25	
			For 1-1/4" Mesh Fabric, Add	171.38	
			For 1-3/4" Mesh Fabric, Add	106.50	
			For 2-1/8" Mesh Fabric, Deduct	-53.25	
32 31 13 13-0367	EA		4' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	936.78	40.19
			For Gate With Single Barb Wire Arm, Add	89.77	
			For Gate With Double Barb Wire Arm, Add	130.58	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-153.02	
			For Aluminized Steel Gate And Post, Add	391.73	
			For Powder Coated Gate And Post, Add	212.19	
			For 1" Mesh Fabric, Add	355.01	
			For 1-1/4" Mesh Fabric, Add	228.51	
			For 1-3/4" Mesh Fabric, Add	142.00	
			For 2-1/8" Mesh Fabric, Deduct	-71.00	
32 31 13 13-0368	EA		5' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	1,085.83	41.92
			For Gate With Single Barb Wire Arm, Add	105.58	
			For Gate With Double Barb Wire Arm, Add	153.58	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-179.97	
			For Aluminized Steel Gate And Post, Add	460.73	
			For Powder Coated Gate And Post, Add	249.56	
			For 1" Mesh Fabric, Add	417.54	
			For 1-1/4" Mesh Fabric, Add	268.76	
			For 1-3/4" Mesh Fabric, Add	167.02	
			For 2-1/8" Mesh Fabric, Deduct	-83.51	
32 31 13 13-0369	EA		6' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	1,259.99	52.13
			For Gate With Single Barb Wire Arm, Add	121.40	
			For Gate With Double Barb Wire Arm, Add	176.58	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-206.93	
			For Aluminized Steel Gate And Post, Add	529.73	
			For Powder Coated Gate And Post, Add	286.94	
			For 1" Mesh Fabric, Add	480.07	
			For 1-1/4" Mesh Fabric, Add	309.01	
			For 1-3/4" Mesh Fabric, Add	192.03	
			For 2-1/8" Mesh Fabric, Deduct	-96.01	
32 31 13 13-0370	EA		7' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	1,433.50	61.80
			For Gate With Single Barb Wire Arm, Add	137.21	
			For Gate With Double Barb Wire Arm, Add	199.57	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-233.87	
			For Aluminized Steel Gate And Post, Add	598.71	
			For Powder Coated Gate And Post, Add	324.30	
			For 1" Mesh Fabric, Add	542.58	
			For 1-1/4" Mesh Fabric, Add	349.25	
			For 1-3/4" Mesh Fabric, Add	217.03	
			For 2-1/8" Mesh Fabric, Deduct	-108.52	
32 31 13 13-0371	EA		8' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	1,607.18	72.01
			For Gate With Single Barb Wire Arm, Add	153.02	
			For Gate With Double Barb Wire Arm, Add	222.57	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-260.83	
			For Aluminized Steel Gate And Post, Add	667.71	
			For Powder Coated Gate And Post, Add	361.68	
			For 1" Mesh Fabric, Add	605.12	
			For 1-1/4" Mesh Fabric, Add	389.50	
			For 1-3/4" Mesh Fabric, Add	242.05	
			For 2-1/8" Mesh Fabric, Deduct	-121.02	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0372	EA	9' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire	1,780.26	81.78
			For Gate With Single Barb Wire Arm, Add	168.83	
			For Gate With Double Barb Wire Arm, Add	245.57	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-287.78	
			For Aluminized Steel Gate And Post, Add	736.71	
			For Powder Coated Gate And Post, Add	399.05	
			For 1" Mesh Fabric, Add	667.65	
			For 1-1/4" Mesh Fabric, Add	429.75	
			For 1-3/4" Mesh Fabric, Add	267.06	
			For 2-1/8" Mesh Fabric, Deduct	-133.53	
32 31 13	13-0373	EA	10' Wide x 10' High Single Gate Galvanized Steel Without Barbed Wire.....	1,954.43	91.88
			For Gate With Single Barb Wire Arm, Add	184.64	
			For Gate With Double Barb Wire Arm, Add	268.57	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-314.73	
			For Aluminized Steel Gate And Post, Add	805.71	
			For Powder Coated Gate And Post, Add	436.43	
			For 1" Mesh Fabric, Add	730.18	
			For 1-1/4" Mesh Fabric, Add	470.00	
			For 1-3/4" Mesh Fabric, Add	292.07	
			For 2-1/8" Mesh Fabric, Deduct	-146.04	
32 31 13	13-0374	EA	10' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	2,839.28	107.07
			For Gate With Single Barb Wire Arm, Add	276.96	
			For Gate With Double Barb Wire Arm, Add	402.85	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-472.10	
			For Aluminized Steel Gate And Post, Add	1,208.56	
			For Powder Coated Gate And Post, Add	654.64	
			For 1" Mesh Fabric, Add	1,095.26	
			For 1-1/4" Mesh Fabric, Add	705.00	
			For 1-3/4" Mesh Fabric, Add	438.10	
			For 2-1/8" Mesh Fabric, Deduct	-219.05	
32 31 13	13-0375	EA	12' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	3,087.75	115.18
			For Gate With Single Barb Wire Arm, Add	301.59	
			For Gate With Double Barb Wire Arm, Add	438.67	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-514.07	
			For Aluminized Steel Gate And Post, Add	1,316.02	
			For Powder Coated Gate And Post, Add	712.84	
			For 1" Mesh Fabric, Add	1,192.64	
			For 1-1/4" Mesh Fabric, Add	767.68	
			For 1-3/4" Mesh Fabric, Add	477.06	
			For 2-1/8" Mesh Fabric, Deduct	-238.53	
32 31 13	13-0376	EA	14' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	3,519.53	124.92
			For Gate With Single Barb Wire Arm, Add	345.90	
			For Gate With Double Barb Wire Arm, Add	503.12	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-589.60	
			For Aluminized Steel Gate And Post, Add	1,509.37	
			For Powder Coated Gate And Post, Add	817.58	
			For 1" Mesh Fabric, Add	1,367.87	
			For 1-1/4" Mesh Fabric, Add	880.47	
			For 1-3/4" Mesh Fabric, Add	547.15	
			For 2-1/8" Mesh Fabric, Deduct	-273.57	
32 31 13	13-0377	EA	16' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	4,001.07	136.18
			For Gate With Single Barb Wire Arm, Add	395.14	
			For Gate With Double Barb Wire Arm, Add	574.74	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-673.53	
			For Aluminized Steel Gate And Post, Add	1,724.23	
			For Powder Coated Gate And Post, Add	933.96	
			For 1" Mesh Fabric, Add	1,562.58	
			For 1-1/4" Mesh Fabric, Add	1,005.80	
			For 1-3/4" Mesh Fabric, Add	625.03	
			For 2-1/8" Mesh Fabric, Deduct	-312.52	
32 31 13	13-0378	EA	18' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	4,489.76	149.85
			For Gate With Single Barb Wire Arm, Add	444.37	
			For Gate With Double Barb Wire Arm, Add	646.36	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-757.46	
			For Aluminized Steel Gate And Post, Add	1,939.08	
			For Powder Coated Gate And Post, Add	1,050.34	
			For 1" Mesh Fabric, Add	1,757.30	
			For 1-1/4" Mesh Fabric, Add	1,131.13	
			For 1-3/4" Mesh Fabric, Add	702.92	
			For 2-1/8" Mesh Fabric, Deduct	-351.46	
32 31 13	13-0379	EA	20' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	4,989.94	166.43
			For Gate With Single Barb Wire Arm, Add	493.92	
			For Gate With Double Barb Wire Arm, Add	718.43	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-841.91	
			For Aluminized Steel Gate And Post, Add	2,155.29	
			For Powder Coated Gate And Post, Add	1,167.45	
			For 1" Mesh Fabric, Add	1,953.23	
			For 1-1/4" Mesh Fabric, Add	1,257.25	
			For 1-3/4" Mesh Fabric, Add	781.29	
			For 2-1/8" Mesh Fabric, Deduct	-390.65	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0380	EA	22' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	5,503.11	187.32
			For Gate With Single Barb Wire Arm, Add	543.47	
			For Gate With Double Barb Wire Arm, Add	790.50	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-926.36	
			For Aluminized Steel Gate And Post, Add	2,371.49	
			For Powder Coated Gate And Post, Add	1,284.56	
			For 1" Mesh Fabric, Add	2,149.16	
			For 1-1/4" Mesh Fabric, Add	1,383.37	
			For 1-3/4" Mesh Fabric, Add	859.66	
			For 2-1/8" Mesh Fabric, Deduct	-429.83	
32 31 13	13-0381	EA	24' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	6,030.68	218.90
			For Gate With Single Barb Wire Arm, Add	592.70	
			For Gate With Double Barb Wire Arm, Add	862.12	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,010.29	
			For Aluminized Steel Gate And Post, Add	2,586.35	
			For Powder Coated Gate And Post, Add	1,400.94	
			For 1" Mesh Fabric, Add	2,343.88	
			For 1-1/4" Mesh Fabric, Add	1,508.70	
			For 1-3/4" Mesh Fabric, Add	937.55	
			For 2-1/8" Mesh Fabric, Deduct	-468.78	
32 31 13	13-0382	EA	26' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	6,585.85	249.71
			For Gate With Single Barb Wire Arm, Add	641.94	
			For Gate With Double Barb Wire Arm, Add	933.73	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,094.22	
			For Aluminized Steel Gate And Post, Add	2,801.20	
			For Powder Coated Gate And Post, Add	1,517.32	
			For 1" Mesh Fabric, Add	2,538.59	
			For 1-1/4" Mesh Fabric, Add	1,634.04	
			For 1-3/4" Mesh Fabric, Add	1,015.44	
			For 2-1/8" Mesh Fabric, Deduct	-507.72	
32 31 13	13-0383	EA	28' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	7,182.67	299.45
			For Gate With Single Barb Wire Arm, Add	691.18	
			For Gate With Double Barb Wire Arm, Add	1,005.35	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,178.15	
			For Aluminized Steel Gate And Post, Add	3,016.06	
			For Powder Coated Gate And Post, Add	1,633.70	
			For 1" Mesh Fabric, Add	2,733.30	
			For 1-1/4" Mesh Fabric, Add	1,759.37	
			For 1-3/4" Mesh Fabric, Add	1,093.32	
			For 2-1/8" Mesh Fabric, Deduct	-546.66	
32 31 13	13-0384	EA	30' Wide x 10' High Double Gate Galvanized Steel Without Barbed Wire	7,861.69	374.63
			For Gate With Single Barb Wire Arm, Add	741.03	
			For Gate With Double Barb Wire Arm, Add	1,077.87	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-1,263.13	
			For Aluminized Steel Gate And Post, Add	3,233.60	
			For Powder Coated Gate And Post, Add	1,751.53	
			For 1" Mesh Fabric, Add	2,930.45	
			For 1-1/4" Mesh Fabric, Add	1,886.27	
			For 1-3/4" Mesh Fabric, Add	1,172.18	
			For 2-1/8" Mesh Fabric, Deduct	-586.09	
32 31 13	13-0385		12' Fence Height (32 31 13 13-0264)		
32 31 13	13-0386	EA	3' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	917.55	44.64
			For Gate With Single Barb Wire Arm, Add	86.18	
			For Gate With Double Barb Wire Arm, Add	125.36	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-146.90	
			For Aluminized Steel Gate And Post, Add	376.07	
			For Powder Coated Gate And Post, Add	203.70	
			For 1" Mesh Fabric, Add	340.81	
			For 1-1/4" Mesh Fabric, Add	219.37	
			For 1-3/4" Mesh Fabric, Add	136.32	
			For 2-1/8" Mesh Fabric, Deduct	-68.16	
32 31 13	13-0387	EA	4' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	1,178.69	44.64
			For Gate With Single Barb Wire Arm, Add	114.91	
			For Gate With Double Barb Wire Arm, Add	167.14	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-195.86	
			For Aluminized Steel Gate And Post, Add	501.41	
			For Powder Coated Gate And Post, Add	271.60	
			For 1" Mesh Fabric, Add	454.41	
			For 1-1/4" Mesh Fabric, Add	292.49	
			For 1-3/4" Mesh Fabric, Add	181.76	
			For 2-1/8" Mesh Fabric, Deduct	-90.88	
32 31 13	13-0388	EA	5' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	1,367.63	46.26
			For Gate With Single Barb Wire Arm, Add	135.15	
			For Gate With Double Barb Wire Arm, Add	196.58	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-230.37	
			For Aluminized Steel Gate And Post, Add	589.74	
			For Powder Coated Gate And Post, Add	319.44	
			For 1" Mesh Fabric, Add	534.45	
			For 1-1/4" Mesh Fabric, Add	344.01	
			For 1-3/4" Mesh Fabric, Add	213.78	
			For 2-1/8" Mesh Fabric, Deduct	-106.89	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0389	EA	6' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	1,585.29	57.46
			For Gate With Single Barb Wire Arm, Add	155.39	
			For Gate With Double Barb Wire Arm, Add	226.02	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-264.86	
			For Aluminized Steel Gate And Post, Add	678.05	
			For Powder Coated Gate And Post, Add	367.28	
			For 1" Mesh Fabric, Add	614.49	
			For 1-1/4" Mesh Fabric, Add	395.53	
			For 1-3/4" Mesh Fabric, Add	245.79	
			For 2-1/8" Mesh Fabric, Deduct	-122.90	
32 31 13	13-0390	EA	7' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	677.62	68.74
			For Gate With Single Barb Wire Arm, Add	51.84	
			For Gate With Double Barb Wire Arm, Add	75.40	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-88.36	
			For Aluminized Steel Gate And Post, Add	226.20	
			For Powder Coated Gate And Post, Add	122.53	
			For 1" Mesh Fabric, Add	205.00	
			For 1-1/4" Mesh Fabric, Add	131.95	
			For 1-3/4" Mesh Fabric, Add	82.00	
			For 2-1/8" Mesh Fabric, Deduct	-41.00	
32 31 13	13-0391	EA	8' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	764.51	79.60
			For Gate With Single Barb Wire Arm, Add	57.81	
			For Gate With Double Barb Wire Arm, Add	84.09	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-98.54	
			For Aluminized Steel Gate And Post, Add	252.27	
			For Powder Coated Gate And Post, Add	136.65	
			For 1" Mesh Fabric, Add	228.62	
			For 1-1/4" Mesh Fabric, Add	147.16	
			For 1-3/4" Mesh Fabric, Add	91.45	
			For 2-1/8" Mesh Fabric, Deduct	-45.72	
32 31 13	13-0392	EA	9' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	852.48	90.80
			For Gate With Single Barb Wire Arm, Add	63.79	
			For Gate With Double Barb Wire Arm, Add	92.78	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-108.73	
			For Aluminized Steel Gate And Post, Add	278.34	
			For Powder Coated Gate And Post, Add	150.77	
			For 1" Mesh Fabric, Add	252.25	
			For 1-1/4" Mesh Fabric, Add	162.37	
			For 1-3/4" Mesh Fabric, Add	100.90	
			For 2-1/8" Mesh Fabric, Deduct	-50.45	
32 31 13	13-0393	EA	10' Wide x 12' High Single Gate Galvanized Steel Without Barbed Wire	940.46	101.98
			For Gate With Single Barb Wire Arm, Add	69.76	
			For Gate With Double Barb Wire Arm, Add	101.47	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-118.91	
			For Aluminized Steel Gate And Post, Add	304.41	
			For Powder Coated Gate And Post, Add	164.89	
			For 1" Mesh Fabric, Add	275.87	
			For 1-1/4" Mesh Fabric, Add	177.57	
			For 1-3/4" Mesh Fabric, Add	110.35	
			For 2-1/8" Mesh Fabric, Deduct	-55.17	
32 31 13	13-0394	EA	10' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire	1,240.73	118.97
			For Gate With Single Barb Wire Arm, Add	97.19	
			For Gate With Double Barb Wire Arm, Add	141.37	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-165.67	
			For Aluminized Steel Gate And Post, Add	424.12	
			For Powder Coated Gate And Post, Add	229.73	
			For 1" Mesh Fabric, Add	384.36	
			For 1-1/4" Mesh Fabric, Add	247.40	
			For 1-3/4" Mesh Fabric, Add	153.74	
			For 2-1/8" Mesh Fabric, Deduct	-76.87	
32 31 13	13-0395	EA	12' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire	1,355.53	128.09
			For Gate With Single Barb Wire Arm, Add	106.82	
			For Gate With Double Barb Wire Arm, Add	155.38	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-182.09	
			For Aluminized Steel Gate And Post, Add	466.14	
			For Powder Coated Gate And Post, Add	252.49	
			For 1" Mesh Fabric, Add	422.44	
			For 1-1/4" Mesh Fabric, Add	271.91	
			For 1-3/4" Mesh Fabric, Add	168.97	
			For 2-1/8" Mesh Fabric, Deduct	-84.49	
32 31 13	13-0396	EA	14' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire	1,529.82	138.71
			For Gate With Single Barb Wire Arm, Add	122.45	
			For Gate With Double Barb Wire Arm, Add	178.10	
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-208.72	
			For Aluminized Steel Gate And Post, Add	534.31	
			For Powder Coated Gate And Post, Add	289.42	
			For 1" Mesh Fabric, Add	484.22	
			For 1-1/4" Mesh Fabric, Add	311.68	
			For 1-3/4" Mesh Fabric, Add	193.69	
			For 2-1/8" Mesh Fabric, Deduct	-96.84	



Exterior Improvements			32
Site Improvements			32 30
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MINOR		TOTAL DIRECT	DEMOLITION
CSI	UOM DESCRIPTION		
		UNIT COST	UNIT COST
32 31 13 13-0397	EA 16' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	1,726.15 139.89 203.47 -238.44 610.42 330.64 553.19 356.08 221.28 -110.64	151.25
32 31 13 13-0398	EA 18' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	5,345.24 533.00 775.28 -908.53 2,325.83 1,259.82 2,107.78 1,356.73 843.11 -421.56	166.56
32 31 13 13-0399	EA 20' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	5,943.33 592.70 862.12 -1,010.29 2,586.35 1,400.94 2,343.88 1,508.70 937.55 -468.78	184.91
32 31 13 13-0400	EA 22' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	6,550.37 651.79 948.06 -1,111.01 2,844.17 1,540.59 2,577.53 1,659.10 1,031.01 -515.51	208.08
32 31 13 13-0401	EA 24' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	7,181.94 711.49 1,034.90 -1,212.77 3,104.69 1,681.71 2,813.62 1,811.07 1,125.45 -562.72	237.69
32 31 13 13-0402	EA 26' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	7,832.99 769.96 1,119.94 -1,312.43 3,359.83 1,819.91 3,044.85 1,959.90 1,217.94 -608.97	277.56
32 31 13 13-0403	EA 28' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	8,535.92 829.05 1,205.89 -1,413.15 3,617.66 1,959.57 3,278.50 2,110.30 1,311.40 -655.70	332.74
32 31 13 13-0404	EA 30' Wide x 12' High Double Gate Galvanized Steel Without Barbed Wire For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add For 1-5/8" Schedule 40 Pipe Frame, Deduct For Aluminized Steel Gate And Post, Add For Powder Coated Gate And Post, Add For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct	9,329.55 888.75 1,292.72 -1,514.91 3,878.17 2,100.68 3,514.60 2,262.27 1,405.84 -702.92	416.27

32 31 13 13-0405 Vinyl Coated Without Barb Wire Arm (32 31 13 13-0263)

Note: Industrial swing gate. Includes posts (3" diameter posts for up to 6' wide gate, 4" diameter to 13' wide, 6-5/8" diameter for 18' wide, 8-5/8" diameter for over 18' wide), 2" diameter schedule pipe frame, offset hinges, cap and hardware (drop rod, center locking device, gate keeper, catch bolt and tension bands). Fabric: galvanized chain link 2" mesh # 9 gauge, galvanized 1.2 ounce coating.

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 13 13-0406	4' Fence Height (32 31 13 13-0405)		
32 31 13 13-0407	EA 3' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	191.67	27.16
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-20.66	
	For 1" Mesh Fabric, Add	47.94	
	For 1-1/4" Mesh Fabric, Add	30.86	
	For 1-3/4" Mesh Fabric, Add	19.18	
	For 2-1/8" Mesh Fabric, Deduct	-9.59	
	For Gate With Single Barb Wire Arm, Add	12.12	
	For Gate With Double Barb Wire Arm, Add	17.63	
32 31 13 13-0408	EA 4' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	228.40	27.16
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-27.55	
	For 1" Mesh Fabric, Add	63.92	
	For 1-1/4" Mesh Fabric, Add	41.14	
	For 1-3/4" Mesh Fabric, Add	25.57	
	For 2-1/8" Mesh Fabric, Deduct	-12.78	
	For Gate With Single Barb Wire Arm, Add	16.16	
	For Gate With Double Barb Wire Arm, Add	23.51	
32 31 13 13-0409	EA 5' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	264.44	28.89
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-33.29	
	For 1" Mesh Fabric, Add	77.24	
	For 1-1/4" Mesh Fabric, Add	49.72	
	For 1-3/4" Mesh Fabric, Add	30.90	
	For 2-1/8" Mesh Fabric, Deduct	-15.45	
	For Gate With Single Barb Wire Arm, Add	19.53	
	For Gate With Double Barb Wire Arm, Add	28.41	
32 31 13 13-0410	EA 6' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	312.43	34.75
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-39.03	
	For 1" Mesh Fabric, Add	90.55	
	For 1-1/4" Mesh Fabric, Add	58.29	
	For 1-3/4" Mesh Fabric, Add	36.22	
	For 2-1/8" Mesh Fabric, Deduct	-18.11	
	For Gate With Single Barb Wire Arm, Add	22.90	
	For Gate With Double Barb Wire Arm, Add	33.31	
32 31 13 13-0411	EA 7' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	360.40	40.51
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-44.77	
	For 1" Mesh Fabric, Add	103.86	
	For 1-1/4" Mesh Fabric, Add	66.86	
	For 1-3/4" Mesh Fabric, Add	41.55	
	For 2-1/8" Mesh Fabric, Deduct	-20.77	
	For Gate With Single Barb Wire Arm, Add	26.26	
	For Gate With Double Barb Wire Arm, Add	38.20	
32 31 13 13-0412	EA 8' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	408.41	46.26
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-50.51	
	For 1" Mesh Fabric, Add	117.19	
	For 1-1/4" Mesh Fabric, Add	75.43	
	For 1-3/4" Mesh Fabric, Add	46.88	
	For 2-1/8" Mesh Fabric, Deduct	-23.44	
	For Gate With Single Barb Wire Arm, Add	29.63	
	For Gate With Double Barb Wire Arm, Add	43.10	
32 31 13 13-0413	EA 9' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	456.41	52.13
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-56.25	
	For 1" Mesh Fabric, Add	130.50	
	For 1-1/4" Mesh Fabric, Add	84.00	
	For 1-3/4" Mesh Fabric, Add	52.20	
	For 2-1/8" Mesh Fabric, Deduct	-26.10	
	For Gate With Single Barb Wire Arm, Add	33.00	
	For Gate With Double Barb Wire Arm, Add	48.00	
32 31 13 13-0414	EA 10' Wide x 4' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	504.38	57.88
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-61.99	
	For 1" Mesh Fabric, Add	143.82	
	For 1-1/4" Mesh Fabric, Add	92.57	
	For 1-3/4" Mesh Fabric, Add	57.53	
	For 2-1/8" Mesh Fabric, Deduct	-28.76	
	For Gate With Single Barb Wire Arm, Add	36.37	
	For Gate With Double Barb Wire Arm, Add	52.90	
32 31 13 13-0415	EA 10' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	614.59	57.88
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-82.65	
	For 1" Mesh Fabric, Add	191.76	
	For 1-1/4" Mesh Fabric, Add	123.43	
	For 1-3/4" Mesh Fabric, Add	76.70	
	For 2-1/8" Mesh Fabric, Deduct	-38.35	
	For Gate With Single Barb Wire Arm, Add	48.49	
	For Gate With Double Barb Wire Arm, Add	70.53	
32 31 13 13-0416	EA 12' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	715.17	62.01
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-99.19	
	For 1" Mesh Fabric, Add	230.11	
	For 1-1/4" Mesh Fabric, Add	148.12	
	For 1-3/4" Mesh Fabric, Add	92.04	
	For 2-1/8" Mesh Fabric, Deduct	-46.02	
	For Gate With Single Barb Wire Arm, Add	58.19	
	For Gate With Double Barb Wire Arm, Add	84.64	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0417	EA	14' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	817.65 -115.72 268.46 172.80 107.38 -53.69 67.89 98.74	66.79
32 31 13	13-0418	EA	16' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	922.53 -132.25 306.81 197.49 122.73 -61.36 77.59 112.85	72.33
32 31 13	13-0419	EA	18' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,063.48 -148.78 345.16 222.17 138.07 -69.03 87.28 126.96	89.86
32 31 13	13-0420	EA	20' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,170.93 -165.31 383.51 246.86 153.41 -76.70 96.98 141.06	96.31
32 31 13	13-0421	EA	22' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,281.35 -181.84 421.87 271.55 168.75 -84.37 106.68 155.17	103.78
32 31 13	13-0422	EA	24' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,395.47 -198.37 460.22 296.23 184.09 -92.04 116.38 169.28	112.39
32 31 13	13-0423	EA	26' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,514.32 -214.90 498.57 320.92 199.43 -99.71 126.08 183.38	122.64
32 31 13	13-0424	EA	28' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,639.30 -231.43 536.92 345.60 214.77 -107.38 135.77 197.49	134.92
32 31 13	13-0425	EA	30' Wide x 4' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,772.47 -247.96 575.27 370.29 230.11 -115.05 145.47 211.60	149.85
32 31 13	13-0426		5' Fence Height (32 31 13 13-0405)		
32 31 13	13-0427	EA	3' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	223.44 -25.61 59.40 38.24 23.76 -11.88 15.02 21.85	28.89

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 13 13-0428	EA	4' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	268.96	28.89
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-34.14	
		For 1" Mesh Fabric, Add	79.20	
		For 1-1/4" Mesh Fabric, Add	50.98	
		For 1-3/4" Mesh Fabric, Add	31.68	
		For 2-1/8" Mesh Fabric, Deduct	-15.84	
		For Gate With Single Barb Wire Arm, Add	20.03	
		For Gate With Double Barb Wire Arm, Add	29.13	
32 31 13 13-0429	EA	5' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	308.55	30.74
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-40.54	
		For 1" Mesh Fabric, Add	94.06	
		For 1-1/4" Mesh Fabric, Add	60.54	
		For 1-3/4" Mesh Fabric, Add	37.62	
		For 2-1/8" Mesh Fabric, Deduct	-18.81	
		For Gate With Single Barb Wire Arm, Add	23.79	
		For Gate With Double Barb Wire Arm, Add	34.60	
32 31 13 13-0430	EA	6' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	361.13	36.92
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-46.94	
		For 1" Mesh Fabric, Add	108.91	
		For 1-1/4" Mesh Fabric, Add	70.10	
		For 1-3/4" Mesh Fabric, Add	43.56	
		For 2-1/8" Mesh Fabric, Deduct	-21.78	
		For Gate With Single Barb Wire Arm, Add	27.54	
		For Gate With Double Barb Wire Arm, Add	40.06	
32 31 13 13-0431	EA	7' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	413.75	43.01
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-53.35	
		For 1" Mesh Fabric, Add	123.76	
		For 1-1/4" Mesh Fabric, Add	79.66	
		For 1-3/4" Mesh Fabric, Add	49.50	
		For 2-1/8" Mesh Fabric, Deduct	-24.75	
		For Gate With Single Barb Wire Arm, Add	31.30	
		For Gate With Double Barb Wire Arm, Add	45.52	
32 31 13 13-0432	EA	8' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	467.43	49.53
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-59.75	
		For 1" Mesh Fabric, Add	138.61	
		For 1-1/4" Mesh Fabric, Add	89.22	
		For 1-3/4" Mesh Fabric, Add	55.44	
		For 2-1/8" Mesh Fabric, Deduct	-27.72	
		For Gate With Single Barb Wire Arm, Add	35.05	
		For Gate With Double Barb Wire Arm, Add	50.98	
32 31 13 13-0433	EA	9' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	520.04	55.71
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-66.15	
		For 1" Mesh Fabric, Add	153.46	
		For 1-1/4" Mesh Fabric, Add	98.78	
		For 1-3/4" Mesh Fabric, Add	61.39	
		For 2-1/8" Mesh Fabric, Deduct	-30.69	
		For Gate With Single Barb Wire Arm, Add	38.81	
		For Gate With Double Barb Wire Arm, Add	56.45	
32 31 13 13-0434	EA	10' Wide x 5' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	572.63	61.80
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-72.55	
		For 1" Mesh Fabric, Add	168.31	
		For 1-1/4" Mesh Fabric, Add	108.34	
		For 1-3/4" Mesh Fabric, Add	67.32	
		For 2-1/8" Mesh Fabric, Deduct	-33.66	
		For Gate With Single Barb Wire Arm, Add	42.56	
		For Gate With Double Barb Wire Arm, Add	61.91	
32 31 13 13-0435	EA	10' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	732.42	62.01
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-102.42	
		For 1" Mesh Fabric, Add	237.61	
		For 1-1/4" Mesh Fabric, Add	152.95	
		For 1-3/4" Mesh Fabric, Add	95.05	
		For 2-1/8" Mesh Fabric, Deduct	-47.52	
		For Gate With Single Barb Wire Arm, Add	60.09	
		For Gate With Double Barb Wire Arm, Add	87.40	
32 31 13 13-0436	EA	12' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	855.99	66.79
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-122.90	
		For 1" Mesh Fabric, Add	285.14	
		For 1-1/4" Mesh Fabric, Add	183.54	
		For 1-3/4" Mesh Fabric, Add	114.06	
		For 2-1/8" Mesh Fabric, Deduct	-57.03	
		For Gate With Single Barb Wire Arm, Add	72.10	
		For Gate With Double Barb Wire Arm, Add	104.88	
32 31 13 13-0437	EA	14' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	981.94	72.33
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-143.39	
		For 1" Mesh Fabric, Add	332.66	
		For 1-1/4" Mesh Fabric, Add	214.12	
		For 1-3/4" Mesh Fabric, Add	133.06	
		For 2-1/8" Mesh Fabric, Deduct	-66.53	
		For Gate With Single Barb Wire Arm, Add	84.12	
		For Gate With Double Barb Wire Arm, Add	122.36	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13 13-0438	EA	16' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,143.98	89.86
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-163.87	
		For 1" Mesh Fabric, Add	380.18	
		For 1-1/4" Mesh Fabric, Add	244.71	
		For 1-3/4" Mesh Fabric, Add	152.07	
		For 2-1/8" Mesh Fabric, Deduct	-76.04	
		For Gate With Single Barb Wire Arm, Add	96.14	
		For Gate With Double Barb Wire Arm, Add	139.84	
32 31 13 13-0439	EA	18 Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,272.52	96.31
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-184.36	
		For 1" Mesh Fabric, Add	427.71	
		For 1-1/4" Mesh Fabric, Add	275.30	
		For 1-3/4" Mesh Fabric, Add	171.08	
		For 2-1/8" Mesh Fabric, Deduct	-85.54	
		For Gate With Single Barb Wire Arm, Add	108.16	
		For Gate With Double Barb Wire Arm, Add	157.32	
32 31 13 13-0440	EA	20' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,404.02	103.78
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-204.84	
		For 1" Mesh Fabric, Add	475.23	
		For 1-1/4" Mesh Fabric, Add	305.89	
		For 1-3/4" Mesh Fabric, Add	190.09	
		For 2-1/8" Mesh Fabric, Deduct	-95.05	
		For Gate With Single Barb Wire Arm, Add	120.17	
		For Gate With Double Barb Wire Arm, Add	174.80	
32 31 13 13-0441	EA	22' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,539.22	112.39
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-225.32	
		For 1" Mesh Fabric, Add	522.75	
		For 1-1/4" Mesh Fabric, Add	336.48	
		For 1-3/4" Mesh Fabric, Add	209.10	
		For 2-1/8" Mesh Fabric, Deduct	-104.55	
		For Gate With Single Barb Wire Arm, Add	132.19	
		For Gate With Double Barb Wire Arm, Add	192.28	
32 31 13 13-0442	EA	24' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,679.15	122.64
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-245.81	
		For 1" Mesh Fabric, Add	570.27	
		For 1-1/4" Mesh Fabric, Add	367.07	
		For 1-3/4" Mesh Fabric, Add	228.11	
		For 2-1/8" Mesh Fabric, Deduct	-114.05	
		For Gate With Single Barb Wire Arm, Add	144.21	
		For Gate With Double Barb Wire Arm, Add	209.76	
32 31 13 13-0443	EA	26' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,825.22	134.92
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-266.29	
		For 1" Mesh Fabric, Add	617.80	
		For 1-1/4" Mesh Fabric, Add	397.66	
		For 1-3/4" Mesh Fabric, Add	247.12	
		For 2-1/8" Mesh Fabric, Deduct	-123.56	
		For Gate With Single Barb Wire Arm, Add	156.22	
		For Gate With Double Barb Wire Arm, Add	227.24	
32 31 13 13-0444	EA	28' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,979.47	149.85
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-286.78	
		For 1" Mesh Fabric, Add	665.32	
		For 1-1/4" Mesh Fabric, Add	428.25	
		For 1-3/4" Mesh Fabric, Add	266.13	
		For 2-1/8" Mesh Fabric, Deduct	-133.06	
		For Gate With Single Barb Wire Arm, Add	168.24	
		For Gate With Double Barb Wire Arm, Add	244.72	
32 31 13 13-0445	EA	30' Wide x 5' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,144.98	168.58
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-307.26	
		For 1" Mesh Fabric, Add	712.84	
		For 1-1/4" Mesh Fabric, Add	458.84	
		For 1-3/4" Mesh Fabric, Add	285.14	
		For 2-1/8" Mesh Fabric, Deduct	-142.57	
		For Gate With Single Barb Wire Arm, Add	180.26	
		For Gate With Double Barb Wire Arm, Add	262.20	
32 31 13 13-0446		6' Fence Height (32 31 13 13-0405)		
32 31 13 13-0447	EA	3' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm	239.03	30.95
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-27.36	
		For 1" Mesh Fabric, Add	63.48	
		For 1-1/4" Mesh Fabric, Add	40.86	
		For 1-3/4" Mesh Fabric, Add	25.39	
		For 2-1/8" Mesh Fabric, Deduct	-12.70	
		For Gate With Single Barb Wire Arm, Add	16.05	
		For Gate With Double Barb Wire Arm, Add	23.35	
32 31 13 13-0448	EA	4' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm	287.68	30.95
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-36.49	
		For 1" Mesh Fabric, Add	84.65	
		For 1-1/4" Mesh Fabric, Add	54.49	
		For 1-3/4" Mesh Fabric, Add	33.86	
		For 2-1/8" Mesh Fabric, Deduct	-16.93	
		For Gate With Single Barb Wire Arm, Add	21.40	
		For Gate With Double Barb Wire Arm, Add	31.13	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0449	EA	5' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	329.91	32.91
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-43.33	
		For 1" Mesh Fabric, Add	100.52	
		For 1-1/4" Mesh Fabric, Add	64.70	
		For 1-3/4" Mesh Fabric, Add	40.21	
		For 2-1/8" Mesh Fabric, Deduct	-20.10	
		For Gate With Single Barb Wire Arm, Add	25.42	
		For Gate With Double Barb Wire Arm, Add	36.97	
32 31 13 13-0450	EA	6' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	387.03	39.75
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-50.17	
		For 1" Mesh Fabric, Add	116.39	
		For 1-1/4" Mesh Fabric, Add	74.92	
		For 1-3/4" Mesh Fabric, Add	46.56	
		For 2-1/8" Mesh Fabric, Deduct	-23.28	
		For Gate With Single Barb Wire Arm, Add	29.43	
		For Gate With Double Barb Wire Arm, Add	42.81	
32 31 13 13-0451	EA	7' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	444.15	46.70
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-57.01	
		For 1" Mesh Fabric, Add	132.26	
		For 1-1/4" Mesh Fabric, Add	85.13	
		For 1-3/4" Mesh Fabric, Add	52.90	
		For 2-1/8" Mesh Fabric, Deduct	-26.45	
		For Gate With Single Barb Wire Arm, Add	33.45	
		For Gate With Double Barb Wire Arm, Add	48.65	
32 31 13 13-0452	EA	8' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	500.18	53.22
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-63.85	
		For 1" Mesh Fabric, Add	148.13	
		For 1-1/4" Mesh Fabric, Add	95.35	
		For 1-3/4" Mesh Fabric, Add	59.25	
		For 2-1/8" Mesh Fabric, Deduct	-29.63	
		For Gate With Single Barb Wire Arm, Add	37.46	
		For Gate With Double Barb Wire Arm, Add	54.49	
32 31 13 13-0453	EA	9' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	557.31	60.06
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-70.69	
		For 1" Mesh Fabric, Add	164.00	
		For 1-1/4" Mesh Fabric, Add	105.57	
		For 1-3/4" Mesh Fabric, Add	65.60	
		For 2-1/8" Mesh Fabric, Deduct	-32.80	
		For Gate With Single Barb Wire Arm, Add	41.47	
		For Gate With Double Barb Wire Arm, Add	60.32	
32 31 13 13-0454	EA	10' Wide x 6' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	614.43	66.90
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-77.53	
		For 1" Mesh Fabric, Add	179.88	
		For 1-1/4" Mesh Fabric, Add	115.78	
		For 1-3/4" Mesh Fabric, Add	71.95	
		For 2-1/8" Mesh Fabric, Deduct	-35.98	
		For Gate With Single Barb Wire Arm, Add	45.49	
		For Gate With Double Barb Wire Arm, Add	66.16	
32 31 13 13-0455	EA	10' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	784.27	66.79
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-109.46	
		For 1" Mesh Fabric, Add	253.94	
		For 1-1/4" Mesh Fabric, Add	163.46	
		For 1-3/4" Mesh Fabric, Add	101.58	
		For 2-1/8" Mesh Fabric, Deduct	-50.79	
		For Gate With Single Barb Wire Arm, Add	64.21	
		For Gate With Double Barb Wire Arm, Add	93.40	
32 31 13 13-0456	EA	12' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	917.74	72.33
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-131.35	
		For 1" Mesh Fabric, Add	304.73	
		For 1-1/4" Mesh Fabric, Add	196.15	
		For 1-3/4" Mesh Fabric, Add	121.89	
		For 2-1/8" Mesh Fabric, Deduct	-60.95	
		For Gate With Single Barb Wire Arm, Add	77.06	
		For Gate With Double Barb Wire Arm, Add	112.08	
32 31 13 13-0457	EA	14' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,106.57	96.31
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-153.24	
		For 1" Mesh Fabric, Add	355.52	
		For 1-1/4" Mesh Fabric, Add	228.84	
		For 1-3/4" Mesh Fabric, Add	142.21	
		For 2-1/8" Mesh Fabric, Deduct	-71.10	
		For Gate With Single Barb Wire Arm, Add	89.90	
		For Gate With Double Barb Wire Arm, Add	130.76	
32 31 13 13-0458	EA	16' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,245.58	103.78
		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-175.13	
		For 1" Mesh Fabric, Add	406.31	
		For 1-1/4" Mesh Fabric, Add	261.53	
		For 1-3/4" Mesh Fabric, Add	162.52	
		For 2-1/8" Mesh Fabric, Deduct	-81.26	
		For Gate With Single Barb Wire Arm, Add	102.74	
		For Gate With Double Barb Wire Arm, Add	149.45	



Exterior Improvements			32	32
Site Improvements			32 30	
Fences and Gates			32 31	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 31 13 13-0459	EA	18' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,388.29 -197.02 457.09 294.22 182.84 -91.42 115.59 168.13	112.39
32 31 13 13-0460	EA	20' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,557.30 -222.96 517.27 332.95 206.91 -103.45 130.80 190.26	122.64
32 31 13 13-0461	EA	22' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,693.22 -241.54 560.38 360.70 224.15 -112.08 141.70 206.12	134.92
32 31 13 13-0462	EA	24' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,851.06 -262.70 609.46 392.30 243.78 -121.89 154.12 224.17	149.85
32 31 13 13-0463	EA	26' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,024.07 -284.59 660.25 424.99 264.10 -132.05 166.96 242.85	168.58
32 31 13 13-0464	EA	28' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,213.15 -306.48 711.04 457.68 284.42 -142.21 179.80 261.53	192.63
32 31 13 13-0465	EA	30' Wide x 6' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,426.33 -328.37 761.82 490.37 304.73 -152.36 192.65 280.21	224.78
32 31 13 13-0466		7' Fence Height (32 31 13 13-0405)		
32 31 13 13-0467	EA	3' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	253.54 -28.74 66.68 42.92 26.67 -13.34 16.86 24.53	33.34
32 31 13 13-0468	EA	4' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	304.64 -38.32 88.91 57.23 35.56 -17.78 22.48 32.70	33.34
32 31 13 13-0469	EA	5' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	348.07 -45.51 105.58 67.96 42.23 -21.12 26.70 38.84	35.08

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 13 13-0470	EA 6' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	409.19	42.68
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-52.70	
	For 1" Mesh Fabric, Add	122.25	
	For 1-1/4" Mesh Fabric, Add	78.69	
	For 1-3/4" Mesh Fabric, Add	48.90	
	For 2-1/8" Mesh Fabric, Deduct	-24.45	
	For Gate With Single Barb Wire Arm, Add	30.91	
	For Gate With Double Barb Wire Arm, Add	44.97	
32 31 13 13-0471	EA 7' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	469.23	49.96
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-59.88	
	For 1" Mesh Fabric, Add	138.93	
	For 1-1/4" Mesh Fabric, Add	89.42	
	For 1-3/4" Mesh Fabric, Add	55.57	
	For 2-1/8" Mesh Fabric, Deduct	-27.79	
	For Gate With Single Barb Wire Arm, Add	35.13	
	For Gate With Double Barb Wire Arm, Add	51.10	
32 31 13 13-0472	EA 8' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	530.38	57.46
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-67.07	
	For 1" Mesh Fabric, Add	155.60	
	For 1-1/4" Mesh Fabric, Add	100.16	
	For 1-3/4" Mesh Fabric, Add	62.24	
	For 2-1/8" Mesh Fabric, Deduct	-31.12	
	For Gate With Single Barb Wire Arm, Add	39.35	
	For Gate With Double Barb Wire Arm, Add	57.23	
32 31 13 13-0473	EA 9' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	590.42	64.73
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-74.25	
	For 1" Mesh Fabric, Add	172.27	
	For 1-1/4" Mesh Fabric, Add	110.89	
	For 1-3/4" Mesh Fabric, Add	68.91	
	For 2-1/8" Mesh Fabric, Deduct	-34.45	
	For Gate With Single Barb Wire Arm, Add	43.56	
	For Gate With Double Barb Wire Arm, Add	63.36	
32 31 13 13-0474	EA 10' Wide x 7' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	651.56	72.33
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-81.44	
	For 1" Mesh Fabric, Add	188.94	
	For 1-1/4" Mesh Fabric, Add	121.62	
	For 1-3/4" Mesh Fabric, Add	75.58	
	For 2-1/8" Mesh Fabric, Deduct	-37.79	
	For Gate With Single Barb Wire Arm, Add	47.78	
	For Gate With Double Barb Wire Arm, Add	69.50	
32 31 13 13-0475	EA 10' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	830.39	72.33
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-114.97	
	For 1" Mesh Fabric, Add	266.73	
	For 1-1/4" Mesh Fabric, Add	171.69	
	For 1-3/4" Mesh Fabric, Add	106.69	
	For 2-1/8" Mesh Fabric, Deduct	-53.35	
	For Gate With Single Barb Wire Arm, Add	67.45	
	For Gate With Double Barb Wire Arm, Add	98.11	
32 31 13 13-0476	EA 12' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,025.09	96.31
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-137.96	
	For 1" Mesh Fabric, Add	320.07	
	For 1-1/4" Mesh Fabric, Add	206.02	
	For 1-3/4" Mesh Fabric, Add	128.03	
	For 2-1/8" Mesh Fabric, Deduct	-64.01	
	For Gate With Single Barb Wire Arm, Add	80.94	
	For Gate With Double Barb Wire Arm, Add	117.73	
32 31 13 13-0477	EA 14' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,169.99	103.78
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-160.96	
	For 1" Mesh Fabric, Add	373.43	
	For 1-1/4" Mesh Fabric, Add	240.37	
	For 1-3/4" Mesh Fabric, Add	149.37	
	For 2-1/8" Mesh Fabric, Deduct	-74.69	
	For Gate With Single Barb Wire Arm, Add	94.43	
	For Gate With Double Barb Wire Arm, Add	137.35	
32 31 13 13-0478	EA 16' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,318.57	112.39
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-183.95	
	For 1" Mesh Fabric, Add	426.77	
	For 1-1/4" Mesh Fabric, Add	274.70	
	For 1-3/4" Mesh Fabric, Add	170.71	
	For 2-1/8" Mesh Fabric, Deduct	-85.35	
	For Gate With Single Barb Wire Arm, Add	107.92	
	For Gate With Double Barb Wire Arm, Add	156.97	
32 31 13 13-0479	EA 18' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,471.90	122.64
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-206.95	
	For 1" Mesh Fabric, Add	480.12	
	For 1-1/4" Mesh Fabric, Add	309.04	
	For 1-3/4" Mesh Fabric, Add	192.05	
	For 2-1/8" Mesh Fabric, Deduct	-96.02	
	For Gate With Single Barb Wire Arm, Add	121.41	
	For Gate With Double Barb Wire Arm, Add	176.60	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0480	EA	20' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,631.34 -229.94 533.46 343.38 213.38 -106.69 134.90 196.21	134.92
32 31 13	13-0481	EA	22' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,798.95 -252.93 586.79 377.71 234.72 -117.36 148.38 215.83	149.85
32 31 13	13-0482	EA	24' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	1,977.86 -275.93 640.15 412.05 256.06 -128.03 161.88 235.46	168.58
32 31 13	13-0483	EA	26' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,172.83 -298.92 693.50 446.39 277.40 -138.70 175.37 255.08	192.63
32 31 13	13-0484	EA	28' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,391.88 -321.91 746.84 480.72 298.74 -149.37 188.86 274.70	224.78
32 31 13	13-0485	EA	30' Wide x 7' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,649.54 -344.91 800.19 515.07 320.08 -160.04 202.35 294.32	269.71
32 31 13	13-0486		8' Fence Height (32 31 13 13-0405)		
32 31 13	13-0487	EA	3' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	294.40 -34.84 80.82 52.02 32.33 -16.16 20.44 29.73	36.16
32 31 13	13-0488	EA	4' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	356.33 -46.45 107.76 69.36 43.11 -21.55 27.25 39.64	36.16
32 31 13	13-0489	EA	5' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	397.62 -54.19 125.72 80.93 50.29 -25.14 31.79 46.24	36.16
32 31 13	13-0490	EA	6' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	467.14 -61.93 143.68 92.49 57.47 -28.74 36.33 52.85	45.61

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0491	EA	7' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	536.68	54.95
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-69.68	
			For 1" Mesh Fabric, Add	161.65	
			For 1-1/4" Mesh Fabric, Add	104.05	
			For 1-3/4" Mesh Fabric, Add	64.66	
			For 2-1/8" Mesh Fabric, Deduct	-32.33	
			For Gate With Single Barb Wire Arm, Add	40.88	
			For Gate With Double Barb Wire Arm, Add	59.46	
32 31 13	13-0492	EA	8' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	605.12	63.97
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-77.42	
			For 1" Mesh Fabric, Add	179.61	
			For 1-1/4" Mesh Fabric, Add	115.61	
			For 1-3/4" Mesh Fabric, Add	71.84	
			For 2-1/8" Mesh Fabric, Deduct	-35.92	
			For Gate With Single Barb Wire Arm, Add	45.42	
			For Gate With Double Barb Wire Arm, Add	66.06	
32 31 13	13-0493	EA	9' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	674.65	73.42
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-85.16	
			For 1" Mesh Fabric, Add	197.57	
			For 1-1/4" Mesh Fabric, Add	127.17	
			For 1-3/4" Mesh Fabric, Add	79.03	
			For 2-1/8" Mesh Fabric, Deduct	-39.51	
			For Gate With Single Barb Wire Arm, Add	49.96	
			For Gate With Double Barb Wire Arm, Add	72.67	
32 31 13	13-0494	EA	10' Wide x 8' High Single Gate Vinyl Coated Without Barbed Wire Arm.....	744.16	82.87
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-92.90	
			For 1" Mesh Fabric, Add	215.53	
			For 1-1/4" Mesh Fabric, Add	138.73	
			For 1-3/4" Mesh Fabric, Add	86.21	
			For 2-1/8" Mesh Fabric, Deduct	-43.11	
			For Gate With Single Barb Wire Arm, Add	54.50	
			For Gate With Double Barb Wire Arm, Add	79.28	
32 31 13	13-0495	EA	10' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,032.48	96.31
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-139.35	
			For 1" Mesh Fabric, Add	323.29	
			For 1-1/4" Mesh Fabric, Add	208.09	
			For 1-3/4" Mesh Fabric, Add	129.32	
			For 2-1/8" Mesh Fabric, Deduct	-64.66	
			For Gate With Single Barb Wire Arm, Add	81.75	
			For Gate With Double Barb Wire Arm, Add	118.91	
32 31 13	13-0496	EA	12' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,203.37	103.78
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-167.22	
			For 1" Mesh Fabric, Add	387.95	
			For 1-1/4" Mesh Fabric, Add	249.71	
			For 1-3/4" Mesh Fabric, Add	155.18	
			For 2-1/8" Mesh Fabric, Deduct	-77.59	
			For Gate With Single Barb Wire Arm, Add	98.10	
			For Gate With Double Barb Wire Arm, Add	142.69	
32 31 13	13-0497	EA	14' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,377.97	112.39
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-195.09	
			For 1" Mesh Fabric, Add	452.60	
			For 1-1/4" Mesh Fabric, Add	291.33	
			For 1-3/4" Mesh Fabric, Add	181.04	
			For 2-1/8" Mesh Fabric, Deduct	-90.52	
			For Gate With Single Barb Wire Arm, Add	114.45	
			For Gate With Double Barb Wire Arm, Add	166.48	
32 31 13	13-0498	EA	16' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,557.29	122.64
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-222.96	
			For 1" Mesh Fabric, Add	517.26	
			For 1-1/4" Mesh Fabric, Add	332.95	
			For 1-3/4" Mesh Fabric, Add	206.91	
			For 2-1/8" Mesh Fabric, Deduct	-103.45	
			For Gate With Single Barb Wire Arm, Add	130.80	
			For Gate With Double Barb Wire Arm, Add	190.26	
32 31 13	13-0499	EA	18' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,742.75	134.92
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-250.83	
			For 1" Mesh Fabric, Add	581.92	
			For 1-1/4" Mesh Fabric, Add	374.57	
			For 1-3/4" Mesh Fabric, Add	232.77	
			For 2-1/8" Mesh Fabric, Deduct	-116.38	
			For Gate With Single Barb Wire Arm, Add	147.15	
			For Gate With Double Barb Wire Arm, Add	214.04	
32 31 13	13-0500	EA	20' Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm.....	1,936.39	149.85
			For 1-5/8" Schedule 40 Pipe Frame, Deduct	-278.70	
			For 1" Mesh Fabric, Add	646.58	
			For 1-1/4" Mesh Fabric, Add	416.19	
			For 1-3/4" Mesh Fabric, Add	258.63	
			For 2-1/8" Mesh Fabric, Deduct	-129.32	
			For Gate With Single Barb Wire Arm, Add	163.50	
			For Gate With Double Barb Wire Arm, Add	237.82	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0501	EA	22'	Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,141.28 -306.57 711.23 457.81 284.49 -142.25 179.85 261.60	168.58
32 31 13 13-0502	EA	24'	Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,362.24 -334.44 775.89 499.42 310.36 -155.18 196.20 285.39	192.63
32 31 13 13-0503	EA	26'	Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,607.31 -362.31 840.55 541.04 336.22 -168.11 212.55 309.17	224.78
32 31 13 13-0504	EA	28'	Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,890.96 -390.18 905.21 582.66 362.08 -181.04 228.90 332.95	269.71
32 31 13 13-0505	EA	30'	Wide x 8' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	3,242.10 -418.05 969.87 624.28 387.95 -193.97 245.25 356.73	337.17
32 31 13 13-0506			10' Fence Height (32 31 13 13-0405)		
32 31 13 13-0507	EA	3'	Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	336.20 -40.41 93.76 60.35 37.50 -18.75 23.71 34.48	40.19
32 31 13 13-0508	EA	4'	Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	408.05 -53.88 125.01 80.47 50.00 -25.00 31.61 45.98	40.19
32 31 13 13-0509	EA	5'	Wide x 10' High Gate Single Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	461.25 -62.87 145.85 93.88 58.34 -29.17 36.88 53.64	41.92
32 31 13 13-0510	EA	6'	Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	539.56 -71.85 166.68 107.29 66.67 -33.34 42.15 61.31	52.13
32 31 13 13-0511	EA	7'	Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	616.78 -80.83 187.52 120.70 75.01 -37.50 47.42 68.97	61.80

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32 31 13 13-0512	EA 8' Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm	695.09	72.01
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-89.81	
	For 1" Mesh Fabric, Add	208.36	
	For 1-1/4" Mesh Fabric, Add	134.11	
	For 1-3/4" Mesh Fabric, Add	83.34	
	For 2-1/8" Mesh Fabric, Deduct	-41.67	
	For Gate With Single Barb Wire Arm, Add	52.69	
	For Gate With Double Barb Wire Arm, Add	76.64	
32 31 13 13-0513	EA 9' Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm	772.32	81.78
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-98.79	
	For 1" Mesh Fabric, Add	229.19	
	For 1-1/4" Mesh Fabric, Add	147.53	
	For 1-3/4" Mesh Fabric, Add	91.68	
	For 2-1/8" Mesh Fabric, Deduct	-45.84	
	For Gate With Single Barb Wire Arm, Add	57.96	
	For Gate With Double Barb Wire Arm, Add	84.30	
32 31 13 13-0514	EA 10' Wide x 10' High Single Gate Vinyl Coated Without Barbed Wire Arm	850.63	91.88
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-107.77	
	For 1" Mesh Fabric, Add	250.02	
	For 1-1/4" Mesh Fabric, Add	160.94	
	For 1-3/4" Mesh Fabric, Add	100.01	
	For 2-1/8" Mesh Fabric, Deduct	-50.00	
	For Gate With Single Barb Wire Arm, Add	63.22	
	For Gate With Double Barb Wire Arm, Add	91.96	
32 31 13 13-0515	EA 10' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,183.58	107.07
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-161.65	
	For 1" Mesh Fabric, Add	375.03	
	For 1-1/4" Mesh Fabric, Add	241.40	
	For 1-3/4" Mesh Fabric, Add	150.01	
	For 2-1/8" Mesh Fabric, Deduct	-75.01	
	For Gate With Single Barb Wire Arm, Add	94.84	
	For Gate With Double Barb Wire Arm, Add	137.94	
32 31 13 13-0516	EA 12' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,380.61	115.18
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-193.98	
	For 1" Mesh Fabric, Add	450.04	
	For 1-1/4" Mesh Fabric, Add	289.68	
	For 1-3/4" Mesh Fabric, Add	180.02	
	For 2-1/8" Mesh Fabric, Deduct	-90.01	
	For Gate With Single Barb Wire Arm, Add	113.80	
	For Gate With Double Barb Wire Arm, Add	165.53	
32 31 13 13-0517	EA 14' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,582.01	124.92
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-226.31	
	For 1" Mesh Fabric, Add	525.05	
	For 1-1/4" Mesh Fabric, Add	337.96	
	For 1-3/4" Mesh Fabric, Add	210.02	
	For 2-1/8" Mesh Fabric, Deduct	-105.01	
	For Gate With Single Barb Wire Arm, Add	132.77	
	For Gate With Double Barb Wire Arm, Add	193.12	
32 31 13 13-0518	EA 16' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,788.35	136.18
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-258.64	
	For 1" Mesh Fabric, Add	600.05	
	For 1-1/4" Mesh Fabric, Add	386.24	
	For 1-3/4" Mesh Fabric, Add	240.02	
	For 2-1/8" Mesh Fabric, Deduct	-120.01	
	For Gate With Single Barb Wire Arm, Add	151.74	
	For Gate With Double Barb Wire Arm, Add	220.71	
32 31 13 13-0519	EA 18' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,001.85	149.85
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-290.97	
	For 1" Mesh Fabric, Add	675.05	
	For 1-1/4" Mesh Fabric, Add	434.52	
	For 1-3/4" Mesh Fabric, Add	270.02	
	For 2-1/8" Mesh Fabric, Deduct	-135.01	
	For Gate With Single Barb Wire Arm, Add	170.70	
	For Gate With Double Barb Wire Arm, Add	248.30	
32 31 13 13-0520	EA 20' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,224.04	166.43
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-323.30	
	For 1" Mesh Fabric, Add	750.06	
	For 1-1/4" Mesh Fabric, Add	482.80	
	For 1-3/4" Mesh Fabric, Add	300.02	
	For 2-1/8" Mesh Fabric, Deduct	-150.01	
	For Gate With Single Barb Wire Arm, Add	189.67	
	For Gate With Double Barb Wire Arm, Add	275.88	
32 31 13 13-0521	EA 22' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,459.22	187.32
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-355.63	
	For 1" Mesh Fabric, Add	825.07	
	For 1-1/4" Mesh Fabric, Add	531.08	
	For 1-3/4" Mesh Fabric, Add	330.03	
	For 2-1/8" Mesh Fabric, Deduct	-165.01	
	For Gate With Single Barb Wire Arm, Add	208.64	
	For Gate With Double Barb Wire Arm, Add	303.47	



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32 31 13	13-0522	EA	24 Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,711.60 -387.96 900.08 579.36 360.03 -180.02 227.61 331.06	213.90
32 31 13	13-0523	EA	26' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	2,991.57 -420.29 975.08 627.64 390.03 -195.02 246.57 358.65	249.71
32 31 13	13-0524	EA	28' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	3,313.21 -452.62 1,050.09 675.92 420.03 -210.02 265.54 386.24	299.45
32 31 13	13-0525	EA	30' Wide x 10' High Double Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	3,711.44 -484.95 1,125.09 724.20 450.04 -225.02 284.51 413.83	374.63
32 31 13	13-0526		12' Fence Height (32 31 13 13-0405)		
32 31 13	13-0527	EA	3' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	434.66 -56.36 130.75 84.16 52.30 -26.15 33.06 48.09	44.64
32 31 13	13-0528	EA	4' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	534.58 -75.09 174.22 112.14 69.69 -34.84 44.06 64.08	44.64
32 31 13	13-0529	EA	5' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	613.83 -89.03 206.55 132.95 82.62 -41.31 52.23 75.97	46.26
32 31 13	13-0530	EA	6' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	709.44 -100.64 233.49 150.29 93.40 -46.70 59.04 85.88	57.46
32 31 13	13-0531	EA	7' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	811.93 -113.54 263.42 169.56 105.37 -52.68 66.61 96.89	68.74
32 31 13	13-0532	EA	8' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm..... For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	913.33 -126.45 293.36 188.83 117.34 -58.67 74.18 107.90	79.60

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32 31 13 13-0533	EA 9' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm	1,015.80	90.80
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-139.35	
	For 1" Mesh Fabric, Add	323.29	
	For 1-1/4" Mesh Fabric, Add	208.10	
	For 1-3/4" Mesh Fabric, Add	129.32	
	For 2-1/8" Mesh Fabric, Deduct	-64.66	
	For Gate With Single Barb Wire Arm, Add	81.75	
	For Gate With Double Barb Wire Arm, Add	118.91	
32 31 13 13-0534	EA 10' Wide x 12' High Single Gate Vinyl Coated Without Barbed Wire Arm	1,111.41	101.98
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-150.96	
	For 1" Mesh Fabric, Add	350.24	
	For 1-1/4" Mesh Fabric, Add	225.44	
	For 1-3/4" Mesh Fabric, Add	140.09	
	For 2-1/8" Mesh Fabric, Deduct	-70.05	
	For Gate With Single Barb Wire Arm, Add	88.57	
	For Gate With Double Barb Wire Arm, Add	128.82	
32 31 13 13-0535	EA 10' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,564.31	118.97
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-226.37	
	For 1" Mesh Fabric, Add	525.17	
	For 1-1/4" Mesh Fabric, Add	338.04	
	For 1-3/4" Mesh Fabric, Add	210.07	
	For 2-1/8" Mesh Fabric, Deduct	-105.03	
	For Gate With Single Barb Wire Arm, Add	132.80	
	For Gate With Double Barb Wire Arm, Add	193.17	
32 31 13 13-0536	EA 12' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	1,872.47	128.09
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-279.01	
	For 1" Mesh Fabric, Add	647.31	
	For 1-1/4" Mesh Fabric, Add	416.66	
	For 1-3/4" Mesh Fabric, Add	258.92	
	For 2-1/8" Mesh Fabric, Deduct	-129.46	
	For Gate With Single Barb Wire Arm, Add	163.69	
	For Gate With Double Barb Wire Arm, Add	238.09	
32 31 13 13-0537	EA 14' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,154.11	138.71
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-325.77	
	For 1" Mesh Fabric, Add	755.79	
	For 1-1/4" Mesh Fabric, Add	486.48	
	For 1-3/4" Mesh Fabric, Add	302.31	
	For 2-1/8" Mesh Fabric, Deduct	-151.16	
	For Gate With Single Barb Wire Arm, Add	191.12	
	For Gate With Double Barb Wire Arm, Add	277.99	
32 31 13 13-0538	EA 16' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,439.63	151.25
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-372.22	
	For 1" Mesh Fabric, Add	863.55	
	For 1-1/4" Mesh Fabric, Add	555.85	
	For 1-3/4" Mesh Fabric, Add	345.42	
	For 2-1/8" Mesh Fabric, Deduct	-172.71	
	For Gate With Single Barb Wire Arm, Add	218.37	
	For Gate With Double Barb Wire Arm, Add	317.63	
32 31 13 13-0539	EA 18' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	2,729.61	166.56
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-418.05	
	For 1" Mesh Fabric, Add	969.88	
	For 1-1/4" Mesh Fabric, Add	624.29	
	For 1-3/4" Mesh Fabric, Add	387.95	
	For 2-1/8" Mesh Fabric, Deduct	-193.98	
	For Gate With Single Barb Wire Arm, Add	245.26	
	For Gate With Double Barb Wire Arm, Add	356.74	
32 31 13 13-0540	EA 20' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	3,032.45	184.91
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-464.50	
	For 1" Mesh Fabric, Add	1,077.64	
	For 1-1/4" Mesh Fabric, Add	693.66	
	For 1-3/4" Mesh Fabric, Add	431.06	
	For 2-1/8" Mesh Fabric, Deduct	-215.53	
	For Gate With Single Barb Wire Arm, Add	272.51	
	For Gate With Double Barb Wire Arm, Add	396.37	
32 31 13 13-0541	EA 22' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	3,350.08	208.08
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-510.95	
	For 1" Mesh Fabric, Add	1,185.41	
	For 1-1/4" Mesh Fabric, Add	763.02	
	For 1-3/4" Mesh Fabric, Add	474.16	
	For 2-1/8" Mesh Fabric, Deduct	-237.08	
	For Gate With Single Barb Wire Arm, Add	299.76	
	For Gate With Double Barb Wire Arm, Add	436.01	
32 31 13 13-0542	EA 24' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm	3,686.65	237.69
	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-557.40	
	For 1" Mesh Fabric, Add	1,293.17	
	For 1-1/4" Mesh Fabric, Add	832.39	
	For 1-3/4" Mesh Fabric, Add	517.27	
	For 2-1/8" Mesh Fabric, Deduct	-258.63	
	For Gate With Single Barb Wire Arm, Add	327.01	
	For Gate With Double Barb Wire Arm, Add	475.65	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0543	EA		26' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	4,062.14 -605.40 1,404.53 904.06 561.81 -280.91 355.17 516.61	277.56
32 31 13 13-0544	EA		28' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	4,475.66 -651.85 1,512.29 973.43 604.92 -302.46 382.42 556.24	332.74
32 31 13 13-0545	EA		30' Wide x 12' High Double Gate Vinyl Coated Without Barbed Wire Arm For 1-5/8" Schedule 40 Pipe Frame, Deduct For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Single Barb Wire Arm, Add For Gate With Double Barb Wire Arm, Add	4,974.29 -698.30 1,620.06 1,042.80 648.02 -324.01 409.67 595.88	416.27
32 31 13 13-0546			Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0263) Note: Includes posts (3" diameter posts for up to 15' wide gate and 4" diameter over 15' wide), caps, upper and lower rails, track brackets, roller gate wheel carrier, track rollers, 2" diameter Schedule 40 pipe frame top and bottom bar, and 1-1/2" bracing. Includes truss rod, latches, track rollers with brackets, pipe track clamps and two wheel carriers. Fabric: galvanized chain link 2" mesh #9 gauge, galvanized 1.2 ounce coating. See CSI section 32 31 13 13-0642 for additional gate accessories, 32 31 13 13-0723 for gate replacement parts.		
32 31 13 13-0547			4' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0548	EA		10' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	3,198.71 1,034.00 665.56 413.60 -206.80 261.47 713.10	410.83
32 31 13 13-0549	EA		12' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	3,844.29 1,240.79 798.67 496.32 -248.16 313.76 855.72	496.01
32 31 13 13-0550	EA		14' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	4,485.23 1,447.59 931.78 579.04 -289.52 366.06 998.34	578.65
32 31 13 13-0551	EA		16' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	5,133.37 1,654.40 1,064.90 661.76 -330.88 418.35 1,140.96	665.09
32 31 13 13-0552	EA		18' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	5,775.09 1,861.20 1,198.01 744.48 -372.24 470.65 1,283.58	748.25
32 31 13 13-0553	EA		20' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	6,401.45 2,067.99 1,331.12 827.20 -413.60 522.94 1,426.20	823.69
32 31 13 13-0554	EA		24' Long x 4' High Chain Link Galvanized Steel Sliding Gate For 1" Mesh Fabric, Add For 1-1/4" Mesh Fabric, Add For 1-3/4" Mesh Fabric, Add For 2-1/8" Mesh Fabric, Deduct For Gate With Barb Wire Arm, Add For Vinyl Coated, Add	7,646.71 2,463.38 1,585.62 985.35 -492.68 622.92 1,698.88	991.89

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0555	EA	30' Long x 4' High Chain Link Galvanized Steel Sliding Gate	10,875.52	1,872.27
		For 1" Mesh Fabric, Add	3,101.99	
		For 1-1/4" Mesh Fabric, Add	1,996.68	
		For 1-3/4" Mesh Fabric, Add	1,240.80	
		For 2-1/8" Mesh Fabric, Deduct	-620.40	
		For Gate With Barb Wire Arm, Add	784.41	
		For Vinyl Coated, Add	2,139.30	
32 31 13 13-0556	EA	40' Long x 4' High Chain Link Galvanized Steel Sliding Gate	14,500.70	2,496.37
		For 1" Mesh Fabric, Add	4,135.98	
		For 1-1/4" Mesh Fabric, Add	2,662.24	
		For 1-3/4" Mesh Fabric, Add	1,654.39	
		For 2-1/8" Mesh Fabric, Deduct	-827.20	
		For Gate With Barb Wire Arm, Add	1,045.88	
		For Vinyl Coated, Add	2,852.40	
32 31 13 13-0557		5' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0558	EA	10' Long x 5' High Chain Link Galvanized Steel Sliding Gate	3,341.16	447.15
		For 1" Mesh Fabric, Add	1,064.38	
		For 1-1/4" Mesh Fabric, Add	685.12	
		For 1-3/4" Mesh Fabric, Add	425.75	
		For 2-1/8" Mesh Fabric, Deduct	-212.88	
		For Gate With Barb Wire Arm, Add	269.15	
		For Vinyl Coated, Add	734.06	
32 31 13 13-0559	EA	12' Long x 5' High Chain Link Galvanized Steel Sliding Gate	4,008.14	536.00
		For 1" Mesh Fabric, Add	1,277.26	
		For 1-1/4" Mesh Fabric, Add	822.15	
		For 1-3/4" Mesh Fabric, Add	510.91	
		For 2-1/8" Mesh Fabric, Deduct	-255.45	
		For Gate With Barb Wire Arm, Add	322.99	
		For Vinyl Coated, Add	880.87	
32 31 13 13-0560	EA	14' Long x 5' High Chain Link Galvanized Steel Sliding Gate	4,675.94	625.23
		For 1" Mesh Fabric, Add	1,490.14	
		For 1-1/4" Mesh Fabric, Add	959.17	
		For 1-3/4" Mesh Fabric, Add	596.06	
		For 2-1/8" Mesh Fabric, Deduct	-298.03	
		For Gate With Barb Wire Arm, Add	376.82	
		For Vinyl Coated, Add	1,027.68	
32 31 13 13-0561	EA	16' Long x 5' High Chain Link Galvanized Steel Sliding Gate	5,344.29	714.71
		For 1" Mesh Fabric, Add	1,703.02	
		For 1-1/4" Mesh Fabric, Add	1,096.20	
		For 1-3/4" Mesh Fabric, Add	681.21	
		For 2-1/8" Mesh Fabric, Deduct	-340.60	
		For Gate With Barb Wire Arm, Add	430.65	
		For Vinyl Coated, Add	1,174.50	
32 31 13 13-0562	EA	18' Long x 5' High Chain Link Galvanized Steel Sliding Gate	6,012.02	803.82
		For 1" Mesh Fabric, Add	1,915.89	
		For 1-1/4" Mesh Fabric, Add	1,233.22	
		For 1-3/4" Mesh Fabric, Add	766.36	
		For 2-1/8" Mesh Fabric, Deduct	-383.18	
		For Gate With Barb Wire Arm, Add	484.48	
		For Vinyl Coated, Add	1,321.30	
32 31 13 13-0563	EA	20' Long x 5' High Chain Link Galvanized Steel Sliding Gate	6,680.09	893.17
		For 1" Mesh Fabric, Add	2,128.77	
		For 1-1/4" Mesh Fabric, Add	1,370.24	
		For 1-3/4" Mesh Fabric, Add	851.51	
		For 2-1/8" Mesh Fabric, Deduct	-425.75	
		For Gate With Barb Wire Arm, Add	538.31	
		For Vinyl Coated, Add	1,468.12	
32 31 13 13-0564	EA	24' Long x 5' High Chain Link Galvanized Steel Sliding Gate	7,975.47	1,073.02
		For 1" Mesh Fabric, Add	2,535.78	
		For 1-1/4" Mesh Fabric, Add	1,632.23	
		For 1-3/4" Mesh Fabric, Add	1,014.31	
		For 2-1/8" Mesh Fabric, Deduct	-507.16	
		For Gate With Barb Wire Arm, Add	641.23	
		For Vinyl Coated, Add	1,748.82	
32 31 13 13-0565	EA	30' Long x 5' High Chain Link Galvanized Steel Sliding Gate	10,020.62	1,340.06
		For 1" Mesh Fabric, Add	3,193.15	
		For 1-1/4" Mesh Fabric, Add	2,055.36	
		For 1-3/4" Mesh Fabric, Add	1,277.26	
		For 2-1/8" Mesh Fabric, Deduct	-638.63	
		For Gate With Barb Wire Arm, Add	807.46	
		For Vinyl Coated, Add	2,202.17	
32 31 13 13-0566	EA	40' Long x 5' High Chain Link Galvanized Steel Sliding Gate	13,360.19	1,786.33
		For 1" Mesh Fabric, Add	4,257.54	
		For 1-1/4" Mesh Fabric, Add	2,740.48	
		For 1-3/4" Mesh Fabric, Add	1,703.01	
		For 2-1/8" Mesh Fabric, Deduct	-851.51	
		For Gate With Barb Wire Arm, Add	1,076.62	
		For Vinyl Coated, Add	2,936.23	
32 31 13 13-0567		6' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0568	EA		10' Long x 6' High Chain Link Galvanized Steel Sliding Gate	3,544.13	524.23
			For 1" Mesh Fabric, Add	1,085.66	
			For 1-1/4" Mesh Fabric, Add	698.81	
			For 1-3/4" Mesh Fabric, Add	434.26	
			For 2-1/8" Mesh Fabric, Deduct	-217.13	
			For Gate With Barb Wire Arm, Add	274.53	
			For Vinyl Coated, Add	748.73	
32 31 13 13-0569	EA		12' Long x 6' High Chain Link Galvanized Steel Sliding Gate	4,249.28	627.13
			For 1" Mesh Fabric, Add	1,302.79	
			For 1-1/4" Mesh Fabric, Add	838.58	
			For 1-3/4" Mesh Fabric, Add	521.12	
			For 2-1/8" Mesh Fabric, Deduct	-260.56	
			For Gate With Barb Wire Arm, Add	329.44	
			For Vinyl Coated, Add	898.48	
32 31 13 13-0570	EA		14' Long x 6' High Chain Link Galvanized Steel Sliding Gate	4,957.25	731.54
			For 1" Mesh Fabric, Add	1,519.92	
			For 1-1/4" Mesh Fabric, Add	978.34	
			For 1-3/4" Mesh Fabric, Add	607.97	
			For 2-1/8" Mesh Fabric, Deduct	-303.98	
			For Gate With Barb Wire Arm, Add	384.35	
			For Vinyl Coated, Add	1,048.22	
32 31 13 13-0571	EA		16' Long x 6' High Chain Link Galvanized Steel Sliding Gate	5,665.70	836.22
			For 1" Mesh Fabric, Add	1,737.05	
			For 1-1/4" Mesh Fabric, Add	1,118.10	
			For 1-3/4" Mesh Fabric, Add	694.82	
			For 2-1/8" Mesh Fabric, Deduct	-347.41	
			For Gate With Barb Wire Arm, Add	439.25	
			For Vinyl Coated, Add	1,197.97	
32 31 13 13-0572	EA		18' Long x 6' High Chain Link Galvanized Steel Sliding Gate	6,373.68	940.62
			For 1" Mesh Fabric, Add	1,954.18	
			For 1-1/4" Mesh Fabric, Add	1,257.86	
			For 1-3/4" Mesh Fabric, Add	781.67	
			For 2-1/8" Mesh Fabric, Deduct	-390.64	
			For Gate With Barb Wire Arm, Add	494.16	
			For Vinyl Coated, Add	1,347.71	
32 31 13 13-0573	EA		20' Long x 6' High Chain Link Galvanized Steel Sliding Gate	7,088.70	1,048.59
			For 1" Mesh Fabric, Add	2,171.32	
			For 1-1/4" Mesh Fabric, Add	1,397.63	
			For 1-3/4" Mesh Fabric, Add	868.53	
			For 2-1/8" Mesh Fabric, Deduct	-434.26	
			For Gate With Barb Wire Arm, Add	549.07	
			For Vinyl Coated, Add	1,497.46	
32 31 13 13-0574	EA		24' Long x 6' High Chain Link Galvanized Steel Sliding Gate	8,454.60	1,254.38
			For 1" Mesh Fabric, Add	2,586.46	
			For 1-1/4" Mesh Fabric, Add	1,664.85	
			For 1-3/4" Mesh Fabric, Add	1,034.58	
			For 2-1/8" Mesh Fabric, Deduct	-517.29	
			For Gate With Barb Wire Arm, Add	654.05	
			For Vinyl Coated, Add	1,783.77	
32 31 13 13-0575	EA		30' Long x 6' High Chain Link Galvanized Steel Sliding Gate	10,623.97	1,568.39
			For 1" Mesh Fabric, Add	3,256.97	
			For 1-1/4" Mesh Fabric, Add	2,096.44	
			For 1-3/4" Mesh Fabric, Add	1,302.79	
			For 2-1/8" Mesh Fabric, Deduct	-651.39	
			For Gate With Barb Wire Arm, Add	823.60	
			For Vinyl Coated, Add	2,246.19	
32 31 13 13-0576	EA		40' Long x 6' High Chain Link Galvanized Steel Sliding Gate	14,163.55	2,090.22
			For 1" Mesh Fabric, Add	4,342.63	
			For 1-1/4" Mesh Fabric, Add	2,795.25	
			For 1-3/4" Mesh Fabric, Add	1,737.05	
			For 2-1/8" Mesh Fabric, Deduct	-868.53	
			For Gate With Barb Wire Arm, Add	1,098.14	
			For Vinyl Coated, Add	2,994.92	
32 31 13 13-0577			7' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0578	EA		10' Long x 7' High Chain Link Galvanized Steel Sliding Gate	3,763.03	584.73
			For 1" Mesh Fabric, Add	1,128.20	
			For 1-1/4" Mesh Fabric, Add	726.20	
			For 1-3/4" Mesh Fabric, Add	451.28	
			For 2-1/8" Mesh Fabric, Deduct	-225.64	
			For Gate With Barb Wire Arm, Add	285.29	
			For Vinyl Coated, Add	778.07	
32 31 13 13-0579	EA		12' Long x 7' High Chain Link Galvanized Steel Sliding Gate	4,514.75	701.17
			For 1" Mesh Fabric, Add	1,353.88	
			For 1-1/4" Mesh Fabric, Add	871.46	
			For 1-3/4" Mesh Fabric, Add	541.55	
			For 2-1/8" Mesh Fabric, Deduct	-270.78	
			For Gate With Barb Wire Arm, Add	342.36	
			For Vinyl Coated, Add	933.71	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0580	EA	14' Long x 7' High Chain Link Galvanized Steel Sliding Gate	5,268.30	818.62
		For 1" Mesh Fabric, Add	1,579.48	
		For 1-1/4" Mesh Fabric, Add	1,016.67	
		For 1-3/4" Mesh Fabric, Add	631.79	
		For 2-1/8" Mesh Fabric, Deduct	-315.90	
		For Gate With Barb Wire Arm, Add	399.41	
		For Vinyl Coated, Add	1,089.29	
32 31 13 13-0581	EA	16' Long x 7' High Chain Link Galvanized Steel Sliding Gate	6,019.89	935.06
		For 1" Mesh Fabric, Add	1,805.12	
		For 1-1/4" Mesh Fabric, Add	1,161.92	
		For 1-3/4" Mesh Fabric, Add	722.05	
		For 2-1/8" Mesh Fabric, Deduct	-361.02	
		For Gate With Barb Wire Arm, Add	456.47	
		For Vinyl Coated, Add	1,244.91	
32 31 13 13-0582	EA	18' Long x 7' High Chain Link Galvanized Steel Sliding Gate	6,772.57	1,052.13
		For 1" Mesh Fabric, Add	2,030.76	
		For 1-1/4" Mesh Fabric, Add	1,307.16	
		For 1-3/4" Mesh Fabric, Add	812.31	
		For 2-1/8" Mesh Fabric, Deduct	-406.15	
		For Gate With Barb Wire Arm, Add	513.53	
		For Vinyl Coated, Add	1,400.53	
32 31 13 13-0583	EA	20' Long x 7' High Chain Link Galvanized Steel Sliding Gate	7,524.44	1,168.70
		For 1" Mesh Fabric, Add	2,256.41	
		For 1-1/4" Mesh Fabric, Add	1,452.40	
		For 1-3/4" Mesh Fabric, Add	902.56	
		For 2-1/8" Mesh Fabric, Deduct	-451.28	
		For Gate With Barb Wire Arm, Add	570.59	
		For Vinyl Coated, Add	1,356.15	
32 31 13 13-0584	EA	24' Long x 7' High Chain Link Galvanized Steel Sliding Gate	8,983.66	1,402.33
		For 1" Mesh Fabric, Add	2,687.82	
		For 1-1/4" Mesh Fabric, Add	1,730.09	
		For 1-3/4" Mesh Fabric, Add	1,075.13	
		For 2-1/8" Mesh Fabric, Deduct	-537.56	
		For Gate With Barb Wire Arm, Add	679.68	
		For Vinyl Coated, Add	1,853.67	
32 31 13 13-0585	EA	30' Long x 7' High Chain Link Galvanized Steel Sliding Gate	11,286.65	1,752.93
		For 1" Mesh Fabric, Add	3,384.60	
		For 1-1/4" Mesh Fabric, Add	2,178.60	
		For 1-3/4" Mesh Fabric, Add	1,353.84	
		For 2-1/8" Mesh Fabric, Deduct	-676.92	
		For Gate With Barb Wire Arm, Add	855.88	
		For Vinyl Coated, Add	2,334.21	
32 31 13 13-0586	EA	40' Long x 7' High Chain Link Galvanized Steel Sliding Gate	15,048.87	2,337.27
		For 1" Mesh Fabric, Add	4,512.81	
		For 1-1/4" Mesh Fabric, Add	2,904.80	
		For 1-3/4" Mesh Fabric, Add	1,805.12	
		For 2-1/8" Mesh Fabric, Deduct	-902.56	
		For Gate With Barb Wire Arm, Add	1,141.17	
		For Vinyl Coated, Add	3,112.28	
32 31 13 13-0587		8' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0588	EA	10' Long x 8' High Chain Link Galvanized Steel Sliding Gate	3,937.33	633.46
		For 1" Mesh Fabric, Add	1,161.63	
		For 1-1/4" Mesh Fabric, Add	747.72	
		For 1-3/4" Mesh Fabric, Add	464.65	
		For 2-1/8" Mesh Fabric, Deduct	-232.33	
		For Gate With Barb Wire Arm, Add	293.75	
		For Vinyl Coated, Add	801.13	
32 31 13 13-0589	EA	12' Long x 8' High Chain Link Galvanized Steel Sliding Gate	4,721.16	758.37
		For 1" Mesh Fabric, Add	1,393.96	
		For 1-1/4" Mesh Fabric, Add	897.26	
		For 1-3/4" Mesh Fabric, Add	557.58	
		For 2-1/8" Mesh Fabric, Deduct	-278.79	
		For Gate With Barb Wire Arm, Add	352.50	
		For Vinyl Coated, Add	961.35	
32 31 13 13-0590	EA	14' Long x 8' High Chain Link Galvanized Steel Sliding Gate	5,508.09	884.81
		For 1" Mesh Fabric, Add	1,626.28	
		For 1-1/4" Mesh Fabric, Add	1,046.80	
		For 1-3/4" Mesh Fabric, Add	650.51	
		For 2-1/8" Mesh Fabric, Deduct	-325.26	
		For Gate With Barb Wire Arm, Add	411.24	
		For Vinyl Coated, Add	1,121.57	
32 31 13 13-0591	EA	16' Long x 8' High Chain Link Galvanized Steel Sliding Gate	6,295.27	1,011.26
		For 1" Mesh Fabric, Add	1,858.61	
		For 1-1/4" Mesh Fabric, Add	1,196.34	
		For 1-3/4" Mesh Fabric, Add	743.44	
		For 2-1/8" Mesh Fabric, Deduct	-371.72	
		For Gate With Barb Wire Arm, Add	469.99	
		For Vinyl Coated, Add	1,281.80	
32 31 13 13-0592	EA	18' Long x 8' High Chain Link Galvanized Steel Sliding Gate	7,081.04	1,137.18
		For 1" Mesh Fabric, Add	2,090.93	
		For 1-1/4" Mesh Fabric, Add	1,345.89	
		For 1-3/4" Mesh Fabric, Add	836.37	
		For 2-1/8" Mesh Fabric, Deduct	-418.19	
		For Gate With Barb Wire Arm, Add	528.74	
		For Vinyl Coated, Add	1,442.02	



Exterior Improvements			32	32
Site Improvements			32 30	
Fences and Gates			32 31	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0593	EA		20' Long x 8' High Chain Link Galvanized Steel Sliding Gate	7,868.32	1,263.74
			For 1" Mesh Fabric, Add	2,323.26	
			For 1-1/4" Mesh Fabric, Add	1,495.43	
			For 1-3/4" Mesh Fabric, Add	929.30	
			For 2-1/8" Mesh Fabric, Deduct	-464.65	
			For Gate With Barb Wire Arm, Add	587.49	
			For Vinyl Coated, Add	1,602.25	
32 31 13 13-0594	EA		24' Long x 8' High Chain Link Galvanized Steel Sliding Gate	9,395.28	1,516.63
			For 1" Mesh Fabric, Add	2,767.46	
			For 1-1/4" Mesh Fabric, Add	1,781.35	
			For 1-3/4" Mesh Fabric, Add	1,106.98	
			For 2-1/8" Mesh Fabric, Deduct	-553.49	
			For Gate With Barb Wire Arm, Add	699.82	
			For Vinyl Coated, Add	1,908.59	
32 31 13 13-0595	EA		30' Long x 8' High Chain Link Galvanized Steel Sliding Gate	11,803.45	1,896.07
			For 1" Mesh Fabric, Add	3,484.89	
			For 1-1/4" Mesh Fabric, Add	2,243.15	
			For 1-3/4" Mesh Fabric, Add	1,393.96	
			For 2-1/8" Mesh Fabric, Deduct	-696.98	
			For Gate With Barb Wire Arm, Add	881.24	
			For Vinyl Coated, Add	2,403.38	
32 31 13 13-0596	EA		40' Long x 8' High Chain Link Galvanized Steel Sliding Gate	15,734.13	2,526.23
			For 1" Mesh Fabric, Add	4,646.52	
			For 1-1/4" Mesh Fabric, Add	2,990.86	
			For 1-3/4" Mesh Fabric, Add	1,858.61	
			For 2-1/8" Mesh Fabric, Deduct	-929.30	
			For Gate With Barb Wire Arm, Add	1,174.98	
			For Vinyl Coated, Add	3,204.50	
32 31 13 13-0597			9' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0598	EA		10' Long x 9' High Chain Link Galvanized Steel Sliding Gate	4,143.31	691.05
			For 1" Mesh Fabric, Add	1,201.13	
			For 1-1/4" Mesh Fabric, Add	773.14	
			For 1-3/4" Mesh Fabric, Add	480.45	
			For 2-1/8" Mesh Fabric, Deduct	-240.23	
			For Gate With Barb Wire Arm, Add	303.73	
			For Vinyl Coated, Add	828.37	
32 31 13 13-0599	EA		12' Long x 9' High Chain Link Galvanized Steel Sliding Gate	4,966.84	826.72
			For 1" Mesh Fabric, Add	1,441.36	
			For 1-1/4" Mesh Fabric, Add	927.77	
			For 1-3/4" Mesh Fabric, Add	576.55	
			For 2-1/8" Mesh Fabric, Deduct	-288.27	
			For Gate With Barb Wire Arm, Add	364.48	
			For Vinyl Coated, Add	994.04	
32 31 13 13-0600	EA		14' Long x 9' High Chain Link Galvanized Steel Sliding Gate	5,794.34	964.29
			For 1" Mesh Fabric, Add	1,681.59	
			For 1-1/4" Mesh Fabric, Add	1,082.40	
			For 1-3/4" Mesh Fabric, Add	672.64	
			For 2-1/8" Mesh Fabric, Deduct	-336.32	
			For Gate With Barb Wire Arm, Add	425.23	
			For Vinyl Coated, Add	1,159.72	
32 31 13 13-0601	EA		16' Long x 9' High Chain Link Galvanized Steel Sliding Gate	6,622.92	1,102.51
			For 1" Mesh Fabric, Add	1,921.81	
			For 1-1/4" Mesh Fabric, Add	1,237.03	
			For 1-3/4" Mesh Fabric, Add	768.73	
			For 2-1/8" Mesh Fabric, Deduct	-384.36	
			For Gate With Barb Wire Arm, Add	485.98	
			For Vinyl Coated, Add	1,325.39	
32 31 13 13-0602	EA		18' Long x 9' High Chain Link Galvanized Steel Sliding Gate	7,450.67	1,240.21
			For 1" Mesh Fabric, Add	2,162.05	
			For 1-1/4" Mesh Fabric, Add	1,391.66	
			For 1-3/4" Mesh Fabric, Add	864.82	
			For 2-1/8" Mesh Fabric, Deduct	-432.41	
			For Gate With Barb Wire Arm, Add	546.72	
			For Vinyl Coated, Add	1,491.07	
32 31 13 13-0603	EA		20' Long x 9' High Chain Link Galvanized Steel Sliding Gate	8,278.37	1,377.91
			For 1" Mesh Fabric, Add	2,402.27	
			For 1-1/4" Mesh Fabric, Add	1,546.29	
			For 1-3/4" Mesh Fabric, Add	960.91	
			For 2-1/8" Mesh Fabric, Deduct	-480.45	
			For Gate With Barb Wire Arm, Add	607.47	
			For Vinyl Coated, Add	1,656.74	
32 31 13 13-0604	EA		24' Long x 9' High Chain Link Galvanized Steel Sliding Gate	9,885.06	1,653.31
			For 1" Mesh Fabric, Add	2,861.58	
			For 1-1/4" Mesh Fabric, Add	1,841.94	
			For 1-3/4" Mesh Fabric, Add	1,144.63	
			For 2-1/8" Mesh Fabric, Deduct	-572.32	
			For Gate With Barb Wire Arm, Add	723.62	
			For Vinyl Coated, Add	1,973.50	
32 31 13 13-0605	EA		30' Long x 9' High Chain Link Galvanized Steel Sliding Gate	12,416.42	2,066.42
			For 1" Mesh Fabric, Add	3,603.41	
			For 1-1/4" Mesh Fabric, Add	2,319.43	
			For 1-3/4" Mesh Fabric, Add	1,441.36	
			For 2-1/8" Mesh Fabric, Deduct	-720.68	
			For Gate With Barb Wire Arm, Add	911.21	
			For Vinyl Coated, Add	2,485.11	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0606	EA		40' Long x 9' High Chain Link Galvanized Steel Sliding Gate	16,559.75	2,757.46
			For 1" Mesh Fabric, Add	4,804.55	
			For 1-1/4" Mesh Fabric, Add	3,092.58	
			For 1-3/4" Mesh Fabric, Add	1,921.82	
			For 2-1/8" Mesh Fabric, Deduct	-960.91	
			For Gate With Barb Wire Arm, Add	1,214.94	
			For Vinyl Coated, Add	3,313.48	
32 31 13 13-0607			10' High Chain Link Galvanized Steel Sliding Gate (32 31 13 13-0546)		
32 31 13 13-0608	EA		10' Long x 10' High Chain Link Galvanized Steel Sliding Gate	4,400.29	760.14
			For 1" Mesh Fabric, Add	1,252.80	
			For 1-1/4" Mesh Fabric, Add	806.40	
			For 1-3/4" Mesh Fabric, Add	501.12	
			For 2-1/8" Mesh Fabric, Deduct	-250.56	
			For Gate With Barb Wire Arm, Add	316.80	
			For Vinyl Coated, Add	864.00	
32 31 13 13-0609	EA		12' Long x 10' High Chain Link Galvanized Steel Sliding Gate	5,280.36	912.15
			For 1" Mesh Fabric, Add	1,503.36	
			For 1-1/4" Mesh Fabric, Add	967.68	
			For 1-3/4" Mesh Fabric, Add	601.34	
			For 2-1/8" Mesh Fabric, Deduct	-300.67	
			For Gate With Barb Wire Arm, Add	380.16	
			For Vinyl Coated, Add	1,036.80	
32 31 13 13-0610	EA		14' Long x 10' High Chain Link Galvanized Steel Sliding Gate	6,160.92	1,064.41
			For 1" Mesh Fabric, Add	1,753.92	
			For 1-1/4" Mesh Fabric, Add	1,128.96	
			For 1-3/4" Mesh Fabric, Add	701.57	
			For 2-1/8" Mesh Fabric, Deduct	-350.78	
			For Gate With Barb Wire Arm, Add	443.52	
			For Vinyl Coated, Add	1,209.60	
32 31 13 13-0611	EA		16' Long x 10' High Chain Link Galvanized Steel Sliding Gate	7,040.77	1,216.41
			For 1" Mesh Fabric, Add	2,004.48	
			For 1-1/4" Mesh Fabric, Add	1,290.24	
			For 1-3/4" Mesh Fabric, Add	801.79	
			For 2-1/8" Mesh Fabric, Deduct	-400.90	
			For Gate With Barb Wire Arm, Add	506.88	
			For Vinyl Coated, Add	1,382.40	
32 31 13 13-0612	EA		18' Long x 10' High Chain Link Galvanized Steel Sliding Gate	7,920.52	1,368.29
			For 1" Mesh Fabric, Add	2,255.03	
			For 1-1/4" Mesh Fabric, Add	1,451.51	
			For 1-3/4" Mesh Fabric, Add	902.01	
			For 2-1/8" Mesh Fabric, Deduct	-451.01	
			For Gate With Barb Wire Arm, Add	570.24	
			For Vinyl Coated, Add	1,555.19	
32 31 13 13-0613	EA		20' Long x 10' High Chain Link Galvanized Steel Sliding Gate	8,800.59	1,520.30
			For 1" Mesh Fabric, Add	2,505.60	
			For 1-1/4" Mesh Fabric, Add	1,612.80	
			For 1-3/4" Mesh Fabric, Add	1,002.24	
			For 2-1/8" Mesh Fabric, Deduct	-501.12	
			For Gate With Barb Wire Arm, Add	633.60	
			For Vinyl Coated, Add	1,728.00	
32 31 13 13-0614	EA		24' Long x 10' High Chain Link Galvanized Steel Sliding Gate	10,511.31	1,825.06
			For 1" Mesh Fabric, Add	2,984.66	
			For 1-1/4" Mesh Fabric, Add	1,921.16	
			For 1-3/4" Mesh Fabric, Add	1,193.86	
			For 2-1/8" Mesh Fabric, Deduct	-596.93	
			For Gate With Barb Wire Arm, Add	754.74	
			For Vinyl Coated, Add	2,058.38	
32 31 13 13-0615	EA		30' Long x 10' High Chain Link Galvanized Steel Sliding Gate	13,200.87	2,280.44
			For 1" Mesh Fabric, Add	3,758.39	
			For 1-1/4" Mesh Fabric, Add	2,419.19	
			For 1-3/4" Mesh Fabric, Add	1,503.36	
			For 2-1/8" Mesh Fabric, Deduct	-751.68	
			For Gate With Barb Wire Arm, Add	950.40	
			For Vinyl Coated, Add	2,591.99	
32 31 13 13-0616	EA		40' Long x 10' High Chain Link Galvanized Steel Sliding Gate	17,597.52	3,038.82
			For 1" Mesh Fabric, Add	5,011.20	
			For 1-1/4" Mesh Fabric, Add	3,225.60	
			For 1-3/4" Mesh Fabric, Add	2,004.48	
			For 2-1/8" Mesh Fabric, Deduct	-1,002.24	
			For Gate With Barb Wire Arm, Add	1,267.20	
			For Vinyl Coated, Add	3,456.00	

32 31 13 13-0617 Sliding Cantilever Gate, Single Track, Manually Operated Exposed Roller (32 31 13 13-0263)

Note: Includes posts (3" diameter posts for up to 15' wide gate and 4" diameter over 15' wide), caps, upper rail, track brackets, roller gate wheel carrier, metal track rollers for rail, 2" diameter Schedule 40 pipe frame top and bottom bar, and 1-1/2" bracing. Includes truss rod, latches, single track, track rollers with brackets, pipe track clamps and two wheel carriers. Fabric: galvanized chain link 2" mesh # 9 gauge, galvanized 1.2 ounce coating. Width listed on tasks is opening width of gate. See CSI section 32 31 11 00-0021 for gate operators.



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR		DESCRIPTION	TOTAL DIRECT		DEMOLITION
CSI	UOM		UNIT COST	UNIT COST	
32 31 13 13-0618	EA	5' High x 10' Wide Galvanized Cantilever Sliding Gate.....	5,945.81		506.26
		For 1" Mesh Fabric, Add	2,145.98		
		For 1-1/4" Mesh Fabric, Add	1,381.32		
		For 1-3/4" Mesh Fabric, Add	858.39		
		For 2-1/8" Mesh Fabric, Deduct	-429.20		
		For Gate With Single Barb Wire Arm, Add	542.66		
		For Gate With Double Barb Wire Arm, Add	789.33		
		For Aluminized Steel Gate And Post, Add	2,367.98		
		For Powder Coated Gate And Post, Add	1,035.99		
		For Vinyl Coated, Add	1,479.99		
32 31 13 13-0619	EA	5' High x 12' Wide Galvanized Cantilever Sliding Gate.....	6,534.76		632.82
		For 1" Mesh Fabric, Add	2,292.06		
		For 1-1/4" Mesh Fabric, Add	1,475.35		
		For 1-3/4" Mesh Fabric, Add	916.83		
		For 2-1/8" Mesh Fabric, Deduct	-458.41		
		For Gate With Single Barb Wire Arm, Add	579.60		
		For Gate With Double Barb Wire Arm, Add	843.06		
		For Aluminized Steel Gate And Post, Add	2,529.17		
		For Powder Coated Gate And Post, Add	1,106.51		
		For Vinyl Coated, Add	1,580.73		
32 31 13 13-0620	EA	5' High x 15' Wide Galvanized Cantilever Sliding Gate.....	7,128.33		759.39
		For 1" Mesh Fabric, Add	2,440.15		
		For 1-1/4" Mesh Fabric, Add	1,570.67		
		For 1-3/4" Mesh Fabric, Add	976.06		
		For 2-1/8" Mesh Fabric, Deduct	-488.03		
		For Gate With Single Barb Wire Arm, Add	617.05		
		For Gate With Double Barb Wire Arm, Add	897.53		
		For Aluminized Steel Gate And Post, Add	2,692.58		
		For Powder Coated Gate And Post, Add	1,178.01		
		For Vinyl Coated, Add	1,682.87		
32 31 13 13-0621	EA	5' High x 20' Wide Galvanized Cantilever Sliding Gate.....	8,382.51		1,012.52
		For 1" Mesh Fabric, Add	2,765.50		
		For 1-1/4" Mesh Fabric, Add	1,780.09		
		For 1-3/4" Mesh Fabric, Add	1,106.20		
		For 2-1/8" Mesh Fabric, Deduct	-553.10		
		For Gate With Single Barb Wire Arm, Add	699.32		
		For Gate With Double Barb Wire Arm, Add	1,017.20		
		For Aluminized Steel Gate And Post, Add	3,051.59		
		For Powder Coated Gate And Post, Add	1,335.07		
		For Vinyl Coated, Add	1,907.24		
32 31 13 13-0622	EA	6' High x 15' Wide Galvanized Cantilever Sliding Gate.....	7,802.20		1,012.52
		For 1" Mesh Fabric, Add	2,513.07		
		For 1-1/4" Mesh Fabric, Add	1,617.61		
		For 1-3/4" Mesh Fabric, Add	1,005.23		
		For 2-1/8" Mesh Fabric, Deduct	-502.61		
		For Gate With Single Barb Wire Arm, Add	635.49		
		For Gate With Double Barb Wire Arm, Add	924.35		
		For Aluminized Steel Gate And Post, Add	2,773.04		
		For Powder Coated Gate And Post, Add	1,213.21		
		For Vinyl Coated, Add	1,733.15		
32 31 13 13-0623	EA	6' High x 20' Wide Galvanized Cantilever Sliding Gate.....	9,164.11		1,328.92
		For 1" Mesh Fabric, Add	2,830.22		
		For 1-1/4" Mesh Fabric, Add	1,821.75		
		For 1-3/4" Mesh Fabric, Add	1,132.09		
		For 2-1/8" Mesh Fabric, Deduct	-566.04		
		For Gate With Single Barb Wire Arm, Add	715.69		
		For Gate With Double Barb Wire Arm, Add	1,041.00		
		For Aluminized Steel Gate And Post, Add	3,123.00		
		For Powder Coated Gate And Post, Add	1,366.31		
		For Vinyl Coated, Add	1,951.88		
32 31 13 13-0624	EA	6' High x 25' Wide Galvanized Cantilever Sliding Gate.....	12,133.61		1,645.34
		For 1" Mesh Fabric, Add	3,846.67		
		For 1-1/4" Mesh Fabric, Add	2,476.02		
		For 1-3/4" Mesh Fabric, Add	1,538.67		
		For 2-1/8" Mesh Fabric, Deduct	-769.33		
		For Gate With Single Barb Wire Arm, Add	972.72		
		For Gate With Double Barb Wire Arm, Add	1,414.87		
		For Aluminized Steel Gate And Post, Add	4,244.60		
		For Powder Coated Gate And Post, Add	1,857.01		
		For Vinyl Coated, Add	2,652.88		
32 31 13 13-0625	EA	6' High x 30' Wide Galvanized Cantilever Sliding Gate.....	13,682.77		1,961.75
		For 1" Mesh Fabric, Add	4,245.28		
		For 1-1/4" Mesh Fabric, Add	2,732.59		
		For 1-3/4" Mesh Fabric, Add	1,698.11		
		For 2-1/8" Mesh Fabric, Deduct	-849.06		
		For Gate With Single Barb Wire Arm, Add	1,073.52		
		For Gate With Double Barb Wire Arm, Add	1,561.48		
		For Aluminized Steel Gate And Post, Add	4,684.44		
		For Powder Coated Gate And Post, Add	2,049.44		
		For Vinyl Coated, Add	2,927.78		

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0626	EA	6' High x 36' Wide Galvanized Cantilever Sliding Gate.....	16,014.31	2,151.60
			For 1" Mesh Fabric, Add	5,094.33	
			For 1-1/4" Mesh Fabric, Add	3,279.11	
			For 1-3/4" Mesh Fabric, Add	2,037.73	
			For 2-1/8" Mesh Fabric, Deduct	-1,018.87	
			For Gate With Single Barb Wire Arm, Add	1,288.22	
			For Gate With Double Barb Wire Arm, Add	1,873.78	
			For Aluminized Steel Gate And Post, Add	5,621.33	
			For Powder Coated Gate And Post, Add	2,459.33	
			For Vinyl Coated, Add	3,513.33	
32 31 13	13-0627	EA	8' High x 15' Wide Galvanized Cantilever Sliding Gate.....	9,141.01	1,265.65
			For 1" Mesh Fabric, Add	2,875.22	
			For 1-1/4" Mesh Fabric, Add	1,850.72	
			For 1-3/4" Mesh Fabric, Add	1,150.09	
			For 2-1/8" Mesh Fabric, Deduct	-575.04	
			For Gate With Single Barb Wire Arm, Add	727.07	
			For Gate With Double Barb Wire Arm, Add	1,057.55	
			For Aluminized Steel Gate And Post, Add	3,172.66	
			For Powder Coated Gate And Post, Add	1,388.04	
			For Vinyl Coated, Add	1,982.91	
32 31 13	13-0628	EA	8' High x 20' Wide Galvanized Cantilever Sliding Gate.....	10,859.86	1,708.63
			For 1" Mesh Fabric, Add	3,237.54	
			For 1-1/4" Mesh Fabric, Add	2,083.93	
			For 1-3/4" Mesh Fabric, Add	1,295.01	
			For 2-1/8" Mesh Fabric, Deduct	-647.51	
			For Gate With Single Barb Wire Arm, Add	818.69	
			For Gate With Double Barb Wire Arm, Add	1,190.82	
			For Aluminized Steel Gate And Post, Add	3,572.45	
			For Powder Coated Gate And Post, Add	1,562.95	
			For Vinyl Coated, Add	2,232.78	
32 31 13	13-0629	EA	8' High x 25' Wide Galvanized Cantilever Sliding Gate.....	14,418.71	2,151.60
			For 1" Mesh Fabric, Add	4,400.25	
			For 1-1/4" Mesh Fabric, Add	2,832.34	
			For 1-3/4" Mesh Fabric, Add	1,760.10	
			For 2-1/8" Mesh Fabric, Deduct	-880.05	
			For Gate With Single Barb Wire Arm, Add	1,112.71	
			For Gate With Double Barb Wire Arm, Add	1,618.48	
			For Aluminized Steel Gate And Post, Add	4,855.44	
			For Powder Coated Gate And Post, Add	2,124.26	
			For Vinyl Coated, Add	3,034.65	
32 31 13	13-0630	EA	8' High x 30' Wide Galvanized Cantilever Sliding Gate.....	16,225.05	2,531.30
			For 1" Mesh Fabric, Add	4,855.67	
			For 1-1/4" Mesh Fabric, Add	3,125.49	
			For 1-3/4" Mesh Fabric, Add	1,942.27	
			For 2-1/8" Mesh Fabric, Deduct	-971.13	
			For Gate With Single Barb Wire Arm, Add	1,227.87	
			For Gate With Double Barb Wire Arm, Add	1,785.99	
			For Aluminized Steel Gate And Post, Add	5,357.98	
			For Powder Coated Gate And Post, Add	2,344.12	
			For Vinyl Coated, Add	3,348.74	
32 31 13	13-0631	EA	8' High x 36' Wide Galvanized Cantilever Sliding Gate.....	18,963.80	2,784.42
			For 1" Mesh Fabric, Add	5,826.80	
			For 1-1/4" Mesh Fabric, Add	3,750.59	
			For 1-3/4" Mesh Fabric, Add	2,330.72	
			For 2-1/8" Mesh Fabric, Deduct	-1,165.36	
			For Gate With Single Barb Wire Arm, Add	1,473.44	
			For Gate With Double Barb Wire Arm, Add	2,143.19	
			For Aluminized Steel Gate And Post, Add	6,429.58	
			For Powder Coated Gate And Post, Add	2,812.94	
			For Vinyl Coated, Add	4,018.49	
32 31 13	13-0632	EA	10' High x 15' Wide Galvanized Cantilever Sliding Gate.....	10,473.47	1,518.78
			For 1" Mesh Fabric, Add	3,234.63	
			For 1-1/4" Mesh Fabric, Add	2,082.06	
			For 1-3/4" Mesh Fabric, Add	1,293.85	
			For 2-1/8" Mesh Fabric, Deduct	-646.93	
			For Gate With Single Barb Wire Arm, Add	817.95	
			For Gate With Double Barb Wire Arm, Add	1,189.75	
			For Aluminized Steel Gate And Post, Add	3,569.24	
			For Powder Coated Gate And Post, Add	1,561.54	
			For Vinyl Coated, Add	2,230.78	
32 31 13	13-0633	EA	10' High x 20' Wide Galvanized Cantilever Sliding Gate.....	12,203.41	1,961.75
			For 1" Mesh Fabric, Add	3,601.76	
			For 1-1/4" Mesh Fabric, Add	2,318.37	
			For 1-3/4" Mesh Fabric, Add	1,440.70	
			For 2-1/8" Mesh Fabric, Deduct	-720.35	
			For Gate With Single Barb Wire Arm, Add	910.79	
			For Gate With Double Barb Wire Arm, Add	1,324.78	
			For Aluminized Steel Gate And Post, Add	3,974.35	
			For Powder Coated Gate And Post, Add	1,738.78	
			For Vinyl Coated, Add	2,483.97	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13	13-0634	EA	10' High x 25' Wide Galvanized Cantilever Sliding Gate.....	15,936.28	2,278.17
			For 1" Mesh Fabric, Add	4,950.28	
			For 1-1/4" Mesh Fabric, Add	3,186.39	
			For 1-3/4" Mesh Fabric, Add	1,980.11	
			For 2-1/8" Mesh Fabric, Deduct	-990.06	
			For Gate With Single Barb Wire Arm, Add	1,251.79	
			For Gate With Double Barb Wire Arm, Add	1,820.79	
			For Aluminized Steel Gate And Post, Add	5,462.38	
			For Powder Coated Gate And Post, Add	2,389.79	
			For Vinyl Coated, Add	3,413.99	
32 31 13	13-0635	EA	10' High x 30' Wide Galvanized Cantilever Sliding Gate.....	17,873.48	2,657.86
			For 1" Mesh Fabric, Add	5,462.63	
			For 1-1/4" Mesh Fabric, Add	3,516.17	
			For 1-3/4" Mesh Fabric, Add	2,185.05	
			For 2-1/8" Mesh Fabric, Deduct	-1,092.53	
			For Gate With Single Barb Wire Arm, Add	1,381.35	
			For Gate With Double Barb Wire Arm, Add	2,009.24	
			For Aluminized Steel Gate And Post, Add	6,027.72	
			For Powder Coated Gate And Post, Add	2,637.13	
			For Vinyl Coated, Add	3,767.33	
32 31 13	13-0636	EA	10' High x 36' Wide Galvanized Cantilever Sliding Gate.....	20,891.28	2,910.99
			For 1" Mesh Fabric, Add	6,555.15	
			For 1-1/4" Mesh Fabric, Add	4,219.41	
			For 1-3/4" Mesh Fabric, Add	2,622.06	
			For 2-1/8" Mesh Fabric, Deduct	-1,311.03	
			For Gate With Single Barb Wire Arm, Add	1,657.62	
			For Gate With Double Barb Wire Arm, Add	2,411.09	
			For Aluminized Steel Gate And Post, Add	7,233.27	
			For Powder Coated Gate And Post, Add	3,164.56	
			For Vinyl Coated, Add	4,520.79	
32 31 13	13-0637	EA	12' High x 15' Wide Galvanized Cantilever Sliding Gate.....	12,340.34	1,708.63
			For 1" Mesh Fabric, Add	3,881.55	
			For 1-1/4" Mesh Fabric, Add	2,498.47	
			For 1-3/4" Mesh Fabric, Add	1,552.62	
			For 2-1/8" Mesh Fabric, Deduct	-776.31	
			For Gate With Single Barb Wire Arm, Add	981.54	
			For Gate With Double Barb Wire Arm, Add	1,427.70	
			For Aluminized Steel Gate And Post, Add	4,283.09	
			For Powder Coated Gate And Post, Add	1,873.85	
			For Vinyl Coated, Add	2,676.93	
32 31 13	13-0638	EA	12' High x 20' Wide Galvanized Cantilever Sliding Gate.....	14,350.72	2,151.60
			For 1" Mesh Fabric, Add	4,370.67	
			For 1-1/4" Mesh Fabric, Add	2,813.31	
			For 1-3/4" Mesh Fabric, Add	1,748.27	
			For 2-1/8" Mesh Fabric, Deduct	-874.13	
			For Gate With Single Barb Wire Arm, Add	1,105.23	
			For Gate With Double Barb Wire Arm, Add	1,607.60	
			For Aluminized Steel Gate And Post, Add	4,822.81	
			For Powder Coated Gate And Post, Add	2,109.98	
			For Vinyl Coated, Add	3,014.26	
32 31 13	13-0639	EA	12' High x 25' Wide Galvanized Cantilever Sliding Gate.....	18,591.97	2,468.01
			For 1" Mesh Fabric, Add	5,940.33	
			For 1-1/4" Mesh Fabric, Add	3,823.66	
			For 1-3/4" Mesh Fabric, Add	2,376.13	
			For 2-1/8" Mesh Fabric, Deduct	-1,188.07	
			For Gate With Single Barb Wire Arm, Add	1,502.15	
			For Gate With Double Barb Wire Arm, Add	2,184.95	
			For Aluminized Steel Gate And Post, Add	6,554.85	
			For Powder Coated Gate And Post, Add	2,867.75	
			For Vinyl Coated, Add	4,096.78	
32 31 13	13-0640	EA	12' High x 30' Wide Galvanized Cantilever Sliding Gate.....	20,638.16	2,784.42
			For 1" Mesh Fabric, Add	6,555.15	
			For 1-1/4" Mesh Fabric, Add	4,219.41	
			For 1-3/4" Mesh Fabric, Add	2,622.06	
			For 2-1/8" Mesh Fabric, Deduct	-1,311.03	
			For Gate With Single Barb Wire Arm, Add	1,657.62	
			For Gate With Double Barb Wire Arm, Add	2,411.09	
			For Aluminized Steel Gate And Post, Add	7,233.27	
			For Powder Coated Gate And Post, Add	3,164.56	
			For Vinyl Coated, Add	4,520.79	
32 31 13	13-0641	EA	12' High x 36' Wide Galvanized Cantilever Sliding Gate.....	23,376.91	3,037.55
			For 1" Mesh Fabric, Add	7,526.29	
			For 1-1/4" Mesh Fabric, Add	4,844.51	
			For 1-3/4" Mesh Fabric, Add	3,010.51	
			For 2-1/8" Mesh Fabric, Deduct	-1,505.26	
			For Gate With Single Barb Wire Arm, Add	1,903.20	
			For Gate With Double Barb Wire Arm, Add	2,768.29	
			For Aluminized Steel Gate And Post, Add	8,304.87	
			For Powder Coated Gate And Post, Add	3,633.38	
			For Vinyl Coated, Add	5,190.54	
32 31 13	13-0642	Gate Accessories (32 31 13 13-0263)			
	32 31 13 13-0643	EA	Gate Center Stop, Cast Steel, Ground.....	46.07	
	32 31 13 13-0644	EA	Gate Latch, Malleable Galvanized Steel.....	57.93	
	32 31 13 13-0645	EA	Gate Keeper, Full Length, Galvanized Steel.....	268.32	
	32 31 13 13-0646	EA	Gate Keeper Hold-Open For Cantilever Gate.....	110.16	20.64

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0647	EA	Heavy Duty Gate Latch, Malleable Galvanized Steel	62.40	
32 31 13 13-0648	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For 3' To 5' High Gate.....	1,140.99	
32 31 13 13-0649	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For >5' To 8' High Gate	1,223.01	
32 31 13 13-0650	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For >8' To 12' High Gate	1,305.03	
32 31 13 13-0651	LF	Aluminum V-Groove Gate Track	60.34	11.79
32 31 13 13-0652	LF	Galvanized Steel V-Groove Gate Track.....	45.84	11.79
32 31 13 13-0653		Vertical-Pivot Lift Gate (32 31 13 13-0263) Note: Includes 2" diameter Schedule 40 pipe frame top and bottom bar, and 1-1/2" bracing. Includes operator. Fabric: galvanized chain link 2" mesh # 9 gauge, galvanized 1.2 ounce coating. Width listed on tasks is opening width of gate.		
32 31 13 13-0654	EA	5' High x 12' Wide Galvanized Vertical-Pivot Lift Gate.....	22,812.11	949.23
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
32 31 13 13-0655	EA	5' High x 14' Wide Galvanized Vertical-Pivot Lift Gate.....	23,191.81	1,139.08
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
32 31 13 13-0656	EA	5' High x 16' Wide Galvanized Vertical-Pivot Lift Gate.....	23,571.50	1,328.92
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	287.50	
32 31 13 13-0657	EA	5' High x 18' Wide Galvanized Vertical-Pivot Lift Gate.....	24,213.43	1,518.78
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	317.50	
32 31 13 13-0658	EA	5' High x 20' Wide Galvanized Vertical-Pivot Lift Gate.....	24,842.25	1,708.63
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	317.50	
32 31 13 13-0659	EA	6' High x 12' Wide Galvanized Vertical-Pivot Lift Gate.....	23,893.02	1,234.01
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
32 31 13 13-0660	EA	6' High x 14' Wide Galvanized Vertical-Pivot Lift Gate.....	24,272.72	1,423.85
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
32 31 13 13-0661	EA	6' High x 16' Wide Galvanized Vertical-Pivot Lift Gate.....	24,652.41	1,613.70
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	287.50	
32 31 13 13-0662	EA	6' High x 18' Wide Galvanized Vertical-Pivot Lift Gate.....	25,176.33	1,803.55
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	317.50	
32 31 13 13-0663	EA	6' High x 20' Wide Galvanized Vertical-Pivot Lift Gate.....	25,923.16	1,993.39
		For Curb Notch, Add	239.00	
		For Prewired Loop Kit, Add	245.00	
		For Wind Bracing, Add	317.50	
32 31 13 13-0664		Accessories (32 31 13 13)		
32 31 13 13-0665		Barbed And Concertina Wire (32 31 13 13-0664)		
32 31 13 13-0666		Single Strand Barbed Wire (32 31 13 13-0665)		
32 31 13 13-0667	LF	Galvanized Barbed Wire, Per Strand..... Note: Includes clips. 4 points 12-1/2 Gauge, Class I.	1.18	0.55
		For >500 To 2,000, Deduct	-0.11	
		For >2,000, Deduct	-0.17	
32 31 13 13-0668	LF	Vinyl Coated Barbed Wire (Fused), Per Strand..... Note: Includes clips.	1.32	0.55
		For >500 To 2,000, Deduct	-0.12	
		For >2,000, Deduct	-0.18	
32 31 13 13-0669	EA	Barbed Wire Extension Arms 3 Strands (Single Arm).....	12.63	8.69
32 31 13 13-0670	EA	Barbed Wire Extension Arms 6 Strands (Double Arm).....	20.10	10.42
32 31 13 13-0671	EA	Barbed Wire Eye Tops (For Single Strand).....	13.14	8.69
32 31 13 13-0672		Galvanized Steel Concertina (Razor) Wire, Single Coil (32 31 13 13-0665)		
32 31 13 13-0673	LF	18" Diameter, 18" On Center Galvanized Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	5.39	0.76
		For >500 To 1,500, Deduct	-0.46	
		For >1,500 To 5,000, Deduct	-0.92	
		For >5,000, Deduct	-1.30	
		For Ground Installation, Deduct	-0.54	
		For Double Coil (Helix), Add	4.31	



Exterior Improvements		32
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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0674	LF		18" Diameter, 12" On Center Galvanized Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	8.13	0.76
			For >500 To 1,500, Deduct	-0.69	
			For >1,500 To 5,000, Deduct	-1.38	
			For >5,000, Deduct	-1.95	
			For Ground Installation, Deduct	-0.82	
			For Double Coil (Helix), Add	6.50	
32 31 13 13-0675	LF		18" Diameter, 9" On Center Galvanized Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence.....	10.77	0.76
			For >500 To 1,500, Deduct	-0.92	
			For >1,500 To 5,000, Deduct	-1.83	
			For >5,000, Deduct	-2.59	
			For Ground Installation, Deduct	-1.09	
			For Double Coil (Helix), Add	8.60	
32 31 13 13-0676	LF		24" Diameter, 18" On Center Galvanized Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	9.27	0.76
			For >500 To 1,500, Deduct	-0.76	
			For >1,500 To 5,000, Deduct	-1.51	
			For >5,000, Deduct	-2.10	
			For Ground Installation, Deduct	-0.61	
			For Double Coil (Helix), Add	8.06	
32 31 13 13-0677	LF		24" Diameter, 12" On Center Galvanized Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	14.00	0.76
			For >500 To 1,500, Deduct	-1.14	
			For >1,500 To 5,000, Deduct	-2.28	
			For >5,000, Deduct	-3.16	
			For Ground Installation, Deduct	-0.91	
			For Double Coil (Helix), Add	12.19	
32 31 13 13-0678	LF		24" Diameter, 9" On Center Galvanized Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence.....	18.49	0.76
			For >500 To 1,500, Deduct	-1.51	
			For >1,500 To 5,000, Deduct	-3.01	
			For >5,000, Deduct	-4.18	
			For Ground Installation, Deduct	-1.20	
			For Double Coil (Helix), Add	16.10	
32 31 13 13-0679	LF		30" Diameter, 18" On Center Galvanized Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	29.61	0.76
			For >500 To 1,500, Deduct	-2.29	
			For >1,500 To 5,000, Deduct	-4.58	
			For >5,000, Deduct	-6.19	
			For Ground Installation, Deduct	-0.68	
			For Double Coil (Helix), Add	28.25	
32 31 13 13-0680	LF		30" Diameter, 12" On Center Galvanized Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	44.80	0.76
			For >500 To 1,500, Deduct	-3.46	
			For >1,500 To 5,000, Deduct	-6.92	
			For >5,000, Deduct	-9.37	
			For Ground Installation, Deduct	-1.02	
			For Double Coil (Helix), Add	42.77	
32 31 13 13-0681	LF		30" Diameter, 9" On Center Galvanized Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence.....	59.21	0.76
			For >500 To 1,500, Deduct	-4.58	
			For >1,500 To 5,000, Deduct	-9.15	
			For >5,000, Deduct	-12.39	
			For Ground Installation, Deduct	-1.36	
			For Double Coil (Helix), Add	56.49	
32 31 13 13-0682			Stainless Steel Concertina (Razor) Wire, Single Coil (32 31 13 13-0665)		
32 31 13 13-0683	LF		18" Diameter, 18" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	10.00	0.76
			For >500 To 1,500, Deduct	-0.80	
			For >1,500 To 5,000, Deduct	-1.61	
			For >5,000, Deduct	-2.22	
			For Ground Installation, Deduct	-0.54	
			For Double Coil (Helix), Add	8.92	
32 31 13 13-0684	LF		18" Diameter, 12" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	15.13	0.76
			For >500 To 1,500, Deduct	-1.22	
			For >1,500 To 5,000, Deduct	-2.43	
			For >5,000, Deduct	-3.35	
			For Ground Installation, Deduct	-0.82	
			For Double Coil (Helix), Add	13.50	
32 31 13 13-0685	LF		18" Diameter, 9" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence.....	20.00	0.76
			For >500 To 1,500, Deduct	-1.61	
			For >1,500 To 5,000, Deduct	-3.22	
			For >5,000, Deduct	-4.43	
			For Ground Installation, Deduct	-1.09	
			For Double Coil (Helix), Add	17.83	
32 31 13 13-0686	LF		24" Diameter, 18" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence.....	13.19	0.76
			For >500 To 1,500, Deduct	-1.05	
			For >1,500 To 5,000, Deduct	-2.10	
			For >5,000, Deduct	-2.88	
			For Ground Installation, Deduct	-0.61	
			For Double Coil (Helix), Add	11.98	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0687	LF	24" Diameter, 12" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence	19.94	0.76
		For >500 To 1,500, Deduct	-1.59	
		For >1,500 To 5,000, Deduct	-3.17	
		For >5,000, Deduct	-4.35	
		For Ground Installation, Deduct	-0.91	
		For Double Coil (Helix), Add	18.13	
32 31 13 13-0688	LF	24" Diameter, 9" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence	26.33	0.76
		For >500 To 1,500, Deduct	-2.09	
		For >1,500 To 5,000, Deduct	-4.19	
		For >5,000, Deduct	-5.75	
		For Ground Installation, Deduct	-1.20	
		For Double Coil (Helix), Add	23.94	
32 31 13 13-0689	LF	30" Diameter, 18" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 6th Barb On Top Of Chain Link Fence, Per LF Of Fence	44.43	0.76
		For >500 To 1,500, Deduct	-3.40	
		For >1,500 To 5,000, Deduct	-6.80	
		For >5,000, Deduct	-9.16	
		For Ground Installation, Deduct	-0.68	
		For Double Coil (Helix), Add	43.07	
32 31 13 13-0690	LF	30" Diameter, 12" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 4th Barb On Top Of Chain Link Fence, Per LF Of Fence	67.26	0.76
		For >500 To 1,500, Deduct	-5.15	
		For >1,500 To 5,000, Deduct	-10.29	
		For >5,000, Deduct	-13.86	
		For Ground Installation, Deduct	-1.02	
		For Double Coil (Helix), Add	65.23	
32 31 13 13-0691	LF	30" Diameter, 9" On Center, Stainless Steel Concertina (Razor) Wire, Attach To Every 3rd Barb On Top Of Chain Link Fence, Per LF Of Fence	88.85	0.76
		For >500 To 1,500, Deduct	-6.80	
		For >1,500 To 5,000, Deduct	-13.60	
		For >5,000, Deduct	-18.31	
		For Ground Installation, Deduct	-1.36	
		For Double Coil (Helix), Add	86.13	
32 31 13 13-0692		Grounding For Gates (32 31 13 13-0694) Note: Includes two of each of the following per opening: 5/8 ground rods, clamps, braided straps and #6 bare copper wire.		
32 31 13 13-0693		OPNG Grounding For Gates (Per Opening)	490.47	
32 31 13 13-0694		Coiled Spring Reinforcing Wire (32 31 13 13-0664)		
32 31 13 13-0695		Galvanized Steel (32 31 13 13-0694)		
32 31 13 13-0696	LF	7 Gauge, Galvanized Steel, Reinforcing Wire Coiled Spring	1.29	0.55
32 31 13 13-0697		Vinyl Coated Steel (32 31 13 13-0694)		
32 31 13 13-0698	LF	9 Gauge, Vinyl Coated Steel, Reinforcing Wire Coiled Spring	1.28	0.55
32 31 13 13-0699		Bending Of Fabric Around Pipe Railings (32 31 13 13-0664) Note: Only where specified.		
32 31 13 13-0700	LF	Bend Chain Link Fence Fabric Around Pipe Railing, Top	1.74	
32 31 13 13-0701	LF	Bend Chain Link Fence Fabric Around Pipe Railing, Bottom	1.51	
32 31 13 13-0702		Mounting Plate With Anchors Or Bolts (32 31 13 13-0664) Note: For drilling for anchor or bolts, installing post on or against flat surface.		
32 31 13 13-0703	EA	Mounting Plate For 1-5/8" Diameter Post	48.03	
32 31 13 13-0704	EA	Mounting Plate For 2" Diameter Post	48.81	
32 31 13 13-0705	EA	Mounting Plate For 2-1/2" Diameter Post	50.20	
32 31 13 13-0706	EA	Mounting Plate For 3" Diameter Post	60.43	
32 31 13 13-0707	EA	Mounting Plate For 4" Diameter Post	69.45	
32 31 13 13-0708	EA	Mounting Plate For 6-5/8" Diameter Post	80.41	
32 31 13 13-0709	EA	Mounting Plate For 8-5/8" Diameter Post	94.76	
32 31 13 13-0710		Tension Bar (32 31 13 13-0664)		
32 31 13 13-0711	EA	3' Long x 5/8" Wide x 3/16" Thick Galvanized Steel Tension Bar	17.20	
32 31 13 13-0712	EA	3-1/2' Long x 5/8" Wide x 3/16" Thick Galvanized Steel Tension Bar	18.28	
32 31 13 13-0713	EA	4' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	22.42	
32 31 13 13-0714	EA	5' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	25.94	
32 31 13 13-0715	EA	6' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	30.57	
32 31 13 13-0716	EA	7' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	35.39	
32 31 13 13-0717	EA	8' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	39.99	
32 31 13 13-0718	EA	9' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	47.89	
32 31 13 13-0719	EA	10' Long x 3/4" Wide x 3/16" Thick Galvanized Steel Tension Bar	57.29	
32 31 13 13-0720		Truss Rods (32 31 13 13-0664)		



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MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0721	LF	3/8" Diameter Truss Rods.....	2.32	0.61
32 31 13 13-0722		Fence And Gate Repair And Replacement (32 31 13 13)		
32 31 13 13-0723		Fence And Gate Parts Replacement (32 31 13 13-0722)		
32 31 13 13-0724	EA	Cantilever Roller Assembly, Ball Bearing With Fittings, Replacement.....	133.82	
32 31 13 13-0725	EA	Sliding Gate Roller Assembly Replacement.....	131.70	
32 31 13 13-0726	EA	Rod And Lock Gate Keeper Replacement.....	132.92	
32 31 13 13-0727	EA	Galvanized Gate Holdback Replacement.....	29.98	
32 31 13 13-0728	LF	3/8" Cross Bracing Rod Replacement.....	1.73	
32 31 13 13-0729	LF	1-5/8" Diagonal Pipe Bracing Replacement.....	2.68	
32 31 13 13-0730	EA	2-3/8" To 2-1/2" Diameter Galvanized Steel Gate Hinge With Bolts, Replacement.....	29.03	
32 31 13 13-0731	EA	2-7/8" To 3" Diameter Galvanized Steel Gate Hinge With Bolts, Replacement.....	33.20	
32 31 13 13-0732	EA	3-1/2" To 4" Diameter Galvanized Steel Gate Hinge With Bolts, Replacement.....	37.47	
32 31 13 13-0733	EA	6-1/2" To 6-5/8" Diameter Galvanized Steel Gate Hinge With Bolts, Replacement.....	55.57	
32 31 13 13-0734	EA	8-5/8" Diameter Galvanized Steel Gate Hinge With Bolts, Replacement.....	120.43	
32 31 13 13-0735	EA	2-1/2" x 2" Off Set Gate Hinge Replacement.....	27.88	
32 31 13 13-0736	EA	3" x 2" Off Set Gate Hinge Replacement.....	29.12	
32 31 13 13-0737	EA	4" x 2" Off Set Gate Hinge Replacement.....	31.07	
32 31 13 13-0738	EA	6-5/8" x 2" Off Set Gate Hinge Replacement.....	50.27	
32 31 13 13-0739	EA	8-5/8" x 2" Off Set Gate Hinge Replacement.....	78.72	
32 31 13 13-0740	EA	1-5/8" Aluminum Die-Cast Post Cap Replacement.....	6.29	
32 31 13 13-0741	EA	2" Aluminum Die-Cast Post Cap Replacement.....	6.90	
32 31 13 13-0742	EA	2-1/2" Aluminum Die-Cast Post Cap Replacement.....	8.04	
32 31 13 13-0743	EA	3" Aluminum Die-Cast Post Cap Replacement.....	9.37	
32 31 13 13-0744	EA	2" Galvanized Post Cap Replacement.....	7.00	
32 31 13 13-0745	EA	2-1/2" Galvanized Post Cap Replacement.....	7.58	
32 31 13 13-0746	EA	3" Galvanized Post Cap Replacement.....	8.68	
32 31 13 13-0747	EA	4" Galvanized Post Cap Replacement.....	12.77	
32 31 13 13-0748	EA	6-5/8" Galvanized Post Cap Replacement.....	23.70	
32 31 13 13-0749	EA	8-5/8" Galvanized Post Cap Replacement.....	38.76	
32 31 13 13-0750	EA	1-5/8" Boulevard Clamp Replacement.....	11.71	
32 31 13 13-0751	EA	2" Boulevard Clamp Replacement.....	14.27	
32 31 13 13-0752	EA	2-1/2" Boulevard Clamp Replacement.....	16.74	
32 31 13 13-0753	EA	3" Boulevard Clamp Replacement.....	20.31	
32 31 13 13-0754	EA	1-5/8" Gate Brace Or End Rail Clamp Replacement.....	11.49	
32 31 13 13-0755	EA	2" Gate Brace Or End Rail Clamp Replacement.....	13.96	
32 31 13 13-0756	EA	2-1/2" Gate Brace Or End Rail Clamp Replacement.....	16.44	
32 31 13 13-0757	EA	3" Gate Brace Or End Rail Clamp Replacement.....	19.99	
32 31 13 13-0758	EA	1-5/8" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	11.92	
32 31 13 13-0759	EA	2" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	12.18	
32 31 13 13-0760	EA	2-1/2" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	12.06	
32 31 13 13-0761	EA	3" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	12.26	
32 31 13 13-0762	EA	3-1/2" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	12.42	
32 31 13 13-0763	EA	4" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	12.89	
32 31 13 13-0764	EA	6-5/8" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	16.32	
32 31 13 13-0765	EA	1-3/8" Heavy Duty Galvanized Tension Band With Bolt, Replacement.....	11.82	
32 31 13 13-0766		Removal And Reinstallation Of Chain Link Fences (32 31 13 13) Note: Includes removal, storage, cleaning and reinstallation of fence fabric, rails and other components. Excludes post work. See CSI section 32 31 13 13-0001 for new post holes where required, 32 31 13 13-0058 for new fence posts where required.		
32 31 13 13-0767	LF	Removal And Reinstallation Of Chain Link Fence Up To 5' Height.....	21.72	
32 31 13 13-0768	LF	Removal And Reinstallation Of Chain Link Fence 6' To 12' Height.....	32.58	
32 31 13 13-0769		Decorative Privacy Fence (32 31 13 13) Note: Includes fastener clips		
32 31 13 13-0770	LF	59", Faux Ivy Leaf Decorative Privacy Fence..... Note: Includes faux ivy leaves closely attached to the mesh screen. Applied to fence, railing or wall	16.98	2.10
32 31 13 13-0771		Ballfield Fencing (32 31 13 13) See CSI section 32 31 13 13-0001 for auguring holes and concrete.		
32 31 13 13-0772		Concrete Bases For Ballfield Poles, Cast In Place (32 31 13 13-0771) Note: Includes excavation/drilling, concrete, reinforcement, forms for exposed base, anchors/supports and backfill.		
32 31 13 13-0773	VLF	2-1/2" Diameter Concrete Base For Ballfield Poles.....	130.00	
32 31 13 13-0774	VLF	3" Diameter Concrete Base For Ballfield Poles.....	152.24	
32 31 13 13-0775	VLF	3-1/2" Diameter Concrete Base For Ballfield Poles.....	190.41	
32 31 13 13-0776	VLF	4" Diameter Concrete Base For Ballfield Poles.....	223.87	
32 31 13 13-0777		Ballfield Poles (32 31 13 13-0771)		
32 31 13 13-0778	EA	20' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting..... Note: 10' above grade	8,097.93	684.10
32 31 13 13-0779	EA	25' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting..... Note: 15' above grade	10,045.13	855.12

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 13-0780 EA 30' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting Note: 20' above grade	11,544.14	1,026.14
32 31 13 13-0781 EA 40' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting Note: 30' above grade	15,522.62	1,197.17
32 31 13 13-0782 EA 50' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting Note: 40' above grade	20,805.99	1,368.19
32 31 13 13-0783 EA 60' Galvanized Steel Pole, 24" Diameter At Base For Ballfield Netting Note: 50' above grade	23,249.99	1,539.21
32 31 13 13-0784 Ballfield Nylon Netting (32 31 13 13-0771) Note: Excludes fastening clips and cabling See CSI section 05 15 00 00-0000 for cabling and accessories.		
32 31 13 13-0785 LF 10' High, #18 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	1.70	
32 31 13 13-0786 LF 10' High, #21 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	1.74	
32 31 13 13-0787 LF 10' High, #36 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	1.96	
32 31 13 13-0788 LF 10' High, #42 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	2.21	
32 31 13 13-0789 LF 10' High, #48 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	2.45	
32 31 13 13-0790 LF 10' High, #60 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	3.28	
32 31 13 13-0791 LF 10' High, #72 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	3.73	
32 31 13 13-0792 LF 10' High, #96 Black Twisted Knotted Nylon Square 1-3/4" Mesh With Sewn Borders For Ballfield Netting	4.86	
32 31 13 13-0793 Ballfield Chainlink Netting (32 31 13 13-0771) Note: Excludes fastening clips and cabling See CSI section 05 15 00 00-0000 for cabling and accessories.		
32 31 13 13-0794 SF #9 Gauge Chain Link Fabric, 2" Mesh For Ballfield Netting	3.60	1.17
For 13 Gauge Fabric, Deduct	-0.58	
For 11 Gauge Fabric, Deduct	-0.32	
For 6 Gauge Fabric, Add	1.02	
For 1" Mesh Fabric, Add	0.96	
For 1-3/4" Mesh Fabric, Add	0.38	
For 2-1/8" Mesh Fabric, Deduct	-0.19	
For 2-3/8" Mesh Fabric, Deduct	-0.26	
32 31 13 13-0795 Ballfield Netting Accessories (32 31 13 13-0771)		
32 31 13 13-0796 EA Sliding Clip For Ballfield Netting.....	8.32	
32 31 13 13-0797 EA 1/4" Utility Spring Swing Clip For Ballfield Netting	3.70	
32 31 13 13-0798 EA 5/16" Utility Spring Swing Clip For Ballfield Netting	3.90	
32 31 13 13-0799 EA 3/8" Utility Spring Swing Clip For Ballfield Netting	4.20	
32 31 13 33 Chain Link Backstops (32 31 13)		
32 31 13 33-0001 Regulation Baseball Backstop (32 31 13 33) See CSI section 32 31 13 13-0001 for auguring holes and concrete.		
32 31 13 33-0002 EA 20'-6" Wide x 13' High Baseball Backstop Prefabricated With Hood, Galvanized.....	13,371.01	2,196.57
32 31 13 33-0003 EA 34' Wide x 17'-6" High Baseball Backstop Prefabricated With Hood, Galvanized.....	19,285.35	2,928.77
32 31 13 33-0004 EA 48'-3-1/2" Wide x 24' High Baseball Backstop Prefabricated With Hood, Galvanized	24,575.15	3,416.89
32 31 13 33-0005 EA 20'-6" Wide x 13' High Baseball Backstop Prefabricated With Hood, Vinyl Coated	18,759.83	2,196.57
32 31 13 33-0006 EA 34' Wide x 17'-6" High Baseball Backstop Prefabricated With Hood, Vinyl Coated	27,348.73	2,928.77
32 31 13 33-0007 EA 48'-3-1/2" Wide x 24' High Baseball Backstop Prefabricated With Hood, Vinyl Coated	35,216.04	3,416.89
32 31 13 33-0008 Regulation Softball Backstop (32 31 13 33) See CSI section 32 31 13 13-0001 for auguring holes and concrete.		
32 31 13 33-0009 14' High Softball Backstop (32 31 13 33-0008) Note: Includes 3" outside diameter posts every 8', top, middle, and bottom brace rails, overhang panel with 9 gauge mesh and 1-1/8" outside diameter frame, 16' of 6 gauge mesh and 32' of 9 gauge mesh.		
32 31 13 33-0010 EA 14' Softball Backstop, Galvanized Regulation.....	11,332.96	2,201.09
32 31 13 33-0011 EA 14' Softball Backstop, Vinyl Coated Regulation	15,197.92	2,201.09
32 31 13 33-0012 18' High Softball Backstop (32 31 13 33-0008) Note: Includes 3" outside diameter posts every 8', top, middle, and bottom brace rails, overhang panel with 9 gauge mesh and 1-1/8" outside diameter frame, 16' of 6 gauge mesh and 32' of 9 gauge mesh.		
32 31 13 33-0013 EA 18' Softball Backstop, Galvanized Regulation.....	13,230.04	2,447.01
32 31 13 33-0014 EA 18' Softball Backstop Vinyl Coated Regulation	17,905.38	2,447.01
32 31 13 33-0015 20' High Softball Backstop (32 31 13 33-0008) Note: Includes 3" outside diameter posts every 8', top, middle, and bottom brace rails, overhang panel with 9 gauge mesh and 1-1/8" outside diameter frame, 16' of 6 gauge mesh and 32' of 9 gauge mesh.		
32 31 13 33-0016 EA 20' Softball Backstop, Galvanized Regulation.....	14,980.19	2,580.02
32 31 13 33-0017 EA 20' Softball Backstop, Vinyl Coated Regulation	20,528.32	2,580.02
32 31 13 33-0018 22' High Softball Backstop (32 31 13 33-0008) Note: Includes 3" outside diameter posts every 8', top, middle, and bottom brace rails, overhang panel with 9 gauge mesh and 1-1/8" outside diameter frame, 16' of 6 gauge mesh and 32' of 9 gauge mesh.		
32 31 13 33-0019 EA 22' Softball Backstop, Galvanized Regulation.....	17,253.40	2,657.86
32 31 13 33-0020 EA 22' Softball Backstop, Vinyl Coated Regulation	23,923.56	2,657.86



Exterior Improvements		32
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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 13 33-0021		24' High Softball Backstop (32 31 13 33-0008) Note: Includes 3" outside diameter posts every 8', top, middle, and bottom brace rails, overhang panel with 9 gauge mesh and 1-1/8" outside diameter frame, 16' of 6 gauge mesh and 32' of 9 gauge mesh.		
32 31 13 33-0022	EA	24' Softball Backstop, Galvanized Regulation	20,532.55	3,037.55
32 31 13 33-0023	EA	24' Softball Backstop, Vinyl Coated Regulation	28,823.49	3,037.55
32 31 16		Welded Wire Fences and Gates (32 31)		
32 31 16 00-0001		Welded Wire Fence (32 31 16)		
32 31 16 00-0002		12 Gauge Galvanized Steel Welded Wire Fence, 2" x 4" Mesh (32 31 16 00-0001) Note: Posts 5' on center.		
32 31 16 00-0003	LF	3' High, 12 Gauge Galvanized Steel Welded Wire Fence, 2" x 4" Mesh, Posts At 5'	0.72	1.96
32 31 16 00-0004	LF	5' High, 12 Gauge Galvanized Steel Welded Wire Fence, 2" x 4" Mesh, Posts At 5'	11.52	1.96
32 31 16 00-0005		14 Gauge Galvanized Steel Welded Wire Fence, 1" x 2" Mesh (32 31 16 00-0001) Note: Posts 5' on center.		
32 31 16 00-0006	LF	3' High, 14 Gauge Galvanized Steel Welded Wire Fence, 1" x 2" Mesh, Posts At 5'	10.56	1.96
32 31 16 00-0007	LF	5' High, 14 Gauge Galvanized Steel Welded Wire Fence, 1" x 2" Mesh, Posts At 5'	11.27	1.96
32 31 16 00-0008		Welded Galvanized Perforated Wired Metal Screen Panel (32 31 16)		
32 31 16 00-0009		16 Gauge Welded Galvanized Perforated Wired Metal Screen Panel (32 31 16 00-0008)		
32 31 16 00-0010	EA	7' High x 30' Wide, 16 Gauge Welded Galvanized Perforated Wired Metal Screen Panel Note: 40% Open Area	10,054.22	1,154.27
32 31 16 00-0011		Galvanized Steel Welded Wire Fence Assemblies (32 31 16)		
32 31 16 00-0012		6 Gauge, 2" x 6" Mesh, Galvanized Steel Welded Wire Fence Assemblies (32 31 16 00-0011) Note: Posts 8' on center.		
32 31 16 00-0013	LF	48" Height, 6 Gauge, 2" x 6" Mesh, Galvanized Steel Welded Wire Fence Assembly Note: 2" Square, 16 Gauge Posts at 8' Centers	47.91	1.96
32 31 16 00-0014	LF	60" Height, 6 Gauge, 2" x 6" Mesh, Galvanized Steel Welded Wire Fence Assembly Note: 2" Square, 16 Gauge Posts at 8' Centers	57.07	1.96
32 31 16 00-0015	LF	72" Height, 6 Gauge, 2" x 6" Mesh, Galvanized Steel Welded Wire Fence Assembly Note: 2" Square, 16 Gauge Posts at 8' Centers	63.86	1.96
32 31 16 00-0016	LF	96" Height, 6 Gauge, 2" x 6" Mesh, Galvanized Steel Welded Wire Fence Assembly Note: 2-1/2" Square, 16 Gauge Posts at 8' Centers	89.68	1.96
32 31 19		Decorative Metal Fences and Gates (32 31) See CSI section 32 31 13 13-0001 for drilling and grouting.		
32 31 19 00-0001		Wrought Iron Fence (32 31 19) Note: Factory primed.		
32 31 19 00-0002		Wrought Iron Fence, 3/4" Verticals At >3" To 4" On Center (32 31 19 00-0001) Note: Factory primed 8 foot long panel sections.		
32 31 19 00-0003	LF	3' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 2" Square Posts, Set 8' On Center For 6' Length Fence Panels With Posts Set 6' O.C., Add For Verticals Up To 2" On Center, Add For Verticals >2" To 2-1/2" On Center, Add For Verticals >2-1/2" To 3" On Center, Add For Verticals >4" To 6" On Center, Deduct For Pickets Extending Above Top Rail, Add For Curved Pickets Extending Above Top Rail, Add	48.01 8.87 7.72 4.82 1.93 -2.17 4.21 9.63	11.95
32 31 19 00-0004	LF	4' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 2" Square Posts, Set 8' On Center For 6' Length Fence Panels With Posts Set 6' O.C., Add For Verticals Up To 2" On Center, Add For Verticals >2" To 2-1/2" On Center, Add For Verticals >2-1/2" To 3" On Center, Add For Verticals >4" To 6" On Center, Deduct For Pickets Extending Above Top Rail, Add For Curved Pickets Extending Above Top Rail, Add	61.31 11.25 10.23 6.39 2.56 -2.88 5.46 12.59	15.20
32 31 19 00-0005	LF	5' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 2" Square Posts, Set 8' On Center For 6' Length Fence Panels With Posts Set 6' O.C., Add For Verticals Up To 2" On Center, Add For Verticals >2" To 2-1/2" On Center, Add For Verticals >2-1/2" To 3" On Center, Add For Verticals >4" To 6" On Center, Deduct For Pickets Extending Above Top Rail, Add For Curved Pickets Extending Above Top Rail, Add	72.25 13.07 12.90 8.06 3.23 -3.63 6.64 15.50	15.86

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 19 00-0006	LF	6' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 2" Square Posts, Set 8' On Center.....	87.40	19.11
		For 6' Length Fence Panels With Posts Set 6' O.C., Add	15.79	
		For Verticals Up To 2" On Center, Add	15.71	
		For Verticals >2" To 2-1/2" On Center, Add	9.82	
		For Verticals >2-1/2" To 3" On Center, Add	3.93	
		For Verticals >4" To 6" On Center, Deduct	-4.42	
		For Pickets Extending Above Top Rail, Add	8.05	
		For Curved Pickets Extending Above Top Rail, Add	18.83	
32 31 19 00-0007	LF	7' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 2" Square Posts, Set 8' On Center.....	101.46	20.22
		For 6' Length Fence Panels With Posts Set 6' O.C., Add	18.05	
		For Verticals Up To 2" On Center, Add	19.52	
		For Verticals >2" To 2-1/2" On Center, Add	12.20	
		For Verticals >2-1/2" To 3" On Center, Add	4.88	
		For Verticals >4" To 6" On Center, Deduct	-5.49	
		For Pickets Extending Above Top Rail, Add	9.65	
		For Curved Pickets Extending Above Top Rail, Add	22.86	
32 31 19 00-0008	LF	8' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 3" Square Posts, Set 8' On Center.....	115.49	21.28
		For 6' Length Fence Panels With Posts Set 6' O.C., Add	20.30	
		For Verticals Up To 2" On Center, Add	23.33	
		For Verticals >2" To 2-1/2" On Center, Add	14.58	
		For Verticals >2-1/2" To 3" On Center, Add	5.83	
		For Verticals >4" To 6" On Center, Deduct	-6.56	
		For Pickets Extending Above Top Rail, Add	11.24	
		For Curved Pickets Extending Above Top Rail, Add	26.89	
32 31 19 00-0009	LF	10' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 3" Square Posts, Set 8' On Center.....	139.64	23.89
		For 6' Length Fence Panels With Posts Set 6' O.C., Add	24.29	
		For Verticals Up To 2" On Center, Add	29.39	
		For Verticals >2" To 2-1/2" On Center, Add	18.37	
		For Verticals >2-1/2" To 3" On Center, Add	7.35	
		For Verticals >4" To 6" On Center, Deduct	-8.27	
		For Pickets Extending Above Top Rail, Add	13.87	
		For Curved Pickets Extending Above Top Rail, Add	33.44	
32 31 19 00-0010	LF	12' High Wrought Iron Fence, Verticals At >3" To 4" On Center With 3" Square Posts, Set 8' On Center.....	164.60	27.16
		For 6' Length Fence Panels With Posts Set 6' O.C., Add	28.49	
		For Verticals Up To 2" On Center, Add	35.30	
		For Verticals >2" To 2-1/2" On Center, Add	22.06	
		For Verticals >2-1/2" To 3" On Center, Add	8.82	
		For Verticals >4" To 6" On Center, Deduct	-9.93	
		For Pickets Extending Above Top Rail, Add	16.50	
		For Curved Pickets Extending Above Top Rail, Add	39.92	
32 31 19 00-0011		Wrought Iron Gates (32 31 19 00-0001) Note: Factory primed.		
32 31 19 00-0012		Single Wrought Iron Gates (32 31 19 00-0011) Note: Factory primed.		
32 31 19 00-0013	LF	3' Single Wrought Iron Gate, Hardware And Associated Trim	58.88	14.55
32 31 19 00-0014	LF	4' Single Wrought Iron Gate, Hardware And Associated Trim	77.24	18.03
32 31 19 00-0015	LF	5' Single Wrought Iron Gate, Hardware And Associated Trim	94.01	21.72
32 31 19 00-0016	LF	6' Single Wrought Iron Gate, Hardware And Associated Trim	114.11	26.06
32 31 19 00-0017	LF	8' Single Wrought Iron Gate, Hardware And Associated Trim	150.61	28.89
32 31 19 00-0018	LF	10' Single Wrought Iron Gate, Hardware And Associated Trim	181.05	31.93
32 31 19 00-0019	LF	12' Single Wrought Iron Gate, Hardware And Associated Trim	210.95	36.27
32 31 19 00-0020		Double Wrought Iron Gates (32 31 19 00-0011) Note: Factory primed.		
32 31 19 00-0021	LF	3' Double Wrought Iron Gate, Hardware And Associated Trim	71.75	13.03
32 31 19 00-0022	LF	4' Double Wrought Iron Gate, Hardware And Associated Trim	94.00	16.30
32 31 19 00-0023	LF	5' Double Wrought Iron Gate, Hardware And Associated Trim	113.92	19.55
32 31 19 00-0024	LF	6' Double Wrought Iron Gate, Hardware And Associated Trim	137.84	23.45
32 31 19 00-0025	LF	8' Double Wrought Iron Gate, Hardware And Associated Trim	182.78	26.06
32 31 19 00-0026	LF	10' Double Wrought Iron Gate, Hardware And Associated Trim	220.11	28.67
32 31 19 00-0027	LF	12' Double Wrought Iron Gate, Hardware And Associated Trim	256.95	32.58
32 31 19 00-0028		Repair Or Replace Wrought Iron Fence (32 31 19 00-0001)		
32 31 19 00-0029	LF	Removal And Replacement Of Wrought Iron Picket	20.54	
32 31 19 00-0030	LF	Removal And Replacement Of Wrought Iron Post.....	30.20	
32 31 19 00-0031	EA	Straighten Wrought Iron Post.....	86.88	
32 31 19 00-0032		Steel Tube Fence, Powder Coated (32 31 19) Note: Pickets are 3/4" square x 16 gauge.		
32 31 19 00-0033		Steel Tube Fence, 2 Rail (32 31 19 00-0032) Note: 6 foot long panel sections.		



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Fences and Gates		32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 19 00-0034	LF		3' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 2-1/2" Square Posts	74.03	11.95
			For Verticals Up To 2" On Center, Add	10.12	
			For Verticals >2" To 2-1/2" On Center, Add	5.06	
			For Verticals >3" To 4" On Center, Deduct	-5.06	
			For Verticals >4" To 6" On Center, Deduct	-10.12	
			For Pickets Extending Above Top Rail, Add	5.47	
			For Curved Pickets Extending Above Top Rail, Add	9.60	
			For Solid Pickets, Add	14.90	
			For Aluminum With Satin Finish, Add	11.67	
			For Third Rail, Add	3.80	
			For 1" Square x 14 Gauge Pickets, Add	12.65	
			For 3" Square Posts, Add	6.33	
32 31 19 00-0035	LF		3'-6" Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 2-1/2" Square Posts	79.25	12.77
			For Verticals Up To 2" On Center, Add	10.74	
			For Verticals >2" To 2-1/2" On Center, Add	5.37	
			For Verticals >3" To 4" On Center, Deduct	-5.37	
			For Verticals >4" To 6" On Center, Deduct	-10.74	
			For Pickets Extending Above Top Rail, Add	5.84	
			For Curved Pickets Extending Above Top Rail, Add	10.24	
			For Solid Pickets, Add	15.92	
			For Aluminum With Satin Finish, Add	12.28	
			For Third Rail, Add	4.03	
			For 1" Square x 14 Gauge Pickets, Add	13.43	
			For 3" Square Posts, Add	6.71	
32 31 19 00-0036	LF		4' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 2-1/2" Square Posts	83.89	14.12
			For Verticals Up To 2" On Center, Add	11.24	
			For Verticals >2" To 2-1/2" On Center, Add	5.62	
			For Verticals >3" To 4" On Center, Deduct	-5.62	
			For Verticals >4" To 6" On Center, Deduct	-11.24	
			For Pickets Extending Above Top Rail, Add	6.16	
			For Curved Pickets Extending Above Top Rail, Add	10.79	
			For Solid Pickets, Add	16.80	
			For Aluminum With Satin Finish, Add	12.72	
			For Third Rail, Add	4.22	
			For 1" Square x 14 Gauge Pickets, Add	14.06	
			For 3" Square Posts, Add	7.03	
32 31 19 00-0037	LF		5' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 2-1/2" Square Posts	89.56	15.86
			For Verticals Up To 2" On Center, Add	11.53	
			For Verticals >2" To 2-1/2" On Center, Add	5.76	
			For Verticals >3" To 4" On Center, Deduct	-5.76	
			For Verticals >4" To 6" On Center, Deduct	-11.53	
			For Pickets Extending Above Top Rail, Add	6.50	
			For Curved Pickets Extending Above Top Rail, Add	11.33	
			For Solid Pickets, Add	17.76	
			For Aluminum With Satin Finish, Add	12.50	
			For Third Rail, Add	4.32	
			For 1" Square x 14 Gauge Pickets, Add	14.41	
			For 3" Square Posts, Add	7.20	
32 31 19 00-0038	LF		6' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 2-1/2" Square Posts	103.76	17.92
			For Verticals Up To 2" On Center, Add	13.58	
			For Verticals >2" To 2-1/2" On Center, Add	6.79	
			For Verticals >3" To 4" On Center, Deduct	-6.79	
			For Verticals >4" To 6" On Center, Deduct	-13.58	
			For Pickets Extending Above Top Rail, Add	7.57	
			For Curved Pickets Extending Above Top Rail, Add	13.22	
			For Solid Pickets, Add	20.66	
			For Aluminum With Satin Finish, Add	15.00	
			For Third Rail, Add	5.09	
			For 1" Square x 14 Gauge Pickets, Add	16.98	
			For 3" Square Posts, Add	8.49	
32 31 19 00-0039	LF		7' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 3" Square Posts.....	118.68	19.55
			For Verticals Up To 2" On Center, Add	15.92	
			For Verticals >2" To 2-1/2" On Center, Add	7.96	
			For Verticals >3" To 4" On Center, Deduct	-7.96	
			For Verticals >4" To 6" On Center, Deduct	-15.92	
			For Pickets Extending Above Top Rail, Add	8.72	
			For Curved Pickets Extending Above Top Rail, Add	15.27	
			For Solid Pickets, Add	23.77	
			For Aluminum With Satin Finish, Add	18.01	
			For Third Rail, Add	5.97	
			For 1" Square x 14 Gauge Pickets, Add	19.90	
			For 4" Square Posts, Add	27.85	
32 31 19 00-0040	LF		8' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 3" Square Posts.....	133.80	21.28
			For Verticals Up To 2" On Center, Add	18.25	
			For Verticals >2" To 2-1/2" On Center, Add	9.12	
			For Verticals >3" To 4" On Center, Deduct	-9.12	
			For Verticals >4" To 6" On Center, Deduct	-18.25	
			For Pickets Extending Above Top Rail, Add	9.88	
			For Curved Pickets Extending Above Top Rail, Add	17.33	
			For Solid Pickets, Add	26.91	
			For Aluminum With Satin Finish, Add	20.98	
			For Third Rail, Add	6.84	
			For 1" Square x 14 Gauge Pickets, Add	22.81	
			For 4" Square Posts, Add	31.93	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 19 00-0041	LF		9' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 3" Square Posts.....	155.31	22.81
			For Verticals Up To 2" On Center, Add	21.94	
			For Verticals >2" To 2-1/2" On Center, Add	10.97	
			For Verticals >3" To 4" On Center, Deduct	-10.97	
			For Verticals >4" To 6" On Center, Deduct	-21.94	
			For Pickets Extending Above Top Rail, Add	11.61	
			For Curved Pickets Extending Above Top Rail, Add	20.42	
			For Solid Pickets, Add	31.52	
			For Aluminum With Satin Finish, Add	26.07	
			For Third Rail, Add	8.23	
			For 1" Square x 14 Gauge Pickets, Add	27.43	
			For 4" Square Posts, Add	38.40	
32 31 19 00-0042	LF		10' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 4" Square Posts.....	177.05	24.44
			For Verticals Up To 2" On Center, Add	25.63	
			For Verticals >2" To 2-1/2" On Center, Add	12.82	
			For Verticals >3" To 4" On Center, Deduct	-12.82	
			For Verticals >4" To 6" On Center, Deduct	-25.63	
			For Pickets Extending Above Top Rail, Add	13.34	
			For Curved Pickets Extending Above Top Rail, Add	23.53	
			For Solid Pickets, Add	36.17	
			For Aluminum With Satin Finish, Add	31.12	
			For Third Rail, Add	9.61	
			For 1" Square x 14 Gauge Pickets, Add	32.04	
			For 6" Square Posts, Add	44.86	
32 31 19 00-0043	LF		12' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 4" Square Posts.....	208.32	27.16
			For Verticals Up To 2" On Center, Add	30.80	
			For Verticals >2" To 2-1/2" On Center, Add	15.40	
			For Verticals >3" To 4" On Center, Deduct	-15.40	
			For Verticals >4" To 6" On Center, Deduct	-30.80	
			For Pickets Extending Above Top Rail, Add	15.81	
			For Curved Pickets Extending Above Top Rail, Add	27.95	
			For Solid Pickets, Add	42.80	
			For Aluminum With Satin Finish, Add	38.06	
			For Third Rail, Add	11.55	
			For 1" Square x 14 Gauge Pickets, Add	38.51	
			For 6" Square Posts, Add	53.91	
32 31 19 00-0044	LF		14' Steel Tube Fence, Verticals At >2-1/2" To 3" On Center With 4" Square Posts.....	223.18	29.33
			For Verticals Up To 2" On Center, Add	32.91	
			For Verticals >2" To 2-1/2" On Center, Add	16.45	
			For Verticals >3" To 4" On Center, Deduct	-16.45	
			For Verticals >4" To 6" On Center, Deduct	-32.91	
			For Pickets Extending Above Top Rail, Add	16.92	
			For Curved Pickets Extending Above Top Rail, Add	29.90	
			For Solid Pickets, Add	45.82	
			For Aluminum With Satin Finish, Add	40.56	
			For Third Rail, Add	12.34	
			For 1" Square x 14 Gauge Pickets, Add	41.13	
			For 6" Square Posts, Add	57.59	
32 31 19 00-0045			Steel Tube Swing Gates (32 31 19 00-0032)		
32 31 19 00-0046			3' Fence Height Steel Tube Swing Gates, 2 Rail (32 31 19 00-0045)		
32 31 19 00-0047	EA		3' Wide x 3' High Steel Tube Single Swing Gate	727.50	23.13
			Note: Includes mounting hardware and associated trim.		
			For Solid Pickets, Add	158.48	
			For Aluminum With Satin Finish, Add	186.98	
			For Third Rail, Add	49.35	
			For 1" Square x 14 Gauge Pickets, Add	65.80	
32 31 19 00-0048	EA		3'-6" Wide x 3' High Steel Tube Single Swing Gate	809.23	24.22
			Note: Includes mounting hardware and associated trim.		
			For Solid Pickets, Add	176.62	
			For Aluminum With Satin Finish, Add	210.02	
			For Third Rail, Add	55.23	
			For 1" Square x 14 Gauge Pickets, Add	73.65	
32 31 19 00-0049	EA		4' Wide x 3' High Steel Tube Single Swing Gate	895.60	25.63
			Note: Includes mounting hardware and associated trim.		
			For Solid Pickets, Add	195.73	
			For Aluminum With Satin Finish, Add	233.98	
			For Third Rail, Add	61.39	
			For 1" Square x 14 Gauge Pickets, Add	81.85	
32 31 19 00-0050	EA		5' Wide x 3' High Steel Tube Single Swing Gate	942.04	27.48
			Note: Includes mounting hardware and associated trim.		
			For Solid Pickets, Add	205.77	
			For Aluminum With Satin Finish, Add	245.47	
			For Third Rail, Add	64.46	
			For 1" Square x 14 Gauge Pickets, Add	85.95	
32 31 19 00-0051	EA		6' Wide x 3' High Steel Tube Single Swing Gate	1,052.84	32.91
			Note: Includes mounting hardware and associated trim.		
			For Solid Pickets, Add	229.48	
			For Aluminum With Satin Finish, Add	271.38	
			For Third Rail, Add	71.55	
			For 1" Square x 14 Gauge Pickets, Add	95.40	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 19 00-0052	EA		7' Wide x 3' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,120.84 243.56 284.45 75.43 100.57	38.34
32 31 19 00-0053	EA		8' Wide x 3' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,223.81 265.42 307.52 81.85 109.13	44.09
32 31 19 00-0054	EA		9' Wide x 3' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,313.22 284.32 327.01 87.33 116.44	49.53
32 31 19 00-0055	EA		10' Wide x 3' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,391.92 300.80 343.29 92.01 122.68	54.95
32 31 19 00-0056	EA		6' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,520.81 331.76 393.69 103.64 138.18	46.26
32 31 19 00-0057	EA		7' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,620.25 353.64 420.58 110.60 147.47	48.44
32 31 19 00-0058	EA		8' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,791.20 391.45 467.96 122.77 163.70	51.37
32 31 19 00-0059	EA		9' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,876.87 410.32 491.22 128.79 171.72	53.22
32 31 19 00-0060	EA		10' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,946.50 425.58 509.66 133.61 178.14	54.95
32 31 19 00-0061	EA		12' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,191.28 478.21 568.44 149.52 199.36	65.81
32 31 19 00-0062	EA		14' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,402.18 523.22 617.05 162.90 217.19	76.67
32 31 19 00-0063	EA		16' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,579.59 560.53 654.63 173.59 231.46	88.29
32 31 19 00-0064	EA		18' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,728.08 591.50 684.51 182.29 243.05	99.05
32 31 19 00-0065	EA		20' Wide x 3' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,849.82 616.45 706.37 188.97 251.97	109.91

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 19 00-0066	4' Fence Height Steel Tube Swing Gates, 2 Rail	(32 31 19 00-0045)		
32 31 19 00-0067	EA 3' Wide x 4' High Steel Tube Single Swing Gate		840.08	21.72
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		183.52	
	For Aluminum With Satin Finish, Add		219.04	
	For Third Rail, Add		57.51	
	For 1" Square x 14 Gauge Pickets, Add		76.68	
32 31 19 00-0068	EA 3'-6" Wide x 4' High Steel Tube Single Swing Gate		908.77	25.30
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		198.77	
	For Aluminum With Satin Finish, Add		238.42	
	For Third Rail, Add		62.46	
	For 1" Square x 14 Gauge Pickets, Add		83.28	
32 31 19 00-0069	EA 4' Wide x 4' High Steel Tube Single Swing Gate		980.19	27.16
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		214.43	
	For Aluminum With Satin Finish, Add		257.40	
	For Third Rail, Add		67.40	
	For 1" Square x 14 Gauge Pickets, Add		89.87	
32 31 19 00-0070	EA 5' Wide x 4' High Steel Tube Single Swing Gate		1,039.11	28.89
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		227.28	
	For Aluminum With Satin Finish, Add		272.64	
	For Third Rail, Add		71.42	
	For 1" Square x 14 Gauge Pickets, Add		95.22	
32 31 19 00-0071	EA 6' Wide x 4' High Steel Tube Single Swing Gate		1,120.68	34.75
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		244.33	
	For Aluminum With Satin Finish, Add		289.29	
	For Third Rail, Add		76.23	
	For 1" Square x 14 Gauge Pickets, Add		101.64	
32 31 19 00-0072	EA 7' Wide x 4' High Steel Tube Single Swing Gate		1,230.78	40.51
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		267.80	
	For Aluminum With Satin Finish, Add		314.50	
	For Third Rail, Add		83.19	
	For 1" Square x 14 Gauge Pickets, Add		110.92	
32 31 19 00-0073	EA 8' Wide x 4' High Steel Tube Single Swing Gate		1,381.90	46.26
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		300.50	
	For Aluminum With Satin Finish, Add		352.02	
	For Third Rail, Add		93.22	
	For 1" Square x 14 Gauge Pickets, Add		124.29	
32 31 19 00-0074	EA 9' Wide x 4' High Steel Tube Single Swing Gate		1,529.46	52.13
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		332.40	
	For Aluminum With Satin Finish, Add		388.46	
	For Third Rail, Add		102.98	
	For 1" Square x 14 Gauge Pickets, Add		137.31	
32 31 19 00-0075	EA 10' Wide x 4' High Steel Tube Single Swing Gate		1,669.87	57.88
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		362.69	
	For Aluminum With Satin Finish, Add		422.76	
	For Third Rail, Add		112.21	
	For 1" Square x 14 Gauge Pickets, Add		149.61	
32 31 19 00-0076	EA 6' Wide x 4' High Steel Tube Double Swing Gate		1,680.17	48.88
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		367.04	
	For Aluminum With Satin Finish, Add		438.07	
	For Third Rail, Add		115.02	
	For 1" Square x 14 Gauge Pickets, Add		153.36	
32 31 19 00-0077	EA 7' Wide x 4' High Steel Tube Double Swing Gate		1,817.56	50.61
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		397.55	
	For Aluminum With Satin Finish, Add		476.85	
	For Third Rail, Add		124.91	
	For 1" Square x 14 Gauge Pickets, Add		166.55	
32 31 19 00-0078	EA 8' Wide x 4' High Steel Tube Double Swing Gate		1,960.38	54.30
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		428.87	
	For Aluminum With Satin Finish, Add		514.80	
	For Third Rail, Add		134.81	
	For 1" Square x 14 Gauge Pickets, Add		179.75	
32 31 19 00-0079	EA 9' Wide x 4' High Steel Tube Double Swing Gate		2,072.80	56.04
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		453.75	
	For Aluminum With Satin Finish, Add		546.09	
	For Third Rail, Add		142.83	
	For 1" Square x 14 Gauge Pickets, Add		190.45	
32 31 19 00-0080	EA 10' Wide x 4' High Steel Tube Double Swing Gate		2,167.39	57.88
	Note: Includes mounting hardware and associated trim.			
	For Solid Pickets, Add		474.63	
	For Aluminum With Satin Finish, Add		572.02	
	For Third Rail, Add		149.52	
	For 1" Square x 14 Gauge Pickets, Add		199.36	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT		DEMOLITION
CSI	UOM		UNIT COST		
32 31 19 00-0081	EA	12' Wide x 4' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,460.70 538.02 644.38 168.91 225.22	69.40	
32 31 19 00-0082	EA	14' Wide x 4' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,718.36 593.39 706.03 185.63 247.51	81.02	
32 31 19 00-0083	EA	16' Wide x 4' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,942.13 641.13 757.53 199.81 265.41	92.53	
32 31 19 00-0084	EA	18' Wide x 4' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,135.59 682.05 799.93 211.71 282.28	104.15	
32 31 19 00-0085	EA	20' Wide x 4' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,300.51 716.55 833.76 221.47 295.30	115.77	
32 31 19 00-0086		5' Fence Height Steel Tube Swing Gates, 2 Rail (32 31 19 00-0045)			
32 31 19 00-0087	EA	3' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	914.12 199.98 240.03 62.86 83.81	25.30	
32 31 19 00-0088	EA	3'-6" Wide x 5' High Steel Tube Single Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	964.14 210.82 252.59 66.20 88.27	27.16	
32 31 19 00-0089	EA	4' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,012.36 221.27 264.61 69.41 92.55	28.89	
32 31 19 00-0090	EA	5' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,082.00 236.53 283.06 74.23 98.97	30.74	
32 31 19 00-0091	EA	6' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,177.12 256.54 303.29 79.98 106.64	36.92	
32 31 19 00-0092	EA	7' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,302.59 283.39 332.62 88.00 117.34	43.01	
32 31 19 00-0093	EA	8' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,477.27 321.23 376.23 99.64 132.85	49.53	
32 31 19 00-0094	EA	9' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,647.31 358.10 418.93 111.00 148.01	55.71	

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 19 00-0095	EA		10' Wide x 5' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,813.77 394.17 460.56 122.10 162.81	61.80
32 31 19 00-0096	EA		6' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,798.07 395.43 484.58 125.72 167.62	42.68
32 31 19 00-0097	EA		7' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,905.74 418.13 507.75 132.27 176.36	49.74
32 31 19 00-0098	EA		8' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,014.63 441.02 530.74 138.82 185.10	57.23
32 31 19 00-0099	EA		9' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,163.33 472.95 566.21 148.45 197.94	64.40
32 31 19 00-0100	EA		10' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,294.20 500.87 596.33 156.74 208.99	71.46
32 31 19 00-0101	EA		12' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,611.12 570.48 681.20 178.81 238.41	79.50
32 31 19 00-0102	EA		14' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,896.56 632.82 755.54 198.34 264.45	88.19
32 31 19 00-0103	EA		16' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,152.29 688.30 819.89 215.46 287.27	97.85
32 31 19 00-0104	EA		18' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,383.06 737.89 875.14 230.43 307.25	108.72
32 31 19 00-0105	EA		20' Wide x 5' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,588.89 781.61 921.30 243.27 324.36	120.87
32 31 19 00-0106			6' Fence Height Steel Tube Swing Gates, 2 Rail (32 31 19 00-0045)		
32 31 19 00-0107	EA		3' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	952.05 207.94 247.98 65.13 86.84	27.80
32 31 19 00-0108	EA		3'-6" Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,000.97 218.62 260.70 68.48 91.30	29.33



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31	19 00-0109	EA	4' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,050.67 229.42 273.31 71.82 95.76	30.95
32 31	19 00-0110	EA	5' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,111.70 242.72 289.03 75.96 101.29	32.91
32 31	19 00-0111	EA	6' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,248.23 271.89 320.71 84.66 112.88	39.75
32 31	19 00-0112	EA	7' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,393.68 303.07 355.06 94.02 125.36	46.70
32 31	19 00-0113	EA	8' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,555.89 338.10 394.93 104.72 139.63	53.22
32 31	19 00-0114	EA	9' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,712.06 371.69 432.49 114.88 153.18	60.06
32 31	19 00-0115	EA	10' Wide x 6' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,902.08 412.90 480.21 127.59 170.12	66.90
32 31	19 00-0116	EA	6' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,868.25 410.50 501.34 130.26 173.68	46.05
32 31	19 00-0117	EA	7' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,980.11 433.97 524.68 136.95 182.60	53.98
32 31	19 00-0118	EA	8' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,090.77 457.25 548.21 143.64 191.52	61.47
32 31	19 00-0119	EA	9' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,224.04 485.54 577.97 151.93 202.57	69.40
32 31	19 00-0120	EA	10' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,432.18 530.66 630.20 165.84 221.12	77.33
32 31	19 00-0121	EA	12' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,851.36 623.10 744.66 195.39 260.53	86.12
32 31	19 00-0122	EA	14' Wide x 6' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,987.01 651.47 772.46 203.42 271.23	96.22

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
32 31 19 00-0123	EA	16' Wide x 6' High Steel Tube Double Swing Gate		3,280.21	107.08
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		715.11	
		For Aluminum With Satin Finish, Add		846.44	
		For Third Rail, Add		223.08	
		For 1" Square x 14 Gauge Pickets, Add		297.44	
32 31 19 00-0124	EA	18' Wide x 6' High Steel Tube Double Swing Gate		3,550.23	119.14
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		773.27	
		For Aluminum With Satin Finish, Add		911.86	
		For Third Rail, Add		240.73	
		For 1" Square x 14 Gauge Pickets, Add		320.98	
32 31 19 00-0125	EA	20' Wide x 6' High Steel Tube Double Swing Gate		3,801.86	132.93
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		826.93	
		For Aluminum With Satin Finish, Add		969.60	
		For Third Rail, Add		256.65	
		For 1" Square x 14 Gauge Pickets, Add		342.20	
32 31 19 00-0126		7' Fence Height Steel Tube Swing Gates, 2 Rail (32 31 19 00-0045)			
32 31 19 00-0127	EA	3' Wide x 7' High Steel Tube Single Swing Gate		1,008.81	30.09
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		220.20	
		For Aluminum With Satin Finish, Add		261.94	
		For Third Rail, Add		68.88	
		For 1" Square x 14 Gauge Pickets, Add		91.84	
32 31 19 00-0128	EA	3'-6" Wide x 7' High Steel Tube Single Swing Gate		1,059.96	31.71
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		231.35	
		For Aluminum With Satin Finish, Add		275.13	
		For Third Rail, Add		72.35	
		For 1" Square x 14 Gauge Pickets, Add		96.47	
32 31 19 00-0129	EA	4' Wide x 7' High Steel Tube Single Swing Gate		1,111.32	33.34
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		242.53	
		For Aluminum With Satin Finish, Add		288.28	
		For Third Rail, Add		75.83	
		For 1" Square x 14 Gauge Pickets, Add		101.11	
32 31 19 00-0130	EA	5' Wide x 7' High Steel Tube Single Swing Gate		1,162.79	35.08
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		253.73	
		For Aluminum With Satin Finish, Add		301.43	
		For Third Rail, Add		79.31	
		For 1" Square x 14 Gauge Pickets, Add		105.74	
32 31 19 00-0131	EA	6' Wide x 7' High Steel Tube Single Swing Gate		1,346.08	42.68
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		293.26	
		For Aluminum With Satin Finish, Add		346.16	
		For Third Rail, Add		91.34	
		For 1" Square x 14 Gauge Pickets, Add		121.79	
32 31 19 00-0132	EA	7' Wide x 7' High Steel Tube Single Swing Gate		1,514.01	49.96
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		329.41	
		For Aluminum With Satin Finish, Add		386.77	
		For Third Rail, Add		102.31	
		For 1" Square x 14 Gauge Pickets, Add		136.42	
32 31 19 00-0133	EA	8' Wide x 7' High Steel Tube Single Swing Gate		1,636.69	57.46
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		355.30	
		For Aluminum With Satin Finish, Add		413.30	
		For Third Rail, Add		109.80	
		For 1" Square x 14 Gauge Pickets, Add		146.40	
32 31 19 00-0134	EA	9' Wide x 7' High Steel Tube Single Swing Gate		1,776.10	64.73
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		385.04	
		For Aluminum With Satin Finish, Add		445.35	
		For Third Rail, Add		118.63	
		For 1" Square x 14 Gauge Pickets, Add		158.17	
32 31 19 00-0135	EA	10' Wide x 7' High Steel Tube Single Swing Gate		1,946.91	72.33
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		421.76	
		For Aluminum With Satin Finish, Add		486.33	
		For Third Rail, Add		129.73	
		For 1" Square x 14 Gauge Pickets, Add		172.97	
32 31 19 00-0136	EA	6' Wide x 7' High Steel Tube Double Swing Gate		1,977.67	49.30
		Note: Includes mounting hardware and associated trim.			
		For Solid Pickets, Add		434.40	
		For Aluminum With Satin Finish, Add		529.86	
		For Third Rail, Add		137.75	
		For 1" Square x 14 Gauge Pickets, Add		183.67	



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR		DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
CSI	UOM			
32 31 19 00-0137	EA	7' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,094.28 458.85 554.10 144.71 192.94	57.67
32 31 19 00-0138	EA	8' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,212.10 483.48 578.15 151.66 202.22	66.47
32 31 19 00-0139	EA	9' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,330.50 508.32 602.92 158.75 211.67	74.83
32 31 19 00-0140	EA	10' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,624.85 572.67 679.94 178.94 238.59	83.63
32 31 19 00-0141	EA	12' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,171.24 693.55 831.49 217.86 290.48	93.29
32 31 19 00-0142	EA	14' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,139.31 683.94 807.39 213.05 284.06	104.59
32 31 19 00-0143	EA	16' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,402.19 740.50 870.67 230.17 306.89	116.65
32 31 19 00-0144	EA	18' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,716.23 808.20 947.14 250.76 334.35	130.44
32 31 19 00-0145	EA	20' Wide x 7' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,925.08 851.96 990.44 263.20 350.93	145.54
32 31 19 00-0146		8' Fence Height Steel Tube Swing Gates, 2 Rail (32 31 19 00-0045)		
32 31 19 00-0147	EA	3' Wide x 8' High Steel Tube Single Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,096.33 239.34 284.92 74.89 99.86	32.58
32 31 19 00-0148	EA	3'-6" Wide x 8' High Steel Tube Single Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,149.92 250.99 298.55 78.51 104.67	34.32
32 31 19 00-0149	EA	4' Wide x 8' High Steel Tube Single Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,207.05 263.44 313.25 82.38 109.85	36.16
32 31 19 00-0150	EA	5' Wide x 8' High Steel Tube Single Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,258.78 274.14 323.14 85.33 113.77	40.29

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31	19 00-0151	EA	6' Wide x 8' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,488.50 324.65 384.98 101.38 135.17	45.61
32 31	19 00-0152	EA	7' Wide x 8' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,657.62 360.58 423.00 111.94 149.25	54.95
32 31	19 00-0153	EA	8' Wide x 8' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,732.91 375.49 433.37 115.55 154.07	63.97
32 31	19 00-0154	EA	9' Wide x 8' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,859.23 401.79 458.56 122.91 163.88	73.42
32 31	19 00-0155	EA	10' Wide x 8' High Steel Tube Single Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	1,969.48 424.48 478.93 129.06 172.08	82.87
32 31	19 00-0156	EA	6' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,149.49 472.35 577.11 149.92 199.90	52.67
32 31	19 00-0157	EA	7' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,280.41 499.47 602.41 157.41 209.88	63.53
32 31	19 00-0158	EA	8' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,408.36 526.02 627.35 164.77 219.69	73.96
32 31	19 00-0159	EA	9' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,516.10 547.93 645.70 170.52 227.36	84.93
32 31	19 00-0160	EA	10' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	2,923.42 637.25 753.92 198.74 264.98	95.79
32 31	19 00-0161	EA	12' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,641.02 796.11 953.61 249.96 333.28	107.84
32 31	19 00-0162	EA	14' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,334.50 724.19 843.91 224.01 298.69	121.63
32 31	19 00-0163	EA	16' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,572.49 774.33 894.88 238.46 317.95	137.61
32 31	19 00-0164	EA	18' Wide x 8' High Steel Tube Double Swing Gate Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	3,938.29 852.87 982.04 262.13 349.51	155.09



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 31 19 00-0165	EA	20' Wide x 8' High Steel Tube Double Swing Gate..... Note: Includes mounting hardware and associated trim. For Solid Pickets, Add For Aluminum With Satin Finish, Add For Third Rail, Add For 1" Square x 14 Gauge Pickets, Add	4,022.96 867.71 982.18 264.27 352.36	174.75
32 31 19 00-0166		Replace Steel Tube Fence Pickets (32 31 19 00-0032)		
32 31 19 00-0167	LF	Removal And Replacement Of 3/4" Square x 16 Gauge Steel Tube Fence Picket For 1" Square x 14 Gauge Pickets, Add	30.36 0.86	
32 31 19 00-0168		Removal And Reinstallation Of Ornamental Fences (32 31 19) Note: Including storage and cleaning. Excludes augering and concrete.		
32 31 19 00-0169	LF	Removal And Reinstallation Of Ornamental Fence Up To 5' Height.....	48.88	
32 31 19 00-0170	LF	Removal And Reinstallation Of Ornamental Fence, 6' Height	53.75	
32 31 19 00-0171	LF	Removal And Reinstallation Of Ornamental Fence, 7' Height	58.64	
32 31 19 00-0172	LF	Removal And Reinstallation Of Ornamental Fence, 8' Height	63.53	
32 31 19 00-0173	LF	Removal And Reinstallation Of Ornamental Fence, 9' Height	68.42	
32 31 19 00-0174	LF	Removal And Reinstallation Of Ornamental Fence, 10' Height	73.30	
32 31 19 00-0175	LF	Removal And Reinstallation Of Ornamental Fence 12' Height	81.46	
32 31 23		Plastic Fences and Gates (32 31)		
32 31 23 00-0001		Vinyl Fence (32 31 23)		
32 31 23 00-0002		Privacy Tongue And Groove Vinyl Fence (32 31 23 00-0001) Note: With 1-1/2" x 5-1/2" top and bottom rails, 5" x 5" posts installed 7' centers. Post includes flat cap.		
32 31 23 00-0003	LF	3' High Privacy Tongue And Groove Vinyl Fence	56.56	5.43
32 31 23 00-0004	LF	4' High Privacy Tongue And Groove Vinyl Fence	63.28	6.51
32 31 23 00-0005	LF	5' High Privacy Tongue And Groove Vinyl Fence	70.56	7.59
32 31 23 00-0006	LF	6' High Privacy Tongue And Groove Vinyl Fence	77.70	8.68
32 31 23 00-0007		Semi-Privacy 6" Picket Vinyl Fence (32 31 23 00-0001) Note: With 1-1/2" x 5-1/2" top and bottom rails, 2" x 3-1/2" mid rail, 5" x 5" posts installed 6' centers. Post includes flat cap.		
32 31 23 00-0008	LF	5' High Semi-Privacy 6" Picket Vinyl Fence	75.71	7.59
32 31 23 00-0009	LF	6' High Semi-Privacy 6" Picket Vinyl Fence	82.90	8.68
32 31 23 00-0010		Picket Straight Top Vinyl Fence (32 31 23 00-0001) Note: With 2-1/2" x 3-1/2" top rail, 1-1/2" x 5-1/2" bottom rail, 1-3/8" x 1-3/8" or 1" x 3" pickets, 5" x 5" posts installed 6' centers. Post includes flat cap.		
32 31 23 00-0011	LF	3' High Picket Straight Top Vinyl Fence	52.02	5.43
32 31 23 00-0012	LF	4' High Picket Straight Top Vinyl Fence	58.97	6.51
32 31 23 00-0013	LF	5' High Picket Straight Top Vinyl Fence	67.55	7.59
32 31 23 00-0014	LF	6' High Picket Straight Top Vinyl Fence	74.75	8.68
32 31 23 00-0015		Picket Scalloped Top Vinyl Fence (32 31 23 00-0001) Note: With 2-1/2" x 3-1/2" top rail, 1-1/2" x 5-1/2" bottom rail, 1-3/8" x 1-3/8" or 1" x 3" pickets, 5" x 5" posts installed 6' centers. Post includes flat cap.		
32 31 23 00-0016	LF	3' High Picket Scalloped Top Vinyl Fence	57.86	5.43
32 31 23 00-0017	LF	4' High Picket Scalloped Top Vinyl Fence	64.99	6.51
32 31 23 00-0018	LF	5' High Picket Scalloped Top Vinyl Fence	73.18	7.59
32 31 23 00-0019	LF	6' High Picket Scalloped Top Vinyl Fence	80.56	8.68
32 31 23 00-0020		Post And Rail Vinyl Fence, Ranch Style (32 31 23 00-0001) Note: With 1-1/2" x 5-1/2" rails, 5" x 5" posts installed 8' centers. Post includes flat cap.		
32 31 23 00-0021	LF	5' High, 2 Rail, Post And Rail Vinyl Fence	20.09	5.43
32 31 23 00-0022	LF	6-1/2' High, 3 Rail, Post And Rail Vinyl Fence	25.93	6.51
32 31 23 00-0023	LF	7' High, 4 Rail, Post And Rail Vinyl Fence	30.00	7.05
32 31 23 00-0024		Post, Rails And Pickets (Traditional Style) Vinyl Fence (32 31 23 00-0001) Note: With top and bottom 3" x 3" rails, 5" x 5" posts and 1-1/2" x 1-1/2" pickets. Post includes flat cap.		
32 31 23 00-0025	LF	3' High Rail And Picket Vinyl Fence, 72" On Center Posts	67.87	5.97
32 31 23 00-0026	LF	4' High Rail And Picket Vinyl Fence, 72" On Center Posts	74.00	7.05
32 31 23 00-0027	LF	3' High Rail And Picket Vinyl Fence, 96" On Center Posts	64.09	5.43
32 31 23 00-0028	LF	4' High Rail And Picket Vinyl Fence, 96" On Center Posts	69.54	6.51
32 31 23 00-0029		Vinyl Gates (32 31 23)		
32 31 23 00-0030		Gates For Privacy And Semi-Privacy Fences (32 31 23 00-0029) Note: Includes hinges.		
32 31 23 00-0031		3' High Gates For Privacy And Semi-Privacy Fences (32 31 23 00-0030)		

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 23 00-0032	EA		3' High x 3' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	627.62 14.50 38.50	54.25
32 31 23 00-0033	EA		3' High x 4' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	666.15 14.50 38.50	56.96
32 31 23 00-0034	EA		3' High x 5' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	731.77 14.50 38.50	59.67
32 31 23 00-0035	EA		3' High x 6' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	821.45 14.50 38.50	62.39
32 31 23 00-0036			4' High Gates For Privacy And Semi-Privacy Fences (32 31 23 00-0030)		
32 31 23 00-0037	EA		4' High x 3' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	666.15 14.50 38.50	56.96
32 31 23 00-0038	EA		4' High x 4' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	689.64 14.50 38.50	59.67
32 31 23 00-0039	EA		4' High x 5' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	767.28 14.50 38.50	62.39
32 31 23 00-0040	EA		4' High x 6' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	902.11 14.50 38.50	65.10
32 31 23 00-0041			5' High Gates For Privacy And Semi-Privacy Fences (32 31 23 00-0030)		
32 31 23 00-0042	EA		5' High x 3' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	689.64 14.50 38.50	59.67
32 31 23 00-0043	EA		5' High x 4' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	719.13 14.50 38.50	62.39
32 31 23 00-0044	EA		5' High x 5' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	826.88 14.50 38.50	65.10
32 31 23 00-0045	EA		5' High x 6' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	967.73 14.50 38.50	67.81
32 31 23 00-0046			6' High Gates For Privacy And Semi-Privacy Fences (32 31 23 00-0030)		
32 31 23 00-0047	EA		6' High x 3' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	724.56 14.50 38.50	65.10
32 31 23 00-0048	EA		6' High x 4' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	754.06 14.50 38.50	67.81
32 31 23 00-0049	EA		6' High x 5' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	912.96 14.50 38.50	70.53
32 31 23 00-0050	EA		6' High x 6' Wide Vinyl Gate For Privacy Or Semi-Privacy Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	1,008.67 14.50 38.50	70.53
32 31 23 00-0051			Gates For Picket Fences (32 31 23 00-0029)		
			Note: Includes hinges.		
32 31 23 00-0052			3' High Gates For Picket Fences (32 31 23 00-0051)		
32 31 23 00-0053	EA		3' High x 3' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	600.54 14.50 38.50	54.25
32 31 23 00-0054	EA		3' High x 4' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	624.02 14.50 38.50	56.96
32 31 23 00-0055	EA		3' High x 5' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	701.68 14.50 38.50	59.67
32 31 23 00-0056	EA		3' High x 6' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	836.49 14.50 38.50	62.39
32 31 23 00-0057			4' High Gates For Picket Fences (32 31 23 00-0051)		
32 31 23 00-0058	EA		4' High x 3' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	605.97 14.50 38.50	56.96
32 31 23 00-0059	EA		4' High x 4' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... <i>For Self-Closing Hinge Set, Add</i> <i>For Self-Closing Stainless Steel Hinge Set, Add</i>	629.45 14.50 38.50	59.67



Exterior Improvements		32	32
Site Improvements		32 30	
Fences and Gates		32 31	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 23 00-0060	EA	4' High x 5' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	707.09 14.50	62.39
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0061	EA	4' High x 6' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	841.92 14.50	65.10
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0062		5' High Gates For Picket Fences (32 31 23 00-0051)		
32 31 23 00-0063	EA	5' High x 3' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	629.45 14.50	59.67
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0064	EA	5' High x 4' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	658.94 14.50	62.39
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0065	EA	5' High x 5' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	766.69 14.50	65.10
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0066	EA	5' High x 6' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	907.54 14.50	67.81
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0067		6' High Gates For Picket Fences (32 31 23 00-0051)		
32 31 23 00-0068	EA	6' High x 3' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	664.37 14.50	65.10
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0069	EA	6' High x 4' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	693.87 14.50	67.81
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0070	EA	6' High x 5' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	852.77 14.50	70.53
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0071	EA	6' High x 6' Wide Vinyl Gate For Picket Style Fence And Hinge Set..... For Self-Closing Hinge Set, Add	948.49 14.50	73.24
		For Self-Closing Stainless Steel Hinge Set, Add	38.50	
32 31 23 00-0072		Gates Accessories (32 31 23 00-0029)		
32 31 23 00-0073	EA	Gate Stop/Drop Rod	135.45	
32 31 23 00-0074	EA	Latch Set	91.81	
32 31 23 00-0075	EA	Stainless Steel Latch Set	135.45	
32 31 26		Wire Fences and Gates (32 31)		
32 31 26 13		Wire Fences with Steel Posts (32 31 26)		
32 31 26 13-0001		Chicken Wire (32 31 26 13) Note: Posts at 4'.		
32 31 26 13-0002	LF	4' High, 1" Mesh, Chicken Wire Fence, Metal Posts At 4'	9.12	1.96
32 31 26 13-0003	LF	6' High, 2" Mesh, Chicken Wire Fence, Metal Posts At 4'	9.98	1.96
32 31 26 13-0004		Wire And Screen (32 31 26 13)		
32 31 26 13-0005		Wire And Screen For Partitions And Fences (32 31 26 13-0004) Note: Excludes framing and post.		
32 31 26 13-0006		Screen Wire (32 31 26 13-0005)		
32 31 26 13-0007	LF	Screen Wire, 48" Wide Rolls	13.38	1.10
32 31 26 13-0008		Hog Wire (32 31 26 13-0005)		
32 31 26 13-0009	SF	4" x 4" Hog Wire For Fencing	2.30	0.87
32 31 26 13-0010	SF	6" x 6" Hog Wire For Fencing	2.40	0.99
32 31 26 13-0011		Non-Climb Horse Fence (32 31 26 13-0005)		
32 31 26 13-0012	LF	4' Non-Climb Woven, 12.5 Gauge, Horse Fence	10.40	3.50
32 31 26 13-0013	LF	5' Non-Climb Woven, 12.5 Gauge, Horse Fence	13.38	4.37
32 31 26 13-0014	LF	6' Non-Climb Woven, 12.5 Gauge, Horse Fence	16.86	5.25
32 31 26 13-0015		Screen For Partitions And Ceilings (32 31 26 13-0004) Note: Can be used to support insulation on walls and ceilings.		
32 31 26 13-0016	SF	1" Mesh Chicken Wire	2.34	0.62
32 31 26 13-0017		Wicket Fence (32 31 26 13)		
32 31 26 13-0018	LF	Steel Wicket Fence, Painted	89.96	5.24

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 29 Wood Fences and Gates (32 31)

See CSI section 32 31 13 13-0001 for drilling for augering holes and backfill.

32 31 29 00-0001 Basket Weave (32 31 29)

Note: 3/8" x 4" boards, 4" x 4" post

32 31 29 00-0002	LF 6' High #1 Cedar Basket Weave Fence 3/8" x 4" Boards, 4" x 4" Post	43.79	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.60	
32 31 29 00-0003	LF 6' High, Pressure Treated Pine Basket Weave 3/8" x 4" Boards, 4" x 4" Post	29.65	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	1.92	

32 31 29 00-0004 Board Fence (32 31 29)

Note: 1x4" board, 2x4" rail, 4x4" post.

32 31 29 00-0005	LF Two 2" x 4" Rails, 3' High 1" x 4" Boards, Preservative Treated Board Fence	29.11	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.14	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	3.93	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	1.91	
32 31 29 00-0006	LF Two 2" x 4" Rails, 4' High 1" x 4" Boards, Preservative Treated Board Fence	32.32	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.42	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.25	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.10	
32 31 29 00-0007	LF Three 2" x 4" Rails, 5' High 1" x 4" Boards, Preservative Treated Board Fence	35.94	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.65	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.49	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.30	
32 31 29 00-0008	LF Three 2" x 4" Rails, 6' High 1" x 4" Boards, Preservative Treated Board Fence	38.31	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.83	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.70	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.44	
32 31 29 00-0009	LF Three 2" x 4" Rails, 8' High 1" x 4" Boards, Preservative Treated Board Fence	40.88	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-4.02	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.91	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.59	
32 31 29 00-0010	LF Two 2" x 4" Rails, 3' High 1" x 4" #2 Grade Western Cedar Board Fence	30.98	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.22	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	3.99	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.00	
32 31 29 00-0011	LF Two 2" x 4" Rails, 4' High 1" x 4" #2 Grade Western Cedar Board Fence	33.76	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.48	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.30	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.17	
32 31 29 00-0012	LF Three 2" x 4" Rails, 5' High 1" x 4" #2 Grade Western Cedar Board Fence	35.94	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.65	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.49	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.30	
32 31 29 00-0013	LF Three 2" x 4" Rails, 6' High 1" x 4" #2 Grade Western Cedar Board Fence	38.31	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.83	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.70	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.44	
32 31 29 00-0014	LF Three 2" x 4" Rails, 8' High 1" x 4" #2 Grade Western Cedar Board Fence	40.88	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-4.02	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.91	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.59	
32 31 29 00-0015	LF Two 2" x 4" Rails, 3' High 1" x 4" #1 Grade Cedar Board Fence	30.99	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.22	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	3.99	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.00	
32 31 29 00-0016	LF Two 2" x 4" Rails, 4' High 1" x 4" #1 Grade Cedar Board Fence	40.17	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.73	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.49	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.49	
32 31 29 00-0017	LF Three 2" x 4" Rails, 5' High 1" x 4" #1 Grade Cedar Board Fence	42.08	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-3.89	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.67	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.61	
32 31 29 00-0018	LF Three 2" x 4" Rails, 6' High 1" x 4" #1 Grade Cedar Board Fence	45.18	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-4.10	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	4.90	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.78	
32 31 29 00-0019	LF Three 2" x 4" Rails, 8' High 1" x 4" #1 Grade Cedar Board Fence	48.53	3.90
	<i>For 1" x 6" Boards, Deduct</i>	-4.32	
	<i>For 1" x 3" Boards (Stockade Top), Add</i>	5.14	
	<i>For Fastening With Screws Instead Of Nails, Add</i>	2.97	

32 31 29 00-0020 Shadow Box (32 31 29)

Note: 1x6" board, 2x4" Rail, 4x4" post.

32 31 29 00-0021	LF Shadow Box, 3 - 2" x 4" Rails, 6' High 1" x 6" Pressure Treated Pine	60.09	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	3.41	
32 31 29 00-0022	LF Shadow Box, 3 - 2" x 4" Rails, 4' High 1" x 4" #1 Cedar	75.38	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	4.25	
32 31 29 00-0023	LF Shadow Box, 3 - 2" x 4" Rails, 6' High 1" x 4" #1 Cedar	82.03	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	4.60	
32 31 29 00-0024	LF Shadow Box, 3 - 2" x 4" Rails, 8' High 1" x 4" #1 Cedar	88.13	3.90
	<i>For Fastening With Screws Instead Of Nails, Add</i>	4.94	



Exterior Improvements		32	32
Site Improvements		32 30	
Fences and Gates		32 31	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 29 00-0025			Open Rail Fence (32 31 29)		
32 31 29 00-0026			Post And Rail Fence, Ranch Style (32 31 29 00-0025)		
32 31 29 00-0027	LF		Post And Rail Fence, 2 Rails, 3' High #1 Cedar	28.95	3.90
32 31 29 00-0028	LF		Post And Rail Fence, 2 Rails, 3' High #2 Cedar	22.99	3.90
32 31 29 00-0029	LF		Post And Rail Fence, 3 Rails, 4' High #1 Cedar	34.09	3.90
32 31 29 00-0030	LF		Post And Rail Fence, 3 Rails, 4' High #2 Cedar	24.82	3.90
32 31 29 00-0031			Split Rail Fence (32 31 29 00-0025)		
32 31 29 00-0032	LF		Split Rail Fence, 2 Rails, 3' High #1 Cedar	27.42	3.90
32 31 29 00-0033	LF		Split Rail Fence, 2 Rails, 3' High #2 Cedar	22.93	3.90
32 31 29 00-0034	LF		Split Rail Fence, 3 Rail, 4' High #1 Cedar	31.17	3.90
32 31 29 00-0035	LF		Split Rail Fence, 3 Rail, 4' High #2 Cedar	25.68	3.90
32 31 29 00-0036			Picket Fence (32 31 29)		
32 31 29 00-0037	LF		Picket Fence, 2 Rail, 3' High, Pressure Treated	33.09	3.90
			For Fastening With Screws Instead Of Nails, Add	2.12	
32 31 29 00-0038	LF		Picket Fence, 2 Rail, 3' High #1 Cedar	31.04	3.90
			For Fastening With Screws Instead Of Nails, Add	2.02	
32 31 29 00-0039			Wood Fence Post Accessories (32 31 29)		
32 31 29 00-0040	EA		3-1/2" x 3-1/2" Copper, Pyramid Slip Over, Wood Fence Post Cap	47.75	
32 31 29 00-0041	EA		4" x 4" Copper, Pyramid Slip Over, Wood Fence Post Cap	53.39	
32 31 29 00-0042	EA		6" x 6" Copper, Pyramid Slip Over, Wood Fence Post Cap	58.18	
32 31 29 00-0043	EA		8" x 8" Copper, Pyramid Slip Over, Wood Fence Post Cap	85.54	
32 31 29 00-0044			Wood Gate (32 31 29)		
32 31 29 00-0045			Board Fence Gates, Pressure Treated Wood (32 31 29 00-0044)		
			Note: Includes galvanized extra duty hinges (1-1/2 butts per leaf), a galvanized latch and extra heavy-duty wheels per leaf, based on 2x4 frame, 1x4 cover, galvanized nails and hinges (treated lumber).		
32 31 29 00-0046	EA		3' To 5' High x 3' Wide, Pressure Treated Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	435.93	136.72
32 31 29 00-0047	EA		3' To 5' High x 3'-6" Wide, Pressure Treated Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	481.60	144.92
32 31 29 00-0048	EA		3' To 5' High x 4' Wide, Pressure Treated Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	538.20	158.59
32 31 29 00-0049	EA		3' To 5' High x 5' Wide, Pressure Treated Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	609.86	166.80
32 31 29 00-0050	EA		3' To 5' High x 6' Wide, Pressure Treated Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	681.50	175.00
32 31 29 00-0051	EA		>5' To 8' High x 3' Wide, Pressure Treated Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	555.95	180.46
32 31 29 00-0052	EA		>5' To 8' High x 3'-6" Wide, Pressure Treated Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	604.85	188.67
32 31 29 00-0053	EA		>5' To 8' High x 4' Wide, Pressure Treated Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	653.76	196.87
32 31 29 00-0054	EA		>5' To 8' High x 5' Wide, Pressure Treated Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	735.17	205.07
32 31 29 00-0055	EA		>5' To 8' High x 6' Wide, Pressure Treated Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	800.32	213.28
32 31 29 00-0056			Board Fence Gates, Grade 2 Cedar (32 31 29 00-0044)		
			Note: Includes galvanized extra duty hinges (1-1/2 butts per leaf), a galvanized latch and extra heavy-duty wheels per leaf, based on 2x4 frame, 1x4 cover, galvanized nails and hinges (cedar lumber)		
32 31 29 00-0057	EA		3' To 5' High x 3' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	682.82	122.03
32 31 29 00-0058	EA		3' To 5' High x 3'-6" Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	707.22	129.36
32 31 29 00-0059	EA		3' To 5' High x 4' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	744.63	141.55
32 31 29 00-0060	EA		3' To 5' High x 5' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	785.28	148.88
32 31 29 00-0061	EA		3' To 5' High x 6' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	835.67	156.21
32 31 29 00-0062	EA		>5' To 8' High x 3' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	809.69	161.08
32 31 29 00-0063	EA		>5' To 8' High x 3'-6" Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	840.58	168.40
32 31 29 00-0064	EA		>5' To 8' High x 4' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	887.72	175.73
32 31 29 00-0065	EA		>5' To 8' High x 5' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	934.87	183.04
32 31 29 00-0066	EA		>5' To 8' High x 6' Wide, #2 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	982.01	190.37
32 31 29 00-0067			Board Fence Gates, Grade 1 Cedar (32 31 29 00-0044)		
			Note: Includes galvanized extra duty hinges (1-1/2 butts per leaf), a galvanized latch and extra heavy-duty wheels per leaf, based on 2x4 frame, 1x4 cover, galvanized nails and hinges (cedar lumber)		
32 31 29 00-0068	EA		3' To 5' High x 3' Wide, #1 Cedar Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	731.58	122.03
32 31 29 00-0069	EA		3' To 5' High x 3'-6" Wide, #1 Cedar Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	762.48	129.36
32 31 29 00-0070	EA		3' To 5' High x 4' Wide, #1 Cedar Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	803.14	141.55
32 31 29 00-0071	EA		3' To 5' High x 5' Wide, #1 Cedar Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	850.28	148.88
32 31 29 00-0072	EA		3' To 5' High x 6' Wide, #1 Cedar Board Gate, 2 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	897.42	156.21
32 31 29 00-0073	EA		>5' To 8' High x 3' Wide, #1 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	874.69	161.08
32 31 29 00-0074	EA		>5' To 8' High x 3'-6" Wide, #1 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	905.58	168.40
32 31 29 00-0075	EA		>5' To 8' High x 4' Wide, #1 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	952.72	175.73
32 31 29 00-0076	EA		>5' To 8' High x 5' Wide, #1 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	999.87	183.04
32 31 29 00-0077	EA		>5' To 8' High x 6' Wide, #1 Cedar Board Gate, 3 - 2" x 4" Rails With 1" x 4" Board, Post And Hardware	1,063.26	190.37

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 29 00-0078		Plywood Fence Gates (32 31 29 00-0044) Note: Includes galvanized extra duty hinges (1-1/2 butts per leaf), a galvanized latch and extra heavy-duty wheels per leaf, based on 2 x 4 frame, and galvanized nails and hinges.		
32 31 29 00-0079	EA	6' High, 5/8" CDX Plywood Gate, 6' To 10' Wide Note: Unpainted. Excludes post.	928.59	144.85
32 31 29 00-0080	EA	7' High, 5/8" CDX Plywood Gate, 6' To 10' Wide Note: Unpainted. Excludes post.	941.54	144.85
32 31 29 00-0081	EA	8' High, 5/8" CDX Plywood Gate, 6' To 10' Wide Note: Unpainted. Excludes post.	1,086.82	158.02
32 31 29 00-0082	EA	9' High, 5/8" CDX Plywood Gate, 6' To 10' Wide Note: Unpainted. Excludes post.	1,099.77	158.02
32 31 29 00-0083	EA	10' High, 5/8" CDX Plywood Gate, 6' To 10' Wide Note: Unpainted. Excludes post.	1,170.52	171.18
32 31 29 00-0084	EA	6' High, 5/8" CDX Plywood Gate, >10' To 20' Wide Note: Unpainted. Excludes post.	1,677.30	263.36
32 31 29 00-0085	EA	7' High, 5/8" CDX Plywood Gate, >10' To 20' Wide Note: Unpainted. Excludes post.	1,703.21	263.36
32 31 29 00-0086	EA	8' High, 5/8" CDX Plywood Gate, >10' To 20' Wide Note: Unpainted. Excludes post.	1,919.24	289.69
32 31 29 00-0087	EA	9' High, 5/8" CDX Plywood Gate, >10' To 20' Wide Note: Unpainted. Excludes post.	1,945.15	289.69
32 31 29 00-0088	EA	10' High, 5/8" CDX Plywood Gate, >10' To 20' Wide Note: Unpainted. Excludes post.	2,086.65	316.04
32 31 29 00-0089	EA	6' High, 5/8" CDX Plywood Gate, >20' To 40' Wide Note: Unpainted. Excludes post.	3,129.32	526.73
32 31 29 00-0090	EA	7' High, 5/8" CDX Plywood Gate, >20' To 40' Wide Note: Unpainted. Excludes post.	3,181.13	526.73
32 31 29 00-0091	EA	8' High, 5/8" CDX Plywood Gate, >20' To 40' Wide Note: Unpainted. Excludes post.	3,538.66	579.40
32 31 29 00-0092	EA	9' High, 5/8" CDX Plywood Gate, >20' To 40' Wide Note: Unpainted. Excludes post.	3,590.47	579.40
32 31 29 00-0093	EA	10' High, 5/8" CDX Plywood Gate, >20' To 40' Wide Note: Unpainted. Excludes post.	3,926.16	645.24
32 31 29 00-0094		Wood Gates Accessories (32 31 29 00-0044)		
32 31 29 00-0095	EA	Galvanized Steel Padlockable Slide Latch, 6-3/16" Bolt Length	47.41	10.85
32 31 29 00-0096	EA	Black Steel Padlockable Slide Latch, 6-3/16" Bolt Length	34.04	10.85
32 31 29 00-0097	EA	Stainless Steel Padlockable Slide Latch, 6-3/16" Bolt Length	90.45	10.85
32 31 29 00-0098	EA	Black Steel Cane Bolt, 18" Bolt Length	60.42	13.57
32 31 29 00-0099	EA	Zinc Coated Steel Cane Bolt, 18" Bolt Length	59.72	13.57
32 31 29 00-0100	EA	Galvanized Steel Self Latching Gate Latches, 4-1/4" Bolt Length	75.07	13.57
32 31 29 00-0101	EA	Black Steel Self Latching Gate Latches, 4-1/4" Bolt Length	53.53	13.57
32 31 29 00-0102	EA	Stainless Steel Self Latching Gate Latches, 4-1/4" Bolt Length	85.30	13.57
32 31 29 00-0103		Pressure Treated Wood Fence Posts (32 31 29) See CSI section 32 31 13 13-0001 for drilling augering, 32 31 56 00-0017 for barbed wire.		
32 31 29 00-0104	EA	4' High, Pressure Treated Wood Fence Posts, Set In Soil, Earth Fill	41.54	13.68
32 31 29 00-0105	EA	6' High, Pressure Treated Wood Fence Posts, Set In Soil, Earth Fill	46.68	13.68
32 31 29 00-0106	EA	4' High, Pressure Treated Wood Fence Posts, Set In Concrete	73.30	26.25
32 31 29 00-0107	EA	6' High, Pressure Treated Wood Fence Posts, Set In Concrete	79.15	26.25
32 31 29 00-0108		Wood Utility Pole Fence (32 31 29) Note: Excludes post holes. See CSI section 32 31 13 13-0001 for drilling augering and backfill.		
32 31 29 00-0109	LF	Wood Utility Pole Barrier Fence Note: Includes notching post, drilling and pinned with #5 rebar.	57.39	3.90
32 31 29 00-0110		Wood Rail Fence (32 31 29) Note: 3" diameter treated lodgepole pine rails, 6" diameter treated lodgepole pine post. Posts at 8' centers. Excludes post holes and fill		
32 31 29 00-0111	LF	4' Above Ground Wood Rail Fence, 3 - 3" Diameter Treated Lodgepole Pine Rails, 6" Diameter, 6' Overall Treated Lodgepole Pine Post	29.52	3.90
32 31 34		Tubular Barrier Gates (32 31)		
32 31 34 00-0001		Tube Gate (32 31 34) See CSI section 32 31 13 13-0001 for augering post holes and concrete fill, 32 31 13 13-0642 for gate accessories.		
32 31 34 00-0002		50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate (32 31 34 00-0001) Note: Round top edges. Includes lag bolt hinges, lock plate and hardware. Excludes augering, concrete, bollard and chain.		
32 31 34 00-0003	EA	4' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	211.07 33.53 18.63	29.33
32 31 34 00-0004	EA	6' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	274.44 43.48 24.06	38.02



Exterior Improvements			32
Site Improvements			32 30
Fences and Gates			32 31

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 31 34 00-0005	EA 8' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	369.62 59.26 33.45	48.88
32 31 34 00-0006	EA 10' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	427.75 67.09 36.47	60.82
32 31 34 00-0007	EA 12' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	507.28 79.74 43.51	72.33
32 31 34 00-0008	EA 14' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	554.55 86.47 46.53	81.46
32 31 34 00-0009	EA 16' Wide, 50" Height, 2" Diameter 16 Gauge Powder Coated Tubing, Six Rail Tube Gate For 13 Gauge Tubing, Add For Galvanized Finish, Add	650.69 101.90 55.25	93.94
32 31 34 00-0010	33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate (32 31 34 00-0001) Note: Round top edges. Includes lag bolt hinges, lock plate and hardware. Excludes augering and concrete.		
32 31 34 00-0011	EA 4' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	273.31 74.57	29.33
32 31 34 00-0012	EA 6' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	327.99 85.58	38.02
32 31 34 00-0013	EA 8' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	392.92 98.52	48.88
32 31 34 00-0014	EA 10' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	454.29 107.86	60.82
32 31 34 00-0015	EA 12' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	515.97 119.50	72.33
32 31 34 00-0016	EA 14' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	571.96 131.04	81.46
32 31 34 00-0017	EA 16' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	639.79 142.97	93.94
32 31 34 00-0018	EA 18' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	734.74 165.74	105.73
32 31 34 00-0019	EA 20' Wide, 33" Height, 1-3/4" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	815.57 195.90	118.27
32 31 34 00-0020	33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate (32 31 34 00-0001) Note: Round top edges. Includes lag bolt hinges, lock plate and hardware. Excludes augering and concrete.		
32 31 34 00-0021	EA 4' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	295.15 83.31	29.33
32 31 34 00-0022	EA 6' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	349.46 94.17	38.02
32 31 34 00-0023	EA 8' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	407.48 104.34	48.88
32 31 34 00-0024	EA 10' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	475.52 116.36	60.82
32 31 34 00-0025	EA 12' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	531.32 125.64	72.33
32 31 34 00-0026	EA 14' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	607.79 145.37	81.46
32 31 34 00-0027	EA 16' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	678.70 158.53	93.94
32 31 34 00-0028	EA 18' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	794.11 189.49	105.73
32 31 34 00-0029	EA 20' Wide, 33" Height, 2" Diameter 16 Gauge Galvanized Steel Tubing, Six Rail Tube Gate For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	868.95 217.26	118.27
32 31 34 00-0030	Tubular Steel Barrier Gate (Triangular Shape) (32 31 34 00-0001) Note: Includes posts, caps, welded hinges and lock keeper. Excludes augering, concrete, and bollards.		
32 31 34 00-0031	EA 4' High x 10' Wide Opening Tubular Galvanized Steel Barrier Gate With 3" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	2,278.17 742.42	60.82
32 31 34 00-0032	EA 4' High x 12' Wide Opening Tubular Galvanized Steel Barrier Gate With 3" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	2,472.52 796.05	72.33
32 31 34 00-0033	EA 4' High x 14' Wide Opening Tubular Galvanized Steel Barrier Gate With 3" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	2,928.29 956.64	81.46
32 31 34 00-0034	EA 4' High x 10' Wide Opening Tubular Galvanized Steel Barrier Gate With 4" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	2,363.58 776.30	60.82
32 31 34 00-0035	EA 4' High x 12' Wide Opening Tubular Galvanized Steel Barrier Gate With 4" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	2,570.15 834.76	72.33
32 31 34 00-0036	EA 4' High x 14' Wide Opening Tubular Galvanized Steel Barrier Gate With 4" Diameter Post For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	3,025.91 995.34	81.46
32 31 34 00-0037	Four Rail Tube Gate, 1-1/2" Diameter Welded Galvanized Steel Tubing (32 31 34 00-0001) Note: Excludes augering holes and concrete.		
32 31 34 00-0038	EA 4' Four Rail Metal Frame Tube Gate, 1-1/2" Diameter Welded Galvanized Steel With Posts For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add	492.06 40.44	29.33

32 Exterior Improvements**32 30 Site Improvements****32 31 Fences and Gates**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 31 34 00-0039		Tubular Horse Gate (32 31 34 00-0001) Note: Includes posts, caps and hardware. Treated with Natina (or Equal) galvanized surface stain "rustic brown finish". Excludes augering holes and concrete.		
32 31 34 00-0040	EA	5-1/2' Above Ground, 5' Wide Tubular Galvanized Steel Horse Gate With 3" Diameter Posts <i>For Natina (or Equal) Galvanized Surface Stain "Rustic Brown Finish", Add</i>	4,019.33 1,195.03	29.33
32 31 34 00-0041		Pipe Gate (32 31 34) Note: Excludes augering and concrete. See CSI section 32 31 13 13-0001 for augering post holes and concrete fill.		
32 31 34 00-0042	EA	20' Galvanized Steel Pipe Gate, Swinging (Road Access Barrier).....	4,125.14	
32 31 34 00-0043	EA	25' Galvanized Steel Pipe Gate, Swinging (Road Access Barrier).....	5,157.59	
32 31 34 00-0044	EA	30' Galvanized Steel Pipe Gate, Swinging (Road Access Barrier).....	6,144.89	
32 31 41		Precast Concrete Fences (32 31)		
32 31 41 00-0001		Precast Post And Rail Fence, Ranch Style, With Integral Color Concrete. (32 31 41) Note: Includes post holes, fill, spreading of excess material on site. See CSI section 32 31 13 13-0001 for drilling for augering holes and backfill.		
32 31 41 00-0002	LF	Precast Post And Rail Fence With Integral Color Concrete, 2 Rails, 3' Above Ground With 2' Bury Note: Includes 12" diameter holes with concrete fill for line posts and 18" diameter holes with concrete fill at corners.	72.08	3.90
32 31 56		Wild Life Deterrent Fence (32 31)		
32 31 56 00-0001		Barbed Wire Fences (32 31 56) Note: Excludes post holes and fill See CSI section 32 31 13 13-0001 for drilling for augering holes and backfill.		
32 31 56 00-0002		Fence Posts (32 31 56 00-0001)		
32 31 56 00-0003		Fence Post Soil, Set In Concrete (32 31 56 00-0002)		
32 31 56 00-0004	EA	Barbed Wire Fence Post, Galvanized Set In Concrete In Soil <i>For Bracing On Corner Post, End Post And Pull Post, Add</i>	105.66 170.30	8.69
32 31 56 00-0005	EA	Barbed Wire Fence Post, Vinyl Coated Set In Concrete In Soil <i>For Bracing On Corner Post, End Post And Pull Post, Add</i>	141.79 230.64	8.69
32 31 56 00-0006		Post In Rock (32 31 56 00-0002)		
32 31 56 00-0007	EA	Barbed Wire Fence Post, Galvanized Grouted In Rock <i>For Bracing On Corner Post, End Post And Pull Post, Add</i>	103.75 167.43	8.69
32 31 56 00-0008	EA	Barbed Wire Fence Post, Vinyl Coated Grouted In Rock <i>For Bracing On Corner Post, End Post And Pull Post, Add</i>	139.88 227.77	8.69
32 31 56 00-0009		Studded Steel T-Posts, Enamel Paint Finish (32 31 56 00-0001) Note: Posts for barb wire, chain link or welded wire mesh.		
32 31 56 00-0010	EA	5' Studded Steel T-Post, Driven Into Earth	28.25	
32 31 56 00-0011	EA	5'-6" Studded Steel T-Post, Driven Into Earth	28.93	
32 31 56 00-0012	EA	6' Studded Steel T-Post, Driven Into Earth	30.23	
32 31 56 00-0013	EA	6'-6" Studded Steel T-Post, Driven Into Earth	31.52	
32 31 56 00-0014	EA	7' Studded Steel T-Post, Driven Into Earth	33.23	
32 31 56 00-0015	EA	8' Studded Steel T-Post, Driven Into Earth	37.38	
32 31 56 00-0016	EA	10' Studded Steel T-Post, Driven Into Earth	45.40	
32 31 56 00-0017		Barbed Wire (32 31 56 00-0001) Note: Per strand.		
32 31 56 00-0018	LF	Galvanized Barbed Wire For Wild Life Deterrent Fencing, Per Strand	0.96	0.44
32 31 56 00-0019	LF	Vinyl Coated Barbed Wire, For Wild Life Deterrent Fencing, Per Strand	1.10	0.44
32 31 56 00-0020		Barbed Wire Fence, Farm Style, With Wood Posts (32 31 56 00-0001) Note: Based on post at 10' centers, two corner post and two pull post per 300 lf.		
32 31 56 00-0021	LF	4'-6" Height, Three (3) Strand Barbed Wire Fence With Wood Posts Note: Posts at 10' maximum.	12.90	2.82

32 32 Retaining Walls (32 30)**32 32 13 Cast-In-Place Concrete Retaining Wall** (32 32)

Note: System includes all necessary forms (4 uses), 3000 PSI concrete with an 8" chute, all necessary reinforcing steel, and underdrain. Exposed concrete is patched and rubbed. Excludes initial site grading, subbase preparation or finish grading.

32 32 13 00-0001		Concrete Retaining Walls (32 32 13) Note: System elements include all necessary forms (4 uses), 3000 PSI concrete with an 8" chute, all necessary reinforcing steel, and underdrain. Exposed concrete is patched and rubbed. Excludes initial site grading, subbase preparation or finish grading.		
32 32 13 00-0002	LF	4' High With Base, 10" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall <i>For >3:1 Sloped Soil At Top, Add</i>	368.55 7.15	142.25



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Site Improvements			32 30
Retaining Walls			32 32

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 32 13 00-0003	LF	6' High With Base, 10" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	458.83	175.04	
		For >3:1 Sloped Soil At Top, Add	9.24		
32 32 13 00-0004	LF	8' High With Base, 10" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	499.03	188.80	
		For >3:1 Sloped Soil At Top, Add	10.32		
32 32 13 00-0005	LF	10' High With Base, 13" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	632.89	233.44	
		For >3:1 Sloped Soil At Top, Add	14.12		
32 32 13 00-0006	LF	12' High With Base, 14" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	729.08	268.14	
		For >3:1 Sloped Soil At Top, Add	16.38		
32 32 13 00-0007	LF	16' High With Base, 16" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	1,056.84	393.38	
		For >3:1 Sloped Soil At Top, Add	22.97		
32 32 13 00-0008	LF	20' High With Base, 18" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	1,452.08	543.08	
		For >3:1 Sloped Soil At Top, Add	31.09		
32 32 13 00-0009	LF	4' High With Base, 12" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	404.63	155.35	
		For >3:1 Sloped Soil At Top, Add	7.99		
32 32 13 00-0010	LF	6' High With Base, 12" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	494.09	187.18	
		For >3:1 Sloped Soil At Top, Add	10.19		
32 32 13 00-0011	LF	8' High With Base, 12" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	522.06	195.30	
		For >3:1 Sloped Soil At Top, Add	11.77		
32 32 13 00-0012	LF	10' High With Base, 16" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	715.46	261.74	
		For >3:1 Sloped Soil At Top, Add	16.31		
32 32 13 00-0013	LF	12' High With Base, 18" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	908.87	336.22	
		For >3:1 Sloped Soil At Top, Add	20.10		
32 32 13 00-0014	LF	16' High With Base, 21" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	1,364.98	509.62	
		For >3:1 Sloped Soil At Top, Add	29.40		
32 32 13 00-0015	LF	20' High With Base, 24" Thick, Reinforced, Cast-In-Place Concrete Retaining Wall	1,926.49	719.36	
		For >3:1 Sloped Soil At Top, Add	41.46		
32 32 16 Precast Concrete Retaining Walls (32 32)					
32 32 16 00-0001		Precast Retaining Walls (32 32 16)			
		Note: Tied-back earth walls. Includes precast filter fabric, soil reinforcing mesh and cast-in-place coping. Excludes concrete leveling pad, or select earth excavation and backfill.			
32 32 16 00-0002	SF	10-15' High, Tied-back, Precast Concrete Retaining Walls	96.61	14.14	
32 32 16 00-0003	SF	16-20' High, Tied-back, Precast Concrete Retaining Walls	99.18	11.36	
32 32 16 00-0004	SF	21-25' High, Tied-back, Precast Concrete Retaining Walls	102.83	9.46	
32 32 16 00-0005	SF	26-30' High, Tied-back, Precast Concrete Retaining Walls	111.18	9.46	
32 32 16 00-0006	SF	>30' High, Tied-back, Precast Concrete Retaining Walls	117.59	8.08	
32 32 23 Segmental Retaining Walls (32 32)					
32 32 23 13 Segmental Concrete Unit Masonry Retaining Walls (32 32 23)					
32 32 23 13-0001		Modular Retaining Wall Systems (32 32 23 13)			
		Note: Includes installation, material and manufacturer's wall design. Includes stone wall, cap stones, #57 stone backing, Geo-Grid (2/3 height of wall), miradrain and fill with earth, and compaction. Includes cap at top, pins, and installation. Excludes initial site grading, subbase preparation or finish grading.			
32 32 23 13-0002		"Amastone" Type Modular Retaining Wall Systems (32 32 23 13-0001)			
32 32 23 13-0003	SF	Up To 4' Height "Amastone" Type Modular Retaining Wall System	65.58	8.34	
		For >3:1 Sloped Soil At Top, Add	4.16		
32 32 23 13-0004	SF	4 To 8' Height "Amastone" Type Modular Retaining Wall System	69.19	8.78	
		For >3:1 Sloped Soil At Top, Add	4.39		
32 32 23 13-0005	SF	8 To 12' Height "Amastone" Type Modular Retaining Wall System	72.12	9.66	
		For >3:1 Sloped Soil At Top, Add	4.49		
32 32 23 13-0006	SF	12 To 16' Height "Amastone" Type Modular Retaining Wall System	75.22	10.54	
		For >3:1 Sloped Soil At Top, Add	4.60		
32 32 23 13-0007		"Diamond" Type Modular Retaining Wall Systems (32 32 23 13-0001)			
32 32 23 13-0008	SF	Up To 4' Height "Diamond" Type Modular Retaining Wall System	68.14	8.34	
		For >3:1 Sloped Soil At Top, Add	4.37		
32 32 23 13-0009	SF	4 To 8' Height "Diamond" Type Modular Retaining Wall System	71.75	8.78	
		For >3:1 Sloped Soil At Top, Add	4.61		
32 32 23 13-0010	SF	8 To 12' Height "Diamond" Type Modular Retaining Wall System	74.68	9.66	
		For >3:1 Sloped Soil At Top, Add	4.71		
32 32 23 13-0011	SF	12 To 16' Height "Diamond" Type Modular Retaining Wall System	77.77	10.54	
		For >3:1 Sloped Soil At Top, Add	4.82		
32 32 23 13-0012		"Keystone" Type Modular Retaining Wall Systems (32 32 23 13-0001)			
32 32 23 13-0013	SF	Up To 4' Height "Keystone" Type Modular Retaining Wall System	74.25	8.34	
		For >3:1 Sloped Soil At Top, Add	4.89		
32 32 23 13-0014	SF	4 To 8' Height "Keystone" Type Modular Retaining Wall System	77.86	8.78	
		For >3:1 Sloped Soil At Top, Add	5.13		
32 32 23 13-0015	SF	8 To 12' Height "Keystone" Type Modular Retaining Wall System	80.79	9.66	
		For >3:1 Sloped Soil At Top, Add	5.22		
32 32 23 13-0016	SF	12 To 16' Height "Keystone" Type Modular Retaining Wall System	83.88	10.54	
		For >3:1 Sloped Soil At Top, Add	5.34		
32 32 23 13-0017		"Cribblock" Type Modular Retaining Wall Systems (32 32 23 13-0001)			

32 Exterior Improvements**32 30 Site Improvements****32 32 Retaining Walls**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 32 23 13-0018 SF Up To 4' Height "Criblock" Type Modular Retaining Wall System.....	65.58	8.34
For >3:1 Sloped Soil At Top, Add	4.16	
For Gravel Backfill Instead Of Earth, Add	0.25	
32 32 23 13-0019 SF 4 To 8' Height "Criblock" Type Modular Retaining Wall System.....	69.19	8.78
For >3:1 Sloped Soil At Top, Add	4.39	
For Gravel Backfill Instead Of Earth, Add	0.25	
32 32 23 13-0020 SF 8 To 12' Height "Criblock" Type Modular Retaining Wall System.....	72.12	9.66
For >3:1 Sloped Soil At Top, Add	4.49	
For Gravel Backfill Instead Of Earth, Add	0.25	
32 32 23 13-0021 SF 12 To 16' Height "Criblock" Type Modular Retaining Wall System.....	75.22	10.54
For >3:1 Sloped Soil At Top, Add	4.60	
For Gravel Backfill Instead Of Earth, Add	0.25	
32 32 23 13-0022 "Versa-Lok" Type Modular Retaining Wall Systems (32 32 23 13-0001)		
32 32 23 13-0023 SF Up To 4' Height "Versa-Lok" Type Modular Retaining Wall System.....	57.83	8.34
For >3:1 Sloped Soil At Top, Add	3.50	
32 32 23 13-0024 SF 4 To 8' Height "Versa-Lok" Type Modular Retaining Wall System.....	64.00	8.78
For >3:1 Sloped Soil At Top, Add	3.95	
32 32 23 13-0025 SF 8 To 12' Height "Versa-Lok" Type Modular Retaining Wall System.....	66.97	9.66
For >3:1 Sloped Soil At Top, Add	4.05	
32 32 23 13-0026 SF 12 To 16' Height "Versa-Lok" Type Modular Retaining Wall System.....	69.58	10.54
For >3:1 Sloped Soil At Top, Add	4.12	
32 32 23 13-0027 Retaining Wall Cap Block Restoration (32 32 23 13-0001)		
Note: Includes removal of existing cap block and installation of new cap block to match.		
32 32 23 13-0028 LF Removal And Reinstall Retaining Wall Cap Block And Pins.....	34.52	
For >3:1 Sloped Soil At Top, Add	1.84	
32 32 26 Metal Crib Retaining Walls (32 32)		
32 32 26 00-0001 Bin Type Retaining Wall (32 32 26)		
32 32 26 00-0002 Vertical Bin Walls (32 32 26 00-0001)		
Note: Excludes excavation and backfill.		
32 32 26 00-0003 SF 5.5' Vertical Bin Retaining Wall, Wall Heights To 11'.....	74.64	
32 32 26 00-0004 SF 7.7' Vertical Bin Retaining Wall, Wall Heights, 8.33' To 16.33'.....	88.63	
32 32 26 00-0005 SF 9.9' Vertical Bin Retaining Wall, Wall Heights, 13.67' To 21.67'.....	103.29	
32 32 26 00-0006 SF 12.1' Vertical Bin Retain Wall, Wall Heights 17.67' To 25.67'.....	111.68	
32 32 26 00-0007 SF 14.3' Vertical Bin Retain Wall, Wall Heights 20.33' To 28.33'.....	124.70	
32 32 26 00-0008 SF 16.5' Vertical Bin Retain Wall, Wall Heights 20.33' To 28.33'.....	133.10	
32 32 26 00-0009 Battered Bin Walls (32 32 26 00-0001)		
Note: Excludes excavation and backfill.		
32 32 26 00-0010 SF 5.5' Battered Bin Retain Wall, Wall Heights To 11'.....	66.15	
32 32 26 00-0011 SF 7.7' Battered Bin Retain Wall, Wall Heights 8.33' To 16.33'.....	71.74	
32 32 26 00-0012 SF 9.9' Battered Bin Retain Wall, Wall Heights 13.67' To 21.67'.....	80.72	
32 32 26 00-0013 SF 12.1' Battered Bin Retain Wall, Wall Heights 17.67' To 25.67'.....	90.51	
32 32 26 00-0014 SF 14.3' Battered Bin Retain Wall, Wall Heights 20.33' To 28.33'.....	105.92	
32 32 26 00-0015 SF 16.5' Battered Bin Retain Wall, Wall Heights 20.33' To 28.33'.....	108.72	
32 32 26 00-0016 Aluminized Steel Bin (32 32 26)		
Note: Excludes excavation and backfill.		
32 32 26 00-0017 SF 4' High, 5.5' Deep Aluminized Steel Bin.....	50.01	4.98
For >3:1 Sloped Soil At Top, Add	3.41	
For Galvanized Type, Deduct	-4.01	
32 32 26 00-0018 SF 8' High, 5.5' Deep Aluminized Steel Bin.....	56.19	4.98
For >3:1 Sloped Soil At Top, Add	3.92	
For Galvanized Type, Deduct	-4.62	
32 32 26 00-0019 SF 10' High, 7.7' Deep Aluminized Steel Bin.....	59.98	5.44
For >3:1 Sloped Soil At Top, Add	4.18	
For Galvanized Type, Deduct	-4.92	
32 32 26 00-0020 SF 12' High, 7.7' Deep Aluminized Steel Bin.....	68.35	6.13
For >3:1 Sloped Soil At Top, Add	4.77	
For Galvanized Type, Deduct	-5.61	
32 32 26 00-0021 SF 16' High, 7.7' Deep Aluminized Steel Bin.....	65.68	6.36
For >3:1 Sloped Soil At Top, Add	4.51	
For Galvanized Type, Deduct	-5.31	
32 32 26 00-0022 SF 16' High, 9.9' Deep Aluminized Steel Bin.....	73.42	6.48
For >3:1 Sloped Soil At Top, Add	5.15	
For Galvanized Type, Deduct	-6.06	
32 32 26 00-0023 SF 20' High, 9.9' Deep Aluminized Steel Bin.....	81.52	6.82
For >3:1 Sloped Soil At Top, Add	5.76	
For Galvanized Type, Deduct	-6.78	
32 32 26 00-0024 SF 20' High, 12.1' Deep Aluminized Steel Bin.....	83.44	7.17
For >3:1 Sloped Soil At Top, Add	5.88	
For Galvanized Type, Deduct	-6.92	
32 32 26 00-0025 SF 24' High, 12.1' Deep Aluminized Steel Bin.....	87.90	7.17
For >3:1 Sloped Soil At Top, Add	6.25	
For Galvanized Type, Deduct	-7.36	



Exterior Improvements			32
Site Improvements			32 30
Retaining Walls			32 32

MINOR		DESCRIPTION	TOTAL DIRECT		DEMOLITION
CSI	UOM		UNIT COST	UNIT COST	
32 32 26 00-0026	SF	24' High, 14.3' Deep Aluminized Steel Bin.....	92.33		7.29
		For >3:1 Sloped Soil At Top, Add	6.62		
		For Galvanized Type, Deduct	-7.79		
32 32 26 00-0027	SF	28' High, 14.3' Deep Aluminized Steel Bin.....	95.47		7.40
		For >3:1 Sloped Soil At Top, Add	6.86		
		For Galvanized Type, Deduct	-8.08		
32 32 29 Timber Retaining Walls (32 32)					
32 32 29 00-0001 Wood Post Retaining Walls (32 32 29)					
Note: System includes wood posts installed side-by-side to various heights, and underdrain. Excludes initial site grading, subbase preparation or finish grading.					
32 32 29 00-0002	LF	4" x 4", 1' High, Redwood, Wood Post Retaining Walls.....	83.06		29.06
		For >3:1 Sloped Soil At Top, Add	2.73		
32 32 29 00-0003	LF	4" x 4", 2' High, Redwood, Wood Post Retaining Walls.....	162.55		56.87
		For >3:1 Sloped Soil At Top, Add	4.15		
32 32 29 00-0004	LF	4" x 4", 1' High, Cedar, Wood Post Retaining Walls.....	79.86		29.06
		For >3:1 Sloped Soil At Top, Add	1.86		
32 32 29 00-0005	LF	4" x 4", 2' High, Cedar, Wood Post Retaining Walls.....	156.33		56.87
		For >3:1 Sloped Soil At Top, Add	3.62		
32 32 29 00-0006	LF	4" x 4", 1' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	79.70		25.38
		For >3:1 Sloped Soil At Top, Add	2.45		
32 32 29 00-0007	LF	4" x 4", 2' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	156.03		49.64
		For >3:1 Sloped Soil At Top, Add	4.82		
32 32 29 00-0008	LF	4" x 4", 1' High, Creosoted Lumber, Wood Post Retaining Walls.....	66.22		22.53
		For >3:1 Sloped Soil At Top, Add	1.80		
32 32 29 00-0009	LF	4" x 4", 2' High, Creosoted Lumber, Wood Post Retaining Walls.....	119.74		40.77
		For >3:1 Sloped Soil At Top, Add	3.25		
32 32 29 00-0010	LF	6" x 6", 2' High, Redwood, Wood Post Retaining Walls.....	219.52		68.91
		For >3:1 Sloped Soil At Top, Add	6.95		
32 32 29 00-0011	LF	6" x 6", 4' High, Redwood, Wood Post Retaining Walls.....	433.47		135.06
		For >3:1 Sloped Soil At Top, Add	13.89		
32 32 29 00-0012	LF	6" x 6", 2' High, Cedar, Wood Post Retaining Walls.....	215.96		68.91
		For >3:1 Sloped Soil At Top, Add	6.64		
32 32 29 00-0013	LF	6" x 6", 4' High, Cedar, Wood Post Retaining Walls.....	424.59		135.06
		For >3:1 Sloped Soil At Top, Add	13.14		
32 32 29 00-0014	LF	6" x 6", 2' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	203.93		55.96
		For >3:1 Sloped Soil At Top, Add	7.82		
32 32 29 00-0015	LF	6" x 6", 4' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	404.99		110.50
		For >3:1 Sloped Soil At Top, Add	15.63		
32 32 29 00-0016	LF	6" x 6", 2' High, Creosoted Lumber, Wood Post Retaining Walls.....	150.88		44.75
		For >3:1 Sloped Soil At Top, Add	5.21		
32 32 29 00-0017	LF	6" x 6", 4' High, Creosoted Lumber, Wood Post Retaining Walls.....	296.81		87.56
		For >3:1 Sloped Soil At Top, Add	10.34		
32 32 29 00-0018	LF	8" x 8", 4' High, Redwood, Wood Post Retaining Walls.....	542.12		149.33
		For >3:1 Sloped Soil At Top, Add	20.69		
32 32 29 00-0019	LF	8" x 8", 6' High, Redwood, Wood Post Retaining Walls.....	1,014.11		278.78
		For >3:1 Sloped Soil At Top, Add	38.81		
32 32 29 00-0020	LF	8" x 8", 4' High, Cedar, Wood Post Retaining Walls.....	524.35		149.33
		For >3:1 Sloped Soil At Top, Add	19.18		
32 32 29 00-0021	LF	8" x 8", 6' High, Cedar, Wood Post Retaining Walls.....	980.35		278.78
		For >3:1 Sloped Soil At Top, Add	35.94		
32 32 29 00-0022	LF	8" x 8", 4' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	562.71		172.27
		For >3:1 Sloped Soil At Top, Add	18.54		
32 32 29 00-0023	LF	8" x 8", 6' High, Pressure Treated Lumber, Wood Post Retaining Walls.....	1,049.77		321.70
		For >3:1 Sloped Soil At Top, Add	34.54		
32 32 29 00-0024	LF	8" x 8", 4' High, Creosoted Lumber, Wood Post Retaining Walls.....	425.03		139.24
		For >3:1 Sloped Soil At Top, Add	12.46		
32 32 29 00-0025	LF	8" x 8", 6' High, Creosoted Lumber, Wood Post Retaining Walls.....	788.34		258.30
		For >3:1 Sloped Soil At Top, Add	23.11		
32 32 29 00-0026	LF	4' High, Cedar, Random Diameter Poles, Wood Post Retaining Walls.....	159.28		57.39
		For >3:1 Sloped Soil At Top, Add	3.78		
32 32 29 00-0027	LF	6' High, Cedar, Random Diameter Poles, Wood Post Retaining Walls.....	238.03		86.13
		For >3:1 Sloped Soil At Top, Add	5.59		
32 32 29 00-0028	LF	8' High, Cedar, Random Diameter Poles, Wood Post Retaining Walls.....	316.68		114.78
		For >3:1 Sloped Soil At Top, Add	7.40		
32 32 29 00-0029	LF	4' High Creosoted Lumber, Random Diameter Poles, Wood Post Retaining Walls.....	108.42		32.41
		For >3:1 Sloped Soil At Top, Add	3.70		
32 32 29 00-0030	LF	6' High Creosoted Lumber, Random Diameter Poles, Wood Post Retaining Walls.....	157.56		46.79
		For >3:1 Sloped Soil At Top, Add	5.44		
32 32 29 00-0031	LF	8' High Creosoted Lumber, Random Diameter Poles, Wood Post Retaining Walls.....	213.39		63.19
		For >3:1 Sloped Soil At Top, Add	7.40		
32 32 29 00-0032 Post And Board Retaining Walls (32 32 29)					
Note: System includes all the elements that must go into a wall that resists lateral pressure. System elements include posts and boards, cap, underdrain, and deadman where required. Excludes initial site grading, subbase preparation or finish grading.					
32 32 29 00-0033	LF	4" x 4" Post, 4' Spacing, 3' High, 2" Planking, Redwood, Post And Board Retaining Walls.....	66.70		17.22
		For >3:1 Sloped Soil At Top, Add	2.74		
32 32 29 00-0034	LF	4" x 4" Post, 2' Spacing, 4' High, 2" Planking, Redwood, Post And Board Retaining Walls.....	102.39		29.45
		For >3:1 Sloped Soil At Top, Add	3.70		
32 32 29 00-0035	LF	6" x 6" Post, 4' Spacing, 5' High 2" Planking, Redwood, Post And Board Retaining Walls.....	134.52		36.59
		For >3:1 Sloped Soil At Top, Add	5.21		

32 Exterior Improvements**32 30 Site Improvements****32 32 Retaining Walls**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 32 29 00-0036	LF	6" x 6" Post, 3' Spacing, 6' High, 2" Planking, Redwood, Post And Board Retaining Walls	188.05	51.88
		<i>For >3:1 Sloped Soil At Top, Add</i>	7.17	
32 32 29 00-0037	LF	6" x 6" With Deadman, 3' Spacing, 8' High, 2" Planking, Redwood, Post And Board Retaining Walls	245.98	67.48
		<i>For >3:1 Sloped Soil At Top, Add</i>	9.44	
32 32 29 00-0038	LF	8" x 8" Post, 2' Spacing, 8' High, 2" Planking, Redwood, Post And Board Retaining Walls	505.11	133.53
		<i>For >3:1 Sloped Soil At Top, Add</i>	20.24	
32 32 29 00-0039	LF	8" x 8" With Deadman, 2' Spacing, 9' High, 2" Planking, Redwood, Post And Board Retaining Walls	571.12	147.91
		<i>For >3:1 Sloped Soil At Top, Add</i>	23.41	
32 32 29 00-0040	LF	4" x 4" Post, 4' Spacing, 3' High, 2" Planking, Cedar, Post And Board Retaining Walls	67.69	17.94
		<i>For >3:1 Sloped Soil At Top, Add</i>	2.70	
32 32 29 00-0041	LF	4" x 4" With Deadman, 2' Spacing, 4' High 2" Planking, Cedar, Post And Board Retaining Walls	118.83	31.91
		<i>For >3:1 Sloped Soil At Top, Add</i>	4.68	
32 32 29 00-0042	LF	6" x 6" Post, 4' Spacing, 4' High 2" Planking, Cedar, Post And Board Retaining Walls	116.79	31.30
		<i>For >3:1 Sloped Soil At Top, Add</i>	4.61	
32 32 29 00-0043	LF	6" x 6" Post, 3' Spacing, 5' High 2" Planking, Cedar, Post And Board Retaining Walls	163.61	44.96
		<i>For >3:1 Sloped Soil At Top, Add</i>	6.27	
32 32 29 00-0044	LF	6" x 6" Post, 2' Spacing, 6' High 2" Planking, Cedar, Post And Board Retaining Walls	254.62	71.76
		<i>For >3:1 Sloped Soil At Top, Add</i>	9.44	
32 32 29 00-0045	LF	6 x 6 Post With Deadman, 3' Spacing, 6' High, 2" Planking, Cedar	201.76	55.14
		<i>For >3:1 Sloped Soil At Top, Add</i>	7.78	
32 32 29 00-0046	LF	8 x 8 Post With Deadman, 2' Spacing, 8' High, 2" Planking, Cedar	522.54	137.81
		<i>For >3:1 Sloped Soil At Top, Add</i>	20.99	
32 32 29 00-0047	LF	4 x 4 Post, 4' Spacing, 3' High 2" Planking, Pressure Treated	84.54	33.13
		<i>For >3:1 Sloped Soil At Top, Add</i>	1.55	
32 32 29 00-0048	LF	4 x 4 Post, 3' Spacing, 4' High 2" Planking, Pressure Treated	122.36	47.09
		<i>For >3:1 Sloped Soil At Top, Add</i>	2.39	
32 32 29 00-0049	LF	4 x 4 Post With Deadman, 2' Space, 5' High, 2" Planking, Pressure Treat	178.06	64.63
		<i>For >3:1 Sloped Soil At Top, Add</i>	4.15	
32 32 29 00-0050	LF	6 x 6 Post, 3' Spacing, 6' High, 2" Planking, Pressure Treated	313.23	109.07
		<i>For >3:1 Sloped Soil At Top, Add</i>	8.08	
32 32 29 00-0051	LF	6 x 6 Post, 2' Spacing, 7' High, 2" Planking, Pressure Treated	317.67	109.07
		<i>For >3:1 Sloped Soil At Top, Add</i>	8.46	
32 32 29 00-0052	LF	6 x 6 Post With Deadman, 3' Spacing 8' High, 2" Planking, Pressure Treat	298.45	104.79
		<i>For >3:1 Sloped Soil At Top, Add</i>	7.55	
32 32 29 00-0053	LF	8 x 8 Post With Deadman, 2' Spacing 10' High, 2" Planking, Pressure Treated	702.37	241.07
		<i>For >3:1 Sloped Soil At Top, Add</i>	18.73	
32 32 29 00-0054	LF	4 x 4 Post, 4' Spacing, 3' High Creosoted 2" Planking	84.54	33.13
		<i>For >3:1 Sloped Soil At Top, Add</i>	1.55	
32 32 29 00-0055	LF	4 x 4 Post, 3' Spacing, 4' High Creosoted, 2" Planking	122.36	47.09
		<i>For >3:1 Sloped Soil At Top, Add</i>	2.39	
32 32 29 00-0056	LF	4 x 4 Post With Deadman, 2' Spacing, 5' High, Creosoted, 2" Planking	178.06	64.63
		<i>For >3:1 Sloped Soil At Top, Add</i>	4.15	
32 32 29 00-0057	LF	6 x 6 Post, 3' Spacing, 6' High Creosoted, 2" Planking	223.85	80.43
		<i>For >3:1 Sloped Soil At Top, Add</i>	5.36	
32 32 29 00-0058	LF	6" x 6" Post, 2' Spacing, 7' High, 2" Planking, Creosoted, Post And Board Retaining Walls	313.23	109.07
		<i>For >3:1 Sloped Soil At Top, Add</i>	8.08	
32 32 29 00-0059	LF	6" x 6" Post With Deadman, 3' Spacing, 8' High, 2" Planking, Creosoted, Post And Board Retaining Walls	298.45	104.79
		<i>For >3:1 Sloped Soil At Top, Add</i>	7.55	
32 32 29 00-0060	LF	8" x 8" Post With Deadman, 2' Spacing, 10' High, Creosoted, 2" Planking, Post And Board Retaining Walls	702.37	241.07
		<i>For >3:1 Sloped Soil At Top, Add</i>	18.73	
32 32 29 00-0061		Wood Tie Retaining Walls, Rod Connector At 4' (32 32 29) Note: The system includes all the elements that must go into a wall that resists lateral pressure. System elements include: wood ties, threaded rod (1/2" diameter), underdrain, and deadman where required. Excludes initial site grading, subbase preparation or finish grading.		
32 32 29 00-0062		Redwood (32 32 29 00-0061)		
32 32 29 00-0063	LF	2' High, 6" x 6" Wood Tie Wall	113.27	35.27
		<i>For >3:1 Sloped Soil At Top, Add</i>	3.62	
32 32 29 00-0064	LF	4' High, 6" x 6" Wood Tie Wall Deadman At 6'	258.50	80.43
		<i>For >3:1 Sloped Soil At Top, Add</i>	8.31	
32 32 29 00-0065	LF	6' High, 6" x 6" Wood Tie Wall Deadman At 6'	386.91	120.58
		<i>For >3:1 Sloped Soil At Top, Add</i>	12.38	
32 32 29 00-0066	LF	4' High, 8" x 8" Wood Tie Wall Deadman At 6'	375.48	103.36
		<i>For >3:1 Sloped Soil At Top, Add</i>	14.35	
32 32 29 00-0067	LF	6' High, 8" x 8" Wood Tie Wall Deadman At 6'	564.23	155.04
		<i>For >3:1 Sloped Soil At Top, Add</i>	21.60	
32 32 29 00-0068	LF	8' High, 8" x 8" Wood Tie Wall Deadman At 6'	745.24	203.87
		<i>For >3:1 Sloped Soil At Top, Add</i>	28.69	
32 32 29 00-0069		Cedar (32 32 29 00-0061)		
32 32 29 00-0070	LF	2' High, 6" x 6" Wood Tie Wall	111.49	35.27
		<i>For >3:1 Sloped Soil At Top, Add</i>	3.47	
32 32 29 00-0071	LF	4' High, 6" x 6" Wood Tie Wall Deadman At 6'	253.17	80.43
		<i>For >3:1 Sloped Soil At Top, Add</i>	7.85	
32 32 29 00-0072	LF	6' High, 6" x 6" Wood Tie Wall Deadman At 6'	379.81	120.58
		<i>For >3:1 Sloped Soil At Top, Add</i>	11.78	
32 32 29 00-0073	LF	4' High, 8" x 8" Wood Tie Wall Deadman At 6'	363.04	103.36
		<i>For >3:1 Sloped Soil At Top, Add</i>	13.29	
32 32 29 00-0074	LF	6' High, 8" x 8" Wood Tie Wall Deadman At 6'	546.46	155.04
		<i>For >3:1 Sloped Soil At Top, Add</i>	20.08	



Exterior Improvements			32
Site Improvements			32 30
Retaining Walls			32 32

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
32 32 29 00-0075	LF	8' High, 8" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	720.37 26.58	203.87
32 32 29 00-0076 Creosoted Wood (32 32 29 00-0061)				
32 32 29 00-0077	LF	2' High, 6" x 8" Wood Tie Wall For >3:1 Sloped Soil At Top, Add	123.89 2.57	46.79
32 32 29 00-0078	LF	4' High, 6" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	283.76 5.81	107.64
32 32 29 00-0079	LF	6' High, 6" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	420.83 8.68	159.32
32 32 29 00-0080	LF	4' High, 7" x 9" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	570.30 11.63	216.71
32 32 29 00-0081	LF	6' High, 7" x 9" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	830.34 16.91	315.69
32 32 29 00-0082	LF	8' High, 7" x 9" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	1,101.84 22.50	418.54
32 32 29 00-0083 Pressure Treated Wood (32 32 29 00-0061)				
32 32 29 00-0084	LF	2' High, 6" x 6" Wood Tie Wall For >3:1 Sloped Soil At Top, Add	98.36 3.41	29.15
32 32 29 00-0085	LF	4' High, 6" x 6" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	223.57 7.78	66.06
32 32 29 00-0086	LF	6' High, 6" x 6" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	334.91 11.63	99.08
32 32 29 00-0087	LF	4' High, 8" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	363.48 10.65	119.16
32 32 29 00-0088	LF	6' High, 8" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	546.17 16.16	178.08
32 32 29 00-0089	LF	8' High, 8" x 8" Wood Tie Wall Deadman At 6'..... For >3:1 Sloped Soil At Top, Add	724.02 21.29	236.79
32 32 53 Stone Retaining Walls (32 32)				
32 32 53 00-0001 Stone Retaining Walls (32 32 53)				
Note: Construction is either dry set or mortar set. System includes concrete base, crushed stone, underdrain, and backfill. Standard design to have 12" thick top with vertical backside and sloped face at 2" per foot of height. Excludes initial site grading, subbase preparation or finish grading.				
32 32 53 00-0002 Stone Retaining Walls (32 32 53 00-0001)				
Note: Stone at \$16.00/ton.				
32 32 53 00-0003	LF	\$16.00/ton 3' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	446.25 4.32	197.65
32 32 53 00-0004	LF	\$16.00/ton 4' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	525.94 4.73	235.15
32 32 53 00-0005	LF	\$16.00/ton 6' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	689.87 5.53	312.42
32 32 53 00-0006	LF	\$16.00/ton 8' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,060.98 7.14	488.47
32 32 53 00-0007	LF	\$16.00/ton 10' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,377.36 8.45	638.97
32 32 53 00-0008	LF	\$16.00/ton 12' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,708.58 9.96	795.71
32 32 53 00-0009	LF	\$16.00/ton 3' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	400.86 4.32	175.00
32 32 53 00-0010	LF	\$16.00/ton 4' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	469.74 4.73	207.05
32 32 53 00-0011	LF	\$16.00/ton 6' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	606.92 5.53	270.88
32 32 53 00-0012	LF	\$16.00/ton 8' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	927.47 7.14	421.73
32 32 53 00-0013	LF	\$16.00/ton 10' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	1,190.07 8.45	545.37
32 32 53 00-0014	LF	\$16.00/ton 12' High Stone Retaining Wall, Mortar Set..... For >3:1 Sloped Soil At Top, Add	1,477.56 9.96	680.24
32 32 53 00-0015 Stone Retaining Walls (32 32 53 00-0001)				
Note: Stone at \$32.00/ton.				
32 32 53 00-0016	LF	\$32.00/ton 3' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	461.63 5.63	197.65
32 32 53 00-0017	LF	\$32.00/ton 4' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	547.24 6.54	235.15
32 32 53 00-0018	LF	\$32.00/ton 6' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	720.62 8.14	312.42
32 32 53 00-0019	LF	\$32.00/ton 8' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,105.94 10.96	488.47
32 32 53 00-0020	LF	\$32.00/ton 10' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,438.88 13.68	638.97
32 32 53 00-0021	LF	\$32.00/ton 12' High Stone Retaining Wall, Dry Set For >3:1 Sloped Soil At Top, Add	1,786.66 16.59	795.71

32 Exterior Improvements**32 30 Site Improvements****32 32 Retaining Walls**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 32 53 00-0022 LF \$32.00/ton 3' High Stone Retaining Wall, Mortar Set.....	416.24	175.00
For >3:1 Sloped Soil At Top, Add	5.63	
32 32 53 00-0023 LF \$32.00/ton 4' High Stone Retaining Wall, Mortar Set.....	491.04	207.05
For >3:1 Sloped Soil At Top, Add	6.54	
32 32 53 00-0024 LF \$32.00/ton 6' High Stone Retaining Wall, Mortar Set.....	637.67	270.88
For >3:1 Sloped Soil At Top, Add	8.14	
32 32 53 00-0025 LF \$32.00/ton 8' High Stone Retaining Wall, Mortar Set.....	972.43	421.73
For >3:1 Sloped Soil At Top, Add	10.96	
32 32 53 00-0026 LF \$32.00/ton 10' High Stone Retaining Wall, Mortar Set.....	1,251.59	545.37
For >3:1 Sloped Soil At Top, Add	13.68	
32 32 53 00-0027 LF \$32.00/ton 12' High Stone Retaining Wall, Mortar Set.....	1,555.64	680.24
For >3:1 Sloped Soil At Top, Add	16.59	
32 32 53 00-0028 Stone Retaining Walls (32 32 53 00-0001)		
Note: Stone at \$48.00/ton.		
32 32 53 00-0029 LF \$48.00/ton 3' High Stone Retaining Wall, Dry Set.....	478.19	197.65
For >3:1 Sloped Soil At Top, Add	7.04	
32 32 53 00-0030 LF \$48.00/ton 4' High Stone Retaining Wall, Dry Set.....	568.29	235.15
For >3:1 Sloped Soil At Top, Add	8.33	
32 32 53 00-0031 LF \$48.00/ton 6' High Stone Retaining Wall, Dry Set.....	750.20	312.42
For >3:1 Sloped Soil At Top, Add	10.66	
32 32 53 00-0032 LF \$48.00/ton 8' High Stone Retaining Wall, Dry Set.....	1,150.89	488.47
For >3:1 Sloped Soil At Top, Add	14.78	
32 32 53 00-0033 LF \$48.00/ton 10' High Stone Retaining Wall, Dry Set.....	1,500.40	638.97
For >3:1 Sloped Soil At Top, Add	18.90	
32 32 53 00-0034 LF \$48.00/ton 12' High Stone Retaining Wall, Dry Set.....	1,865.92	795.71
For >3:1 Sloped Soil At Top, Add	23.33	
32 32 53 00-0035 LF \$48.00/ton 3' High Stone Retaining Wall, Mortar Set.....	432.80	175.00
For >3:1 Sloped Soil At Top, Add	7.04	
32 32 53 00-0036 LF \$48.00/ton 4' High Stone Retaining Wall, Mortar Set.....	512.33	207.05
For >3:1 Sloped Soil At Top, Add	8.35	
32 32 53 00-0037 LF \$48.00/ton 6' High Stone Retaining Wall, Mortar Set.....	667.25	270.88
For >3:1 Sloped Soil At Top, Add	10.66	
32 32 53 00-0038 LF \$48.00/ton 8' High Stone Retaining Wall, Mortar Set.....	1,017.38	421.73
For >3:1 Sloped Soil At Top, Add	14.78	
32 32 53 00-0039 LF \$48.00/ton 10' High Stone Retaining Wall, Mortar Set.....	1,313.11	545.37
For >3:1 Sloped Soil At Top, Add	18.90	
32 32 53 00-0040 LF \$48.00/ton 12' High Stone Retaining Wall, Mortar Set.....	1,634.90	680.24
For >3:1 Sloped Soil At Top, Add	23.33	
32 32 53 00-0041 Stone Retaining Walls (32 32 53 00-0001)		
Note: Stone at \$64.00/ton.		
32 32 53 00-0042 LF \$64.00/ton 3' High Stone Retaining Wall, Dry Set.....	494.75	197.65
For >3:1 Sloped Soil At Top, Add	8.45	
32 32 53 00-0043 LF \$64.00/ton 4' High Stone Retaining Wall, Dry Set.....	566.16	235.15
For >3:1 Sloped Soil At Top, Add	8.14	
32 32 53 00-0044 LF \$64.00/ton 6' High Stone Retaining Wall, Dry Set.....	782.14	312.42
For >3:1 Sloped Soil At Top, Add	13.37	
32 32 53 00-0045 LF \$64.00/ton 8' High Stone Retaining Wall, Dry Set.....	1,198.21	488.47
For >3:1 Sloped Soil At Top, Add	18.80	
32 32 53 00-0046 LF \$64.00/ton 10' High Stone Retaining Wall, Dry Set.....	1,564.28	638.97
For >3:1 Sloped Soil At Top, Add	24.33	
32 32 53 00-0047 LF \$64.00/ton 12' High Stone Retaining Wall, Dry Set.....	1,946.36	795.71
For >3:1 Sloped Soil At Top, Add	30.17	
32 32 53 00-0048 LF \$64.00/ton 3' High Stone Retaining Wall, Mortar Set.....	449.36	175.00
For >3:1 Sloped Soil At Top, Add	8.45	
32 32 53 00-0049 LF \$64.00/ton 4' High Stone Retaining Wall, Mortar Set.....	533.62	207.05
For >3:1 Sloped Soil At Top, Add	10.16	
32 32 53 00-0050 LF \$64.00/ton 6' High Stone Retaining Wall, Mortar Set.....	699.19	270.88
For >3:1 Sloped Soil At Top, Add	13.37	
32 32 53 00-0051 LF \$64.00/ton 8' High Stone Retaining Wall, Mortar Set.....	1,064.70	421.73
For >3:1 Sloped Soil At Top, Add	18.80	
32 32 53 00-0052 LF \$64.00/ton 10' High Stone Retaining Wall, Mortar Set.....	1,376.99	545.37
For >3:1 Sloped Soil At Top, Add	24.33	
32 32 53 00-0053 LF \$64.00/ton 12' High Stone Retaining Wall, Mortar Set.....	1,715.34	680.24
For >3:1 Sloped Soil At Top, Add	30.17	
32 33 Site Furnishings (32 30)		
32 33 13 Site Bicycle Racks (32 33)		
32 33 13 00-0001 Bicycle Organizer And Rack (32 33 13)		
32 33 13 00-0002 Vertical Style Bike Racks Single/Double Sided, Galvanized (32 33 13 00-0001)		
32 33 13 00-0003 Double Sided (32 33 13 00-0002)		
32 33 13 00-0004 EA 5' Galvanized Steel Double Sided Bike Rack, 9 Bikes.....	718.04	136.70
32 33 13 00-0005 EA 10' Galvanized Steel Double Sided Bike Rack, 18 Bikes.....	1,087.15	224.58
32 33 13 00-0006 EA 20' Galvanized Steel Double Sided Bike Rack, 36 Bikes.....	1,863.15	341.76



Exterior Improvements			32
Site Improvements			32 30
Site Furnishings			32 33

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
32 33 13 00-0007	Single Sided (32 33 13 00-0002)				
32 33 13 00-0008	EA 5' Galvanized Steel Single Sided Bike Rack, 5 Bikes		629.07		122.06
32 33 13 00-0009	EA 10' Galvanized Steel Single Sided Bike Rack, 9 Bikes		895.26		203.11
32 33 13 00-0010	EA 20' Galvanized Steel Single Sided Bike Rack, 18 Bikes		1,526.78		305.15
32 33 13 00-0011	Anchor Set For Vertical Style Bike Rack (32 33 13 00-0002)				
32 33 13 00-0012	PR Anchor Set For Vertical Style Bike Rack		132.73		
Note: Anchoring frame to ground.					
32 33 13 00-0013	Bike Racks Ground Loop (32 33 13 00-0001)				
Note: In-ground mount.					
32 33 13 00-0014	EA 83" Ground Loop Bike Rack, Surface Or Wall Mounted, 12 Bikes		974.64		239.53
32 33 13 00-0015	Serpentine Bike Racks (32 33 13 00-0001)				
Note: In-ground mount.					
32 33 13 00-0016	Galvanized, 36" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0017	EA 1' x 3' High Serpentine (M Style) Bike Rack, 3 Bikes, Galvanized		544.00		146.47
32 33 13 00-0018	EA 3' x 3' High Serpentine (M Style) Bike Rack, 5 Bikes, Galvanized		729.62		158.67
32 33 13 00-0019	EA 5' x 3' High Serpentine (M Style) Bike Rack, 7 Bikes, Galvanized		915.25		170.89
32 33 13 00-0020	EA 7' x 3' High Serpentine (M Style) Bike Rack, 9 Bikes, Galvanized		1,123.93		183.09
32 33 13 00-0021	EA 9' x 3' High Serpentine (M Style) Bike Rack, 11 Bikes, Galvanized		1,332.59		195.29
32 33 13 00-0022	EA 11' x 3' High Serpentine (M Style) Bike Rack, 13 Bikes, Galvanized		1,449.13		207.50
32 33 13 00-0023	Galvanized, 42" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0024	EA 1' x 42" High Serpentine Bike Rack, 3 Bikes, Galvanized		611.52		146.47
32 33 13 00-0025	EA 3' x 42" High Serpentine Bike Rack, 5 Bikes, Galvanized		778.30		158.67
32 33 13 00-0026	EA 5' x 42" High Serpentine Bike Rack, 7 Bikes, Galvanized		945.09		170.89
32 33 13 00-0027	EA 7' x 42" High Serpentine Bike Rack, 9 Bikes, Galvanized		1,094.09		183.09
32 33 13 00-0028	EA 9' x 42" High Serpentine Bike Rack, 11 Bikes, Galvanized		1,260.88		195.29
32 33 13 00-0029	EA 11' x 42" High Serpentine Bike Rack, 13 Bikes, Galvanized		1,463.26		207.50
32 33 13 00-0030	EA 13' x 42" High Serpentine Bike Rack, 15 Bikes, Galvanized		1,719.04		244.12
32 33 13 00-0031	EA 15' x 42" High Serpentine Bike Rack, 17 Bikes, Galvanized		1,992.61		231.92
32 33 13 00-0032	EA 17' x 42" High Serpentine Bike Rack, 19 Bikes, Galvanized		2,248.39		244.12
32 33 13 00-0033	Powder Coated, 36" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0034	EA 1' x 3' High Serpentine (M Style) Bike Rack, 3 Bikes, Powder Coated		544.00		146.47
32 33 13 00-0035	EA 3' x 3' High Serpentine (M Style) Bike Rack, 5 Bikes, Powder Coated		729.62		158.67
32 33 13 00-0036	EA 5' x 3' High Serpentine (M Style) Bike Rack, 7 Bikes, Powder Coated		915.25		170.89
32 33 13 00-0037	EA 7' x 3' High Serpentine (M Style) Bike Rack, 9 Bikes, Powder Coated		1,123.93		183.09
32 33 13 00-0038	EA 9' x 3' High Serpentine (M Style) Bike Rack, 11 Bikes, Powder Coated		1,332.59		195.29
32 33 13 00-0039	EA 11' x 3' High Serpentine (M Style) Bike Rack, 13 Bikes, Powder Coated		1,449.13		207.50
32 33 13 00-0040	Powder Coated, 42" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0041	EA 1' x 42" High Serpentine Bike Rack, 3 Bikes, Powder Coated		629.32		146.47
32 33 13 00-0042	EA 3' x 42" High Serpentine Bike Rack, 5 Bikes, Powder Coated		813.89		158.67
32 33 13 00-0043	EA 5' x 42" High Serpentine Bike Rack, 7 Bikes, Powder Coated		980.68		170.89
32 33 13 00-0044	EA 7' x 42" High Serpentine Bike Rack, 9 Bikes, Powder Coated		1,183.08		183.09
32 33 13 00-0045	EA 9' x 42" High Serpentine Bike Rack, 11 Bikes, Powder Coated		1,349.86		195.29
32 33 13 00-0046	EA 11' x 42" High Serpentine Bike Rack, 13 Bikes, Powder Coated		1,570.04		207.50
32 33 13 00-0047	EA 13' x 42" High Serpentine Bike Rack, 15 Bikes, Powder Coated		1,861.41		244.12
32 33 13 00-0048	EA 15' x 42" High Serpentine Bike Rack, 17 Bikes, Powder Coated		2,152.78		231.92
32 33 13 00-0049	EA 17' x 42" High Serpentine Bike Rack, 19 Bikes, Powder Coated		2,426.37		244.12
32 33 13 00-0050	Stainless Steel, 36" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0051	EA 1' x 36" High Serpentine Bike Rack, 3 Bikes, Stainless Steel		997.70		146.47
32 33 13 00-0052	EA 3' x 36" High Serpentine Bike Rack, 5 Bikes, Stainless Steel		1,474.68		158.67
32 33 13 00-0053	EA 5' x 36" High Serpentine Bike Rack, 7 Bikes, Stainless Steel		1,951.68		170.89
32 33 13 00-0054	EA 7' x 36" High Serpentine Bike Rack, 9 Bikes, Stainless Steel		2,493.36		183.09
32 33 13 00-0055	EA 9' x 36" High Serpentine Bike Rack, 11 Bikes, Stainless Steel		3,035.00		195.29
32 33 13 00-0056	EA 11' x 36" High Serpentine Bike Rack, 13 Bikes, Stainless Steel		3,318.03		207.50
32 33 13 00-0057	Stainless Steel, 42" High, 2-3/8" OD Tubing (32 33 13 00-0015)				
32 33 13 00-0058	EA 1' x 42" High Serpentine Bike Rack, 3 Bikes, Stainless Steel		789.49		146.47
32 33 13 00-0059	EA 3' x 42" High Serpentine Bike Rack, 5 Bikes, Stainless Steel		1,703.76		158.67
32 33 13 00-0060	EA 5' x 42" High Serpentine Bike Rack, 7 Bikes, Stainless Steel		2,226.49		170.89
32 33 13 00-0061	EA 7' x 42" High Serpentine Bike Rack, 9 Bikes, Stainless Steel		2,713.64		183.09
32 33 13 00-0062	EA 9' x 42" High Serpentine Bike Rack, 11 Bikes, Stainless Steel		3,218.58		195.29
32 33 13 00-0063	EA 11' x 42" High Serpentine Bike Rack, 13 Bikes, Stainless Steel		3,741.32		207.50

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 33 13 00-0064		Bike Racks Bollards/Bicycle Posts (32 33 13 00-0001) Note: In-ground mount.		
32 33 13 00-0065	EA	43" Overall Height, 4-1/2" Outside Diameter Bollard/Bicycle Post, 2 Loop Galvanized Steel Bollard (Belson BOL450-2R-IG-G).....	650.43	109.86
32 33 23		Site Trash and Litter Receptacles (32 33)		
32 33 23 00-0001		Steel Trash Containment (32 33 23)		
32 33 23 00-0002		Steel Frame Surrounded With Kiln-Dried Wood (32 33 23 00-0001)		
32 33 23 00-0003	EA	13" x 13" x 30" Ash Receptacle Steel Frame, Kiln Dried Wood	554.45	58.33
32 33 23 00-0004	EA	24" x 24" x 30" High Open Top Trash Container Steel Frame, Kiln Dried Wood	529.46	58.33
32 33 23 00-0005	EA	21" x 21" x 31" High Flat Top Trash Container Steel Frame, Kiln Dried Wood	529.46	58.33
32 33 23 00-0006	EA	24" x 24" x 31" High, Flat Top Trash Container Steel Frame, Kiln Dried Wood	501.34	58.33
32 33 23 00-0007	EA	18" x 18" x 37" High Dome Top Trash Container Steel Frame, Kiln Dried Wood.....	554.45	58.33
32 33 23 00-0008	EA	23" x 23" x 37" High Dome Top Trash Container Steel Frame, Kiln Dried Wood.....	501.34	58.33
32 33 23 00-0009	EA	24" x 24" x 37" High Dome Top Trash Container Steel Frame, Kiln Dried Wood.....	685.64	58.33
32 33 23 00-0010		Square Steel Frames Surrounded With Flat Steel (32 33 23 00-0001)		
32 33 23 00-0011	EA	26" Diameter x 34" High Open Top Trash Square Container Steel Frame, Flat Steel Surround	1,000.00	58.33
32 33 23 00-0012	EA	26" Diameter x 34" High Dome Top Trash Square Container Steel Frame, Flat Steel Surround.....	1,079.39	58.33
32 33 23 00-0013	EA	26" Diameter x 39" High Dome Top Trash Square Container Steel Frame, Flat Steel Surround.....	1,079.39	58.33
32 33 23 00-0014		Round Steel Pipe And Flat Steel Frames (32 33 23 00-0001) Note: Surrounded with kiln-dried wood.		
32 33 23 00-0015	EA	21" Diameter x 32" High Open Top Trash Container Steel Pipe, Flat Steel Frame, Kiln Dried Wood.....	1,476.30	58.33
32 33 23 00-0016	EA	21" Diameter x 32" High Flat Top Trash Steel Container Pipe, Flat Steel Frame, Kiln Dried Wood	1,589.71	58.33
32 33 23 00-0017	EA	21" Diameter x 39" High Dome Top Trash Steel Container Pipe, Flat Steel Frame, Kiln Dried Wood.....	1,830.69	58.33
32 33 23 00-0018	EA	21" Diameter x 40" High HPR Top Trash Container Steel Pipe, Flat Steel Frame, Kiln Dried Wood.....	1,660.59	58.33
32 33 23 00-0019		Round Steel Pipe Surrounded With Perforated (32 33 23 00-0001)		
32 33 23 00-0020	EA	21" Diameter x 32" High Open Top Trash Container Perforated Round Steel Pipe.....	1,320.37	58.33
32 33 23 00-0021	EA	21" Diameter x 32" High Flat Top Trash Container Perforated Round Steel Pipe	1,433.78	58.33
32 33 23 00-0022	EA	21" Diameter x 39" High Dome Top Trash Container Perforated Round Steel Pipe	1,674.76	58.33
32 33 23 00-0023	EA	21" Diameter x 40" High HPR Top Trash Container Perforated Round Steel Pipe	1,518.83	58.33
32 33 23 00-0024		Round Steel Pipe Frames Surrounded With Welded Wire (32 33 23 00-0001)		
32 33 23 00-0025	EA	21" Diameter x 32" High Flat Top Trash Container Steel Pipe Frame, Welded Wire Surround	1,051.03	58.33
32 33 23 00-0026	EA	21" Diameter x 32" High Open Top Trash Steel Container Pipe Frame, Welded Wire Surround	1,164.44	58.33
32 33 23 00-0027	EA	21" Diameter x 39" High Dome Top Trash Steel Container Pipe Frame, Welded Wire Surround.....	1,405.42	58.33
32 33 23 00-0028	EA	21" Diameter x 40" High HPR Top Trash Container Steel Pipe Frame, Welded Wire Surround.....	1,249.49	58.33
32 33 23 00-0029		Litter Baskets (32 33 23)		
32 33 23 00-0030		Round Wire Litter Baskets (32 33 23 00-0029)		
32 33 23 00-0031	EA	1.33' Diameter x 1.83' High Round Wire Litter Basket	184.90	5.93
32 33 23 00-0032	EA	1.5' Diameter x 1.83' High Round Wire Litter Basket	233.41	5.93
32 33 23 00-0033	EA	1.75' Diameter x 2.33' High Round Wire Litter Basket	315.72	5.93
32 33 23 00-0034	EA	1.83' Diameter x 2.83' High Round Wire Litter Basket	362.17	5.93
32 33 23 00-0035		Trash Can/Wire Basket Holder (32 33 23 00-0029)		
32 33 23 00-0036	EA	Steel Post, Single Holder	265.60	47.63
32 33 23 00-0037	EA	Steel Post, Double Holder.....	358.44	47.63
32 33 23 00-0038	EA	Redwood Post, Single Holder	140.86	47.63
32 33 23 00-0039	EA	Redwood Post, Double Holder.....	161.61	47.63
32 33 23 00-0040		Litter Receptacles, Freestanding (32 33 23 00-0029) Note: Includes 1-1/2" outside diameter steel leg supports. Wall mounted, includes 3/8" x 3" steel wall plates. Surface mounted, includes 2-1/2" outside diameter steel tube with floor flange, embedded to include 2-1/2" outside diameter steel tube.		
32 33 23 00-0041	EA	16" Diameter x 28" High Litter Receptacle, Freestanding Or Embedded	1,485.53	24.31
		For Powder Coated Sand Pan, Add	50.00	
		For Orange Peel Lid, Add	25.00	
		For Polished Granite Lid, Add	50.00	
32 33 23 00-0042	EA	16" Diameter x 32" High Litter Receptacle, Freestanding Or Embedded	1,563.62	24.31
		For Powder Coated Sand Pan, Add	50.00	
		For Orange Peel Lid, Add	25.00	
		For Polished Granite Lid, Add	50.00	
32 33 23 00-0043	EA	20" Diameter x 36" High Litter Receptacle, Freestanding Or Embedded	1,822.20	36.45
		For Powder Coated Sand Pan, Add	50.00	
		For Orange Peel Lid, Add	25.00	
		For Polished Granite Lid, Add	50.00	



Exterior Improvements			32
Site Improvements			32 30
Site Furnishings			32 33

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 23 00-0044	EA		20" Diameter x 40" High Litter Receptacle, Freestanding Embedded..... For Powder Coated Sand Pan, Add For Orange Peel Lid, Add For Polished Granite Lid, Add	1,900.30 50.00 25.00 50.00	36.45
32 33 23 00-0045	EA		16" Diameter x 28" High Litter Receptacle, Pole Mount With Pole For Powder Coated Sand Pan, Add For 1-1/2" x 8-1/2" Diameter Metal Cover Plate, Add For Orange Peel Lid, Add For Polished Granite Lid, Add	1,978.39 50.00 22.50 25.00 50.00	36.45
32 33 23 00-0046	EA		16" Diameter x 32" High Litter Receptacle, Pole Mount With Pole For Powder Coated Sand Pan, Add For 1-1/2" x 8-1/2" Diameter Metal Cover Plate, Add For Orange Peel Lid, Add For Polished Granite Lid, Add	2,056.49 50.00 22.50 25.00 50.00	36.45
32 33 23 00-0047	EA		16" Diameter x 28" High Litter Receptacle, Wall Mount..... For Powder Coated Sand Pan, Add For Orange Peel Lid, Add For Polished Granite Lid, Add For 1-1/2" x 6" Diameter Metal Cover Plate, Add	1,640.68 50.00 25.00 50.00 20.00	31.59
32 33 23 00-0048	EA		16" Diameter x 32" High Litter Receptacle, Wall Mount..... For Powder Coated Sand Pan, Add For Orange Peel Lid, Add For Polished Granite Lid, Add For 1-1/2" x 6" Diameter Metal Cover Plate, Add	1,718.77 50.00 25.00 50.00 20.00	31.59
32 33 23 00-0049	Ash Receptacles (32 33 23)				
32 33 23 00-0050	EA		12" Diameter x 21" High Ash Receptacle, Freestanding Or Embedded For 1-1/2" x 8-1/2" Diameter Metal Cover Plate, Add For Sand Pan, Add For Bowl And Funnel, Add	527.04 22.50 110.00 120.00	24.31
32 33 23 00-0051	EA		18" Square Concrete Exposed Aggregate x 36" High Ash Receptacles With 3-1/2" ID iron Pipe With Cap Square Concrete With Steel Liner.....	230.44	24.31
32 33 23 00-0052	Trash Receptacles (32 33 23)				
32 33 23 00-0053	EA		Outdoor Covered Steel Receptacle With Liner.....	1,220.01	24.31
32 33 23 00-0054	EA		Driftwood And Sable Receptacle, 35 Gallon With Liner And Frame.....	417.24	24.31
32 33 23 00-0055	EA		24" x 24" Square Trash Containment With Exposed Aggregate Finish.....	567.76	24.31
32 33 23 00-0056	EA		30" x 30" Square Trash Containment With Exposed Aggregate Finish.....	592.99	26.73
32 33 23 00-0057	EA		36" x 36" Square Trash Containment With Exposed Aggregate Finish.....	638.56	29.16
32 33 23 00-0058	EA		32 Gallon, Open Round Trash Receptacle, Recycled Plastic Lumber.....	532.30	19.44
32 33 23 00-0059	EA		32 Gallon, Round Trash Receptacle With Liner And Lid, Recycled Plastic Lumber.....	635.09	19.44
32 33 23 00-0060	EA		24" x 24" Square 18" High Trash Receptacle, Fiberglass.....	1,156.46	24.31
32 33 23 00-0061	EA		25" Square x 34" Height, Concrete Trash Receptacle With "C" Style Lid (Quick Crete QS-CAL2534W-C21).....	1,455.42	32.08
32 33 23 00-0062	Trash Containers (Dumpsters) (32 33 23)				
32 33 23 00-0063	EA		1 CY Straight Side Trash Dumpster.....	302.15	
32 33 23 00-0064	EA		1.5 CY Straight Side Trash Dumpster.....	453.23	
32 33 23 00-0065	EA		2 CY Straight Side Trash Dumpster.....	604.30	
32 33 23 00-0066	EA		2 CY Sloped Side Trash Dumpster.....	604.30	
32 33 23 00-0067	EA		3 CY Sloped Side Trash Dumpster.....	906.45	
32 33 23 00-0068	EA		4 CY Sloped Side Trash Dumpster.....	1,208.61	
32 33 23 00-0069	EA		6 CY Sloped Side Trash Dumpster.....	1,812.91	
32 33 23 00-0070	EA		8 CY Sloped Side Trash Dumpster.....	2,417.21	
32 33 33	Site Manufactured Planters (32 33)				
32 33 33 00-0001	Precast Concrete Planters (32 33 33)				
32 33 33 00-0002	Circular Precast Concrete Planters (32 33 33 00-0001)				
32 33 33 00-0003	EA		24" Diameter, 17" Height, Circular Precast Concrete Planter.....	819.82	28.83
32 33 33 00-0004	EA		24" Diameter, 24" Height, Circular Precast Concrete Planter.....	918.02	34.59
32 33 33 00-0005	EA		24" Diameter, 33" Height, Circular Precast Concrete Planter.....	1,004.68	34.59
32 33 33 00-0006	EA		30" Diameter, 17" Height, Circular Precast Concrete Planter.....	1,090.15	40.36
32 33 33 00-0007	EA		30" Diameter, 30" Height, Circular Precast Concrete Planter.....	1,319.68	51.89
32 33 33 00-0008	EA		36" Diameter, 24" Height, Circular Precast Concrete Planter.....	1,436.93	51.89
32 33 33 00-0009	EA		36" Diameter, 30" Height, Circular Precast Concrete Planter.....	1,619.25	57.66
32 33 33 00-0010	EA		48" Diameter, 17" Height, Circular Precast Concrete Planter.....	1,711.01	57.66
32 33 33 00-0011	EA		48" Diameter, 24" Height, Circular Precast Concrete Planter.....	1,905.53	72.07
32 33 33 00-0012	EA		48" Diameter, 30" Height, Circular Precast Concrete Planter.....	2,026.91	76.69
32 33 33 00-0013	EA		48" Diameter, 36" Height, Circular Precast Concrete Planter.....	2,111.46	80.73
32 33 33 00-0014	EA		60" Diameter, 17" Height, Circular Precast Concrete Planter.....	1,917.39	72.07
32 33 33 00-0015	EA		60" Diameter, 24" Height, Circular Precast Concrete Planter.....	2,108.91	80.73
32 33 33 00-0016	EA		60" Diameter, 36" Height, Circular Precast Concrete Planter.....	2,704.17	86.49
32 33 33 00-0017	EA		72" Diameter, 36" Height, Circular Precast Concrete Planter.....	3,509.90	109.55
32 33 33 00-0018	EA		84" Diameter, 36" Height, Circular Precast Concrete Planter.....	4,079.68	115.32
32 33 33 00-0019	Square Precast Concrete Planters (32 33 33 00-0001)				

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 33 00-0020 EA 36" Square, 30" Height, Square Precast Concrete Planter	1,650.51	74.96
32 33 33 00-0021 EA 42" Square, 30" Height, Square Precast Concrete Planter	1,890.36	80.73
32 33 33 00-0022 EA 60" Square, 36" Height, Square Precast Concrete Planter	2,990.99	92.25
32 33 33 00-0023 EA 72" Square, 36" Height, Square Precast Concrete Planter	3,191.16	98.02
32 33 33 00-0024 Rectangular Precast Concrete Planters (32 33 33 00-0001)		
32 33 33 00-0025 EA 33" x 18", 20" Height, Rectangular Precast Concrete Planter	956.25	34.59
32 33 33 00-0026 EA 48" x 18", 20" Height, Rectangular Precast Concrete Planter	1,120.85	51.89
32 33 33 00-0027 EA 60" x 18", 20" Height, Rectangular Precast Concrete Planter	1,300.62	57.66
32 33 33 00-0028 EA 72" x 18", 20" Height, Rectangular Precast Concrete Planter	1,479.84	72.07
32 33 33 00-0029 Fiberglass Planters (32 33 33)		
32 33 33 00-0030 Circular Fiberglass Planters (32 33 33 00-0029)		
32 33 33 00-0031 EA 36" Diameter, 27" High, Circular Fiberglass Planter	2,023.91	28.83
32 33 33 00-0032 EA 60" Diameter, 39" High, Circular Fiberglass Planter	3,379.01	28.83
32 33 33 00-0033 EA 36" Diameter, 24" High, Circular Fiberglass Planter	1,343.93	28.83
32 33 33 00-0034 EA 60" Diameter, 24" High, Circular Fiberglass Planter	2,664.65	28.83
32 33 33 00-0035 Tapered Circular Fiberglass Planters (32 33 33 00-0029)		
32 33 33 00-0036 EA 24" Diameter, 20" High, Tapered Circular Fiberglass Planter	777.54	28.83
32 33 33 00-0037 EA 30" Diameter, 25" High, Tapered Circular Fiberglass Planter	1,147.53	28.83
32 33 33 00-0038 EA 36" Diameter, 30" High, Tapered Circular Fiberglass Planter	2,058.30	28.83
32 33 33 00-0039 EA 40" Diameter, 36" High, Tapered Circular Fiberglass Planter	2,880.69	28.83
32 33 33 00-0040 Square Fiberglass Planters (32 33 33 00-0029)		
32 33 33 00-0041 EA 24" Square, 21" High, Square Fiberglass Planter	1,026.15	28.83
32 33 33 00-0042 EA 24" Square, 24" High, Square Fiberglass Planter	1,049.34	28.83
32 33 33 00-0043 EA 30" Square, 12" High, Square Fiberglass Planter	1,061.60	28.83
32 33 33 00-0044 EA 30" Square, 21" High, Square Fiberglass Planter	1,206.46	28.83
32 33 33 00-0045 EA 30" Square, 24" High, Square Fiberglass Planter	1,312.00	28.83
32 33 33 00-0046 Rectangular Fiberglass Planters (32 33 33 00-0029)		
32 33 33 00-0047 EA 48" x 12", 12" High, Rectangular Fiberglass Planter	1,183.52	28.83
32 33 33 00-0048 EA 48" x 12", 21" High, Rectangular Fiberglass Planter	1,270.07	28.83
32 33 33 00-0049 EA 48" x 24", 12" High, Rectangular Fiberglass Planter	1,659.83	28.83
32 33 33 00-0050 EA 48" x 24", 21" High, Rectangular Fiberglass Planter	1,832.93	28.83
32 33 33 00-0051 Timber Planters (32 33 33)		
32 33 33 00-0052 Square Timber Planters (32 33 33 00-0051)		
32 33 33 00-0053 EA 14" Square, 30" High, Square Timber Planter	510.54	58.33
32 33 33 00-0054 EA 21" Square, 30" High, Square Timber Planter	510.54	58.33
32 33 33 00-0055 EA 27" Square, 30" High, Square Timber Planter	946.75	58.33
32 33 33 00-0056 EA 34" Square, 30" High, Square Timber Planter	823.87	58.33
32 33 33 00-0057 EA 41" Square, 36" High, Square Timber Planter	977.47	58.33
32 33 33 00-0058 EA 54" Square, 36" High, Square Timber Planter	2,476.57	58.33
32 33 33 00-0059 EA 81" Square, 36" High, Square Timber Planter	3,711.48	58.33
32 33 33 00-0060 Rectangular Timber Planters (32 33 33 00-0051)		
32 33 33 00-0061 EA 21" x 14", 30" High, Rectangular Timber Planter	504.39	58.33
32 33 33 00-0062 EA 27" x 14", 30" High, Rectangular Timber Planter	559.69	58.33
32 33 33 00-0063 EA 27" x 21", 30" High, Rectangular Timber Planter	725.57	58.33
32 33 33 00-0064 EA 34" x 21", 30" High, Rectangular Timber Planter	799.30	58.33
32 33 33 00-0065 EA 41" x 21", 30" High, Rectangular Timber Planter	1,020.48	58.33
32 33 33 00-0066 EA 34" x 27", 30" High, Rectangular Timber Planter	1,180.22	58.33
32 33 33 00-0067 EA 41" x 27", 30" High, Rectangular Timber Planter	1,315.38	58.33
32 33 33 00-0068 EA 54" x 27", 30" High, Rectangular Timber Planter	1,702.44	58.33
32 33 33 00-0069 EA 54" x 34", 30" High, Rectangular Timber Planter	1,917.48	58.33
32 33 33 00-0070 EA 68" x 34", 36" High, Rectangular Timber Planter	2,181.66	58.33
32 33 33 00-0071 EA 54" x 41", 36" High, Rectangular Timber Planter	2,077.22	58.33
32 33 33 00-0072 EA 68" x 41", 36" High, Rectangular Timber Planter	2,347.55	58.33
32 33 33 00-0073 EA 81" x 41", 36" High, Rectangular Timber Planter	2,624.02	58.33
32 33 43 Site Seating and Tables (32 33)		
32 33 43 13 Site Seating (32 33 43)		
32 33 43 13-0001 Benches (Landscapeforms) (32 33 43 13)		
Note: Excludes embedding in concrete See CSI section 32 31 13 13-0001 for drilling and concrete.		
32 33 43 13-0002 EA 72" Backless Wood Or PolySite Bench (Landscapeforms Balustrade)	1,652.47	97.21
32 33 43 13-0003 EA 72" Backed Wood Or PolySite Bench (Landscapeforms Balustrade)	2,060.72	97.21
32 33 43 13-0004 EA 96" Backed Wood Bench (Landscapeforms Balustrade)	2,323.17	97.21



Exterior Improvements		32	32
Site Improvements		32 30	
Site Furnishings		32 33	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 13-0005	EA	End Loop Arms For Backed Bench (Landscapeforms Balustrade).....	194.41	24.31
32 33 43 13-0006	EA	72" Backless Wood Or PolySite Bench (Landscapeforms Gretchen's).....	1,804.61	97.21
32 33 43 13-0007	EA	96" Backless Wood Bench (Landscapeforms Gretchen's).....	2,039.17	97.21
32 33 43 13-0008	EA	72" Backed Wood Or PolySite Bench (Landscapeforms Gretchen's).....	2,223.01	97.21
32 33 43 13-0009	EA	96" Backed Wood Bench (Landscapeforms Gretchen's).....	2,508.27	97.21
32 33 43 13-0010	EA	72" Backed Wood Or PolySite Bench With Armrest (Landscapeforms Gretchen's).....	2,539.97	97.21
32 33 43 13-0011	EA	96" Backed Wood Bench With Armrest (Landscapeforms Gretchen's).....	2,825.24	97.21
32 33 43 13-0012	EA	59" Backed Wood Or Metal Rod Bench (Landscapeforms Hyde Park).....	3,291.30	97.21
32 33 43 13-0013	EA	75" Backed Wood Or Metal Rod Bench (Landscapeforms Hyde Park).....	3,575.56	97.21
32 33 43 13-0014	EA	42" Backless Metal Grid Bench (Landscapeforms Manistee).....	938.74	72.92
32 33 43 13-0015	EA	62" Backless Metal Grid Bench (Landscapeforms Manistee).....	1,013.54	72.92
32 33 43 13-0016	EA	72" Backless Metal Grid Bench (Landscapeforms Manistee).....	1,097.70	85.07
32 33 43 13-0017	EA	82" Backless Metal Grid Bench (Landscapeforms Manistee).....	1,277.23	85.07
32 33 43 13-0018	EA	42" Backed Metal Grid Bench (Landscapeforms Manistee).....	1,172.50	85.07
32 33 43 13-0019	EA	62" Backed Metal Grid Bench (Landscapeforms Manistee).....	1,247.30	85.07
32 33 43 13-0020	EA	72" Backed Metal Grid Bench (Landscapeforms Manistee).....	1,346.41	97.21
32 33 43 13-0021	EA	82" Backed Metal Grid Bench (Landscapeforms Manistee).....	1,540.90	97.21
32 33 43 13-0022	EA	42" Backed Metal Grid Bench With Armrest Each End (Landscapeforms Manistee).....	1,307.15	85.07
32 33 43 13-0023	EA	62" Backed Metal Grid Bench With Armrest Each End (Landscapeforms Manistee).....	1,406.25	97.21
32 33 43 13-0024	EA	72" Backed Metal Grid Bench With Armrest Each End (Landscapeforms Manistee).....	1,481.05	97.21
32 33 43 13-0025	EA	82" Backed Metal Grid Bench With Armrest Each End (Landscapeforms Manistee).....	1,675.54	97.21
32 33 43 13-0026	EA	72" Backless Solid Wood Bench (Landscapeforms Palisade).....	2,654.08	97.21
32 33 43 13-0027	EA	96" Backless Solid Wood Bench (Landscapeforms Palisade).....	3,047.11	97.21
32 33 43 13-0028	EA	70" Backless Perforated Metal Bench (Landscapeforms Petoskey).....	1,710.79	97.21
32 33 43 13-0029	EA	70" Dual Support Backed Perforated Metal Bench (Landscapeforms Petoskey).....	2,060.72	97.21
32 33 43 13-0030	EA	70" Quad Support Backed Perforated Metal Bench (Landscapeforms Petoskey).....	2,235.68	97.21
32 33 43 13-0031	EA	72" Backed Wood Bench (Landscapeforms Plainwell).....	2,178.63	97.21
32 33 43 13-0032	EA	72" Backed Wood Bench With Center Arm (Landscapeforms Plainwell).....	2,413.19	97.21
32 33 43 13-0033	EA	96" Backed Wood Bench (Landscapeforms Plainwell).....	2,666.76	97.21
32 33 43 13-0034	EA	96" Backed Wood Bench With Center Arm (Landscapeforms Plainwell).....	2,901.31	97.21
32 33 43 13-0035	EA	96" Backed Wood Bench With Two Center Arms (Landscapeforms Plainwell).....	3,142.20	97.21
32 33 43 13-0036	EA	72" Backed Aluminum Bench (Landscapeforms Plainwell).....	2,768.19	97.21
32 33 43 13-0037	EA	72" Backed Aluminum Bench With Center Arm (Landscapeforms Plainwell).....	3,002.74	97.21
32 33 43 13-0038	EA	96" Backed Aluminum Bench (Landscapeforms Plainwell).....	3,389.44	97.21
32 33 43 13-0039	EA	96" Backed Aluminum Bench With Center Arm (Landscapeforms Plainwell).....	3,636.67	97.21
32 33 43 13-0040	EA	96" Backed Aluminum Bench With Two Center Arms (Landscapeforms Plainwell).....	3,864.88	97.21
32 33 43 13-0041	EA	Backless Metal Grid Seats For Straight Runs (Landscapeforms Plexus).....	631.83	24.31
32 33 43 13-0042	EA	Backless Metal Grid Seats For 60 Degree Radius (Landscapeforms Plexus).....	847.36	24.31
32 33 43 13-0043	EA	Backless Metal Grid Seats For 120 Degree Radius (Landscapeforms Plexus).....	847.36	24.31
32 33 43 13-0044	EA	Backed Metal Grid Seats For Straight Runs (Landscapeforms Plexus).....	771.29	24.31
32 33 43 13-0045	EA	Narrow-Backed Metal Grid Seats For 60 Degree Radius (Landscapeforms Plexus).....	955.13	24.31
32 33 43 13-0046	EA	Narrow-Backed Metal Grid Seats For 120 Degree Radius (Landscapeforms Plexus).....	955.13	24.31
32 33 43 13-0047	EA	Wide-Backed Metal Grid Seats For 120 Degree Radius (Landscapeforms Plexus).....	955.13	24.31
32 33 43 13-0048	EA	Armrest For Metal Grid Seats (Landscapeforms Plexus).....	194.41	24.31
32 33 43 13-0049	EA	Backless Straight Metal Grid Seats (Landscapeforms Presidio).....	885.40	24.31
32 33 43 13-0050	EA	Backless Straight Metal Grid Seats With One Arm (Landscapeforms Presidio).....	980.49	24.31
32 33 43 13-0051	EA	Backless Straight Metal Grid Seats With Two Arms (Landscapeforms Presidio).....	1,075.58	24.31
32 33 43 13-0052	EA	Backless Angled Metal Grid Seats (Landscapeforms Presidio).....	1,069.24	24.31
32 33 43 13-0053	EA	Backless Angled Metal Grid Seats With One Arm (Landscapeforms Presidio).....	1,164.33	24.31
32 33 43 13-0054	EA	Backless Angled Metal Grid Seats With Two Arms (Landscapeforms Presidio).....	1,259.42	24.31
32 33 43 13-0055	EA	Backed Straight Metal Grid Seats (Landscapeforms Presidio).....	1,056.56	24.31
32 33 43 13-0056	EA	Backed Straight Metal Grid Seats With One Arm (Landscapeforms Presidio).....	1,151.65	24.31
32 33 43 13-0057	EA	Backed Straight Metal Grid Seats With Two Arms (Landscapeforms Presidio).....	1,246.74	24.31
32 33 43 13-0058	EA	Narrow-Backed Angled Metal Grid Seats (Landscapeforms Presidio).....	1,291.11	24.31
32 33 43 13-0059	EA	Narrow-Backed Angled Metal Grid Seats With One Arm (Landscapeforms Presidio).....	1,386.20	24.31
32 33 43 13-0060	EA	Narrow-Backed Angled Metal Grid Seats With Two Arms (Landscapeforms Presidio).....	1,481.29	24.31
32 33 43 13-0061	EA	Wide-Backed Angled Metal Grid Seats (Landscapeforms Presidio).....	1,291.11	24.31
32 33 43 13-0062	EA	Wide-Backed Angled Metal Grid Seats With One Arm (Landscapeforms Presidio).....	1,386.20	24.31
32 33 43 13-0063	EA	Wide-Backed Angled Metal Grid Seats With Two Arms (Landscapeforms Presidio).....	1,481.29	24.31
32 33 43 13-0064	EA	48" Backless Horizontal Strap Bench (Landscapeforms Scarborough).....	1,779.25	97.21
32 33 43 13-0065	EA	72" Backless Horizontal Strap Bench (Landscapeforms Scarborough).....	1,804.61	97.21
32 33 43 13-0066	EA	96" Backless Horizontal Strap Bench (Landscapeforms Scarborough).....	2,191.31	97.21
32 33 43 13-0067	EA	48" Backless Woven Bench (Landscapeforms Scarborough).....	2,654.08	97.21
32 33 43 13-0068	EA	72" Backless Woven Bench (Landscapeforms Scarborough).....	3,129.53	97.21
32 33 43 13-0069	EA	96" Backless Woven Bench (Landscapeforms Scarborough).....	3,579.62	97.21
32 33 43 13-0070	EA	24" Backed Horizontal Strap Bench (Landscapeforms Scarborough).....	1,436.93	97.21
32 33 43 13-0071	EA	48" Backed Horizontal Strap Bench (Landscapeforms Scarborough).....	1,906.04	97.21
32 33 43 13-0072	EA	72" Backed Horizontal Strap Bench (Landscapeforms Scarborough).....	1,950.42	97.21
32 33 43 13-0073	EA	72" Backed Horizontal Strap Bench With Center Arm (Landscapeforms Scarborough).....	2,242.02	97.21
32 33 43 13-0074	EA	96" Backed Horizontal Strap Bench (Landscapeforms Scarborough).....	2,527.29	97.21
32 33 43 13-0075	EA	96" Backed Horizontal Strap Bench With Center Arm (Landscapeforms Scarborough).....	2,825.24	97.21
32 33 43 13-0076	EA	96" Backed Horizontal Strap Bench With Two Intermediate Arms (Landscapeforms Scarborough).....	3,116.85	97.21
32 33 43 13-0077	EA	24" Backed Woven Bench (Landscapeforms Scarborough).....	2,527.29	97.21
32 33 43 13-0078	EA	48" Backed Woven Bench (Landscapeforms Scarborough).....	3,053.45	97.21
32 33 43 13-0079	EA	72" Backed Woven Bench (Landscapeforms Scarborough).....	3,566.94	97.21
32 33 43 13-0080	EA	72" Backed Woven Bench With Center Arm (Landscapeforms Scarborough).....	3,864.88	97.21
32 33 43 13-0081	EA	96" Backed Woven Bench (Landscapeforms Scarborough).....	4,498.81	97.21
32 33 43 13-0082	EA	96" Backed Woven Bench With Center Arm (Landscapeforms Scarborough).....	4,790.42	97.21
32 33 43 13-0083	EA	96" Backed Woven Bench With Two Intermediate Arms (Landscapeforms Scarborough).....	5,075.69	97.21
32 33 43 13-0084	EA	32" Backed Strap Or Perforated Bench (Landscapeforms Town Square).....	1,216.11	85.07
32 33 43 13-0085	EA	49" Backed Strap Or Perforated Bench (Landscapeforms Town Square).....	1,463.35	85.07

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 33 43 13-0086	EA	49" Backed Strap Or Perforated Bench With Divider (Landscapeforms Town Square).....	1,596.47	85.07
32 33 43 13-0087	EA	70" Backed Strap Or Perforated Bench (Landscapeforms Town Square).....	1,868.01	97.21
32 33 43 13-0088	EA	70" Backed Strap Or Perforated Bench With Two Dividers (Landscapeforms Town Square).....	2,115.24	97.21

32 33 43 13-0089 Benches (Columbia Cascade, TimberForm) (32 33 43 13)**32 33 43 13-0090 Wood Benches (Columbia Cascade, TimberForm) (32 33 43 13-0089)**

Note: Includes powder coated steel frames.

32 33 43 13-0091	EA	70" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-6-E).....	873.49	48.61
32 33 43 13-0092	EA	94" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-8-E).....	1,001.76	48.61
32 33 43 13-0093	EA	118" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-10-E).....	1,283.91	48.61
32 33 43 13-0094	EA	70" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-6-P).....	912.00	48.61
32 33 43 13-0095	EA	94" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-8-P).....	1,040.24	48.61
32 33 43 13-0096	EA	118" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2006-10-P).....	1,335.22	48.61
32 33 43 13-0097	EA	70" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-6-E).....	1,335.22	48.61
32 33 43 13-0098	EA	94" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-8-E).....	1,553.24	48.61
32 33 43 13-0099	EA	118" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-10-E).....	2,002.11	48.61
32 33 43 13-0100	EA	70" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-6-P).....	1,399.34	48.61
32 33 43 13-0101	EA	94" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-8-P).....	1,617.36	48.61
32 33 43 13-0102	EA	118" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Bench With Straight Back (TimberForm 2016-10-P).....	2,091.88	48.61
32 33 43 13-0103	EA	70" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-6-E).....	2,579.23	48.61
32 33 43 13-0104	EA	94" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-8-E).....	3,028.10	48.61
32 33 43 13-0105	EA	118" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-10-E).....	3,964.31	48.61
32 33 43 13-0106	EA	70" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-6-P).....	2,643.35	48.61
32 33 43 13-0107	EA	94" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-8-P).....	3,092.22	48.61
32 33 43 13-0108	EA	118" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 And 3 x 8 Wood Slats Benches With Straight Backs (TimberForm 2026-10-P).....	4,054.09	48.61
32 33 43 13-0109	EA	70" Length, Embedment Mount, 3 x 4 Wood Slats Concave Bench (TimberForm 2028-6-E).....	1,014.59	48.61
32 33 43 13-0110	EA	94" Length, Embedment Mount, 3 x 4 Wood Slats Concave Bench (TimberForm 2028-8-E).....	1,142.84	48.61
32 33 43 13-0111	EA	70" Length, Pedestal Mount, 3 x 4 Wood Slats Concave Bench (TimberForm 2028-6-P).....	1,053.07	48.61
32 33 43 13-0112	EA	94" Length, Pedestal Mount, 3 x 4 Wood Slats Concave Bench (TimberForm 2028-8-P).....	1,181.32	48.61
32 33 43 13-0113	EA	46" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Platform Seat (TimberForm 2044-4-E).....	1,694.31	48.61
32 33 43 13-0114	EA	70" Length, Embedment Mount, 3 x 4 And 3 x 8 Wood Slats Platform Seat (TimberForm 2044-6-E).....	2,002.11	48.61
32 33 43 13-0115	EA	46" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Platform Seat (TimberForm 2044-4-P).....	1,796.91	48.61
32 33 43 13-0116	EA	70" Length, Pedestal Mount, 3 x 4 And 3 x 8 Wood Slats Platform Seat (TimberForm 2044-6-P).....	2,104.71	48.61
32 33 43 13-0117	EA	70" Length, Wall Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2045-6).....	1,066.59	72.92
32 33 43 13-0118	EA	94" Length, Wall Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2045-8).....	1,117.89	72.92
32 33 43 13-0119	EA	118" Length, Wall Mount, 3 x 4 And 3 x 8 Wood Slats Bench (TimberForm 2045-10).....	1,515.46	72.92
32 33 43 13-0120	EA	46" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-4-E).....	822.22	48.61
32 33 43 13-0121	EA	70" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-6-E).....	950.47	48.61
32 33 43 13-0122	EA	94" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-8-E).....	1,078.72	48.61
32 33 43 13-0123	EA	118" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-10-E).....	1,386.52	48.61
32 33 43 13-0124	EA	142" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-12-E).....	1,514.76	48.61
32 33 43 13-0125	EA	46" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-4-P).....	835.05	48.61
32 33 43 13-0126	EA	70" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-6-P).....	963.30	48.61
32 33 43 13-0127	EA	94" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-8-P).....	1,091.54	48.61
32 33 43 13-0128	EA	118" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-10-P).....	1,424.99	48.61
32 33 43 13-0129	EA	142" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench (TimberForm 2139-12-P).....	1,553.24	48.61
32 33 43 13-0130	EA	70" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-6-E).....	1,412.17	48.61
32 33 43 13-0131	EA	94" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-8-E).....	1,630.19	48.61
32 33 43 13-0132	EA	118" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-10-E).....	2,104.71	48.61
32 33 43 13-0133	EA	142" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-12-E).....	2,322.73	48.61
32 33 43 13-0134	EA	70" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-6-P).....	1,437.82	48.61
32 33 43 13-0135	EA	94" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-8-P).....	1,655.84	48.61
32 33 43 13-0136	EA	118" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-10-P).....	2,143.18	48.61
32 33 43 13-0137	EA	142" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2140-12-P).....	2,361.20	48.61
32 33 43 13-0138	EA	70" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-6-E).....	1,412.17	48.61
32 33 43 13-0139	EA	82" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-7-E).....	1,989.28	48.61
32 33 43 13-0140	EA	94" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-8-E).....	1,771.26	48.61
32 33 43 13-0141	EA	118" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-10-E).....	2,335.56	48.61
32 33 43 13-0142	EA	142" Length, Embedment Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-12-E).....	2,553.58	48.61
32 33 43 13-0143	EA	70" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-6-P).....	1,617.36	48.61
32 33 43 13-0144	EA	82" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-7-P).....	2,027.76	48.61
32 33 43 13-0145	EA	94" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-8-P).....	1,796.91	48.61
32 33 43 13-0146	EA	118" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-10-P).....	2,374.03	48.61



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 13-0147	EA		142" Length, Pedestal Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2141-12-P)	2,592.05	48.61
32 33 43 13-0148	EA		70" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2142-6)	1,489.82	72.92
32 33 43 13-0149	EA		94" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2142-8)	1,720.66	72.92
32 33 43 13-0150	EA		118" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back (TimberForm 2142-10)	2,208.01	72.92
32 33 43 13-0151	EA		70" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2143-6)	1,630.89	72.92
32 33 43 13-0152	EA		94" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2143-8)	1,861.74	72.92
32 33 43 13-0153	EA		118" Length, Wall Mount, 3 x 4 Patterned Wood Slats Bench With Contoured Back And Armrests (TimberForm 2143-10)	2,426.03	72.92
32 33 43 13-0154 Recycled Plastic Benches (Columbia Cascade, TimberForm) (32 33 43 13-0089)					
Note: Includes powder coated steel frames.					
32 33 43 13-0155	EA		70" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Concave Bench (TimberForm 2029-6-E)	1,194.14	48.61
32 33 43 13-0156	EA		94" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Concave Bench (TimberForm 2029-8-E)	1,630.19	48.61
32 33 43 13-0157	EA		70" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Concave Bench (TimberForm 2029-6-P)	1,232.62	48.61
32 33 43 13-0158	EA		94" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Concave Bench (TimberForm 2029-8-P)	1,668.66	48.61
32 33 43 13-0159	EA		46" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Platform Seat (TimberForm 2041-4-E)	1,873.86	48.61
32 33 43 13-0160	EA		70" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Platform Seat (TimberForm 2041-6-E)	2,194.48	48.61
32 33 43 13-0161	EA		46" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Platform Seat (TimberForm 2041-4-P)	1,976.46	48.61
32 33 43 13-0162	EA		70" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Platform Seat (TimberForm 2041-6-P)	2,297.08	48.61
32 33 43 13-0163	EA		70" Length, Wall Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2042-6)	1,194.84	72.92
32 33 43 13-0164	EA		94" Length, Wall Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2042-8)	1,438.52	72.92
32 33 43 13-0165	EA		118" Length, Wall Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2042-10)	1,695.01	72.92
32 33 43 13-0166	EA		70" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-6-E)	976.09	48.61
32 33 43 13-0167	EA		94" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-8-E)	1,309.56	48.61
32 33 43 13-0168	EA		118" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-10-E)	1,566.05	48.61
32 33 43 13-0169	EA		70" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-6-P)	1,014.59	48.61
32 33 43 13-0170	EA		94" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-8-P)	1,348.04	48.61
32 33 43 13-0171	EA		118" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench (TimberForm 2007-10-P)	1,617.36	48.61
32 33 43 13-0172	EA		70" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-6-E)	1,553.24	48.61
32 33 43 13-0173	EA		94" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-8-E)	2,091.88	48.61
32 33 43 13-0174	EA		118" Length, Embedment Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-10-E)	2,540.75	48.61
32 33 43 13-0175	EA		70" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-6-P)	1,617.36	48.61
32 33 43 13-0176	EA		94" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-8-P)	2,181.66	48.61
32 33 43 13-0177	EA		118" Length, Pedestal Mount, 3 x 4 Recycled Plastic Slats Bench With Straight Back (TimberForm 2017-10-P)	2,630.53	48.61
32 33 43 13-0178	EA		70" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-6-E)	3,028.10	48.61
32 33 43 13-0179	EA		94" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-8-E)	4,169.51	48.61
32 33 43 13-0180	EA		118" Length, Embedment Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-10-E)	4,618.38	48.61
32 33 43 13-0181	EA		70" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-6-P)	3,092.22	48.61
32 33 43 13-0182	EA		94" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-8-P)	4,259.28	48.61
32 33 43 13-0183	EA		118" Length, Pedestal Mount, Back-To-Back Double Bench, 3 x 4 Recycled Plastic Slats Benches With Straight Backs (TimberForm 2027-10-P)	4,708.15	48.61
32 33 43 13-0184	EA		70" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-6-E)	1,899.51	48.61
32 33 43 13-0185	EA		82" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-7-E)	2,643.35	48.61
32 33 43 13-0186	EA		94" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-8-E)	2,527.93	48.61
32 33 43 13-0187	EA		118" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-10-E)	2,899.85	48.61
32 33 43 13-0188	EA		142" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-12-E)	3,900.19	48.61
32 33 43 13-0189	EA		70" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-6-P)	1,925.16	48.61
32 33 43 13-0190	EA		82" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-7-P)	2,681.83	48.61
32 33 43 13-0191	EA		94" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-8-P)	2,566.40	48.61
32 33 43 13-0192	EA		118" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-10-P)	2,938.32	48.61
32 33 43 13-0193	EA		142" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2155-12-P)	3,964.31	48.61
32 33 43 13-0194	EA		70" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2154-6)	1,810.44	72.92
32 33 43 13-0195	EA		94" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2154-8)	2,438.85	72.92
32 33 43 13-0196	EA		118" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2154-10)	3,015.97	72.92
32 33 43 13-0197	EA		70" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2156-6)	2,028.46	72.92
32 33 43 13-0198	EA		94" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2156-8)	2,708.18	72.92
32 33 43 13-0199	EA		118" Length, Wall Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back And Armrests (TimberForm 2156-10)	2,977.50	72.92
32 33 43 13-0200	EA		46" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-4-E)	873.52	48.61

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MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 13-0201	EA	70" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-6-E)	1,142.84	48.61
32 33 43 13-0202	EA	94" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-8-E)	1,540.41	48.61
32 33 43 13-0203	EA	118" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-10-E)	1,809.74	48.61
32 33 43 13-0204	EA	142" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-12-E)	2,104.71	48.61
32 33 43 13-0205	EA	46" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-4-P)	899.17	48.61
32 33 43 13-0206	EA	70" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-6-P)	1,168.49	48.61
32 33 43 13-0207	EA	94" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-8-P)	1,578.89	48.61
32 33 43 13-0208	EA	118" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-10-P)	1,848.21	48.61
32 33 43 13-0209	EA	142" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench (TimberForm 2151-12-P)	2,156.01	48.61
32 33 43 13-0210	EA	70" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-6-E)	1,694.31	48.61
32 33 43 13-0211	EA	94" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-8-E)	2,322.73	48.61
32 33 43 13-0212	EA	118" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-10-E)	2,861.37	48.61
32 33 43 13-0213	EA	142" Length, Embedment Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-12-E)	3,220.47	48.61
32 33 43 13-0214	EA	70" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-6-P)	1,719.96	48.61
32 33 43 13-0215	EA	94" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-8-P)	2,361.20	48.61
32 33 43 13-0216	EA	118" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-10-P)	2,899.85	48.61
32 33 43 13-0217	EA	142" Length, Pedestal Mount, 3 x 4 Patterned Recycled Plastic Slats Bench With Contoured Back (TimberForm 2153-12-P)	3,271.77	48.61
32 33 43 13-0218		Benches (Wabash Valley) (32 33 43 13)		
32 33 43 13-0219		Prestige/Profile Benches (32 33 43 13-0218)		
32 33 43 13-0220	EA	6' Bench With Arms, Inground, Diamond Site Furniture (Wabash Valley PP411D)	746.06	45.40
32 33 43 13-0221	EA	6' Bench With Arms, Inground, Perforated Site Furniture (Wabash Valley PP411P)	821.21	45.40
32 33 43 13-0222		Straight Benches (32 33 43 13-0218)		
32 33 43 13-0223	EA	6' Signature Standard Inground Bench With Back (Wabash Valley SG303P)	991.19	68.05
32 33 43 13-0224	EA	6' Signature Standard Surface Mount Bench With Back (Wabash Valley SG306P)	1,006.44	68.05
32 33 43 13-0225	EA	8' Signature Standard Inground Bench With Back (Wabash Valley SG315P)	1,080.16	68.05
32 33 43 13-0226	EA	8' Signature Standard Inground Bench Without Back (Wabash Valley SG316P)	716.66	68.05
32 33 43 13-0227	EA	8' Signature Standard Surface Mount Bench With Back (Wabash Valley SG318P)	1,080.16	68.05
32 33 43 13-0228	EA	8' Signature Standard Surface Mount Bench Without Back (Wabash Valley SG319P)	716.66	68.05
32 33 43 13-0229	EA	Shelter With 6' Bench (Wabash Valley SH305P)	7,000.77	87.49
32 33 43 13-0230	EA	2-Seat With Back, Portable (Wabash Valley CL310)	1,454.10	45.40
32 33 43 13-0231	EA	2-Seat With Back, Surface Mount (Wabash Valley CL311D)	1,398.79	68.15
32 33 43 13-0232	EA	2-Seat With Back, Inground (Wabash Valley CL312D)	1,548.35	90.89
32 33 43 13-0233	EA	2-Seat Without Back, Portable (Wabash Valley CL315D)	1,252.20	45.40
32 33 43 13-0234	EA	2-Seat Without Back, Surface Mount (Wabash Valley CL316D)	1,196.89	68.15
32 33 43 13-0235	EA	2-Seat Without Back, Inground (Wabash Valley CL317D)	1,316.76	90.89
32 33 43 13-0236	EA	3-Seat With Back, Portable (Wabash Valley CL320D)	2,104.33	45.40
32 33 43 13-0237	EA	3-Seat With Back, Surface Mount (Wabash Valley CL321D)	2,069.81	68.15
32 33 43 13-0238	EA	3-Seat With Back, Inground (Wabash Valley CL322D)	2,180.77	90.89
32 33 43 13-0239	EA	3-Seat Without Back, Portable (Wabash Valley CL325D)	1,742.10	45.40
32 33 43 13-0240	EA	3-Seat Without Back, Surface Mount (Wabash Valley CL326D)	1,707.58	68.15
32 33 43 13-0241	EA	3-Seat Without Back, Inground (Wabash Valley CL327D)	1,821.51	90.89
32 33 43 13-0242		Concave Benches (32 33 43 13-0218)		
32 33 43 13-0243	EA	Benches, 15 Deg Concave With Back, Portable, CL405D	1,997.45	45.40
32 33 43 13-0244	EA	Benches, 15 Deg Concave With Back, Surface Mount, CL406D	1,951.04	68.15
32 33 43 13-0245	EA	Benches, 15 Deg Concave With Back, Inground, CL407D	2,064.97	90.89
32 33 43 13-0246	EA	Benches, 15 Deg Concave Without Back, Portable, CL415D	1,952.91	45.40
32 33 43 13-0247	EA	Benches, 15 Deg Concave Without Back, Surface Mount, CL416D	1,906.51	68.15
32 33 43 13-0248	EA	Benches, 15 Deg Concave Without Back, Inground, CL417D	2,020.44	90.89
32 33 43 13-0249		Swings (32 33 43 13-0218)		
32 33 43 13-0250	EA	4' Swing With Chain (Perforated Or Rib) SP300P	1,530.89	38.89
32 33 43 13-0251	EA	6' Swing With Chain (Perforated Or Rib) SP305P	1,792.72	38.89
32 33 43 13-0252	EA	Round Inground Post Package SP310N	748.58	90.89
32 33 43 13-0253	EA	4' Square Inground Post Package SP315N	1,646.52	116.66
32 33 43 13-0254	EA	6' Square Inground Post Package SP320N	1,783.79	116.66
32 33 43 13-0255		Accessories (32 33 43 13-0218)		
32 33 43 13-0256	EA	Mounting Plate Covers (Set Of 2), MC102N	65.07	6.80
32 33 43 13-0257	EA	Mounting Plate Covers (Set Of 3), MC103N	93.67	9.04
32 33 43 13-0258	EA	Mounting Plate Covers (Set Of 4), MC104	109.39	9.04
32 33 43 13-0259		Camden Series Benches (32 33 43 13-0218)		
32 33 43 13-0260	EA	6' Bench, With Back, Square Perforation, Portable/Surface Mount, CA1112C	1,482.72	68.05



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 13-0261 EA 6' Bench, With Back, Square Perforation, Inground, CA1111I.....	1,519.09	90.89
32 33 43 13-0262 EA 6' Bench, With Back, With Arms, Faux-Wood, Portable/Surface Mount, CA1112C.....	1,650.09	68.05
32 33 43 13-0263 EA 6' Bench, With Back, With Arms, Faux-Wood, Inground, CA1112I.....	1,690.54	90.89
32 33 43 13-0264 EA 6' Bench, With Back, With Arms, Rod, Portable/Surface Mount, CA1114C.....	1,890.12	68.05
32 33 43 13-0265 EA 6' Bench, With Back, With Arms, Rod, Inground, CA1114I.....	1,890.56	90.89
32 33 43 13-0266 EA 6' Bench, With Back, With Arms, Round Perforation, Portable/Surface Mount, CA1116C.....	1,460.27	68.05
32 33 43 13-0267 EA 6' Bench, With Back, With Arms, Round Perforation, Inground, CA1116I.....	1,498.68	90.89
32 33 43 13-0268 EA 6' Bench, With Back, With Arms, Horizontal Slat, Portable/Surface Mount, CA1119C.....	1,664.38	68.05
32 33 43 13-0269 EA 6' Bench, With Back, With Arms, Horizontal Slat, Inground, CA1116I.....	1,702.78	90.89
32 33 43 13-0270 Miscellaneous (32 33 43 13-0218)		
32 33 43 13-0271 EA 4' Bench With Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES500).....	1,737.05	90.89
32 33 43 13-0272 EA 4' Bench Without Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES505).....	1,445.66	68.05
32 33 43 13-0273 EA 6' Bench With Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES520).....	2,031.40	90.89
32 33 43 13-0274 EA 6' Bench Without Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES525).....	1,737.86	68.05
32 33 43 13-0275 EA 8' Bench With Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES527).....	2,845.68	90.89
32 33 43 13-0276 EA 8' Bench Without Back, Surface Mounted, Ribbed Or Perforated, Estate (Wabash ES528).....	2,401.74	68.05
32 33 43 13-0277 Benches, Concrete (Quick Crete) (32 33 43 13)		
32 33 43 13-0278 EA 84" Long, Concrete Park Bench With Back (Quick Crete Q1PS84B).....	2,433.36	121.52
32 33 43 13-0279 Other Benches (32 33 43 13)		
32 33 43 13-0280 EA 6' Timberform #2118-6 Restoration Bench With Cast Iron Glossy Black Frames, Armrests, Purple Heart Wood Slats, S.J.S.U. Logo, Surface Mount.....	3,919.97	89.92
32 33 43 53 Site Tables (32 33 43)		
32 33 43 53-0001 Tables (32 33 43 53)		
32 33 43 53-0002 Tables (Wabash) (32 33 43 53-0001)		
32 33 43 53-0003 EA Spyder ADA Round Table (Wabash SY203P).....	2,570.08	87.49
32 33 43 53-0004 EA Shelter With 6' Table (Wabash SH106P).....	7,783.70	87.49
32 33 43 53-0005 EA 46" Round Table With Attached Chairs, Bench Seats, Solid Top With Square Perforation Seats, Portable/Surface Mount (Wabash CA2Q50C).....	2,363.91	87.49
32 33 43 53-0006 EA 46" Round Table With Attached Chairs, Bench Seats, Solid Top With Square Perforation Seats, Inground (Wabash CA2Q50I).....	2,535.17	97.21
32 33 43 53-0007 Tables (Landscapeforms) (32 33 43 53-0001)		
32 33 43 53-0008 EA Plexus Companion Table For Backed Seat, Straight Runs.....	815.68	90.89
32 33 43 53-0009 EA Companion Table For Narrow-Backed Seat, For 60 Degree Radius (Landscapeforms Plexus).....	1,018.54	90.89
32 33 43 53-0010 EA Companion Table For Narrow-Backed Seat, For 120 Degree Radius (Landscapeforms Plexus).....	1,018.54	90.89
32 33 43 53-0011 EA Companion Table For Wide-Backed Seat, For 120 Degree Radius (Landscapeforms Plexus).....	1,018.54	90.89
32 33 43 53-0012 EA 6-Person Picnic Table (Landscapeforms Manistee).....	3,062.84	90.89
32 33 43 53-0013 EA 4-Person Picnic Table (Landscapeforms Manistee).....	2,722.04	90.89
32 33 43 53-0014 EA 2-Person Picnic Table (Landscapeforms Manistee).....	2,409.63	90.89
32 33 43 53-0015 EA Umbrella Stand For Picnic Table (Landscapeforms).....	253.57	
32 33 43 53-0016 EA 32" x 72" Picnic Table (Landscapeforms Petoskey).....	2,417.97	87.49
32 33 43 53-0017 EA 62" Backless Metal Rod Bench (Landscapeforms Petoskey).....	1,277.23	68.05
32 33 43 53-0018 EA 29" Backless Metal Rod Bench (Landscapeforms Petoskey).....	1,067.77	68.05
32 33 43 53-0019 EA 58" x 54" x 30" Wood Or PolySite Picnic Table With Benches (Landscapeforms Gretchen).....	2,830.53	87.49
32 33 43 53-0020 EA 3 Seat Table, Backless, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	2,722.04	90.89
32 33 43 53-0021 EA 4 Seat Table, Backless, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	2,722.04	90.89
32 33 43 53-0022 EA 5 Seat Table, Backless, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	3,531.44	90.89
32 33 43 53-0023 EA 6 Seat Table, Backless, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	3,531.44	90.89
32 33 43 53-0024 EA 3 Seat Table, Backless, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	2,906.64	90.89
32 33 43 53-0025 EA 4 Seat Table, Backless, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	2,906.64	90.89
32 33 43 53-0026 EA 5 Seat Table, Backless, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,716.04	90.89
32 33 43 53-0027 EA 6 Seat Table, Backless, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,716.04	90.89
32 33 43 53-0028 EA 3 Seat Table, Backless, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	2,835.64	90.89
32 33 43 53-0029 EA 4 Seat Table, Backless, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	2,835.64	90.89
32 33 43 53-0030 EA 5 Seat Table, Backless, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	3,701.84	90.89
32 33 43 53-0031 EA 6 Seat Table, Backless, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	3,701.84	90.89
32 33 43 53-0032 EA 3 Seat Table, Backless, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,020.24	90.89
32 33 43 53-0033 EA 4 Seat Table, Backless, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,020.24	90.89
32 33 43 53-0034 EA 5 Seat Table, Backless, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,886.44	90.89
32 33 43 53-0035 EA 6 Seat Table, Backless, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,886.44	90.89
32 33 43 53-0036 EA 3 Seat Table, Backed, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	2,892.44	90.89
32 33 43 53-0037 EA 4 Seat Table, Backed, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	2,892.44	90.89
32 33 43 53-0038 EA 5 Seat Table, Backed, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	3,716.04	90.89
32 33 43 53-0039 EA 6 Seat Table, Backed, Grid Seats And Fiberglass Top (Landscapeforms Carousel).....	3,716.04	90.89
32 33 43 53-0040 EA 3 Seat Table, Backed, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,077.04	90.89
32 33 43 53-0041 EA 4 Seat Table, Backed, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,077.04	90.89
32 33 43 53-0042 EA 5 Seat Table, Backed, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,900.64	90.89
32 33 43 53-0043 EA 6 Seat Table, Backed, Grid Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel).....	3,900.64	90.89
32 33 43 53-0044 EA 3 Seat Table, Backed, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	3,034.44	90.89
32 33 43 53-0045 EA 4 Seat Table, Backed, Perforated Seats And Fiberglass Top (Landscapeforms Carousel).....	3,034.44	90.89

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 33 43 53-0046	EA	5 Seat Table, Backed, Perforated Seats And Fiberglass Top (Landscapeforms Carousel)	3,929.04	90.89
32 33 43 53-0047	EA	6 Seat Table, Backed, Perforated Seats And Fiberglass Top (Landscapeforms Carousel)	3,929.04	90.89
32 33 43 53-0048	EA	3 Seat Table, Backed, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel)	3,219.04	90.89
32 33 43 53-0049	EA	4 Seat Table, Backed, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel)	3,219.04	90.89
32 33 43 53-0050	EA	5 Seat Table, Backed, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel)	4,113.64	90.89
32 33 43 53-0051	EA	6 Seat Table, Backed, Perforated Seats And Fiberglass Polished Granite Top (Landscapeforms Carousel)	4,113.64	90.89
32 33 43 53-0052	EA	3 Seat Table, Backless, Grid Seats And Catena Top (Landscapeforms Carousel)	2,527.29	90.89
32 33 43 53-0053	EA	4 Seat Table, Backless, Grid Seats And Catena Top (Landscapeforms Carousel)	2,527.29	90.89
32 33 43 53-0054	EA	5 Seat Table, Backless, Grid Seats And Catena Top (Landscapeforms Carousel)	3,326.04	90.89
32 33 43 53-0055	EA	6 Seat Table, Backless, Grid Seats And Catena Top (Landscapeforms Carousel)	3,326.04	90.89
32 33 43 53-0056	EA	3 Seat Table, Backless, Grid Seats And Steelhead Top (Landscapeforms Carousel)	2,628.72	90.89
32 33 43 53-0057	EA	4 Seat Table, Backless, Grid Seats And Steelhead Top (Landscapeforms Carousel)	2,628.72	90.89
32 33 43 53-0058	EA	5 Seat Table, Backless, Grid Seats And Steelhead Top (Landscapeforms Carousel)	3,414.79	90.89
32 33 43 53-0059	EA	6 Seat Table, Backless, Grid Seats And Steelhead Top (Landscapeforms Carousel)	3,414.79	90.89
32 33 43 53-0060	EA	3 Seat Table, Backless, Perforated Seats And Catena Top (Landscapeforms Carousel)	2,641.40	90.89
32 33 43 53-0061	EA	4 Seat Table, Backless, Perforated Seats And Catena Top (Landscapeforms Carousel)	2,641.40	90.89
32 33 43 53-0062	EA	5 Seat Table, Backless, Perforated Seats And Catena Top (Landscapeforms Carousel)	3,478.19	90.89
32 33 43 53-0063	EA	6 Seat Table, Backless, Perforated Seats And Catena Top (Landscapeforms Carousel)	3,478.19	90.89
32 33 43 53-0064	EA	3 Seat Table, Backless, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	2,730.15	90.89
32 33 43 53-0065	EA	4 Seat Table, Backless, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	2,730.15	90.89
32 33 43 53-0066	EA	5 Seat Table, Backless, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	3,566.94	90.89
32 33 43 53-0067	EA	6 Seat Table, Backless, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	3,566.94	90.89
32 33 43 53-0068	EA	3 Seat Table, Backed, Grid Seats And Catena Top (Landscapeforms Carousel)	2,692.11	90.89
32 33 43 53-0069	EA	4 Seat Table, Backed, Grid Seats And Catena Top (Landscapeforms Carousel)	2,692.11	90.89
32 33 43 53-0070	EA	5 Seat Table, Backed, Grid Seats And Catena Top (Landscapeforms Carousel)	3,503.54	90.89
32 33 43 53-0071	EA	6 Seat Table, Backed, Grid Seats And Catena Top (Landscapeforms Carousel)	3,503.54	90.89
32 33 43 53-0072	EA	3 Seat Table, Backed, Grid Seats And Steelhead Top (Landscapeforms Carousel)	2,787.20	90.89
32 33 43 53-0073	EA	4 Seat Table, Backed, Grid Seats And Steelhead Top (Landscapeforms Carousel)	2,787.20	90.89
32 33 43 53-0074	EA	5 Seat Table, Backed, Grid Seats And Steelhead Top (Landscapeforms Carousel)	3,592.29	90.89
32 33 43 53-0075	EA	6 Seat Table, Backed, Grid Seats And Steelhead Top (Landscapeforms Carousel)	3,592.29	90.89
32 33 43 53-0076	EA	3 Seat Table, Backed, Perforated Seats And Catena Top (Landscapeforms Carousel)	2,850.60	90.89
32 33 43 53-0077	EA	4 Seat Table, Backed, Perforated Seats And Catena Top (Landscapeforms Carousel)	2,850.60	90.89
32 33 43 53-0078	EA	5 Seat Table, Backed, Perforated Seats And Catena Top (Landscapeforms Carousel)	3,750.78	90.89
32 33 43 53-0079	EA	6 Seat Table, Backed, Perforated Seats And Catena Top (Landscapeforms Carousel)	3,750.78	90.89
32 33 43 53-0080	EA	3 Seat Table, Backed, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	2,939.35	90.89
32 33 43 53-0081	EA	4 Seat Table, Backed, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	2,939.35	90.89
32 33 43 53-0082	EA	5 Seat Table, Backed, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	3,839.53	90.89
32 33 43 53-0083	EA	6 Seat Table, Backed, Perforated Seats And Steelhead Top (Landscapeforms Carousel)	3,839.53	90.89

32 33 43 53-0084 Tables (Columbia Cascade Co. - TimberForm) (32 33 43 53-0001)

32 33 43 53-0085	EA	Table With Four Chairs (Columbia Cascade Co. 2052-E)	4,754.94	113.55
32 33 43 53-0086	EA	Table With Four Chairs (Columbia Cascade Co. 2052-P)	5,802.86	113.55
32 33 43 53-0087	EA	Accessible Table With Three Chairs (Columbia Cascade Co. 2053-E)	4,012.66	113.55
32 33 43 53-0088	EA	Accessible Table With Three Chairs (Columbia Cascade Co. 2053-P)	5,002.36	113.55
32 33 43 53-0089	EA	Table With Four Seats (Columbia Cascade Co. 2054-E)	2,673.64	113.55
32 33 43 53-0090	EA	Table With Four Seats (Columbia Cascade Co. 2054-P)	2,906.51	113.55
32 33 43 53-0091	EA	Accessible Table With Three Seats (Columbia Cascade Co. 2055-E)	2,280.67	113.55
32 33 43 53-0092	EA	Accessible Table With Three Seats (Columbia Cascade Co. 2055-P)	2,484.43	113.55
32 33 43 53-0093	EA	Integral Table With Four Seats (Columbia Cascade Co. 2056-E)	2,979.29	113.55
32 33 43 53-0094	EA	Integral Table With Four Seats (Columbia Cascade Co. 2056-P)	3,183.05	113.55
32 33 43 53-0095	EA	Integral Table With Four Seats (Columbia Cascade Co. 2056-R)	4,813.15	113.55
32 33 43 53-0096	EA	Accessible Integral Table With Four Seats (Columbia Cascade Co. 2057-E)	2,644.53	113.55
32 33 43 53-0097	EA	Accessible Integral Table With Four Seats (Columbia Cascade Co. 2057-P)	2,848.30	113.55
32 33 43 53-0098	EA	Accessible Integral Table With Four Seats (Columbia Cascade Co. 2057-R)	4,478.40	113.55
32 33 43 53-0099	EA	Standard Picnic Table And Seats (Columbia Cascade Co. 2062)	3,284.93	113.55
32 33 43 53-0100	EA	Standard Picnic Table And Seats (Columbia Cascade Co. 2062-P)	3,517.80	113.55
32 33 43 53-0101	EA	Accessible Picnic Table And Seats (Columbia Cascade Co. 2063-E)	3,838.00	113.55
32 33 43 53-0102	EA	Accessible Picnic Table And Seats (Columbia Cascade Co. 2063-P)	4,070.87	113.55
32 33 43 53-0103	EA	Accessible Picnic Table And Benches (Columbia Cascade Co. 2072-E)	4,813.15	113.55
32 33 43 53-0104	EA	Accessible Picnic Table And Benches (Columbia Cascade Co. 2072-P)	5,046.02	113.55
32 33 43 53-0105	EA	Standard Picnic Table And Benches (Columbia Cascade Co. 2073-E)	4,813.15	113.55
32 33 43 53-0106	EA	Standard Picnic Table And Benches (Columbia Cascade Co. 2073-P)	5,046.02	113.55
32 33 43 53-0107	EA	Standard Picnic Table And Seats (Columbia Cascade Co. 2074-6)	1,130.58	45.40
32 33 43 53-0108	EA	Accessible Picnic Table And Seats (Columbia Cascade Co. 2075-6)	1,509.00	45.40
32 33 43 53-0109	EA	Gameboard (Columbia Cascade Co. 2095)	325.15	22.74
32 33 43 53-0110	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2162-6-E)	3,284.93	113.55
32 33 43 53-0111	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2162-8-E)	3,750.67	113.55
32 33 43 53-0112	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2162-6-P)	3,517.80	113.55
32 33 43 53-0113	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2162-8-P)	3,983.55	113.55
32 33 43 53-0114	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2163-6-E)	3,648.79	113.55
32 33 43 53-0115	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2163-8-E)	4,114.54	113.55
32 33 43 53-0116	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2163-6-P)	3,881.66	113.55
32 33 43 53-0117	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2163-8-P)	4,347.41	113.55
32 33 43 53-0118	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2164-6)	3,080.88	45.40
32 33 43 53-0119	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2164-8)	3,459.30	45.40
32 33 43 53-0120	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2165-6)	3,444.75	45.40
32 33 43 53-0121	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2165-8)	3,823.16	45.40
32 33 43 53-0122	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2638-6-E)	7,753.16	113.55
32 33 43 53-0123	EA	Standard Picnic Table With Seats (Columbia Cascade Co. 2638-6-P)	8,568.21	113.55
32 33 43 53-0124	EA	Accessible Picnic Table With Seats (Columbia Cascade Co. 2639-6-E)	7,753.16	113.55



Exterior Improvements		32	32
Site Improvements		32 30	
Site Furnishings		32 33	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 53-0125 EA Accessible Picnic Table With Seats (Columbia Cascade Co. 2639-6-P).....	8,568.21	113.55
32 33 43 53-0126 EA Round Table With Center Support (Columbia Cascade Co. 2902-0030-E).....	1,916.81	113.55
32 33 43 53-0127 EA Round Table With Center Support (Columbia Cascade Co. 2902-0036-E).....	2,106.02	113.55
32 33 43 53-0128 EA Round Table With Center Support (Columbia Cascade Co. 2902-0042-E).....	2,295.22	113.55
32 33 43 53-0129 EA Round Table With Center Support (Columbia Cascade Co. 2902-0030-P).....	2,047.80	113.55
32 33 43 53-0130 EA Round Table With Center Support (Columbia Cascade Co. 2902-0036-P).....	2,237.01	113.55
32 33 43 53-0131 EA Round Table With Center Support (Columbia Cascade Co. 2902-0042-P).....	2,426.22	113.55
32 33 43 53-0132 EA Square Table With Center Support (Columbia Cascade Co. 2902-3030-E).....	1,873.14	113.55
32 33 43 53-0133 EA Square Table With Center Support (Columbia Cascade Co. 2902-3636-E).....	2,004.13	113.55
32 33 43 53-0134 EA Square Table With Center Support (Columbia Cascade Co. 2902-4242-E).....	2,135.12	113.55
32 33 43 53-0135 EA Square Table With Center Support (Columbia Cascade Co. 2902-3030-P).....	2,004.13	113.55
32 33 43 53-0136 EA Square Table With Center Support (Columbia Cascade Co. 2902-3636-P).....	2,135.12	113.55
32 33 43 53-0137 EA Square Table With Center Support (Columbia Cascade Co. 2902-4242-P).....	2,266.12	113.55
32 33 43 53-0138 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0030-E).....	1,814.93	113.55
32 33 43 53-0139 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0036-E).....	2,094.13	113.55
32 33 43 53-0140 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0042-E).....	2,193.34	113.55
32 33 43 53-0141 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0030-P).....	1,814.93	113.55
32 33 43 53-0142 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0036-P).....	2,004.13	113.55
32 33 43 53-0143 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0042-P).....	2,193.34	113.55
32 33 43 53-0144 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0030-L).....	1,814.93	113.55
32 33 43 53-0145 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0036-L).....	2,004.13	113.55
32 33 43 53-0146 EA Round Table With Four Legs (Columbia Cascade Co. 2905-0042-L).....	2,193.34	113.55
32 33 43 53-0147 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3030-E).....	1,727.60	113.55
32 33 43 53-0148 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3636-E).....	1,858.59	113.55
32 33 43 53-0149 EA Square Table With Four Legs (Columbia Cascade Co. 2905-4242-E).....	1,989.58	113.55
32 33 43 53-0150 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3030-P).....	1,727.60	113.55
32 33 43 53-0151 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3636-P).....	1,858.59	113.55
32 33 43 53-0152 EA Square Table With Four Legs (Columbia Cascade Co. 2905-4242-P).....	1,989.58	113.55
32 33 43 53-0153 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3030-L).....	1,727.60	113.55
32 33 43 53-0154 EA Square Table With Four Legs (Columbia Cascade Co. 2905-3636-L).....	1,858.59	113.55
32 33 43 53-0155 EA Square Table With Four Legs (Columbia Cascade Co. 2905-4242-L).....	1,989.58	113.55
32 33 43 53-0156 EA Round Table With Center Support (Columbia Cascade Co. 2912-0030-E).....	1,654.83	113.55
32 33 43 53-0157 EA Round Table With Center Support (Columbia Cascade Co. 2912-0036-E).....	1,844.04	113.55
32 33 43 53-0158 EA Round Table With Center Support (Columbia Cascade Co. 2912-0042-E).....	2,033.24	113.55
32 33 43 53-0159 EA Round Table With Center Support (Columbia Cascade Co. 2912-0030-P).....	1,785.82	113.55
32 33 43 53-0160 EA Round Table With Center Support (Columbia Cascade Co. 2912-0036-P).....	1,975.03	113.55
32 33 43 53-0161 EA Round Table With Center Support (Columbia Cascade Co. 2912-0042-P).....	2,164.23	113.55
32 33 43 53-0162 EA Square Table With Center Support (Columbia Cascade Co. 2912-3030-E).....	1,538.39	113.55
32 33 43 53-0163 EA Square Table With Center Support (Columbia Cascade Co. 2912-3636-E).....	1,654.83	113.55
32 33 43 53-0164 EA Square Table With Center Support (Columbia Cascade Co. 2912-4242-E).....	1,785.82	113.55
32 33 43 53-0165 EA Square Table With Center Support (Columbia Cascade Co. 2912-3030-P).....	1,654.83	113.55
32 33 43 53-0166 EA Square Table With Center Support (Columbia Cascade Co. 2912-3636-P).....	1,785.82	113.55
32 33 43 53-0167 EA Square Table With Center Support (Columbia Cascade Co. 2912-4242-P).....	1,916.81	113.55
32 33 43 53-0168 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0030-E).....	1,742.15	113.55
32 33 43 53-0169 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0036-E).....	1,931.36	113.55
32 33 43 53-0170 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0042-E).....	2,120.57	113.55
32 33 43 53-0171 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0030-P).....	1,742.15	113.55
32 33 43 53-0172 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0036-P).....	1,931.36	113.55
32 33 43 53-0173 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0042-P).....	2,120.57	113.55
32 33 43 53-0174 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0030-L).....	1,742.15	113.55
32 33 43 53-0175 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0036-L).....	1,931.36	113.55
32 33 43 53-0176 EA Round Table With Four Legs (Columbia Cascade Co. 2915-0042-L).....	2,120.57	113.55
32 33 43 53-0177 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3030-E).....	1,640.27	113.55
32 33 43 53-0178 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3636-E).....	1,771.26	113.55
32 33 43 53-0179 EA Square Table With Four Legs (Columbia Cascade Co. 2915-4242-E).....	1,902.25	113.55
32 33 43 53-0180 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3030-P).....	1,640.27	113.55
32 33 43 53-0181 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3636-P).....	1,771.26	113.55
32 33 43 53-0182 EA Square Table With Four Legs (Columbia Cascade Co. 2915-4242-P).....	1,902.25	113.55
32 33 43 53-0183 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3030-L).....	1,640.27	113.55
32 33 43 53-0184 EA Square Table With Four Legs (Columbia Cascade Co. 2915-3636-L).....	1,771.26	113.55
32 33 43 53-0185 EA Square Table With Four Legs (Columbia Cascade Co. 2915-4242-L).....	1,902.25	113.55
32 33 43 53-0186 EA Round Table With Center Support (Columbia Cascade Co. 2922-0030-E).....	1,538.39	113.55
32 33 43 53-0187 EA Round Table With Center Support (Columbia Cascade Co. 2922-0036-E).....	1,596.61	113.55
32 33 43 53-0188 EA Round Table With Center Support (Columbia Cascade Co. 2922-0042-E).....	1,654.83	113.55
32 33 43 53-0189 EA Round Table With Center Support (Columbia Cascade Co. 2922-0030-P).....	1,669.38	113.55
32 33 43 53-0190 EA Round Table With Center Support (Columbia Cascade Co. 2922-0036-P).....	1,727.60	113.55
32 33 43 53-0191 EA Round Table With Center Support (Columbia Cascade Co. 2922-0042-P).....	1,785.82	113.55
32 33 43 53-0192 EA Square Table With Center Support (Columbia Cascade Co. 2922-3030-E).....	1,523.84	113.55
32 33 43 53-0193 EA Square Table With Center Support (Columbia Cascade Co. 2922-3636-E).....	1,567.50	113.55
32 33 43 53-0194 EA Square Table With Center Support (Columbia Cascade Co. 2922-4242-E).....	1,611.16	113.55
32 33 43 53-0195 EA Square Table With Center Support (Columbia Cascade Co. 2922-3030-P).....	1,654.83	113.55
32 33 43 53-0196 EA Square Table With Center Support (Columbia Cascade Co. 2922-3636-P).....	1,698.49	113.55
32 33 43 53-0197 EA Square Table With Center Support (Columbia Cascade Co. 2922-4242-P).....	1,742.15	113.55
32 33 43 53-0198 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0030-E).....	1,567.50	113.55
32 33 43 53-0199 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0036-E).....	1,625.72	113.55
32 33 43 53-0200 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0042-E).....	1,683.94	113.55
32 33 43 53-0201 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0030-P).....	1,567.50	113.55
32 33 43 53-0202 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0036-P).....	1,625.72	113.55
32 33 43 53-0203 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0042-P).....	1,683.94	113.55
32 33 43 53-0204 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0030-L).....	1,567.50	113.55
32 33 43 53-0205 EA Round Table With Four Legs (Columbia Cascade Co. 2925-0036-L).....	1,625.72	113.55

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**

MINOR
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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 33 43 53-0206	EA	Round Table With Four Legs (Columbia Cascade Co. 2925-0042-L).....	1,683.94	113.55
32 33 43 53-0207	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3030-E).....	1,567.50	113.55
32 33 43 53-0208	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3636-E).....	1,611.16	113.55
32 33 43 53-0209	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-4242-E).....	1,654.83	113.55
32 33 43 53-0210	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3030-P).....	1,567.50	113.55
32 33 43 53-0211	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3636-P).....	1,611.16	113.55
32 33 43 53-0212	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-4242-P).....	1,654.83	113.55
32 33 43 53-0213	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3030-L).....	1,567.50	113.55
32 33 43 53-0214	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-3636-L).....	1,611.16	113.55
32 33 43 53-0215	EA	Square Table With Four Legs (Columbia Cascade Co. 2925-4242-L).....	1,654.83	113.55
32 33 43 53-0216	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0030-E).....	1,596.61	113.55
32 33 43 53-0217	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0036-E).....	1,654.83	113.55
32 33 43 53-0218	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0042-E).....	1,713.04	113.55
32 33 43 53-0219	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0030-P).....	1,727.60	113.55
32 33 43 53-0220	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0036-P).....	1,785.82	113.55
32 33 43 53-0221	EA	Round Table With Center Support (Columbia Cascade Co. 2932-0042-P).....	1,844.04	113.55
32 33 43 53-0222	EA	Square Table With Center Support (Columbia Cascade Co. 2932-3030-E).....	1,698.49	113.55
32 33 43 53-0223	EA	Square Table With Center Support (Columbia Cascade Co. 2932-3636-E).....	1,742.15	113.55
32 33 43 53-0224	EA	Square Table With Center Support (Columbia Cascade Co. 2932-4242-E).....	1,785.82	113.55
32 33 43 53-0225	EA	Square Table With Center Support (Columbia Cascade Co. 2932-3030-P).....	1,829.48	113.55
32 33 43 53-0226	EA	Square Table With Center Support (Columbia Cascade Co. 2932-3636-P).....	1,873.14	113.55
32 33 43 53-0227	EA	Square Table With Center Support (Columbia Cascade Co. 2932-4242-P).....	1,916.81	113.55
32 33 43 53-0228	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0030-E).....	1,669.38	113.55
32 33 43 53-0229	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0036-E).....	1,727.60	113.55
32 33 43 53-0230	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0042-E).....	1,785.82	113.55
32 33 43 53-0231	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0030-P).....	1,669.38	113.55
32 33 43 53-0232	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0036-P).....	1,727.60	113.55
32 33 43 53-0233	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0042-P).....	1,785.82	113.55
32 33 43 53-0234	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0030-L).....	1,669.38	113.55
32 33 43 53-0235	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0036-L).....	1,727.60	113.55
32 33 43 53-0236	EA	Round Table With Four Legs (Columbia Cascade Co. 2935-0042-L).....	1,785.82	113.55
32 33 43 53-0237	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3030-E).....	1,771.26	113.55
32 33 43 53-0238	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3636-E).....	1,814.93	113.55
32 33 43 53-0239	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-4242-E).....	1,858.59	113.55
32 33 43 53-0240	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3030-P).....	1,771.26	113.55
32 33 43 53-0241	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3636-P).....	1,814.93	113.55
32 33 43 53-0242	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-4242-P).....	1,858.59	113.55
32 33 43 53-0243	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3030-L).....	1,771.26	113.55
32 33 43 53-0244	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-3636-L).....	1,814.93	113.55
32 33 43 53-0245	EA	Square Table With Four Legs (Columbia Cascade Co. 2935-4242-L).....	1,858.59	113.55
32 33 43 53-0246	EA	Square Table With Center Support (Columbia Cascade Co. 2942-3030-E).....	1,349.18	113.55
32 33 43 53-0247	EA	Square Table With Center Support (Columbia Cascade Co. 2942-3636-E).....	1,392.85	113.55
32 33 43 53-0248	EA	Square Table With Center Support (Columbia Cascade Co. 2942-4242-E).....	1,436.51	113.55
32 33 43 53-0249	EA	Square Table With Center Support (Columbia Cascade Co. 2942-3030-P).....	1,480.17	113.55
32 33 43 53-0250	EA	Square Table With Center Support (Columbia Cascade Co. 2942-3636-P).....	1,523.84	113.55
32 33 43 53-0251	EA	Square Table With Center Support (Columbia Cascade Co. 2942-4242-P).....	1,567.50	113.55
32 33 43 53-0252	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0030-E).....	1,596.61	113.55
32 33 43 53-0253	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0036-E).....	1,654.83	113.55
32 33 43 53-0254	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0042-E).....	1,713.04	113.55
32 33 43 53-0255	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0030-P).....	1,436.51	113.55
32 33 43 53-0256	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0036-P).....	1,494.73	113.55
32 33 43 53-0257	EA	Round Table With Center Support (Columbia Cascade Co. 2962-0042-P).....	1,552.94	113.55
32 33 43 53-0258	EA	Square Table With Center Support (Columbia Cascade Co. 2962-3030-E).....	1,320.07	113.55
32 33 43 53-0259	EA	Square Table With Center Support (Columbia Cascade Co. 2962-3636-E).....	1,363.74	113.55
32 33 43 53-0260	EA	Square Table With Center Support (Columbia Cascade Co. 2962-4242-E).....	1,407.40	113.55
32 33 43 53-0261	EA	Square Table With Center Support (Columbia Cascade Co. 2962-3030-P).....	1,451.06	113.55
32 33 43 53-0262	EA	Square Table With Center Support (Columbia Cascade Co. 2962-3636-P).....	1,494.73	113.55
32 33 43 53-0263	EA	Square Table With Center Support (Columbia Cascade Co. 2962-4242-P).....	1,538.39	113.55

32 33 43 53-0264 Picnic Tables (32 33 43 53)**32 33 43 53-0265 Wooden Picnic Tables (32 33 43 53-0264)**

32 33 43 53-0266	EA	6' Permanent Rectangular Redwood Table	890.43	72.92

32 33 43 53-0267 Portable Picnic Tables (32 33 43 53-0264)

32 33 43 53-0268	EA	6' Wood Table With Aluminum Frame	1,403.04	48.61
32 33 43 53-0269	EA	6' Aluminum Table And Frame.....	2,034.12	48.61
32 33 43 53-0270	EA	8' Aluminum Table And Frame.....	2,427.36	60.76
32 33 43 53-0271	EA	6' Steel Table And Frame	1,285.92	48.61
32 33 43 53-0272	EA	8' Steel Table And Frame	1,472.74	60.76

32 33 43 53-0273 Concrete Picnic Tables (32 33 43 53-0264)

32 33 43 53-0274	EA	72" Long x 72" Wide, Precast Concrete, One Piece, Rectangular Picnic Table With Two Integral Benches (Quikrete QLB72PT).....	2,549.09	194.43
32 33 43 53-0275	EA	96" Long x 72" Wide, Precast Concrete, One Piece, Rectangular Picnic Table With Two Integral Benches (Quickrete QLB796PT Or QLMR96PT).....	2,943.35	
Note: Standard sealer				



Exterior Improvements			32
Site Improvements			32 30
Site Furnishings			32 33

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 33 43 53-0276	EA		102" Long x 72" Wide, Precast Concrete, One Piece, Rectangular Picnic Table With Two Integral Benches And Handicap Access On Two Ends (Quick Crete QLMR102PTADA).....	2,952.76	
			Note: Standard sealer		
32 33 43 53-0277	EA		42" Diameter, Precast Concrete, Round Food Court Table Set With Four Benches (Quick Crete QR42FC).....	3,123.64	
			Note: Includes table top, four benches and mounting hardware.		
32 33 43 53-0278			Plastic Picnic Tables (32 33 43 53-0264)		
			Note: Manufactured from recycled plastic.		
32 33 43 53-0279			Pedestal Tables - 4' Square, 2 Seats (32 33 43 53-0278)		
32 33 43 53-0280	EA		3" x 4" Slats, Pedestal Table, 4' Square, 2 Seats	1,552.14	72.92
32 33 43 53-0281	EA		4" x 4" Slats, Pedestal Table, 4' Square, 2 Seats	1,701.52	72.92
32 33 43 53-0282			Pedestal Tables - 4' Square, 4 Seats (32 33 43 53-0278)		
32 33 43 53-0283	EA		3" x 4" Slats, Pedestal Table, 4' Square, 4 Seats	2,036.57	72.92
32 33 43 53-0284	EA		4" x 4" Slats, Pedestal Table, 4' Square, 4 Seats	2,237.16	72.92
32 33 43 53-0285			Recycled Plastic Tables (32 33 43 53-0278)		
32 33 43 53-0286	EA		6' Standard "Step-Over" Table, Recycled Plastic Lumber	2,669.64	72.92
32 33 43 53-0287	EA		6' " Walk-Through" Table, Recycled Plastic Lumber	2,222.28	72.92
32 33 43 53-0288	EA		7' Reinforced "Step-Over" Table, Recycled Plastic Lumber, ADA Ends	2,427.87	72.92
32 33 43 53-0289	EA		8' " Walk-Through" Table, Recycled Plastic Lumber, ADA Ends	2,269.98	72.92
32 33 43 53-0290	EA		8' Reinforced "Step-Over" Table, Recycled Plastic Lumber, ADA Ends	2,858.37	72.92
32 33 43 53-0291	EA		4' Youth Table, Recycled Plastic Lumber	1,134.33	58.33
32 33 53			Site Grills (32 33)		
32 33 53 00-0001			Picnic Grills (32 33 53)		
32 33 53 00-0002	EA		20" Wide x 14" Deep x 8-1/2" High Adjustable Grill	431.02	
			Note: 11 gauge with galvanized steel post.		
32 33 53 00-0003	EA		20" Wide x 14" Deep x 8-1/2" High Adjustable Grill	461.11	
			Note: 7 gauge with galvanized steel post.		
32 33 63			Skate Board Deterrent (32 33)		
32 33 63 00-0001			Skate Stoppers (32 33 63)		
32 33 63 00-0002	EA		Aluminum Architectural Series Pieces, Skate Stopper	65.16	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-6.93	
			For >99 To 249, Deduct	-8.77	
			For >249, Deduct	-10.60	
32 33 63 00-0003	EA		Aluminum Fixed Angle Series Pieces, Skate Stopper	68.96	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-7.47	
			For >99 To 249, Deduct	-9.41	
			For >249, Deduct	-11.36	
32 33 63 00-0004	EA		Aluminum Fixed Radius Series Pieces, Skate Stopper	48.99	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-4.67	
			For >99 To 249, Deduct	-6.02	
			For >249, Deduct	-7.37	
32 33 63 00-0005	EA		Aluminum Bench Clips, Skate Stopper	39.45	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-3.34	
			For >99 To 249, Deduct	-4.40	
			For >249, Deduct	-5.46	
32 33 63 00-0006	EA		Aluminum Curve Clips, Skate Stopper.....	43.02	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-3.83	
			For >99 To 249, Deduct	-5.00	
			For >249, Deduct	-6.17	
32 33 63 00-0007	EA		Aluminum Hand Rail, Skate Stopper	41.21	
			Note: Various shapes. Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-3.58	
			For >99 To 249, Deduct	-4.70	
			For >249, Deduct	-5.81	
32 33 63 00-0008	EA		Aluminum 2" x 3" x 0.25" Flat Cap, Skate Stopper	38.87	
			Note: Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-3.25	
			For >99 To 249, Deduct	-4.30	
			For >249, Deduct	-5.34	
32 33 63 00-0009	EA		Aluminum 6" Diameter x 0.25" Rumble Disc, Skate Stopper	53.42	
			Note: Includes drilling and anchoring into suitable surface material.		
			For >59 To 99, Deduct	-5.29	
			For >99 To 249, Deduct	-6.77	
			For >249, Deduct	-8.25	

32 Exterior Improvements**32 30 Site Improvements****32 33 Site Furnishings**

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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 33 63 00-0010	EA	Aluminum 4" x 17" x 0.25" Flat Strap, Skate Stopper	97.09	
		Note: Includes drilling and anchoring into suitable surface material.		
		For >59 To 99, Deduct	-11.40	
		For >99 To 249, Deduct	-14.20	
		For >249, Deduct	-16.99	

32 35 Screening Devices (32 30)**32 35 13 Screens and Louvers (32 35)****32 35 13 00-0001 Roof Screen System (32 35 13)**

32 35 13 00-0002	SF	Roof Screen System	91.55	
		Note: Includes panels with bolted connection wall or roof mounted support frames, inside an outside corners, and gates as necessary.		
32 35 13 00-0003	SF	Roof Screen System (Ruskin EV 700)	92.55	
		Note: Includes panels with bolted connection wall or roof mounted support frames, inside an outside corners, and accessories as necessary.		

32 35 16 Sound Barriers (32 35)**32 35 16 00-0001 Acoustical K-Rail Mounted Sound Wall (Rental) (32 35 16)**

32 35 16 00-0002	LF	Freight/Delivery And Installation Of Rented 16' High, Dual K-Rail Mounted STC-32 Sound Wall	51.28	
32 35 16 00-0003	EA	Freight/Delivery And Installation Of Rented 20' K-Rail For Dual K-Rail Mounted Sound Wall	284.61	
32 35 16 00-0004	LF	16' High, Dual K-Rail Mounted STC-32 Sound Wall, Material Rental Per Month	31.20	
		Note: Includes rental material only per LF per Month.		
32 35 16 00-0005	EA	20' K-Rail For Dual K-Rail Mounted Sound Wall, Material Rental Per Each	121.31	
		Note: Includes rental material only per each 20' section per Month.		
32 35 16 00-0006	LF	Freight/Return And Removal Of Rented 16' High, Dual K-Rail Mounted STC-32 Sound Wall	47.52	
32 35 16 00-0007	EA	Freight/Return And Removal Of Rented 20' K-Rail For Dual K-Rail Mounted Sound Wall	284.61	

32 35 16 00-0008 Acoustical K-Rail Mounted Sound Wall (Purchase) (32 35 16)

32 35 16 00-0009	LF	16' High, Dual K-Rail Mounted STC-32 Sound Wall (Purchase)	883.15	
		Note: Includes freight/delivery, installation and material.		
32 35 16 00-0010	EA	20' K-Rail For Dual K-Rail Mounted Sound Wall (Purchase)	1,324.44	
		Note: Includes freight/delivery, installation and material.		

32 39 Manufactured Site Specialties (32 30)

Note: Excludes coredrilling, augering, concrete footing and compaction See CSI section 02 41 19 13-0083 for concrete core drilling, 02 41 19 13-0221 for asphalt core drilling, 32 31 13 13-0002 for augering, 32 31 13 13-0019 for concrete footing, 32 31 13 13-0045 for compaction of earth.

32 39 13 Manufactured Metal Bollards (32 39)**32 39 13 00-0001 Metal Pipe Bollards (32 39 13)**

Note: For bollards by the LF, the quantity is the total length, including the buried portion, if any. See CSI section 32 31 13 13-0001 for augering and filling holes for bollards, 32 31 13 13-0018 for concrete fill for post and post holes.

32 39 13 00-0002 Steel Pipe Bollard, Schedule 40 Pipe, Painted Or Powder Coated (32 39 13 00-0001)

32 39 13 00-0003	LF	4" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated	108.88	13.17
		For Galvanized Steel, Add	14.03	
		For 304 Stainless Steel, Add	111.44	
		For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	129.32	
		For Each Sleeve For Removable, Lockable Bollard (Includes Tamper Proof Screw), Add	90.58	
		For Schedule 80, Add	15.02	
		For Concrete Fill, Add Per LF Of Pipe Bollard	9.45	
32 39 13 00-0004	LF	6" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated	156.54	13.17
		For Galvanized Steel, Add	22.14	
		For 304 Stainless Steel, Add	175.78	
		For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	129.32	
		For Each Sleeve For Removable, Lockable Bollard (Includes Tamper Proof Screw), Add	90.58	
		For Schedule 80, Add	22.16	
		For Concrete Fill, Add Per LF Of Pipe Bollard	13.24	
32 39 13 00-0005	LF	8" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated	226.04	16.46
		For Galvanized Steel, Add	32.83	
		For 304 Stainless Steel, Add	260.71	
		For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	169.68	
		For Each Sleeve For Removable, Lockable Bollard, Add	134.00	
		For Schedule 80, Add	32.26	
		For Concrete Fill, Add Per LF Of Pipe Bollard	17.67	
32 39 13 00-0006	LF	10" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated	303.74	19.75
		For Galvanized Steel, Add	44.92	
		For 304 Stainless Steel, Add	356.71	
		For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	196.04	
		For Each Sleeve For Removable, Lockable Bollard, Add	147.18	
		For Schedule 80, Add	43.59	
		For Concrete Fill, Add Per LF Of Pipe Bollard	21.55	



Exterior Improvements			32
Site Improvements			32 30
Manufactured Site Specialties			32 39

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MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 39 13 00-0007	LF 12" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated <i>For Galvanized Steel, Add</i> <i>For 304 Stainless Steel, Add</i> <i>For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add</i> <i>For Each Sleeve For Removable, Lockable Bollard, Add</i> <i>For Schedule 80, Add</i> <i>For Concrete Fill, Add Per LF Of Pipe Bollard</i>	380.57 55.74 442.67 269.68 202.21 54.45 25.06	26.33
32 39 23 Manufactured Concrete Bollards (32 39)			
32 39 23 00-0001	Concrete Bollards (32 39 23) Note: For bollards by the LF, the quantity is the total length, including the buried portion, if any.		
32 39 23 00-0002	Concrete Bollard, Exposed Aggregate (32 39 23 00-0001)		
32 39 23 00-0003	EA 12" x 12" x 30" High Concrete Bollard, Light Media Blast Note: Surface mounted with anchor bolts embedded into grout pockets.	562.91	105.35
32 39 23 00-0004	EA 12" Diameter x 30" High Concrete Bollard, Light Media Blast Note: Surface mounted with anchor bolts embedded into grout pockets.	562.91	105.35
32 39 23 00-0005	Poured In Place Concrete Bollard With Powder Coated Steel Exterior (32 39 23 00-0001) Note: Includes high visibility powder coated steel exterior with welded anchoring tabs for embedding in concrete. Excludes excavation and concrete foundation.		
32 39 23 00-0006	EA 24" Exposed Height, 5-1/2" Diameter, Poured In Place Concrete Bollard With Powder Coated Steel Exterior	246.46	52.67
32 39 23 00-0007	EA 36" Exposed Height, 5-1/2" Diameter, Poured In Place Concrete Bollard With Powder Coated Steel Exterior	316.23	52.67
32 39 23 00-0008	EA 42" Exposed Height, 5-1/2" Diameter, Poured In Place Concrete Bollard With Powder Coated Steel Exterior	362.82	52.67
32 39 23 00-0009	EA 48" Exposed Height, 5-1/2" Diameter, Poured In Place Concrete Bollard With Powder Coated Steel Exterior	407.02	52.67
32 39 25 Manufactured Wood Bollards (32 39)			
32 39 25 00-0001	Wood Bollards (32 39 25) Note: For bollards by the LF, the quantity is the total length, including the buried portion, if any. See CSI section 32 31 13 13-0001 for augering and filling holes for bollards, 32 31 13 13-0018 for concrete fill.		
32 39 25 00-0002	Wood Bollard, Pressure Treated Timber (32 39 25 00-0001)		
32 39 25 00-0003	LF 4" x 4", Pressure Treated Wood Bollard <i>For Each Sleeve For Removable, Lockable Bollard, Add</i>	23.74 89.16	10.54
32 39 25 00-0004	LF 6" x 6", Pressure Treated Wood Bollard <i>For Each Sleeve For Removable, Lockable Bollard, Add</i>	26.56 89.16	10.54
32 39 25 00-0005	LF 8" x 8", Pressure Treated Wood Bollard <i>For Each Sleeve For Removable, Lockable Bollard, Add</i>	33.47 132.60	11.85
32 39 25 00-0006	LF 10" x 10", Pressure Treated Wood Bollard <i>For Each Sleeve For Removable, Lockable Bollard, Add</i>	46.84 148.42	15.80
32 39 25 00-0007	LF 12" x 12", Pressure Treated Wood Bollard <i>For Each Sleeve For Removable, Lockable Bollard, Add</i>	64.05 205.35	21.07
32 39 27 Manufactured Plastic Bollards (32 39)			
32 39 27 00-0001	Plastic Bollards (32 39 27) See CSI section 32 31 13 13-0001 for augering and filling holes for bollards.		
32 39 27 00-0002	Recycled Plastic Bollards (32 39 27 00-0001)		
32 39 27 00-0003	EA 6" x 6" x 33" Surface Mounted Recycled Plastic Bollard Note: Includes anchor bolts.	352.12	52.67
32 39 27 00-0004	EA 6" Diameter x 6' Steel Reinforced Recycled Plastic Bollard	571.81	52.67
32 39 27 00-0005	Plastic Bollard Covers (32 39 27 00-0001)		
32 39 27 00-0006	EA 4" x 60", 1/8" Thick LDPE Bollard Cover, Fits 4" To 4-1/2" Pipe <i>For Reflective Tape, Add</i>	90.25 10.36	12.50
32 39 27 00-0007	EA 6" x 60", 1/8" Thick LDPE Bollard Cover, Fits 6" To 6-5/8" Pipe <i>For Reflective Tape, Add</i>	97.60 10.36	13.75
32 39 27 00-0008	EA 3" x 60", 1/4" Thick LDPE Bollard Cover, Fits 3" To 3 1/2" Pipe <i>For Reflective Tape, Add</i>	122.88 10.36	12.50
32 39 27 00-0009	EA 3-1/2" x 52", 1/4" Thick LDPE Bollard Cover, Fits 3 -1/2" To 4" Pipe <i>For Reflective Tape, Add</i>	122.88 10.36	12.50
32 39 27 00-0010	EA 3-1/2" x 68", 1/4" Thick LDPE Bollard Cover, Fits 3-1/2" To 4" Pipe <i>For Reflective Tape, Add</i>	138.11 10.36	12.50
32 39 27 00-0011	EA 4" x 52", 1/4" Thick LDPE Bollard Cover, Fits 4' To 4-1/2" Pipe <i>For Reflective Tape, Add</i>	122.88 10.36	12.50
32 39 27 00-0012	EA 4" x 60", 1/4" Thick LDPE Bollard Cover, Fits 4" To 4-1/2" Pipe <i>For Reflective Tape, Add</i>	125.06 10.36	12.50
32 39 27 00-0013	EA 5" x 52", 1/4" Thick LDPE Bollard Cover, Fits 5" To 5-9/16" Pipe <i>For Reflective Tape, Add</i>	122.88 10.36	12.50
32 39 27 00-0014	EA 5" x 60", 1/4" Thick LDPE Bollard Cover, Fits 5" To 5-9/16" Pipe <i>For Reflective Tape, Add</i>	125.06 10.36	12.50
32 39 27 00-0015	EA 5" x 72", 1/4" Thick LDPE Bollard Cover, Fits 5" To 5-9/16" Pipe <i>For Reflective Tape, Add</i>	175.09 10.36	12.50
32 39 27 00-0016	EA 6" x 52", 1/4" Thick LDPE Bollard Cover, Fits 6" To 6-5/8" Pipe <i>For Reflective Tape, Add</i>	125.37 10.36	13.75

32 Exterior Improvements**32 30 Site Improvements****32 39 Manufactured Site Specialties**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 39 27 00-0017	EA		6" x 65", 1/4" Thick LDPE Bollard Cover, Fits 6" To 6-5/8" Pipe <i>For Reflective Tape, Add</i>	160.18 10.36	13.75
32 39 27 00-0018	EA		6" x 84", 1/4" Thick LDPE Bollard Cover, Fits 6" To 6-5/8" Pipe <i>For Reflective Tape, Add</i>	182.44 10.36	13.75
32 39 27 00-0019	EA		7" x 56", 1/4" Thick LDPE Bollard Cover, Fits 6" To 6-5/8" Pipe <i>For Reflective Tape, Add</i>	153.98 10.36	15.01
32 39 27 00-0020	EA		8" x 52", 1/4" Thick LDPE Bollard Cover, Fits 7" To 7-5/16" Pipe <i>For Reflective Tape, Add</i>	167.03 10.36	15.01
32 39 27 00-0021	EA		8" x 69", 1/4" Thick LDPE Bollard Cover, Fits 8" To 8-5/8" Pipe <i>For Reflective Tape, Add</i>	167.03 10.36	15.01
32 39 27 00-0022	EA		10" x 69", 1/4" Thick LDPE Bollard Cover, Fits 10" To 11" Pipe <i>For Reflective Tape, Add</i>	225.79 10.36	15.01
32 39 29 Manufactured Stone Bollards (32 39)					
32 39 29 00-0001			Stone Bollards (32 39 29)		
32 39 29 00-0002			Granite Bollards (32 39 29 00-0001)		
32 39 29 00-0003	EA		16" x 16" x 30" Granite Bollard, Smooth Matt Finish Note: Surface mounted with anchors embedded into grout pockets.	1,247.42	131.68
32 39 29 00-0004	EA		16" x 16" x 54" Granite Bollard, Smooth Matt Finish Note: Surface mounted with anchors embedded into grout pockets.	1,585.37	184.35
32 39 29 00-0005	EA		12" x 12" x 24" Granite Bollard, Rough Finish, Pyramid Top Note: Surface mounted with anchors embedded into grout pockets.	789.38	131.68
32 39 29 00-0006	EA		12" Diameter x 18" Granite Bollard, Smooth Matt Finish Note: Flat Top, surface mounted with anchors embedded into grout pockets.	1,141.07	105.35
32 39 29 00-0007	EA		24" x 24" x 20" Granite Bollard, Octagonal Cross Section Note: Smooth matt finish, flat top, surface mounted with anchors embedded into grout pockets.	1,686.78	105.35
32 80 Irrigation (32)					
32 84 Planting Irrigation (32 80)					
32 84 13 Drip Irrigation (32 84)					
32 84 13 00-0001			Drip Emitter Irrigation Devices (32 84 13)		
32 84 13 00-0002			Drip Emitter Irrigation Valves (32 84 13 00-0001)		
32 84 13 00-0003	EA		1/2" Air/Vacuum Relief Valve For Drip Emitter Irrigation Systems (Rain Bird® ARV050)	49.79	11.14
32 84 13 00-0004	EA		1", Low Flow Remote Control Valve For Drip Emitter Irrigation Systems (Rain Bird® LRV100)	84.64	11.14
32 84 13 00-0005	EA		3/4", Anti-Siphon, Low Flow Remote Control Valve For Drip Emitter Irrigation Systems (Rain Bird® LRV075)	82.21	11.14
32 84 13 00-0006	EA		3/4", Latching Solenoid, Low Flow Remote Control Valve For Drip Emitter Irrigation Systems (Rain Bird® LRV075TBOS)	114.95	11.14
32 84 13 00-0007			Drip Emitter Irrigation Filters (32 84 13 00-0001)		
32 84 13 00-0008	EA		3/4" Inlet/Outlet, Inline Basket Filter For Drip Emitter Irrigation Systems (Rain Bird® QKCHK-075)	184.15	11.14
32 84 13 00-0009	EA		1" Inlet/Outlet, Inline Basket Filter For Drip Emitter Irrigation Systems (Rain Bird® QKCHK-100)	185.95	11.14
32 84 13 00-0010	EA		3/4" Inlet/Outlet, Inline Wye Filter For Drip Emitter Irrigation Systems (Rain Bird® RBY075MPTX)	65.01	11.14
32 84 13 00-0011	EA		1" Inlet/Outlet, Inline Wye Filter For Drip Emitter Irrigation Systems (Rain Bird® RBY100MPTX)	66.45	11.14
32 84 13 00-0012	EA		1" Inlet/Outlet, Pressure Regulating, Inline Basket Filter For Drip Emitter Irrigation Systems (Rain Bird® PRB-QCHK-100)	200.92	11.14
32 84 13 00-0013	EA		3/4" Inlet/Outlet, Pressure Regulating, Inline RBY Filter For Drip Emitter Irrigation Systems (Rain Bird® PRF075RBY)	86.68	11.14
32 84 13 00-0014	EA		1" Inlet/Outlet, Pressure Regulating, Inline RBY Filter For Drip Emitter Irrigation Systems (Rain Bird® PRF100RBY)	97.97	11.14
32 84 13 00-0015			Drip Emitter Irrigation Pressure Regulators (32 84 13 00-0001)		
32 84 13 00-0016	EA		3/4", 6 To 300 GPH, 30 PSI, Inline Pressure Regulator For Drip Emitter Irrigation Systems (Rain Bird® PSI-L30X-075)	63.55	11.14
32 84 13 00-0017	EA		3/4", 120 To 600 GPH, 30 PSI, Inline Pressure Regulator For Drip Emitter Irrigation Systems (Rain Bird® PSI-M30X-075)	63.55	11.14
32 84 13 00-0018	EA		3/4", 120 To 600 GPH, 40 PSI, Inline Pressure Regulator For Drip Emitter Irrigation Systems (Rain Bird® PSI-M40X-075)	63.55	11.14
32 84 13 00-0019	EA		1", 120 To 900 GPH, 40 PSI, Inline Pressure Regulator For Drip Emitter Irrigation Systems (Rain Bird® PSI-M40X-100)	75.41	11.14
32 84 13 00-0020			Drip Emitter Irrigation Tubing (32 84 13 00-0001)		
Note: Includes surface installation and covering of tubing with existing pine straw, pine bark etc.					
32 84 13 00-0021	LF		1/4", Landscape Dripline With Extruded Non-Pressure Compensating Drip Emitters (Rain Bird® LDQ0806100)	4.46	1.56
32 84 13 00-0022	LF		1/2", Landscape Dripline With Extruded Pressure Compensating Drip Emitters (Rain Bird® XFD0612100)	3.92	1.78
32 84 13 00-0023	LF		1/4", UV-Resistant, Polyethylene, Distribution Tubing For Drip Emitter Irrigation Systems (Rain Bird® XQ100)	3.32	1.56
<i>For Shallow Trenching And Backfill By Hand, Add</i>				6.40	
32 84 13 00-0024	LF		1/2", UV-Resistant, Polyethylene, Distribution Tubing For Drip Emitter Irrigation Systems (Rain Bird® XT700100)	4.02	1.78
<i>For Shallow Trenching And Backfill By Hand, Add</i>				6.92	
32 84 13 00-0025			Drip Emitter Irrigation Fittings (32 84 13 00-0001)		
32 84 13 00-0026	EA		1/4", Barbed Coupling For Irrigation Tubing (Rain Bird® XBF1CONN)	3.01	



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
32 84 13 00-0027	EA	1/4", Barbed Elbow For Irrigation Tubing (Rain Bird® XBF2EL).....	3.05		
32 84 13 00-0028	EA	1/4", Barbed Tee For Irrigation Tubing (Rain Bird® XBF3TEE).....	3.11		
32 84 13 00-0029	EA	1/4", Self Piercing Barbed Coupling For Irrigation Tubing (Rain Bird® SPB025).....	3.33		
32 84 13 00-0030	EA	1/4", Plug For Irrigation Tubing (Rain Bird® EMAGPX).....	2.97		
32 84 13 00-0031	EA	17mm, Barbed Coupling For Irrigation Tubing (Rain Bird® XFFCOUP).....	3.22		
		For Compression Fitting, Add	0.43		
32 84 13 00-0032	EA	17mm, Barbed Elbow For Irrigation Tubing (Rain Bird® XFF-ELBOW).....	3.34		
		For Compression Fitting, Add	0.35		
32 84 13 00-0033	EA	17mm, Barbed Tee For Irrigation Tubing (Rain Bird® XFF-TEE).....	3.40		
		For Compression Fitting, Add	0.61		
32 84 13 00-0034	EA	17mm, Barbed Male Adapter For Irrigation Tubing (Rain Bird® XFFMA050).....	3.44		
		For Compression Fitting, Add	0.65		
32 84 13 00-0035	EA	17mm, Barbed Cross For Irrigation Tubing (Rain Bird® XFDCROSS).....	3.70		
		For Compression Fitting, Add	0.91		
32 84 13 00-0036	EA	1/2", Plug For Irrigation Tubing (Rain Bird® MDCFCAP).....	3.99		
32 84 13 00-0037	EA	12 Gauge, Galvanized Stake For Irrigation Tubing (Rain Bird® TDS050BEND).....	1.96		
32 84 13 00-0038 Drip Emitters (32 84 13 00-0001)					
32 84 13 00-0039	EA	0.5 To 2 GPH, Single Outlet, Pressure Compensating Emitter For Drip Emitter Irrigation Systems (Rain Bird® XB20PC).....	6.23		
32 84 13 00-0040	EA	5 To 24 GPH, Single Outlet, Pressure Compensating Emitter For Drip Emitter Irrigation Systems (Rain Bird® PC24).....	7.38		
32 84 13 00-0041	EA	0.5 To 2 GPH, Six Outlet, Pressure Compensating Emitter For Drip Emitter Irrigation Systems (Rain Bird® XB056).....	16.51		
32 84 13 00-0042 Drip Emitter Irrigation Micro-Bubblers, Sprays And Misters (32 84 13 00-0001)					
32 84 13 00-0043	EA	Adjustable Stream Bubbler With Spike For Drip Emitter Irrigation Systems (Rain Bird® SXB360SPYK).....	24.07	10.03	
32 84 13 00-0044	EA	Adjustable Micro Spray With Spike For Drip Emitter Irrigation Systems (Rain Bird® XS360TSPYK).....	24.13	10.03	
32 84 13 00-0045	EA	12" Height, Riser Assembly With Pressure Compensating Nozzle For Drip Emitter Irrigation Systems (Rain Bird® SQADP12 With SQFUL).....	27.32	10.03	
32 84 13 00-0046	EA	24" Height, Riser Assembly With Pressure Compensating Nozzle For Drip Emitter Irrigation Systems (Rain Bird® SQADP24 With SQFUL).....	27.66	10.03	
32 84 13 00-0047	EA	4" Pop-Up Height, Micro Spray Pop-Ups For Drip Emitter Irrigation Systems (Rain Bird® XP-400X With SQFUL).....	41.02	13.14	
		Note: Includes nozzle.			
32 84 13 00-0048	EA	6" Pop-Up Height, Micro Spray Pop-Ups For Drip Emitter Irrigation Systems (Rain Bird® XP-600X With SQFUL).....	45.12	13.14	
		Note: Includes nozzle.			
32 84 13 00-0049	EA	12" Pop-Up Height, Micro Spray Pop-Ups For Drip Emitter Irrigation Systems (Rain Bird® XP1200X With SQFUL).....	48.27	13.14	
		Note: Includes nozzle.			
32 84 13 00-0050 Subsurface Drip Emitter Irrigation Tubing (Rain Bird® XFS) (32 84 13 00-0001)					
		Note: Brown or purple tubing. Includes layout, trenching 4" to 6", installing tubing and backfilling trench.			
32 84 13 00-0051	LF	0.536" ID, 0.634" OD, Subsurface Drip Emitter Irrigation Tubing (Rain Bird® XFS Copper Shield).....	4.51	1.95	
32 84 23 Underground Sprinklers (32 84)					
32 84 23 00-0001 Sprinkler Heads (32 84 23)					
32 84 23 00-0002 Spray Sprinkler Heads (32 84 23 00-0001)					
		Note: Includes plastic riser and case. Includes spray, variable arc or bubbler nozzle with partial or full circle coverage.			
32 84 23 00-0003	EA	2" Pop-Up Height, Spray Sprinkler Head (Rain Bird® 1802P).....	35.78	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0004	EA	4" Pop-Up Height, Spray Sprinkler Head (Rain Bird® 1804P).....	33.45	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0005	EA	6" Pop-Up Height, Spray Sprinkler Head (Rain Bird® 1806P).....	42.08	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0006	EA	12" Pop-Up Height, Spray Sprinkler Head (Rain Bird® 1812P).....	49.30	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0007	EA	4" Pop-Up Height, Spray Sprinkler Head With Check Valve (Rain Bird® 1804-SAM).....	36.70	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0008	EA	6" Pop-Up Height, Spray Sprinkler Head With Check Valve (Rain Bird® 1806-SAM).....	48.84	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0009	EA	12" Pop-Up Height, Spray Sprinkler Head With Check Valve (Rain Bird® 1812-SAM).....	54.69	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0010	EA	4" Pop-Up Height, Spray Sprinkler Head With Pressure Regulator (Rain Bird® 1804-PRS).....	40.16	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0011	EA	6" Pop-Up Height, Spray Sprinkler Head With Pressure Regulator (Rain Bird® 1806-PRS).....	51.23	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0012	EA	12" Pop-Up Height, Spray Sprinkler Head With Pressure Regulator (Rain Bird® 1812-PRS).....	56.68	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0013	EA	4" Pop-Up Height, Spray Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 1804-SAM-PRS).....	41.54	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0014	EA	6" Pop-Up Height, Spray Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 1806-SAM-PRS).....	58.53	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0015	EA	12" Pop-Up Height, Spray Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 1812-SAM-PRS).....	63.91	12.31	
		For Rotary Nozzle, Add	3.25		
32 84 23 00-0016	EA	Bubbler Head With Screen, 1/2" NPT (Rain Bird® 1300).....	28.92	12.31	
		For Rotary Nozzle, Add	3.25		

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0017	EA	Pressure Compensating Bubbler With Screen, 1/2" NPT (Rain Bird® 1400).....	34.32	12.31
32 84 23 00-0018		Gear-Drive, Rotary Sprinkler Heads (32 84 23 00-0001) Note: Maximum spacing is equivalent to maximum radius.		
32 84 23 00-0019		1/2" Inlet, Up To 35' Spacing, Gear-Drive, Rotary Sprinkler Heads (32 84 23 00-0018) Note: Includes plastic riser and case, standard rubber cover and nozzle with partial or full circle coverage.		
32 84 23 00-0020	EA	4" Pop-Up Height, 1/2" Inlet, Up To 35' Spacing, Gear-Drive, Rotary Sprinkler Head (Rain Bird® 3504PC).....	52.84	12.31
		For Non-Potable Cover, Add	2.00	
32 84 23 00-0021	EA	4" Pop-Up Height, 1/2" Inlet, Up To 35' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve (Rain Bird® 3504-PC-SAM).....	54.76	12.31
		For Non-Potable Cover, Add	2.00	
32 84 23 00-0022		3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Heads (32 84 23 00-0018) Note: Includes plastic riser and case, standard rubber cover and nozzle with partial or full circle coverage.		
32 84 23 00-0023	EA	4" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head (Rain Bird® 5004-PLPC).....	48.23	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0024	EA	6" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head (Rain Bird® 5006-PLPC).....	68.98	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0025	EA	4" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve (Rain Bird® 5004-PLPCS).....	52.07	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0026	EA	6" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve (Rain Bird® 5006-PLPCS).....	72.06	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0027	EA	4" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Pressure Regulator (Rain Bird® 5004+PCR).....	53.61	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0028	EA	4" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 5004+FCSR).....	56.68	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0029	EA	6" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 5006+PCSR).....	76.67	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0030	EA	12" Pop-Up Height, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 5012+PCSR).....	88.97	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0031	EA	Shrub Type, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve (Rain Bird® 5000S-PLPCS).....	56.30	12.31
		For Non-Potable Cover, Add	2.00	
32 84 23 00-0032	EA	Shrub Type, 3/4" Inlet, Up To 55' Spacing, Gear-Drive, Rotary Sprinkler Head With Check Valve And Pressure Regulator (Rain Bird® 5000S+PCSR).....	68.60	12.31
		For Non-Potable Cover, Add	2.00	
32 84 23 00-0033		1" Inlet, Up To 65' Spacing, Gear-Drive, Rotary Sprinkler Heads (32 84 23 00-0018) Note: Includes plastic riser and case, standard rubber cover, check valve and nozzle with partial or full circle coverage.		
32 84 23 00-0034	EA	4" Pop-Up Height, 1" Inlet, Up To 65' Spacing, Gear-Drive, Rotary Sprinkler Head (Rain Bird® F4PC).....	97.81	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
		For Stainless Steel Riser And High Speed Rotor, Add	56.58	
32 84 23 00-0035		1" Inlet, Up To 80' Spacing, Gear-Drive, Rotary Sprinkler Heads (32 84 23 00-0018) Note: Includes plastic riser and case, standard rubber cover, check valve and nozzle with partial or full circle coverage.		
32 84 23 00-0036	EA	5" Pop-Up Height, 1" Inlet, Up To 80' Spacing, Gear-Drive, Rotary Sprinkler Head (Rain Bird® 8005).....	142.39	12.31
		For Non-Potable Cover, Add	2.00	
		For Stainless Steel Riser, Add	9.00	
32 84 23 00-0037		Impact-Drive Sprinkler Heads (32 84 23 00-0001) Note: Includes partial or full circle coverage. Maximum spacing is equivalent to maximum radius.		
32 84 23 00-0038	EA	1/2" Inlet, Up To 45' Spacing, Pop-Up, Impact-Drive Rotary Sprinkler Head (Rain Bird® 2045A-08).....	76.29	12.31
		For Non-Potable Cover, Add	2.00	
32 84 23 00-0039	EA	1/2" Inlet, Up To 45' Spacing, Riser Mounted, Plastic Body, Impact-Drive Sprinkler Head (Rain Bird® 2045-PJ08).....	57.84	12.31
32 84 23 00-0040	EA	3/4" Inlet, Up To 51' Spacing, Riser Mounted, Brass/Bronze Body, Impact-Drive Sprinkler Head (Rain Bird® 35A-ADJ-TNTB).....	119.30	12.31
32 84 23 00-0041		Electric Remote Control Irrigation Valves (32 84 23)		



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
32 84 23 00-0042	0.2 To 22 GPM, Plastic, Electric Remote Control Irrigation Valves (Rain Bird® DV Series) (32 84 23 00-0041) Note: 15 to 150 PSI.				
32 84 23 00-0043	EA	3/4", 0.2 To 22 GPM, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 75DV)	150.91		51.30
32 84 23 00-0044	EA	1", 0.2 To 40 GPM, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 100DV)	150.91		51.30
32 84 23 00-0045	EA	1", 0.2 To 40 GPM, Slip-On, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 100DVSS)	165.57		58.48
32 84 23 00-0046	EA	1", 0.2 To 22 GPM, Plastic, Electric Remote Control Irrigation Angle Valve (Rain Bird® 100DVA)	152.44		51.30
32 84 23 00-0047	0.2 To 22 GPM, Plastic, Electric Remote Control Irrigation Valves With Flow Control (Rain Bird® DVF Series) (32 84 23 00-0041) Note: 15 to 150 PSI.				
32 84 23 00-0048	EA	1", 0.2 To 40 GPM, Plastic, Electric Remote Control Irrigation Valve With Flow Control (Rain Bird® 100DVF)	152.44		51.30
32 84 23 00-0049	EA	1", 0.2 To 40 GPM, Slip-On, Plastic, Electric Remote Control Irrigation Valve With Flow Control (Rain Bird® 100DVFSS)	167.87		58.48
32 84 23 00-0050	EA	1", 0.2 To 40 GPM, Male x Barb, Plastic, Electric Remote Control Irrigation Valve With Flow Control (Rain Bird® 100DVFMB)	169.41		58.48
32 84 23 00-0051	0.25 To 200 GPM, Plastic, Electric Remote Control Irrigation Valves (Rain Bird® PEB Series) (32 84 23 00-0041) Note: 20 to 200 PSI.				
32 84 23 00-0052	EA	1", 0.25 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 100PEB)	275.43		51.30
32 84 23 00-0053	EA	1-1/2", 0.25 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 150PEB)	329.24		51.30
32 84 23 00-0054	EA	2", 0.25 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve (Rain Bird® 200PEB)	398.42		51.30
32 84 23 00-0055	5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valves With Pressure Regulator (Rain Bird® PEB PRS-D Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure and 15 to 100 PSI pressure regulation.				
32 84 23 00-0056	EA	1", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 100PEB PRS-D)	404.98		57.67
32 84 23 00-0057	EA	1-1/2", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 150PEB PRS-D)	458.79		57.67
32 84 23 00-0058	EA	2", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 200PEB PRS-D)	527.97		57.67
32 84 23 00-0059	20 To 200 GPM, Plastic, Electric Remote Control Irrigation Valves With Pressure Regulator And Scrubber Valve (Rain Bird® PESB PRS-D Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure and 15 to 100 PSI pressure regulation.				
32 84 23 00-0060	EA	1", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator And Scrubber Valve (Rain Bird® 100PESB PRS-D)	481.85		57.67
32 84 23 00-0061	EA	1-1/2", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator And Scrubber Valve (Rain Bird® 150PESB PRS-D)	535.66		57.67
32 84 23 00-0062	EA	2", 5 To 200 GPM, Plastic, Electric Remote Control Irrigation Valve With Pressure Regulator And Scrubber Valve (Rain Bird® 200PESB PRS-D)	604.84		57.67
32 84 23 00-0063	0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves (Hunter IBV Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure.				
32 84 23 00-0064	EA	1", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valve (Hunter IBV-101G-B)	428.47		51.30
32 84 23 00-0065	EA	1-1/2", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valve (Hunter IBV-151G-B)	675.85		51.30
32 84 23 00-0066	EA	2", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valve (Hunter IBV-201G-B)	698.21		51.30
32 84 23 00-0067	EA	3", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valve (Hunter IBV-301G-B)	1,677.29		69.26
32 84 23 00-0068	5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valves (Rain Bird® EFB-CP Series) (32 84 23 00-0041) Note: 15 to 200 PSI operating range pressure and 15 to 100 PSI pressure regulation.				
32 84 23 00-0069	EA	1", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Rain Bird® 100EFB-CP)	388.30		57.67
32 84 23 00-0070	EA	1-1/4", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Rain Bird® 125EFB-CP)	461.87		57.67
32 84 23 00-0071	EA	1-1/2", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Rain Bird® 150EFB-CP)	541.73		57.67
32 84 23 00-0072	EA	2", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Rain Bird® 200EFB-CP)	646.89		57.67
32 84 23 00-0073	0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valves (Hunter IBV FS Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure and 20 to 100 PSI pressure regulation.				
32 84 23 00-0074	EA	1", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Hunter IBV-101G-B-FS)	526.58		57.67
32 84 23 00-0075	EA	1-1/2", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Hunter IBV-151G-B-FS)	820.07		57.67
32 84 23 00-0076	EA	2", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Hunter IBV-201G-B-FS)	845.23		57.67

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0077	EA	3", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve (Hunter IBV-301G-B-FS).....	1,803.98	57.67
32 84 23 00-0078		0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV ACCU-SYNC Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure and 20 to 100 PSI pressure regulation.		
32 84 23 00-0079	EA	1", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV-101G-B ACCU-SYNC-ADJ).....	540.28	51.30
32 84 23 00-0080	EA	1-1/2", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV-151G-B ACCU-SYNC-ADJ).....	787.65	51.30
32 84 23 00-0081	EA	2", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV-201G-B ACCU-SYNC-ADJ).....	810.01	51.30
32 84 23 00-0082	EA	3", 0.1 To 300 GPM, Brass, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV-301G-B ACCU-SYNC-ADJ).....	1,789.10	69.26
32 84 23 00-0083		5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valves With Pressure Regulator (Rain Bird® EFB-CP PRS-D Series) (32 84 23 00-0041) Note: 15 to 200 PSI operating range pressure and 15 to 100 PSI pressure regulation.		
32 84 23 00-0084	EA	1", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 100EFB-CP PRS-D).....	503.61	57.67
32 84 23 00-0085	EA	1-1/4", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 125EFB-CP PRS-D).....	577.17	57.67
32 84 23 00-0086	EA	1-1/2", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 150EFB-CP PRS-D).....	657.04	57.67
32 84 23 00-0087	EA	2", 5 To 200 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Rain Bird® 200EFB-CP PRS-D).....	762.19	57.67
32 84 23 00-0088		0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valves With Pressure Regulator (Hunter IBV FS ACCU-SYNC Series) (32 84 23 00-0041) Note: 20 to 200 PSI operating range pressure and 20 to 100 PSI pressure regulation.		
32 84 23 00-0089	EA	1", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Hunter IBV-101G-B-FS ACCU-SYNC-ADJ).....	638.38	57.67
32 84 23 00-0090	EA	1-1/2", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Hunter IBV-151G-B-FS ACCU-SYNC-ADJ).....	931.88	57.67
32 84 23 00-0091	EA	2", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Hunter IBV-201G-B-FS ACCU-SYNC-ADJ).....	957.04	57.67
32 84 23 00-0092	EA	3", 0.1 To 300 GPM, Brass, Contamination Proof, Electric Remote Control Irrigation Valve With Pressure Regulator (Hunter IBV-301G-B-FS ACCU-SYNC-ADJ).....	1,915.79	57.67
32 84 23 00-0093		Other Electric Remote Control Valves/Accessories (32 84 23 00-0041)		
32 84 23 00-0094	EA	Pressure Regulator Module For Electric Remote Control Valves (Rain Bird® PRS-DIAL).....	156.34	
32 84 23 00-0095		Remote Control Valve Assemblies (32 84 23 00-0041) Note: Includes excavation and disposal of soil, installation of 6" minimum depth gravel or crushed rock, woven wire cloth, valve, fittings, valve box (Carson 1419-12), as detailed in the Caltrans Standard Plans 2010 page 224.		
32 84 23 00-0096	EA	1" Glass-Filled Nylon Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® PEB) And Box (Carson 1419-12).....	563.67	128.26
32 84 23 00-0097	EA	1-1/2" Glass-Filled Nylon Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® PEB) And Box (Carson 1419-12).....	617.48	128.26
32 84 23 00-0098	EA	2" Glass-Filled Nylon Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® PEB) And Box (Carson 1419-12).....	686.66	128.26
32 84 23 00-0099	EA	1" Glass-Filled Nylon Remote Control Scrubber Valve With Flow Control And Captured Solenoid (Rain Bird® PESB-R) And Box (Carson 1419-12).....	640.54	128.26
32 84 23 00-0100	EA	Note: Purple components for use with recycled water 1-1/2" Glass-Filled Nylon Remote Control Scrubber Valve With Flow Control And Captured Solenoid (Rain Bird® PESB-R) And Box (Carson 1419-12).....	694.35	128.26
32 84 23 00-0101	EA	Note: Purple components for use with recycled water 2" Glass-Filled Nylon Remote Control Scrubber Valve With Flow Control And Captured Solenoid (Rain Bird® PESB-R) And Box (Carson 1419-12).....	763.53	128.26
32 84 23 00-0102	EA	Note: Purple components for use with recycled water 1" Brass Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® EFB-CP-R) And Box (Carson 1419-12).....	662.30	128.26
32 84 23 00-0103	EA	Note: Purple components for use with recycled water 1-1/2" Brass Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® EFB-CP-R) And Box (Carson 1419-12).....	815.72	128.26
32 84 23 00-0104	EA	Note: Purple components for use with recycled water 2" Brass Remote Control Valve With Flow Control And Captured Solenoid (Rain Bird® EFB-CP-R) And Box (Carson 1419-12).....	920.88	128.26
32 84 23 00-0105		Irrigation Valve Boxes (32 84 23) Note: Includes lid.		
32 84 23 00-0106	EA	6" Round Irrigation Valve Box With Lid (Rain Bird® PVB-6RND).....	88.09	36.94



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0107	EA	7" Round Irrigation Valve Box With Lid (Rain Bird® VB-7RND)	106.25	36.94
32 84 23 00-0108	EA	10" Round Irrigation Valve Box With Lid (Rain Bird® VB-10RND).....	139.29	48.63
32 84 23 00-0109	EA	21.8" x 16.6" x 12" Depth, Rectangular Irrigation Valve Box With Lid (Rain Bird® VB-STD).....	232.41	71.00
32 84 23 00-0110	EA	21.8" x 16.6" x 12" Depth, Rectangular Irrigation Valve Box With Lock (Rain Bird® VB-STDH)	237.58	71.00
32 84 23 00-0111	EA	26.3" x 19.8" x 12.1" Depth, Rectangular Irrigation Valve Box With Lid (Rain Bird® VB-JMB).....	274.63	71.00
32 84 23 00-0112	EA	26.3" x 19.8" x 12.1" Depth, Rectangular Irrigation Valve Box With Lock (Rain Bird® VB-JMBH).....	279.04	71.00
32 84 23 00-0113	EA	33.1" x 23.8" x 15" Depth, Rectangular Irrigation Valve Box With Lock (Rain Bird® VB-SPRH)	490.78	71.00
32 84 23 00-0114	EA	40.3" x 27.1" x 18" Depth, Rectangular Irrigation Valve Box With Lock (Rain Bird® VB-MAXH).....	765.03	71.00
32 84 23 00-0115	EA	Number 5 CALTRANS Concrete Valve Box With Non-Traffic Rated Concrete Lid.....	481.11	145.72
For 12" Extension, Add			102.63	
32 84 23 00-0116	EA	Number 5 CALTRANS Concrete Valve Box With Non-Traffic Rated Steel Lid.....	750.53	145.72
For 12" Extension, Add			102.63	
32 84 23 00-0117	EA	12" x 17" x 12" Depth, Rectangular Irrigation Valve Box With Lid (Carson 1419-12).....	190.08	61.56
32 84 23 00-0118	EA	15" x 21" x 12" Depth, Rectangular Irrigation Valve Box With Lid (Carson 1220-12).....	276.96	71.00
32 84 23 00-0119	EA	10" Round Irrigation Valve Box With Lid (Carson 910-10).....	145.76	48.63
32 84 23 00-0120		Irrigation Controllers (32 84 23) See CSI section 27 15 13 00-0256 for low voltage wiring.		
32 84 23 00-0121		Irrigation Controllers (32 84 23 00-0120)		
32 84 23 00-0122		Irrigation Controllers (Rain Bird®) (32 84 23 00-0121)		
32 84 23 00-0123		Four Program, Indoor Mount, Modular Irrigation Controllers (Rain Bird® ESP Series) (32 84 23 00-0122)		
32 84 23 00-0124		Four Program, Modular Irrigation Controllers (Rain Bird® ESP-ME Series) (32 84 23 00-0123)		
32 84 23 00-0125		Four Program, Indoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-MEI Series) (32 84 23 00-0124)		
32 84 23 00-0126	EA	4-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	441.93	38.89
32 84 23 00-0127	EA	7-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	616.94	38.89
32 84 23 00-0128	EA	10-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	791.95	38.89
32 84 23 00-0129	EA	13-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	966.97	38.89
32 84 23 00-0130	EA	16-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	1,103.09	38.89
32 84 23 00-0131	EA	19-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	1,282.97	38.89
32 84 23 00-0132	EA	22-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-MEI Series)	1,462.85	38.89
32 84 23 00-0133		Four Program, Outdoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-ME Series) (32 84 23 00-0124)		
32 84 23 00-0134	EA	4-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	520.56	38.89
32 84 23 00-0135	EA	7-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	695.57	38.89
32 84 23 00-0136	EA	10-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	870.58	38.89
32 84 23 00-0137	EA	13-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	1,045.60	38.89
32 84 23 00-0138	EA	16-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	1,181.72	38.89
32 84 23 00-0139	EA	19-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	1,361.60	38.89
32 84 23 00-0140	EA	22-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-ME Series).....	1,541.48	38.89
32 84 23 00-0141		Four Program, Modular Irrigation Controllers (Rain Bird® ESP-SMTE Series) (32 84 23 00-0123)		
32 84 23 00-0142		Four Program, Indoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-SMTEI Series) (32 84 23 00-0141)		
32 84 23 00-0143	EA	4-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	715.06	38.89
32 84 23 00-0144	EA	7-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	890.07	38.89
32 84 23 00-0145	EA	10-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	1,065.09	38.89
32 84 23 00-0146	EA	13-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	1,240.10	38.89
32 84 23 00-0147	EA	16-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	1,376.23	38.89
32 84 23 00-0148	EA	19-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	1,556.11	38.89
32 84 23 00-0149	EA	22-Station, Four Program, Indoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTEI Series).....	1,735.98	38.89
32 84 23 00-0150		Four Program, Outdoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-SMTE Series) (32 84 23 00-0141)		
32 84 23 00-0151	EA	4-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	773.98	38.89
32 84 23 00-0152	EA	7-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	948.99	38.89
32 84 23 00-0153	EA	10-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	1,124.01	38.89
32 84 23 00-0154	EA	13-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	1,299.02	38.89
32 84 23 00-0155	EA	16-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	1,435.14	38.89
32 84 23 00-0156	EA	19-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	1,615.03	38.89
32 84 23 00-0157	EA	22-Station, Four Program, Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-SMTE Series).....	1,794.90	38.89
32 84 23 00-0158		Accessories For ESP-ME/MEI Irrigation Controllers (32 84 23 00-0123)		
32 84 23 00-0159	EA	3-Station Expansion Module For ESP Series Irrigation Controllers (Rain Bird® ESP-SM3).....	179.87	
Note: Use task for increasing capacity of existing ESP series irrigation controllers up to a maximum of 22-stations.				

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0160	EA	6-Station Expansion Module For ESP Series Irrigation Controllers (Rain Bird® ESP-SM6).....	343.35		
		Note: Use task for increasing capacity of existing ESP series irrigation controllers up to a maximum of 22-			
		stations.			
32 84 23 00-0161	EA	Smart Controller Upgrade Kit For ESP Series Irrigation Controllers (Rain Bird® ESPSMTEUPG).....	500.01		
32 84 23 00-0162		Four Program, Indoor/Outdoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-LX Series) (32 84 23 00-0122)			
32 84 23 00-0163		Four Program, Indoor/Outdoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-LX Basic Series) (32 84 23 00-0162)			
32 84 23 00-0164	EA	12-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	1,055.26	38.89	
32 84 23 00-0165	EA	16-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	1,276.22	38.89	
32 84 23 00-0166	EA	20-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	1,501.00	38.89	
32 84 23 00-0167	EA	24-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	1,721.96	38.89	
32 84 23 00-0168	EA	28-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	1,946.74	38.89	
32 84 23 00-0169	EA	32-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	2,167.71	38.89	
32 84 23 00-0170	EA	36-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	2,392.48	38.89	
32 84 23 00-0171	EA	40-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	2,613.44	38.89	
32 84 23 00-0172	EA	44-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	2,838.22	38.89	
32 84 23 00-0173	EA	48-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LX Basic Series).....	3,059.18	38.89	
32 84 23 00-0174		Four Program, Indoor/Outdoor Mount, Modular Irrigation Controllers (Rain Bird® ESP-LXME Series) (32 84 23 00-0162)			
32 84 23 00-0175	EA	8-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	1,063.11	38.89	
32 84 23 00-0176	EA	12-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	1,284.06	38.89	
32 84 23 00-0177	EA	16-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	1,508.84	38.89	
32 84 23 00-0178	EA	20-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	1,729.80	38.89	
32 84 23 00-0179	EA	24-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	1,954.58	38.89	
32 84 23 00-0180	EA	28-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	2,175.55	38.89	
32 84 23 00-0181	EA	32-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	2,400.33	38.89	
32 84 23 00-0182	EA	36-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	2,621.29	38.89	
32 84 23 00-0183	EA	40-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	2,846.06	38.89	
32 84 23 00-0184	EA	44-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	3,067.03	38.89	
32 84 23 00-0185	EA	48-Station, Four Program, Indoor/Outdoor Mount, Modular Irrigation Controller (Rain Bird® ESP-LXME Series).....	3,291.80	38.89	
32 84 23 00-0186		Accessories For ESP-LX/LXME Irrigation Controllers (32 84 23 00-0162)			
32 84 23 00-0187	EA	Powder Coated Steel Wall Cabinet For ESP-LX/LXME Irrigation Controllers (Rain Bird® LXMM).....	793.15		
32 84 23 00-0188	EA	Powder Coated Steel Cabinet And Pedestal For ESP-LX/LXME Irrigation Controllers (Rain Bird® LXMPED + LXMM).....	1,843.72		
		Note: Excludes concrete foundation.			
32 84 23 00-0189	EA	Stainless Steel Wall Cabinet For ESP-LX/LXME Irrigation Controllers (Rain Bird® LXMMSS).....	1,756.03		
32 84 23 00-0190	EA	Stainless Steel Cabinet And Pedestal For ESP-LX/LXME Irrigation Controllers (Rain Bird® LXMMSSPED + LXMMSS).....	3,902.95		
		Note: Excludes concrete foundation.			
32 84 23 00-0191	EA	4-Station Expansion Module For ESP-LX/LXME Irrigation Controllers (Rain Bird® ESPLXMSM4).....	220.96		
		Note: Use task for increasing capacity of existing ESP-LX/LXME irrigation controllers up to a maximum of 48-			
		stations.			
32 84 23 00-0192	EA	8-Station Expansion Module For ESP-LX/LXME Irrigation Controllers (Rain Bird® ESPLXMSM8).....	445.74		
		Note: Use task for increasing capacity of existing ESP-LX/LXME irrigation controllers up to a maximum of 48-			
		stations.			
32 84 23 00-0193	EA	12-Station Expansion Module For ESP-LX/LXME Irrigation Controllers (Rain Bird® ESPLXMSM12).....	692.92		
		Note: Use task for increasing capacity of existing ESP-LX/LXME irrigation controllers up to a maximum of 48-			
		stations.			
32 84 23 00-0194	EA	Flow Smart Water Management Module For ESP-LXME Irrigation Controllers (Rain Bird® FSM-LXME).....	258.91		
32 84 23 00-0195		Three Program, Battery-Operated, Buriable Irrigation Control Modules (Rain Bird® TBOS-II Series) (32 84 23 00-0122)			
32 84 23 00-0196		Three Program, Battery-Operated, Buriable Irrigation Control Modules (Rain Bird® TBOS-II Series) (32 84 23 00-0195)			
32 84 23 00-0197	EA	1-Station, Three Program, Battery-Operated, Buriable Irrigation Control Module (Rain Bird® TBOS-II Series).....	517.07	38.89	
32 84 23 00-0198	EA	2-Station, Three Program, Battery-Operated, Buriable Irrigation Control Module (Rain Bird® TBOS-II Series).....	622.68	38.89	
32 84 23 00-0199	EA	4-Station, Three Program, Battery-Operated, Buriable Irrigation Control Module (Rain Bird® TBOS-II Series).....	769.09	38.89	
32 84 23 00-0200		Accessories For TBOS-II Series Irrigation Controllers (32 84 23 00-0195)			
32 84 23 00-0201	EA	Field Transmitter For TBOS-II Series Irrigation Controllers (Rain Bird® TBOS2FTUS).....	667.34		
32 84 23 00-0202	EA	Potted Latching Solenoid For TBOS-II Series Irrigation Controllers (Rain Bird® TBOSPSOL).....	128.69	29.16	
32 84 23 00-0203		Accessories For Irrigation Controllers (Rain Bird®) (32 84 23 00-0122)			
32 84 23 00-0204	EA	Wired Rain Sensor For Irrigation Controllers (Rain Bird® RSDDEX).....	179.58	29.16	
32 84 23 00-0205	EA	Wireless Rain Sensor And Controller Interface For Irrigation Controllers (Rain Bird® WR2RC).....	371.75	29.16	
32 84 23 00-0206	EA	Wireless Rain/Freeze Sensor And Controller Interface For Irrigation Controllers (Rain Bird® WR2RFC).....	394.63	29.16	
32 84 23 00-0207	EA	Soil Moisture Sensor And Controller Interface For Irrigation Controllers (Rain Bird® SMRT-Y).....	592.93	29.16	



Exterior Improvements		32
Irrigation		32 80
Planting Irrigation		32 84

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0208 Two-Wire Decoder Systems (32 84 23 00-0120)		
32 84 23 00-0209 Two-Wire Decoder Systems (Rain Bird®) (32 84 23 00-0208)		
32 84 23 00-0210 Controllers For Two-Wire Decoder Systems (Rain Bird® ESP-LXD Series) (32 84 23 00-0209) Note: Includes water resistant cabinet.		
32 84 23 00-0211 EA 50-Station, Modular Controller For Two-Wire Decoder Systems (Rain Bird® ESP-LXD Series)	3,089.65	38.89
32 84 23 00-0212 EA 125-Station, Modular Controller For Two-Wire Decoder Systems (Rain Bird® ESP-LXD Series)	4,361.24	38.89
32 84 23 00-0213 EA 200-Station, Modular Controller For Two-Wire Decoder Systems (Rain Bird® ESP-LXD Series)	5,632.82	38.89
32 84 23 00-0214 Field Decoders For Two-Wire Decoder Systems (Rain Bird®) (32 84 23 00-0209)		
32 84 23 00-0215 EA One Individual Valve Interface, Field Decoder For Two-Wire Decoder System (Rain Bird® FD101TURF)	375.90	38.89
32 84 23 00-0216 EA One Pair Of Valves Interface, Field Decoder For Two-Wire Decoder System (Rain Bird® FD102TURF)	479.25	38.89
32 84 23 00-0217 EA Two Pair Of Valves Interface, Field Decoder For Two-Wire Decoder System (Rain Bird® FD202TURF)	719.07	38.89
32 84 23 00-0218 EA Up To Four Individual Valves Interface, Field Decoder For Two-Wire Decoder System (Rain Bird® FD401TURF)	880.72	38.89
32 84 23 00-0219 EA Up To Six Individual Valves Interface, Field Decoder For Two-Wire Decoder System (Rain Bird® FD601TURF)	1,464.50	38.89
32 84 23 00-0220 Accessories For Two-Wire Decoder Systems (Rain Bird®) (32 84 23 00-0209)		
32 84 23 00-0221 EA 50-Station Replacement Base Module For ESP-LXD Series Two Wire Decoder Based Controllers (Rain Bird® MOD50-LXD)	2,287.71	
32 84 23 00-0222 EA 75-Station Expansion Module For ESP-LXD Series Two Wire Decoder Based Controllers (Rain Bird® SPLXDSM75)	1,271.59	
32 84 23 00-0223 EA Line Surge Protection For ESP-LXD Series Two-Wire Decoder Systems (Rain Bird® LSP1TURF)	283.69	34.03
32 84 23 00-0224 EA Sensor Decoder Interface For ESP-LXD Series Two-Wire Decoder Systems (Rain Bird® SD210TURF)	1,307.96	38.89
32 84 23 00-0225 Calsense Controllers (32 84 23 00-0120)		
32 84 23 00-0226 Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0227 EA 6 Station ET-Driven Irrigation Controller (Calsense ET2000E-6)	2,815.44	97.21
32 84 23 00-0228 EA 8 Station ET-Driven Irrigation Controller (Calsense ET2000E-8)	3,632.15	109.36
32 84 23 00-0229 EA 12 Station ET-Driven Irrigation Controller (Calsense ET2000E-12)	4,985.24	121.52
32 84 23 00-0230 EA 16 Station ET-Driven Irrigation Controller (Calsense ET2000E-16)	5,485.06	121.52
32 84 23 00-0231 EA 24 Station ET-Driven Irrigation Controller (Calsense ET2000E-24)	6,484.62	133.67
32 84 23 00-0232 EA 32 Station ET-Driven Irrigation Controller (Calsense ET2000E-32)	7,825.60	133.67
32 84 23 00-0233 EA 40 Station ET-Driven Irrigation Controller (Calsense ET2000E-40)	8,861.74	145.82
32 84 23 00-0234 EA 48 Station ET-Driven Irrigation Controller (Calsense ET2000E-48)	9,922.33	145.82
32 84 23 00-0235 EA Upgrade Existing Calsense Controller To ET2000E (Calsense ET2000E-UPGRADE)	2,867.83	48.61
32 84 23 00-0236 EA Upgrade Existing Calsense Controller With 8 Additional Stations (Calsense STATION UPGRADE)	1,205.46	48.61
32 84 23 00-0237 Irrigation Controller Accessories (32 84 23 00-0225)		
32 84 23 00-0238 EA Set Of 10 Keys For Calsense Controllers Or Enclosures (Calsense KEY-1)	117.03	
32 84 23 00-0239 EA Spare Lock For Enclosures (Calsense PAD)	126.78	
32 84 23 00-0240 EA Hardware And Software For Up To 4 Additional Light Circuits (Calsense L)	151.09	12.15
32 84 23 00-0241 EA Transformer For Irrigation Controllers (Calsense TR-1)	219.12	48.61
32 84 23 00-0242 EA AC Line Protection For Irrigation Controllers (Calsense TP-110)	597.03	48.61
32 84 23 00-0243 EA Transient Protection Board For Irrigation Controller Stations (Calsense TP-1)	792.08	48.61
For Outdoor Gray Powder Coated Stainless Steel Enclosure, Add		366.40
32 84 23 00-0244 Sensors For Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0245 Flow Sensors (32 84 23 00-0244)		
32 84 23 00-0246 EA 1-1/2" Polyvinyl Chloride (PVC) Schedule 80 Tee Mounted Flow Meter (Calsense FM 1.5)	1,389.28	72.92
For Flow Meter Replacement Insert Only, Deduct		-997.06
32 84 23 00-0247 EA 2" Polyvinyl Chloride (PVC) Schedule 80 Tee Mounted Flow Meter (Calsense FM 2)	1,438.04	72.92
For Flow Meter Replacement Insert Only, Deduct		-1,045.82
32 84 23 00-0248 EA 3" Polyvinyl Chloride (PVC) Schedule 80 Tee Mounted Flow Meter (Calsense FM 3)	1,486.80	72.92
For Flow Meter Replacement Insert Only, Deduct		-1,094.58
32 84 23 00-0249 EA 1" Brass Tee Mounted Flow Meter (Calsense FM 1B)	1,645.13	97.21
For Flow Meter Replacement Insert Only, Deduct		-1,252.60
32 84 23 00-0250 EA 1-1/4" Brass Tee Mounted Flow Meter (Calsense FM 1.25B)	1,767.04	97.21
For Flow Meter Replacement Insert Only, Deduct		-1,374.51
32 84 23 00-0251 EA 1-1/2" Brass Tee Mounted Flow Meter (Calsense FM 1.5B)	1,815.80	97.21
For Flow Meter Replacement Insert Only, Deduct		-1,423.27
32 84 23 00-0252 EA 2" Brass Tee Mounted Flow Meter (Calsense FM 2B)	2,132.76	97.21
For Flow Meter Replacement Insert Only, Deduct		-1,612.05
32 84 23 00-0253 EA 2" Pipe Saddle Mounted Insertion Flow Meter (Calsense FMBX)	1,657.63	48.61
Note: For 4" and larger pipe. Excludes pipe saddle.		
For Flow Meter Replacement Insert Only, Deduct		-1,136.92
32 84 23 00-0254 Moisture Sensors (32 84 23 00-0244)		
32 84 23 00-0255 EA Soil Moisture Sensor (Calsense 1000-S)	584.93	36.46
32 84 23 00-0256 Weather Sensors (32 84 23 00-0244)		
32 84 23 00-0257 EA Wind Gage, Irrigation Weather Sensor (Calsense WG-1)	1,596.37	97.21

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0258	EA	Tipping Rain Bucket, Irrigation Weather Sensor (Calsense RB-1).....	1,839.56	194.43
32 84 23 00-0259	EA	ET Gage, Irrigation Weather Sensor (Calsense ETG).....	3,644.10	145.82
32 84 23 00-0260		Weather Sensor Accessories (32 84 23 00-0244)		
32 84 23 00-0261	EA	Ceramic Cup For ET Gage Weather Sensor (Calsense ETG-C).....	1,072.47	
32 84 23 00-0262	EA	Removal And Replacement Of Circuit Board For ET Gage Weather Sensor (Calsense ETG-PCB).....	2,023.35	
32 84 23 00-0263	EA	Vandal Resistant Mounting Base For ET Gage Enclosure (Calsense ETGE-BASE).....	1,072.47	48.61
32 84 23 00-0264	EA	Vandal Resistant Stainless Steel Enclosure For ET Gage (Calsense ETGE).....	2,474.57	48.61
32 84 23 00-0265		Antennas For Irrigation Controllers (32 84 23 00-0225)		
Note: Excludes antenna cable.				
32 84 23 00-0266	EA	Local Radio Dome Antenna (Calsense LR-DOME).....	560.46	48.61
32 84 23 00-0267	EA	Local Radio Stick Antenna (Calsense LR-STICK).....	816.46	48.61
32 84 23 00-0268	EA	Local Radio Yagi Antenna (Calsense LR-YAGI).....	913.68	97.21
32 84 23 00-0269	EA	Local Radio And Calsense Radio, Remote Dome Antenna (Calsense LR-DOME-RR).....	560.46	48.61
32 84 23 00-0270	EA	Local Radio And Calsense Radio, Enhanced Remote Dome Antenna (Calsense LR-DOME-RRE).....	560.46	48.61
32 84 23 00-0271	EA	GPRS Stubby Antenna (Calsense GR-STUBBY).....	560.46	48.61
32 84 23 00-0272	EA	GPRS Stick Antenna (Calsense GR-STICK).....	816.46	48.61
32 84 23 00-0273	EA	Spread Spectrum Dome Antenna (Calsense SR-DOME).....	560.46	48.61
32 84 23 00-0274	EA	Spread Spectrum Stick Antenna (Calsense SR-STICK).....	816.46	48.61
32 84 23 00-0275	EA	Spread Spectrum Yagi Antenna (Calsense SR-YAGI).....	913.68	97.21
32 84 23 00-0276	EA	Spread Spectrum And Calsense Radio, Remote Dome Antenna (Calsense SR-DOME-RR).....	560.46	48.61
32 84 23 00-0277	EA	Spread Spectrum And Calsense Radio, Enhanced Remote Dome Antenna (Calsense SR-DOME-RRE).....	560.46	48.61
32 84 23 00-0278	EA	Spread Spectrum Stubby Antenna (Calsense SR-STUBBY).....	560.46	48.61
32 84 23 00-0279	EA	WiFi Stubby Antenna (Calsense WEN-STUBBY).....	560.46	48.61
32 84 23 00-0280	LF	Antenna Cable With End Connectors (Calsense LMR-400-DB).....	15.30	0.58
32 84 23 00-0281	EA	Surge Protection Device For Antenna (Calsense ANT-PROT).....	560.62	24.31
32 84 23 00-0282	EA	5' High, Non-Penetrating, Antenna Tripod Mount (Calsense ANT-TRIP5).....	913.99	48.61
32 84 23 00-0283	EA	3' Antenna Stand Off Mount For 3" Maximum Tower Leg (Calsense ANT-SOM).....	792.40	
32 84 23 00-0284	EA	Local Radio Frequency Filter (Calsense LR-FILTER).....	1,121.55	
32 84 23 00-0285	EA	Spread Spectrum Frequency Filter (Calsense SR-FILTER).....	828.97	
32 84 23 00-0286		Pedestals And Enclosures For Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0287	EA	15 Amperes, Circuit Breaker With Enclosure For Irrigation Controllers (Calsense SSE-BREAKER).....	511.54	72.92
32 84 23 00-0288	EA	Standard Gray Powder Coated Stainless Steel Controller Enclosure (Calsense C-BOX).....	1,240.46	121.52
32 84 23 00-0289	EA	Indoor Wall Mount, Stainless Steel Back Panel (Calsense SSBP).....	1,377.24	48.61
Note: Includes GFI and receptacle.				
32 84 23 00-0290	EA	Standard Gray Powder Coated Stainless Steel Pedestal (Calsense PD-1).....	1,645.53	36.46
Note: Includes factory installed transient protection board and AC line protection.				
32 84 23 00-0291	EA	Heavy-Duty Stainless Steel Enclosure For Irrigation Controllers (Calsense SSE).....	5,158.13	36.46
Note: Includes factory installed transient protection board and AC line protection.				
32 84 23 00-0292	EA	Heavy-Duty Stainless Steel Enclosure For Irrigation Controllers (Calsense SSE-R).....	5,826.95	36.46
Note: Includes factory installed transient protection board, AC line protection and dome antenna.				
32 84 23 00-0293	EA	Double-Wide Heavy-Duty Stainless Steel Enclosure For Irrigation Controllers (Calsense SSE-D).....	8,454.37	72.92
Note: Includes factory installed transient protection boards and AC line protection. Pre-wired for two controllers.				
32 84 23 00-0294	EA	Double-Wide Heavy-Duty Stainless Steel Enclosure For Irrigation Controllers (Calsense SSE-D-R).....	8,861.65	72.92
Note: Includes factory installed transient protection boards, AC line protection and dome antenna. Pre-wired for two controllers.				
32 84 23 00-0295	EA	Bolt Mounting Template For Heavy-Duty Stainless Steel Enclosures (Calsense SSE-CAM).....	290.29	
32 84 23 00-0296	EA	Stainless Steel Fully Enclosed Riser For Calsense SSE Enclosures (Calsense SSE-PED).....	938.46	
32 84 23 00-0297		Central Computer For Irrigation Control Systems (32 84 23 00-0225)		
32 84 23 00-0298	EA	Central Computer For Irrigation Control Systems (Calsense COMP-2).....	6,502.89	
Note: Includes a minimum of 133 MHz Pentium, 32 Meg Ram, 1.2 GB hard drive, 14.4 modem and a printer. Excludes Command Center Water Management software.				
32 84 23 00-0299	EA	Command Center Water Management Software For Central Computer (Calsense COMM-1).....	11,512.19	
32 84 23 00-0300	EA	Up To 5 Simultaneous Users Capacity, Calsense Advantage Client/Server Database Add-On (Calsense CS-5).....	2,209.70	
Note: Package price for up to 5 users. Includes remote communication through internet connection.				
32 84 23 00-0301	EA	>5 To 10 Simultaneous Users Capacity, Calsense Advantage Client/Server Database Add-On (Calsense CS-10).....	4,351.34	
Note: Package price for 6 to 10 users. Includes remote communication through internet connection.				
32 84 23 00-0302	EA	Data Logger With Phone Modem For Irrigation Control Systems (Calsense DL-2).....	7,006.29	
32 84 23 00-0303	EA	GPRS Radio For Use At Central Computer (Calsense DTR-G).....	4,189.18	
32 84 23 00-0304		Data Access Service (32 84 23 00-0225)		
32 84 23 00-0305	EA	1 Month, Data Access Plan For Up To 2 Controllers (Calsense COMM-1MN).....	35.46	
Note: For communication between GPRS unit and up to 2 controllers.				
32 84 23 00-0306	EA	1 Year, Data Access Plan For Up To 2 Controllers (Calsense COMM-1YR).....	387.89	
Note: For communication between GPRS unit and up to 2 controllers.				
32 84 23 00-0307	EA	5 Year, Data Access Plan For Up To 2 Controllers (Calsense COMM-5YR).....	1,662.38	
Note: For communication between GPRS unit and up to 2 controllers.				
32 84 23 00-0308	EA	1 Month, Data Access Plan For Up To 2 Controllers (Calsense COMM-1MN-M).....	144.07	
Note: For communication between GPRS unit and multiple controllers.				
32 84 23 00-0309	EA	1 Year, Data Access Plan For Up To 2 Controllers (Calsense COMM-1YR-M).....	1,551.55	
Note: For communication between GPRS unit and multiple controllers.				
32 84 23 00-0310	EA	5 Year, Data Access Plan For Up To 2 Controllers (Calsense COMM-5YR-M).....	6,649.50	
Note: For communication between GPRS unit and multiple controllers.				



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0311	Communication Options For Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0312	EA FCC License Fee (Calsense).....	237.01	
32 84 23 00-0313	EA P.C.I.A. And/or A.P.C.O. Fee (Calsense)..... Note: Per frequency or frequency pair.	458.66	
32 84 23 00-0314	EA Hardware Communication Option For Irrigation Controllers (Calsense M)..... Note: Allows multiple controllers to be chained together via a communications cable and share one phone line.	1,285.57	
32 84 23 00-0315	EA Phone Line Communication Option For Irrigation Controllers (Calsense R).....	1,352.06	
32 84 23 00-0316	EA Ethernet Communication Option For Irrigation Controllers (Calsense EN).....	1,352.06	
32 84 23 00-0317	EA WiFi Communication Option For Irrigation Controllers (Calsense WEN).....	2,770.62	
32 84 23 00-0318	EA Local Radio Communication Option For Irrigation Controllers (Calsense LR).....	3,524.24	
32 84 23 00-0319	EA Spread Spectrum Radio Communication Option For Irrigation Controllers (Calsense SR).....	3,524.24	
32 84 23 00-0320	EA GPRS Radio Modem Communication Option For Irrigation Controllers (Calsense GR).....	3,524.24	
32 84 23 00-0321	EA Fiber Optic Modem Communication Option For Irrigation Controllers (Calsense FOM).....	11,304.15	
32 84 23 00-0322	EA Communication Hub For Irrigation Controllers (Calsense HUB)..... Note: Accepts up to two communication options. Excludes communication options.	4,354.16	
32 84 23 00-0323	Retrofit Options For Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0324	Weather Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0325	EA Add One Flow Sensor Interface To An Existing Calsense Controller (Calsense F-RETRO).....	1,726.34	
32 84 23 00-0326	EA Add One ET Gage Interface To An Existing Calsense Controller (Calsense G-RETRO).....	1,726.34	
32 84 23 00-0327	EA Add One Tipping Rain Bucket Interface To An Existing Calsense Controller (Calsense RB-RETRO).....	1,726.34	
32 84 23 00-0328	EA Add One Wind Gage Interface To An Existing Calsense Controller (Calsense WG-RETRO).....	1,726.34	
32 84 23 00-0329	Phone Communication Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0330	EA Add The Ability To Chain To Another Calsense Controller With The Phone Line Communication Option And Share One Phone Line (Calsense M-RETRO).....	1,815.00	
32 84 23 00-0331	EA Add The Phone Line Communication Option To An Existing Calsense Controller (Calsense R-RETRO).....	2,147.47	
32 84 23 00-0332	EA Add The Phone Line Communication Option And The Ability To Chain To Another Calsense Controller And Share One Phone Line (Calsense MLR-RETRO).....	3,444.13	
32 84 23 00-0333	Local Radio Communication Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0334	EA Add The Ability To Chain To Another Calsense Controller With The Local Radio Communication Option And Share One Local Radio (Calsense ML-RETRO).....	2,036.65	
32 84 23 00-0335	EA Add The Local Radio Communication Option To An Existing Calsense Controller (Calsense LR-RETRO).....	4,297.48	
32 84 23 00-0336	EA Add The Local Radio Communication Option And The Ability To Chain To Another Calsense Controller And Share One Local Radio (Calsense MLR-RETRO).....	5,583.05	
32 84 23 00-0337	Spread Spectrum Radio Communication Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0338	EA Add The Ability To Chain To Another Calsense Controller With The Spread Spectrum Radio Communication Option And Share One Spread Spectrum Radio (Calsense MS-Retro).....	2,036.65	
32 84 23 00-0339	EA Add The Spread Spectrum Radio Communication Option To An Existing Calsense Controller (Calsense SR- RETRO).....	4,297.48	
32 84 23 00-0340	EA Add The Spread Spectrum Radio Communication Option And The Ability To Chain To Another Calsense Controller And Share One Spread Spectrum Radio (Calsense MSR-RETRO).....	5,583.05	
32 84 23 00-0341	Ethernet Communication Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0342	EA Add The Ability To Chain To Another Calsense Controller With The Ethernet Communication Option And Share One Ethernet Device (Calsense ME-Retro).....	2,036.65	
32 84 23 00-0343	EA Add The Ethernet Communication Option To An Existing Calsense Controller (Calsense EN-RETRO).....	2,147.47	
32 84 23 00-0344	EA Add The Ethernet Communication Option And The Ability To Chain To Another Calsense Controller And Share One Ethernet Device (Calsense MEN-RETRO).....	3,444.13	
32 84 23 00-0345	GPRS Radio Modem Communication Retrofits For Irrigation Controllers (32 84 23 00-0323)		
32 84 23 00-0346	EA Add The Ability To Chain To Another Calsense Controller With The GPRS Communication Option And Share One GPRS Modem (Calsense MG-RETRO).....	2,036.65	
32 84 23 00-0347	EA Add The GPRS Communication Option To An Existing Calsense Controller (Calsense GR-RETRO).....	4,297.48	
32 84 23 00-0348	EA Add The GPRS Communication Option And The Ability To Chain To Another Calsense Controller And Share One GPRS Modem (Calsense MGR-RETRO).....	5,583.05	
32 84 23 00-0349	Radio Remote Units For Irrigation Controllers (32 84 23 00-0225)		
32 84 23 00-0350	EA Enhanced Radio Remote Hand-Held Transmitter With Carry Case (Calsense RRe-TRAN).....	2,047.73	
32 84 23 00-0351	EA Calsense Integrated Radio Remote Receiver Board (Calsense RR/RRe)..... Note: Includes polyvinyl chloride (PVC) stick antenna. Excludes antenna cable.	438.87	
32 84 23 00-0352	EA Wall Mount Charger For Hand-Held Transmitter (Calsense RRTRAN-CHG).....	188.40	
32 84 23 00-0353	EA Removal And Replacement Of Battery For Hand-Held Transmitter (Calsense RRTRAN-BAT).....	334.62	
32 84 23 00-0354	EA Polyvinyl Chloride (PVC) Stick Antenna For Radio Remote Receiver Board (Calsense RR-ANT)..... Note: Excludes antenna cable.	212.71	12.15
32 84 23 00-0355	EA Whip Antenna For Radio Remote Receiver Board (Calsense RRe-WHIP)..... Note: Excludes antenna cable.	412.20	12.15

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 84 23 00-0356 EA Dome Antenna For Radio Remote Receiver Board (Calsense RR-Dome/RRe-Dome) 445.45 12.15
Note: Excludes antenna cable.

32 84 23 00-0357 Hydro-Safe WeatherTrak Controllers (32 84 23 00-0120)**32 84 23 00-0358 Front Entry Pedestal Irrigation Controllers (32 84 23 00-0357)**

Note: HydroPoint WeatherTrak ETPro2 Commercial controller assembly in StrongBox SB-18SS enclosure.

32 84 23 00-0359 EA 12 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC12S) 8,742.08 121.52
32 84 23 00-0360 EA 18 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC18S) 9,305.55 121.52
32 84 23 00-0361 EA 24 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC24S) 9,893.32 133.67
32 84 23 00-0362 EA 30 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC30S) 10,574.18 133.67
32 84 23 00-0363 EA 36 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC36S) 11,137.65 133.67
32 84 23 00-0364 EA 42 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC42S) 11,701.95 145.82
32 84 23 00-0365 EA 48 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS1-WTPRO2SC48S) 12,265.42 145.82

32 84 23 00-0366 Back-to-Back Dual Irrigation Controllers (32 84 23 00-0357)

Note: HydroPoint WeatherTrak ETPro2 Dual back-to-back controller assembly in StrongBox SB-18DSS enclosure.

32 84 23 00-0367 EA 12+18 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1218S) 16,139.29 145.82
32 84 23 00-0368 EA 12+24 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1224S) 16,679.28 145.82
32 84 23 00-0369 EA 12+36 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1236S) 17,892.07 165.26
32 84 23 00-0370 EA 12+42 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1242S) 18,525.98 165.26
32 84 23 00-0371 EA 18+24 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1824S) 17,242.76 145.82
32 84 23 00-0372 EA 18+36 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1836S) 18,525.98 165.26
32 84 23 00-0373 EA 18+42 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC1842S) 19,089.45 165.26
32 84 23 00-0374 EA 24+24 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC2424S) 17,845.12 165.26
32 84 23 00-0375 EA 24+36 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC2436S) 19,089.45 165.26
32 84 23 00-0376 EA 24+42 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC2442S) 19,668.34 184.71
32 84 23 00-0377 EA 36+36 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC3636S) 20,372.68 184.71
32 84 23 00-0378 EA 36+42 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC3642S) 20,912.67 184.71
32 84 23 00-0379 EA 42+42 Back-to-back Dual Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS5-WTPRO2SC4242S) 21,515.02 204.15

32 84 23 00-0380 Wall Mount/Retrofit Mount Irrigation Controllers (32 84 23 00-0357)

Note: HydroPoint WeatherTrak ETPro2 wall mount / retrofit controller assembly.

32 84 23 00-0381 EA 12 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC12S) 5,337.77 121.52
32 84 23 00-0382 EA 18 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC18S) 5,807.33 121.52
32 84 23 00-0383 EA 24 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC24S) 6,395.10 133.67
32 84 23 00-0384 EA 30 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC30S) 7,075.96 133.67
32 84 23 00-0385 EA 36 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC36S) 7,639.43 133.67
32 84 23 00-0386 EA 42 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS718-WTPRO2SC42S) 8,227.20 145.82

32 84 23 00-0387 Top Mount Irrigation Controllers (32 84 23 00-0357)

Note: HydroPoint WeatherTrak ETPro2 stainless steel top mount controller assembly.

32 84 23 00-0388 EA 12 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC12S) 9,305.55 121.52
32 84 23 00-0389 EA 18 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC18S) 9,869.02 121.52
32 84 23 00-0390 EA 24 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC24S) 10,480.27 133.67
32 84 23 00-0391 EA 30 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC30S) 11,137.65 133.67
32 84 23 00-0392 EA 36 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC36S) 11,701.13 133.67
32 84 23 00-0393 EA 42 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC42S) 12,288.90 145.82
32 84 23 00-0394 EA 48 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS16-WTPRO2SC48S) 12,828.89 145.82

32 84 23 00-0395 Wall Mount Irrigation Controllers (32 84 23 00-0357)

Note: HydroPoint WeatherTrak ETPro2 stainless steel wall mount controller assembly.

32 84 23 00-0396 EA 12 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC12S) 6,887.31 121.52
32 84 23 00-0397 EA 18 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC18S) 7,450.79 121.52
32 84 23 00-0398 EA 24 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC24S) 8,038.56 133.67
32 84 23 00-0399 EA 30 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC30S) 8,719.42 133.67
32 84 23 00-0400 EA 36 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC36S) 9,282.89 133.67
32 84 23 00-0401 EA 42 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC42S) 9,870.66 145.82
32 84 23 00-0402 EA 48 Station Irrigation Controller (HydroPoint WeatherTrak ETPro2 HS7-WTPRO2SC48S) 10,410.66 145.82

32 84 23 00-0403 Accessories (32 84 23 00-0357)

32 84 23 00-0404 EA WeatherTRAK Central Internet Management Upgrade (HydroPoint WTEXB-PRO2-CIM) 2,558.41
32 84 23 00-0405 EA Central Pancake Antenna (HydroPoint ANT-GRPS-PC) 392.74
32 84 23 00-0406 EA Central Antenna Amplifier Kit (HydroPoint ANT-AMP-C-Kit) 3,215.79
32 84 23 00-0407 EA Central Antenna Amplifier Kit With YAGI Antenna (HydroPoint ANT-AMP-C-Yagi-Kit) 4,213.61
32 84 23 00-0408 EA 6-Station Key - ET PRO2 Smart Water Manager Series (HydroPoint WTPRO2S-6STA-KEY) 799.58
32 84 23 00-0409 EA 24-Station Output Board - ET PRO2 Smart Water Manager Series (HydroPoint WTPRO2S-STA-EXT-BRD) 1,173.21

32 84 23 00-0410 Satellite Irrigation Controllers (Rain Bird® ESP-SAT) (32 84 23 00-0120)

Note: Satellite controllers compatible with Maxi-Con Central Control. Includes link communication with SEMET at the controller and stainless steel cabinet. Excludes concrete pad.

32 84 23 00-0411 EA 12 Station, Satellite Irrigation Controller With Stainless Steel Cabinet (Rain Bird® RBESP12SATLS) 4,803.54 218.74
32 84 23 00-0412 EA 24 Station, Satellite Irrigation Controller With Stainless Steel Cabinet (Rain Bird® RBESP24SATLS) 5,065.77 230.89
32 84 23 00-0413 EA 40 Station, Satellite Irrigation Controller With Stainless Steel Cabinet (Rain Bird® RBESP40SATLS) 7,035.86 243.04



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
32 84 23 00-0414	LEIT Controllers (32 84 23 00-0120)				
32 84 23 00-0415	LEIT X Series Irrigation Controller (32 84 23 00-0414)				
32 84 23 00-0416	EA 10 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	4,515.86		38.89	
32 84 23 00-0417	EA 12 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	4,954.80		38.89	
32 84 23 00-0418	EA 16 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	5,671.55		38.89	
32 84 23 00-0419	EA 20 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	6,388.31		38.89	
32 84 23 00-0420	EA 24 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	6,895.30		38.89	
32 84 23 00-0421	EA 28 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series).....	7,402.31		38.89	
32 84 23 00-0422	LEIT X Series Irrigation Controller Assembly (32 84 23 00-0414) Note: Includes excavation and concrete for footing, 2" diameter galvanized steel pole (minimum 18" bury), 2" sweeps, controller, and number 5 concrete box with non-traffic rated lid per detail.				
32 84 23 00-0423	EA 10 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	5,111.36		200.69	
32 84 23 00-0424	EA 12 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	5,550.32		200.69	
32 84 23 00-0425	EA 16 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	6,267.07		200.69	
32 84 23 00-0426	EA 20 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	6,983.81		200.69	
32 84 23 00-0427	EA 24 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	7,490.83		200.69	
32 84 23 00-0428	EA 28 Station, Four Program Ambient Light Irrigation Controller (LEIT X Series) Assembly Mounted On Pole.....	7,997.82		200.69	
32 84 23 00-0429	Enclosure For LEIT Controller Assembly (32 84 23 00-0414) Note: Includes mounting bolts to concrete foundation and installation of enclosure per detail.				
32 84 23 00-0430	EA 12" x 12" x 54" Milled Steel, #9 Expanded Metal, Painted Per Detail, Enclosure With Access Hatch Note: For LEIT Controller	3,453.78		265.79	
32 84 23 00-0431	Hunter Controllers (32 84 23 00-0120)				
32 84 23 00-0432	Hunter XC Hybrid Controller (32 84 23 00-0431) Note: Operates DC latching solenoids with battery power or a plug in 24 VAC transformer. Includes 6 AA batteries, outdoor stainless steel enclosure and installation of controller in Irrigation Controller Enclosure.				
32 84 23 00-0433	EA 6 Station Hybrid Irrigation Controller With Stainless Steel Enclosure (Hunter XCH-600-SS).....	750.18		97.21	
32 84 23 00-0434	EA 12 Station Hybrid Irrigation Controller With Stainless Steel Enclosure (Hunter XCH-1200-SS).....	954.45		121.52	
32 84 23 00-0435	DC Latching Solenoid (32 84 23 00-0120)				
32 84 23 00-0436	EA DC Latching Solenoid (Micro Power Solenoid) For Non-LEIT Controllers..... Note: As per manufacture of valve.	42.37			
32 84 23 00-0437	EA DC Solenoid For LEIT Controllers (DIG S-305DC).....	66.00			
32 84 23 00-0438	Irrigation Controller Enclosure Cabinet (32 84 23 00-0120) Note: Includes excavation, installation of concrete foundation, mounting bolts, sweeps, number 5 concrete pull box with non-traffic rated lid and installation of enclosure per detail.				
32 84 23 00-0439	EA 35" (H) x 18" (W) x 12" (D), 12 Gauge Cold Rolled Steel Irrigation Controller Enclosure Cabinet, Powdercoated (Tan).....	3,336.65		534.31	
32 84 23 00-0440	EA 35" (H) x 24" (W) x 12" (D), 12 Gauge Cold Rolled Steel Irrigation Controller Enclosure Cabinet, Powdercoated (Tan).....	3,600.07		582.89	
32 84 23 00-0441	EA 35" (H) x 36" (W) x 12" (D), 12 Gauge Cold Rolled Steel Irrigation Controller Enclosure Cabinet, Powdercoated (Tan).....	3,977.50		631.46	
32 84 23 00-0442	EA 35" (H) x 18" (W) x 12" (D), 0.125" 5052-H-32 Aluminum Irrigation Controller Enclosure Cabinet.....	3,336.68		534.31	
32 84 23 00-0443	EA 35" (H) x 24" (W) x 12" (D), 0.125" 5052-H-32 Aluminum Steel Irrigation Controller Enclosure Cabinet.....	3,600.07		582.89	
32 84 23 00-0444	EA 35" (H) x 36" (W) x 12" (D), 0.125" 5052-H-32 Aluminum Steel Irrigation Controller Enclosure Cabinet.....	3,977.50		631.46	
32 84 23 00-0445	EA 35" (H) x 18" (W) x 12" (D), Type 304 Stainless Steel Irrigation Controller Enclosure Cabinet.....	4,139.56		534.31	
32 84 23 00-0446	EA 35" (H) x 24" (W) x 12" (D), Type 304 Stainless Steel Irrigation Controller Enclosure Cabinet.....	4,503.31		582.89	
32 84 23 00-0447	EA 35" (H) x 36" (W) x 12" (D), Type 304 Stainless Steel Irrigation Controller Enclosure Cabinet.....	4,880.74		631.46	
32 84 23 00-0448	Irrigation Valves (32 84 23)				
32 84 23 00-0449	Reduced Pressure Zone Valves With QT Shut-Offs (32 84 23 00-0448) Note: Includes ball type test cocks, two quarter-turn (QT) full port resilient seated bronze body ball valves, and captured spring assemblies (Watts 009 QT series).				
32 84 23 00-0450	EA 3/4" Threaded Reduced Pressure Zone Assembly With Quarter Turn Shut-offs (Watts 009M3 QT series).....	868.20		42.34	
32 84 23 00-0451	EA 1" Threaded Reduced Pressure Zone Assembly With Quarter Turn Shut-offs (Watts 009M2 QT series).....	1,029.57		51.70	
32 84 23 00-0452	EA 1-1/4" Threaded Reduced Pressure Zone Assembly With Quarter Turn Shut-offs (Watts 009M2 QT series).....	1,562.75		60.17	
32 84 23 00-0453	EA 1-1/2" Threaded Reduced Pressure Zone Assembly With Quarter Turn Shut-offs (Watts 009M2 QT series).....	1,650.34		69.08	
32 84 23 00-0454	EA 2" Threaded Reduced Pressure Zone Assembly With Quarter Turn Shut-offs (Watts 009M2 QT series).....	1,977.61		89.13	
32 84 23 00-0455	Brass Quick-Coupling Irrigation Valves (32 84 23 00-0448)				
32 84 23 00-0456	EA 3/4", 1-Piece Brass Body, Quick-Coupling Irrigation Valve (Rain Bird® 3RC)..... For Valve Key, Add	180.47 56.50		36.94	
32 84 23 00-0457	EA 3/4", 2-Piece Brass Body, Quick-Coupling Irrigation Valve (Rain Bird® 33DRC)..... For Locking Cover, Add For Valve Key, Add	187.00 25.00 56.50		36.94	
32 84 23 00-0458	EA 1", 1-Piece Brass Body, Quick-Coupling Irrigation Valve (Rain Bird® 44RC)..... For Valve Key, Add	258.88 144.51		36.94	

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0459	EA	1"	2-Piece Brass Body, Quick-Coupling Irrigation Valve (Rain Bird® 44LRC).....	285.01	36.94
			<i>For Valve Key, Add</i>	144.51	
32 84 23 00-0460	EA	1"	1-Piece Brass Body, Non-Potable (Purple) Quick-Coupling Irrigation Valve (Rain Bird® 5NP).....	272.71	36.94
32 84 23 00-0461	EA	1"	2-Piece Brass Body, Non-Potable (Purple) Quick-Coupling Irrigation Valve (Rain Bird® 44NP).....	285.01	36.94
32 84 23 00-0462			Anti-Siphon Pressure Type Vacuum Breaker (32 84 23 00-0448)		
			Note: Pressure: 15 to 150 PSI, temperature: 33 to 140 degrees Fahrenheit.		
32 84 23 00-0463	EA	3/4"	Anti-Siphon Pressure Type Vacuum Breaker (Watts 800M4QT).....	297.28	31.20
32 84 23 00-0464	EA	1"	Anti-Siphon Pressure Type Vacuum Breaker (Watts 800M4QT).....	428.26	35.65
32 84 23 00-0465	EA	1-1/4"	Anti-Siphon Pressure Type Vacuum Breaker (Watts 800M4QT).....	782.63	41.22
32 84 23 00-0466	EA	1-1/2"	Anti-Siphon Pressure Type Vacuum Breaker (Watts 800M4QT).....	953.75	45.68
32 84 23 00-0467	EA	2"	Anti-Siphon Pressure Type Vacuum Breaker.....	959.81	55.71
32 84 23 00-0468			Aluminum Cam And Groove Adapter (32 84 23 00-0448)		
32 84 23 00-0469	EA	1-1/2"	Type A Aluminum Cam And Groove Male Adapter x 1-1/2" NPT Female Pipe Thread.....	40.59	
32 84 23 00-0470	EA	2"	Type A Aluminum Cam And Groove Male Adapter x 2" NPT Female Pipe Thread.....	42.88	
32 84 23 00-0471	EA	1-1/2"	Type F Aluminum Cam And Groove Male Adapter x 1-1/2" NPT Male Pipe Thread.....	41.86	
32 84 23 00-0472	EA	2"	Type F Aluminum Cam And Groove Male Adapter x 2" NPT Male Pipe Thread.....	45.25	
32 84 23 00-0473			Manual Sprinkler Control Valves (32 84 23 00-0448)		
32 84 23 00-0474	EA	3/4"	Manual Sprinkler Control Valves, With Union.....	98.93	30.08
32 84 23 00-0475	EA	1"	Manual Sprinkler Control Valves, With Union.....	120.61	32.31
32 84 23 00-0476	EA	1-1/4"	Manual Sprinkler Control Valves, With Union.....	186.59	40.89
32 84 23 00-0477	EA	1-1/2"	Manual Sprinkler Control Valves, With Union.....	221.44	47.14
32 84 23 00-0478	EA	2"	Manual Sprinkler Control Valves, With Union.....	298.46	55.71
32 84 23 00-0479			Irrigation Piping (32 84 23)		
32 84 23 00-0480			Irrigation Piping With Fittings, On Grade With Pipe Stabilizers (32 84 23 00-0479)		
			Note: Install stabilizers every 20', at change of direction and at sprinkler heads less than 12" tall.		
32 84 23 00-0481			Schedule 40 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, On Grade With Pipe Stabilizers (32 84 23 00-0480)		
32 84 23 00-0482	LF	1/2"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	3.49	1.03
			<i>For >1,000, Deduct</i>	-0.17	
32 84 23 00-0483	LF	3/4"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	4.28	1.28
			<i>For >1,000, Deduct</i>	-0.21	
32 84 23 00-0484	LF	1"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	5.28	1.54
			<i>For >1,000, Deduct</i>	-0.26	
32 84 23 00-0485	LF	1-1/2"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	7.12	1.94
			<i>For >1,000, Deduct</i>	-0.36	
32 84 23 00-0486	LF	2"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	9.03	2.44
			<i>For >1,000, Deduct</i>	-0.45	
32 84 23 00-0487	LF	2-1/2"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	11.99	2.85
			<i>For >1,000, Deduct</i>	-0.60	
32 84 23 00-0488	LF	3"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	16.24	4.10
			<i>For >1,000, Deduct</i>	-0.81	
32 84 23 00-0489	LF	4"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	21.62	5.13
			<i>For >1,000, Deduct</i>	-1.08	
32 84 23 00-0490	LF	6"	Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	32.32	6.41
			<i>For >1,000, Deduct</i>	-1.62	
32 84 23 00-0491			Class 200, SDR-21 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, On Grade With Pipe Stabilizers (32 84 23 00-0480)		
32 84 23 00-0492	LF	3/4"	Class 200 Polyvinyl Chloride (PVC) Socketweld Pipe With Fittings, On Grade With Pipe Stabilizers.....	3.91	1.28
			<i>For >1,000, Deduct</i>	-0.20	
32 84 23 00-0493	LF	1"	Class 200 Polyvinyl Chloride (PVC) Socketweld Pipe With Fittings, On Grade With Pipe Stabilizers.....	4.66	1.54
			<i>For >1,000, Deduct</i>	-0.23	
32 84 23 00-0494	LF	1-1/2"	Class 200 Polyvinyl Chloride (PVC) Socketweld Pipe With Fittings, On Grade With Pipe Stabilizers.....	6.69	1.94
			<i>For >1,000, Deduct</i>	-0.33	
32 84 23 00-0495	LF	2"	Class 200 Polyvinyl Chloride (PVC) Socketweld Pipe With Fittings, On Grade With Pipe Stabilizers.....	8.67	2.44
			<i>For >1,000, Deduct</i>	-0.43	
32 84 23 00-0496	LF	2-1/2"	Class 200 Polyvinyl Chloride (PVC) Socketweld Pipe With Fittings, On Grade With Pipe Stabilizers.....	11.45	2.85
			<i>For >1,000, Deduct</i>	-0.57	
32 84 23 00-0497	LF	3"	Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	16.03	4.10
			<i>For >1,000, Deduct</i>	-0.80	
32 84 23 00-0498	LF	4"	Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	22.76	5.13
			<i>For >1,000, Deduct</i>	-1.14	
32 84 23 00-0499	LF	6"	Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	39.53	6.41
			<i>For >1,000, Deduct</i>	-1.98	
32 84 23 00-0500			Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, On Grade With Pipe Stabilizers (32 84 23 00-0480)		
32 84 23 00-0501	LF	3/4"	Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers.....	4.22	1.28
			<i>For >1,000, Deduct</i>	-0.21	



Exterior Improvements		32
Irrigation		32 80
Planting Irrigation		32 84

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0502	LF		1" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	5.08	1.54
			For >1,000, Deduct	-0.25	
32 84 23 00-0503	LF		1-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	7.49	1.94
			For >1,000, Deduct	-0.37	
32 84 23 00-0504	LF		2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	10.00	2.44
			For >1,000, Deduct	-0.50	
32 84 23 00-0505	LF		2-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	13.57	2.85
			For >1,000, Deduct	-0.88	
32 84 23 00-0506	LF		3" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	16.24	4.10
			For >1,000, Deduct	-0.81	
32 84 23 00-0507	LF		4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	21.62	5.13
			For >1,000, Deduct	-1.08	
32 84 23 00-0508	LF		6" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, On Grade With Pipe Stabilizers	33.02	6.41
			For >1,000, Deduct	-1.65	
32 84 23 00-0509			Irrigation Piping With Fittings, Trenching, Cover, Backfilled And Compacted (32 84 23 00-0479) Note: Install thrust blocks per Caltrans details for 3" piping and larger, upstream of remote control valve.		
32 84 23 00-0510			Schedule 40 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 12" Of Cover, Backfilled And Compacted (32 84 23 00-0509)		
32 84 23 00-0511	LF		3/4" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	6.40	1.28
			For >1,000, Deduct	-0.32	
32 84 23 00-0512	LF		1" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	7.41	1.54
			For >1,000, Deduct	-0.37	
32 84 23 00-0513	LF		1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	9.24	1.94
			For >1,000, Deduct	-0.46	
32 84 23 00-0514	LF		2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	11.16	2.44
			For >1,000, Deduct	-0.56	
32 84 23 00-0515	LF		2-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	14.12	2.85
			For >1,000, Deduct	-0.71	
32 84 23 00-0516	LF		3" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	18.36	4.10
			For >1,000, Deduct	-0.92	
32 84 23 00-0517	LF		4" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	23.75	5.13
			For >1,000, Deduct	-1.19	
32 84 23 00-0518	LF		6" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	34.45	6.41
			For >1,000, Deduct	-1.72	
32 84 23 00-0519			Schedule 40 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 18" Of Cover, Backfilled And Compacted (32 84 23 00-0509)		
32 84 23 00-0520	LF		3/4" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	6.67	1.28
			For >1,000, Deduct	-0.33	
32 84 23 00-0521	LF		1" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	7.67	1.54
			For >1,000, Deduct	-0.38	
32 84 23 00-0522	LF		1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	9.51	1.94
			For >1,000, Deduct	-0.48	
32 84 23 00-0523	LF		2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	11.42	2.44
			For >1,000, Deduct	-0.57	
32 84 23 00-0524	LF		2-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	14.38	2.85
			For >1,000, Deduct	-0.72	
32 84 23 00-0525	LF		3" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	18.63	4.10
			For >1,000, Deduct	-0.93	
32 84 23 00-0526	LF		4" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	24.01	5.13
			For >1,000, Deduct	-1.20	
32 84 23 00-0527	LF		6" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	34.71	6.41
			For >1,000, Deduct	-1.74	
32 84 23 00-0528			Schedule 40 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 24" Of Cover, Backfilled And Compacted (32 84 23 00-0509)		
32 84 23 00-0529	LF		3/4" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	6.93	1.28
			For >1,000, Deduct	-0.35	
32 84 23 00-0530	LF		1" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	7.94	1.54
			For >1,000, Deduct	-0.40	
32 84 23 00-0531	LF		1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	9.77	1.94
			For >1,000, Deduct	-0.49	
32 84 23 00-0532	LF		2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	11.67	2.44
			For >1,000, Deduct	-0.58	
32 84 23 00-0533	LF		2-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	14.64	2.85
			For >1,000, Deduct	-0.73	
32 84 23 00-0534	LF		3" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	18.89	4.10
			For >1,000, Deduct	-0.94	
32 84 23 00-0535	LF		4" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	24.26	5.13
			For >1,000, Deduct	-1.21	
32 84 23 00-0536	LF		6" Schedule 40 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	34.96	6.41
			For >1,000, Deduct	-1.75	
32 84 23 00-0537			Class 200, SDR-21 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 12" Of Cover, Backfilled And Compacted (32 84 23 00-0509)		

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0538	LF	3/4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	6.21	1.28
		<i>For >1,000, Deduct</i>	-0.31	
32 84 23 00-0539	LF	1" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	7.09	1.54
		<i>For >1,000, Deduct</i>	-0.35	
32 84 23 00-0540	LF	1-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	9.26	1.94
		<i>For >1,000, Deduct</i>	-0.46	
32 84 23 00-0541	LF	2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	11.80	2.44
		<i>For >1,000, Deduct</i>	-0.59	
32 84 23 00-0542	LF	2-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	15.17	2.85
		<i>For >1,000, Deduct</i>	-0.76	
32 84 23 00-0543	LF	3" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	18.15	4.10
		<i>For >1,000, Deduct</i>	-0.91	
32 84 23 00-0544	LF	4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	24.89	5.13
		<i>For >1,000, Deduct</i>	-1.24	
32 84 23 00-0545	LF	6" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	41.66	6.41
		<i>For >1,000, Deduct</i>	-2.08	
32 84 23 00-0546 Class 200, SDR-21 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 18" Of Cover, Backfilled And Compacted (32 84 23 00-0509)				
32 84 23 00-0547	LF	3/4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted.....	6.48	1.28
		<i>For >1,000, Deduct</i>	-0.32	
32 84 23 00-0548	LF	1" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted.....	7.35	1.54
		<i>For >1,000, Deduct</i>	-0.37	
32 84 23 00-0549	LF	1-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	9.53	1.94
		<i>For >1,000, Deduct</i>	-0.48	
32 84 23 00-0550	LF	2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted.....	12.06	2.44
		<i>For >1,000, Deduct</i>	-0.60	
32 84 23 00-0551	LF	2-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	15.43	2.85
		<i>For >1,000, Deduct</i>	-0.77	
32 84 23 00-0552	LF	3" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	18.42	4.10
		<i>For >1,000, Deduct</i>	-0.92	
32 84 23 00-0553	LF	4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	25.15	5.13
		<i>For >1,000, Deduct</i>	-1.26	
32 84 23 00-0554	LF	6" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	41.92	6.41
		<i>For >1,000, Deduct</i>	-2.10	
32 84 23 00-0555 Class 200, SDR-21 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 24" Of Cover, Backfilled And Compacted (32 84 23 00-0509)				
32 84 23 00-0556	LF	3/4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted.....	6.74	1.28
		<i>For >1,000, Deduct</i>	-0.34	
32 84 23 00-0557	LF	1" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted.....	7.62	1.54
		<i>For >1,000, Deduct</i>	-0.38	
32 84 23 00-0558	LF	1-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	9.79	1.94
		<i>For >1,000, Deduct</i>	-0.49	
32 84 23 00-0559	LF	2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted.....	12.31	2.44
		<i>For >1,000, Deduct</i>	-0.62	
32 84 23 00-0560	LF	2-1/2" Class 200, SDR-21 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	15.69	2.85
		<i>For >1,000, Deduct</i>	-0.78	
32 84 23 00-0561	LF	3" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	18.68	4.10
		<i>For >1,000, Deduct</i>	-0.93	
32 84 23 00-0562	LF	4" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	25.40	5.13
		<i>For >1,000, Deduct</i>	-1.27	
32 84 23 00-0563	LF	6" Class 200, SDR-21 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	42.17	6.41
		<i>For >1,000, Deduct</i>	-2.11	
32 84 23 00-0564 Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 12" Of Cover, Backfilled And Compacted (32 84 23 00-0509)				
32 84 23 00-0565	LF	3/4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	6.34	1.28
		<i>For >1,000, Deduct</i>	-0.32	
32 84 23 00-0566	LF	1" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	7.21	1.54
		<i>For >1,000, Deduct</i>	-0.36	
32 84 23 00-0567	LF	1-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	9.61	1.94
		<i>For >1,000, Deduct</i>	-0.48	
32 84 23 00-0568	LF	2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted.....	12.13	2.44
		<i>For >1,000, Deduct</i>	-0.61	
32 84 23 00-0569	LF	2-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	15.69	2.85
		<i>For >1,000, Deduct</i>	-0.78	
32 84 23 00-0570	LF	3" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	18.36	4.10
		<i>For >1,000, Deduct</i>	-0.92	



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
32 84 23 00-0571	LF	4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	23.75		5.13
		For >1,000, Deduct	-1.19		
32 84 23 00-0572	LF	6" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 12" Of Cover, Backfilled And Compacted	35.15		6.41
		For >1,000, Deduct	-1.76		
32 84 23 00-0573 Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 18" Of Cover, Backfilled And Compacted (32 84 23 00-0509)					
32 84 23 00-0574	LF	3/4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	6.61		1.28
		For >1,000, Deduct	-0.33		
32 84 23 00-0575	LF	1" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	7.47		1.54
		For >1,000, Deduct	-0.37		
32 84 23 00-0576	LF	1-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	9.88		1.94
		For >1,000, Deduct	-0.49		
32 84 23 00-0577	LF	2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	12.39		2.44
		For >1,000, Deduct	-0.62		
32 84 23 00-0578	LF	2-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	15.95		2.85
		For >1,000, Deduct	-0.80		
32 84 23 00-0579	LF	3" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	18.63		4.10
		For >1,000, Deduct	-0.93		
32 84 23 00-0580	LF	4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	24.01		5.13
		For >1,000, Deduct	-1.20		
32 84 23 00-0581	LF	6" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 18" Of Cover, Backfilled And Compacted	35.41		6.41
		For >1,000, Deduct	-1.77		
32 84 23 00-0582 Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Irrigation Piping With Fittings, Trenching, 24" Of Cover, Backfilled And Compacted (32 84 23 00-0509)					
32 84 23 00-0583	LF	3/4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	6.87		1.28
		For >1,000, Deduct	-0.34		
32 84 23 00-0584	LF	1" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	7.74		1.54
		For >1,000, Deduct	-0.39		
32 84 23 00-0585	LF	1-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	10.14		1.94
		For >1,000, Deduct	-0.51		
32 84 23 00-0586	LF	2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	12.64		2.44
		For >1,000, Deduct	-0.63		
32 84 23 00-0587	LF	2-1/2" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	16.21		2.85
		For >1,000, Deduct	-0.81		
32 84 23 00-0588	LF	3" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	18.89		4.10
		For >1,000, Deduct	-0.94		
32 84 23 00-0589	LF	4" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	24.26		5.13
		For >1,000, Deduct	-1.21		
32 84 23 00-0590	LF	6" Class 315, SDR-13.5 Polyvinyl Chloride (PVC) Gasketed Pipe With Fittings, 24" Of Cover, Backfilled And Compacted	35.66		6.41
		For >1,000, Deduct	-1.78		
32 84 23 00-0591 Irrigation Riser Piping With Fittings (32 84 23 00-0479)					
32 84 23 00-0592	EA	1/2" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 6" Exposed, Type IV	20.03		3.07
		Note: Includes #4 steel reinforcing bar, stainless steel hose clamp			
32 84 23 00-0593	EA	3/4" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 6" Exposed, Type IV	21.61		3.85
		Note: Includes #4 steel reinforcing bar, stainless steel hose clamp			
32 84 23 00-0594	EA	1/2" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 12" Exposed, Type IV	21.42		3.59
		Note: Includes #4 steel reinforcing bar, stainless steel hose clamp			
32 84 23 00-0595	EA	3/4" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 12" Exposed, Type IV	23.36		4.48
		Note: Includes #4 steel reinforcing bar, stainless steel hose clamp			
32 84 23 00-0596	EA	1/2" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 24" Exposed, Type I	43.23		5.39
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0597	EA	3/4" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 24" Exposed, Type I	45.99		6.73
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0598	EA	1/2" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 36" Exposed, Type I	50.82		6.92
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0599	EA	3/4" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 36" Exposed, Type I	54.38		8.66
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0600	EA	1/2" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 48" Exposed, Type I	58.42		8.46
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0601	EA	3/4" Polyvinyl Chloride (PVC) Riser Pipe With Fittings, 48" Exposed, Type I	62.77		10.58
		Note: Includes 2" diameter lodge poll support stake, two stainless steel sprinkler ties			
32 84 23 00-0602 Irrigation Crossover Piping With Fittings (32 84 23 00-0479)					
		Note: Install per Caltrans details. Includes thrust blocks, HDPE sleeve pipe and fittings, 3" pvc irrigation piping and 1" electrical pvc conduit. Excludes #5 concrete irrigation pull boxes on ends, electrical control wiring. See CSI section 32 84 23 00-0105 for #5 concrete pull box, 32 84 23 00-0646 for irrigation wiring.			

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 84 23 00-0603	Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 24" Open Trench (32 84 23 00-0602)	
32 84 23 00-0604	LF 6" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 24" Open Trench Installation.....	48.19
	For >1,000, Deduct.....	-2.41
32 84 23 00-0605	LF 8" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 24" Open Trench Installation.....	69.57
	For >1,000, Deduct.....	-3.48
32 84 23 00-0606	LF 10" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 24" Open Trench Installation.....	97.60
	For >1,000, Deduct.....	-4.88
32 84 23 00-0607	LF 12" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 24" Open Trench Installation.....	130.16
	For >1,000, Deduct.....	-6.51
32 84 23 00-0608	Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 36" Open Trench (32 84 23 00-0602)	
32 84 23 00-0609	LF 6" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 36" Open Trench Installation.....	48.97
	For >1,000, Deduct.....	-2.45
32 84 23 00-0610	LF 8" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 36" Open Trench Installation.....	70.43
	For >1,000, Deduct.....	-3.52
32 84 23 00-0611	LF 10" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 36" Open Trench Installation.....	98.55
	For >1,000, Deduct.....	-4.93
32 84 23 00-0612	LF 12" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 36" Open Trench Installation.....	131.19
	For >1,000, Deduct.....	-6.56
32 84 23 00-0613	Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 48" Open Trench (32 84 23 00-0602)	
32 84 23 00-0614	LF 6" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 48" Open Trench Installation.....	49.74
	For >1,000, Deduct.....	-2.49
32 84 23 00-0615	LF 8" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 48" Open Trench Installation.....	71.29
	For >1,000, Deduct.....	-3.56
32 84 23 00-0616	LF 10" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 48" Open Trench Installation.....	99.50
	For >1,000, Deduct.....	-4.98
32 84 23 00-0617	LF 12" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), 48" Open Trench Installation.....	132.22
	For >1,000, Deduct.....	-6.61
32 84 23 00-0618	Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), Directional Bore (32 84 23 00-0602)	
32 84 23 00-0619	LF 6" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), Directional Bore Installation.....	108.46
	For >1,000, Deduct.....	-5.42
32 84 23 00-0620	LF 8" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), Directional Bore Installation.....	142.03
	For >1,000, Deduct.....	-7.10
32 84 23 00-0621	LF 10" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), Directional Bore Installation.....	176.07
	For >1,000, Deduct.....	-8.80
32 84 23 00-0622	LF 12" Irrigation Crossover, Corrugated High Density Polyethylene Pipe (CHDPE), Directional Bore Installation.....	214.64
	For >1,000, Deduct.....	-10.73
32 84 23 00-0623	Below Ground Cam Adapter Assembly (32 84 23 00-0479) Note: Includes minimum 6" depth gravel or crushed rock, woven wire cloth, jumbo valve box with 15" x 21.5" cover, 1-1/2" brass ball valve, 1-1/2" aluminum male cam adapter x female NPT, 1-1/2" PVC elbow, 2" PVC reducing tee, 30" PVC pipe	
32 84 23 00-0624	EA Below Ground Cam Adapter Assembly.....	702.67
	Note: Includes 6" depth gravel or crushed rock, woven wire cloth, jumbo valve box with 15" x 21.5" cover, 1-1/2" brass ball valve, 1-1/2" aluminum male cam adapter x female NPT, 1-1/2" PVC elbow, 2" PVC reducing tee, 30" PVC pipe.	
32 84 23 00-0625	Above Ground Cam Adapter Assembly (32 84 23 00-0479) Note: Includes concrete thrust block, 1-1/2" plastic ball valve, 1-1/2" aluminum male cam adapter x female NPT, 1-1/2" PVC elbow, 2" PVC reducing tee, 30" PVC pipe	
32 84 23 00-0626	EA Above Ground Cam Adapter Assembly.....	431.83
	Note: Includes concrete thrust block, 1-1/2" plastic ball valve, 1-1/2" aluminum male cam adapter x female NPT, 1-1/2" PVC elbow, 2" PVC reducing tee, 30" PVC pipe.	
32 84 23 00-0627	Thrust Block (32 84 23 00-0479)	
32 84 23 00-0628	EA Thrust Block For 1-1/2" Pipe Size And Smaller.....	36.69
32 84 23 00-0629	EA Thrust Block For 2" Pipe.....	62.79
32 84 23 00-0630	EA Thrust Block For 3" And 4" Pipe.....	88.86
32 84 23 00-0631	EA Thrust Block For 6" Pipe.....	141.62
32 84 23 00-0632	EA Thrust Block For 8" Pipe.....	200.41
32 84 23 00-0633	Irrigation Swing Joints (32 84 23)	
32 84 23 00-0634	EA 3/4" Male NPT, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint (Rain Bird® TSJ12075).....	69.05
		20.42
32 84 23 00-0635	EA 1" Male NPT, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint (Rain Bird® TSJ12).....	78.78
		22.80
32 84 23 00-0636	EA 1" Male NPT, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint With 70 PSI Pressure Regulator (Rain Bird® TSJ100PRS).....	109.53
		22.80



Exterior Improvements			32
Irrigation			32 80
Planting Irrigation			32 84

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 84 23 00-0637 EA 1/2" Diameter, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type I.....	43.56	26.61
Note: Consists of three threaded 90 degree elbows and 12" threaded pipe.		
32 84 23 00-0638 EA 3/4" Diameter, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type I.....	58.21	35.50
Note: Consists of three threaded 90 degree elbows and 12" threaded pipe.		
32 84 23 00-0639 EA 1" Diameter, 12" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type I.....	73.54	43.53
Note: Consists of three threaded 90 degree elbows and 12" threaded pipe.		
32 84 23 00-0640 EA 1/2" Diameter, 24" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRAN Type II.....	61.67	27.03
Note: Consists of one threaded 90 degree elbow, one threaded x socket 90 degree elbow, one adapter and 24" threaded pipe.		
32 84 23 00-0641 EA 3/4" Diameter, 24" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRAN Type II.....	81.55	35.86
Note: Consists of one threaded 90 degree elbow, one threaded x socket 90 degree elbow, one adapter and 24" threaded pipe.		
32 84 23 00-0642 EA 1" Diameter, 24" Length, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRAN Type II.....	100.56	43.97
Note: Consists of one threaded 90 degree elbow, one threaded x socket 90 degree elbow, one adapter and 24" threaded pipe.		
32 84 23 00-0643 EA 1/2" Diameter, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type III.....	34.76	16.55
Note: Consists of two street 90 degree elbows.		
32 84 23 00-0644 EA 3/4" Diameter, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type III.....	46.47	22.07
Note: Consists of two street 90 degree elbows.		
32 84 23 00-0645 EA 1" Diameter, Polyvinyl Chloride (PVC) Irrigation Swing Joint, CALTRANS Type III.....	55.41	27.37
Note: Consists of two street 90 degree elbows.		
32 84 23 00-0646 Irrigation Control Wire (32 84 23)		
Note: Excludes excavation and backfill.		
32 84 23 00-0647 18 AWG, Irrigation Control Wire, Buried In Trench (32 84 23 00-0646)		
32 84 23 00-0648 CLF 1-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	51.29	15.39
32 84 23 00-0649 CLF 2-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	67.82	17.96
32 84 23 00-0650 CLF 3-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	78.07	20.52
32 84 23 00-0651 CLF 4-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	89.47	23.09
32 84 23 00-0652 CLF 5-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	101.99	25.66
32 84 23 00-0653 CLF 6-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	122.52	28.21
32 84 23 00-0654 CLF 7-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	142.17	30.78
32 84 23 00-0655 CLF 8-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	154.51	33.34
32 84 23 00-0656 CLF 9-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	169.83	35.91
32 84 23 00-0657 CLF 10-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	187.51	38.47
32 84 23 00-0658 CLF 11-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	193.75	41.04
32 84 23 00-0659 CLF 12-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	201.16	43.61
32 84 23 00-0660 CLF 13-Conductor, 18 AWG, Irrigation Control Wire, Buried In Trench.....	212.19	46.17
32 84 23 00-0661 16 AWG, Irrigation Control Wire, Buried In Trench (32 84 23 00-0646)		
32 84 23 00-0662 CLF 1-Conductor, 16 AWG, Irrigation Control Wire, Buried In Trench.....	54.32	15.39
32 84 23 00-0663 14 AWG, Irrigation Control Wire, Buried In Trench (32 84 23 00-0646)		
32 84 23 00-0664 CLF 1-Conductor, 14 AWG, Irrigation Control Wire, Buried In Trench.....	54.33	15.39
32 84 23 00-0665 12 AWG, Irrigation Control Wire, Buried In Trench (32 84 23 00-0646)		
32 84 23 00-0666 CLF 1-Conductor, 12 AWG, Irrigation Control Wire, Buried In Trench.....	74.36	15.39
32 84 23 00-0667 10 AWG, Irrigation Control Wire, Buried In Trench (32 84 23 00-0646)		
32 84 23 00-0668 CLF 1-Conductor, 10 AWG, Irrigation Control Wire, Buried In Trench.....	99.75	15.39
32 84 23 00-0669 Root Watering Systems (32 84 23)		
Note: Includes swing assembly.		
32 84 23 00-0670 EA 0.25 GPM Bubbler On Riser, 36" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-B-1401).....	114.39	20.52
For Root Watering Sand Sock, Add	5.36	
32 84 23 00-0671 EA 0.25 GPM Bubbler And Check Valve On Riser, 36" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-B-C-1401).....	124.56	20.52
For Root Watering Sand Sock, Add	5.36	
32 84 23 00-0672 EA 0.5 GPM Bubbler On Riser, 36" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-B-1402).....	114.39	20.52
For Root Watering Sand Sock, Add	5.36	
32 84 23 00-0673 EA 0.5 GPM Bubbler And Check Valve On Riser, 36" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-B-C-1402).....	124.56	20.52
For Root Watering Sand Sock, Add	5.36	
32 84 23 00-0674 EA 1 GPM Bubbler And Check Valve On Riser, 36" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-B-C-1404).....	124.56	20.52
For Root Watering Sand Sock, Add	5.36	
32 84 23 00-0675 EA 0.25 GPM Bubbler On Riser, 18" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-M-B-1401).....	99.17	17.96
For Root Watering Sand Sock, Add	4.85	
32 84 23 00-0676 EA 0.25 GPM Bubbler And Check Valve On Riser, 18" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-M-B-C-1401).....	108.93	17.96
For Root Watering Sand Sock, Add	4.85	
32 84 23 00-0677 EA 0.5 GPM Bubbler On Riser, 18" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-M-B-1402).....	99.17	17.96
For Root Watering Sand Sock, Add	4.85	
32 84 23 00-0678 EA 0.5 GPM Bubbler And Check Valve On Riser, 18" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-M-B-C-1402).....	108.93	17.96
For Root Watering Sand Sock, Add	4.85	

32 Exterior Improvements**32 80 Irrigation****32 84 Planting Irrigation**

MINOR
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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 84 23 00-0679	EA	0.25 GPM Bubbler On Riser, 10" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-S-B-1401)	64.43	15.39
		<i>For Root Watering Sand Sock, Add</i>	4.35	
32 84 23 00-0680	EA	0.25 GPM Bubbler And Check Valve On Riser, 10" Tube, 4" Diameter Grate, Root Watering System (Rain Bird® RWS-S-B-C-1401)	73.73	15.39
		<i>For Root Watering Sand Sock, Add</i>	4.35	

32 90 Planting ⁽³²⁾

Note: Plant installation includes the initial watering only. The extended watering period for the establishment of lawns, plants and trees is addressed on a per plant per amount per occurrence basis as directed in the specification. cvs = cultivar or cultivated varieties. See CSI section 32 01 90 26-0000 for additional "extended watering period" tasks.

32 91 Planting Preparation ^(32 90)**32 91 13 Soil Preparation** ^(32 91)**32 91 13 16 Mulching** ^(32 91 13)**32 91 13 16-0001 Mulch** ^(32 91 13 16)

Note: Includes loading, delivery up to 15 miles and spreading. 1 CY = 108 SF of mulch spread 3" thick. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.

32 91 13 16-0002	CY	Pine Bark Nugget Mulch	102.32	
		<i>For >5 To 20, Deduct</i>	-8.97	
		<i>For >20 To 50, Deduct</i>	-13.45	
		<i>For >50, Deduct</i>	-18.57	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0003	CY	Hardwood Bark Nugget Mulch	101.31	
		<i>For >5 To 20, Deduct</i>	-8.92	
		<i>For >20 To 50, Deduct</i>	-13.37	
		<i>For >50, Deduct</i>	-18.44	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0004	CY	Pine Wood Chip Mulch	99.29	
		<i>For >5 To 20, Deduct</i>	-8.81	
		<i>For >20 To 50, Deduct</i>	-13.22	
		<i>For >50, Deduct</i>	-18.19	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0005	CY	Hardwood Chip Mulch	103.34	
		<i>For >5 To 20, Deduct</i>	-9.02	
		<i>For >20 To 50, Deduct</i>	-13.53	
		<i>For >50, Deduct</i>	-18.69	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0006	CY	Shredded Hardwood Mulch	103.34	
		<i>For >5 To 20, Deduct</i>	-9.02	
		<i>For >20 To 50, Deduct</i>	-13.53	
		<i>For >50, Deduct</i>	-18.69	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0007	CY	Shredded Pine Mulch	94.22	
		<i>For >5 To 20, Deduct</i>	-8.56	
		<i>For >20 To 50, Deduct</i>	-12.84	
		<i>For >50, Deduct</i>	-17.55	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0008	CY	Shredded Cedar Mulch	113.97	
		<i>For >5 To 20, Deduct</i>	-9.55	
		<i>For >20 To 50, Deduct</i>	-14.32	
		<i>For >50, Deduct</i>	-20.02	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0009	CY	Shredded Cypress Mulch	112.46	
		<i>For >5 To 20, Deduct</i>	-9.47	
		<i>For >20 To 50, Deduct</i>	-14.21	
		<i>For >50, Deduct</i>	-19.83	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0010	CY	Shredded Redwood Mulch	116.51	
		<i>For >5 To 20, Deduct</i>	-9.68	
		<i>For >20 To 50, Deduct</i>	-14.51	
		<i>For >50, Deduct</i>	-20.34	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0011	CY	Pea Gravel Mulch	130.76	
		<i>For >5 To 20, Deduct</i>	-10.39	
		<i>For >20 To 50, Deduct</i>	-15.58	
		<i>For >50, Deduct</i>	-22.12	
		<i>For Work On Slopes >2.5:1, Add</i>	15.40	
32 91 13 16-0012	CY	Chunk Recycled Tire Mulch	169.32	
		<i>For >5 To 20, Deduct</i>	-13.39	
		<i>For >20 To 50, Deduct</i>	-20.08	
		<i>For >50, Deduct</i>	-28.55	
		<i>For Work On Slopes >2.5:1, Add</i>	19.68	
32 91 13 16-0013	CY	Chunk Colored Recycled Tire Mulch	239.22	
		<i>For >5 To 20, Deduct</i>	-16.88	
		<i>For >20 To 50, Deduct</i>	-25.32	
		<i>For >50, Deduct</i>	-37.28	
		<i>For Work On Slopes >2.5:1, Add</i>	19.68	
32 91 13 16-0014	CY	Shredded Recycled Tire Mulch	240.23	
		<i>For >5 To 20, Deduct</i>	-16.93	
		<i>For >20 To 50, Deduct</i>	-25.40	
		<i>For >50, Deduct</i>	-37.41	
		<i>For Work On Slopes >2.5:1, Add</i>	19.68	



Exterior Improvements			32
Planting			32 90
Planting Preparation			32 91

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 91 13 16-0015	CY		Shredded Colored Recycled Tire Mulch	380.02	
			For >5 To 20, Deduct	-23.92	
			For >20 To 50, Deduct	-35.88	
			For >50, Deduct	-54.88	
			For Work On Slopes >2.5:1, Add	19.68	
32 91 13 16-0016	EA		Pine Straw Mulch Bale.....	7.88	
			Note: Covers 50 SF at a thickness of 2" to 4" forming a uniform mat through which none of the original ground surface can be seen.		
			For >100 To 250, Deduct	-0.61	
			For >250 To 500, Deduct	-0.83	
			For >500, Deduct	-1.01	
			For Work On Slopes >2.5:1, Add	0.87	
32 91 13 16-0017	EA		Wheat Straw Mulch Bale	7.42	
			Note: Covers 350 SF forming a uniform mat through which 20 to 40% of the original ground surface can be seen.		
			For >100 To 250, Deduct	-0.53	
			For >250 To 500, Deduct	-0.70	
			For >500, Deduct	-0.91	
			For Work On Slopes >2.5:1, Add	0.65	
32 91 13 16-0018	CY		Stone/Gravel Mulch, Marble Chips	306.99	
			For >5 To 20, Deduct	-19.20	
			For >20 To 50, Deduct	-28.80	
			For >50, Deduct	-44.15	
			For Work On Slopes >2.5:1, Add	15.40	
32 91 13 16-0019	CY		Stone Mulch, Decomposed Granite Chips.....	109.17	
			For >5 To 20, Deduct	-9.31	
			For >20 To 50, Deduct	-13.96	
			For >50, Deduct	-19.42	
			For Work On Slopes >2.5:1, Add	15.40	
32 91 13 16-0020			Compost Soil Amendment (AgriService) (32 91 13 16)		
			Note: Includes loading, delivery up to 15 miles and spreading. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles.		
32 91 13 16-0021	CY		Humic Compost (OIM).....	97.42	
			Note: (Agri Service or Equal)		
			For Work On Slopes >2.5:1, Add	15.40	
			For >100 To 1,000, Deduct	-16.42	
			For >1,000, Deduct	-25.14	
32 91 13 26			Planting Beds (32 91 13)		
			Note: Not for use when installing trees and shrubs.		
32 91 13 26-0001			Plant Bed Preparation (32 91 13 26)		
			Note: Not for use when installing trees and shrubs.		
32 91 13 26-0002	SF		Up To 8" Deep, Prepare And Mix Plant Bed, By Machine	1.22	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	0.24	
32 91 13 26-0003	SF		>8" To 13" Deep, Prepare And Mix Plant Bed, By Machine.....	1.39	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	0.28	
32 91 13 26-0004	SF		>13" To 18" Deep, Prepare And Mix Plant Bed, By Machine.....	1.64	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	0.33	
32 91 13 26-0005	SF		Up To 8" Deep, Prepare And Mix Plant Bed By Hand	5.62	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	1.12	
32 91 13 26-0006	SF		>8" To 13" Deep, Prepare And Mix Plant Bed By Hand.....	6.46	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	1.29	
32 91 13 26-0007	SF		>13" To 18" Deep, Prepare And Mix Plant Bed By Hand.....	7.59	
			Note: Includes loosening subgrade, removing stones, sticks, roots, rubbish, and raking surface. Excludes soil amendments.		
			For Work On Slopes >2.5:1, Add	1.52	
32 91 13 26-0008			Plant Bed Preparation With Humic Compost (32 91 13 26)		
32 91 13 26-0009	SF		Prepare And Mix Plant Bed By Rototiller, Up To 8" Deep, Mixing Humic Compost (Mixed At Rate Of 3 CY Per 1,000 SF).....	1.36	
			Note: Includes loosening subgrade, removing rubbish, mixing humic compost and raking surface.		
			For Work On Slopes >2.5:1, Add	0.26	
			For >1,000 To 5,000, Deduct	-0.20	
			For >5,000 To 10,000, Deduct	-0.33	
			For >10,000 To 20,000, Deduct	-0.65	
			For >20,000, Deduct	-0.92	

32 Exterior Improvements**32 90 Planting****32 91 Planting Preparation**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 91 13 26-0010	SF	Prepare And Mix Plant Bed By Rototiller, Up To 8" Deep, Mixing Humic Compost (Mixed At Rate Of 6 CY Per 1,000 SF).....	1.68	
		Note: Includes loosening subgrade, removing rubbish, mixing humic compost and raking surface.		
		For Work On Slopes >2.5:1, Add	0.31	
		For >1,000 To 5,000, Deduct	-0.23	
		For >5,000 To 10,000, Deduct	-0.39	
		For >10,000 To 20,000, Deduct	-0.79	
		For >20,000, Deduct	-1.10	
32 91 13 26-0011	SF	Prepare And Mix Plant Bed By Rototiller, Up To 8" Deep, Mixing Humic Compost (Mixed At Rate Of 9 CY Per 1,000 SF).....	2.00	
		Note: Includes loosening subgrade, removing rubbish, mixing humic compost and raking surface.		
		For Work On Slopes >2.5:1, Add	0.36	
		For >1,000 To 5,000, Deduct	-0.27	
		For >5,000 To 10,000, Deduct	-0.46	
		For >10,000 To 20,000, Deduct	-0.92	
		For >20,000, Deduct	-1.29	

32 91 13 26-0012 Planting Pit Preparation (32 91 13 26)

Note: Not for use when installing trees and shrubs.

32 91 13 26-0013	CY	Excavate Planting Pit By Hand, Sandy Soil	97.21	
		Note: For use with existing planting pits.		
		For Work On Slopes >2.5:1, Add	19.44	
32 91 13 26-0014	CY	Excavate Planting Pit By Hand, Heavy Soil	194.43	
		Note: For use with existing planting pits.		
		For Work On Slopes >2.5:1, Add	38.89	
32 91 13 26-0015	CY	Excavate Planting Pit By Machine, Sandy Soil	14.82	
		Note: For use with existing planting pits.		
		For Work On Slopes >2.5:1, Add	2.96	
32 91 13 26-0016	CY	Excavate Planting Pit By Machine, Heavy Soil	19.28	
		Note: For use with existing planting pits.		
		For Work On Slopes >2.5:1, Add	3.86	
32 91 13 26-0017	CY	Backfill Planting Pit By Hand With Topsoil From Stockpile	86.39	
		For Work On Slopes >2.5:1, Add	17.28	
32 91 13 26-0018	CY	Backfill Planting Pit By Hand With Contractor Furnished Planting Mix	109.09	
		For Work On Slopes >2.5:1, Add	15.53	
32 91 13 26-0019	CY	Backfill Planting Pit By Machine, With Topsoil From Stockpile	8.21	
		For Work On Slopes >2.5:1, Add	1.64	
32 91 13 26-0020	CY	Backfill Planting Pit By Machine, With Contractor Furnished Planting Mix	51.07	
		For Work On Slopes >2.5:1, Add	3.93	

32 91 13 26-0021 Weed Barrier (32 91 13 26)

32 91 13 26-0022	SY	Up To 3 Oz/SY Non-Woven, Polypropylene Weed Barrier	2.44	
		For Work On Slopes >2.5:1, Add	0.15	
32 91 13 26-0023	SY	4 Oz/SY Woven, Polypropylene Weed Barrier	3.29	
		For Work On Slopes >2.5:1, Add	0.15	
32 91 13 26-0024	SY	5 Oz/SY Woven, Needle Punched Polypropylene Weed Barrier	3.67	
		For Work On Slopes >2.5:1, Add	0.15	

32 91 13 33 Soil Conditioners (32 91 13)**32 91 13 33-0001 Spread Soil Conditioners (32 91 13 33)**

32 91 13 33-0002	SY	Aluminum Sulfate 1 LB/SY, Push Spreader	0.44	
32 91 13 33-0003	MSF	Aluminum Sulfate 110 LB/MSF Tractor Spreader	40.87	
32 91 13 33-0004	MSF	Fertilizer, 20 LB/MSF, Push Spreader	7.87	
32 91 13 33-0005	MSF	Fertilizer, 20 LB/MSF, Tractor Spread	3.13	
32 91 13 33-0006	MSF	Fertilizer, 20 LB/MSF, Truck Spread	5.56	
32 91 13 33-0007	SY	Pelletized Lime, 1 LB/SY, Push Spreader	0.11	
32 91 13 33-0008	MSF	Pelletized Lime, 110 LB/MSF, Tractor Spreader	7.83	
32 91 13 33-0009	SY	Perlite, 1" Deep, Push Spreader	3.72	
32 91 13 33-0010	MSF	Perlite, 1" Deep, Tractor Spreader	385.57	
32 91 13 33-0011	SY	Vermiculite, Push Spreader	3.45	
32 91 13 33-0012	MSF	Vermiculite, Tractor Spreader	376.64	
32 91 13 33-0013	SY	Humate Granular Soil Conditioner, 0.10 LB/SY, Push Spreader	0.23	
32 91 13 33-0014	MSF	Humate Granular Soil Conditioner, 10 LB/MSF, Tractor Spreader	20.47	

32 91 13 36 Lawn Bed Preparation (32 91 13)**32 91 13 36-0001 Lawn Bed Preparation (32 91 13 36)**

32 91 13 36-0002	MSF	Rake Topsoil With Machine	93.18	
32 91 13 36-0003	MSF	Rake Topsoil By Hand	77.76	
32 91 13 36-0004	MSF	Screen Loam By Hand	51.84	
32 91 13 36-0005	SY	Roll Topsoil With Machine	1.19	
32 91 13 36-0006	SY	Roll Topsoil By Hand	3.47	
32 91 13 36-0007	MSF	Removal Of Rocks And Debris With Machine	11.02	
32 91 13 36-0008	MSF	Removal Of Rocks And Debris By Hand	34.59	
32 91 13 36-0009	MSF	Root Raking And Loading, No Boulders	57.66	
		For >45 to 225, Deduct	-40.36	
		For >225, Deduct	-51.89	



Exterior Improvements		32
Planting		32 90
Planting Preparation		32 91

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 91	13 36-0010	MSF	Root Raking And Loading, With Boulders..... <i>For >45 to 225, Deduct</i> <i>For >225, Deduct</i>	96.11 -67.28 -86.50	
32 91	13 36-0011	MSF	Up To 6" Deep Tilling Topsoil With Tractor.....	5.13	
32 91	13 36-0012	MSF	>6" To 12" Deep Tilling Topsoil With Tractor..... <i>For Work On Slopes >2.5:1, Add</i>	10.40 2.08	
32 91	13 36-0013	SY	Up To 2" Deep Tilling Topsoil With Rototiller.....	0.83	
32 91	13 36-0014	SY	>2" To 4" Deep Tilling Topsoil With Rototiller.....	0.99	
32 91	13 36-0015	SY	>4" To 6" Deep Tilling Topsoil With Rototiller.....	1.24	
32 91	13 36-0016	LF	"V" Cut Soil For Edge Of Planting Beds.....	1.38	
32 91	13 36-0017		Sod Removal (32 91 13 36)		
32 91	13 36-0018	SY	Removal Of Sod By Hand..... <i>For Work On Slopes >2.5:1, Add</i>	6.56 1.31	
32 91	13 36-0019	SY	Removal Of Sod With Machine..... <i>For Work On Slopes >2.5:1, Add</i>	0.70 0.14	
32 91	13 36-0020	SY	Pile Sod By Hand..... <i>For Work On Slopes >2.5:1, Add</i>	3.89 0.78	
32 91	13 36-0021	SY	Pile Sod With Machine..... <i>For Work On Slopes >2.5:1, Add</i>	1.30 0.26	
32 91	19		Landscape Grading (32 91)		
32 91	19 13		Topsoil Placement and Grading (32 91 19)		
32 91	19 13-0001		Remove And Stockpile Topsoil On Site (32 91 19 13)		
32 91	19 13-0002	CY	Removal Of Topsoil, 4" Deep Stockpile On Site.....	5.29	
32 91	19 13-0003	CY	Removal Of Topsoil, 6" Deep Stockpile On Site.....	5.24	
32 91	19 13-0004		Screening Topsoil (32 91 19 13)		
32 91	19 13-0005	CY	Screen Topsoil With Vibrating Screen, Wet Material (Organic).....	11.62	
32 91	19 13-0006	CY	Screen Topsoil With Vibrating Screen, Dry Material.....	7.74	
32 91	19 13-0007		Spreading Topsoil From Stockpile (32 91 19 13)		
32 91	19 13-0008	CY	Spread Topsoil By Machine From Stockpile.....	8.81	
32 91	19 13-0009	CY	Spread Topsoil By Hand From Stockpile.....	74.20	
32 91	19 13-0010		Furnish And Place Imported Screened Topsoil (32 91 19 13) Note: Includes delivery up to 15 miles from the closest approved source and spread by machine. Excludes hand spreading. See CSI section 01 74 19 00-0048 for hauling greater than 15 miles, 31 23 16 36-0030 for hand spreading.		
32 91	19 13-0011	SY	Furnish And Place Imported Screened Topsoil, 2" Deep..... <i>For Unscreened, Deduct</i>	3.29 -0.33	
32 91	19 13-0012	SY	Furnish And Place Imported Screened Topsoil, 4" Deep..... <i>For Unscreened, Deduct</i>	6.24 -0.66	
32 91	19 13-0013	SY	Furnish And Place Imported Screened Topsoil, 6" Deep..... <i>For Unscreened, Deduct</i>	8.94 -0.99	
32 91	19 13-0014	SY	Furnish And Place Imported Screened Topsoil, 9" Deep..... <i>For Unscreened, Deduct</i>	12.76 -1.48	
32 91	19 13-0015	SY	Furnish And Place Imported Screened Topsoil, 12" Deep..... <i>For Unscreened, Deduct</i>	16.58 -1.98	
32 91	19 13-0016	CY	Furnish And Place Imported Screened Topsoil, Over 12" Deep..... <i>For Unscreened, Deduct</i>	44.51 -5.93	
32 91	19 13-0017		Scarify Soil For Planting Preparation (32 91 19 13) Note: Ripped in multiple directions with 3" maximum clods.		
32 91	19 13-0018	MSF	Up To 5,000 SF Scarify Up To 8" Soil With Machine.....	69.33	
32 91	19 13-0019	MSF	>5,000 To 20,000 SF Scarify Up To 8" Soil With Machine.....	48.52	
32 91	19 13-0020	MSF	>20,000 SF Scarify Up To 8" Soil With Machine.....	28.45	
32 92			Turf and Grasses (32 92)		
32 92	16		Plugging (32 92)		
32 92	16 00-0001		Bermuda Or Centipede Plugging, 1" Deep (32 92 16) Note: Includes fine grade and soil preparation.		
32 92	16 00-0002		6" On Center Plugging (32 92 16 00-0001)		
32 92	16 00-0003	MSF	Plugging By Hand, 6" On Center.....	242.40	
32 92	16 00-0004	MSF	Plugging By Walk Behind Planter, 6" On Center.....	25.96	
32 92	16 00-0005	MSF	Plugging By Towed Planter, 6" On Center.....	17.15	
32 92	16 00-0006		9" On Center Plugging (32 92 16 00-0001)		
32 92	16 00-0007	MSF	Plugging By Hand, 9" On Center.....	186.19	

32 Exterior Improvements**32 90 Planting****32 92 Turf and Grasses**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 92 16 00-0008	MSF	Plugging By Walk Behind Planter, 9" On Center.....	20.70	
32 92 16 00-0009	MSF	Plugging By Towed Planter, 9" On Center.....	12.94	
32 92 16 00-0010		12" On Center Plugging (32 92 16 00-0001)		
32 92 16 00-0011	MSF	Plugging By Hand, 12" On Center.....	158.16	
32 92 16 00-0012	MSF	Plugging By Walk Behind Planter, 12" On Center.....	14.39	
32 92 16 00-0013	MSF	Plugging By Towed Planter, 12" On Center.....	8.42	
32 92 19		Seeding (32 92)		
32 92 19 13		Mechanical Seeding (32 92 19)		
		Note: Includes fertilizing, liming, mixing, seeding and initial watering.		
32 92 19 13-0001		Tractor Spreader Mechanical Seeding (32 92 19 13)		
		Note: Excludes straw.		
32 92 19 13-0002	MSF	Common Bluegrass, Tractor Spreader.....	40.85	
		Note: 4 LB/MSF spread rate.		
32 92 19 13-0003	MSF	Tall Fescue, Tractor Spreader.....	36.45	
		Note: 5.5 LB/MSF spread rate.		
32 92 19 13-0004	MSF	Rye, Tractor Spreader.....	37.05	
		Note: 10 LB/MSF spread rate.		
32 92 19 13-0005	MSF	Shade Mix, Tractor Spreader.....	40.07	
		Note: 6 LB/MSF spread rate. Mixture of red fescue, creeping red fescue, perennial rye and bluegrass.		
32 92 19 13-0006	MSF	Turf Mix, Tractor Spreader.....	42.25	
		Note: 4 LB/MSF spread rate. Mixture of three varieties of bluegrass and one improved perennial ryegrass.		
32 92 19 13-0007	MSF	Slope Mix, Tractor Spreader.....	39.35	
		Note: 6 LB/MSF spread rate.		
32 92 19 13-0008	MSF	Utility Mix, Tractor Spreader.....	35.74	
		Note: 7 LB/MSF spread rate. Mixture of perennial/annual rye, creeping red fescue and bluegrass.		
32 92 19 13-0009	MSF	Wild Flower Mix, Tractor Spreader.....	28.92	
		Note: 0.10 LB/MSF spread rate.		
32 92 19 13-0010	MSF	Crown Vetch Mix, Tractor Spreader.....	82.82	
		Note: 4 LB/MSF spread rate.		
32 92 19 13-0011	MSF	Athletic Mix, Tractor Spreader.....	50.94	
		Note: 8 LB/MSF spread rate. Mixture of three varieties of drought resistant bluegrass, tall fescue and Kentucky bluegrass.		
32 92 19 13-0012	MSF	White Clover Mix, Tractor Spreader.....	28.84	
		Note: 7 LB/MSF spread rate.		
32 92 19 13-0013	MSF	Ladino Clover Mix, Tractor Spreader.....	31.74	
		Note: 7 LB/MSF spread rate.		
32 92 19 13-0014	MSF	Bermuda, Tractor Spreader.....	47.35	
		Note: 10 LB/MSF spread rate.		
32 92 19 13-0015		Hydro Or Air Mechanical Seeding (32 92 19 13)		
32 92 19 13-0016	MSF	Common Bluegrass, Hydro Or Air Seeding.....	84.44	
		Note: 4 LB/MSF spread rate.		
		For Spot Areas Up To 1, Add	97.33	
		For >1 To 4, Add	63.11	
		For >4 To 7.5, Add	43.11	
		For >7.5 To 10, Add	21.56	
		For >45, Deduct	-7.11	
		For Tackifier, Add	1.44	
32 92 19 13-0017	MSF	Tall Fescue, Hydro Or Air Seeding.....	88.49	
		Note: 5.5 LB/MSF spread rate.		
		For Spot Areas Up To 1, Add	98.95	
		For >1 To 4, Add	63.92	
		For >4 To 7.5, Add	43.52	
		For >7.5 To 10, Add	21.76	
		For >45, Deduct	-7.31	
		For Tackifier, Add	1.44	
32 92 19 13-0018	MSF	Rye, Hydro Or Air Spread.....	84.61	
		Note: 10 LB/MSF spread rate.		
		For Spot Areas Up To 1, Add	97.40	
		For >1 To 4, Add	63.15	
		For >4 To 7.5, Add	43.13	
		For >7.5 To 10, Add	21.56	
		For >45, Deduct	-7.12	
		For Tackifier, Add	1.44	
32 92 19 13-0019	MSF	Shade Mix, Hydro Or Air Seeding.....	84.44	
		Note: 6 LB/MSF spread rate. Mixture of red fescue, creeping red fescue, perennial rye and bluegrass.		
		For Spot Areas Up To 1, Add	97.33	
		For >1 To 4, Add	63.11	
		For >4 To 7.5, Add	43.11	
		For >7.5 To 10, Add	21.56	
		For >45, Deduct	-7.11	
		For Tackifier, Add	1.44	



		Exterior Improvements	32	32
		Planting	32 90	
		Turf and Grasses	32 92	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 92 19 13-0020	MSF		Turf Mix, Hydro Or Air Seeding.....	88.49	
			Note: 4 LB/MSF spread rate. Mixture of three varieties of bluegrass and one improved perennial ryegrass.		
			For Spot Areas Up To 1, Add	98.95	
			For >1 To 4, Add	63.92	
			For >4 To 7.5, Add	43.52	
			For >7.5 To 10, Add	21.76	
			For >45, Deduct	-7.31	
			For Tackifier, Add	1.44	
32 92 19 13-0021	MSF		Slope Mix, Hydro Or Air Seeding.....	86.76	
			Note: 6 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	98.26	
			For >1 To 4, Add	63.58	
			For >4 To 7.5, Add	43.34	
			For >7.5 To 10, Add	21.67	
			For >45, Deduct	-7.23	
			For Tackifier, Add	1.44	
32 92 19 13-0022	MSF		Utility Mix, Hydro Or Air Seeding.....	85.35	
			Note: 7 LB/MSF spread rate. Mixture of perennial/annual rye, creeping red fescue and bluegrass.		
			For Spot Areas Up To 1, Add	97.70	
			For >1 To 4, Add	63.29	
			For >4 To 7.5, Add	43.20	
			For >7.5 To 10, Add	21.60	
			For >45, Deduct	-7.16	
			For Tackifier, Add	1.44	
32 92 19 13-0023	MSF		Wild Flower Mix, Hydro Or Air Seeding.....	80.84	
			Note: 0.10 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	95.89	
			For >1 To 4, Add	62.39	
			For >4 To 7.5, Add	42.75	
			For >7.5 To 10, Add	21.38	
			For >45, Deduct	-6.93	
			For Tackifier, Add	1.44	
32 92 19 13-0024	MSF		Crown Vetch Mix, Hydro Or Air Seeding.....	121.52	
			Note: 4 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	112.17	
			For >1 To 4, Add	70.53	
			For >4 To 7.5, Add	46.82	
			For >7.5 To 10, Add	23.41	
			For >45, Deduct	-8.97	
			For Tackifier, Add	1.44	
32 92 19 13-0025	MSF		Athletic Mix, Hydro Or Air Seeding.....	108.79	
			Note: 8 LB/MSF spread rate. Mixture of three varieties of drought resistant bluegrass, tall fescue and Kentucky bluegrass.		
			For Spot Areas Up To 1, Add	107.07	
			For >1 To 4, Add	67.98	
			For >4 To 7.5, Add	45.55	
			For >7.5 To 10, Add	22.77	
			For >45, Deduct	-8.33	
			For Tackifier, Add	1.44	
32 92 19 13-0026	MSF		White Clover Mix, Hydro Or Air Seeding.....	75.34	
			Note: 7 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	93.69	
			For >1 To 4, Add	61.29	
			For >4 To 7.5, Add	42.20	
			For >7.5 To 10, Add	21.10	
			For >45, Deduct	-6.66	
			For Tackifier, Add	1.44	
32 92 19 13-0027	MSF		Ladino Clover Mix, Hydro Or Air Seeding.....	82.12	
			Note: 7 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	96.41	
			For >1 To 4, Add	62.65	
			For >4 To 7.5, Add	42.88	
			For >7.5 To 10, Add	21.44	
			For >45, Deduct	-7.00	
			For Tackifier, Add	1.44	
32 92 19 13-0028	MSF		60% Kentucky Bluegrass, 20% Creeping Red Fescue, 10% Red Top And 10% Domestic Rye, Hydro Or Air Spread.....	85.60	
			Note: 4 LB/MSF spread rate.		
			For Spot Areas Up To 1, Add	97.80	
			For >1 To 4, Add	63.34	
			For >4 To 7.5, Add	43.23	
			For >7.5 To 10, Add	21.61	
			For >45, Deduct	-7.17	
			For Tackifier, Add	1.44	
32 92 19 13-0029	MSF		2,500 LB/Acre, High Performance - Flexible Growth Medium.....	93.59	
			Note: Applied with seed. Excludes seed.		
			For >45, Deduct	-6.12	
32 92 19 13-0030	MSF		3,000 LB/Acre, High Performance - Flexible Growth Medium.....	107.99	
			Note: Applied with seed. Excludes seed.		
			For >45, Deduct	-6.92	
32 92 19 13-0031	MSF		3,500 LB/Acre, High Performance - Flexible Growth Medium.....	122.45	
			Note: Applied with seed. Excludes seed.		
			For >45, Deduct	-7.72	
32 92 19 13-0032	MSF		4,000 LB/Acre, High Performance - Flexible Growth Medium.....	136.97	
			Note: Applied with seed. Excludes seed.		
			For >45, Deduct	-8.52	

32 Exterior Improvements**32 90 Planting****32 92 Turf and Grasses**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 92 19 13-0033	MSF		4,500 LB/Acre, High Performance - Flexible Growth Medium.....	151.57	
			Note: Applied with seed. Excludes seed.		
			For >45, Deduct	-9.33	
32 92 19 13-0034	MSF		Custom Mix (Landfill Closure), Hydro Or Air Seeding.....	121.06	
			Note: Mixture of varieties: 0.184 Lbs/MSF (8 Lbs/Acre) Vulpia Microstachys, 0.138 Lbs/MSF (6 Lbs/Acre) Poa Secunda, 0.23 Lbs/MSF (10 Lbs/Acre) Hordeum Californicum Prostrate, 0.138 Lbs/MSF (6 Lbs/Acre) Nassella Pulchra, 0.184 Lbs/MSF (8 Lbs/Acre) Elymus Glaucus Anderson, 0.023 Lbs/MSF (1 Lbs/Acre) Artemisia Californica, 0.046 Lbs/MSF (2 Lbs/Acre) Atriplex Semibaccata, and 0.023 Lbs/MSF (1 Lbs/Acre) Atriplex Polycarpa.		
			For Spot Areas Up To 1, Add	111.98	
			For >1 To 4, Add	70.44	
			For >4 To 7.5, Add	46.77	
			For >7.5 To 10, Add	23.39	
			For >45, Deduct	-8.94	
32 92 19 13-0035	ACR		Custom Mix (Landfill Closure), Hydro Or Air Seeding.....	5,017.28	
			Note: Mixture of varieties: 8 Lbs/Acre Vulpia Microstachys, 6 Lbs/Acre Poa Secunda, 10 Lbs/Acre Hordeum Californicum Prostrate, 6 Lbs/Acre Nassella Pulchra, 8 Lbs/Acre Elymus Glaucus Anderson, 1 Lbs/Acre Artemisia Californica, 2 Lbs/Acre Atriplex Semibaccata, and 1 Lbs/Acre Atriplex Polycarpa.		

32 92 19 19 Seeding by Hand (32 92 19)

Note: Includes fertilizing, liming, mixing, seeding and initial watering. See CSI section 32 91 13 16-0017 for wheat straw mulch.

32 92 19 19-0001 Push Spreader Or Hand Seeding (32 92 19 19)

Note: Excludes straw.

32 92 19 19-0002	MSF		Common Bluegrass, Push Spreader Or Hand.....	113.19	
			Note: 4 LB/MSF spread rate.		
			For >5 To 20, Deduct	-8.09	
			For >20 To 45, Deduct	-15.78	
			For >45, Deduct	-25.90	
32 92 19 19-0003	MSF		Tall Fescue, Push Spreader Or Hand.....	108.79	
			Note: 5.5 LB/MSF spread rate.		
			For >5 To 20, Deduct	-7.87	
			For >20 To 45, Deduct	-15.45	
			For >45, Deduct	-25.46	
32 92 19 19-0004	MSF		Rye, Push Spreader Or Hand.....	109.39	
			Note: 10 LB/MSF spread rate.		
			For >5 To 20, Deduct	-7.90	
			For >20 To 45, Deduct	-15.49	
			For >45, Deduct	-25.52	
32 92 19 19-0005	MSF		Shade Mix, Push Spreader Or Hand.....	112.41	
			Note: 6 LB/MSF spread rate. Mixture of red fescue, creeping red fescue, perennial rye and bluegrass.		
			For >5 To 20, Deduct	-8.05	
			For >20 To 45, Deduct	-15.72	
			For >45, Deduct	-25.82	
32 92 19 19-0006	MSF		Turf Mix, Push Spreader Or Hand.....	114.59	
			Note: 4 LB/MSF spread rate. Mixture of three varieties of bluegrass and one improved perennial ryegrass.		
			For >5 To 20, Deduct	-8.16	
			For >20 To 45, Deduct	-15.88	
			For >45, Deduct	-26.04	
32 92 19 19-0007	MSF		Slope Mix, Push Spreader Or Hand.....	111.69	
			Note: 6 LB/MSF spread rate.		
			For >5 To 20, Deduct	-8.01	
			For >20 To 45, Deduct	-15.67	
			For >45, Deduct	-25.75	
32 92 19 19-0008	MSF		Utility Mix, Push Spreader Or Hand.....	108.08	
			Note: 7 LB/MSF spread rate. Mixture of perennial/annual rye, creeping red fescue and bluegrass.		
			For >5 To 20, Deduct	-7.83	
			For >20 To 45, Deduct	-15.40	
			For >45, Deduct	-25.39	
32 92 19 19-0009	MSF		Wild Flower Mix, Push Spreader Or Hand.....	101.26	
			Note: 0.10 LB/MSF spread rate.		
			For >5 To 20, Deduct	-7.49	
			For >20 To 45, Deduct	-14.88	
			For >45, Deduct	-24.71	
32 92 19 19-0010	MSF		Crown Vetch Mix, Push Spreader Or Hand.....	155.16	
			Note: 4 LB/MSF spread rate.		
			For >5 To 20, Deduct	-10.19	
			For >20 To 45, Deduct	-18.93	
			For >45, Deduct	-30.10	
32 92 19 19-0011	MSF		Athletic Mix, Push Spreader Or Hand.....	123.28	
			Note: 8 LB/MSF spread rate. Mixture of drought resistant bluegrass, tall fescue and Kentucky bluegrass.		
			For >5 To 20, Deduct	-8.59	
			For >20 To 45, Deduct	-16.54	
			For >45, Deduct	-26.91	
32 92 19 19-0012	MSF		White Clover Mix, Push Spreader Or Hand.....	101.18	
			Note: 7 LB/MSF spread rate.		
			For >5 To 20, Deduct	-7.49	
			For >20 To 45, Deduct	-14.88	
			For >45, Deduct	-24.70	
32 92 19 19-0013	MSF		Ladino Clover Mix, Push Spreader Or Hand.....	104.08	
			Note: 7 LB/MSF spread rate.		
			For >5 To 20, Deduct	-7.63	
			For >20 To 45, Deduct	-15.10	
			For >45, Deduct	-24.99	



Exterior Improvements			32
Planting			32 90
Turf and Grasses			32 92

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 92 19 19-0014	MSF		100% Kentucky Bluegrass, Push Spreader Or Hand..... Note: 3.3 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	114.30 -8.15 -15.86 -26.01	
32 92 19 19-0015	MSF		70% Kentucky Bluegrass And 30% Fescue, Push Spreader Or Hand Note: 3.3 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	111.11 -7.99 -15.62 -25.69	
32 92 19 19-0016	MSF		50% Kentucky Bluegrass And 50% Fescue, Push Spreader Or Hand Note: 3.3 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	108.79 -7.87 -15.45 -25.46	
32 92 19 19-0017	MSF		50% Kentucky Bluegrass And 50% Perennial Rye, Push Spreader Or Hand..... Note: 4.4 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	13.43 -8.10 -15.80 -25.92	
32 92 19 19-0018	MSF		60% Kentucky Bluegrass, 20% Creeping Red Fescue, 10% Red Top And 10% Domestic Rye, Push Spreader Or Hand..... Note: 3.3 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	109.95 -7.93 -15.54 -25.58	
32 92 19 19-0019	MSF		40% Creeping Red Fescue, 30% Kentucky Bluegrass, 10% Red Top, And 20% Blue Tag Perennial Rye, Push Spreader Or Hand Note: 3.3 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	114.59 -8.16 -15.88 -26.04	
32 92 19 19-0020	MSF		Bermuda, Push Spreader Or Hand..... Note: 10 LB/MSF spread rate. For >5 To 20, Deduct For >20 To 45, Deduct For >45, Deduct	119.69 -8.41 -16.27 -26.55	
32 92 23 Sodding (32 92)					
Note: Includes raking preparation, water thoroughly and allow surface to dry before planting, rolling of sod, sanding seams for (up to 16" wide by 24" long) squares or (up to 24" wide by 54" long) rolls and initial watering within 2 hours after planting.					
32 92 23 00-0001 Bermuda Sod (32 92 23)					
32 92 23 00-0002	MSF		Up To 1,000 SF, Bermuda Sod, Installed On Level Ground.....	1,376.35	
32 92 23 00-0003	MSF		>1,000 To 4,000 SF, Bermuda Sod, Installed On Level Ground.....	1,189.25	
32 92 23 00-0004	MSF		>4,000 To 8,000 SF, Bermuda Sod, Installed On Level Ground.....	1,016.14	
32 92 23 00-0005	MSF		>8,000 SF, Bermuda Sod, Installed On Level Ground.....	904.07	
32 92 23 00-0006	MSF		Up To 1,000 SF, Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,758.44	
32 92 23 00-0007	MSF		>1,000 To 4,000 SF, Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,512.89	
32 92 23 00-0008	MSF		>4,000 To 8,000 SF, Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,239.42	
32 92 23 00-0009	MSF		>8,000 SF, Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,093.95	
32 92 23 00-0010 Zoysia Sod (32 92 23)					
32 92 23 00-0011	MSF		Up To 1,000 SF, Zoysia Sod, Installed On Level Ground.....	1,867.36	
32 92 23 00-0012	MSF		>1,000 To 4,000 SF, Zoysia Sod, Installed On Level Ground.....	1,555.73	
32 92 23 00-0013	MSF		>4,000 To 8,000 SF, Zoysia Sod, Installed On Level Ground.....	1,321.55	
32 92 23 00-0014	MSF		>8,000 SF, Zoysia Sod, Installed On Level Ground.....	1,148.39	
32 92 23 00-0015	MSF		Up To 1,000 SF, Zoysia Sod, Installed On Sloped (>1:6) Ground With Stakes.....	2,247.09	
32 92 23 00-0016	MSF		>1,000 To 4,000 SF, Zoysia Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,879.37	
32 92 23 00-0017	MSF		>4,000 To 8,000 SF, Zoysia Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,544.83	
32 92 23 00-0018	MSF		>8,000 SF, Zoysia Sod, Installed On Sloped (>1:6) Ground With Stakes.....	1,338.27	
32 92 23 00-0019 Tall Fescue Sod (32 92 23)					
32 92 23 00-0020	MSF		Up To 1,000 SF, Tall Fescue Sod, Installed On Level Ground..... For Hybrid Fescue "Marathon", Add	2,101.12 130.24	
32 92 23 00-0021	MSF		>1,000 To 4,000 SF, Tall Fescue Sod, Installed On Level Ground..... For Hybrid Fescue "Marathon", Add	1,731.06 98.21	
32 92 23 00-0022	MSF		>4,000 To 8,000 SF, Tall Fescue Sod, Installed On Level Ground..... For Hybrid Fescue "Marathon", Add	1,467.65 82.20	
32 92 23 00-0023	MSF		>8,000 SF, Tall Fescue Sod, Installed On Level Ground..... For Hybrid Fescue "Marathon", Add	1,265.28 66.19	
32 92 23 00-0024	MSF		Up To 1,000 SF, Tall Fescue Sod, Installed On Sloped (>1:6) Ground With Stakes..... For Hybrid Fescue "Marathon", Add	2,480.85 130.24	
32 92 23 00-0025	MSF		>1,000 To 4,000 SF, Tall Fescue Sod, Installed On Sloped (>1:6) Ground With Stakes..... For Hybrid Fescue "Marathon", Add	2,054.70 98.21	
32 92 23 00-0026	MSF		>4,000 To 8,000 SF, Tall Fescue Sod, Installed On Sloped (>1:6) Ground With Stakes..... For Hybrid Fescue "Marathon", Add	1,690.93 82.20	
32 92 23 00-0027	MSF		>8,000 SF, Tall Fescue Sod, Installed On Sloped (>1:6) Ground With Stakes..... For Hybrid Fescue "Marathon", Add	1,455.16 66.19	

32 Exterior Improvements**32 90 Planting****32 92 Turf and Grasses**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 92 23 00-0028 Centipede Sod (32 92 23)

32 92 23 00-0029	MSF	Up To 1,000 SF, Centipede Sod, Installed On Level Ground	1,678.46
32 92 23 00-0030	MSF	>1,000 To 4,000 SF, Centipede Sod, Installed On Level Ground	1,414.06
32 92 23 00-0031	MSF	>4,000 To 8,000 SF, Centipede Sod, Installed On Level Ground	1,203.49
32 92 23 00-0032	MSF	>8,000 SF, Centipede Sod, Installed On Level Ground	1,053.94
32 92 23 00-0033	MSF	Up To 1,000 SF, Centipede Sod, Installed On Sloped (>1:6) Ground With Stakes	2,058.19
32 92 23 00-0034	MSF	>1,000 To 4,000 SF, Centipede Sod, Installed On Sloped (>1:6) Ground With Stakes	1,737.70
32 92 23 00-0035	MSF	>4,000 To 8,000 SF, Centipede Sod, Installed On Sloped (>1:6) Ground With Stakes	1,426.77
32 92 23 00-0036	MSF	>8,000 SF, Centipede Sod, Installed On Sloped (>1:6) Ground With Stakes	1,243.82

32 92 23 00-0037 Kentucky Blue Grass Sod (32 92 23)

32 92 23 00-0038	MSF	Up To 1,000 SF, Kentucky Blue Grass Sod, Installed On Level Ground	1,611.85
32 92 23 00-0039	MSF	>1,000 To 4,000 SF, Kentucky Blue Grass Sod, Installed On Level Ground	1,364.10
32 92 23 00-0040	MSF	>4,000 To 8,000 SF, Kentucky Blue Grass Sod, Installed On Level Ground	1,161.86
32 92 23 00-0041	MSF	>8,000 SF, Kentucky Blue Grass Sod, Installed On Level Ground	1,020.64
32 92 23 00-0042	MSF	Up To 1,000 SF, Kentucky Blue Grass Sod, Installed On Sloped (>1:6) Ground With Stakes	1,991.58
32 92 23 00-0043	MSF	>1,000 To 4,000 SF, Kentucky Blue Grass Sod, Installed On Sloped (>1:6) Ground With Stakes	1,667.74
32 92 23 00-0044	MSF	>4,000 To 8,000 SF, Kentucky Blue Grass Sod, Installed On Sloped (>1:6) Ground With Stakes	1,385.14
32 92 23 00-0045	MSF	>8,000 SF, Kentucky Blue Grass Sod, Installed On Sloped (>1:6) Ground With Stakes	1,210.52

32 92 23 00-0046 Ballfield Mix 2A Sod 10% Bermuda Shorts, 10% Barclay, 80% Turfstar (32 92 23)

32 92 23 00-0047	MSF	Up To 1,000 SF, Ballfield Mix 2A Sod, Installed On Level Ground	1,511.93
32 92 23 00-0048	MSF	>1,000 To 4,000 SF, Ballfield Mix 2A Sod, Installed On Level Ground	1,289.16
32 92 23 00-0049	MSF	>4,000 To 8,000 SF, Ballfield Mix 2A Sod, Installed On Level Ground	1,099.41
32 92 23 00-0050	MSF	>8,000 SF, Ballfield Mix 2A Sod, Installed On Level Ground	970.68
32 92 23 00-0051	MSF	Up To 1,000 SF, Ballfield Mix 2A Sod, Installed On Sloped (>1:6) Ground With Stakes	1,891.66
32 92 23 00-0052	MSF	>1,000 To 4,000 SF, Ballfield Mix 2A Sod, Installed On Sloped (>1:6) Ground With Stakes	1,612.80
32 92 23 00-0053	MSF	>4,000 To 8,000 SF, Ballfield Mix 2A Sod, Installed On Sloped (>1:6) Ground With Stakes	1,322.69
32 92 23 00-0054	MSF	>8,000 SF, Ballfield Mix 2A Sod, Installed On Sloped (>1:6) Ground With Stakes	1,160.56

32 92 23 00-0055 GN-1 Sod (32 92 23)

32 92 23 00-0056	MSF	Up To 1,000 SF, GN-1 Sod, Installed On Level Ground	1,857.80
32 92 23 00-0057	MSF	>1,000 To 4,000 SF, GN-1 Sod, Installed On Level Ground	1,548.57
32 92 23 00-0058	MSF	>4,000 To 8,000 SF, GN-1 Sod, Installed On Level Ground	1,315.58
32 92 23 00-0059	MSF	>8,000 SF, GN-1 Sod, Installed On Level Ground	1,143.61
32 92 23 00-0060	MSF	Up To 1,000 SF, GN-1 Sod, Installed On Sloped (>1:6) Ground With Stakes	2,237.53
32 92 23 00-0061	MSF	>1,000 To 4,000 SF, GN-1 Sod, Installed On Sloped (>1:6) Ground With Stakes	1,872.21
32 92 23 00-0062	MSF	>4,000 To 8,000 SF, GN-1 Sod, Installed On Sloped (>1:6) Ground With Stakes	1,538.86
32 92 23 00-0063	MSF	>8,000 SF, GN-1 Sod, Installed On Sloped (>1:6) Ground With Stakes	1,333.49

32 92 23 00-0064 Tifgreen Bermuda Sod (32 92 23)

32 92 23 00-0065	MSF	Up To 1,000 SF, Tifgreen Bermuda Sod, Installed On Level Ground	1,933.38
32 92 23 00-0066	MSF	>1,000 To 4,000 SF, Tifgreen Bermuda Sod, Installed On Level Ground	1,605.25
32 92 23 00-0067	MSF	>4,000 To 8,000 SF, Tifgreen Bermuda Sod, Installed On Level Ground	1,362.81
32 92 23 00-0068	MSF	>8,000 SF, Tifgreen Bermuda Sod, Installed On Level Ground	1,181.40
32 92 23 00-0069	MSF	Up To 1,000 SF, Tifgreen Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes	2,313.11
32 92 23 00-0070	MSF	>1,000 To 4,000 SF, Tifgreen Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes	1,928.89
32 92 23 00-0071	MSF	>4,000 To 8,000 SF, Tifgreen Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes	1,586.09
32 92 23 00-0072	MSF	>8,000 SF, Tifgreen Bermuda Sod, Installed On Sloped (>1:6) Ground With Stakes	1,371.28

32 93 Plants (32 90)**32 93 13 Ground Covers** (32 93)

Note: Materials only. See CSI section 32 93 83 00-0062 for installation and planting of ground cover.

32 93 13 00-0001 Ornamental Grasses (32 93 13)

32 93 13 00-0002	EA	1 Gallon, Cortaderia selloana - Pampas Grass	32.44
32 93 13 00-0003	EA	2 Gallon, Cortaderia selloana - Pampas Grass	59.97
32 93 13 00-0004	EA	3 Gallon, Cortaderia selloana - Pampas Grass	108.99
32 93 13 00-0005	EA	5 Gallon, Cortaderia selloana - Pampas Grass	198.37
32 93 13 00-0006	EA	1 Gallon, Distichlis spicata - Saltgrass	11.23
32 93 13 00-0007	EA	5 Gallon, Distichlis spicata - Saltgrass	29.37
32 93 13 00-0008	EA	1 Quart, Imperata cylindrica - Japanese Blood Grass	24.83
32 93 13 00-0009	EA	1 Gallon, Imperata cylindrica - Japanese Blood Grass	33.02
32 93 13 00-0010	EA	2 Gallon, Imperata cylindrica - Japanese Blood Grass	35.34
32 93 13 00-0011	EA	1 Quart, Koeleria glauca - Blue Hair Grass	24.77
32 93 13 00-0012	EA	1 Gallon, Koeleria glauca - Blue Hair Grass	33.02
32 93 13 00-0013	EA	3 Gallon, Koeleria glauca - Blue Hair Grass	79.89
32 93 13 00-0014	EA	1 Gallon, Miscanthus sinensis 'Gracillimus' - Maiden Grass	31.35
32 93 13 00-0015	EA	3 Gallon, Miscanthus sinensis 'Gracillimus' - Maiden Grass	40.63
32 93 13 00-0016	EA	5 Gallon, Miscanthus sinensis 'Gracillimus' - Maiden Grass	77.68
32 93 13 00-0017	EA	1 Gallon, Miscanthus sinensis 'Zebra' - Zebra Grass	29.10
32 93 13 00-0018	EA	3 Gallon, Miscanthus sinensis 'Zebra' - Zebra Grass	45.75
32 93 13 00-0019	EA	5 Gallon, Miscanthus sinensis 'Zebra' - Zebra Grass	78.29
32 93 13 00-0020	EA	1 Gallon, Monarchochloe littoralis - Shore Grass	14.04



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 13 00-0021	EA	1	Quart, Pennisetum setaceum - Fountain Grass.....	27.09	
32 93 13 00-0022	EA	1	Gallon, Pennisetum setaceum - Fountain Grass.....	68.91	
32 93 13 00-0023	EA	3	Gallon, Pennisetum setaceum - Fountain Grass.....	90.84	
32 93 13 00-0024	EA	1	Gallon, Saccharum ravennae - Ravenna Grass.....	85.76	
32 93 13 00-0025	EA	3	Gallon, Saccharum ravennae - Ravenna Grass.....	96.34	
32 93 13 00-0026	EA	7	Gallon, Saccharum ravennae - Ravenna Grass.....	158.94	
32 93 13 00-0027	EA	1	Gallon, Spartina pectinata - Variegated Cord Grass.....	46.57	
32 93 13 00-0028	EA	2	Gallon, Spartina pectinata - Variegated Cord Grass.....	69.69	
32 93 13 00-0029	EA	1	Quart, Stipa gigantea - Giant Feather Grass.....	35.55	
32 93 13 00-0030	EA	1	Gallon, Stipa gigantea - Giant Feather Grass.....	49.53	
32 93 13 00-0031	EA	1	Gallon, Triglochin maritima - Arrow Grass.....	8.43	
32 93 13 00-0032 Ground Covers (32 93 13)					
32 93 13 00-0033	EA	1	Gallon Agave Attenuata - Century Plant.....	2.35	
32 93 13 00-0034	EA	5	Gallon Agave Attenuata - Century Plant.....	33.30	
32 93 13 00-0035	EA	15	Gallon Agave Attenuata - Century Plant.....	110.11	
32 93 13 00-0036	EA	1	Gallon Ceanothus 'Carmel Creeper' - Wild Lilac.....	10.54	
32 93 13 00-0037	EA	5	Gallon Ceanothus 'Carmel Creeper' - Wild Lilac.....	29.33	
32 93 13 00-0038	EA	1	Gallon Ceanothus 'Yankee Point' - Wild Lilac.....	10.54	
32 93 13 00-0039	EA	5	Gallon Ceanothus 'Yankee Point' - Wild Lilac.....	27.40	
32 93 13 00-0040	EA	1	Gallon Dietes Vegata - Fortnight Lily.....	9.24	
32 93 13 00-0041	EA	5	Gallon Dietes Vegata - Fortnight Lily.....	22.77	
32 93 13 00-0042	EA	1	Gallon Juncus Patens 'Elk Blue' - California Gray Rush.....	17.17	
32 93 13 00-0043	EA	5	Gallon Juncus Patens 'Elk Blue' - California Gray Rush.....	45.10	
32 93 13 00-0044	EA	4"	Pot Miscanthus 'Morning Light' - NCN.....	12.87	
32 93 13 00-0045	EA	20	Count Flat Miscanthus 'Morning Light' - NCN.....	189.84	
32 93 13 00-0046	EA	1	Gallon Nassella Tenuissima - Mexican Feather Grass.....	17.17	
32 93 13 00-0047	EA	1	Gallon Trachelospermum Jasminoides - Star Jasmine.....	9.33	
32 93 13 00-0048	EA	5	Gallon Trachelospermum Jasminoides - Star Jasmine.....	23.38	
32 93 13 00-0049	EA	1	Gallon Westringia Fruticosa - Coast Rosemary.....	9.24	
32 93 13 00-0050	EA	5	Gallon Westringia Fruticosa - Coast Rosemary.....	22.77	
32 93 13 00-0051	EA	15	Gallon Westringia Fruticosa - Coast Rosemary.....	93.46	
32 93 13 00-0052	EA	1	Quart Carex 'Bowles Golden' - Variegated Japanese Sedge.....	39.74	
32 93 13 00-0053	EA	1	Gallon Carex 'Bowles Golden' - Variegated Japanese Sedge.....	51.73	
32 93 13 00-0054	EA	2	Gallon Juniperus horizontalis 'Plumosa Compacta' - Andorra Creeping Juniper.....	65.48	
32 93 13 00-0055	EA	1	Quart Waldsteinia ternata - Barren Strawberry.....	11.25	
32 93 13 00-0056	EA	1	Gallon Waldsteinia ternata - Barren Strawberry.....	26.99	
32 93 13 00-0057	EA	1	Gallon Cotoneaster dammeri - Bearberry Cotoneaster.....	36.74	
32 93 13 00-0058	EA	2	Gallon Cotoneaster dammeri - Bearberry Cotoneaster.....	69.72	
32 93 13 00-0059	EA	5	Gallon Cotoneaster dammeri - Bearberry Cotoneaster.....	122.95	
32 93 13 00-0060	EA	1	Gallon Liriope muscarum 'Big Blue' - Big Blue Liriope.....	12.58	
32 93 13 00-0061	EA	1	Gallon Distictis buccinatoria - Blood Red Trumpet Vine.....	23.24	
32 93 13 00-0062	EA	5	Gallon Distictis buccinatoria - Blood Red Trumpet Vine.....	81.72	
32 93 13 00-0063	EA	1	Gallon Juniperus horizontalis 'Wiltoni' - Blue Rug Juniper.....	30.51	
32 93 13 00-0064	EA	4"	Pot Parthenocissus tricuspidata - Boston Ivy.....	14.99	
32 93 13 00-0065	EA	1	Gallon Parthenocissus tricuspidata - Boston Ivy.....	34.19	
32 93 13 00-0066	EA	5	Gallon Parthenocissus tricuspidata - Boston Ivy.....	93.56	
32 93 13 00-0067	EA	3	Gallon Bougainvillea spectabilis - Bougainvillea.....	39.32	
32 93 13 00-0068	EA	1	Quart Iberis sempervirens - Candytuft.....	11.25	
32 93 13 00-0069	EA	1	Gallon Iberis sempervirens - Candytuft.....	26.99	
32 93 13 00-0070	EA	1	Gallon Gelsemium sempervirens - Carolina Jessamine.....	32.39	
32 93 13 00-0071	EA	5	Gallon Gelsemium sempervirens - Carolina Jessamine.....	116.96	
32 93 13 00-0072	EA	3"	Pot Ajuga reptans - Carpet Bugle.....	6.75	
32 93 13 00-0073	EA	1	Quart Ajuga reptans - Carpet Bugle.....	11.24	
32 93 13 00-0074	EA	1	Gallon Ajuga reptans - Carpet Bugle.....	26.99	
32 93 13 00-0075	EA	24	Plant Flat Ajuga reptans - Carpet Bugle.....	116.20	
32 93 13 00-0076	EA	1	Gallon Macfadyena unguis-cati - Cat Claw Vine.....	26.99	
32 93 13 00-0077	EA	5	Gallon Macfadyena unguis-cati - Cat Claw Vine.....	116.96	
32 93 13 00-0078	EA	1	Gallon Wisteria sinensis - Chinese Wisteria Vine.....	35.24	
32 93 13 00-0079	EA	3	Gallon Wisteria sinensis - Chinese Wisteria Vine.....	77.97	
32 93 13 00-0080	EA	5	Gallon Wisteria sinensis - Chinese Wisteria Vine.....	116.95	
32 93 13 00-0081	EA	1	Gallon Ranunculaceae - Clematis Varieties.....	38.74	
32 93 13 00-0082	EA	2	Gallon Ranunculaceae - Clematis Varieties.....	71.64	
32 93 13 00-0083	EA	1	Gallon Hydrangea petiolaris - Climbing Hydrangea.....	48.73	
32 93 13 00-0084	EA	2	Gallon Hydrangea petiolaris - Climbing Hydrangea.....	91.47	
32 93 13 00-0085	EA	5	Gallon Hydrangea petiolaris - Climbing Hydrangea.....	149.94	
32 93 13 00-0086	EA	4"	Pot Lantana camera - Common Lantana.....	6.75	
32 93 13 00-0087	EA	1	Gallon Lantana camera - Common Lantana.....	19.49	
32 93 13 00-0088	EA	1	Gallon Gardenia jasminoides 'Radicans' - Creeping Gardenia.....	23.24	
32 93 13 00-0089	EA	5	Gallon Gardenia jasminoides 'Radicans' - Creeping Gardenia.....	76.47	
32 93 13 00-0090	EA	2	Quart Lysimachia nummularia - Creeping Jenny.....	11.25	
32 93 13 00-0091	EA	1	Gallon Lysimachia nummularia - Creeping Jenny.....	21.74	
32 93 13 00-0092	EA	2	Quart Liriope spicata - Creeping Lilytuft.....	19.49	
32 93 13 00-0093	EA	1	Gallon Liriope spicata - Creeping Lilytuft.....	35.24	
32 93 13 00-0094	EA	5	Gallon Liriope spicata - Creeping Lilytuft.....	74.22	
32 93 13 00-0095	EA	Bare Root	Liriope spicata - Creeping Liriope.....	4.91	
32 93 13 00-0096	EA	3"	Pot Rosmarinus officinalis 'Prostratus' - Creeping Rosemary.....	6.75	
32 93 13 00-0097	EA	1	Gallon Rosmarinus officinalis 'Prostratus' - Creeping Rosemary.....	26.99	
32 93 13 00-0098	EA	2-1/4"	Pot Securigera varia - Crown Vetch.....	4.50	
32 93 13 00-0099	EA	50	Plant Flat Securigera varia - Crown Vetch.....	152.19	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 13 00-0100	EA	1 Quart Senecio cineraria - Dusty Miller	11.25
32 93 13 00-0101	EA	1 Gallon Senecio cineraria - Dusty Miller	26.99
32 93 13 00-0102	EA	2 Gallon Aristolochia macrophylla - Dutchman's Pipe	93.71
32 93 13 00-0103	EA	5 Gallon Aristolochia macrophylla - Dutchman's Pipe	171.68
32 93 13 00-0104	EA	1 Gallon Ilex cornuta - Dwarf Holly	20.36
32 93 13 00-0105	EA	3 Gallon Ilex cornuta - Dwarf Holly	43.64
32 93 13 00-0106	EA	3 Gallon Rhamphilepis umbellata 'Minor' - Dwarf Indian Hawthorn	43.64
32 93 13 00-0107	EA	1 Gallon Tradescantia spathacea - Dwarf Oyster Plant	14.54
32 93 13 00-0108	EA	2" To 3" Pot Hedera helix - English Ivy	6.75
32 93 13 00-0109	EA	12" To 15" Runners Hedera helix - English Ivy	11.25
32 93 13 00-0110	EA	1 Gallon Hedera helix - English Ivy	26.99
32 93 13 00-0111	EA	50 Plant Flat Hedera helix - English Ivy	155.94
32 93 13 00-0112	EA	4" Pot Lavandula angustifolia - English Lavender	9.75
32 93 13 00-0113	EA	1 Quart Lavandula angustifolia - English Lavender	15.74
32 93 13 00-0114	EA	1 Gallon Lavandula angustifolia - English Lavender	30.74
32 93 13 00-0115	EA	1 Gallon Euonymus fortunei 'Kewensis' - Wintercreeper	29.24
32 93 13 00-0116	EA	2 Gallon Euonymus fortunei 'Kewensis' - Wintercreeper	58.48
32 93 13 00-0117	EA	1 Quart Arundo donax - Giant Reed	35.99
32 93 13 00-0118	EA	1 Gallon Arundo donax - Giant Reed	51.73
32 93 13 00-0119	EA	1 Gallon Lonicera x heckrottii - Gold Flame Honeysuckle	30.74
32 93 13 00-0120	EA	2 Gallon Lonicera x heckrottii - Gold Flame Honeysuckle	58.48
32 93 13 00-0121	EA	1 Quart Hakonechloa macra 'Aureola' - Golden Variegated Hakone Grass	39.74
32 93 13 00-0122	EA	1 Gallon Hakonechloa macra 'Aureola' - Golden Variegated Hakone Grass	59.98
32 93 13 00-0123	EA	3" Pot Lonicera japonica 'Halliana' - Hall's Japanese Honeysuckle	6.75
32 93 13 00-0124	EA	1 Gallon Lonicera japonica 'Halliana' - Hall's Japanese Honeysuckle	30.74
32 93 13 00-0125	EA	2 Gallon Lonicera japonica 'Halliana' - Hall's Japanese Honeysuckle	58.48
32 93 13 00-0126	EA	1 Gallon Hardenbergia violacea - Happy Wanderer	26.99
32 93 13 00-0127	EA	5 Gallon Hardenbergia violacea - Happy Wanderer	89.97
32 93 13 00-0128	EA	3 Gallon Hibiscus, Assorted Colors	35.16
32 93 13 00-0129	EA	1 Gallon Acorus gramineus - Japanese Sweet Flag	28.12
32 93 13 00-0130	EA	1 Gallon Jasminum volubile - Wax Jasmine	14.16
32 93 13 00-0131	EA	1 Gallon Jasminum volubile - Wax Jasmine	35.16
32 93 13 00-0132	EA	1 Gallon Juniperus davurica 'Parsonii' - Parson's Juniper	17.66
32 93 13 00-0133	EA	3 Gallon Juniperus davurica 'Parsonii' - Parson's Juniper	39.32
32 93 13 00-0134	EA	1 Gallon Cissus antarctica - Kangaroo Vine	21.74
32 93 13 00-0135	EA	5 Gallon Cissus antarctica - Kangaroo Vine	68.22
32 93 13 00-0136	EA	1 Quart Stachys byzantina - Lamb's Ear	11.25
32 93 13 00-0137	EA	1 Quart Stachys byzantina - Lamb's Ear	26.99
32 93 13 00-0138	EA	1 Gallon Lantana spp. Various Colors	15.91
32 93 13 00-0139	EA	1 Gallon Lantana sellowiana - Trailing Lantana	10.47
32 93 13 00-0140	EA	1 Gallon Cocculus laurifolius - Laurel-leaf Snailseed	21.74
32 93 13 00-0141	EA	5 Gallon Cocculus laurifolius - Laurel-leaf Snailseed	77.97
32 93 13 00-0142	EA	1 Gallon Liriope Evergreen Giant, 6 To 8 Bibs Minimum	15.91
32 93 13 00-0143	EA	1 Gallon Variegated Liriope Evergreen Giant, 6 To 8 Bibs Minimum	20.08
32 93 13 00-0144	EA	3 Gallon Variegated Liriope Evergreen Giant, 6 To 8 Bibs Minimum	32.10
32 93 13 00-0145	EA	1 Quart Moss Phlox, Creeping Phlox	11.25
32 93 13 00-0146	EA	1 Gallon Moss Phlox, Creeping Phlox	26.99
32 93 13 00-0147	EA	1 Gallon Nephrolepis exaltata - Common Boston Fern	14.16
32 93 13 00-0148	EA	4" Pot Ophiopogon Japonicus - Mondo grass	6.75
32 93 13 00-0149	EA	1 Gallon Ophiopogon Japonicus - Mondo grass	26.99
32 93 13 00-0150	EA	5 Gallon Ophiopogon Japonicus - Mondo grass	62.23
32 93 13 00-0151	EA	2' To 3' High Oregon Holly-Grape	31.16
32 93 13 00-0152	EA	1 Gallon Pachysandra terminalis - Pachysandra	40.59
32 93 13 00-0153	EA	2-1/4" Pot Vinca minor - Periwinkle	3.75
32 93 13 00-0154	EA	4" Pot Vinca minor - Periwinkle	11.25
32 93 13 00-0155	EA	Bare Root Vinca minor - Periwinkle	3.75
32 93 13 00-0156	EA	1 Quart Nepeta mussinii - Persian Catmint	11.25
32 93 13 00-0157	EA	1 Gallon Nepeta mussinii - Persian Catmint	23.24
32 93 13 00-0158	EA	1 Gallon Coprosma kirkii - Prostrate Coprosma	18.74
32 93 13 00-0159	EA	5 Gallon Coprosma kirkii - Prostrate Coprosma	68.22
32 93 13 00-0160	EA	1 Gallon Juniperus Horizontalis - Prostrate Juniper	30.74
32 93 13 00-0161	EA	3 Gallon Juniperus Horizontalis - Prostrate Juniper	65.97
32 93 13 00-0162	EA	5 Gallon Juniperus Horizontalis - Prostrate Juniper	97.46
32 93 13 00-0163	EA	1 Quart Euonymus fortunei 'Coloratus' - Purple-leaf Wintercreeper	26.77
32 93 13 00-0164	EA	1 Gallon Euonymus fortunei 'Coloratus' - Purple-leaf Wintercreeper	69.37
32 93 13 00-0165	EA	24 Plant Flat Euonymus fortunei 'Coloratus' - Purple-leaf Wintercreeper	116.21
32 93 13 00-0166	EA	1 Gallon Tradescantia spathacea - Rhoecol discolor "Dwarf"	14.16
32 93 13 00-0167	EA	1 Quart Festuca glauca 'Sea Urchin' - Sea Urchin Blue Fescue	15.74
32 93 13 00-0168	EA	1 Gallon Festuca glauca 'Sea Urchin' - Sea Urchin Blue Fescue	28.12
32 93 13 00-0169	EA	2 Gallon Festuca glauca 'Sea Urchin' - Sea Urchin Blue Fescue	43.86
32 93 13 00-0170	EA	1 Gallon Hymenocallis latifolia - Spider Lily	17.45
32 93 13 00-0171	EA	3 Gallon Hymenocallis latifolia - Spider Lily	46.54
32 93 13 00-0172	EA	1 Quart Hypericum perforatum - St. John's Wort	11.25
32 93 13 00-0173	EA	1 Gallon Hypericum perforatum - St. John's Wort	26.99
32 93 13 00-0174	EA	5 Gallon Hypericum perforatum - St. John's Wort	69.72
32 93 13 00-0175	EA	24" To 30" High Viburnum awabuki - Sweet Viburnum	94.89
32 93 13 00-0176	EA	1 Gallon Campsis radicans - Trumpet Creeper	41.23
32 93 13 00-0177	EA	2 Gallon Campsis radicans - Trumpet Creeper	62.23
32 93 13 00-0178	EA	5 Gallon Campsis radicans - Trumpet Creeper	149.94
32 93 13 00-0179	EA	2-1/4" Pot Vinca major - Variegated Greater Periwinkle	3.75
32 93 13 00-0180	EA	4" Pot Vinca major - Variegated Greater Periwinkle	11.25



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93	13	00-0181	EA Bare Root Vinca major - Variegated Greater Periwinkle.....	3.75	
32 93	13	00-0182	EA 1 Quart Carex hachijoensis - Variegated Japanese Sedge.....	20.24	
32 93	13	00-0183	EA 1 Gallon Carex hachijoensis - Variegated Japanese Sedge.....	28.12	
32 93	13	00-0184	EA 2 Gallon Carex hachijoensis - Variegated Japanese Sedge.....	43.86	
32 93	13	00-0185	EA 1 Gallon Liriope muscari 'Variegata' - Variegated Lilyturf.....	30.74	
32 93	13	00-0186	EA 2 Quart Verbena peruviana "St. Paul" - St. Paul Verbena.....	14.24	
32 93	13	00-0187	EA 1 Gallon Verbena peruviana "St. Paul" - St. Paul Verbena.....	21.74	
32 93	13	00-0188	EA 48 Plant Flat Vinca minor - Lesser Periwinkle.....	133.63	
32 93	13	00-0189	EA 3" Pot Parthenocissus quinquefolia - Virginia Creeper.....	6.75	
32 93	13	00-0190	EA 1 Gallon Parthenocissus quinquefolia - Virginia Creeper.....	35.24	
32 93	13	00-0191	EA 1 Gallon Jasminum polyanthum - Winter Jasmine.....	26.99	
32 93	13	00-0192	EA 2 Gallon Jasminum polyanthum - Winter Jasmine.....	53.98	
32 93	13	00-0193	EA 5 Gallon Jasminum polyanthum - Winter Jasmine.....	93.71	
32 93	13	00-0194	EA 1 Gallon Cistaceae - Wrinkleleaf Rock Rose.....	21.74	
32 93	13	00-0195	EA 5 Gallon Cistaceae - Wrinkleleaf Rock Rose.....	74.22	
32 93	13	00-0196	EA 1 Gallon Acmispon galaber - Common Deerweed.....	10.08	
32 93	13	00-0197	EA 1 Gallon Acacia redolens - Bank Catclaw.....	4.18	
32 93	13	00-0198	EA 5 Gallon Acacia redolens - Bank Catclaw.....	12.97	
32 93	13	00-0199	EA 15 Gallon Acacia redolens - Bank Catclaw.....	50.42	
32 93	13	00-0200	EA 1 Gallon Achillea filipendulina - Fernleaf Yarrow.....	6.19	
32 93	13	00-0201	EA 1 Gallon Achillea millefolium - Common Yarrow.....	5.62	
32 93	13	00-0202	EA 5 Gallon Achillea millefolium - Common Yarrow.....	17.29	
32 93	13	00-0203	EA 1 Gallon Achillea millefolium 'Paprika' - Red Yarrow.....	6.19	
32 93	13	00-0204	EA 1 Gallon Achillea 'Moonshine' - Yellow yarrow.....	6.19	
32 93	13	00-0205	EA 1 Gallon Agave americana - Century Plant.....	8.50	
32 93	13	00-0206	EA 5 Gallon Agave americana - Century Plant.....	23.05	
32 93	13	00-0207	EA 15 Gallon Agave americana - Century Plant.....	70.59	
32 93	13	00-0208	EA 24" Box Agave americana - Century Plant.....	252.10	
32 93	13	00-0209	EA 1 Gallon Agave vilmoriniana - Octopus Agave.....	8.50	
32 93	13	00-0210	EA 5 Gallon Agave vilmoriniana - Octopus Agave.....	23.05	
32 93	13	00-0211	EA 15 Gallon Agave vilmoriniana - Octopus Agave.....	70.59	
32 93	13	00-0212	EA 24" Box Agave vilmoriniana - Octopus Agave.....	252.10	
32 93	13	00-0213	EA 5 Gallon Nolina parryi - Giant Nolina.....	23.05	

32 93 23 Plants and Bulbs (32 93)

Note: Materials only. See CSI section 32 93 83 00-0062 for installation and planting of bulbs and annuals.

32 93 23 00-0001 Perennials (32 93 23)

32 93	23	00-0002	EA 2 Quart Assorted Daylilies.....	21.74	
32 93	23	00-0003	EA 1 Gallon Assorted Daylilies.....	30.74	
32 93	23	00-0004	EA 2 Gallon Assorted Daylilies.....	50.98	
32 93	23	00-0005	EA 1 Quart Azure Penstemon.....	11.24	
32 93	23	00-0006	EA 1 Gallon Azure Penstemon.....	28.11	
32 93	23	00-0007	EA 1 Quart Balloon Flower.....	11.24	
32 93	23	00-0008	EA 1 Gallon Balloon Flower.....	28.11	
32 93	23	00-0009	EA 1 Quart Black-eyed Susan.....	11.24	
32 93	23	00-0010	EA 1 Gallon Black-eyed Susan.....	28.11	
32 93	23	00-0011	EA 2 Gallon Black-eyed Susan.....	36.36	
32 93	23	00-0012	EA 1 Quart Blackberry Lily.....	11.24	
32 93	23	00-0013	EA 1 Gallon Blackberry Lily.....	28.11	
32 93	23	00-0014	EA 1 Quart Blank Flower.....	11.24	
32 93	23	00-0015	EA 1 Gallon Blank Flower.....	25.87	
32 93	23	00-0016	EA 2 Gallon Blank Flower.....	36.36	
32 93	23	00-0017	EA 1 Quart Blazing Star, Gayfeather.....	11.24	
32 93	23	00-0018	EA 1 Gallon Blazing Star, Gayfeather.....	28.11	
32 93	23	00-0019	EA 1 Quart Bloodred Geranium.....	19.12	
32 93	23	00-0020	EA 1 Gallon Bloodred Geranium.....	32.24	
32 93	23	00-0021	EA 1 Quart Blue Plumbago.....	11.24	
32 93	23	00-0022	EA 1 Gallon Blue Plumbago.....	28.11	
32 93	23	00-0023	EA 1 Quart Blue Star.....	20.24	
32 93	23	00-0024	EA 1 Gallon Blue Star.....	32.24	
32 93	23	00-0025	EA 1 Quart Cardinal Flower.....	11.24	
32 93	23	00-0026	EA 1 Gallon Cardinal Flower.....	28.11	
32 93	23	00-0027	EA 4" Pot Columbine.....	6.75	
32 93	23	00-0028	EA 1 Quart Columbine.....	11.24	
32 93	23	00-0029	EA 1 Gallon Columbine.....	28.11	
32 93	23	00-0030	EA 1 Quart Common Globeflower.....	11.24	
32 93	23	00-0031	EA 1 Gallon Common Globeflower.....	28.11	
32 93	23	00-0032	EA 1 Quart Cottage Pink, Scotch Pink.....	11.24	
32 93	23	00-0033	EA 1 Quart Cottage Pink, Scotch Pink.....	28.11	
32 93	23	00-0034	EA 1 Gallon Astilbe 'Deutschland'.....	40.49	
32 93	23	00-0035	EA 1 Quart Diploid.....	14.25	
32 93	23	00-0036	EA 1 Gallon Diploid.....	32.24	
32 93	23	00-0037	EA 3 Gallon Diploid.....	55.48	
32 93	23	00-0038	EA 4" Pot Dune Sunflower.....	16.05	
32 93	23	00-0039	EA 1 Quart Evans Begonia.....	20.24	
32 93	23	00-0040	EA 1 Gallon Evans Begonia.....	36.36	
32 93	23	00-0041	EA 1 Quart False Dragonhead.....	11.24	
32 93	23	00-0042	EA 1 Gallon False Dragonhead.....	28.11	
32 93	23	00-0043	EA 1 Quart False Spirea.....	11.24	
32 93	23	00-0044	EA 1 Gallon False Spirea.....	36.36	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 23 00-0045	EA	3 Gallon False Spirea	50.23	
32 93 23 00-0046	EA	2 Quart False Sunflower	17.99	
32 93 23 00-0047	EA	1 Gallon False Sunflower	28.11	
32 93 23 00-0048	EA	2 Gallon False Sunflower	36.36	
32 93 23 00-0049	EA	1 Gallon Foxglove	25.87	
32 93 23 00-0050	EA	2 Gallon Foxglove	36.36	
32 93 23 00-0051	EA	3 Gallon Foxglove	52.48	
32 93 23 00-0052	EA	1 Gallon Francee Hostas	45.53	
32 93 23 00-0053	EA	1 Quart Garden Phlox	11.24	
32 93 23 00-0054	EA	1 Gallon Garden Phlox	28.11	
32 93 23 00-0055	EA	2 Quart Golden Groundsel	23.99	
32 93 23 00-0056	EA	2 Gallon Golden Groundsel	48.36	
32 93 23 00-0057	EA	1 Quart Golden Star	11.24	
32 93 23 00-0058	EA	1 Gallon Golden Star	28.11	
32 93 23 00-0059	EA	1 Quart Goldenrod	11.24	
32 93 23 00-0060	EA	1 Gallon Goldenrod	28.11	
32 93 23 00-0061	EA	1 Gallon Happy Returns Daylilies	52.36	
32 93 23 00-0062	EA	4" Pot Hardy Aster, Michaelmas Daisy	6.75	
32 93 23 00-0063	EA	1 Quart Hardy Aster, Michaelmas Daisy	11.24	
32 93 23 00-0064	EA	1 Gallon Hardy Aster, Michaelmas Daisy	28.11	
32 93 23 00-0065	EA	1 Quart Hardy Chrysanthemum	9.75	
32 93 23 00-0066	EA	6" To 8" Pot Hardy Chrysanthemum	16.12	
32 93 23 00-0067	EA	1 Gallon Hardy Chrysanthemum	25.87	
32 93 23 00-0068	EA	1 Gallon Herbaceous Peony	40.11	
32 93 23 00-0069	EA	2 Gallon Herbaceous Peony	64.10	
32 93 23 00-0070	EA	3 Gallon Herbaceous Peony	84.35	
32 93 23 00-0071	EA	4" Pot Japanese Anemone	6.75	
32 93 23 00-0072	EA	1 Quart Japanese Anemone	20.24	
32 93 23 00-0073	EA	2 Gallon Japanese Anemone	36.36	
32 93 23 00-0074	EA	2" Pot Japanese Spurge	4.00	
32 93 23 00-0075	EA	6" Pot Japanese Spurge	6.00	
32 93 23 00-0076	EA	1 Gallon Japanese Spurge	25.83	
32 93 23 00-0077	EA	1 Quart Oriental Poppy	16.12	
32 93 23 00-0078	EA	1 Gallon Oriental Poppy	32.24	
32 93 23 00-0079	EA	48 Plant Flat Pachysandra terminalis	133.63	
32 93 23 00-0080	EA	1 Gallon Pacific Coast Iris	22.12	
32 93 23 00-0081	EA	3 Gallon Pacific Coast Iris	41.99	
32 93 23 00-0082	EA	1 Gallon Palace Purple Coral Bells	42.57	
32 93 23 00-0083	EA	4" Pot Perennial Salvia	6.75	
32 93 23 00-0084	EA	1 Quart Perennial Salvia	11.24	
32 93 23 00-0085	EA	1 Gallon Perennial Salvia	28.11	
32 93 23 00-0086	EA	1 Quart Pincushion Flower	11.24	
32 93 23 00-0087	EA	1 Gallon Pincushion Flower	28.11	
32 93 23 00-0088	EA	2 Quart Plantain Lily	21.74	
32 93 23 00-0089	EA	1 Gallon Plantain Lily	30.74	
32 93 23 00-0090	EA	2 Gallon Plantain Lily	50.98	
32 93 23 00-0091	EA	3 Gallon Plantain Lily	96.35	
32 93 23 00-0092	EA	2 Quart Purple Coneflower	20.24	
32 93 23 00-0093	EA	1 Gallon Purple Coneflower	28.11	
32 93 23 00-0094	EA	2 Gallon Purple Coneflower	36.36	
32 93 23 00-0095	EA	1 Quart Purple Loosestrife	11.24	
32 93 23 00-0096	EA	1 Gallon Purple Loosestrife	28.11	
32 93 23 00-0097	EA	1 Quart Rose Mallow	22.12	
32 93 23 00-0098	EA	2 Gallon Rose Mallow	40.11	
32 93 23 00-0099	EA	3 Gallon Rose Mallow	68.60	
32 93 23 00-0100	EA	1 Gallon Autumn Joy Sedum	42.86	
32 93 23 00-0101	EA	1 Quart Siberian Iris	19.12	
32 93 23 00-0102	EA	2 Gallon Siberian Iris	36.36	
32 93 23 00-0103	EA	3 Gallon Siberian Iris	50.23	
32 93 23 00-0104	EA	1 Quart Speedwell	11.24	
32 93 23 00-0105	EA	1 Gallon Speedwell	28.11	
32 93 23 00-0106	EA	1 Quart Tetraploid	28.11	
32 93 23 00-0107	EA	1 Gallon Tetraploid	52.48	
32 93 23 00-0108	EA	3 Gallon Tetraploid	71.60	
32 93 23 00-0109	EA	1 Quart Threadleaf Coreopsis	11.24	
32 93 23 00-0110	EA	1 Gallon Threadleaf Coreopsis	28.11	
32 93 23 00-0111	EA	1 Quart Torch Lily	11.24	
32 93 23 00-0112	EA	1 Quart Bluebeard	20.24	
32 93 23 00-0113	EA	1 Gallon Bluebeard	29.99	
32 93 23 00-0114	EA	2 Gallon Bluebeard	43.86	
32 93 23 00-0115	EA	1 Gallon Anemopsis californica - Yerba Mansa	12.63	
32 93 23 00-0116	EA	1 Gallon Artemisia palmeri - San Diego Sagewort	11.23	
32 93 23 00-0117	EA	1 Gallon Arthrocnemum subterminale - Parish's Pickleweed	14.04	
32 93 23 00-0118	EA	1 Gallon Cressa truxillensis - Alkali Weed	14.04	
32 93 23 00-0119	EA	1 Gallon Frankenia salina - Alkali Heath	11.23	
32 93 23 00-0120	EA	4" Pot Jaumea carnosa - Salt Marsh Daisy	5.62	
32 93 23 00-0121	EA	1 Gallon Jaumea carnosa - Salt Marsh Daisy	11.24	
32 93 23 00-0122	EA	1 Gallon Juncus acutus - Spiny Rush	11.23	
32 93 23 00-0123	EA	5 Gallon Juncus acutus - Spiny Rush	29.37	
32 93 23 00-0124	EA	1 Gallon Limonium californicum - Sea Lavender	11.23	
32 93 23 00-0125	EA	1 Gallon Salicornia virginica - Deer Weed	11.23	



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 23 00-0126 EA 1 Gallon Suaeda esteroa - Sea Blite.....	14.04	
32 93 23 00-0127 EA 1 Gallon Suaeda taxifolia - Wooly Sea Blite.....	11.23	
32 93 23 00-0128 Annuals (32 93 23)		
32 93 23 00-0129 EA 2-1/2" Pot Annual Flowers.....	5.22	
32 93 23 00-0130 EA 3" Pot Annual Flowers.....	7.06	
32 93 23 00-0131 EA 4" Pot Annual Flowers.....	15.09	
32 93 23 00-0132 EA 5-1/2" Pot Annual Flowers.....	20.06	
32 93 23 00-0133 EA 6" Pot Annual Flowers.....	39.73	
32 93 23 00-0134 EA 8" Pot Annual Flowers.....	66.21	
32 93 23 00-0135 EA 36 Plant Flat Annual Flowers.....	86.68	
32 93 23 00-0136 EA 48 Plant Flat Annual Flowers.....	98.31	
32 93 23 00-0137 Bulbs (32 93 23)		
32 93 23 00-0138 EA Top Size Allium giganteum - Giant Ornamental Onion.....	18.15	
32 93 23 00-0139 EA Top Size Allium sphaerocephalum - Drumstick Ornamental Onion.....	1.05	
32 93 23 00-0140 EA Top Size Crocus Hybrid.....	1.19	
32 93 23 00-0141 EA Top Size Eranthis hyemalis - Winter Aconite.....	1.54	
32 93 23 00-0142 EA Top Size Galanthus nivalis - Snowdrops.....	1.95	
32 93 23 00-0143 EA Top Size Iris reticulata cvs - Dutch Iris.....	0.77	
32 93 23 00-0144 EA Top Size Muscari armeniacum - Grape Hyacinth.....	0.91	
32 93 23 00-0145 EA Top Size Muscari latifolium - Grape Hyacinth.....	1.05	
32 93 23 00-0146 EA Narcissus 'Carlton' - Carlton Daffodil DNI.....	6.28	
32 93 23 00-0147 EA Narcissus 'Dutch Master' - Dutch Master Daffodil DNI.....	3.00	
32 93 23 00-0148 EA Narcissus 'February Gold' - February Gold Daffodil DNI.....	3.14	
32 93 23 00-0149 EA Narcissus 'Ice Follies' - Ice Follies Daffodil DNI.....	3.14	
32 93 23 00-0150 EA Narcissus 'Mount Hood' - Mount Hood Daffodil DNI.....	3.28	
32 93 23 00-0151 EA Narcissus 'Papillon Blanc' - Papillon Blanc Daffodil DNI.....	3.49	
32 93 23 00-0152 EA Narcissus 'Pipit' - Pipit Daffodil DNI.....	3.28	
32 93 23 00-0153 EA Narcissus 'Salome' - Salome Daffodil DNI.....	3.07	
32 93 23 00-0154 EA Narcissus 'Tete A Tete' - Tete A Tete Daffodil DNI.....	3.28	
32 93 23 00-0155 EA Narcissus 'Thalia' - Thalia Daffodil DNI.....	3.28	
32 93 23 00-0156 EA Top Size Scilla siberica - Siberian Squill.....	0.98	
32 93 23 00-0157 EA Top Size Tulip 'Angelique' - Angelique Tulip.....	2.79	
32 93 23 00-0158 EA Top Size Tulip 'Apeldoorn' - Apeldoorn Tulip.....	2.09	
32 93 23 00-0159 EA Top Size Tulip 'Apricot Beauty' - Apricot Beauty Tulip.....	2.79	
32 93 23 00-0160 EA Top Size Tulip 'Big Smile' - Big Smile Tulip.....	2.44	
32 93 23 00-0161 EA Top Size Tulip 'Black Parrot' - Black Parrot Tulip.....	3.49	
32 93 23 00-0162 EA Top Size Tulip 'Blue Heron' - Blue Heron Tulip.....	2.65	
32 93 23 00-0163 EA Top Size Tulip 'Cardinal' - Cardinal Tulip.....	2.30	
32 93 23 00-0164 EA Top Size Tulip 'Christmas Marvel' - Christmas Marvel Tulip.....	2.58	
32 93 23 00-0165 EA Top Size Tulip clusiana - Species Tulip.....	2.58	
32 93 23 00-0166 EA Top Size Tulip 'Elizabeth Arden' - Elizabeth Arden Tulip.....	2.58	
32 93 23 00-0167 EA Top Size Tulip 'Golden Apledoorn' - Golden Apledoorn Tulip.....	2.09	
32 93 23 00-0168 EA Top Size Tulip 'Golden Emperor' - Golden Emperor Tulip.....	2.02	
32 93 23 00-0169 EA Top Size Tulip 'Halcro' - Halcro Tulip.....	2.09	
32 93 23 00-0170 EA Top Size Tulip 'Ivory Floridale' - Ivory Floridale Tulip.....	3.49	
32 93 23 00-0171 EA Top Size Tulip 'Orange Emperor' - Orange Emperor Tulip.....	2.09	
32 93 23 00-0172 EA Top Size Tulip 'Passionale' - Passionale Tulip.....	2.79	
32 93 23 00-0173 EA Top Size Tulip 'Peach Blossom' - Peach Blossom Tulip.....	3.00	
32 93 23 00-0174 EA Top Size Tulip 'Peer Gynt' - Peer Gynt Tulip.....	3.14	
32 93 23 00-0175 EA Top Size Tulip 'Pink Diamond' - Pink Diamond Tulip.....	2.51	
32 93 23 00-0176 EA Top Size Tulip 'Pink Emperor' - Pink Emperor Tulip.....	2.37	
32 93 23 00-0177 EA Top Size Tulip praetens 'Fusilier' - Praetens Fusilier Tulip.....	2.58	
32 93 23 00-0178 EA Top Size Tulip 'Princeps' - Princeps Tulip.....	2.58	
32 93 23 00-0179 EA Top Size Tulip 'Red Riding Hood' - Red Riding Hood Tulip.....	2.02	
32 93 23 00-0180 EA Top Size Tulip saxatilis - Species Tulip.....	1.40	
32 93 23 00-0181 EA Top Size Tulip 'Shirley' - Shirley Tulip.....	2.09	
32 93 23 00-0182 EA Top Size Tulip 'Spring Green' - Spring Green Tulip.....	2.72	
32 93 23 00-0183 EA Top Size Tulip 'White Emperor' - White Emperor Tulip.....	2.09	
32 93 33 Shrubs (32 93)		
Note: (cvs = cultivar or cultivated varieties) materials only. See CSI section 32 93 83 00-0038 for installation and planting of shrubs.		
32 93 33 00-0001 Shrubs (32 93 33)		
32 93 33 00-0002 EA 1 Gallon Abelia x grandiflora - Abelia.....	16.14	
32 93 33 00-0003 EA 3 Gallon Abelia x grandiflora - Abelia.....	32.87	
32 93 33 00-0004 EA 5 Gallon Abelia x grandiflora - Abelia.....	63.09	
32 93 33 00-0005 EA 3 Gallon Aesculus parviflora 'Rogers' - Rogers Bottlebrush Buckeye.....	92.80	
32 93 33 00-0006 EA 18" Balled and Burlapped, Aesculus parviflora 'Rogers' - Rogers Bottlebrush Buckeye.....	135.63	
32 93 33 00-0007 EA 24" Balled and Burlapped, Aesculus parviflora 'Rogers' - Rogers Bottlebrush Buckeye.....	151.33	
32 93 33 00-0008 EA 30" Balled and Burlapped, Aesculus parviflora 'Rogers' - Rogers Bottlebrush Buckeye.....	191.31	
32 93 33 00-0009 EA 36" Balled and Burlapped, Aesculus parviflora 'Rogers' - Rogers Bottlebrush Buckeye.....	212.72	
32 93 33 00-0010 EA 18" Balled and Burlapped, Aesculus parviflora - Bottlebrush Buckeye.....	42.83	
32 93 33 00-0011 EA 24" Balled and Burlapped, Aesculus parviflora - Bottlebrush Buckeye.....	57.11	
32 93 33 00-0012 EA 30" Balled and Burlapped, Aesculus parviflora - Bottlebrush Buckeye.....	71.38	
32 93 33 00-0013 EA 36" Balled and Burlapped, Aronia arbutifolia & cvs - Red Chokeberry.....	39.42	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0014	EA	42" Balled and Burlapped, Aronia arbutifolia & cvs - Red Chokeberry.....	46.38
32 93 33 00-0015	EA	48" Balled and Burlapped, Aronia arbutifolia & cvs - Red Chokeberry.....	55.65
32 93 33 00-0016	EA	60" Balled and Burlapped, Aronia arbutifolia & cvs - Red Chokeberry.....	64.93
32 93 33 00-0017	EA	72" Balled and Burlapped, Aronia arbutifolia & cvs - Red Chokeberry.....	78.84
32 93 33 00-0018	EA	36" Balled and Burlapped, Aronia melanocarpa & cvs - Black Chokeberry.....	38.26
32 93 33 00-0019	EA	42" Balled and Burlapped, Aronia melanocarpa & cvs - Black Chokeberry.....	40.58
32 93 33 00-0020	EA	48" Balled and Burlapped, Aronia melanocarpa & cvs - Black Chokeberry.....	42.90
32 93 33 00-0021	EA	60" Balled and Burlapped, Aronia melanocarpa & cvs - Black Chokeberry.....	48.69
32 93 33 00-0022	EA	36" Balled and Burlapped, Aronia prunifolia - Purple-Fruited Chokeberry.....	38.84
32 93 33 00-0023	EA	42" Balled and Burlapped, Aronia prunifolia - Purple-Fruited Chokeberry.....	41.16
32 93 33 00-0024	EA	48" Balled and Burlapped, Aronia prunifolia - Purple-Fruited Chokeberry.....	43.48
32 93 33 00-0025	EA	60" Balled and Burlapped, Aronia prunifolia - Purple-Fruited Chokeberry.....	45.80
32 93 33 00-0026	EA	1 Gallon Aspidistra elatior - Cast Iron Plant.....	7.97
32 93 33 00-0027	EA	2 Gallon Aspidistra elatior - Cast Iron Plant.....	15.43
32 93 33 00-0028	EA	1 Gallon Baccharis pilularis 'Pigeon Point' - Dwarf Coyote Brush.....	9.33
32 93 33 00-0029	EA	5 Gallon Baccharis pilularis 'Pigeon Point' - Dwarf Coyote Brush.....	23.08
32 93 33 00-0030	EA	1 Gallon Baccharis pilularis 'Twin Peaks' - Dwarf Coyote Brush.....	9.33
32 93 33 00-0031	EA	5 Gallon Baccharis pilularis 'Twin Peaks' - Dwarf Coyote Brush.....	23.08
32 93 33 00-0032	EA	1 Gallon Aucuba japonica "Variegata" - Gold Dust Plant.....	9.34
32 93 33 00-0033	EA	3 Gallon Aucuba japonica "Variegata" - Gold Dust Plant.....	20.55
32 93 33 00-0034	EA	5 Gallon Aucuba japonica "Variegata" - Gold Dust Plant.....	27.78
32 93 33 00-0035	EA	1 Gallon Bauhinia purpurea - Orange-eye Butterfly Bush.....	9.96
32 93 33 00-0036	EA	2 Gallon Bauhinia purpurea - Orange-eye Butterfly Bush.....	14.57
32 93 33 00-0037	EA	15" To 18" Berberis - Northern Bayberry.....	41.60
32 93 33 00-0038	EA	2' To 2-1/2' Berberis - Northern Bayberry.....	52.81
32 93 33 00-0039	EA	2-1/2' To 3' Berberis - Northern Bayberry.....	73.98
32 93 33 00-0040	EA	1 Gallon Berberis Buxifolia 'Nana' - Barberry.....	10.54
32 93 33 00-0041	EA	5 Gallon Berberis Buxifolia 'Nana' - Barberry.....	25.39
32 93 33 00-0042	EA	18" To 24" Berberis julianae - Dwarf Wintergreen Barberry.....	44.46
32 93 33 00-0043	EA	2' To 2-1/2' Berberis julianae - Dwarf Wintergreen Barberry.....	56.92
32 93 33 00-0044	EA	2-1/2' To 3' Berberis julianae - Dwarf Wintergreen Barberry.....	72.74
32 93 33 00-0045	EA	1 Gallon Berberis thunbergii - Crimson Pygmy Barberry.....	11.96
32 93 33 00-0046	EA	2 Gallon Berberis thunbergii - Crimson Pygmy Barberry.....	23.54
32 93 33 00-0047	EA	3 Gallon Berberis thunbergii - Crimson Pygmy Barberry.....	28.77
32 93 33 00-0048	EA	1 Gallon Berberis x mentorensis - Mentor Barberry.....	11.33
32 93 33 00-0049	EA	5 Gallon Berberis x mentorensis - Mentor Barberry.....	32.01
32 93 33 00-0050	EA	2' To 3' Berberis x mentorensis - Mentor Barberry.....	44.46
32 93 33 00-0051	EA	3' To 4' Berberis x mentorensis - Mentor Barberry.....	68.63
32 93 33 00-0052	EA	1 Gallon Buxus microphylla japonica - Japanese Boxwood.....	12.95
32 93 33 00-0053	EA	5 Gallon Buxus microphylla japonica - Japanese Boxwood.....	34.75
32 93 33 00-0054	EA	12" To 15" Buxus microphylla japonica - Japanese Boxwood.....	36.99
32 93 33 00-0055	EA	15" To 18" Buxus microphylla japonica - Japanese Boxwood.....	47.58
32 93 33 00-0056	EA	18" To 24" Buxus microphylla japonica - Japanese Boxwood.....	63.40
32 93 33 00-0057	EA	24" To 30" Buxus microphylla japonica - Japanese Boxwood.....	95.16
32 93 33 00-0058	EA	30" To 36" Buxus microphylla japonica - Japanese Boxwood.....	132.15
32 93 33 00-0059	EA	12" To 15" Buxus sempervirens - Common Boxwood.....	36.99
32 93 33 00-0060	EA	15" To 18" Buxus sempervirens - Common Boxwood.....	47.58
32 93 33 00-0061	EA	18" To 24" Buxus sempervirens - Common Boxwood.....	63.40
32 93 33 00-0062	EA	24" To 30" Buxus sempervirens - Common Boxwood.....	95.16
32 93 33 00-0063	EA	2 Gallon Buxus Hybrid - Boxwood Cultivars.....	24.35
32 93 33 00-0064	EA	5 Gallon Buxus Hybrid - Boxwood Cultivars.....	40.58
32 93 33 00-0065	EA	5 Gallon Buxus microphylla & cvs - Little leaf Boxwood.....	106.66
32 93 33 00-0066	EA	18" Balled and Burlapped, Buxus microphylla & cvs - Little leaf Boxwood.....	57.97
32 93 33 00-0067	EA	24" Balled and Burlapped, Buxus microphylla & cvs - Little leaf Boxwood.....	78.84
32 93 33 00-0068	EA	30" Balled and Burlapped, Buxus microphylla & cvs - Little leaf Boxwood.....	106.66
32 93 33 00-0069	EA	5 Gallon Calycanthus floridus - Common Sweetshrub.....	38.26
32 93 33 00-0070	EA	30" Balled and Burlapped, Calycanthus floridus - Common Sweetshrub.....	34.78
32 93 33 00-0071	EA	36" Balled and Burlapped, Calycanthus floridus - Common Sweetshrub.....	46.38
32 93 33 00-0072	EA	1 Gallon Camellia "Sasanqua" - Camellia.....	11.53
32 93 33 00-0073	EA	3 Gallon Camellia "Sasanqua" - Camellia.....	24.59
32 93 33 00-0074	EA	5 Gallon Camellia "Sasanqua" - Camellia.....	40.88
32 93 33 00-0075	EA	7 Gallon Camellia "Sasanqua" - Camellia.....	60.87
32 93 33 00-0076	EA	15 Gallon Camellia "Sasanqua" - Camellia.....	157.94
32 93 33 00-0077	EA	1 Gallon Camellia japonica - Camellia.....	11.53
32 93 33 00-0078	EA	3 Gallon Camellia japonica - Camellia.....	24.59
32 93 33 00-0079	EA	5 Gallon Camellia japonica - Camellia.....	40.88
32 93 33 00-0080	EA	5 Gallon Ceanothus americanus - New Jersey Tea.....	38.26
32 93 33 00-0081	EA	1 Gallon Ceanothus Griseus Horizontalis 'Yankee Point' - Yankee Point Ceanothus.....	10.54
32 93 33 00-0082	EA	5 Gallon Ceanothus Griseus Horizontalis 'Yankee Point' - Yankee Point Ceanothus.....	27.40
32 93 33 00-0083	EA	5 Gallon Celastrus scandens - Bittersweet.....	38.26
32 93 33 00-0084	EA	36" Balled and Burlapped, Celastrus scandens - Bittersweet.....	32.46
32 93 33 00-0085	EA	5 Gallon Cephalanthus occidentalis - Buttonbush.....	38.26
32 93 33 00-0086	EA	24" Balled and Burlapped, Cephalanthus occidentalis - Buttonbush.....	28.98
32 93 33 00-0087	EA	30" Balled and Burlapped, Cephalanthus occidentalis - Buttonbush.....	32.46
32 93 33 00-0088	EA	36" Balled and Burlapped, Cephalanthus occidentalis - Buttonbush.....	34.78
32 93 33 00-0089	EA	18" To 24" Chaenomeles speciosa - Flowering Quince.....	33.38
32 93 33 00-0090	EA	2' To 3' Chaenomeles speciosa - Flowering Quince.....	44.46
32 93 33 00-0091	EA	3' To 4' Chaenomeles speciosa - Flowering Quince.....	68.63
32 93 33 00-0092	EA	3 Gallon Clethra alnifolia & cvs - Summersweet Clethra.....	37.10
32 93 33 00-0093	EA	18" Balled and Burlapped, Clethra alnifolia & cvs - Summersweet Clethra.....	40.00
32 93 33 00-0094	EA	24" Balled and Burlapped, Clethra alnifolia & cvs - Summersweet Clethra.....	44.64



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
32 93 33 00-0095	EA	30" Balled and Burlapped, Clethra alnifolia & cvs - Summersweet Clethra	46.96		
32 93 33 00-0096	EA	36" Balled and Burlapped, Clethra alnifolia & cvs - Summersweet Clethra	55.07		
32 93 33 00-0097	EA	1 Gallon Cistus Hybridus - White Rockrose	9.33		
32 93 33 00-0098	EA	5 Gallon Cistus Hybridus - White Rockrose	23.08		
32 93 33 00-0099	EA	1 Gallon Coleonema Pulchellum - Confetti Bush	9.33		
32 93 33 00-0100	EA	5 Gallon Coleonema Pulchellum - Confetti Bush	23.08		
32 93 33 00-0101	EA	15 Gallon Coleonema Pulchellum - Confetti Bush	108.09		
32 93 33 00-0102	EA	2' To 3' Cornus mas - Cornelian Cherry	52.81		
32 93 33 00-0103	EA	3' To 4' Cornus mas - Cornelian Cherry	66.01		
32 93 33 00-0104	EA	4' To 5' Cornus mas - Cornelian Cherry	84.57		
32 93 33 00-0105	EA	5' To 6' Cornus mas - Cornelian Cherry	116.21		
32 93 33 00-0106	EA	5 Gallon Cornus alba & cvs - Tartarian Dogwood	34.78		
32 93 33 00-0107	EA	36" Balled and Burlapped, Cornus alba & cvs - Tartarian Dogwood	24.35		
32 93 33 00-0108	EA	48" Balled and Burlapped, Cornus alba & cvs - Tartarian Dogwood	27.83		
32 93 33 00-0109	EA	60" Balled and Burlapped, Cornus alba & cvs - Tartarian Dogwood	34.78		
32 93 33 00-0110	EA	72" Balled and Burlapped, Cornus alba & cvs - Tartarian Dogwood	41.74		
32 93 33 00-0111	EA	36" Balled and Burlapped, Cornus amomum - Silky Dogwood	34.78		
32 93 33 00-0112	EA	5 Gallon Cornus obliqua - Blue Fruited Dogwood	38.26		
32 93 33 00-0113	EA	5 Gallon Cornus racemosa - Gray Dogwood	38.26		
32 93 33 00-0114	EA	36" Balled and Burlapped, Cornus racemosa - Gray Dogwood	34.78		
32 93 33 00-0115	EA	48" Balled and Burlapped, Cornus racemosa - Gray Dogwood	40.58		
32 93 33 00-0116	EA	60" Balled and Burlapped, Cornus racemosa - Gray Dogwood	44.06		
32 93 33 00-0117	EA	72" Balled and Burlapped, Cornus racemosa - Gray Dogwood	53.33		
32 93 33 00-0118	EA	36" Balled and Burlapped, Cornus sanguinea & cvs - Bloodtwig Dogwood	37.68		
32 93 33 00-0119	EA	48" Balled and Burlapped, Cornus sanguinea & cvs - Bloodtwig Dogwood	42.32		
32 93 33 00-0120	EA	60" Balled and Burlapped, Cornus sanguinea & cvs - Bloodtwig Dogwood	48.11		
32 93 33 00-0121	EA	24" Balled and Burlapped, Cornus sericea & cvs - Redosier Dogwood	30.14		
32 93 33 00-0122	EA	30" Balled and Burlapped, Cornus sericea & cvs - Redosier Dogwood	34.78		
32 93 33 00-0123	EA	36" Balled and Burlapped, Cornus sericea & cvs - Redosier Dogwood	37.10		
32 93 33 00-0124	EA	48" Balled and Burlapped, Cornus sericea & cvs - Redosier Dogwood	40.58		
32 93 33 00-0125	EA	60" Balled and Burlapped, Cornus sericea & cvs - Redosier Dogwood	45.22		
32 93 33 00-0126	EA	5 Gallon Corylus americana - American Filbert	35.94		
32 93 33 00-0127	EA	30" Balled and Burlapped, Corylus americana - American Filbert	40.58		
32 93 33 00-0128	EA	36" Balled and Burlapped, Corylus americana - American Filbert	43.48		
32 93 33 00-0129	EA	48" Balled and Burlapped, Corylus americana - American Filbert	46.96		
32 93 33 00-0130	EA	24" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	115.94		
32 93 33 00-0131	EA	30" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	150.72		
32 93 33 00-0132	EA	36" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	162.31		
32 93 33 00-0133	EA	42" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	208.69		
32 93 33 00-0134	EA	48" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	255.07		
32 93 33 00-0135	EA	60" Balled and Burlapped, Corylus avellana - Contorted Hazelnut	289.85		
32 93 33 00-0136	EA	5' To 6' Cotinus coggygia - Smoke Tree	110.97		
32 93 33 00-0137	EA	6' To 8' Cotinus coggygia - Smoke Tree	166.40		
32 93 33 00-0138	EA	8' To 10' Cotinus coggygia - Smoke Tree	250.97		
32 93 33 00-0139	EA	5 Gallon Cotoneaster acutifolia & cvs - Peking Cotoneaster	28.98		
32 93 33 00-0140	EA	18" Balled and Burlapped, Cotoneaster acutifolia & cvs - Peking Cotoneaster	28.98		
32 93 33 00-0141	EA	24" Balled and Burlapped, Cotoneaster acutifolia & cvs - Peking Cotoneaster	30.14		
32 93 33 00-0142	EA	12" To 15" Spread Cotoneaster adpressus - Creeping Cotoneaster	27.77		
32 93 33 00-0143	EA	3 Gallon Cotoneaster apiculata & cvs - Cranberry Cotoneaster	30.14		
32 93 33 00-0144	EA	18" Balled and Burlapped, Cotoneaster apiculata & cvs - Cranberry Cotoneaster	28.98		
32 93 33 00-0145	EA	24" Balled and Burlapped, Cotoneaster apiculata & cvs - Cranberry Cotoneaster	30.14		
32 93 33 00-0146	EA	1 Gallon Cotoneaster divaricatus - Spreading Cotoneaster	11.96		
32 93 33 00-0147	EA	2' To 3' Cotoneaster divaricatus - Spreading Cotoneaster	36.99		
32 93 33 00-0148	EA	3' To 4' Cotoneaster divaricatus - Spreading Cotoneaster	49.94		
32 93 33 00-0149	EA	4' To 5' Cotoneaster divaricatus - Spreading Cotoneaster	84.57		
32 93 33 00-0150	EA	1 Gallon Cotoneaster glaucophyllus - Gray Leaf Cotoneaster	9.33		
32 93 33 00-0151	EA	5 Gallon Cotoneaster glaucophyllus - Gray Leaf Cotoneaster	23.08		
32 93 33 00-0152	EA	1 Gallon Cotoneaster horizontalis - Rockspray Cotoneaster	11.96		
32 93 33 00-0153	EA	2 Gallon Cotoneaster horizontalis - Rockspray Cotoneaster	23.54		
32 93 33 00-0154	EA	1 Gallon Cotoneaster lacteus - Red Clusterberry	9.33		
32 93 33 00-0155	EA	5 Gallon Cotoneaster lacteus - Red Clusterberry	23.08		
32 93 33 00-0156	EA	15 Gallon Cotoneaster lacteus - Red Clusterberry	91.63		
32 93 33 00-0157	EA	18" Balled and Burlapped, Deutzia gracilis - Slender Deutzia	29.56		
32 93 33 00-0158	EA	24" Balled and Burlapped, Deutzia gracilis - Slender Deutzia	32.46		
32 93 33 00-0159	EA	30" Balled and Burlapped, Deutzia gracilis - Slender Deutzia	41.74		
32 93 33 00-0160	EA	36" Balled and Burlapped, Deutzia gracilis - Slender Deutzia	48.69		
32 93 33 00-0161	EA	42" Balled and Burlapped, Deutzia gracilis - Slender Deutzia	55.65		
32 93 33 00-0162	EA	24" Balled and Burlapped, Diervilla sessilifolia - Southern Bush Honeysuckle	46.38		
32 93 33 00-0163	EA	30" Balled and Burlapped, Diervilla sessilifolia - Southern Bush Honeysuckle	55.65		
32 93 33 00-0164	EA	36" Balled and Burlapped, Diervilla sessilifolia - Southern Bush Honeysuckle	64.93		
32 93 33 00-0165	EA	2 Gallon Diervilla splendens - Splendens Bush Honeysuckle	17.39		
32 93 33 00-0166	EA	36" Balled and Burlapped, Diervilla splendens - Splendens Bush Honeysuckle	41.74		
32 93 33 00-0167	EA	48" Balled and Burlapped, Diervilla splendens - Splendens Bush Honeysuckle	55.65		
32 93 33 00-0168	EA	1 Gallon Elaeagnus - Silverberry	10.67		
32 93 33 00-0169	EA	3 Gallon Elaeagnus - Silverberry	21.33		
32 93 33 00-0170	EA	5 Gallon Elaeagnus - Silverberry	29.33		
32 93 33 00-0171	EA	3' To 4' Elaeagnus umbellata - Autumn Olive	34.63		
32 93 33 00-0172	EA	4' To 5' Elaeagnus umbellata - Autumn Olive	47.58		
32 93 33 00-0173	EA	5' To 6' Elaeagnus umbellata - Autumn Olive	56.92		
32 93 33 00-0174	EA	3' To 4' Elaeagnus angustifolia - Russian Olive	55.43		
32 93 33 00-0175	EA	1 Gallon Euonymus - Gold Spot	9.97		

32 Exterior Improvements**32 90 Planting****32 93 Plants**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0176	EA	2 Gallon Euonymus - Gold Spot	20.92	
32 93 33 00-0177	EA	5 Gallon Euonymus - Gold Spot	28.77	
32 93 33 00-0178	EA	1 Gallon Euonymus alatus - Winged Euonymus	8.51	
32 93 33 00-0179	EA	3 Gallon Euonymus alatus - Winged Euonymus	24.53	
32 93 33 00-0180	EA	24" Balled and Burlapped, Euonymus alatus - Winged Euonymus	33.07	
32 93 33 00-0181	EA	30" Balled and Burlapped, Euonymus alatus - Winged Euonymus	41.33	
32 93 33 00-0182	EA	36" Balled and Burlapped, Euonymus alatus - Winged Euonymus	56.80	
32 93 33 00-0183	EA	42" Balled and Burlapped, Euonymus alatus - Winged Euonymus	70.13	
32 93 33 00-0184	EA	48" Balled and Burlapped, Euonymus alatus - Winged Euonymus	82.66	
32 93 33 00-0185	EA	54" Balled and Burlapped, Euonymus alatus - Winged Euonymus	106.66	
32 93 33 00-0186	EA	5 Gallon Euonymus alatus - Winged Euonymus	30.67	
32 93 33 00-0187	EA	60" Balled and Burlapped, Euonymus alatus - Winged Euonymus	133.33	
32 93 33 00-0188	EA	30" Balled and Burlapped, Euonymus alatus compactus - Compact Winged Euonymus	52.17	
32 93 33 00-0189	EA	36" Balled and Burlapped, Euonymus alatus compactus - Compact Winged Euonymus	62.03	
32 93 33 00-0190	EA	42" Balled and Burlapped, Euonymus alatus compactus - Compact Winged Euonymus	81.16	
32 93 33 00-0191	EA	48" Balled and Burlapped, Euonymus alatus compactus - Compact Winged Euonymus	97.39	
32 93 33 00-0192	EA	60" Balled and Burlapped, Euonymus alatus compactus - Compact Winged Euonymus	120.58	
32 93 33 00-0193	EA	18" To 24" Euonymus alatus - Winged Burning Bush	36.99	
32 93 33 00-0194	EA	2' To 2-1/2' Euonymus alatus - Winged Burning Bush	43.59	
32 93 33 00-0195	EA	2-1/2' To 3' Euonymus alatus - Winged Burning Bush	59.54	
32 93 33 00-0196	EA	3' To 3-1/2' Euonymus alatus - Winged Burning Bush	71.37	
32 93 33 00-0197	EA	3-1/2' To 4' Euonymus alatus - Winged Burning Bush	89.80	
32 93 33 00-0198	EA	4' To 5' Euonymus alatus - Winged Burning Bush	126.79	
32 93 33 00-0199	EA	5' To 6' Euonymus alatus - Winged Burning Bush	158.55	
32 93 33 00-0200	EA	6' To 8' Euonymus alatus - Winged Burning Bush	184.96	
32 93 33 00-0201	EA	15" To 18" Euonymus alatus - Dwarf Winged Burning Bush	36.99	
32 93 33 00-0202	EA	18" To 24" Euonymus alatus - Dwarf Winged Burning Bush	42.22	
32 93 33 00-0203	EA	2' To 2-1/2' Euonymus alatus - Dwarf Winged Burning Bush	51.56	
32 93 33 00-0204	EA	2-1/2' To 3' Euonymus alatus - Dwarf Winged Burning Bush	72.74	
32 93 33 00-0205	EA	3' To 3-1/2' Euonymus alatus - Dwarf Winged Burning Bush	85.94	
32 93 33 00-0206	EA	3-1/2' To 4' Euonymus alatus - Dwarf Winged Burning Bush	103.00	
32 93 33 00-0207	EA	4' To 5' Euonymus alatus - Dwarf Winged Burning Bush	145.35	
32 93 33 00-0208	EA	5' To 6' Euonymus alatus - Dwarf Winged Burning Bush	171.76	
32 93 33 00-0209	EA	36" Balled and Burlapped, Euonymus atropurpurea - Eastern Wahoo	31.30	
32 93 33 00-0210	EA	1 Gallon Euonymus fortunei - Wintercreeper	11.96	
32 93 33 00-0211	EA	2 Gallon Euonymus fortunei - Wintercreeper	23.54	
32 93 33 00-0212	EA	3 Gallon Euonymus fortunei - Wintercreeper	28.77	
32 93 33 00-0213	EA	5 Gallon Euonymus fortunei - Wintercreeper	34.13	
32 93 33 00-0214	EA	2' To 3' Forsythia - Korean Forsythia	26.40	
32 93 33 00-0215	EA	3' To 4' Forsythia - Korean Forsythia	33.38	
32 93 33 00-0216	EA	4' To 5' Forsythia - Korean Forsythia	41.60	
32 93 33 00-0217	EA	30" Balled and Burlapped, Forsythia cvs - Forsythia cultivars	26.67	
32 93 33 00-0218	EA	36" Balled and Burlapped, Forsythia cvs - Forsythia cultivars	29.56	
32 93 33 00-0219	EA	48" Balled and Burlapped, Forsythia cvs - Forsythia cultivars	31.88	
32 93 33 00-0220	EA	18" Balled and Burlapped, Forsythia viridissima & cvs - Green Forsythia	27.83	
32 93 33 00-0221	EA	24" Balled and Burlapped, Forsythia viridissima & cvs - Green Forsythia	37.10	
32 93 33 00-0222	EA	24" Balled and Burlapped, Forsythia x intermedia & cvs - Border Forsythia	27.83	
32 93 33 00-0223	EA	30" Balled and Burlapped, Forsythia x intermedia & cvs - Border Forsythia	32.46	
32 93 33 00-0224	EA	36" Balled and Burlapped, Forsythia x intermedia & cvs - Border Forsythia	38.26	
32 93 33 00-0225	EA	42" Balled and Burlapped, Forsythia x intermedia & cvs - Border Forsythia	44.06	
32 93 33 00-0226	EA	48" Balled and Burlapped, Forsythia x intermedia & cvs - Border Forsythia	51.01	
32 93 33 00-0227	EA	2 Gallon Fothergilla gardenii & cvs - Dwarf Fothergilla	39.42	
32 93 33 00-0228	EA	3 Gallon Fothergilla gardenii & cvs - Dwarf Fothergilla	55.07	
32 93 33 00-0229	EA	5 Gallon Fothergilla gardenii & cvs - Dwarf Fothergilla	57.97	
32 93 33 00-0230	EA	15" Balled and Burlapped, Fothergilla gardenii & cvs - Dwarf Fothergilla	60.29	
32 93 33 00-0231	EA	18" Balled and Burlapped, Fothergilla gardenii & cvs - Dwarf Fothergilla	64.93	
32 93 33 00-0232	EA	24" Balled and Burlapped, Fothergilla gardenii & cvs - Dwarf Fothergilla	78.84	
32 93 33 00-0233	EA	24" Balled and Burlapped, Fothergilla major - Large Fothergilla	102.03	
32 93 33 00-0234	EA	30" Balled and Burlapped, Fothergilla major - Large Fothergilla	115.94	
32 93 33 00-0235	EA	1 Gallon Gardenia jasminoides - Cape Jasmine	8.59	
32 93 33 00-0236	EA	3 Gallon Gardenia jasminoides - Cape Jasmine	22.54	
32 93 33 00-0237	EA	5 Gallon Gardenia jasminoides - Cape Jasmine	28.77	
32 93 33 00-0238	EA	36" Balled and Burlapped, Hamamelis vernalis & cvs - Vernal Witchhazel	81.16	
32 93 33 00-0239	EA	48" Balled and Burlapped, Hamamelis vernalis & cvs - Vernal Witchhazel	132.17	
32 93 33 00-0240	EA	60" Balled and Burlapped, Hamamelis vernalis & cvs - Vernal Witchhazel	166.95	
32 93 33 00-0241	EA	72" Balled and Burlapped, Hamamelis vernalis & cvs - Vernal Witchhazel	255.07	
32 93 33 00-0242	EA	84" Balled and Burlapped, Hamamelis vernalis & cvs - Vernal Witchhazel	289.85	
32 93 33 00-0243	EA	1 Gallon Hedychium gartdnerum - Variegated Ginger	4.93	
32 93 33 00-0244	EA	3 Gallon Hedychium gartdnerum - Variegated Ginger	17.33	
32 93 33 00-0245	EA	5 Gallon Hedychium gartdnerum - Variegated Ginger	33.33	
32 93 33 00-0246	EA	1 Gallon Hibiscus rosa-sinensis - Hibiscus	12.64	
32 93 33 00-0247	EA	3 Gallon Hibiscus rosa-sinensis - Hibiscus	21.33	
32 93 33 00-0248	EA	5 Gallon Hibiscus rosa-sinensis - Hibiscus	32.27	
32 93 33 00-0249	EA	5 Gallon Hibiscus syriacus - Rose Of Sharon	33.38	
32 93 33 00-0250	EA	2' To 3' Hibiscus syriacus - Rose Of Sharon	28.40	
32 93 33 00-0251	EA	3' To 4' Hibiscus syriacus - Rose Of Sharon	38.36	
32 93 33 00-0252	EA	4' To 5' Hibiscus syriacus - Rose Of Sharon	55.42	
32 93 33 00-0253	EA	5' To 6' Hibiscus syriacus - Rose Of Sharon	76.60	
32 93 33 00-0254	EA	2 Gallon Hydrangea - Blue Hydrangea	23.54	
32 93 33 00-0255	EA	5 Gallon Hydrangea - Blue Hydrangea	33.13	
32 93 33 00-0256	EA	2' To 3' Hydrangea paniculata "Grandiflora" - Peegee Hydrangea	36.99	



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 33 00-0257	EA	3'	To 4' Hydrangea paniculata "Grandiflora" - Peegee Hydrangea	42.22	
32 93 33 00-0258	EA	2	Gallon Hydrangea quercifolia - Oakleaf Hydrangea	23.54	
32 93 33 00-0259	EA	5	Gallon Hydrangea arborescens & cvs - Smooth Hydrangea	40.58	
32 93 33 00-0260	EA	30"	Balled and Burlapped, Hydrangea arborescens & cvs - Smooth Hydrangea	44.06	
32 93 33 00-0261	EA	36"	Balled and Burlapped, Hydrangea arborescens & cvs - Smooth Hydrangea	51.01	
32 93 33 00-0262	EA	4	Gallon Hydrangea macrophylla & cvs - Bigleaf Hydrangea	53.33	
32 93 33 00-0263	EA	18"	Balled and Burlapped, Hydrangea macrophylla & cvs - Bigleaf Hydrangea	41.74	
32 93 33 00-0264	EA	24"	Balled and Burlapped, Hydrangea macrophylla & cvs - Bigleaf Hydrangea	55.65	
32 93 33 00-0265	EA	3	Gallon Hydrangea paniculata & cvs - Panicle Hydrangea	24.35	
32 93 33 00-0266	EA	5	Gallon Hydrangea paniculata & cvs - Panicle Hydrangea	28.98	
32 93 33 00-0267	EA	18"	Balled and Burlapped, Hydrangea paniculata & cvs - Panicle Hydrangea	24.93	
32 93 33 00-0268	EA	24"	Balled and Burlapped, Hydrangea paniculata & cvs - Panicle Hydrangea	26.67	
32 93 33 00-0269	EA	30"	Balled and Burlapped, Hydrangea paniculata & cvs - Panicle Hydrangea	30.14	
32 93 33 00-0270	EA	36"	Balled and Burlapped, Hydrangea paniculata & cvs - Panicle Hydrangea	34.78	
32 93 33 00-0271	EA	48"	Balled and Burlapped, Hydrangea paniculata & cvs - Panicle Hydrangea	46.38	
32 93 33 00-0272	EA	18"	Balled and Burlapped, Hydrangea quercifolia & cvs - Oakleaf Hydrangea	33.62	
32 93 33 00-0273	EA	24"	Balled and Burlapped, Hydrangea quercifolia & cvs - Oakleaf Hydrangea	38.26	
32 93 33 00-0274	EA	30"	Balled and Burlapped, Hydrangea quercifolia & cvs - Oakleaf Hydrangea	45.22	
32 93 33 00-0275	EA	2	Gallon Hypericum kalmianum - St. John's Wort	23.54	
32 93 33 00-0276	EA	3	Gallon Hypericum kalmianum - Kalm St. John's Wort	27.83	
32 93 33 00-0277	EA	24"	Balled and Burlapped, Hypericum kalmianum - Kalm St. John's Wort	30.14	
32 93 33 00-0278	EA	1	Gallon Ilex "Carissa" - Holly	11.96	
32 93 33 00-0279	EA	2	Gallon Ilex "Carissa" - Holly	23.54	
32 93 33 00-0280	EA	5	Gallon Ilex "Carissa" - Holly	33.13	
32 93 33 00-0281	EA	18"	To 24" Ilex - Gulfside Sweet Holly	31.76	
32 93 33 00-0282	EA	2'	To 2-1/2' Ilex - Gulfside Sweet Holly	40.23	
32 93 33 00-0283	EA	2-1/2'	To 3' Ilex - Gulfside Sweet Holly	52.19	
32 93 33 00-0284	EA	3'	To 3-1/2' Ilex - Gulfside Sweet Holly	63.40	
32 93 33 00-0285	EA	3	Gallon Ilex cornuta - Dwarf Horned Holly	23.72	
32 93 33 00-0286	EA	1	Gallon Ilex cornuta, Osmanthus heterophyllus - Dwarf Chinese Holly	11.96	
32 93 33 00-0287	EA	2	Gallon Ilex cornuta, Osmanthus heterophyllus - Dwarf Chinese Holly	23.54	
32 93 33 00-0288	EA	5	Gallon Ilex cornuta, Osmanthus heterophyllus - Dwarf Chinese Holly	34.13	
32 93 33 00-0289	EA	1	Gallon Ilex crenata - Hellers Japanese Holly	11.96	
32 93 33 00-0290	EA	2	Gallon Ilex crenata - Hellers Japanese Holly	26.16	
32 93 33 00-0291	EA	3	Gallon Ilex crenata - Hellers Japanese Holly	34.13	
32 93 33 00-0292	EA	2	Gallon Ilex crenata - Hetzi Japanese Holly	26.16	
32 93 33 00-0293	EA	3	Gallon Ilex crenata - Hetzi Japanese Holly	31.51	
32 93 33 00-0294	EA	2'	To 3' Ilex crenata - Hetzi Japanese Holly	63.40	
32 93 33 00-0295	EA	3'	To 4' Ilex crenata - Hetzi Japanese Holly	84.57	
32 93 33 00-0296	EA	2'	To 3' Ilex opaca - American Holly	84.57	
32 93 33 00-0297	EA	3'	To 4' Ilex opaca - American Holly	139.99	
32 93 33 00-0298	EA	4'	To 5' Ilex opaca - American Holly	179.60	
32 93 33 00-0299	EA	5'	To 6' Ilex opaca - American Holly	216.59	
32 93 33 00-0300	EA	6'	To 7' Ilex opaca - American Holly	303.78	
32 93 33 00-0301	EA	7'	To 8' Ilex opaca - American Holly	422.73	
32 93 33 00-0302	EA	8'	To 10' Ilex opaca - American Holly	607.56	
32 93 33 00-0303	EA	10'	To 12' Ilex opaca - American Holly	924.66	
32 93 33 00-0304	EA	12'	To 14' Ilex opaca - American Holly	1,122.70	
32 93 33 00-0305	EA	14'	To 16' Ilex opaca - American Holly	1,386.87	
32 93 33 00-0306	EA	2'	To 3' Ilex verticillata - Winterberry (Female)	84.57	
32 93 33 00-0307	EA	3'	To 4' Ilex verticillata - Winterberry (Female)	110.97	
32 93 33 00-0308	EA	2'	To 3' Ilex verticillata - Winterberry (Male)	68.63	
32 93 33 00-0309	EA	3'	To 4' Ilex verticillata - Winterberry (Male)	95.16	
32 93 33 00-0310	EA	4'	To 5' Ilex verticillata - Winterberry (Male)	110.97	
32 93 33 00-0311	EA	1	Gallon Ilex vomitoria - Yaupon Holly	11.21	
32 93 33 00-0312	EA	3	Gallon Ilex vomitoria - Yaupon Holly	22.54	
32 93 33 00-0313	EA	10	Gallon Ilex vomitoria - Yaupon Holly	79.21	
32 93 33 00-0314	EA	18"	Balled and Burlapped, Ilex glabra compacta & cvs - Compact Inkberry Holly	35.94	
32 93 33 00-0315	EA	24"	Balled and Burlapped, Ilex glabra compacta & cvs - Compact Inkberry Holly	40.58	
32 93 33 00-0316	EA	3	Gallon Ilex meserveae & cvs - Blue Holly	46.38	
32 93 33 00-0317	EA	18"	Balled and Burlapped, Ilex meserveae & cvs - Blue Holly	42.90	
32 93 33 00-0318	EA	24"	Balled and Burlapped, Ilex meserveae & cvs - Blue Holly	52.17	
32 93 33 00-0319	EA	5	Gallon Ilex verticillata & cvs - Common Winterberry	38.26	
32 93 33 00-0320	EA	24"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	38.26	
32 93 33 00-0321	EA	30"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	40.58	
32 93 33 00-0322	EA	36"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	48.69	
32 93 33 00-0323	EA	42"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	54.49	
32 93 33 00-0324	EA	48"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	57.97	
32 93 33 00-0325	EA	60"	Balled and Burlapped, Ilex verticillata & cvs - Common Winterberry	74.20	
32 93 33 00-0326	EA	4'	To 5' Ilex x attenuata "Foster" - Holly	137.38	
32 93 33 00-0327	EA	5'	To 6' Ilex x attenuata "Foster" - Holly	182.22	
32 93 33 00-0328	EA	6'	To 7' Ilex x attenuata "Foster" - Holly	163.04	
32 93 33 00-0329	EA	7'	To 8' Ilex x attenuata "Foster" - Holly	316.98	
32 93 33 00-0330	EA	1	Gallon Jasminum - Jasmine	3.07	
32 93 33 00-0331	EA	3	Gallon Jasminum - Jasmine	12.00	
32 93 33 00-0332	EA	3	Gallon Jasminum - Orange Jasmine	9.33	
32 93 33 00-0333	EA	4'	To 5' Jasminum - Orange Jasmine	106.66	
32 93 33 00-0334	EA	6'	To 7' Jasminum - Orange Jasmine	213.33	
32 93 33 00-0335	EA	8'	To 10' Jasminum - Orange Jasmine	287.99	
32 93 33 00-0336	EA	3	Gallon Juniperus chinensis cvs - Chinese Juniper	40.58	
32 93 33 00-0337	EA	5	Gallon Juniperus chinensis cvs - Chinese Juniper	45.22	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0338	EA	18" Balled and Burlapped, Juniperus chinensis cvs - Chinese Juniper.....	60.29
32 93 33 00-0339	EA	24" Balled and Burlapped, Juniperus chinensis cvs - Chinese Juniper.....	78.84
32 93 33 00-0340	EA	30" Balled and Burlapped, Juniperus chinensis cvs - Chinese Juniper.....	92.75
32 93 33 00-0341	EA	36" Balled and Burlapped, Juniperus chinensis cvs - Chinese Juniper.....	125.21
32 93 33 00-0342	EA	48" Balled and Burlapped, Juniperus chinensis cvs - Chinese Juniper.....	171.59
32 93 33 00-0343	EA	1 Gallon Juniperus horizontalis cvs - Creeping Juniper.....	19.33
32 93 33 00-0344	EA	3 Gallon Juniperus horizontalis cvs - Creeping Juniper.....	40.58
32 93 33 00-0345	EA	5 Gallon Juniperus horizontalis cvs - Creeping Juniper.....	45.22
32 93 33 00-0346	EA	15" Balled and Burlapped, Juniperus horizontalis cvs - Creeping Juniper.....	48.69
32 93 33 00-0347	EA	18" Balled and Burlapped, Juniperus horizontalis cvs - Creeping Juniper.....	53.33
32 93 33 00-0348	EA	24" Balled and Burlapped, Juniperus horizontalis cvs - Creeping Juniper.....	64.93
32 93 33 00-0349	EA	30" Balled and Burlapped, Juniperus horizontalis cvs - Creeping Juniper.....	78.84
32 93 33 00-0350	EA	3 Gallon Juniperus procumbens cvs - Japanese Garden Juniper.....	31.30
32 93 33 00-0351	EA	18" Balled and Burlapped, Juniperus procumbens cvs - Japanese Garden Juniper.....	37.10
32 93 33 00-0352	EA	24" Balled and Burlapped, Juniperus procumbens cvs - Japanese Garden Juniper.....	51.01
32 93 33 00-0353	EA	30" Balled and Burlapped, Juniperus procumbens cvs - Japanese Garden Juniper.....	64.93
32 93 33 00-0354	EA	36" Balled and Burlapped, Juniperus procumbens cvs - Japanese Garden Juniper.....	78.84
32 93 33 00-0355	EA	3 Gallon Juniperus sabina cvs - Savin Juniper.....	28.98
32 93 33 00-0356	EA	5 Gallon Juniperus sabina cvs - Savin Juniper.....	34.78
32 93 33 00-0357	EA	4 Gallon Juniperus virginiana cvs - Red Cedar Juniper.....	30.14
32 93 33 00-0358	EA	36" Balled and Burlapped, Juniperus virginiana cvs - Red Cedar Juniper.....	57.97
32 93 33 00-0359	EA	48" Balled and Burlapped, Juniperus virginiana cvs - Red Cedar Juniper.....	90.43
32 93 33 00-0360	EA	60" Balled and Burlapped, Juniperus virginiana cvs - Red Cedar Juniper.....	113.62
32 93 33 00-0361	EA	15" To 18" Kalmia latifolia - Mountain Laurel.....	47.58
32 93 33 00-0362	EA	18" To 24" Kalmia latifolia - Mountain Laurel.....	63.40
32 93 33 00-0363	EA	2' To 3' Kalmia latifolia - Mountain Laurel.....	92.42
32 93 33 00-0364	EA	4' To 5' Kalmia latifolia - Mountain Laurel.....	169.01
32 93 33 00-0365	EA	5' To 6' Kalmia latifolia - Mountain Laurel.....	258.94
32 93 33 00-0366	EA	6' To 8' Kalmia latifolia - Mountain Laurel.....	396.32
32 93 33 00-0367	EA	1 Gallon Kerria japonica - Kerria.....	10.59
32 93 33 00-0368	EA	5 Gallon Kerria japonica - Kerria.....	33.13
32 93 33 00-0369	EA	24" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	33.62
32 93 33 00-0370	EA	30" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	38.26
32 93 33 00-0371	EA	36" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	41.74
32 93 33 00-0372	EA	42" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	48.69
32 93 33 00-0373	EA	48" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	55.65
32 93 33 00-0374	EA	60" Balled and Burlapped, Kolkwitzia amabilis & cvs - Beautybush.....	69.56
32 93 33 00-0375	EA	1 Gallon Lagerstroemia indica - Crape Myrtle.....	7.97
32 93 33 00-0376	EA	5 Gallon Lagerstroemia indica - Crape Myrtle.....	28.40
32 93 33 00-0377	EA	3' To 4' Lagerstroemia indica - Crape Myrtle.....	39.61
32 93 33 00-0378	EA	4' To 5' Lagerstroemia indica - Crape Myrtle.....	58.17
32 93 33 00-0379	EA	5' To 6' Lagerstroemia indica - Crape Myrtle.....	92.42
32 93 33 00-0380	EA	7' To 8' Lagerstroemia indica - Crape Myrtle.....	120.00
32 93 33 00-0381	EA	9' To 10' Lagerstroemia indica - Crape Myrtle.....	160.00
32 93 33 00-0382	EA	11' To 12' Lagerstroemia indica - Crape Myrtle.....	333.32
32 93 33 00-0383	EA	1 Gallon Leucothoe axillaris - Coast Leucothoe.....	11.96
32 93 33 00-0384	EA	2 Gallon Leucothoe axillaris - Coast Leucothoe.....	26.16
32 93 33 00-0385	EA	3 Gallon Leucothoe axillaris - Coast Leucothoe.....	31.51
32 93 33 00-0386	EA	1 Gallon Ligustrum lucidum - Glossy Privet.....	7.35
32 93 33 00-0387	EA	5 Gallon Ligustrum lucidum - Glossy Privet.....	22.54
32 93 33 00-0388	EA	15 Gallon Ligustrum lucidum - Glossy Privet.....	105.62
32 93 33 00-0389	EA	1 Gallon Ligustrum sinense - Variegated Chinese Privet.....	7.35
32 93 33 00-0390	EA	2 Gallon Ligustrum sinense - Variegated Chinese Privet.....	15.82
32 93 33 00-0391	EA	3 Gallon Ligustrum sinense - Variegated Chinese Privet.....	20.55
32 93 33 00-0392	EA	36" Balled and Burlapped, Ligustrum vulgare & cvs - Common Privet.....	34.78
32 93 33 00-0393	EA	48" Balled and Burlapped, Ligustrum vulgare & cvs - Common Privet.....	51.01
32 93 33 00-0394	EA	60" Balled and Burlapped, Ligustrum vulgare & cvs - Common Privet.....	64.93
32 93 33 00-0395	EA	72" Balled and Burlapped, Ligustrum vulgare & cvs - Common Privet.....	74.20
32 93 33 00-0396	EA	5 Gallon Lindera benzoin - Spicebush.....	38.26
32 93 33 00-0397	EA	36" Balled and Burlapped, Lindera benzoin - Spicebush.....	32.46
32 93 33 00-0398	EA	48" Balled and Burlapped, Lindera benzoin - Spicebush.....	39.42
32 93 33 00-0399	EA	2' To 3' Lonicera fragrantissima - Winter Honeysuckle.....	63.40
32 93 33 00-0400	EA	3' To 4' Lonicera fragrantissima - Winter Honeysuckle.....	76.60
32 93 33 00-0401	EA	30" Balled and Burlapped, Lonicera tatarica & cvs - Tatarian Honeysuckle.....	34.78
32 93 33 00-0402	EA	36" Balled and Burlapped, Lonicera tatarica & cvs - Tatarian Honeysuckle.....	41.74
32 93 33 00-0403	EA	42" Balled and Burlapped, Lonicera tatarica & cvs - Tatarian Honeysuckle.....	46.38
32 93 33 00-0404	EA	48" Balled and Burlapped, Lonicera tatarica & cvs - Tatarian Honeysuckle.....	51.01
32 93 33 00-0405	EA	1 Gallon Myrica cerifera - Wax Myrtle.....	6.67
32 93 33 00-0406	EA	4 Gallon Myrica cerifera - Wax Myrtle.....	21.33
32 93 33 00-0407	EA	7 Gallon Myrica cerifera - Wax Myrtle.....	46.67
32 93 33 00-0408	EA	10 Gallon Myrica cerifera - Wax Myrtle.....	69.33
32 93 33 00-0409	EA	15 Gallon Myrica cerifera - Wax Myrtle.....	106.66
32 93 33 00-0410	EA	45 Gallon Myrica cerifera - Wax Myrtle.....	319.99
32 93 33 00-0411	EA	1' - 2' Myrica cerifera - Wax Myrtle.....	9.33
32 93 33 00-0412	EA	3' - 4' Myrica cerifera - Wax Myrtle.....	32.00
32 93 33 00-0413	EA	5' - 6' Myrica cerifera - Wax Myrtle.....	58.67
32 93 33 00-0414	EA	7' - 8' Myrica cerifera - Wax Myrtle.....	80.00
32 93 33 00-0415	EA	9' - 10' Myrica cerifera - Wax Myrtle.....	106.66
32 93 33 00-0416	EA	11' - 12' Myrica cerifera - Wax Myrtle.....	162.66
32 93 33 00-0417	EA	3 Gallon Myrica pensylvanica - Northern Bayberry.....	34.78
32 93 33 00-0418	EA	24" Balled and Burlapped, Myrica pensylvanica - Northern Bayberry.....	56.81



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
32 93 33 00-0419	EA 30" Balled and Burlapped, Myrica pensylvanica - Northern Bayberry.....	83.48		
32 93 33 00-0420	EA 36" Balled and Burlapped, Myrica pensylvanica - Northern Bayberry.....	99.71		
32 93 33 00-0421	EA 48" Balled and Burlapped, Myrica pensylvanica - Northern Bayberry.....	104.35		
32 93 33 00-0422	EA 1 Gallon Nandina domestica - Heavenly Bamboo	11.96		
32 93 33 00-0423	EA 2 Gallon Nandina domestica - Heavenly Bamboo	26.16		
32 93 33 00-0424	EA 5 Gallon Nandina domestica - Heavenly Bamboo	39.61		
32 93 33 00-0425	EA 1 Gallon Osmanthus fragrans - Fragrant Tea Olive	7.35		
32 93 33 00-0426	EA 3 Gallon Osmanthus fragrans - Fragrant Tea Olive	19.93		
32 93 33 00-0427	EA 1 Gallon Philadelphus - Evergreen Mockorange.....	10.21		
32 93 33 00-0428	EA 5 Gallon Philadelphus - Evergreen Mockorange.....	33.13		
32 93 33 00-0429	EA 36" Balled and Burlapped, Philadelphus x virginialis & cvs - Mockorange.....	34.78		
32 93 33 00-0430	EA 42" Balled and Burlapped, Philadelphus x virginialis & cvs - Mockorange.....	40.58		
32 93 33 00-0431	EA 48" Balled and Burlapped, Philadelphus x virginialis & cvs - Mockorange.....	46.38		
32 93 33 00-0432	EA 24" Balled and Burlapped, Physocarpus opulifolius 'Nana' - Dwarf Common Ninebark	34.78		
32 93 33 00-0433	EA 30" Balled and Burlapped, Physocarpus opulifolius 'Nana' - Dwarf Common Ninebark	40.58		
32 93 33 00-0434	EA 36" Balled and Burlapped, Physocarpus opulifolius 'Nana' - Dwarf Common Ninebark	46.38		
32 93 33 00-0435	EA 42" Balled and Burlapped, Physocarpus opulifolius 'Nana' - Dwarf Common Ninebark	57.97		
32 93 33 00-0436	EA 48" Balled and Burlapped, Physocarpus opulifolius 'Nana' - Dwarf Common Ninebark	69.56		
32 93 33 00-0437	EA 12" To 15" Spread Pieris - Mountain Andromeda	32.01		
32 93 33 00-0438	EA 15" To 18" Spread Pieris - Mountain Andromeda	68.63		
32 93 33 00-0439	EA 12" To 15" Pieris japonica - Japanese Andromeda.....	41.60		
32 93 33 00-0440	EA 15" To 18" Pieris japonica - Japanese Andromeda.....	47.58		
32 93 33 00-0441	EA 18" To 24" Pieris japonica - Japanese Andromeda.....	59.54		
32 93 33 00-0442	EA 2' To 2-1/2' Pieris japonica - Japanese Andromeda.....	84.57		
32 93 33 00-0443	EA 2-1/2' To 3' Pieris japonica - Japanese Andromeda.....	100.39		
32 93 33 00-0444	EA 24" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	35.69		
32 93 33 00-0445	EA 30" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	45.68		
32 93 33 00-0446	EA 36" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	54.96		
32 93 33 00-0447	EA 48" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	70.67		
32 93 33 00-0448	EA 60" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	84.95		
32 93 33 00-0449	EA 72" Balled and Burlapped, Pinus mugo & cvs - Mugo Pine	124.21		
32 93 33 00-0450	EA 30" Balled and Burlapped, Pinus mugo compacta - Dwarf Mugo Pine	77.09		
32 93 33 00-0451	EA 36" Balled and Burlapped, Pinus mugo compacta - Dwarf Mugo Pine	92.80		
32 93 33 00-0452	EA 48" Balled and Burlapped, Pinus mugo compacta - Dwarf Mugo Pine	123.49		
32 93 33 00-0453	EA 1 Gallon Pittosporum - Pittosporum	4.40		
32 93 33 00-0454	EA 3 Gallon Pittosporum - Pittosporum	11.33		
32 93 33 00-0455	EA 1 Gallon Pittosporum - Variegated Pittosporum.....	4.40		
32 93 33 00-0456	EA 3 Gallon Pittosporum - Variegated Pittosporum.....	11.33		
32 93 33 00-0457	EA 5 Gallon Pittosporum - Variegated Pittosporum.....	19.87		
32 93 33 00-0458	EA 1 Gallon Podocarpus macrophyllus - Yew Podocarpus	5.33		
32 93 33 00-0459	EA 3 Gallon Podocarpus macrophyllus - Yew Podocarpus	16.00		
32 93 33 00-0460	EA 2 Gallon Potentilla fruticosa & cvs - Bush Cinquefoil	19.71		
32 93 33 00-0461	EA 5 Gallon Potentilla fruticosa & cvs - Bush Cinquefoil	27.83		
32 93 33 00-0462	EA 18" Balled and Burlapped, Potentilla fruticosa & cvs - Bush Cinquefoil	20.87		
32 93 33 00-0463	EA 24" Balled and Burlapped, Potentilla fruticosa & cvs - Bush Cinquefoil	23.19		
32 93 33 00-0464	EA 30" Balled and Burlapped, Potentilla fruticosa & cvs - Bush Cinquefoil	33.62		
32 93 33 00-0465	EA 36" Balled and Burlapped, Potentilla fruticosa & cvs - Bush Cinquefoil	38.84		
32 93 33 00-0466	EA 1 Gallon Prunus caroliniana - Carolina Cherry Laurel.....	4.91		
32 93 33 00-0467	EA 5 Gallon Prunus caroliniana - Carolina Cherry Laurel.....	12.27		
32 93 33 00-0468	EA 15 Gallon Prunus caroliniana - Carolina Cherry Laurel.....	73.16		
32 93 33 00-0469	EA 15" To 18" Prunus laurocerasus - Cherry Laurel	18.71		
32 93 33 00-0470	EA 18" To 24" Prunus laurocerasus - Cherry Laurel	23.16		
32 93 33 00-0471	EA 24" To 30" Prunus laurocerasus - Cherry Laurel	30.14		
32 93 33 00-0472	EA 15" To 18" Prunus triloba - Double White Flowering Almond.....	16.72		
32 93 33 00-0473	EA 18" To 24" Prunus triloba - Double White Flowering Almond.....	21.40		
32 93 33 00-0474	EA 3' To 4' Prunus triloba - Double White Flowering Almond.....	34.12		
32 93 33 00-0475	EA 4' To 6' Prunus triloba - Double White Flowering Almond.....	68.33		
32 93 33 00-0476	EA 5 Gallon Prunus triloba - Pink Flowering Almond.....	20.55		
32 93 33 00-0477	EA 18" To 24" Prunus triloba - Pink Flowering Almond	23.08		
32 93 33 00-0478	EA 2' To 3' Prunus triloba - Pink Flowering Almond	26.84		
32 93 33 00-0479	EA 2' To 3' Prunus virginiana - Brilliant Chokeberry	18.25		
32 93 33 00-0480	EA 3' To 4' Prunus virginiana - Brilliant Chokeberry	22.39		
32 93 33 00-0481	EA 4' To 5' Prunus virginiana - Brilliant Chokeberry	26.84		
32 93 33 00-0482	EA 5' To 6' Prunus virginiana - Brilliant Chokeberry	30.75		
32 93 33 00-0483	EA 1 Gallon Punica granatum - Dwarf Pomegranate	7.85		
32 93 33 00-0484	EA 3 Gallon Punica granatum - Dwarf Pomegranate	23.17		
32 93 33 00-0485	EA 7 Gallon Punica granatum - Dwarf Pomegranate	47.58		
32 93 33 00-0486	EA 1 Gallon Pyracantha koidzumii "Santa Cruz" - Pyracantha	9.96		
32 93 33 00-0487	EA 5 Gallon Pyracantha koidzumii "Santa Cruz" - Pyracantha	33.13		
32 93 33 00-0488	EA 5 Gallon Espalier Pyracantha koidzumii "Santa Cruz" - Pyracantha.....	68.63		
32 93 33 00-0489	EA 1 Gallon Ralphiopsis indica - Indian Hawthorne	7.97		
32 93 33 00-0490	EA 2 Gallon Ralphiopsis indica - Indian Hawthorne	15.19		
32 93 33 00-0491	EA 5 Gallon Ralphiopsis indica - Indian Hawthorne	27.03		
32 93 33 00-0492	EA 1 Gallon Rhamnus californica - Coffeeberry	12.12		
32 93 33 00-0493	EA 5 Gallon Rhamnus californica - Coffeeberry	34.65		
32 93 33 00-0494	EA 15 Gallon Rhamnus californica - Coffeeberry	103.98		
32 93 33 00-0495	EA 4' To 5' Rhamnus frangula "Columnaris" - Tallhedge	60.78		
32 93 33 00-0496	EA 5' To 6' Rhamnus frangula "Columnaris" - Tallhedge	83.32		
32 93 33 00-0497	EA 6' To 8' Rhamnus frangula "Columnaris" - Tallhedge	108.36		
32 93 33 00-0498	EA 10' To 12' Rhamnus frangula "Columnaris" - Tallhedge	198.16		
32 93 33 00-0499	EA 1 Gallon Rhododendron - Azalea Evergreen Hybrids	12.95		

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0500	EA	2 Gallon Rhododendron - Azalea Evergreen Hybrids	26.16	
32 93 33 00-0501	EA	3 Gallon Rhododendron - Azalea Evergreen Hybrids	34.13	
32 93 33 00-0502	EA	5 Gallon Rhododendron - Azalea Evergreen Hybrids	39.61	
32 93 33 00-0503	EA	15" To 18" Rhododendron - Azalea Evergreen Hybrids	46.33	
32 93 33 00-0504	EA	18" To 24" Rhododendron - Azalea Evergreen Hybrids	58.17	
32 93 33 00-0505	EA	2' To 2-1/2' Rhododendron - Azalea Evergreen Hybrids	84.57	
32 93 33 00-0506	EA	2-1/2' To 3' Rhododendron - Azalea Evergreen Hybrids	118.82	
32 93 33 00-0507	EA	1 Gallon Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	14.57	
32 93 33 00-0508	EA	2 Gallon Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	26.16	
32 93 33 00-0509	EA	15" To 18" Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	44.96	
32 93 33 00-0510	EA	18" To 24" Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	58.17	
32 93 33 00-0511	EA	2' To 3' Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	84.57	
32 93 33 00-0512	EA	3' To 4' Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	124.18	
32 93 33 00-0513	EA	4' To 5' Rhododendron - Azalea Exbury, Knapp Hill And Llam Hybrids	166.40	
32 93 33 00-0514	EA	5 Gallon Rhododendron - Boxleaf Azalea	33.13	
32 93 33 00-0515	EA	15 Gallon Rhododendron - Boxleaf Azalea	118.82	
32 93 33 00-0516	EA	15" To 18" Rhododendron - Carolina Rhododendron	37.49	
32 93 33 00-0517	EA	18" To 24" Rhododendron - Carolina Rhododendron	66.01	
32 93 33 00-0518	EA	24" To 30" Rhododendron - Carolina Rhododendron	97.77	
32 93 33 00-0519	EA	2' To 3' Rhododendron - Five-leafed Azalea	44.46	
32 93 33 00-0520	EA	3' To 4' Rhododendron - Five-leafed Azalea	58.17	
32 93 33 00-0521	EA	4' To 5' Rhododendron - Five-leafed Azalea	76.60	
32 93 33 00-0522	EA	15" To 18" Rhododendron - Ghent Azalea	44.46	
32 93 33 00-0523	EA	18" To 24" Rhododendron - Ghent Azalea	55.42	
32 93 33 00-0524	EA	2' To 3' Rhododendron - Ghent Azalea	89.80	
32 93 33 00-0525	EA	3' To 4' Rhododendron - Ghent Azalea	124.18	
32 93 33 00-0526	EA	4' To 5' Rhododendron - Ghent Azalea	166.40	
32 93 33 00-0527	EA	5' To 6' Rhododendron - Ghent Azalea	221.95	
32 93 33 00-0528	EA	1 Gallon Rhododendron - Hybrid Rhododendron	14.57	
32 93 33 00-0529	EA	2 Gallon Rhododendron - Hybrid Rhododendron	31.51	
32 93 33 00-0530	EA	3 Gallon Rhododendron - Hybrid Rhododendron	44.71	
32 93 33 00-0531	EA	5 Gallon Rhododendron - Hybrid Rhododendron	49.94	
32 93 33 00-0532	EA	15" To 18" Rhododendron - Hybrid Rhododendron	42.22	
32 93 33 00-0533	EA	18" To 24" Rhododendron - Hybrid Rhododendron	58.17	
32 93 33 00-0534	EA	24" To 30" Rhododendron - Hybrid Rhododendron	79.21	
32 93 33 00-0535	EA	30" To 36" Rhododendron - Hybrid Rhododendron	92.42	
32 93 33 00-0536	EA	36" To 42" Rhododendron - Hybrid Rhododendron	132.15	
32 93 33 00-0537	EA	42" To 48" Rhododendron - Hybrid Rhododendron	163.78	
32 93 33 00-0538	EA	15" To 18" Rhododendron - Pjm Rhododendron	47.58	
32 93 33 00-0539	EA	18" To 24" Rhododendron - Pjm Rhododendron	58.17	
32 93 33 00-0540	EA	2' To 2-1/2' Rhododendron - Pjm Rhododendron	84.57	
32 93 33 00-0541	EA	2-1/2' To 3' Rhododendron - Pjm Rhododendron	108.36	
32 93 33 00-0542	EA	3' To 3-1/2' Rhododendron - Pjm Rhododendron	132.15	
32 93 33 00-0543	EA	12" To 15" Rhododendron - Torch Azalea	36.99	
32 93 33 00-0544	EA	15" To 18" Rhododendron - Torch Azalea	44.46	
32 93 33 00-0545	EA	18" To 24" Rhododendron - Torch Azalea	55.42	
32 93 33 00-0546	EA	2' To 3' Rhododendron - Torch Azalea	92.42	
32 93 33 00-0547	EA	3 Gallon Rhododendron cvs - Lepidote Rhododendron	41.74	
32 93 33 00-0548	EA	5 Gallon Rhododendron cvs - Lepidote Rhododendron	51.01	
32 93 33 00-0549	EA	16" Balled and Burlapped, Rhododendron cvs - Lepidote Rhododendron	62.61	
32 93 33 00-0550	EA	24" Balled and Burlapped, Rhododendron cvs - Lepidote Rhododendron	78.84	
32 93 33 00-0551	EA	30" Balled and Burlapped, Rhododendron cvs - Lepidote Rhododendron	92.75	
32 93 33 00-0552	EA	36" Balled and Burlapped, Rhododendron cvs - Lepidote Rhododendron	111.30	
32 93 33 00-0553	EA	1 Gallon Rhus glabra - Dwarf Smooth Sumac	11.96	
32 93 33 00-0554	EA	5 Gallon Rhus glabra - Dwarf Smooth Sumac	33.13	
32 93 33 00-0555	EA	2 Gallon Rhus aromatica & cvs - Fragrant Sumac	27.83	
32 93 33 00-0556	EA	5 Gallon Rhus aromatica & cvs - Fragrant Sumac	38.26	
32 93 33 00-0557	EA	18" Balled and Burlapped, Rhus aromatica & cvs - Fragrant Sumac	44.06	
32 93 33 00-0558	EA	24" Balled and Burlapped, Rhus aromatica & cvs - Fragrant Sumac	57.97	
32 93 33 00-0559	EA	36" Balled and Burlapped, Rhus glabra - Smooth Sumac	34.78	
32 93 33 00-0560	EA	48" Balled and Burlapped, Rhus typhina & cvs - Staghorn Sumac	57.97	
32 93 33 00-0561	EA	72" Balled and Burlapped, Rhus typhina & cvs - Staghorn Sumac	92.75	
32 93 33 00-0562	EA	15" Balled and Burlapped, Ribes alpinum & cvs - Alpine Currant	31.30	
32 93 33 00-0563	EA	18" Balled and Burlapped, Ribes alpinum & cvs - Alpine Currant	35.94	
32 93 33 00-0564	EA	24" Balled and Burlapped, Ribes alpinum & cvs - Alpine Currant	52.17	
32 93 33 00-0565	EA	30" Balled and Burlapped, Ribes alpinum & cvs - Alpine Currant	69.56	
32 93 33 00-0566	EA	1 Gallon Rosa hybrids & cvs - Shrub Rose	19.13	
32 93 33 00-0567	EA	2 Gallon Rosa hybrids & cvs - Shrub Rose	23.19	
32 93 33 00-0568	EA	3 Gallon Rosa hybrids & cvs - Shrub Rose	28.98	
32 93 33 00-0569	EA	2 Gallon Rosa rugosa & cvs - Rugosa Rose	20.87	
32 93 33 00-0570	EA	3 Gallon Rosa rugosa & cvs - Rugosa Rose	26.67	
32 93 33 00-0571	EA	5 Gallon Sambucus canadensis - American Elder	38.26	
32 93 33 00-0572	EA	2 Gallon Sarcococca hookeriana humilis - Himalayan Sarcococca	17.19	
32 93 33 00-0573	EA	3 Gallon Sarcococca hookeriana humilis - Himalayan Sarcococca	25.16	
32 93 33 00-0574	EA	1 Gallon Sarcococca humilis - Fragrant Sarcococca	9.34	
32 93 33 00-0575	EA	5 Gallon Sarcococca humilis - Fragrant Sarcococca	24.41	
32 93 33 00-0576	EA	1 Gallon Skimmia japonica - Japanese Skimmia	11.96	
32 93 33 00-0577	EA	2 Gallon Skimmia japonica - Japanese Skimmia	23.79	
32 93 33 00-0578	EA	5 Gallon Skimmia japonica - Japanese Skimmia	38.36	
32 93 33 00-0579	EA	3' To 4' Spiraea - Garland Spiraea	55.42	
32 93 33 00-0580	EA	4' To 5' Spiraea - Garland Spiraea	84.57	



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
32 93 33 00-0581	EA	5 Gallon Spiraea - Snowmound Spiraea		33.13	
32 93 33 00-0582	EA	18" To 24" Spiraea - Snowmound Spiraea		27.15	
32 93 33 00-0583	EA	2" To 3" Spiraea - Snowmound Spiraea		38.36	
32 93 33 00-0584	EA	3" To 4" Spiraea - Snowmound Spiraea		44.47	
32 93 33 00-0585	EA	4" To 5" Spiraea - Snowmound Spiraea		76.60	
32 93 33 00-0586	EA	1 Gallon Spiraea japonica & cvs - Japanese Spiraea		11.96	
32 93 33 00-0587	EA	2 Gallon Spiraea japonica & cvs - Japanese Spiraea		23.54	
32 93 33 00-0588	EA	3 Gallon Spiraea japonica & cvs - Japanese Spiraea		27.25	
32 93 33 00-0589	EA	5 Gallon Spiraea japonica & cvs - Japanese Spiraea		29.56	
32 93 33 00-0590	EA	18" Balled and Burlapped, Spiraea japonica & cvs - Japanese Spiraea		30.14	
32 93 33 00-0591	EA	24" Balled and Burlapped, Spiraea japonica & cvs - Japanese Spiraea		34.78	
32 93 33 00-0592	EA	30" Balled and Burlapped, Spiraea japonica & cvs - Japanese Spiraea		39.42	
32 93 33 00-0593	EA	36" Balled and Burlapped, Spiraea japonica & cvs - Japanese Spiraea		45.80	
32 93 33 00-0594	EA	2 Gallon Spiraea nipponica & cvs - Nippon Spiraea		18.55	
32 93 33 00-0595	EA	5 Gallon Spiraea nipponica & cvs - Nippon Spiraea		27.83	
32 93 33 00-0596	EA	18" Balled and Burlapped, Spiraea nipponica & cvs - Nippon Spiraea		25.51	
32 93 33 00-0597	EA	24" Balled and Burlapped, Spiraea nipponica & cvs - Nippon Spiraea		30.14	
32 93 33 00-0598	EA	30" Balled and Burlapped, Spiraea nipponica & cvs - Nippon Spiraea		34.78	
32 93 33 00-0599	EA	36" Balled and Burlapped, Spiraea nipponica & cvs - Nippon Spiraea		39.42	
32 93 33 00-0600	EA	48" Balled and Burlapped, Spiraea nipponica & cvs - Nippon Spiraea		51.01	
32 93 33 00-0601	EA	1 Gallon Spiraea x bumalda & cvs - Bumalda Spiraea		11.96	
32 93 33 00-0602	EA	2 Gallon Spiraea x bumalda & cvs - Bumalda Spiraea		21.45	
32 93 33 00-0603	EA	4 Gallon Spiraea x bumalda & cvs - Bumalda Spiraea		27.83	
32 93 33 00-0604	EA	18" Balled and Burlapped, Spiraea x bumalda & cvs - Bumalda Spiraea		24.35	
32 93 33 00-0605	EA	24" Balled and Burlapped, Spiraea x bumalda & cvs - Bumalda Spiraea		29.56	
32 93 33 00-0606	EA	30" Balled and Burlapped, Spiraea x bumalda & cvs - Bumalda Spiraea		34.78	
32 93 33 00-0607	EA	36" Balled and Burlapped, Spiraea x bumalda & cvs - Bumalda Spiraea		39.42	
32 93 33 00-0608	EA	5 Gallon Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		27.83	
32 93 33 00-0609	EA	18" Balled and Burlapped, Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		27.83	
32 93 33 00-0610	EA	24" Balled and Burlapped, Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		32.46	
32 93 33 00-0611	EA	30" Balled and Burlapped, Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		44.06	
32 93 33 00-0612	EA	36" Balled and Burlapped, Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		51.01	
32 93 33 00-0613	EA	42" Balled and Burlapped, Spiraea x vanhouttei & cvs - Vanhoutte Spiraea		60.29	
32 93 33 00-0614	EA	5 Gallon Staphylea trifolia - Bladdernut		39.14	
32 93 33 00-0615	EA	2 Gallon Stephanandra incisa & cvs - Cutleaf Stephanadra		27.83	
32 93 33 00-0616	EA	5 Gallon Stephanandra incisa & cvs - Cutleaf Stephanadra		30.14	
32 93 33 00-0617	EA	24" Balled and Burlapped, Stephanandra incisa & cvs - Cutleaf Stephanadra		34.78	
32 93 33 00-0618	EA	30" Balled and Burlapped, Stephanandra incisa & cvs - Cutleaf Stephanadra		41.74	
32 93 33 00-0619	EA	2 Gallon Symphoricarpos albus - Common Snowberry		28.98	
32 93 33 00-0620	EA	5 Gallon Symphoricarpos albus - Common Snowberry		30.72	
32 93 33 00-0621	EA	24" Balled and Burlapped, Syringa meyeri & cvs - Meyer Lilac		51.01	
32 93 33 00-0622	EA	30" Balled and Burlapped, Syringa meyeri & cvs - Meyer Lilac		63.77	
32 93 33 00-0623	EA	36" Balled and Burlapped, Syringa meyeri & cvs - Meyer Lilac		74.20	
32 93 33 00-0624	EA	42" Balled and Burlapped, Syringa meyeri & cvs - Meyer Lilac		85.79	
32 93 33 00-0625	EA	18" Balled and Burlapped, Syringa patula 'Miss Kim' - Miss Kim Lilac		51.01	
32 93 33 00-0626	EA	24" Balled and Burlapped, Syringa patula 'Miss Kim' - Miss Kim Lilac		55.65	
32 93 33 00-0627	EA	30" Balled and Burlapped, Syringa patula 'Miss Kim' - Miss Kim Lilac		63.77	
32 93 33 00-0628	EA	36" Balled and Burlapped, Syringa patula 'Miss Kim' - Miss Kim Lilac		74.20	
32 93 33 00-0629	EA	42" Balled and Burlapped, Syringa patula 'Miss Kim' - Miss Kim Lilac		85.79	
32 93 33 00-0630	EA	60" Balled and Burlapped, Syringa villosa & cvs - Late Lilac		40.58	
32 93 33 00-0631	EA	72" Balled and Burlapped, Syringa villosa & cvs - Late Lilac		44.06	
32 93 33 00-0632	EA	36" Balled and Burlapped, Syringa vulgaris & cvs - Common Lilac		34.78	
32 93 33 00-0633	EA	42" Balled and Burlapped, Syringa vulgaris & cvs - Common Lilac		39.42	
32 93 33 00-0634	EA	48" Balled and Burlapped, Syringa vulgaris & cvs - Common Lilac		44.06	
32 93 33 00-0635	EA	60" Balled and Burlapped, Syringa vulgaris & cvs - Common Lilac		51.01	
32 93 33 00-0636	EA	72" Balled and Burlapped, Syringa vulgaris & cvs - Common Lilac		62.61	
32 93 33 00-0637	EA	5 Gallon Syringa x chinensis & cvs - Chinese Lilac		28.98	
32 93 33 00-0638	EA	36" Balled and Burlapped, Syringa x hyacinthiflora & cvs - Hybrid Lilac		33.62	
32 93 33 00-0639	EA	48" Balled and Burlapped, Syringa x hyacinthiflora & cvs - Hybrid Lilac		44.06	
32 93 33 00-0640	EA	48" Balled and Burlapped, Taxus cuspidata capitata - Capitata Japanese Yew		184.34	
32 93 33 00-0641	EA	54" Balled and Burlapped, Taxus cuspidata capitata - Capitata Japanese Yew		206.37	
32 93 33 00-0642	EA	60" Balled and Burlapped, Taxus cuspidata capitata - Capitata Japanese Yew		227.24	
32 93 33 00-0643	EA	72" Balled and Burlapped, Taxus cuspidata capitata - Capitata Japanese Yew		273.62	
32 93 33 00-0644	EA	18" Balled and Burlapped, Taxus cuspidata cvs - Dwarf & Spreading Japanese Yew		48.69	
32 93 33 00-0645	EA	24" Balled and Burlapped, Taxus cuspidata cvs - Dwarf & Spreading Japanese Yew		63.77	
32 93 33 00-0646	EA	30" Balled and Burlapped, Taxus cuspidata cvs - Dwarf & Spreading Japanese Yew		74.20	
32 93 33 00-0647	EA	36" Balled and Burlapped, Taxus cuspidata cvs - Dwarf & Spreading Japanese Yew		81.16	
32 93 33 00-0648	EA	15" Balled and Burlapped, Taxus x media & cvs - Anglojap Yew		48.69	
32 93 33 00-0649	EA	18" Balled and Burlapped, Taxus x media & cvs - Anglojap Yew		63.77	
32 93 33 00-0650	EA	24" Balled and Burlapped, Taxus x media & cvs - Anglojap Yew		75.36	
32 93 33 00-0651	EA	30" Balled and Burlapped, Taxus x media & cvs - Anglojap Yew		89.27	
32 93 33 00-0652	EA	36" Balled and Burlapped, Taxus x media & cvs - Anglojap Yew		134.49	
32 93 33 00-0653	EA	36" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		74.20	
32 93 33 00-0654	EA	48" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		99.71	
32 93 33 00-0655	EA	60" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		150.72	
32 93 33 00-0656	EA	72" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		220.28	
32 93 33 00-0657	EA	84" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		252.75	
32 93 33 00-0658	EA	96" Balled and Burlapped, Thuja occidentalis & cvs - Upright Arborvitae		293.33	
32 93 33 00-0659	EA	15" Balled and Burlapped, Thuja occidentalis cvs - Dwarf Arborvitae		32.46	
32 93 33 00-0660	EA	18" Balled and Burlapped, Thuja occidentalis cvs - Dwarf Arborvitae		45.22	
32 93 33 00-0661	EA	24" Balled and Burlapped, Thuja occidentalis cvs - Dwarf Arborvitae		63.77	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0662	EA	3' To 4' Viburnum dilatatum - Linden Viburnum	55.43
32 93 33 00-0663	EA	4' To 5' Viburnum dilatatum - Linden Viburnum	84.57
32 93 33 00-0664	EA	5' To 6' Viburnum dilatatum - Linden Viburnum	110.98
32 93 33 00-0665	EA	1 Gallon Viburnum japonicum - Japanese Viburnum	6.73
32 93 33 00-0666	EA	3 Gallon Viburnum japonicum - Japanese Viburnum	18.43
32 93 33 00-0667	EA	5 Gallon Viburnum plicatum - Japanese Snowball	33.13
32 93 33 00-0668	EA	5' To 6' Viburnum plicatum - Japanese Snowball	124.18
32 93 33 00-0669	EA	2' To 3' Viburnum rhytidophyllum - Leatherleaf Viburnum	58.17
32 93 33 00-0670	EA	3' To 4' Viburnum rhytidophyllum - Leatherleaf Viburnum	66.63
32 93 33 00-0671	EA	4' To 5' Viburnum rhytidophyllum - Leatherleaf Viburnum	96.53
32 93 33 00-0672	EA	30" Balled and Burlapped, Viburnum burkwoodii & cvs - Burkwood Viburnum	63.77
32 93 33 00-0673	EA	36" Balled and Burlapped, Viburnum burkwoodii & cvs - Burkwood Viburnum	76.52
32 93 33 00-0674	EA	24" Balled and Burlapped, Viburnum carlesii & cvs - Korean Spice Viburnum	57.97
32 93 33 00-0675	EA	30" Balled and Burlapped, Viburnum carlesii & cvs - Korean Spice Viburnum	69.56
32 93 33 00-0676	EA	36" Balled and Burlapped, Viburnum carlesii & cvs - Korean Spice Viburnum	81.16
32 93 33 00-0677	EA	42" Balled and Burlapped, Viburnum carlesii & cvs - Korean Spice Viburnum	92.75
32 93 33 00-0678	EA	36" Balled and Burlapped, Viburnum dentatum & cvs - Arrowwood Viburnum	32.46
32 93 33 00-0679	EA	42" Balled and Burlapped, Viburnum dentatum & cvs - Arrowwood Viburnum	34.78
32 93 33 00-0680	EA	48" Balled and Burlapped, Viburnum dentatum & cvs - Arrowwood Viburnum	40.58
32 93 33 00-0681	EA	60" Balled and Burlapped, Viburnum dentatum & cvs - Arrowwood Viburnum	46.38
32 93 33 00-0682	EA	72" Balled and Burlapped, Viburnum dentatum & cvs - Arrowwood Viburnum	51.01
32 93 33 00-0683	EA	30" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	31.30
32 93 33 00-0684	EA	36" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	34.78
32 93 33 00-0685	EA	42" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	44.06
32 93 33 00-0686	EA	48" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	51.01
32 93 33 00-0687	EA	60" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	69.56
32 93 33 00-0688	EA	72" Balled and Burlapped, Viburnum lantana & cvs - Wayfaringtree Viburnum	83.48
32 93 33 00-0689	EA	36" Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	34.78
32 93 33 00-0690	EA	48" Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	46.38
32 93 33 00-0691	EA	5' Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	57.97
32 93 33 00-0692	EA	6' Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	81.16
32 93 33 00-0693	EA	7' Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	115.94
32 93 33 00-0694	EA	8' Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	162.31
32 93 33 00-0695	EA	9' Balled and Burlapped, Viburnum lentago & cvs - Nannyberry Viburnum	208.69
32 93 33 00-0696	EA	30" Balled and Burlapped, Viburnum plicatum tomentosum & cvs - Doublefile Viburnum	41.74
32 93 33 00-0697	EA	36" Balled and Burlapped, Viburnum plicatum tomentosum & cvs - Doublefile Viburnum	46.38
32 93 33 00-0698	EA	36" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	83.48
32 93 33 00-0699	EA	48" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	127.53
32 93 33 00-0700	EA	60" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	162.31
32 93 33 00-0701	EA	72" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	197.10
32 93 33 00-0702	EA	84" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	243.47
32 93 33 00-0703	EA	96" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	289.85
32 93 33 00-0704	EA	108" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	347.82
32 93 33 00-0705	EA	120" Balled and Burlapped, Viburnum prunifolium & cvs - Blackhaw Viburnum	405.79
32 93 33 00-0706	EA	30" Balled and Burlapped, Viburnum sargentii & cvs - Sargent Viburnum	35.36
32 93 33 00-0707	EA	36" Balled and Burlapped, Viburnum sargentii & cvs - Sargent Viburnum	38.84
32 93 33 00-0708	EA	48" Balled and Burlapped, Viburnum sargentii & cvs - Sargent Viburnum	44.06
32 93 33 00-0709	EA	60" Balled and Burlapped, Viburnum sargentii & cvs - Sargent Viburnum	51.01
32 93 33 00-0710	EA	72" Balled and Burlapped, Viburnum sargentii & cvs - Sargent Viburnum	58.55
32 93 33 00-0711	EA	18" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	33.62
32 93 33 00-0712	EA	24" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	40.58
32 93 33 00-0713	EA	30" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	48.69
32 93 33 00-0714	EA	36" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	55.65
32 93 33 00-0715	EA	42" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	67.24
32 93 33 00-0716	EA	48" Balled and Burlapped, Viburnum trilobum & cvs - American Cranberry Viburnum	74.20
32 93 33 00-0717	EA	30" Balled and Burlapped, Viburnum x carlcephalum & cvs - Fragrant Viburnum	57.97
32 93 33 00-0718	EA	36" Balled and Burlapped, Viburnum x carlcephalum & cvs - Fragrant Viburnum	69.56
32 93 33 00-0719	EA	42" Balled and Burlapped, Viburnum x carlcephalum & cvs - Fragrant Viburnum	81.16
32 93 33 00-0720	EA	48" Balled and Burlapped, Viburnum x carlcephalum & cvs - Fragrant Viburnum	92.75
32 93 33 00-0721	EA	60" Balled and Burlapped, Viburnum x carlcephalum & cvs - Fragrant Viburnum	104.35
32 93 33 00-0722	EA	30" Balled and Burlapped, Viburnum x juddii & cvs - Judd Viburnum	74.20
32 93 33 00-0723	EA	36" Balled and Burlapped, Viburnum x juddii & cvs - Judd Viburnum	83.48
32 93 33 00-0724	EA	42" Balled and Burlapped, Viburnum x juddii & cvs - Judd Viburnum	95.07
32 93 33 00-0725	EA	48" Balled and Burlapped, Viburnum x juddii & cvs - Judd Viburnum	108.98
32 93 33 00-0726	EA	2' To 3' Viburnum opulus "Roseum" - Fragrant Snowball	66.63
32 93 33 00-0727	EA	3' To 4' Viburnum opulus "Roseum" - Fragrant Snowball	84.57
32 93 33 00-0728	EA	4' To 5' Viburnum opulus "Roseum" - Fragrant Snowball	124.18
32 93 33 00-0729	EA	5 Gallon Weigela florida & cvs - Old Fashioned Weigela	38.26
32 93 33 00-0730	EA	24" Balled and Burlapped, Weigela florida & cvs - Old Fashioned Weigela	34.78
32 93 33 00-0731	EA	30" Balled and Burlapped, Weigela florida & cvs - Old Fashioned Weigela	39.42
32 93 33 00-0732	EA	36" Balled and Burlapped, Weigela florida & cvs - Old Fashioned Weigela	44.06
32 93 33 00-0733	EA	42" Balled and Burlapped, Weigela florida & cvs - Old Fashioned Weigela	51.01
32 93 33 00-0734	EA	48" Balled and Burlapped, Weigela florida & cvs - Old Fashioned Weigela	57.97
32 93 33 00-0735	EA	1 Gallon Xylosma congestum - Shiny Xylosma	7.97
32 93 33 00-0736	EA	5 Gallon Xylosma congestum - Shiny Xylosma	22.54
32 93 33 00-0737	EA	15 Gallon Xylosma congestum - Shiny Xylosma	99.14
32 93 33 00-0738	EA	1 Gallon Yucca aloifolia - Spanish Bayonet	6.73
32 93 33 00-0739	EA	3 Gallon Yucca aloifolia - Spanish Bayonet	17.81
32 93 33 00-0740	EA	1 Gallon Yucca filamentosa - Adams Needle	9.34
32 93 33 00-0741	EA	3 Gallon Yucca filamentosa - Adams Needle	18.18
32 93 33 00-0742	EA	5 Gallon Yucca filamentosa - Adams Needle	28.77



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 33 00-0743	EA		5 Gallon Border Forsythia - Goldenbells.....	32.01	
32 93 33 00-0744	EA		2' To 3' Border Forsythia - Goldenbells.....	26.40	
32 93 33 00-0745	EA		3' To 4' Border Forsythia - Goldenbells.....	33.38	
32 93 33 00-0746	EA		4' To 5' Border Forsythia - Goldenbells.....	41.60	
32 93 33 00-0747	EA		5' To 6' Border Forsythia - Goldenbells.....	49.94	
32 93 33 00-0748	EA		6' To 8' Border Forsythia - Goldenbells.....	68.63	
32 93 33 00-0749	EA		3' Juniperus chinensis - Columnar Chinese Juniper.....	68.00	
32 93 33 00-0750	EA		4' Juniperus chinensis - Columnar Chinese Juniper.....	93.33	
32 93 33 00-0751	EA		5' Juniperus chinensis - Columnar Chinese Juniper.....	146.66	
32 93 33 00-0752	EA		6' Juniperus chinensis - Columnar Chinese Juniper.....	170.66	
32 93 33 00-0753	EA		7' Juniperus chinensis - Columnar Chinese Juniper.....	223.99	
32 93 33 00-0754	EA		2 Gallon Chrysobalanus icaco - Cocoplum Red Tip.....	13.33	
32 93 33 00-0755	EA		3 Gallon Chrysobalanus icaco - Cocoplum Red Tip.....	18.67	
32 93 33 00-0756	EA		5 Gallon Chrysobalanus icaco - Cocoplum Red Tip.....	45.20	
32 93 33 00-0757	EA		2 Gallon Chrysobalanus icaco - Cocoplum Green Tip.....	13.33	
32 93 33 00-0758	EA		3 Gallon Chrysobalanus icaco - Cocoplum Green Tip.....	18.67	
32 93 33 00-0759	EA		Beile Poitvine Roses.....	53.33	
32 93 33 00-0760	EA		3 Gallon Bird Of Paradise.....	24.00	
32 93 33 00-0761	EA		5 Gallon Bird Of Paradise.....	37.33	
32 93 33 00-0762	EA		7 Gallon Bird Of Paradise.....	50.67	
32 93 33 00-0763	EA		10 Gallon Bird Of Paradise.....	101.33	
32 93 33 00-0764	EA		18" Bonica Roses.....	61.33	
32 93 33 00-0765	EA		1 Gallon Burmese Grape.....	10.67	
32 93 33 00-0766	EA		5 Gallon Burmese Grape.....	29.33	
32 93 33 00-0767	EA		15 Gallon Burmese Grape.....	109.33	
32 93 33 00-0768	EA		6" To 9" Canby Paxistima.....	21.33	
32 93 33 00-0769	EA		9" To 12" Canby Paxistima.....	26.67	
32 93 33 00-0770	EA		12" To 15" Canby Paxistima.....	34.67	
32 93 33 00-0771	EA		5 Gallon Chastetree.....	37.33	
32 93 33 00-0772	EA		3' Chinese Lilac.....	53.33	
32 93 33 00-0773	EA		4' Chinese Lilac.....	66.66	
32 93 33 00-0774	EA		5' Chinese Lilac.....	90.66	
32 93 33 00-0775	EA		1 Gallon Christmas Berry.....	13.33	
32 93 33 00-0776	EA		2 Gallon Christmas Berry.....	29.33	
32 93 33 00-0777	EA		5 Gallon Christmas Berry.....	42.67	
32 93 33 00-0778	EA		15 Gallon Christmas Berry.....	197.33	
32 93 33 00-0779	EA		1 Gallon Concha Wild Lilac.....	10.67	
32 93 33 00-0780	EA		5 Gallon Concha Wild Lilac.....	26.67	
32 93 33 00-0781	EA		1 Gallon Flower Carpet Roses.....	26.67	
32 93 33 00-0782	EA		3 Gallon Flower Carpet Roses.....	50.67	
32 93 33 00-0783	EA		Goldfinger Potentillas.....	42.67	
32 93 33 00-0784	EA		Green Mound Alpine Currents.....	53.33	
32 93 33 00-0785	EA		24" Gro-Low Sumacs.....	53.33	
32 93 33 00-0786	EA		3 Gallon Heliconia.....	24.00	
32 93 33 00-0787	EA		1' Ibolium Private.....	2.67	
32 93 33 00-0788	EA		2' Ibolium Private.....	10.67	
32 93 33 00-0789	EA		3' Ibolium Private.....	18.67	
32 93 33 00-0790	EA		5 Gallon Japanese Privet.....	29.33	
32 93 33 00-0791	EA		24" Spirea - Little Princess.....	56.00	
32 93 33 00-0792	EA		2' Longstalk Holly.....	53.33	
32 93 33 00-0793	EA		2-1/2' Longstalk Holly.....	72.00	
32 93 33 00-0794	EA		3' Longstalk Holly.....	90.66	
32 93 33 00-0795	EA		3-1/2' Longstalk Holly.....	101.33	
32 93 33 00-0796	EA		3 Gallon Low Dense Pyracantha.....	26.67	
32 93 33 00-0797	EA		1 Gallon Pacific Wax Myrtle.....	8.00	
32 93 33 00-0798	EA		5 Gallon Pacific Wax Myrtle.....	26.67	
32 93 33 00-0799	EA		1 Gallon Red Escallonia.....	8.00	
32 93 33 00-0800	EA		5 Gallon Red Escallonia.....	26.67	
32 93 33 00-0801	EA		15 Gallon Red Escallonia.....	109.33	
32 93 33 00-0802	EA		24" Smooth Hydrangeas.....	64.00	
32 93 33 00-0803	EA		15" To 18" Somerset Burkwood Daphne.....	42.67	
32 93 33 00-0804	EA		18" To 24" Somerset Burkwood Daphne.....	56.00	
32 93 33 00-0805	EA		1 Gallon Spring Bouquet Laurustinis.....	8.00	
32 93 33 00-0806	EA		5 Gallon Spring Bouquet Laurustinis.....	29.33	
32 93 33 00-0807	EA		15" To 18" Summersweet.....	32.00	
32 93 33 00-0808	EA		18" To 24" Summersweet.....	37.33	
32 93 33 00-0809	EA		2' Sweet Shrubs.....	42.67	
32 93 33 00-0810	EA		3' Sweet Shrubs.....	56.00	
32 93 33 00-0811	EA		1 Gallon Variegated Silverberry.....	8.00	
32 93 33 00-0812	EA		3 Gallon Variegated Silverberry.....	18.67	
32 93 33 00-0813	EA		15 Gallon Variegated Silverberry.....	109.33	
32 93 33 00-0814	EA		1 Gallon Variegated Winter Daphne.....	13.33	
32 93 33 00-0815	EA		5 Gallon Variegated Winter Daphne.....	42.67	
32 93 33 00-0816	EA		15 Gallon Variegated Winter Daphne.....	197.33	
32 93 33 00-0817	EA		2' To 3' Virginia Sweetspire.....	93.33	
32 93 33 00-0818	EA		1 Gallon Warminster Broom.....	13.33	
32 93 33 00-0819	EA		2 Gallon Warminster Broom.....	26.67	
32 93 33 00-0820	EA		5 Gallon Warminster Broom.....	37.33	
32 93 33 00-0821	EA		1 Gallon Callistemon citrinus ' Little John' - Dwarf Bottle Bush.....	5.62	
32 93 33 00-0822	EA		5 Gallon Callistemon citrinus ' Little John' - Dwarf Bottle Bush.....	17.29	
32 93 33 00-0823	EA		15 Gallon Callistemon citrinus ' Little John' - Dwarf Bottle Bush.....	56.18	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 33 00-0824	EA	1 Gallon Dendromecon harfordii - Island Bush Poppy	14.41
32 93 33 00-0825	EA	5 Gallon Dendromecon harfordii - Island Bush Poppy	36.02
32 93 33 00-0826	EA	5 Gallon Senna artemisioides - Feathery Cassia	17.29
32 93 33 00-0827	EA	15 Gallon Senna artemisioides - Feathery Cassia	68.79
32 93 33 00-0828	EA	24" Box Senna artemisioides - Feathery Cassia	216.09

32 93 43 Trees (32 93)

Note: (cvs = cultivar or cultivated varieties) materials only. See CSI section 32 93 83 00-0001 for installation and planting of trees.

32 93 43 00-0001**Deciduous Ornamental Trees (32 93 43)**

Note: All trees listed by caliper of trunk or height of tree if field grown, dug with spade, balled and burlapped and delivered to site.

32 93 43 00-0002	EA	6' Clump Form Acer ginnala & cvs - Amur Maple	319.15
32 93 43 00-0003	EA	7' Clump Form Acer ginnala & cvs - Amur Maple	390.07
32 93 43 00-0004	EA	8' Clump Form Acer ginnala & cvs - Amur Maple	443.26
32 93 43 00-0005	EA	10' Clump Form Acer ginnala & cvs - Amur Maple	514.18
32 93 43 00-0006	EA	12' Clump Form Acer ginnala & cvs - Amur Maple	585.10
32 93 43 00-0007	EA	14' Clump Form Acer ginnala & cvs - Amur Maple	691.49
32 93 43 00-0008	EA	1-1/2" To 2" Caliper Acer griseum - Paperbark Maple	253.22
32 93 43 00-0009	EA	2" To 2-1/2" Caliper Acer griseum - Paperbark Maple	1,134.75
32 93 43 00-0010	EA	2-1/2" To 3" Caliper Acer griseum - Paperbark Maple	1,418.43
32 93 43 00-0011	EA	5' Clump Form Acer griseum - Paperbark Maple	283.69
32 93 43 00-0012	EA	1-1/2" Caliper Aesculus californica - California Buckeye	709.22
32 93 43 00-0013	EA	2" Caliper Aesculus californica - California Buckeye	921.98
32 93 43 00-0014	EA	2-1/2" Caliper Aesculus californica - California Buckeye	1,063.83
32 93 43 00-0015	EA	3" Caliper Aesculus californica - California Buckeye	1,205.67
32 93 43 00-0016	EA	3-1/2" Caliper Aesculus californica - California Buckeye	1,418.43
32 93 43 00-0017	EA	6' Albizia julibrissin - Silk Tree	722.26
32 93 43 00-0018	EA	8' Albizia julibrissin - Silk Tree	963.01
32 93 43 00-0019	EA	10' Albizia julibrissin - Silk Tree	1,203.76
32 93 43 00-0020	EA	12' Albizia julibrissin - Silk Tree	1,444.51
32 93 43 00-0021	EA	36" Balled and Burlapped, Amelanchier alnifolia & cvs - Saskatoon Serviceberry	92.75
32 93 43 00-0022	EA	48" Balled and Burlapped, Amelanchier alnifolia & cvs - Saskatoon Serviceberry	115.94
32 93 43 00-0023	EA	60" Balled and Burlapped, Amelanchier alnifolia & cvs - Saskatoon Serviceberry	143.76
32 93 43 00-0024	EA	60" Balled and Burlapped, Amelanchier arborea & cvs - Downy Serviceberry	115.94
32 93 43 00-0025	EA	72" Balled and Burlapped, Amelanchier arborea & cvs - Downy Serviceberry	139.13
32 93 43 00-0026	EA	7' Balled and Burlapped, Amelanchier arborea & cvs - Downy Serviceberry	162.31
32 93 43 00-0027	EA	8' Balled and Burlapped, Amelanchier arborea & cvs - Downy Serviceberry	185.50
32 93 43 00-0028	EA	5' Balled and Burlapped, Amelanchier canadensis & cvs - Shadblow Serviceberry	208.69
32 93 43 00-0029	EA	6' Balled and Burlapped, Amelanchier canadensis & cvs - Shadblow Serviceberry	231.88
32 93 43 00-0030	EA	7' Balled and Burlapped, Amelanchier canadensis & cvs - Shadblow Serviceberry	266.66
32 93 43 00-0031	EA	8' Balled and Burlapped, Amelanchier canadensis & cvs - Shadblow Serviceberry	301.44
32 93 43 00-0032	EA	9' Balled and Burlapped, Amelanchier canadensis & cvs - Shadblow Serviceberry	347.82
32 93 43 00-0033	EA	1-1/2" Caliper Amelanchier x grandiflora & cvs - Apple Serviceberry	354.61
32 93 43 00-0034	EA	2" Caliper Amelanchier x grandiflora & cvs - Apple Serviceberry	496.45
32 93 43 00-0035	EA	2-1/2" Caliper Amelanchier x grandiflora & cvs - Apple Serviceberry	531.91
32 93 43 00-0036	EA	3" Caliper Amelanchier x grandiflora & cvs - Apple Serviceberry	620.57
32 93 43 00-0037	EA	6' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	443.26
32 93 43 00-0038	EA	7' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	531.91
32 93 43 00-0039	EA	8' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	620.57
32 93 43 00-0040	EA	10' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	709.22
32 93 43 00-0041	EA	12' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	797.87
32 93 43 00-0042	EA	14' Clump Form Amelanchier x grandiflora & cvs - Apple Serviceberry	886.52
32 93 43 00-0043	EA	7' Balled and Burlapped, Amelanchier laevis & cvs - Allegheny Serviceberry	266.66
32 93 43 00-0044	EA	8' Balled and Burlapped, Amelanchier laevis & cvs - Allegheny Serviceberry	313.04
32 93 43 00-0045	EA	9' Balled and Burlapped, Amelanchier laevis & cvs - Allegheny Serviceberry	359.41
32 93 43 00-0046	EA	10' Balled and Burlapped, Amelanchier laevis & cvs - Allegheny Serviceberry	394.19
32 93 43 00-0047	EA	30" Balled and Burlapped, Amelanchier stolonifera & cvs - Running Serviceberry	92.75
32 93 43 00-0048	EA	48" Balled and Burlapped, Amelanchier stolonifera & cvs - Running Serviceberry	197.10
32 93 43 00-0049	EA	60" Balled and Burlapped, Amelanchier stolonifera & cvs - Running Serviceberry	255.07
32 93 43 00-0050	EA	2' To 4' Amelemchier - Juneberry	28.23
32 93 43 00-0051	EA	4' To 5' Amelemchier - Juneberry	29.62
32 93 43 00-0052	EA	5' To 6' Amelemchier - Juneberry	35.26
32 93 43 00-0053	EA	6' To 8' Amelemchier - Juneberry	42.07
32 93 43 00-0054	EA	15 Gallon Chilopsis linearis - Desert Willow	61.85
32 93 43 00-0055	EA	24" Box Chilopsis linearis - Desert Willow	199.18
32 93 43 00-0056	EA	36" Box Chilopsis linearis - Desert Willow	524.16
32 93 43 00-0057	EA	15 Gallon Chionanthus retusus - Chinese Fringe Tree	61.85
32 93 43 00-0058	EA	24" Box Chionanthus retusus - Chinese Fringe Tree	167.73
32 93 43 00-0059	EA	36" Box Chionanthus retusus - Chinese Fringe Tree	576.58
32 93 43 00-0060	EA	1-1/2" Caliper Arbutus menziesii - Madrona	523.37
32 93 43 00-0061	EA	2" Caliper Arbutus menziesii - Madrona	680.39
32 93 43 00-0062	EA	2-1/2" Caliper Arbutus menziesii - Madrona	785.06
32 93 43 00-0063	EA	3" Caliper Arbutus menziesii - Madrona	889.74
32 93 43 00-0064	EA	3-1/2" Caliper Arbutus menziesii - Madrona	1,046.75
32 93 43 00-0065	EA	1 Gallon Arbutus 'Marina' - Marina Strawberry Tree	6.81
32 93 43 00-0066	EA	5 Gallon Arbutus 'Marina' - Marina Strawberry Tree	25.68
32 93 43 00-0067	EA	15 Gallon Arbutus 'Marina' - Marina Strawberry Tree	82.82
32 93 43 00-0068	EA	24" Box Arbutus 'Marina' - Marina Strawberry Tree	199.18
32 93 43 00-0069	EA	36" Box Arbutus 'Marina' - Marina Strawberry Tree	640.64



Exterior Improvements			32
Planting			32 90
Plants			32 93

32

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 43 00-0070	EA 1 Gallon Arbutus unedo - Strawberry Tree	6.29	
32 93 43 00-0071	EA 5 Gallon Arbutus unedo - Strawberry Tree	18.87	
32 93 43 00-0072	EA 15 Gallon Arbutus unedo - Strawberry Tree	82.82	
32 93 43 00-0073	EA 24" Box Arbutus unedo - Strawberry Tree	199.18	
32 93 43 00-0074	EA 36" Box Arbutus unedo - Strawberry Tree	576.58	
32 93 43 00-0075	EA 3' Clump Form Asimina triloba - Paw-Paw	248.23	
32 93 43 00-0076	EA 4' Clump Form Asimina triloba - Paw-Paw	283.69	
32 93 43 00-0077	EA 5' Clump Form Asimina triloba - Paw-Paw	390.07	
32 93 43 00-0078	EA 6' Brachychiton acerifolius - Flame Tree	722.26	
32 93 43 00-0079	EA 8' Brachychiton acerifolius - Flame Tree	963.01	
32 93 43 00-0080	EA 10' Brachychiton acerifolius - Flame Tree	1,203.76	
32 93 43 00-0081	EA 12' Brachychiton acerifolius - Flame Tree	1,444.51	
32 93 43 00-0082	EA 1 Gallon Callistemon salignus - White BottleBrush	3.67	
32 93 43 00-0083	EA 5 Gallon Callistemon salignus - White BottleBrush	10.48	
32 93 43 00-0084	EA 15 Gallon Callistemon salignus - White BottleBrush	40.88	
32 93 43 00-0085	EA 24" Box Callistemon salignus - White BottleBrush	167.73	
32 93 43 00-0086	EA 5 Gallon Calodendrum capense - Cape Chestnut	45.14	
32 93 43 00-0087	EA 15 Gallon Calodendrum capense - Cape Chestnut	180.56	
32 93 43 00-0088	EA 24" Box Calodendrum capense - Cape Chestnut	677.12	
32 93 43 00-0089	EA 1-1/2" Caliper Carpinus caroliniana - American Hornbeam Ironwood	531.91	
32 93 43 00-0090	EA 2" Caliper Carpinus caroliniana - American Hornbeam Ironwood	620.57	
32 93 43 00-0091	EA 2-1/2" Caliper Carpinus caroliniana - American Hornbeam Ironwood	797.87	
32 93 43 00-0092	EA 5' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	319.15	
32 93 43 00-0093	EA 6' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	390.07	
32 93 43 00-0094	EA 7' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	531.91	
32 93 43 00-0095	EA 8' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	620.57	
32 93 43 00-0096	EA 10' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	744.68	
32 93 43 00-0097	EA 12' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	904.25	
32 93 43 00-0098	EA 14' Clump Form Carpinus caroliniana - American Hornbeam Ironwood	1,028.37	
32 93 43 00-0099	EA 8' Cassia leptophylla - Gold Medallion Tree	391.22	
32 93 43 00-0100	EA 10' Cassia leptophylla - Gold Medallion Tree	496.55	
32 93 43 00-0101	EA 12' Cassia leptophylla - Gold Medallion Tree	601.88	
32 93 43 00-0102	EA 5 Gallon Celtis Sinensis - Chinese Hackberry	44.16	
32 93 43 00-0103	EA 15 Gallon Celtis Sinensis - Chinese Hackberry	116.42	
32 93 43 00-0104	EA 24" Box Celtis Sinensis - Chinese Hackberry	381.37	
32 93 43 00-0105	EA 36" Box Celtis Sinensis - Chinese Hackberry	1,114.00	
32 93 43 00-0106	EA 15 Gallon Cercis canadensis - American Redbud, Eastern Redbud	82.82	
32 93 43 00-0107	EA 24" Box Cercis canadensis - American Redbud, Eastern Redbud	199.18	
32 93 43 00-0108	EA 36" Box Cercis canadensis - American Redbud, Eastern Redbud	524.16	
32 93 43 00-0109	EA 1 Gallon Cercis occidentalis - Western Redbud	6.81	
32 93 43 00-0110	EA 5 Gallon Cercis occidentalis - Western Redbud	25.68	
32 93 43 00-0111	EA 15 Gallon Cercis occidentalis - Western Redbud	82.82	
32 93 43 00-0112	EA 24" Box Cercis occidentalis - Western Redbud	199.18	
32 93 43 00-0113	EA 36" Box Cercis occidentalis - Western Redbud	576.58	
32 93 43 00-0114	EA 1 Gallon Chitalpa tashkentensis - Chitalpa	4.72	
32 93 43 00-0115	EA 5 Gallon Chitalpa tashkentensis - Chitalpa	14.68	
32 93 43 00-0116	EA 15 Gallon Chitalpa tashkentensis - Chitalpa	51.37	
32 93 43 00-0117	EA 24" Box Chitalpa tashkentensis - Chitalpa	167.73	
32 93 43 00-0118	EA 36" Box Chitalpa tashkentensis - Chitalpa	471.74	
32 93 43 00-0119	EA 5' To 6' Chaenomeles - Orange Quince	112.01	
32 93 43 00-0120	EA 6' To 8' Chaenomeles - Orange Quince	140.01	
32 93 43 00-0121	EA 1-1/2" Caliper Chilopsis linearis - Desert Willow	583.82	
32 93 43 00-0122	EA 2" Caliper Chilopsis linearis - Desert Willow	701.19	
32 93 43 00-0123	EA 2-1/2" Caliper Chilopsis linearis - Desert Willow	746.33	
32 93 43 00-0124	EA 3" Caliper Chilopsis linearis - Desert Willow	827.58	
32 93 43 00-0125	EA 5 Gallon Chionanthus retusus - Chinese Fringe Tree	30.09	
32 93 43 00-0126	EA 15 Gallon Chionanthus retusus - Chinese Fringe Tree	120.38	
32 93 43 00-0127	EA 24" Box Chionanthus retusus - Chinese Fringe Tree	601.88	
32 93 43 00-0128	EA 6' Chionanthus virginicus - White Fringe Tree	361.13	
32 93 43 00-0129	EA 8' Chionanthus virginicus - White Fringe Tree	570.92	
32 93 43 00-0130	EA 10' Chionanthus virginicus - White Fringe Tree	795.21	
32 93 43 00-0131	EA 5' Clump Form Chionanthus virginicus - White Fringetree	354.61	
32 93 43 00-0132	EA 6' Clump Form Chionanthus virginicus - White Fringetree	443.26	
32 93 43 00-0133	EA 7' Clump Form Chionanthus virginicus - White Fringetree	567.37	
32 93 43 00-0134	EA 4' To 5' Cornus - Pink Or Red Flowering Dogwood	128.00	
32 93 43 00-0135	EA 5' To 6' Cornus - Pink Or Red Flowering Dogwood	160.01	
32 93 43 00-0136	EA 6' To 7' Cornus - Pink Or Red Flowering Dogwood	224.01	
32 93 43 00-0137	EA 7' To 8' Cornus - Pink Or Red Flowering Dogwood	288.01	
32 93 43 00-0138	EA 4' To 5' Cornus - White Flowering Dogwood	85.34	
32 93 43 00-0139	EA 5' To 6' Cornus - White Flowering Dogwood	128.00	
32 93 43 00-0140	EA 6' To 7' Cornus - White Flowering Dogwood	179.21	
32 93 43 00-0141	EA 3' To 4' Cornus kousa - Japanese Dogwood	85.34	
32 93 43 00-0142	EA 4' To 5' Cornus kousa - Japanese Dogwood	98.14	
32 93 43 00-0143	EA 5' To 6' Cornus kousa - Japanese Dogwood	128.00	
32 93 43 00-0144	EA 6' To 8' Cornus kousa - Japanese Dogwood	187.74	
32 93 43 00-0145	EA 8' To 10' Cornus kousa - Japanese Dogwood	256.01	
32 93 43 00-0146	EA 1-1/2" Caliper Cornus alternifolia & cvs - Pagoda Dogwood	407.80	
32 93 43 00-0147	EA 2" Caliper Cornus alternifolia & cvs - Pagoda Dogwood	496.45	
32 93 43 00-0148	EA 4' Clump Form Cornus alternifolia & cvs - Pagoda Dogwood	195.03	
32 93 43 00-0149	EA 5' Clump Form Cornus alternifolia & cvs - Pagoda Dogwood	248.23	
32 93 43 00-0150	EA 6' Clump Form Cornus alternifolia & cvs - Pagoda Dogwood	283.69	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0151	EA	7' Clump Form Cornus alternifolia & cvs - Pagoda Dogwood	319.15	
32 93 43 00-0152	EA	8' Clump Form Cornus alternifolia & cvs - Pagoda Dogwood	390.07	
32 93 43 00-0153	EA	4' Clump Form Cornus mas & cvs - Corneliancherry Dogwood	195.03	
32 93 43 00-0154	EA	5' Clump Form Cornus mas & cvs - Corneliancherry Dogwood	248.23	
32 93 43 00-0155	EA	6' Clump Form Cornus mas & cvs - Corneliancherry Dogwood	301.42	
32 93 43 00-0156	EA	7' Clump Form Cornus mas & cvs - Corneliancherry Dogwood	354.61	
32 93 43 00-0157	EA	8' Clump Form Cornus mas & cvs - Corneliancherry Dogwood	496.45	
32 93 43 00-0158	EA	1-1/2" Caliper Cornus mas & cvs - Corneliancherry Dogwood	443.26	
32 93 43 00-0159	EA	2" Caliper Cornus mas & cvs - Corneliancherry Dogwood	531.91	
32 93 43 00-0160	EA	2-1/2" Caliper Cornus mas & cvs - Corneliancherry Dogwood	620.57	
32 93 43 00-0161	EA	1-1/2" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	354.61	
32 93 43 00-0162	EA	2" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	443.26	
32 93 43 00-0163	EA	2-1/2" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	549.64	
32 93 43 00-0164	EA	3" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	620.57	
32 93 43 00-0165	EA	3-1/2" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	709.22	
32 93 43 00-0166	EA	4" Caliper Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	797.87	
32 93 43 00-0167	EA	6' Clump Form Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	354.61	
32 93 43 00-0168	EA	7' Clump Form Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	425.53	
32 93 43 00-0169	EA	8' Clump Form Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	496.45	
32 93 43 00-0170	EA	10' Clump Form Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	620.57	
32 93 43 00-0171	EA	12' Clump Form Crataegus crusgalli inermis & cvs - Thornless Cockspur Hawthorn	797.87	
32 93 43 00-0172	EA	5 Gallon Crataegus phaenopyrum - Washington Hawthorn	44.16	
32 93 43 00-0173	EA	15 Gallon Crataegus phaenopyrum - Washington Hawthorn	116.42	
32 93 43 00-0174	EA	24" Box Crataegus phaenopyrum - Washington Hawthorn	381.37	
32 93 43 00-0175	EA	36" Box Crataegus phaenopyrum - Washington Hawthorn	1,114.00	
32 93 43 00-0176	EA	1-1/2" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	283.69	
32 93 43 00-0177	EA	2" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	319.15	
32 93 43 00-0178	EA	2-1/2" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	354.61	
32 93 43 00-0179	EA	3" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	407.80	
32 93 43 00-0180	EA	3-1/2" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	531.91	
32 93 43 00-0181	EA	4" Caliper Crataegus phaenopyrum & cvs - Washington Hawthorn	602.83	
32 93 43 00-0182	EA	6' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	248.23	
32 93 43 00-0183	EA	7' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	301.42	
32 93 43 00-0184	EA	8' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	354.61	
32 93 43 00-0185	EA	10' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	443.26	
32 93 43 00-0186	EA	12' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	549.64	
32 93 43 00-0187	EA	14' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	656.03	
32 93 43 00-0188	EA	16' Clump Form Crataegus phaenopyrum & cvs - Washington Hawthorn	762.41	
32 93 43 00-0189	EA	1-1/2" Caliper Crataegus viridis - Winter King Hawthorn	283.69	
32 93 43 00-0190	EA	2" Caliper Crataegus viridis - Winter King Hawthorn	319.15	
32 93 43 00-0191	EA	2-1/2" Caliper Crataegus viridis - Winter King Hawthorn	443.26	
32 93 43 00-0192	EA	3" Caliper Crataegus viridis - Winter King Hawthorn	585.10	
32 93 43 00-0193	EA	6' Clump Form Crataegus viridis - Winter King Hawthorn	265.96	
32 93 43 00-0194	EA	7' Clump Form Crataegus viridis - Winter King Hawthorn	354.61	
32 93 43 00-0195	EA	8' Clump Form Crataegus viridis - Winter King Hawthorn	443.26	
32 93 43 00-0196	EA	10' Clump Form Crataegus viridis - Winter King Hawthorn	531.91	
32 93 43 00-0197	EA	1 Gallon Eucalyptus ficifolia - Red-Flowering Gum	13.05	
32 93 43 00-0198	EA	5 Gallon Eucalyptus ficifolia - Red-Flowering Gum	36.13	
32 93 43 00-0199	EA	15 Gallon Eucalyptus ficifolia - Red-Flowering Gum	158.57	
32 93 43 00-0200	EA	24" Box Eucalyptus ficifolia - Red-Flowering Gum	381.37	
32 93 43 00-0201	EA	36" Box Eucalyptus ficifolia - Red-Flowering Gum	1,003.60	
32 93 43 00-0202	EA	15 Gallon Fraxinus velutina 'Raywood' - Fan-Tex Ash	98.35	
32 93 43 00-0203	EA	24" Box Fraxinus velutina 'Raywood' - Fan-Tex Ash	321.15	
32 93 43 00-0204	EA	36" Box Fraxinus velutina 'Raywood' - Fan-Tex Ash	853.06	
32 93 43 00-0205	EA	48" Box Fraxinus velutina 'Raywood' - Fan-Tex Ash	1,906.84	
32 93 43 00-0206	EA	15 Gallon Geijera parvifolia - Australian Willow	244.68	
32 93 43 00-0207	EA	24" Box Geijera parvifolia - Australian Willow	503.63	
32 93 43 00-0208	EA	30" Box Geijera parvifolia - Australian Willow	937.94	
32 93 43 00-0209	EA	36" Box Geijera parvifolia - Australian Willow	1,345.74	
32 93 43 00-0210	EA	5 Gallon Gleditsia triacanthos 'Shademaster' - Shademaster Honey Locust	28.10	
32 93 43 00-0211	EA	15 Gallon Gleditsia triacanthos 'Shademaster' - Shademaster Honey Locust	98.35	
32 93 43 00-0212	EA	24" Box Gleditsia triacanthos 'Shademaster' - Shademaster Honey Locust	321.15	
32 93 43 00-0213	EA	36" Box Gleditsia triacanthos 'Shademaster' - Shademaster Honey Locust	853.06	
32 93 43 00-0214	EA	48" Box Gleditsia triacanthos 'Shademaster' - Shademaster Honey Locust	1,906.84	
32 93 43 00-0215	EA	5 Gallon Ginkgo biloba - Maidenhair Tree or Ginkgo	25.68	
32 93 43 00-0216	EA	15 Gallon Ginkgo biloba - Maidenhair Tree or Ginkgo	82.82	
32 93 43 00-0217	EA	24" Box Ginkgo biloba - Maidenhair Tree or Ginkgo	167.73	
32 93 43 00-0218	EA	36" Box Ginkgo biloba - Maidenhair Tree or Ginkgo	576.58	
32 93 43 00-0219	EA	1-1/2" Caliper Ginkgo Biloba - Maidenhair Tree	725.88	
32 93 43 00-0220	EA	2" Caliper Ginkgo Biloba - Maidenhair Tree	1,011.34	
32 93 43 00-0221	EA	2-1/2" Caliper Ginkgo Biloba - Maidenhair Tree	1,219.32	
32 93 43 00-0222	EA	3" Caliper Ginkgo Biloba - Maidenhair Tree	1,423.22	
32 93 43 00-0223	EA	3-1/2" Caliper Ginkgo Biloba - Maidenhair Tree	1,863.65	
32 93 43 00-0224	EA	4" Caliper Ginkgo Biloba - Maidenhair Tree	1,990.06	
32 93 43 00-0225	EA	4-1/2" Caliper Ginkgo Biloba - Maidenhair Tree	2,120.56	
32 93 43 00-0226	EA	24" Box Ginkgo Biloba - Maidenhair Tree	662.68	
32 93 43 00-0227	EA	4' Clump Form Hamamelis virginiana - Common Witchhazel	177.30	
32 93 43 00-0228	EA	5' Clump Form Hamamelis virginiana - Common Witchhazel	230.50	
32 93 43 00-0229	EA	6' Clump Form Hamamelis virginiana - Common Witchhazel	283.69	
32 93 43 00-0230	EA	7' Clump Form Hamamelis virginiana - Common Witchhazel	390.07	
32 93 43 00-0231	EA	8' Clump Form Hamamelis virginiana - Common Witchhazel	531.91	



Exterior Improvements			32
Planting			32 90
Plants			32 93

32

MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
32 93 43 00-0232	EA	1 Gallon Ilex Cassine - Casine Holly (Dahoon).....		10.20	
32 93 43 00-0233	EA	5 Gallon Ilex Cassine - Casine Holly (Dahoon).....		32.62	
32 93 43 00-0234	EA	4' To 5' Ilex Cassine - Casine Holly (Dahoon).....		56.07	
32 93 43 00-0235	EA	6' To 7' Ilex Cassine - Casine Holly (Dahoon).....		107.05	
32 93 43 00-0236	EA	8' To 9' Ilex Cassine - Casine Holly (Dahoon).....		142.73	
32 93 43 00-0237	EA	10' To 12' Ilex Cassine - Casine Holly (Dahoon).....		183.51	
32 93 43 00-0238	EA	1-1/2" Caliper Koelreuteria bipinnata - Chinese Flame Tree.....		361.13	
32 93 43 00-0239	EA	2" Caliper Koelreuteria bipinnata - Chinese Flame Tree.....		586.83	
32 93 43 00-0240	EA	2-1/2" Caliper Koelreuteria bipinnata - Chinese Flame Tree.....		722.26	
32 93 43 00-0241	EA	3" Caliper Koelreuteria bipinnata - Chinese Flame Tree.....		797.49	
32 93 43 00-0242	EA	24" Box Koelreuteria bipinnata - Chinese Flame Tree.....		352.10	
32 93 43 00-0243	EA	30" Box Koelreuteria bipinnata - Chinese Flame Tree.....		812.54	
32 93 43 00-0244	EA	36" Box Koelreuteria bipinnata - Chinese Flame Tree.....		1,271.47	
32 93 43 00-0245	EA	1-1/2" Cliber Koelreuteria paniculata - Golden Rain Tree.....		328.02	
32 93 43 00-0246	EA	2" Cliber Koelreuteria paniculata - Golden Rain Tree.....		532.66	
32 93 43 00-0247	EA	3" Cliber Koelreuteria paniculata - Golden Rain Tree.....		737.30	
32 93 43 00-0248	EA	4' To 5' Lagerstroemia indica - Crape Myrtle.....		260.99	
32 93 43 00-0249	EA	6' Lagerstroemia indica - Crape Myrtle.....		485.28	
32 93 43 00-0250	EA	8' Lagerstroemia indica - Crape Myrtle.....		501.59	
32 93 43 00-0251	EA	10' Lagerstroemia indica - Crape Myrtle.....		607.62	
32 93 43 00-0252	EA	24" Box Lagerstroemia indica - Crape Myrtle.....		477.13	
32 93 43 00-0253	EA	1 Gallon Handroanthus impetiginosus (Tabebuia avellanedae) - Pink Trumpet Tree.....		10.38	
32 93 43 00-0254	EA	5 Gallon Handroanthus impetiginosus (Tabebuia avellanedae) - Pink Trumpet Tree.....		25.68	
32 93 43 00-0255	EA	15 Gallon Handroanthus impetiginosus (Tabebuia avellanedae) - Pink Trumpet Tree.....		82.82	
32 93 43 00-0256	EA	1 Gallon Jacaranda mimosifolia - Jacaranda.....		6.81	
32 93 43 00-0257	EA	5 Gallon Jacaranda mimosifolia - Jacaranda.....		18.87	
32 93 43 00-0258	EA	15 Gallon Jacaranda mimosifolia - Jacaranda.....		51.37	
32 93 43 00-0259	EA	24" Box Jacaranda mimosifolia - Jacaranda.....		167.73	
32 93 43 00-0260	EA	36" Box Jacaranda mimosifolia - Jacaranda.....		471.74	
32 93 43 00-0261	EA	1 Gallon Koelreuteria bipinnata - Chinese Flame Tree.....		6.81	
32 93 43 00-0262	EA	5 Gallon Koelreuteria bipinnata - Chinese Flame Tree.....		18.87	
32 93 43 00-0263	EA	15 Gallon Koelreuteria bipinnata - Chinese Flame Tree.....		61.85	
32 93 43 00-0264	EA	5 Gallon Liquidambar styraciflua 'Burgundy' - Burgundy Sweetgum.....		28.10	
32 93 43 00-0265	EA	15 Gallon Liquidambar styraciflua 'Burgundy' - Burgundy Sweetgum.....		118.42	
32 93 43 00-0266	EA	24" Box Liquidambar styraciflua 'Burgundy' - Burgundy Sweetgum.....		321.15	
32 93 43 00-0267	EA	36" Box Liquidambar styraciflua 'Burgundy' - Burgundy Sweetgum.....		903.24	
32 93 43 00-0268	EA	48" Box Liquidambar styraciflua 'Burgundy' - Burgundy Sweetgum.....		2,308.28	
32 93 43 00-0269	EA	5 Gallon Liquidambar styraciflua 'Festival' - Festival Sweetgum.....		28.10	
32 93 43 00-0270	EA	15 Gallon Liquidambar styraciflua 'Festival' - Festival Sweetgum.....		118.42	
32 93 43 00-0271	EA	24" Box Liquidambar styraciflua 'Festival' - Festival Sweetgum.....		321.15	
32 93 43 00-0272	EA	36" Box Liquidambar styraciflua 'Festival' - Festival Sweetgum.....		903.24	
32 93 43 00-0273	EA	48" Box Liquidambar styraciflua 'Festival' - Festival Sweetgum.....		2,308.28	
32 93 43 00-0274	EA	5 Gallon Liquidambar styraciflua 'Palo Alto' - Palo Alto Sweetgum.....		28.10	
32 93 43 00-0275	EA	15 Gallon Liquidambar styraciflua 'Palo Alto' - Palo Alto Sweetgum.....		118.42	
32 93 43 00-0276	EA	24" Box Liquidambar styraciflua 'Palo Alto' - Palo Alto Sweetgum.....		321.15	
32 93 43 00-0277	EA	36" Box Liquidambar styraciflua 'Palo Alto' - Palo Alto Sweetgum.....		903.24	
32 93 43 00-0278	EA	48" Box Liquidambar styraciflua 'Palo Alto' - Palo Alto Sweetgum.....		2,308.28	
32 93 43 00-0279	EA	15 Gallon Macadamia integrifolia - Smoothshell macadamia.....		157.25	
32 93 43 00-0280	EA	2' To 3' Magnolia Virginiana - Sweetbay Magnolia.....		67.20	
32 93 43 00-0281	EA	3' To 4' Magnolia Virginiana - Sweetbay Magnolia.....		100.80	
32 93 43 00-0282	EA	4' To 5' Magnolia Virginiana - Sweetbay Magnolia.....		126.01	
32 93 43 00-0283	EA	5' To 6' Magnolia Virginiana - Sweetbay Magnolia.....		156.94	
32 93 43 00-0284	EA	4' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		265.96	
32 93 43 00-0285	EA	5' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		354.61	
32 93 43 00-0286	EA	6' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		460.99	
32 93 43 00-0287	EA	7' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		514.18	
32 93 43 00-0288	EA	9' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		691.49	
32 93 43 00-0289	EA	8' Clump Form Magnolia acuminata, cvs & hybrids - Cucumbertree Magnolia.....		620.57	
32 93 43 00-0290	EA	6' Magnolia grandiflora 'St. Mary's'.....		451.41	
32 93 43 00-0291	EA	8' Magnolia grandiflora 'St. Mary's'.....		797.49	
32 93 43 00-0292	EA	10' Magnolia grandiflora 'St. Mary's'.....		1,002.13	
32 93 43 00-0293	EA	12' Magnolia grandiflora 'St. Mary's'.....		1,203.76	
32 93 43 00-0294	EA	14' Magnolia grandiflora 'St. Mary's'.....		1,399.37	
32 93 43 00-0295	EA	16' Magnolia grandiflora 'St. Mary's'.....		1,655.17	
32 93 43 00-0296	EA	24" Box Magnolia grandiflora 'St. Mary's'.....		496.55	
32 93 43 00-0297	EA	6' Magnolia grandiflora - Southern Magnolia.....		222.70	
32 93 43 00-0298	EA	7' Magnolia grandiflora - Southern Magnolia.....		337.05	
32 93 43 00-0299	EA	8' Magnolia grandiflora - Southern Magnolia.....		472.48	
32 93 43 00-0300	EA	9' Magnolia grandiflora - Southern Magnolia.....		628.96	
32 93 43 00-0301	EA	10' Magnolia grandiflora - Southern Magnolia.....		956.99	
32 93 43 00-0302	EA	24" Box Magnolia grandiflora - Southern Magnolia.....		391.22	
32 93 43 00-0303	EA	4' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		265.96	
32 93 43 00-0304	EA	5' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		354.61	
32 93 43 00-0305	EA	6' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		460.99	
32 93 43 00-0306	EA	7' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		514.18	
32 93 43 00-0307	EA	8' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		620.57	
32 93 43 00-0308	EA	9' Clump Form Magnolia kobus, cvs & hybrids - Kobus Magnolia.....		691.49	
32 93 43 00-0309	EA	4' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia.....		265.96	
32 93 43 00-0310	EA	5' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia.....		354.61	
32 93 43 00-0311	EA	6' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia.....		460.99	
32 93 43 00-0312	EA	7' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia.....		514.18	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0313	EA	8' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia	620.57	
32 93 43 00-0314	EA	9' Clump Form Magnolia loebneri, cvs & hybrids - Loebner Magnolia	691.49	
32 93 43 00-0315	EA	4' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	265.96	
32 93 43 00-0316	EA	5' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	354.61	
32 93 43 00-0317	EA	6' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	460.99	
32 93 43 00-0318	EA	7' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	514.18	
32 93 43 00-0319	EA	8' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	620.57	
32 93 43 00-0320	EA	9' Clump Form Magnolia soulangiana & cvs - Saucer Magnolia	691.49	
32 93 43 00-0321	EA	4' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	265.96	
32 93 43 00-0322	EA	5' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	354.61	
32 93 43 00-0323	EA	6' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	460.99	
32 93 43 00-0324	EA	7' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	514.18	
32 93 43 00-0325	EA	8' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	620.57	
32 93 43 00-0326	EA	9' Clump Form Magnolia stellata, cvs & hybrids - Star Magnolia	691.49	
32 93 43 00-0327	EA	5 Gallon Malus - Crabapple	72.00	
32 93 43 00-0328	EA	15 Gallon Malus - Crabapple	183.61	
32 93 43 00-0329	EA	20 Gallon Malus - Crabapple	216.01	
32 93 43 00-0330	EA	1-1/2" Caliper Malus cvs - Crabapple Varieties	212.77	
32 93 43 00-0331	EA	2" Caliper Malus cvs - Crabapple Varieties	283.69	
32 93 43 00-0332	EA	2-1/2" Caliper Malus cvs - Crabapple Varieties	354.61	
32 93 43 00-0333	EA	3" Caliper Malus cvs - Crabapple Varieties	425.53	
32 93 43 00-0334	EA	3-1/2" Caliper Malus cvs - Crabapple Varieties	496.45	
32 93 43 00-0335	EA	4" Caliper Malus cvs - Crabapple Varieties	567.37	
32 93 43 00-0336	EA	6' Clump Form Malus cvs - Crabapple Varieties	319.15	
32 93 43 00-0337	EA	7' Clump Form Malus cvs - Crabapple Varieties	354.61	
32 93 43 00-0338	EA	8' Clump Form Malus cvs - Crabapple Varieties	443.26	
32 93 43 00-0339	EA	10' Clump Form Malus cvs - Crabapple Varieties	496.45	
32 93 43 00-0340	EA	12' Clump Form Malus cvs - Crabapple Varieties	638.30	
32 93 43 00-0341	EA	1-1/2" Caliper Malus dwarf cvs - Dwarf Crabapple Cultivars	354.61	
32 93 43 00-0342	EA	2" Caliper Malus dwarf cvs - Dwarf Crabapple Cultivars	443.26	
32 93 43 00-0343	EA	4' Clump Form Malus dwarf cvs - Dwarf Crabapple	265.96	
32 93 43 00-0344	EA	5' Clump Form Malus dwarf cvs - Dwarf Crabapple	336.88	
32 93 43 00-0345	EA	6' Clump Form Malus dwarf cvs - Dwarf Crabapple	407.80	
32 93 43 00-0346	EA	7' Clump Form Malus dwarf cvs - Dwarf Crabapple	460.99	
32 93 43 00-0347	EA	8' Clump Form Malus dwarf cvs - Dwarf Crabapple	514.18	
32 93 43 00-0348	EA	9' Clump Form Malus dwarf cvs - Dwarf Crabapple	567.37	
32 93 43 00-0349	EA	1 Gallon Melaleuca saligna (Callistemon salignus) - White Bottle Brush	6.03	
32 93 43 00-0350	EA	5 Gallon Melaleuca saligna (Callistemon salignus) - White Bottle Brush	28.83	
32 93 43 00-0351	EA	15 Gallon Melaleuca saligna (Callistemon salignus) - White Bottle Brush	49.80	
32 93 43 00-0352	EA	15 Gallon Melia azedarach - China Berry	59.74	
32 93 43 00-0353	EA	24" Box Melia azedarach - China Berry	197.07	
32 93 43 00-0354	EA	4' To 5' Oxydendrum arboreum - Sourwood	162.67	
32 93 43 00-0355	EA	5' To 6' Oxydendrum arboreum - Sourwood	203.34	
32 93 43 00-0356	EA	6' To 7' Oxydendrum arboreum - Sourwood	244.01	
32 93 43 00-0357	EA	7' To 8' Oxydendrum arboreum - Sourwood	284.68	
32 93 43 00-0358	EA	1 Gallon Pittosporum undulatum - Victorian Box	11.15	
32 93 43 00-0359	EA	5 Gallon Pittosporum undulatum - Victorian Box	24.01	
32 93 43 00-0360	EA	15 Gallon Pittosporum undulatum - Victorian Box	135.48	
32 93 43 00-0361	EA	24" Box Pittosporum undulatum - Victorian Box	325.85	
32 93 43 00-0362	EA	36" Box Pittosporum undulatum - Victorian Box	943.25	
32 93 43 00-0363	EA	48" Box Pittosporum undulatum - Victorian Box	2,143.75	
32 93 43 00-0364	EA	5 Gallon Platanus Racemosa - California Sycamore	18.87	
32 93 43 00-0365	EA	15 Gallon Platanus Racemosa - California Sycamore	51.37	
32 93 43 00-0366	EA	24" Box Platanus Racemosa - California Sycamore	167.73	
32 93 43 00-0367	EA	36" Box Platanus Racemosa - California Sycamore	471.74	
32 93 43 00-0368	EA	1 Gallon Platanus racemosa, Multi Trunk - Western Sycamore	6.05	
32 93 43 00-0369	EA	5 Gallon Platanus racemosa, Multi Trunk - Western Sycamore	25.61	
32 93 43 00-0370	EA	20 Gallon Prunus subhirtella - Flowering Cherry	349.77	
32 93 43 00-0371	EA	1-1/2" To 2" Caliper Prunus subhirtella - Flowering Cherry	361.56	
32 93 43 00-0372	EA	2" To 2-1/2" Caliper Prunus subhirtella - Flowering Cherry	451.90	
32 93 43 00-0373	EA	3-1/2" To 4" Caliper Prunus subhirtella - Flowering Cherry	943.07	
32 93 43 00-0374	EA	3" To 3-1/2" Caliper Prunus subhirtella - Flowering Cherry	726.85	
32 93 43 00-0375	EA	4" To 5" Caliper Prunus subhirtella - Flowering Cherry	1,414.61	
32 93 43 00-0376	EA	4' To 6' Prunus - Pigeon Plum	143.01	
32 93 43 00-0377	EA	8' To 10' Prunus - Pigeon Plum	486.24	
32 93 43 00-0378	EA	10' To 12' Prunus - Pigeon Plum	617.81	
32 93 43 00-0379	EA	14' To 16' Prunus - Pigeon Plum	972.48	
32 93 43 00-0380	EA	5 Gallon Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	90.34	
32 93 43 00-0381	EA	15 Gallon Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	247.46	
32 93 43 00-0382	EA	20 Gallon Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	322.28	
32 93 43 00-0383	EA	5' To 6' Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	102.13	
32 93 43 00-0384	EA	6' To 8' Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	196.40	
32 93 43 00-0385	EA	1-1/2" To 2" Caliper Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	361.56	
32 93 43 00-0386	EA	2" To 2-1/2" Caliper Prunus cerasifera x 'Thundercloud' - Thundercloud Purple Leaf Plum	432.25	
32 93 43 00-0387	EA	1-1/2" To 1-3/4" Caliper Prunus subhirtella - Weeping Cherry	283.00	
32 93 43 00-0388	EA	1-1/4" To 1-1/2" Caliper Prunus subhirtella - Weeping Cherry	235.67	
32 93 43 00-0389	EA	1-3/4" To 2" Caliper Prunus subhirtella - Weeping Cherry	345.66	
32 93 43 00-0390	EA	2" To 2-1/2" Caliper Prunus subhirtella - Weeping Cherry	412.62	
32 93 43 00-0391	EA	2-1/2" To 3" Caliper Prunus subhirtella - Weeping Cherry	530.45	
32 93 43 00-0392	EA	6' To 8' Prunus yedoensis - Yoshino Cherry	204.44	
32 93 43 00-0393	EA	1-1/2" To 2" Caliper Prunus yedoensis - Yoshino Cherry	314.42	



Exterior Improvements			32
Planting			32 90
Plants			32 93

32

MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 93 43 00-0394	EA	2" To 2-1/2" Caliper Prunus yedoensis - Yoshino Cherry	384.93	
32 93 43 00-0395	EA	2-1/2" To 3" Caliper Prunus yedoensis - Yoshino Cherry	491.18	
32 93 43 00-0396	EA	15 Gallon Pyrus Calleryana x 'Aristocrat' - Flowering Pear	273.08	
32 93 43 00-0397	EA	20 Gallon Pyrus Calleryana x 'Aristocrat' - Flowering Pear	341.36	
32 93 43 00-0398	EA	1-1/2" To 2" Caliper Pyrus Calleryana x 'Aristocrat' - Flowering Pear	355.01	
32 93 43 00-0399	EA	2" To 2-1/2" Caliper Pyrus Calleryana x 'Aristocrat' - Flowering Pear	423.28	
32 93 43 00-0400	EA	2-1/2" To 3" Caliper Pyrus Calleryana x 'Aristocrat' - Flowering Pear	573.47	
32 93 43 00-0401	EA	3" To 3-1/2" Caliper Pyrus Calleryana x 'Aristocrat' - Flowering Pear	750.98	
32 93 43 00-0402	EA	3-1/2" To 4" Caliper Pyrus Calleryana x 'Aristocrat' - Flowering Pear	955.79	
32 93 43 00-0403	EA	15 Gallon Pyrus Calleryana x "Bradford" - Flowering Pear	273.08	
32 93 43 00-0404	EA	20 Gallon Pyrus Calleryana x "Bradford" - Flowering Pear	341.36	
32 93 43 00-0405	EA	1-1/2" To 2" Caliper Pyrus Calleryana x "Bradford" - Flowering Pear	232.12	
32 93 43 00-0406	EA	2" To 2-1/2" Caliper Pyrus Calleryana x "Bradford" - Flowering Pear	355.01	
32 93 43 00-0407	EA	2-1/2" To 3" Caliper Pyrus Calleryana x "Bradford" - Flowering Pear	422.91	
32 93 43 00-0408	EA	3" To 3-1/2" Caliper Pyrus Calleryana x "Bradford" - Flowering Pear	573.47	
32 93 43 00-0409	EA	3-1/2" To 4" Caliper Pyrus Calleryana x "Bradford" - Flowering Pear	750.98	
32 93 43 00-0410	EA	5 Gallon Pyrus calleryana 'Chanticleer' - Chanticleer Flowering Pear	23.30	
32 93 43 00-0411	EA	15 Gallon Pyrus calleryana 'Chanticleer' - Chanticleer Flowering Pear	60.57	
32 93 43 00-0412	EA	24" Box Pyrus calleryana 'Chanticleer' - Chanticleer Flowering Pear	209.66	
32 93 43 00-0413	EA	36" Box Pyrus calleryana 'Chanticleer' - Chanticleer Flowering Pear	559.10	
32 93 43 00-0414	EA	1-1/2" Caliper Pyrus calleryana & cvs - Callery Pear	497.43	
32 93 43 00-0415	EA	2" Caliper Pyrus calleryana & cvs - Callery Pear	621.79	
32 93 43 00-0416	EA	2-1/2" Caliper Pyrus calleryana & cvs - Callery Pear	771.02	
32 93 43 00-0417	EA	3" Caliper Pyrus calleryana & cvs - Callery Pear	870.51	
32 93 43 00-0418	EA	3-1/2" Caliper Pyrus calleryana & cvs - Callery Pear	970.00	
32 93 43 00-0419	EA	4" Caliper Pyrus calleryana & cvs - Callery Pear	1,243.59	
32 93 43 00-0420	EA	5 Gallon Quercus kelloggii - California Black Oak	47.17	
32 93 43 00-0421	EA	15 Gallon Quercus kelloggii - California Black Oak	83.87	
32 93 43 00-0422	EA	1 Gallon Quercus lobata - Valley Oak	9.42	
32 93 43 00-0423	EA	5 Gallon Quercus lobata - Valley Oak	28.29	
32 93 43 00-0424	EA	15 Gallon Quercus lobata - Valley Oak	84.90	
32 93 43 00-0425	EA	1 Gallon Ribes aureum - Golden Currant	5.29	
32 93 43 00-0426	EA	5 Gallon Ribes aureum - Golden Currant	15.13	
32 93 43 00-0427	EA	1 Gallon Ribes sanguineum - Red Flowering Currant	5.29	
32 93 43 00-0428	EA	5 Gallon Ribes sanguineum - Red Flowering Currant	15.13	
32 93 43 00-0429	EA	1 Gallon Ribes viburnifolium - Evergreen Currant	5.29	
32 93 43 00-0430	EA	5 Gallon Ribes viburnifolium - Evergreen Currant	15.13	
32 93 43 00-0431	EA	1-3/4" Caliper Sophora japonica - Japanese Pagoda	474.09	
32 93 43 00-0432	EA	2" Caliper Sophora japonica - Japanese Pagoda	533.35	
32 93 43 00-0433	EA	2-1/2" Caliper Sophora japonica - Japanese Pagoda	622.25	
32 93 43 00-0434	EA	3" Caliper Sophora japonica - Japanese Pagoda	910.09	
32 93 43 00-0435	EA	3-1/2" Caliper Sophora japonica - Japanese Pagoda	1,375.71	
32 93 43 00-0436	EA	1-1/2" Caliper Sorbus alnifolia - Korean Mountainash	354.61	
32 93 43 00-0437	EA	2" Caliper Sorbus alnifolia - Korean Mountainash	443.26	
32 93 43 00-0438	EA	2-1/2" Caliper Sorbus alnifolia - Korean Mountainash	549.64	
32 93 43 00-0439	EA	3" Caliper Sorbus alnifolia - Korean Mountainash	673.76	
32 93 43 00-0440	EA	3-1/2" Caliper Sorbus alnifolia - Korean Mountainash	815.60	
32 93 43 00-0441	EA	4" Caliper Sorbus alnifolia - Korean Mountainash	975.17	
32 93 43 00-0442	EA	1-1/2" Caliper Syringa reticulata & cvs - Japanese Tree Lilac	460.99	
32 93 43 00-0443	EA	2" Caliper Syringa reticulata & cvs - Japanese Tree Lilac	496.45	
32 93 43 00-0444	EA	2-1/2" Caliper Syringa reticulata & cvs - Japanese Tree Lilac	602.83	
32 93 43 00-0445	EA	4' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	283.69	
32 93 43 00-0446	EA	5' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	336.88	
32 93 43 00-0447	EA	6' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	390.07	
32 93 43 00-0448	EA	7' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	443.26	
32 93 43 00-0449	EA	8' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	514.18	
32 93 43 00-0450	EA	10' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	656.03	
32 93 43 00-0451	EA	12' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	744.68	
32 93 43 00-0452	EA	14' Clump Form Syringa reticulata & cvs - Japanese Tree Lilac	851.06	
32 93 43 00-0453	EA	6' Prunus cerasifera - Purple Leaf Plum	234.73	
32 93 43 00-0454	EA	8' Prunus cerasifera - Purple Leaf Plum	270.85	
32 93 43 00-0455	EA	10' Prunus cerasifera - Purple Leaf Plum	349.09	
32 93 43 00-0456	EA	24" Box Prunus cerasifera - Purple Leaf Plum	371.66	
32 93 43 00-0457	EA	30" Box Prunus cerasifera - Purple Leaf Plum	752.35	
32 93 43 00-0458	EA	36" Box Prunus cerasifera - Purple Leaf Plum	1,154.10	
32 93 43 00-0459	EA	6' Pittosporum phylliraeoides - Willow Pittosporum	490.53	
32 93 43 00-0460	EA	8' Pittosporum phylliraeoides - Willow Pittosporum	701.19	
32 93 43 00-0461	EA	10' Pittosporum phylliraeoides - Willow Pittosporum	839.62	
32 93 43 00-0462	EA	12' Pittosporum phylliraeoides - Willow Pittosporum	1,083.38	
32 93 43 00-0463	EA	24" Box Sapium sebiferum - Chinese Tallow Tree	897.16	
32 93 43 00-0464	EA	15 Gallon Sapium sebiferum - Chinese Tallow Tree	244.68	
32 93 43 00-0465	EA	6' Stenocarpus sinuatus - Firewheel Tree	722.26	
32 93 43 00-0466	EA	8' Stenocarpus sinuatus - Firewheel Tree	963.01	
32 93 43 00-0467	EA	10" Stenocarpus sinuatus - Firewheel Tree	1,203.76	
32 93 43 00-0468	EA	12" Stenocarpus sinuatus - Firewheel Tree	1,444.51	
32 93 43 00-0469	EA	24" Box Handroanthus impetiginosus (Tabebuia avellanedae) - Pink Trumpet Tree	325.85	
32 93 43 00-0470	EA	36" Box Handroanthus impetiginosus (Tabebuia avellanedae) - Pink Trumpet Tree	943.25	
32 93 43 00-0471	EA	2-1/2" Cliber Koelreuteria paniculata - Golden Rain Tree	653.04	
32 93 43 00-0472	EA	1-1/2" Caliper Tipuana tipu - Tipu Tree	466.46	
32 93 43 00-0473	EA	2" Caliper Tipuana tipu - Tipu Tree	607.90	
32 93 43 00-0474	EA	2-1/2" Caliper Tipuana tipu - Tipu Tree	770.41	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0475	EA	3" Caliper Tipuana tipu - Tipu Tree	887.77	
32 93 43 00-0476	EA	3-1/2" Caliper Tipuana tipu - Tipu Tree	1,306.08	
32 93 43 00-0477	EA	4" Caliper Tipuana tipu - Tipu Tree	1,745.45	
32 93 43 00-0478	EA	1 Gallon Tipuana tipu - Tipu Tree	6.81	
32 93 43 00-0479	EA	5 Gallon Tipuana tipu - Tipu Tree	18.87	
32 93 43 00-0480	EA	15 Gallon Tipuana tipu - Tipu Tree	61.85	
32 93 43 00-0481	EA	24" Box Tipuana tipu - Tipu Tree	352.10	

32 93 43 00-0482**Deciduous Shade Trees (32 93 43)**

Note: All trees listed by caliper of trunk or height of tree if field grown, dug with spade, balled and burlapped and delivered to site.

32 93 43 00-0483	EA	3-1/2" To 4" Caliper Acer palmatum - Bloodgood Japanese Maple	216.65	
32 93 43 00-0484	EA	4" To 4-1/2" Caliper Acer palmatum - Bloodgood Japanese Maple	265.57	
32 93 43 00-0485	EA	4-1/2" To 5" Caliper Acer palmatum - Bloodgood Japanese Maple	345.95	
32 93 43 00-0486	EA	5" To 6" Caliper Acer palmatum - Bloodgood Japanese Maple	448.45	
32 93 43 00-0487	EA	2' To 2-1/2' Acer palmatum - Japanese Maple	22.85	
32 93 43 00-0488	EA	4' To 5' Acer palmatum - Japanese Maple	47.99	
32 93 43 00-0489	EA	5' To 6' Acer palmatum - Japanese Maple	62.84	
32 93 43 00-0490	EA	6' To 7' Acer palmatum - Japanese Maple	114.26	
32 93 43 00-0491	EA	7' To 8' Acer palmatum - Japanese Maple	159.96	
32 93 43 00-0492	EA	8' To 10' Acer palmatum - Japanese Maple	205.66	
32 93 43 00-0493	EA	10' To 12' Acer palmatum - Japanese Maple	274.22	
32 93 43 00-0494	EA	2" Caliper Acer platanoides & cvs - Norway Maple	116.48	
32 93 43 00-0495	EA	2" Caliper Acer platanoides & cvs - Norway Maple	141.80	
32 93 43 00-0496	EA	3" Caliper Acer platanoides & cvs - Norway Maple	182.32	
32 93 43 00-0497	EA	3-1/2" Caliper Acer platanoides & cvs - Norway Maple	212.70	
32 93 43 00-0498	EA	4" Caliper Acer platanoides & cvs - Norway Maple	227.90	
32 93 43 00-0499	EA	4-1/2" Caliper Acer platanoides & cvs - Norway Maple	248.15	
32 93 43 00-0500	EA	5" Caliper Acer platanoides & cvs - Norway Maple	278.54	
32 93 43 00-0501	EA	2" Caliper Acer rubrum & cvs - Red Maple	111.42	
32 93 43 00-0502	EA	2-1/2" Caliper Acer rubrum & cvs - Red Maple	141.80	
32 93 43 00-0503	EA	3" Caliper Acer rubrum & cvs - Red Maple	182.32	
32 93 43 00-0504	EA	3-1/2" Caliper Acer rubrum & cvs - Red Maple	222.83	
32 93 43 00-0505	EA	4" Caliper Acer rubrum & cvs - Red Maple	253.22	
32 93 43 00-0506	EA	4-1/2" Caliper Acer rubrum & cvs - Red Maple	293.73	
32 93 43 00-0507	EA	5" Caliper Acer rubrum & cvs - Red Maple	329.18	
32 93 43 00-0508	EA	8' Clump Form Acer rubrum & cvs - Red Maple	136.74	
32 93 43 00-0509	EA	10' Clump Form Acer rubrum & cvs - Red Maple	182.32	
32 93 43 00-0510	EA	12' Clump Form Acer rubrum & cvs - Red Maple	212.70	
32 93 43 00-0511	EA	14' Clump Form Acer rubrum & cvs - Red Maple	243.09	
32 93 43 00-0512	EA	16' Clump Form Acer rubrum & cvs - Red Maple	273.47	
32 93 43 00-0513	EA	18' Clump Form Acer rubrum & cvs - Red Maple	303.86	
32 93 43 00-0514	EA	2" Caliper Acer saccharinum & cvs - Silver Maple	91.16	
32 93 43 00-0515	EA	2-1/2" Caliper Acer saccharinum & cvs - Silver Maple	121.54	
32 93 43 00-0516	EA	3" Caliper Acer saccharinum & cvs - Silver Maple	151.93	
32 93 43 00-0517	EA	3-1/2" Caliper Acer saccharinum & cvs - Silver Maple	182.32	
32 93 43 00-0518	EA	4" Caliper Acer saccharinum & cvs - Silver Maple	212.70	
32 93 43 00-0519	EA	4-1/2" Caliper Acer saccharinum & cvs - Silver Maple	243.09	
32 93 43 00-0520	EA	5" Caliper Acer saccharinum & cvs - Silver Maple	273.47	
32 93 43 00-0521	EA	2" Caliper Acer saccharum & cvs - Sugar Maple	111.42	
32 93 43 00-0522	EA	2-1/2" Caliper Acer saccharum & cvs - Sugar Maple	146.87	
32 93 43 00-0523	EA	3" Caliper Acer saccharum & cvs - Sugar Maple	177.25	
32 93 43 00-0524	EA	3-1/2" Caliper Acer saccharum & cvs - Sugar Maple	202.57	
32 93 43 00-0525	EA	4" Caliper Acer saccharum & cvs - Sugar Maple	238.02	
32 93 43 00-0526	EA	4-1/2" Caliper Acer saccharum & cvs - Sugar Maple	273.47	
32 93 43 00-0527	EA	5" Caliper Acer saccharum & cvs - Sugar Maple	303.86	
32 93 43 00-0528	EA	10' Clump Form Acer saccharum & cvs - Sugar Maple	202.57	
32 93 43 00-0529	EA	12' Clump Form Acer saccharum & cvs - Sugar Maple	238.02	
32 93 43 00-0530	EA	14' Clump Form Acer saccharum & cvs - Sugar Maple	278.54	
32 93 43 00-0531	EA	16' Clump Form Acer saccharum & cvs - Sugar Maple	308.93	
32 93 43 00-0532	EA	18' Clump Form Acer saccharum & cvs - Sugar Maple	374.76	
32 93 43 00-0533	EA	20' Clump Form Acer saccharum & cvs - Sugar Maple	405.15	
32 93 43 00-0534	EA	2" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	126.61	
32 93 43 00-0535	EA	2-1/2" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	156.99	
32 93 43 00-0536	EA	3" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	192.45	
32 93 43 00-0537	EA	3-1/2" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	222.83	
32 93 43 00-0538	EA	4" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	243.09	
32 93 43 00-0539	EA	4-1/2" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	268.41	
32 93 43 00-0540	EA	5" Caliper Acer x freemanii & cvs - Freemanii Hybrid Maple	298.80	
32 93 43 00-0541	EA	10' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	182.32	
32 93 43 00-0542	EA	12' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	241.06	
32 93 43 00-0543	EA	14' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	280.56	
32 93 43 00-0544	EA	16' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	308.93	
32 93 43 00-0545	EA	18' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	374.76	
32 93 43 00-0546	EA	20' Clump Form Acer x freemanii & cvs - Freemanii Hybrid Maple	405.15	
32 93 43 00-0547	EA	2" Caliper Aesculus hippocastanum & cvs - Common Horsechestnut	177.25	
32 93 43 00-0548	EA	2-1/2" Caliper Aesculus hippocastanum & cvs - Common Horsechestnut	197.51	
32 93 43 00-0549	EA	3" Caliper Aesculus hippocastanum & cvs - Common Horsechestnut	222.83	
32 93 43 00-0550	EA	3-1/2" Caliper Aesculus hippocastanum & cvs - Common Horsechestnut	253.22	
32 93 43 00-0551	EA	4" Caliper Aesculus hippocastanum & cvs - Common Horsechestnut	303.86	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 93 43 00-0552	EA	2" Caliper Aesculus x carnea - Red Horsechestnut	177.25	
32 93 43 00-0553	EA	2-1/2" Caliper Aesculus x carnea - Red Horsechestnut	197.51	
32 93 43 00-0554	EA	3" Caliper Aesculus x carnea - Red Horsechestnut	222.83	
32 93 43 00-0555	EA	3-1/2" Caliper Aesculus x carnea - Red Horsechestnut	253.22	
32 93 43 00-0556	EA	4" Caliper Aesculus x carnea - Red Horsechestnut	303.86	
32 93 43 00-0557	EA	2" Caliper Alnus glutinosa - Common Alder, Black Alder	126.61	
32 93 43 00-0558	EA	2-1/2" Caliper Alnus glutinosa - Common Alder, Black Alder	146.87	
32 93 43 00-0559	EA	3" Caliper Alnus glutinosa - Common Alder, Black Alder	167.12	
32 93 43 00-0560	EA	3-1/2" Caliper Alnus glutinosa - Common Alder, Black Alder	192.45	
32 93 43 00-0561	EA	8' Clump Form Alnus glutinosa - Common Alder, Black Alder	131.67	
32 93 43 00-0562	EA	10' Clump Form Alnus glutinosa - Common Alder, Black Alder	162.06	
32 93 43 00-0563	EA	12' Clump Form Alnus glutinosa - Common Alder, Black Alder	182.32	
32 93 43 00-0564	EA	14' Clump Form Alnus glutinosa - Common Alder, Black Alder	202.57	
32 93 43 00-0565	EA	16' Clump Form Alnus glutinosa - Common Alder, Black Alder	227.90	
32 93 43 00-0566	EA	18' Clump Form Alnus glutinosa - Common Alder, Black Alder	253.22	
32 93 43 00-0567	EA	2" Caliper Betula nigra - River Birch	126.61	
32 93 43 00-0568	EA	2-1/2" Caliper Betula nigra - River Birch	143.37	
32 93 43 00-0569	EA	3" Caliper Betula nigra - River Birch	162.06	
32 93 43 00-0570	EA	3-1/2" Caliper Betula nigra - River Birch	202.57	
32 93 43 00-0571	EA	4" Caliper Betula nigra - River Birch	227.90	
32 93 43 00-0572	EA	4-1/2" Caliper Betula nigra - River Birch	253.22	
32 93 43 00-0573	EA	5" Caliper Betula nigra - River Birch	278.54	
32 93 43 00-0574	EA	8' Clump Form Betula nigra - River Birch	116.48	
32 93 43 00-0575	EA	10' Clump Form Betula nigra - River Birch	131.67	
32 93 43 00-0576	EA	12' Clump Form Betula nigra - River Birch	151.93	
32 93 43 00-0577	EA	14' Clump Form Betula nigra - River Birch	177.25	
32 93 43 00-0578	EA	16' Clump Form Betula nigra - River Birch	202.57	
32 93 43 00-0579	EA	12' Clump Form Betula platyphylla japonica & cvs - Asian White Birch	151.93	
32 93 43 00-0580	EA	14' Clump Form Betula platyphylla japonica & cvs - Asian White Birch	182.32	
32 93 43 00-0581	EA	16' Clump Form Betula platyphylla japonica & cvs - Asian White Birch	212.70	
32 93 43 00-0582	EA	18' Clump Form Betula platyphylla japonica & cvs - Asian White Birch	253.22	
32 93 43 00-0583	EA	20' Clump Form Betula platyphylla japonica & cvs - Asian White Birch	263.35	
32 93 43 00-0584	EA	2" Caliper Carpinus betulus & cvs - European Hornbeam	202.57	
32 93 43 00-0585	EA	2-1/2" Caliper Carpinus betulus & cvs - European Hornbeam	227.90	
32 93 43 00-0586	EA	3" Caliper Carpinus betulus & cvs - European Hornbeam	263.35	
32 93 43 00-0587	EA	3-1/2" Caliper Carpinus betulus & cvs - European Hornbeam	319.05	
32 93 43 00-0588	EA	6' Clump Form Carpinus betulus & cvs - European Hornbeam	91.16	
32 93 43 00-0589	EA	7' Clump Form Carpinus betulus & cvs - European Hornbeam	126.61	
32 93 43 00-0590	EA	8' Clump Form Carpinus betulus & cvs - European Hornbeam	156.99	
32 93 43 00-0591	EA	2" Caliper Catalpa speciosa - Western Catalpa	111.42	
32 93 43 00-0592	EA	2-1/2" Caliper Catalpa speciosa - Western Catalpa	151.93	
32 93 43 00-0593	EA	3" Caliper Catalpa speciosa - Western Catalpa	197.51	
32 93 43 00-0594	EA	3-1/2" Caliper Catalpa speciosa - Western Catalpa	238.02	
32 93 43 00-0595	EA	4" Caliper Catalpa speciosa - Western Catalpa	273.47	
32 93 43 00-0596	EA	2" Caliper Celtis occidentalis & cvs - Common Hackberry	141.80	
32 93 43 00-0597	EA	2-1/2" Caliper Celtis occidentalis & cvs - Common Hackberry	162.06	
32 93 43 00-0598	EA	3" Caliper Celtis occidentalis & cvs - Common Hackberry	197.51	
32 93 43 00-0599	EA	3-1/2" Caliper Celtis occidentalis & cvs - Common Hackberry	232.96	
32 93 43 00-0600	EA	4" Caliper Celtis occidentalis & cvs - Common Hackberry	268.41	
32 93 43 00-0601	EA	4-1/2" Caliper Celtis occidentalis & cvs - Common Hackberry	303.86	
32 93 43 00-0602	EA	3" Caliper Cercidiphyllum japonicum - Katsuratree	177.25	
32 93 43 00-0603	EA	3-1/2" Caliper Cercidiphyllum japonicum - Katsuratree	202.57	
32 93 43 00-0604	EA	4" Caliper Cercidiphyllum japonicum - Katsuratree	238.02	
32 93 43 00-0605	EA	5" Caliper Cercidiphyllum japonicum - Katsuratree	283.60	
32 93 43 00-0606	EA	6' Clump Form Cercidiphyllum japonicum - Katsuratree	141.80	
32 93 43 00-0607	EA	7' Clump Form Cercidiphyllum japonicum - Katsuratree	167.12	
32 93 43 00-0608	EA	8' Clump Form Cercidiphyllum japonicum - Katsuratree	202.57	
32 93 43 00-0609	EA	10' Clump Form Cercidiphyllum japonicum - Katsuratree	253.22	
32 93 43 00-0610	EA	12' Clump Form Cercidiphyllum japonicum - Katsuratree	303.86	
32 93 43 00-0611	EA	2" Caliper Cladrastus lutea - American Yellowwood	253.22	
32 93 43 00-0612	EA	2-1/2" Caliper Cladrastus lutea - American Yellowwood	303.86	
32 93 43 00-0613	EA	3" Caliper Cladrastus lutea - American Yellowwood	354.50	
32 93 43 00-0614	EA	3-1/2" Caliper Cladrastus lutea - American Yellowwood	405.15	
32 93 43 00-0615	EA	2" Caliper Corylus columna - Turkish Filbert	156.99	
32 93 43 00-0616	EA	2-1/2" Caliper Corylus columna - Turkish Filbert	177.25	
32 93 43 00-0617	EA	3" Caliper Corylus columna - Turkish Filbert	202.57	
32 93 43 00-0618	EA	3-1/2" Caliper Corylus columna - Turkish Filbert	232.96	
32 93 43 00-0619	EA	4" Caliper Corylus columna - Turkish Filbert	278.54	
32 93 43 00-0620	EA	4-1/2" Caliper Corylus columna - Turkish Filbert	324.12	
32 93 43 00-0621	EA	5" Caliper Corylus columna - Turkish Filbert	369.70	
32 93 43 00-0622	EA	8' Clump Form Corylus columna - Turkish Filbert	141.80	
32 93 43 00-0623	EA	10' Clump Form Corylus columna - Turkish Filbert	172.19	
32 93 43 00-0624	EA	12' Clump Form Corylus columna - Turkish Filbert	202.57	
32 93 43 00-0625	EA	14' Clump Form Corylus columna - Turkish Filbert	227.90	
32 93 43 00-0626	EA	16' Clump Form Corylus columna - Turkish Filbert	253.22	
32 93 43 00-0627	EA	1-1/2" Caliper Diospyros - Persimmon	91.16	
32 93 43 00-0628	EA	2" Caliper Diospyros - Persimmon	111.42	
32 93 43 00-0629	EA	2-1/2" Caliper Diospyros - Persimmon	141.80	
32 93 43 00-0630	EA	3" Caliper Diospyros - Persimmon	177.25	
32 93 43 00-0631	EA	3-1/2" Caliper Diospyros - Persimmon	212.70	
32 93 43 00-0632	EA	1-1/2" Caliper Fagus grandifolia - American Beech	202.57	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0633	EA	2" Caliper Fagus grandifolia - American Beech	263.35	
32 93 43 00-0634	EA	2-1/2" Caliper Fagus grandifolia - American Beech	334.25	
32 93 43 00-0635	EA	3" Caliper Fagus grandifolia - American Beech	405.15	
32 93 43 00-0636	EA	3-1/2" Caliper Fagus grandifolia - American Beech	481.11	
32 93 43 00-0637	EA	2" Caliper Fagus sylvatica & cvs - European Beech	227.90	
32 93 43 00-0638	EA	2-1/2" Caliper Fagus sylvatica & cvs - European Beech	273.47	
32 93 43 00-0639	EA	3" Caliper Fagus sylvatica & cvs - European Beech	329.18	
32 93 43 00-0640	EA	3-1/2" Caliper Fagus sylvatica & cvs - European Beech	364.63	
32 93 43 00-0641	EA	4" Caliper Fagus sylvatica & cvs - European Beech	430.47	
32 93 43 00-0642	EA	4-1/2" Caliper Fagus sylvatica & cvs - European Beech	557.08	
32 93 43 00-0643	EA	5" Caliper Fagus sylvatica & cvs - European Beech	658.37	
32 93 43 00-0644	EA	2" Caliper Fraxinus americana & cvs - White Ash	126.61	
32 93 43 00-0645	EA	2-1/2" Caliper Fraxinus americana & cvs - White Ash	151.93	
32 93 43 00-0646	EA	3" Caliper Fraxinus americana & cvs - White Ash	192.45	
32 93 43 00-0647	EA	3-1/2" Caliper Fraxinus americana & cvs - White Ash	232.96	
32 93 43 00-0648	EA	4" Caliper Fraxinus americana & cvs - White Ash	273.47	
32 93 43 00-0649	EA	4-1/2" Caliper Fraxinus americana & cvs - White Ash	303.86	
32 93 43 00-0650	EA	5" Caliper Fraxinus americana & cvs - White Ash	354.50	
32 93 43 00-0651	EA	2" Caliper Fraxinus pennsylvanica & cvs - Green Ash	111.42	
32 93 43 00-0652	EA	2-1/2" Caliper Fraxinus pennsylvanica & cvs - Green Ash	131.67	
32 93 43 00-0653	EA	3" Caliper Fraxinus pennsylvanica & cvs - Green Ash	177.25	
32 93 43 00-0654	EA	3-1/2" Caliper Fraxinus pennsylvanica & cvs - Green Ash	212.70	
32 93 43 00-0655	EA	4" Caliper Fraxinus pennsylvanica & cvs - Green Ash	253.22	
32 93 43 00-0656	EA	4-1/2" Caliper Fraxinus pennsylvanica & cvs - Green Ash	273.47	
32 93 43 00-0657	EA	5" Caliper Fraxinus pennsylvanica & cvs - Green Ash	303.86	
32 93 43 00-0658	EA	1-1/2" Caliper Fraxinus quadrangulata - Blue Ash	151.93	
32 93 43 00-0659	EA	2" Caliper Fraxinus quadrangulata - Blue Ash	187.38	
32 93 43 00-0660	EA	2-1/2" Caliper Fraxinus quadrangulata - Blue Ash	227.90	
32 93 43 00-0661	EA	3" Caliper Fraxinus quadrangulata - Blue Ash	278.54	
32 93 43 00-0662	EA	3-1/2" Caliper Fraxinus quadrangulata - Blue Ash	329.18	
32 93 43 00-0663	EA	1-1/2" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	177.25	
32 93 43 00-0664	EA	2" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	197.51	
32 93 43 00-0665	EA	2-1/2" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	222.83	
32 93 43 00-0666	EA	3" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	248.15	
32 93 43 00-0667	EA	3-1/2" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	278.54	
32 93 43 00-0668	EA	4" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	303.86	
32 93 43 00-0669	EA	4-1/2" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	455.79	
32 93 43 00-0670	EA	5" Caliper Ginkgo biloba & cvs - Ginkgo (Maidenhair Tree)	506.43	
32 93 43 00-0671	EA	2" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	121.54	
32 93 43 00-0672	EA	2-1/2" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	151.93	
32 93 43 00-0673	EA	3" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	182.32	
32 93 43 00-0674	EA	3-1/2" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	212.70	
32 93 43 00-0675	EA	4" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	243.09	
32 93 43 00-0676	EA	4-1/2" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	273.47	
32 93 43 00-0677	EA	5" Caliper Gleditsia triacanthos inermis & cvs - Thornless Common Honeylocust	324.12	
32 93 43 00-0678	EA	10' - 12' Bursera Simaruba - Gumbo Limbo	64.06	
32 93 43 00-0679	EA	12' - 14' Bursera Simaruba - Gumbo Limbo	75.71	
32 93 43 00-0680	EA	14' - 16' Bursera Simaruba - Gumbo Limbo	104.83	
32 93 43 00-0681	EA	17' - 18' Bursera Simaruba - Gumbo Limbo	136.28	
32 93 43 00-0682	EA	19' - 20' Bursera Simaruba - Gumbo Limbo	151.42	
32 93 43 00-0683	EA	21' - 22' Bursera Simaruba - Gumbo Limbo	179.38	
32 93 43 00-0684	EA	2" Caliper Gymnocladus dioicus - Kentucky Coffeetree	156.99	
32 93 43 00-0685	EA	2-1/2" Caliper Gymnocladus dioicus - Kentucky Coffeetree	192.45	
32 93 43 00-0686	EA	3" Caliper Gymnocladus dioicus - Kentucky Coffeetree	227.90	
32 93 43 00-0687	EA	3-1/2" Caliper Gymnocladus dioicus - Kentucky Coffeetree	268.41	
32 93 43 00-0688	EA	4" Caliper Gymnocladus dioicus - Kentucky Coffeetree	303.86	
32 93 43 00-0689	EA	4-1/2" Caliper Gymnocladus dioicus - Kentucky Coffeetree	339.31	
32 93 43 00-0690	EA	5" Caliper Gymnocladus dioicus - Kentucky Coffeetree	379.83	
32 93 43 00-0691	EA	1-1/2" To 2" Caliper Zelkova serrata - Japanese Keaki Tree	78.38	
32 93 43 00-0692	EA	2" To 2-1/2" Caliper Zelkova serrata - Japanese Keaki Tree	96.01	
32 93 43 00-0693	EA	2-1/2" To 3" Caliper Zelkova serrata - Japanese Keaki Tree	121.64	
32 93 43 00-0694	EA	1-1/2" Caliper Juglans cinerea - Butternut	121.54	
32 93 43 00-0695	EA	2" Caliper Juglans cinerea - Butternut	141.80	
32 93 43 00-0696	EA	2-1/2" Caliper Juglans cinerea - Butternut	177.25	
32 93 43 00-0697	EA	3" Caliper Juglans cinerea - Butternut	222.83	
32 93 43 00-0698	EA	3-1/2" Caliper Juglans cinerea - Butternut	273.47	
32 93 43 00-0699	EA	1-1/2" Caliper Juglans californica - California Walnut	121.54	
32 93 43 00-0700	EA	2" Caliper Juglans californica - California Walnut	141.80	
32 93 43 00-0701	EA	2-1/2" Caliper Juglans californica - California Walnut	177.25	
32 93 43 00-0702	EA	3" Caliper Juglans californica - California Walnut	222.83	
32 93 43 00-0703	EA	3-1/2" Caliper Juglans californica - California Walnut	273.47	
32 93 43 00-0704	EA	4" Caliper Juglans californica - California Walnut	329.18	
32 93 43 00-0705	EA	4-1/2" Caliper Juglans californica - California Walnut	379.83	
32 93 43 00-0706	EA	5" Caliper Juglans californica - California Walnut	430.47	
32 93 43 00-0707	EA	5 Gallon Koelreuteria Paniculata - Goldenrain Tree	13.71	
32 93 43 00-0708	EA	15 Gallon Koelreuteria Paniculata - Goldenrain Tree	34.28	
32 93 43 00-0709	EA	20 Gallon Koelreuteria Paniculata - Goldenrain Tree	68.55	
32 93 43 00-0710	EA	55 Gallon Koelreuteria Paniculata - Goldenrain Tree	89.12	
32 93 43 00-0711	EA	1-1/2" To 2" Caliper Koelreuteria Paniculata - Goldenrain Tree	65.13	
32 93 43 00-0712	EA	2" To 2-1/2" Caliper Koelreuteria Paniculata - Goldenrain Tree	78.84	
32 93 43 00-0713	EA	2-1/2" To 3" Caliper Koelreuteria Paniculata - Goldenrain Tree	109.69	



Exterior Improvements			32
Planting			32 90
Plants			32 93

32

MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 93 43 00-0714	EA	1-1/2" Caliper Liquidambar styraciflua - American Sweetgum	162.06	
32 93 43 00-0715	EA	2" Caliper Liquidambar styraciflua - American Sweetgum	202.57	
32 93 43 00-0716	EA	2-1/2" Caliper Liquidambar styraciflua - American Sweetgum	253.22	
32 93 43 00-0717	EA	3" Caliper Liquidambar styraciflua - American Sweetgum	303.86	
32 93 43 00-0718	EA	3-1/2" Caliper Liquidambar styraciflua - American Sweetgum	354.50	
32 93 43 00-0719	EA	1-1/2" Caliper Liriodendron tulipifera - Tulip Tree	162.06	
32 93 43 00-0720	EA	2" Caliper Liriodendron tulipifera - Tulip Tree	222.83	
32 93 43 00-0721	EA	2-1/2" Caliper Liriodendron tulipifera - Tulip Tree	263.35	
32 93 43 00-0722	EA	3" Caliper Liriodendron tulipifera - Tulip Tree	303.86	
32 93 43 00-0723	EA	3-1/2" Caliper Liriodendron tulipifera - Tulip Tree	344.38	
32 93 43 00-0724	EA	8' Clump Form Liriodendron tulipifera - Tulip Tree	121.54	
32 93 43 00-0725	EA	10' Clump Form Liriodendron tulipifera - Tulip Tree	217.77	
32 93 43 00-0726	EA	12' Clump Form Liriodendron tulipifera - Tulip Tree	263.35	
32 93 43 00-0727	EA	1-1/2" Caliper Nyssa sylvatica - Black Tupelo Sour Gum	162.06	
32 93 43 00-0728	EA	2" Caliper Nyssa sylvatica - Black Tupelo Sour Gum	202.57	
32 93 43 00-0729	EA	2-1/2" Caliper Nyssa sylvatica - Black Tupelo Sour Gum	253.22	
32 93 43 00-0730	EA	3" Caliper Nyssa sylvatica - Black Tupelo Sour Gum	303.86	
32 93 43 00-0731	EA	3-1/2" Caliper Nyssa sylvatica - Black Tupelo Sour Gum	354.50	
32 93 43 00-0732	EA	4' Clump Form Nyssa sylvatica - Black Tupelo Sour Gum	70.90	
32 93 43 00-0733	EA	5' Clump Form Nyssa sylvatica - Black Tupelo Sour Gum	81.03	
32 93 43 00-0734	EA	6' Clump Form Nyssa sylvatica - Black Tupelo Sour Gum	96.22	
32 93 43 00-0735	EA	7' Clump Form Nyssa sylvatica - Black Tupelo Sour Gum	121.54	
32 93 43 00-0736	EA	8' Clump Form Nyssa sylvatica - Black Tupelo Sour Gum	151.93	
32 93 43 00-0737	EA	2" Caliper Ostrya virginiana - American Hophornbeam	131.67	
32 93 43 00-0738	EA	2-1/2" Caliper Ostrya virginiana - American Hophornbeam	167.12	
32 93 43 00-0739	EA	3" Caliper Ostrya virginiana - American Hophornbeam	202.57	
32 93 43 00-0740	EA	3-1/2" Caliper Ostrya virginiana - American Hophornbeam	238.02	
32 93 43 00-0741	EA	4" Caliper Ostrya virginiana - American Hophornbeam	288.67	
32 93 43 00-0742	EA	2" Caliper Phellodendron amurense - Amur Corktree	101.29	
32 93 43 00-0743	EA	2-1/2" Caliper Phellodendron amurense - Amur Corktree	126.61	
32 93 43 00-0744	EA	3" Caliper Phellodendron amurense - Amur Corktree	151.93	
32 93 43 00-0745	EA	3-1/2" Caliper Phellodendron amurense - Amur Corktree	177.25	
32 93 43 00-0746	EA	4" Caliper Phellodendron amurense - Amur Corktree	202.57	
32 93 43 00-0747	EA	4-1/2" Caliper Phellodendron amurense - Amur Corktree	227.90	
32 93 43 00-0748	EA	5" Caliper Phellodendron amurense - Amur Corktree	253.22	
32 93 43 00-0749	EA	1-1/2" To 2" Caliper Platanus acerifolia "Bloodgold" - London Plane	379.25	
32 93 43 00-0750	EA	2" To 2-1/2" Caliper Platanus acerifolia "Bloodgold" - London Plane	676.95	
32 93 43 00-0751	EA	2-1/2" To 3" Caliper Platanus acerifolia "Bloodgold" - London Plane	990.95	
32 93 43 00-0752	EA	3" To 3-1/2" Caliper Platanus acerifolia "Bloodgold" - London Plane	1,231.56	
32 93 43 00-0753	EA	3-1/2" To 4" Caliper Platanus acerifolia "Bloodgold" - London Plane	1,594.50	
32 93 43 00-0754	EA	4" To 5" Caliper Platanus acerifolia "Bloodgold" - London Plane	1,814.71	
32 93 43 00-0755	EA	24" Box Platanus acerifolia "Bloodgold" - London Plane	477.13	
32 93 43 00-0756	EA	30" Box Platanus occidentalis - Buttonwood Sycamore	220.02	
32 93 43 00-0757	EA	36" Box Platanus occidentalis - Buttonwood Sycamore	320.03	
32 93 43 00-0758	EA	42" Box Platanus occidentalis - Buttonwood Sycamore	476.07	
32 93 43 00-0759	EA	1-1/2" To 2" Caliper Platanus occidentalis - Buttonwood Sycamore	73.62	
32 93 43 00-0760	EA	2" To 2-1/2" Caliper Platanus occidentalis - Buttonwood Sycamore	88.01	
32 93 43 00-0761	EA	2-1/2" To 3" Caliper Platanus occidentalis - Buttonwood Sycamore	120.01	
32 93 43 00-0762	EA	3" To 3-1/2" Caliper Platanus occidentalis - Buttonwood Sycamore	145.64	
32 93 43 00-0763	EA	8' To 10' Platanus occidentalis - Green Or Silver Buttonwood	60.57	
32 93 43 00-0764	EA	10' To 12' Platanus occidentalis - Green Or Silver Buttonwood	75.71	
32 93 43 00-0765	EA	12' To 14' Platanus occidentalis - Green Or Silver Buttonwood	133.95	
32 93 43 00-0766	EA	16' To 18' Platanus occidentalis - Green Or Silver Buttonwood	192.19	
32 93 43 00-0767	EA	2" Caliper Platanus x acerifolia & cvs - London Planetree	121.54	
32 93 43 00-0768	EA	2-1/2" Caliper Platanus x acerifolia & cvs - London Planetree	146.87	
32 93 43 00-0769	EA	3" Caliper Platanus x acerifolia & cvs - London Planetree	177.25	
32 93 43 00-0770	EA	3-1/2" Caliper Platanus x acerifolia & cvs - London Planetree	212.70	
32 93 43 00-0771	EA	4" Caliper Platanus x acerifolia & cvs - London Planetree	253.22	
32 93 43 00-0772	EA	2" Caliper Populus alba & cvs - White Poplar	121.54	
32 93 43 00-0773	EA	2-1/2" Caliper Populus alba & cvs - White Poplar	141.80	
32 93 43 00-0774	EA	3" Caliper Populus alba & cvs - White Poplar	162.06	
32 93 43 00-0775	EA	3-1/2" Caliper Populus alba & cvs - White Poplar	192.45	
32 93 43 00-0776	EA	4" Caliper Populus alba & cvs - White Poplar	212.70	
32 93 43 00-0777	EA	4-1/2" Caliper Populus alba & cvs - White Poplar	243.09	
32 93 43 00-0778	EA	2" Caliper Populus deltoides & cvs - Eastern Cottonwood	111.42	
32 93 43 00-0779	EA	2-1/2" Caliper Populus deltoides & cvs - Eastern Cottonwood	146.87	
32 93 43 00-0780	EA	3" Caliper Populus deltoides & cvs - Eastern Cottonwood	177.25	
32 93 43 00-0781	EA	3-1/2" Caliper Populus deltoides & cvs - Eastern Cottonwood	212.70	
32 93 43 00-0782	EA	4" Caliper Populus deltoides & cvs - Eastern Cottonwood	253.22	
32 93 43 00-0783	EA	1 Gallon Quercus agrifolia - Coast Live Oak	10.38	
32 93 43 00-0784	EA	5 Gallon Quercus agrifolia - Coast Live Oak	25.68	
32 93 43 00-0785	EA	15 Gallon Quercus agrifolia - Coast Live Oak	82.82	
32 93 43 00-0786	EA	24" Box Quercus agrifolia - Coast Live Oak	251.60	
32 93 43 00-0787	EA	6' To 8' Quercus acutissima - Sawtooth Oak	38.09	
32 93 43 00-0788	EA	8' To 10' Quercus acutissima - Sawtooth Oak	57.13	
32 93 43 00-0789	EA	10' To 12' Quercus acutissima - Sawtooth Oak	66.65	
32 93 43 00-0790	EA	1-1/2" To 2" Caliper Quercus acutissima - Sawtooth Oak	76.17	
32 93 43 00-0791	EA	2" To 2-1/2" Caliper Quercus acutissima - Sawtooth Oak	85.69	
32 93 43 00-0792	EA	3" To 3-1/2" Caliper Quercus virginiana - Live Oak	301.64	
32 93 43 00-0793	EA	3-1/2" To 4" Caliper Quercus virginiana - Live Oak	406.52	
32 93 43 00-0794	EA	4" To 4-1/2" Caliper Quercus virginiana - Live Oak	549.79	

32 Exterior Improvements**32 90 Planting****32 93 Plants**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0795	EA	4-1/2" To 5" Caliper Quercus virginiana - Live Oak	733.82	
32 93 43 00-0796	EA	5" To 5-1/2" Caliper Quercus virginiana - Live Oak	885.25	
32 93 43 00-0797	EA	5-1/2" To 6" Caliper Quercus virginiana - Live Oak	978.43	
32 93 43 00-0798	EA	6" To 6-1/2" Caliper Quercus virginiana - Live Oak	1,316.22	
32 93 43 00-0799	EA	6-1/2" To 7" Caliper Quercus virginiana - Live Oak	1,654.02	
32 93 43 00-0800	EA	7" To 7-1/2" Caliper Quercus virginiana - Live Oak	1,991.81	
32 93 43 00-0801	EA	7-1/2" To 8" Caliper Quercus virginiana - Live Oak	2,416.96	
32 93 43 00-0802	EA	8" To 8-1/2" Caliper Quercus virginiana - Live Oak	2,842.11	
32 93 43 00-0803	EA	2" Caliper Quercus alba - White Oak	151.93	
32 93 43 00-0804	EA	2-1/2" Caliper Quercus alba - White Oak	177.25	
32 93 43 00-0805	EA	3" Caliper Quercus alba - White Oak	222.83	
32 93 43 00-0806	EA	3-1/2" Caliper Quercus alba - White Oak	278.54	
32 93 43 00-0807	EA	4" Caliper Quercus alba - White Oak	329.18	
32 93 43 00-0808	EA	4-1/2" Caliper Quercus alba - White Oak	405.15	
32 93 43 00-0809	EA	5" Caliper Quercus alba - White Oak	481.11	
32 93 43 00-0810	EA	2" Caliper Quercus bicolor - Swamp White Oak	177.25	
32 93 43 00-0811	EA	2-1/2" Caliper Quercus bicolor - Swamp White Oak	202.57	
32 93 43 00-0812	EA	3" Caliper Quercus bicolor - Swamp White Oak	232.96	
32 93 43 00-0813	EA	3-1/2" Caliper Quercus bicolor - Swamp White Oak	258.28	
32 93 43 00-0814	EA	4" Caliper Quercus bicolor - Swamp White Oak	293.73	
32 93 43 00-0815	EA	4-1/2" Caliper Quercus bicolor - Swamp White Oak	324.12	
32 93 43 00-0816	EA	5" Caliper Quercus bicolor - Swamp White Oak	364.63	
32 93 43 00-0817	EA	10' Clump Form Quercus bicolor - Swamp White Oak	253.22	
32 93 43 00-0818	EA	12' Clump Form Quercus bicolor - Swamp White Oak	303.86	
32 93 43 00-0819	EA	14' Clump Form Quercus bicolor - Swamp White Oak	354.50	
32 93 43 00-0820	EA	16' Clump Form Quercus bicolor - Swamp White Oak	405.15	
32 93 43 00-0821	EA	2" Caliper Quercus coccinea - Scarlet Oak	131.67	
32 93 43 00-0822	EA	2-1/2" Caliper Quercus coccinea - Scarlet Oak	167.12	
32 93 43 00-0823	EA	3" Caliper Quercus coccinea - Scarlet Oak	207.64	
32 93 43 00-0824	EA	3-1/2" Caliper Quercus coccinea - Scarlet Oak	253.22	
32 93 43 00-0825	EA	4" Caliper Quercus coccinea - Scarlet Oak	303.86	
32 93 43 00-0826	EA	4-1/2" Caliper Quercus coccinea - Scarlet Oak	359.57	
32 93 43 00-0827	EA	5" Caliper Quercus coccinea - Scarlet Oak	420.34	
32 93 43 00-0828	EA	1-1/2" Caliper Quercus imbricaria - Shingle Oak	131.67	
32 93 43 00-0829	EA	2" Caliper Quercus imbricaria - Shingle Oak	177.25	
32 93 43 00-0830	EA	2-1/2" Caliper Quercus imbricaria - Shingle Oak	238.02	
32 93 43 00-0831	EA	3" Caliper Quercus imbricaria - Shingle Oak	354.50	
32 93 43 00-0832	EA	3-1/2" Caliper Quercus imbricaria - Shingle Oak	481.11	
32 93 43 00-0833	EA	1-1/2" Caliper Quercus macrocarpa - Bur Oak	131.67	
32 93 43 00-0834	EA	2" Caliper Quercus macrocarpa - Bur Oak	156.99	
32 93 43 00-0835	EA	2-1/2" Caliper Quercus macrocarpa - Bur Oak	187.38	
32 93 43 00-0836	EA	3" Caliper Quercus macrocarpa - Bur Oak	227.90	
32 93 43 00-0837	EA	3-1/2" Caliper Quercus macrocarpa - Bur Oak	278.54	
32 93 43 00-0838	EA	4" Caliper Quercus macrocarpa - Bur Oak	329.18	
32 93 43 00-0839	EA	9' Clump Form Quercus macrocarpa - Bur Oak	303.86	
32 93 43 00-0840	EA	10' Clump Form Quercus macrocarpa - Bur Oak	354.50	
32 93 43 00-0841	EA	12' Clump Form Quercus macrocarpa - Bur Oak	405.15	
32 93 43 00-0842	EA	2" Caliper Quercus palustris - Pin Oak	111.42	
32 93 43 00-0843	EA	2-1/2" Caliper Quercus palustris - Pin Oak	151.93	
32 93 43 00-0844	EA	3" Caliper Quercus palustris - Pin Oak	197.51	
32 93 43 00-0845	EA	3-1/2" Caliper Quercus palustris - Pin Oak	227.90	
32 93 43 00-0846	EA	4" Caliper Quercus palustris - Pin Oak	263.35	
32 93 43 00-0847	EA	4-1/2" Caliper Quercus palustris - Pin Oak	298.80	
32 93 43 00-0848	EA	5" Caliper Quercus palustris - Pin Oak	329.18	
32 93 43 00-0849	EA	2" Caliper Quercus robur & cvs - English Oak	131.67	
32 93 43 00-0850	EA	2-1/2" Caliper Quercus robur & cvs - English Oak	162.06	
32 93 43 00-0851	EA	3" Caliper Quercus robur & cvs - English Oak	192.45	
32 93 43 00-0852	EA	3-1/2" Caliper Quercus robur & cvs - English Oak	227.90	
32 93 43 00-0853	EA	4" Caliper Quercus robur & cvs - English Oak	263.35	
32 93 43 00-0854	EA	4-1/2" Caliper Quercus robur & cvs - English Oak	303.86	
32 93 43 00-0855	EA	5" Caliper Quercus robur & cvs - English Oak	344.38	
32 93 43 00-0856	EA	2" Caliper Quercus rubra - Red Oak	151.93	
32 93 43 00-0857	EA	2-1/2" Caliper Quercus rubra - Red Oak	177.25	
32 93 43 00-0858	EA	3" Caliper Quercus rubra - Red Oak	212.70	
32 93 43 00-0859	EA	3-1/2" Caliper Quercus rubra - Red Oak	253.22	
32 93 43 00-0860	EA	4" Caliper Quercus rubra - Red Oak	303.86	
32 93 43 00-0861	EA	4-1/2" Caliper Quercus rubra - Red Oak	354.50	
32 93 43 00-0862	EA	5" Caliper Quercus rubra - Red Oak	405.15	
32 93 43 00-0863	EA	16' Clump Form Quercus rubra - Red Oak	329.18	
32 93 43 00-0864	EA	18' Clump Form Quercus rubra - Red Oak	395.02	
32 93 43 00-0865	EA	20' Clump Form Quercus rubra - Red Oak	440.60	
32 93 43 00-0866	EA	2" Caliper Quercus shumardii - Shumard Oak	172.19	
32 93 43 00-0867	EA	2-1/2" Caliper Quercus shumardii - Shumard Oak	217.77	
32 93 43 00-0868	EA	3" Caliper Quercus shumardii - Shumard Oak	253.22	
32 93 43 00-0869	EA	3-1/2" Caliper Quercus shumardii - Shumard Oak	303.86	
32 93 43 00-0870	EA	4" Caliper Quercus shumardii - Shumard Oak	354.50	
32 93 43 00-0871	EA	4-1/2" Caliper Quercus shumardii - Shumard Oak	405.15	
32 93 43 00-0872	EA	5" Caliper Quercus shumardii - Shumard Oak	455.79	
32 93 43 00-0873	EA	2" Caliper Quercus schuettii - Swamp Bur Oak	151.93	
32 93 43 00-0874	EA	2-1/2" Caliper Quercus schuettii - Swamp Bur Oak	182.32	
32 93 43 00-0875	EA	3" Caliper Quercus schuettii - Swamp Bur Oak	227.90	



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
32 93 43 00-0876	EA	3-1/2" Caliper Quercus schuettii - Swamp Bur Oak	278.54	
32 93 43 00-0877	EA	4" Caliper Quercus schuettii - Swamp Bur Oak	324.12	
32 93 43 00-0878	EA	4-1/2" Caliper Quercus schuettii - Swamp Bur Oak	364.63	
32 93 43 00-0879	EA	1-1/2" Caliper Quercus suber - Cork Oak	570.92	
32 93 43 00-0880	EA	2" Caliper Quercus suber - Cork Oak	791.13	
32 93 43 00-0881	EA	2-1/2" Caliper Quercus suber - Cork Oak	1,011.34	
32 93 43 00-0882	EA	3" Caliper Quercus suber - Cork Oak	1,264.18	
32 93 43 00-0883	EA	3-1/2" Caliper Quercus suber - Cork Oak	1,896.27	
32 93 43 00-0884	EA	4" Caliper Quercus suber - Cork Oak	2,446.80	
32 93 43 00-0885	EA	4-1/2" Caliper Quercus suber - Cork Oak	3,180.84	
32 93 43 00-0886	EA	1-1/2" Caliper Quercus ilex - Holly Oak	632.09	
32 93 43 00-0887	EA	2" Caliper Quercus ilex - Holly Oak	852.30	
32 93 43 00-0888	EA	2-1/2" Caliper Quercus ilex - Holly Oak	1,043.97	
32 93 43 00-0889	EA	3" Caliper Quercus ilex - Holly Oak	1,264.18	
32 93 43 00-0890	EA	3-1/2" Caliper Quercus ilex - Holly Oak	1,896.27	
32 93 43 00-0891	EA	4" Caliper Quercus ilex - Holly Oak	2,446.80	
32 93 43 00-0892	EA	24" Box Salix babylonica - Weeping Willow	128.01	
32 93 43 00-0893	EA	36" Box Salix babylonica - Weeping Willow	320.03	
32 93 43 00-0894	EA	1-1/2" To 2" Caliper Salix babylonica - Weeping Willow	73.62	
32 93 43 00-0895	EA	2" To 2-1/2" Caliper Salix babylonica - Weeping Willow	88.01	
32 93 43 00-0896	EA	2-1/2" To 3" Caliper Salix babylonica - Weeping Willow	96.01	
32 93 43 00-0897	EA	2" Caliper Salix alba & cvs - White Willow	81.03	
32 93 43 00-0898	EA	2-1/2" Caliper Salix alba & cvs - White Willow	96.22	
32 93 43 00-0899	EA	3" Caliper Salix alba & cvs - White Willow	126.61	
32 93 43 00-0900	EA	3-1/2" Caliper Salix alba & cvs - White Willow	151.93	
32 93 43 00-0901	EA	4" Caliper Salix alba & cvs - White Willow	182.32	
32 93 43 00-0902	EA	4-1/2" Caliper Salix alba & cvs - White Willow	212.70	
32 93 43 00-0903	EA	5" Caliper Salix alba & cvs - White Willow	243.09	
32 93 43 00-0904	EA	5' Clump Form Sassafras albidum - Common Sassafras	96.22	
32 93 43 00-0905	EA	6' Clump Form Sassafras albidum - Common Sassafras	116.48	
32 93 43 00-0906	EA	7' Clump Form Sassafras albidum - Common Sassafras	146.87	
32 93 43 00-0907	EA	8' Clump Form Sassafras albidum - Common Sassafras	167.12	
32 93 43 00-0908	EA	10' Clump Form Sassafras albidum - Common Sassafras	187.38	
32 93 43 00-0909	EA	12' Clump Form Sassafras albidum - Common Sassafras	227.90	
32 93 43 00-0910	EA	14' Clump Form Sassafras albidum - Common Sassafras	278.54	
32 93 43 00-0911	EA	16' Clump Form Sassafras albidum - Common Sassafras	329.18	
32 93 43 00-0912	EA	1-3/4" Caliper Sophora japonica - Chinese Scholar	167.73	
32 93 43 00-0913	EA	2" Caliper Sophora japonica - Chinese Scholar	186.37	
32 93 43 00-0914	EA	2-1/2" Caliper Sophora japonica - Chinese Scholar	250.43	
32 93 43 00-0915	EA	3" Caliper Sophora japonica - Chinese Scholar	326.14	
32 93 43 00-0916	EA	3-1/2" Caliper Sophora japonica - Chinese Scholar	378.56	
32 93 43 00-0917	EA	10' To 12' Swietenia Mahagoni - Mahogany	89.69	
32 93 43 00-0918	EA	12' To 14' Swietenia Mahagoni - Mahogany	104.83	
32 93 43 00-0919	EA	14' To 16' Swietenia Mahagoni - Mahogany	139.78	
32 93 43 00-0920	EA	16' To 18' Swietenia Mahagoni - Mahogany	157.25	
32 93 43 00-0921	EA	2" Caliper Taxodium distichum - Common Bald Cypress	126.61	
32 93 43 00-0922	EA	2-1/2" Caliper Taxodium distichum - Common Bald Cypress	146.87	
32 93 43 00-0923	EA	3" Caliper Taxodium distichum - Common Bald Cypress	177.25	
32 93 43 00-0924	EA	3-1/2" Caliper Taxodium distichum - Common Bald Cypress	202.57	
32 93 43 00-0925	EA	4" Caliper Taxodium distichum - Common Bald Cypress	222.83	
32 93 43 00-0926	EA	6' Clump Form Taxodium distichum - Common Bald Cypress	111.42	
32 93 43 00-0927	EA	7' Clump Form Taxodium distichum - Common Bald Cypress	126.61	
32 93 43 00-0928	EA	8' Clump Form Taxodium distichum - Common Bald Cypress	182.32	
32 93 43 00-0929	EA	10' Clump Form Taxodium distichum - Common Bald Cypress	202.57	
32 93 43 00-0930	EA	12' Clump Form Taxodium distichum - Common Bald Cypress	227.90	
32 93 43 00-0931	EA	14' Clump Form Taxodium distichum - Common Bald Cypress	263.35	
32 93 43 00-0932	EA	16' Clump Form Taxodium distichum - Common Bald Cypress	303.86	
32 93 43 00-0933	EA	2' Thuja occidentalis - American Arborvitae	17.36	
32 93 43 00-0934	EA	2-1/2" Thuja occidentalis - American Arborvitae	18.75	
32 93 43 00-0935	EA	3' Thuja occidentalis - American Arborvitae	26.79	
32 93 43 00-0936	EA	4' Thuja occidentalis - American Arborvitae	36.81	
32 93 43 00-0937	EA	5' Thuja occidentalis - American Arborvitae	51.25	
32 93 43 00-0938	EA	6' Thuja occidentalis - American Arborvitae	71.05	
32 93 43 00-0939	EA	7' Thuja occidentalis - American Arborvitae	86.20	
32 93 43 00-0940	EA	8' Thuja occidentalis - American Arborvitae	121.14	
32 93 43 00-0941	EA	2" Caliper Tilia americana & cvs - American Linden Basswood	126.61	
32 93 43 00-0942	EA	2-1/2" Caliper Tilia americana & cvs - American Linden Basswood	146.87	
32 93 43 00-0943	EA	3" Caliper Tilia americana & cvs - American Linden Basswood	187.38	
32 93 43 00-0944	EA	3-1/2" Caliper Tilia americana & cvs - American Linden Basswood	217.77	
32 93 43 00-0945	EA	4" Caliper Tilia americana & cvs - American Linden Basswood	248.15	
32 93 43 00-0946	EA	4-1/2" Caliper Tilia americana & cvs - American Linden Basswood	278.54	
32 93 43 00-0947	EA	5" Caliper Tilia americana & cvs - American Linden Basswood	303.86	
32 93 43 00-0948	EA	10' Clump Form Tilia americana & cvs - American Linden Basswood	162.06	
32 93 43 00-0949	EA	12' Clump Form Tilia americana & cvs - American Linden Basswood	177.25	
32 93 43 00-0950	EA	14' Clump Form Tilia americana & cvs - American Linden Basswood	202.57	
32 93 43 00-0951	EA	16' Clump Form Tilia americana & cvs - American Linden Basswood	232.96	
32 93 43 00-0952	EA	2" Caliper Tilia cordata & cvs - Littleleaf Linden	127.37	
32 93 43 00-0953	EA	2-1/2" Caliper Tilia cordata & cvs - Littleleaf Linden	153.85	
32 93 43 00-0954	EA	3" Caliper Tilia cordata & cvs - Littleleaf Linden	177.25	
32 93 43 00-0955	EA	3-1/2" Caliper Tilia cordata & cvs - Littleleaf Linden	217.77	
32 93 43 00-0956	EA	4" Caliper Tilia cordata & cvs - Littleleaf Linden	248.15	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-0957	EA	4-1/2" Caliper Tilia cordata & cvs - Littleleaf Linden.....	278.54
32 93 43 00-0958	EA	5" Caliper Tilia cordata & cvs - Littleleaf Linden.....	308.93
32 93 43 00-0959	EA	2" Caliper Tilia tomentosa & cvs - Silver Linden.....	141.80
32 93 43 00-0960	EA	2-1/2" Caliper Tilia tomentosa & cvs - Silver Linden.....	156.99
32 93 43 00-0961	EA	3" Caliper Tilia tomentosa & cvs - Silver Linden.....	172.19
32 93 43 00-0962	EA	3-1/2" Caliper Tilia tomentosa & cvs - Silver Linden.....	192.45
32 93 43 00-0963	EA	4" Caliper Tilia tomentosa & cvs - Silver Linden.....	222.83
32 93 43 00-0964	EA	4-1/2" Caliper Tilia tomentosa & cvs - Silver Linden.....	263.35
32 93 43 00-0965	EA	5" Caliper Tilia tomentosa & cvs - Silver Linden.....	344.38
32 93 43 00-0966	EA	2" Caliper Tilia x euchlora - Crimean Linden.....	141.80
32 93 43 00-0967	EA	2-1/2" Caliper Tilia x euchlora - Crimean Linden.....	182.32
32 93 43 00-0968	EA	3" Caliper Tilia x euchlora - Crimean Linden.....	222.83
32 93 43 00-0969	EA	3-1/2" Caliper Tilia x euchlora - Crimean Linden.....	253.22
32 93 43 00-0970	EA	4" Caliper Tilia x euchlora - Crimean Linden.....	283.60
32 93 43 00-0971	EA	4-1/2" Caliper Tilia x euchlora - Crimean Linden.....	319.05
32 93 43 00-0972	EA	5" Caliper Tilia x euchlora - Crimean Linden.....	344.38
32 93 43 00-0973	EA	2" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	141.80
32 93 43 00-0974	EA	2-1/2" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	162.06
32 93 43 00-0975	EA	3" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	177.25
32 93 43 00-0976	EA	3-1/2" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	192.45
32 93 43 00-0977	EA	4" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	212.70
32 93 43 00-0978	EA	4-1/2" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	253.22
32 93 43 00-0979	EA	5" Caliper Ulmus x 'Homestead' - Homestead Hybrid Elm.....	298.80
32 93 43 00-0980	EA	2" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	162.06
32 93 43 00-0981	EA	2-1/2" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	177.25
32 93 43 00-0982	EA	3" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	192.45
32 93 43 00-0983	EA	3-1/2" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	212.70
32 93 43 00-0984	EA	4" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	253.22
32 93 43 00-0985	EA	4-1/2" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	298.80
32 93 43 00-0986	EA	5" Caliper Ulmus x 'Pioneer' - Pioneer Hybrid Elm.....	344.38
32 93 43 00-0987	EA	2" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	162.06
32 93 43 00-0988	EA	2-1/2" Mary-Louise Parker Ulmus x 'Regal' - Regal Hybrid Elm.....	177.25
32 93 43 00-0989	EA	3" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	192.45
32 93 43 00-0990	EA	3-1/2" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	212.70
32 93 43 00-0991	EA	4" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	253.22
32 93 43 00-0992	EA	4-1/2" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	298.80
32 93 43 00-0993	EA	5" Caliper Ulmus x 'Regal' - Regal Hybrid Elm.....	344.38

32 93 43 00-0994**Evergreen Trees** (32 93 43)

Note: All trees listed by caliper of trunk or height of tree if field grown, dug with spade, balled and burlapped and delivered to site.

32 93 43 00-0995	EA	6' Abies balsamea - Balsam Fir.....	123.83
32 93 43 00-0996	EA	7' Abies balsamea - Balsam Fir.....	154.79
32 93 43 00-0997	EA	8' Abies balsamea - Balsam Fir.....	185.75
32 93 43 00-0998	EA	9' Abies balsamea - Balsam Fir.....	247.67
32 93 43 00-0999	EA	10' Abies balsamea - Balsam Fir.....	309.59
32 93 43 00-1000	EA	12' Abies balsamea - Balsam Fir.....	371.50
32 93 43 00-1001	EA	6' Abies concolor - White Fir.....	179.56
32 93 43 00-1002	EA	7' Abies concolor - White Fir.....	204.33
32 93 43 00-1003	EA	8' Abies concolor - White Fir.....	241.48
32 93 43 00-1004	EA	9' Abies concolor - White Fir.....	278.63
32 93 43 00-1005	EA	10' Abies concolor - White Fir.....	328.16
32 93 43 00-1006	EA	12' Abies concolor - White Fir.....	402.46
32 93 43 00-1007	EA	14' Abies concolor - White Fir.....	495.34
32 93 43 00-1008	EA	16' Abies concolor - White Fir.....	557.26
32 93 43 00-1009	EA	6' Abies fraseri - Frasier Fir.....	123.83
32 93 43 00-1010	EA	7' Abies fraseri - Frasier Fir.....	154.79
32 93 43 00-1011	EA	8' Abies fraseri - Frasier Fir.....	185.75
32 93 43 00-1012	EA	9' Abies fraseri - Frasier Fir.....	247.67
32 93 43 00-1013	EA	10' Abies fraseri - Frasier Fir.....	309.59
32 93 43 00-1014	EA	12' Abies fraseri - Frasier Fir.....	371.50
32 93 43 00-1015	EA	5 Gallon Araucaria heterophylla (Araucaria excelsa) - Norfolk Island Pine, Star Pine.....	30.87
32 93 43 00-1016	EA	15 Gallon Araucaria heterophylla (Araucaria excelsa) - Norfolk Island Pine, Star Pine.....	214.38
32 93 43 00-1017	EA	24" Box Araucaria heterophylla (Araucaria excelsa) - Norfolk Island Pine, Star Pine.....	428.75
32 93 43 00-1018	EA	36" Box Araucaria heterophylla (Araucaria excelsa) - Norfolk Island Pine, Star Pine.....	1,029.00
32 93 43 00-1019	EA	1 Gallon Bauhinia variegata (Bauhinia purpurea) - Purple Orchid Tree.....	6.81
32 93 43 00-1020	EA	5 Gallon Bauhinia variegata (Bauhinia purpurea) - Purple Orchid Tree.....	25.68
32 93 43 00-1021	EA	15 Gallon Bauhinia variegata (Bauhinia purpurea) - Purple Orchid Tree.....	82.82
32 93 43 00-1022	EA	24" Box Bauhinia variegata (Bauhinia purpurea) - Purple Orchid Tree.....	199.18
32 93 43 00-1023	EA	5 Gallon Bauhinia blakeana - Hong Kong Orchid Tree.....	18.87
32 93 43 00-1024	EA	15 Gallon Bauhinia blakeana - Hong Kong Orchid Tree.....	82.82
32 93 43 00-1025	EA	24" Box Bauhinia blakeana - Hong Kong Orchid Tree.....	199.18
32 93 43 00-1026	EA	1 Gallon Callistemon viminalis - Weeping Bottlebrush.....	7.72
32 93 43 00-1027	EA	5 Gallon Callistemon viminalis - Weeping Bottlebrush.....	24.01
32 93 43 00-1028	EA	15 Gallon Callistemon viminalis - Weeping Bottlebrush.....	84.04
32 93 43 00-1029	EA	24" Box Callistemon viminalis - Weeping Bottlebrush.....	274.40
32 93 43 00-1030	EA	36" Box Callistemon viminalis - Weeping Bottlebrush.....	771.75
32 93 43 00-1031	EA	2' To 3' Cedrus atlantica - Blue Atlas Cedar.....	22.30
32 93 43 00-1032	EA	3' To 4' Cedrus atlantica - Blue Atlas Cedar.....	35.85
32 93 43 00-1033	EA	4' To 5' Cedrus atlantica - Blue Atlas Cedar.....	53.27



Exterior Improvements		32	32
Planting		32 90	
Plants		32 93	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 43 00-1034	EA		5' To 6' Cedrus atlantica - Blue Atlas Cedar	71.66	
32 93 43 00-1035	EA		7' To 8' Cedrus atlantica - Blue Atlas Cedar	101.74	
32 93 43 00-1036	EA		1 Gallon Cedrus deodara - Deodar Cedar	16.98	
32 93 43 00-1037	EA		5 Gallon Cedrus deodara - Deodar Cedar	30.87	
32 93 43 00-1038	EA		15 Gallon Cedrus deodara - Deodar Cedar	135.48	
32 93 43 00-1039	EA		24" Box Cedrus deodara - Deodar Cedar	428.75	
32 93 43 00-1040	EA		36" Box Cedrus deodara - Deodar Cedar	943.25	
32 93 43 00-1041	EA		6' Cedrus decurrens - Incese Cedar	103.96	
32 93 43 00-1042	EA		8' Cedrus decurrens - Incese Cedar	215.04	
32 93 43 00-1043	EA		10' Cedrus decurrens - Incese Cedar	264.82	
32 93 43 00-1044	EA		12' Cedrus decurrens - Incese Cedar	377.39	
32 93 43 00-1045	EA		6' To 8' Cedrus deodara - Indian Cedar	92.06	
32 93 43 00-1046	EA		8' To 10' Cedrus deodara - Indian Cedar	106.59	
32 93 43 00-1047	EA		10' To 12' Cedrus deodara - Indian Cedar	145.33	
32 93 43 00-1048	EA		12' To 14' Cedrus deodara - Indian Cedar	188.91	
32 93 43 00-1049	EA		14' To 16' Cedrus deodara - Indian Cedar	242.22	
32 93 43 00-1050	EA		5 Gallon Cedrus libani - Cedar of Lebanon	30.87	
32 93 43 00-1051	EA		15 Gallon Cedrus libani - Cedar of Lebanon	135.48	
32 93 43 00-1052	EA		24" Box Cedrus libani - Cedar of Lebanon	325.85	
32 93 43 00-1053	EA		36" Box Cedrus libani - Cedar of Lebanon	943.25	
32 93 43 00-1054	EA		15 Gallon Celtis australis - European Hackberry	111.48	
32 93 43 00-1055	EA		24" Box Celtis australis - European Hackberry	385.88	
32 93 43 00-1056	EA		15" To 18" Chamaecyparis obtusa - Compact Hinoki Cypress	28.78	
32 93 43 00-1057	EA		18" To 24" Chamaecyparis obtusa - Compact Hinoki Cypress	43.17	
32 93 43 00-1058	EA		2' To 3' Chamaecyparis obtusa - Compact Hinoki Cypress	67.14	
32 93 43 00-1059	EA		3' To 4' Chamaecyparis obtusa - Compact Hinoki Cypress	115.11	
32 93 43 00-1060	EA		4' To 5' Chamaecyparis pisifera - Sawara Cypress	34.88	
32 93 43 00-1061	EA		5' To 6' Chamaecyparis pisifera - Sawara Cypress	54.29	
32 93 43 00-1062	EA		6' To 7' Chamaecyparis pisifera - Sawara Cypress	67.80	
32 93 43 00-1063	EA		7' To 8' Chamaecyparis pisifera - Sawara Cypress	96.90	
32 93 43 00-1064	EA		1 Gallon Cinnamomum camphora - Camphor Tree	11.15	
32 93 43 00-1065	EA		5 Gallon Cinnamomum camphora - Camphor Tree	30.87	
32 93 43 00-1066	EA		15 Gallon Cinnamomum camphora - Camphor Tree	84.04	
32 93 43 00-1067	EA		24" Box Cinnamomum camphora - Camphor Tree	274.40	
32 93 43 00-1068	EA		36" Box Cinnamomum camphora - Camphor Tree	771.75	
32 93 43 00-1069	EA		1 Gallon Cleyera japonica - Japanese Cleyera	3.92	
32 93 43 00-1070	EA		3 Gallon Cleyera japonica - Japanese Cleyera	9.84	
32 93 43 00-1071	EA		7 Gallon Cleyera japonica - Japanese Cleyera	28.20	
32 93 43 00-1072	EA		5 Gallon Cupressocyparis leylandii - Leyland Cypress	15.83	
32 93 43 00-1073	EA		15 Gallon Cupressocyparis leylandii - Leyland Cypress	63.33	
32 93 43 00-1074	EA		4' To 5' Cupressocyparis leylandii - Leyland Cypress	27.71	
32 93 43 00-1075	EA		5' To 6' Cupressocyparis leylandii - Leyland Cypress	35.62	
32 93 43 00-1076	EA		6' To 7' Cupressocyparis leylandii - Leyland Cypress	55.41	
32 93 43 00-1077	EA		24" Box Cupressocyparis leylandii - Leyland Cypress	134.57	
32 93 43 00-1078	EA		1 Gallon Cupressus macrocarpa - Monterey Cypress	2.89	
32 93 43 00-1079	EA		5 Gallon Cupressus macrocarpa - Monterey Cypress	12.99	
32 93 43 00-1080	EA		15 Gallon Cupressus macrocarpa - Monterey Cypress	43.30	
32 93 43 00-1081	EA		5 Gallon Cupressus sempervirens - Italian Cypress	14.90	
32 93 43 00-1082	EA		15 Gallon Cupressus sempervirens - Italian Cypress	40.98	
32 93 43 00-1083	EA		1 Gallon Eriobotrya deflexa - Bronze Loquat	11.15	
32 93 43 00-1084	EA		5 Gallon Eriobotrya deflexa - Bronze Loquat	30.87	
32 93 43 00-1085	EA		15 Gallon Eriobotrya deflexa - Bronze Loquat	135.48	
32 93 43 00-1086	EA		24" Box Eriobotrya deflexa - Bronze Loquat	325.85	
32 93 43 00-1087	EA		36" Box Eriobotrya deflexa - Bronze Loquat	943.25	
32 93 43 00-1088	EA		1 Gallon Heteromeles arbutifolia - Toyon	11.15	
32 93 43 00-1089	EA		5 Gallon Heteromeles arbutifolia - Toyon	30.87	
32 93 43 00-1090	EA		15 Gallon Heteromeles arbutifolia - Toyon	102.88	
32 93 43 00-1091	EA		24" Box Heteromeles arbutifolia - Toyon	325.85	
32 93 43 00-1092	EA		1 Gallon Illicium anisatum - Anise Tree	4.26	
32 93 43 00-1093	EA		3 Gallon Illicium anisatum - Anise Tree	9.84	
32 93 43 00-1094	EA		1 Gallon Juniperus horizontalis "Bar Harbor" - Bar Harbor Juniper	4.38	
32 93 43 00-1095	EA		2 Gallon Juniperus horizontalis "Bar Harbor" - Bar Harbor Juniper	8.57	
32 93 43 00-1096	EA		3 Gallon Juniperus horizontalis "Bar Harbor" - Bar Harbor Juniper	10.62	
32 93 43 00-1097	EA		5 Gallon Juniperus horizontalis "Bar Harbor" - Bar Harbor Juniper	12.48	
32 93 43 00-1098	EA		1 Gallon Juniperus - Blue Sargent Juniper	4.38	
32 93 43 00-1099	EA		2 Gallon Juniperus - Blue Sargent Juniper	8.57	
32 93 43 00-1100	EA		3 Gallon Juniperus - Blue Sargent Juniper	10.62	
32 93 43 00-1101	EA		5 Gallon Juniperus - Blue Sargent Juniper	12.48	
32 93 43 00-1102	EA		5 Gallon Juniperus - Compact Pfitzer Juniper	12.48	
32 93 43 00-1103	EA		15" To 18" Juniperus - Compact Pfitzer Juniper	13.50	
32 93 43 00-1104	EA		18" To 24" Juniperus - Compact Pfitzer Juniper	16.30	
32 93 43 00-1105	EA		2' To 2 1/2' Juniperus - Compact Pfitzer Juniper	24.21	
32 93 43 00-1106	EA		2-1/2' To 3' Juniperus - Compact Pfitzer Juniper	28.03	
32 93 43 00-1107	EA		5' To 6' Juniperus - Fairview Juniper	41.75	
32 93 43 00-1108	EA		1 Gallon Juniperus - Hollywood Juniper	5.59	
32 93 43 00-1109	EA		5 Gallon Juniperus - Hollywood Juniper	15.55	
32 93 43 00-1110	EA		15 Gallon Juniperus - Hollywood Juniper	65.93	
32 93 43 00-1111	EA		4' To 5' Juniperus - Hollywood Juniper	43.58	
32 93 43 00-1112	EA		5' To 6' Juniperus - Hollywood Juniper	56.16	
32 93 43 00-1113	EA		1 Gallon Juniperus - Parson's Juniper	4.38	
32 93 43 00-1114	EA		2 Gallon Juniperus - Parson's Juniper	8.66	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-1115	EA	3 Gallon Juniperus - Parson's Juniper	10.71	
32 93 43 00-1116	EA	5 Gallon Juniperus - Parson's Juniper	12.67	
32 93 43 00-1117	EA	5 Gallon Juniperus - Skyrocket Juniper	15.65	
32 93 43 00-1118	EA	15 Gallon Juniperus - Skyrocket Juniper	66.59	
32 93 43 00-1119	EA	2' To 3' Juniperus - Skyrocket Juniper	23.47	
32 93 43 00-1120	EA	3' To 4' Juniperus - Skyrocket Juniper	33.25	
32 93 43 00-1121	EA	4' To 5' Juniperus - Skyrocket Juniper	44.05	
32 93 43 00-1122	EA	5' To 6' Juniperus - Skyrocket Juniper	56.81	
32 93 43 00-1123	EA	6' To 8' Juniperus - Skyrocket Juniper	73.38	
32 93 43 00-1124	EA	1 Gallon Juniperus horizontalis "Wiltonii" - Blue Rug Juniper	4.38	
32 93 43 00-1125	EA	2 Gallon Juniperus horizontalis "Wiltonii" - Blue Rug Juniper	8.62	
32 93 43 00-1126	EA	3 Gallon Juniperus horizontalis "Wiltonii" - Blue Rug Juniper	10.57	
32 93 43 00-1127	EA	5 Gallon Juniperus horizontalis "Wiltonii" - Blue Rug Juniper	12.53	
32 93 43 00-1128	EA	1 Gallon Juniperus horizontalis "Plumosa" - Compact Andorra Juniper	4.38	
32 93 43 00-1129	EA	2 Gallon Juniperus horizontalis "Plumosa" - Compact Andorra Juniper	8.62	
32 93 43 00-1130	EA	3 Gallon Juniperus horizontalis "Plumosa" - Compact Andorra Juniper	10.57	
32 93 43 00-1131	EA	5 Gallon Juniperus horizontalis "Plumosa" - Compact Andorra Juniper	12.53	
32 93 43 00-1132	EA	2' To 3' Juniperus virginiana - Eastern Red Cedar	23.47	
32 93 43 00-1133	EA	3' To 4' Juniperus virginiana - Eastern Red Cedar	33.25	
32 93 43 00-1134	EA	4' To 5' Juniperus virginiana - Eastern Red Cedar	44.05	
32 93 43 00-1135	EA	5' To 6' Juniperus virginiana - Eastern Red Cedar	56.81	
32 93 43 00-1136	EA	1 Gallon Laurus nobilis - Sweet Bay	7.72	
32 93 43 00-1137	EA	5 Gallon Laurus nobilis - Sweet Bay	24.01	
32 93 43 00-1138	EA	15 Gallon Laurus nobilis - Sweet Bay	84.04	
32 93 43 00-1139	EA	24" Box Laurus nobilis - Sweet Bay	274.40	
32 93 43 00-1140	EA	36" Box Laurus nobilis - Sweet Bay	943.25	
32 93 43 00-1141	EA	5 Gallon Lophostemon confertus (Tristania conferta) - Brisbane Box	24.01	
32 93 43 00-1142	EA	15 Gallon Lophostemon confertus (Tristania conferta) - Brisbane Box	84.04	
32 93 43 00-1143	EA	24" Box Lophostemon confertus (Tristania conferta) - Brisbane Box	274.40	
32 93 43 00-1144	EA	36" Box Lophostemon confertus (Tristania conferta) - Brisbane Box	771.75	
32 93 43 00-1145	EA	1 Gallon Lyonothamnus floribundus - Catalina Ironwood	16.98	
32 93 43 00-1146	EA	5 Gallon Lyonothamnus floribundus - Catalina Ironwood	42.02	
32 93 43 00-1147	EA	15 Gallon Lyonothamnus floribundus - Catalina Ironwood	214.38	
32 93 43 00-1148	EA	24" Box Lyonothamnus floribundus - Catalina Ironwood	428.75	
32 93 43 00-1149	EA	1 Gallon Lyonothamnus floribundus ssp. asplenifolius - Catalina Ironwood	17.13	
32 93 43 00-1150	EA	5 Gallon Lyonothamnus floribundus ssp. asplenifolius - Catalina Ironwood	51.43	
32 93 43 00-1151	EA	6' Melaleuca linariifolia - Flaxleaf Paperbark	299.06	
32 93 43 00-1152	EA	8' Melaleuca linariifolia - Flaxleaf Paperbark	398.75	
32 93 43 00-1153	EA	10' Melaleuca linariifolia - Flaxleaf Paperbark	498.44	
32 93 43 00-1154	EA	12' Melaleuca linariifolia - Flaxleaf Paperbark	598.12	
32 93 43 00-1155	EA	1 Gallon Melaleuca linariifolia - Flaxleaf Paperbark	8.33	
32 93 43 00-1156	EA	5 Gallon Melaleuca linariifolia - Flaxleaf Paperbark	25.92	
32 93 43 00-1157	EA	15 Gallon Melaleuca linariifolia - Flaxleaf Paperbark	90.72	
32 93 43 00-1158	EA	24" Box Melaleuca linariifolia - Flaxleaf Paperbark	296.21	
32 93 43 00-1159	EA	6' Melaleuca quinquenervia - Cajeput Tree	299.06	
32 93 43 00-1160	EA	8' Melaleuca quinquenervia - Cajeput Tree	398.75	
32 93 43 00-1161	EA	10' Melaleuca quinquenervia - Cajeput Tree	498.44	
32 93 43 00-1162	EA	12' Melaleuca quinquenervia - Cajeput Tree	598.12	
32 93 43 00-1163	EA	24" Box Melaleuca quinquenervia - Cajeput Tree	166.62	
32 93 43 00-1164	EA	30" Box Melaleuca quinquenervia - Cajeput Tree	420.11	
32 93 43 00-1165	EA	36" Box Melaleuca quinquenervia - Cajeput Tree	662.21	
32 93 43 00-1166	EA	4' Metrosideros excelsus - New Zealand Christmas Tree	88.29	
32 93 43 00-1167	EA	5' Metrosideros excelsus - New Zealand Christmas Tree	119.62	
32 93 43 00-1168	EA	6' Metrosideros excelsus - New Zealand Christmas Tree	203.65	
32 93 43 00-1169	EA	8' Metrosideros excelsus - New Zealand Christmas Tree	252.07	
32 93 43 00-1170	EA	24" Box Metrosideros excelsus - New Zealand Christmas Tree	167.73	
32 93 43 00-1171	EA	1 Gallon Photinia fraseri - Fraser's Photinia	7.72	
32 93 43 00-1172	EA	5 Gallon Photinia fraseri - Fraser's Photinia	66.88	
32 93 43 00-1173	EA	15 Gallon Photinia fraseri - Fraser's Photinia	101.18	
32 93 43 00-1174	EA	24" Box Photinia fraseri - Fraser's Photinia	325.85	
32 93 43 00-1175	EA	5' Picea abies & cvs - Norway Spruce	136.22	
32 93 43 00-1176	EA	6' Picea abies & cvs - Norway Spruce	154.79	
32 93 43 00-1177	EA	7' Picea abies & cvs - Norway Spruce	185.75	
32 93 43 00-1178	EA	8' Picea abies & cvs - Norway Spruce	216.71	
32 93 43 00-1179	EA	9' Picea abies & cvs - Norway Spruce	291.01	
32 93 43 00-1180	EA	10' Picea abies & cvs - Norway Spruce	352.93	
32 93 43 00-1181	EA	12' Picea abies & cvs - Norway Spruce	433.42	
32 93 43 00-1182	EA	14' Picea abies & cvs - Norway Spruce	526.30	
32 93 43 00-1183	EA	6' Picea glauca - White Spruce	130.03	
32 93 43 00-1184	EA	7' Picea glauca - White Spruce	185.75	
32 93 43 00-1185	EA	8' Picea glauca - White Spruce	216.71	
32 93 43 00-1186	EA	9' Picea glauca - White Spruce	260.05	
32 93 43 00-1187	EA	10' Picea glauca - White Spruce	309.59	
32 93 43 00-1188	EA	12' Picea glauca - White Spruce	371.50	
32 93 43 00-1189	EA	4' Picea glauca densata - Black Hills Spruce	74.30	
32 93 43 00-1190	EA	5' Picea glauca densata - Black Hills Spruce	111.45	
32 93 43 00-1191	EA	6' Picea glauca densata - Black Hills Spruce	167.18	
32 93 43 00-1192	EA	7' Picea glauca densata - Black Hills Spruce	198.14	
32 93 43 00-1193	EA	8' Picea glauca densata - Black Hills Spruce	229.09	
32 93 43 00-1194	EA	9' Picea glauca densata - Black Hills Spruce	253.86	
32 93 43 00-1195	EA	10' Picea glauca densata - Black Hills Spruce	278.63	



Exterior Improvements		32
Planting	32 90	32
Plants	32 93	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 43 00-1196	EA		1 Gallon Melaleuca citrina (Callistemon citrinus) - Lemon Bottlebrush	6.00	
32 93 43 00-1197	EA		5 Gallon Melaleuca citrina (Callistemon citrinus) - Lemon Bottlebrush	17.15	
32 93 43 00-1198	EA		15 Gallon Melaleuca citrina (Callistemon citrinus) - Lemon Bottlebrush	66.88	
32 93 43 00-1199	EA		24" Box Melaleuca citrina (Callistemon citrinus) - Lemon Bottlebrush	274.40	
32 93 43 00-1200	EA		36" Box Melaleuca citrina (Callistemon citrinus) - Lemon Bottlebrush	771.75	
32 93 43 00-1201	EA		1 Gallon Melaleuca viminalis (Callistemon viminalis) - Weeping Bottle Brush	7.72	
32 93 43 00-1202	EA		5 Gallon Melaleuca viminalis (Callistemon viminalis) - Weeping Bottle Brush	24.01	
32 93 43 00-1203	EA		15 Gallon Melaleuca viminalis (Callistemon viminalis) - Weeping Bottle Brush	84.04	
32 93 43 00-1204	EA		24" Box Melaleuca viminalis (Callistemon viminalis) - Weeping Bottle Brush	274.40	
32 93 43 00-1205	EA		36" Box Melaleuca viminalis (Callistemon viminalis) - Weeping Bottle Brush	771.75	
32 93 43 00-1206	EA		1 Gallon Metrosideros excelsa - New Zealand Christmas Tree	6.81	
32 93 43 00-1207	EA		5 Gallon Metrosideros excelsa - New Zealand Christmas Tree	25.68	
32 93 43 00-1208	EA		15 Gallon Metrosideros excelsa - New Zealand Christmas Tree	82.82	
32 93 43 00-1209	EA		24" Box Olea europaea 'Swan Hill' - Swan Hill Olive	428.75	
32 93 43 00-1210	EA		36" Box Olea europaea 'Swan Hill' - Swan Hill Olive	1,029.00	
32 93 43 00-1211	EA		6' Picea omorika & cvs - Serbian Spruce	167.18	
32 93 43 00-1212	EA		7' Picea omorika & cvs - Serbian Spruce	185.75	
32 93 43 00-1213	EA		8' Picea omorika & cvs - Serbian Spruce	222.90	
32 93 43 00-1214	EA		9' Picea omorika & cvs - Serbian Spruce	260.05	
32 93 43 00-1215	EA		10' Picea omorika & cvs - Serbian Spruce	297.20	
32 93 43 00-1216	EA		5' Picea pungens - Colorado Green Spruce	136.22	
32 93 43 00-1217	EA		6' Picea pungens - Colorado Green Spruce	173.37	
32 93 43 00-1218	EA		7' Picea pungens - Colorado Green Spruce	204.33	
32 93 43 00-1219	EA		8' Picea pungens - Colorado Green Spruce	235.29	
32 93 43 00-1220	EA		9' Picea pungens - Colorado Green Spruce	272.44	
32 93 43 00-1221	EA		10' Picea pungens - Colorado Green Spruce	513.91	
32 93 43 00-1222	EA		12' Picea pungens - Colorado Green Spruce	371.50	
32 93 43 00-1223	EA		14' Picea pungens - Colorado Green Spruce	433.42	
32 93 43 00-1224	EA		16' Picea pungens - Colorado Green Spruce	557.26	
32 93 43 00-1225	EA		5' Picea pungens glauca & cvs - Colorado Blue Spruce	136.22	
32 93 43 00-1226	EA		6' Picea pungens glauca & cvs - Colorado Blue Spruce	185.75	
32 93 43 00-1227	EA		7' Picea pungens glauca & cvs - Colorado Blue Spruce	216.71	
32 93 43 00-1228	EA		8' Picea pungens glauca & cvs - Colorado Blue Spruce	247.67	
32 93 43 00-1229	EA		9' Picea pungens glauca & cvs - Colorado Blue Spruce	278.63	
32 93 43 00-1230	EA		10' Picea pungens glauca & cvs - Colorado Blue Spruce	340.55	
32 93 43 00-1231	EA		12' Picea pungens glauca & cvs - Colorado Blue Spruce	433.42	
32 93 43 00-1232	EA		16' Picea pungens glauca & cvs - Colorado Blue Spruce	650.13	
32 93 43 00-1233	EA		6' Pinus canariensis - Canary Island Pine	341.78	
32 93 43 00-1234	EA		8' Pinus canariensis - Canary Island Pine	455.71	
32 93 43 00-1235	EA		10' Pinus canariensis - Canary Island Pine	569.64	
32 93 43 00-1236	EA		12' Pinus canariensis - Canary Island Pine	683.57	
32 93 43 00-1237	EA		1 Gallon Pinus canariensis - Canary Island Pine	11.15	
32 93 43 00-1238	EA		5 Gallon Pinus canariensis - Canary Island Pine	30.87	
32 93 43 00-1239	EA		15 Gallon Pinus canariensis - Canary Island Pine	101.18	
32 93 43 00-1240	EA		24" Box Pinus canariensis - Canary Island Pine	351.75	
32 93 43 00-1241	EA		1 Gallon Pinus eldarica - Eldarica Pine, Afghan Pine, Mondell Pine	7.72	
32 93 43 00-1242	EA		5 Gallon Pinus eldarica - Eldarica Pine, Afghan Pine, Mondell Pine	24.01	
32 93 43 00-1243	EA		15 Gallon Pinus eldarica - Eldarica Pine, Afghan Pine, Mondell Pine	84.04	
32 93 43 00-1244	EA		24" Box Pinus eldarica - Eldarica Pine, Afghan Pine, Mondell Pine	274.40	
32 93 43 00-1245	EA		36" Box Pinus eldarica - Eldarica Pine, Afghan Pine, Mondell Pine	771.75	
32 93 43 00-1246	EA		1 Gallon Pinus halepensis - Aleppo Pine	7.72	
32 93 43 00-1247	EA		5 Gallon Pinus halepensis - Aleppo Pine	24.01	
32 93 43 00-1248	EA		15 Gallon Pinus halepensis - Aleppo Pine	84.04	
32 93 43 00-1249	EA		24" Box Pinus halepensis - Aleppo Pine	274.40	
32 93 43 00-1250	EA		36" Box Pinus halepensis - Aleppo Pine	771.75	
32 93 43 00-1251	EA		1 Gallon Pinus muricata - Bishop Pine	17.13	
32 93 43 00-1252	EA		5 Gallon Pinus muricata - Bishop Pine	51.43	
32 93 43 00-1253	EA		15 Gallon Pinus patula - Jelecote Pine, Mexican Weeping Pine	111.48	
32 93 43 00-1254	EA		24" Box Pinus patula - Jelecote Pine, Mexican Weeping Pine	385.88	
32 93 43 00-1255	EA		6' Pinus pinea - Italian Stone Pine	341.78	
32 93 43 00-1256	EA		8' Pinus pinea - Italian Stone Pine	455.71	
32 93 43 00-1257	EA		10' Pinus pinea - Italian Stone Pine	569.64	
32 93 43 00-1258	EA		12' Pinus pinea - Italian Stone Pine	683.57	
32 93 43 00-1259	EA		1 Gallon Pinus pinea - Italian Stone Pine	12.03	
32 93 43 00-1260	EA		5 Gallon Pinus pinea - Italian Stone Pine	33.32	
32 93 43 00-1261	EA		15 Gallon Pinus pinea - Italian Stone Pine	109.23	
32 93 43 00-1262	EA		24" Box Pinus pinea - Italian Stone Pine	296.21	
32 93 43 00-1263	EA		36" Box Pinus pinea - Italian Stone Pine	833.10	
32 93 43 00-1264	EA		2' Pinus strobus - Pyramidal White Pine	17.15	
32 93 43 00-1265	EA		3' Pinus strobus - Pyramidal White Pine	22.91	
32 93 43 00-1266	EA		4' Pinus strobus - Pyramidal White Pine	25.28	
32 93 43 00-1267	EA		5' Pinus strobus - Pyramidal White Pine	27.64	
32 93 43 00-1268	EA		6' Pinus strobus - Pyramidal White Pine	34.44	
32 93 43 00-1269	EA		7' Pinus strobus - Pyramidal White Pine	45.82	
32 93 43 00-1270	EA		8' Pinus strobus - Pyramidal White Pine	62.97	
32 93 43 00-1271	EA		10' Pinus strobus - Pyramidal White Pine	125.65	
32 93 43 00-1272	EA		12' Pinus strobus - Pyramidal White Pine	298.60	
32 93 43 00-1273	EA		14' Pinus strobus - Pyramidal White Pine	400.60	
32 93 43 00-1274	EA		16' Pinus strobus - Pyramidal White Pine	481.90	
32 93 43 00-1275	EA		2' Pinus strobus - White Pine	26.35	
32 93 43 00-1276	EA		3' Pinus strobus - White Pine	37.60	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-1277	EA	4' Pinus strobus - White Pine	59.95	
32 93 43 00-1278	EA	5' Pinus strobus - White Pine	85.45	
32 93 43 00-1279	EA	6' Pinus strobus - White Pine	125.32	
32 93 43 00-1280	EA	7' Pinus strobus - White Pine	149.53	
32 93 43 00-1281	EA	8' Pinus strobus - White Pine	202.22	
32 93 43 00-1282	EA	10' Pinus strobus - White Pine	272.00	
32 93 43 00-1283	EA	12' Pinus strobus - White Pine	360.30	
32 93 43 00-1284	EA	14' Pinus strobus - White Pine	441.47	
32 93 43 00-1285	EA	16' Pinus strobus - White Pine	536.89	
32 93 43 00-1286	EA	3' Pinus sylvestris - Scotch Pine	40.68	
32 93 43 00-1287	EA	4' Pinus sylvestris - Scotch Pine	56.47	
32 93 43 00-1288	EA	5' Pinus sylvestris - Scotch Pine	79.25	
32 93 43 00-1289	EA	6' Pinus sylvestris - Scotch Pine	109.97	
32 93 43 00-1290	EA	7' Pinus sylvestris - Scotch Pine	134.73	
32 93 43 00-1291	EA	8' Pinus sylvestris - Scotch Pine	190.21	
32 93 43 00-1292	EA	9' Pinus sylvestris - Scotch Pine	241.48	
32 93 43 00-1293	EA	10' Pinus sylvestris - Scotch Pine	278.63	
32 93 43 00-1294	EA	12' Pinus sylvestris - Scotch Pine	328.16	
32 93 43 00-1295	EA	14' Pinus sylvestris - Scotch Pine	371.50	
32 93 43 00-1296	EA	16' Pinus sylvestris - Scotch Pine	433.42	
32 93 43 00-1297	EA	5' To 6' Pinus taeda - Loblolly Pine	17.71	
32 93 43 00-1298	EA	1 Gallon Pinus thunbergiana - Japanese Black Pine	4.38	
32 93 43 00-1299	EA	5 Gallon Pinus thunbergiana - Japanese Black Pine	15.55	
32 93 43 00-1300	EA	15 Gallon Pinus thunbergiana - Japanese Black Pine	50.38	
32 93 43 00-1301	EA	2' To 3' Pinus thunbergiana - Japanese Black Pine	21.33	
32 93 43 00-1302	EA	3' To 4' Pinus thunbergiana - Japanese Black Pine	27.10	
32 93 43 00-1303	EA	4' To 5' Pinus thunbergiana - Japanese Black Pine	40.70	
32 93 43 00-1304	EA	5' To 6' Pinus thunbergiana - Japanese Black Pine	79.44	
32 93 43 00-1305	EA	6' To 7' Pinus thunbergiana - Japanese Black Pine	89.12	
32 93 43 00-1306	EA	7' To 8' Pinus thunbergiana - Japanese Black Pine	111.38	
32 93 43 00-1307	EA	4' Pinus cembra - Swiss Stone Pine	105.26	
32 93 43 00-1308	EA	5' Pinus cembra - Swiss Stone Pine	130.03	
32 93 43 00-1309	EA	6' Pinus cembra - Swiss Stone Pine	160.99	
32 93 43 00-1310	EA	6' Pinus flexilis & cvs - Limber Pine	154.79	
32 93 43 00-1311	EA	7' Pinus flexilis & cvs - Limber Pine	179.56	
32 93 43 00-1312	EA	8' Pinus flexilis & cvs - Limber Pine	222.90	
32 93 43 00-1313	EA	9' Pinus flexilis & cvs - Limber Pine	272.44	
32 93 43 00-1314	EA	10' Pinus flexilis & cvs - Limber Pine	309.59	
32 93 43 00-1315	EA	1 Gallon Pinus mugo - Mugho Pine	5.77	
32 93 43 00-1316	EA	2 Gallon Pinus mugo - Mugho Pine	12.20	
32 93 43 00-1317	EA	3 Gallon Pinus mugo - Mugho Pine	15.27	
32 93 43 00-1318	EA	5 Gallon Pinus mugo - Mugho Pine	19.37	
32 93 43 00-1319	EA	12" To 15" Spread Pinus mugo - Mugho Pine	14.99	
32 93 43 00-1320	EA	15" To 18" Spread Pinus mugo - Mugho Pine	17.88	
32 93 43 00-1321	EA	18" To 24" Spread Pinus mugo - Mugho Pine	24.21	
32 93 43 00-1322	EA	2' To 2-1/2' Spread Pinus mugo - Mugho Pine	33.90	
32 93 43 00-1323	EA	2-1/2' To 3' Spread Pinus mugo - Mugho Pine	43.58	
32 93 43 00-1324	EA	3' To 3-1/2' Spread Pinus mugo - Mugho Pine	54.29	
32 93 43 00-1325	EA	3-1/2' To 4' Spread Pinus mugo - Mugho Pine	65.93	
32 93 43 00-1326	EA	6' Pinus nigra - Austrian Pine	154.79	
32 93 43 00-1327	EA	7' Pinus nigra - Austrian Pine	185.75	
32 93 43 00-1328	EA	8' Pinus nigra - Austrian Pine	241.48	
32 93 43 00-1329	EA	9' Pinus nigra - Austrian Pine	278.63	
32 93 43 00-1330	EA	10' Pinus nigra - Austrian Pine	328.16	
32 93 43 00-1331	EA	12' Pinus nigra - Austrian Pine	371.50	
32 93 43 00-1332	EA	14' Pinus nigra - Austrian Pine	414.85	
32 93 43 00-1333	EA	16' Pinus nigra - Austrian Pine	470.57	
32 93 43 00-1334	EA	5' Pinus peuce - Macedonian Pine	191.94	
32 93 43 00-1335	EA	6' Pinus peuce - Macedonian Pine	241.48	
32 93 43 00-1336	EA	7' Pinus peuce - Macedonian Pine	278.63	
32 93 43 00-1337	EA	8' Pinus peuce - Macedonian Pine	315.78	
32 93 43 00-1338	EA	9' Pinus peuce - Macedonian Pine	365.31	
32 93 43 00-1339	EA	1 Gallon Pinus torreyana - Torrey Pine	16.98	
32 93 43 00-1340	EA	5 Gallon Pinus torreyana - Torrey Pine	42.02	
32 93 43 00-1341	EA	15 Gallon Pinus torreyana - Torrey Pine	135.48	
32 93 43 00-1342	EA	24" Box Pinus torreyana - Torrey Pine	325.85	
32 93 43 00-1343	EA	36" Box Pinus torreyana - Torrey Pine	943.25	
32 93 43 00-1344	EA	6' Pittosporum undulatum - Victorian Box	187.98	
32 93 43 00-1345	EA	8' Pittosporum undulatum - Victorian Box	297.64	
32 93 43 00-1346	EA	10' Pittosporum undulatum - Victorian Box	391.63	
32 93 43 00-1347	EA	1 Gallon Podocarpus - Chinese Podocarpus	2.89	
32 93 43 00-1348	EA	3 Gallon Podocarpus - Chinese Podocarpus	6.71	
32 93 43 00-1349	EA	7 Gallon Podocarpus - Chinese Podocarpus	19.37	
32 93 43 00-1350	EA	15 Gallon Podocarpus - Chinese Podocarpus	31.48	
32 93 43 00-1351	EA	4' To 5' Podocarpus - Chinese Podocarpus	48.43	
32 93 43 00-1352	EA	1 Gallon Rhus lancea - African Sumac	11.15	
32 93 43 00-1353	EA	5 Gallon Rhus lancea - African Sumac	30.87	
32 93 43 00-1354	EA	15 Gallon Rhus lancea - African Sumac	84.04	
32 93 43 00-1355	EA	6' Afrocarpus falcatus (Podocarpus gracillior) - African Fern Pine	356.02	
32 93 43 00-1356	EA	8' Afrocarpus falcatus (Podocarpus gracillior) - African Fern Pine	469.95	
32 93 43 00-1357	EA	10' Afrocarpus falcatus (Podocarpus gracillior) - African Fern Pine	598.12	



Exterior Improvements			32
Planting			32 90
Plants			32 93

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 43 00-1358	EA		12' Afrocarpus falcatus (Podocarpus gracilior) - African Fern Pine.....	712.05	
32 93 43 00-1359	EA		24" Box Afrocarpus falcatus (Podocarpus gracilior) - African Fern Pine.....	166.62	
32 93 43 00-1360	EA		1 Gallon Podocarpus macrophyllus - Yew Pine.....	6.62	
32 93 43 00-1361	EA		3 Gallon Podocarpus macrophyllus - Yew Pine.....	15.52	
32 93 43 00-1362	EA		5 Gallon Podocarpus macrophyllus - Yew Pine.....	20.36	
32 93 43 00-1363	EA		15 Gallon Podocarpus macrophyllus - Yew Pine.....	88.29	
32 93 43 00-1364	EA		24" Box Podocarpus macrophyllus - Yew Pine.....	170.89	
32 93 43 00-1365	EA		5' Pseudotsuga menziesii - Douglas Fir.....	123.83	
32 93 43 00-1366	EA		6' Pseudotsuga menziesii - Douglas Fir.....	148.60	
32 93 43 00-1367	EA		7' Pseudotsuga menziesii - Douglas Fir.....	185.75	
32 93 43 00-1368	EA		8' Pseudotsuga menziesii - Douglas Fir.....	222.90	
32 93 43 00-1369	EA		9' Pseudotsuga menziesii - Douglas Fir.....	278.63	
32 93 43 00-1370	EA		10' Pseudotsuga menziesii - Douglas Fir.....	328.16	
32 93 43 00-1371	EA		12' Pseudotsuga menziesii - Douglas Fir.....	371.50	
32 93 43 00-1372	EA		15 Gallon Prosopis alba 'Colorado' - Argentine Mesquite.....	97.74	
32 93 43 00-1373	EA		24" Box Prosopis alba 'Colorado' - Argentine Mesquite.....	339.55	
32 93 43 00-1374	EA		15 Gallon Prosopis hybrid 'Phoenix' - Phoenix Mesquite.....	97.74	
32 93 43 00-1375	EA		24" Box Prosopis hybrid 'Phoenix' - Phoenix Mesquite.....	339.55	
32 93 43 00-1376	EA		1 Gallon Prunus ilicifolia ssp lyonii (Prunus lyonii) - Catalina Cherry.....	11.15	
32 93 43 00-1377	EA		5 Gallon Prunus ilicifolia ssp lyonii (Prunus lyonii) - Catalina Cherry.....	42.02	
32 93 43 00-1378	EA		15 Gallon Prunus ilicifolia ssp lyonii (Prunus lyonii) - Catalina Cherry.....	94.32	
32 93 43 00-1379	EA		24" Box Prunus ilicifolia ssp lyonii (Prunus lyonii) - Catalina Cherry.....	325.85	
32 93 43 00-1380	EA		24" Box Quercus engelmannii - Mesa Oak.....	411.60	
32 93 43 00-1381	EA		36" Box Quercus engelmannii - Mesa Oak.....	1,029.00	
32 93 43 00-1382	EA		5 Gallon Quillaja saponaria - Soapbark Tree.....	111.48	
32 93 43 00-1383	EA		15 Gallon Quillaja saponaria - Soapbark Tree.....	385.88	
32 93 43 00-1384	EA		24" Box Rhus lancea - African Sumac.....	175.88	
32 93 43 00-1385	EA		30" Box Rhus lancea - African Sumac.....	284.82	
32 93 43 00-1386	EA		8' Rhus lancea - African Sumac.....	427.23	
32 93 43 00-1387	EA		10' Rhus lancea - African Sumac.....	477.07	
32 93 43 00-1388	EA		12' Rhus lancea - African Sumac.....	569.64	
32 93 43 00-1389	EA		5' To 6' Sequoia sempervirens - Dawn Redwood.....	60.53	
32 93 43 00-1390	EA		6' To 8' Sequoia sempervirens - Dawn Redwood.....	81.72	
32 93 43 00-1391	EA		8' To 10' Sequoia sempervirens - Dawn Redwood.....	99.88	
32 93 43 00-1392	EA		3' To 4' Thuja occidentalis 'Wareana' - Siberian Arborvitae.....	11.67	
32 93 43 00-1393	EA		3' To 4' Thuja occidentalis 'Woodwardii' - Woodward Arborvitae.....	21.85	
32 93 43 00-1394	EA		5' To 6' Taxodium distichum & cvs - Bald Cypress.....	43.02	
32 93 43 00-1395	EA		6' To 7' Taxodium distichum & cvs - Bald Cypress.....	53.78	
32 93 43 00-1396	EA		7' To 8' Taxodium distichum & cvs - Bald Cypress.....	66.49	
32 93 43 00-1397	EA		8' To 10' Taxodium distichum & cvs - Bald Cypress.....	84.14	
32 93 43 00-1398	EA		6' Tsuga canadensis - Northern Hemlock.....	123.83	
32 93 43 00-1399	EA		7' Tsuga canadensis - Northern Hemlock.....	154.79	
32 93 43 00-1400	EA		8' Tsuga canadensis - Northern Hemlock.....	210.52	
32 93 43 00-1401	EA		9' Tsuga canadensis - Northern Hemlock.....	247.67	
32 93 43 00-1402	EA		10' Tsuga canadensis - Northern Hemlock.....	278.63	
32 93 43 00-1403	EA		12' Tsuga canadensis - Northern Hemlock.....	309.59	
32 93 43 00-1404	EA		1 Gallon Tristania conferta - Brisbane Box.....	11.15	
32 93 43 00-1405	EA		5 Gallon Tristania conferta - Brisbane Box.....	30.87	
32 93 43 00-1406	EA		15 Gallon Tristania conferta - Brisbane Box.....	84.04	
32 93 43 00-1407	EA		24" Box Tristania conferta - Brisbane Box.....	274.40	
32 93 43 00-1408	EA		36" Box Tristania conferta - Brisbane Box.....	771.75	

32 93 43 00-1409

Palm And Subtropical Trees (32 93 43)

Note: All trees listed by caliper of trunk or height of tree if field grown, dug with spade, balled and burlapped and delivered to site.

32 93 43 00-1410	EA		4' To 5' Acacia baileyana - Bailey Acacia.....	232.96	
32 93 43 00-1411	EA		6' Acacia baileyana - Bailey Acacia.....	279.55	
32 93 43 00-1412	EA		8' Acacia baileyana - Bailey Acacia.....	326.14	
32 93 43 00-1413	EA		10' Acacia baileyana - Bailey Acacia.....	407.68	
32 93 43 00-1414	EA		6' Agonis flexuosa - Peppermint Tree.....	139.78	
32 93 43 00-1415	EA		8' Agonis flexuosa - Peppermint Tree.....	174.72	
32 93 43 00-1416	EA		10' Agonis flexuosa - Peppermint Tree.....	209.66	
32 93 43 00-1417	EA		24" Box Agonis flexuosa - Peppermint Tree.....	174.14	
32 93 43 00-1418	EA		4' To 5' Archontophoenix cunninghamiana - King Palm.....	95.29	
32 93 43 00-1419	EA		6' To 8' Archontophoenix cunninghamiana - King Palm.....	148.22	
32 93 43 00-1420	EA		8' To 10' Archontophoenix cunninghamiana - King Palm.....	190.58	
32 93 43 00-1421	EA		10' To 12' Archontophoenix cunninghamiana - King Palm.....	254.10	
32 93 43 00-1422	EA		4' To 5' Arecastrum romanzoffianum - Queen Palm.....	72.19	
32 93 43 00-1423	EA		6' To 8' Arecastrum romanzoffianum - Queen Palm.....	101.06	
32 93 43 00-1424	EA		8' To 10' Arecastrum romanzoffianum - Queen Palm.....	129.94	
32 93 43 00-1425	EA		10' To 12' Arecastrum romanzoffianum - Queen Palm.....	158.81	
32 93 43 00-1426	EA		12' To 14' Arecastrum romanzoffianum - Queen Palm.....	192.50	
32 93 43 00-1427	EA		14' To 16' Arecastrum romanzoffianum - Queen Palm.....	240.62	
32 93 43 00-1428	EA		4' To 5' Bauninia blakeana - Hong Kong Orchid.....	413.88	
32 93 43 00-1429	EA		6' Bauninia blakeana - Hong Kong Orchid.....	490.88	
32 93 43 00-1430	EA		8' Bauninia blakeana - Hong Kong Orchid.....	654.50	
32 93 43 00-1431	EA		10' Bauninia blakeana - Hong Kong Orchid.....	818.12	
32 93 43 00-1432	EA		6' Bauhinia purpurea - Purple Orchid Tree.....	519.75	
32 93 43 00-1433	EA		8' Bauhinia purpurea - Purple Orchid Tree.....	693.00	
32 93 43 00-1434	EA		10' Bauhinia purpurea - Purple Orchid Tree.....	866.25	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 43 00-1435	EA	24" Box Bauhinia purpurea - Purple Orchid Tree.....	225.22	
32 93 43 00-1436	EA	6' Bauhinia variegata candida - White Orchid Tree.....	577.50	
32 93 43 00-1437	EA	8' Bauhinia variegata candida - White Orchid Tree.....	770.00	
32 93 43 00-1438	EA	10' Bauhinia variegata candida - White Orchid Tree.....	962.50	
32 93 43 00-1439	EA	6' Callistemon citrinus - Crimson or Lemon Bottle Brush.....	314.50	
32 93 43 00-1440	EA	8' Callistemon citrinus - Crimson or Lemon Bottle Brush.....	419.33	
32 93 43 00-1441	EA	10' Callistemon citrinus - Crimson or Lemon Bottle Brush.....	524.16	
32 93 43 00-1442	EA	6' Callistemon viminalis - Weeping Bottle Brush.....	314.50	
32 93 43 00-1443	EA	8' Callistemon viminalis - Weeping Bottle Brush.....	419.33	
32 93 43 00-1444	EA	10' Callistemon viminalis - Weeping Bottle Brush.....	524.16	
32 93 43 00-1445	EA	12' Callistemon viminalis - Weeping Bottle Brush.....	628.99	
32 93 43 00-1446	EA	3' To 4' Chamaedorea radicalis - Dwarf Bamboo Palm.....	202.12	
32 93 43 00-1447	EA	5' To 6' Chamaedorea radicalis - Dwarf Bamboo Palm.....	317.62	
32 93 43 00-1448	EA	3' To 4' Chamaerops humilis - European Fan Palm.....	173.25	
32 93 43 00-1449	EA	5' To 6' Chamaerops humilis - European Fan Palm.....	231.00	
32 93 43 00-1450	EA	7' To 8' Chamaerops humilis - European Fan Palm.....	539.00	
32 93 43 00-1451	EA	9' To 10' Chamaerops humilis - European Fan Palm.....	924.00	
32 93 43 00-1452	EA	6' To 7' Cocos nucifera 'Jamaican Maypan' - Maypan Coconut.....	134.75	
32 93 43 00-1453	EA	8' To 10' Cocos nucifera 'Jamaican Maypan' - Maypan Coconut.....	269.50	
32 93 43 00-1454	EA	10' To 12' Cocos nucifera 'Jamaican Maypan' - Maypan Coconut.....	346.50	
32 93 43 00-1455	EA	12' To 14' Cocos nucifera 'Jamaican Maypan' - Maypan Coconut.....	481.25	
32 93 43 00-1456	EA	12' To 16' Cocos nucifera - Coconut Palm.....	405.93	
32 93 43 00-1457	EA	6' Eriobotrya deflexa - Bronze Loquat.....	519.75	
32 93 43 00-1458	EA	8' Eriobotrya deflexa - Bronze Loquat.....	693.00	
32 93 43 00-1459	EA	10' Eriobotrya deflexa - Bronze Loquat.....	866.25	
32 93 43 00-1460	EA	6' Eucalyptus erythrocorys - Red Cap Gum.....	519.75	
32 93 43 00-1461	EA	8' Eucalyptus erythrocorys - Red Cap Gum.....	693.00	
32 93 43 00-1462	EA	10' Eucalyptus erythrocorys - Red Cap Gum.....	866.25	
32 93 43 00-1463	EA	6' Eucalyptus gunnii - Cider Gum.....	519.75	
32 93 43 00-1464	EA	8' Eucalyptus gunnii - Cider Gum.....	693.00	
32 93 43 00-1465	EA	10' Eucalyptus gunnii - Cider Gum.....	866.25	
32 93 43 00-1466	EA	6' Eucalyptus leucoxylon - White Ironbark.....	519.75	
32 93 43 00-1467	EA	8' Eucalyptus leucoxylon - White Ironbark.....	693.00	
32 93 43 00-1468	EA	10' Eucalyptus leucoxylon - White Ironbark.....	866.25	
32 93 43 00-1469	EA	12' Eucalyptus leucoxylon - White Ironbark.....	1,039.50	
32 93 43 00-1470	EA	6' Eucalyptus polyanthemos - Silver Dollar Gum.....	519.75	
32 93 43 00-1471	EA	8' Eucalyptus polyanthemos - Silver Dollar Gum.....	693.00	
32 93 43 00-1472	EA	10' Eucalyptus polyanthemos - Silver Dollar Gum.....	866.25	
32 93 43 00-1473	EA	6' Eucalyptus torquata - Coral Gum.....	519.75	
32 93 43 00-1474	EA	8' Eucalyptus torquata - Coral Gum.....	693.00	
32 93 43 00-1475	EA	10' Eucalyptus torquata - Coral Gum.....	866.25	
32 93 43 00-1476	EA	8' Fraxinus oxycarpa "Raywood" - Raywood Ash.....	326.14	
32 93 43 00-1477	EA	10' Fraxinus oxycarpa "Raywood" - Raywood Ash.....	442.62	
32 93 43 00-1478	EA	12' Fraxinus oxycarpa "Raywood" - Raywood Ash.....	547.46	
32 93 43 00-1479	EA	6' Jacarandra acutifolia - Jacaranda.....	519.75	
32 93 43 00-1480	EA	8' Jacarandra acutifolia - Jacaranda.....	693.00	
32 93 43 00-1481	EA	10' Jacarandra acutifolia - Jacaranda.....	866.25	
32 93 43 00-1482	EA	24" Box Jacarandra acutifolia - Jacaranda.....	225.22	
32 93 43 00-1483	EA	6' Olea europaea - Olive "Fruitless".....	384.51	
32 93 43 00-1484	EA	8' Olea europaea - Olive "Fruitless".....	512.68	
32 93 43 00-1485	EA	10' Olea europaea - Olive "Fruitless".....	640.84	
32 93 43 00-1486	EA	12' Olea europaea - Olive "Fruitless".....	769.01	
32 93 43 00-1487	EA	24" Box Olea europaea - Olive "Fruitless".....	472.80	
32 93 43 00-1488	EA	5 Gallon Pistacia chinensis - Chinese Pistache.....	34.65	
32 93 43 00-1489	EA	15 Gallon Pistacia chinensis - Chinese Pistache.....	115.50	
32 93 43 00-1490	EA	24" Box Pistacia chinensis - Chinese Pistache.....	448.52	
32 93 43 00-1491	EA	36" Box Pistacia chinensis - Chinese Pistache.....	1,193.50	
32 93 43 00-1492	EA	48" Box Pistacia chinensis - Chinese Pistache.....	2,541.00	
32 93 43 00-1493	EA	5 Gallon Pyrus kawakamii - Evergreen Pear, Single.....	21.67	
32 93 43 00-1494	EA	15 Gallon Pyrus kawakamii - Evergreen Pear, Single.....	72.22	
32 93 43 00-1495	EA	24" Box Pyrus kawakamii - Evergreen Pear, Single.....	271.40	
32 93 43 00-1496	EA	30" Box Pyrus kawakamii - Evergreen Pear, Single.....	496.20	
32 93 43 00-1497	EA	36" Box Pyrus kawakamii - Evergreen Pear, Single.....	722.18	
32 93 43 00-1498	EA	5 Gallon Pyrus kawakamii - Evergreen Pear, Multi.....	21.67	
32 93 43 00-1499	EA	15 Gallon Pyrus kawakamii - Evergreen Pear, Multi.....	76.88	
32 93 43 00-1500	EA	24" Box Pyrus kawakamii - Evergreen Pear, Multi.....	279.55	
32 93 43 00-1501	EA	30" Box Pyrus kawakamii - Evergreen Pear, Multi.....	496.20	
32 93 43 00-1502	EA	36" Box Pyrus kawakamii - Evergreen Pear, Multi.....	722.18	
32 93 43 00-1503	EA	4' To 5' Rhaps excelsa - Lady Palm.....	365.75	
32 93 43 00-1504	EA	6' To 7' Rhaps excelsa - Lady Palm.....	519.75	
32 93 43 00-1505	EA	8' To 9' Roystonea regia - Royal Palm.....	294.52	
32 93 43 00-1506	EA	10' To 11' Roystonea regia - Royal Palm.....	359.98	
32 93 43 00-1507	EA	12' To 13' Roystonea regia - Royal Palm.....	425.42	
32 93 43 00-1508	EA	14' To 15' Roystonea regia - Royal Palm.....	490.88	
32 93 43 00-1509	EA	16' To 17' Roystonea regia - Royal Palm.....	556.32	
32 93 43 00-1510	EA	18' To 19' Roystonea regia - Royal Palm.....	621.78	
32 93 43 00-1511	EA	20' To 21' Roystonea regia - Royal Palm.....	687.22	
32 93 43 00-1512	EA	10' To 16' Sabal palmetto - Cabbage Palm.....	148.84	
32 93 43 00-1513	EA	6' To 7' Thrinax morrisii - Key Thatch Palm.....	404.25	
32 93 43 00-1514	EA	8' To 9' Thrinax morrisii - Key Thatch Palm.....	519.75	
32 93 43 00-1515	EA	10' To 11' Thrinax morrisii - Key Thatch Palm.....	635.25	



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
32 93 43 00-1516	EA 9' Ptychosperma elegans - Alexander Palm, Solitaire Palm	144.38		
32 93 43 00-1517	EA 11' Ptychosperma elegans - Alexander Palm, Solitaire Palm	240.62		
32 93 43 00-1518	EA 15' Ptychosperma elegans - Alexander Palm, Solitaire Palm	365.75		
32 93 43 00-1519	EA 17' Ptychosperma elegans - Alexander Palm, Solitaire Palm	413.88		
32 93 43 00-1520	EA 20' Ptychosperma elegans - Alexander Palm, Solitaire Palm	481.25		
32 93 43 00-1521	EA 1 Gallon Washingtonia robusta - Mexican Fan Palm	9.03		
32 93 43 00-1522	EA 5 Gallon Washingtonia robusta - Mexican Fan Palm	28.10		
32 93 43 00-1523	EA 15 Gallon Washingtonia robusta - Mexican Fan Palm	98.35		
32 93 43 00-1524	EA 24" Box Washingtonia robusta - Mexican Fan Palm	321.15		
32 93 43 00-1525	EA 36" Box Washingtonia robusta - Mexican Fan Palm	853.06		
32 93 43 00-1526	EA 6' Washingtonia robusta - Mexican Fan Palm	519.75		
32 93 43 00-1527	EA 8' Washingtonia robusta - Mexican Fan Palm	693.00		
32 93 43 00-1528	EA 10' Washingtonia robusta - Mexican Fan Palm	866.25		
32 93 43 00-1529	EA 12' Washingtonia robusta - Mexican Fan Palm	1,039.50		
32 93 43 00-1530	EA 5 Gallon Phoenix roebelenii - Pygmy Date Palm	23.05		
32 93 43 00-1531	EA 7 Gallon Phoenix roebelenii - Pygmy Date Palm	56.18		
32 93 43 00-1532	EA 15 Gallon Phoenix roebelenii - Pygmy Date Palm	85.00		
32 93 43 00-1533	EA 24" Box Phoenix roebelenii - Pygmy Date Palm	252.10		

32 93 63 Specialty Plants (32 93)

32 93 63 00-0001 Specialty Plants In Place (32 93 63)

Note: Includes plant and placement for trees.

32 93 63 00-0002	EA 5 Gallon Trees	174.06
32 93 63 00-0003	EA 7 Gallon Trees	210.30
32 93 63 00-0004	EA 15 Gallon Trees	421.06
32 93 63 00-0005	EA 24" Box Container Trees	743.31
32 93 63 00-0006	EA 36" Box Container Trees	2,287.14
32 93 63 00-0007	EA 48" Box Container Trees	4,732.37
32 93 63 00-0008	EA 60" Box Container Trees	7,790.20
32 93 63 00-0009	EA 72" Box Container Trees	13,004.94

32 93 83 Planting of Trees, Shrubs and Ground Cover (32 93)

Note: Includes moving plant(s) from truck or staging site to planting site, excavation of hole, placing plant in hole, backfill and compaction. Use appropriate gallon, height or caliper size to match with description from plant section.

32 93 83 00-0001 Planting Trees (32 93 83)

Note: Excludes mulch. See CSI section 32 91 13 16-0001 for mulch.

32 93 83 00-0002	EA 3" To 5" Bare Root Seedlings Tree Planting	1.51
32 93 83 00-0003	EA 6" To 10" Bare Root Seedlings Tree Planting	2.43
32 93 83 00-0004	EA 11" To 16" Bare Root Seedlings Tree Planting	3.04
32 93 83 00-0005	EA 17" To 24" Bare Root Seedlings Tree Planting	4.86
32 93 83 00-0006	EA 1 Gallon Container Tree Planting	24.31
	For >10 To 25, Deduct	-1.22
	For >25 To 50, Deduct	-3.04
	For >50 To 100, Deduct	-4.86
	For >100, Deduct	-7.29
32 93 83 00-0007	EA 2 Gallon Container Tree Planting	34.03
	For >10 To 25, Deduct	-1.70
	For >25 To 50, Deduct	-4.25
	For >50 To 100, Deduct	-6.81
	For >100, Deduct	-10.21
32 93 83 00-0008	EA 3 Gallon Container Tree Planting	43.75
	For >10 To 25, Deduct	-2.19
	For >25 To 50, Deduct	-5.47
	For >50 To 100, Deduct	-8.75
	For >100, Deduct	-13.13
32 93 83 00-0009	EA 5 Gallon Container Tree Planting	72.92
	For >10 To 25, Deduct	-3.65
	For >25 To 50, Deduct	-9.12
	For >50 To 100, Deduct	-14.58
	For >100, Deduct	-21.88
32 93 83 00-0010	EA 7 Gallon Container Tree Planting	97.21
	For >10 To 25, Deduct	-4.86
	For >25 To 50, Deduct	-12.15
	For >50 To 100, Deduct	-19.44
	For >100, Deduct	-29.16
32 93 83 00-0011	EA 10 Gallon Container Tree Planting	126.38
	For >10 To 25, Deduct	-6.32
	For >25 To 50, Deduct	-15.80
	For >50 To 100, Deduct	-25.28
	For >100, Deduct	-37.91
32 93 83 00-0012	EA 15 Gallon Container Tree Planting	179.85
	For >10 To 25, Deduct	-8.99
	For >25 To 50, Deduct	-22.48
	For >50 To 100, Deduct	-35.97
	For >100, Deduct	-53.96
32 93 83 00-0013	EA 20 Gallon Container Tree Planting	296.51
	For >10 To 25, Deduct	-14.83
	For >25 To 50, Deduct	-37.06
	For >50 To 100, Deduct	-59.30
	For >100, Deduct	-88.95

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 83 00-0014	EA	25 Gallon Container Tree Planting.....	384.00	
		For>10 To 25, Deduct	-19.20	
		For>25 To 50, Deduct	-48.00	
		For>50 To 100, Deduct	-76.80	
		For>100, Deduct	-115.20	
32 93 83 00-0015	EA	30 Gallon Container Tree Planting.....	461.77	
		For>10 To 25, Deduct	-23.09	
		For>25 To 50, Deduct	-57.72	
		For>50 To 100, Deduct	-92.35	
		For>100, Deduct	-138.53	
32 93 83 00-0016	EA	45 Gallon Container Tree Planting.....	573.57	
		For>10 To 25, Deduct	-28.68	
		For>25 To 50, Deduct	-71.70	
		For>50 To 100, Deduct	-114.71	
		For>100, Deduct	-172.07	
32 93 83 00-0017	EA	65 Gallon Container Tree Planting.....	680.51	
		For>10 To 25, Deduct	-34.03	
		For>25 To 50, Deduct	-85.06	
		For>50 To 100, Deduct	-136.10	
		For>100, Deduct	-204.15	
32 93 83 00-0018	EA	24" Box Container Tree Planting.....	126.38	
		For>10 To 25, Deduct	-6.32	
		For>25 To 50, Deduct	-15.80	
		For>50 To 100, Deduct	-25.28	
		For>100, Deduct	-37.91	
32 93 83 00-0019	EA	36" Box Container Tree Planting.....	384.00	
		For>10 To 25, Deduct	-19.20	
		For>25 To 50, Deduct	-48.00	
		For>50 To 100, Deduct	-76.80	
		For>100, Deduct	-115.20	
32 93 83 00-0020	EA	48" Box Container Tree Planting.....	680.51	
		For>10 To 25, Deduct	-34.03	
		For>25 To 50, Deduct	-85.06	
		For>50 To 100, Deduct	-136.10	
		For>100, Deduct	-204.15	
32 93 83 00-0021	EA	60" Box Container Tree Planting.....	806.89	
		For>10 To 25, Deduct	-40.34	
		For>25 To 50, Deduct	-100.86	
		For>50 To 100, Deduct	-161.38	
		For>100, Deduct	-242.07	
32 93 83 00-0022	EA	72" Box Container Tree Planting.....	972.16	
		For>10 To 25, Deduct	-48.61	
		For>25 To 50, Deduct	-121.52	
		For>50 To 100, Deduct	-194.43	
		For>100, Deduct	-291.65	
32 93 83 00-0023	EA	6' Balled And Burlapped Tree Planting.....	243.04	
		For>10 To 25, Deduct	-12.15	
		For>25 To 50, Deduct	-30.38	
		For>50 To 100, Deduct	-48.61	
		For>100, Deduct	-72.91	
32 93 83 00-0024	EA	7' Balled And Burlapped Tree Planting.....	323.73	
		For>10 To 25, Deduct	-16.19	
		For>25 To 50, Deduct	-40.47	
		For>50 To 100, Deduct	-64.75	
		For>100, Deduct	-97.12	
32 93 83 00-0025	EA	8' Balled And Burlapped Tree Planting.....	364.56	
		For>10 To 25, Deduct	-18.23	
		For>25 To 50, Deduct	-45.57	
		For>50 To 100, Deduct	-72.91	
		For>100, Deduct	-109.37	
32 93 83 00-0026	EA	10' Balled And Burlapped Tree Planting.....	425.32	
		For>10 To 25, Deduct	-21.27	
		For>25 To 50, Deduct	-53.17	
		For>50 To 100, Deduct	-85.06	
		For>100, Deduct	-127.60	
32 93 83 00-0027	EA	12' Balled And Burlapped Tree Planting.....	568.71	
		For>10 To 25, Deduct	-28.44	
		For>25 To 50, Deduct	-71.09	
		For>50 To 100, Deduct	-113.74	
		For>100, Deduct	-170.61	
32 93 83 00-0028	EA	14' Balled And Burlapped Tree Planting.....	651.35	
		For>10 To 25, Deduct	-32.57	
		For>25 To 50, Deduct	-81.42	
		For>50 To 100, Deduct	-130.27	
		For>100, Deduct	-195.41	
32 93 83 00-0029	EA	16' Balled And Burlapped Tree Planting.....	789.88	
		For>10 To 25, Deduct	-39.49	
		For>25 To 50, Deduct	-98.74	
		For>50 To 100, Deduct	-157.98	
		For>100, Deduct	-236.96	
32 93 83 00-0030	EA	18' Balled And Burlapped Tree Planting.....	947.85	
		For>10 To 25, Deduct	-47.39	
		For>25 To 50, Deduct	-118.48	
		For>50 To 100, Deduct	-189.57	
		For>100, Deduct	-284.36	



Exterior Improvements			32
Planting			32 90
Plants			32 93

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 83 00-0031	EA		20' Balled And Burlapped Tree Planting	1,093.68	
			For >10 To 25, Deduct	-54.68	
			For >25 To 50, Deduct	-136.71	
			For >50 To 100, Deduct	-218.74	
			For >100, Deduct	-328.10	
32 93 83 00-0032	EA		1-1/2" Caliper Balled And Burlapped Tree Planting	364.56	
			For >10 To 25, Deduct	-18.23	
			For >25 To 50, Deduct	-45.57	
			For >50 To 100, Deduct	-72.91	
			For >100, Deduct	-109.37	
32 93 83 00-0033	EA		2" Caliper Balled And Burlapped Tree Planting	425.32	
			For >10 To 25, Deduct	-21.27	
			For >25 To 50, Deduct	-53.17	
			For >50 To 100, Deduct	-85.06	
			For >100, Deduct	-127.60	
32 93 83 00-0034	EA		2-1/2" Caliper Balled And Burlapped Tree Planting	571.14	
			For >10 To 25, Deduct	-28.56	
			For >25 To 50, Deduct	-71.39	
			For >50 To 100, Deduct	-114.23	
			For >100, Deduct	-171.34	
32 93 83 00-0035	EA		3" Caliper Balled And Burlapped Tree Planting	656.20	
			For >10 To 25, Deduct	-32.81	
			For >25 To 50, Deduct	-82.03	
			For >50 To 100, Deduct	-131.24	
			For >100, Deduct	-196.86	
32 93 83 00-0036	EA		3-1/2" Caliper Balled And Burlapped Tree Planting	729.12	
			For >10 To 25, Deduct	-36.46	
			For >25 To 50, Deduct	-91.14	
			For >50 To 100, Deduct	-145.82	
			For >100, Deduct	-218.74	
32 93 83 00-0037	EA		4" Caliper Balled And Burlapped Tree Planting	836.05	
			For >10 To 25, Deduct	-41.80	
			For >25 To 50, Deduct	-104.51	
			For >50 To 100, Deduct	-167.21	
			For >100, Deduct	-250.82	
32 93 83 00-0038			Planting Shrubs (32 93 83)		
			Note: Excludes mulch. See CSI section 32 91 13 16-0001 for mulch.		
32 93 83 00-0039	EA		1 Gallon Container Shrub Planting	20.67	
			For >10 To 25, Deduct	-1.03	
			For >25 To 50, Deduct	-2.58	
			For >50 To 100, Deduct	-4.13	
			For >100, Deduct	-6.20	
32 93 83 00-0040	EA		2 Gallon Container Shrub Planting	29.16	
			For >10 To 25, Deduct	-1.46	
			For >25 To 50, Deduct	-3.65	
			For >50 To 100, Deduct	-5.83	
			For >100, Deduct	-8.75	
32 93 83 00-0041	EA		3 Gallon Container Shrub Planting	36.46	
			For >10 To 25, Deduct	-1.82	
			For >25 To 50, Deduct	-4.56	
			For >50 To 100, Deduct	-7.29	
			For >100, Deduct	-10.94	
32 93 83 00-0042	EA		4 Gallon Container Shrub Planting	48.61	
			For >10 To 25, Deduct	-2.43	
			For >25 To 50, Deduct	-6.08	
			For >50 To 100, Deduct	-9.72	
			For >100, Deduct	-14.58	
32 93 83 00-0043	EA		5 Gallon Container Shrub Planting	60.76	
			For >10 To 25, Deduct	-3.04	
			For >25 To 50, Deduct	-7.60	
			For >50 To 100, Deduct	-12.15	
			For >100, Deduct	-18.23	
32 93 83 00-0044	EA		7 Gallon Container Shrub Planting	82.64	
			For >10 To 25, Deduct	-4.13	
			For >25 To 50, Deduct	-10.33	
			For >50 To 100, Deduct	-16.53	
			For >100, Deduct	-24.79	
32 93 83 00-0045	EA		10 Gallon Container Shrub Planting	109.36	
			For >10 To 25, Deduct	-5.47	
			For >25 To 50, Deduct	-13.67	
			For >50 To 100, Deduct	-21.87	
			For >100, Deduct	-32.81	
32 93 83 00-0046	EA		15 Gallon Container Shrub Planting	150.69	
			For >10 To 25, Deduct	-7.53	
			For >25 To 50, Deduct	-18.84	
			For >50 To 100, Deduct	-30.14	
			For >100, Deduct	-45.21	
32 93 83 00-0047	EA		20 Gallon Container Shrub Planting	252.76	
			For >10 To 25, Deduct	-12.64	
			For >25 To 50, Deduct	-31.60	
			For >50 To 100, Deduct	-50.55	
			For >100, Deduct	-75.83	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 83 00-0048 EA 25 Gallon Container Shrub Planting	323.73	
For>10 To 25, Deduct	-16.19	
For>25 To 50, Deduct	-40.47	
For>50 To 100, Deduct	-64.75	
For>100, Deduct	-97.12	
32 93 83 00-0049 EA 15" Balled And Burlapped Shrub Planting	68.05	
For>10 To 25, Deduct	-3.40	
For>25 To 50, Deduct	-8.51	
For>50 To 100, Deduct	-13.61	
For>100, Deduct	-20.42	
32 93 83 00-0050 EA 18" Balled And Burlapped Shrub Planting	70.48	
For>10 To 25, Deduct	-3.52	
For>25 To 50, Deduct	-8.81	
For>50 To 100, Deduct	-14.10	
For>100, Deduct	-21.14	
32 93 83 00-0051 EA 24" Balled And Burlapped Shrub Planting	77.77	
For>10 To 25, Deduct	-3.89	
For>25 To 50, Deduct	-9.72	
For>50 To 100, Deduct	-15.55	
For>100, Deduct	-23.33	
32 93 83 00-0052 EA 30" Balled And Burlapped Shrub Planting	77.77	
For>10 To 25, Deduct	-3.89	
For>25 To 50, Deduct	-9.72	
For>50 To 100, Deduct	-15.55	
For>100, Deduct	-23.33	
32 93 83 00-0053 EA 36" Balled And Burlapped Shrub Planting	85.07	
For>10 To 25, Deduct	-4.25	
For>25 To 50, Deduct	-10.63	
For>50 To 100, Deduct	-17.01	
For>100, Deduct	-25.52	
32 93 83 00-0054 EA 42" Balled And Burlapped Shrub Planting	89.92	
For>10 To 25, Deduct	-4.50	
For>25 To 50, Deduct	-11.24	
For>50 To 100, Deduct	-17.98	
For>100, Deduct	-26.98	
32 93 83 00-0055 EA 48" Balled And Burlapped Shrub Planting	97.21	
For>10 To 25, Deduct	-4.86	
For>25 To 50, Deduct	-12.15	
For>50 To 100, Deduct	-19.44	
For>100, Deduct	-29.16	
32 93 83 00-0056 EA 5' Balled And Burlapped Shrub Planting	145.82	
For>10 To 25, Deduct	-7.29	
For>25 To 50, Deduct	-18.23	
For>50 To 100, Deduct	-29.16	
For>100, Deduct	-43.75	
32 93 83 00-0057 EA 6' Balled And Burlapped Shrub Planting	206.58	
For>10 To 25, Deduct	-10.33	
For>25 To 50, Deduct	-25.82	
For>50 To 100, Deduct	-41.32	
For>100, Deduct	-61.97	
32 93 83 00-0058 EA 7' Balled And Burlapped Shrub Planting	274.63	
For>10 To 25, Deduct	-13.73	
For>25 To 50, Deduct	-34.33	
For>50 To 100, Deduct	-54.93	
For>100, Deduct	-82.39	
32 93 83 00-0059 EA 8' Balled And Burlapped Shrub Planting	311.09	
For>10 To 25, Deduct	-15.55	
For>25 To 50, Deduct	-38.89	
For>50 To 100, Deduct	-62.22	
For>100, Deduct	-93.33	
32 93 83 00-0060 EA 9' Balled And Burlapped Shrub Planting	335.40	
For>10 To 25, Deduct	-16.77	
For>25 To 50, Deduct	-41.93	
For>50 To 100, Deduct	-67.08	
For>100, Deduct	-100.62	
32 93 83 00-0061 EA 10' Balled And Burlapped Shrub Planting	364.56	
For>10 To 25, Deduct	-18.23	
For>25 To 50, Deduct	-45.57	
For>50 To 100, Deduct	-72.91	
For>100, Deduct	-109.37	
32 93 83 00-0062 Planting Groundcover, Vines, Perennials, Annuals And Bulbs (32 93 83)		
See CSI section 32 91 13 16-0001 for mulch.		
32 93 83 00-0063 EA 2-1/4" Diameter Potted Groundcover And Flower Planting	2.03	
For>10 To 25, Deduct	-0.10	
For>25 To 50, Deduct	-0.25	
For>50 To 100, Deduct	-0.41	
For>100, Deduct	-0.61	
32 93 83 00-0064 EA 3" Diameter Potted Groundcover And Flower Planting	2.32	
For>10 To 25, Deduct	-0.12	
For>25 To 50, Deduct	-0.29	
For>50 To 100, Deduct	-0.46	
For>100, Deduct	-0.70	



Exterior Improvements		32	32
Planting		32 90	
Plants		32 93	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 93 83 00-0065 EA 4" Diameter Potted Groundcover And Flower Planting	2.70	
For >10 To 25, Deduct	-0.14	
For >25 To 50, Deduct	-0.34	
For >50 To 100, Deduct	-0.54	
For >100, Deduct	-0.81	
32 93 83 00-0066 EA 5-1/2" Diameter Potted Groundcover And Flower Planting	3.24	
For >10 To 25, Deduct	-0.16	
For >25 To 50, Deduct	-0.41	
For >50 To 100, Deduct	-0.65	
For >100, Deduct	-0.97	
32 93 83 00-0067 EA 6" Diameter Potted Groundcover And Flower Planting	4.05	
For >10 To 25, Deduct	-0.20	
For >25 To 50, Deduct	-0.51	
For >50 To 100, Deduct	-0.81	
For >100, Deduct	-1.22	
32 93 83 00-0068 EA 8" Diameter Potted Groundcover And Flower Planting	6.08	
For >10 To 25, Deduct	-0.30	
For >25 To 50, Deduct	-0.76	
For >50 To 100, Deduct	-1.22	
For >100, Deduct	-1.82	
32 93 83 00-0069 EA 1 Gallon Container Groundcover And Flower Planting	19.44	
For >10 To 25, Deduct	-0.97	
For >25 To 50, Deduct	-2.43	
For >50 To 100, Deduct	-3.89	
For >100, Deduct	-5.83	
32 93 83 00-0070 EA 2 Gallon Container Groundcover And Flower Planting	26.74	
For >10 To 25, Deduct	-1.34	
For >25 To 50, Deduct	-3.34	
For >50 To 100, Deduct	-5.35	
For >100, Deduct	-8.02	
32 93 83 00-0071 EA 3 Gallon Container Groundcover And Flower Planting	34.03	
For >10 To 25, Deduct	-1.70	
For >25 To 50, Deduct	-4.25	
For >50 To 100, Deduct	-6.81	
For >100, Deduct	-10.21	
32 93 83 00-0072 EA 4 Gallon Container Groundcover And Flower Planting	43.75	
For >10 To 25, Deduct	-2.19	
For >25 To 50, Deduct	-5.47	
For >50 To 100, Deduct	-8.75	
For >100, Deduct	-13.13	
32 93 83 00-0073 EA 5 Gallon Container Groundcover And Flower Planting	53.47	
For >10 To 25, Deduct	-2.67	
For >25 To 50, Deduct	-6.68	
For >50 To 100, Deduct	-10.69	
For >100, Deduct	-16.04	
32 93 83 00-0074 EA 7 Gallon Container Groundcover And Flower Planting	72.92	
For >10 To 25, Deduct	-3.65	
For >25 To 50, Deduct	-9.12	
For >50 To 100, Deduct	-14.58	
For >100, Deduct	-21.88	
32 93 83 00-0075 EA Bulb Planting.....	1.21	
For >10 To 25, Deduct	-0.06	
For >25 To 50, Deduct	-0.15	
For >50 To 100, Deduct	-0.24	
For >100, Deduct	-0.36	
32 93 83 00-0076 EA Flats Of 24 Groundcover And Flower Planting	34.03	
For >10 To 25, Deduct	-1.70	
For >25, Deduct	-4.25	
32 93 83 00-0077 EA Flats Of 36 Groundcover And Flower Planting	48.26	
For >10 To 25, Deduct	-2.41	
For >25, Deduct	-6.03	
32 93 83 00-0078 EA Flats Of 48 Groundcover And Flower Planting	64.25	
For >10 To 25, Deduct	-3.21	
For >25, Deduct	-8.03	
32 93 83 00-0079 Tree Pits (32 93 83)		
Note: Costs given show the tree pit size accommodates the soil ball and the type of soil excavated includes excavation, bank run sand and gravel fill for drainage, imported mix planting soil, hand backfill, perforated drainage pipe for watering, and drainage fabric. Includes one layer of woven fabric to be applied before mulch is spread. Excludes additional soil conditioners or mulch.		
32 93 83 00-0080 EA 2' x 1-1/4' Deep Tree Pit	119.45	
32 93 83 00-0081 EA 2' x 2-1/2' Deep Tree Pit	179.15	
32 93 83 00-0082 EA 2-1/2' x 1-1/2' Deep Tree Pit	232.34	
32 93 83 00-0083 EA 2-1/2' x 3' Deep Tree Pit	348.44	
32 93 83 00-0084 EA 3' x 1-3/4' Deep Tree Pit	356.91	
32 93 83 00-0085 EA 3' x 3-1/2' Deep Tree Pit	532.34	
32 93 83 00-0086 EA 3-1/2' x 1-3/4' Deep Tree Pit	436.32	
32 93 83 00-0087 EA 3-1/2' x 3-1/2' Deep Tree Pit	653.47	
32 93 83 00-0088 EA 4' x 2' Deep Tree Pit	521.11	
32 93 83 00-0089 EA 4' x 4' Deep Tree Pit	781.21	
32 93 83 00-0090 EA 4-1/2' x 2' Deep Tree Pit	748.40	
32 93 83 00-0091 EA 4-1/2' x 4' Deep Tree Pit	1,125.02	
32 93 83 00-0092 EA 5' x 2-1/4' Deep Tree Pit	995.51	
32 93 83 00-0093 EA 5' x 4-1/2' Deep Tree Pit	1,481.85	

32 Exterior Improvements**32 90 Planting****32 93 Plants**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 93 83 00-0094	EA	6' x 2-1/2' Deep Tree Pit	1,411.89	
32 93 83 00-0095	EA	6' x 5' Deep Tree Pit	2,114.40	
32 93 83 00-0096	EA	7' x 3' Deep Tree Pit	2,377.41	
32 93 83 00-0097	EA	7' x 6' Deep Tree Pit	3,586.89	
32 93 83 00-0098	EA	8' x 3-1/4' Deep Tree Pit	3,264.51	
32 93 83 00-0099	EA	8' x 6-1/2' Deep Tree Pit	4,894.49	

32 94 Planting Accessories (32 90)**32 94 13 Landscape Edging** (32 94)

Note: Including stakes.

32 94 13 00-0001 Landscape Edging (32 94 13)

Note: Includes stakes.

32 94 13 00-0002	LF	6" PolyVinyl Landscape Edging With Non-Round Top	6.10	1.24
		For >2,000 To 5,000 LF, Deduct	-0.36	
		For >5,000 LF, Deduct	-0.72	
32 94 13 00-0003	LF	5" Polyethylene Landscape Edging With Round Top	3.61	1.24
		For >2,000 To 5,000 LF, Deduct	-0.11	
		For >5,000 LF, Deduct	-0.23	
32 94 13 00-0004	LF	5-1/2" Polyethylene Landscape Edging With Round Top	3.68	1.24
		For >2,000 To 5,000 LF, Deduct	-0.12	
		For >5,000 LF, Deduct	-0.24	
32 94 13 00-0005	LF	5" Polyethylene Landscape Edging With Corrugated Sides And Round Top	3.71	1.24
		For >2,000 To 5,000 LF, Deduct	-0.12	
		For >5,000 LF, Deduct	-0.25	
32 94 13 00-0006	LF	1/8" x 4", Mill Finish, Aluminum Alloy Landscape Edging	10.49	2.94
		For >1,000 LF, Deduct	-1.15	
32 94 13 00-0007	LF	1/8" x 4", Black Paint, Aluminum Alloy Landscape Edging	11.44	2.94
		For >1,000 LF, Deduct	-1.39	
32 94 13 00-0008	LF	1/8" x 4", Black Anodized, Aluminum Alloy Landscape Edging	11.51	2.94
		For >1,000 LF, Deduct	-1.41	
32 94 13 00-0009	LF	3/16" x 4", Mill Finish, Aluminum Alloy Landscape Edging	13.18	3.04
		For >1,000 LF, Deduct	-1.79	
32 94 13 00-0010	LF	3/16" x 4", Black Paint, Aluminum Alloy Landscape Edging	14.35	3.04
		For >1,000 LF, Deduct	-2.08	
32 94 13 00-0011	LF	3/16" x 4", Black Anodized, Aluminum Alloy Landscape Edging	14.33	3.04
		For >1,000 LF, Deduct	-2.07	
32 94 13 00-0012	LF	1/8" x 5-1/2", Mill Finish, Aluminum Alloy Landscape Edging	11.76	3.14
		For >1,000 LF, Deduct	-1.39	
32 94 13 00-0013	LF	1/8" x 5-1/2", Black Paint, Aluminum Alloy Landscape Edging	13.07	3.14
		For >1,000 LF, Deduct	-1.72	
32 94 13 00-0014	LF	1/8" x 5-1/2", Black Anodized, Aluminum Alloy Landscape Edging	13.20	3.14
		For >1,000 LF, Deduct	-1.75	
32 94 13 00-0015	LF	3/16" x 5-1/2", Mill Finish, Aluminum Alloy Landscape Edging	14.84	3.24
		For >1,000 LF, Deduct	-2.12	
32 94 13 00-0016	LF	3/16" x 5-1/2", Black Paint, Aluminum Alloy Landscape Edging	16.14	3.24
		For >1,000 LF, Deduct	-2.44	
32 94 13 00-0017	LF	3/16" x 5-1/2", Black Anodized, Aluminum Alloy Landscape Edging	16.26	3.24
		For >1,000 LF, Deduct	-2.47	
32 94 13 00-0018	LF	1/8" x 4" Powder Coated Steel Landscape Edging	11.16	3.04
		For >1,000 LF, Deduct	-1.27	
32 94 13 00-0019	LF	3/16" x 4" Powder Coated Steel Landscape Edging	13.09	3.04
		For >1,000 LF, Deduct	-1.75	
32 94 13 00-0020	LF	1/4" x 5" Powder Coated Steel Landscape Edging	18.25	3.04
		For >1,000 LF, Deduct	-3.04	
32 94 13 00-0021	LF	1/2" x 4", Recycled Plastic Landscape Edging (Bend-A-Board)	8.41	2.94
		For >1,000 LF, Deduct	-0.63	
32 94 13 00-0022	LF	1" x 4", Recycled Plastic Landscape Edging (Bend-A-Board)	9.56	2.94
		For >1,000 LF, Deduct	-0.92	
32 94 13 00-0023	LF	1" x 6" Recycled Plastic Landscape Edging (Bend-A-Board)	10.56	2.94
		For >1,000 LF, Deduct	-1.17	
32 94 13 00-0024	LF	2" x 4", Recycled Plastic Landscape Edging (Bend-A-Board)	10.78	2.94
		For >1,000 LF, Deduct	-1.23	

32 94 13 00-0025 Concrete Band, Cast In Place (32 94 13)

Note: Includes delivered concrete, forms, rebar, chairs (where necessary), expansion joints, finish and curing.

32 94 13 00-0026	LF	6" x 4" Concrete Band	16.93	8.93
		Note: Excludes base course.		
		For Up To 20, Add	10.39	
		For >20 To 50, Add	5.90	
		For >50 To 100, Add	2.25	
		For >500 To 1,000, Deduct	-2.25	
		For >1,000, Deduct	-3.79	
32 94 13 00-0027	LF	6" x 6" Concrete Band	20.17	10.51
		Note: Excludes base course.		
		For Up To 20, Add	12.44	
		For >20 To 50, Add	7.06	
		For >50 To 100, Add	2.69	
		For >500 To 1,000, Deduct	-2.69	
		For >1,000, Deduct	-4.54	



Exterior Improvements		32
Planting		32 90
Planting Accessories		32 94

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 94 13 00-0028	LF	8" x 6" Concrete Band	Note: Excludes base course.	23.24	120.88
		For Up To 20, Add		14.37	
		For >20 To 50, Add		8.16	
		For >50 To 100, Add		3.11	
		For >500 To 1,000, Deduct		-3.11	
		For >1,000, Deduct		-5.24	
32 94 13 00-0029	LF	10" x 6" Concrete Band	Note: Excludes base course.	25.77	131.39
		For Up To 20, Add		15.93	
		For >20 To 50, Add		9.04	
		For >50 To 100, Add		3.44	
		For >500 To 1,000, Deduct		-3.44	
		For >1,000, Deduct		-5.81	
32 94 13 00-0030	LF	12" x 6" Concrete Band	Note: Excludes base course.	26.73	13.67
		For Up To 20, Add		16.38	
		For >20 To 50, Add		9.29	
		For >50 To 100, Add		3.54	
		For >500 To 1,000, Deduct		-3.54	
		For >1,000, Deduct		-5.98	
32 94 16 Landscape Timbers (32 94)					
32 94 16 00-0001	LF	1" x 4" Redwood Edging		5.31	1.75
32 94 16 00-0002	LF	2" x 4" Redwood Edging		7.28	2.62
32 94 16 00-0003	LF	3" x 4" Pressure Treated Landscape Timber	Note: 2 rounded edges and 2 straight edges.	5.79	2.62
32 94 16 00-0004	LF	3" x 5" Pressure Treated Landscape Timber	Note: 2 rounded edges and 2 straight edges.	7.57	3.39
32 94 16 00-0005	LF	4" x 6" Pressure Treated Hardwood		9.82	3.50
32 94 16 00-0006	LF	6" x 6" Pressure Treated Hardwood		12.75	4.37
32 94 16 00-0007	LF	6" x 8" Pressure Treated Hardwood		14.88	5.14
32 94 16 00-0008	LF	1" x 4" Pressure Treated Pine		3.98	1.75
32 94 16 00-0009	LF	2" x 4" Pressure Treated Pine		6.02	2.62
32 94 16 00-0010	LF	4" x 6" Pressure Treated Pine		9.34	3.39
32 94 16 00-0011	LF	6" x 6" Pressure Treated Pine		12.66	4.37
32 94 16 00-0012	LF	6" x 8" Pressure Treated Pine		15.44	5.14
32 94 16 00-0013	LF	6" x 8" Railroad Ties		14.98	4.79
32 94 16 00-0014	LF	7" x 9" Railroad Ties		18.01	6.02
32 94 43 Tree Grates (32 94)					
32 94 43 00-0001 Tree Grates With Frames (32 94 43)					
32 94 43 00-0002 Round Cast Iron Tree Grates With Frames (32 94 43 00-0001)					
32 94 43 00-0003	EA	32" Diameter, 100 To 150 LB Cast Iron Tree Gate With Frame		1,054.48	62.72
		For >3 To 9, Deduct		-69.68	
		For >9, Deduct		-144.00	
32 94 43 00-0004	EA	36" Diameter, 125 To 175 LB Cast Iron Tree Gate With Frame		1,223.38	62.72
		For >3 To 9, Deduct		-82.34	
		For >9, Deduct		-170.18	
32 94 43 00-0005	EA	42" Diameter, 150 To 200 LB Cast Iron Tree Gate With Frame		1,476.33	83.63
		For >3 To 9, Deduct		-98.18	
		For >9, Deduct		-202.91	
32 94 43 00-0006	EA	48" Diameter, 200 To 250 LB Cast Iron Tree Gate With Frame		1,843.96	83.63
		For >3 To 9, Deduct		-125.75	
		For >9, Deduct		-259.89	
32 94 43 00-0007	EA	54" Diameter, 300 To 350 LB Cast Iron Tree Gate With Frame		2,365.19	104.54
		For >3 To 9, Deduct		-161.71	
		For >9, Deduct		-334.20	
32 94 43 00-0008	EA	60" Diameter, Up To 350 LB Cast Iron Tree Gate With Frame		2,476.54	125.45
		For >3 To 9, Deduct		-166.92	
		For >9, Deduct		-344.98	
32 94 43 00-0009	EA	60" Diameter, >350 LB Cast Iron Tree Gate With Frame		2,732.40	125.45
		For >3 To 9, Deduct		-186.11	
		For >9, Deduct		-384.64	
32 94 43 00-0010	EA	72" Diameter, Up To 550 LB Cast Iron Tree Gate With Frame		3,634.31	177.72
		For >3 To 9, Deduct		-245.92	
		For >9, Deduct		-508.23	
32 94 43 00-0011	EA	72" Diameter, >500 To 550 LB Cast Iron Tree Gate With Frame		3,783.35	177.72
		For >3 To 9, Deduct		-257.09	
		For >9, Deduct		-531.33	
32 94 43 00-0012	EA	72" Diameter, >600 To 650 LB Cast Iron Tree Gate With Frame		3,907.55	177.72
		For >3 To 9, Deduct		-266.41	
		For >9, Deduct		-550.58	
32 94 43 00-0013	EA	72" Diameter, >650 To 700 LB Cast Iron Tree Gate With Frame		4,006.91	177.72
		For >3 To 9, Deduct		-273.86	
		For >9, Deduct		-565.98	
32 94 43 00-0014	EA	72" Diameter, >700 LB Cast Iron Tree Gate With Frame		4,081.43	177.72
		For >3 To 9, Deduct		-279.45	
		For >9, Deduct		-577.53	

32 Exterior Improvements**32 90 Planting****32 94 Planting Accessories**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 94 43 00-0015	EA		93" Diameter, 950 To 1,000 LB Cast Iron Tree Grate With Frame	4,472.05	209.08
			For >3 To 9, Deduct	-304.04	
			For >9, Deduct	-628.35	
32 94 43 00-0016 Square Cast Iron Tree Grates With Frames (32 94 43 00-0001)					
32 94 43 00-0017	EA		30" x 30", 75 To 125 LB Cast Iron Tree Grate With Frame	970.01	62.72
			For >3 To 9, Deduct	-63.34	
			For >9, Deduct	-130.91	
32 94 43 00-0018	EA		36" x 36", 100 To 150 LB Cast Iron Tree Grate With Frame	1,181.15	62.72
			For >3 To 9, Deduct	-79.18	
			For >9, Deduct	-163.63	
32 94 43 00-0019	EA		48" x 48", Up To 200 LB Cast Iron Tree Grate With Frame	1,749.16	104.54
			For >3 To 9, Deduct	-115.51	
			For >9, Deduct	-238.71	
32 94 43 00-0020	EA		48" x 48", >200 To 250 LB Cast Iron Tree Grate With Frame	2,072.08	104.54
			For >3 To 9, Deduct	-139.73	
			For >9, Deduct	-288.77	
32 94 43 00-0021	EA		48" x 48", >250 To 300 LB Cast Iron Tree Grate With Frame	2,370.16	104.54
			For >3 To 9, Deduct	-162.08	
			For >9, Deduct	-334.97	
32 94 43 00-0022	EA		48" x 48", >300 To 350 LB Cast Iron Tree Grate With Frame	2,643.40	104.54
			For >3 To 9, Deduct	-182.57	
			For >9, Deduct	-377.32	
32 94 43 00-0023	EA		48" x 48", >350 To 400 LB Cast Iron Tree Grate With Frame	2,891.80	104.54
			For >3 To 9, Deduct	-201.20	
			For >9, Deduct	-415.82	
32 94 43 00-0024	EA		48" x 48", >400 LB Cast Iron Tree Grate With Frame	3,115.36	104.54
			For >3 To 9, Deduct	-217.97	
			For >9, Deduct	-450.47	
32 94 43 00-0025	EA		60" x 60", Up To 400 LB Cast Iron Tree Grate With Frame	2,975.44	146.36
			For >3 To 9, Deduct	-201.20	
			For >9, Deduct	-415.82	
32 94 43 00-0026	EA		60" x 60", >400 To 450 LB Cast Iron Tree Grate With Frame	3,199.00	146.36
			For >3 To 9, Deduct	-217.97	
			For >9, Deduct	-450.47	
32 94 43 00-0027	EA		60" x 60", >450 To 500 LB Cast Iron Tree Grate With Frame	3,397.72	146.36
			For >3 To 9, Deduct	-232.88	
			For >9, Deduct	-481.28	
32 94 43 00-0028	EA		60" x 60", >500 To 550 LB Cast Iron Tree Grate With Frame	3,571.60	146.36
			For >3 To 9, Deduct	-245.92	
			For >9, Deduct	-508.23	
32 94 43 00-0029	EA		60" x 60", >550 To 600 LB Cast Iron Tree Grate With Frame	3,720.64	146.36
			For >3 To 9, Deduct	-257.09	
			For >9, Deduct	-531.33	
32 94 43 00-0030	EA		60" x 60", >600 LB Cast Iron Tree Grate With Frame	3,844.84	146.36
			For >3 To 9, Deduct	-266.41	
			For >9, Deduct	-550.58	
32 94 43 00-0031	EA		72" x 72", Up To 550 LB Cast Iron Tree Grate With Frame	3,634.31	177.72
			For >3 To 9, Deduct	-245.92	
			For >9, Deduct	-508.23	
32 94 43 00-0032	EA		72" x 72", >550 To 600 LB Cast Iron Tree Grate With Frame	3,783.35	177.72
			For >3 To 9, Deduct	-257.09	
			For >9, Deduct	-531.33	
32 94 43 00-0033	EA		72" x 72", >600 To 650 LB Cast Iron Tree Grate With Frame	3,907.55	177.72
			For >3 To 9, Deduct	-266.41	
			For >9, Deduct	-550.58	
32 94 43 00-0034	EA		72" x 72", >650 To 700 LB Cast Iron Tree Grate With Frame	4,006.91	177.72
			For >3 To 9, Deduct	-273.86	
			For >9, Deduct	-565.98	
32 94 43 00-0035	EA		72" x 72", >700 To 750 LB Cast Iron Tree Grate With Frame	4,081.43	177.72
			For >3 To 9, Deduct	-279.45	
			For >9, Deduct	-577.53	
32 94 43 00-0036	EA		72" x 72", >750 To 800 LB Cast Iron Tree Grate With Frame	4,131.11	177.72
			For >3 To 9, Deduct	-283.18	
			For >9, Deduct	-585.23	
32 94 43 00-0037	EA		72" x 72", >800 To 850 LB Cast Iron Tree Grate With Frame	4,155.95	177.72
			For >3 To 9, Deduct	-285.04	
			For >9, Deduct	-589.08	
32 94 43 00-0038	EA		72" x 72", >850 LB Cast Iron Tree Grate With Frame	4,180.79	177.72
			For >3 To 9, Deduct	-286.90	
			For >9, Deduct	-592.93	
32 94 43 00-0039 Rectangular Cast Iron Tree Grates With Frames (32 94 43 00-0001)					
32 94 43 00-0040	EA		36" x 48", 200 To 250 LB Cast Iron Tree Grate With Frame	1,843.96	83.63
			For >3 To 9, Deduct	-125.75	
			For >9, Deduct	-259.89	
32 94 43 00-0041	EA		36" x 60", 200 To 250 LB Cast Iron Tree Grate With Frame	1,881.22	83.63
			For >3 To 9, Deduct	-128.55	
			For >9, Deduct	-265.66	
32 94 43 00-0042	EA		36" x 72", 275 To 325 LB Cast Iron Tree Grate With Frame	2,298.12	104.54
			For >3 To 9, Deduct	-156.68	
			For >9, Deduct	-323.80	



Exterior Improvements			32
Planting			32 90
Planting Accessories			32 94

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
32 94 43 00-0043	EA		48" x 72", Up To 350 LB Cast Iron Tree Grate With Frame	2,712.95	104.54
			For >3 To 9, Deduct	-187.79	
			For >9, Deduct	-388.10	
32 94 43 00-0044	EA		48" x 72", >350 LB Cast Iron Tree Grate With Frame	2,891.80	104.54
			For >3 To 9, Deduct	-201.20	
			For >9, Deduct	-415.82	
32 94 43 00-0045	EA		60" x 84", 700 To 750 LB Cast Iron Tree Grate With Frame	3,857.87	177.72
			For >3 To 9, Deduct	-262.68	
			For >9, Deduct	-542.88	

32 94 46 Tree Grids (32 94)

32 94 46 00-0001	Tree Wells (32 94 46)				
32 94 46 00-0002	EA	Type 1, Case 1 Tree Well, 4'-1" x 4'-1" x 3" Permeable Concrete Cover	949.99	104.54	
		Note: Includes saw cutting, concrete removal, excavation, 3" permeable concrete tree well cover, premolded joint filler, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			
32 94 46 00-0003	EA	Type 1, Case 2 Tree Well, 2'-11" x 5'-6" x 3" Permeable Concrete Cover	924.10	83.63	
		Note: Includes saw cutting, concrete removal, excavation, 3" permeable concrete tree well cover, premolded joint filler, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			
32 94 46 00-0004	EA	Type 2, Case 1 Tree Well, 4'-1" x 4'-1" x 3" "Manhole" Brick Cover	1,138.92	104.54	
		Note: Includes saw cutting, concrete removal, excavation, manhole brick tree well cover, premolded joint filler, redwood header, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			
32 94 46 00-0005	EA	Type 2, Case 2 Tree Well, 2'-11" x 5'-6" x 3" "Manhole" Brick Cover	1,110.23	83.63	
		Note: Includes saw cutting, concrete removal, excavation, manhole brick tree well cover, premolded joint filler, redwood header, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			
32 94 46 00-0006	EA	Type 3, Case 1 Tree Well, 4'-1" x 4'-1" x 3" Hollow Concrete Block Cover	1,013.58	104.54	
		Note: Includes saw cutting, concrete removal, excavation, hollow concrete block tree well cover, premolded joint filler, redwood header, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			
32 94 46 00-0007	EA	Type 3, Tree Well, 3' x 18" Precast Permeable Concrete	204.84		
		Note: Includes saw cutting, concrete removal, and precast permeable concrete tree well cover. Excludes excavation, tree, soil, tree planting, and water.			
32 94 46 00-0008	EA	Type 3, Tree Well, 4' x 24" Precast Permeable Concrete	310.01		
		Note: Includes saw cutting, concrete removal, and precast permeable concrete tree well cover. Excludes excavation, tree, soil, tree planting, and water.			
32 94 46 00-0009	EA	Type 3, Tree Well, 3' x 3' Precast Permeable Concrete	382.44		
		Note: Includes saw cutting, concrete removal, and precast permeable concrete tree well cover. Excludes excavation, tree, soil, tree planting, and water.			
32 94 46 00-0010	EA	Type 3, Tree Well, 4' x 4' Precast Permeable Concrete	576.74		
		Note: Includes saw cutting, concrete removal, and precast permeable concrete tree well cover. Excludes excavation, tree, soil, tree planting, and water.			
32 94 46 00-0011	EA	Type 4 Tree Well, 5' x 5' Cast Iron Grate With Frame	4,167.35		
		Note: Includes saw cutting, concrete removal, excavation, cast iron grate with frame, drywell pipes and 3" layer of crushed rock. Excludes tree, soil, tree planting, and water.			

32 94 49 Plant and Tree Accessories (32 94)

32 94 49 00-0001	Tree Guying (32 94 49)				
32 94 49 00-0002	Tree Guying, Stakes (32 94 49 00-0001)				
		Note: Includes stakes, cross brace, double #12 gauge twisted wire and reinforced rubber hose tree wrap.			
32 94 49 00-0003	EA	Tree Guying Up To 2" Caliper, 2 Stakes, Guy Wire And Wrap	25.59		
32 94 49 00-0004	EA	Tree Guying 2" To 3" Caliper, 2 Stakes, Guy Wire And Wrap	46.25		
32 94 49 00-0005	EA	Tree Guying 3" To 4" Caliper, 3 Stakes, Guy Wire And Wrap	79.47		
32 94 49 00-0006	Tree Guying, Anchors (32 94 49 00-0001)				
		Note: Includes arrowhead anchor, cable, turnbuckles and wrap or reinforced rubber hose.			
32 94 49 00-0007	EA	Tree Guying Up To 3" Caliper, 3" Anchors And Polypropylene Flat Rope	106.34		
32 94 49 00-0008	EA	Tree Guying 3" To 6" Caliper, 4" Anchors And Polypropylene Flat Rope	143.32		
32 94 49 00-0009	EA	Tree Guying 6" To 8" Caliper, 6" Anchors And Polypropylene Flat Rope	182.87		
32 94 49 00-0010	EA	Tree Guying 8" And Up Caliper, 8" Anchors And Polypropylene Flat Rope	237.27		
32 94 49 00-0011	Tree Wrap (32 94 49)				
32 94 49 00-0012	EA	Tree Wrap, Up To 1" Caliper Applied Ground Level To First Branches Of Tree	7.36		
32 94 49 00-0013	EA	Tree Wrap, 1" To 2" Caliper Applied Ground Level To First Branches Of Tree	12.24		
32 94 49 00-0014	EA	Tree Wrap, >2" To 4" Caliper Applied Ground Level To First Branches Of Tree	24.27		
32 94 49 00-0015	EA	Tree Wrap, >4" To 6" Caliper Applied Ground Level To First Branches Of Tree	37.59		
32 94 49 00-0016	Tree Guards (32 94 49)				
32 94 49 00-0017	EA	3' Preformed Plastic Tree Guard	14.18		
32 94 49 00-0018	EA	2' Preformed Plastic Tree Guard	12.52		
32 94 49 00-0019	Stake Out Tree And Shrub Locations (32 94 49)				
		Note: When no design available.			
32 94 49 00-0020	EA	Stake Out Trees Or Shrubs	7.62		
32 94 49 00-0021	Root Barriers (32 94 49)				

32 Exterior Improvements**32 90 Planting****32 94 Planting Accessories**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

32 94 49 00-0022	EA	12" High x 24" Long, 0.080" Polypropylene, Root Barrier Panel With Self Locking Joiner.....	12.92	
32 94 49 00-0023	EA	18" High x 24" Long, 0.080" Polypropylene, Root Barrier Panel With Self Locking Joiner.....	18.31	
32 94 49 00-0024	EA	24" High x 24" Long, 0.080" Polypropylene, Root Barrier Panel With Self Locking Joiner.....	21.63	
32 94 49 00-0025	EA	36" High x 24" Long, 0.080" Polypropylene, Root Barrier Panel With Self Locking Joiner.....	40.54	
32 94 49 00-0026	EA	48" High x 24" Long, 0.080" Polypropylene, Root Barrier Panel With Self Locking Joiner.....	56.00	

32 94 49 00-0027**Silva Cells** (32 94 49)

Note: Excludes excavation, earthwork, crushed aggregate base, backfill, compaction, planting soil, tree and mulch. See CSI section 31 23 16 36-0001 for excavation, 31 23 16 36-0016 for backfill, 31 23 16 36-0020 for compaction, 32 11 16 16-0000 for crushed aggregate base, 32 91 13 16-0001 for mulch, 32 91 19 13-0010 for planting soil.

32 94 49 00-0028	EA	48" x 24" x 30.9" High Silva Cell 2 - 2x System (DeepRoot SC2-2X)	391.24	
		Note: Includes one SC2 base, one SC2 deck and six 2X posts.		
32 94 49 00-0029	EA	10" Long x 19/64" Diameter Galvanized Timber Spikes (DeepRoot SC Spike)	3.04	
32 94 49 00-0030	EA	25" Long Cable/Zip Ties (DeepRoot SC2-Cable ties)	0.93	
32 94 49 00-0031	SF	Bi/Uniaxial GeoGrid, Miragrid 2XT/ SG150 (DeepRoot SC2-GG 12-150).....	0.71	
32 94 49 00-0032	SF	Woven PP Geotextile Fabric (DeepRoot GT-570)	0.79	
32 94 49 00-0033	EA	Strong Back, Silva Cell 2 (DeepRoot SC2-SB)	112.80	
32 94 49 00-0034	LF	18" x 2' Universal Tree Root Guide (DeepRoot UB 18-2)	12.91	

32 96 Transplanting (32 90)

See CSI section 32 94 49 00-0001 for guying.

32 96 33 Shrub Transplanting (32 96)

Note: Includes digging up, moving on site, digging new hole and replanting.

32 96 33 00-0001**Moving Shrubs On Site, Relocate** (32 96 33)

Note: Includes digging up, moving on site, digging new hole and replanting. See CSI section 32 94 49 00-0001 for guying.

32 96 33 00-0002	EA	Up To 18" Root Ball, Move Shrubs On Site	83.00	
		For >25 To 50, Deduct	-8.30	
		For >50, Deduct	-12.45	
32 96 33 00-0003	EA	>18" To 24" Root Ball, Move Shrubs On Site.....	112.30	
		For >25 To 50, Deduct	-11.23	
		For >50, Deduct	-16.85	
32 96 33 00-0004	EA	>24" To 30" Root Ball, Move Shrubs On Site.....	190.41	
		For >25 To 50, Deduct	-19.04	
		For >50, Deduct	-28.56	
32 96 33 00-0005	EA	>30" To 36" Root Ball, Move Shrubs On Site.....	292.95	
		For >25 To 50, Deduct	-29.30	
		For >50, Deduct	-43.94	

32 96 43 Tree Transplanting (32 96)

Note: Includes digging up, moving on site, digging new hole and replanting.

32 96 43 00-0001**Moving Trees On Site, Relocate** (32 96 43)

Note: Includes digging up, moving on site, digging new hole and replanting. Excludes crane where necessary for trees over 20' tall. See CSI section 01 22 23 00-0968 for crane lifting equipment, 32 94 49 00-0001 for guying.

32 96 43 00-0002	EA	Up To 24" Root Ball, Move Trees On Site	312.33	
		For >5 To 10, Deduct	-15.62	
		For >10 To 20, Deduct	-31.23	
		For >20, Deduct	-46.85	
32 96 43 00-0003	EA	>24" To 30" Root Ball, Move Trees On Site.....	428.34	
		For >5 To 10, Deduct	-21.42	
		For >10 To 20, Deduct	-42.83	
		For >20, Deduct	-64.25	
32 96 43 00-0004	EA	>30" To 36" Root Ball, Move Trees On Site.....	694.06	
		For >5 To 10, Deduct	-34.70	
		For >10 To 20, Deduct	-69.41	
		For >20, Deduct	-104.11	
32 96 43 00-0005	EA	>36" To 48" Root Ball, Move Trees On Site.....	1,153.20	
		For >5 To 10, Deduct	-57.66	
		For >10 To 20, Deduct	-115.32	
		For >20, Deduct	-172.98	
32 96 43 00-0006	EA	>48" To 60" Root Ball, Move Trees On Site.....	1,873.95	
		For >5 To 10, Deduct	-93.70	
		For >10 To 20, Deduct	-187.40	
		For >20, Deduct	-281.09	
32 96 43 00-0007	EA	>60" To 72" Root Ball, Move Trees On Site.....	2,418.00	
		For >5 To 10, Deduct	-120.90	
		For >10 To 20, Deduct	-241.80	
		For >20, Deduct	-362.70	
32 96 43 00-0008	EA	>72" To 84" Root Ball, Move Trees On Site.....	3,123.25	
		For >5 To 10, Deduct	-156.16	
		For >10 To 20, Deduct	-312.33	
		For >20, Deduct	-468.49	
32 96 43 00-0009	EA	>84" To 96" Root Ball, Move Trees On Site.....	3,747.90	
		For >5 To 10, Deduct	-187.40	
		For >10 To 20, Deduct	-374.79	
		For >20, Deduct	-562.19	



Exterior Improvements		32
Planting		32 90
Transplanting		32 96

32

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
32 96 43 00-0010	EA >96" To 120" Root Ball, Move Trees On Site.....	4,258.98		
	For >5 To 10, Deduct	-212.95		
	For >10 To 20, Deduct	-425.90		
	For >20, Deduct	-638.85		

END OF SECTION 32

32	32	Exterior Improvements
	32 90	Planting
	32 96	Transplanting



MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST		UNIT COST

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	Utilities	33	
	Operation and Maintenance of Utilities	33 01	
	Operation and Maintenance of Water Utilities	33 01 10	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 Utilities

Note: Buried plastic pipe and conduit includes detectable tracer wire

33 01 Operation and Maintenance of Utilities ⁽³³⁾

33 01 10 Operation and Maintenance of Water Utilities ^(33 01)

33 01 10 54 Cleaning of Water Utility Piping ^(33 01 10)

See CSI section 33 01 30 41-0012 for cleaning of water lines.

33 01 10 58 Disinfection of Water Utility Piping Systems ^(33 01 10)

33 01 10 58-0001 Water Main Disinfection/Sterilization ^(33 01 10 58)

Note: Gas chlorination. Continuous or plug method.

33 01 10 58-0002	EA	Setting Up And Removing Equipment For Water Main Disinfection/Sterilization, Gas Chlorination Method	1,104.20	
33 01 10 58-0003	EA	Re-Set Up/Move Equipment For Water Main Disinfection/Sterilization, Gas Chlorination Method	552.10	
33 01 10 58-0004	LF	Up To 4" Diameter Pipe Water Main Disinfection/Sterilization	0.42	
		For >250 To 500, Deduct	-0.02	
		For >500 To 1,000, Deduct	-0.04	
		For >1,000 To 2,000, Deduct	-0.06	
		For >2,000 To 5,000, Deduct	-0.08	
		For >5,000, Deduct	-0.11	
33 01 10 58-0005	LF	6" Diameter Pipe Water Main Disinfection/Sterilization	0.63	
		For >250 To 500, Deduct	-0.03	
		For >500 To 1,000, Deduct	-0.06	
		For >1,000 To 2,000, Deduct	-0.09	
		For >2,000 To 5,000, Deduct	-0.13	
		For >5,000, Deduct	-0.16	
33 01 10 58-0006	LF	8" Diameter Pipe Water Main Disinfection/Sterilization	0.83	
		For >250 To 500, Deduct	-0.04	
		For >500 To 1,000, Deduct	-0.08	
		For >1,000 To 2,000, Deduct	-0.12	
		For >2,000 To 5,000, Deduct	-0.17	
		For >5,000, Deduct	-0.21	
33 01 10 58-0007	LF	10" Diameter Pipe Water Main Disinfection/Sterilization	0.97	
		For >250 To 500, Deduct	-0.05	
		For >500 To 1,000, Deduct	-0.10	
		For >1,000 To 2,000, Deduct	-0.15	
		For >2,000 To 5,000, Deduct	-0.19	
		For >5,000, Deduct	-0.24	
33 01 10 58-0008	LF	12" Diameter Pipe Water Main Disinfection/Sterilization	1.28	
		For >250 To 500, Deduct	-0.06	
		For >500 To 1,000, Deduct	-0.13	
		For >1,000 To 2,000, Deduct	-0.19	
		For >2,000 To 5,000, Deduct	-0.26	
		For >5,000, Deduct	-0.32	
33 01 10 58-0009	LF	>12" To 16" Diameter Pipe Water Main Disinfection/Sterilization	1.44	
		For >250 To 500, Deduct	-0.07	
		For >500 To 1,000, Deduct	-0.14	
		For >1,000 To 2,000, Deduct	-0.22	
		For >2,000 To 5,000, Deduct	-0.29	
		For >5,000, Deduct	-0.36	
33 01 10 58-0010	LF	>16" To 24" Diameter Pipe Water Main Disinfection/Sterilization	1.65	
		For >250 To 500, Deduct	-0.08	
		For >500 To 1,000, Deduct	-0.17	
		For >1,000 To 2,000, Deduct	-0.25	
		For >2,000 To 5,000, Deduct	-0.33	
		For >5,000, Deduct	-0.41	
33 01 10 58-0011	LF	>24" To 30" Diameter Pipe Water Main Disinfection/Sterilization	1.95	
		For >250 To 500, Deduct	-0.10	
		For >500 To 1,000, Deduct	-0.20	
		For >1,000 To 2,000, Deduct	-0.29	
		For >2,000 To 5,000, Deduct	-0.39	
		For >5,000, Deduct	-0.49	
33 01 10 58-0012	LF	>30" To 42" Diameter Pipe Water Main Disinfection/Sterilization	2.51	
		For >250 To 500, Deduct	-0.13	
		For >500 To 1,000, Deduct	-0.25	
		For >1,000 To 2,000, Deduct	-0.38	
		For >2,000 To 5,000, Deduct	-0.50	
		For >5,000, Deduct	-0.63	
33 01 10 58-0013	LF	>42" To 60" Diameter Pipe Water Main Disinfection/Sterilization	3.68	
		For >250 To 500, Deduct	-0.18	
		For >500 To 1,000, Deduct	-0.37	
		For >1,000 To 2,000, Deduct	-0.55	
		For >2,000 To 5,000, Deduct	-0.74	
		For >5,000, Deduct	-0.92	
33 01 10 58-0014	LF	>60" Diameter Pipe Water Main Disinfection/Sterilization	5.10	
		For >250 To 500, Deduct	-0.26	
		For >500 To 1,000, Deduct	-0.51	
		For >1,000 To 2,000, Deduct	-0.77	
		For >2,000 To 5,000, Deduct	-1.02	
		For >5,000, Deduct	-1.28	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 10 Operation and Maintenance of Water Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 10 71 Relining Water Utilities Pipelines (33 01 10)

See CSI section 33 01 30 71-0000 for relining water pipelines.

33 01 10 71-0001	Relining Underground Water Pipelines	(33 01 10 71)	
	Note: Excludes costs for CCTV inspection, pipe cleaning, pavement; temporary and permanent, emergency after hours response for homeowners backups.		
33 01 10 71-0002	Relining Underground Water Pipelines Set-Up And Reinsertion	(33 01 10 71-0001)	
33 01 10 71-0003	EA Initial Set Up And Final Equipment Removal For Relining Underground Water Pipelines		5,389.41
33 01 10 71-0004	EA Move And Reset Up At Different Access/Location		2,155.76
33 01 10 71-0005	Lining Pipe With Cement	(33 01 10 71-0001)	
33 01 10 71-0006	LF Up To 500', 4" Pipe, 1/8" Pipe Lining With Cement		62.10
	For 3/16" Thickness, Add		1.03
	For 1/4" Thickness, Add		2.06
33 01 10 71-0007	LF >500' To 1,000', 4" Pipe, 1/8" Pipe Lining With Cement		55.32
	For 3/16" Thickness, Add		1.03
	For 1/4" Thickness, Add		2.06
33 01 10 71-0008	LF >1,000' To 5,000', 4" Pipe, 1/8" Pipe Lining With Cement		46.24
	For 3/16" Thickness, Add		1.03
	For 1/4" Thickness, Add		2.06
33 01 10 71-0009	LF >5,000', 4" Pipe, 1/8" Pipe Lining With Cement		34.83
	For 3/16" Thickness, Add		1.03
	For 1/4" Thickness, Add		2.06
33 01 10 71-0010	LF Up To 500', 6" Pipe, 1/8" Pipe Lining With Cement		64.66
	For 3/16" Thickness, Add		1.54
	For 1/4" Thickness, Add		3.07
33 01 10 71-0011	LF >500' To 1,000', 6" Pipe, 1/8" Pipe Lining With Cement		57.62
	For 3/16" Thickness, Add		1.54
	For 1/4" Thickness, Add		3.07
33 01 10 71-0012	LF >1,000' To 5,000', 6" Pipe, 1/8" Pipe Lining With Cement		48.23
	For 3/16" Thickness, Add		1.54
	For 1/4" Thickness, Add		3.07
33 01 10 71-0013	LF >5,000', 6" Pipe, 1/8" Pipe Lining With Cement		36.67
	For 3/16" Thickness, Add		1.54
	For 1/4" Thickness, Add		3.07
33 01 10 71-0014	LF Up To 500', 8" Pipe, 1/8" Pipe Lining With Cement		67.14
	For 3/16" Thickness, Add		2.05
	For 1/4" Thickness, Add		4.09
33 01 10 71-0015	LF >500' To 1,000', 8" Pipe, 1/8" Pipe Lining With Cement		59.94
	For 3/16" Thickness, Add		2.05
	For 1/4" Thickness, Add		4.09
33 01 10 71-0016	LF >1,000' To 5,000', 8" Pipe, 1/8" Pipe Lining With Cement		50.23
	For 3/16" Thickness, Add		2.05
	For 1/4" Thickness, Add		4.09
33 01 10 71-0017	LF >5,000', 8" Pipe, 1/8" Pipe Lining With Cement		38.52
	For 3/16" Thickness, Add		2.05
	For 1/4" Thickness, Add		4.09
33 01 10 71-0018	LF Up To 500', 10" Pipe, 1/8" Pipe Lining With Cement		69.06
	For 3/16" Thickness, Add		2.57
	For 1/4" Thickness, Add		5.13
33 01 10 71-0019	LF >500' To 1,000', 10" Pipe, 1/8" Pipe Lining With Cement		61.75
	For 3/16" Thickness, Add		2.57
	For 1/4" Thickness, Add		5.13
33 01 10 71-0020	LF >1,000' To 5,000', 10" Pipe, 1/8" Pipe Lining With Cement		51.89
	For 3/16" Thickness, Add		2.57
	For 1/4" Thickness, Add		5.13
33 01 10 71-0021	LF >5,000', 10" Pipe, 1/8" Pipe Lining With Cement		40.38
	For 3/16" Thickness, Add		2.57
	For 1/4" Thickness, Add		5.13
33 01 10 71-0022	LF Up To 500', 12" Pipe, 1/8" Pipe Lining With Cement		74.70
	For 3/16" Thickness, Add		3.08
	For 1/4" Thickness, Add		6.15
33 01 10 71-0023	LF >500' To 1,000', 12" Pipe, 1/8" Pipe Lining With Cement		66.93
	For 3/16" Thickness, Add		3.08
	For 1/4" Thickness, Add		6.15
33 01 10 71-0024	LF >1,000' To 5,000', 12" Pipe, 1/8" Pipe Lining With Cement		56.44
	For 3/16" Thickness, Add		3.08
	For 1/4" Thickness, Add		6.15
33 01 10 71-0025	LF >5,000', 12" Pipe, 1/8" Pipe Lining With Cement		44.00
	For 3/16" Thickness, Add		3.08
	For 1/4" Thickness, Add		6.15
33 01 10 71-0026	LF Up To 500', >12" To 16" Pipe, 3/16" Pipe Lining With Cement		80.88
	For 1/4" Thickness, Add		3.42
	For 5/16" Thickness, Add		6.84
33 01 10 71-0027	LF >500' To 1,000', >12" To 16" Pipe, 3/16" Pipe Lining With Cement		72.82
	For 1/4" Thickness, Add		3.42
	For 5/16" Thickness, Add		6.84
33 01 10 71-0028	LF >1,000' To 5,000', >12" To 16" Pipe, 3/16" Pipe Lining With Cement		61.90
	For 1/4" Thickness, Add		3.42
	For 5/16" Thickness, Add		6.84
33 01 10 71-0029	LF >5,000', >12" To 16" Pipe, 3/16" Pipe Lining With Cement		49.97
	For 1/4" Thickness, Add		3.42
	For 5/16" Thickness, Add		6.84



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 10 71-0030	LF	Up To 500', >16" To 20" Pipe, 3/16" Pipe Lining With Cement.....	84.99	
		For 1/4" Thickness, Add	4.10	
		For 5/16" Thickness, Add	8.20	
33 01 10 71-0031	LF	>500' To 1,000', >16" To 20" Pipe, 3/16" Pipe Lining With Cement.....	76.68	
		For 1/4" Thickness, Add	4.10	
		For 5/16" Thickness, Add	8.20	
33 01 10 71-0032	LF	>1,000' To 5,000', >16" To 20" Pipe, 3/16" Pipe Lining With Cement.....	65.39	
		For 1/4" Thickness, Add	4.10	
		For 5/16" Thickness, Add	8.20	
33 01 10 71-0033	LF	>5,000', >16" To 20" Pipe, 3/16" Pipe Lining With Cement.....	54.09	
		For 1/4" Thickness, Add	4.10	
		For 5/16" Thickness, Add	8.20	
33 01 10 71-0034	LF	Up To 500', >20" To 22" Pipe, 3/16" Pipe Lining With Cement.....	90.06	
		For 1/4" Thickness, Add	4.79	
		For 5/16" Thickness, Add	9.57	
33 01 10 71-0035	LF	>500' To 1,000', >20" To 22" Pipe, 3/16" Pipe Lining With Cement.....	81.46	
		For 1/4" Thickness, Add	4.79	
		For 5/16" Thickness, Add	9.57	
33 01 10 71-0036	LF	>1,000' To 5,000', >20" To 22" Pipe, 3/16" Pipe Lining With Cement.....	69.63	
		For 1/4" Thickness, Add	4.79	
		For 5/16" Thickness, Add	9.57	
33 01 10 71-0037	LF	>5,000', >20" To 22" Pipe, 3/16" Pipe Lining With Cement.....	59.05	
		For 1/4" Thickness, Add	4.79	
		For 5/16" Thickness, Add	9.57	
33 01 10 71-0038	LF	Up To 500', 24" Pipe, 3/16" Pipe Lining With Cement.....	95.22	
		For 1/4" Thickness, Add	5.47	
		For 5/16" Thickness, Add	10.94	
33 01 10 71-0039	LF	>500' To 1,000', 24" Pipe, 3/16" Pipe Lining With Cement.....	86.27	
		For 1/4" Thickness, Add	5.47	
		For 5/16" Thickness, Add	10.94	
33 01 10 71-0040	LF	>1,000' To 5,000', 24" Pipe, 3/16" Pipe Lining With Cement.....	74.06	
		For 1/4" Thickness, Add	5.47	
		For 5/16" Thickness, Add	10.94	
33 01 10 71-0041	LF	>5,000', 24" Pipe, 3/16" Pipe Lining With Cement.....	64.21	
		For 1/4" Thickness, Add	5.47	
		For 5/16" Thickness, Add	10.94	
33 01 10 71-0042	LF	Up To 500', 30" Pipe, 3/16" Pipe Lining With Cement.....	102.33	
		For 1/4" Thickness, Add	6.84	
		For 5/16" Thickness, Add	13.67	
33 01 10 71-0043	LF	>500' To 1,000', 30" Pipe, 3/16" Pipe Lining With Cement.....	92.86	
		For 1/4" Thickness, Add	6.84	
		For 5/16" Thickness, Add	13.67	
33 01 10 71-0044	LF	>1,000' To 5,000', 30" Pipe, 3/16" Pipe Lining With Cement.....	79.92	
		For 1/4" Thickness, Add	6.84	
		For 5/16" Thickness, Add	13.67	
33 01 10 71-0045	LF	>5,000', 30" Pipe, 3/16" Pipe Lining With Cement.....	69.97	
		For 1/4" Thickness, Add	6.84	
		For 5/16" Thickness, Add	13.67	
33 01 10 71-0046	LF	Up To 500', 36" Pipe, 3/16" Pipe Lining With Cement.....	109.34	
		For 1/4" Thickness, Add	8.21	
		For 5/16" Thickness, Add	16.41	
33 01 10 71-0047	LF	500' To 1,000', 36" Pipe, 3/16" Pipe Lining With Cement.....	99.45	
		For 1/4" Thickness, Add	8.21	
		For 5/16" Thickness, Add	16.41	
33 01 10 71-0048	LF	>1,000' To 5,000', 36" Pipe, 3/16" Pipe Lining With Cement.....	85.80	
		For 1/4" Thickness, Add	8.21	
		For 5/16" Thickness, Add	16.41	
33 01 10 71-0049	LF	>5,000', 36" Pipe, 3/16" Pipe Lining With Cement.....	75.74	
		For 1/4" Thickness, Add	8.21	
		For 5/16" Thickness, Add	16.41	
33 01 10 71-0050	LF	Up To 500', 42" Pipe, 1/4" Pipe Lining With Cement.....	135.67	
		For 3/8" Thickness, Add	21.54	
		For 7/16" Thickness, Add	32.30	
33 01 10 71-0051	LF	>500' To 1,000', 42" Pipe, 1/4" Pipe Lining With Cement.....	124.90	
		For 3/8" Thickness, Add	21.54	
		For 7/16" Thickness, Add	32.30	
33 01 10 71-0052	LF	>1,000' To 5,000', 42" Pipe, 1/4" Pipe Lining With Cement.....	110.06	
		For 3/8" Thickness, Add	21.54	
		For 7/16" Thickness, Add	32.30	
33 01 10 71-0053	LF	>5,000', 42" Pipe, 1/4" Pipe Lining With Cement.....	99.69	
		For 3/8" Thickness, Add	21.54	
		For 7/16" Thickness, Add	32.30	
33 01 10 71-0054	LF	Up To 500', 48" Pipe, 1/4" Pipe Lining With Cement.....	149.60	
		For 3/8" Thickness, Add	24.61	
		For 7/16" Thickness, Add	36.92	
33 01 10 71-0055	LF	>500' To 1,000', 48" Pipe, 1/4" Pipe Lining With Cement.....	138.07	
		For 3/8" Thickness, Add	24.61	
		For 7/16" Thickness, Add	36.92	
33 01 10 71-0056	LF	>1,000' To 5,000', 48" Pipe, 1/4" Pipe Lining With Cement.....	122.11	
		For 3/8" Thickness, Add	24.61	
		For 7/16" Thickness, Add	36.92	
33 01 10 71-0057	LF	>5,000', 48" Pipe, 1/4" Pipe Lining With Cement.....	111.55	
		For 3/8" Thickness, Add	24.61	
		For 7/16" Thickness, Add	36.92	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 10 Operation and Maintenance of Water Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 10 71-0058 LF Up To 500', 54" Pipe, 1/4" Pipe Lining With Cement	157.61	
For 3/8" Thickness, Add	27.69	
For 7/16" Thickness, Add	41.53	
33 01 10 71-0059 LF >500' To 1,000', 54" Pipe, 1/4" Pipe Lining With Cement	145.85	
For 3/8" Thickness, Add	27.69	
For 7/16" Thickness, Add	41.53	
33 01 10 71-0060 LF >1,000' To 5,000', 54" Pipe, 1/4" Pipe Lining With Cement	129.51	
For 3/8" Thickness, Add	27.69	
For 7/16" Thickness, Add	41.53	
33 01 10 71-0061 LF >5,000', 54" Pipe, 1/4" Pipe Lining With Cement	119.35	
For 3/8" Thickness, Add	27.69	
For 7/16" Thickness, Add	41.53	
33 01 10 71-0062 LF Up To 500', 60" Pipe, 1/4" Pipe Lining With Cement	165.64	
For 3/8" Thickness, Add	30.77	
For 7/16" Thickness, Add	46.15	
33 01 10 71-0063 LF >500' To 1,000', 60" Pipe, 1/4" Pipe Lining With Cement	153.66	
For 3/8" Thickness, Add	30.77	
For 7/16" Thickness, Add	46.15	
33 01 10 71-0064 LF >1,000' To 5,000', 60" Pipe, 1/4" Pipe Lining With Cement	137.02	
For 3/8" Thickness, Add	30.77	
For 7/16" Thickness, Add	46.15	
33 01 10 71-0065 LF >5,000', 60" Pipe, 1/4" Pipe Lining With Cement	127.17	
For 3/8" Thickness, Add	30.77	
For 7/16" Thickness, Add	46.15	
33 01 10 71-0066 LF Up To 500', 66" Pipe, 1/4" Pipe Lining With Cement	173.97	
For 3/8" Thickness, Add	33.84	
For 7/16" Thickness, Add	50.76	
33 01 10 71-0067 LF >500' To 1,000', 66" Pipe, 1/4" Pipe Lining With Cement	161.73	
For 3/8" Thickness, Add	33.84	
For 7/16" Thickness, Add	50.76	
33 01 10 71-0068 LF >1,000' To 5,000', 66" Pipe, 1/4" Pipe Lining With Cement	144.83	
For 3/8" Thickness, Add	33.84	
For 7/16" Thickness, Add	50.76	
33 01 10 71-0069 LF >5,000', 66" Pipe, 1/4" Pipe Lining With Cement	135.70	
For 3/8" Thickness, Add	33.84	
For 7/16" Thickness, Add	50.76	
33 01 10 71-0070 LF Up To 500', 72" Pipe, 1/4" Pipe Lining With Cement	182.71	
For 3/8" Thickness, Add	36.92	
For 7/16" Thickness, Add	55.37	
33 01 10 71-0071 LF >500' To 1,000', 72" Pipe, 1/4" Pipe Lining With Cement	170.27	
For 3/8" Thickness, Add	36.92	
For 7/16" Thickness, Add	55.37	
33 01 10 71-0072 LF >1,000' To 5,000', 72" Pipe, 1/4" Pipe Lining With Cement	152.94	
For 3/8" Thickness, Add	36.92	
For 7/16" Thickness, Add	55.37	
33 01 10 71-0073 LF >5,000', 72" Pipe, 1/4" Pipe Lining With Cement	144.35	
For 3/8" Thickness, Add	36.92	
For 7/16" Thickness, Add	55.37	
33 01 10 71-0074 Lining Pipe With Epoxy (33 01 10 71-0001)		
33 01 10 71-0075 LF Up To 500', 4" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	58.52	
33 01 10 71-0076 LF >500' To 1,000', 4" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	52.28	
33 01 10 71-0077 LF >1,000' To 5,000', 4" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	43.90	
33 01 10 71-0078 LF >5,000', 4" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	39.73	
33 01 10 71-0079 LF Up To 500', 6" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	61.55	
33 01 10 71-0080 LF >500' To 1,000', 6" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	55.09	
33 01 10 71-0081 LF >1,000' To 5,000', 6" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	46.44	
33 01 10 71-0082 LF >5,000', 6" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	42.09	
33 01 10 71-0083 LF Up To 500', 8" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	64.52	
33 01 10 71-0084 LF >500' To 1,000', 8" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	57.91	
33 01 10 71-0085 LF >1,000' To 5,000', 8" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	48.96	
33 01 10 71-0086 LF >5,000', 8" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	44.56	
33 01 10 71-0087 LF Up To 500', 10" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	61.62	
33 01 10 71-0088 LF >500' To 1,000', 10" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	60.25	
33 01 10 71-0089 LF >1,000' To 5,000', 10" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	51.20	
33 01 10 71-0090 LF >5,000', 10" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	46.71	
33 01 10 71-0091 LF Up To 500', 12" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	72.86	
33 01 10 71-0092 LF >500' To 1,000', 12" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	65.71	
33 01 10 71-0093 LF >1,000' To 5,000', 12" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	56.06	
33 01 10 71-0094 LF >5,000', 12" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	51.19	
33 01 10 71-0095 LF Up To 500', >12" To 16" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	77.24	
33 01 10 71-0096 LF >500' To 1,000', >12" To 16" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	69.81	
33 01 10 71-0097 LF >1,000' To 5,000', >12" To 16" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	59.77	
33 01 10 71-0098 LF >5,000', >12" To 16" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	54.70	
33 01 10 71-0099 LF Up To 500', >16" To 20" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	81.55	
33 01 10 71-0100 LF >500' To 1,000', >16" To 20" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	73.92	
33 01 10 71-0101 LF 1,000' To 5,000', >16" To 20" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	63.54	
33 01 10 71-0102 LF >5,000', >16" To 20" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	58.29	
33 01 10 71-0103 LF Up To 500', >20" To 22" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	86.80	
33 01 10 71-0104 LF >500' To 1,000', >20" To 22" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	78.87	
33 01 10 71-0105 LF >1,000' To 5,000', >20" To 22" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	67.99	
33 01 10 71-0106 LF >5,000', >20" To 22" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	62.65	



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 10 71-0107	LF	Up To 500', 24" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	92.08	
33 01 10 71-0108	LF	>500' To 1,000', 24" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	93.85	
33 01 10 71-0109	LF	>1,000' To 5,000', 24" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	72.62	
33 01 10 71-0110	LF	>5,000', 24" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	67.00	
33 01 10 71-0111	LF	Up To 500', 30" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	99.76	
33 01 10 71-0112	LF	>500' To 1,000', 30" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	91.04	
33 01 10 71-0113	LF	>1,000' To 5,000', 30" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	79.16	
33 01 10 71-0114	LF	>5,000', 30" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	73.14	
33 01 10 71-0115	LF	Up To 500', 36" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	107.33	
33 01 10 71-0116	LF	>500' To 1,000', 36" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	98.23	
33 01 10 71-0117	LF	>1,000' To 5,000', 36" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	85.69	
33 01 10 71-0118	LF	>5,000', 36" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	79.44	
33 01 10 71-0119	LF	Up To 500', 42" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	119.48	
33 01 10 71-0120	LF	>500' To 1,000', 42" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	109.57	
33 01 10 71-0121	LF	>1,000' To 5,000', 42" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	95.93	
33 01 10 71-0122	LF	>5,000', 42" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	89.16	
33 01 10 71-0123	LF	Up To 500', 48" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	131.55	
33 01 10 71-0124	LF	>500' To 1,000', 48" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	120.95	
33 01 10 71-0125	LF	>1,000' To 5,000', 48" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	106.27	
33 01 10 71-0126	LF	>5,000', 48" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	99.02	
33 01 10 71-0127	LF	Up To 500', 54" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	138.15	
33 01 10 71-0128	LF	>500' To 1,000', 54" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	127.32	
33 01 10 71-0129	LF	>1,000' To 5,000', 54" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	112.30	
33 01 10 71-0130	LF	>5,000', 54" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	104.86	
33 01 10 71-0131	LF	Up To 500', 60" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	144.74	
33 01 10 71-0132	LF	>500' To 1,000', 60" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	133.73	
33 01 10 71-0133	LF	>1,000' To 5,000', 60" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	118.42	
33 01 10 71-0134	LF	>5,000', 60" Pipe, 1 mm (40 Mil) Epoxy Resin Lining	110.49	

33 01 10 71-0135		Water House Connection (33 01 10 71-0001)	
33 01 10 71-0136	EA	Blow Out Line To Water House Connection After Lining	55.21

33 01 30 Operation and Maintenance of Sewer Utilities (33 01)

33 01 30 11 Television Inspection Of Pipelines (33 01 30)

Note: Rotating head color camera. Includes all log records and color video tape, DVD or CD.

33 01 30 11-0001		Remote Visual Inspection (RVI) Of Pipe Interior And Culverts (33 01 30 11)	
33 01 30 11-0002		Video Camera Set-up (33 01 30 11-0001)	
33 01 30 11-0003	EA	Initial Set Up For "Push Camera" Video Camera Inspection, 1" To 12" Diameter Pipe Or Culvert	946.06
		Note: A "push camera" is a straight view camera at the end of a rigid push rod for 1" to 12" diameter pipes for distances up to 300 feet.	
33 01 30 11-0004	EA	Initial Set Up For "Crawler" Video Camera Inspection, 4" To 30" Diameter Pipe Or Culvert	1,892.11
		Note: Crawlers are generally remotely operated vehicles (ROVs) for longer distances (over 300') and for larger diameters (4" and larger).	
33 01 30 11-0005	EA	Initial Set Up For "Crawler" Video Camera Inspection, >30" Diameter Pipe Or Culvert	2,838.16
33 01 30 11-0006	EA	Re-Set Up/Move For "Push Camera" Video Camera Inspection, 1" To 12" Diameter Pipe Or Culvert	473.02
33 01 30 11-0007	EA	Re-Set Up/Move For "Crawler" Video Camera Inspection, 4" And Larger Diameter Pipe Or Culvert	946.06

33 01 30 11-0008 Video Camera Planning And Analysis Inspection (33 01 30 11-0001)

Note: For pipe interior and culverts.

33 01 30 11-0009	LF	4" To 6" Diameter Pipe Inspection, Planning/Analysis Phase	2.40
		Note: CCTV inspection of pipe interior.	
		For >500 To 1,000, Deduct	-0.24
		For >1,000 To 5,000, Deduct	-0.60
		For >5,000, Deduct	-0.84
		For Inspection Not Requiring Pre-cleaning, Deduct	-0.36
33 01 30 11-0010	LF	>6" To 12" Diameter Pipe Inspection, Planning/Analysis Phase	3.20
		Note: CCTV inspection of pipe interior.	
		For >500 To 1,000, Deduct	-0.32
		For >1,000 To 5,000, Deduct	-0.80
		For >5,000, Deduct	-1.12
		For Inspection Not Requiring Pre-cleaning, Deduct	-0.48
33 01 30 11-0011	LF	>12" To 21" Diameter Pipe Inspection, Planning/Analysis Phase	4.00
		Note: CCTV inspection of pipe interior.	
		For >500 To 1,000, Deduct	-0.40
		For >1,000 To 5,000, Deduct	-1.00
		For >5,000, Deduct	-1.40
		For Inspection Not Requiring Pre-cleaning, Deduct	-0.60
33 01 30 11-0012	LF	>21" To 30" Diameter Pipe Inspection, Planning/Analysis Phase	5.33
		Note: CCTV inspection of pipe interior.	
		For >500 To 1,000, Deduct	-0.53
		For >1,000 To 5,000, Deduct	-1.33
		For >5,000, Deduct	-1.87
		For Inspection Not Requiring Pre-cleaning, Deduct	-0.80

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 11-0013	LF	>30" To 42" Diameter Pipe Inspection, Planning/Analysis Phase.....	7.50	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.75	
		For >1,000 To 5,000, Deduct	-1.88	
		For >5,000, Deduct	-2.63	
		For Inspection Not Requiring Pre-cleaning, Deduct	-1.13	
33 01 30 11-0014	LF	>42" To 60" Diameter Pipe Inspection, Planning/Analysis Phase.....	9.99	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-1.00	
		For >1,000 To 5,000, Deduct	-2.50	
		For >5,000, Deduct	-3.50	
		For Inspection Not Requiring Pre-cleaning, Deduct	-1.50	
33 01 30 11-0015	LF	>60" To 72" Diameter Pipe Inspection, Planning/Analysis Phase.....	14.11	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-1.41	
		For >1,000 To 5,000, Deduct	-3.53	
		For >5,000, Deduct	-4.94	
		For Inspection Not Requiring Pre-cleaning, Deduct	-2.12	
33 01 30 11-0016	LF	>72" To 84" Diameter Pipe Inspection, Planning/Analysis Phase.....	19.99	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-2.00	
		For >1,000 To 5,000, Deduct	-5.00	
		For >5,000, Deduct	-7.00	
		For Inspection Not Requiring Pre-cleaning, Deduct	-3.00	
33 01 30 11-0017		Video Camera Pre-Rehab For Pipe Interior And Culverts (33 01 30 11-0001)		
33 01 30 11-0018	LF	4" To 6" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	3.55	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.36	
		For >1,000 To 5,000, Deduct	-0.89	
		For >5,000, Deduct	-1.24	
33 01 30 11-0019	LF	>6" To 12" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	4.73	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.47	
		For >1,000 To 5,000, Deduct	-1.18	
		For >5,000, Deduct	-1.66	
33 01 30 11-0020	LF	>12" To 21" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	5.92	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.59	
		For >1,000 To 5,000, Deduct	-1.48	
		For >5,000, Deduct	-2.07	
33 01 30 11-0021	LF	>21" To 30" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	7.88	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.79	
		For >1,000 To 5,000, Deduct	-1.97	
		For >5,000, Deduct	-2.76	
33 01 30 11-0022	LF	>30" To 42" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	11.08	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-1.11	
		For >1,000 To 5,000, Deduct	-2.77	
		For >5,000, Deduct	-3.88	
33 01 30 11-0023	LF	>42" To 60" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	14.78	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-1.48	
		For >1,000 To 5,000, Deduct	-3.70	
		For >5,000, Deduct	-5.17	
33 01 30 11-0024	LF	>60" To 72" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	20.87	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-2.09	
		For >1,000 To 5,000, Deduct	-5.22	
		For >5,000, Deduct	-7.30	
33 01 30 11-0025	LF	>72" To 84" Diameter Pipe Inspection, Pre-Rehabilitation Phase.....	29.56	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-2.96	
		For >1,000 To 5,000, Deduct	-7.39	
		For >5,000, Deduct	-10.35	
33 01 30 11-0026		Video Camera Post-Rehab For Pipe Interior And Culverts (33 01 30 11-0001)		
33 01 30 11-0027	LF	4" To 6" Diameter Pipe Inspection, Post-Rehabilitation Phase.....	2.54	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.25	
		For >1,000 To 5,000, Deduct	-0.64	
		For >5,000, Deduct	-0.89	
33 01 30 11-0028	LF	>6" To 12" Diameter Pipe Inspection, Post-Rehabilitation Phase.....	3.38	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.34	
		For >1,000 To 5,000, Deduct	-0.85	
		For >5,000, Deduct	-1.18	
33 01 30 11-0029	LF	>12" To 21" Diameter Pipe Inspection, Post-Rehabilitation Phase.....	4.22	
		Note: CCTV inspection of pipe interior.		
		For >500 To 1,000, Deduct	-0.42	
		For >1,000 To 5,000, Deduct	-1.06	
		For >5,000, Deduct	-1.48	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 11-0030	LF	>21" To 30" Diameter Pipe Inspection, Post-Rehabilitation Phase..... Note: CCTV inspection of pipe interior. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	5.63 -0.56 -1.41 -1.97	
33 01 30 11-0031	LF	>30" To 42" Diameter Pipe Inspection, Post-Rehabilitation Phase..... Note: CCTV inspection of pipe interior. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	7.92 -0.79 -1.98 -2.77	
33 01 30 11-0032	LF	>42" To 60" Diameter Pipe Inspection, Post-Rehabilitation Phase..... Note: CCTV inspection of pipe interior. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	10.56 -1.06 -2.64 -3.70	
33 01 30 11-0033	LF	>60" To 72" Diameter Pipe Inspection, Post-Rehabilitation Phase..... Note: CCTV inspection of pipe interior. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	4.90 -1.49 -3.73 -5.22	
33 01 30 11-0034	LF	>72" To 84" Diameter Pipe Inspection, Post-Rehabilitation Phase..... Note: CCTV inspection of pipe interior. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	21.12 -2.11 -5.28 -7.39	
33 01 30 23 Pipe Bursting (33 01 30)				
33 01 30 23-0001		Pipe Bursting (33 01 30 23) Note: The following section excludes costs for CCTV inspection, sewer cleaning, pavement both temporary and permanent, emergency after hours response for homeowners backups, bypass pumping, tree removal, service saddles, soil testing, and erosion control. See CSI section 31 13 13 00-0001 for tree removal.		
33 01 30 23-0002		Manhole Chipping (33 01 30 23-0001) Note: For use at manholes to open holes for pipe bursting head.		
33 01 30 23-0003	EA	6" To 15" Diameter, Manhole Chipping.....	399.20	
33 01 30 23-0004	EA	>15" To 24" Diameter, Manhole Chipping.....	468.66	
33 01 30 23-0005	EA	>24" To 36" Diameter, Manhole Chipping.....	585.80	
33 01 30 23-0006		Pipe Bursting (33 01 30 23-0001) Note: Includes equipment to burst or upsize existing clay, cast iron, concrete, PVC or ductile iron pipe; pipe bursting royalty fee. Excludes CCTV inspection, PE piping, excavation of pit, backfill, compaction, final grade, seed and sod restoration, recovery of bursting head disabled by obstruction, either undocumented or unrecognizable during CCTV inspection. See CSI section 33 01 30 23-0051 for PE piping.		
33 01 30 23-0007		Pipe Bursting Equipment Set-up (33 01 30 23-0006)		
33 01 30 23-0008	EA	Initial Set-up And Final Equipment Removal For Up To 12" Underground Pipelines For Pipe Bursting Equipment	6,939.66	
33 01 30 23-0009	EA	Initial Set-up And Final Equipment Removal For > 12" To 24" Underground Pipelines For Pipe Bursting Equipment	10,409.50	
33 01 30 23-0010	EA	Initial Set-up And Final Equipment Removal For > 24" To 36" Underground Pipelines For Pipe Bursting Equipment	17,349.16	
33 01 30 23-0011	EA	Move And Reset Up At Different Access/Location For Up To 12" Underground Pipelines For Pipe Bursting Equipment	2,602.37	
33 01 30 23-0012	EA	Move And Reset Up At Different Access/Location For > 12" To 24" Underground Pipelines For Pipe Bursting Equipment	3,903.56	
33 01 30 23-0013	EA	Move And Reset Up At Different Access/Location For > 2" To 36" Underground Pipelines For Pipe Bursting Equipment	6,505.93	
33 01 30 23-0014	EA	Set Up/Move Pipe Bursting Equipment For Laterals.....	1,734.92	
33 01 30 23-0015		Pneumatic Head Pipe Bursting (33 01 30 23-0006)		
33 01 30 23-0016	LF	4" Diameter, Pneumatic Head Pipe Bursting	25.46	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	1.97	
		For >150 To 200, Add	1.18	
		For >100 To 150, Add	2.37	
		For >75 To 100, Add	3.55	
		For >50 To 75, Add	4.73	
		For >25 To 50, Add	6.31	
		For Up To 25, Add	8.67	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	1.97	
		For Bursting Ductile Iron Pipe, Add	6.66	
33 01 30 23-0017	LF	6" Diameter, Pneumatic Head Pipe Bursting	29.25	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	2.45	
		For >150 To 200, Add	1.47	
		For >100 To 150, Add	2.93	
		For >75 To 100, Add	4.40	
		For >50 To 75, Add	5.87	
		For >25 To 50, Add	7.82	
		For Up To 25, Add	10.76	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	2.45	
		For Bursting Ductile Iron Pipe, Add	7.91	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0018 LF 8" Diameter, Pneumatic Head Pipe Bursting	32.80	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	2.89	
For >150 To 200, Add	1.73	
For >100 To 150, Add	3.47	
For >75 To 100, Add	5.20	
For >50 To 75, Add	6.93	
For >25 To 50, Add	9.24	
For Up To 25, Add	12.71	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	2.89	
For Bursting Ductile Iron Pipe, Add	9.08	
33 01 30 23-0019 LF 10" Diameter, Pneumatic Head Pipe Bursting	37.39	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	3.46	
For >150 To 200, Add	2.08	
For >100 To 150, Add	4.16	
For >75 To 100, Add	6.23	
For >50 To 75, Add	8.31	
For >25 To 50, Add	11.08	
For Up To 25, Add	15.24	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	3.46	
For Bursting Ductile Iron Pipe, Add	10.59	
33 01 30 23-0020 LF 12" Diameter, Pneumatic Head Pipe Bursting	42.67	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	4.12	
For >150 To 200, Add	2.47	
For >100 To 150, Add	4.95	
For >75 To 100, Add	7.42	
For >50 To 75, Add	9.89	
For >25 To 50, Add	13.19	
For Up To 25, Add	18.14	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	4.12	
For Bursting Ductile Iron Pipe, Add	12.34	
33 01 30 23-0021 LF 15" Diameter, Pneumatic Head Pipe Bursting	47.44	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	4.26	
For >150 To 200, Add	2.55	
For >100 To 150, Add	5.11	
For >75 To 100, Add	7.66	
For >50 To 75, Add	10.22	
For >25 To 50, Add	13.62	
For Up To 25, Add	18.73	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	4.26	
For Bursting Ductile Iron Pipe, Add	13.25	
33 01 30 23-0022 LF 18" Diameter, Pneumatic Head Pipe Bursting	52.74	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	4.92	
For >150 To 200, Add	2.95	
For >100 To 150, Add	5.90	
For >75 To 100, Add	8.85	
For >50 To 75, Add	11.81	
For >25 To 50, Add	15.74	
For Up To 25, Add	21.64	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	4.92	
For Bursting Ductile Iron Pipe, Add	14.99	
33 01 30 23-0023 LF 21"/22" Diameter, Pneumatic Head Pipe Bursting	66.92	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	5.85	
For >150 To 200, Add	3.51	
For >100 To 150, Add	7.02	
For >75 To 100, Add	10.53	
For >50 To 75, Add	14.05	
For >25 To 50, Add	18.73	
For Up To 25, Add	25.75	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	5.85	
For Bursting Ductile Iron Pipe, Add	18.47	
33 01 30 23-0024 LF 24" Diameter, Pneumatic Head Pipe Bursting	81.97	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	7.73	
For >150 To 200, Add	4.64	
For >100 To 150, Add	9.28	
For >75 To 100, Add	13.92	
For >50 To 75, Add	18.56	
For >25 To 50, Add	24.75	
For Up To 25, Add	34.03	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	7.73	
For Bursting Ductile Iron Pipe, Add	23.43	
33 01 30 23-0025 LF 30" Diameter, Pneumatic Head Pipe Bursting	90.96	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	8.02	
For >150 To 200, Add	4.81	
For >100 To 150, Add	9.63	
For >75 To 100, Add	14.44	
For >50 To 75, Add	19.25	
For >25 To 50, Add	25.67	
For Up To 25, Add	35.30	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	8.02	
For Bursting Ductile Iron Pipe, Add	25.20	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0026	LF	36" Diameter, Pneumatic Head Pipe Bursting	116.77	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	11.25	
		For >150 To 200, Add	6.75	
		For >100 To 150, Add	13.50	
		For >75 To 100, Add	20.25	
		For >50 To 75, Add	27.00	
		For >25 To 50, Add	36.00	
		For Up To 25, Add	49.49	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	11.25	
		For Bursting Ductile Iron Pipe, Add	33.71	
33 01 30 23-0027		Static Head Pipe Bursting (33 01 30 23-0006)		
33 01 30 23-0028	LF	4" Diameter, Static Head Pipe Bursting	33.13	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	2.93	
		For >150 To 200, Add	1.76	
		For >100 To 150, Add	3.52	
		For >75 To 100, Add	5.27	
		For >50 To 75, Add	7.03	
		For >25 To 50, Add	9.38	
		For Up To 25, Add	12.89	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	2.93	
		For Bursting Ductile Iron Pipe, Add	9.19	
33 01 30 23-0029	LF	6" Diameter, Static Head Pipe Bursting	36.95	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	3.41	
		For >150 To 200, Add	2.04	
		For >100 To 150, Add	4.09	
		For >75 To 100, Add	6.13	
		For >50 To 75, Add	8.18	
		For >25 To 50, Add	10.90	
		For Up To 25, Add	14.99	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	3.41	
		For Bursting Ductile Iron Pipe, Add	10.45	
33 01 30 23-0030	LF	8" Diameter, Static Head Pipe Bursting	41.36	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	3.96	
		For >150 To 200, Add	2.38	
		For >100 To 150, Add	4.75	
		For >75 To 100, Add	7.13	
		For >50 To 75, Add	9.50	
		For >25 To 50, Add	12.67	
		For Up To 25, Add	17.42	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	3.96	
		For Bursting Ductile Iron Pipe, Add	11.90	
33 01 30 23-0031	LF	10" Diameter, Static Head Pipe Bursting	47.09	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	4.68	
		For >150 To 200, Add	2.81	
		For >100 To 150, Add	5.61	
		For >75 To 100, Add	8.42	
		For >50 To 75, Add	11.22	
		For >25 To 50, Add	14.96	
		For Up To 25, Add	20.57	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	4.68	
		For Bursting Ductile Iron Pipe, Add	13.80	
33 01 30 23-0032	LF	12" Diameter, Static Head Pipe Bursting	53.70	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	5.50	
		For >150 To 200, Add	3.30	
		For >100 To 150, Add	6.60	
		For >75 To 100, Add	9.90	
		For >50 To 75, Add	13.20	
		For >25 To 50, Add	17.60	
		For Up To 25, Add	24.21	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	5.50	
		For Bursting Ductile Iron Pipe, Add	15.98	
33 01 30 23-0033	LF	15" Diameter, Static Head Pipe Bursting	61.81	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	6.05	
		For >150 To 200, Add	3.63	
		For >100 To 150, Add	7.26	
		For >75 To 100, Add	10.89	
		For >50 To 75, Add	14.53	
		For >25 To 50, Add	19.37	
		For Up To 25, Add	26.63	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	6.05	
		For Bursting Ductile Iron Pipe, Add	17.99	
33 01 30 23-0034	LF	18" Diameter, Static Head Pipe Bursting	68.18	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	6.85	
		For >150 To 200, Add	4.11	
		For >100 To 150, Add	8.22	
		For >75 To 100, Add	12.33	
		For >50 To 75, Add	16.44	
		For >25 To 50, Add	21.92	
		For Up To 25, Add	30.13	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	6.85	
		For Bursting Ductile Iron Pipe, Add	20.09	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0035 LF 21"/22" Diameter, Static Head Pipe Bursting	85.71	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	8.20	
For >150 To 200, Add	4.92	
For >100 To 150, Add	9.84	
For >75 To 100, Add	14.76	
For >50 To 75, Add	19.68	
For >25 To 50, Add	26.24	
For Up To 25, Add	36.09	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	8.20	
For Bursting Ductile Iron Pipe, Add	24.67	
33 01 30 23-0036 LF 24" Diameter, Static Head Pipe Bursting	110.18	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	11.26	
For >150 To 200, Add	6.76	
For >100 To 150, Add	13.51	
For >75 To 100, Add	20.27	
For >50 To 75, Add	27.02	
For >25 To 50, Add	36.03	
For Up To 25, Add	49.54	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	11.26	
For Bursting Ductile Iron Pipe, Add	32.74	
33 01 30 23-0037 LF 30" Diameter, Static Head Pipe Bursting	134.41	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	13.45	
For >150 To 200, Add	8.07	
For >100 To 150, Add	16.14	
For >75 To 100, Add	24.22	
For >50 To 75, Add	32.29	
For >25 To 50, Add	43.05	
For Up To 25, Add	59.20	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	13.45	
For Bursting Ductile Iron Pipe, Add	39.53	
33 01 30 23-0038 LF 36" Diameter, Static Head Pipe Bursting	161.72	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	16.87	
For >150 To 200, Add	10.12	
For >100 To 150, Add	20.24	
For >75 To 100, Add	30.36	
For >50 To 75, Add	40.48	
For >25 To 50, Add	53.98	
For Up To 25, Add	74.22	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	16.87	
For Bursting Ductile Iron Pipe, Add	48.55	
33 01 30 23-0039 Hydraulic Head Pipe Bursting (33 01 30 23-0006)		
33 01 30 23-0040 LF 4" Diameter, Hydraulic Head Pipe Bursting	28.97	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	2.41	
For >150 To 200, Add	1.45	
For >100 To 150, Add	2.89	
For >75 To 100, Add	4.34	
For >50 To 75, Add	5.78	
For >25 To 50, Add	7.71	
For Up To 25, Add	10.60	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	2.41	
For Bursting Ductile Iron Pipe, Add	7.82	
33 01 30 23-0041 LF 6" Diameter, Hydraulic Head Pipe Bursting	32.34	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	2.83	
For >150 To 200, Add	1.70	
For >100 To 150, Add	3.40	
For >75 To 100, Add	5.10	
For >50 To 75, Add	6.80	
For >25 To 50, Add	9.06	
For Up To 25, Add	12.46	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	2.83	
For Bursting Ductile Iron Pipe, Add	8.93	
33 01 30 23-0042 LF 8" Diameter, Hydraulic Head Pipe Bursting	36.23	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	3.32	
For >150 To 200, Add	1.99	
For >100 To 150, Add	3.98	
For >75 To 100, Add	5.97	
For >50 To 75, Add	7.96	
For >25 To 50, Add	10.62	
For Up To 25, Add	14.60	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	3.32	
For Bursting Ductile Iron Pipe, Add	10.21	
33 01 30 23-0043 LF 10" Diameter, Hydraulic Head Pipe Bursting	41.26	
For The Increase In Pipe Diameter By 1 Pipe Size, Add	3.95	
For >150 To 200, Add	2.37	
For >100 To 150, Add	4.74	
For >75 To 100, Add	7.10	
For >50 To 75, Add	9.47	
For >25 To 50, Add	12.63	
For Up To 25, Add	17.36	
For Bursting Polyvinyl Chloride (PVC) Pipe, Add	3.95	
For Bursting Ductile Iron Pipe, Add	11.87	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0044	LF	12" Diameter, Hydraulic Head Pipe Bursting	47.09	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	4.68	
		For >150 To 200, Add	2.61	
		For >100 To 150, Add	5.61	
		For >75 To 100, Add	8.42	
		For >50 To 75, Add	11.22	
		For >25 To 50, Add	14.96	
		For Up To 25, Add	20.67	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	4.68	
		For Bursting Ductile Iron Pipe, Add	13.80	
33 01 30 23-0045	LF	15" Diameter, Hydraulic Head Pipe Bursting	54.07	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	5.09	
		For >150 To 200, Add	3.05	
		For >100 To 150, Add	6.10	
		For >75 To 100, Add	9.15	
		For >50 To 75, Add	12.20	
		For >25 To 50, Add	16.27	
		For Up To 25, Add	22.37	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	5.09	
		For Bursting Ductile Iron Pipe, Add	15.43	
33 01 30 23-0046	LF	18" Diameter, Hydraulic Head Pipe Bursting	60.33	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	5.87	
		For >150 To 200, Add	3.52	
		For >100 To 150, Add	7.04	
		For >75 To 100, Add	10.56	
		For >50 To 75, Add	14.08	
		For >25 To 50, Add	18.78	
		For Up To 25, Add	25.82	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	5.87	
		For Bursting Ductile Iron Pipe, Add	17.50	
33 01 30 23-0047	LF	21"/22" Diameter, Hydraulic Head Pipe Bursting	76.32	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	7.03	
		For >150 To 200, Add	4.22	
		For >100 To 150, Add	8.43	
		For >75 To 100, Add	12.65	
		For >50 To 75, Add	16.87	
		For >25 To 50, Add	22.49	
		For Up To 25, Add	30.92	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	7.03	
		For Bursting Ductile Iron Pipe, Add	21.57	
33 01 30 23-0048	LF	24" Diameter, Hydraulic Head Pipe Bursting	98.80	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	9.84	
		For >150 To 200, Add	5.90	
		For >100 To 150, Add	11.81	
		For >75 To 100, Add	17.71	
		For >50 To 75, Add	23.61	
		For >25 To 50, Add	31.48	
		For Up To 25, Add	43.29	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	9.84	
		For Bursting Ductile Iron Pipe, Add	28.99	
33 01 30 23-0049	LF	30" Diameter, Hydraulic Head Pipe Bursting	121.66	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	11.86	
		For >150 To 200, Add	7.12	
		For >100 To 150, Add	14.23	
		For >75 To 100, Add	21.35	
		For >50 To 75, Add	28.46	
		For >25 To 50, Add	37.95	
		For Up To 25, Add	52.18	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	11.86	
		For Bursting Ductile Iron Pipe, Add	35.33	
33 01 30 23-0050	LF	36" Diameter, Hydraulic Head Pipe Bursting	147.63	
		For The Increase In Pipe Diameter By 1 Pipe Size, Add	15.11	
		For >150 To 200, Add	9.06	
		For >100 To 150, Add	18.13	
		For >75 To 100, Add	27.19	
		For >50 To 75, Add	36.26	
		For >25 To 50, Add	48.34	
		For Up To 25, Add	66.47	
		For Bursting Polyvinyl Chloride (PVC) Pipe, Add	15.11	
		For Bursting Ductile Iron Pipe, Add	43.90	
33 01 30 23-0051		Pipe Lining (33 01 30 23-0001)		
33 01 30 23-0052		Pipe Fusion For High Density Polyethylene (HDPE) Pipe Lining (33 01 30 23-0051)		
		Note: Per each joint.		
33 01 30 23-0053	EA	4" To 15", Pipe Fusion For High Density Polyethylene (HDPE) Pipe Lining	128.50	
33 01 30 23-0054	EA	>15" To 24", Pipe Fusion For High Density Polyethylene (HDPE) Pipe Lining	147.44	
33 01 30 23-0055	EA	>24" To 36", Pipe Fusion For High Density Polyethylene (HDPE) Pipe Lining	175.84	
33 01 30 23-0056		High Density Polyethylene (HDPE) Pipe Lining, DR 17 (33 01 30 23-0051)		
		Note: Material to be installed behind bursting head. Excludes pipe joint fusion. See CSI section 33 01 30 23-0052 for pipe joint fusion.		

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0057 LF 4" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	5.22	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-0.65	
For DR 11 Polyethylene Pipe, 160 PSI, Add	1.77	
For White Interior Pipe, Add	1.19	
For Gray Interior Pipe, Add	0.90	
33 01 30 23-0058 LF 5" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	7.13	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-0.99	
For DR 11 Polyethylene Pipe, 160 PSI, Add	2.68	
For White Interior Pipe, Add	1.81	
For Gray Interior Pipe, Add	1.37	
33 01 30 23-0059 LF 6" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	9.50	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-1.41	
For DR 11 Polyethylene Pipe, 160 PSI, Add	3.82	
For White Interior Pipe, Add	2.58	
For Gray Interior Pipe, Add	1.95	
33 01 30 23-0060 LF 7.125" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	10.77	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-1.63	
For DR 11 Polyethylene Pipe, 160 PSI, Add	4.42	
For White Interior Pipe, Add	2.98	
For Gray Interior Pipe, Add	2.26	
33 01 30 23-0061 LF 8" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	14.98	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-2.38	
For DR 11 Polyethylene Pipe, 160 PSI, Add	6.45	
For White Interior Pipe, Add	4.36	
For Gray Interior Pipe, Add	3.30	
33 01 30 23-0062 LF 10" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	22.34	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-3.69	
For DR 11 Polyethylene Pipe, 160 PSI, Add	10.03	
For White Interior Pipe, Add	6.77	
For Gray Interior Pipe, Add	5.13	
33 01 30 23-0063 LF 12" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	30.73	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-5.19	
For DR 11 Polyethylene Pipe, 160 PSI, Add	14.11	
For White Interior Pipe, Add	9.52	
For Gray Interior Pipe, Add	7.21	
33 01 30 23-0064 LF 13.375" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	33.68	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-5.72	
For DR 11 Polyethylene Pipe, 160 PSI, Add	15.53	
For White Interior Pipe, Add	10.48	
For Gray Interior Pipe, Add	7.94	
33 01 30 23-0065 LF 14" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	36.78	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-6.26	
For DR 11 Polyethylene Pipe, 160 PSI, Add	17.02	
For White Interior Pipe, Add	11.48	
For Gray Interior Pipe, Add	8.70	
33 01 30 23-0066 LF 16" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	47.55	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-8.18	
For DR 11 Polyethylene Pipe, 160 PSI, Add	22.22	
For White Interior Pipe, Add	15.00	
For Gray Interior Pipe, Add	11.36	
33 01 30 23-0067 LF 18" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	59.80	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-10.36	
For DR 11 Polyethylene Pipe, 160 PSI, Add	28.14	
For White Interior Pipe, Add	18.99	
For Gray Interior Pipe, Add	14.39	
33 01 30 23-0068 LF 20" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	73.44	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-12.78	
For DR 11 Polyethylene Pipe, 160 PSI, Add	34.73	
For White Interior Pipe, Add	23.44	
For Gray Interior Pipe, Add	17.76	
33 01 30 23-0069 LF 22" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	88.53	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-15.47	
For DR 11 Polyethylene Pipe, 160 PSI, Add	42.02	
For White Interior Pipe, Add	28.36	
For Gray Interior Pipe, Add	21.48	
33 01 30 23-0070 LF 24" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	105.12	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-18.41	
For DR 11 Polyethylene Pipe, 160 PSI, Add	50.02	
For White Interior Pipe, Add	33.76	
For Gray Interior Pipe, Add	25.58	
33 01 30 23-0071 LF 26" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	123.05	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-21.60	
For DR 11 Polyethylene Pipe, 160 PSI, Add	58.67	
For White Interior Pipe, Add	39.59	
For Gray Interior Pipe, Add	30.00	
33 01 30 23-0072 LF 28" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	142.56	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-25.05	
For DR 11 Polyethylene Pipe, 160 PSI, Add	68.06	
For White Interior Pipe, Add	45.93	
For Gray Interior Pipe, Add	34.80	
33 01 30 23-0073 LF 30" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	163.55	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-28.76	
For DR 11 Polyethylene Pipe, 160 PSI, Add	78.14	
For White Interior Pipe, Add	52.73	
For Gray Interior Pipe, Add	39.95	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 23-0074 LF 32" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	185.98	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-32.72	
For DR 11 Polyethylene Pipe, 160 PSI, Add	88.88	
For White Interior Pipe, Add	59.98	
For Gray Interior Pipe, Add	45.44	
33 01 30 23-0075 LF 34" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	229.11	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-40.37	
For DR 11 Polyethylene Pipe, 160 PSI, Add	109.67	
For White Interior Pipe, Add	74.01	
For Gray Interior Pipe, Add	56.07	
33 01 30 23-0076 LF 36" DR 17 Polyethylene Pipe, 100 PSI, For Use In Pipe Lining.....	235.69	
For DR 21 Polyethylene Pipe, 80 PSI, Deduct	-41.41	
For DR 11 Polyethylene Pipe, 160 PSI, Add	112.50	
For White Interior Pipe, Add	75.92	
For Gray Interior Pipe, Add	57.52	
33 01 30 23-0077 Re-Connection Of Non-Renewed Laterals (33 01 30 23-0001)		
Note: Excludes earthwork excavation and backfill		
33 01 30 23-0078 Re-Connection Of Laterals; Insert-A-Tee (33 01 30 23-0077)		
Note: Includes cutting hole in pipe and excavation vacuum truck for exterior pipe lateral reconnection. Excludes asphalt removal, asphalt replacement pavement both temporary and permanent, hauling, and back-fill material. See CSI section 01 74 19 00-0048 for hauling, 31 05 16 00-0001 for back-fill material.		
33 01 30 23-0079 EA Re-Connection Of Non-Renewed Lateral, 6 To 8" Main With 4" Inserta-Tee	1,235.01	
For No Excavation, Deduct	-792.61	
33 01 30 23-0080 EA Re-Connection Of Non-Renewed Lateral, 8" Main With 6" Inserta-Tee.....	1,385.88	
For No Excavation, Deduct	-891.69	
33 01 30 23-0081 EA Re-Connection Of Non-Renewed Lateral, 10" To 18" Main With 4" Inserta-Tee	1,462.88	
For No Excavation, Deduct	-941.23	
33 01 30 23-0082 EA Re-Connection Of Non-Renewed Lateral, 10" To 18" Main With 6" Inserta-Tee	1,539.87	
For No Excavation, Deduct	-990.77	
33 01 30 23-0083 EA Re-Connection Of Non-Renewed Lateral, 10" To 18" Main With 8" Inserta-Tee	1,676.00	
For No Excavation, Deduct	-1,040.31	
33 01 30 23-0084 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 4" Inserta-Tee	1,561.66	
For No Excavation, Deduct	-990.77	
33 01 30 23-0085 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 6" Inserta-Tee	1,641.77	
For No Excavation, Deduct	-1,040.31	
33 01 30 23-0086 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 8" Inserta-Tee	1,765.44	
For No Excavation, Deduct	-1,089.84	
33 01 30 23-0087 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 10" Inserta-Tee	2,100.75	
For No Excavation, Deduct	-1,139.38	
33 01 30 23-0088 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 12" Inserta-Tee	2,215.10	
For No Excavation, Deduct	-1,188.92	
33 01 30 23-0089 EA Re-Connection Of Non-Renewed Lateral, 20" To 36" Main With 15" Inserta-Tee	2,740.26	
For No Excavation, Deduct	-1,238.45	
33 01 30 23-0090 Re-Connection Of Laterals; Saddle Style (33 01 30 23-0077)		
Note: Includes excavation vacuum truck for exterior pipe lateral reconnection, fusion to high density polyethylene (HDPE) pipe for lateral. Excludes asphalt removal, asphalt replacement pavement both temporary and permanent, hauling and back-fill material. See CSI section 01 74 19 00-0048 for hauling, 31 05 16 00-0001 for back-fill material.		
33 01 30 23-0091 EA Re-Connection Of Non-Renewed Lateral, 6" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	2,692.70	
For No Excavation, Deduct	-884.61	
For Strap-On Saddle Type Instead Of Fusion Weld	-215.32	
33 01 30 23-0092 EA Re-Connection Of Non-Renewed Lateral, 8" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	2,974.25	
For No Excavation, Deduct	-920.00	
For Strap-On Saddle Type Instead Of Fusion Weld	-197.86	
33 01 30 23-0093 EA Re-Connection Of Non-Renewed Lateral, 10" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	4,154.13	
For No Excavation, Deduct	-955.38	
For Strap-On Saddle Type Instead Of Fusion Weld	-45.65	
33 01 30 23-0094 EA Re-Connection Of Non-Renewed Lateral, 12" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	4,366.44	
For No Excavation, Deduct	-1,061.54	
For Strap-On Saddle Type Instead Of Fusion Weld	-88.11	
33 01 30 23-0095 EA Re-Connection Of Non-Renewed Lateral, 14" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	7,746.21	
For No Excavation, Deduct	-1,132.30	
For Strap-On Saddle Type Instead Of Fusion Weld	369.32	
33 01 30 23-0096 EA Re-Connection Of Non-Renewed Lateral, 16" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	8,393.42	
For No Excavation, Deduct	-1,256.15	
For Strap-On Saddle Type Instead Of Fusion Weld	379.71	
33 01 30 23-0097 EA Re-Connection Of Non-Renewed Lateral, 18" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	11,300.36	
For No Excavation, Deduct	-1,380.00	
For Strap-On Saddle Type Instead Of Fusion Weld	729.06	
33 01 30 23-0098 EA Re-Connection Of Non-Renewed Lateral, 20" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	10,754.19	
For No Excavation, Deduct	-1,556.92	
For Strap-On Saddle Type Instead Of Fusion Weld	523.28	
33 01 30 23-0099 EA Re-Connection Of Non-Renewed Lateral, 24" Main With 4" Or 6" Saddle Tap (Mueller H-615).....	13,065.47	
For No Excavation, Deduct	-1,840.00	
For Strap-On Saddle Type Instead Of Fusion Weld	671.82	
33 01 30 41 Cleaning of Sewers (33 01 30)		
33 01 30 41-0001 Pipe Line Cleaning And Flushing (33 01 30 41)		
Note: Includes flushing. Owner provided water.		

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 41-0002	Pipe Line Cleaning (33 01 30 41-0001)		
	Note: Includes removal of all debris/waste. Excludes disposal.		
33 01 30 41-0003	Hydro Jet Set-up And Reinsertion (33 01 30 41-0002)		
	Note: Includes mobilization delivery, set-up, clean-up after use and return.		
33 01 30 41-0004	EA Initial Set Up And Final Equipment Removal For Up To 8" Jet Cleaning	1,460.08	
33 01 30 41-0005	EA Initial Set Up And Final Equipment Removal For >8" To 12" Jet Cleaning	2,190.12	
33 01 30 41-0006	EA Initial Set Up And Final Equipment Removal For >12" To 30" Jet Cleaning	2,920.17	
33 01 30 41-0007	EA Initial Set Up And Final Equipment Removal For >30" Jet Cleaning.....	3,893.65	
33 01 30 41-0008	EA Move And Reset Up At Different Access/Location For Up To 8" Jet Cleaning.....	365.02	
33 01 30 41-0009	EA Move And Reset Up At Different Access/Location For >8" To 12" Jet Cleaning.....	547.53	
33 01 30 41-0010	EA Move And Reset Up At Different Access/Location For >12" To 30" Jet Cleaning.....	730.04	
33 01 30 41-0011	EA Move And Reset Up At Different Access/Location For >30" Jet Cleaning	912.55	
33 01 30 41-0012	Hydro Jet Cleaning Of Sewer And Water Pipelines (33 01 30 41-0002)		
33 01 30 41-0013	LF Up To 4" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes.....	3.93	
	For >250 To 500, Deduct	-0.20	
	For >500 To 1,000, Deduct	-0.39	
	For >1,000 To 2,000, Deduct	-0.59	
	For >2,000 To 5,000, Deduct	-0.79	
	For >5,000, Deduct	-0.98	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	2.95	
33 01 30 41-0014	LF 6" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	4.51	
	For >250 To 500, Deduct	-0.23	
	For >500 To 1,000, Deduct	-0.45	
	For >1,000 To 2,000, Deduct	-0.68	
	For >2,000 To 5,000, Deduct	-0.90	
	For >5,000, Deduct	-1.13	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	3.38	
33 01 30 41-0015	LF 8" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	5.29	
	For >250 To 500, Deduct	-0.26	
	For >500 To 1,000, Deduct	-0.53	
	For >1,000 To 2,000, Deduct	-0.79	
	For >2,000 To 5,000, Deduct	-1.06	
	For >5,000, Deduct	-1.32	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	3.97	
33 01 30 41-0016	LF 10" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	6.54	
	For >250 To 500, Deduct	-0.33	
	For >500 To 1,000, Deduct	-0.65	
	For >1,000 To 2,000, Deduct	-0.98	
	For >2,000 To 5,000, Deduct	-1.31	
	For >5,000, Deduct	-1.64	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	4.91	
33 01 30 41-0017	LF 12" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	7.42	
	For >250 To 500, Deduct	-0.37	
	For >500 To 1,000, Deduct	-0.74	
	For >1,000 To 2,000, Deduct	-1.11	
	For >2,000 To 5,000, Deduct	-1.48	
	For >5,000, Deduct	-1.86	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	5.57	
33 01 30 41-0018	LF >12" To 16" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	8.57	
	For >250 To 500, Deduct	-0.43	
	For >500 To 1,000, Deduct	-0.86	
	For >1,000 To 2,000, Deduct	-1.29	
	For >2,000 To 5,000, Deduct	-1.71	
	For >5,000, Deduct	-2.14	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	6.43	
33 01 30 41-0019	LF >16" To 24" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	10.32	
	For >250 To 500, Deduct	-0.52	
	For >500 To 1,000, Deduct	-1.03	
	For >1,000 To 2,000, Deduct	-1.55	
	For >2,000 To 5,000, Deduct	-2.06	
	For >5,000, Deduct	-2.58	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	7.74	
33 01 30 41-0020	LF >24" To 30" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	11.70	
	For >250 To 500, Deduct	-0.59	
	For >500 To 1,000, Deduct	-1.17	
	For >1,000 To 2,000, Deduct	-1.76	
	For >2,000 To 5,000, Deduct	-2.34	
	For >5,000, Deduct	-2.93	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	8.78	
33 01 30 41-0021	LF >30" To 42" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	13.83	
	For >250 To 500, Deduct	-0.69	
	For >500 To 1,000, Deduct	-1.38	
	For >1,000 To 2,000, Deduct	-2.07	
	For >2,000 To 5,000, Deduct	-2.77	
	For >5,000, Deduct	-3.46	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	10.37	
33 01 30 41-0022	LF >42" To 60" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	17.38	
	For >250 To 500, Deduct	-0.87	
	For >500 To 1,000, Deduct	-1.74	
	For >1,000 To 2,000, Deduct	-2.61	
	For >2,000 To 5,000, Deduct	-3.48	
	For >5,000, Deduct	-4.35	
	For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	13.04	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 41-0023	LF	>60" Diameter Pipe Line Cleaning, Hydro Jetting Method, Light Cleaning - 3 Passes	20.28	
		For >250 To 500, Deduct	-1.01	
		For >500 To 1,000, Deduct	-2.03	
		For >1,000 To 2,000, Deduct	-3.04	
		For >2,000 To 5,000, Deduct	-4.06	
		For >5,000, Deduct	-5.07	
		For Heavy Cleaning, >4 Passes (Includes Attached Mechanical Device), Add	15.21	
33 01 30 41-0024		Flushing Of Storm Water Pipelines (33 01 30 41-0002) Note: To remove silt and small debris from storm drainage pipes. Excludes disposal.		
33 01 30 41-0025	LF	12" To 16" Diameter Pipe Line Flushing	1.57	
		For >250 To 500, Deduct	-0.08	
		For >500 To 1,000, Deduct	-0.16	
		For >1,000 To 2,000, Deduct	-0.24	
		For >2,000 To 5,000, Deduct	-0.31	
		For >5,000, Deduct	-0.39	
33 01 30 41-0026	LF	>16" To 24" Diameter Pipe Line Flushing	1.80	
		For >250 To 500, Deduct	-0.09	
		For >500 To 1,000, Deduct	-0.18	
		For >1,000 To 2,000, Deduct	-0.27	
		For >2,000 To 5,000, Deduct	-0.36	
		For >5,000, Deduct	-0.45	
33 01 30 41-0027	LF	>24" To 30" Diameter Pipe Line Flushing	2.12	
		For >250 To 500, Deduct	-0.11	
		For >500 To 1,000, Deduct	-0.21	
		For >1,000 To 2,000, Deduct	-0.32	
		For >2,000 To 5,000, Deduct	-0.42	
		For >5,000, Deduct	-0.53	
33 01 30 41-0028	LF	>30" To 42" Diameter Pipe Line Flushing	2.43	
		For >250 To 500, Deduct	-0.12	
		For >500 To 1,000, Deduct	-0.24	
		For >1,000 To 2,000, Deduct	-0.36	
		For >2,000 To 5,000, Deduct	-0.49	
		For >5,000, Deduct	-0.61	
33 01 30 41-0029	LF	>42" To 60" Diameter Pipe Line Flushing	3.24	
		For >250 To 500, Deduct	-0.16	
		For >500 To 1,000, Deduct	-0.32	
		For >1,000 To 2,000, Deduct	-0.49	
		For >2,000 To 5,000, Deduct	-0.65	
		For >5,000, Deduct	-0.81	
33 01 30 41-0030		Hydro Jet Cleaning Of Culverts (33 01 30 41-0002)		
33 01 30 41-0031	LF	Jet Cleaning Of Culvert, 0-250 LF	18.16	
		For >250 To 500, Deduct	-0.91	
		For >500 To 1,000, Deduct	-1.82	
		For >1,000 To 2,000, Deduct	-2.72	
		For >2,000 To 5,000, Deduct	-3.63	
		For >5,000, Deduct	-4.54	
33 01 30 41-0032		Pipe Line Cleaning, Mechanical Method (33 01 30 41-0001) Note: Power winching buckets, scrapers, scooters, porcupines, brushes and other debris removing equipment. Includes removal of all debris/waste. Excludes disposal.		
33 01 30 41-0033	EA	Initial Set Up And Final Equipment Removal For Mechanical Cleaning	1,325.04	
33 01 30 41-0034	EA	Move And Reset Up At Different Access/Location	441.68	
33 01 30 41-0035	LF	Up To 4" Diameter Pipe Line Cleaning, Mechanical Method	7.66	
		For >250 To 500, Deduct	-0.37	
		For >500 To 1,000, Deduct	-0.74	
		For >1,000 To 2,000, Deduct	-1.10	
		For >2,000 To 5,000, Deduct	-1.47	
		For >5,000, Deduct	-1.84	
33 01 30 41-0036	LF	6" Diameter Pipe Line Cleaning, Mechanical Method	10.07	
		For >250 To 500, Deduct	-0.47	
		For >500 To 1,000, Deduct	-0.95	
		For >1,000 To 2,000, Deduct	-1.42	
		For >2,000 To 5,000, Deduct	-1.89	
		For >5,000, Deduct	-2.37	
33 01 30 41-0037	LF	8" Diameter Pipe Line Cleaning, Mechanical Method	11.79	
		For >250 To 500, Deduct	-0.55	
		For >500 To 1,000, Deduct	-1.10	
		For >1,000 To 2,000, Deduct	-1.66	
		For >2,000 To 5,000, Deduct	-2.21	
		For >5,000, Deduct	-2.76	
33 01 30 41-0038	LF	10" Diameter Pipe Line Cleaning, Mechanical Method	13.64	
		For >250 To 500, Deduct	-0.64	
		For >500 To 1,000, Deduct	-1.27	
		For >1,000 To 2,000, Deduct	-1.91	
		For >2,000 To 5,000, Deduct	-2.55	
		For >5,000, Deduct	-3.19	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 41-0039	LF	12" Diameter Pipe Line Cleaning, Mechanical Method.....	14.85	
		For >250 To 500, Deduct	-0.69	
		For >500 To 1,000, Deduct	-1.38	
		For >1,000 To 2,000, Deduct	-2.07	
		For >2,000 To 5,000, Deduct	-2.76	
		For >5,000, Deduct	-3.45	
33 01 30 41-0040	LF	>12" To 16" Diameter Pipe Line Cleaning, Mechanical Method.....	17.13	
		For >250 To 500, Deduct	-0.79	
		For >500 To 1,000, Deduct	-1.58	
		For >1,000 To 2,000, Deduct	-2.37	
		For >2,000 To 5,000, Deduct	-3.16	
		For >5,000, Deduct	-3.95	
33 01 30 41-0041	LF	>16" To 24" Diameter Pipe Line Cleaning, Mechanical Method.....	21.60	
		For >250 To 500, Deduct	-0.97	
		For >500 To 1,000, Deduct	-1.95	
		For >1,000 To 2,000, Deduct	-2.92	
		For >2,000 To 5,000, Deduct	-3.90	
		For >5,000, Deduct	-4.87	
33 01 30 41-0042	LF	>24" To 30" Diameter Pipe Line Cleaning, Mechanical Method.....	24.73	
		For >250 To 500, Deduct	-1.09	
		For >500 To 1,000, Deduct	-2.17	
		For >1,000 To 2,000, Deduct	-3.26	
		For >2,000 To 5,000, Deduct	-4.34	
		For >5,000, Deduct	-5.43	
33 01 30 41-0043	LF	>30" To 42" Diameter Pipe Line Cleaning, Mechanical Method.....	28.76	
		For >250 To 500, Deduct	-1.25	
		For >500 To 1,000, Deduct	-2.50	
		For >1,000 To 2,000, Deduct	-3.75	
		For >2,000 To 5,000, Deduct	-5.00	
		For >5,000, Deduct	-6.25	
33 01 30 41-0044	LF	>42 To 60" Diameter Pipe Line Cleaning, Mechanical Method.....	37.63	
		For >250 To 500, Deduct	-1.66	
		For >500 To 1,000, Deduct	-3.31	
		For >1,000 To 2,000, Deduct	-4.97	
		For >2,000 To 5,000, Deduct	-6.62	
		For >5,000, Deduct	-8.28	
33 01 30 41-0045	LF	>60" Diameter Pipe Line Cleaning, Mechanical Method.....	42.83	
		For >250 To 500, Deduct	-1.84	
		For >500 To 1,000, Deduct	-3.68	
		For >1,000 To 2,000, Deduct	-5.52	
		For >2,000 To 5,000, Deduct	-7.36	
		For >5,000, Deduct	-9.20	
33 01 30 41-0046		Pipe Line Auguring/Rod Out Pipe (33 01 30 41-0001)		
33 01 30 41-0047	EA	Initial Set Up And Final Equipment Removal For Auguring.....	1,325.04	
33 01 30 41-0048	EA	Move And Reset Up At Different Location	441.68	
33 01 30 41-0049	LF	Up To 4" Diameter Pipe Line Auguring/Rod Out.....	4.42	
		For >250 To 500, Deduct	-0.22	
		For >500 To 1,000, Deduct	-0.44	
		For >1,000 To 2,000, Deduct	-0.66	
		For >2,000 To 5,000, Deduct	-0.88	
		For >5,000, Deduct	-1.11	
33 01 30 41-0050	LF	6" Diameter Pipe Line Auguring/Rod Out	5.71	
		For >250 To 500, Deduct	-0.29	
		For >500 To 1,000, Deduct	-0.57	
		For >1,000 To 2,000, Deduct	-0.86	
		For >2,000 To 5,000, Deduct	-1.14	
		For >5,000, Deduct	-1.43	
33 01 30 41-0051	LF	8" Diameter Pipe Line Auguring/Rod Out	6.63	
		For >250 To 500, Deduct	-0.33	
		For >500 To 1,000, Deduct	-0.66	
		For >1,000 To 2,000, Deduct	-0.99	
		For >2,000 To 5,000, Deduct	-1.33	
		For >5,000, Deduct	-1.66	
33 01 30 41-0052	LF	10" Diameter Pipe Line Auguring/Rod Out	7.71	
		For >250 To 500, Deduct	-0.39	
		For >500 To 1,000, Deduct	-0.77	
		For >1,000 To 2,000, Deduct	-1.16	
		For >2,000 To 5,000, Deduct	-1.54	
		For >5,000, Deduct	-1.93	
33 01 30 41-0053	LF	12" Diameter Pipe Line Auguring/Rod Out	8.28	
		For >250 To 500, Deduct	-0.41	
		For >500 To 1,000, Deduct	-0.83	
		For >1,000 To 2,000, Deduct	-1.24	
		For >2,000 To 5,000, Deduct	-1.66	
		For >5,000, Deduct	-2.07	
33 01 30 41-0054	LF	>12" To 16" Diameter Pipe Line Auguring/Rod Out.....	9.47	
		For >250 To 500, Deduct	-0.47	
		For >500 To 1,000, Deduct	-0.95	
		For >1,000 To 2,000, Deduct	-1.42	
		For >2,000 To 5,000, Deduct	-1.89	
		For >5,000, Deduct	-2.37	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 41-0055	LF	>16" To 24" Diameter Pipe Line Auguring/Rod Out.....	11.62	
		For >250 To 500, Deduct	-0.58	
		For >500 To 1,000, Deduct	-1.16	
		For >1,000 To 2,000, Deduct	-1.74	
		For >2,000 To 5,000, Deduct	-2.32	
		For >5,000, Deduct	-2.91	
33 01 30 41-0056	LF	>24" To 30" Diameter Pipe Line Auguring/Rod Out.....	12.99	
		For >250 To 500, Deduct	-0.65	
		For >500 To 1,000, Deduct	-1.30	
		For >1,000 To 2,000, Deduct	-1.95	
		For >2,000 To 5,000, Deduct	-2.60	
		For >5,000, Deduct	-3.25	
33 01 30 41-0057	LF	>30" To 42" Diameter Pipe Line Auguring/Rod Out.....	15.06	
		For >250 To 500, Deduct	-0.75	
		For >500 To 1,000, Deduct	-1.51	
		For >1,000 To 2,000, Deduct	-2.26	
		For >2,000 To 5,000, Deduct	-3.01	
		For >5,000, Deduct	-3.77	
33 01 30 41-0058	LF	>42 To 60" Diameter Pipe Line Auguring/Rod Out.....	20.70	
		For >250 To 500, Deduct	-1.04	
		For >500 To 1,000, Deduct	-2.07	
		For >1,000 To 2,000, Deduct	-3.11	
		For >2,000 To 5,000, Deduct	-4.14	
		For >5,000, Deduct	-5.18	
33 01 30 41-0059	LF	>60" Diameter Pipe Line Auguring/Rod Out.....	22.09	
		For >250 To 500, Deduct	-1.10	
		For >500 To 1,000, Deduct	-2.21	
		For >1,000 To 2,000, Deduct	-3.31	
		For >2,000 To 5,000, Deduct	-4.42	
		For >5,000, Deduct	-5.52	
33 01 30 42 Cleaning of Manholes (33 01 30)				
33 01 30 42-0001		Structure Cleaning And Flushing (33 01 30 42) Note: Includes flushing. Owner provided water.		
33 01 30 42-0002		Rod Out Structures And Other Hand Operations (33 01 30 42-0001)		
33 01 30 42-0003	EA	Rod Out Waste Water Drain.....	51.85	
33 01 30 42-0004	EA	Rod Out Sewer Catch Basin.....	103.70	
33 01 30 42-0005	EA	Up To 6" Diameter Pipe, Rod Out Blockage.....	20.74	
33 01 30 42-0006	EA	8" Diameter Pipe, Rod Out Blockage.....	22.81	
33 01 30 42-0007	EA	10" Diameter Pipe, Rod Out Blockage.....	25.92	
33 01 30 42-0008	EA	12" Diameter Pipe, Rod Out Blockage.....	30.07	
33 01 30 42-0009	EA	>12" To 16" Diameter Pipe, Rod Out Blockage.....	35.25	
33 01 30 42-0010	EA	>16" To 24" Diameter Pipe, Rod Out Blockage.....	41.47	
33 01 30 42-0011	EA	>24" To 30" Diameter Pipe, Rod Out Blockage.....	48.73	
33 01 30 42-0012	EA	>30" To 42" Diameter Pipe, Rod Out Blockage.....	56.00	
33 01 30 42-0013	EA	>42" To 60" Diameter Pipe, Rod Out Blockage.....	65.33	
33 01 30 42-0014	EA	>60" Diameter Pipe, Rod Out Blockage.....	77.77	
33 01 30 42-0015	EA	Clean Out Debris From Entrance To Inlet Structure.....	259.24	
33 01 30 42-0016	EA	3' To 4' Diameter, Clean Out Blocked Manhole By Hand.....	972.16	
		For >10 To 100, Deduct	-145.82	
		For >100 To 250, Deduct	-218.74	
		For >250, Deduct	-291.65	
33 01 30 42-0017	EA	5' To 6' Diameter, Clean Out Blocked Manhole By Hand.....	1,166.58	
		For >10 To 100, Deduct	-174.99	
		For >100 To 250, Deduct	-262.48	
		For >250, Deduct	-349.97	
33 01 30 42-0018	EA	Clean Out Blocked Catch Basin By Hand.....	583.29	
		For >10 To 100, Deduct	-87.49	
		For >100 To 250, Deduct	-131.24	
		For >250, Deduct	-174.99	
33 01 30 42-0019		Cleaning Manholes And Drainage Structures With Jet/Vacuum (33 01 30 42-0001) Note: Includes the removal of debris with high pressure water jetting and vacuum equipment and cleaning of grate. Excludes hardened concrete debris and disposal of material.		
33 01 30 42-0020	EA	Jet/Vacuum Clean 1 To 2 Catch Basins Or Manholes.....	298.31	
33 01 30 42-0021	EA	Jet/Vacuum Clean 3 To 10 Catch Basins Or Manholes.....	277.30	
33 01 30 42-0022	EA	Jet/Vacuum Clean 11 To 25 Catch Basins Or Manholes.....	256.29	
33 01 30 42-0023	EA	Jet/Vacuum Clean 26 To 100 Catch Basins Or Manholes.....	235.29	
33 01 30 42-0024	EA	Jet/Vacuum Clean 101 To 250 Catch Basins Or Manholes.....	214.29	
33 01 30 42-0025	EA	Jet/Vacuum Clean >250 Catch Basins Or Manholes.....	193.27	
33 01 30 43 Removal of Protruding Service Connection (33 01 30)				
33 01 30 43-0001		Trim Protruding Service Taps (33 01 30 43)		
33 01 30 43-0002	EA	Trim Protruding Service Tap, 4", Robotic.....	734.00	
33 01 30 43-0003	EA	Trim Protruding Service Tap, 6", Robotic.....	807.41	
33 01 30 43-0004	EA	Trim Protruding Service Tap, 8", Robotic.....	880.81	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 51 Maintenance of Utilities (33 01 30)**33 01 30 51-0001****Pipe Repair (33 01 30 51)**

Note: Excludes excavation and backfill where required See CSI section 31 23 00 00-0000 for excavation and backfill.

33 01 30 51-0002**Pipe Repair Clamp, Full Circle, Single Band (33 01 30 51-0001)**

Note: Repair clamps for asbestos cement pipe, cast iron soil pipe, non-reinforced concrete pipe, PVC pipe, vitrified clay pipe, gray iron pipe and ductile iron pipe.

33 01 30 51-0003	EA 2" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	126.50
	For Stainless Steel Nuts And Bolts, Add	20.64
33 01 30 51-0004	EA 2" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	179.79
	For Stainless Steel Nuts And Bolts, Add	31.10
33 01 30 51-0005	EA 2" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	207.73
	For Stainless Steel Nuts And Bolts, Add	36.63
33 01 30 51-0006	EA 2" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	236.68
	For Stainless Steel Nuts And Bolts, Add	42.14
33 01 30 51-0007	EA 2-1/2" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	136.45
	For Stainless Steel Nuts And Bolts, Add	22.47
33 01 30 51-0008	EA 2-1/2" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	191.10
	For Stainless Steel Nuts And Bolts, Add	33.19
33 01 30 51-0009	EA 2-1/2" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	219.03
	For Stainless Steel Nuts And Bolts, Add	38.59
33 01 30 51-0010	EA 2-1/2" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	253.13
	For Stainless Steel Nuts And Bolts, Add	45.15
33 01 30 51-0011	EA 3" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	146.73
	For Stainless Steel Nuts And Bolts, Add	24.52
33 01 30 51-0012	EA 3" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	198.78
	For Stainless Steel Nuts And Bolts, Add	34.70
33 01 30 51-0013	EA 3" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	229.82
	For Stainless Steel Nuts And Bolts, Add	40.68
33 01 30 51-0014	EA 3" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	267.94
	For Stainless Steel Nuts And Bolts, Add	48.30
33 01 30 51-0015	EA 4" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	165.32
	For Stainless Steel Nuts And Bolts, Add	27.88
33 01 30 51-0016	EA 4" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	218.36
	For Stainless Steel Nuts And Bolts, Add	37.53
33 01 30 51-0017	EA 4" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	264.81
	For Stainless Steel Nuts And Bolts, Add	45.68
33 01 30 51-0018	EA 4" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	319.02
	For Stainless Steel Nuts And Bolts, Add	55.11
33 01 30 51-0019	EA 4" Diameter, 20" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	417.13
	For Stainless Steel Nuts And Bolts, Add	74.02
33 01 30 51-0020	EA 4" Diameter, 25" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	518.96
	For Stainless Steel Nuts And Bolts, Add	92.93
33 01 30 51-0021	EA 4" Diameter, 30" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	633.12
	For Stainless Steel Nuts And Bolts, Add	113.99
33 01 30 51-0022	EA 6" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	194.34
	For Stainless Steel Nuts And Bolts, Add	32.90
33 01 30 51-0023	EA 6" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	258.16
	For Stainless Steel Nuts And Bolts, Add	44.63
33 01 30 51-0024	EA 6" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	305.76
	For Stainless Steel Nuts And Bolts, Add	52.62
33 01 30 51-0025	EA 6" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	358.22
	For Stainless Steel Nuts And Bolts, Add	61.15
33 01 30 51-0026	EA 6" Diameter, 20" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	496.08
	For Stainless Steel Nuts And Bolts, Add	88.61
33 01 30 51-0027	EA 6" Diameter, 25" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	603.19
	For Stainless Steel Nuts And Bolts, Add	108.06
33 01 30 51-0028	EA 6" Diameter, 30" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	720.45
	For Stainless Steel Nuts And Bolts, Add	129.12
33 01 30 51-0029	EA 8" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	253.21
	For Stainless Steel Nuts And Bolts, Add	39.36
33 01 30 51-0030	EA 8" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	329.04
	For Stainless Steel Nuts And Bolts, Add	52.08
33 01 30 51-0031	EA 8" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	397.15
	For Stainless Steel Nuts And Bolts, Add	63.02
33 01 30 51-0032	EA 8" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	474.28
	For Stainless Steel Nuts And Bolts, Add	75.10
33 01 30 51-0033	EA 8" Diameter, 20" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	629.86
	For Stainless Steel Nuts And Bolts, Add	104.04
33 01 30 51-0034	EA 8" Diameter, 25" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	753.33
	For Stainless Steel Nuts And Bolts, Add	124.41
33 01 30 51-0035	EA 8" Diameter, 30" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	892.16
	For Stainless Steel Nuts And Bolts, Add	146.43
33 01 30 51-0036	EA 10" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	296.52
	For Stainless Steel Nuts And Bolts, Add	47.90
33 01 30 51-0037	EA 10" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	398.39
	For Stainless Steel Nuts And Bolts, Add	66.26
33 01 30 51-0038	EA 10" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	469.20
	For Stainless Steel Nuts And Bolts, Add	77.47
33 01 30 51-0039	EA 10" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	575.67
	For Stainless Steel Nuts And Bolts, Add	95.82
33 01 30 51-0040	EA 10" Diameter, 20" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226)	755.94
	For Stainless Steel Nuts And Bolts, Add	129.97



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 51-0041	EA	10" Diameter, 25" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	860.40 145.27	
33 01 30 51-0042	EA	10" Diameter, 30" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	1,107.23 191.65	
33 01 30 51-0043	EA	12" Diameter, 7-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	337.52 54.03	
33 01 30 51-0044	EA	12" Diameter, 10" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	440.70 71.86	
33 01 30 51-0045	EA	12" Diameter, 12-1/2" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	531.98 86.96	
33 01 30 51-0046	EA	12" Diameter, 15" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	654.49 108.06	
33 01 30 51-0047	EA	12" Diameter, 20" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	842.17 142.72	
33 01 30 51-0048	EA	12" Diameter, 25" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	990.40 166.67	
33 01 30 51-0049	EA	12" Diameter, 30" Long, Pipe Repair Clamp, Single Band With Alloy Bolts And Nuts (Smith-Blair 226) <i>For Stainless Steel Nuts And Bolts, Add</i>	1,258.70 216.11	
33 01 30 51-0050		Pipe Repair Clamp, Full Circle, Double Bands (33 01 30 51-0001) Note: Repair clamps for reinforced concrete pipe, gray iron pipe and ductile iron pipe.		
33 01 30 51-0051	EA	14.38" To 15.13" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	750.99 207.89	
33 01 30 51-0052	EA	14.38" To 15.13" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,064.62 300.12	
33 01 30 51-0053	EA	14.38" To 15.13" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,433.55 407.00	
33 01 30 51-0054	EA	14.38" To 15.13" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	2,111.51 613.43	
33 01 30 51-0055	EA	15.07" To 15.82" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	788.26 218.12	
33 01 30 51-0056	EA	15.07" To 15.82" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,114.46 314.03	
33 01 30 51-0057	EA	15.07" To 15.82" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,497.01 424.56	
33 01 30 51-0058	EA	15.07" To 15.82" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	2,213.49 642.70	
33 01 30 51-0059	EA	15.92" To 16.67" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	808.39 222.53	
33 01 30 51-0060	EA	15.92" To 16.67" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,140.94 319.90	
33 01 30 51-0061	EA	15.92" To 16.67" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,536.31 434.08	
33 01 30 51-0062	EA	15.92" To 16.67" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	2,269.76 656.60	
33 01 30 51-0063	EA	16.56" To 17.31" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	829.52 226.92	
33 01 30 51-0064	EA	16.56" To 17.31" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,171.10 326.48	
33 01 30 51-0065	EA	16.56" To 17.31" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,574.34 442.13	
33 01 30 51-0066	EA	16.56" To 17.31" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	2,325.98 669.79	
33 01 30 51-0067	EA	17.15" To 17.90" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	848.52 230.58	
33 01 30 51-0068	EA	17.15" To 17.90" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,196.91 331.60	
33 01 30 51-0069	EA	17.15" To 17.90" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	1,612.37 450.18	
33 01 30 51-0070	EA	17.15" To 17.90" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	2,376.77 680.76	
33 01 30 51-0071	EA	17.82" To 18.57" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228)..... <i>For Stainless Steel Nuts And Bolts, Add</i>	866.47 234.25	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 51-0072	EA	17.82" To 18.57" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	1,223.38	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	337.45	
33 01 30 51-0073	EA	17.82" To 18.57" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	1,646.24	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	457.50	
33 01 30 51-0074	EA	17.82" To 18.57" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	2,409.28	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	686.25	
33 01 30 51-0075	EA	18.46" To 19.21" OD Diameter Pipe, 10" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	887.06	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	238.81	
33 01 30 51-0076	EA	18.46" To 19.21" OD Diameter Pipe, 15" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	1,254.65	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	344.77	
33 01 30 51-0077	EA	18.46" To 19.21" OD Diameter Pipe, 20" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	1,682.20	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	465.55	
33 01 30 51-0078	EA	18.46" To 19.21" OD Diameter Pipe, 30" Long, Pipe Repair Clamp, Double Bands With Alloy Bolts And Nuts (Smith-Blair 228).....	2,481.76	
		<i>For Stainless Steel Nuts And Bolts, Add</i>	705.65	

33 01 30 51-0079 Repair Couplings and Fittings (33 01 30 51-0001)**33 01 30 51-0080 Couplings And Fittings For Copper Pipe, Compression (33 01 30 51-0079)**

Note: Includes gaskets. Dresser style 88.

33 01 30 51-0081 Copper Compression Repair Couplings (33 01 30 51-0080)

33 01 30 51-0082	EA	1/2" Copper Compression Repair Coupling.....	128.00	
33 01 30 51-0083	EA	3/4" Copper Compression Repair Coupling.....	147.99	
33 01 30 51-0084	EA	1" Copper Compression Repair Coupling.....	174.25	
33 01 30 51-0085	EA	1-1/4" Copper Compression Repair Coupling.....	195.37	
33 01 30 51-0086	EA	1-1/2" Copper Compression Repair Coupling.....	313.72	

33 01 30 51-0087 Copper Compression Repair Fitting, 90 Degree Elbows (33 01 30 51-0080)

33 01 30 51-0088	EA	1/2" Copper Compression Repair 90 Degree Elbow.....	158.86	
33 01 30 51-0089	EA	1" Copper Compression Repair 90 Degree Elbow.....	178.66	
33 01 30 51-0090	EA	1-1/2" Copper Compression Repair 90 Degree Elbow.....	383.86	
33 01 30 51-0091	EA	1" IPS x 1" CTS 90 Degree Plain End Street Elbow.....	137.35	
33 01 30 51-0092	EA	3/4" IPS x 3/4" CTS 90 Degree Threaded End Street Elbow.....	124.87	
33 01 30 51-0093	EA	1" IPS x 1" CTS 90 Degree Threaded End Street Elbow.....	146.28	
33 01 30 51-0094	EA	1-1/4" IPS x 1" CTS 90 Degree Threaded End Street Elbow.....	184.22	

33 01 30 51-0095 Copper Compression Repair Fitting, Tees (33 01 30 51-0080)

33 01 30 51-0096	EA	1/2" Copper Compression Repair Tee.....	299.77	
33 01 30 51-0097	EA	3/4" Copper Compression Repair Tee.....	216.49	
33 01 30 51-0098	EA	1" Copper Compression Repair Tee.....	258.15	
33 01 30 51-0099	EA	1 1/2" x 1" M x 1" CTS Street Tee.....	203.46	

33 01 30 51-0100 Copper Compression Repair Fitting, Male Adapters (33 01 30 51-0080)

33 01 30 51-0101	EA	3/4" M x 1/2" CTS Male Adapter.....	139.07	
33 01 30 51-0102	EA	3/4" M x 3/4" CTS Male Adapter.....	106.81	
33 01 30 51-0103	EA	1" M x 1" CTS Male Adapter.....	118.68	
33 01 30 51-0104	EA	1-1/4" M x 1" CTS Male Adapter.....	140.31	
33 01 30 51-0105	EA	1-1/4" M x 1-1/4" CTS Male Adapter.....	175.00	
33 01 30 51-0106	EA	1-1/2" M x 1" CTS Male Adapter.....	188.39	

33 01 30 51-0107 Copper Compression Repair Fitting, Female Adapters (33 01 30 51-0080)

33 01 30 51-0108	EA	3/4" M x 3/4" CTS Female Adapter.....	165.41	
33 01 30 51-0109	EA	1" M x 1" CTS Female Adapter.....	170.63	

33 01 30 51-0110 Couplings For Steel Pipe (33 01 30 51-0079)

Note: Includes Buna S gasket. Dresser style 38

33 01 30 51-0111	EA	1/2" Coupling, 3-1/2" Middle Ring With Buna S Gasket.....	70.00	
33 01 30 51-0112	EA	3/4" Coupling, 5" Middle Ring With Buna S Gasket.....	85.91	
33 01 30 51-0113	EA	1" Coupling, 5" Middle Ring With Buna S Gasket.....	97.76	
33 01 30 51-0114	EA	1-1/2" Coupling, 5" Middle Ring With Buna S Gasket.....	115.37	
33 01 30 51-0115	EA	2" Coupling, 4" Middle Ring With Buna S Gasket.....	142.72	
33 01 30 51-0116	EA	2" Coupling, 5" Middle Ring With Buna S Gasket.....	194.67	
33 01 30 51-0117	EA	2" Coupling, 7" Middle Ring With Buna S Gasket.....	181.74	
33 01 30 51-0118	EA	3" Coupling, 4" Middle Ring With Buna S Gasket.....	235.37	
33 01 30 51-0119	EA	3" Coupling, 5" Middle Ring With Buna S Gasket.....	243.19	
33 01 30 51-0120	EA	3" Coupling, 7" Middle Ring With Buna S Gasket.....	251.02	
33 01 30 51-0121	EA	4" Coupling, 4" Middle Ring With Buna S Gasket.....	270.06	
33 01 30 51-0122	EA	4" Coupling, 5" Middle Ring With Buna S Gasket.....	283.34	
33 01 30 51-0123	EA	4" Coupling, 7" Middle Ring With Buna S Gasket.....	299.99	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 01 30 51-0124	EA		5" Coupling, 4" Middle Ring With Buna S Gasket.....	352.38	
33 01 30 51-0125	EA		5" Coupling, 5" Middle Ring With Buna S Gasket.....	357.62	
33 01 30 51-0126	EA		5" Coupling, 7" Middle Ring With Buna S Gasket.....	376.72	
33 01 30 51-0127	EA		6" Coupling, 4" Middle Ring With Buna S Gasket.....	372.99	
33 01 30 51-0128	EA		6" Coupling, 5" Middle Ring With Buna S Gasket.....	387.17	
33 01 30 51-0129	EA		6" Coupling, 7" Middle Ring With Buna S Gasket.....	405.28	
33 01 30 51-0130	EA		8" Coupling, 4" Middle Ring With Buna S Gasket.....	434.70	
33 01 30 51-0131	EA		8" Coupling, 5" Middle Ring With Buna S Gasket.....	455.67	
33 01 30 51-0132	EA		8" Coupling, 7" Middle Ring With Buna S Gasket.....	472.88	
33 01 30 51-0133	EA		10" Coupling, 5" Middle Ring With Buna S Gasket.....	540.67	
33 01 30 51-0134	EA		10" Coupling, 7" Middle Ring With Buna S Gasket.....	639.65	
33 01 30 51-0135	EA		12" Coupling, 5" Middle Ring With Buna S Gasket.....	614.84	
33 01 30 51-0136	EA		12" Coupling, 7" Middle Ring With Buna S Gasket.....	824.65	
33 01 30 51-0137	EA		14" Coupling, 7" Middle Ring With Buna S Gasket.....	957.28	
33 01 30 51-0138	EA		16" Coupling, 7" Middle Ring With Buna S Gasket.....	1,151.82	
33 01 30 51-0139	EA		18" Coupling, 7" Middle Ring With Buna S Gasket.....	1,288.66	
33 01 30 51-0140	EA		20" Coupling, 7" Middle Ring With Buna S Gasket.....	1,369.87	
33 01 30 51-0141	EA		22" Coupling, 7" Middle Ring With Buna S Gasket.....	1,733.19	
33 01 30 51-0142	EA		24" Coupling, 7" Middle Ring With Buna S Gasket.....	1,822.66	

33 01 30 51-0143

Couplings For Steel Pipe (33 01 30 51-0079)

Note: Includes Buna S gasket, protected, Dresser style 38.

33 01 30 51-0144	EA		1/2" Coupling, 3-1/2" Middle Ring With Buna S Gasket, Protected.....	72.25	
33 01 30 51-0145	EA		3/4" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	85.60	
33 01 30 51-0146	EA		1" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	97.62	
33 01 30 51-0147	EA		1-1/2" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	114.33	
33 01 30 51-0148	EA		2" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	172.57	
33 01 30 51-0149	EA		2" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	168.46	
33 01 30 51-0150	EA		2" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	170.52	
33 01 30 51-0151	EA		3" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	251.02	
33 01 30 51-0152	EA		3" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	258.84	
33 01 30 51-0153	EA		3" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	266.66	
33 01 30 51-0154	EA		4" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	291.38	
33 01 30 51-0155	EA		4" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	277.59	
33 01 30 51-0156	EA		4" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	284.85	
33 01 30 51-0157	EA		5" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	379.85	
33 01 30 51-0158	EA		5" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	383.68	
33 01 30 51-0159	EA		5" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	561.17	
33 01 30 51-0160	EA		6" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	381.38	
33 01 30 51-0161	EA		6" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	401.74	
33 01 30 51-0162	EA		6" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	409.60	
33 01 30 51-0163	EA		8" Coupling, 4" Middle Ring With Buna S Gasket, Protected.....	480.22	
33 01 30 51-0164	EA		8" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	487.94	
33 01 30 51-0165	EA		8" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	500.40	
33 01 30 51-0166	EA		10" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	559.45	
33 01 30 51-0167	EA		10" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	659.21	
33 01 30 51-0168	EA		12" Coupling, 5" Middle Ring With Buna S Gasket, Protected.....	634.40	
33 01 30 51-0169	EA		12" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	843.78	
33 01 30 51-0170	EA		14" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	976.84	
33 01 30 51-0171	EA		16" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	1,181.17	
33 01 30 51-0172	EA		18" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	1,307.79	
33 01 30 51-0173	EA		20" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	1,409.00	
33 01 30 51-0174	EA		22" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	1,772.31	
33 01 30 51-0175	EA		24" Coupling, 7" Middle Ring With Buna S Gasket, Protected.....	1,861.79	

33 01 30 51-0176

Couplings For Steel Pipe (33 01 30 51-0079)

Note: Includes Buna N gasket, protected, Dresser style 38.

33 01 30 51-0177	EA		1/2" Coupling, 3-1/2" Middle Ring With Buna N Gasket, Protected.....	86.16	
33 01 30 51-0178	EA		3/4" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	99.76	
33 01 30 51-0179	EA		1" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	114.23	
33 01 30 51-0180	EA		1-1/2" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	135.91	
33 01 30 51-0181	EA		2" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	172.57	
33 01 30 51-0182	EA		2" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	207.51	
33 01 30 51-0183	EA		2" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	219.13	
33 01 30 51-0184	EA		3" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	251.02	
33 01 30 51-0185	EA		3" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	258.84	
33 01 30 51-0186	EA		3" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	266.66	
33 01 30 51-0187	EA		4" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	291.38	
33 01 30 51-0188	EA		4" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	319.27	
33 01 30 51-0189	EA		4" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	329.88	
33 01 30 51-0190	EA		5" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	379.85	
33 01 30 51-0191	EA		5" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	383.68	
33 01 30 51-0192	EA		5" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	428.48	
33 01 30 51-0193	EA		6" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	381.38	
33 01 30 51-0194	EA		6" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	401.74	
33 01 30 51-0195	EA		6" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	409.60	
33 01 30 51-0196	EA		8" Coupling, 4" Middle Ring With Buna N Gasket, Protected.....	480.22	
33 01 30 51-0197	EA		8" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	487.94	
33 01 30 51-0198	EA		8" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	500.40	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 51-0199	EA	10" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	559.45	
33 01 30 51-0200	EA	10" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	659.21	
33 01 30 51-0201	EA	12" Coupling, 5" Middle Ring With Buna N Gasket, Protected.....	634.40	
33 01 30 51-0202	EA	12" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	843.78	
33 01 30 51-0203	EA	14" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	976.84	
33 01 30 51-0204	EA	16" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	1,151.82	
33 01 30 51-0205	EA	18" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	1,307.79	
33 01 30 51-0206	EA	20" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	1,409.00	
33 01 30 51-0207	EA	22" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	1,772.31	
33 01 30 51-0208	EA	24" Coupling, 7" Middle Ring With Buna N Gasket, Protected.....	1,861.79	

33 01 30 51-0209**Couplings For Steel Pipe (33 01 30 51-0079)**

Note: Includes high temperature carded glass gasket, protected. Dresser style 38.

33 01 30 51-0210	EA	3/4" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	148.84	
33 01 30 51-0211	EA	1" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	159.10	
33 01 30 51-0212	EA	1-1/2" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	163.27	
33 01 30 51-0213	EA	2" Coupling, 4" Middle Ring With High Temp Carded Glass Gasket.....	255.31	
33 01 30 51-0214	EA	2" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	276.71	
33 01 30 51-0215	EA	2" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	287.61	
33 01 30 51-0216	EA	3" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	326.42	
33 01 30 51-0217	EA	3" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	323.96	
33 01 30 51-0218	EA	4" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	358.40	
33 01 30 51-0219	EA	4" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	369.00	
33 01 30 51-0220	EA	5" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	505.15	
33 01 30 51-0221	EA	5" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	519.22	
33 01 30 51-0222	EA	6" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	534.48	
33 01 30 51-0223	EA	6" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	543.81	
33 01 30 51-0224	EA	8" Coupling, 4" Middle Ring With High Temp Carded Glass Gasket.....	547.33	
33 01 30 51-0225	EA	8" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	687.33	
33 01 30 51-0226	EA	8" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	744.43	
33 01 30 51-0227	EA	10" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	754.26	
33 01 30 51-0228	EA	10" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	754.06	
33 01 30 51-0229	EA	12" Coupling, 5" Middle Ring With High Temp Carded Glass Gasket.....	967.61	
33 01 30 51-0230	EA	12" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,010.60	
33 01 30 51-0231	EA	14" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,173.31	
33 01 30 51-0232	EA	16" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,484.01	
33 01 30 51-0233	EA	18" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,440.80	
33 01 30 51-0234	EA	20" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,610.47	
33 01 30 51-0235	EA	22" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,746.88	
33 01 30 51-0236	EA	24" Coupling, 7" Middle Ring With High Temp Carded Glass Gasket.....	1,900.91	

33 01 30 51-0237**Couplings And Fittings For Steel Pipe, Cast Body, Compression (33 01 30 51-0079)**

Note: Includes gaskets. Dresser style 90.

33 01 30 51-0238**Couplings For Steel Pipe, Cast Body (Compression) (33 01 30 51-0237)**

Note: Includes gaskets.

33 01 30 51-0239	EA	1/2" Coupling, Cast Body (Compression), 5" Middle Ring.....	72.67	
33 01 30 51-0240	EA	3/4" Coupling, Cast Body (Compression), 5" Middle Ring.....	72.05	
33 01 30 51-0241	EA	1" Coupling, Cast Body (Compression), 5" Middle Ring.....	80.74	
33 01 30 51-0242	EA	1-1/4" Coupling, Cast Body (Compression), 5" Middle Ring.....	89.53	
33 01 30 51-0243	EA	1-1/2" Coupling, Cast Body (Compression), 5" Middle Ring.....	110.47	
33 01 30 51-0244	EA	2" Coupling, Cast Body (Compression), 5" Middle Ring.....	134.68	
33 01 30 51-0245	EA	1/2" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	74.91	
33 01 30 51-0246	EA	3/4" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	74.54	
33 01 30 51-0247	EA	1" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	81.12	
33 01 30 51-0248	EA	1-1/4" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	90.69	
33 01 30 51-0249	EA	1-1/2" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	114.25	
33 01 30 51-0250	EA	2" Coupling, Cast Body (Compression), 5" Middle Ring With Armored Gasket.....	136.34	
33 01 30 51-0251	EA	3/4" Coupling, Steel Body (Compression), 5" Middle Ring With Armored Gasket.....	149.28	
33 01 30 51-0252	EA	1" Coupling, Steel Body (Compression), 5" Middle Ring With Armored Gasket.....	174.68	
33 01 30 51-0253	EA	1-1/4" Coupling, Steel Body (Compression), 5" Middle Ring With Armored Gasket.....	180.53	
33 01 30 51-0254	EA	1-1/2" Coupling, Steel Body (Compression), 5" Middle Ring With Armored Gasket.....	201.28	
33 01 30 51-0255	EA	2" Coupling, Steel Body (Compression), 5" Middle Ring With Armored Gasket.....	245.22	

33 01 30 51-0256**Reducing Couplings For Steel Pipe (Compression) (33 01 30 51-0237)**

Note: Includes armored gaskets.

33 01 30 51-0257	EA	3/4" x 1/2" Reducing Coupling (Compression).....	79.57	
33 01 30 51-0258	EA	1" x 3/4" Reducing Coupling (Compression).....	83.19	
33 01 30 51-0259	EA	1-1/4" x 3/4" Reducing Coupling (Compression).....	93.64	
33 01 30 51-0260	EA	1-1/4" x 1" Reducing Coupling (Compression).....	97.79	
33 01 30 51-0261	EA	1-1/2" x 3/4" Reducing Coupling (Compression).....	197.13	
33 01 30 51-0262	EA	1-1/2" x 1" Reducing Coupling (Compression).....	116.91	
33 01 30 51-0263	EA	1-1/2" x 1-1/4" Reducing Coupling (Compression).....	117.49	
33 01 30 51-0264	EA	2" x 3/4" Reducing Coupling (Compression).....	235.34	
33 01 30 51-0265	EA	2" x 1" Reducing Coupling (Compression).....	212.30	
33 01 30 51-0266	EA	2" x 1-1/4" Reducing Coupling (Compression).....	157.47	
33 01 30 51-0267	EA	2" x 1-1/2" Reducing Coupling (Compression).....	156.86	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 51-0268 Steel Compression Repair Fittings, Elbows (33 01 30 51-0237) Note: Includes armored gaskets.		
33 01 30 51-0269 EA 1" 45 Degree Elbow (Compression).....	136.08	
33 01 30 51-0270 EA 1-1/4" 45 Degree Elbow (Compression)	140.65	
33 01 30 51-0271 EA 1-1/2" 45 Degree Elbow (Compression)	182.22	
33 01 30 51-0272 EA 2" 45 Degree Elbow (Compression).....	231.04	
33 01 30 51-0273 EA 3/4" 90 Degree Elbow (Compression).....	89.13	
33 01 30 51-0274 EA 1" 90 Degree Elbow (Compression).....	91.19	
33 01 30 51-0275 EA 1-1/4" 90 Degree Elbow (Compression)	107.12	
33 01 30 51-0276 EA 1-1/2" 90 Degree Elbow (Compression)	155.03	
33 01 30 51-0277 EA 2" 90 Degree Elbow (Compression).....	168.17	
33 01 30 51-0278 EA 3/4" Plain End 90 Degree Street Elbow (Compression).....	89.44	
33 01 30 51-0279 EA 1" Plain End 90 Degree Street Elbow (Compression).....	76.25	
33 01 30 51-0280 EA 1-1/4" Plain End 90 Degree Street Elbow (Compression).....	95.97	
33 01 30 51-0281 EA 1-1/2" Plain End 90 Degree Street Elbow (Compression).....	108.93	
33 01 30 51-0282 EA 2" Plain End 90 Degree Street Elbow (Compression).....	142.09	
33 01 30 51-0283 EA 3/4" Threaded End 90 Degree Street Elbow (Compression)	92.69	
33 01 30 51-0284 EA 1" Threaded End 90 Degree Street Elbow (Compression)	82.33	
33 01 30 51-0285 EA 1-1/4" Threaded End 90 Degree Street Elbow (Compression)	108.56	
33 01 30 51-0286 EA 1-1/2" Threaded End 90 Degree Street Elbow (Compression)	130.48	
33 01 30 51-0287 EA 2" Threaded End 90 Degree Street Elbow (Compression)	188.20	
33 01 30 51-0288 Steel Compression Repair Fittings, Tees (33 01 30 51-0237) Note: Includes armored gaskets.		
33 01 30 51-0289 EA 3/4" Street Tee (Compression)	94.49	
33 01 30 51-0290 EA 1" Street Tee (Compression)	111.36	
33 01 30 51-0291 EA 1-1/4" Street Tee (Compression)	110.48	
33 01 30 51-0292 EA 1-1/2" Street Tee (Compression)	125.88	
33 01 30 51-0293 EA 2" Street Tee (Compression)	197.38	
33 01 30 51-0294 EA 1-1/4" x 1-1/4" x 1" Reducing Street Tee (Compression).....	109.31	
33 01 30 51-0295 EA 1-1/4" x 1" x 1-1/4" Reducing Street Tee (Compression).....	115.20	
33 01 30 51-0296 EA 1-1/2" x 1-1/2" x 1" Reducing Street Tee (Compression).....	144.33	
33 01 30 51-0297 EA 1-1/2" x 1-1/2" x 1-1/4" Reducing Street Tee (Compression).....	170.93	
33 01 30 51-0298 EA 1-1/2" x 1" x 1-1/2" Reducing Street Tee (Compression).....	172.11	
33 01 30 51-0299 EA 1-1/2" x 1-1/4" x 1-1/2" Reducing Street Tee (Compression).....	141.82	
33 01 30 51-0300 EA 2" x 1-1/4" x 2" Reducing Street Tee (Compression).....	191.63	
33 01 30 51-0301 EA 2" x 1-1/2" x 2" Reducing Street Tee (Compression).....	221.19	
33 01 30 51-0302 EA 3/4" Welding Street Tee (Compression)	183.16	
33 01 30 51-0303 EA 1" Welding Street Tee (Compression)	181.55	
33 01 30 51-0304 EA 1-1/4" Welding Street Tee (Compression)	193.66	
33 01 30 51-0305 EA 1-1/2" Welding Street Tee (Compression)	232.28	
33 01 30 51-0306 EA 2" Welding Street Tee (Compression)	316.06	
33 01 30 51-0307 EA 3/4" Regular Tee (Compression)	131.57	
33 01 30 51-0308 EA 1" Regular Tee (Compression)	237.82	
33 01 30 51-0309 EA 1-1/4" Regular Tee (Compression)	249.82	
33 01 30 51-0310 EA 1-1/2" Regular Tee (Compression)	265.22	
33 01 30 51-0311 EA 2" Regular Tee (Compression).....	292.12	
33 01 30 51-0312 EA 2" x 2" x 1-1/4" Regular Reducing Tee (Compression).....	287.38	
33 01 30 51-0313 Steel Compression Repair Fittings, Male Adapters (33 01 30 51-0237) Note: Includes armored gaskets.		
33 01 30 51-0314 EA 3/4" Male Adapter (Compression).....	88.86	
33 01 30 51-0315 EA 1" Male Adapter (Compression).....	98.56	
33 01 30 51-0316 EA 1-1/4" Male Adapter (Compression).....	130.16	
33 01 30 51-0317 EA 1-1/2" Male Adapter (Compression).....	145.58	
33 01 30 51-0318 EA 2" Male Adapter (Compression).....	163.22	
33 01 30 51-0319 EA 1" x 1-1/4" Male Adapter (Compression)	129.40	
33 01 30 51-0320 Steel Compression Repair Fittings, Line Caps (33 01 30 51-0237) Note: Includes armored gaskets.		
33 01 30 51-0321 EA 3/4" Line Caps (Compression).....	48.06	
33 01 30 51-0322 EA 1" Line Caps (Compression).....	55.95	
33 01 30 51-0323 EA 1-1/4" Line Caps (Compression).....	63.97	
33 01 30 51-0324 EA 1-1/2" Line Caps (Compression).....	74.86	
33 01 30 51-0325 EA 2" Line Caps (Compression).....	92.69	
33 01 30 51-0326 Grind Offset Joint (33 01 30 51-0001)		
33 01 30 51-0327 EA 6" To 10", Grind Drop Offset Joint	440.41	
33 01 30 51-0328 EA >10" To 15", Grind Drop Offset Joint	587.20	
33 01 30 51-0329 EA >15" To 24", Grind Drop Offset Joint	734.00	
33 01 30 51-0330 EA >24" To 30", Grind Drop Offset Joint	880.81	
33 01 30 51-0331 Pipe Plugging (33 01 30 51-0001)		
33 01 30 51-0332 Gravity Bladder Type, Temporary Pipe Plugging (33 01 30 51-0331) Note: Includes insertion of expandable bladder device into pipe, expanding to block flow and removal.		

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 51-0333	EA	3/4" Bladder Type, Temporary Pipe Plug.....	80.98
33 01 30 51-0334	EA	1" Bladder Type, Temporary Pipe Plug.....	86.61
33 01 30 51-0335	EA	1-1/4" Bladder Type, Temporary Pipe Plug.....	93.29
33 01 30 51-0336	EA	1-1/2" Bladder Type, Temporary Pipe Plug.....	99.56
33 01 30 51-0337	EA	2" Bladder Type, Temporary Pipe Plug.....	105.61
33 01 30 51-0338	EA	2-1/2" Bladder Type, Temporary Pipe Plug.....	112.25
33 01 30 51-0339	EA	3" Bladder Type, Temporary Pipe Plug.....	120.50
33 01 30 51-0340	EA	4" Bladder Type, Temporary Pipe Plug.....	132.48
33 01 30 51-0341	EA	5" Bladder Type, Temporary Pipe Plug.....	143.62
33 01 30 51-0342	EA	6" Bladder Type, Temporary Pipe Plug.....	160.30
33 01 30 51-0343	EA	8" Bladder Type, Temporary Pipe Plug.....	177.90
33 01 30 51-0344	EA	10" Bladder Type, Temporary Pipe Plug.....	206.24
33 01 30 51-0345	EA	12" Bladder Type, Temporary Pipe Plug.....	239.67
33 01 30 51-0346	EA	14" Bladder Type, Temporary Pipe Plug.....	285.56
33 01 30 51-0347	EA	16" Bladder Type, Temporary Pipe Plug.....	344.16
33 01 30 51-0348	EA	18" Bladder Type, Temporary Pipe Plug.....	414.52
33 01 30 51-0349	EA	20" Bladder Type, Temporary Pipe Plug.....	492.80
33 01 30 51-0350	EA	24" Bladder Type, Temporary Pipe Plug.....	568.43

33 01 30 51-0351 Hydra Stop, Hot Tapping Of Pressure Pipe (33 01 30 51-0331)

Note: Includes flanged or threaded lateral outlet, cutting and tapping pipe, insertion of expandable bladder device into pipe, expanding to block flow, and removal of bladder/cutting device.

33 01 30 51-0352	EA	2" Hydra Stop, Line Stopper.....	2,789.83
33 01 30 51-0353	EA	2-1/2" Hydra Stop, Line Stopper.....	3,500.68
33 01 30 51-0354	EA	3" Hydra Stop, Line Stopper.....	4,291.90
33 01 30 51-0355	EA	4" Hydra Stop, Line Stopper.....	5,177.83
33 01 30 51-0356	EA	5" Hydra Stop, Line Stopper.....	5,836.05
33 01 30 51-0357	EA	6" Hydra Stop, Line Stopper.....	6,884.60
33 01 30 51-0358	EA	8" Hydra Stop, Line Stopper.....	7,542.81
33 01 30 51-0359	EA	10" Hydra Stop, Line Stopper.....	8,591.34
33 01 30 51-0360	EA	12" Hydra Stop, Line Stopper.....	9,639.91
33 01 30 51-0361	EA	14" Hydra Stop, Line Stopper.....	10,755.40
33 01 30 51-0362	EA	16" Hydra Stop, Line Stopper.....	12,272.80
33 01 30 51-0363	EA	18" Hydra Stop, Line Stopper.....	13,991.10
33 01 30 51-0364	EA	20" Hydra Stop, Line Stopper.....	16,646.90

33 01 30 51-0365 Aluminum Expansion Plugs (33 01 30 51-0331)

Note: For use with PVC, clay Or cast iron drainage pipe.

33 01 30 51-0366	EA	3" Pipe Aluminum Expansion Plug.....	75.93
33 01 30 51-0367	EA	4" Pipe Aluminum Expansion Plug.....	110.39
33 01 30 51-0368	EA	5" Pipe Aluminum Expansion Plug.....	124.53
33 01 30 51-0369	EA	6" Pipe Aluminum Expansion Plug.....	190.66
33 01 30 51-0370	EA	8" Pipe Aluminum Expansion Plug.....	195.77
33 01 30 51-0371	EA	10" Pipe Aluminum Expansion Plug.....	245.61
33 01 30 51-0372	EA	12" Pipe Aluminum Expansion Plug.....	333.44
33 01 30 51-0373	EA	14" Pipe Aluminum Expansion Plug.....	541.02
33 01 30 51-0374	EA	15" Pipe Aluminum Expansion Plug.....	586.19

33 01 30 51-0375 Pipe Repair Clamp, Stainless Steel, 3" Long (33 01 30 51-0001)

33 01 30 51-0376	EA	1/2" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	157.06
33 01 30 51-0377	EA	3/4" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	157.61
33 01 30 51-0378	EA	1" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	158.97
33 01 30 51-0379	EA	1-1/4" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	160.32
33 01 30 51-0380	EA	1-1/2" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	161.00
33 01 30 51-0381	EA	2" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	163.04
33 01 30 51-0382	EA	2-1/2" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	165.08
33 01 30 51-0383	EA	3" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	167.79
33 01 30 51-0384	EA	4" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	288.43
33 01 30 51-0385	EA	6" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	297.26
33 01 30 51-0386	EA	8" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	303.37
33 01 30 51-0387	EA	10" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	367.89
33 01 30 51-0388	EA	12" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	376.04
33 01 30 51-0389	EA	14" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	381.47
33 01 30 51-0390	EA	16" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	389.62
33 01 30 51-0391	EA	18" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	397.77
33 01 30 51-0392	EA	20" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	408.64
33 01 30 51-0393	EA	24" Diameter Pipe Clamp, Stainless Steel, 3" Long.....	427.66

33 01 30 51-0394 Polyseal Pipe Coupler (33 01 30 51-0001)

33 01 30 51-0395	EA	18" Diameter Pipe, PolySeal Repair Couplers (MarMac).....	327.90
33 01 30 51-0396	EA	24" Diameter Pipe, PolySeal Repair Couplers (MarMac).....	370.05

33 01 30 63 Sewer and Pipe Joint Sealing (33 01 30)**33 01 30 63-0001 Joint Air Test (33 01 30 63)**

33 01 30 63-0002	EA	4" To 8", Joint Air Test.....	99.04



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 63-0003 EA 10" To 15", Joint Air Test.....	115.55	
33 01 30 63-0004 EA >15" To 21", Joint Air Test.....	132.05	
33 01 30 63-0005 EA >21" To 24", Joint Air Test.....	165.07	
33 01 30 63-0006 EA >24" To 27", Joint Air Test.....	198.08	
33 01 30 63-0007 EA >27" To 36", Joint Air Test.....	231.10	
33 01 30 63-0008 Joint Seal And Joint Air Retest (33 01 30 63) Note: Includes grout.		
33 01 30 63-0009 EA 4" Joint Seal And Joint Air Retest..... Note: Includes up to 1 gallon of grout.	300.21	
33 01 30 63-0010 EA 6" Joint Seal And Joint Air Retest..... Note: Includes 1 gallon of grout.	333.23	
33 01 30 63-0011 EA 8" Joint Seal And Joint Air Retest..... Note: Includes 2 gallons of grout.	402.36	
33 01 30 63-0012 EA 10" Joint Seal And Joint Air Retest..... Note: Includes 2.5 gallons of grout.	453.43	
33 01 30 63-0013 EA 12" Joint Seal And Joint Air Retest..... Note: Includes 3 gallons of grout.	504.50	
33 01 30 63-0014 EA 15" Joint Seal And Joint Air Retest..... Note: Includes 3.75 gallons of grout.	597.60	
33 01 30 63-0015 EA 18" Joint Seal And Joint Air Retest..... Note: Includes 4.5 gallons of grout.	690.72	
33 01 30 63-0016 EA 21" Joint Seal And Joint Air Retest..... Note: Includes 5.25 gallons of grout.	783.82	
33 01 30 63-0017 EA 24" Joint Seal And Joint Air Retest..... Note: Includes 6 gallons of grout.	909.96	
33 01 30 63-0018 EA 27" Joint Seal And Joint Air Retest..... Note: Includes 6.75 gallons of grout.	1,036.07	
33 01 30 63-0019 EA 30" Joint Seal And Joint Air Retest..... Note: Includes 7.5 gallons of grout.	1,195.21	
33 01 30 63-0020 EA 36" Joint Seal And Joint Air Retest..... Note: Includes 9 gallons of grout.	1,381.44	
33 01 30 63-0021 GAL Extra Grout Per Joint..... Note: For extra grout per joint required over listed amount.	168.16	
33 01 30 70 Rehabilitation of Sewer Utilities (33 01 30)		
33 01 30 70-0001 Cementitious Pipe Coatings By Hand (33 01 30 70) Note: To be used on repair areas to install the coating on the exposed portion of the pipe.		
33 01 30 70-0002 SF Up To 1" Thick Cementitious Coating On Pipe, Troweled On.....	9.75	
33 01 30 70-0003 SF >1" To 2" Thick Cementitious Coating On Pipe, Troweled On.....	14.86	
33 01 30 71 Relining Sewers (33 01 30)		
33 01 30 71-0001 Relining Underground Pipelines (33 01 30 71) Note: Excludes CCTV inspection, sewer cleaning, pavement both temporary and permanent, emergency after hours response for homeowners backups. See CSI section 01 22 20 00-0000 for hourly rates for after hours response for homeowners backups, 32 01 17 63-0000 for temporary pavement, 32 12 16 00-0000 for permanent pavement, 33 01 30 11-0000 for CCTV inspection, 33 01 30 41-0002 for sewer cleaning.		
33 01 30 71-0002 25% Asphalt Paving In Pipe, Cold Applied, ASTM A849 (33 01 30 71-0001) Note: Excludes costs for CCTV inspection, sewer cleaning, bypass pumping.		
33 01 30 71-0003 LF 12" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe.	7.95	
For Up To 100 LF Total Relining (All Sizes), Add	1.86	
For >100 To 250 LF Total Relining (All Sizes), Add	1.49	
For >250 To 500 LF Total Relining (All Sizes), Add	0.74	
For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-0.54	
For >5,000 LF Total Relining (All Sizes), Deduct	-0.92	
33 01 30 71-0004 LF 15" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe.	10.27	
For Up To 100 LF Total Relining (All Sizes), Add	2.36	
For >100 To 250 LF Total Relining (All Sizes), Add	1.89	
For >250 To 500 LF Total Relining (All Sizes), Add	0.95	
For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-0.69	
For >5,000 LF Total Relining (All Sizes), Deduct	-1.16	
33 01 30 71-0005 LF 18" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe.	12.33	
For Up To 100 LF Total Relining (All Sizes), Add	2.84	
For >100 To 250 LF Total Relining (All Sizes), Add	2.27	
For >250 To 500 LF Total Relining (All Sizes), Add	1.14	
For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-0.83	
For >5,000 LF Total Relining (All Sizes), Deduct	-1.39	
33 01 30 71-0006 LF 21" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe.	14.38	
For Up To 100 LF Total Relining (All Sizes), Add	3.31	
For >100 To 250 LF Total Relining (All Sizes), Add	2.65	
For >250 To 500 LF Total Relining (All Sizes), Add	1.32	
For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-0.96	
For >5,000 LF Total Relining (All Sizes), Deduct	-1.63	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 71-0007	LF	24" Diameter Pipe, 25% Asphalt Paved.....	16.44
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	3.78
		For >100 To 250 LF Total Relining (All Sizes), Add	3.03
		For >250 To 500 LF Total Relining (All Sizes), Add	1.51
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-1.10
		For >5,000 LF Total Relining (All Sizes), Deduct	-1.86
33 01 30 71-0008	LF	30" Diameter Pipe, 25% Asphalt Paved.....	20.54
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	4.73
		For >100 To 250 LF Total Relining (All Sizes), Add	3.78
		For >250 To 500 LF Total Relining (All Sizes), Add	1.89
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-1.38
		For >5,000 LF Total Relining (All Sizes), Deduct	-2.32
33 01 30 71-0009	LF	36" Diameter Pipe, 25% Asphalt Paved.....	24.65
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	5.67
		For >100 To 250 LF Total Relining (All Sizes), Add	4.54
		For >250 To 500 LF Total Relining (All Sizes), Add	2.27
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-1.65
		For >5,000 LF Total Relining (All Sizes), Deduct	-2.79
33 01 30 71-0010	LF	42" Diameter Pipe, 25% Asphalt Paved.....	28.76
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	6.62
		For >100 To 250 LF Total Relining (All Sizes), Add	5.30
		For >250 To 500 LF Total Relining (All Sizes), Add	2.65
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-1.93
		For >5,000 LF Total Relining (All Sizes), Deduct	-3.25
33 01 30 71-0011	LF	48" Diameter Pipe, 25% Asphalt Paved.....	32.88
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	7.57
		For >100 To 250 LF Total Relining (All Sizes), Add	6.05
		For >250 To 500 LF Total Relining (All Sizes), Add	3.03
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-2.21
		For >5,000 LF Total Relining (All Sizes), Deduct	-3.72
33 01 30 71-0012	LF	54" Diameter Pipe, 25% Asphalt Paved.....	36.98
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	8.51
		For >100 To 250 LF Total Relining (All Sizes), Add	6.81
		For >250 To 500 LF Total Relining (All Sizes), Add	3.40
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-2.48
		For >5,000 LF Total Relining (All Sizes), Deduct	-4.18
33 01 30 71-0013	LF	60" Diameter Pipe, 25% Asphalt Paved.....	41.09
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	9.46
		For >100 To 250 LF Total Relining (All Sizes), Add	7.57
		For >250 To 500 LF Total Relining (All Sizes), Add	3.78
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-2.76
		For >5,000 LF Total Relining (All Sizes), Deduct	-4.65
33 01 30 71-0014	LF	66" Diameter Pipe, 25% Asphalt Paved.....	45.20
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	10.40
		For >100 To 250 LF Total Relining (All Sizes), Add	8.32
		For >250 To 500 LF Total Relining (All Sizes), Add	4.16
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-3.03
		For >5,000 LF Total Relining (All Sizes), Deduct	-5.11
33 01 30 71-0015	LF	72" Diameter Pipe, 25% Asphalt Paved.....	49.31
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	11.35
		For >100 To 250 LF Total Relining (All Sizes), Add	9.08
		For >250 To 500 LF Total Relining (All Sizes), Add	4.54
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-3.31
		For >5,000 LF Total Relining (All Sizes), Deduct	-5.58
33 01 30 71-0016	LF	78" Diameter Pipe, 25% Asphalt Paved.....	53.41
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	12.29
		For >100 To 250 LF Total Relining (All Sizes), Add	9.83
		For >250 To 500 LF Total Relining (All Sizes), Add	4.92
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-3.58
		For >5,000 LF Total Relining (All Sizes), Deduct	-6.04
33 01 30 71-0017	LF	84" Diameter Pipe, 25% Asphalt Paved.....	57.52
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	13.24
		For >100 To 250 LF Total Relining (All Sizes), Add	10.59
		For >250 To 500 LF Total Relining (All Sizes), Add	5.30
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-3.86
		For >5,000 LF Total Relining (All Sizes), Deduct	-6.51
33 01 30 71-0018	LF	90" Diameter Pipe, 25% Asphalt Paved.....	61.64
		Note: Cold applied to corrugated metal pipe.	
		For Up To 100 LF Total Relining (All Sizes), Add	14.19
		For >100 To 250 LF Total Relining (All Sizes), Add	11.35
		For >250 To 500 LF Total Relining (All Sizes), Add	5.67
		For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct	-4.13
		For >5,000 LF Total Relining (All Sizes), Deduct	-6.97



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0019	LF	96" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	65.74 15.13 12.10 6.05 -4.41 -7.43	
33 01 30 71-0020	LF	102" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	69.85 16.08 12.86 6.43 -4.68 -7.90	
33 01 30 71-0021	LF	108" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	73.96 17.02 13.62 6.81 -4.96 -8.36	
33 01 30 71-0022	LF	114" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	78.08 17.97 14.38 7.19 -5.24 -8.83	
33 01 30 71-0023	LF	120" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	82.19 18.92 15.13 7.57 -5.51 -9.30	
33 01 30 71-0024	LF	126" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	86.30 19.86 15.89 7.95 -5.79 -9.76	
33 01 30 71-0025	LF	132" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	90.39 20.80 16.64 8.32 -6.06 -10.22	
33 01 30 71-0026	LF	138" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	94.52 21.75 17.40 8.70 -6.34 -10.69	
33 01 30 71-0027	LF	144" Diameter Pipe, 25% Asphalt Paved..... Note: Cold applied to corrugated metal pipe. For Up To 100 LF Total Relining (All Sizes), Add For >100 To 250 LF Total Relining (All Sizes), Add For >250 To 500 LF Total Relining (All Sizes), Add For >2,500 To 5,000 LF Total Relining (All Sizes), Deduct For >5,000 LF Total Relining (All Sizes), Deduct	98.63 22.70 18.16 9.08 -6.61 -11.15	
33 01 30 71-0028		Lining Pipe, Spray Applied With Structural Polyurethane (33 01 30 71-0001) Note: Two part structural polyurethane.		
33 01 30 71-0029		Mobilization And Setup For Spray Applied Structural Polyurethane Lining (33 01 30 71-0028)		
33 01 30 71-0030	EA	Initial Set Up And Final Equipment Removal For Spray Applied Structural Polyurethane Lining.....	2,024.01	
33 01 30 71-0031		Lining Pipe, Spray Applied With 100 mil Structural Polyurethane (33 01 30 71-0028) Note: Two part structural polyurethane.		
33 01 30 71-0032	LF	36" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane..... For Up To 75, Add For >75 To 150, Add For >500 To 1,000, Deduct For >1,000 To 2,000, Deduct For >2,000 To 5,000, Deduct For >5,000, Deduct	61.14 13.32 6.11 -1.66 -3.21 -4.98 -7.21	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0033 LF 42" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	71.33	
For Up To 75, Add	15.54	
For >75 To 150, Add	7.13	
For >500 To 1,000, Deduct	-1.94	
For >1,000 To 2,000, Deduct	-3.74	
For >2,000 To 5,000, Deduct	-5.81	
For >5,000, Deduct	-8.41	
33 01 30 71-0034 LF 48" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	81.53	
For Up To 75, Add	17.76	
For >75 To 150, Add	8.15	
For >500 To 1,000, Deduct	-2.21	
For >1,000 To 2,000, Deduct	-4.28	
For >2,000 To 5,000, Deduct	-6.64	
For >5,000, Deduct	-9.61	
33 01 30 71-0035 LF 54" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	91.71	
For Up To 75, Add	19.98	
For >75 To 150, Add	9.17	
For >500 To 1,000, Deduct	-2.49	
For >1,000 To 2,000, Deduct	-4.81	
For >2,000 To 5,000, Deduct	-7.47	
For >5,000, Deduct	-10.81	
33 01 30 71-0036 LF 60" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	101.90	
For Up To 75, Add	22.20	
For >75 To 150, Add	10.19	
For >500 To 1,000, Deduct	-2.77	
For >1,000 To 2,000, Deduct	-5.35	
For >2,000 To 5,000, Deduct	-8.30	
For >5,000, Deduct	-12.01	
33 01 30 71-0037 LF 66" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	112.10	
For Up To 75, Add	24.42	
For >75 To 150, Add	11.21	
For >500 To 1,000, Deduct	-3.04	
For >1,000 To 2,000, Deduct	-5.89	
For >2,000 To 5,000, Deduct	-9.13	
For >5,000, Deduct	-13.21	
33 01 30 71-0038 LF 72" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	122.29	
For Up To 75, Add	26.64	
For >75 To 150, Add	12.23	
For >500 To 1,000, Deduct	-3.32	
For >1,000 To 2,000, Deduct	-6.42	
For >2,000 To 5,000, Deduct	-9.96	
For >5,000, Deduct	-14.41	
33 01 30 71-0039 LF 78" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	132.47	
For Up To 75, Add	28.86	
For >75 To 150, Add	13.25	
For >500 To 1,000, Deduct	-3.60	
For >1,000 To 2,000, Deduct	-6.95	
For >2,000 To 5,000, Deduct	-10.79	
For >5,000, Deduct	-15.61	
33 01 30 71-0040 LF 84" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	142.67	
For Up To 75, Add	31.08	
For >75 To 150, Add	14.27	
For >500 To 1,000, Deduct	-3.87	
For >1,000 To 2,000, Deduct	-7.49	
For >2,000 To 5,000, Deduct	-11.62	
For >5,000, Deduct	-16.81	
33 01 30 71-0041 LF 90" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	152.85	
For Up To 75, Add	33.30	
For >75 To 150, Add	15.29	
For >500 To 1,000, Deduct	-4.15	
For >1,000 To 2,000, Deduct	-8.02	
For >2,000 To 5,000, Deduct	-12.45	
For >5,000, Deduct	-18.01	
33 01 30 71-0042 LF 96" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	163.04	
For Up To 75, Add	35.52	
For >75 To 150, Add	16.30	
For >500 To 1,000, Deduct	-4.43	
For >1,000 To 2,000, Deduct	-8.56	
For >2,000 To 5,000, Deduct	-13.28	
For >5,000, Deduct	-19.22	
33 01 30 71-0043 LF 102" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	173.24	
For Up To 75, Add	37.74	
For >75 To 150, Add	17.32	
For >500 To 1,000, Deduct	-4.70	
For >1,000 To 2,000, Deduct	-9.10	
For >2,000 To 5,000, Deduct	-14.11	
For >5,000, Deduct	-20.42	
33 01 30 71-0044 LF 108" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	183.43	
For Up To 75, Add	39.96	
For >75 To 150, Add	18.34	
For >500 To 1,000, Deduct	-4.98	
For >1,000 To 2,000, Deduct	-9.63	
For >2,000 To 5,000, Deduct	-14.94	
For >5,000, Deduct	-21.62	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0045	LF	114" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	193.62	
		For Up To 75, Add	42.18	
		For >75 To 150, Add	19.36	
		For >500 To 1,000, Deduct	-5.26	
		For >1,000 To 2,000, Deduct	-10.16	
		For >2,000 To 5,000, Deduct	-15.77	
		For >5,000, Deduct	-22.82	
33 01 30 71-0046	LF	120" Diameter Pipe Lining, Spray Applied With 100 mil Structural Polyurethane	203.81	
		For Up To 75, Add	44.40	
		For >75 To 150, Add	20.38	
		For >500 To 1,000, Deduct	-5.53	
		For >1,000 To 2,000, Deduct	-10.70	
		For >2,000 To 5,000, Deduct	-16.60	
		For >5,000, Deduct	-24.02	
33 01 30 71-0047	SF	Structure Lining, Spray Applied With 100 mil Structural Polyurethane	6.49	
33 01 30 71-0048		Lining Pipe, Spray Applied With 150 mil Structural Polyurethane (33 01 30 71-0028)		
		Note: Two part structural polyurethane.		
33 01 30 71-0049	LF	36" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	81.98	
		For Up To 75, Add	17.55	
		For >75 To 150, Add	8.20	
		For >500 To 1,000, Deduct	-2.10	
		For >1,000 To 2,000, Deduct	-4.08	
		For >2,000 To 5,000, Deduct	-6.30	
		For >5,000, Deduct	-9.35	
33 01 30 71-0050	LF	42" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	95.64	
		For Up To 75, Add	20.47	
		For >75 To 150, Add	9.56	
		For >500 To 1,000, Deduct	-2.45	
		For >1,000 To 2,000, Deduct	-4.76	
		For >2,000 To 5,000, Deduct	-7.35	
		For >5,000, Deduct	-10.90	
33 01 30 71-0051	LF	48" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	109.32	
		For Up To 75, Add	23.40	
		For >75 To 150, Add	10.93	
		For >500 To 1,000, Deduct	-2.80	
		For >1,000 To 2,000, Deduct	-5.45	
		For >2,000 To 5,000, Deduct	-8.40	
		For >5,000, Deduct	-12.46	
33 01 30 71-0052	LF	54" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	122.96	
		For Up To 75, Add	26.32	
		For >75 To 150, Add	12.30	
		For >500 To 1,000, Deduct	-3.15	
		For >1,000 To 2,000, Deduct	-6.12	
		For >2,000 To 5,000, Deduct	-9.45	
		For >5,000, Deduct	-14.02	
33 01 30 71-0053	LF	60" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	136.63	
		For Up To 75, Add	29.24	
		For >75 To 150, Add	13.66	
		For >500 To 1,000, Deduct	-3.50	
		For >1,000 To 2,000, Deduct	-6.81	
		For >2,000 To 5,000, Deduct	-10.50	
		For >5,000, Deduct	-15.58	
33 01 30 71-0054	LF	66" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	150.30	
		For Up To 75, Add	32.17	
		For >75 To 150, Add	15.03	
		For >500 To 1,000, Deduct	-3.85	
		For >1,000 To 2,000, Deduct	-7.49	
		For >2,000 To 5,000, Deduct	-11.55	
		For >5,000, Deduct	-17.14	
33 01 30 71-0055	LF	72" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	163.97	
		For Up To 75, Add	35.09	
		For >75 To 150, Add	16.40	
		For >500 To 1,000, Deduct	-4.20	
		For >1,000 To 2,000, Deduct	-8.17	
		For >2,000 To 5,000, Deduct	-12.60	
		For >5,000, Deduct	-18.70	
33 01 30 71-0056	LF	78" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	177.62	
		For Up To 75, Add	38.01	
		For >75 To 150, Add	17.76	
		For >500 To 1,000, Deduct	-4.55	
		For >1,000 To 2,000, Deduct	-8.85	
		For >2,000 To 5,000, Deduct	-13.64	
		For >5,000, Deduct	-20.25	
33 01 30 71-0057	LF	84" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	191.30	
		For Up To 75, Add	40.94	
		For >75 To 150, Add	19.13	
		For >500 To 1,000, Deduct	-4.90	
		For >1,000 To 2,000, Deduct	-9.53	
		For >2,000 To 5,000, Deduct	-14.70	
		For >5,000, Deduct	-21.81	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0058 LF 90" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	204.95	
For Up To 75, Add	43.86	
For >75 To 150, Add	20.50	
For >500 To 1,000, Deduct	-5.25	
For >1,000 To 2,000, Deduct	-10.21	
For >2,000 To 5,000, Deduct	-15.74	
For >5,000, Deduct	-23.37	
33 01 30 71-0059 LF 96" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	218.61	
For Up To 75, Add	46.79	
For >75 To 150, Add	21.86	
For >500 To 1,000, Deduct	-5.60	
For >1,000 To 2,000, Deduct	-10.89	
For >2,000 To 5,000, Deduct	-16.79	
For >5,000, Deduct	-24.93	
33 01 30 71-0060 LF 102" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	232.28	
For Up To 75, Add	49.71	
For >75 To 150, Add	23.23	
For >500 To 1,000, Deduct	-5.95	
For >1,000 To 2,000, Deduct	-11.57	
For >2,000 To 5,000, Deduct	-17.84	
For >5,000, Deduct	-26.48	
33 01 30 71-0061 LF 108" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	245.95	
For Up To 75, Add	52.64	
For >75 To 150, Add	24.60	
For >500 To 1,000, Deduct	-6.30	
For >1,000 To 2,000, Deduct	-12.25	
For >2,000 To 5,000, Deduct	-18.89	
For >5,000, Deduct	-28.04	
33 01 30 71-0062 LF 114" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	259.61	
For Up To 75, Add	55.56	
For >75 To 150, Add	25.96	
For >500 To 1,000, Deduct	-6.65	
For >1,000 To 2,000, Deduct	-12.93	
For >2,000 To 5,000, Deduct	-19.94	
For >5,000, Deduct	-29.60	
33 01 30 71-0063 LF 120" Diameter Pipe Lining, Spray Applied With 150 mil Structural Polyurethane	273.28	
For Up To 75, Add	58.49	
For >75 To 150, Add	27.33	
For >500 To 1,000, Deduct	-7.00	
For >1,000 To 2,000, Deduct	-13.61	
For >2,000 To 5,000, Deduct	-20.99	
For >5,000, Deduct	-31.16	
33 01 30 71-0064 SF Structure Lining, Spray Applied With 150 mil Structural Polyurethane	8.70	
33 01 30 71-0065 Lining Pipe, Spray Applied With 200 mil Structural Polyurethane (33 01 30 71-0028)		
Note: Two part structural polyurethane.		
33 01 30 71-0066 LF 36" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	102.80	
For Up To 75, Add	21.77	
For >75 To 150, Add	10.28	
For >500 To 1,000, Deduct	-2.54	
For >1,000 To 2,000, Deduct	-4.96	
For >2,000 To 5,000, Deduct	-7.62	
For >5,000, Deduct	-11.49	
33 01 30 71-0067 LF 42" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	119.94	
For Up To 75, Add	25.40	
For >75 To 150, Add	11.99	
For >500 To 1,000, Deduct	-2.96	
For >1,000 To 2,000, Deduct	-5.79	
For >2,000 To 5,000, Deduct	-8.89	
For >5,000, Deduct	-13.41	
33 01 30 71-0068 LF 48" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	137.08	
For Up To 75, Add	29.03	
For >75 To 150, Add	13.71	
For >500 To 1,000, Deduct	-3.39	
For >1,000 To 2,000, Deduct	-6.61	
For >2,000 To 5,000, Deduct	-10.16	
For >5,000, Deduct	-15.32	
33 01 30 71-0069 LF 54" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	154.22	
For Up To 75, Add	32.66	
For >75 To 150, Add	15.42	
For >500 To 1,000, Deduct	-3.81	
For >1,000 To 2,000, Deduct	-7.44	
For >2,000 To 5,000, Deduct	-11.43	
For >5,000, Deduct	-17.24	
33 01 30 71-0070 LF 60" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	171.35	
For Up To 75, Add	36.29	
For >75 To 150, Add	17.14	
For >500 To 1,000, Deduct	-4.23	
For >1,000 To 2,000, Deduct	-8.27	
For >2,000 To 5,000, Deduct	-12.70	
For >5,000, Deduct	-19.15	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0071	LF	66" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	188.48	
		For Up To 75, Add	39.91	
		For >75 To 150, Add	18.65	
		For >500 To 1,000, Deduct	-4.66	
		For >1,000 To 2,000, Deduct	-9.09	
		For >2,000 To 5,000, Deduct	-13.97	
		For >5,000, Deduct	-21.07	
33 01 30 71-0072	LF	72" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	205.62	
		For Up To 75, Add	43.54	
		For >75 To 150, Add	20.56	
		For >500 To 1,000, Deduct	-5.08	
		For >1,000 To 2,000, Deduct	-9.92	
		For >2,000 To 5,000, Deduct	-15.24	
		For >5,000, Deduct	-22.98	
33 01 30 71-0073	LF	78" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	222.75	
		For Up To 75, Add	47.17	
		For >75 To 150, Add	22.28	
		For >500 To 1,000, Deduct	-5.50	
		For >1,000 To 2,000, Deduct	-10.74	
		For >2,000 To 5,000, Deduct	-16.51	
		For >5,000, Deduct	-24.90	
33 01 30 71-0074	LF	84" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	239.89	
		For Up To 75, Add	50.80	
		For >75 To 150, Add	23.99	
		For >500 To 1,000, Deduct	-5.93	
		For >1,000 To 2,000, Deduct	-11.57	
		For >2,000 To 5,000, Deduct	-17.78	
		For >5,000, Deduct	-26.81	
33 01 30 71-0075	LF	90" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	257.02	
		For Up To 75, Add	54.43	
		For >75 To 150, Add	25.70	
		For >500 To 1,000, Deduct	-6.35	
		For >1,000 To 2,000, Deduct	-12.40	
		For >2,000 To 5,000, Deduct	-19.05	
		For >5,000, Deduct	-28.73	
33 01 30 71-0076	LF	96" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	274.16	
		For Up To 75, Add	58.06	
		For >75 To 150, Add	27.42	
		For >500 To 1,000, Deduct	-6.77	
		For >1,000 To 2,000, Deduct	-13.22	
		For >2,000 To 5,000, Deduct	-20.32	
		For >5,000, Deduct	-30.64	
33 01 30 71-0077	LF	102" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	291.29	
		For Up To 75, Add	61.69	
		For >75 To 150, Add	29.13	
		For >500 To 1,000, Deduct	-7.20	
		For >1,000 To 2,000, Deduct	-14.05	
		For >2,000 To 5,000, Deduct	-21.59	
		For >5,000, Deduct	-32.56	
33 01 30 71-0078	LF	108" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	308.42	
		For Up To 75, Add	65.31	
		For >75 To 150, Add	30.84	
		For >500 To 1,000, Deduct	-7.62	
		For >1,000 To 2,000, Deduct	-14.88	
		For >2,000 To 5,000, Deduct	-22.86	
		For >5,000, Deduct	-34.47	
33 01 30 71-0079	LF	114" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	325.57	
		For Up To 75, Add	68.94	
		For >75 To 150, Add	32.56	
		For >500 To 1,000, Deduct	-8.04	
		For >1,000 To 2,000, Deduct	-15.70	
		For >2,000 To 5,000, Deduct	-24.13	
		For >5,000, Deduct	-36.39	
33 01 30 71-0080	LF	120" Diameter Pipe Lining, Spray Applied With 200 mil Structural Polyurethane	342.69	
		For Up To 75, Add	72.57	
		For >75 To 150, Add	34.27	
		For >500 To 1,000, Deduct	-8.47	
		For >1,000 To 2,000, Deduct	-16.53	
		For >2,000 To 5,000, Deduct	-25.40	
		For >5,000, Deduct	-38.30	
33 01 30 71-0081	SF	Structure Lining, Spray Applied With 200 mil Structural Polyurethane	10.91	
33 01 30 71-0082		Lining Pipe, Spray Applied With 250 mil Structural Polyurethane (33 01 30 71-0028)		
		Note: Two part structural polyurethane.		
33 01 30 71-0083	LF	36" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	123.73	
		For Up To 75, Add	26.02	
		For >75 To 150, Add	12.37	
		For >500 To 1,000, Deduct	-2.98	
		For >1,000 To 2,000, Deduct	-5.64	
		For >2,000 To 5,000, Deduct	-8.95	
		For >5,000, Deduct	-13.65	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0084 LF 42" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	144.37	
For Up To 75, Add	30.36	
For >75 To 150, Add	14.44	
For >500 To 1,000, Deduct	-3.48	
For >1,000 To 2,000, Deduct	-6.82	
For >2,000 To 5,000, Deduct	-10.45	
For >5,000, Deduct	-15.92	
33 01 30 71-0085 LF 48" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	164.98	
For Up To 75, Add	34.69	
For >75 To 150, Add	16.50	
For >500 To 1,000, Deduct	-3.98	
For >1,000 To 2,000, Deduct	-7.79	
For >2,000 To 5,000, Deduct	-11.94	
For >5,000, Deduct	-18.20	
33 01 30 71-0086 LF 54" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	185.60	
For Up To 75, Add	39.03	
For >75 To 150, Add	18.56	
For >500 To 1,000, Deduct	-4.48	
For >1,000 To 2,000, Deduct	-8.76	
For >2,000 To 5,000, Deduct	-13.43	
For >5,000, Deduct	-20.47	
33 01 30 71-0087 LF 60" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	206.23	
For Up To 75, Add	43.37	
For >75 To 150, Add	20.62	
For >500 To 1,000, Deduct	-4.97	
For >1,000 To 2,000, Deduct	-9.73	
For >2,000 To 5,000, Deduct	-14.92	
For >5,000, Deduct	-22.75	
33 01 30 71-0088 LF 66" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	226.84	
For Up To 75, Add	47.70	
For >75 To 150, Add	22.68	
For >500 To 1,000, Deduct	-5.47	
For >1,000 To 2,000, Deduct	-10.71	
For >2,000 To 5,000, Deduct	-16.41	
For >5,000, Deduct	-25.02	
33 01 30 71-0089 LF 72" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	247.48	
For Up To 75, Add	52.04	
For >75 To 150, Add	24.75	
For >500 To 1,000, Deduct	-5.97	
For >1,000 To 2,000, Deduct	-11.68	
For >2,000 To 5,000, Deduct	-17.91	
For >5,000, Deduct	-27.30	
33 01 30 71-0090 LF 78" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	268.09	
For Up To 75, Add	56.38	
For >75 To 150, Add	26.81	
For >500 To 1,000, Deduct	-6.47	
For >1,000 To 2,000, Deduct	-12.65	
For >2,000 To 5,000, Deduct	-19.40	
For >5,000, Deduct	-29.57	
33 01 30 71-0091 LF 84" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	288.71	
For Up To 75, Add	60.71	
For >75 To 150, Add	28.87	
For >500 To 1,000, Deduct	-6.96	
For >1,000 To 2,000, Deduct	-13.63	
For >2,000 To 5,000, Deduct	-20.89	
For >5,000, Deduct	-31.84	
33 01 30 71-0092 LF 90" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	309.35	
For Up To 75, Add	65.05	
For >75 To 150, Add	30.94	
For >500 To 1,000, Deduct	-7.46	
For >1,000 To 2,000, Deduct	-14.60	
For >2,000 To 5,000, Deduct	-22.38	
For >5,000, Deduct	-34.12	
33 01 30 71-0093 LF 96" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	329.96	
For Up To 75, Add	69.39	
For >75 To 150, Add	33.00	
For >500 To 1,000, Deduct	-7.96	
For >1,000 To 2,000, Deduct	-15.57	
For >2,000 To 5,000, Deduct	-23.87	
For >5,000, Deduct	-36.39	
33 01 30 71-0094 LF 102" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	350.59	
For Up To 75, Add	73.73	
For >75 To 150, Add	35.06	
For >500 To 1,000, Deduct	-8.45	
For >1,000 To 2,000, Deduct	-16.55	
For >2,000 To 5,000, Deduct	-25.36	
For >5,000, Deduct	-38.67	
33 01 30 71-0095 LF 108" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	371.22	
For Up To 75, Add	78.06	
For >75 To 150, Add	37.12	
For >500 To 1,000, Deduct	-8.95	
For >1,000 To 2,000, Deduct	-17.52	
For >2,000 To 5,000, Deduct	-26.86	
For >5,000, Deduct	-40.94	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0096	LF		114" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	391.82	
			For Up To 75, Add	82.40	
			For >75 To 150, Add	39.18	
			For >500 To 1,000, Deduct	-9.45	
			For >1,000 To 2,000, Deduct	-18.49	
			For >2,000 To 5,000, Deduct	-28.35	
			For >5,000, Deduct	-43.21	
33 01 30 71-0097	LF		120" Diameter Pipe Lining, Spray Applied With 250 mil Structural Polyurethane	412.46	
			For Up To 75, Add	86.74	
			For >75 To 150, Add	41.25	
			For >500 To 1,000, Deduct	-9.95	
			For >1,000 To 2,000, Deduct	-19.47	
			For >2,000 To 5,000, Deduct	-29.84	
			For >5,000, Deduct	-45.49	
33 01 30 71-0098	SF		Structure Lining, Spray Applied With 250 mil Structural Polyurethane	13.13	
33 01 30 71-0099			Lining Pipe, Spray Applied With 300 mil Structural Polyurethane (33 01 30 71-0028)		
			Note: Two part structural polyurethane.		
33 01 30 71-0100	LF		36" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	144.81	
			For Up To 75, Add	30.30	
			For >75 To 150, Add	14.48	
			For >500 To 1,000, Deduct	-3.43	
			For >1,000 To 2,000, Deduct	-6.73	
			For >2,000 To 5,000, Deduct	-10.30	
			For >5,000, Deduct	-15.82	
33 01 30 71-0101	LF		42" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	168.94	
			For Up To 75, Add	35.35	
			For >75 To 150, Add	16.89	
			For >500 To 1,000, Deduct	-4.00	
			For >1,000 To 2,000, Deduct	-7.85	
			For >2,000 To 5,000, Deduct	-12.01	
			For >5,000, Deduct	-18.46	
33 01 30 71-0102	LF		48" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	193.07	
			For Up To 75, Add	40.40	
			For >75 To 150, Add	19.31	
			For >500 To 1,000, Deduct	-4.58	
			For >1,000 To 2,000, Deduct	-8.97	
			For >2,000 To 5,000, Deduct	-13.73	
			For >5,000, Deduct	-21.09	
33 01 30 71-0103	LF		54" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	217.21	
			For Up To 75, Add	45.45	
			For >75 To 150, Add	21.72	
			For >500 To 1,000, Deduct	-5.15	
			For >1,000 To 2,000, Deduct	-10.10	
			For >2,000 To 5,000, Deduct	-15.45	
			For >5,000, Deduct	-23.73	
33 01 30 71-0104	LF		60" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	241.35	
			For Up To 75, Add	50.50	
			For >75 To 150, Add	24.14	
			For >500 To 1,000, Deduct	-5.72	
			For >1,000 To 2,000, Deduct	-11.22	
			For >2,000 To 5,000, Deduct	-17.16	
			For >5,000, Deduct	-26.37	
33 01 30 71-0105	LF		66" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	265.47	
			For Up To 75, Add	55.55	
			For >75 To 150, Add	26.55	
			For >500 To 1,000, Deduct	-6.29	
			For >1,000 To 2,000, Deduct	-12.34	
			For >2,000 To 5,000, Deduct	-18.88	
			For >5,000, Deduct	-29.00	
33 01 30 71-0106	LF		72" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	289.61	
			For Up To 75, Add	60.60	
			For >75 To 150, Add	28.96	
			For >500 To 1,000, Deduct	-6.86	
			For >1,000 To 2,000, Deduct	-13.46	
			For >2,000 To 5,000, Deduct	-20.59	
			For >5,000, Deduct	-31.64	
33 01 30 71-0107	LF		78" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	313.75	
			For Up To 75, Add	65.65	
			For >75 To 150, Add	31.38	
			For >500 To 1,000, Deduct	-7.44	
			For >1,000 To 2,000, Deduct	-14.58	
			For >2,000 To 5,000, Deduct	-22.31	
			For >5,000, Deduct	-34.28	
33 01 30 71-0108	LF		84" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	337.87	
			For Up To 75, Add	70.70	
			For >75 To 150, Add	33.79	
			For >500 To 1,000, Deduct	-8.01	
			For >1,000 To 2,000, Deduct	-15.70	
			For >2,000 To 5,000, Deduct	-24.02	
			For >5,000, Deduct	-36.91	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0109 LF 90" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	362.01	
For Up To 75, Add	75.75	
For >75 To 150, Add	36.20	
For >500 To 1,000, Deduct	-8.58	
For >1,000 To 2,000, Deduct	-16.83	
For >2,000 To 5,000, Deduct	-25.74	
For >5,000, Deduct	-39.55	
33 01 30 71-0110 LF 96" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	386.15	
For Up To 75, Add	80.80	
For >75 To 150, Add	38.62	
For >500 To 1,000, Deduct	-9.15	
For >1,000 To 2,000, Deduct	-17.95	
For >2,000 To 5,000, Deduct	-27.46	
For >5,000, Deduct	-42.19	
33 01 30 71-0111 LF 102" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	410.28	
For Up To 75, Add	85.85	
For >75 To 150, Add	41.03	
For >500 To 1,000, Deduct	-9.72	
For >1,000 To 2,000, Deduct	-19.07	
For >2,000 To 5,000, Deduct	-29.17	
For >5,000, Deduct	-44.83	
33 01 30 71-0112 LF 108" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	434.41	
For Up To 75, Add	90.90	
For >75 To 150, Add	43.44	
For >500 To 1,000, Deduct	-10.30	
For >1,000 To 2,000, Deduct	-20.19	
For >2,000 To 5,000, Deduct	-30.89	
For >5,000, Deduct	-47.46	
33 01 30 71-0113 LF 114" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	458.56	
For Up To 75, Add	95.96	
For >75 To 150, Add	45.86	
For >500 To 1,000, Deduct	-10.87	
For >1,000 To 2,000, Deduct	-21.31	
For >2,000 To 5,000, Deduct	-32.61	
For >5,000, Deduct	-50.10	
33 01 30 71-0114 LF 120" Diameter Pipe Lining, Spray Applied With 300 mil Structural Polyurethane	482.68	
For Up To 75, Add	101.00	
For >75 To 150, Add	48.27	
For >500 To 1,000, Deduct	-11.44	
For >1,000 To 2,000, Deduct	-22.43	
For >2,000 To 5,000, Deduct	-34.32	
For >5,000, Deduct	-52.74	
33 01 30 71-0115 SF Structure Lining, Spray Applied With 300 mil Structural Polyurethane	15.36	
33 01 30 71-0116 Lining Pipe, Spray Applied With 400 mil Structural Polyurethane (33 01 30 71-0028)		
Note: Two part structural polyurethane.		
33 01 30 71-0117 LF 36" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	187.01	
For Up To 75, Add	38.89	
For >75 To 150, Add	18.70	
For >500 To 1,000, Deduct	-4.34	
For >1,000 To 2,000, Deduct	-8.52	
For >2,000 To 5,000, Deduct	-13.01	
For >5,000, Deduct	-20.19	
33 01 30 71-0118 LF 42" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	218.20	
For Up To 75, Add	45.38	
For >75 To 150, Add	21.82	
For >500 To 1,000, Deduct	-5.06	
For >1,000 To 2,000, Deduct	-9.94	
For >2,000 To 5,000, Deduct	-15.18	
For >5,000, Deduct	-23.56	
33 01 30 71-0119 LF 48" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	249.36	
For Up To 75, Add	51.86	
For >75 To 150, Add	24.94	
For >500 To 1,000, Deduct	-5.78	
For >1,000 To 2,000, Deduct	-11.36	
For >2,000 To 5,000, Deduct	-17.34	
For >5,000, Deduct	-26.92	
33 01 30 71-0120 LF 54" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	280.53	
For Up To 75, Add	58.34	
For >75 To 150, Add	28.05	
For >500 To 1,000, Deduct	-6.50	
For >1,000 To 2,000, Deduct	-12.79	
For >2,000 To 5,000, Deduct	-19.51	
For >5,000, Deduct	-30.29	
33 01 30 71-0121 LF 60" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	311.70	
For Up To 75, Add	64.82	
For >75 To 150, Add	31.17	
For >500 To 1,000, Deduct	-7.23	
For >1,000 To 2,000, Deduct	-14.21	
For >2,000 To 5,000, Deduct	-21.68	
For >5,000, Deduct	-33.65	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0122	LF	66" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	342.87	
		For Up To 75, Add	71.30	
		For >75 To 150, Add	34.29	
		For >500 To 1,000, Deduct	-7.95	
		For >1,000 To 2,000, Deduct	-15.63	
		For >2,000 To 5,000, Deduct	-23.85	
		For >5,000, Deduct	-37.02	
33 01 30 71-0123	LF	72" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	374.04	
		For Up To 75, Add	77.79	
		For >75 To 150, Add	37.40	
		For >500 To 1,000, Deduct	-8.67	
		For >1,000 To 2,000, Deduct	-17.05	
		For >2,000 To 5,000, Deduct	-26.02	
		For >5,000, Deduct	-40.38	
33 01 30 71-0124	LF	78" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	405.22	
		For Up To 75, Add	84.27	
		For >75 To 150, Add	40.52	
		For >500 To 1,000, Deduct	-9.40	
		For >1,000 To 2,000, Deduct	-18.47	
		For >2,000 To 5,000, Deduct	-28.19	
		For >5,000, Deduct	-43.75	
33 01 30 71-0125	LF	84" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	436.37	
		For Up To 75, Add	90.75	
		For >75 To 150, Add	43.64	
		For >500 To 1,000, Deduct	-10.12	
		For >1,000 To 2,000, Deduct	-19.89	
		For >2,000 To 5,000, Deduct	-30.35	
		For >5,000, Deduct	-47.11	
33 01 30 71-0126	LF	90" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	467.55	
		For Up To 75, Add	97.23	
		For >75 To 150, Add	46.76	
		For >500 To 1,000, Deduct	-10.84	
		For >1,000 To 2,000, Deduct	-21.31	
		For >2,000 To 5,000, Deduct	-32.52	
		For >5,000, Deduct	-50.48	
33 01 30 71-0127	LF	96" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	498.71	
		For Up To 75, Add	103.71	
		For >75 To 150, Add	49.87	
		For >500 To 1,000, Deduct	-11.56	
		For >1,000 To 2,000, Deduct	-22.73	
		For >2,000 To 5,000, Deduct	-34.69	
		For >5,000, Deduct	-53.84	
33 01 30 71-0128	LF	102" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	529.89	
		For Up To 75, Add	110.20	
		For >75 To 150, Add	52.99	
		For >500 To 1,000, Deduct	-12.29	
		For >1,000 To 2,000, Deduct	-24.15	
		For >2,000 To 5,000, Deduct	-36.86	
		For >5,000, Deduct	-57.21	
33 01 30 71-0129	LF	108" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	561.05	
		For Up To 75, Add	116.68	
		For >75 To 150, Add	56.11	
		For >500 To 1,000, Deduct	-13.01	
		For >1,000 To 2,000, Deduct	-25.57	
		For >2,000 To 5,000, Deduct	-39.02	
		For >5,000, Deduct	-60.57	
33 01 30 71-0130	LF	114" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	592.22	
		For Up To 75, Add	123.16	
		For >75 To 150, Add	59.22	
		For >500 To 1,000, Deduct	-13.73	
		For >1,000 To 2,000, Deduct	-26.99	
		For >2,000 To 5,000, Deduct	-41.19	
		For >5,000, Deduct	-63.94	
33 01 30 71-0131	LF	120" Diameter Pipe Lining, Spray Applied With 400 mil Structural Polyurethane	623.40	
		For Up To 75, Add	129.64	
		For >75 To 150, Add	62.34	
		For >500 To 1,000, Deduct	-14.45	
		For >1,000 To 2,000, Deduct	-28.41	
		For >2,000 To 5,000, Deduct	-43.36	
		For >5,000, Deduct	-67.30	
33 01 30 71-0132	SF	Structure Lining, Spray Applied With 400 mil Structural Polyurethane	19.84	
33 01 30 71-0133		Lining Pipe, Spray Applied With 500 mil Structural Polyurethane (33 01 30 71-0028)		
		Note: Two part structural polyurethane.		
33 01 30 71-0134	LF	36" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	229.63	
		For Up To 75, Add	47.58	
		For >75 To 150, Add	22.96	
		For >500 To 1,000, Deduct	-5.25	
		For >1,000 To 2,000, Deduct	-10.34	
		For >2,000 To 5,000, Deduct	-15.76	
		For >5,000, Deduct	-24.62	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0135 LF 42" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	267.91	
For Up To 75, Add	55.51	
For >75 To 150, Add	26.79	
For >500 To 1,000, Deduct	-6.13	
For >1,000 To 2,000, Deduct	-12.07	
For >2,000 To 5,000, Deduct	-18.39	
For >5,000, Deduct	-28.72	
33 01 30 71-0136 LF 48" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	306.18	
For Up To 75, Add	63.44	
For >75 To 150, Add	30.62	
For >500 To 1,000, Deduct	-7.01	
For >1,000 To 2,000, Deduct	-13.79	
For >2,000 To 5,000, Deduct	-21.02	
For >5,000, Deduct	-32.82	
33 01 30 71-0137 LF 54" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	344.46	
For Up To 75, Add	71.37	
For >75 To 150, Add	34.45	
For >500 To 1,000, Deduct	-7.88	
For >1,000 To 2,000, Deduct	-15.52	
For >2,000 To 5,000, Deduct	-23.65	
For >5,000, Deduct	-36.93	
33 01 30 71-0138 LF 60" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	382.72	
For Up To 75, Add	79.30	
For >75 To 150, Add	38.27	
For >500 To 1,000, Deduct	-8.76	
For >1,000 To 2,000, Deduct	-17.24	
For >2,000 To 5,000, Deduct	-26.27	
For >5,000, Deduct	-41.03	
33 01 30 71-0139 LF 66" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	421.00	
For Up To 75, Add	87.23	
For >75 To 150, Add	42.10	
For >500 To 1,000, Deduct	-9.63	
For >1,000 To 2,000, Deduct	-18.96	
For >2,000 To 5,000, Deduct	-28.90	
For >5,000, Deduct	-45.13	
33 01 30 71-0140 LF 72" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	459.28	
For Up To 75, Add	95.17	
For >75 To 150, Add	45.93	
For >500 To 1,000, Deduct	-10.51	
For >1,000 To 2,000, Deduct	-20.69	
For >2,000 To 5,000, Deduct	-31.53	
For >5,000, Deduct	-49.24	
33 01 30 71-0141 LF 78" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	497.54	
For Up To 75, Add	103.09	
For >75 To 150, Add	49.75	
For >500 To 1,000, Deduct	-11.38	
For >1,000 To 2,000, Deduct	-22.41	
For >2,000 To 5,000, Deduct	-34.15	
For >5,000, Deduct	-53.34	
33 01 30 71-0142 LF 84" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	535.81	
For Up To 75, Add	111.02	
For >75 To 150, Add	53.58	
For >500 To 1,000, Deduct	-12.26	
For >1,000 To 2,000, Deduct	-24.13	
For >2,000 To 5,000, Deduct	-36.78	
For >5,000, Deduct	-57.44	
33 01 30 71-0143 LF 90" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	574.10	
For Up To 75, Add	118.96	
For >75 To 150, Add	57.41	
For >500 To 1,000, Deduct	-13.14	
For >1,000 To 2,000, Deduct	-25.86	
For >2,000 To 5,000, Deduct	-39.41	
For >5,000, Deduct	-61.55	
33 01 30 71-0144 LF 96" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	612.37	
For Up To 75, Add	126.89	
For >75 To 150, Add	61.24	
For >500 To 1,000, Deduct	-14.01	
For >1,000 To 2,000, Deduct	-27.58	
For >2,000 To 5,000, Deduct	-42.04	
For >5,000, Deduct	-65.65	
33 01 30 71-0145 LF 102" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	650.63	
For Up To 75, Add	134.81	
For >75 To 150, Add	65.06	
For >500 To 1,000, Deduct	-14.89	
For >1,000 To 2,000, Deduct	-29.31	
For >2,000 To 5,000, Deduct	-44.66	
For >5,000, Deduct	-69.75	
33 01 30 71-0146 LF 108" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	688.91	
For Up To 75, Add	142.75	
For >75 To 150, Add	68.89	
For >500 To 1,000, Deduct	-15.76	
For >1,000 To 2,000, Deduct	-31.03	
For >2,000 To 5,000, Deduct	-47.29	
For >5,000, Deduct	-73.86	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0147	LF		114" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	727.18	
			For Up To 75, Add	150.68	
			For >75 To 150, Add	72.72	
			For >500 To 1,000, Deduct	-16.64	
			For >1,000 To 2,000, Deduct	-32.75	
			For >2,000 To 5,000, Deduct	-49.92	
			For >5,000, Deduct	-77.96	
33 01 30 71-0148	LF		120" Diameter Pipe Lining, Spray Applied With 500 mil Structural Polyurethane	765.46	
			For Up To 75, Add	158.61	
			For >75 To 150, Add	76.55	
			For >500 To 1,000, Deduct	-17.52	
			For >1,000 To 2,000, Deduct	-34.48	
			For >2,000 To 5,000, Deduct	-52.55	
			For >5,000, Deduct	-82.06	
33 01 30 71-0149	SF		Structure Lining, Spray Applied With 500 mil Structural Polyurethane	24.36	
33 01 30 71-0150 Lining Pipe With Rib Loc (33 01 30 71-0001)					
33 01 30 71-0151	LF		Lining 6" Pipe With Rib Loc	49.05	
			For >500 To 1,000, Deduct	-1.23	
			For >1,000 To 2,000, Deduct	-2.40	
			For >2,000 To 5,000, Deduct	-3.69	
			For >5,000, Deduct	-5.53	
33 01 30 71-0152	LF		Lining 8" Pipe With Rib Loc	54.60	
			For >500 To 1,000, Deduct	-1.36	
			For >1,000 To 2,000, Deduct	-2.66	
			For >2,000 To 5,000, Deduct	-4.08	
			For >5,000, Deduct	-6.13	
33 01 30 71-0153	LF		Lining 10" Pipe With Rib Loc	76.13	
			For >500 To 1,000, Deduct	-1.82	
			For >1,000 To 2,000, Deduct	-3.56	
			For >2,000 To 5,000, Deduct	-5.45	
			For >5,000, Deduct	-8.35	
33 01 30 71-0154	LF		Lining 12" Pipe With Rib Loc	97.25	
			For >500 To 1,000, Deduct	-2.27	
			For >1,000 To 2,000, Deduct	-4.46	
			For >2,000 To 5,000, Deduct	-6.81	
			For >5,000, Deduct	-10.53	
33 01 30 71-0155	LF		Lining 15" Pipe With Rib Loc	129.86	
			For >500 To 1,000, Deduct	-2.96	
			For >1,000 To 2,000, Deduct	-5.84	
			For >2,000 To 5,000, Deduct	-8.89	
			For >5,000, Deduct	-13.90	
33 01 30 71-0156	LF		Lining 18" Pipe With Rib Loc	167.91	
			For >500 To 1,000, Deduct	-3.77	
			For >1,000 To 2,000, Deduct	-7.44	
			For >2,000 To 5,000, Deduct	-11.32	
			For >5,000, Deduct	-17.83	
33 01 30 71-0157	LF		Lining 21" Pipe With Rib Loc	211.33	
			For >500 To 1,000, Deduct	-4.68	
			For >1,000 To 2,000, Deduct	-9.24	
			For >2,000 To 5,000, Deduct	-14.03	
			For >5,000, Deduct	-22.26	
33 01 30 71-0158	LF		Lining 24" Pipe With Rib Loc	261.95	
			For >500 To 1,000, Deduct	-5.73	
			For >1,000 To 2,000, Deduct	-11.34	
			For >2,000 To 5,000, Deduct	-17.19	
			For >5,000, Deduct	-27.42	
33 01 30 71-0159	LF		Lining 27" Pipe With Rib Loc	314.10	
			For >500 To 1,000, Deduct	-6.82	
			For >1,000 To 2,000, Deduct	-13.51	
			For >2,000 To 5,000, Deduct	-20.46	
			For >5,000, Deduct	-32.76	
33 01 30 71-0160	LF		Lining 30" Pipe With Rib Loc	372.92	
			For >500 To 1,000, Deduct	-8.06	
			For >1,000 To 2,000, Deduct	-15.96	
			For >2,000 To 5,000, Deduct	-24.17	
			For >5,000, Deduct	-38.79	
33 01 30 71-0161	LF		Lining 36" Pipe With Rib Loc	476.13	
			For >500 To 1,000, Deduct	-10.20	
			For >1,000 To 2,000, Deduct	-20.22	
			For >2,000 To 5,000, Deduct	-30.59	
			For >5,000, Deduct	-49.30	
33 01 30 71-0162	LF		Lining 42" Pipe With Rib Loc	593.42	
			For >500 To 1,000, Deduct	-12.64	
			For >1,000 To 2,000, Deduct	-25.08	
			For >2,000 To 5,000, Deduct	-37.92	
			For >5,000, Deduct	-61.27	
33 01 30 71-0163	LF		Lining 48" Pipe With Rib Loc	726.66	
			For >500 To 1,000, Deduct	-15.43	
			For >1,000 To 2,000, Deduct	-30.64	
			For >2,000 To 5,000, Deduct	-46.29	
			For >5,000, Deduct	-74.91	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 71-0164 LF Lining 54" Pipe With Rib Loc.....	859.20	
For >500 To 1,000, Deduct	-18.26	
For >1,000 To 2,000, Deduct	-36.25	
For >2,000 To 5,000, Deduct	-54.79	
For >5,000, Deduct	-88.61	
33 01 30 71-0165 LF Lining 60" Pipe With Rib Loc.....	1,013.04	
For >500 To 1,000, Deduct	-21.73	
For >1,000 To 2,000, Deduct	-43.09	
For >2,000 To 5,000, Deduct	-65.19	
For >5,000, Deduct	-104.98	
33 01 30 71-0166 LF Lining 66" Pipe With Rib Loc.....	1,200.67	
For >500 To 1,000, Deduct	-26.32	
For >1,000 To 2,000, Deduct	-52.07	
For >2,000 To 5,000, Deduct	-78.97	
For >5,000, Deduct	-125.84	
33 01 30 71-0167 LF Lining 72" Pipe With Rib Loc.....	1,445.10	
For >500 To 1,000, Deduct	-32.94	
For >1,000 To 2,000, Deduct	-64.88	
For >2,000 To 5,000, Deduct	-98.83	
For >5,000, Deduct	-154.62	

33 01 30 72 Cured-in-Place Pipe Lining (33 01 30)**33 01 30 72-0001 Cured-In-Place Pipe (CIPP) Relining Underground Pipelines (33 01 30 72)**

Note: Excludes CCTV inspection and sewer cleaning. See CSI section 33 01 30 11-0000 for CCTV inspection, 33 01 30 41-0002 for sewer cleaning.

33 01 30 72-0002 Cured-In-Place Pipe (CIPP) Lining Set-Up And Reinsertion (33 01 30 72-0001)

33 01 30 72-0003 EA Initial Set Up And Final Equipment Removal For Relining Up To 12" Underground Pipelines Cured In-Place Pipe (CIPP).....	1,616.82	
33 01 30 72-0004 EA Initial Set Up And Final Equipment Removal For Relining >12" To 24" Underground Pipelines Cured In-Place Pipe (CIPP).....	2,694.70	
33 01 30 72-0005 EA Initial Set Up And Final Equipment Removal For Relining >24" To 48" Underground Pipelines Cured In-Place Pipe (CIPP).....	4,042.05	
33 01 30 72-0006 EA Initial Set Up And Final Equipment Removal For Relining > 48" Underground Pipelines Cured In-Place Pipe (CIPP).....	5,389.41	
33 01 30 72-0007 EA Move And Reset Up At Different Access/Location For Relining Up To 12" Underground Pipelines Cured In-Place Pipe (CIPP).....	808.41	
33 01 30 72-0008 EA Move And Reset Up At Different Access/Location For Relining >12" To 24" Underground Pipelines Cured In-Place Pipe (CIPP).....	1,347.35	
33 01 30 72-0009 EA Move And Reset Up At Different Access/Location For Relining >24" To 48" Underground Pipelines Cured In-Place Pipe (CIPP).....	1,684.19	
33 01 30 72-0010 EA Move And Reset Up At Different Access/Location For Relining > 48" Underground Pipelines Cured In-Place Pipe (CIPP).....	2,155.76	
33 01 30 72-0011 EA Mixing Truck And Refrigeration For Relining Up To 12" Underground Pipelines Cured In-Place Pipe (CIPP)	1,347.35	
Note: Need to mix wet material in bag prior to installation.		
33 01 30 72-0012 EA Mixing Truck And Refrigeration For Relining >12" To 24" Underground Pipelines Cured In-Place Pipe (CIPP).....	3,233.65	
Note: Need to mix wet material in bag prior to installation.		
33 01 30 72-0013 EA Mixing Truck And Refrigeration For Relining >24" To 48" Underground Pipelines Cured In-Place Pipe (CIPP).....	5,389.41	
Note: Need to mix wet material in bag prior to installation.		
33 01 30 72-0014 EA Mixing Truck And Refrigeration For Relining >48" Underground Pipelines Cured In-Place Pipe (CIPP)	8,084.10	
Note: Need to mix wet material in bag prior to installation.		

33 01 30 72-0015 Lining Pipe With Polyester Resin Impregnated Cured In-Place Pipe (CIPP)

(33 01 30 72-0001)

Note: Cured in-place thermosetting resin pipe and resin impregnated tube. Excludes video camera inspection, culvert cleaning and grouting. Use round equivalent pipe sizes for elliptical, oval or arched pipe.

33 01 30 72-0016 4.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)

33 01 30 72-0017 LF 4.5mm Lining 2" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	23.26	
For Vinylster Resin, Add	6.38	
For Epoxy Resin, Add	0.75	
For Up To >10, Add	47.01	
For >10 To 25, Add	37.65	
For >25 To 50, Add	23.05	
For >50 To 100, Add	11.52	
For >500 To 1,000, Deduct	-1.52	
For >1,000 To 2,000, Deduct	-2.45	
For >2,000 To 5,000, Deduct	-4.63	
For >5,000, Deduct	-7.48	
33 01 30 72-0018 LF 4.5mm Lining 3" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	28.25	
For Vinylster Resin, Add	9.87	
For Epoxy Resin, Add	1.16	
For Up To >10, Add	49.50	
For >10 To 25, Add	38.90	
For >25 To 50, Add	24.05	
For >50 To 100, Add	12.02	
For >500 To 1,000, Deduct	-1.77	
For >1,000 To 2,000, Deduct	-2.83	
For >2,000 To 5,000, Deduct	-5.23	
For >5,000, Deduct	-8.48	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0019	LF		4.5mm Lining 4" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	33.25	
			For Vinlyester Resin, Add	13.37	
			For Epoxy Resin, Add	1.58	
			For Up To >10, Add	52.00	
			For >10 To 25, Add	40.15	
			For >25 To 50, Add	25.05	
			For >50 To 100, Add	12.52	
			For >500 To 1,000, Deduct	-2.02	
			For >1,000 To 2,000, Deduct	-3.20	
			For >2,000 To 5,000, Deduct	-5.83	
			For >5,000, Deduct	-9.48	
33 01 30 72-0020	LF		4.5mm Lining 6" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	44.58	
			For Vinlyester Resin, Add	20.36	
			For Epoxy Resin, Add	2.40	
			For Up To >10, Add	61.02	
			For >10 To 25, Add	46.00	
			For >25 To 50, Add	29.05	
			For >50 To 100, Add	14.53	
			For >500 To 1,000, Deduct	-2.62	
			For >1,000 To 2,000, Deduct	-4.12	
			For >2,000 To 5,000, Deduct	-7.36	
			For >5,000, Deduct	-12.01	
33 01 30 72-0021	LF		4.5mm Lining 8" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	55.93	
			For Vinlyester Resin, Add	27.36	
			For Epoxy Resin, Add	3.22	
			For Up To >10, Add	70.09	
			For >10 To 25, Add	51.90	
			For >25 To 50, Add	33.09	
			For >50 To 100, Add	16.55	
			For >500 To 1,000, Deduct	-3.22	
			For >1,000 To 2,000, Deduct	-5.04	
			For >2,000 To 5,000, Deduct	-8.90	
			For >5,000, Deduct	-14.56	
33 01 30 72-0022			6mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0023	LF		6mm Lining 3" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	32.56	
			For Vinlyester Resin, Add	12.89	
			For Epoxy Resin, Add	1.52	
			For Up To >10, Add	51.66	
			For >10 To 25, Add	39.98	
			For >25 To 50, Add	24.91	
			For >50 To 100, Add	12.45	
			For >500 To 1,000, Deduct	-1.98	
			For >1,000 To 2,000, Deduct	-3.15	
			For >2,000 To 5,000, Deduct	-5.75	
			For >5,000, Deduct	-9.34	
33 01 30 72-0024	LF		6mm Lining 4" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	39.22	
			For Vinlyester Resin, Add	17.55	
			For Epoxy Resin, Add	2.07	
			For Up To >10, Add	54.99	
			For >10 To 25, Add	41.64	
			For >25 To 50, Add	26.24	
			For >50 To 100, Add	13.12	
			For >500 To 1,000, Deduct	-2.31	
			For >1,000 To 2,000, Deduct	-3.65	
			For >2,000 To 5,000, Deduct	-6.55	
			For >5,000, Deduct	-10.67	
33 01 30 72-0025	LF		6mm Lining 6" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	53.88	
			For Vinlyester Resin, Add	26.87	
			For Epoxy Resin, Add	3.17	
			For Up To >10, Add	65.67	
			For >10 To 25, Add	48.32	
			For >25 To 50, Add	30.91	
			For >50 To 100, Add	15.46	
			For >500 To 1,000, Deduct	-3.08	
			For >1,000 To 2,000, Deduct	-4.82	
			For >2,000 To 5,000, Deduct	-8.48	
			For >5,000, Deduct	-13.87	
33 01 30 72-0026	LF		6mm Lining 8" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	68.57	
			For Vinlyester Resin, Add	36.20	
			For Epoxy Resin, Add	4.27	
			For Up To >10, Add	76.41	
			For >10 To 25, Add	55.06	
			For >25 To 50, Add	35.62	
			For >50 To 100, Add	17.81	
			For >500 To 1,000, Deduct	-3.85	
			For >1,000 To 2,000, Deduct	-5.99	
			For >2,000 To 5,000, Deduct	-10.42	
			For >5,000, Deduct	-17.08	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0027 LF 6mm Lining 10" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	83.36	
For Vinylster Resin, Add	45.53	
For Epoxy Resin, Add	5.37	
For Up To >10, Add	87.48	
For >10 To 25, Add	62.06	
For >25 To 50, Add	40.49	
For >50 To 100, Add	20.24	
For >500 To 1,000, Deduct	-4.63	
For >1,000 To 2,000, Deduct	-7.17	
For >2,000 To 5,000, Deduct	-12.38	
For >5,000, Deduct	-20.34	
33 01 30 72-0028 LF 6mm Lining 12" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	98.57	
For Vinylster Resin, Add	54.85	
For Epoxy Resin, Add	6.46	
For Up To >10, Add	99.81	
For >10 To 25, Add	70.12	
For >25 To 50, Add	45.99	
For >50 To 100, Add	22.99	
For >500 To 1,000, Deduct	-5.43	
For >1,000 To 2,000, Deduct	-8.40	
For >2,000 To 5,000, Deduct	-14.46	
For >5,000, Deduct	-23.76	
33 01 30 72-0029 7.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0030 LF 7.5mm Lining 4" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	45.00	
For Vinylster Resin, Add	21.60	
For Epoxy Resin, Add	2.55	
For Up To >10, Add	57.88	
For >10 To 25, Add	43.09	
For >25 To 50, Add	27.40	
For >50 To 100, Add	13.70	
For >500 To 1,000, Deduct	-2.60	
For >1,000 To 2,000, Deduct	-4.08	
For >2,000 To 5,000, Deduct	-7.24	
For >5,000, Deduct	-11.83	
33 01 30 72-0031 LF 7.5mm Lining 6" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	62.99	
For Vinylster Resin, Add	33.25	
For Epoxy Resin, Add	3.92	
For Up To >10, Add	70.22	
For >10 To 25, Add	50.60	
For >25 To 50, Add	32.74	
For >50 To 100, Add	16.37	
For >500 To 1,000, Deduct	-3.54	
For >1,000 To 2,000, Deduct	-5.50	
For >2,000 To 5,000, Deduct	-9.57	
For >5,000, Deduct	-15.70	
33 01 30 72-0032 LF 7.5mm Lining 8" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	81.00	
For Vinylster Resin, Add	44.91	
For Epoxy Resin, Add	5.29	
For Up To >10, Add	82.63	
For >10 To 25, Add	58.16	
For >25 To 50, Add	38.11	
For >50 To 100, Add	19.05	
For >500 To 1,000, Deduct	-4.47	
For >1,000 To 2,000, Deduct	-6.92	
For >2,000 To 5,000, Deduct	-11.91	
For >5,000, Deduct	-19.57	
33 01 30 72-0033 LF 7.5mm Lining 10" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	99.12	
For Vinylster Resin, Add	56.56	
For Epoxy Resin, Add	6.67	
For Up To >10, Add	95.36	
For >10 To 25, Add	66.00	
For >25 To 50, Add	43.64	
For >50 To 100, Add	21.82	
For >500 To 1,000, Deduct	-5.41	
For >1,000 To 2,000, Deduct	-8.35	
For >2,000 To 5,000, Deduct	-14.28	
For >5,000, Deduct	-23.49	
33 01 30 72-0034 LF 7.5mm Lining 12" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	117.66	
For Vinylster Resin, Add	68.22	
For Epoxy Resin, Add	8.04	
For Up To >10, Add	109.36	
For >10 To 25, Add	74.89	
For >25 To 50, Add	49.81	
For >50 To 100, Add	24.90	
For >500 To 1,000, Deduct	-6.39	
For >1,000 To 2,000, Deduct	-9.84	
For >2,000 To 5,000, Deduct	-16.75	
For >5,000, Deduct	-27.57	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0035 LF 7.5mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	145.35	
For Vinlyester Resin, Add	85.71	
For Epoxy Resin, Add	10.10	
For Up To >10, Add	129.95	
For >10 To 25, Add	87.89	
For >25 To 50, Add	58.85	
For >50 To 100, Add	29.43	
For >500 To 1,000, Deduct	-7.84	
For >1,000 To 2,000, Deduct	-12.05	
For >2,000 To 5,000, Deduct	-20.42	
For >5,000, Deduct	-33.65	
33 01 30 72-0036 LF 7.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	173.28	
For Vinlyester Resin, Add	103.19	
For Epoxy Resin, Add	12.16	
For Up To >10, Add	151.32	
For >10 To 25, Add	101.53	
For >25 To 50, Add	68.29	
For >50 To 100, Add	34.14	
For >500 To 1,000, Deduct	-9.31	
For >1,000 To 2,000, Deduct	-14.29	
For >2,000 To 5,000, Deduct	-24.16	
For >5,000, Deduct	-39.83	
33 01 30 72-0037 9mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0038 LF 9mm Lining 6" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	71.90	
For Vinlyester Resin, Add	39.49	
For Epoxy Resin, Add	4.65	
For Up To >10, Add	74.68	
For >10 To 25, Add	52.83	
For >25 To 50, Add	34.52	
For >50 To 100, Add	17.26	
For >500 To 1,000, Deduct	-3.98	
For >1,000 To 2,000, Deduct	-6.17	
For >2,000 To 5,000, Deduct	-10.64	
For >5,000, Deduct	-17.48	
33 01 30 72-0039 LF 9mm Lining 8" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	93.24	
For Vinlyester Resin, Add	53.47	
For Epoxy Resin, Add	6.30	
For Up To >10, Add	88.75	
For >10 To 25, Add	61.22	
For >25 To 50, Add	40.55	
For >50 To 100, Add	20.28	
For >500 To 1,000, Deduct	-5.08	
For >1,000 To 2,000, Deduct	-7.84	
For >2,000 To 5,000, Deduct	-13.38	
For >5,000, Deduct	-22.02	
33 01 30 72-0040 LF 9mm Lining 10" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	114.70	
For Vinlyester Resin, Add	67.47	
For Epoxy Resin, Add	7.95	
For Up To >10, Add	103.15	
For >10 To 25, Add	69.90	
For >25 To 50, Add	46.76	
For >50 To 100, Add	23.38	
For >500 To 1,000, Deduct	-6.19	
For >1,000 To 2,000, Deduct	-9.52	
For >2,000 To 5,000, Deduct	-16.15	
For >5,000, Deduct	-26.60	
33 01 30 72-0041 LF 9mm Lining 12" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	136.57	
For Vinlyester Resin, Add	81.45	
For Epoxy Resin, Add	9.60	
For Up To >10, Add	118.81	
For >10 To 25, Add	79.62	
For >25 To 50, Add	53.59	
For >50 To 100, Add	26.79	
For >500 To 1,000, Deduct	-7.33	
For >1,000 To 2,000, Deduct	-11.25	
For >2,000 To 5,000, Deduct	-19.02	
For >5,000, Deduct	-31.36	
33 01 30 72-0042 LF 9mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	169.24	
For Vinlyester Resin, Add	102.43	
For Epoxy Resin, Add	12.07	
For Up To >10, Add	141.90	
For >10 To 25, Add	93.86	
For >25 To 50, Add	63.63	
For >50 To 100, Add	31.82	
For >500 To 1,000, Deduct	-9.03	
For >1,000 To 2,000, Deduct	-13.84	
For >2,000 To 5,000, Deduct	-23.29	
For >5,000, Deduct	-38.43	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0043 LF 9mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	202.18	
For Vinylster Resin, Add	123.42	
For Epoxy Resin, Add	14.55	
For Up To >10, Add	165.77	
For >10 To 25, Add	108.75	
For >25 To 50, Add	74.07	
For >50 To 100, Add	37.03	
For >500 To 1,000, Deduct	-10.76	
For >1,000 To 2,000, Deduct	-16.46	
For >2,000 To 5,000, Deduct	-27.62	
For >5,000, Deduct	-45.61	
33 01 30 72-0044 LF 9mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	234.30	
For Vinylster Resin, Add	144.40	
For Epoxy Resin, Add	17.02	
For Up To >10, Add	187.20	
For >10 To 25, Add	121.62	
For >25 To 50, Add	83.29	
For >50 To 100, Add	41.64	
For >500 To 1,000, Deduct	-12.42	
For >1,000 To 2,000, Deduct	-18.97	
For >2,000 To 5,000, Deduct	-31.76	
For >5,000, Deduct	-52.46	
33 01 30 72-0045 LF 9mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	266.84	
For Vinylster Resin, Add	165.38	
For Epoxy Resin, Add	19.49	
For Up To >10, Add	209.87	
For >10 To 25, Add	135.52	
For >25 To 50, Add	93.12	
For >50 To 100, Add	46.56	
For >500 To 1,000, Deduct	-14.11	
For >1,000 To 2,000, Deduct	-21.54	
For >2,000 To 5,000, Deduct	-36.00	
For >5,000, Deduct	-59.48	
33 01 30 72-0046 10.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0047 LF 10.5mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	192.94	
For Vinylster Resin, Add	119.02	
For Epoxy Resin, Add	14.03	
For Up To >10, Add	153.75	
For >10 To 25, Add	99.78	
For >25 To 50, Add	68.37	
For >50 To 100, Add	34.19	
For >500 To 1,000, Deduct	-10.22	
For >1,000 To 2,000, Deduct	-15.62	
For >2,000 To 5,000, Deduct	-26.13	
For >5,000, Deduct	-43.17	
33 01 30 72-0048 LF 10.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	230.87	
For Vinylster Resin, Add	143.50	
For Epoxy Resin, Add	16.91	
For Up To >10, Add	180.11	
For >10 To 25, Add	115.93	
For >25 To 50, Add	79.81	
For >50 To 100, Add	39.90	
For >500 To 1,000, Deduct	-12.19	
For >1,000 To 2,000, Deduct	-18.61	
For >2,000 To 5,000, Deduct	-31.07	
For >5,000, Deduct	-51.35	
33 01 30 72-0049 LF 10.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	267.99	
For Vinylster Resin, Add	167.98	
For Epoxy Resin, Add	19.80	
For Up To >10, Add	204.05	
For >10 To 25, Add	130.04	
For >25 To 50, Add	90.02	
For >50 To 100, Add	45.01	
For >500 To 1,000, Deduct	-14.10	
For >1,000 To 2,000, Deduct	-21.50	
For >2,000 To 5,000, Deduct	-35.80	
For >5,000, Deduct	-59.20	
33 01 30 72-0050 LF 10.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	305.52	
For Vinylster Resin, Add	192.46	
For Epoxy Resin, Add	22.68	
For Up To >10, Add	229.21	
For >10 To 25, Add	145.19	
For >25 To 50, Add	100.86	
For >50 To 100, Add	50.43	
For >500 To 1,000, Deduct	-16.04	
For >1,000 To 2,000, Deduct	-24.44	
For >2,000 To 5,000, Deduct	-40.64	
For >5,000, Deduct	-67.22	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0051	LF		10.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	343.59	
			For Vinlyester Resin, Add	216.94	
			For Epoxy Resin, Add	25.57	
			For Up To >10, Add	256.00	
			For >10 To 25, Add	161.68	
			For >25 To 50, Add	112.50	
			For >50 To 100, Add	56.25	
			For >500 To 1,000, Deduct	-18.02	
			For >1,000 To 2,000, Deduct	-27.45	
			For >2,000 To 5,000, Deduct	-45.61	
			For >5,000, Deduct	-75.45	
33 01 30 72-0052	LF		10.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	382.34	
			For Vinlyester Resin, Add	241.42	
			For Epoxy Resin, Add	28.45	
			For Up To >10, Add	284.80	
			For >10 To 25, Add	179.85	
			For >25 To 50, Add	125.15	
			For >50 To 100, Add	62.58	
			For >500 To 1,000, Deduct	-20.05	
			For >1,000 To 2,000, Deduct	-30.55	
			For >2,000 To 5,000, Deduct	-50.75	
			For >5,000, Deduct	-83.96	
33 01 30 72-0053	LF		10.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	457.00	
			For Vinlyester Resin, Add	290.37	
			For Epoxy Resin, Add	34.22	
			For Up To >10, Add	333.95	
			For >10 To 25, Add	209.16	
			For >25 To 50, Add	146.23	
			For >50 To 100, Add	73.12	
			For >500 To 1,000, Deduct	-23.90	
			For >1,000 To 2,000, Deduct	-36.38	
			For >2,000 To 5,000, Deduct	-60.32	
			For >5,000, Deduct	-99.84	
33 01 30 72-0054			12mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0055	LF		12mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	216.44	
			For Vinlyester Resin, Add	135.47	
			For Epoxy Resin, Add	15.97	
			For Up To >10, Add	165.50	
			For >10 To 25, Add	105.66	
			For >25 To 50, Add	73.07	
			For >50 To 100, Add	36.54	
			For >500 To 1,000, Deduct	-11.39	
			For >1,000 To 2,000, Deduct	-17.38	
			For >2,000 To 5,000, Deduct	-28.95	
			For >5,000, Deduct	-47.87	
33 01 30 72-0056	LF		12mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	259.37	
			For Vinlyester Resin, Add	163.45	
			For Epoxy Resin, Add	19.26	
			For Up To >10, Add	194.36	
			For >10 To 25, Add	123.05	
			For >25 To 50, Add	85.51	
			For >50 To 100, Add	42.75	
			For >500 To 1,000, Deduct	-13.62	
			For >1,000 To 2,000, Deduct	-20.75	
			For >2,000 To 5,000, Deduct	-34.49	
			For >5,000, Deduct	-57.05	
33 01 30 72-0057	LF		12mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	301.49	
			For Vinlyester Resin, Add	191.43	
			For Epoxy Resin, Add	22.56	
			For Up To >10, Add	220.80	
			For >10 To 25, Add	138.42	
			For >25 To 50, Add	96.72	
			For >50 To 100, Add	48.36	
			For >500 To 1,000, Deduct	-15.78	
			For >1,000 To 2,000, Deduct	-24.01	
			For >2,000 To 5,000, Deduct	-39.82	
			For >5,000, Deduct	-65.90	
33 01 30 72-0058	LF		12mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	344.01	
			For Vinlyester Resin, Add	219.40	
			For Epoxy Resin, Add	25.86	
			For Up To >10, Add	248.46	
			For >10 To 25, Add	154.81	
			For >25 To 50, Add	108.56	
			For >50 To 100, Add	54.28	
			For >500 To 1,000, Deduct	-17.97	
			For >1,000 To 2,000, Deduct	-27.33	
			For >2,000 To 5,000, Deduct	-45.26	
			For >5,000, Deduct	-74.92	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 72-0059	LF 12mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	387.08
	For Vinylster Resin, Add	247.38
	For Epoxy Resin, Add	29.16
	For Up To >10, Add	277.74
	For >10 To 25, Add	172.55
	For >25 To 50, Add	121.20
	For >50 To 100, Add	60.60
	For >500 To 1,000, Deduct	-20.20
	For >1,000 To 2,000, Deduct	-30.72
	For >2,000 To 5,000, Deduct	-50.83
	For >5,000, Deduct	-84.15
33 01 30 72-0060	LF 12mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	430.81
	For Vinylster Resin, Add	275.35
	For Epoxy Resin, Add	32.45
	For Up To >10, Add	309.03
	For >10 To 25, Add	191.97
	For >25 To 50, Add	134.85
	For >50 To 100, Add	67.42
	For >500 To 1,000, Deduct	-22.48
	For >1,000 To 2,000, Deduct	-34.18
	For >2,000 To 5,000, Deduct	-56.57
	For >5,000, Deduct	-93.65
33 01 30 72-0061	LF 12mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	515.48
	For Vinylster Resin, Add	331.31
	For Epoxy Resin, Add	39.05
	For Up To >10, Add	363.19
	For >10 To 25, Add	223.78
	For >25 To 50, Add	157.93
	For >50 To 100, Add	78.97
	For >500 To 1,000, Deduct	-26.83
	For >1,000 To 2,000, Deduct	-40.77
	For >2,000 To 5,000, Deduct	-67.34
	For >5,000, Deduct	-111.53
33 01 30 72-0062	LF 12mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	601.33
	For Vinylster Resin, Add	387.26
	For Epoxy Resin, Add	45.64
	For Up To >10, Add	420.92
	For >10 To 25, Add	258.56
	For >25 To 50, Add	182.80
	For >50 To 100, Add	91.40
	For >500 To 1,000, Deduct	-31.27
	For >1,000 To 2,000, Deduct	-47.50
	For >2,000 To 5,000, Deduct	-78.41
	For >5,000, Deduct	-129.89
33 01 30 72-0063	LF 12mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	689.34
	For Vinylster Resin, Add	443.21
	For Epoxy Resin, Add	52.24
	For Up To >10, Add	485.12
	For >10 To 25, Add	298.74
	For >25 To 50, Add	210.90
	For >50 To 100, Add	105.45
	For >500 To 1,000, Deduct	-35.87
	For >1,000 To 2,000, Deduct	-54.51
	For >2,000 To 5,000, Deduct	-90.02
	For >5,000, Deduct	-149.10

33 01 30 72-0064 13.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)

33 01 30 72-0065	LF 13.5mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	239.75
	For Vinylster Resin, Add	151.79
	For Epoxy Resin, Add	17.89
	For Up To >10, Add	177.15
	For >10 To 25, Add	111.49
	For >25 To 50, Add	77.73
	For >50 To 100, Add	38.87
	For >500 To 1,000, Deduct	-12.56
	For >1,000 To 2,000, Deduct	-19.13
	For >2,000 To 5,000, Deduct	-31.75
	For >5,000, Deduct	-52.53
33 01 30 72-0066	LF 13.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	287.68
	For Vinylster Resin, Add	183.27
	For Epoxy Resin, Add	21.60
	For Up To >10, Add	208.52
	For >10 To 25, Add	130.13
	For >25 To 50, Add	91.17
	For >50 To 100, Add	45.58
	For >500 To 1,000, Deduct	-15.03
	For >1,000 To 2,000, Deduct	-22.87
	For >2,000 To 5,000, Deduct	-37.88
	For >5,000, Deduct	-62.71



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0067	LF		13.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	334.79	
			For Vinlyester Resin, Add	214.74	
			For Epoxy Resin, Add	25.31	
			For Up To >10, Add	237.45	
			For >10 To 25, Add	146.74	
			For >25 To 50, Add	103.38	
			For >50 To 100, Add	51.69	
			For >500 To 1,000, Deduct	-17.44	
			For >1,000 To 2,000, Deduct	-26.51	
			For >2,000 To 5,000, Deduct	-43.82	
			For >5,000, Deduct	-72.56	
33 01 30 72-0068	LF		13.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	382.31	
			For Vinlyester Resin, Add	246.21	
			For Epoxy Resin, Add	29.02	
			For Up To >10, Add	267.61	
			For >10 To 25, Add	164.38	
			For >25 To 50, Add	116.22	
			For >50 To 100, Add	58.11	
			For >500 To 1,000, Deduct	-19.88	
			For >1,000 To 2,000, Deduct	-30.20	
			For >2,000 To 5,000, Deduct	-49.85	
			For >5,000, Deduct	-82.58	
33 01 30 72-0069	LF		13.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	430.37	
			For Vinlyester Resin, Add	277.68	
			For Epoxy Resin, Add	32.73	
			For Up To >10, Add	299.39	
			For >10 To 25, Add	183.37	
			For >25 To 50, Add	129.86	
			For >50 To 100, Add	64.93	
			For >500 To 1,000, Deduct	-22.36	
			For >1,000 To 2,000, Deduct	-33.96	
			For >2,000 To 5,000, Deduct	-56.02	
			For >5,000, Deduct	-92.81	
33 01 30 72-0070	LF		13.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	479.10	
			For Vinlyester Resin, Add	309.16	
			For Epoxy Resin, Add	36.44	
			For Up To >10, Add	333.18	
			For >10 To 25, Add	204.04	
			For >25 To 50, Add	144.51	
			For >50 To 100, Add	72.25	
			For >500 To 1,000, Deduct	-24.89	
			For >1,000 To 2,000, Deduct	-37.81	
			For >2,000 To 5,000, Deduct	-62.36	
			For >5,000, Deduct	-103.31	
33 01 30 72-0071	LF		13.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	573.75	
			For Vinlyester Resin, Add	372.10	
			For Epoxy Resin, Add	43.85	
			For Up To >10, Add	392.33	
			For >10 To 25, Add	238.34	
			For >25 To 50, Add	169.58	
			For >50 To 100, Add	84.79	
			For >500 To 1,000, Deduct	-29.74	
			For >1,000 To 2,000, Deduct	-45.14	
			For >2,000 To 5,000, Deduct	-74.33	
			For >5,000, Deduct	-123.19	
33 01 30 72-0072	LF		13.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	669.60	
			For Vinlyester Resin, Add	435.05	
			For Epoxy Resin, Add	51.27	
			For Up To >10, Add	455.05	
			For >10 To 25, Add	275.63	
			For >25 To 50, Add	196.45	
			For >50 To 100, Add	98.23	
			For >500 To 1,000, Deduct	-34.68	
			For >1,000 To 2,000, Deduct	-52.63	
			For >2,000 To 5,000, Deduct	-86.61	
			For >5,000, Deduct	-143.54	
33 01 30 72-0073	LF		13.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	767.60	
			For Vinlyester Resin, Add	497.99	
			For Epoxy Resin, Add	58.69	
			For Up To >10, Add	524.25	
			For >10 To 25, Add	318.31	
			For >25 To 50, Add	226.55	
			For >50 To 100, Add	113.28	
			For >500 To 1,000, Deduct	-39.78	
			For >1,000 To 2,000, Deduct	-60.38	
			For >2,000 To 5,000, Deduct	-99.42	
			For >5,000, Deduct	-164.76	

33 01 30 72-0074 15mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30	72-0075	LF	15mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	262.86	
			For Vinylster Resin, Add	167.97	
			For Epoxy Resin, Add	19.80	
			For Up To >10, Add	188.71	
			For >10 To 25, Add	117.26	
			For >25 To 50, Add	82.36	
			For >50 To 100, Add	41.18	
			For >500 To 1,000, Deduct	-13.72	
			For >1,000 To 2,000, Deduct	-20.86	
			For >2,000 To 5,000, Deduct	-34.52	
			For >5,000, Deduct	-57.15	
33 01 30	72-0076	LF	15mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	315.78	
			For Vinylster Resin, Add	202.94	
			For Epoxy Resin, Add	23.92	
			For Up To >10, Add	222.57	
			For >10 To 25, Add	137.15	
			For >25 To 50, Add	96.79	
			For >50 To 100, Add	48.39	
			For >500 To 1,000, Deduct	-16.44	
			For >1,000 To 2,000, Deduct	-24.98	
			For >2,000 To 5,000, Deduct	-41.26	
			For >5,000, Deduct	-68.33	
33 01 30	72-0077	LF	15mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	367.89	
			For Vinylster Resin, Add	237.91	
			For Epoxy Resin, Add	28.04	
			For Up To >10, Add	254.00	
			For >10 To 25, Add	155.02	
			For >25 To 50, Add	110.00	
			For >50 To 100, Add	55.00	
			For >500 To 1,000, Deduct	-19.10	
			For >1,000 To 2,000, Deduct	-28.99	
			For >2,000 To 5,000, Deduct	-47.79	
			For >5,000, Deduct	-79.18	
33 01 30	72-0078	LF	15mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	420.40	
			For Vinylster Resin, Add	272.87	
			For Epoxy Resin, Add	32.16	
			For Up To >10, Add	286.65	
			For >10 To 25, Add	173.91	
			For >25 To 50, Add	123.83	
			For >50 To 100, Add	61.92	
			For >500 To 1,000, Deduct	-21.78	
			For >1,000 To 2,000, Deduct	-33.06	
			For >2,000 To 5,000, Deduct	-54.42	
			For >5,000, Deduct	-90.20	
33 01 30	72-0079	LF	15mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	473.46	
			For Vinylster Resin, Add	307.85	
			For Epoxy Resin, Add	36.28	
			For Up To >10, Add	320.93	
			For >10 To 25, Add	194.15	
			For >25 To 50, Add	138.48	
			For >50 To 100, Add	69.24	
			For >500 To 1,000, Deduct	-24.52	
			For >1,000 To 2,000, Deduct	-37.19	
			For >2,000 To 5,000, Deduct	-61.19	
			For >5,000, Deduct	-101.43	
33 01 30	72-0080	LF	15mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	527.19	
			For Vinylster Resin, Add	342.82	
			For Epoxy Resin, Add	40.40	
			For Up To >10, Add	357.22	
			For >10 To 25, Add	216.06	
			For >25 To 50, Add	154.12	
			For >50 To 100, Add	77.06	
			For >500 To 1,000, Deduct	-27.30	
			For >1,000 To 2,000, Deduct	-41.41	
			For >2,000 To 5,000, Deduct	-68.13	
			For >5,000, Deduct	-112.93	
33 01 30	72-0081	LF	15mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	631.83	
			For Vinylster Resin, Add	412.76	
			For Epoxy Resin, Add	48.65	
			For Up To >10, Add	421.37	
			For >10 To 25, Add	252.86	
			For >25 To 50, Add	181.20	
			For >50 To 100, Add	90.60	
			For >500 To 1,000, Deduct	-32.65	
			For >1,000 To 2,000, Deduct	-49.50	
			For >2,000 To 5,000, Deduct	-81.30	
			For >5,000, Deduct	-134.80	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0082	LF		15mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	737.67	
			For Vinlyester Resin, Add	482.70	
			For Epoxy Resin, Add	56.89	
			For Up To >10, Add	489.09	
			For >10 To 25, Add	292.64	
			For >25 To 50, Add	210.06	
			For >50 To 100, Add	105.03	
			For >500 To 1,000, Deduct	-38.09	
			For >1,000 To 2,000, Deduct	-57.73	
			For >2,000 To 5,000, Deduct	-94.77	
			For >5,000, Deduct	-157.15	
33 01 30 72-0083	LF		15mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	845.66	
			For Vinlyester Resin, Add	552.64	
			For Epoxy Resin, Add	65.13	
			For Up To >10, Add	563.28	
			For >10 To 25, Add	337.82	
			For >25 To 50, Add	242.17	
			For >50 To 100, Add	121.08	
			For >500 To 1,000, Deduct	-43.69	
			For >1,000 To 2,000, Deduct	-66.23	
			For >2,000 To 5,000, Deduct	-108.78	
			For >5,000, Deduct	-180.37	
33 01 30 72-0084			16.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0085	LF		16.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	343.69	
			For Vinlyester Resin, Add	222.47	
			For Epoxy Resin, Add	26.22	
			For Up To >10, Add	236.52	
			For >10 To 25, Add	144.13	
			For >25 To 50, Add	102.37	
			For >50 To 100, Add	51.18	
			For >500 To 1,000, Deduct	-17.83	
			For >1,000 To 2,000, Deduct	-27.07	
			For >2,000 To 5,000, Deduct	-44.61	
			For >5,000, Deduct	-73.91	
33 01 30 72-0086	LF		16.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	400.79	
			For Vinlyester Resin, Add	260.94	
			For Epoxy Resin, Add	30.75	
			For Up To >10, Add	270.45	
			For >10 To 25, Add	163.24	
			For >25 To 50, Add	116.58	
			For >50 To 100, Add	58.29	
			For >500 To 1,000, Deduct	-20.74	
			For >1,000 To 2,000, Deduct	-31.46	
			For >2,000 To 5,000, Deduct	-51.74	
			For >5,000, Deduct	-85.76	
33 01 30 72-0087	LF		16.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	458.30	
			For Vinlyester Resin, Add	299.40	
			For Epoxy Resin, Add	35.29	
			For Up To >10, Add	305.60	
			For >10 To 25, Add	183.38	
			For >25 To 50, Add	131.41	
			For >50 To 100, Add	65.71	
			For >500 To 1,000, Deduct	-23.68	
			For >1,000 To 2,000, Deduct	-35.90	
			For >2,000 To 5,000, Deduct	-58.97	
			For >5,000, Deduct	-97.78	
33 01 30 72-0088	LF		16.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	516.36	
			For Vinlyester Resin, Add	337.88	
			For Epoxy Resin, Add	39.82	
			For Up To >10, Add	342.38	
			For >10 To 25, Add	204.87	
			For >25 To 50, Add	147.06	
			For >50 To 100, Add	73.53	
			For >500 To 1,000, Deduct	-26.66	
			For >1,000 To 2,000, Deduct	-40.41	
			For >2,000 To 5,000, Deduct	-66.34	
			For >5,000, Deduct	-110.01	
33 01 30 72-0089	LF		16.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	575.08	
			For Vinlyester Resin, Add	376.34	
			For Epoxy Resin, Add	44.35	
			For Up To >10, Add	381.17	
			For >10 To 25, Add	228.03	
			For >25 To 50, Add	163.70	
			For >50 To 100, Add	81.85	
			For >500 To 1,000, Deduct	-29.69	
			For >1,000 To 2,000, Deduct	-45.00	
			For >2,000 To 5,000, Deduct	-73.88	
			For >5,000, Deduct	-122.51	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0090 LF 16.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	689.72	
For Vinylster Resin, Add	453.28	
For Epoxy Resin, Add	53.42	
For Up To >10, Add	450.31	
For >10 To 25, Add	267.34	
For >25 To 50, Add	192.78	
For >50 To 100, Add	96.39	
For >500 To 1,000, Deduct	-35.54	
For >1,000 To 2,000, Deduct	-53.84	
For >2,000 To 5,000, Deduct	-88.25	
For >5,000, Deduct	-146.38	
33 01 30 72-0091 LF 16.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	805.54	
For Vinylster Resin, Add	530.21	
For Epoxy Resin, Add	62.49	
For Up To >10, Add	523.02	
For >10 To 25, Add	309.61	
For >25 To 50, Add	223.64	
For >50 To 100, Add	111.82	
For >500 To 1,000, Deduct	-41.48	
For >1,000 To 2,000, Deduct	-62.82	
For >2,000 To 5,000, Deduct	-102.92	
For >5,000, Deduct	-170.73	
33 01 30 72-0092 LF 16.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	923.53	
For Vinylster Resin, Add	607.15	
For Epoxy Resin, Add	71.56	
For Up To >10, Add	602.22	
For >10 To 25, Add	357.29	
For >25 To 50, Add	257.74	
For >50 To 100, Add	128.87	
For >500 To 1,000, Deduct	-47.58	
For >1,000 To 2,000, Deduct	-72.07	
For >2,000 To 5,000, Deduct	-118.13	
For >5,000, Deduct	-195.94	
33 01 30 72-0093 LF 16.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,040.59	
For Vinylster Resin, Add	684.08	
For Epoxy Resin, Add	80.62	
For Up To >10, Add	678.62	
For >10 To 25, Add	402.64	
For >25 To 50, Add	290.45	
For >50 To 100, Add	145.22	
For >500 To 1,000, Deduct	-53.61	
For >1,000 To 2,000, Deduct	-81.21	
For >2,000 To 5,000, Deduct	-133.10	
For >5,000, Deduct	-220.78	
33 01 30 72-0094 18mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0095 LF 18mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	372.08	
For Vinylster Resin, Add	241.87	
For Epoxy Resin, Add	28.51	
For Up To >10, Add	252.42	
For >10 To 25, Add	152.76	
For >25 To 50, Add	108.93	
For >50 To 100, Add	54.47	
For >500 To 1,000, Deduct	-19.27	
For >1,000 To 2,000, Deduct	-29.23	
For >2,000 To 5,000, Deduct	-48.10	
For >5,000, Deduct	-79.73	
33 01 30 72-0096 LF 18mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	434.31	
For Vinylster Resin, Add	283.84	
For Epoxy Resin, Add	33.45	
For Up To >10, Add	289.23	
For >10 To 25, Add	173.45	
For >25 To 50, Add	124.34	
For >50 To 100, Add	62.17	
For >500 To 1,000, Deduct	-22.44	
For >1,000 To 2,000, Deduct	-34.01	
For >2,000 To 5,000, Deduct	-55.87	
For >5,000, Deduct	-92.63	
33 01 30 72-0097 LF 18mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	496.82	
For Vinylster Resin, Add	325.80	
For Epoxy Resin, Add	38.40	
For Up To >10, Add	326.89	
For >10 To 25, Add	194.83	
For >25 To 50, Add	140.17	
For >50 To 100, Add	70.09	
For >500 To 1,000, Deduct	-25.63	
For >1,000 To 2,000, Deduct	-38.83	
For >2,000 To 5,000, Deduct	-63.70	
For >5,000, Deduct	-105.64	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0098	LF	18mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	560.01	
		For Vinlyester Resin, Add	367.77	
		For Epoxy Resin, Add	43.34	
		For Up To >10, Add	366.58	
		For >10 To 25, Add	217.92	
		For >25 To 50, Add	157.02	
		For >50 To 100, Add	78.51	
		For >500 To 1,000, Deduct	-28.87	
		For >1,000 To 2,000, Deduct	-43.73	
		For >2,000 To 5,000, Deduct	-71.70	
		For >5,000, Deduct	-118.93	
33 01 30 72-0099	LF	18mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	623.72	
		For Vinlyester Resin, Add	409.72	
		For Epoxy Resin, Add	48.29	
		For Up To >10, Add	407.86	
		For >10 To 25, Add	242.33	
		For >25 To 50, Add	174.66	
		For >50 To 100, Add	87.33	
		For >500 To 1,000, Deduct	-32.15	
		For >1,000 To 2,000, Deduct	-48.70	
		For >2,000 To 5,000, Deduct	-79.84	
		For >5,000, Deduct	-132.42	
33 01 30 72-0100	LF	18mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	749.41	
		For Vinlyester Resin, Add	493.65	
		For Epoxy Resin, Add	58.18	
		For Up To >10, Add	485.18	
		For >10 To 25, Add	286.78	
		For >25 To 50, Add	207.33	
		For >50 To 100, Add	103.66	
		For >500 To 1,000, Deduct	-38.58	
		For >1,000 To 2,000, Deduct	-58.42	
		For >2,000 To 5,000, Deduct	-95.67	
		For >5,000, Deduct	-158.72	
33 01 30 72-0101	LF	18mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	875.66	
		For Vinlyester Resin, Add	577.59	
		For Epoxy Resin, Add	68.07	
		For Up To >10, Add	564.16	
		For >10 To 25, Add	332.61	
		For >25 To 50, Add	240.82	
		For >50 To 100, Add	120.41	
		For >500 To 1,000, Deduct	-45.05	
		For >1,000 To 2,000, Deduct	-68.20	
		For >2,000 To 5,000, Deduct	-111.65	
		For >5,000, Deduct	-185.24	
33 01 30 72-0102	LF	18mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,004.03	
		For Vinlyester Resin, Add	661.51	
		For Epoxy Resin, Add	77.96	
		For Up To >10, Add	649.54	
		For >10 To 25, Add	383.78	
		For >25 To 50, Add	277.52	
		For >50 To 100, Add	138.76	
		For >500 To 1,000, Deduct	-51.68	
		For >1,000 To 2,000, Deduct	-78.25	
		For >2,000 To 5,000, Deduct	-128.15	
		For >5,000, Deduct	-212.61	
33 01 30 72-0103	LF	18mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,131.48	
		For Vinlyester Resin, Add	745.44	
		For Epoxy Resin, Add	87.86	
		For Up To >10, Add	732.14	
		For >10 To 25, Add	432.63	
		For >25 To 50, Add	312.82	
		For >50 To 100, Add	156.41	
		For >500 To 1,000, Deduct	-58.24	
		For >1,000 To 2,000, Deduct	-88.19	
		For >2,000 To 5,000, Deduct	-144.43	
		For >5,000, Deduct	-239.61	
33 01 30 72-0104	LF	18mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,258.78	
		For Vinlyester Resin, Add	829.37	
		For Epoxy Resin, Add	97.75	
		For Up To >10, Add	814.32	
		For >10 To 25, Add	481.13	
		For >25 To 50, Add	347.92	
		For >50 To 100, Add	173.96	
		For >500 To 1,000, Deduct	-64.79	
		For >1,000 To 2,000, Deduct	-98.11	
		For >2,000 To 5,000, Deduct	-160.67	
		For >5,000, Deduct	-266.55	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0105 LF 18mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,386.63	
For Vinylster Resin, Add	913.30	
For Epoxy Resin, Add	107.64	
For Up To >10, Add	898.12	
For >10 To 25, Add	530.98	
For >25 To 50, Add	383.82	
For >50 To 100, Add	191.91	
For >500 To 1,000, Deduct	-71.38	
For >1,000 To 2,000, Deduct	-108.09	
For >2,000 To 5,000, Deduct	-177.05	
For >5,000, Deduct	-293.71	
33 01 30 72-0106 LF 18mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,514.08	
For Vinylster Resin, Add	997.23	
For Epoxy Resin, Add	117.53	
For Up To >10, Add	980.72	
For >10 To 25, Add	579.83	
For >25 To 50, Add	419.13	
For >50 To 100, Add	209.56	
For >500 To 1,000, Deduct	-77.94	
For >1,000 To 2,000, Deduct	-118.03	
For >2,000 To 5,000, Deduct	-193.32	
For >5,000, Deduct	-320.71	
33 01 30 72-0107 19.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)	400.67	
33 01 30 72-0108 LF 19.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	400.67	
For Vinylster Resin, Add	261.14	
For Epoxy Resin, Add	30.78	
For Up To >10, Add	269.39	
For >10 To 25, Add	162.31	
For >25 To 50, Add	116.04	
For >50 To 100, Add	58.02	
For >500 To 1,000, Deduct	-20.72	
For >1,000 To 2,000, Deduct	-31.43	
For >2,000 To 5,000, Deduct	-51.67	
For >5,000, Deduct	-85.66	
33 01 30 72-0109 LF 19.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	467.91	
For Vinylster Resin, Add	306.59	
For Epoxy Resin, Add	36.13	
For Up To >10, Add	308.76	
For >10 To 25, Add	184.30	
For >25 To 50, Add	132.48	
For >50 To 100, Add	66.24	
For >500 To 1,000, Deduct	-24.14	
For >1,000 To 2,000, Deduct	-36.59	
For >2,000 To 5,000, Deduct	-60.04	
For >5,000, Deduct	-99.57	
33 01 30 72-0110 LF 19.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	535.54	
For Vinylster Resin, Add	352.05	
For Epoxy Resin, Add	41.49	
For Up To >10, Add	349.30	
For >10 To 25, Add	207.26	
For >25 To 50, Add	149.50	
For >50 To 100, Add	74.75	
For >500 To 1,000, Deduct	-27.59	
For >1,000 To 2,000, Deduct	-41.80	
For >2,000 To 5,000, Deduct	-68.50	
For >5,000, Deduct	-113.63	
33 01 30 72-0111 LF 19.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	603.45	
For Vinylster Resin, Add	397.52	
For Epoxy Resin, Add	46.85	
For Up To >10, Add	390.65	
For >10 To 25, Add	230.90	
For >25 To 50, Add	166.93	
For >50 To 100, Add	83.47	
For >500 To 1,000, Deduct	-31.06	
For >1,000 To 2,000, Deduct	-47.04	
For >2,000 To 5,000, Deduct	-77.04	
For >5,000, Deduct	-127.80	
33 01 30 72-0112 LF 19.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	672.44	
For Vinylster Resin, Add	442.98	
For Epoxy Resin, Add	52.21	
For Up To >10, Add	435.25	
For >10 To 25, Add	257.23	
For >25 To 50, Add	185.98	
For >50 To 100, Add	92.99	
For >500 To 1,000, Deduct	-34.61	
For >1,000 To 2,000, Deduct	-52.41	
For >2,000 To 5,000, Deduct	-85.84	
For >5,000, Deduct	-142.41	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0113	LF		19.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	809.33	
			For Vinlyester Resin, Add	533.90	
			For Epoxy Resin, Add	62.92	
			For Up To >10, Add	521.22	
			For >10 To 25, Add	307.23	
			For >25 To 50, Add	222.47	
			For >50 To 100, Add	111.24	
			For >500 To 1,000, Deduct	-41.63	
			For >1,000 To 2,000, Deduct	-63.03	
			For >2,000 To 5,000, Deduct	-103.18	
			For >5,000, Deduct	-171.19	
33 01 30 72-0114	LF		19.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	946.63	
			For Vinlyester Resin, Add	624.82	
			For Epoxy Resin, Add	73.64	
			For Up To >10, Add	608.39	
			For >10 To 25, Add	358.23	
			For >25 To 50, Add	259.57	
			For >50 To 100, Add	129.78	
			For >500 To 1,000, Deduct	-48.68	
			For >1,000 To 2,000, Deduct	-73.70	
			For >2,000 To 5,000, Deduct	-120.62	
			For >5,000, Deduct	-200.13	
33 01 30 72-0115	LF		19.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,084.87	
			For Vinlyester Resin, Add	715.74	
			For Epoxy Resin, Add	84.36	
			For Up To >10, Add	698.39	
			For >10 To 25, Add	411.57	
			For >25 To 50, Add	298.07	
			For >50 To 100, Add	149.03	
			For >500 To 1,000, Deduct	-55.80	
			For >1,000 To 2,000, Deduct	-84.48	
			For >2,000 To 5,000, Deduct	-138.29	
			For >5,000, Deduct	-229.45	
33 01 30 72-0116	LF		19.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,222.71	
			For Vinlyester Resin, Add	806.67	
			For Epoxy Resin, Add	95.07	
			For Up To >10, Add	787.18	
			For >10 To 25, Add	463.92	
			For >25 To 50, Add	335.97	
			For >50 To 100, Add	167.99	
			For >500 To 1,000, Deduct	-62.69	
			For >1,000 To 2,000, Deduct	-95.22	
			For >2,000 To 5,000, Deduct	-155.87	
			For >5,000, Deduct	-258.61	
33 01 30 72-0117	LF		19.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,360.55	
			For Vinlyester Resin, Add	897.59	
			For Epoxy Resin, Add	105.79	
			For Up To >10, Add	875.98	
			For >10 To 25, Add	516.27	
			For >25 To 50, Add	373.87	
			For >50 To 100, Add	186.94	
			For >500 To 1,000, Deduct	-69.98	
			For >1,000 To 2,000, Deduct	-105.96	
			For >2,000 To 5,000, Deduct	-173.44	
			For >5,000, Deduct	-287.77	
33 01 30 72-0118	LF		19.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,500.00	
			For Vinlyester Resin, Add	988.51	
			For Epoxy Resin, Add	116.50	
			For Up To >10, Add	969.60	
			For >10 To 25, Add	572.64	
			For >25 To 50, Add	414.19	
			For >50 To 100, Add	207.10	
			For >500 To 1,000, Deduct	-77.20	
			For >1,000 To 2,000, Deduct	-116.89	
			For >2,000 To 5,000, Deduct	-191.42	
			For >5,000, Deduct	-317.57	
33 01 30 72-0119	LF		19.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,637.97	
			For Vinlyester Resin, Add	1,079.43	
			For Epoxy Resin, Add	127.22	
			For Up To >10, Add	1,058.81	
			For >10 To 25, Add	625.34	
			For >25 To 50, Add	452.30	
			For >50 To 100, Add	226.15	
			For >500 To 1,000, Deduct	-84.30	
			For >1,000 To 2,000, Deduct	-127.64	
			For >2,000 To 5,000, Deduct	-209.03	
			For >5,000, Deduct	-346.78	
33 01 30 72-0120			21mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30	72-0121	LF	21mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	428.92	
			For Vinylester Resin, Add	280.25	
			For Epoxy Resin, Add	33.03	
			For Up To >10, Add	285.86	
			For >10 To 25, Add	171.49	
			For >25 To 50, Add	122.91	
			For >50 To 100, Add	61.46	
			For >500 To 1,000, Deduct	-22.16	
			For >1,000 To 2,000, Deduct	-33.60	
			For >2,000 To 5,000, Deduct	-55.18	
			For >5,000, Deduct	-91.50	
33 01 30	72-0122	LF	21mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	501.30	
			For Vinylester Resin, Add	329.22	
			For Epoxy Resin, Add	38.80	
			For Up To >10, Add	328.13	
			For >10 To 25, Add	195.05	
			For >25 To 50, Add	140.55	
			For >50 To 100, Add	70.27	
			For >500 To 1,000, Deduct	-25.84	
			For >1,000 To 2,000, Deduct	-39.15	
			For >2,000 To 5,000, Deduct	-64.18	
			For >5,000, Deduct	-106.46	
33 01 30	72-0123	LF	21mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	574.07	
			For Vinylester Resin, Add	378.18	
			For Epoxy Resin, Add	44.57	
			For Up To >10, Add	371.59	
			For >10 To 25, Add	219.61	
			For >25 To 50, Add	158.78	
			For >50 To 100, Add	79.39	
			For >500 To 1,000, Deduct	-29.55	
			For >1,000 To 2,000, Deduct	-44.75	
			For >2,000 To 5,000, Deduct	-73.29	
			For >5,000, Deduct	-121.58	
33 01 30	72-0124	LF	21mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	646.70	
			For Vinylester Resin, Add	427.13	
			For Epoxy Resin, Add	50.34	
			For Up To >10, Add	414.63	
			For >10 To 25, Add	243.82	
			For >25 To 50, Add	176.80	
			For >50 To 100, Add	88.40	
			For >500 To 1,000, Deduct	-33.25	
			For >1,000 To 2,000, Deduct	-50.33	
			For >2,000 To 5,000, Deduct	-82.35	
			For >5,000, Deduct	-136.64	
33 01 30	72-0125	LF	21mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	720.82	
			For Vinylester Resin, Add	476.09	
			For Epoxy Resin, Add	56.11	
			For Up To >10, Add	462.14	
			For >10 To 25, Add	271.76	
			For >25 To 50, Add	197.06	
			For >50 To 100, Add	98.53	
			For >500 To 1,000, Deduct	-37.06	
			For >1,000 To 2,000, Deduct	-56.10	
			For >2,000 To 5,000, Deduct	-91.79	
			For >5,000, Deduct	-152.30	
33 01 30	72-0126	LF	21mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	869.06	
			For Vinylester Resin, Add	574.01	
			For Epoxy Resin, Add	67.65	
			For Up To >10, Add	557.16	
			For >10 To 25, Add	327.63	
			For >25 To 50, Add	237.58	
			For >50 To 100, Add	118.79	
			For >500 To 1,000, Deduct	-44.68	
			For >1,000 To 2,000, Deduct	-67.63	
			For >2,000 To 5,000, Deduct	-110.66	
			For >5,000, Deduct	-183.62	
33 01 30	72-0127	LF	21mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,017.29	
			For Vinylester Resin, Add	671.92	
			For Epoxy Resin, Add	79.19	
			For Up To >10, Add	652.15	
			For >10 To 25, Add	383.47	
			For >25 To 50, Add	278.08	
			For >50 To 100, Add	139.04	
			For >500 To 1,000, Deduct	-52.30	
			For >1,000 To 2,000, Deduct	-79.17	
			For >2,000 To 5,000, Deduct	-129.54	
			For >5,000, Deduct	-214.94	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0128	LF	21mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,165.52	
		For Vinlyester Resin, Add	769.84	
		For Epoxy Resin, Add	90.73	
		For Up To >10, Add	747.14	
		For >10 To 25, Add	439.32	
		For >25 To 50, Add	318.58	
		For >50 To 100, Add	159.29	
		For >500 To 1,000, Deduct	-59.92	
		For >1,000 To 2,000, Deduct	-90.70	
		For >2,000 To 5,000, Deduct	-148.41	
		For >5,000, Deduct	-246.25	
33 01 30 72-0129	LF	21mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,313.76	
		For Vinlyester Resin, Add	867.76	
		For Epoxy Resin, Add	102.27	
		For Up To >10, Add	842.16	
		For >10 To 25, Add	495.19	
		For >25 To 50, Add	359.10	
		For >50 To 100, Add	179.55	
		For >500 To 1,000, Deduct	-67.54	
		For >1,000 To 2,000, Deduct	-102.24	
		For >2,000 To 5,000, Deduct	-167.29	
		For >5,000, Deduct	-277.57	
33 01 30 72-0130	LF	21mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,461.99	
		For Vinlyester Resin, Add	965.67	
		For Epoxy Resin, Add	113.81	
		For Up To >10, Add	937.15	
		For >10 To 25, Add	551.03	
		For >25 To 50, Add	399.60	
		For >50 To 100, Add	199.80	
		For >500 To 1,000, Deduct	-75.16	
		For >1,000 To 2,000, Deduct	-113.77	
		For >2,000 To 5,000, Deduct	-186.16	
		For >5,000, Deduct	-308.89	
33 01 30 72-0131	LF	21mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,613.18	
		For Vinlyester Resin, Add	1,063.59	
		For Epoxy Resin, Add	125.35	
		For Up To >10, Add	1,041.02	
		For >10 To 25, Add	614.28	
		For >25 To 50, Add	444.54	
		For >50 To 100, Add	222.27	
		For >500 To 1,000, Deduct	-83.00	
		For >1,000 To 2,000, Deduct	-125.68	
		For >2,000 To 5,000, Deduct	-205.77	
		For >5,000, Deduct	-341.39	
33 01 30 72-0132	LF	21mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,761.69	
		For Vinlyester Resin, Add	1,161.50	
		For Epoxy Resin, Add	136.89	
		For Up To >10, Add	1,136.85	
		For >10 To 25, Add	670.82	
		For >25 To 50, Add	485.46	
		For >50 To 100, Add	242.73	
		For >500 To 1,000, Deduct	-90.64	
		For >1,000 To 2,000, Deduct	-137.25	
		For >2,000 To 5,000, Deduct	-224.71	
		For >5,000, Deduct	-372.82	
33 01 30 72-0133		22.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0134	LF	22.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	456.86	
		For Vinlyester Resin, Add	299.24	
		For Epoxy Resin, Add	35.27	
		For Up To >10, Add	301.86	
		For >10 To 25, Add	180.30	
		For >25 To 50, Add	129.55	
		For >50 To 100, Add	64.78	
		For >500 To 1,000, Deduct	-23.58	
		For >1,000 To 2,000, Deduct	-35.73	
		For >2,000 To 5,000, Deduct	-58.64	
		For >5,000, Deduct	-97.25	
33 01 30 72-0135	LF	22.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	534.22	
		For Vinlyester Resin, Add	351.69	
		For Epoxy Resin, Add	41.45	
		For Up To >10, Add	346.61	
		For >10 To 25, Add	205.11	
		For >25 To 50, Add	148.18	
		For >50 To 100, Add	74.09	
		For >500 To 1,000, Deduct	-27.51	
		For >1,000 To 2,000, Deduct	-41.66	
		For >2,000 To 5,000, Deduct	-68.24	
		For >5,000, Deduct	-113.20	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0136	LF		22.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	612.39	
			For Vinylster Resin, Add	404.15	
			For Epoxy Resin, Add	47.63	
			For Up To >10, Add	393.77	
			For >10 To 25, Add	231.92	
			For >25 To 50, Add	168.02	
			For >50 To 100, Add	84.01	
			For >500 To 1,000, Deduct	-31.50	
			For >1,000 To 2,000, Deduct	-47.68	
			For >2,000 To 5,000, Deduct	-78.04	
			For >5,000, Deduct	-129.48	
33 01 30 72-0137	LF		22.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	690.97	
			For Vinylster Resin, Add	456.61	
			For Epoxy Resin, Add	53.81	
			For Up To >10, Add	442.16	
			For >10 To 25, Add	259.75	
			For >25 To 50, Add	188.47	
			For >50 To 100, Add	94.23	
			For >500 To 1,000, Deduct	-35.52	
			For >1,000 To 2,000, Deduct	-53.76	
			For >2,000 To 5,000, Deduct	-87.94	
			For >5,000, Deduct	-145.93	
33 01 30 72-0138	LF		22.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	770.34	
			For Vinylster Resin, Add	509.06	
			For Epoxy Resin, Add	60.00	
			For Up To >10, Add	492.95	
			For >10 To 25, Add	289.58	
			For >25 To 50, Add	210.11	
			For >50 To 100, Add	105.06	
			For >500 To 1,000, Deduct	-39.59	
			For >1,000 To 2,000, Deduct	-59.93	
			For >2,000 To 5,000, Deduct	-98.05	
			For >5,000, Deduct	-162.69	
33 01 30 72-0139	LF		22.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	929.11	
			For Vinylster Resin, Add	613.97	
			For Epoxy Resin, Add	72.36	
			For Up To >10, Add	594.58	
			For >10 To 25, Add	349.30	
			For >25 To 50, Add	253.44	
			For >50 To 100, Add	126.72	
			For >500 To 1,000, Deduct	-47.76	
			For >1,000 To 2,000, Deduct	-72.28	
			For >2,000 To 5,000, Deduct	-118.25	
			For >5,000, Deduct	-196.22	
33 01 30 72-0140	LF		22.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,087.87	
			For Vinylster Resin, Add	718.88	
			For Epoxy Resin, Add	84.73	
			For Up To >10, Add	696.19	
			For >10 To 25, Add	408.99	
			For >25 To 50, Add	296.74	
			For >50 To 100, Add	148.37	
			For >500 To 1,000, Deduct	-55.92	
			For >1,000 To 2,000, Deduct	-84.64	
			For >2,000 To 5,000, Deduct	-138.46	
			For >5,000, Deduct	-229.75	
33 01 30 72-0141	LF		22.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,246.64	
			For Vinylster Resin, Add	823.80	
			For Epoxy Resin, Add	97.09	
			For Up To >10, Add	797.80	
			For >10 To 25, Add	468.69	
			For >25 To 50, Add	340.06	
			For >50 To 100, Add	170.03	
			For >500 To 1,000, Deduct	-64.08	
			For >1,000 To 2,000, Deduct	-96.99	
			For >2,000 To 5,000, Deduct	-158.67	
			For >5,000, Deduct	-263.29	
33 01 30 72-0142	LF		22.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,405.40	
			For Vinylster Resin, Add	928.70	
			For Epoxy Resin, Add	109.45	
			For Up To >10, Add	899.40	
			For >10 To 25, Add	528.38	
			For >25 To 50, Add	383.36	
			For >50 To 100, Add	191.68	
			For >500 To 1,000, Deduct	-72.24	
			For >1,000 To 2,000, Deduct	-109.34	
			For >2,000 To 5,000, Deduct	-178.88	
			For >5,000, Deduct	-296.82	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0143	LF	22.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,564.16	
		For Vinlyester Resin, Add	1,033.61	
		For Epoxy Resin, Add	121.62	
		For Up To >10, Add	1,001.01	
		For >10 To 25, Add	588.07	
		For >25 To 50, Add	426.67	
		For >50 To 100, Add	213.34	
		For >500 To 1,000, Deduct	-80.40	
		For >1,000 To 2,000, Deduct	-121.69	
		For >2,000 To 5,000, Deduct	-199.08	
		For >5,000, Deduct	-330.35	
33 01 30 72-0144	LF	22.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,726.03	
		For Vinlyester Resin, Add	1,138.52	
		For Epoxy Resin, Add	134.18	
		For Up To >10, Add	1,111.94	
		For >10 To 25, Add	655.54	
		For >25 To 50, Add	474.65	
		For >50 To 100, Add	237.32	
		For >500 To 1,000, Deduct	-88.79	
		For >1,000 To 2,000, Deduct	-134.43	
		For >2,000 To 5,000, Deduct	-220.07	
		For >5,000, Deduct	-365.12	
33 01 30 72-0145	LF	22.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,885.07	
		For Vinlyester Resin, Add	1,243.44	
		For Epoxy Resin, Add	146.55	
		For Up To >10, Add	1,214.36	
		For >10 To 25, Add	715.91	
		For >25 To 50, Add	518.36	
		For >50 To 100, Add	259.18	
		For >500 To 1,000, Deduct	-96.97	
		For >1,000 To 2,000, Deduct	-146.82	
		For >2,000 To 5,000, Deduct	-240.34	
		For >5,000, Deduct	-398.76	
33 01 30 72-0146		24mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0147	LF	24mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	484.46	
		For Vinlyester Resin, Add	318.09	
		For Epoxy Resin, Add	37.49	
		For Up To >10, Add	317.36	
		For >10 To 25, Add	188.73	
		For >25 To 50, Add	135.96	
		For >50 To 100, Add	67.98	
		For >500 To 1,000, Deduct	-24.97	
		For >1,000 To 2,000, Deduct	-37.84	
		For >2,000 To 5,000, Deduct	-62.04	
		For >5,000, Deduct	-102.90	
33 01 30 72-0148	LF	24mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	566.82	
		For Vinlyester Resin, Add	374.05	
		For Epoxy Resin, Add	44.08	
		For Up To >10, Add	364.59	
		For >10 To 25, Add	214.76	
		For >25 To 50, Add	155.58	
		For >50 To 100, Add	77.79	
		For >500 To 1,000, Deduct	-29.15	
		For >1,000 To 2,000, Deduct	-44.14	
		For >2,000 To 5,000, Deduct	-72.24	
		For >5,000, Deduct	-119.86	
33 01 30 72-0149	LF	24mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	650.39	
		For Vinlyester Resin, Add	430.00	
		For Epoxy Resin, Add	50.68	
		For Up To >10, Add	415.47	
		For >10 To 25, Add	243.85	
		For >25 To 50, Add	177.02	
		For >50 To 100, Add	88.51	
		For >500 To 1,000, Deduct	-33.42	
		For >1,000 To 2,000, Deduct	-50.58	
		For >2,000 To 5,000, Deduct	-82.74	
		For >5,000, Deduct	-137.30	
33 01 30 72-0150	LF	24mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	735.03	
		For Vinlyester Resin, Add	485.95	
		For Epoxy Resin, Add	57.27	
		For Up To >10, Add	469.57	
		For >10 To 25, Add	275.60	
		For >25 To 50, Add	200.07	
		For >50 To 100, Add	100.04	
		For >500 To 1,000, Deduct	-37.77	
		For >1,000 To 2,000, Deduct	-57.17	
		For >2,000 To 5,000, Deduct	-93.51	
		For >5,000, Deduct	-155.17	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0151 LF 24mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	819.68	
For Vinylster Resin, Add	541.90	
For Epoxy Resin, Add	63.87	
For Up To >10, Add	523.69	
For >10 To 25, Add	307.39	
For >25 To 50, Add	223.14	
For >50 To 100, Add	111.57	
For >500 To 1,000, Deduct	-42.12	
For >1,000 To 2,000, Deduct	-63.75	
For >2,000 To 5,000, Deduct	-104.28	
For >5,000, Deduct	-173.04	
33 01 30 72-0152 LF 24mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	988.99	
For Vinylster Resin, Add	653.81	
For Epoxy Resin, Add	77.06	
For Up To >10, Add	631.95	
For >10 To 25, Add	370.95	
For >25 To 50, Add	269.27	
For >50 To 100, Add	134.64	
For >500 To 1,000, Deduct	-50.82	
For >1,000 To 2,000, Deduct	-76.92	
For >2,000 To 5,000, Deduct	-125.83	
For >5,000, Deduct	-208.79	
33 01 30 72-0153 LF 24mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,203.19	
For Vinylster Resin, Add	797.24	
For Epoxy Resin, Add	93.96	
For Up To >10, Add	762.27	
For >10 To 25, Add	445.41	
For >25 To 50, Add	324.19	
For >50 To 100, Add	162.09	
For >500 To 1,000, Deduct	-61.77	
For >1,000 To 2,000, Deduct	-93.45	
For >2,000 To 5,000, Deduct	-152.74	
For >5,000, Deduct	-253.49	
33 01 30 72-0154 LF 24mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,327.43	
For Vinylster Resin, Add	877.61	
For Epoxy Resin, Add	103.43	
For Up To >10, Add	847.97	
For >10 To 25, Add	497.68	
For >25 To 50, Add	361.30	
For >50 To 100, Add	180.65	
For >500 To 1,000, Deduct	-68.21	
For >1,000 To 2,000, Deduct	-103.24	
For >2,000 To 5,000, Deduct	-168.87	
For >5,000, Deduct	-280.23	
33 01 30 72-0155 LF 24mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,496.73	
For Vinylster Resin, Add	989.52	
For Epoxy Resin, Add	116.62	
For Up To >10, Add	956.19	
For >10 To 25, Add	561.23	
For >25 To 50, Add	407.42	
For >50 To 100, Add	203.71	
For >500 To 1,000, Deduct	-76.91	
For >1,000 To 2,000, Deduct	-116.41	
For >2,000 To 5,000, Deduct	-190.41	
For >5,000, Deduct	-315.97	
33 01 30 72-0156 LF 24mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,666.03	
For Vinylster Resin, Add	1,101.42	
For Epoxy Resin, Add	129.81	
For Up To >10, Add	1,064.44	
For >10 To 25, Add	624.79	
For >25 To 50, Add	453.55	
For >50 To 100, Add	226.77	
For >500 To 1,000, Deduct	-85.62	
For >1,000 To 2,000, Deduct	-129.58	
For >2,000 To 5,000, Deduct	-211.96	
For >5,000, Deduct	-351.72	
33 01 30 72-0157 LF 24mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,838.55	
For Vinylster Resin, Add	1,213.32	
For Epoxy Resin, Add	143.00	
For Up To >10, Add	1,182.35	
For >10 To 25, Add	696.41	
For >25 To 50, Add	504.51	
For >50 To 100, Add	252.25	
For >500 To 1,000, Deduct	-94.56	
For >1,000 To 2,000, Deduct	-143.15	
For >2,000 To 5,000, Deduct	-234.31	
For >5,000, Deduct	-388.76	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0158	LF	24mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,008.12	
		For Vinlyester Resin, Add	1,325.23	
		For Epoxy Resin, Add	156.19	
		For Up To >10, Add	1,291.39	
		For >10 To 25, Add	760.62	
		For >25 To 50, Add	551.03	
		For >50 To 100, Add	275.52	
		For >500 To 1,000, Deduct	-103.28	
		For >1,000 To 2,000, Deduct	-156.36	
		For >2,000 To 5,000, Deduct	-255.92	
		For >5,000, Deduct	-424.61	
33 01 30 72-0159	LF	24mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,177.68	
		For Vinlyester Resin, Add	1,437.14	
		For Epoxy Resin, Add	169.38	
		For Up To >10, Add	1,400.42	
		For >10 To 25, Add	824.84	
		For >25 To 50, Add	597.56	
		For >50 To 100, Add	298.78	
		For >500 To 1,000, Deduct	-112.00	
		For >1,000 To 2,000, Deduct	-169.56	
		For >2,000 To 5,000, Deduct	-277.52	
		For >5,000, Deduct	-460.46	
33 01 30 72-0160	LF	24mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,347.25	
		For Vinlyester Resin, Add	1,549.04	
		For Epoxy Resin, Add	182.57	
		For Up To >10, Add	1,509.48	
		For >10 To 25, Add	889.08	
		For >25 To 50, Add	644.09	
		For >50 To 100, Add	322.05	
		For >500 To 1,000, Deduct	-120.72	
		For >1,000 To 2,000, Deduct	-182.76	
		For >2,000 To 5,000, Deduct	-299.13	
		For >5,000, Deduct	-496.32	
33 01 30 72-0161		25.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015).....		
33 01 30 72-0162	LF	25.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	599.61	
		For Vinlyester Resin, Add	396.25	
		For Epoxy Resin, Add	46.70	
		For Up To >10, Add	383.66	
		For >10 To 25, Add	225.37	
		For >25 To 50, Add	163.52	
		For >50 To 100, Add	81.76	
		For >500 To 1,000, Deduct	-30.82	
		For >1,000 To 2,000, Deduct	-46.65	
		For >2,000 To 5,000, Deduct	-76.31	
		For >5,000, Deduct	-126.63	
33 01 30 72-0163	LF	25.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	689.00	
		For Vinlyester Resin, Add	455.70	
		For Epoxy Resin, Add	53.71	
		For Up To >10, Add	439.50	
		For >10 To 25, Add	257.75	
		For >25 To 50, Add	187.20	
		For >50 To 100, Add	93.60	
		For >500 To 1,000, Deduct	-35.40	
		For >1,000 To 2,000, Deduct	-53.58	
		For >2,000 To 5,000, Deduct	-87.62	
		For >5,000, Deduct	-145.40	
33 01 30 72-0164	LF	25.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	778.91	
		For Vinlyester Resin, Add	515.15	
		For Epoxy Resin, Add	60.71	
		For Up To >10, Add	496.91	
		For >10 To 25, Add	291.43	
		For >25 To 50, Add	211.66	
		For >50 To 100, Add	105.83	
		For >500 To 1,000, Deduct	-40.02	
		For >1,000 To 2,000, Deduct	-60.57	
		For >2,000 To 5,000, Deduct	-99.06	
		For >5,000, Deduct	-164.38	
33 01 30 72-0165	LF	25.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	868.68	
		For Vinlyester Resin, Add	574.60	
		For Epoxy Resin, Add	67.72	
		For Up To >10, Add	553.92	
		For >10 To 25, Add	324.79	
		For >25 To 50, Add	235.92	
		For >50 To 100, Add	117.96	
		For >500 To 1,000, Deduct	-44.63	
		For >1,000 To 2,000, Deduct	-67.54	
		For >2,000 To 5,000, Deduct	-110.46	
		For >5,000, Deduct	-183.30	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 72-0166	LF 25.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,048.51	
	For Vinylster Resin, Add	693.50	
	For Epoxy Resin, Add	81.73	
	For Up To >10, Add	668.76	
	For >10 To 25, Add	392.18	
	For >25 To 50, Add	284.84	
	For >50 To 100, Add	142.42	
	For >500 To 1,000, Deduct	-53.87	
	For >1,000 To 2,000, Deduct	-81.53	
	For >2,000 To 5,000, Deduct	-133.34	
	For >5,000, Deduct	-221.26	
33 01 30 72-0167	LF 25.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,228.20	
	For Vinylster Resin, Add	812.39	
	For Epoxy Resin, Add	95.75	
	For Up To >10, Add	783.20	
	For >10 To 25, Add	459.24	
	For >25 To 50, Add	333.57	
	For >50 To 100, Add	166.79	
	For >500 To 1,000, Deduct	-63.10	
	For >1,000 To 2,000, Deduct	-95.50	
	For >2,000 To 5,000, Deduct	-156.18	
	For >5,000, Deduct	-259.17	
33 01 30 72-0168	LF 25.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,408.02	
	For Vinylster Resin, Add	931.29	
	For Epoxy Resin, Add	109.76	
	For Up To >10, Add	898.01	
	For >10 To 25, Add	526.61	
	For >25 To 50, Add	382.48	
	For >50 To 100, Add	191.24	
	For >500 To 1,000, Deduct	-72.34	
	For >1,000 To 2,000, Deduct	-109.48	
	For >2,000 To 5,000, Deduct	-179.05	
	For >5,000, Deduct	-297.12	
33 01 30 72-0169	LF 25.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,587.71	
	For Vinylster Resin, Add	1,050.19	
	For Epoxy Resin, Add	123.77	
	For Up To >10, Add	1,012.46	
	For >10 To 25, Add	593.67	
	For >25 To 50, Add	431.21	
	For >50 To 100, Add	215.61	
	For >500 To 1,000, Deduct	-81.57	
	For >1,000 To 2,000, Deduct	-123.45	
	For >2,000 To 5,000, Deduct	-201.89	
	For >5,000, Deduct	-335.03	
33 01 30 72-0170	LF 25.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,767.54	
	For Vinylster Resin, Add	1,169.09	
	For Epoxy Resin, Add	137.79	
	For Up To >10, Add	1,127.30	
	For >10 To 25, Add	661.06	
	For >25 To 50, Add	480.14	
	For >50 To 100, Add	240.07	
	For >500 To 1,000, Deduct	-90.81	
	For >1,000 To 2,000, Deduct	-137.44	
	For >2,000 To 5,000, Deduct	-224.77	
	For >5,000, Deduct	-372.99	
33 01 30 72-0171	LF 25.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,951.68	
	For Vinylster Resin, Add	1,287.99	
	For Epoxy Resin, Add	151.80	
	For Up To >10, Add	1,255.09	
	For >10 To 25, Add	739.25	
	For >25 To 50, Add	535.55	
	For >50 To 100, Add	267.77	
	For >500 To 1,000, Deduct	-100.38	
	For >1,000 To 2,000, Deduct	-151.96	
	For >2,000 To 5,000, Deduct	-248.72	
	For >5,000, Deduct	-412.68	
33 01 30 72-0172	LF 25.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,131.91	
	For Vinylster Resin, Add	1,406.89	
	For Epoxy Resin, Add	165.81	
	For Up To >10, Add	1,371.13	
	For >10 To 25, Add	807.64	
	For >25 To 50, Add	585.07	
	For >50 To 100, Add	292.54	
	For >500 To 1,000, Deduct	-109.65	
	For >1,000 To 2,000, Deduct	-166.00	
	For >2,000 To 5,000, Deduct	-271.70	
	For >5,000, Deduct	-450.80	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0173 LF 25.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,312.00	
For Vinlyester Resin, Add	1,525.78	
For Epoxy Resin, Add	179.82	
For Up To >10, Add	1,486.78	
For >10 To 25, Add	875.70	
For >25 To 50, Add	634.40	
For >50 To 100, Add	317.20	
For >500 To 1,000, Deduct	-118.91	
For >1,000 To 2,000, Deduct	-180.02	
For >2,000 To 5,000, Deduct	-294.64	
For >5,000, Deduct	-488.86	
33 01 30 72-0174 LF 25.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,492.24	
For Vinlyester Resin, Add	1,644.69	
For Epoxy Resin, Add	193.84	
For Up To >10, Add	1,602.85	
For >10 To 25, Add	944.11	
For >25 To 50, Add	683.95	
For >50 To 100, Add	341.97	
For >500 To 1,000, Deduct	-128.18	
For >1,000 To 2,000, Deduct	-194.05	
For >2,000 To 5,000, Deduct	-317.62	
For >5,000, Deduct	-526.99	
33 01 30 72-0175 27mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0176 LF 27mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	632.09	
For Vinlyester Resin, Add	418.32	
For Epoxy Resin, Add	49.30	
For Up To >10, Add	402.27	
For >10 To 25, Add	235.63	
For >25 To 50, Add	171.26	
For >50 To 100, Add	85.63	
For >500 To 1,000, Deduct	-32.47	
For >1,000 To 2,000, Deduct	-49.13	
For >2,000 To 5,000, Deduct	-80.33	
For >5,000, Deduct	-133.32	
33 01 30 72-0177 LF 27mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	727.26	
For Vinlyester Resin, Add	481.26	
For Epoxy Resin, Add	56.72	
For Up To >10, Add	462.98	
For >10 To 25, Add	271.23	
For >25 To 50, Add	197.11	
For >50 To 100, Add	98.56	
For >500 To 1,000, Deduct	-37.36	
For >1,000 To 2,000, Deduct	-56.53	
For >2,000 To 5,000, Deduct	-92.44	
For >5,000, Deduct	-153.40	
33 01 30 72-0178 LF 27mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	822.45	
For Vinlyester Resin, Add	544.22	
For Epoxy Resin, Add	64.14	
For Up To >10, Add	523.73	
For >10 To 25, Add	306.86	
For >25 To 50, Add	222.99	
For >50 To 100, Add	111.50	
For >500 To 1,000, Deduct	-42.25	
For >1,000 To 2,000, Deduct	-63.93	
For >2,000 To 5,000, Deduct	-104.54	
For >5,000, Deduct	-173.49	
33 01 30 72-0179 LF 27mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	917.49	
For Vinlyester Resin, Add	607.16	
For Epoxy Resin, Add	71.56	
For Up To >10, Add	584.05	
For >10 To 25, Add	342.14	
For >25 To 50, Add	248.65	
For >50 To 100, Add	124.33	
For >500 To 1,000, Deduct	-47.13	
For >1,000 To 2,000, Deduct	-71.32	
For >2,000 To 5,000, Deduct	-116.61	
For >5,000, Deduct	-193.52	
33 01 30 72-0180 LF 27mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,107.72	
For Vinlyester Resin, Add	733.05	
For Epoxy Resin, Add	86.40	
For Up To >10, Add	705.11	
For >10 To 25, Add	413.06	
For >25 To 50, Add	300.19	
For >50 To 100, Add	150.10	
For >500 To 1,000, Deduct	-56.90	
For >1,000 To 2,000, Deduct	-86.10	
For >2,000 To 5,000, Deduct	-140.79	
For >5,000, Deduct	-233.64	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0181	LF 27mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,298.07	
	For Vinylster Resin, Add	858.94	
	For Epoxy Resin, Add	101.23	
	For Up To >10, Add	826.56	
	For >10 To 25, Add	484.29	
	For >25 To 50, Add	351.93	
	For >50 To 100, Add	175.96	
	For >500 To 1,000, Deduct	-66.68	
	For >1,000 To 2,000, Deduct	-100.91	
	For >2,000 To 5,000, Deduct	-165.00	
	For >5,000, Deduct	-273.82	
33 01 30 72-0182	LF 27mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,488.29	
	For Vinylster Resin, Add	984.84	
	For Epoxy Resin, Add	116.07	
	For Up To >10, Add	947.60	
	For >10 To 25, Add	555.18	
	For >25 To 50, Add	403.45	
	For >50 To 100, Add	201.73	
	For >500 To 1,000, Deduct	-76.45	
	For >1,000 To 2,000, Deduct	-115.69	
	For >2,000 To 5,000, Deduct	-189.17	
	For >5,000, Deduct	-313.93	
33 01 30 72-0183	LF 27mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,678.50	
	For Vinylster Resin, Add	1,110.73	
	For Epoxy Resin, Add	130.91	
	For Up To >10, Add	1,068.63	
	For >10 To 25, Add	626.06	
	For >25 To 50, Add	454.98	
	For >50 To 100, Add	227.49	
	For >500 To 1,000, Deduct	-86.22	
	For >1,000 To 2,000, Deduct	-130.48	
	For >2,000 To 5,000, Deduct	-213.35	
	For >5,000, Deduct	-354.05	
33 01 30 72-0184	LF 27mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,868.73	
	For Vinylster Resin, Add	1,236.62	
	For Epoxy Resin, Add	145.74	
	For Up To >10, Add	1,189.69	
	For >10 To 25, Add	696.98	
	For >25 To 50, Add	506.52	
	For >50 To 100, Add	253.26	
	For >500 To 1,000, Deduct	-95.99	
	For >1,000 To 2,000, Deduct	-145.26	
	For >2,000 To 5,000, Deduct	-237.52	
	For >5,000, Deduct	-394.17	
33 01 30 72-0185	LF 27mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,064.62	
	For Vinylster Resin, Add	1,362.52	
	For Epoxy Resin, Add	160.58	
	For Up To >10, Add	1,327.74	
	For >10 To 25, Add	782.04	
	For >25 To 50, Add	566.55	
	For >50 To 100, Add	283.27	
	For >500 To 1,000, Deduct	-106.19	
	For >1,000 To 2,000, Deduct	-160.76	
	For >2,000 To 5,000, Deduct	-263.12	
	For >5,000, Deduct	-436.56	
33 01 30 72-0186	LF 27mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,255.36	
	For Vinylster Resin, Add	1,488.40	
	For Epoxy Resin, Add	175.42	
	For Up To >10, Add	1,450.36	
	For >10 To 25, Add	854.25	
	For >25 To 50, Add	618.86	
	For >50 To 100, Add	309.43	
	For >500 To 1,000, Deduct	-115.99	
	For >1,000 To 2,000, Deduct	-175.61	
	For >2,000 To 5,000, Deduct	-287.42	
	For >5,000, Deduct	-476.89	
33 01 30 72-0187	LF 27mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,446.13	
	For Vinylster Resin, Add	1,614.30	
	For Epoxy Resin, Add	190.26	
	For Up To >10, Add	1,573.04	
	For >10 To 25, Add	926.51	
	For >25 To 50, Add	671.21	
	For >50 To 100, Add	335.61	
	For >500 To 1,000, Deduct	-125.81	
	For >1,000 To 2,000, Deduct	-190.46	
	For >2,000 To 5,000, Deduct	-311.73	
	For >5,000, Deduct	-517.22	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0188	LF		27mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,636.89	
			For Vinlyester Resin, Add	1,740.19	
			For Epoxy Resin, Add	205.09	
			For Up To >10, Add	1,695.70	
			For >10 To 25, Add	998.75	
			For >25 To 50, Add	723.55	
			For >50 To 100, Add	361.77	
			For >500 To 1,000, Deduct	-135.62	
			For >1,000 To 2,000, Deduct	-205.31	
			For >2,000 To 5,000, Deduct	-336.04	
			For >5,000, Deduct	-557.56	
33 01 30 72-0189			28.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0190	LF		28.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	765.08	
			For Vinlyester Resin, Add	506.70	
			For Epoxy Resin, Add	59.72	
			For Up To >10, Add	485.62	
			For >10 To 25, Add	284.04	
			For >25 To 50, Add	206.62	
			For >50 To 100, Add	103.31	
			For >500 To 1,000, Deduct	-39.28	
			For >1,000 To 2,000, Deduct	-59.44	
			For >2,000 To 5,000, Deduct	-97.17	
			For >5,000, Deduct	-161.26	
33 01 30 72-0191	LF		28.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	865.52	
			For Vinlyester Resin, Add	573.14	
			For Epoxy Resin, Add	67.55	
			For Up To >10, Add	549.64	
			For >10 To 25, Add	321.57	
			For >25 To 50, Add	233.88	
			For >50 To 100, Add	116.94	
			For >500 To 1,000, Deduct	-44.44	
			For >1,000 To 2,000, Deduct	-67.25	
			For >2,000 To 5,000, Deduct	-109.94	
			For >5,000, Deduct	-182.45	
33 01 30 72-0192	LF		28.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	965.84	
			For Vinlyester Resin, Add	639.58	
			For Epoxy Resin, Add	75.38	
			For Up To >10, Add	613.30	
			For >10 To 25, Add	358.80	
			For >25 To 50, Add	260.96	
			For >50 To 100, Add	130.48	
			For >500 To 1,000, Deduct	-49.60	
			For >1,000 To 2,000, Deduct	-75.05	
			For >2,000 To 5,000, Deduct	-122.68	
			For >5,000, Deduct	-203.60	
33 01 30 72-0193	LF		28.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,222.56	
			For Vinlyester Resin, Add	811.75	
			For Epoxy Resin, Add	95.67	
			For Up To >10, Add	768.58	
			For >10 To 25, Add	447.21	
			For >25 To 50, Add	326.31	
			For >50 To 100, Add	163.15	
			For >500 To 1,000, Deduct	-62.70	
			For >1,000 To 2,000, Deduct	-94.84	
			For >2,000 To 5,000, Deduct	-154.89	
			For >5,000, Deduct	-257.10	
33 01 30 72-0194	LF		28.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,367.20	
			For Vinlyester Resin, Add	905.35	
			For Epoxy Resin, Add	106.70	
			For Up To >10, Add	868.20	
			For >10 To 25, Add	507.94	
			For >25 To 50, Add	369.43	
			For >50 To 100, Add	184.72	
			For >500 To 1,000, Deduct	-70.21	
			For >1,000 To 2,000, Deduct	-106.23	
			For >2,000 To 5,000, Deduct	-173.66	
			For >5,000, Deduct	-288.21	
33 01 30 72-0195	LF		28.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,567.81	
			For Vinlyester Resin, Add	1,038.24	
			For Epoxy Resin, Add	122.36	
			For Up To >10, Add	995.43	
			For >10 To 25, Add	582.33	
			For >25 To 50, Add	423.56	
			For >50 To 100, Add	211.78	
			For >500 To 1,000, Deduct	-80.51	
			For >1,000 To 2,000, Deduct	-121.82	
			For >2,000 To 5,000, Deduct	-199.14	
			For >5,000, Deduct	-330.48	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0196	LF 28.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,768.43
	For Vinylster Resin, Add	1,171.13
	For Epoxy Resin, Add	138.03
	For Up To >10, Add	1,122.69
	For >10 To 25, Add	656.74
	For >25 To 50, Add	477.69
	For >50 To 100, Add	238.85
	For >500 To 1,000, Deduct	-90.81
	For >1,000 To 2,000, Deduct	-137.40
	For >2,000 To 5,000, Deduct	-224.61
	For >5,000, Deduct	-372.76
33 01 30 72-0197	LF 28.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,969.05
	For Vinylster Resin, Add	1,304.02
	For Epoxy Resin, Add	153.69
	For Up To >10, Add	1,249.95
	For >10 To 25, Add	731.15
	For >25 To 50, Add	531.83
	For >50 To 100, Add	265.92
	For >500 To 1,000, Deduct	-101.11
	For >1,000 To 2,000, Deduct	-152.99
	For >2,000 To 5,000, Deduct	-250.09
	For >5,000, Deduct	-415.04
33 01 30 72-0198	LF 28.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,175.60
	For Vinylster Resin, Add	1,436.90
	For Epoxy Resin, Add	169.35
	For Up To >10, Add	1,395.00
	For >10 To 25, Add	820.38
	For >25 To 50, Add	594.86
	For >50 To 100, Add	297.43
	For >500 To 1,000, Deduct	-111.85
	For >1,000 To 2,000, Deduct	-169.31
	For >2,000 To 5,000, Deduct	-277.05
	For >5,000, Deduct	-459.70
33 01 30 72-0199	LF 28.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,376.75
	For Vinylster Resin, Add	1,569.79
	For Epoxy Resin, Add	185.01
	For Up To >10, Add	1,523.88
	For >10 To 25, Add	896.14
	For >25 To 50, Add	649.81
	For >50 To 100, Add	324.91
	For >500 To 1,000, Deduct	-122.19
	For >1,000 To 2,000, Deduct	-184.97
	For >2,000 To 5,000, Deduct	-302.66
	For >5,000, Deduct	-502.19
33 01 30 72-0200	LF 28.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,578.04
	For Vinylster Resin, Add	1,702.67
	For Epoxy Resin, Add	200.67
	For Up To >10, Add	1,653.15
	For >10 To 25, Add	972.22
	For >25 To 50, Add	704.95
	For >50 To 100, Add	352.48
	For >500 To 1,000, Deduct	-132.54
	For >1,000 To 2,000, Deduct	-200.64
	For >2,000 To 5,000, Deduct	-328.30
	For >5,000, Deduct	-544.74
33 01 30 72-0201	LF 28.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,779.19
	For Vinylster Resin, Add	1,835.56
	For Epoxy Resin, Add	216.33
	For Up To >10, Add	1,782.00
	For >10 To 25, Add	1,047.96
	For >25 To 50, Add	759.89
	For >50 To 100, Add	379.94
	For >500 To 1,000, Deduct	-142.88
	For >1,000 To 2,000, Deduct	-216.29
	For >2,000 To 5,000, Deduct	-353.91
	For >5,000, Deduct	-587.23
33 01 30 72-0202	30mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)	
33 01 30 72-0203	LF 30mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	802.70
	For Vinylster Resin, Add	531.99
	For Epoxy Resin, Add	62.70
	For Up To >10, Add	508.15
	For >10 To 25, Add	296.80
	For >25 To 50, Add	216.08
	For >50 To 100, Add	108.04
	For >500 To 1,000, Deduct	-41.20
	For >1,000 To 2,000, Deduct	-62.34
	For >2,000 To 5,000, Deduct	-101.88
	For >5,000, Deduct	-169.08



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0204	LF	30mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	908.27	
		For Vinlyester Resin, Add	601.93	
		For Epoxy Resin, Add	70.94	
		For Up To >10, Add	575.06	
		For >10 To 25, Add	335.90	
		For >25 To 50, Add	244.54	
		For >50 To 100, Add	122.27	
		For >500 To 1,000, Deduct	-46.62	
		For >1,000 To 2,000, Deduct	-70.54	
		For >2,000 To 5,000, Deduct	-115.28	
		For >5,000, Deduct	-191.33	
33 01 30 72-0205	LF	30mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,013.84	
		For Vinlyester Resin, Add	671.87	
		For Epoxy Resin, Add	79.18	
		For Up To >10, Add	642.00	
		For >10 To 25, Add	375.03	
		For >25 To 50, Add	273.01	
		For >50 To 100, Add	136.50	
		For >500 To 1,000, Deduct	-52.04	
		For >1,000 To 2,000, Deduct	-78.74	
		For >2,000 To 5,000, Deduct	-128.68	
		For >5,000, Deduct	-213.57	
33 01 30 72-0206	LF	30mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,224.85	
		For Vinlyester Resin, Add	811.75	
		For Epoxy Resin, Add	95.67	
		For Up To >10, Add	775.45	
		For >10 To 25, Add	452.94	
		For >25 To 50, Add	329.74	
		For >50 To 100, Add	164.87	
		For >500 To 1,000, Deduct	-62.87	
		For >1,000 To 2,000, Deduct	-95.12	
		For >2,000 To 5,000, Deduct	-155.46	
		For >5,000, Deduct	-258.01	
33 01 30 72-0207	LF	30mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,436.00	
		For Vinlyester Resin, Add	951.63	
		For Epoxy Resin, Add	112.16	
		For Up To >10, Add	909.33	
		For >10 To 25, Add	531.19	
		For >25 To 50, Add	386.69	
		For >50 To 100, Add	193.34	
		For >500 To 1,000, Deduct	-73.71	
		For >1,000 To 2,000, Deduct	-111.53	
		For >2,000 To 5,000, Deduct	-182.27	
		For >5,000, Deduct	-302.51	
33 01 30 72-0208	LF	30mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,647.01	
		For Vinlyester Resin, Add	1,091.51	
		For Epoxy Resin, Add	128.64	
		For Up To >10, Add	1,042.78	
		For >10 To 25, Add	609.10	
		For >25 To 50, Add	443.43	
		For >50 To 100, Add	221.71	
		For >500 To 1,000, Deduct	-84.54	
		For >1,000 To 2,000, Deduct	-127.91	
		For >2,000 To 5,000, Deduct	-209.04	
		For >5,000, Deduct	-346.94	
33 01 30 72-0209	LF	30mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,858.16	
		For Vinlyester Resin, Add	1,231.39	
		For Epoxy Resin, Add	145.13	
		For Up To >10, Add	1,176.66	
		For >10 To 25, Add	687.36	
		For >25 To 50, Add	500.37	
		For >50 To 100, Add	250.19	
		For >500 To 1,000, Deduct	-95.38	
		For >1,000 To 2,000, Deduct	-144.31	
		For >2,000 To 5,000, Deduct	-235.85	
		For >5,000, Deduct	-391.44	
33 01 30 72-0210	LF	30mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,069.17	
		For Vinlyester Resin, Add	1,371.27	
		For Epoxy Resin, Add	161.61	
		For Up To >10, Add	1,310.11	
		For >10 To 25, Add	765.27	
		For >25 To 50, Add	557.11	
		For >50 To 100, Add	278.55	
		For >500 To 1,000, Deduct	-106.21	
		For >1,000 To 2,000, Deduct	-160.70	
		For >2,000 To 5,000, Deduct	-262.63	
		For >5,000, Deduct	-435.88	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0211	LF 30mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,286.39	
	For Vinylster Resin, Add	1,511.15	
	For Epoxy Resin, Add	178.10	
	For Up To >10, Add	1,462.20	
	For >10 To 25, Add	858.70	
	For >25 To 50, Add	623.16	
	For >50 To 100, Add	311.58	
	For >500 To 1,000, Deduct	-117.51	
	For >1,000 To 2,000, Deduct	-177.86	
	For >2,000 To 5,000, Deduct	-290.95	
	For >5,000, Deduct	-482.80	
33 01 30 72-0212	LF 30mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,497.94	
	For Vinylster Resin, Add	1,651.03	
	For Epoxy Resin, Add	194.59	
	For Up To >10, Add	1,597.27	
	For >10 To 25, Add	937.96	
	For >25 To 50, Add	680.70	
	For >50 To 100, Add	340.35	
	For >500 To 1,000, Deduct	-128.38	
	For >1,000 To 2,000, Deduct	-194.31	
	For >2,000 To 5,000, Deduct	-317.86	
	For >5,000, Deduct	-527.45	
33 01 30 72-0213	LF 30mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,709.61	
	For Vinylster Resin, Add	1,790.91	
	For Epoxy Resin, Add	211.07	
	For Up To >10, Add	1,732.73	
	For >10 To 25, Add	1,017.54	
	For >25 To 50, Add	738.44	
	For >50 To 100, Add	369.22	
	For >500 To 1,000, Deduct	-139.26	
	For >1,000 To 2,000, Deduct	-210.78	
	For >2,000 To 5,000, Deduct	-344.81	
	For >5,000, Deduct	-572.16	
33 01 30 72-0214	LF 30mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,921.29	
	For Vinylster Resin, Add	1,930.79	
	For Epoxy Resin, Add	227.56	
	For Up To >10, Add	1,868.20	
	For >10 To 25, Add	1,097.12	
	For >25 To 50, Add	796.18	
	For >50 To 100, Add	398.09	
	For >500 To 1,000, Deduct	-150.14	
	For >1,000 To 2,000, Deduct	-227.25	
	For >2,000 To 5,000, Deduct	-371.75	
	For >5,000, Deduct	-616.86	
33 01 30 72-0215	LF 30mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,132.85	
	For Vinylster Resin, Add	2,070.67	
	For Epoxy Resin, Add	244.04	
	For Up To >10, Add	2,003.30	
	For >10 To 25, Add	1,176.40	
	For >25 To 50, Add	853.75	
	For >50 To 100, Add	426.87	
	For >500 To 1,000, Deduct	-161.01	
	For >1,000 To 2,000, Deduct	-243.70	
	For >2,000 To 5,000, Deduct	-398.66	
	For >5,000, Deduct	-661.52	
33 01 30 72-0216	LF 30mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,344.54	
	For Vinylster Resin, Add	2,210.55	
	For Epoxy Resin, Add	260.53	
	For Up To >10, Add	2,138.80	
	For >10 To 25, Add	1,256.01	
	For >25 To 50, Add	911.50	
	For >50 To 100, Add	455.75	
	For >500 To 1,000, Deduct	-171.89	
	For >1,000 To 2,000, Deduct	-260.17	
	For >2,000 To 5,000, Deduct	-425.60	
	For >5,000, Deduct	-706.23	
33 01 30 72-0217	31.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0218	LF 31.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	840.11	
	For Vinylster Resin, Add	557.14	
	For Epoxy Resin, Add	65.66	
	For Up To >10, Add	530.53	
	For >10 To 25, Add	309.46	
	For >25 To 50, Add	225.47	
	For >50 To 100, Add	112.73	
	For >500 To 1,000, Deduct	-43.11	
	For >1,000 To 2,000, Deduct	-65.22	
	For >2,000 To 5,000, Deduct	-106.56	
	For >5,000, Deduct	-176.86	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0219	LF		31.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	950.81	
			For Vinlyester Resin, Add	630.58	
			For Epoxy Resin, Add	74.32	
			For Up To >10, Add	600.36	
			For >10 To 25, Add	350.16	
			For >25 To 50, Add	255.14	
			For >50 To 100, Add	127.57	
			For >500 To 1,000, Deduct	-48.79	
			For >1,000 To 2,000, Deduct	-73.81	
			For >2,000 To 5,000, Deduct	-120.59	
			For >5,000, Deduct	-200.16	
33 01 30 72-0220	LF		31.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,061.51	
			For Vinlyester Resin, Add	704.01	
			For Epoxy Resin, Add	82.97	
			For Up To >10, Add	670.21	
			For >10 To 25, Add	390.88	
			For >25 To 50, Add	284.82	
			For >50 To 100, Add	142.41	
			For >500 To 1,000, Deduct	-54.47	
			For >1,000 To 2,000, Deduct	-82.40	
			For >2,000 To 5,000, Deduct	-134.63	
			For >5,000, Deduct	-223.46	
33 01 30 72-0221	LF		31.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,283.07	
			For Vinlyester Resin, Add	850.89	
			For Epoxy Resin, Add	100.28	
			For Up To >10, Add	810.31	
			For >10 To 25, Add	472.67	
			For >25 To 50, Add	344.38	
			For >50 To 100, Add	172.19	
			For >500 To 1,000, Deduct	-65.84	
			For >1,000 To 2,000, Deduct	-99.61	
			For >2,000 To 5,000, Deduct	-162.74	
			For >5,000, Deduct	-270.12	
33 01 30 72-0222	LF		31.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,504.47	
			For Vinlyester Resin, Add	997.77	
			For Epoxy Resin, Add	117.59	
			For Up To >10, Add	949.96	
			For >10 To 25, Add	554.07	
			For >25 To 50, Add	403.71	
			For >50 To 100, Add	201.86	
			For >500 To 1,000, Deduct	-77.20	
			For >1,000 To 2,000, Deduct	-116.79	
			For >2,000 To 5,000, Deduct	-190.82	
			For >5,000, Deduct	-316.71	
33 01 30 72-0223	LF		31.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,726.01	
			For Vinlyester Resin, Add	1,144.64	
			For Epoxy Resin, Add	134.90	
			For Up To >10, Add	1,090.03	
			For >10 To 25, Add	635.83	
			For >25 To 50, Add	463.26	
			For >50 To 100, Add	231.63	
			For >500 To 1,000, Deduct	-88.57	
			For >1,000 To 2,000, Deduct	-133.99	
			For >2,000 To 5,000, Deduct	-218.93	
			For >5,000, Deduct	-363.36	
33 01 30 72-0224	LF		31.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,947.42	
			For Vinlyester Resin, Add	1,291.51	
			For Epoxy Resin, Add	152.21	
			For Up To >10, Add	1,229.71	
			For >10 To 25, Add	717.26	
			For >25 To 50, Add	522.60	
			For >50 To 100, Add	261.30	
			For >500 To 1,000, Deduct	-99.93	
			For >1,000 To 2,000, Deduct	-151.18	
			For >2,000 To 5,000, Deduct	-247.00	
			For >5,000, Deduct	-409.96	
33 01 30 72-0225	LF		31.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,168.83	
			For Vinlyester Resin, Add	1,438.39	
			For Epoxy Resin, Add	169.52	
			For Up To >10, Add	1,369.39	
			For >10 To 25, Add	798.69	
			For >25 To 50, Add	581.95	
			For >50 To 100, Add	290.98	
			For >500 To 1,000, Deduct	-111.29	
			For >1,000 To 2,000, Deduct	-168.36	
			For >2,000 To 5,000, Deduct	-275.08	
			For >5,000, Deduct	-456.56	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 72-0226	LF 31.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,396.70
	For Vinylster Resin, Add	1,585.26
	For Epoxy Resin, Add	186.83
	For Up To >10, Add	1,528.45
	For >10 To 25, Add	896.27
	For >25 To 50, Add	650.99
	For >50 To 100, Add	325.50
	For >500 To 1,000, Deduct	-123.14
	For >1,000 To 2,000, Deduct	-186.35
	For >2,000 To 5,000, Deduct	-304.77
	For >5,000, Deduct	-505.75
33 01 30 72-0227	LF 31.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,635.81
	For Vinylster Resin, Add	1,743.97
	For Epoxy Resin, Add	205.54
	For Up To >10, Add	1,678.98
	For >10 To 25, Add	983.92
	For >25 To 50, Add	714.92
	For >50 To 100, Add	357.46
	For >500 To 1,000, Deduct	-135.40
	For >1,000 To 2,000, Deduct	-204.91
	For >2,000 To 5,000, Deduct	-335.07
	For >5,000, Deduct	-556.05
33 01 30 72-0228	LF 31.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,840.73
	For Vinylster Resin, Add	1,879.01
	For Epoxy Resin, Add	221.45
	For Up To >10, Add	1,811.44
	For >10 To 25, Add	1,062.15
	For >25 To 50, Add	771.51
	For >50 To 100, Add	385.75
	For >500 To 1,000, Deduct	-145.95
	For >1,000 To 2,000, Deduct	-220.88
	For >2,000 To 5,000, Deduct	-361.22
	For >5,000, Deduct	-599.43
33 01 30 72-0229	LF 31.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,062.81
	For Vinylster Resin, Add	2,025.88
	For Epoxy Resin, Add	238.76
	For Up To >10, Add	1,953.13
	For >10 To 25, Add	1,145.26
	For >25 To 50, Add	831.86
	For >50 To 100, Add	415.93
	For >500 To 1,000, Deduct	-157.36
	For >1,000 To 2,000, Deduct	-238.15
	For >2,000 To 5,000, Deduct	-389.47
	For >5,000, Deduct	-646.30
33 01 30 72-0230	LF 31.5mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,284.76
	For Vinylster Resin, Add	2,172.76
	For Epoxy Resin, Add	256.08
	For Up To >10, Add	2,094.43
	For >10 To 25, Add	1,228.04
	For >25 To 50, Add	892.02
	For >50 To 100, Add	446.01
	For >500 To 1,000, Deduct	-168.76
	For >1,000 To 2,000, Deduct	-255.40
	For >2,000 To 5,000, Deduct	-417.68
	For >5,000, Deduct	-693.12
33 01 30 72-0231	LF 31.5mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,506.84
	For Vinylster Resin, Add	2,319.63
	For Epoxy Resin, Add	273.39
	For Up To >10, Add	2,236.12
	For >10 To 25, Add	1,311.14
	For >25 To 50, Add	952.37
	For >50 To 100, Add	476.19
	For >500 To 1,000, Deduct	-180.17
	For >1,000 To 2,000, Deduct	-272.67
	For >2,000 To 5,000, Deduct	-445.92
	For >5,000, Deduct	-739.98
33 01 30 72-0232	33mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)	
33 01 30 72-0233	LF 33mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	877.20
	For Vinylster Resin, Add	582.16
	For Epoxy Resin, Add	68.61
	For Up To >10, Add	552.45
	For >10 To 25, Add	321.77
	For >25 To 50, Add	234.64
	For >50 To 100, Add	117.32
	For >500 To 1,000, Deduct	-45.00
	For >1,000 To 2,000, Deduct	-68.07
	For >2,000 To 5,000, Deduct	-111.18
	For >5,000, Deduct	-184.55



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0234	LF		33mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	893.17	
			For Vinlyester Resin, Add	659.09	
			For Epoxy Resin, Add	77.68	
			For Up To >10, Add	625.61	
			For >10 To 25, Add	364.42	
			For >25 To 50, Add	265.73	
			For >50 To 100, Add	132.86	
			For >500 To 1,000, Deduct	-50.95	
			For >1,000 To 2,000, Deduct	-77.07	
			For >2,000 To 5,000, Deduct	-125.89	
			For >5,000, Deduct	-208.96	
33 01 30 72-0235	LF		33mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,108.99	
			For Vinlyester Resin, Add	736.02	
			For Epoxy Resin, Add	86.75	
			For Up To >10, Add	698.32	
			For >10 To 25, Add	406.69	
			For >25 To 50, Add	296.59	
			For >50 To 100, Add	148.29	
			For >500 To 1,000, Deduct	-56.89	
			For >1,000 To 2,000, Deduct	-86.05	
			For >2,000 To 5,000, Deduct	-140.56	
			For >5,000, Deduct	-233.30	
33 01 30 72-0236	LF		33mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,340.94	
			For Vinlyester Resin, Add	889.90	
			For Epoxy Resin, Add	104.88	
			For Up To >10, Add	844.62	
			For >10 To 25, Add	491.97	
			For >25 To 50, Add	358.75	
			For >50 To 100, Add	179.37	
			For >500 To 1,000, Deduct	-68.79	
			For >1,000 To 2,000, Deduct	-104.05	
			For >2,000 To 5,000, Deduct	-169.97	
			For >5,000, Deduct	-282.12	
33 01 30 72-0237	LF		33mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,572.74	
			For Vinlyester Resin, Add	1,043.76	
			For Epoxy Resin, Add	123.01	
			For Up To >10, Add	990.50	
			For >10 To 25, Add	576.90	
			For >25 To 50, Add	420.69	
			For >50 To 100, Add	210.35	
			For >500 To 1,000, Deduct	-80.68	
			For >1,000 To 2,000, Deduct	-122.04	
			For >2,000 To 5,000, Deduct	-199.34	
			For >5,000, Deduct	-330.88	
33 01 30 72-0238	LF		33mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,804.67	
			For Vinlyester Resin, Add	1,197.63	
			For Epoxy Resin, Add	141.15	
			For Up To >10, Add	1,136.76	
			For >10 To 25, Add	662.15	
			For >25 To 50, Add	482.84	
			For >50 To 100, Add	241.42	
			For >500 To 1,000, Deduct	-92.58	
			For >1,000 To 2,000, Deduct	-140.04	
			For >2,000 To 5,000, Deduct	-228.75	
			For >5,000, Deduct	-379.69	
33 01 30 72-0239	LF		33mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,036.48	
			For Vinlyester Resin, Add	1,351.50	
			For Epoxy Resin, Add	159.28	
			For Up To >10, Add	1,282.67	
			For >10 To 25, Add	747.10	
			For >25 To 50, Add	544.80	
			For >50 To 100, Add	272.40	
			For >500 To 1,000, Deduct	-104.47	
			For >1,000 To 2,000, Deduct	-158.02	
			For >2,000 To 5,000, Deduct	-258.13	
			For >5,000, Deduct	-428.45	
33 01 30 72-0240	LF		33mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,268.29	
			For Vinlyester Resin, Add	1,505.37	
			For Epoxy Resin, Add	177.42	
			For Up To >10, Add	1,428.55	
			For >10 To 25, Add	832.03	
			For >25 To 50, Add	606.75	
			For >50 To 100, Add	303.37	
			For >500 To 1,000, Deduct	-116.36	
			For >1,000 To 2,000, Deduct	-176.01	
			For >2,000 To 5,000, Deduct	-287.50	
			For >5,000, Deduct	-477.21	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0241	LF 33mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,506.69	
	For Vinylster Resin, Add	1,659.24	
	For Epoxy Resin, Add	195.55	
	For Up To >10, Add	1,594.22	
	For >10 To 25, Add	933.46	
	For >25 To 50, Add	678.59	
	For >50 To 100, Add	339.30	
	For >500 To 1,000, Deduct	-128.74	
	For >1,000 To 2,000, Deduct	-194.82	
	For >2,000 To 5,000, Deduct	-318.53	
	For >5,000, Deduct	-528.61	
33 01 30 72-0242	LF 33mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,739.57	
	For Vinylster Resin, Add	1,813.11	
	For Epoxy Resin, Add	213.69	
	For Up To >10, Add	1,743.34	
	For >10 To 25, Add	1,021.09	
	For >25 To 50, Add	742.16	
	For >50 To 100, Add	371.08	
	For >500 To 1,000, Deduct	-140.71	
	For >1,000 To 2,000, Deduct	-212.94	
	For >2,000 To 5,000, Deduct	-348.17	
	For >5,000, Deduct	-577.80	
33 01 30 72-0243	LF 33mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	2,971.51	
	For Vinylster Resin, Add	1,966.97	
	For Epoxy Resin, Add	231.82	
	For Up To >10, Add	1,889.63	
	For >10 To 25, Add	1,106.37	
	For >25 To 50, Add	804.32	
	For >50 To 100, Add	402.16	
	For >500 To 1,000, Deduct	-152.61	
	For >1,000 To 2,000, Deduct	-230.94	
	For >2,000 To 5,000, Deduct	-377.58	
	For >5,000, Deduct	-626.61	
33 01 30 72-0244	LF 33mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,203.98	
	For Vinylster Resin, Add	2,120.84	
	For Epoxy Resin, Add	249.96	
	For Up To >10, Add	2,037.52	
	For >10 To 25, Add	1,192.97	
	For >25 To 50, Add	867.27	
	For >50 To 100, Add	433.63	
	For >500 To 1,000, Deduct	-164.55	
	For >1,000 To 2,000, Deduct	-249.01	
	For >2,000 To 5,000, Deduct	-407.12	
	For >5,000, Deduct	-675.64	
33 01 30 72-0245	LF 33mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,436.47	
	For Vinylster Resin, Add	2,274.71	
	For Epoxy Resin, Add	268.09	
	For Up To >10, Add	2,185.44	
	For >10 To 25, Add	1,279.60	
	For >25 To 50, Add	930.24	
	For >50 To 100, Add	465.12	
	For >500 To 1,000, Deduct	-176.50	
	For >1,000 To 2,000, Deduct	-267.08	
	For >2,000 To 5,000, Deduct	-436.67	
	For >5,000, Deduct	-724.67	
33 01 30 72-0246	LF 33mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,668.94	
	For Vinylster Resin, Add	2,428.58	
	For Epoxy Resin, Add	286.23	
	For Up To >10, Add	2,333.32	
	For >10 To 25, Add	1,366.20	
	For >25 To 50, Add	993.19	
	For >50 To 100, Add	496.60	
	For >500 To 1,000, Deduct	-188.44	
	For >1,000 To 2,000, Deduct	-285.15	
	For >2,000 To 5,000, Deduct	-466.21	
	For >5,000, Deduct	-773.70	
33 01 30 72-0247	34.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0248	LF 34.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,034.91	
	For Vinylster Resin, Add	687.47	
	For Epoxy Resin, Add	81.02	
	For Up To >10, Add	649.48	
	For >10 To 25, Add	377.55	
	For >25 To 50, Add	275.64	
	For >50 To 100, Add	137.82	
	For >500 To 1,000, Deduct	-53.07	
	For >1,000 To 2,000, Deduct	-80.26	
	For >2,000 To 5,000, Deduct	-131.05	
	For >5,000, Deduct	-217.54	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0249	LF		34.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,156.00	
			For Vinlyester Resin, Add	767.89	
			For Epoxy Resin, Add	90.50	
			For Up To >10, Add	725.53	
			For >10 To 25, Add	421.77	
			For >25 To 50, Add	307.91	
			For >50 To 100, Add	153.96	
			For >500 To 1,000, Deduct	-59.28	
			For >1,000 To 2,000, Deduct	-89.65	
			For >2,000 To 5,000, Deduct	-146.39	
			For >5,000, Deduct	-243.00	
33 01 30 72-0250	LF		34.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,398.21	
			For Vinlyester Resin, Add	928.76	
			For Epoxy Resin, Add	109.46	
			For Up To >10, Add	877.63	
			For >10 To 25, Add	510.23	
			For >25 To 50, Add	372.48	
			For >50 To 100, Add	186.24	
			For >500 To 1,000, Deduct	-71.70	
			For >1,000 To 2,000, Deduct	-108.44	
			For >2,000 To 5,000, Deduct	-177.07	
			For >5,000, Deduct	-293.92	
33 01 30 72-0251	LF		34.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,640.27	
			For Vinlyester Resin, Add	1,089.62	
			For Epoxy Resin, Add	128.42	
			For Up To >10, Add	1,029.31	
			For >10 To 25, Add	598.33	
			For >25 To 50, Add	436.83	
			For >50 To 100, Add	218.41	
			For >500 To 1,000, Deduct	-84.11	
			For >1,000 To 2,000, Deduct	-127.20	
			For >2,000 To 5,000, Deduct	-207.71	
			For >5,000, Deduct	-344.79	
33 01 30 72-0252	LF		34.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,882.48	
			For Vinlyester Resin, Add	1,250.49	
			For Epoxy Resin, Add	147.38	
			For Up To >10, Add	1,181.42	
			For >10 To 25, Add	686.78	
			For >25 To 50, Add	501.39	
			For >50 To 100, Add	250.69	
			For >500 To 1,000, Deduct	-96.53	
			For >1,000 To 2,000, Deduct	-145.99	
			For >2,000 To 5,000, Deduct	-238.39	
			For >5,000, Deduct	-395.71	
33 01 30 72-0253	LF		34.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,124.54	
			For Vinlyester Resin, Add	1,411.35	
			For Epoxy Resin, Add	166.34	
			For Up To >10, Add	1,333.10	
			For >10 To 25, Add	774.88	
			For >25 To 50, Add	565.74	
			For >50 To 100, Add	282.87	
			For >500 To 1,000, Deduct	-108.94	
			For >1,000 To 2,000, Deduct	-164.76	
			For >2,000 To 5,000, Deduct	-269.03	
			For >5,000, Deduct	-446.57	
33 01 30 72-0254	LF		34.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,366.74	
			For Vinlyester Resin, Add	1,572.21	
			For Epoxy Resin, Add	185.30	
			For Up To >10, Add	1,485.17	
			For >10 To 25, Add	863.31	
			For >25 To 50, Add	630.28	
			For >50 To 100, Add	315.14	
			For >500 To 1,000, Deduct	-121.36	
			For >1,000 To 2,000, Deduct	-183.54	
			For >2,000 To 5,000, Deduct	-299.70	
			For >5,000, Deduct	-497.49	
33 01 30 72-0255	LF		34.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,615.54	
			For Vinlyester Resin, Add	1,733.07	
			For Epoxy Resin, Add	204.26	
			For Up To >10, Add	1,657.07	
			For >10 To 25, Add	968.26	
			For >25 To 50, Add	704.74	
			For >50 To 100, Add	352.37	
			For >500 To 1,000, Deduct	-134.27	
			For >1,000 To 2,000, Deduct	-203.15	
			For >2,000 To 5,000, Deduct	-332.03	
			For >5,000, Deduct	-551.05	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0256 LF 34.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,858.55	
For Vinylster Resin, Add	1,893.93	
For Epoxy Resin, Add	223.21	
For Up To >10, Add	1,811.60	
For >10 To 25, Add	1,058.73	
For >25 To 50, Add	770.52	
For >50 To 100, Add	385.26	
For >500 To 1,000, Deduct	-146.75	
For >1,000 To 2,000, Deduct	-222.04	
For >2,000 To 5,000, Deduct	-362.97	
For >5,000, Deduct	-602.30	
33 01 30 72-0257 LF 34.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,098.86	
For Vinylster Resin, Add	2,054.80	
For Epoxy Resin, Add	242.17	
For Up To >10, Add	1,958.01	
For >10 To 25, Add	1,142.43	
For >25 To 50, Add	832.23	
For >50 To 100, Add	416.12	
For >500 To 1,000, Deduct	-159.03	
For >1,000 To 2,000, Deduct	-240.59	
For >2,000 To 5,000, Deduct	-393.11	
For >5,000, Deduct	-652.46	
33 01 30 72-0258 LF 34.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,343.89	
For Vinylster Resin, Add	2,215.66	
For Epoxy Resin, Add	261.13	
For Up To >10, Add	2,118.60	
For >10 To 25, Add	1,237.96	
For >25 To 50, Add	901.04	
For >50 To 100, Add	450.52	
For >500 To 1,000, Deduct	-171.66	
For >1,000 To 2,000, Deduct	-259.72	
For >2,000 To 5,000, Deduct	-424.49	
For >5,000, Deduct	-704.51	
33 01 30 72-0259 LF 34.5mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,586.62	
For Vinylster Resin, Add	2,376.52	
For Epoxy Resin, Add	280.09	
For Up To >10, Add	2,272.29	
For >10 To 25, Add	1,327.73	
For >25 To 50, Add	966.39	
For >50 To 100, Add	483.20	
For >500 To 1,000, Deduct	-184.12	
For >1,000 To 2,000, Deduct	-278.58	
For >2,000 To 5,000, Deduct	-455.30	
For >5,000, Deduct	-755.64	
33 01 30 72-0260 LF 34.5mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,829.36	
For Vinylster Resin, Add	2,537.39	
For Epoxy Resin, Add	299.05	
For Up To >10, Add	2,425.98	
For >10 To 25, Add	1,417.51	
For >25 To 50, Add	1,031.75	
For >50 To 100, Add	515.87	
For >500 To 1,000, Deduct	-196.58	
For >1,000 To 2,000, Deduct	-297.43	
For >2,000 To 5,000, Deduct	-486.11	
For >5,000, Deduct	-806.78	
33 01 30 72-0261 36mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0262 LF 36mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,076.46	
For Vinylster Resin, Add	715.70	
For Epoxy Resin, Add	84.35	
For Up To >10, Add	673.31	
For >10 To 25, Add	390.68	
For >25 To 50, Add	285.53	
For >50 To 100, Add	142.77	
For >500 To 1,000, Deduct	-55.17	
For >1,000 To 2,000, Deduct	-83.44	
For >2,000 To 5,000, Deduct	-136.20	
For >5,000, Deduct	-226.10	
33 01 30 72-0263 LF 36mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,202.69	
For Vinylster Resin, Add	799.63	
For Epoxy Resin, Add	94.24	
For Up To >10, Add	752.25	
For >10 To 25, Add	436.48	
For >25 To 50, Add	319.01	
For >50 To 100, Add	159.50	
For >500 To 1,000, Deduct	-61.64	
For >1,000 To 2,000, Deduct	-93.22	
For >2,000 To 5,000, Deduct	-152.17	
For >5,000, Deduct	-252.61	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0264	LF	36mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,455.16	
		For Vinlyester Resin, Add	967.49	
		For Epoxy Resin, Add	114.03	
		For Up To >10, Add	910.16	
		For >10 To 25, Add	528.11	
		For >25 To 50, Add	385.97	
		For >50 To 100, Add	192.99	
		For >500 To 1,000, Deduct	-74.58	
		For >1,000 To 2,000, Deduct	-112.79	
		For >2,000 To 5,000, Deduct	-184.11	
		For >5,000, Deduct	-305.64	
33 01 30 72-0265	LF	36mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,707.61	
		For Vinlyester Resin, Add	1,135.34	
		For Epoxy Resin, Add	133.81	
		For Up To >10, Add	1,068.03	
		For >10 To 25, Add	619.71	
		For >25 To 50, Add	452.92	
		For >50 To 100, Add	226.46	
		For >500 To 1,000, Deduct	-87.52	
		For >1,000 To 2,000, Deduct	-132.36	
		For >2,000 To 5,000, Deduct	-216.05	
		For >5,000, Deduct	-358.66	
33 01 30 72-0266	LF	36mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,959.94	
		For Vinlyester Resin, Add	1,303.20	
		For Epoxy Resin, Add	153.59	
		For Up To >10, Add	1,225.52	
		For >10 To 25, Add	710.98	
		For >25 To 50, Add	519.67	
		For >50 To 100, Add	259.84	
		For >500 To 1,000, Deduct	-100.45	
		For >1,000 To 2,000, Deduct	-151.91	
		For >2,000 To 5,000, Deduct	-247.96	
		For >5,000, Deduct	-411.63	
33 01 30 72-0267	LF	36mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,212.40	
		For Vinlyester Resin, Add	1,471.06	
		For Epoxy Resin, Add	173.37	
		For Up To >10, Add	1,383.43	
		For >10 To 25, Add	802.60	
		For >25 To 50, Add	586.64	
		For >50 To 100, Add	293.32	
		For >500 To 1,000, Deduct	-113.39	
		For >1,000 To 2,000, Deduct	-171.47	
		For >2,000 To 5,000, Deduct	-279.90	
		For >5,000, Deduct	-464.66	
33 01 30 72-0268	LF	36mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,464.86	
		For Vinlyester Resin, Add	1,638.92	
		For Epoxy Resin, Add	193.16	
		For Up To >10, Add	1,541.31	
		For >10 To 25, Add	894.20	
		For >25 To 50, Add	653.59	
		For >50 To 100, Add	326.79	
		For >500 To 1,000, Deduct	-126.33	
		For >1,000 To 2,000, Deduct	-191.04	
		For >2,000 To 5,000, Deduct	-311.84	
		For >5,000, Deduct	-517.68	
33 01 30 72-0269	LF	36mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,724.19	
		For Vinlyester Resin, Add	1,806.77	
		For Epoxy Resin, Add	212.94	
		For Up To >10, Add	1,719.82	
		For >10 To 25, Add	1,003.00	
		For >25 To 50, Add	730.86	
		For >50 To 100, Add	365.43	
		For >500 To 1,000, Deduct	-139.79	
		For >1,000 To 2,000, Deduct	-211.47	
		For >2,000 To 5,000, Deduct	-345.50	
		For >5,000, Deduct	-573.46	
33 01 30 72-0270	LF	36mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,977.33	
		For Vinlyester Resin, Add	1,974.63	
		For Epoxy Resin, Add	232.72	
		For Up To >10, Add	1,879.74	
		For >10 To 25, Add	1,096.30	
		For >25 To 50, Add	798.83	
		For >50 To 100, Add	399.41	
		For >500 To 1,000, Deduct	-152.78	
		For >1,000 To 2,000, Deduct	-231.12	
		For >2,000 To 5,000, Deduct	-377.62	
		For >5,000, Deduct	-626.75	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0271	LF 36mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,225.88	
	For Vinylster Resin, Add	2,142.48	
	For Epoxy Resin, Add	252.51	
	For Up To >10, Add	2,025.92	
	For >10 To 25, Add	1,178.15	
	For >25 To 50, Add	859.92	
	For >50 To 100, Add	429.96	
	For >500 To 1,000, Deduct	-165.42	
	For >1,000 To 2,000, Deduct	-250.20	
	For >2,000 To 5,000, Deduct	-408.58	
	For >5,000, Deduct	-678.21	
33 01 30 72-0272	LF 36mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,483.46	
	For Vinylster Resin, Add	2,310.34	
	For Epoxy Resin, Add	272.29	
	For Up To >10, Add	2,199.16	
	For >10 To 25, Add	1,282.55	
	For >25 To 50, Add	934.55	
	For >50 To 100, Add	467.28	
	For >500 To 1,000, Deduct	-178.75	
	For >1,000 To 2,000, Deduct	-270.41	
	For >2,000 To 5,000, Deduct	-441.80	
	For >5,000, Deduct	-733.29	
33 01 30 72-0273	LF 36mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,736.59	
	For Vinylster Resin, Add	2,478.20	
	For Epoxy Resin, Add	292.07	
	For Up To >10, Add	2,359.07	
	For >10 To 25, Add	1,375.85	
	For >25 To 50, Add	1,002.52	
	For >50 To 100, Add	501.26	
	For >500 To 1,000, Deduct	-191.74	
	For >1,000 To 2,000, Deduct	-290.06	
	For >2,000 To 5,000, Deduct	-473.91	
	For >5,000, Deduct	-786.58	
33 01 30 72-0274	LF 36mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,989.73	
	For Vinylster Resin, Add	2,646.06	
	For Epoxy Resin, Add	311.86	
	For Up To >10, Add	2,518.99	
	For >10 To 25, Add	1,469.15	
	For >25 To 50, Add	1,070.49	
	For >50 To 100, Add	535.25	
	For >500 To 1,000, Deduct	-204.73	
	For >1,000 To 2,000, Deduct	-309.71	
	For >2,000 To 5,000, Deduct	-506.02	
	For >5,000, Deduct	-839.88	
33 01 30 72-0275	LF 36mm Lining 102" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,242.73	
	For Vinylster Resin, Add	2,813.91	
	For Epoxy Resin, Add	331.64	
	For Up To >10, Add	2,678.52	
	For >10 To 25, Add	1,562.12	
	For >25 To 50, Add	1,138.26	
	For >50 To 100, Add	569.13	
	For >500 To 1,000, Deduct	-217.71	
	For >1,000 To 2,000, Deduct	-329.35	
	For >2,000 To 5,000, Deduct	-538.10	
	For >5,000, Deduct	-893.12	
33 01 30 72-0276	LF 36mm Lining 108" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,495.86	
	For Vinylster Resin, Add	2,981.77	
	For Epoxy Resin, Add	351.42	
	For Up To >10, Add	2,838.41	
	For >10 To 25, Add	1,655.39	
	For >25 To 50, Add	1,206.22	
	For >50 To 100, Add	603.11	
	For >500 To 1,000, Deduct	-230.70	
	For >1,000 To 2,000, Deduct	-349.00	
	For >2,000 To 5,000, Deduct	-570.21	
	For >5,000, Deduct	-946.41	
33 01 30 72-0277	37.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0278	LF 37.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,249.05	
	For Vinylster Resin, Add	831.23	
	For Epoxy Resin, Add	97.97	
	For Up To >10, Add	778.48	
	For >10 To 25, Add	450.82	
	For >25 To 50, Add	329.86	
	For >50 To 100, Add	164.93	
	For >500 To 1,000, Deduct	-63.99	
	For >1,000 To 2,000, Deduct	-96.76	
	For >2,000 To 5,000, Deduct	-157.89	
	For >5,000, Deduct	-262.13	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0279	LF	37.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,511.76	
		For Vinlyester Resin, Add	1,006.08	
		For Epoxy Resin, Add	118.57	
		For Up To >10, Add	942.13	
		For >10 To 25, Add	545.57	
		For >25 To 50, Add	399.20	
		For >50 To 100, Add	199.60	
		For >500 To 1,000, Deduct	-77.45	
		For >1,000 To 2,000, Deduct	-117.11	
		For >2,000 To 5,000, Deduct	-191.10	
		For >5,000, Deduct	-317.25	
33 01 30 72-0280	LF	37.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,774.48	
		For Vinlyester Resin, Add	1,180.93	
		For Epoxy Resin, Add	139.18	
		For Up To >10, Add	1,105.84	
		For >10 To 25, Add	640.36	
		For >25 To 50, Add	468.57	
		For >50 To 100, Add	234.28	
		For >500 To 1,000, Deduct	-90.91	
		For >1,000 To 2,000, Deduct	-137.46	
		For >2,000 To 5,000, Deduct	-224.30	
		For >5,000, Deduct	-372.38	
33 01 30 72-0281	LF	37.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,037.20	
		For Vinlyester Resin, Add	1,355.78	
		For Epoxy Resin, Add	159.79	
		For Up To >10, Add	1,269.53	
		For >10 To 25, Add	735.13	
		For >25 To 50, Add	537.92	
		For >50 To 100, Add	268.96	
		For >500 To 1,000, Deduct	-104.37	
		For >1,000 To 2,000, Deduct	-157.81	
		For >2,000 To 5,000, Deduct	-257.51	
		For >5,000, Deduct	-427.51	
33 01 30 72-0282	LF	37.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,299.93	
		For Vinlyester Resin, Add	1,530.63	
		For Epoxy Resin, Add	180.40	
		For Up To >10, Add	1,433.24	
		For >10 To 25, Add	829.93	
		For >25 To 50, Add	607.29	
		For >50 To 100, Add	303.64	
		For >500 To 1,000, Deduct	-117.83	
		For >1,000 To 2,000, Deduct	-178.16	
		For >2,000 To 5,000, Deduct	-290.72	
		For >5,000, Deduct	-482.65	
33 01 30 72-0283	LF	37.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,562.66	
		For Vinlyester Resin, Add	1,705.49	
		For Epoxy Resin, Add	201.00	
		For Up To >10, Add	1,596.96	
		For >10 To 25, Add	924.73	
		For >25 To 50, Add	676.66	
		For >50 To 100, Add	338.33	
		For >500 To 1,000, Deduct	-131.29	
		For >1,000 To 2,000, Deduct	-198.51	
		For >2,000 To 5,000, Deduct	-323.93	
		For >5,000, Deduct	-537.78	
33 01 30 72-0284	LF	37.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,832.38	
		For Vinlyester Resin, Add	1,880.33	
		For Epoxy Resin, Add	221.61	
		For Up To >10, Add	1,781.67	
		For >10 To 25, Add	1,037.02	
		For >25 To 50, Add	756.52	
		For >50 To 100, Add	378.26	
		For >500 To 1,000, Deduct	-145.27	
		For >1,000 To 2,000, Deduct	-219.74	
		For >2,000 To 5,000, Deduct	-358.89	
		For >5,000, Deduct	-595.71	
33 01 30 72-0285	LF	37.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,095.77	
		For Vinlyester Resin, Add	2,055.18	
		For Epoxy Resin, Add	242.22	
		For Up To >10, Add	1,947.39	
		For >10 To 25, Add	1,133.49	
		For >25 To 50, Add	826.89	
		For >50 To 100, Add	413.45	
		For >500 To 1,000, Deduct	-158.78	
		For >1,000 To 2,000, Deduct	-240.17	
		For >2,000 To 5,000, Deduct	-392.27	
		For >5,000, Deduct	-651.11	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0286 LF 37.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,356.87	
For Vinylster Resin, Add	2,230.03	
For Epoxy Resin, Add	262.83	
For Up To >10, Add	2,106.21	
For >10 To 25, Add	1,224.22	
For >25 To 50, Add	893.82	
For >50 To 100, Add	446.91	
For >500 To 1,000, Deduct	-172.12	
For >1,000 To 2,000, Deduct	-260.32	
For >2,000 To 5,000, Deduct	-425.07	
For >5,000, Deduct	-705.60	
33 01 30 72-0287 LF 37.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,622.56	
For Vinylster Resin, Add	2,404.89	
For Epoxy Resin, Add	283.43	
For Up To >10, Add	2,278.81	
For >10 To 25, Add	1,326.41	
For >25 To 50, Add	967.63	
For >50 To 100, Add	483.81	
For >500 To 1,000, Deduct	-185.80	
For >1,000 To 2,000, Deduct	-281.04	
For >2,000 To 5,000, Deduct	-459.02	
For >5,000, Deduct	-761.91	
33 01 30 72-0288 LF 37.5mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,885.96	
For Vinylster Resin, Add	2,579.74	
For Epoxy Resin, Add	304.04	
For Up To >10, Add	2,444.53	
For >10 To 25, Add	1,422.89	
For >25 To 50, Add	1,038.00	
For >50 To 100, Add	519.00	
For >500 To 1,000, Deduct	-199.31	
For >1,000 To 2,000, Deduct	-301.48	
For >2,000 To 5,000, Deduct	-492.40	
For >5,000, Deduct	-817.32	
33 01 30 72-0289 LF 37.5mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,149.21	
For Vinylster Resin, Add	2,754.58	
For Epoxy Resin, Add	324.65	
For Up To >10, Add	2,609.83	
For >10 To 25, Add	1,519.01	
For >25 To 50, Add	1,108.16	
For >50 To 100, Add	554.08	
For >500 To 1,000, Deduct	-212.81	
For >1,000 To 2,000, Deduct	-321.90	
For >2,000 To 5,000, Deduct	-525.74	
For >5,000, Deduct	-872.66	
33 01 30 72-0290 LF 37.5mm Lining 102" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,412.61	
For Vinylster Resin, Add	2,929.44	
For Epoxy Resin, Add	345.26	
For Up To >10, Add	2,775.56	
For >10 To 25, Add	1,615.48	
For >25 To 50, Add	1,178.53	
For >50 To 100, Add	589.27	
For >500 To 1,000, Deduct	-226.32	
For >1,000 To 2,000, Deduct	-342.33	
For >2,000 To 5,000, Deduct	-559.11	
For >5,000, Deduct	-928.06	
33 01 30 72-0291 LF 37.5mm Lining 108" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,676.01	
For Vinylster Resin, Add	3,104.29	
For Epoxy Resin, Add	365.86	
For Up To >10, Add	2,941.28	
For >10 To 25, Add	1,711.95	
For >25 To 50, Add	1,248.91	
For >50 To 100, Add	624.45	
For >500 To 1,000, Deduct	-239.83	
For >1,000 To 2,000, Deduct	-362.77	
For >2,000 To 5,000, Deduct	-592.49	
For >5,000, Deduct	-983.46	
33 01 30 72-0292 39mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0293 LF 39mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,568.18	
For Vinylster Resin, Add	1,044.53	
For Epoxy Resin, Add	123.11	
For Up To >10, Add	974.07	
For >10 To 25, Add	563.02	
For >25 To 50, Add	412.42	
For >50 To 100, Add	206.21	
For >500 To 1,000, Deduct	-80.31	
For >1,000 To 2,000, Deduct	-121.41	
For >2,000 To 5,000, Deduct	-198.06	
For >5,000, Deduct	-328.83	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0294	LF		39mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,841.17	
			For Vinlyester Resin, Add	1,226.38	
			For Epoxy Resin, Add	144.54	
			For Up To >10, Add	1,143.59	
			For >10 To 25, Add	660.99	
			For >25 To 50, Add	484.19	
			For >50 To 100, Add	242.10	
			For >500 To 1,000, Deduct	-94.29	
			For >1,000 To 2,000, Deduct	-142.55	
			For >2,000 To 5,000, Deduct	-232.54	
			For >5,000, Deduct	-386.07	
33 01 30 72-0295	LF		39mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,114.15	
			For Vinlyester Resin, Add	1,408.23	
			For Epoxy Resin, Add	165.97	
			For Up To >10, Add	1,313.08	
			For >10 To 25, Add	758.94	
			For >25 To 50, Add	555.95	
			For >50 To 100, Add	277.98	
			For >500 To 1,000, Deduct	-108.27	
			For >1,000 To 2,000, Deduct	-163.68	
			For >2,000 To 5,000, Deduct	-267.01	
			For >5,000, Deduct	-443.31	
33 01 30 72-0296	LF		39mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,387.12	
			For Vinlyester Resin, Add	1,590.06	
			For Epoxy Resin, Add	187.40	
			For Up To >10, Add	1,482.56	
			For >10 To 25, Add	856.88	
			For >25 To 50, Add	627.70	
			For >50 To 100, Add	313.85	
			For >500 To 1,000, Deduct	-122.25	
			For >1,000 To 2,000, Deduct	-184.81	
			For >2,000 To 5,000, Deduct	-301.48	
			For >5,000, Deduct	-500.54	
33 01 30 72-0297	LF		39mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,660.24	
			For Vinlyester Resin, Add	1,771.91	
			For Epoxy Resin, Add	208.83	
			For Up To >10, Add	1,652.47	
			For >10 To 25, Add	955.18	
			For >25 To 50, Add	699.67	
			For >50 To 100, Add	349.84	
			For >500 To 1,000, Deduct	-136.24	
			For >1,000 To 2,000, Deduct	-205.97	
			For >2,000 To 5,000, Deduct	-335.99	
			For >5,000, Deduct	-557.84	
33 01 30 72-0298	LF		39mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,940.23	
			For Vinlyester Resin, Add	1,953.76	
			For Epoxy Resin, Add	230.26	
			For Up To >10, Add	1,842.99	
			For >10 To 25, Add	1,070.65	
			For >25 To 50, Add	781.94	
			For >50 To 100, Add	390.97	
			For >500 To 1,000, Deduct	-150.74	
			For >1,000 To 2,000, Deduct	-227.97	
			For >2,000 To 5,000, Deduct	-372.22	
			For >5,000, Deduct	-617.88	
33 01 30 72-0299	LF		39mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,213.88	
			For Vinlyester Resin, Add	2,135.60	
			For Epoxy Resin, Add	251.70	
			For Up To >10, Add	2,014.49	
			For >10 To 25, Add	1,170.27	
			For >25 To 50, Add	854.70	
			For >50 To 100, Add	427.35	
			For >500 To 1,000, Deduct	-164.77	
			For >1,000 To 2,000, Deduct	-249.19	
			For >2,000 To 5,000, Deduct	-406.86	
			For >5,000, Deduct	-675.38	
33 01 30 72-0300	LF		39mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,487.55	
			For Vinlyester Resin, Add	2,317.45	
			For Epoxy Resin, Add	273.13	
			For Up To >10, Add	2,186.05	
			For >10 To 25, Add	1,269.94	
			For >25 To 50, Add	927.49	
			For >50 To 100, Add	463.75	
			For >500 To 1,000, Deduct	-178.80	
			For >1,000 To 2,000, Deduct	-270.41	
			For >2,000 To 5,000, Deduct	-441.50	
			For >5,000, Deduct	-732.89	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 72-0301	LF 39mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	3,761.33	
	For Vinylster Resin, Add	2,499.29	
	For Epoxy Resin, Add	294.56	
	For Up To >10, Add	2,357.97	
	For >10 To 25, Add	1,369.90	
	For >25 To 50, Add	1,000.46	
	For >50 To 100, Add	500.23	
	For >500 To 1,000, Deduct	-192.84	
	For >1,000 To 2,000, Deduct	-291.65	
	For >2,000 To 5,000, Deduct	-476.18	
	For >5,000, Deduct	-790.43	
33 01 30 72-0302	LF 39mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,034.98	
	For Vinylster Resin, Add	2,681.13	
	For Epoxy Resin, Add	315.99	
	For Up To >10, Add	2,529.47	
	For >10 To 25, Add	1,469.52	
	For >25 To 50, Add	1,073.22	
	For >50 To 100, Add	536.61	
	For >500 To 1,000, Deduct	-206.87	
	For >1,000 To 2,000, Deduct	-312.86	
	For >2,000 To 5,000, Deduct	-510.82	
	For >5,000, Deduct	-847.95	
33 01 30 72-0303	LF 39mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,308.65	
	For Vinylster Resin, Add	2,862.98	
	For Epoxy Resin, Add	337.42	
	For Up To >10, Add	2,701.03	
	For >10 To 25, Add	1,569.19	
	For >25 To 50, Add	1,146.01	
	For >50 To 100, Add	573.01	
	For >500 To 1,000, Deduct	-220.90	
	For >1,000 To 2,000, Deduct	-334.08	
	For >2,000 To 5,000, Deduct	-545.47	
	For >5,000, Deduct	-905.47	
33 01 30 72-0304	LF 39mm Lining 102" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,582.31	
	For Vinylster Resin, Add	3,044.83	
	For Epoxy Resin, Add	358.85	
	For Up To >10, Add	2,872.56	
	For >10 To 25, Add	1,668.84	
	For >25 To 50, Add	1,218.79	
	For >50 To 100, Add	609.40	
	For >500 To 1,000, Deduct	-234.93	
	For >1,000 To 2,000, Deduct	-355.30	
	For >2,000 To 5,000, Deduct	-580.11	
	For >5,000, Deduct	-962.97	
33 01 30 72-0305	LF 39mm Lining 108" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	4,855.96	
	For Vinylster Resin, Add	3,226.67	
	For Epoxy Resin, Add	380.29	
	For Up To >10, Add	3,044.06	
	For >10 To 25, Add	1,768.46	
	For >25 To 50, Add	1,291.55	
	For >50 To 100, Add	645.78	
	For >500 To 1,000, Deduct	-248.96	
	For >1,000 To 2,000, Deduct	-376.52	
	For >2,000 To 5,000, Deduct	-614.75	
	For >5,000, Deduct	-1,020.48	
33 01 30 72-0306	LF 39mm Lining 114" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	5,129.61	
	For Vinylster Resin, Add	3,408.51	
	For Epoxy Resin, Add	401.72	
	For Up To >10, Add	3,215.58	
	For >10 To 25, Add	1,868.10	
	For >25 To 50, Add	1,364.33	
	For >50 To 100, Add	682.16	
	For >500 To 1,000, Deduct	-262.99	
	For >1,000 To 2,000, Deduct	-397.74	
	For >2,000 To 5,000, Deduct	-649.39	
	For >5,000, Deduct	-1,077.98	
33 01 30 72-0307	LF 39mm Lining 120" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	5,403.26	
	For Vinylster Resin, Add	3,590.36	
	For Epoxy Resin, Add	423.15	
	For Up To >10, Add	3,387.08	
	For >10 To 25, Add	1,967.72	
	For >25 To 50, Add	1,437.09	
	For >50 To 100, Add	718.54	
	For >500 To 1,000, Deduct	-277.02	
	For >1,000 To 2,000, Deduct	-418.95	
	For >2,000 To 5,000, Deduct	-684.03	
	For >5,000, Deduct	-1,135.49	

33 01 30 72-0308 40.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0309	LF		40.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,907.51	
			For Vinlyester Resin, Add	1,271.69	
			For Epoxy Resin, Add	149.88	
			For Up To >10, Add	1,180.78	
			For >10 To 25, Add	681.20	
			For >25 To 50, Add	499.56	
			For >50 To 100, Add	249.78	
			For >500 To 1,000, Deduct	-97.65	
			For >1,000 To 2,000, Deduct	-147.60	
			For >2,000 To 5,000, Deduct	-240.71	
			For >5,000, Deduct	-399.66	
33 01 30 72-0310	LF		40.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,190.74	
			For Vinlyester Resin, Add	1,460.52	
			For Epoxy Resin, Add	172.13	
			For Up To >10, Add	1,356.07	
			For >10 To 25, Add	782.32	
			For >25 To 50, Add	573.71	
			For >50 To 100, Add	286.86	
			For >500 To 1,000, Deduct	-112.14	
			For >1,000 To 2,000, Deduct	-169.52	
			For >2,000 To 5,000, Deduct	-276.45	
			For >5,000, Deduct	-459.00	
33 01 30 72-0311	LF		40.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,474.00	
			For Vinlyester Resin, Add	1,649.37	
			For Epoxy Resin, Add	194.39	
			For Up To >10, Add	1,531.40	
			For >10 To 25, Add	883.46	
			For >25 To 50, Add	647.89	
			For >50 To 100, Add	323.94	
			For >500 To 1,000, Deduct	-126.64	
			For >1,000 To 2,000, Deduct	-191.44	
			For >2,000 To 5,000, Deduct	-312.19	
			For >5,000, Deduct	-518.35	
33 01 30 72-0312	LF		40.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,757.24	
			For Vinlyester Resin, Add	1,838.20	
			For Epoxy Resin, Add	216.65	
			For Up To >10, Add	1,706.72	
			For >10 To 25, Add	984.60	
			For >25 To 50, Add	722.06	
			For >50 To 100, Add	361.03	
			For >500 To 1,000, Deduct	-141.14	
			For >1,000 To 2,000, Deduct	-213.36	
			For >2,000 To 5,000, Deduct	-347.93	
			For >5,000, Deduct	-577.70	
33 01 30 72-0313	LF		40.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,047.76	
			For Vinlyester Resin, Add	2,027.05	
			For Epoxy Resin, Add	238.90	
			For Up To >10, Add	1,903.83	
			For >10 To 25, Add	1,103.90	
			For >25 To 50, Add	807.13	
			For >50 To 100, Add	403.56	
			For >500 To 1,000, Deduct	-156.19	
			For >1,000 To 2,000, Deduct	-236.18	
			For >2,000 To 5,000, Deduct	-385.49	
			For >5,000, Deduct	-639.95	
33 01 30 72-0314	LF		40.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,331.67	
			For Vinlyester Resin, Add	2,215.88	
			For Epoxy Resin, Add	261.16	
			For Up To >10, Add	2,081.16	
			For >10 To 25, Add	1,206.71	
			For >25 To 50, Add	882.30	
			For >50 To 100, Add	441.15	
			For >500 To 1,000, Deduct	-170.74	
			For >1,000 To 2,000, Deduct	-258.18	
			For >2,000 To 5,000, Deduct	-421.40	
			For >5,000, Deduct	-699.56	
33 01 30 72-0315	LF		40.5mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,615.58	
			For Vinlyester Resin, Add	2,404.72	
			For Epoxy Resin, Add	283.41	
			For Up To >10, Add	2,258.47	
			For >10 To 25, Add	1,309.50	
			For >25 To 50, Add	957.47	
			For >50 To 100, Add	478.73	
			For >500 To 1,000, Deduct	-185.29	
			For >1,000 To 2,000, Deduct	-280.18	
			For >2,000 To 5,000, Deduct	-457.30	
			For >5,000, Deduct	-759.17	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0316 LF 40.5mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,899.51	
For Vinylster Resin, Add	2,593.56	
For Epoxy Resin, Add	305.67	
For Up To >10, Add	2,435.83	
For >10 To 25, Add	1,412.35	
For >25 To 50, Add	1,032.66	
For >50 To 100, Add	516.33	
For >500 To 1,000, Deduct	-199.84	
For >1,000 To 2,000, Deduct	-302.18	
For >2,000 To 5,000, Deduct	-493.22	
For >5,000, Deduct	-818.79	
33 01 30 72-0317 LF 40.5mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,183.42	
For Vinylster Resin, Add	2,782.40	
For Epoxy Resin, Add	327.93	
For Up To >10, Add	2,613.14	
For >10 To 25, Add	1,515.14	
For >25 To 50, Add	1,107.83	
For >50 To 100, Add	553.91	
For >500 To 1,000, Deduct	-214.39	
For >1,000 To 2,000, Deduct	-324.19	
For >2,000 To 5,000, Deduct	-529.12	
For >5,000, Deduct	-878.40	
33 01 30 72-0318 LF 40.5mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,467.34	
For Vinylster Resin, Add	2,971.23	
For Epoxy Resin, Add	350.18	
For Up To >10, Add	2,790.47	
For >10 To 25, Add	1,617.96	
For >25 To 50, Add	1,183.00	
For >50 To 100, Add	591.50	
For >500 To 1,000, Deduct	-228.94	
For >1,000 To 2,000, Deduct	-346.19	
For >2,000 To 5,000, Deduct	-565.03	
For >5,000, Deduct	-938.01	
33 01 30 72-0319 LF 40.5mm Lining 102" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,751.25	
For Vinylster Resin, Add	3,160.07	
For Epoxy Resin, Add	372.44	
For Up To >10, Add	2,967.78	
For >10 To 25, Add	1,720.75	
For >25 To 50, Add	1,258.17	
For >50 To 100, Add	629.08	
For >500 To 1,000, Deduct	-243.48	
For >1,000 To 2,000, Deduct	-368.19	
For >2,000 To 5,000, Deduct	-600.94	
For >5,000, Deduct	-997.62	
33 01 30 72-0320 LF 40.5mm Lining 108" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,035.17	
For Vinylster Resin, Add	3,348.91	
For Epoxy Resin, Add	394.69	
For Up To >10, Add	3,145.11	
For >10 To 25, Add	1,823.57	
For >25 To 50, Add	1,333.35	
For >50 To 100, Add	666.67	
For >500 To 1,000, Deduct	-258.03	
For >1,000 To 2,000, Deduct	-390.19	
For >2,000 To 5,000, Deduct	-636.85	
For >5,000, Deduct	-1,057.24	
33 01 30 72-0321 LF 40.5mm Lining 114" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,319.09	
For Vinylster Resin, Add	3,537.75	
For Epoxy Resin, Add	416.95	
For Up To >10, Add	3,322.45	
For >10 To 25, Add	1,926.38	
For >25 To 50, Add	1,408.53	
For >50 To 100, Add	704.26	
For >500 To 1,000, Deduct	-272.58	
For >1,000 To 2,000, Deduct	-412.19	
For >2,000 To 5,000, Deduct	-672.76	
For >5,000, Deduct	-1,116.85	
33 01 30 72-0322 LF 40.5mm Lining 120" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,603.01	
For Vinylster Resin, Add	3,726.59	
For Epoxy Resin, Add	439.21	
For Up To >10, Add	3,499.78	
For >10 To 25, Add	2,029.20	
For >25 To 50, Add	1,483.71	
For >50 To 100, Add	741.85	
For >500 To 1,000, Deduct	-287.13	
For >1,000 To 2,000, Deduct	-434.19	
For >2,000 To 5,000, Deduct	-708.67	
For >5,000, Deduct	-1,176.46	

33 01 30 72-0323 42mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0324	LF		42mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,267.03	
			For Vinlyester Resin, Add	1,512.69	
			For Epoxy Resin, Add	178.28	
			For Up To >10, Add	1,398.62	
			For >10 To 25, Add	805.35	
			For >25 To 50, Add	591.26	
			For >50 To 100, Add	295.63	
			For >500 To 1,000, Deduct	-116.00	
			For >1,000 To 2,000, Deduct	-175.33	
			For >2,000 To 5,000, Deduct	-285.83	
			For >5,000, Deduct	-474.61	
33 01 30 72-0325	LF		42mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,560.53	
			For Vinlyester Resin, Add	1,708.53	
			For Epoxy Resin, Add	201.36	
			For Up To >10, Add	1,579.72	
			For >10 To 25, Add	909.64	
			For >25 To 50, Add	667.82	
			For >50 To 100, Add	333.91	
			For >500 To 1,000, Deduct	-131.02	
			For >1,000 To 2,000, Deduct	-198.03	
			For >2,000 To 5,000, Deduct	-322.84	
			For >5,000, Deduct	-536.06	
33 01 30 72-0326	LF		42mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	2,854.03	
			For Vinlyester Resin, Add	1,904.36	
			For Epoxy Resin, Add	224.44	
			For Up To >10, Add	1,760.82	
			For >10 To 25, Add	1,013.93	
			For >25 To 50, Add	744.38	
			For >50 To 100, Add	372.19	
			For >500 To 1,000, Deduct	-146.04	
			For >1,000 To 2,000, Deduct	-220.73	
			For >2,000 To 5,000, Deduct	-359.84	
			For >5,000, Deduct	-597.51	
33 01 30 72-0327	LF		42mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,154.94	
			For Vinlyester Resin, Add	2,100.19	
			For Epoxy Resin, Add	247.52	
			For Up To >10, Add	1,964.15	
			For >10 To 25, Add	1,136.74	
			For >25 To 50, Add	832.06	
			For >50 To 100, Add	416.03	
			For >500 To 1,000, Deduct	-161.61	
			For >1,000 To 2,000, Deduct	-244.35	
			For >2,000 To 5,000, Deduct	-398.70	
			For >5,000, Deduct	-661.92	
33 01 30 72-0328	LF		42mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,449.14	
			For Vinlyester Resin, Add	2,296.03	
			For Epoxy Resin, Add	270.60	
			For Up To >10, Add	2,147.32	
			For >10 To 25, Add	1,242.76	
			For >25 To 50, Add	909.66	
			For >50 To 100, Add	454.83	
			For >500 To 1,000, Deduct	-176.68	
			For >1,000 To 2,000, Deduct	-267.14	
			For >2,000 To 5,000, Deduct	-435.88	
			For >5,000, Deduct	-723.65	
33 01 30 72-0329	LF		42mm Lining 78" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	3,743.30	
			For Vinlyester Resin, Add	2,491.85	
			For Epoxy Resin, Add	293.68	
			For Up To >10, Add	2,330.43	
			For >10 To 25, Add	1,348.72	
			For >25 To 50, Add	987.22	
			For >50 To 100, Add	493.61	
			For >500 To 1,000, Deduct	-191.75	
			For >1,000 To 2,000, Deduct	-289.92	
			For >2,000 To 5,000, Deduct	-473.05	
			For >5,000, Deduct	-785.36	
33 01 30 72-0330	LF		42mm Lining 84" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,037.47	
			For Vinlyester Resin, Add	2,687.69	
			For Epoxy Resin, Add	316.76	
			For Up To >10, Add	2,513.54	
			For >10 To 25, Add	1,454.69	
			For >25 To 50, Add	1,064.79	
			For >50 To 100, Add	532.40	
			For >500 To 1,000, Deduct	-206.82	
			For >1,000 To 2,000, Deduct	-312.71	
			For >2,000 To 5,000, Deduct	-510.23	
			For >5,000, Deduct	-847.08	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0331 LF 42mm Lining 90" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,331.66	
For Vinylster Resin, Add	2,883.52	
For Epoxy Resin, Add	339.84	
For Up To >10, Add	2,696.68	
For >10 To 25, Add	1,560.68	
For >25 To 50, Add	1,142.37	
For >50 To 100, Add	571.19	
For >500 To 1,000, Deduct	-221.89	
For >1,000 To 2,000, Deduct	-335.49	
For >2,000 To 5,000, Deduct	-547.40	
For >5,000, Deduct	-908.80	
33 01 30 72-0332 LF 42mm Lining 96" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,625.84	
For Vinylster Resin, Add	3,079.36	
For Epoxy Resin, Add	362.92	
For Up To >10, Add	2,879.82	
For >10 To 25, Add	1,666.67	
For >25 To 50, Add	1,219.96	
For >50 To 100, Add	609.98	
For >500 To 1,000, Deduct	-236.96	
For >1,000 To 2,000, Deduct	-358.28	
For >2,000 To 5,000, Deduct	-584.58	
For >5,000, Deduct	-970.52	
33 01 30 72-0333 LF 42mm Lining 102" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	4,920.02	
For Vinylster Resin, Add	3,275.19	
For Epoxy Resin, Add	386.00	
For Up To >10, Add	3,062.96	
For >10 To 25, Add	1,772.66	
For >25 To 50, Add	1,297.54	
For >50 To 100, Add	648.77	
For >500 To 1,000, Deduct	-252.03	
For >1,000 To 2,000, Deduct	-381.06	
For >2,000 To 5,000, Deduct	-621.76	
For >5,000, Deduct	-1,032.24	
33 01 30 72-0334 LF 42mm Lining 108" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,214.19	
For Vinylster Resin, Add	3,471.02	
For Epoxy Resin, Add	409.08	
For Up To >10, Add	3,246.07	
For >10 To 25, Add	1,878.63	
For >25 To 50, Add	1,375.11	
For >50 To 100, Add	687.55	
For >500 To 1,000, Deduct	-267.10	
For >1,000 To 2,000, Deduct	-403.84	
For >2,000 To 5,000, Deduct	-658.93	
For >5,000, Deduct	-1,093.96	
33 01 30 72-0335 LF 42mm Lining 114" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,508.37	
For Vinylster Resin, Add	3,666.85	
For Epoxy Resin, Add	432.16	
For Up To >10, Add	3,429.21	
For >10 To 25, Add	1,984.62	
For >25 To 50, Add	1,452.69	
For >50 To 100, Add	726.34	
For >500 To 1,000, Deduct	-282.17	
For >1,000 To 2,000, Deduct	-426.63	
For >2,000 To 5,000, Deduct	-696.11	
For >5,000, Deduct	-1,155.68	
33 01 30 72-0336 LF 42mm Lining 120" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	5,802.54	
For Vinylster Resin, Add	3,862.68	
For Epoxy Resin, Add	455.24	
For Up To >10, Add	3,612.32	
For >10 To 25, Add	2,090.58	
For >25 To 50, Add	1,530.25	
For >50 To 100, Add	765.13	
For >500 To 1,000, Deduct	-297.24	
For >1,000 To 2,000, Deduct	-449.41	
For >2,000 To 5,000, Deduct	-733.28	
For >5,000, Deduct	-1,217.39	

33 01 30 74 Cured-in-Place Lateral Lining (33 01 30)**33 01 30 74-0001 Laterals; Cutting, Grouting And Reinstatement (33 01 30 74)****33 01 30 74-0002 Lateral Reinstatement/Reconnection (33 01 30 74-0001)**

33 01 30 74-0003 EA Cut Liner For Laterals, Up To 4" (Robotic).....	543.16
33 01 30 74-0004 EA Cut Liner For Laterals, 6" (Robotic).....	587.20
33 01 30 74-0005 EA Cut Liner For Laterals, 8" (Robotic).....	623.91
33 01 30 74-0006 EA Cut Liner For Laterals, 10" (Robotic).....	660.61
33 01 30 74-0007 EA Cut Liner For Laterals, 12" (Robotic).....	697.30

33 01 30 74-0008 Grout Lateral Service (33 01 30 74-0001)**33 01 30 74-0009 Grout Lateral Service - Bladder (33 01 30 74-0008)**

33 01 30 74-0010 EA Grout Up To 4" Lateral Service - Bladder.....	564.32
33 01 30 74-0011 EA Grout 6" Lateral Service - Bladder.....	648.40
33 01 30 74-0012 EA Grout 8" Lateral Service - Bladder.....	732.49



		Utilities	33	33
		Operation and Maintenance of Utilities	33 01	
		Operation and Maintenance of Sewer Utilities	33 01 30	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 01 30 74-0013	Grout Lateral Service - Robotic Trowel Application (33 01 30 74-0008)			
33 01 30 74-0014	EA	Grout 3" To 6" Lateral Service - Robotic Trowel Application.....	615.40	
33 01 30 74-0015	EA	Grout 8" To 12" Lateral Service - Robotic Trowel Application.....	666.46	
33 01 30 74-0016	Lateral T-Liner (33 01 30 74-0001)			
	Note: As manufactured by LMK.			
33 01 30 74-0017	EA	Up To 4" Lateral T-Liner	776.02	
33 01 30 74-0018	EA	6" Lateral T-Liner.....	870.95	
33 01 30 74-0019	EA	8" Lateral T-Liner	1,013.30	
33 01 30 74-0020	Lining Lateral Pipe (33 01 30 74-0001)			
33 01 30 74-0021	Lining Lateral Pipe (33 01 30 74-0020)			
33 01 30 74-0022	LF	6mm Lining 3" Lateral Pipe With Cured In-Place Pipe (CIPP)	39.63	
		For 7.5mm, Add	4.37	
		For 9 mm, Add	8.64	
33 01 30 74-0023	LF	6mm Lining 4" Lateral Pipe With Cured In-Place Pipe (CIPP)	47.30	
		For 7.5mm, Add	5.95	
		For 9 mm, Add	11.76	
33 01 30 74-0024	LF	6mm Lining 6" Lateral Pipe With Cured In-Place Pipe (CIPP)	61.63	
		For 7.5mm, Add	9.11	
		For 9 mm, Add	18.01	
33 01 30 74-0025	Lining Manhole Drop (33 01 30 74-0020)			
33 01 30 74-0026	EA	Manhole Drop Section Lining	859.44	
33 01 30 79	Fold-and-Form Pipe Lining (33 01 30)			
33 01 30 79-0001	Form and Fold Relining Underground Pipelines (33 01 30 79)			
	Note: Excludes CCTV inspection and sewer cleaning. See CSI section 33 01 30 11-0000 for CCTV inspection, 33 01 30 41-0002 for sewer cleaning.			
33 01 30 79-0002	Fold-And-Form Relining Underground Pipelines Set-Up And Reinsertion (33 01 30 79-0001)			
33 01 30 79-0003	EA	Initial Set Up And Final Equipment Removal For Fold-And-Form Relining Underground Pipelines.....	5,389.41	
33 01 30 79-0004	EA	Move And Reset Up At Different Access/Location For Fold-And-Form Relining Underground Pipelines	2,155.76	
33 01 30 79-0005	Form And Fold Polyethylene (PE) Pipeliner (33 01 30 79-0001)			
33 01 30 79-0006	LF	4" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	56.52	
		For DR 26 Pipe Liner, Add	11.25	
		For Up To 75, Add	26.31	
		For >75 To 150, Add	13.15	
		For >500 To 1,000, Deduct	-0.87	
		For >1,000 To 2,000, Deduct	-1.73	
		For >2,000, Deduct	-3.46	
33 01 30 79-0007	LF	6" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	73.55	
		For DR 26 Pipe Liner, Add	15.28	
		For DR 35 Pipe Liner, Deduct	-7.64	
		For Up To 75, Add	30.88	
		For >75 To 150, Add	15.44	
		For >500 To 1,000, Deduct	-0.93	
		For >1,000 To 2,000, Deduct	-1.87	
		For >2,000, Deduct	-3.73	
33 01 30 79-0008	LF	8" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	75.72	
		For DR 26 Pipe Liner, Add	15.56	
		For DR 35 Pipe Liner, Deduct	-7.78	
		For Up To 75, Add	32.67	
		For >75 To 150, Add	16.33	
		For >500 To 1,000, Deduct	-1.01	
		For >1,000 To 2,000, Deduct	-2.02	
		For >2,000, Deduct	-4.04	
33 01 30 79-0009	LF	10" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	108.06	
		For DR 26 Pipe Liner, Add	23.34	
		For DR 35 Pipe Liner, Deduct	-11.67	
		For DR 41 Pipe Liner, Deduct	-23.34	
		For Up To 75, Add	40.72	
		For >75 To 150, Add	20.36	
		For >500 To 1,000, Deduct	-1.10	
		For >1,000 To 2,000, Deduct	-2.21	
		For >2,000, Deduct	-4.41	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 01 30 79-0010	LF 12" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	152.81	
	For DR 26 Pipe Liner, Add	34.16	
	For DR 35 Pipe Liner, Deduct	-17.08	
	For DR 41 Pipe Liner, Deduct	-34.16	
	For Up To 75, Add	51.58	
	For >75 To 150, Add	25.79	
	For >500 To 1,000, Deduct	-1.21	
	For >1,000 To 2,000, Deduct	-2.43	
	For >2,000, Deduct	-4.85	
33 01 30 79-0011	LF 15" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	210.74	
	For DR 35 Pipe Liner, Deduct	-24.05	
	For DR 41 Pipe Liner, Deduct	-48.09	
	For Up To 75, Add	66.03	
	For >75 To 150, Add	33.01	
	For >500 To 1,000, Deduct	-1.38	
	For >1,000 To 2,000, Deduct	-2.76	
	For >2,000, Deduct	-5.51	
33 01 30 79-0012	LF 18" Diameter Form and Fold Polyethylene Pipeliner, DR 35	299.67	
	For DR 41 Pipe Liner, Deduct	-27.89	
	For DR 50 Pipe Liner, Deduct	-55.79	
	For Up To 75, Add	86.88	
	For >75 To 150, Add	43.44	
	For >500 To 1,000, Deduct	-1.55	
	For >1,000 To 2,000, Deduct	-3.11	
	For >2,000, Deduct	-6.22	
33 01 30 79-0013	LF 21" Diameter Form and Fold Polyethylene Pipeliner, DR 47	339.31	
	For DR 50 Pipe Liner, Deduct	-47.53	
	For DR 55 Pipe Liner, Deduct	-79.21	
	For Up To 75, Add	97.06	
	For >75 To 150, Add	48.53	
	For >500 To 1,000, Deduct	-1.68	
	For >1,000 To 2,000, Deduct	-3.37	
	For >2,000, Deduct	-6.74	
33 01 30 79-0014	LF 24" Diameter Form and Fold Polyethylene Pipeliner, DR 55	414.90	
	For DR 60 Pipe Liner, Deduct	-58.56	
	For Up To 75, Add	114.83	
	For >75 To 150, Add	57.42	
	For >500 To 1,000, Deduct	-1.84	
	For >1,000 To 2,000, Deduct	-3.68	
	For >2,000, Deduct	-7.35	

33 01 30 79-0015 Form And Fold Polyvinyl Chloride (PVC) Pipeliner (33 01 30 79-0001)

33 01 30 79-0016	LF 4" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	60.76	
	For Up To 75, Add	27.15	
	For >75 To 150, Add	13.58	
	For >500 To 1,000, Deduct	-0.87	
	For >1,000 To 2,000, Deduct	-1.73	
	For >2,000, Deduct	-3.46	
	For DR 26 Pipe Liner, Add	12.31	
33 01 30 79-0017	LF 6" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	73.55	
	For Up To 75, Add	30.88	
	For >75 To 150, Add	15.44	
	For >500 To 1,000, Deduct	-0.93	
	For >1,000 To 2,000, Deduct	-1.87	
	For >2,000, Deduct	-3.73	
	For DR 26 Pipe Liner, Add	15.28	
	For DR 35 Pipe Liner, Deduct	-7.64	
33 01 30 79-0018	LF 8" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	81.38	
	For Up To 75, Add	33.80	
	For >75 To 150, Add	16.90	
	For >500 To 1,000, Deduct	-1.01	
	For >1,000 To 2,000, Deduct	-2.02	
	For >2,000, Deduct	-4.04	
	For DR 26 Pipe Liner, Add	16.98	
	For DR 35 Pipe Liner, Deduct	-8.49	
33 01 30 79-0019	LF 10" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	116.54	
	For Up To 75, Add	42.42	
	For >75 To 150, Add	21.21	
	For >500 To 1,000, Deduct	-1.10	
	For >1,000 To 2,000, Deduct	-2.21	
	For >2,000, Deduct	-4.41	
	For DR 26 Pipe Liner, Add	25.46	
	For DR 35 Pipe Liner, Deduct	-12.73	
	For DR 41 Pipe Liner, Deduct	-25.46	
33 01 30 79-0020	LF 12" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	165.54	
	For Up To 75, Add	54.13	
	For >75 To 150, Add	27.06	
	For >500 To 1,000, Deduct	-1.21	
	For >1,000 To 2,000, Deduct	-2.43	
	For >2,000, Deduct	-4.85	
	For DR 26 Pipe Liner, Add	37.34	
	For DR 35 Pipe Liner, Deduct	-18.67	
	For DR 41 Pipe Liner, Deduct	-37.34	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 79-0021 LF 15" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5.....	228.85	
For Up To 75, Add	69.65	
For >75 To 150, Add	34.63	
For >500 To 1,000, Deduct	-1.38	
For >1,000 To 2,000, Deduct	-2.76	
For >2,000, Deduct	-5.51	
For DR 35 Pipe Liner, Deduct	-26.31	
For DR 41 Pipe Liner, Deduct	-52.62	
33 01 30 79-0022 LF 18" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 35.....	326.26	
For Up To 75, Add	92.20	
For >75 To 150, Add	46.10	
For >500 To 1,000, Deduct	-1.55	
For >1,000 To 2,000, Deduct	-3.11	
For >2,000, Deduct	-6.22	
For DR 41 Pipe Liner, Deduct	-30.55	
For DR 50 Pipe Liner, Deduct	-61.11	
33 01 30 79-0023 LF 21" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 47.....	368.73	
For Up To 75, Add	102.94	
For >75 To 150, Add	51.47	
For >500 To 1,000, Deduct	-1.68	
For >1,000 To 2,000, Deduct	-3.37	
For >2,000, Deduct	-6.74	
For DR 50 Pipe Liner, Deduct	-51.94	
For DR 55 Pipe Liner, Deduct	-86.57	
33 01 30 79-0024 LF 24" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 55.....	452.24	
For Up To 75, Add	122.30	
For >75 To 150, Add	61.15	
For >500 To 1,000, Deduct	-1.84	
For >1,000 To 2,000, Deduct	-3.68	
For >2,000, Deduct	-7.35	
For DR 60 Pipe Liner, Deduct	-64.16	
33 01 30 81 Manhole Rehabilitation (33 01 30)		
33 01 30 81-0001 Restoration And Rehabilitation Of Manholes (33 01 30 81)		
Note: Work is in confined spaces.		
33 01 30 81-0002 Inspection And Ventilation System Set-up (33 01 30 81-0001)		
33 01 30 81-0003 EA Inspect Manhole	185.57	
33 01 30 81-0004 EA 36" to 60" Diameter, Up To 2600', Installation And Maintenance Of Ventilation System	15,076.39	
Note: For internal inspection and repair of water mains.		
33 01 30 81-0005 EA >60" to 108" Diameter, Up To 2600', Installation And Maintenance Of Ventilation System	21,350.83	
Note: For internal inspection and repair of water mains		
33 01 30 81-0006 Manhole Seals (33 01 30 81-0001)		
33 01 30 81-0007 Internal Manhole Chimney Seals (33 01 30 81-0006)		
Note: Cretex.		
33 01 30 81-0008 EA 20" Internal Manhole Chimney Seal.....	571.21	
33 01 30 81-0009 EA 22" Internal Manhole Chimney Seal.....	602.09	
33 01 30 81-0010 EA 24" Internal Manhole Chimney Seal.....	617.52	
33 01 30 81-0011 EA 26" Internal Manhole Chimney Seal.....	710.15	
33 01 30 81-0012 EA 28" Internal Manhole Chimney Seal.....	802.77	
33 01 30 81-0013 EA 30" Internal Manhole Chimney Seal.....	895.41	
33 01 30 81-0014 EA 36" Internal Manhole Chimney Seal.....	1,080.67	
33 01 30 81-0015 External Manhole Encapsulation (33 01 30 81-0006)		
Note: Wrapidseal.		
33 01 30 81-0016 EA 24" External Manhole Encapsulation	833.66	
33 01 30 81-0017 EA 30" External Manhole Encapsulation	879.97	
33 01 30 81-0018 EA 36" External Manhole Encapsulation	941.72	
33 01 30 81-0019 EA 42" External Manhole Encapsulation	1,018.91	
33 01 30 81-0020 EA 48" External Manhole Encapsulation	1,126.99	
33 01 30 81-0021 EA 54" External Manhole Encapsulation	1,250.49	
33 01 30 81-0022 EA 60" External Manhole Encapsulation	1,404.87	
33 01 30 81-0023 Manhole Crack Repair (33 01 30 81-0001)		
Note: Includes removing loose materials and cleaning.		
33 01 30 81-0024 LF Up To 1/4" Wide, Epoxy Grout Injection, Manhole Crack Repair	59.61	
33 01 30 81-0025 LF >1/4" To 1/2" Wide, Epoxy Grout Injection, Manhole Crack Repair	80.25	
33 01 30 81-0026 LF Up To 1/4" Wide, Urethane Grout Injection, Manhole Crack Repair	56.76	
33 01 30 81-0027 LF >1/4" To 1/2" Wide, Urethane Grout Injection, Manhole Crack Repair	76.95	
33 01 30 81-0028 Manhole Patching (33 01 30 81-0001)		
Note: Includes removing loose materials and cleaning.		
33 01 30 81-0029 SF Up To 1/4" Thick, Cementitious Grout, Manhole Patching.....	17.75	
33 01 30 81-0030 SF Up To 1/4" Thick, Epoxy Grout, Manhole Patching.....	39.92	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 81-0031		Manhole Joint Restoration (33 01 30 81-0001)			
		Note: Includes drilling holes at joints, fill joints with grout.			
33 01 30 81-0032	EA	3' Diameter Joint Restoration, Grout Fill Per Each Manhole	2,409.44		
		Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.			
		For Grouting Each Additional Manhole Joint Section, Add	234.81		
33 01 30 81-0033	EA	3-1/2' Diameter Joint Restoration, Grout Fill Per Each Manhole	2,812.71		
		Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.			
		For Grouting Each Additional Manhole Joint Section, Add	261.44		
33 01 30 81-0034	EA	4' Diameter Joint Restoration, Grout Fill Per Each Manhole	3,212.57		
		Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.			
		For Grouting Each Additional Manhole Joint Section, Add	288.08		
33 01 30 81-0035	EA	5' Diameter Joint Restoration, Grout Fill Per Each Manhole	3,817.67		
		Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.			
		For Grouting Each Additional Manhole Joint Section, Add	301.39		
33 01 30 81-0036	EA	6' Diameter Joint Restoration, Grout Fill Per Each Manhole	4,421.06		
		Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.			
		For Grouting Each Additional Manhole Joint Section, Add	314.71		
33 01 30 81-0037		Manhole Penetration Sealing (33 01 30 81-0001)			
		Note: At new pipe connection to manhole.			
33 01 30 81-0038	EA	6" To 12" Opening, Seal New Pipe Connection To Existing Manhole	464.10		
33 01 30 81-0039	EA	>12" To 22" Opening, Seal New Pipe Connection To Existing Manhole	718.71		
33 01 30 81-0040	EA	>22" To 36" Opening, Seal New Pipe Connection To Existing Manhole	988.39		
33 01 30 81-0041		Step Installation In Existing Manholes (33 01 30 81-0001)			
		Note: Including drilling in existing concrete manhole, step and grout. Demolition cost includes removal of old step and patching holes.			
33 01 30 81-0042	EA	Drill And Grout 8" x 9" Cast Iron Manhole Steps	160.97	24.81	
33 01 30 81-0043	EA	Drill And Grout Galvanized Steel Manhole Step	126.43	24.81	
33 01 30 81-0044	EA	Bolt On Galvanized Steel Manhole Step	129.72	24.81	
33 01 30 81-0045	EA	Drill And Grout Aluminum Manhole Step	153.98	24.81	
33 01 30 81-0046	EA	Drill And Insert Polypropylene Manhole Step	74.85	19.84	
33 01 30 81-0047		Invert Restoration (33 01 30 81-0001)			
		Note: Includes removal of existing defective material and installation of new material.			
33 01 30 81-0048		Concrete Invert Restoration (33 01 30 81-0047)			
33 01 30 81-0049	EA	2' Diameter, Concrete Invert Restoration	350.88		
33 01 30 81-0050	EA	3' Diameter, Concrete Invert Restoration	397.27		
33 01 30 81-0051	EA	4' Diameter, Concrete Invert Restoration	443.66		
33 01 30 81-0052	EA	5' Diameter, Concrete Invert Restoration	490.05		
33 01 30 81-0053	EA	6' Diameter, Concrete Invert Restoration	629.23		
33 01 30 81-0054	SF	Square Or Rectangular, Concrete Invert Restoration	35.28		
33 01 30 81-0055		Brick Invert Restoration (33 01 30 81-0047)			
33 01 30 81-0056	EA	2' Diameter, Brick Invert Restoration	597.93		
33 01 30 81-0057	EA	3' Diameter, Brick Invert Restoration	644.32		
33 01 30 81-0058	EA	4' Diameter, Brick Invert Restoration	690.71		
33 01 30 81-0059	EA	5' Diameter, Brick Invert Restoration	737.10		
33 01 30 81-0060	EA	6' Diameter, Brick Invert Restoration	783.49		
33 01 30 81-0061	SF	Square Or Rectangular, Brick Invert Restoration	50.05		
33 01 30 81-0062		Repair In-Kind Of Drainage Structures (33 01 30 81)			
		Note: For brick, concrete or concrete block catch basins, inlets, manholes, and other drainage structures. Includes replacing bricks or concrete blocks, concrete repair, sealing and repairing joints, excavation, backfilling, pavement removal, restoration of pavement and all tasks to perform interior and/or exterior repair in-kind. Sizes are inside dimensions. For other sizes, use closest size.			
33 01 30 81-0063	VLF	2' Diameter, Repair In-Kind Drainage Structure	828.66		
33 01 30 81-0064	VLF	3' Diameter, Repair In-Kind Drainage Structure	1,243.00		
33 01 30 81-0065	VLF	4' Diameter, Repair In-Kind Drainage Structure	1,657.44		
33 01 30 81-0066	VLF	5' Diameter, Repair In-Kind Drainage Structure	2,071.66		
33 01 30 81-0067	VLF	6' Diameter, Repair In-Kind Drainage Structure	2,485.99		
33 01 30 81-0068	VLF	2' x 2', Repair In-Kind Drainage Structure	1,055.62		
33 01 30 81-0069	VLF	2' x 3', Repair In-Kind Drainage Structure	1,319.53		
33 01 30 81-0070	VLF	2' x 4', Repair In-Kind Drainage Structure	1,583.44		
33 01 30 81-0071	VLF	3' x 4', Repair In-Kind Drainage Structure	1,847.34		
33 01 30 81-0072	VLF	4' x 4', Repair In-Kind Drainage Structure	2,111.25		
33 01 30 81-0073	VLF	4' x 5', Repair In-Kind Drainage Structure	2,375.15		
33 01 30 81-0074	VLF	4' x 6', Repair In-Kind Drainage Structure	2,639.06		
33 01 30 81-0075	VLF	4' x 8', Repair In-Kind Drainage Structure	3,166.87		
33 01 30 81-0076	VLF	>32 GSF, Repair In-Kind Drainage Structure	3,694.68		

33 01 30 82 Epoxy Lining for Concrete Manholes (33 01 30)**33 01 30 82-0001** Epoxy Manhole Restoration, Interior (33 01 30 82)



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 82-0002	VLF	60 Mil Epoxy Restoration Of 3' Diameter Manhole Interior	361.06	
		For 80 Mil Material, Add	42.95	
		For 100 Mil Material, Add	85.89	
		For 125 Mil Material, Add	133.96	
		For 150 Mil Material, Add	182.02	
		For 200 Mil Material, Add	263.17	
		For 2 To 5 Manholes, Deduct	-25.54	
		For 6 To 10 Manholes, Deduct	-42.06	
		For >10 Manholes, Deduct	-84.12	
33 01 30 82-0003	VLF	60 Mil Epoxy Restoration Of 3-1/2' Diameter Manhole Interior	437.94	
		For 80 Mil Material, Add	51.37	
		For 100 Mil Material, Add	102.75	
		For 125 Mil Material, Add	160.10	
		For 150 Mil Material, Add	217.45	
		For 200 Mil Material, Add	313.83	
		For 2 To 5 Manholes, Deduct	-31.05	
		For 6 To 10 Manholes, Deduct	-51.16	
		For >10 Manholes, Deduct	-102.31	
33 01 30 82-0004	VLF	60 Mil Epoxy Restoration Of 4' Diameter Manhole Interior	481.41	
		For 80 Mil Material, Add	57.26	
		For 100 Mil Material, Add	114.52	
		For 125 Mil Material, Add	178.61	
		For 150 Mil Material, Add	242.69	
		For 200 Mil Material, Add	350.88	
		For 2 To 5 Manholes, Deduct	-34.06	
		For 6 To 10 Manholes, Deduct	-56.08	
		For >10 Manholes, Deduct	-112.16	
33 01 30 82-0005	VLF	60 Mil Epoxy Restoration Of 5' Diameter Manhole Interior	601.83	
		For 80 Mil Material, Add	71.60	
		For 100 Mil Material, Add	143.20	
		For 125 Mil Material, Add	223.33	
		For 150 Mil Material, Add	303.47	
		For 200 Mil Material, Add	438.76	
		For 2 To 5 Manholes, Deduct	-42.58	
		For 6 To 10 Manholes, Deduct	-70.11	
		For >10 Manholes, Deduct	-140.21	
33 01 30 82-0006	VLF	60 Mil Epoxy Restoration Of 6' Diameter Manhole Interior	722.18	
		For 80 Mil Material, Add	85.91	
		For 100 Mil Material, Add	171.82	
		For 125 Mil Material, Add	267.98	
		For 150 Mil Material, Add	364.13	
		For 200 Mil Material, Add	526.48	
		For 2 To 5 Manholes, Deduct	-51.09	
		For 6 To 10 Manholes, Deduct	-84.13	
		For >10 Manholes, Deduct	-168.26	
33 01 30 83 Lining for Concrete Manholes (33 01 30)				
33 01 30 83-0001		Manhole Lining (33 01 30 83)		
		Note: Includes power washing and cleaning of manhole interiors.		
33 01 30 83-0002		Cementitious Manhole Restoration, Interior (33 01 30 83-0001)		
33 01 30 83-0003	VLF	1/2" Cementitious Restoration On 3' Diameter Manhole Interior	148.59	
		For Each Additional 1/2" Thick Material, Add	32.52	
		For 2 To 5 Manholes, Deduct	-10.59	
		For 6 To 10 Manholes, Deduct	-17.47	
		For >10 Manholes, Deduct	-34.94	
33 01 30 83-0004	VLF	1/2" Cementitious Restoration On 3-1/2' Diameter Manhole Interior	172.23	
		For Each Additional 1/2" Thick Material, Add	37.82	
		For 2 To 5 Manholes, Deduct	-12.27	
		For 6 To 10 Manholes, Deduct	-20.24	
		For >10 Manholes, Deduct	-40.48	
33 01 30 83-0005	VLF	1/2" Cementitious Restoration On 4' Diameter Manhole Interior	195.89	
		For Each Additional 1/2" Thick Material, Add	43.13	
		For 2 To 5 Manholes, Deduct	-13.96	
		For 6 To 10 Manholes, Deduct	-23.02	
		For >10 Manholes, Deduct	-46.03	
33 01 30 83-0006	VLF	1/2" Cementitious Restoration On 5' Diameter Manhole Interior	230.06	
		For Each Additional 1/2" Thick Material, Add	52.57	
		For 2 To 5 Manholes, Deduct	-16.33	
		For 6 To 10 Manholes, Deduct	-26.91	
		For >10 Manholes, Deduct	-53.82	
33 01 30 83-0007	VLF	1/2" Cementitious Restoration On 6' Diameter Manhole Interior	250.55	
		For Each Additional 1/2" Thick Material, Add	60.36	
		For 2 To 5 Manholes, Deduct	-17.69	
		For 6 To 10 Manholes, Deduct	-29.11	
		For >10 Manholes, Deduct	-58.22	
33 01 30 83-0008		Polyurethane Manhole Restoration, Interior (33 01 30 83-0001)		

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 83-0009 VLF 60 Mil Polyurethane Restoration Of 3' Diameter Manhole Interior	321.08	
For 80 Mil Material, Add	29.62	
For 100 Mil Material, Add	59.24	
For 125 Mil Material, Add	90.65	
For 150 Mil Material, Add	122.05	
For 200 Mil Material, Add	169.88	
For 2 To 5 Manholes, Deduct	-23.55	
For 6 To 10 Manholes, Deduct	-39.06	
For >10 Manholes, Deduct	-78.13	
33 01 30 83-0010 VLF 60 Mil Polyurethane Restoration Of 3-1/2' Diameter Manhole Interior	391.24	
For 80 Mil Material, Add	35.81	
For 100 Mil Material, Add	71.61	
For 125 Mil Material, Add	109.50	
For 150 Mil Material, Add	147.40	
For 200 Mil Material, Add	204.87	
For 2 To 5 Manholes, Deduct	-28.72	
For 6 To 10 Manholes, Deduct	-47.65	
For >10 Manholes, Deduct	-95.31	
33 01 30 83-0011 VLF 60 Mil Polyurethane Restoration Of 4' Diameter Manhole Interior	428.11	
For 80 Mil Material, Add	39.49	
For 100 Mil Material, Add	78.99	
For 125 Mil Material, Add	120.86	
For 150 Mil Material, Add	162.74	
For 200 Mil Material, Add	226.52	
For 2 To 5 Manholes, Deduct	-31.39	
For 6 To 10 Manholes, Deduct	-52.08	
For >10 Manholes, Deduct	-104.17	
33 01 30 83-0012 VLF 60 Mil Polyurethane Restoration Of 5' Diameter Manhole Interior	535.14	
For 80 Mil Material, Add	49.37	
For 100 Mil Material, Add	98.74	
For 125 Mil Material, Add	151.08	
For 150 Mil Material, Add	203.43	
For 200 Mil Material, Add	283.15	
For 2 To 5 Manholes, Deduct	-39.24	
For 6 To 10 Manholes, Deduct	-65.11	
For >10 Manholes, Deduct	-130.21	
33 01 30 83-0013 VLF 60 Mil Polyurethane Restoration Of 6' Diameter Manhole Interior	642.17	
For 80 Mil Material, Add	59.24	
For 100 Mil Material, Add	118.49	
For 125 Mil Material, Add	181.30	
For 150 Mil Material, Add	244.12	
For 200 Mil Material, Add	339.79	
For 2 To 5 Manholes, Deduct	-47.09	
For 6 To 10 Manholes, Deduct	-78.13	
For >10 Manholes, Deduct	-156.25	
33 01 30 83-0014 Multiplexx™ PVCP Cured-In-Place (CIP) Lining Manhole Restoration, Interior (33 01 30 83-0001)		
33 01 30 83-0015 VLF 3' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	566.92	
For 2 To 5 Manholes, Deduct	-32.89	
For 6 To 10 Manholes, Deduct	-51.61	
For >10 Manholes, Deduct	-103.23	
33 01 30 83-0016 VLF 3-1/2' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	694.28	
For 2 To 5 Manholes, Deduct	-40.27	
For 6 To 10 Manholes, Deduct	-63.19	
For >10 Manholes, Deduct	-126.37	
33 01 30 83-0017 VLF 4' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	818.48	
For 2 To 5 Manholes, Deduct	-46.99	
For 6 To 10 Manholes, Deduct	-73.51	
For >10 Manholes, Deduct	-147.02	
33 01 30 83-0018 VLF 5' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	1,026.45	
For 2 To 5 Manholes, Deduct	-58.90	
For 6 To 10 Manholes, Deduct	-92.14	
For >10 Manholes, Deduct	-184.28	
33 01 30 83-0019 VLF 6' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	1,234.42	
For 2 To 5 Manholes, Deduct	-70.82	
For 6 To 10 Manholes, Deduct	-110.77	
For >10 Manholes, Deduct	-221.54	
33 01 30 86 Manhole Rim Adjustment (33 01 30)		
33 01 30 86-0001 Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Risers (33 01 30 86)		
33 01 30 86-0002 Up To 6" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Risers (33 01 30 86-0001)		
33 01 30 86-0003 EA Up To 2" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	395.21	
33 01 30 86-0004 EA >2" To 3" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	444.12	
33 01 30 86-0005 EA >3" To 4" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	488.64	
33 01 30 86-0006 EA >4" To 5" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	539.04	
33 01 30 86-0007 EA >5" To 6" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	580.17	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 86-0008 Up To 6" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser (33 01 30 86-0001)		
33 01 30 86-0009 EA Up To 2" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	463.32	
33 01 30 86-0010 EA >2 To 3" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	504.85	
33 01 30 86-0011 EA >3 To 4" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	556.98	
33 01 30 86-0012 EA >4 To 5" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	607.39	
33 01 30 86-0013 EA >5 To 6" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	656.07	
33 01 30 86-0014 >6" To 12" Rise, >32-1/2" To 36" Diameter, Solid, Cast Iron, Manhole Cover Risers (33 01 30 86-0001)		
33 01 30 86-0015 EA >6" To 6-1/2" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	647.54	
33 01 30 86-0016 EA 7" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	704.03	
33 01 30 86-0017 EA 7-1/2" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	761.46	
33 01 30 86-0018 EA 8" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	807.42	
33 01 30 86-0019 EA 9" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	877.14	
33 01 30 86-0020 EA 10" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	940.64	
33 01 30 86-0021 EA 11" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	1,002.93	
33 01 30 86-0022 EA 12" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	1,066.59	
33 01 30 86-0023 >12" Rise, Solid Manhole Risers (33 01 30 86-0023)		
33 01 30 86-0024 Precast Concrete Manhole Riser (33 01 30 86-0023)		
33 01 30 86-0025 VLF Up To 26" Diameter Precast Concrete Manhole Riser	100.34	
33 01 30 86-0026 VLF >26" To 36" Diameter Precast Concrete Manhole Riser	120.49	
33 01 30 86-0027 VLF >36" To 48" Diameter Precast Concrete Manhole Riser	183.57	
33 01 30 86-0028 VLF >48" To 60" Diameter Precast Concrete Manhole Riser	371.15	
33 01 30 86-0029 VLF >60" To 72" Diameter Precast Concrete Manhole Riser	544.23	
33 01 30 89 By-Pass Piping and Pumping of Water and Sewer Utilities (33 01 30)		
33 01 30 89-0001 Set-Up By-Pass Pumping Unit (33 01 30 89)		
Note: Excludes pump and hose rental. See CSI section 01 22 23 00-1139 for pump rental, 01 22 23 00-1182 for suction hose, 01 22 23 00-1201 for discharge hose.		
33 01 30 89-0002 EA Set-up By-Pass Pumping Unit	1,968.83	
33 01 30 89-0003 EA Re-Set Up/Move By-Pass Pumping Unit	984.41	
33 01 30 89-0004 By-Pass Pumping (33 01 30 89)		
Note: Excludes pump rental. See CSI section 01 22 23 00-1139 for pump rental.		
33 01 30 89-0005 DAY Maintain And Operate By-Pass Pumping Unit	492.20	
33 01 30 89-0006 WK Maintain And Operate By-Pass Pumping Unit	2,461.03	
33 01 30 89-0007 MO Maintain And Operate By-Pass Pumping Unit	10,336.32	
33 01 30 89-0008 Temporary Bypass And Service Lines (33 01 30 89)		
Note: Laid on ground, includes fittings and connections. Remove after use.		
33 01 30 89-0009 Temporary Water Service Lines (33 01 30 89-0008)		
Note: Laid on ground, includes fittings, connection to building water service, and chlorination prior to each use. Remove after use.		
33 01 30 89-0010 LF 1/2" Temporary Service Hose With Fittings	2.84	
Note: Includes removal after use.		
33 01 30 89-0011 LF 3/4" Temporary Service Hose With Fittings	3.61	
Note: Includes removal after use.		
33 01 30 89-0012 LF 1" Temporary Service Hose With Fittings	4.22	
Note: Includes removal after use.		
33 01 30 89-0013 LF 1-1/2" Temporary Service Hose With Fittings	5.07	
Note: Includes removal after use.		
33 01 30 89-0014 LF 2" Temporary Service Hose With Fittings	6.25	
Note: Includes removal after use.		
33 01 30 89-0015 EA Temporary Service Valve Assembly At Fire Hydrant	307.81	
Note: Includes removal after use.		
33 01 30 89-0016 Temporary Bypass Water Main Lines (33 01 30 89-0008)		
Note: Laid on ground, includes fittings, connections to mains and chlorination prior to each use. Remove after use.		
33 01 30 89-0017 LF 2" Temporary Bypass Water Main Pipe With Fittings	6.46	
Note: Includes removal after use.		
For >500 To 1,000, Deduct	-0.43	
For >1,000 To 5,000, Deduct	-0.86	
For >5,000, Deduct	-1.43	
33 01 30 89-0018 LF 4" Temporary Bypass Water Main Pipe With Fittings	10.56	
Note: Includes removal after use.		
For >500 To 1,000, Deduct	-0.55	
For >1,000 To 5,000, Deduct	-1.10	
For >5,000, Deduct	-1.83	

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 30 Operation and Maintenance of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 89-0019 LF 6" Temporary Bypass Water Main Pipe With Fittings Note: Includes removal after use. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	15.20 -0.64 -1.28 -2.14	
33 01 30 89-0020 LF 8" Temporary Bypass Water Main Pipe With Fittings Note: Includes removal after use. For >500 To 1,000, Deduct For >1,000 To 5,000, Deduct For >5,000, Deduct	19.17 -0.77 -1.54 -2.57	
33 01 30 89-0021 Piping Protection For Temporary Water Line (33 01 30 89-0008)		
33 01 30 89-0022 LF Cold Mix For Temporary Pipe Note: Install along each side of pipe edge. Unit of measure "LF" is for length of pipe and includes both sides of pipe.	3.53	
33 01 30 89-0023 Drill Meter Cover For Temporary Water Line (33 01 30 89-0008)		
33 01 30 89-0024 EA Drill Meter Cover For Temporary Bypass Pipe	18.40	
33 01 30 89-0025 Temporary By-Pass Plug (33 01 30 89)		
33 01 30 89-0026 EA 8" To 16" Temporary By-Pass Plug	787.47	
33 01 30 89-0027 EA 12" To 24" Temporary By-Pass Plug	1,237.16	
33 01 30 89-0028 EA 15" To 30" Temporary By-Pass Plug	2,047.64	
33 01 30 89-0029 EA 20" To 40" Temporary By-Pass Plug	2,511.85	
33 01 30 89-0030 EA 24" To 28" Temporary By-Pass Plug	3,387.57	

33 01 34 Operation and Maintenance of Onsite Wastewater Disposal Systems (33 01)

33 01 34 13 Septic Tank Solids Removal (33 01 34)

33 01 34 13-0001 Pump Out Septic Tanks (33 01 34 13)

33 01 34 13-0002 GAL Pump Out Septic Tank And Dispose	0.71	

33 01 40 Operation and Maintenance of Stormwater Utilities (33 01)

33 01 40 00-0001 Solid Wall High Density Polyethylene (HDPE) Culvert Slip-Lining System (33 01)

Note: Snap-Tite slip-lining system. Excludes culvert cleaning and grouting. See CSI section 33 01 30 41-0024 for culvert cleaning.

33 01 40 00-0002 LF 6.625" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	26.42 -4.16	
33 01 40 00-0003 LF 8.625" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	39.58 -6.51	
33 01 40 00-0004 LF 10.75" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	37.08 -5.77	
33 01 40 00-0005 LF 12.75" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	48.99 -7.80	
33 01 40 00-0006 LF 14" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	56.01 -8.74	
33 01 40 00-0007 LF 16" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	67.56 -10.88	
33 01 40 00-0008 LF 18" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	84.92 -13.70	
33 01 40 00-0009 LF 20" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	104.22 -17.09	
33 01 40 00-0010 LF 22" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	120.22 -19.82	
33 01 40 00-0011 LF 24" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	137.59 -22.82	
33 01 40 00-0012 LF 26" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	157.06 -26.25	
33 01 40 00-0013 LF 28" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	177.20 -29.81	
33 01 40 00-0014 LF 30" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	205.28 -34.95	
33 01 40 00-0015 LF 32" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	234.73 -40.37	
33 01 40 00-0016 LF 34" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	259.47 -44.85	
33 01 40 00-0017 LF 36" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	284.20 -49.33	
33 01 40 00-0018 LF 39.37" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	324.93 -57.01	
33 01 40 00-0019 LF 42" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	365.65 -64.68	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 40 00-0020 LF 48" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	470.60 -85.20	
33 01 40 00-0021 LF 54" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	574.18 -105.45	
33 01 40 00-0022 LF 57" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	636.21 -117.38	
33 01 40 00-0023 LF 60" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	697.65 -129.20	
33 01 40 00-0024 LF 63" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	760.27 -141.25	
33 01 40 00-0025 LF 66" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	853.63 -159.22	
33 01 40 00-0026 LF 72" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	906.39 -168.84	
33 01 40 00-0027 LF 78" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	963.70 -179.12	
33 01 40 00-0028 LF 84" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	1,046.01 -194.65	
33 01 40 00-0029 LF 90" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	1,107.62 -198.63	
33 01 40 00-0030 LF 96" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner DR 32.5 For Profile Wall (Corrugated), Deduct	1,085.13 -200.36	
33 01 40 00-0031 LF 16.5 x 23" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	138.83 -23.02	
33 01 40 00-0032 LF 17" x 26" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	155.57 -25.49	
33 01 40 00-0033 LF 18" x 29" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	171.59 -32.75	
33 01 40 00-0034 LF 19" x 32" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	198.10 -32.75	
33 01 40 00-0035 LF 21" x 33.5" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	217.32 -35.97	
33 01 40 00-0036 LF 22.5 x 36" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	243.72 -40.63	
33 01 40 00-0037 LF 26" x 37" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	271.56 -45.57	
33 01 40 00-0038 LF 30" x 41" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	325.33 -55.08	
33 01 40 00-0039 LF 31" x 46" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	365.52 -69.68	
33 01 40 00-0040 LF 34" x 48.5" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	404.62 -69.68	
33 01 40 00-0041 LF 39" x 55.5" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	500.57 -88.25	
33 01 40 00-0042 LF 43" x 63" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	600.69 -107.65	
33 01 40 00-0043 LF 48" x 75" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	768.07 -141.13	
33 01 40 00-0044 LF 52" x 72.5" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	777.44 -141.13	
33 01 40 00-0045 LF 58" x 67.5" Outside Diameter High Density Polyethylene (HDPE) Culvert Liner For Elliptical, Arched Or Oval Culvert For Profile Wall (Corrugated), Deduct	777.44 -141.13	

33 01 70 Operation and Maintenance of Electrical Utilities (33 01)

33 01 70 51 Electrical Utility Visual Inspection (33 01 70)

33 01 70 51-0001	Video Camera Inspection Of Gas Piping and Electrical Duct (33 01 70 51)	
33 01 70 51-0002	Video Camera Set-up (33 01 70 51-0001)	
33 01 70 51-0003	EA Up To 12" Diameter, Initial Set Up For Video Inspection, Gas Pipe Or Electrical Duct.....	283.81
33 01 70 51-0004	EA >12" To 48" Diameter, Initial Set Up For Video Inspection, Gas Pipe.....	319.29
33 01 70 51-0005	EA Up To 12" Diameter, Re-Set Up/Move For Video Inspection, Gas Pipe Or Electrical Duct.....	70.95
33 01 70 51-0006	EA >12" To 48" Diameter, Re-Set Up/Move For Video Inspection, Gas Pipe.....	106.43

33 01 70 51-0007 Video Camera Inspection Of Gas Pipe Or Electrical Duct (33 01 70 51-0001)

33 01 70 51-0008	LF Up To 12" Diameter, Video Inspection, Gas Pipe Or Electrical Duct	1.09
	For >1,000 To 5,000, Deduct	-0.05
	For >5,000, Deduct	-0.11
33 01 70 51-0009	LF >12" To 48" Diameter, Video Inspection, Gas Pipe	1.68
	For >1,000 To 5,000, Deduct	-0.08
	For >5,000, Deduct	-0.17

33 01 70 72 Cured-in-Place Conduit Lining (33 01 70)

33 Utilities**33 01 Operation and Maintenance of Utilities****33 01 70 Operation and Maintenance of Electrical Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 70 72-0001 Lining Conduit With Cured In-Place (CIP) Liner (33 01 70 72) Note: Cured in-place thermosetting resin pipe and resin impregnated tube. Excludes video camera inspection and cleaning.		
33 01 70 72-0002 2mm Thick Cured In-Place Conduit Lining (33 01 70 72-0001)		
33 01 70 72-0003 LF 1-1/2" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	7.48	
For Up To >10, Add	14.54	
For >10 To 25, Add	11.59	
For >25 To 50, Add	7.11	
For >50 To 100, Add	3.56	
For >500 To 1,000, Deduct	-0.48	
For >1,000 To 2,000, Deduct	-0.78	
For >2,000 To 5,000, Deduct	-1.46	
For >5,000, Deduct	-2.36	
33 01 70 72-0004 LF 2" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	9.12	
For Up To >10, Add	16.69	
For >10 To 25, Add	13.19	
For >25 To 50, Add	8.13	
For >50 To 100, Add	4.06	
For >500 To 1,000, Deduct	-0.58	
For >1,000 To 2,000, Deduct	-0.93	
For >2,000 To 5,000, Deduct	-1.72	
For >5,000, Deduct	-2.79	
33 01 70 72-0005 LF 2-1/2" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	11.44	
For Up To >10, Add	20.87	
For >10 To 25, Add	16.50	
For >25 To 50, Add	10.17	
For >50 To 100, Add	5.08	
For >500 To 1,000, Deduct	-0.72	
For >1,000 To 2,000, Deduct	-1.16	
For >2,000 To 5,000, Deduct	-2.16	
For >5,000, Deduct	-3.50	
33 01 70 72-0006 LF 3" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	13.50	
For Up To >10, Add	24.28	
For >10 To 25, Add	19.15	
For >25 To 50, Add	11.81	
For >50 To 100, Add	5.91	
For >500 To 1,000, Deduct	-0.85	
For >1,000 To 2,000, Deduct	-1.36	
For >2,000 To 5,000, Deduct	-2.53	
For >5,000, Deduct	-4.10	
33 01 70 72-0007 LF 3-1/2" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	15.15	
For Up To >10, Add	26.45	
For >10 To 25, Add	20.78	
For >25 To 50, Add	12.85	
For >50 To 100, Add	6.42	
For >500 To 1,000, Deduct	-0.95	
For >1,000 To 2,000, Deduct	-1.51	
For >2,000 To 5,000, Deduct	-2.80	
For >5,000, Deduct	-4.54	
33 01 70 72-0008 LF 4" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	17.06	
For Up To >10, Add	29.41	
For >10 To 25, Add	23.05	
For >25 To 50, Add	14.27	
For >50 To 100, Add	7.13	
For >500 To 1,000, Deduct	-1.06	
For >1,000 To 2,000, Deduct	-1.70	
For >2,000 To 5,000, Deduct	-3.13	
For >5,000, Deduct	-5.08	
33 01 70 72-0009 LF 5" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	20.09	
For Up To >10, Add	32.95	
For >10 To 25, Add	25.63	
For >25 To 50, Add	15.93	
For >50 To 100, Add	7.96	
For >500 To 1,000, Deduct	-1.23	
For >1,000 To 2,000, Deduct	-1.96	
For >2,000 To 5,000, Deduct	-3.60	
For >5,000, Deduct	-5.85	
33 01 70 72-0010 LF 6" Conduit Lined With 2mm Thick Cured In-Place (CIP) Lining	23.12	
For Up To >10, Add	36.49	
For >10 To 25, Add	28.21	
For >25 To 50, Add	17.59	
For >50 To 100, Add	8.79	
For >500 To 1,000, Deduct	-1.41	
For >1,000 To 2,000, Deduct	-2.23	
For >2,000 To 5,000, Deduct	-4.07	
For >5,000, Deduct	-6.62	
33 01 70 72-0011 3mm Thick Cured In-Place Conduit Lining (33 01 70 72-0001)		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 70 72-0012 LF 1-1/2" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	9.19	
For Up To >10, Add	16.07	
For >10 To 25, Add	12.63	
For >25 To 50, Add	7.81	
For >50 To 100, Add	3.90	
For >500 To 1,000, Deduct	-0.57	
For >1,000 To 2,000, Deduct	-0.92	
For >2,000 To 5,000, Deduct	-1.70	
For >5,000, Deduct	-2.76	
33 01 70 72-0013 LF 2" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	11.93	
For Up To >10, Add	20.12	
For >10 To 25, Add	15.72	
For >25 To 50, Add	9.74	
For >50 To 100, Add	4.87	
For >500 To 1,000, Deduct	-0.74	
For >1,000 To 2,000, Deduct	-1.18	
For >2,000 To 5,000, Deduct	-2.17	
For >5,000, Deduct	-3.52	
33 01 70 72-0014 LF 2-1/2" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	14.67	
For Up To >10, Add	24.19	
For >10 To 25, Add	18.83	
For >25 To 50, Add	11.70	
For >50 To 100, Add	5.85	
For >500 To 1,000, Deduct	-0.90	
For >1,000 To 2,000, Deduct	-1.44	
For >2,000 To 5,000, Deduct	-2.64	
For >5,000, Deduct	-4.28	
33 01 70 72-0015 LF 3" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	17.15	
For Up To >10, Add	27.45	
For >10 To 25, Add	21.28	
For >25 To 50, Add	13.25	
For >50 To 100, Add	6.62	
For >500 To 1,000, Deduct	-1.05	
For >1,000 To 2,000, Deduct	-1.66	
For >2,000 To 5,000, Deduct	-3.04	
For >5,000, Deduct	-4.94	
33 01 70 72-0016 LF 3-1/2" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	19.47	
For Up To >10, Add	30.26	
For >10 To 25, Add	23.34	
For >25 To 50, Add	14.57	
For >50 To 100, Add	7.28	
For >500 To 1,000, Deduct	-1.18	
For >1,000 To 2,000, Deduct	-1.87	
For >2,000 To 5,000, Deduct	-3.40	
For >5,000, Deduct	-5.54	
33 01 70 72-0017 LF 4" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	21.96	
For Up To >10, Add	33.56	
For >10 To 25, Add	25.81	
For >25 To 50, Add	16.13	
For >50 To 100, Add	8.07	
For >500 To 1,000, Deduct	-1.32	
For >1,000 To 2,000, Deduct	-2.10	
For >2,000 To 5,000, Deduct	-3.81	
For >5,000, Deduct	-6.20	
33 01 70 72-0018 LF 5" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	26.77	
For Up To >10, Add	39.66	
For >10 To 25, Add	30.34	
For >25 To 50, Add	19.02	
For >50 To 100, Add	9.51	
For >500 To 1,000, Deduct	-1.60	
For >1,000 To 2,000, Deduct	-2.53	
For >2,000 To 5,000, Deduct	-4.58	
For >5,000, Deduct	-7.46	
33 01 70 72-0019 LF 6" Conduit Lined With 3mm Thick Cured In-Place (CIP) Lining.....	31.17	
For Up To >10, Add	44.54	
For >10 To 25, Add	33.85	
For >25 To 50, Add	21.29	
For >50 To 100, Add	10.64	
For >500 To 1,000, Deduct	-1.85	
For >1,000 To 2,000, Deduct	-2.92	
For >2,000 To 5,000, Deduct	-5.25	
For >5,000, Deduct	-8.55	

33 05 Common Work Results for Utilities ⁽³³⁾

33 05 07 Trenchless Installation of Utility Piping ^(33 05)

33 05 07 13 Utility Directional Drilling ^(33 05 07)

33 05 07 13-0001 Horizontal Augering ^(33 05 07 13)

Note: Excludes starting or receiving pits, dewatering, cost of casing pipe or spoils removal. See CSI section 31 23 16 36-0000 for excavation and backfill of starting or receiving pits, 33 05 07 24-0001 for casing pipe.

33 05 07 13-0002 LF Up To 2" Diameter Horizontal Hand Augering.....	28.77
33 05 07 13-0003 LF 3" Diameter Horizontal Hand Augering.....	34.73
33 05 07 13-0004 LF 4" Diameter Horizontal Hand Augering.....	47.62

33 Utilities**33 05 Common Work Results for Utilities****33 05 07 Trenchless Installation of Utility Piping**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 05 07 13-0005	LF	6" Diameter Horizontal Hand Augering	61.51	
33 05 07 13-0006	LF	8" Diameter Horizontal Augering	106.84	
33 05 07 13-0007	LF	10" Diameter Horizontal Augering	155.87	
33 05 07 13-0008	LF	12" Diameter Horizontal Augering	187.29	
33 05 07 13-0009	LF	16" Diameter Horizontal Augering	223.74	
33 05 07 13-0010	LF	20" Diameter Horizontal Augering	387.15	
33 05 07 13-0011	LF	24" Diameter Horizontal Augering	480.07	
33 05 07 13-0012	LF	30" Diameter Horizontal Augering	592.14	
33 05 07 13-0013	LF	36" Diameter Horizontal Augering	670.52	
33 05 07 13-0014	LF	42" Diameter Horizontal Augering	849.23	
33 05 07 13-0015	LF	48" Diameter Horizontal Augering	915.05	
33 05 07 13-0016	LF	54" Diameter Horizontal Augering	995.17	
33 05 07 13-0017	LF	60" Diameter Horizontal Augering	1,043.32	
33 05 07 13-0018	EA	8" To 20" Horizontal Augering Minimum Set-up Charge	4,525.10	
		Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0019	EA	>20" To 36" Horizontal Augering Minimum Set-up Charge	6,087.39	
		Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0020	EA	>36" Horizontal Augering Minimum Set-up Charge	8,669.34	
		Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		

33 05 07 13-0021 Horizontal Directional Boring (33 05 07 13)

Note: Excludes receiving pits or dewatering or cost of casing pipe. See CSI section 31 23 16 36-0000 for excavation and backfill of starting or receiving pits, 33 05 07 24-0001 for casing pipe.

33 05 07 13-0022	LF	Up To 1-1/2" Diameter Directional Boring For Horizontal Pipe, Underground	14.84	
		For Horizontal Boring Through Rock, Add	10.39	
33 05 07 13-0023	LF	2" Diameter Directional Boring For Horizontal Pipe, Underground	22.26	
		For Horizontal Boring Through Rock, Add	15.58	
33 05 07 13-0024	LF	2-1/2" Diameter Directional Boring For Horizontal Pipe, Underground	30.91	
		For Horizontal Boring Through Rock, Add	21.64	
33 05 07 13-0025	LF	3" Diameter Directional Boring For Horizontal Pipe, Underground	38.33	
		For Horizontal Boring Through Rock, Add	26.83	
33 05 07 13-0026	LF	4" Diameter Directional Boring For Horizontal Pipe, Underground	45.75	
		For Horizontal Boring Through Rock, Add	32.03	
33 05 07 13-0027	LF	5" Diameter Directional Boring For Horizontal Pipe, Underground	53.17	
		For Horizontal Boring Through Rock, Add	37.22	
33 05 07 13-0028	LF	6" Diameter Directional Boring For Horizontal Pipe, Underground	61.83	
		For Horizontal Boring Through Rock, Add	43.28	
33 05 07 13-0029	LF	8" Diameter Directional Boring For Horizontal Pipe, Underground	75.42	
		For Horizontal Boring Through Rock, Add	52.79	
33 05 07 13-0030	LF	10" Diameter Directional Boring For Horizontal Pipe, Underground	81.71	
		For Horizontal Boring Through Rock, Add	57.20	
33 05 07 13-0031	LF	12" Diameter Directional Boring For Horizontal Pipe, Underground	87.99	
		For Horizontal Boring Through Rock, Add	61.59	
33 05 07 13-0032	LF	18" Diameter Directional Boring For Horizontal Pipe, Underground	182.27	
		For Horizontal Boring Through Rock, Add	127.59	
33 05 07 13-0033	LF	24" Diameter Directional Boring For Horizontal Pipe, Underground	283.61	
		For Horizontal Boring Through Rock, Add	198.53	
33 05 07 13-0034	LF	30" Diameter Directional Boring For Horizontal Pipe, Underground	432.34	
		For Horizontal Boring Through Rock, Add	302.64	
33 05 07 13-0035	LF	36" Diameter Directional Boring For Horizontal Pipe, Underground	691.74	
		For Horizontal Boring Through Rock, Add	484.22	
33 05 07 13-0036	EA	Up To 6" Horizontal Directional Boring Minimum Set-up Charge	3,956.81	
		Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0037	EA	>6" To 18" Horizontal Directional Boring Minimum Set-up Charge	4,525.10	
		Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0038	EA	>18" To 36" Horizontal Directional Boring Minimum Set-up Charge	6,087.39	
		Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		

33 05 07 23 Utility Boring and Jacking (33 05 07)**33 05 07 23-0001 Horizontal Jacking (33 05 07 23)**

Note: Includes cost of steel casing pipe, excludes dewatering and excavation for jacking pit or receiving pit. See CSI section 31 23 16 36-0000 for excavation and backfill of starting or receiving pits.

33 05 07 23-0002	LF	Up To 2" Diameter Horizontal Jacking	92.29	
		For Horizontal Jacking Through Rock, Add	32.59	
33 05 07 23-0003	LF	3" Diameter Horizontal Jacking	110.22	
		For Horizontal Jacking Through Rock, Add	39.33	
33 05 07 23-0004	LF	4" Diameter Horizontal Jacking	147.73	
		For Horizontal Jacking Through Rock, Add	53.94	
33 05 07 23-0005	LF	6" Diameter Horizontal Jacking	190.99	
		For Horizontal Jacking Through Rock, Add	69.68	
33 05 07 23-0006	LF	8" Diameter Horizontal Jacking	257.00	
		For Horizontal Jacking Through Rock, Add	95.52	
33 05 07 23-0007	LF	10" Diameter Horizontal Jacking	377.82	
		For Horizontal Jacking Through Rock, Add	139.35	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 07 23-0008 LF 12" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	455.37 167.45	
33 05 07 23-0009 LF 16" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	543.51 200.05	
33 05 07 23-0010 LF 20" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	791.21 347.25	
33 05 07 23-0011 LF 24" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	1,595.96 389.70	
33 05 07 23-0012 LF 30" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	1,809.82 481.21	
33 05 07 23-0013 LF 36" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	2,033.12 550.22	
33 05 07 23-0014 LF 42" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	2,179.04 594.17	
33 05 07 23-0015 LF 48" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	2,369.50 640.20	
33 05 07 23-0016 LF 54" Diameter Horizontal Jacking..... For Horizontal Jacking Through Rock, Add	2,512.25 696.75	
33 05 07 23-0017 EA Up To 6" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	3,956.81	
33 05 07 23-0018 EA >6" To 20" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	4,525.10	
33 05 07 23-0019 EA >20" To 36" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	6,087.39	
33 05 07 23-0020 EA >36" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	8,669.34	

33 05 07 24 Casing Piping for Utility Jacking (33 05 07)

33 05 07 24-0001	Casing Pipe (33 05 07 24) Note: Casing pipe is pulled back from hook on boring auger through slurry. Costs are installed costs. Excludes boring.	
33 05 07 24-0002	Steel Pipe (33 05 07 24-0001)	
33 05 07 24-0003 LF 1-1/2" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	38.28	
33 05 07 24-0004 LF 2" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	40.42	
33 05 07 24-0005 LF 2-1/2" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	43.88	
33 05 07 24-0006 LF 3" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	47.38	
33 05 07 24-0007 LF 4" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	60.98	
33 05 07 24-0008 LF 5" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	69.48	
33 05 07 24-0009 LF 6" Steel Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	77.94	

33 05 07 24-0010	Polyethylene Pipe (33 05 07 24-0001)	
33 05 07 24-0011 LF 3/4" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	8.26	
33 05 07 24-0012 LF 1" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	9.01	
33 05 07 24-0013 LF 1-1/4" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	9.74	
33 05 07 24-0014 LF 1-1/2" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	10.42	
33 05 07 24-0015 LF 2" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	11.16	
33 05 07 24-0016 LF 2-1/2" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	12.00	
33 05 07 24-0017 LF 3" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	12.87	
33 05 07 24-0018 LF 4" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	15.93	
33 05 07 24-0019 LF 5" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	17.83	
33 05 07 24-0020 LF 6" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	19.71	
33 05 07 24-0021 LF 8" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	26.31	
33 05 07 24-0022 LF 10" Polyethylene Pipe Pull In Place By Boring Machine..... Note: Includes pipe welding.	36.65	

33 05 09 Piping Specials for Utilities (33 05)

33 Utilities**33 05 Common Work Results for Utilities****33 05 09 Piping Specials for Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 05 09 23	Adapters for Utility Piping (33 05 09) See CSI section 33 14 13 53-0222 for ductile iron body adapters, 33 14 13 53-0229 for steel body adapters.		
33 05 09 33	Thrust Restraint for Utility Piping (33 05 09) See CSI section 33 14 13 13-0587 for mechanical restraints, 33 14 13 13-0622 for flanged restraints, 33 14 13 13-1194 for slip-on restraints, 33 14 13 13-1210 for slip-on restraint harnesses.		
33 05 16	Cast-Iron Utility Pipe (33 05) See CSI section 22 13 16 00-0019 for cast iron utility piping.		
33 05 17	Copper Utility Pipe and Tubing (33 05) See CSI section 33 14 13 39-0000 for copper utility piping.		
33 05 19	Ductile-Iron Utility Pipe (33 05) See CSI section 33 14 13 13-0000 for ductile iron utility piping.		
33 05 24	Steel Utility Pipe (33 05)		
33 05 24 23	Steel Pipe for Water Service (33 05 24) See CSI section 33 14 13 26-0000 for galvanized steel utility piping, 33 14 13 36-0000 for steel utility piping.		
33 05 27	Corrugated Metal Utility Pipe (33 05)		
33 05 27 13	Corrugated Metal Culvert Pipe (33 05 27) See CSI section 33 42 11 00-0533 for corrugated metal culvert pipe.		
33 05 27 23	Corrugated Metal Slotted Pipe (33 05 27) See CSI section 33 41 16 13-0085 for corrugated metal slotted pipe.		
33 05 27 33	Corrugated Metal Culvert Arch Pipe (33 05 27) See CSI section 33 42 11 00-0877 for corrugated metal culvert arch pipe.		
33 05 31	Thermoplastic Utility Pipe (33 05)		
33 05 31 11	Polyvinyl Chloride Gravity Sewer Pipe (33 05 31) See CSI section 33 31 11 00-0000 for polyvinyl chloride gravity sewer pipe.		
33 05 31 13	Polyvinyl Chloride Pressure Pipe (33 05 31) See CSI section 33 14 13 23-0001 for polyvinyl chloride pressure pipe.		
33 05 31 16	Polyvinyl Chloride Pressure Pipe for Water Transmission and Distribution (AWWA C900 and AWWA C905) (33 05 31) See CSI section 33 14 13 23-0171 for AWWA C900 and 905 polyvinyl chloride pressure pipe.		
33 05 33	Polyethylene Utility Pipe (33 05)		
33 05 33 13	Corrugated-Wall, Smooth Interior HDPE Gravity Pipe (33 05 33) See CSI section 33 42 11 00-0274 for corrugated-wall smooth interior HDPE gravity pipe.		
33 05 33 23	Polyethylene Pressure Pipe and Tubing (AWWA C901 and AWWA C906) (33 05 33) See CSI section 33 14 13 23-0426 for AWWA C906 high density polyethylene pipe.		
33 05 33 33	Corrugated, Perforated HDPE Drainage Pipe (33 05 33) See CSI section 33 42 11 00-0296 for corrugated perforated HDPE drainage pipe.		
33 05 33 36	Corrugated, Non-Perforated HDPE Drainage Pipe (33 05 33) See CSI section 33 41 16 13-0002 for corrugated non-perforated HDPE drainage pipe.		
33 05 33 53	HDPE Gas Utility Pipe (33 05 33) See CSI section 33 52 16 26-0001 for high-density polyethylene gas utility pipe.		
33 05 33 56	Medium-Density Polyethylene Gas Utility Pipe (33 05 33) See CSI section 33 52 16 23-0000 for Medium-Density Polyethylene Gas Utility Pipe.		
33 05 33 63	HDPE Communication Duct (33 05 33)		
33 05 33 63-0001	ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine (33 05 33 63) Note: Excludes boring.		
33 05 33 63-0002	LF 1" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	3.80	
	For Up To 250, Add.....	0.12	
	For >250 To 500, Add.....	0.08	
33 05 33 63-0003	LF 1-1/4" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	4.26	
	For Up To 250, Add.....	0.15	
	For >250 To 500, Add.....	0.10	
33 05 33 63-0004	LF 1-1/2" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	4.61	
	For Up To 250, Add.....	0.17	
	For >250 To 500, Add.....	0.11	
33 05 33 63-0005	LF 2" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	5.08	
	For Up To 250, Add.....	0.20	
	For >250 To 500, Add.....	0.14	
33 05 33 63-0006	LF 3" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	6.86	
	For Up To 250, Add.....	0.43	
	For >250 To 500, Add.....	0.28	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 33 63-0007	LF		4" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	8.68	
			For Up To 250, Add	0.65	
			For >250 To 500, Add	0.43	
33 05 33 63-0008	LF		1" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	3.89	
			For Up To 250, Add	0.14	
			For >250 To 500, Add	0.09	
33 05 33 63-0009	LF		1-1/4" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	4.42	
			For Up To 250, Add	0.17	
			For >250 To 500, Add	0.12	
33 05 33 63-0010	LF		1-1/2" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	4.74	
			For Up To 250, Add	0.19	
			For >250 To 500, Add	0.13	
33 05 33 63-0011	LF		2" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	5.41	
			For Up To 250, Add	0.25	
			For >250 To 500, Add	0.17	
33 05 33 63-0012	LF		3" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	7.58	
			For Up To 250, Add	0.53	
			For >250 To 500, Add	0.36	
33 05 33 63-0013	LF		4" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine.....	9.59	
			For Up To 250, Add	0.79	
			For >250 To 500, Add	0.52	

33 05 39 Concrete Pipe (33 05)

33 05 39 13 Prestressed Concrete Pressure Pipe, Steel-Cylinder Type (AWWA C301) (33 05 39)

See CSI section 33 42 11 00-0094 for prestressed concrete pressure pipe.

33 05 39 41 Reinforced Concrete Pipe for Sewers and Culverts (33 05 39)

See CSI section 33 42 11 00-0001 for reinforced concrete pipe.

33 05 39 46 Reinforced Concrete Elliptical Pipe for Sewers and Culverts (33 05 39)

See CSI section 33 42 11 00-0019 for reinforced concrete elliptical pipe.

33 05 41 Vitrified Clay Utility Pipe (33 05)

See CSI section 33 42 11 00-0400 for vitrified clay piping.

33 05 61 Concrete Manholes (33 05)

33 05 61 00-0001 Manholes (33 05 61)

33 05 61 00-0002 Precast Concrete Manholes (33 05 61 00-0001)

Note: Includes base, riser(s), reducer and openings. Excludes excavation, aggregate, backfill and frame/cover.
See CSI section 33 05 84 00-0002 for top slabs.

33 05 61 00-0003 3' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0004	EA	4' Deep, 3' Diameter, Precast Concrete Manhole.....	1,741.59	317.13
		For Bitumastic Coating, Add	79.63	
		For Epoxy Coating, Add	152.16	
33 05 61 00-0005	EA	6' Deep, 3' Diameter, Precast Concrete Manhole.....	2,374.58	455.51
		For Bitumastic Coating, Add	119.44	
		For Epoxy Coating, Add	228.24	
33 05 61 00-0006	EA	8' Deep, 3' Diameter, Precast Concrete Manhole.....	3,203.62	691.92
		For Bitumastic Coating, Add	159.25	
		For Epoxy Coating, Add	304.32	
33 05 61 00-0007	VLF	Riser For 3' Diameter, Precast Concrete Manhole.....	339.56	80.73
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	19.91	
		For Epoxy Coating, Add	38.04	
33 05 61 00-0008	VLF	Drop Collar For 3' Diameter, Precast Concrete Manhole.....	365.69	80.73
33 05 61 00-0009	EA	Drop Base For 3' Diameter, Precast Concrete Manhole.....	583.13	80.73
33 05 61 00-0010	EA	Extended Base Slab For 3' Diameter, Precast Concrete Manhole.....	466.36	80.73
33 05 61 00-0011	EA	Precast Channel For 3' Diameter, Precast Concrete Manhole.....	665.24	80.73

33 05 61 00-0012 4' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0013	EA	4' Deep, 4' Diameter, Precast Concrete Manhole.....	2,552.86	363.26
		For Bitumastic Coating, Add	79.63	
		For Epoxy Coating, Add	152.16	
33 05 61 00-0014	EA	6' Deep, 4' Diameter, Precast Concrete Manhole.....	3,407.01	495.88
		For Bitumastic Coating, Add	119.44	
		For Epoxy Coating, Add	228.24	
33 05 61 00-0015	EA	8' Deep, 4' Diameter, Precast Concrete Manhole.....	4,492.73	749.58
		For Bitumastic Coating, Add	159.25	
		For Epoxy Coating, Add	304.32	
33 05 61 00-0016	VLF	Riser For 4' Diameter, Precast Concrete Manhole.....	480.39	95.14
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	19.91	
		For Epoxy Coating, Add	38.04	

33 Utilities**33 05 Common Work Results for Utilities****33 05 61 Concrete Manholes**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 61 00-0017	VLF	Drop Collar For 4' Diameter, Precast Concrete Manhole.....	523.38	95.14
33 05 61 00-0018	EA	Drop Base For 4' Diameter, Precast Concrete Manhole.....	881.04	95.14
33 05 61 00-0019	EA	Extended Base Slab For 4' Diameter, Precast Concrete Manhole.....	688.97	95.14
33 05 61 00-0020	EA	Precast Channel For 4' Diameter, Precast Concrete Manhole.....	1,016.14	95.14
33 05 61 00-0021		5' Diameter, Precast Concrete Manholes (33 05 61 00-0002)		
33 05 61 00-0022	EA	4' Deep, 5' Diameter, Precast Concrete Manhole.....	4,809.46	403.62
		For Bitumastic Coating, Add.....	102.59	
		For Epoxy Coating, Add.....	245.30	
33 05 61 00-0023	EA	6' Deep, 5' Diameter, Precast Concrete Manhole.....	6,404.49	553.54
		For Bitumastic Coating, Add.....	153.89	
		For Epoxy Coating, Add.....	367.95	
33 05 61 00-0024	EA	8' Deep, 5' Diameter, Precast Concrete Manhole.....	8,256.22	830.30
		For Bitumastic Coating, Add.....	205.19	
		For Epoxy Coating, Add.....	490.60	
33 05 61 00-0025	VLF	Riser For 5' Diameter, Precast Concrete Manhole.....	856.99	103.79
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add.....	25.65	
		For Epoxy Coating, Add.....	61.32	
33 05 61 00-0026		6' Diameter, Precast Concrete Manholes (33 05 61 00-0002)		
33 05 61 00-0027	EA	4' Deep, 6' Diameter, Precast Concrete Manhole.....	6,458.06	449.74
		For Bitumastic Coating, Add.....	117.46	
		For Epoxy Coating, Add.....	287.18	
33 05 61 00-0028	EA	6' Deep, 6' Diameter, Precast Concrete Manhole.....	8,409.91	611.20
		For Bitumastic Coating, Add.....	176.18	
		For Epoxy Coating, Add.....	430.77	
33 05 61 00-0029	EA	8' Deep, 6' Diameter, Precast Concrete Manhole.....	10,649.15	922.56
		For Bitumastic Coating, Add.....	234.91	
		For Epoxy Coating, Add.....	574.36	
33 05 61 00-0030	VLF	Riser For 6' Diameter, Precast Concrete Manhole.....	1,041.54	115.32
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add.....	29.36	
		For Epoxy Coating, Add.....	71.80	
33 05 61 00-0031		7' Diameter, Precast Concrete Manholes (33 05 61 00-0002)		
33 05 61 00-0032	EA	4' Deep, 7' Diameter, Precast Concrete Manhole.....	10,192.62	495.88
		For Bitumastic Coating, Add.....	249.77	
		For Epoxy Coating, Add.....	501.83	
33 05 61 00-0033	EA	6' Deep, 7' Diameter, Precast Concrete Manhole.....	13,178.68	676.35
		For Bitumastic Coating, Add.....	374.66	
		For Epoxy Coating, Add.....	752.74	
33 05 61 00-0034	EA	8' Deep, 7' Diameter, Precast Concrete Manhole.....	16,480.73	1,014.82
		For Bitumastic Coating, Add.....	499.55	
		For Epoxy Coating, Add.....	1,003.65	
33 05 61 00-0035	VLF	Riser For 7' Diameter, Precast Concrete Manhole.....	1,566.27	126.85
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add.....	62.44	
		For Epoxy Coating, Add.....	125.46	
33 05 61 00-0036		8' Diameter, Precast Concrete Manholes (33 05 61 00-0002)		
33 05 61 00-0037	EA	4' Deep, 8' Diameter, Precast Concrete Manhole.....	14,758.61	570.83
		For Bitumastic Coating, Add.....	295.29	
		For Epoxy Coating, Add.....	611.68	
33 05 61 00-0038	EA	6' Deep, 8' Diameter, Precast Concrete Manhole.....	19,134.60	778.41
		For Bitumastic Coating, Add.....	442.93	
		For Epoxy Coating, Add.....	917.52	
33 05 61 00-0039	EA	8' Deep, 8' Diameter, Precast Concrete Manhole.....	23,873.84	1,167.62
		For Bitumastic Coating, Add.....	590.57	
		For Epoxy Coating, Add.....	1,223.37	
33 05 61 00-0040	VLF	Riser For 8' Diameter, Precast Concrete Manhole.....	2,268.72	144.15
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add.....	73.82	
		For Epoxy Coating, Add.....	152.92	
33 05 63		Concrete Vaults and Chambers (33 05)		
33 05 63 00-0001		Underground Utility Vaults And Structures (33 05 63)		
		See CSI section 33 05 61 00-0001 for manholes, 33 05 81 00-0006 for frames and covers.		
33 05 63 00-0002		Precast Concrete Underground Utility Vault (33 05 63 00-0001)		
		Note: Sizes given are for inside dimensions.		
33 05 63 00-0003		6' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0004	EA	4' x 4' x 6' Precast Concrete Underground Utility Vault.....	3,537.14	
		Note: 6" thick walls and 8" thick top.		
33 05 63 00-0005	EA	4' x 6' x 6' Precast Concrete Underground Utility Vault.....	4,610.72	
		Note: 6" thick walls and 8" thick top.		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0006	EA		5' x 10' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	7,606.64	
33 05 63 00-0007	EA		5' x 12' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,783.07	
33 05 63 00-0008	EA		6' x 6' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	5,892.28	
33 05 63 00-0009	EA		6' x 8' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	7,172.69	
33 05 63 00-0010	EA		6' x 10' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,454.27	
33 05 63 00-0011	EA		6' x 12' x 6' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	12,214.80	
33 05 63 00-0012	EA		6' x 14' x 6' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	12,214.80	
33 05 63 00-0013	EA		6' x 16' x 6' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	15,380.36	
33 05 63 00-0014	EA		8' x 8' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,662.29	
33 05 63 00-0015	EA		8' x 10' x 6' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	10,150.74	
33 05 63 00-0016	EA		8' x 12' x 6' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	14,509.62	
33 05 63 00-0017	EA		8' x 14' x 6' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	16,330.54	
33 05 63 00-0018			7' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0019	EA		4' x 4' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	3,600.19	
33 05 63 00-0020	EA		4' x 6' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	4,674.66	
33 05 63 00-0021	EA		4' x 8' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	6,218.49	
33 05 63 00-0022	EA		5' x 10' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,274.43	
33 05 63 00-0023	EA		5' x 12' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	9,540.65	
33 05 63 00-0024	EA		6' x 6' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	5,941.47	
33 05 63 00-0025	EA		6' x 8' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	7,796.76	
33 05 63 00-0026	EA		6' x 10' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,475.10	
33 05 63 00-0027	EA		6' x 12' x 7' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	13,283.23	
33 05 63 00-0028	EA		6' x 16' x 7' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	16,686.33	
33 05 63 00-0029	EA		8' x 8' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	9,374.95	
33 05 63 00-0030	EA		8' x 10' x 7' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	10,952.07	
33 05 63 00-0031	EA		8' x 12' x 7' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	15,697.51	
33 05 63 00-0032	EA		8' x 14' x 7' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	17,635.36	
33 05 63 00-0033	EA		10' x 10' x 7' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	15,934.17	
33 05 63 00-0034			8' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0035	EA		4' x 4' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	4,249.82	
33 05 63 00-0036	EA		4' x 6' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	5,501.85	
33 05 63 00-0037	EA		5' x 10' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,942.20	
33 05 63 00-0038	EA		5' x 12' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	10,297.06	
33 05 63 00-0039	EA		6' x 6' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	6,960.73	
33 05 63 00-0040	EA		6' x 8' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,419.61	
33 05 63 00-0041	EA		6' x 10' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	9,878.52	
33 05 63 00-0042	EA		6' x 12' x 8' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	14,351.64	
33 05 63 00-0043	EA		6' x 16' x 8' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	17,992.39	
33 05 63 00-0044	EA		8' x 8' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	10,086.49	
33 05 63 00-0045	EA		8' x 10' x 8' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	11,753.38	
33 05 63 00-0046	EA		8' x 12' x 8' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	16,884.13	

33 Utilities**33 05 Common Work Results for Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0047	EA	8' x 14' x 8' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	18,941.40	
33 05 63 00-0048	EA	10' x 10' x 8' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	17,121.69	
33 05 63 00-0049		10' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0050	EA	6' x 6' x 10' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	7,494.97	
33 05 63 00-0051	EA	6' x 8' x 10' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	9,042.47	
33 05 63 00-0052	EA	10' x 10' x 10' Precast Concrete Underground Utility Vault..... Note: 8" thick walls and top.	18,308.26	
33 05 63 00-0053		12' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0054	EA	6' x 6' x 12' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	8,029.18	
33 05 63 00-0055	EA	6' x 8' x 12' Precast Concrete Underground Utility Vault..... Note: 6" thick walls and 8" thick top.	9,666.52	
33 05 63 00-0056		Meter Pit (33 05 63 00-0001)		
33 05 63 00-0057		Precast Concrete Meter Pit (33 05 63 00-0056)		
33 05 63 00-0058	EA	4' x 4' x 4' Deep Precast Concrete Meter Pit.....	3,481.47	
33 05 63 00-0059	EA	4' x 4' x 6' Deep Precast Concrete Meter Pit.....	4,712.96	
33 05 63 00-0060	EA	4' x 4' x 8' Deep Precast Concrete Meter Pit.....	5,906.00	
33 05 63 00-0061	EA	4' x 4' x 10' Deep Precast Concrete Meter Pit.....	7,310.94	
33 05 63 00-0062	EA	4' x 4' x 15' Deep Precast Concrete Meter Pit.....	10,082.31	
33 05 63 00-0063	EA	6' x 6' x 4' Deep Precast Concrete Meter Pit.....	5,272.01	
33 05 63 00-0064	EA	6' x 6' x 6' Deep Precast Concrete Meter Pit.....	7,310.94	
33 05 63 00-0065	EA	6' x 6' x 8' Deep Precast Concrete Meter Pit.....	9,408.81	
33 05 63 00-0066	EA	6' x 6' x 10' Deep Precast Concrete Meter Pit.....	11,738.26	
33 05 63 00-0067	EA	6' x 6' x 15' Deep Precast Concrete Meter Pit.....	16,647.05	
33 05 63 00-0068		Handhole Or Pull Box Enclosures (33 05 63 00-0001)		
33 05 63 00-0069		Polymer Concrete Handhole Enclosures (33 05 63 00-0068)		
33 05 63 00-0070		Polymer Concrete Handhole Enclosures (33 05 63 00-0069) Note: Excludes cover See CSI section 33 05 63 00-0290 for covers.		
33 05 63 00-0071		Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0070)		
33 05 63 00-0072		Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0071)		
33 05 63 00-0073	EA	12" x 12", 24" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	424.38	26.24
33 05 63 00-0074	EA	10" x 15", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	353.77	58.29
33 05 63 00-0075	EA	13" x 24", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	540.67	87.43
33 05 63 00-0076	EA	17" x 30", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	633.51	87.43
33 05 63 00-0077	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	602.84	87.43
33 05 63 00-0078	EA	13" x 24", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	736.73	87.43
33 05 63 00-0079	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	716.52	87.43
33 05 63 00-0080	EA	17" x 30", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	987.64	87.43
33 05 63 00-0081	EA	27" Round, 36" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,405.49	116.58
33 05 63 00-0082	EA	27" Round, 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,988.96	116.58
33 05 63 00-0083	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,256.66	160.29
33 05 63 00-0084	EA	24" x 36", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,439.38	160.29
33 05 63 00-0085	EA	24" x 36", 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	2,389.91	160.29
33 05 63 00-0086	EA	39" Round, 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,340.65	174.87
33 05 63 00-0087	EA	39" Round, 24" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,939.17	174.87
33 05 63 00-0088	EA	39" Round, 36" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	2,428.61	174.87
33 05 63 00-0089	EA	39" Round, 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	3,586.25	174.87
33 05 63 00-0090	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,925.61	265.79



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0091	EA	30" x 48", 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	2,826.42	265.79
33 05 63 00-0092		Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0071)		
33 05 63 00-0093	EA	12" x 12", 24" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	545.66	26.24
33 05 63 00-0094	EA	13" x 24", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	685.12	87.43
33 05 63 00-0095	EA	17" x 30", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	834.55	87.43
33 05 63 00-0096	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	767.67	87.43
33 05 63 00-0097	EA	13" x 24", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	882.10	87.43
33 05 63 00-0098	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	912.11	87.43
33 05 63 00-0099	EA	17" x 30", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	1,184.92	87.43
33 05 63 00-0100	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	1,563.82	160.29
33 05 63 00-0101	EA	24" x 36", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	1,746.54	160.29
33 05 63 00-0102	EA	24" x 36", 48" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	2,697.10	160.29
33 05 63 00-0103	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	2,284.55	265.79
33 05 63 00-0104	EA	30" x 48", 48" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure	3,192.20	265.79
33 05 63 00-0105		Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0070)		
33 05 63 00-0106		Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0107	EA	5" x 16", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	701.74	26.24
33 05 63 00-0108	EA	10" x 12", 15" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	591.96	26.24
33 05 63 00-0109	EA	13" x 24", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	459.66	87.43
33 05 63 00-0110	EA	17" x 30", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	524.44	87.43
33 05 63 00-0111	EA	6" x 8", 6" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	158.36	26.24
33 05 63 00-0112	EA	12" x 12", 12" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	250.16	26.24
33 05 63 00-0113	EA	8" x 18", 7" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	409.48	26.24
33 05 63 00-0114	EA	8" x 18", 8" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	428.76	26.24
33 05 63 00-0115	EA	11" x 18", 12" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	347.05	58.29
33 05 63 00-0116	EA	11" x 18", 18" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	376.62	58.29
33 05 63 00-0117	EA	8" x 8", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	246.21	26.24
33 05 63 00-0118	EA	8" x 8", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	282.34	26.24
33 05 63 00-0119	EA	11" x 18", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	373.55	58.29
33 05 63 00-0120	EA	11" x 18", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	423.27	58.29
33 05 63 00-0121	EA	11" x 20", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	391.09	58.29
33 05 63 00-0122	EA	13" x 24", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	462.68	87.43
33 05 63 00-0123	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	511.45	87.43
33 05 63 00-0124	EA	17" x 30", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	547.72	87.43
33 05 63 00-0125	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	602.34	87.43
33 05 63 00-0126	EA	17" x 30", 22" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	711.27	87.43
33 05 63 00-0127	EA	17" x 30", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	777.35	87.43
33 05 63 00-0128	EA	17" x 30", 28" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	849.66	87.43
33 05 63 00-0129	EA	17" x 30", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	895.12	87.43
33 05 63 00-0130	EA	24" x 24", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,062.75	116.58
33 05 63 00-0131	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,058.72	160.29
33 05 63 00-0132	EA	24" x 36", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,375.39	160.29
33 05 63 00-0133	EA	24" x 36", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,667.79	160.29

33 Utilities**33 05 Common Work Results for Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0134	EA	24" x 36", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,852.45	160.29
33 05 63 00-0135	EA	24" x 36", 42" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,036.13	160.29
33 05 63 00-0136	EA	36" x 36", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,277.04	265.79
33 05 63 00-0137	EA	30" x 48", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,629.70	265.79
33 05 63 00-0138	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,864.23	265.79
33 05 63 00-0139	EA	30" x 48", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,312.70	265.79
33 05 63 00-0140	EA	30" x 60", 21" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,308.09	265.79
33 05 63 00-0141	EA	30" x 60", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,475.50	265.79
33 05 63 00-0142	EA	30" x 60", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,797.45	265.79
33 05 63 00-0143	EA	36" x 60", 19" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,557.42	284.77
33 05 63 00-0144	EA	36" x 60", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,784.73	284.77
33 05 63 00-0145	EA	36" x 60", 31" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,074.93	284.77
33 05 63 00-0146	EA	36" x 60", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,191.05	284.77
33 05 63 00-0147	EA	48" x 48", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,231.41	284.77
33 05 63 00-0148	EA	48" x 48", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,673.59	284.77
33 05 63 00-0149	EA	36" x 72", 21" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,814.85	284.77
33 05 63 00-0150	EA	36" x 72", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,746.57	284.77
33 05 63 00-0151	EA	48" x 72", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	4,223.58	303.75
33 05 63 00-0152	EA	48" x 72", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	5,237.32	303.75
33 05 63 00-0153	EA	48" x 96", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	6,748.10	303.75
33 05 63 00-0154 Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)				
33 05 63 00-0155	EA	13" x 24", 12" Depth, 5,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	627.83	87.43
33 05 63 00-0156	EA	17" x 30", 12" Depth, 5,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	723.91	87.43
33 05 63 00-0157	EA	6" x 8", 6" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	273.53	26.24
33 05 63 00-0158	EA	12" x 12", 12" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	398.98	26.24
33 05 63 00-0159	EA	8" x 18", 7" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	537.66	26.24
33 05 63 00-0160	EA	8" x 18", 8" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	556.97	26.24
33 05 63 00-0161	EA	10" x 15", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	473.32	58.29
33 05 63 00-0162	EA	11" x 18", 12" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	493.90	58.29
33 05 63 00-0163	EA	11" x 18", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	521.42	58.29
33 05 63 00-0164	EA	8" x 8", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	371.79	26.24
33 05 63 00-0165	EA	8" x 8", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	440.85	26.24
33 05 63 00-0166	EA	11" x 18", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	520.75	58.29
33 05 63 00-0167	EA	11" x 18", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	570.47	58.29
33 05 63 00-0168	EA	11" x 20", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	539.86	58.29
33 05 63 00-0169	EA	13" x 24", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	626.90	87.43
33 05 63 00-0170	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	676.28	87.43
33 05 63 00-0171	EA	17" x 30", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	743.69	87.43
33 05 63 00-0172	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	797.96	87.43
33 05 63 00-0173	EA	17" x 30", 22" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	906.58	87.43
33 05 63 00-0174	EA	17" x 30", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	972.94	87.43



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0175	EA	17" x 30", 28" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,044.93	87.43
33 05 63 00-0176	EA	17" x 30", 30" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,090.71	87.43
33 05 63 00-0177	EA	24" x 24", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,332.94	116.58
33 05 63 00-0178	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,365.91	160.29
33 05 63 00-0179	EA	24" x 36", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,682.20	160.29
33 05 63 00-0180	EA	24" x 36", 30" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,974.29	160.29
33 05 63 00-0181	EA	24" x 36", 36" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,158.66	160.29
33 05 63 00-0182	EA	24" x 36", 42" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,342.94	160.29
33 05 63 00-0183	EA	30" x 48", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,985.25	265.79
33 05 63 00-0184	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,220.13	265.79
33 05 63 00-0185	EA	30" x 48", 36" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,668.25	265.79
33 05 63 00-0186		Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0187	EA	13" x 24", 12" Depth, 5,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	574.13	87.43
33 05 63 00-0188	EA	17" x 30", 12" Depth, 5,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	672.89	87.43
33 05 63 00-0189	EA	6" x 8", 6" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	200.11	26.24
33 05 63 00-0190	EA	12" x 12", 12" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	334.53	26.24
33 05 63 00-0191	EA	8" x 18", 7" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	484.02	26.24
33 05 63 00-0192	EA	8" x 18", 8" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	503.68	26.24
33 05 63 00-0193	EA	11" x 18", 12" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	438.00	58.29
33 05 63 00-0194	EA	11" x 18", 18" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	495.23	58.29
33 05 63 00-0195	EA	8" x 8", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	291.73	26.24
33 05 63 00-0196	EA	11" x 18", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	466.13	58.29
33 05 63 00-0197	EA	11" x 18", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	537.42	58.29
33 05 63 00-0198	EA	11" x 20", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	484.65	58.29
33 05 63 00-0199	EA	13" x 24", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	619.33	87.43
33 05 63 00-0200	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	716.81	87.43
33 05 63 00-0201	EA	17" x 30", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	749.23	87.43
33 05 63 00-0202	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	826.41	87.43
33 05 63 00-0203	EA	17" x 30", 22" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	897.41	87.43
33 05 63 00-0204	EA	17" x 30", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	964.45	87.43
33 05 63 00-0205	EA	17" x 30", 28" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,084.48	87.43
33 05 63 00-0206	EA	17" x 30", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,101.21	87.43
33 05 63 00-0207	EA	24" x 24", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,353.88	116.58
33 05 63 00-0208	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,393.05	160.29
33 05 63 00-0209	EA	24" x 36", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,742.36	160.29
33 05 63 00-0210	EA	24" x 36", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,087.83	160.29
33 05 63 00-0211	EA	24" x 36", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,317.28	160.29
33 05 63 00-0212	EA	24" x 36", 42" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,546.74	160.29
33 05 63 00-0213	EA	36" x 36", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,704.55	265.79
33 05 63 00-0214	EA	30" x 48", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,057.24	265.79
33 05 63 00-0215	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,310.06	265.79
33 05 63 00-0216	EA	30" x 48", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,758.22	265.79
33 05 63 00-0217	EA	30" x 60", 21" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	2,955.90	265.79
33 05 63 00-0218	EA	30" x 60", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	3,017.80	265.79

33 Utilities**33 05 Common Work Results for Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0219 EA 30" x 60", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,618.32	265.79
33 05 63 00-0220 EA 36" x 60", 19" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,343.27	284.77
33 05 63 00-0221 EA 36" x 60", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,460.72	284.77
33 05 63 00-0222 EA 36" x 60", 31" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,793.89	284.77
33 05 63 00-0223 EA 36" x 60", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	4,046.05	284.77
33 05 63 00-0224 EA 36" x 72", 21" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,708.99	284.77
33 05 63 00-0225 EA 36" x 72", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	4,610.62	284.77
33 05 63 00-0226 EA 48" x 48", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,989.77	284.77
33 05 63 00-0227 EA 48" x 48", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	4,394.41	284.77
33 05 63 00-0228 EA 48" x 72", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	5,336.60	303.75
33 05 63 00-0229 EA 48" x 72", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	6,350.74	303.75
33 05 63 00-0230 EA 48" x 96", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	8,601.30	303.75
33 05 63 00-0231 Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0232 EA 13" x 24", 12" Depth, 5,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	742.27	87.43
33 05 63 00-0233 EA 17" x 30", 12" Depth, 5,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	872.74	87.43
33 05 63 00-0234 EA 6" x 8", 6" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	314.35	26.24
33 05 63 00-0235 EA 12" x 12", 12" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	483.06	26.24
33 05 63 00-0236 EA 8" x 18", 7" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	611.94	26.24
33 05 63 00-0237 EA 8" x 18", 8" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	631.86	26.24
33 05 63 00-0238 EA 11" x 18", 12" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	585.20	58.29
33 05 63 00-0239 EA 11" x 18", 18" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	642.09	58.29
33 05 63 00-0240 EA 8" x 8", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	454.97	26.24
33 05 63 00-0241 EA 11" x 18", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	612.66	58.29
33 05 63 00-0242 EA 11" x 18", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	683.96	58.29
33 05 63 00-0243 EA 11" x 20", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	591.41	58.29
33 05 63 00-0244 EA 13" x 24", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	784.22	87.43
33 05 63 00-0245 EA 13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	881.70	87.43
33 05 63 00-0246 EA 17" x 30", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	944.82	87.43
33 05 63 00-0247 EA 17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,022.03	87.43
33 05 63 00-0248 EA 17" x 30", 22" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,093.01	87.43
33 05 63 00-0249 EA 17" x 30", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,160.07	87.43
33 05 63 00-0250 EA 17" x 30", 28" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,280.13	87.43
33 05 63 00-0251 EA 17" x 30", 30" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,296.80	87.43
33 05 63 00-0252 EA 24" x 24", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,623.72	116.58
33 05 63 00-0253 EA 24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,700.21	160.29
33 05 63 00-0254 EA 24" x 36", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,049.21	160.29
33 05 63 00-0255 EA 24" x 36", 30" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,394.29	160.29
33 05 63 00-0256 EA 24" x 36", 36" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,623.92	160.29
33 05 63 00-0257 EA 24" x 36", 42" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,853.55	160.29
33 05 63 00-0258 EA 30" x 48", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,413.11	265.79
33 05 63 00-0259 EA 30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,666.28	265.79



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0260	EA		30" x 48", 36" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	3,114.12	265.79
33 05 63 00-0261			Footed, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0262	EA		17" x 30", 12" Depth, 5,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	615.13	87.43
33 05 63 00-0263	EA		11" x 18", 12" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	415.73	58.29
33 05 63 00-0264	EA		11" x 18", 18" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	470.71	58.29
33 05 63 00-0265	EA		13" x 24", 12" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	543.78	87.43
33 05 63 00-0266	EA		11" x 18", 12" Depth, 22,500 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	433.74	58.29
33 05 63 00-0267	EA		11" x 18", 18" Depth, 22,500 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	486.39	58.29
33 05 63 00-0268			Polymer Concrete Handhole Enclosure Extensions (33 05 63 00-0069) Note: Excludes bases See CSI section 33 05 63 00-0070 for bases.		
33 05 63 00-0269	EA		13" x 24", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	441.43	87.43
33 05 63 00-0270	EA		17" x 30", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	498.72	87.43
33 05 63 00-0271	EA		24" x 24", 6" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	566.90	116.58
33 05 63 00-0272	EA		24" x 24", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	623.15	116.58
33 05 63 00-0273	EA		24" x 36", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	730.71	160.29
33 05 63 00-0274	EA		36" x 36", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	1,296.04	265.79
33 05 63 00-0275	EA		30" x 48", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	1,234.54	265.79
33 05 63 00-0276	EA		30" x 48", 11" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	1,247.96	265.79
33 05 63 00-0277	EA		36" x 60", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	1,707.78	284.77
33 05 63 00-0278	EA		48" x 72", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	2,759.60	303.75
33 05 63 00-0279	EA		48" x 96", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension.....	3,652.90	303.75
33 05 63 00-0280	EA		13" x 24", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	742.04	87.43
33 05 63 00-0281	EA		17" x 30", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	777.03	87.43
33 05 63 00-0282	EA		24" x 24", 6" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	823.32	116.58
33 05 63 00-0283	EA		24" x 24", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	880.18	116.58
33 05 63 00-0284	EA		24" x 36", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	1,011.95	160.29
33 05 63 00-0285	EA		30" x 48", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension.....	1,631.99	265.79
33 05 63 00-0286	EA		13" x 24", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	570.94	87.43
33 05 63 00-0287	EA		17" x 30", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	639.98	87.43
33 05 63 00-0288	EA		24" x 36", 4" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	829.76	160.29
33 05 63 00-0289	EA		36" x 60", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	1,641.94	284.77
33 05 63 00-0290			Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0069)		
33 05 63 00-0291			Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0290)		
33 05 63 00-0292	EA		5" x 16", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	163.95	11.67
33 05 63 00-0293	EA		10" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	166.15	11.67
33 05 63 00-0294	EA		12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	153.54	11.67
33 05 63 00-0295	EA		8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	166.58	11.67
33 05 63 00-0296	EA		11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	168.26	11.66
33 05 63 00-0297	EA		13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	193.94	11.66
33 05 63 00-0298	EA		17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	225.72	11.66
33 05 63 00-0299	EA		30" x 59", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,503.19	34.17
33 05 63 00-0300	EA		30" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,313.72	34.17
33 05 63 00-0301	EA		36" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,973.67	34.17
33 05 63 00-0302	EA		48" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,996.17	34.17
33 05 63 00-0303	EA		36" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	2,263.20	34.17
33 05 63 00-0304	EA		48" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	2,467.18	34.17
33 05 63 00-0305	EA		48" x 96", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	3,973.11	34.17
33 05 63 00-0306	EA		10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	139.52	11.66
33 05 63 00-0307	EA		11" x 18", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	202.58	11.66
33 05 63 00-0308	EA		11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	205.51	11.66
33 05 63 00-0309	EA		13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	260.17	11.66
33 05 63 00-0310	EA		13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover	194.76	11.66
33 05 63 00-0311	EA		17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	308.90	11.66
33 05 63 00-0312	EA		17" x 30", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover	241.20	11.66

33 Utilities**33 05 Common Work Results for Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 05 63 00-0313	EA	27" Round, 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	501.51	11.66
33 05 63 00-0314	EA	24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	435.58	17.49
33 05 63 00-0315	EA	24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	548.24	17.49
33 05 63 00-0316	EA	39" Round, 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	707.77	20.40
33 05 63 00-0317	EA	36" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	995.18	26.58
33 05 63 00-0318	EA	30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,032.91	50.63
33 05 63 00-0319	EA	11" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	263.44	11.66
33 05 63 00-0320	EA	13" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	378.26	11.66
33 05 63 00-0321	EA	17" x 30", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	431.26	11.66
33 05 63 00-0322	EA	27" Round, 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	721.20	11.66
33 05 63 00-0323	EA	24" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	590.46	17.49
33 05 63 00-0324	EA	39" Round, 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,002.78	20.40
33 05 63 00-0325	EA	36" x 36", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,314.75	26.58
33 05 63 00-0326	EA	30" x 59", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,774.83	34.17
33 05 63 00-0327	EA	30" x 60", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,576.31	34.17
33 05 63 00-0328	EA	36" x 60", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,207.59	34.17
33 05 63 00-0329	EA	48" x 48", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,878.97	34.17
33 05 63 00-0330	EA	36" x 72", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,756.50	34.17
33 05 63 00-0331	EA	48" x 72", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	4,191.76	34.17
33 05 63 00-0332	EA	48" x 96", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	6,482.56	34.17
33 05 63 00-0333	EA	11" x 18", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	348.51	11.66
33 05 63 00-0334	EA	11" x 20", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	381.68	11.66
33 05 63 00-0335	EA	13" x 24", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	504.53	11.66
33 05 63 00-0336	EA	17" x 30", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	575.82	11.66
33 05 63 00-0337	EA	27" Round, 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	999.80	11.66
33 05 63 00-0338	EA	24" x 24", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	721.74	17.49
33 05 63 00-0339	EA	24" x 36", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	990.17	17.49
33 05 63 00-0340	EA	39" Round, 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,538.79	20.40
33 05 63 00-0341	EA	36" x 36", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,759.60	26.58
33 05 63 00-0342	EA	30" x 48", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,829.40	50.63
33 05 63 00-0343	EA	30" x 60", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,116.61	34.17
33 05 63 00-0344	EA	36" x 60", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,960.65	34.17
33 05 63 00-0345	EA	48" x 48", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	4,147.83	34.17
33 05 63 00-0346	EA	36" x 72", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	3,699.79	34.17
33 05 63 00-0347	EA	48" x 72", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	6,140.81	34.17
33 05 63 00-0348	EA	48" x 96", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	9,486.26	34.17

33 05 63 00-0349 Polymer Concrete Handhole Enclosure Covers With Gaskets (33 05 63 00-0290)

33 05 63 00-0350	EA	12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	189.20	11.67
33 05 63 00-0351	EA	8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	200.30	11.67
33 05 63 00-0352	EA	11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	203.92	11.66
33 05 63 00-0353	EA	13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	205.28	11.66
33 05 63 00-0354	EA	17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	237.84	11.66
33 05 63 00-0355	EA	10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	149.76	11.66
33 05 63 00-0356	EA	11" x 18", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	213.08	11.66
33 05 63 00-0357	EA	11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	215.11	11.66
33 05 63 00-0358	EA	13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	270.98	11.66
33 05 63 00-0359	EA	13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover With Gasket	206.53	11.66
33 05 63 00-0360	EA	17" x 30", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover With Gasket	253.64	11.66
33 05 63 00-0361	EA	17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	320.36	11.66
33 05 63 00-0362	EA	24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	443.26	17.49
33 05 63 00-0363	EA	24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	560.05	17.49
33 05 63 00-0364	EA	30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	1,045.03	50.63
33 05 63 00-0365	EA	6" x 8", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	123.73	11.67
33 05 63 00-0366	EA	8" x 8", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	196.82	11.67
33 05 63 00-0367	EA	8" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	219.61	11.67
33 05 63 00-0368	EA	12" x 12", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	209.49	11.67
33 05 63 00-0369	EA	10" x 15", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	171.53	11.66
33 05 63 00-0370	EA	11" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	273.91	11.66
33 05 63 00-0371	EA	11" x 20", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	297.57	11.66
33 05 63 00-0372	EA	13" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	389.39	11.66
33 05 63 00-0373	EA	17" x 30", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	443.35	11.66
33 05 63 00-0374	EA	24" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	601.27	17.49
33 05 63 00-0375	EA	24" x 36", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	753.00	17.49
33 05 63 00-0376	EA	30" x 48", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket	1,380.29	50.63

33 05 63 00-0377 Polymer Concrete Handhole Enclosure Covers Without Bolts (33 05 63 00-0290)

33 05 63 00-0378	EA	6" x 9", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	98.59	11.67
33 05 63 00-0379	EA	7" x 13", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	118.25	11.67
33 05 63 00-0380	EA	12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	144.72	11.67
33 05 63 00-0381	EA	8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	156.49	11.67
33 05 63 00-0382	EA	11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	156.16	11.66
33 05 63 00-0383	EA	13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	186.32	11.66
33 05 63 00-0384	EA	17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	215.95	11.66
33 05 63 00-0385	EA	24" x 36", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	528.94	17.49
33 05 63 00-0386	EA	30" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	988.78	50.63
33 05 63 00-0387	EA	30" x 59", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,486.63	34.17



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0388 EA 30" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,295.01	34.17
33 05 63 00-0389 EA 48" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,942.91	34.17
33 05 63 00-0390 EA 36" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,874.40	34.17
33 05 63 00-0391 EA 36" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	2,245.34	34.17
33 05 63 00-0392 EA 48" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	2,401.19	34.17
33 05 63 00-0393 EA 48" x 96", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	3,846.29	34.17
33 05 63 00-0394 EA 10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	133.93	11.66
33 05 63 00-0395 EA 10" x 16", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	130.65	11.66
33 05 63 00-0396 EA 11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	195.51	11.66
33 05 63 00-0397 EA 11" x 21", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	215.37	11.66
33 05 63 00-0398 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	244.48	11.66
33 05 63 00-0399 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover Without Bolts	184.61	11.66
33 05 63 00-0400 EA 18" x 19", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	206.53	11.66
33 05 63 00-0401 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	295.16	11.66
33 05 63 00-0402 EA 24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	426.67	17.49
33 05 63 00-0403 EA 20" x 42", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	535.05	17.49
33 05 63 00-0404 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	528.62	17.49
33 05 63 00-0405 EA 36" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	954.94	26.58
33 05 63 00-0406 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	988.78	30.37
33 05 63 00-0407 Overlapping, Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0290)		
33 05 63 00-0408 EA 30" x 60", 5,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	1,548.36	34.17
33 05 63 00-0409 EA 36" x 60", 5,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	2,247.63	34.17
33 05 63 00-0410 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	1,298.49	50.63
33 05 63 00-0411 EA 30" x 48", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	1,725.37	50.63
33 05 63 00-0412 EA 30" x 60", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	1,841.98	34.17
33 05 63 00-0413 EA 36" x 60", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	2,514.99	34.17
33 05 63 00-0414 Split, Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0290)		
33 05 63 00-0415 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	601.48	17.49
33 05 63 00-0416 EA 36" x 36", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	1,121.13	26.58
33 05 63 00-0417 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	1,171.30	50.63
33 05 63 00-0418 EA 6" x 8", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	93.11	11.67
33 05 63 00-0419 EA 8" x 8", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	157.54	11.67
33 05 63 00-0420 EA 12" x 12", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	173.83	11.67
33 05 63 00-0421 EA 8" x 18", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	184.62	11.67
33 05 63 00-0422 EA 10" x 15", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	161.38	11.66
33 05 63 00-0423 EA 11" x 20", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	287.97	11.66
33 05 63 00-0424 EA 24" x 36", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	808.44	17.49
33 05 63 00-0425 EA 36" x 36", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	1,494.37	26.58
33 05 63 00-0426 EA 30" x 48", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	1,565.12	50.63
33 05 63 00-0427 Precast Concrete Handholes With Steel Cover (33 05 63 00-0068)		
Note: 8000 To 12000 pound traffic rated top. Includes cover stamped with utility (Electrical, Sewer, Water, Etc.).		
33 05 63 00-0428 EA 12" x 12" x 12" Precast Concrete Handholes With Steel Cover	981.27	248.30
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0429 EA 12" x 24" x 21" Precast Concrete Handholes With Steel Cover	1,669.26	372.45
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0430 EA 18" x 30" x 18" Precast Concrete Handholes With Steel Cover	2,003.75	496.61
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0431 EA 24" x 24" x 24" Precast Concrete Handholes With Steel Cover	2,089.99	496.61
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0432 EA 24" x 24" x 30" Precast Concrete Handholes With Steel Cover	2,440.94	620.76
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0433 EA 30" x 36" x 30" Precast Concrete Handholes With Steel Cover	2,584.01	620.76
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0434 EA 36" x 36" x 48" Precast Concrete Handholes With Steel Cover	2,972.96	744.91
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0435 EA 48" x 48" x 48" Precast Concrete Handholes With Steel Cover	3,407.65	869.06
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0436 EA 48" x 72" x 36" Precast Concrete Handholes With Steel Cover	3,398.19	744.91
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0437 EA 54" x 38" x 24" Precast Concrete Handholes With Steel Cover	3,434.76	744.91
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
33 05 63 00-0438 EA 6" Diameter Precast Concrete Handholes With Steel Cover	747.09	248.30
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add		
15.00		

33 Utilities**33 05 Common Work Results for Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0439 EA 9" Diameter Precast Concrete Handholes With Steel Cover Note: 8000 To 12000 pound traffic rated top. For 15,000 to 22,500 Pound Traffic Rated Top, Add	886.19 15.00	279.34
33 05 63 00-0440 EA 12" Diameter Precast Concrete Handholes With Steel Cover..... Note: 8000 To 12000 pound traffic rated top. For 15,000 to 22,500 Pound Traffic Rated Top, Add	1,102.31 15.00	310.38

33 05 81 Metallic Castings for Utility Structures (33 05)**33 05 81 00-0001 Manhole Accessories (33 05 81)****33 05 81 00-0002 Steps For Cast-In-Place Manholes (33 05 81 00-0001)**

See CSI section 33 01 30 81-0041 for installation of steps in existing manholes.

33 05 81 00-0003 EA Cast Iron Manhole Step For New Manholes	101.73	
33 05 81 00-0004 EA Galvanized Steel Manhole Step For New Manholes.....	67.19	
33 05 81 00-0005 EA Aluminum Manhole Step For New Manholes.....	94.74	

33 05 81 00-0006 Manhole Covers And Frames (33 05 81)

Note: Includes moisture-tight masonry joints and waterproof grouting.

33 05 81 00-0007 Regular Manhole Covers And Frames (33 05 81 00-0006)

33 05 81 00-0008 EA 18" Square, Gray Iron, Manhole Cover With Frame	2,402.71	99.17
For Ductile Iron Castings, Add	1,472.02	
33 05 81 00-0009 EA 18" Diameter, Gray Iron, Manhole Cover With Frame	1,320.56	99.17
For Ductile Iron Castings, Add	714.51	
33 05 81 00-0010 EA 24" Diameter, Gray Iron, Manhole Cover With Frame	1,526.15	115.32
For Ductile Iron Castings, Add	826.13	
33 05 81 00-0011 EA 24" Square, Gray Iron, Manhole Cover With Frame	2,434.97	128.01
For Ductile Iron Castings, Add	1,435.40	
33 05 81 00-0012 EA 26" Diameter, Gray Iron, Manhole Cover With Frame	2,043.56	138.39
For Ductile Iron Castings, Add	1,138.73	
33 05 81 00-0013 EA 30" Diameter, Gray Iron, Manhole Cover With Frame	2,132.53	144.15
For Ductile Iron Castings, Add	1,190.06	

33 05 81 00-0014 Watertight Type Manhole Covers And Frames (33 05 81 00-0006)

33 05 81 00-0015 EA 20" Diameter, Gray Iron, Watertight Manhole Cover With Frame.....	2,648.02	81.88
For Ductile Iron Castings, Add	1,625.48	
33 05 81 00-0016 EA 22" Diameter, Gray Iron, Watertight Manhole Cover With Frame	2,682.47	81.88
For Ductile Iron Castings, Add	1,630.80	
33 05 81 00-0017 EA 24" Diameter, Gray Iron, Watertight Manhole Cover With Frame	2,729.49	95.71
For Ductile Iron Castings, Add	1,641.56	
33 05 81 00-0018 EA 26" Diameter, Gray Iron, Watertight Manhole Cover With Frame	3,260.60	107.25
For Ductile Iron Castings, Add	1,990.65	
33 05 81 00-0019 EA 30" Diameter, Gray Iron, Watertight Manhole Cover With Frame	3,789.59	109.55
For Ductile Iron Castings, Add	2,350.01	
33 05 81 00-0020 EA 32" Diameter, Gray Iron, Watertight Manhole Cover With Frame	3,992.83	111.86
For Ductile Iron Castings, Add	2,488.32	
33 05 81 00-0021 EA 36" Diameter, Gray Iron, Watertight Manhole Cover With Frame	4,174.77	115.32
For Ductile Iron Castings, Add	2,611.55	

33 05 81 00-0022 Aluminum Manhole Covers And Frames (33 05 81 00-0006)

33 05 81 00-0023 EA 12" Square Aluminum Manhole Cover With Frame	1,182.74	30.34
33 05 81 00-0024 EA 18" Square Aluminum Manhole Cover With Frame	2,176.27	33.59
33 05 81 00-0025 EA 24" Square Aluminum Manhole Cover With Frame	3,127.50	39.01

33 05 81 00-0026 Removal And Reinstallation Of Manhole Cover And Frame (33 05 81 00-0006)

Note: Includes surrounding asphalt removal and repair. Excludes saw cutting.

33 05 81 00-0027 EA Removal And Reinstallation Of Manhole Cover And Frame	462.37	

33 05 83 Non-Metallic Accessories for Utility Structures (33 05)**33 05 83 00-0001 Manhole Accessories (33 05 83)****33 05 83 00-0002 Steps For Cast-In-Place Manholes (33 05 83 00-0001)**

See CSI section 33 01 30 81-0041 for installation of steps in existing manholes.

33 05 83 00-0003 EA Polypropylene Manhole Step For New Manholes	51.04	

33 05 83 00-0004 Rainguard Inflow Protectors (33 05 83)

33 05 83 00-0005 EA 18" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	147.16	24.81
33 05 83 00-0006 EA 22" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	170.67	24.81
33 05 83 00-0007 EA 24" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	204.05	29.76
33 05 83 00-0008 EA 26" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	218.90	29.76
33 05 83 00-0009 EA 30" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	271.85	34.73
33 05 83 00-0010 EA 32" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	290.09	34.73



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 05 84 Accessories for Utility Structures (33 05)

See CSI section 22 13 19 26-0044 for oil interceptors, 22 13 23 00-0000 for sediment interceptors, 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.

33 05 84 00-0001	Manhole Accessories (33 05 84)		
33 05 84 00-0002	Precast Concrete Manhole Tops (33 05 84 00-0001)		
33 05 84 00-0003	Precast Concrete Manhole Slab Tops (33 05 84 00-0002)		
33 05 84 00-0004	EA 3' Diameter x 8" Thick Precast Manhole Top Slab.....	624.51	86.49
33 05 84 00-0005	EA 4' Diameter x 8" Thick Precast Manhole Top Slab.....	869.78	93.40
33 05 84 00-0006	EA 5' Diameter x 8" Thick Precast Manhole Top Slab.....	1,173.32	100.33
33 05 84 00-0007	EA 6' Diameter x 8" Thick Precast Manhole Top Slab.....	1,403.26	107.25
33 05 84 00-0008	EA 7' Diameter x 8" Thick Precast Manhole Top Slab.....	2,130.28	115.32
33 05 84 00-0009	EA 8' Diameter x 10" Thick Precast Manhole Top Slab.....	2,840.07	123.96
33 05 84 00-0010	EA 10' Diameter x 12" Thick Precast Manhole Top Slab.....	5,015.73	132.62
33 05 84 00-0011	EA 12' Diameter x 12" Thick Precast Manhole Top Slab.....	7,119.54	142.71
33 05 84 00-0012	Precast Concrete Manhole Cone Tops (33 05 84 00-0002)		
33 05 84 00-0013	EA 3' Diameter x 8" Thick Precast Manhole Top Cone.....	989.55	108.11
33 05 84 00-0014	EA 3'-6" Diameter x 8" Thick Precast Manhole Top Cone.....	1,099.68	112.44
33 05 84 00-0015	EA 4' Diameter x 8" Thick Precast Manhole Top Cone.....	1,209.85	116.76
33 05 84 00-0016	EA 5' Diameter x 8" Thick Precast Manhole Top Cone.....	1,424.37	123.96
33 05 84 00-0017	EA 6' Diameter x 8" Thick Precast Manhole Top Cone.....	1,644.67	132.62
33 05 84 00-0018	EA 7' Diameter x 8" Thick Precast Manhole Top Cone.....	2,597.09	141.27
33 05 84 00-0019	EA 8' Diameter x 10" Thick Precast Manhole Top Cone.....	3,258.84	155.68
33 05 84 00-0020	Precast Concrete Manhole Reducer Slabs (33 05 84 00-0002)		
33 05 84 00-0021	EA 5' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	1,326.94	100.33
33 05 84 00-0022	EA 6' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	1,709.10	107.25
33 05 84 00-0023	EA 7' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	2,256.94	107.25
33 05 84 00-0024	EA 8' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	3,573.26	107.25
33 05 84 00-0025	EA 10' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	4,597.32	107.25
33 05 84 00-0026	EA 12' Diameter To 4' Diameter, Precast Concrete Manhole Reducer Slab.....	6,659.48	107.25
33 05 84 00-0027	Pipe To Manhole Connector (33 05 84 00-0001)		
33 05 84 00-0028	Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connectors (33 05 84 00-0027)		
33 05 84 00-0029	EA 4" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	113.26	
33 05 84 00-0030	EA 6" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	179.42	
33 05 84 00-0031	EA 8" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	201.65	
33 05 84 00-0032	EA 10" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	324.75	
33 05 84 00-0033	EA 12" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	461.94	
33 05 84 00-0034	EA 15" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	603.88	
33 05 84 00-0035	EA 18" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	1,134.02	
33 05 84 00-0036	EA 21" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	1,586.01	
33 05 84 00-0037	EA 24" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	2,556.78	
33 05 84 00-0038	EA 27" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	2,993.75	
33 05 84 00-0039	Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout (33 05 84 00-0027)		
	Note: Fernco CMA.		
33 05 84 00-0040	EA 4" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout.....	118.31	
33 05 84 00-0041	EA 6" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout.....	164.26	
33 05 84 00-0042	EA 8" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout.....	207.53	
33 05 84 00-0043	EA 10" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout.....	250.61	
33 05 84 00-0044	EA 12" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout.....	290.73	
33 05 84 00-0045	Brick And Grout Pipe To Manhole Connector (33 05 84 00-0027)		
33 05 84 00-0046	EA Seal Gap Between Pipe And Structure With Brick And Grout.....	251.29	
33 05 84 00-0047	Inverts For Manholes (33 05 84 00-0001)		
33 05 84 00-0048	EA Single Channel Concrete Invert For Manholes.....	387.73	
33 05 84 00-0049	EA Double Channel Concrete Invert For Manholes.....	562.00	
33 05 84 00-0050	EA Triple Channel Concrete Invert For Manholes.....	755.93	
33 05 84 00-0051	EA Quad Channel Concrete Invert For Manholes.....	949.81	
33 05 84 00-0052	EA Single Channel Brick Invert For Manholes.....	598.05	
33 05 84 00-0053	EA Double Channel Brick Invert For Manholes.....	895.20	
33 05 84 00-0054	EA Triple Channel Brick Invert For Manholes.....	1,197.42	
33 05 84 00-0055	EA Quad Channel Brick Invert For Manholes.....	1,496.37	
33 05 84 00-0056	Protective Coating For New Manholes (33 05 84 00-0001)		

33 Utilities**33 05 Common Work Results for Utilities****33 05 84 Accessories for Utility Structures**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 05 84 00-0057 Polyurethane Protective Coating For New Manholes (33 05 84 00-0056)		
33 05 84 00-0058	VLF 60 Mil Polyurethane Coating Of 3' Diameter Manhole Interior	211.24
	For 80 Mil Material, Add	31.71
	For 100 Mil Material, Add	63.42
	For 125 Mil Material, Add	100.25
	For 150 Mil Material, Add	137.08
	For 200 Mil Material, Add	203.24
	For 2 To 5 Manholes, Deduct	-14.31
	For 6 To 10 Manholes, Deduct	-23.33
	For >10 Manholes, Deduct	-46.67
33 05 84 00-0059	VLF 60 Mil Polyurethane Coating Of 3-1/2' Diameter Manhole Interior	254.83
	For 80 Mil Material, Add	37.64
	For 100 Mil Material, Add	75.28
	For 125 Mil Material, Add	118.90
	For 150 Mil Material, Add	162.51
	For 200 Mil Material, Add	240.59
	For 2 To 5 Manholes, Deduct	-17.32
	For 6 To 10 Manholes, Deduct	-28.27
	For >10 Manholes, Deduct	-56.54
33 05 84 00-0060	VLF 60 Mil Polyurethane Coating Of 4' Diameter Manhole Interior	281.65
	For 80 Mil Material, Add	42.28
	For 100 Mil Material, Add	84.56
	For 125 Mil Material, Add	133.66
	For 150 Mil Material, Add	182.76
	For 200 Mil Material, Add	270.98
	For 2 To 5 Manholes, Deduct	-19.08
	For 6 To 10 Manholes, Deduct	-31.11
	For >10 Manholes, Deduct	-62.22
33 05 84 00-0061	VLF 60 Mil Polyurethane Coating Of 5' Diameter Manhole Interior	352.13
	For 80 Mil Material, Add	52.87
	For 100 Mil Material, Add	105.74
	For 125 Mil Material, Add	167.15
	For 150 Mil Material, Add	228.56
	For 200 Mil Material, Add	338.88
	For 2 To 5 Manholes, Deduct	-23.85
	For 6 To 10 Manholes, Deduct	-38.89
	For >10 Manholes, Deduct	-77.79
33 05 84 00-0062	VLF 60 Mil Polyurethane Coating Of 6' Diameter Manhole Interior	409.22
	For 80 Mil Material, Add	62.44
	For 100 Mil Material, Add	124.88
	For 125 Mil Material, Add	197.56
	For 150 Mil Material, Add	270.25
	For 200 Mil Material, Add	401.29
	For 2 To 5 Manholes, Deduct	-27.62
	For 6 To 10 Manholes, Deduct	-45.01
	For >10 Manholes, Deduct	-90.02
33 05 84 00-0063 Polyvinyl Chloride (PVC) Liner (33 05 84 00-0056)		
Note: For new manholes and shop applied.		
33 05 84 00-0064	VLF 3' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	288.76
33 05 84 00-0065	VLF 3-1/2' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	353.97
33 05 84 00-0066	VLF 4' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	431.97
33 05 84 00-0067	VLF 5' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	542.48
33 05 84 00-0068	VLF 6' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	652.98
33 05 84 00-0069	SF Polyvinyl Chloride (PVC) Liner At Structures	74.62
33 05 84 00-0070 Concrete Grade Extensions/Grade Rings (33 05 84 00-0001)		
33 05 84 00-0071 18" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0070)		
33 05 84 00-0072	EA 4" Rise, 18" Diameter, Concrete Grade Extensions/Grade Rings	100.44
33 05 84 00-0073	EA 6" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring	110.15
33 05 84 00-0074	EA 8" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring	119.87
33 05 84 00-0075	EA 10" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring	129.58
33 05 84 00-0076 24" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0070)		
33 05 84 00-0077	EA 4" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring	112.84
33 05 84 00-0078	EA 6" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring	123.87
33 05 84 00-0079	EA 8" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring	134.91
33 05 84 00-0080	EA 10" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring	145.94
33 05 84 00-0081 30" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0070)		
33 05 84 00-0082	EA 4" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring	124.95
33 05 84 00-0083	EA 6" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring	137.26
33 05 84 00-0084	EA 8" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring	149.56
33 05 84 00-0085	EA 10" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring	161.87
33 05 84 00-0086 Bentonite Collar (33 05 84 00-0001)		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 84 00-0087 Bentonite Collar At Manhole Connections (33 05 84 00-0086)		
33 05 84 00-0088 EA Up To 12" Pipe, Bentonite Collar At Manhole Connection	145.04	
33 05 84 00-0089 EA >12" To 21", Bentonite Collar At Manhole Connection	229.65	
33 05 84 00-0090 EA >21" To 30" Pipe, Bentonite Collar At Manhole Connection	362.67	
33 05 84 00-0091 EA >30" To 36" Pipe, Bentonite Collar At Manhole Connection	846.31	
33 05 84 00-0092 EA >36" To 48" Pipe, Bentonite Collar At Manhole Connection	1,329.46	
33 05 84 00-0093 EA >48" To 60" Pipe, Bentonite Collar At Manhole Connection	2,417.06	
33 05 84 00-0094 Waste Water Collection System Taps (33 05 84)		
Note: For tapping existing structures only. Includes grout.		
33 05 84 00-0095 Brick Manhole Taps (33 05 84 00-0094)		
33 05 84 00-0096 EA 4" Tap In 6" Brick Manhole	583.16	
33 05 84 00-0097 EA 6" Tap In 6" Brick Manhole	651.97	
33 05 84 00-0098 EA 8" Tap In 6" Brick Manhole	719.55	
33 05 84 00-0099 EA 10" Tap In 6" Brick Manhole	786.98	
33 05 84 00-0100 EA 12" Tap In 6" Brick Manhole	867.51	
33 05 84 00-0101 EA 15" Tap In 6" Brick Manhole	934.81	
33 05 84 00-0102 Precast Concrete Manhole Tap (33 05 84 00-0094)		
33 05 84 00-0103 EA 4" Tap In Existing Precast Concrete Manhole	858.91	
33 05 84 00-0104 EA 6" Tap In Existing Precast Concrete Manhole	962.12	
33 05 84 00-0105 EA 8" Tap In Existing Precast Concrete Manhole	1,075.97	
33 05 84 00-0106 EA 10" Tap In Existing Precast Concrete Manhole	1,177.13	
33 05 84 00-0107 EA 12" Tap In Existing Precast Concrete Manhole	1,278.09	
33 05 84 00-0108 EA 15" Tap In Existing Precast Concrete Manhole	1,381.50	
33 05 84 00-0109 EA 18" Tap In Existing Precast Concrete Manhole	1,590.49	
33 05 84 00-0110 EA 24" Tap In Existing Precast Concrete Manhole	2,044.78	
33 05 97 Identification and Signage for Utilities (33 05)		
33 05 97 16 Markers for Utility Identification (33 05 97)		
33 05 97 16-0001 Reflective Sheeting Delineators (33 05 97 16)		
33 05 97 16-0002 EA Delineator, Single Unit One Way On Post, 3" Diameter or 3" x 3" Square	52.82	
33 05 97 16-0003 EA Delineator, Single Unit Back To Back On Post, 3" Diameter or 3" x 3" Square	56.56	
33 05 97 16-0004 EA Delineator, Single Unit Two Way On Post, 3" Diameter or 3" x 3" Square	64.02	
33 05 97 16-0005 EA Delineator, Single Unit Three Way On Post, 3" Diameter or 3" x 3" Square	67.76	
33 05 97 16-0006 EA Delineator, Single Unit Four Way On Post, 3" Diameter or 3" x 3" Square	71.49	
33 05 97 16-0007 EA Delineator, Double Unit On Post, 3" Diameter or 3" x 3" Square	61.22	
33 05 97 16-0008 EA Delineator, Single Unit Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	53.76	
33 05 97 16-0009 EA Delineator, Double Unit Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	57.49	
33 05 97 16-0010 EA Delineator, Single Unit, Back To Back, Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	57.49	
33 05 97 16-0011 EA Delineator, Single Unit, Two Way, Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	61.22	
33 05 97 16-0012 EA Delineator, Single Unit, Three Way, Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	64.96	
33 05 97 16-0013 EA Delineator, Single Unit, Four Way, Band Or Bracket Mounted, 3" Diameter or 3" x 3" Square	68.69	
33 05 97 16-0014 EA Delineator, White, Single Unit, One Way On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	102.29	
33 05 97 16-0015 EA Delineator, Single Unit Three Way On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	67.76	
33 05 97 16-0016 EA Delineator, White, Double Unit On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	106.96	
33 05 97 16-0017 EA Delineator, Yellow, Single Unit, One Way On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	102.29	
33 05 97 16-0018 EA Delineator, Yellow, Single Unit, Back To Back On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	106.03	
33 05 97 16-0019 EA Delineator, Yellow, Double Unit, On 48" Ground Mounted (Driven) Flexible Post Or 30" Surface Mounted, 3" Diameter or 3" x 3" Square	106.96	
33 05 97 16-0020 EA Relocate Delineator	66.61	
33 05 97 16-0021 Reference Markers (33 05 97 16)		
33 05 97 16-0022 EA Reference Marker, 4' Mounting Height	112.42	
33 05 97 16-0023 EA Reference Marker, 7' Mounting Height	141.73	
33 05 97 16-0024 EA Reference Marker, Band Or Bracket Mounted	133.18	
33 05 97 16-0025 EA Reference Marker, Furnish Panel Only	125.79	
33 05 97 16-0026 EA Relocate Reference Marker	66.61	
33 05 97 16-0027 Object Markers (33 05 97 16)		
33 05 97 16-0028 EA Object Marker, Type L-1	98.30	
33 05 97 16-0029 EA Object Marker, Type L-2	90.78	
33 05 97 16-0030 EA Object Marker, Type K-1	104.32	
33 05 97 16-0031 EA Object Marker, Type K-2	96.79	
33 05 97 16-0032 EA Object Marker, Type Q	66.70	

33 Utilities**33 05 Common Work Results for Utilities****33 05 97 Identification and Signage for Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 05 97 23 Utility Identification Warning Tape (33 05 97)**33 05 97 23-0001 Non-Detectable Utility Warning Tape** (33 05 97 23)

Note: Labor installation is included with pipe and excavation..

33 05 97 23-0002	CLF	3" Non-Detectable Utility Warning Tape	8.50
33 05 97 23-0003	CLF	6" Non-Detectable Utility Warning Tape	11.86

33 05 97 23-0004 Detectable Utility Warning Tape (33 05 97 23)

Note: Labor installation is included with pipe and excavation..

33 05 97 23-0005	CLF	2" Detectable Utility Warning Tape	8.59
33 05 97 23-0006	CLF	3" Detectable Utility Warning Tape	11.66
33 05 97 23-0007	CLF	6" Detectable Utility Warning Tape	18.52

33 10 Water Utilities (33)**33 11 Groundwater Sources** (33 10)**33 11 13 Potable Water Supply Wells** (33 11)**33 11 13 00-0001 Drill And Test Water Well** (33 11 13)**33 11 13 00-0002 Drill Hole** (33 11 13 00-0001)

Note: Excludes loading and hauling of spoils.

33 11 13 00-0003 Mobilization And Demobilization (33 11 13 00-0002)

33 11 13 00-0004	EA	Up To 12" Diameter, Well Drilling Mobilization And Demobilization	1,079.84
33 11 13 00-0005	EA	>12" To 24" Diameter, Well Drilling Mobilization And Demobilization	1,330.62
33 11 13 00-0006	EA	>24" To 36" Diameter, Well Drilling Mobilization And Demobilization	1,995.94

33 11 13 00-0007 Drill Hole In Normal Soil, Sand, Gravel, O.B. (33 11 13 00-0002)

Note: Excludes well casing, gravel or materials.

33 11 13 00-0008	LF	Up To 6" Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	25.78
		For >100 To 250, Add	0.64
		For >250 To 400, Add	1.29
		For >400 To 600, Add	1.93
		For >600 To 750, Add	2.58
		For >750, Add	3.22
33 11 13 00-0009	LF	8" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	30.61
		For >100 To 250, Add	0.77
		For >250 To 400, Add	1.53
		For >400 To 600, Add	2.30
		For >600 To 750, Add	3.06
		For >750, Add	3.83
33 11 13 00-0010	LF	10" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	40.92
		For >100 To 250, Add	1.02
		For >250 To 400, Add	2.05
		For >400 To 600, Add	3.07
		For >600 To 750, Add	4.09
		For >750, Add	5.12
33 11 13 00-0011	LF	12" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	64.03
		For >100 To 250, Add	1.60
		For >250 To 400, Add	3.20
		For >400 To 600, Add	4.80
		For >600 To 750, Add	6.40
		For >750, Add	8.00
33 11 13 00-0012	LF	14" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	92.15
		For >100 To 250, Add	2.30
		For >250 To 400, Add	4.61
		For >400 To 600, Add	6.91
		For >600 To 750, Add	9.22
		For >750, Add	11.52
33 11 13 00-0013	LF	16" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	120.42
		For >100 To 250, Add	3.01
		For >250 To 400, Add	6.02
		For >400 To 600, Add	9.03
		For >600 To 750, Add	12.04
		For >750, Add	15.05
33 11 13 00-0014	LF	18" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	143.04
		For >100 To 250, Add	3.58
		For >250 To 400, Add	7.15
		For >400 To 600, Add	10.73
		For >600 To 750, Add	14.30
		For >750, Add	17.88
33 11 13 00-0015	LF	20" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	166.33
		For >100 To 250, Add	4.16
		For >250 To 400, Add	8.32
		For >400 To 600, Add	12.47
		For >600 To 750, Add	16.63
		For >750, Add	20.79



	Utilities	33	
	Water Utilities	33 10	
	Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0016 LF 22" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	195.44	
For >100 To 250, Add	4.89	
For >250 To 400, Add	9.77	
For >400 To 600, Add	14.66	
For >600 To 750, Add	19.54	
For >750, Add	24.43	
33 11 13 00-0017 LF 24" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	230.36	
For >100 To 250, Add	5.76	
For >250 To 400, Add	11.52	
For >400 To 600, Add	17.28	
For >600 To 750, Add	23.04	
For >750, Add	28.80	
33 11 13 00-0018 LF 26" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	248.99	
For >100 To 250, Add	6.22	
For >250 To 400, Add	12.45	
For >400 To 600, Add	18.67	
For >600 To 750, Add	24.90	
For >750, Add	31.12	
33 11 13 00-0019 LF 28" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	273.95	
For >100 To 250, Add	6.85	
For >250 To 400, Add	13.70	
For >400 To 600, Add	20.55	
For >600 To 750, Add	27.40	
For >750, Add	34.24	
33 11 13 00-0020 LF 30" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	300.06	
For >100 To 250, Add	7.50	
For >250 To 400, Add	15.00	
For >400 To 600, Add	22.50	
For >600 To 750, Add	30.01	
For >750, Add	37.51	
33 11 13 00-0021 LF 36" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	373.24	
For >100 To 250, Add	9.33	
For >250 To 400, Add	18.66	
For >400 To 600, Add	27.99	
For >600 To 750, Add	37.32	
For >750, Add	46.66	
33 11 13 00-0022 Drill Hole In Sedimentary Rock (33 11 13 00-0002)		
33 11 13 00-0023 LF 6" Water Well Hole Drilled In Sedimentary Rock	52.56	
For >100 To 250, Add	1.31	
For >250 To 400, Add	2.63	
For >400 To 600, Add	3.94	
For >600 To 750, Add	5.26	
For >750, Add	6.57	
33 11 13 00-0024 LF 8" Water Well Hole Drilled In Sedimentary Rock	61.21	
For >100 To 250, Add	1.53	
For >250 To 400, Add	3.06	
For >400 To 600, Add	4.59	
For >600 To 750, Add	6.12	
For >750, Add	7.65	
33 11 13 00-0025 LF 10" Water Well Hole Drilled In Sedimentary Rock	98.00	
For >100 To 250, Add	2.45	
For >250 To 400, Add	4.90	
For >400 To 600, Add	7.35	
For >600 To 750, Add	9.80	
For >750, Add	12.25	
33 11 13 00-0026 LF 12" Water Well Hole Drilled In Sedimentary Rock	128.14	
For >100 To 250, Add	3.20	
For >250 To 400, Add	6.41	
For >400 To 600, Add	9.61	
For >600 To 750, Add	12.81	
For >750, Add	16.02	
33 11 13 00-0027 LF 14" Water Well Hole Drilled In Sedimentary Rock	184.42	
For >100 To 250, Add	4.61	
For >250 To 400, Add	9.22	
For >400 To 600, Add	13.83	
For >600 To 750, Add	18.44	
For >750, Add	23.05	
33 11 13 00-0028 LF 16" Water Well Hole Drilled In Sedimentary Rock	240.71	
For >100 To 250, Add	6.02	
For >250 To 400, Add	12.04	
For >400 To 600, Add	18.05	
For >600 To 750, Add	24.07	
For >750, Add	30.09	
33 11 13 00-0029 LF 18" Water Well Hole Drilled In Sedimentary Rock	286.22	
For >100 To 250, Add	7.16	
For >250 To 400, Add	14.31	
For >400 To 600, Add	21.47	
For >600 To 750, Add	28.62	
For >750, Add	35.78	

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0030	LF	20" Water Well Hole Drilled In Sedimentary Rock	332.12	
		For>100 To 250, Add	8.30	
		For>250 To 400, Add	16.61	
		For>400 To 600, Add	24.91	
		For>600 To 750, Add	33.21	
		For>750, Add	41.52	
33 11 13 00-0031	LF	22" Water Well Hole Drilled In Sedimentary Rock	391.20	
		For>100 To 250, Add	9.78	
		For>250 To 400, Add	19.56	
		For>400 To 600, Add	29.34	
		For>600 To 750, Add	39.12	
		For>750, Add	48.90	
33 11 13 00-0032	LF	24" Water Well Hole Drilled In Sedimentary Rock	451.88	
		For>100 To 250, Add	11.30	
		For>250 To 400, Add	22.59	
		For>400 To 600, Add	33.89	
		For>600 To 750, Add	45.19	
		For>750, Add	56.49	
33 11 13 00-0033	LF	26" Water Well Hole Drilled In Sedimentary Rock	497.99	
		For>100 To 250, Add	12.45	
		For>250 To 400, Add	24.90	
		For>400 To 600, Add	37.35	
		For>600 To 750, Add	49.80	
		For>750, Add	62.25	
33 11 13 00-0034	LF	28" Water Well Hole Drilled In Sedimentary Rock	547.88	
		For>100 To 250, Add	13.70	
		For>250 To 400, Add	27.39	
		For>400 To 600, Add	41.09	
		For>600 To 750, Add	54.79	
		For>750, Add	68.49	
33 11 13 00-0035	LF	30" Water Well Hole Drilled In Sedimentary Rock	600.12	
		For>100 To 250, Add	15.00	
		For>250 To 400, Add	30.01	
		For>400 To 600, Add	45.01	
		For>600 To 750, Add	60.01	
		For>750, Add	75.02	
33 11 13 00-0036	LF	36" Water Well Hole Drilled In Sedimentary Rock	746.48	
		For>100 To 250, Add	18.66	
		For>250 To 400, Add	37.32	
		For>400 To 600, Add	55.99	
		For>600 To 750, Add	74.65	
		For>750, Add	93.31	
33 11 13 00-0037		Drill Hole In Crystalline Rock (33 11 13 00-0002)		
33 11 13 00-0038	LF	6" Water Well Hole Drilled In Crystalline Rock	108.11	
		For>100 To 250, Add	2.70	
		For>250 To 400, Add	5.41	
		For>400 To 600, Add	8.11	
		For>600 To 750, Add	10.81	
		For>750, Add	13.51	
33 11 13 00-0039	LF	8" Water Well Hole Drilled In Crystalline Rock	124.75	
		For>100 To 250, Add	3.12	
		For>250 To 400, Add	6.24	
		For>400 To 600, Add	9.36	
		For>600 To 750, Add	12.48	
		For>750, Add	15.59	
33 11 13 00-0040	LF	10" Water Well Hole Drilled In Crystalline Rock	143.04	
		For>100 To 250, Add	3.58	
		For>250 To 400, Add	7.15	
		For>400 To 600, Add	10.73	
		For>600 To 750, Add	14.30	
		For>750, Add	17.88	
33 11 13 00-0041	LF	12" Water Well Hole Drilled In Crystalline Rock	181.30	
		For>100 To 250, Add	4.53	
		For>250 To 400, Add	9.07	
		For>400 To 600, Add	13.60	
		For>600 To 750, Add	18.13	
		For>750, Add	22.66	
33 11 13 00-0042	LF	14" Water Well Hole Drilled In Crystalline Rock	234.53	
		For>100 To 250, Add	5.86	
		For>250 To 400, Add	11.73	
		For>400 To 600, Add	17.59	
		For>600 To 750, Add	23.45	
		For>750, Add	29.32	
33 11 13 00-0043	LF	16" Water Well Hole Drilled In Crystalline Rock	340.98	
		For>100 To 250, Add	8.52	
		For>250 To 400, Add	17.05	
		For>400 To 600, Add	25.57	
		For>600 To 750, Add	34.10	
		For>750, Add	42.62	



		Utilities	33	33
		Water Utilities	33 10	
		Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0044 LF 18" Water Well Hole Drilled In Crystalline Rock.....	405.84	
For >100 To 250, Add	10.15	
For >250 To 400, Add	20.29	
For >400 To 600, Add	30.44	
For >600 To 750, Add	40.58	
For >750, Add	50.73	
33 11 13 00-0045 LF 20" Water Well Hole Drilled In Crystalline Rock.....	470.71	
For >100 To 250, Add	11.77	
For >250 To 400, Add	23.54	
For >400 To 600, Add	35.30	
For >600 To 750, Add	47.07	
For >750, Add	58.84	
33 11 13 00-0046 LF 22" Water Well Hole Drilled In Crystalline Rock.....	553.88	
For >100 To 250, Add	13.85	
For >250 To 400, Add	27.69	
For >400 To 600, Add	41.54	
For >600 To 750, Add	55.39	
For >750, Add	69.24	
33 11 13 00-0047 LF 24" Water Well Hole Drilled In Crystalline Rock.....	640.36	
For >100 To 250, Add	16.01	
For >250 To 400, Add	32.02	
For >400 To 600, Add	48.03	
For >600 To 750, Add	64.04	
For >750, Add	80.05	
33 11 13 00-0048 Furnish And Install Casing (33 11 13 00-0001)		
Note: Excludes drilling of hole.		
33 11 13 00-0049 Steel Well Casing (33 11 13 00-0048)		
33 11 13 00-0050 LF 6" Diameter, Steel Well Casing, Flush.....	51.61	
For >100 To 250, Deduct	-1.53	
For >250 To 400, Deduct	-2.82	
For >400 To 600, Deduct	-4.23	
For >600 To 750, Deduct	-5.65	
For >750, Deduct	-7.37	
33 11 13 00-0051 LF 8" Diameter, Steel Well Casing, Flush.....	64.15	
For >100 To 250, Deduct	-1.91	
For >250 To 400, Deduct	-3.51	
For >400 To 600, Deduct	-5.27	
For >600 To 750, Deduct	-7.02	
For >750, Deduct	-9.17	
33 11 13 00-0052 LF 10" Diameter, Steel Well Casing, Flush.....	95.30	
For >100 To 250, Deduct	-2.75	
For >250 To 400, Deduct	-5.13	
For >400 To 600, Deduct	-7.69	
For >600 To 750, Deduct	-10.26	
For >750, Deduct	-13.30	
33 11 13 00-0053 LF 12" Diameter, Steel Well Casing, Flush.....	160.53	
For >100 To 250, Deduct	-4.45	
For >250 To 400, Deduct	-8.46	
For >400 To 600, Deduct	-12.70	
For >600 To 750, Deduct	-16.93	
For >750, Deduct	-21.73	
33 11 13 00-0054 LF 14" Diameter, Steel Well Casing, Flush.....	179.62	
For >100 To 250, Deduct	-5.10	
For >250 To 400, Deduct	-9.59	
For >400 To 600, Deduct	-14.38	
For >600 To 750, Deduct	-19.18	
For >750, Deduct	-24.76	
33 11 13 00-0055 LF 16" Diameter, Steel Well Casing, Flush.....	210.74	
For >100 To 250, Deduct	-6.02	
For >250 To 400, Deduct	-11.29	
For >400 To 600, Deduct	-16.93	
For >600 To 750, Deduct	-22.58	
For >750, Deduct	-29.20	
33 11 13 00-0056 LF 18" Diameter, Steel Well Casing, Flush.....	240.14	
For >100 To 250, Deduct	-6.95	
For >250 To 400, Deduct	-12.95	
For >400 To 600, Deduct	-19.43	
For >600 To 750, Deduct	-25.91	
For >750, Deduct	-33.62	
33 11 13 00-0057 LF 20" Diameter, Steel Well Casing, Flush.....	273.47	
For >100 To 250, Deduct	-8.00	
For >250 To 400, Deduct	-14.84	
For >400 To 600, Deduct	-22.26	
For >600 To 750, Deduct	-29.68	
For >750, Deduct	-38.61	
33 11 13 00-0058 LF 24" Diameter, Steel Well Casing, Flush.....	319.81	
For >100 To 250, Deduct	-9.31	
For >250 To 400, Deduct	-17.30	
For >400 To 600, Deduct	-25.95	
For >600 To 750, Deduct	-34.60	
For >750, Deduct	-44.96	

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0059 LB Steel Well Casing, Furnish And Install.....	1.64	
For>100 To 250, Deduct	-0.06	
For>250 To 400, Deduct	-0.10	
For>400 To 600, Deduct	-0.15	
For>600 To 750, Deduct	-0.20	
For>750, Deduct	-0.27	
33 11 13 00-0060 Stainless Steel Well Casing, Flush Threaded (33 11 13 00-0048)		
33 11 13 00-0061 LF 6" Diameter, Stainless Steel Well Casing, Flush.....	113.21	
For>100 To 250, Deduct	-3.07	
For>250 To 400, Deduct	-5.90	
For>400 To 600, Deduct	-8.85	
For>600 To 750, Deduct	-11.81	
For>750, Deduct	-15.07	
33 11 13 00-0062 LF 8" Diameter, Stainless Steel Well Casing, Flush.....	170.60	
For>100 To 250, Deduct	-4.57	
For>250 To 400, Deduct	-8.83	
For>400 To 600, Deduct	-13.25	
For>600 To 750, Deduct	-17.67	
For>750, Deduct	-22.48	
33 11 13 00-0063 LF 10" Diameter, Stainless Steel Well Casing, Flush.....	238.70	
For>100 To 250, Deduct	-6.36	
For>250 To 400, Deduct	-12.32	
For>400 To 600, Deduct	-18.49	
For>600 To 750, Deduct	-24.65	
For>750, Deduct	-31.31	
33 11 13 00-0064 LF 12" Diameter, Stainless Steel Well Casing, Flush.....	277.51	
For>100 To 250, Deduct	-7.40	
For>250 To 400, Deduct	-14.34	
For>400 To 600, Deduct	-21.51	
For>600 To 750, Deduct	-28.67	
For>750, Deduct	-36.44	
33 11 13 00-0065 Stainless Steel Well Casing, Welded Ring (33 11 13 00-0048)		
33 11 13 00-0066 LF 10" Diameter, Stainless Steel Well Casing, Welded.....	250.36	
For>100 To 250, Deduct	-6.94	
For>250 To 400, Deduct	-13.20	
For>400 To 600, Deduct	-19.80	
For>600 To 750, Deduct	-26.40	
For>750, Deduct	-33.88	
33 11 13 00-0067 LF 12" Diameter, Stainless Steel Well Casing, Welded.....	290.15	
For>100 To 250, Deduct	-8.03	
For>250 To 400, Deduct	-15.28	
For>400 To 600, Deduct	-22.93	
For>600 To 750, Deduct	-30.57	
For>750, Deduct	-39.22	
33 11 13 00-0068 LF 14" Diameter, Stainless Steel Well Casing, Welded.....	349.25	
For>100 To 250, Deduct	-9.61	
For>250 To 400, Deduct	-18.34	
For>400 To 600, Deduct	-27.51	
For>600 To 750, Deduct	-36.67	
For>750, Deduct	-46.98	
33 11 13 00-0069 LF 16" Diameter, Stainless Steel Well Casing, Welded.....	399.96	
For>100 To 250, Deduct	-10.99	
For>250 To 400, Deduct	-20.99	
For>400 To 600, Deduct	-31.49	
For>600 To 750, Deduct	-41.99	
For>750, Deduct	-53.78	
33 11 13 00-0070 LF 18" Diameter, Stainless Steel Well Casing, Welded.....	441.25	
For>100 To 250, Deduct	-12.17	
For>250 To 400, Deduct	-23.20	
For>400 To 600, Deduct	-34.81	
For>600 To 750, Deduct	-46.41	
For>750, Deduct	-59.49	
33 11 13 00-0071 LF 20" Diameter, Stainless Steel Well Casing, Welded.....	579.52	
For>100 To 250, Deduct	-15.85	
For>250 To 400, Deduct	-30.34	
For>400 To 600, Deduct	-45.50	
For>600 To 750, Deduct	-60.67	
For>750, Deduct	-77.61	
33 11 13 00-0072 LF 24" Diameter, Stainless Steel Well Casing, Welded.....	764.44	
For>100 To 250, Deduct	-20.81	
For>250 To 400, Deduct	-39.92	
For>400 To 600, Deduct	-59.88	
For>600 To 750, Deduct	-79.84	
For>750, Deduct	-102.02	
33 11 13 00-0073 Polyvinyl Chloride (PVC) Well Casing, Schedule 80 (33 11 13 00-0048)		



		Utilities	33	33
		Water Utilities	33 10	
		Groundwater Sources	33 11	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 11 13 00-0074	LF 6" Polyvinyl Chloride (PVC) Well Casing	74.85		
	For >100 To 250, Deduct	-2.07		
	For >250 To 400, Deduct	-3.94		
	For >400 To 600, Deduct	-5.91		
	For >600 To 750, Deduct	-7.87		
	For >750, Deduct	-10.10		
33 11 13 00-0075	LF 8" Polyvinyl Chloride (PVC) Well Casing	118.97		
	For >100 To 250, Deduct	-3.28		
	For >250 To 400, Deduct	-6.25		
	For >400 To 600, Deduct	-9.38		
	For >600 To 750, Deduct	-12.50		
	For >750, Deduct	-16.02		
33 11 13 00-0076	LF 10" Polyvinyl Chloride (PVC) Well Casing	179.75		
	For >100 To 250, Deduct	-4.96		
	For >250 To 400, Deduct	-9.45		
	For >400 To 600, Deduct	-14.17		
	For >600 To 750, Deduct	-18.90		
	For >750, Deduct	-24.22		
33 11 13 00-0077	LF 12" Polyvinyl Chloride (PVC) Well Casing	211.79		
	For >100 To 250, Deduct	-5.85		
	For >250 To 400, Deduct	-11.15		
	For >400 To 600, Deduct	-16.72		
	For >600 To 750, Deduct	-22.30		
	For >750, Deduct	-28.60		
33 11 13 00-0078	Furnish And Install Well Screen Assembly (33 11 13 00-0001)			
33 11 13 00-0079	Stainless Steel Well Screen (33 11 13 00-0078)			
33 11 13 00-0080	LF 2" Stainless Steel Well Screen	33.39		1.95
	For >100 To 250, Deduct	-1.08		
	For >250 To 400, Deduct	-1.92		
	For >400 To 600, Deduct	-2.88		
	For >600 To 750, Deduct	-3.84		
	For >750, Deduct	-5.12		
33 11 13 00-0081	LF 3" Stainless Steel Well Screen	54.35		1.95
	For >100 To 250, Deduct	-1.63		
	For >250 To 400, Deduct	-2.99		
	For >400 To 600, Deduct	-4.48		
	For >600 To 750, Deduct	-5.97		
	For >750, Deduct	-7.82		
33 11 13 00-0082	LF 4" Stainless Steel Well Screen	68.26		2.91
	For >100 To 250, Deduct	-2.05		
	For >250 To 400, Deduct	-3.75		
	For >400 To 600, Deduct	-5.63		
	For >600 To 750, Deduct	-7.51		
	For >750, Deduct	-9.82		
33 11 13 00-0083	LF 5" Stainless Steel Well Screen	86.58		2.91
	For >100 To 250, Deduct	-2.57		
	For >250 To 400, Deduct	-4.73		
	For >400 To 600, Deduct	-7.10		
	For >600 To 750, Deduct	-9.47		
	For >750, Deduct	-12.36		
33 11 13 00-0084	LF 6" Stainless Steel Well Screen	103.23		3.88
	For >100 To 250, Deduct	-3.12		
	For >250 To 400, Deduct	-5.70		
	For >400 To 600, Deduct	-8.55		
	For >600 To 750, Deduct	-11.40		
	For >750, Deduct	-14.95		
33 11 13 00-0085	LF 8" Stainless Steel Well Screen	134.90		4.86
	For >100 To 250, Deduct	-4.06		
	For >250 To 400, Deduct	-7.44		
	For >400 To 600, Deduct	-11.15		
	For >600 To 750, Deduct	-14.87		
	For >750, Deduct	-19.49		
33 11 13 00-0086	LF 10" Stainless Steel Well Screen	170.58		7.78
	For >100 To 250, Deduct	-5.20		
	For >250 To 400, Deduct	-9.46		
	For >400 To 600, Deduct	-14.19		
	For >600 To 750, Deduct	-18.92		
	For >750, Deduct	-24.86		
33 11 13 00-0087	LF 12" Stainless Steel Well Screen	200.18		9.71
	For >100 To 250, Deduct	-6.09		
	For >250 To 400, Deduct	-11.10		
	For >400 To 600, Deduct	-16.65		
	For >600 To 750, Deduct	-22.19		
	For >750, Deduct	-29.16		
33 11 13 00-0088	LF 14" Stainless Steel Well Screen	219.12		10.69
	For >100 To 250, Deduct	-6.73		
	For >250 To 400, Deduct	-12.21		
	For >400 To 600, Deduct	-18.31		
	For >600 To 750, Deduct	-24.42		
	For >750, Deduct	-32.15		

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0089	LF		16" Stainless Steel Well Screen.....	236.62	12.63
			For >100 To 250, Deduct	-7.32	
			For >250 To 400, Deduct	-13.24	
			For >400 To 600, Deduct	-19.86	
			For >600 To 750, Deduct	-26.48	
			For >750, Deduct	-34.93	
33 11 13 00-0090	LF		18" Stainless Steel Well Screen.....	283.52	14.57
			For >100 To 250, Deduct	-8.82	
			For >250 To 400, Deduct	-15.91	
			For >400 To 600, Deduct	-23.87	
			For >600 To 750, Deduct	-31.82	
			For >750, Deduct	-42.03	
33 11 13 00-0091	LF		20" Stainless Steel Well Screen.....	357.70	18.45
			For >100 To 250, Deduct	-11.12	
			For >250 To 400, Deduct	-20.06	
			For >400 To 600, Deduct	-30.10	
			For >600 To 750, Deduct	-40.13	
			For >750, Deduct	-53.00	
33 11 13 00-0092	LF		24" Stainless Steel Well Screen.....	463.68	24.28
			For >100 To 250, Deduct	-14.45	
			For >250 To 400, Deduct	-26.04	
			For >400 To 600, Deduct	-39.06	
			For >600 To 750, Deduct	-52.08	
			For >750, Deduct	-68.82	
33 11 13 00-0093	LF		26" Stainless Steel Well Screen.....	535.29	28.18
			For >100 To 250, Deduct	-16.62	
			For >250 To 400, Deduct	-30.00	
			For >400 To 600, Deduct	-45.00	
			For >600 To 750, Deduct	-60.01	
			For >750, Deduct	-79.22	
33 11 13 00-0094			Slotted Polyvinyl Chloride (PVC) Well Screen, Schedule 40 (33 11 13 00-0078)		
33 11 13 00-0095	LF		1-1/4" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	20.26	
			For >100 To 250, Deduct	-0.68	
			For >250 To 400, Deduct	-1.19	
			For >400 To 600, Deduct	-1.78	
			For >600 To 750, Deduct	-2.37	
			For >750, Deduct	-3.19	
			For Schedule 80, Add	5.34	
33 11 13 00-0096	LF		1-1/2" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	23.40	
			For >100 To 250, Deduct	-0.77	
			For >250 To 400, Deduct	-1.35	
			For >400 To 600, Deduct	-2.03	
			For >600 To 750, Deduct	-2.71	
			For >750, Deduct	-3.63	
			For Schedule 80, Add	6.41	
33 11 13 00-0097	LF		2" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	31.87	
			For >100 To 250, Deduct	-1.13	
			For >250 To 400, Deduct	-1.92	
			For >400 To 600, Deduct	-2.88	
			For >600 To 750, Deduct	-3.85	
			For >750, Deduct	-5.24	
			For Schedule 80, Add	7.48	
33 11 13 00-0098	LF		3" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	48.92	
			For >100 To 250, Deduct	-1.58	
			For >250 To 400, Deduct	-2.80	
			For >400 To 600, Deduct	-4.20	
			For >600 To 750, Deduct	-5.60	
			For >750, Deduct	-7.47	
			For Schedule 80, Add	13.88	
33 11 13 00-0099	LF		4" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	61.51	
			For >100 To 250, Deduct	-1.99	
			For >250 To 400, Deduct	-3.53	
			For >400 To 600, Deduct	-5.29	
			For >600 To 750, Deduct	-7.05	
			For >750, Deduct	-9.40	
			For Schedule 80, Add	17.40	
33 11 13 00-0100	LF		5" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	77.49	
			For >100 To 250, Deduct	-2.47	
			For >250 To 400, Deduct	-4.41	
			For >400 To 600, Deduct	-6.62	
			For >600 To 750, Deduct	-8.82	
			For >750, Deduct	-11.72	
			For Schedule 80, Add	22.42	
33 11 13 00-0101	LF		6" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	83.28	
			For >100 To 250, Deduct	-2.80	
			For >250 To 400, Deduct	-4.88	
			For >400 To 600, Deduct	-7.32	
			For >600 To 750, Deduct	-9.76	
			For >750, Deduct	-13.12	
			For Schedule 80, Add	21.89	



		Utilities	33	CS
		Water Utilities	33 10	
		Groundwater Sources	33 11	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0102	LF		8" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen	121.97	
			For >100 To 250, Deduct	-3.96	
			For >250 To 400, Deduct	-7.01	
			For >400 To 600, Deduct	-10.52	
			For >600 To 750, Deduct	-14.02	
			For >750, Deduct	-18.72	
			For Schedule 80, Add	34.17	
33 11 13 00-0103			Furnish And Install Gravel Pack Material (33 11 13 00-0001)		
			Note: Quantity is based on 3" space between wall and the casing or well screen.		
33 11 13 00-0104			Artificial Gravel Pack (33 11 13 00-0103)		
			Note: Excludes casing.		
33 11 13 00-0105	LF		Artificial Gravel Pack, 6" Casing, 2" Screen.....	19.07	
			For >100 To 250, Deduct	-0.76	
			For >250 To 400, Deduct	-1.23	
			For >400 To 600, Deduct	-1.85	
			For >600 To 750, Deduct	-2.47	
			For >750, Deduct	-3.45	
33 11 13 00-0106	LF		Artificial Gravel Pack, 8" Casing, 2" Screen.....	28.29	
			For >100 To 250, Deduct	-1.15	
			For >250 To 400, Deduct	-1.85	
			For >400 To 600, Deduct	-2.78	
			For >600 To 750, Deduct	-3.71	
			For >750, Deduct	-5.20	
33 11 13 00-0107	LF		Artificial Gravel Pack, 10" Casing, 2" Screen.....	39.65	
			For >100 To 250, Deduct	-1.64	
			For >250 To 400, Deduct	-2.63	
			For >400 To 600, Deduct	-3.95	
			For >600 To 750, Deduct	-5.27	
			For >750, Deduct	-7.43	
33 11 13 00-0108	LF		Artificial Gravel Pack, 12" Casing, 2" Screen.....	50.68	
			For >100 To 250, Deduct	-2.08	
			For >250 To 400, Deduct	-3.34	
			For >400 To 600, Deduct	-5.02	
			For >600 To 750, Deduct	-6.69	
			For >750, Deduct	-9.41	
33 11 13 00-0109	LF		Artificial Gravel Pack, 14" Casing, 2" Screen.....	62.32	
			For >100 To 250, Deduct	-2.53	
			For >250 To 400, Deduct	-4.08	
			For >400 To 600, Deduct	-6.13	
			For >600 To 750, Deduct	-8.17	
			For >750, Deduct	-11.47	
33 11 13 00-0110	LF		Artificial Gravel Pack, 16" Casing, 2" Screen.....	80.32	
			For >100 To 250, Deduct	-3.20	
			For >250 To 400, Deduct	-5.21	
			For >400 To 600, Deduct	-7.82	
			For >600 To 750, Deduct	-10.42	
			For >750, Deduct	-14.58	
33 11 13 00-0111	LF		Artificial Gravel Pack, 18" Casing, 2" Screen.....	91.98	
			For >100 To 250, Deduct	-3.65	
			For >250 To 400, Deduct	-5.95	
			For >400 To 600, Deduct	-8.92	
			For >600 To 750, Deduct	-11.90	
			For >750, Deduct	-16.63	
33 11 13 00-0112	LF		Artificial Gravel Pack, 20" Casing, 2" Screen.....	109.52	
			For >100 To 250, Deduct	-4.39	
			For >250 To 400, Deduct	-7.12	
			For >400 To 600, Deduct	-10.69	
			For >600 To 750, Deduct	-14.25	
			For >750, Deduct	-19.95	
33 11 13 00-0113	LF		Artificial Gravel Pack, 24" Casing, 2" Screen.....	124.06	
			For >100 To 250, Deduct	-4.99	
			For >250 To 400, Deduct	-8.09	
			For >400 To 600, Deduct	-12.14	
			For >600 To 750, Deduct	-16.19	
			For >750, Deduct	-22.69	
33 11 13 00-0114	LF		Artificial Gravel Pack, 26" Casing, 2" Screen.....	133.29	
			For >100 To 250, Deduct	-5.31	
			For >250 To 400, Deduct	-8.64	
			For >400 To 600, Deduct	-12.96	
			For >600 To 750, Deduct	-17.28	
			For >750, Deduct	-24.17	
33 11 13 00-0115	LF		Artificial Gravel Pack, 30" Casing, 2" Screen.....	159.39	
			For >100 To 250, Deduct	-6.42	
			For >250 To 400, Deduct	-10.40	
			For >400 To 600, Deduct	-15.60	
			For >600 To 750, Deduct	-20.80	
			For >750, Deduct	-29.16	
33 11 13 00-0116	LF		Artificial Gravel Pack, 36" Casing, 2" Screen.....	185.32	
			For >100 To 250, Deduct	-7.60	
			For >250 To 400, Deduct	-12.23	
			For >400 To 600, Deduct	-18.34	
			For >600 To 750, Deduct	-24.46	
			For >750, Deduct	-34.43	

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0117		Develop Well (33 11 13 00-0001) Note: Pump out drilled well to remove debris and fine material remaining from the drilling process. Excludes disposal.		
33 11 13 00-0118	HR	Develop Well.....	453.03	
33 11 13 00-0119		Pump Test (33 11 13 00-0001) Note: To determine water level and GPM flow rate.		
33 11 13 00-0120	HR	Pump Test Well	401.35	
33 11 13 00-0121		Test Well (33 11 13 00-0001)		
33 11 13 00-0122	VLF	2-1/2" Diameter Test Well.....	107.53	
33 11 13 00-0123		Surface Seal, Concrete Filled (33 11 13)		
33 11 13 00-0124	SF	Surface Seal Well, Concrete Filled	33.05	
33 11 13 00-0125		Other Water Well (33 11 13)		
33 11 13 00-0126	SF	Patch Hole In Well Casing	103.80	
33 11 13 00-0127	SF	1/2" Pressure Grout Well	2.34	
33 11 13 00-0128	SF	1" Pressure Grout Well	3.72	
33 11 13 00-0129	CF	Sediment Removal In Well Casing For Existing Well.....	6.08	
33 11 13 00-0130		Sterilization Of Well (33 11 13)		
33 11 13 00-0131	EA	Well Sterilization, Chlorine	1,733.00	
33 11 13 00-0132		Submersible Well Pumps (33 11 13) Note: Includes pump end, motor and control box.		
33 11 13 00-0133		4" Submersible Well Pumps (33 11 13 00-0132)		
33 11 13 00-0134		Powder Coated Case And Cast Iron Ends (33 11 13 00-0133)		
33 11 13 00-0135	EA	1/2 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,399.61	485.56
33 11 13 00-0136	EA	3/4 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,594.96	538.18
33 11 13 00-0137	EA	1 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,770.24	597.98
33 11 13 00-0138		Stainless Steel Case And Ends (33 11 13 00-0133)		
33 11 13 00-0139	EA	1/2 HP Submersible Well Pump, 4" Diameter Stainless Steel	1,572.49	478.38
33 11 13 00-0140	EA	3/4 HP Submersible Well Pump, 4" Diameter Stainless Steel	1,792.73	538.18
33 11 13 00-0141	EA	1 HP Submersible Well Pump, 4" Diameter Stainless Steel	2,009.43	597.98
33 11 13 00-0142	EA	1-1/2 HP Submersible Well Pump, 4" Diameter Stainless Steel	2,299.54	657.77
33 11 13 00-0143	EA	2 HP Submersible Well Pump, 4" Diameter Stainless Steel	2,600.29	717.57
33 11 13 00-0144	EA	3 HP Submersible Well Pump, 4" Diameter Stainless Steel	3,194.71	837.16
33 11 13 00-0145	EA	5 HP Submersible Well Pump, 4" Diameter Stainless Steel	4,010.57	956.76
33 11 13 00-0146		6" Submersible Well Pumps (33 11 13 00-0132)		
33 11 13 00-0147	EA	5 HP Submersible Well Pump, 6" Diameter Stainless Steel	3,921.76	1,195.95
33 11 13 00-0148	EA	7.5 HP Submersible Well Pump, 6" Diameter Stainless Steel	4,517.36	1,315.55
33 11 13 00-0149	EA	10 HP Submersible Well Pump, 6" Diameter Stainless Steel	5,135.47	1,435.14
33 11 13 00-0150	EA	15 HP Submersible Well Pump, 6" Diameter Stainless Steel	6,223.66	1,674.33
33 14		Water Utility Transmission and Distribution (33 10)		
33 14 11		Water Utility Transmission Piping (33 14) See CSI section 33 14 13 00-0000 for water utility transmission piping.		
33 14 13		Public Water Utility Distribution Piping (33 14) Note: Piping includes hydrostatic testing, disinfecting and warning tape. Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.		
33 14 13 13		Ductile Iron Public Water Utility Distribution Piping (33 14 13)		
33 14 13 13-0001		Ductile Iron Piping (33 14 13 13) Note: Cement lining and bituminous coating shall conform to ANSI A21.4. Fittings are C153. See CSI section 33 14 13 13-0542 for bolts and gaskets.		
33 14 13 13-0002		Mechanical Joint Ductile Iron Piping (33 14 13 13-0001) Note: Cement lining and bituminous coating shall conform to ANSI A21.4. Fittings are C153. See CSI section 33 14 13 13-0542 for bolts and gaskets.		
33 14 13 13-0003		Mechanical Joint Ductile Iron Pipe (33 14 13 13-0002) Note: Conforming to ANSI/AWWA C151/A21.51, federal specification WW-P-421D.		



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0004 LF 3", Class 51, Mechanical Joint Ductile Iron Pipe.....	48.65	13.51
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	19.74	
For Cement Mortar Lining (CML), Add	2.82	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	15.23	
For Fusion Bonded Epoxy Lining (206N), Add	5.08	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.12	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.43	
For Class 52, Add	8.83	
For Class 53, Add	15.88	
For Class 54, Add	22.63	
For Class 55, Add	26.05	
For Class 56, Add	29.41	
33 14 13 13-0005 LF 4", Class 50, Mechanical Joint Ductile Iron Pipe.....	52.78	14.38
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	21.69	
For Cement Mortar Lining (CML), Add	3.10	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	16.73	
For Fusion Bonded Epoxy Lining (206N), Add	5.58	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.32	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.64	
For Class 51, Add	4.50	
For Class 52, Add	9.69	
For Class 53, Add	17.42	
For Class 54, Add	24.83	
For Class 55, Add	28.58	
For Class 56, Add	32.26	
33 14 13 13-0006 LF 6", Class 50, Mechanical Joint Ductile Iron Pipe.....	56.46	15.10
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	23.54	
For Cement Mortar Lining (CML), Add	3.36	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	18.16	
For Fusion Bonded Epoxy Lining (206N), Add	6.05	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.52	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.82	
For Class 51, Add	4.87	
For Class 52, Add	10.49	
For Class 53, Add	18.88	
For Class 54, Add	26.92	
For Class 55, Add	30.97	
For Class 56, Add	34.96	
33 14 13 13-0007 LF 8", Class 50, Mechanical Joint Ductile Iron Pipe.....	66.80	15.70
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	30.11	
For Cement Mortar Lining (CML), Add	4.30	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	23.23	
For Fusion Bonded Epoxy Lining (206N), Add	7.74	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.23	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-3.34	
For Class 51, Add	6.16	
For Class 52, Add	13.29	
For Class 53, Add	23.95	
For Class 54, Add	34.16	
For Class 55, Add	39.28	
For Class 56, Add	44.31	
33 14 13 13-0008 LF 10", Class 50, Mechanical Joint Ductile Iron Pipe.....	89.61	22.22
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	33.58	
For Cement Mortar Lining (CML), Add	5.60	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	27.98	
For Fusion Bonded Epoxy Lining (206N), Add	10.07	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.20	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-4.48	
For Class 51, Add	8.05	
For Class 52, Add	17.36	
For Class 53, Add	31.25	
For Class 54, Add	44.57	
For Class 55, Add	51.26	
For Class 56, Add	57.84	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0009	LF	12"	Class 50, Mechanical Joint Ductile Iron Pipe.....	108.87	24.68
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	35.74	
			For Cement Mortar Lining (CML), Add	7.15	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	28.59	
			For Fusion Bonded Epoxy Lining (206N), Add	12.87	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.36	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-5.44	
			For Class 51, Add	10.21	
			For Class 52, Add	22.03	
			For Class 53, Add	39.71	
			For Class 54, Add	56.65	
			For Class 55, Add	65.13	
			For Class 56, Add	73.46	
33 14 13 13-0010	LF	14"	Class 50, Mechanical Joint Ductile Iron Pipe.....	130.71	27.71
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	39.00	
			For Cement Mortar Lining (CML), Add	8.86	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	30.14	
			For Fusion Bonded Epoxy Lining (206N), Add	15.96	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.65	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-6.54	
			For Class 51, Add	12.61	
			For Class 52, Add	27.21	
			For Class 53, Add	49.08	
			For Class 54, Add	70.04	
			For Class 55, Add	80.50	
			For Class 56, Add	90.78	
33 14 13 13-0011	LF	16"	Class 50, Mechanical Joint Ductile Iron Pipe.....	147.45	31.75
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	40.74	
			For Cement Mortar Lining (CML), Add	9.94	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	30.80	
			For Fusion Bonded Epoxy Lining (206N), Add	17.89	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.45	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-7.37	
			For Class 51, Add	14.15	
			For Class 52, Add	30.53	
			For Class 53, Add	55.06	
			For Class 54, Add	78.56	
			For Class 55, Add	90.30	
			For Class 56, Add	101.83	
33 14 13 13-0012	LF	18"	Class 50, Mechanical Joint Ductile Iron Pipe.....	183.53	37.02
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	52.25	
			For Cement Mortar Lining (CML), Add	12.74	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	39.51	
			For Fusion Bonded Epoxy Lining (206N), Add	22.94	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	9.56	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-9.18	
			For Class 51, Add	18.07	
			For Class 52, Add	39.01	
			For Class 53, Add	70.40	
			For Class 54, Add	100.47	
			For Class 55, Add	115.46	
			For Class 56, Add	130.18	
33 14 13 13-0013	LF	20"	Class 50, Mechanical Joint Ductile Iron Pipe.....	207.66	44.42
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	53.33	
			For Cement Mortar Lining (CML), Add	14.04	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	39.30	
			For Fusion Bonded Epoxy Lining (206N), Add	25.26	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	10.53	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-10.38	
			For Class 51, Add	19.97	
			For Class 52, Add	43.10	
			For Class 53, Add	77.74	
			For Class 54, Add	110.93	
			For Class 55, Add	127.50	
			For Class 56, Add	143.78	



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0014 LF 24", Class 50, Mechanical Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For 40 Mil Ceramic Epoxy Lining (P401), Add For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	272.49 58.39 18.84 39.56 33.90 14.13 -13.62 26.73 57.69 104.10 148.67 170.73 192.50	55.53
33 14 13 13-0015 LF 30", Class 50, Mechanical Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	355.37 82.34 26.56 47.81 19.92 -17.77 37.33 80.63 145.71 208.06 238.96 269.30	59.80
33 14 13 13-0016 LF 36", Class 50, Mechanical Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	427.50 102.96 33.21 59.79 24.91 -21.38 46.46 100.40 181.57 259.32 297.74 335.47	63.50
33 14 13 13-0017 LF 42", Class 50, Mechanical Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	528.83 132.64 42.79 77.01 32.09 -26.44 59.58 128.79 233.08 332.96 382.19 430.51	67.20
33 14 13 13-0018 LF 48", Class 50, Mechanical Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	651.92 169.06 54.54 98.16 40.90 -32.60 75.66 163.60 296.25 423.28 485.75 547.07	71.01
33 14 13 13-0019 Mechanical Joint Ductile Iron 90 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0020 EA 3" Mechanical Joint Ductile Iron 90 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	186.06 12.14 21.85 9.10	42.68

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0021 EA 4" Mechanical Joint Ductile Iron 90 Degree Elbow	209.37	51.00
For Cement Mortar Lining (CML), Add	13.21	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	23.78	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	9.91	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0022 EA 6" Mechanical Joint Ductile Iron 90 Degree Elbow	330.13	75.38
For Cement Mortar Lining (CML), Add	21.60	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	38.88	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	16.20	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0023 EA 8" Mechanical Joint Ductile Iron 90 Degree Elbow	449.69	89.40
For Cement Mortar Lining (CML), Add	31.42	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	56.55	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.56	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0024 EA 10" Mechanical Joint Ductile Iron 90 Degree Elbow	649.04	98.49
For Cement Mortar Lining (CML), Add	49.98	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	89.97	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	37.49	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0025 EA 12" Mechanical Joint Ductile Iron 90 Degree Elbow	847.99	115.55
For Cement Mortar Lining (CML), Add	67.30	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	121.14	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	50.47	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0026 EA 14" Mechanical Joint Ductile Iron 90 Degree Elbow	1,322.72	129.57
For Cement Mortar Lining (CML), Add	112.64	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	202.75	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	84.48	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0027 EA 16" Mechanical Joint Ductile Iron 90 Degree Elbow	1,754.22	148.08
For Cement Mortar Lining (CML), Add	152.99	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	275.37	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	114.74	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0028 EA 18" Mechanical Joint Ductile Iron 90 Degree Elbow	2,156.31	207.32
For Cement Mortar Lining (CML), Add	184.22	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	331.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	138.17	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0029 EA 20" Mechanical Joint Ductile Iron 90 Degree Elbow	2,961.42	259.15
For Cement Mortar Lining (CML), Add	256.88	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	462.38	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	192.66	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0030 EA 24" Mechanical Joint Ductile Iron 90 Degree Elbow	4,357.37	345.08
For Cement Mortar Lining (CML), Add	383.44	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	690.20	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	287.58	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0031 EA 30" Mechanical Joint Ductile Iron 90 Degree Elbow	6,714.24	370.21
For Cement Mortar Lining (CML), Add	615.33	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,107.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	461.50	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0032 EA 36" Mechanical Joint Ductile Iron 90 Degree Elbow	10,202.28	384.35
For Cement Mortar Lining (CML), Add	962.00	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,731.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	721.50	
Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0033	EA 42" Mechanical Joint Ductile Iron 90 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,169.40 1,649.63 2,969.33 1,237.22	444.26
33 14 13 13-0034	EA 48" Mechanical Joint Ductile Iron 90 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,712.32 2,199.63 3,959.33 1,649.72	472.63
33 14 13 13-0035	Mechanical Joint Ductile Iron 45 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0036	EA 3" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	173.56 10.89 19.60 8.17	42.68
33 14 13 13-0037	EA 4" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	186.16 10.89 19.60 8.17	51.00
33 14 13 13-0038	EA 6" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	289.07 17.49 31.49 13.12	75.38
33 14 13 13-0039	EA 8" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	390.78 25.53 45.95 19.15	89.40
33 14 13 13-0040	EA 10" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	522.30 37.31 67.16 27.98	98.49
33 14 13 13-0041	EA 12" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	731.96 55.70 100.25 41.77	115.55
33 14 13 13-0042	EA 14" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,072.80 87.65 157.77 65.74	129.57
33 14 13 13-0043	EA 16" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,316.86 109.25 196.65 81.94	148.08
33 14 13 13-0044	EA 18" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,881.41 156.73 282.12 117.55	207.32
33 14 13 13-0045	EA 20" Mechanical Joint Ductile Iron 45 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,067.07 167.44 301.40 125.58	259.15

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0046	EA	24" Mechanical Joint Ductile Iron 45 Degree Elbow	3,066.73	345.08
		For Cement Mortar Lining (CML), Add	254.38	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	457.88	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	190.79	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0047	EA	30" Mechanical Joint Ductile Iron 45 Degree Elbow	5,728.85	370.21
		For Cement Mortar Lining (CML), Add	516.79	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	930.23	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	387.59	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0048	EA	36" Mechanical Joint Ductile Iron 45 Degree Elbow	8,138.68	384.35
		For Cement Mortar Lining (CML), Add	755.64	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,360.15	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	566.73	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0049	EA	42" Mechanical Joint Ductile Iron 45 Degree Elbow	12,283.53	444.26
		For Cement Mortar Lining (CML), Add	1,161.04	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,089.88	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	870.78	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0050	EA	48" Mechanical Joint Ductile Iron 45 Degree Elbow	15,930.65	472.63
		For Cement Mortar Lining (CML), Add	1,521.46	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,738.62	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,141.09	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0051		Mechanical Joint Ductile Iron 22-1/2 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0052	EA	3" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	150.36	42.68
		For Cement Mortar Lining (CML), Add	8.57	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	15.42	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.43	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0053	EA	4" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	180.81	51.00
		For Cement Mortar Lining (CML), Add	10.35	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	18.64	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.77	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0054	EA	6" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	274.79	75.38
		For Cement Mortar Lining (CML), Add	16.07	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	28.92	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	12.05	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0055	EA	8" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	385.43	89.40
		For Cement Mortar Lining (CML), Add	24.99	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	44.99	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	18.74	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0056	EA	10" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	520.51	98.49
		For Cement Mortar Lining (CML), Add	37.13	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	66.83	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	27.85	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0057	EA	12" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	662.34	115.55
		For Cement Mortar Lining (CML), Add	48.73	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	87.72	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	36.55	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0058	EA	14" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	1,083.51	129.57
		For Cement Mortar Lining (CML), Add	88.72	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	159.70	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	66.54	
		Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0059	EA	16" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,272.24 104.79 188.62 78.59	148.08
33 14 13 13-0060	EA	18" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,601.14 128.71 231.67 96.53	207.32
33 14 13 13-0061	EA	20" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,142.05 174.94 314.90 131.21	259.15
33 14 13 13-0062	EA	24" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,870.36 234.74 422.54 176.06	345.08
33 14 13 13-0063	EA	30" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,891.63 433.07 779.53 324.80	370.21
33 14 13 13-0064	EA	36" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,930.16 634.79 1,142.62 476.09	384.35
33 14 13 13-0065	EA	42" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,257.42 958.43 1,725.18 718.82	444.26
33 14 13 13-0066	EA	48" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,195.84 1,247.98 2,246.36 935.98	472.63
33 14 13 13-0067		Mechanical Joint Ductile Iron 11-1/4 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0068	EA	3" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	150.36 8.57 15.42 6.43	42.68
33 14 13 13-0069	EA	4" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	175.45 9.82 17.67 7.36	51.00
33 14 13 13-0070	EA	6" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	280.15 16.60 29.88 12.45	75.38
33 14 13 13-0071	EA	8" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	362.22 22.67 40.81 17.00	89.40

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0072 EA 10" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	516.94 36.77 66.19 27.58	98.49
33 14 13 13-0073 EA 12" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	631.99 45.70 82.26 34.27	115.55
33 14 13 13-0074 EA 14" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,208.47 101.22 182.19 75.91	129.57
33 14 13 13-0075 EA 16" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,332.93 110.86 199.54 83.14	148.08
33 14 13 13-0076 EA 18" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,940.31 162.62 292.72 121.97	207.32
33 14 13 13-0077 EA 20" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,040.30 164.77 296.58 123.58	259.15
33 14 13 13-0078 EA 24" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,720.41 219.75 395.55 164.81	345.08
33 14 13 13-0079 EA 30" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,970.18 440.93 793.67 330.69	370.21
33 14 13 13-0080 EA 36" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,608.84 602.66 1,084.78 451.99	384.35
33 14 13 13-0081 EA 42" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,820.06 914.70 1,646.45 686.02	444.26
33 14 13 13-0082 EA 48" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,110.16 1,239.41 2,230.94 929.56	472.63

33 14 13 13-0083 Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow (33 14 13 13-0002)



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT		DEMOLITION
CSI	UOM		UNIT COST		
33 14 13 13-0084	EA	3" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	191.41	42.68	
		For Cement Mortar Lining (CML), Add	12.67		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	22.81		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	9.51		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0085	EA	4" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	234.36	51.00	
		For Cement Mortar Lining (CML), Add	15.71		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	28.28		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.78		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0086	EA	6" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	374.76	75.38	
		For Cement Mortar Lining (CML), Add	26.06		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	46.91		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	19.55		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0087	EA	8" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	508.60	89.40	
		For Cement Mortar Lining (CML), Add	37.31		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	67.16		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	27.98		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0088	EA	10" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	734.73	98.49	
		For Cement Mortar Lining (CML), Add	58.55		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	105.39		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	43.91		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0089	EA	12" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	940.82	115.55	
		For Cement Mortar Lining (CML), Add	76.58		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	137.85		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	57.44		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0090	EA	14" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	1,620.84	129.57	
		For Cement Mortar Lining (CML), Add	142.45		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	256.42		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	106.84		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0091	EA	16" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	2,480.76	148.08	
		For Cement Mortar Lining (CML), Add	225.64		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	406.15		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	169.23		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0092	EA	18" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	2,877.50	207.32	
		For Cement Mortar Lining (CML), Add	256.34		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	461.42		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	192.26		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0093	EA	20" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	3,911.10	259.15	
		For Cement Mortar Lining (CML), Add	351.85		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	633.32		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	263.89		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0094	EA	24" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	4,750.09	345.08	
		For Cement Mortar Lining (CML), Add	422.72		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	760.89		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	317.04		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0095	EA	30" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	8,884.94	370.21	
		For Cement Mortar Lining (CML), Add	832.40		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	1,498.32		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	624.30		
		Note: ANSI/AWWA C151/A21.51			

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
33 14 13 13-0096	EA	36" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	15,921.81	384.35	
		For Cement Mortar Lining (CML), Add	1,533.95		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	2,761.12		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,150.47		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0097		Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow ^(33 14 13 13-0002)			
33 14 13 13-0098	EA	3" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	175.35	42.68	
		For Cement Mortar Lining (CML), Add	11.07		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	19.92		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.30		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0099	EA	4" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	191.52	51.00	
		For Cement Mortar Lining (CML), Add	11.43		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	20.57		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.57		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0100	EA	6" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	308.71	75.38	
		For Cement Mortar Lining (CML), Add	19.46		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	35.02		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	14.59		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0101	EA	8" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	447.91	89.40	
		For Cement Mortar Lining (CML), Add	31.24		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	56.23		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.43		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0102	EA	10" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	613.34	98.49	
		For Cement Mortar Lining (CML), Add	46.41		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	83.54		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	34.81		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0103	EA	12" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	835.49	115.55	
		For Cement Mortar Lining (CML), Add	66.05		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	118.89		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	49.54		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0104	EA	14" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	1,433.40	129.57	
		For Cement Mortar Lining (CML), Add	123.71		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	222.68		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	92.78		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0105	EA	16" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	2,186.22	148.08	
		For Cement Mortar Lining (CML), Add	196.19		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	353.13		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	147.14		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0106	EA	18" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	2,579.39	207.32	
		For Cement Mortar Lining (CML), Add	226.53		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	407.76		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	169.90		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0107	EA	20" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow.....	3,350.57	259.15	
		For Cement Mortar Lining (CML), Add	295.79		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	532.43		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	221.85		
		Note: ANSI/AWWA C151/A21.51			



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0108	EA 24" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,209.20 368.63 663.53 276.47	345.08
33 14 13 13-0109	EA 30" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,801.38 724.05 1,303.28 543.03	370.21
33 14 13 13-0110	EA 36" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,927.83 1,334.56 2,402.20 1,000.92	384.35
33 14 13 13-0111	Mechanical Joint Ductile Iron Tee (33 14 13 13-0002)		
33 14 13 13-0112	EA 3" x 3" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	304.08 20.71 37.27 15.53	64.03
33 14 13 13-0113	EA 4" x 3" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	315.49 20.71 37.27 15.53	71.55
33 14 13 13-0114	EA 4" x 4" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	287.29 17.32 31.17 12.99	75.38
33 14 13 13-0115	EA 6" x 3" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	383.06 23.92 43.06 17.94	94.93
33 14 13 13-0116	EA 6" x 4" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	440.75 29.10 52.37 21.82	98.86
33 14 13 13-0117	EA 6" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	480.01 31.24 56.23 23.43	110.68
33 14 13 13-0118	EA 8" x 4" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	510.97 33.74 60.73 25.30	114.57
33 14 13 13-0119	EA 8" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	580.57 38.92 70.05 29.19	126.34
33 14 13 13-0120	EA 8" x 8" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	672.80 46.95 84.51 35.21	134.22

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 14 13 13-0121	EA	10" x 4" Mechanical Joint Ductile Iron Tee.....	703.15	122.42
		For Cement Mortar Lining (CML), Add	51.77	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	93.18	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	38.83	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0122	EA	10" x 6" Mechanical Joint Ductile Iron Tee.....	703.93	133.52
		For Cement Mortar Lining (CML), Add	50.16	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	90.29	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	37.62	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0123	EA	10" x 8" Mechanical Joint Ductile Iron Tee.....	800.83	140.93
		For Cement Mortar Lining (CML), Add	58.73	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	105.71	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	44.05	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0124	EA	10" x 10" Mechanical Joint Ductile Iron Tee.....	895.58	148.08
		For Cement Mortar Lining (CML), Add	67.12	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	120.82	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	50.34	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0125	EA	12" x 4" Mechanical Joint Ductile Iron Tee.....	841.63	137.22
		For Cement Mortar Lining (CML), Add	63.37	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	114.07	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	47.53	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0126	EA	12" x 6" Mechanical Joint Ductile Iron Tee.....	956.63	148.32
		For Cement Mortar Lining (CML), Add	73.19	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	131.74	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	54.89	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0127	EA	12" x 8" Mechanical Joint Ductile Iron Tee.....	1,176.72	155.73
		For Cement Mortar Lining (CML), Add	94.08	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	169.34	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	70.56	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0128	EA	12" x 10" Mechanical Joint Ductile Iron Tee.....	1,260.75	162.89
		For Cement Mortar Lining (CML), Add	101.40	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	182.51	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	76.05	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0129	EA	12" x 12" Mechanical Joint Ductile Iron Tee.....	1,195.20	170.30
		For Cement Mortar Lining (CML), Add	93.72	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	168.69	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	70.29	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0130	EA	14" x 6" Mechanical Joint Ductile Iron Tee.....	1,275.81	172.83
		For Cement Mortar Lining (CML), Add	101.40	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	182.51	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	76.05	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0131	EA	14" x 8" Mechanical Joint Ductile Iron Tee.....	1,420.93	180.24
		For Cement Mortar Lining (CML), Add	114.78	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	206.61	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	86.09	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0132	EA	14" x 10" Mechanical Joint Ductile Iron Tee.....	1,817.34	187.39
		For Cement Mortar Lining (CML), Add	153.34	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	276.02	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	115.01	
		Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0133	EA	14" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,942.82 164.77 296.58 123.58	194.80
33 14 13 13-0134	EA	14" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,873.90 156.02 280.83 117.01	207.10
33 14 13 13-0135	EA	16" x 6" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,622.50 130.85 235.53 98.14	207.31
33 14 13 13-0136	EA	16" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,746.29 142.10 255.77 106.57	214.72
33 14 13 13-0137	EA	16" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,035.60 169.94 305.90 127.46	221.86
33 14 13 13-0138	EA	16" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,228.92 188.15 338.67 141.11	229.27
33 14 13 13-0139	EA	16" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,684.83 231.89 417.40 173.92	241.53
33 14 13 13-0140	EA	16" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,536.00 214.39 385.91 160.79	258.81
33 14 13 13-0141	EA	18" x 6" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,254.95 185.30 333.53 138.97	265.32
33 14 13 13-0142	EA	18" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,419.69 200.65 361.16 150.49	272.72
33 14 13 13-0143	EA	18" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,619.76 219.57 395.23 164.68	279.87
33 14 13 13-0144	EA	18" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,818.41 238.31 428.97 178.74	287.28

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0145 EA 18" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,899.46 244.56 440.21 183.42	299.53
33 14 13 13-0146 EA 18" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,095.16 261.52 470.74 196.14	316.78
33 14 13 13-0147 EA 18" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,626.44 310.25 558.46 232.69	345.75
33 14 13 13-0148 EA 20" x 6" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,661.48 208.50 375.30 156.38	380.46
33 14 13 13-0149 EA 20" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,719.12 213.14 383.66 159.86	387.88
33 14 13 13-0150 EA 20" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,963.81 236.53 425.75 177.40	395.02
33 14 13 13-0151 EA 20" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,207.09 259.74 467.52 194.80	402.43
33 14 13 13-0152 EA 20" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,245.31 261.70 471.06 196.27	414.68
33 14 13 13-0153 EA 20" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,292.84 263.84 474.91 197.88	431.92
33 14 13 13-0154 EA 20" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,143.65 344.53 620.15 258.40	460.92
33 14 13 13-0155 EA 20" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,645.36 285.98 514.76 214.48	518.51
33 14 13 13-0156 EA 24" x 6" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,258.49 250.81 451.46 188.11	495.26



		Utilities	33	
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0157	EA	24" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,301.85 254.02 457.24 190.52	503.37
33 14 13 13-0158	EA	24" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,641.15 286.87 516.36 215.15	509.83
33 14 13 13-0159	EA	24" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,732.68 294.90 530.82 221.18	517.23
33 14 13 13-0160	EA	24" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,204.68 340.24 612.44 255.18	529.48
33 14 13 13-0161	EA	24" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,543.19 371.48 668.67 278.61	546.71
33 14 13 13-0162	EA	24" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,165.51 429.32 772.78 321.99	575.72
33 14 13 13-0163	EA	24" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,725.81 476.63 857.93 357.47	633.30
33 14 13 13-0164	EA	24" x 24" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,291.51 424.50 764.10 318.38	690.72
33 14 13 13-0165	EA	30" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,674.69 478.95 862.11 359.21	584.25
33 14 13 13-0166	EA	30" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,980.07 508.40 915.12 381.30	591.39
33 14 13 13-0167	EA	30" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,285.85 537.86 968.14 403.39	598.79
33 14 13 13-0168	EA	30" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,722.12 579.63 1,043.33 434.72	611.06

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
33 14 13 13-0169	EA 30" x 16" Mechanical Joint Ductile Iron Tee.....	7,194.51	813.00	
	For Cement Mortar Lining (CML), Add	624.26		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,123.66		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	468.19		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0170	EA 30" x 18" Mechanical Joint Ductile Iron Tee.....	7,388.41	657.29	
	For Cement Mortar Lining (CML), Add	639.25		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,150.65		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	479.44		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0171	EA 30" x 20" Mechanical Joint Ductile Iron Tee.....	7,684.51	714.87	
	For Cement Mortar Lining (CML), Add	660.14		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,188.25		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	495.10		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0172	EA 30" x 24" Mechanical Joint Ductile Iron Tee.....	8,073.16	772.27	
	For Cement Mortar Lining (CML), Add	690.31		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,242.55		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	517.73		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0173	EA 30" x 30" Mechanical Joint Ductile Iron Tee.....	10,130.71	813.00	
	For Cement Mortar Lining (CML), Add	889.88		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,601.79		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	667.41		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0174	EA 30" x 6" Mechanical Joint Ductile Iron Tee.....	5,934.81	576.83	
	For Cement Mortar Lining (CML), Add	506.08		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	910.95		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	379.56		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0175	EA 36" x 8" Mechanical Joint Ductile Iron Tee.....	6,940.73	648.12	
	For Cement Mortar Lining (CML), Add	595.87		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,072.57		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	446.90		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0176	EA 36" x 10" Mechanical Joint Ductile Iron Tee.....	7,726.30	655.27	
	For Cement Mortar Lining (CML), Add	673.35		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,212.02		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	505.01		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0177	EA 36" x 12" Mechanical Joint Ductile Iron Tee.....	8,151.68	662.68	
	For Cement Mortar Lining (CML), Add	714.76		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,286.57		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	536.07		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0178	EA 36" x 14" Mechanical Joint Ductile Iron Tee.....	8,457.64	674.93	
	For Cement Mortar Lining (CML), Add	743.50		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,338.30		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	557.63		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0179	EA 36" x 16" Mechanical Joint Ductile Iron Tee.....	8,767.60	692.17	
	For Cement Mortar Lining (CML), Add	771.89		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,389.39		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	578.91		
	Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0180	EA 36" x 18" Mechanical Joint Ductile Iron Tee.....	9,361.36	721.17	
	For Cement Mortar Lining (CML), Add	826.87		
	Note: ANSI/AWWA C104/A21.4			
	For Fusion Bonded Epoxy Lining (206N), Add	1,488.36		
	Note: ANSI/AWWA C104/A21.4			
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	620.15		
	Note: ANSI/AWWA C151/A21.51			



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0181	EA	36" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,000.20 882.03 1,587.65 661.52	778.74
33 14 13 13-0182	EA	36" x 24" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,065.40 979.85 1,763.73 734.89	836.13
33 14 13 13-0183	EA	36" x 30" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,235.76 1,090.71 1,963.27 818.03	908.92
33 14 13 13-0184	EA	36" x 36" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	14,292.40 1,291.53 2,324.76 968.65	908.92
33 14 13 13-0185	EA	42" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,081.72 1,502.36 2,704.24 1,126.77	698.37
33 14 13 13-0186	EA	42" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,403.75 1,532.70 2,758.87 1,149.53	710.63
33 14 13 13-0187	EA	42" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	18,234.63 1,713.18 3,083.72 1,284.89	727.87
33 14 13 13-0188	EA	42" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,046.84 1,590.01 2,862.01 1,192.50	756.86
33 14 13 13-0189	EA	42" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,134.07 1,590.01 2,862.01 1,192.50	814.45
33 14 13 13-0190	EA	42" x 24" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,512.01 1,619.10 2,914.39 1,214.33	871.85
33 14 13 13-0191	EA	42" x 30" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	21,244.03 1,986.13 3,575.03 1,489.59	912.64
33 14 13 13-0192	EA	42" x 36" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,126.06 2,069.49 3,725.08 1,552.12	944.57

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
33 14 13 13-0193	EA	42" x 42" Mechanical Joint Ductile Iron Tee.....	23,408.04		962.44
		For Cement Mortar Lining (CML), Add	2,194.98		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,950.97		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,646.24		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0194	EA	48" x 12" Mechanical Joint Ductile Iron Tee.....	18,950.92		755.28
		For Cement Mortar Lining (CML), Add	1,780.66		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,205.18		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,335.49		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0195	EA	48" x 14" Mechanical Joint Ductile Iron Tee.....	19,290.81		767.53
		For Cement Mortar Lining (CML), Add	1,812.79		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,263.02		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,359.59		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0196	EA	48" x 16" Mechanical Joint Ductile Iron Tee.....	19,772.14		784.77
		For Cement Mortar Lining (CML), Add	1,858.31		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,344.96		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,393.73		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0197	EA	48" x 18" Mechanical Joint Ductile Iron Tee.....	20,269.49		813.77
		For Cement Mortar Lining (CML), Add	1,903.65		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,426.57		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,427.74		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0198	EA	48" x 20" Mechanical Joint Ductile Iron Tee.....	20,811.94		871.34
		For Cement Mortar Lining (CML), Add	1,949.17		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,508.51		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,461.88		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0199	EA	48" x 24" Mechanical Joint Ductile Iron Tee.....	20,959.60		928.73
		For Cement Mortar Lining (CML), Add	1,955.24		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	3,519.44		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,466.43		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0200	EA	48" x 30" Mechanical Joint Ductile Iron Tee.....	25,518.12		969.52
		For Cement Mortar Lining (CML), Add	2,404.91		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	4,328.85		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,803.69		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0201	EA	48" x 36" Mechanical Joint Ductile Iron Tee.....	29,101.03		1,001.46
		For Cement Mortar Lining (CML), Add	2,758.37		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	4,965.06		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	2,068.78		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0202	EA	48" x 42" Mechanical Joint Ductile Iron Tee.....	30,527.62		1,019.31
		For Cement Mortar Lining (CML), Add	2,898.32		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	5,216.98		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	2,173.74		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0203	EA	48" x 48" Mechanical Joint Ductile Iron Tee.....	31,036.64		1,047.81
		For Cement Mortar Lining (CML), Add	2,944.91		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	5,300.84		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	2,208.68		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0204		Mechanical Joint Ductile Iron Wye (Laterals) (33 14 13 13-0002)			
33 14 13 13-0205	EA	4" x 3" Mechanical Joint Ductile Iron Wye (Lateral)	260.16		71.55
		For Cement Mortar Lining (CML), Add	15.17		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	27.31		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.38		
		Note: ANSI/AWWA C151/A21.51			



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
CSI	UOM			
33 14 13 13-0206	EA	4" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	397.96 28.38 51.09 21.29	75.32
33 14 13 13-0207	EA	6" x 3" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	383.06 23.92 43.06 17.94	94.93
33 14 13 13-0208	EA	6" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	442.54 29.28 52.70 21.96	98.86
33 14 13 13-0209	EA	6" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	596.05 42.84 77.12 32.13	110.62
33 14 13 13-0210	EA	8" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	764.45 59.09 106.36 44.32	114.57
33 14 13 13-0211	EA	8" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	685.89 49.45 89.01 37.09	126.34
33 14 13 13-0212	EA	8" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	828.10 62.48 112.46 46.86	134.18
33 14 13 13-0213	EA	10" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,179.78 99.43 178.98 74.57	122.42
33 14 13 13-0214	EA	10" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,248.39 104.61 188.29 78.46	133.52
33 14 13 13-0215	EA	10" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,434.55 122.10 219.78 91.58	140.93
33 14 13 13-0216	EA	10" x 10" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,614.98 139.06 250.31 104.30	148.08
33 14 13 13-0217	EA	12" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,505.69 129.78 233.60 97.33	137.22

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0218	EA	12" x 6" Mechanical Joint Ductile Iron Wye (Lateral)	1,702.81	148.32
		For Cement Mortar Lining (CML), Add	147.81	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	266.05	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	110.86	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0219	EA	12" x 8" Mechanical Joint Ductile Iron Wye (Lateral)	2,051.43	155.73
		For Cement Mortar Lining (CML), Add	181.55	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	326.78	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	136.16	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0220	EA	12" x 10" Mechanical Joint Ductile Iron Wye (Lateral)	2,110.47	162.89
		For Cement Mortar Lining (CML), Add	186.37	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	335.46	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	139.78	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0221	EA	12" x 12" Mechanical Joint Ductile Iron Wye (Lateral)	1,912.82	170.29
		For Cement Mortar Lining (CML), Add	165.48	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	297.87	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	124.11	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0222	EA	14" x 6" Mechanical Joint Ductile Iron Wye (Lateral)	2,254.05	172.83
		For Cement Mortar Lining (CML), Add	199.22	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	358.59	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	149.41	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0223	EA	14" x 8" Mechanical Joint Ductile Iron Wye (Lateral)	2,579.48	180.24
		For Cement Mortar Lining (CML), Add	230.64	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	415.15	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	172.98	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0224	EA	14" x 10" Mechanical Joint Ductile Iron Wye (Lateral)	3,366.82	187.39
		For Cement Mortar Lining (CML), Add	308.29	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	554.92	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	231.22	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0225	EA	14" x 12" Mechanical Joint Ductile Iron Wye (Lateral)	3,606.55	194.80
		For Cement Mortar Lining (CML), Add	331.14	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	596.05	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	248.36	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0226	EA	14" x 14" Mechanical Joint Ductile Iron Wye (Lateral)	3,525.14	207.05
		For Cement Mortar Lining (CML), Add	321.14	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	578.06	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	240.86	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0227	EA	16" x 6" Mechanical Joint Ductile Iron Wye (Lateral)	2,317.01	207.31
		For Cement Mortar Lining (CML), Add	200.29	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	360.52	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	150.22	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0228	EA	16" x 8" Mechanical Joint Ductile Iron Wye (Lateral)	2,549.59	214.72
		For Cement Mortar Lining (CML), Add	222.43	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	400.37	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	166.82	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0229	EA	16" x 10" Mechanical Joint Ductile Iron Wye (Lateral)	3,004.92	221.86
		For Cement Mortar Lining (CML), Add	266.88	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	480.38	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	200.16	
		Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0230	EA	16" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,360.68 301.33 542.39 226.00	229.27
33 14 13 13-0231	EA	16" x 14" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,203.97 383.80 690.84 287.85	241.53
33 14 13 13-0232	EA	16" x 16" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,055.14 366.31 659.35 274.73	258.77
33 14 13 13-0233	EA	18" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,645.56 324.36 583.84 243.27	265.32
33 14 13 13-0234	EA	18" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,924.55 351.13 632.04 263.35	272.72
33 14 13 13-0235	EA	18" x 10" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,194.23 377.02 678.63 282.76	279.87
33 14 13 13-0236	EA	18" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,487.49 405.22 729.40 303.92	287.28
33 14 13 13-0237	EA	18" x 14" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,538.20 408.44 735.18 306.33	299.53
33 14 13 13-0238	EA	18" x 16" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,585.74 410.58 739.04 307.93	316.78
33 14 13 13-0239	EA	18" x 18" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,197.68 367.38 661.28 275.53	345.77
33 14 13 13-0240	EA	20" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,328.78 375.23 675.42 281.42	380.46
33 14 13 13-0241	EA	20" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,423.91 383.62 690.52 287.72	387.88

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
33 14 13 13-0242	EA	20" x 10" Mechanical Joint Ductile Iron Wye (Lateral)	4,856.04	395.02	
		For Cement Mortar Lining (CML), Add	425.75		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	766.35		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	319.31		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0243	EA	20" x 12" Mechanical Joint Ductile Iron Wye (Lateral)	5,284.97	402.43	
		For Cement Mortar Lining (CML), Add	467.52		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	841.54		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	350.64		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0244	EA	20" x 14" Mechanical Joint Ductile Iron Wye (Lateral)	5,339.25	414.68	
		For Cement Mortar Lining (CML), Add	471.09		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	847.97		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	353.32		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0245	EA	20" x 16" Mechanical Joint Ductile Iron Wye (Lateral)	5,402.85	431.92	
		For Cement Mortar Lining (CML), Add	474.84		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	854.72		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	356.13		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0246	EA	20" x 18" Mechanical Joint Ductile Iron Wye (Lateral)	6,257.23	460.92	
		For Cement Mortar Lining (CML), Add	555.89		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	1,000.59		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	416.91		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0247	EA	20" x 20" Mechanical Joint Ductile Iron Wye (Lateral)	5,933.89	518.49	
		For Cement Mortar Lining (CML), Add	514.83		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	926.69		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	386.12		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0248	EA	24" x 6" Mechanical Joint Ductile Iron Wye (Lateral)	5,264.97	495.26	
		For Cement Mortar Lining (CML), Add	451.46		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	812.62		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	338.59		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0249	EA	24" x 8" Mechanical Joint Ductile Iron Wye (Lateral)	5,333.31	502.66	
		For Cement Mortar Lining (CML), Add	457.17		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	822.90		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	342.88		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0250	EA	24" x 10" Mechanical Joint Ductile Iron Wye (Lateral)	5,935.03	509.83	
		For Cement Mortar Lining (CML), Add	516.26		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	929.26		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	387.19		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0251	EA	24" x 12" Mechanical Joint Ductile Iron Wye (Lateral)	6,210.42	517.23	
		For Cement Mortar Lining (CML), Add	542.68		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	976.82		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	407.01		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0252	EA	24" x 14" Mechanical Joint Ductile Iron Wye (Lateral)	7,164.41	529.48	
		For Cement Mortar Lining (CML), Add	636.22		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	1,145.19		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	477.16		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0253	EA	24" x 16" Mechanical Joint Ductile Iron Wye (Lateral)	7,956.34	546.71	
		For Cement Mortar Lining (CML), Add	712.80		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	1,283.04		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	534.60		
		Note: ANSI/AWWA C151/A21.51			



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0254	EA	24" x 18" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,899.98 802.77 1,444.98 602.08	575.72
33 14 13 13-0255	EA	24" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,778.03 881.85 1,587.33 661.39	633.30
33 14 13 13-0256	EA	24" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,686.82 764.03 1,375.26 573.02	690.69
33 14 13 13-0257	EA	30" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,833.17 995.92 1,792.65 746.94	576.83
33 14 13 13-0258	EA	30" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,140.39 1,125.52 2,025.93 844.14	584.25
33 14 13 13-0259	EA	30" x 10" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,843.86 1,194.78 2,150.61 896.09	591.39
33 14 13 13-0260	EA	30" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,547.71 1,264.04 2,275.28 948.03	598.79
33 14 13 13-0261	EA	30" x 14" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	14,546.31 1,362.05 2,451.68 1,021.54	611.06
33 14 13 13-0262	EA	30" x 16" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	15,622.07 1,467.01 2,640.62 1,100.26	628.29
33 14 13 13-0263	EA	30" x 18" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,017.68 1,502.18 2,703.92 1,126.63	657.29
33 14 13 13-0264	EA	30" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,595.83 1,551.27 2,792.28 1,163.45	714.87
33 14 13 13-0265	EA	30" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,391.49 1,622.14 2,919.85 1,216.60	772.27

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0266 EA 30" x 30" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	18,847.46 1,761.56 3,170.80 1,321.17	813.05
33 14 13 13-0267 EA 36" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	20,660.02 1,965.60 3,538.07 1,474.20	662.68
33 14 13 13-0268 EA 36" x 14" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	21,469.38 2,044.68 3,680.42 1,533.51	674.93
33 14 13 13-0269 EA 36" x 16" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,275.60 2,122.69 3,820.83 1,592.01	692.17
33 14 13 13-0270 EA 36" x 18" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	23,831.54 2,273.89 4,092.99 1,705.41	721.17
33 14 13 13-0271 EA 36" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	25,436.13 2,425.62 4,366.12 1,819.22	778.74
33 14 13 13-0272 EA 36" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	28,213.27 2,694.64 4,850.35 2,020.98	836.13
33 14 13 13-0273 EA 36" x 30" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	31,600.74 3,027.21 5,448.97 2,270.40	876.92
33 14 13 13-0274 EA 36" x 36" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	37,702.48 3,632.54 6,538.57 2,724.41	908.86
33 14 13 13-0275 EA 42" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	33,176.95 3,194.29 5,749.73 2,395.72	814.45
33 14 13 13-0276 EA 42" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	34,008.30 3,268.73 5,883.72 2,451.55	871.85
33 14 13 13-0277 EA 42" x 30" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	36,326.50 3,494.37 6,289.87 2,620.78	912.64



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0278	EA	42" x 36" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	41,533.88 4,010.27 7,218.49 3,007.70	944.57
33 14 13 13-0279	EA	42" x 42" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	48,976.32 4,751.81 8,553.26 3,563.86	962.43
33 14 13 13-0280	EA	48" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	32,734.75 3,141.45 5,654.62 2,356.09	871.34
33 14 13 13-0281	EA	48" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	37,070.31 3,566.31 6,419.36 2,674.73	928.73
33 14 13 13-0282	EA	48" x 30" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	39,508.10 3,803.91 6,847.04 2,852.93	969.52
33 14 13 13-0283	EA	48" x 36" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	45,027.87 4,351.05 7,831.89 3,263.29	1,001.46
33 14 13 13-0284	EA	48" x 42" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	58,853.90 5,730.95 10,315.71 4,298.21	1,019.31
33 14 13 13-0285	EA	48" x 48" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	64,609.39 6,302.19 11,343.94 4,726.64	1,047.76
33 14 13 13-0286		Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee (33 14 13 13-0002)		
33 14 13 13-0287	EA	6" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	528.20 36.06 64.91 27.04 27.04	110.68
33 14 13 13-0288	EA	8" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	626.98 43.56 78.40 32.67 32.67	126.34
33 14 13 13-0289	EA	10" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	944.92 74.26 133.67 55.70 55.70	133.52

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0290	EA	12" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,061.95 83.72 150.70 62.79 62.79	148.32
33 14 13 13-0291	EA	14" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,447.18 118.53 213.36 88.90 88.90	172.83
33 14 13 13-0292	EA	16" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,847.53 153.34 276.02 115.01 115.01	207.31
33 14 13 13-0293	EA	18" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	2,269.24 186.72 336.10 140.04 140.04	265.32
33 14 13 13-0294	EA	20" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	3,180.95 260.45 468.81 195.34 195.34	380.46
33 14 13 13-0295	EA	24" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	3,699.21 298.47 537.25 223.85 223.85	495.26
33 14 13 13-0296	EA	30" x 6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	7,212.95 633.90 1,141.01 475.42 475.42	576.83
33 14 13 13-0297		Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee (33 14 13 13-0002)		
33 14 13 13-0298	EA	6" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	474.65 30.70 55.27 23.03 23.03	110.68
33 14 13 13-0299	EA	8" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	555.57 36.42 65.55 27.31 27.31	126.34
33 14 13 13-0300	EA	10" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	787.83 58.55 105.39 43.91 43.91	133.52



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
CSI	UOM			
33 14 13 13-0301	EA	12" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	974.48 74.98 134.96 56.23 56.23	148.32
33 14 13 13-0302	EA	14" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,225.82 96.40 173.51 72.30 72.30	172.83
33 14 13 13-0303	EA	16" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,547.63 123.35 222.03 92.51 92.51	207.31
33 14 13 13-0304	EA	18" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	1,999.68 159.77 287.58 119.83 119.83	265.32
33 14 13 13-0305	EA	20" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	2,186.64 161.02 289.83 120.76 120.76	380.46
33 14 13 13-0306	EA	24" x 6" Mechanical Joint x Swivel (MJxSW) Ductile Iron Hydrant Tee Note: Includes swivel gland. For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For Protective Fusion-Bonded Epoxy Coated, C116, Add	3,033.36 231.89 417.40 173.92 173.92	495.26
33 14 13 13-0307		Mechanical Joint Ductile Iron Cross (33 14 13 13-0002)		
33 14 13 13-0308	EA	3" x 3" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	359.62 23.03 41.45 17.27	85.37
33 14 13 13-0309	EA	4" x 3" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	435.30 29.45 53.02 22.09	92.90
33 14 13 13-0310	EA	4" x 4" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	515.76 37.31 67.16 27.98	94.15
33 14 13 13-0311	EA	6" x 3" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	615.56 43.91 79.05 32.94	116.38

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
33 14 13 13-0312	EA 6" x 4" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	597.22 40.70 73.26 30.53	125.54	
33 14 13 13-0313	EA 6" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	694.75 45.70 82.26 34.27	156.92	
33 14 13 13-0314	EA 8" x 4" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	613.29 40.52 72.94 30.39	137.32	
33 14 13 13-0315	EA 8" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	728.67 47.31 85.15 35.48	168.70	
33 14 13 13-0316	EA 8" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	771.51 49.81 89.65 37.35	180.46	
33 14 13 13-0317	EA 10" x 4" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	745.32 52.84 95.11 39.63	143.17	
33 14 13 13-0318	EA 10" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	854.45 59.27 106.68 44.45	172.78	
33 14 13 13-0319	EA 10" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,014.11 73.55 132.38 55.16	183.91	
33 14 13 13-0320	EA 10" x 10" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,097.16 79.80 143.63 59.85	197.45	
33 14 13 13-0321	EA 12 x 4" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	903.22 66.76 120.17 50.07	155.49	
33 14 13 13-0322	EA 12" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,049.85 76.94 138.49 57.70	185.10	
33 14 13 13-0323	EA 12" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,511.18 121.39 218.50 91.04	196.22	



		Utilities	33	
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0324	EA	12" x 10" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,531.76 121.39 218.50 91.04	209.81
33 14 13 13-0325	EA	12" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,737.88 140.13 252.24 105.10	222.13
33 14 13 13-0326	EA	14" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,779.43 147.09 264.77 110.32	203.61
33 14 13 13-0327	EA	14" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,092.60 176.73 318.11 132.55	214.72
33 14 13 13-0328	EA	14" x 10" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,148.89 180.30 324.53 135.22	228.31
33 14 13 13-0329	EA	14" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,267.53 190.29 342.53 142.72	240.63
33 14 13 13-0330	EA	14" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,508.00 211.54 380.77 158.65	259.15
33 14 13 13-0331	EA	16" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,034.68 168.69 303.65 126.52	229.51
33 14 13 13-0332	EA	16" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,313.93 194.94 350.88 146.20	240.63
33 14 13 13-0333	EA	16" x 10" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,767.55 238.24 428.83 178.68	254.20
33 14 13 13-0334	EA	16" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,083.30 267.95 482.30 200.96	266.53
33 14 13 13-0335	EA	16" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,721.84 329.00 592.20 246.75	285.03

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 13-0336	EA	16" x 16" Mechanical Joint Ductile Iron Cross	4,355.52	310.98
		For Cement Mortar Lining (CML), Add	388.44	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	699.20	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	291.33	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0337	EA	18" x 6" Mechanical Joint Ductile Iron Cross	3,358.41	271.39
		For Cement Mortar Lining (CML), Add	294.72	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	530.50	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	221.04	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0338	EA	18" x 8" Mechanical Joint Ductile Iron Cross	3,550.20	282.50
		For Cement Mortar Lining (CML), Add	312.22	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	561.99	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	234.16	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0339	EA	18" x 10" Mechanical Joint Ductile Iron Cross	3,717.15	296.08
		For Cement Mortar Lining (CML), Add	326.86	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	588.34	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	245.14	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0340	EA	18" x 12" Mechanical Joint Ductile Iron Cross	4,028.58	308.40
		For Cement Mortar Lining (CML), Add	356.13	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	641.04	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	267.10	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0341	EA	18" x 14" Mechanical Joint Ductile Iron Cross	4,697.47	326.90
		For Cement Mortar Lining (CML), Add	420.22	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	756.39	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	315.16	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0342	EA	18" x 16" Mechanical Joint Ductile Iron Cross	5,000.92	352.79
		For Cement Mortar Lining (CML), Add	446.64	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	803.95	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	334.98	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0343	EA	18" x 18" Mechanical Joint Ductile Iron Cross	5,239.31	394.67
		For Cement Mortar Lining (CML), Add	464.13	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	835.44	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	348.10	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0344	EA	20" x 6" Mechanical Joint Ductile Iron Cross	4,221.84	340.50
		For Cement Mortar Lining (CML), Add	370.59	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	667.06	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	277.94	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0345	EA	20" x 8" Mechanical Joint Ductile Iron Cross	4,415.40	351.62
		For Cement Mortar Lining (CML), Add	388.26	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	698.88	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	291.20	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0346	EA	20" x 10" Mechanical Joint Ductile Iron Cross	4,552.01	365.21
		For Cement Mortar Lining (CML), Add	399.87	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	719.76	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	299.90	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0347	EA	20" x 12" Mechanical Joint Ductile Iron Cross	4,861.66	377.53
		For Cement Mortar Lining (CML), Add	428.96	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	772.14	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	321.72	
		Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0348	EA	20" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,948.59 434.86 782.74 326.14	396.04
33 14 13 13-0349	EA	20" x 16" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,980.37 534.11 961.39 400.58	421.93
33 14 13 13-0350	EA	20" x 18" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,218.76 551.60 992.88 413.70	463.80
33 14 13 13-0351	EA	20" x 20" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,732.28 592.48 1,066.47 444.36	532.88
33 14 13 13-0352	EA	24" x 6" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,752.62 510.72 919.30 383.04	425.96
33 14 13 13-0353	EA	24" x 8" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,887.62 522.51 940.51 391.88	437.07
33 14 13 13-0354	EA	24" x 10" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,111.35 542.86 977.14 407.14	450.65
33 14 13 13-0355	EA	24" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,304.97 560.35 1,008.63 420.26	462.97
33 14 13 13-0356	EA	24" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,420.46 569.10 1,024.37 426.82	481.47
33 14 13 13-0357	EA	24" x 16" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,664.99 589.63 1,061.33 442.22	507.38
33 14 13 13-0358	EA	24" x 18" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,800.98 796.88 1,434.38 597.66	549.25
33 14 13 13-0359	EA	24" x 20" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,284.15 834.72 1,502.50 626.04	618.37

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 14 13 13-0360	EA	24" x 24" Mechanical Joint Ductile Iron Cross	10,231.20	703.84
		For Cement Mortar Lining (CML), Add	916.48	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,649.67	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	687.36	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0361	EA	30" x 8" Mechanical Joint Ductile Iron Cross	10,981.56	566.37
		For Cement Mortar Lining (CML), Add	1,012.34	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,822.22	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	759.26	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0362	EA	30" x 10" Mechanical Joint Ductile Iron Cross	11,200.27	579.95
		For Cement Mortar Lining (CML), Add	1,032.16	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,857.88	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	774.12	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0363	EA	30" x 12" Mechanical Joint Ductile Iron Cross	11,415.32	592.27
		For Cement Mortar Lining (CML), Add	1,051.79	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,893.23	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	788.84	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0364	EA	30" x 14" Mechanical Joint Ductile Iron Cross	11,670.05	610.78
		For Cement Mortar Lining (CML), Add	1,074.46	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,934.04	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	805.85	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0365	EA	30" x 16" Mechanical Joint Ductile Iron Cross	11,962.78	636.67
		For Cement Mortar Lining (CML), Add	1,099.81	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,979.66	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	824.86	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0366	EA	30" x 18" Mechanical Joint Ductile Iron Cross	12,308.28	678.55
		For Cement Mortar Lining (CML), Add	1,128.02	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,030.43	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	846.01	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0367	EA	30" x 20" Mechanical Joint Ductile Iron Cross	12,750.40	747.68
		For Cement Mortar Lining (CML), Add	1,161.76	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,091.16	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	871.32	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0368	EA	30" x 24" Mechanical Joint Ductile Iron Cross	16,380.48	833.12
		For Cement Mortar Lining (CML), Add	1,511.82	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,721.27	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,133.86	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0369	EA	30" x 30" Mechanical Joint Ductile Iron Cross	18,836.34	962.44
		For Cement Mortar Lining (CML), Add	1,737.81	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	3,128.07	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,303.36	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0370	EA	36" x 8" Mechanical Joint Ductile Iron Cross	15,313.05	614.04
		For Cement Mortar Lining (CML), Add	1,438.27	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,588.89	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,078.70	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0371	EA	36" x 10" Mechanical Joint Ductile Iron Cross	15,530.01	627.60
		For Cement Mortar Lining (CML), Add	1,457.91	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	2,624.23	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1,093.43	
		Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0372	EA	36" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	15,716.48 1,474.69 2,654.44 1,106.02	639.94
33 14 13 13-0373	EA	36" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	15,940.86 1,494.32 2,689.78 1,120.74	658.44
33 14 13 13-0374	EA	36" x 16" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,205.03 1,516.82 2,730.27 1,137.61	684.34
33 14 13 13-0375	EA	36" x 18" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,520.19 1,541.99 2,775.58 1,156.49	726.20
33 14 13 13-0376	EA	36" x 20" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,933.74 1,572.87 2,831.16 1,179.65	795.33
33 14 13 13-0377	EA	36" x 24" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,652.29 1,631.78 2,937.20 1,223.83	880.79
33 14 13 13-0378	EA	36" x 30" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	23,764.10 2,223.37 4,002.06 1,667.53	1,010.07
33 14 13 13-0379	EA	36" x 36" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	26,106.98 2,450.43 4,410.78 1,837.83	1,057.79
33 14 13 13-0380	EA	42" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	20,542.35 1,953.10 3,515.58 1,464.83	667.49
33 14 13 13-0381	EA	42" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	23,222.62 2,218.32 3,992.98 1,663.74	686.00
33 14 13 13-0382	EA	42" x 16" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	21,011.27 1,993.27 3,587.88 1,494.95	711.89
33 14 13 13-0383	EA	42" x 18" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	21,290.72 2,014.87 3,626.76 1,511.15	753.77

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0384 EA 42" x 20" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	21,690.00 2,044.32 3,679.77 1,533.24	822.90
33 14 13 13-0385 EA 42" x 24" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,356.79 2,098.05 3,776.49 1,573.54	908.34
33 14 13 13-0386 EA 42" x 30" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	28,614.96 2,704.28 4,867.70 2,028.21	1,037.64
33 14 13 13-0387 EA 42" x 36" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	37,353.93 3,570.95 6,427.72 2,678.22	1,085.30
33 14 13 13-0388 EA 42" x 42" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	40,023.39 3,833.72 6,900.70 2,875.29	1,112.87
33 14 13 13-0389 EA 48" x 12" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	27,764.71 2,658.76 4,785.76 1,994.07	776.90
33 14 13 13-0390 EA 48" x 14" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	27,953.41 2,674.82 4,814.68 2,006.12	795.42
33 14 13 13-0391 EA 48" x 16" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	28,206.86 2,696.25 4,853.24 2,022.18	821.31
33 14 13 13-0392 EA 48" x 18" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	28,484.52 2,717.67 4,891.80 2,038.25	863.18
33 14 13 13-0393 EA 48" x 20" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	28,858.82 2,744.62 4,940.32 2,058.47	932.31
33 14 13 13-0394 EA 48" x 24" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	29,497.04 2,795.50 5,031.90 2,096.62	1,017.75
33 14 13 13-0395 EA 48" x 30" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	31,222.80 2,948.48 5,307.27 2,211.36	1,147.05



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0396	EA	48" x 36" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	38,242.69 3,643.25 6,557.85 2,732.44	1,194.71
33 14 13 13-0397	EA	48" x 42" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	49,150.47 4,729.65 8,513.74 3,547.39	1,222.28
33 14 13 13-0398	EA	48" x 48" Mechanical Joint Ductile Iron Cross For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	52,347.38 5,032.97 9,059.34 3,774.73	1,331.63
33 14 13 13-0399 Mechanical Joint x Mechanical Joint Ductile Iron Reducers (33 14 13 13-0002)				
33 14 13 13-0400	EA	4" x 3" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	173.91 10.35 18.64 7.77	46.45
33 14 13 13-0401	EA	6" x 3" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	202.46 11.43 20.57 8.57	58.22
33 14 13 13-0402	EA	6" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	218.88 12.50 22.49 9.37	61.99
33 14 13 13-0403	EA	8" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	277.29 17.14 30.85 12.85	69.84
33 14 13 13-0404	EA	8" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	305.72 18.21 32.77 13.66	81.60
33 14 13 13-0405	EA	10" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	333.83 22.31 40.17 16.74	73.05
33 14 13 13-0406	EA	10" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	363.15 23.56 42.42 17.67	84.16
33 14 13 13-0407	EA	10" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	397.57 25.88 46.59 19.41	91.56
33 14 13 13-0408	EA	12" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	403.95 28.21 50.77 21.15	80.46

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

33 14 13 13-0409	EA 12" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	449.33	91.56
	For Cement Mortar Lining (CML), Add	31.06	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	55.91	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.30	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0410	EA 12" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	469.50	98.97
	For Cement Mortar Lining (CML), Add	31.95	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	57.52	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.97	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0411	EA 12" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	514.25	106.13
	For Cement Mortar Lining (CML), Add	35.35	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	63.62	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	26.51	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0412	EA 14" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	846.36	103.81
	For Cement Mortar Lining (CML), Add	68.91	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	124.03	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	51.68	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0413	EA 14" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	821.87	111.23
	For Cement Mortar Lining (CML), Add	65.34	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	117.60	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	49.00	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0414	EA 14" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	736.32	118.38
	For Cement Mortar Lining (CML), Add	55.70	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	100.25	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	41.77	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0415	EA 14" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	774.31	125.78
	For Cement Mortar Lining (CML), Add	58.37	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	105.07	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	43.78	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0416	EA 16" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	993.85	121.05
	For Cement Mortar Lining (CML), Add	81.04	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	145.88	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	60.78	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0417	EA 16" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	974.74	128.46
	For Cement Mortar Lining (CML), Add	78.01	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	140.42	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	58.51	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0418	EA 16" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	957.01	135.62
	For Cement Mortar Lining (CML), Add	75.15	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	135.28	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	56.37	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0419	EA 16" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,037.86	143.03
	For Cement Mortar Lining (CML), Add	82.12	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	147.81	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	61.59	
	Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0420	EA 16" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,154.60	155.28
	For Cement Mortar Lining (CML), Add	91.93	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	165.48	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	68.95	
	Note: ANSI/AWWA C151/A21.51		



		Utilities	33	
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0421	EA	18" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,240.03 100.15 180.26 75.11	157.46
33 14 13 13-0422	EA	18" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,390.11 114.07 205.32 85.55	164.62
33 14 13 13-0423	EA	18" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,340.64 108.00 194.40 81.00	172.02
33 14 13 13-0424	EA	18" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,421.68 114.25 205.65 85.69	184.27
33 14 13 13-0425	EA	18" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,497.78 119.25 214.64 89.43	201.52
33 14 13 13-0426	EA	20" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,750.35 142.45 256.42 106.84	215.04
33 14 13 13-0427	EA	20" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,679.07 134.24 241.63 100.68	222.19
33 14 13 13-0428	EA	20" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,549.26 120.14 216.25 90.10	229.60
33 14 13 13-0429	EA	20" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,558.90 119.25 214.64 89.43	241.85
33 14 13 13-0430	EA	20" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,610.01 121.75 219.14 91.31	259.09
33 14 13 13-0431	EA	20" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,930.65 149.42 268.95 112.06	288.10
33 14 13 13-0432	EA	24" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,275.30 184.05 331.28 138.03	286.99

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0433 EA 24" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,340.28	299.25
For Cement Mortar Lining (CML), Add	188.69	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	339.64	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	141.52	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0434 EA 24" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,391.38	316.48
For Cement Mortar Lining (CML), Add	191.19	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	344.13	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	143.39	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0435 EA 24" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,351.43	345.49
For Cement Mortar Lining (CML), Add	182.80	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	329.03	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	137.10	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0436 EA 24" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,874.23	403.07
For Cement Mortar Lining (CML), Add	226.35	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	407.44	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	169.76	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0437 EA 30" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	4,691.73	357.27
For Cement Mortar Lining (CML), Add	415.04	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	747.07	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	311.28	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0438 EA 30" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	4,899.90	386.28
For Cement Mortar Lining (CML), Add	431.46	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	776.64	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	323.60	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0439 EA 30" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	4,747.93	443.85
For Cement Mortar Lining (CML), Add	407.54	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	733.58	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	305.66	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0440 EA 30" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	4,640.32	501.25
For Cement Mortar Lining (CML), Add	388.09	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	698.55	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	291.06	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0441 EA 36" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	7,034.85	475.79
For Cement Mortar Lining (CML), Add	631.40	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,136.51	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	473.55	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0442 EA 36" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	5,820.48	533.18
For Cement Mortar Lining (CML), Add	501.26	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	902.27	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	375.95	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0443 EA 36" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	6,321.41	573.97
For Cement Mortar Lining (CML), Add	545.18	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	981.32	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	408.88	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0444 EA 42" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	9,142.49	407.06
For Cement Mortar Lining (CML), Add	852.57	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,534.63	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	639.43	
Note: ANSI/AWWA C151/A21.51		



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0445	EA	42" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,107.89 844.72 1,520.49 633.54	436.07
33 14 13 13-0446	EA	42" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,166.57 841.66 1,515.35 631.40	493.64
33 14 13 13-0447	EA	42" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,229.99 939.51 1,691.12 704.63	551.04
33 14 13 13-0448	EA	42" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,438.83 754.21 1,357.58 565.66	591.82
33 14 13 13-0449	EA	42" x 36" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,833.54 788.85 1,419.92 591.63	623.76
33 14 13 13-0450	EA	48" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,316.69 1,165.68 2,098.23 874.26	435.51
33 14 13 13-0451	EA	48" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,942.92 1,123.91 2,023.04 842.93	464.51
33 14 13 13-0452	EA	48" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,387.51 1,059.65 1,907.36 794.74	522.09
33 14 13 13-0453	EA	48" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,744.04 1,086.60 1,955.89 814.95	579.48
33 14 13 13-0454	EA	48" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	14,031.87 1,309.21 2,356.57 981.91	620.27
33 14 13 13-0455	EA	48" x 36" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,293.35 1,130.52 2,034.93 847.89	652.21
33 14 13 13-0456	EA	48" x 42" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,495.01 1,247.98 2,246.36 935.98	670.06

33 14 13 13-0457 Mechanical Joint x Plain End Ductile Iron Offsets (33 14 13 13-0002)

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13	13-0458	EA 4" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	817.89 55.64 41.73	172.62
33 14 13	13-0459	EA 4" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	840.24 57.87 43.40	172.62
33 14 13	13-0460	EA 6" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,011.85 68.49 51.37	215.77
33 14 13	13-0461	EA 6" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,104.05 77.71 58.28	215.77
33 14 13	13-0462	EA 6" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,219.79 89.29 66.96	215.77
33 14 13	13-0463	EA 8" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,283.01 90.94 68.20	246.56
33 14 13	13-0464	EA 8" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,514.62 114.10 85.58	246.56
33 14 13	13-0465	EA 8" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,615.68 124.21 93.15	246.56
33 14 13	13-0466	EA 10" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,677.97 124.21 93.15	287.70
33 14 13	13-0467	EA 10" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,006.67 157.08 117.81	287.70
33 14 13	13-0468	EA 10" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,288.55 185.26 138.95	287.70
33 14 13	13-0469	EA 12" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,376.98 190.15 142.61	313.84
33 14 13	13-0470	EA 12" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,625.00 214.95 161.21	313.84
33 14 13	13-0471	EA 12" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,104.66 262.91 197.18	313.84
33 14 13	13-0472	EA 14" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,896.09 337.30 252.98	345.24
33 14 13	13-0473	EA 14" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,888.15 436.51 327.38	345.24
33 14 13	13-0474	EA 14" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,879.23 235.62 176.71	345.24



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0475	EA		16" Diameter x 6" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,399.98 181.88 136.41	383.63
33 14 13 13-0476	EA		16" Diameter x 12" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,978.68 239.75 179.81	383.63
33 14 13 13-0477	EA		16" Diameter x 18" Mechanical Joint x Plain End Offset, Ductile Iron..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,433.38 285.22 213.91	383.63
33 14 13 13-0478 Mechanical Joint Ductile Iron Caps (33 14 13 13-0002)					
33 14 13 13-0479	EA		3" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	195.01 4.64 8.35 3.48	98.08
33 14 13 13-0480	EA		4" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	222.56 4.82 8.68 3.62	115.08
33 14 13 13-0481	EA		6" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	303.64 8.57 15.42 6.43	143.85
33 14 13 13-0482	EA		8" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	391.89 14.28 25.71 10.71	164.41
33 14 13 13-0483	EA		10" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	554.25 18.03 32.45 13.52	246.81
33 14 13 13-0484	EA		12" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	677.49 26.96 48.52 20.22	269.24
33 14 13 13-0485	EA		14" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	857.53 40.88 73.58 30.66	296.16
33 14 13 13-0486	EA		16" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,046.63 54.80 98.65 41.10	329.04
33 14 13 13-0487	EA		18" Mechanical Joint Ductile Iron Caps For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,230.35 66.94 120.50 50.21	370.21

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0488	EA	20" Mechanical Joint Ductile Iron Caps	.....	1,506.83	423.04
		For Cement Mortar Lining (CML), Add	.....	86.58	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	155.84	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	64.93	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0489	EA	24" Mechanical Joint Ductile Iron Caps	.....	1,936.79	493.61
		For Cement Mortar Lining (CML), Add	.....	118.89	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	214.00	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	89.17	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0490	EA	30" Mechanical Joint Ductile Iron Caps	.....	3,616.21	592.34
		For Cement Mortar Lining (CML), Add	.....	271.87	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	489.37	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	203.91	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0491	EA	36" Mechanical Joint Ductile Iron Caps	.....	6,066.62	740.42
		For Cement Mortar Lining (CML), Add	.....	494.48	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	890.06	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	370.86	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0492	EA	42" Mechanical Joint Ductile Iron Caps	.....	8,845.50	888.50
		For Cement Mortar Lining (CML), Add	.....	749.93	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	1,349.87	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	562.45	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0493	EA	48" Mechanical Joint Ductile Iron Caps	.....	10,532.07	987.23
		For Cement Mortar Lining (CML), Add	.....	903.63	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	1,626.53	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	677.72	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0494		Mechanical Joint Ductile Iron Plug (33 14 13 13-0002)			
33 14 13 13-0495	EA	3" Mechanical Joint Ductile Iron Plug	.....	202.15	98.08
		For Cement Mortar Lining (CML), Add	.....	5.36	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	9.64	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	4.02	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0496	EA	4" Mechanical Joint Ductile Iron Plug	.....	233.27	115.08
		For Cement Mortar Lining (CML), Add	.....	5.89	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	10.60	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	4.42	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0497	EA	6" Mechanical Joint Ductile Iron Plug	.....	332.20	143.85
		For Cement Mortar Lining (CML), Add	.....	11.43	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	20.57	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	8.57	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0498	EA	8" Mechanical Joint Ductile Iron Plug	.....	420.45	164.41
		For Cement Mortar Lining (CML), Add	.....	17.14	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	30.85	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	12.85	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0499	EA	10" Mechanical Joint Ductile Iron Plug	.....	670.28	246.81
		For Cement Mortar Lining (CML), Add	.....	29.63	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	53.34	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	22.22	
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-0500	EA	12" Mechanical Joint Ductile Iron Plug	.....	709.63	269.24
		For Cement Mortar Lining (CML), Add	.....	30.17	
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	.....	54.30	
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	.....	22.63	
		Note: ANSI/AWWA C151/A21.51			



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-0501	EA	14" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,062.82 61.41 110.53 46.06	296.16
33 14 13 13-0502	EA	16" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	577.15 7.86 14.14 5.89	329.04
33 14 13 13-0503	EA	18" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,535.61 97.47 175.44 73.10	370.21
33 14 13 13-0504	EA	20" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,922.77 128.17 230.71 96.13	423.04
33 14 13 13-0505	EA	24" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,525.88 177.80 320.04 133.35	493.61
33 14 13 13-0506	EA	30" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,426.65 352.92 635.25 264.69	592.34
33 14 13 13-0507	EA	36" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,573.60 545.18 981.32 408.88	740.42
33 14 13 13-0508	EA	42" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,909.76 756.36 1,361.44 567.27	888.50
33 14 13 13-0509	EA	48" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,578.15 1,008.24 1,814.82 756.18	987.23
33 14 13 13-0510		Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters (33 14 13 13-0002)		
33 14 13 13-0511	EA	3" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	341.91 11.60 20.89 8.70	149.08
33 14 13 13-0512	EA	4" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	386.50 12.50 22.49 9.37	172.62
33 14 13 13-0513	EA	6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	500.09 17.32 31.17 12.99	215.77

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0514 EA 8" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	636.03	246.56
For Cement Mortar Lining (CML), Add	26.24	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	47.23	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	19.68	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0515 EA 10" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,017.92	370.21
For Cement Mortar Lining (CML), Add	45.70	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	82.26	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	34.27	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0516 EA 12" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,197.44	403.86
For Cement Mortar Lining (CML), Add	58.55	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	105.39	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	43.91	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0517 EA 14" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,603.16	444.26
For Cement Mortar Lining (CML), Add	93.01	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	167.41	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	69.75	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0518 EA 16" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,810.05	493.61
For Cement Mortar Lining (CML), Add	106.22	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	191.19	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	79.66	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0519 EA 18" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,465.85	555.31
For Cement Mortar Lining (CML), Add	162.45	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	292.40	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	121.83	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0520 EA 20" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,896.66	634.63
For Cement Mortar Lining (CML), Add	193.51	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	348.31	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	145.13	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0521 EA 24" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	3,504.98	740.42
For Cement Mortar Lining (CML), Add	238.31	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	428.97	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	178.74	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0522 EA 30" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	5,732.25	888.50
For Cement Mortar Lining (CML), Add	438.60	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	789.49	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	328.95	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0523 EA 36" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	7,968.18	1,110.63
For Cement Mortar Lining (CML), Add	628.54	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,131.37	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	471.41	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0524 EA 42" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	10,686.31	1,269.26
For Cement Mortar Lining (CML), Add	876.32	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,577.37	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	657.24	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0525 EA 48" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	13,218.62	1,480.84
For Cement Mortar Lining (CML), Add	1,097.49	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,975.49	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	823.12	
Note: ANSI/AWWA C151/A21.51		

33 14 13 13-0526 Mechanical Joint Ductile Iron Long Sleeves (33 14 13 13-0002)



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0527 EA 3" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	324.06 9.82 17.67 7.36	149.08
33 14 13 13-0528 EA 4" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	377.57 11.60 20.89 8.70	172.62
33 14 13 13-0529 EA 6" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	521.51 19.46 35.02 14.59	215.77
33 14 13 13-0530 EA 8" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	693.16 31.95 57.52 23.97	246.56
33 14 13 13-0531 EA 10" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	941.16 38.02 68.44 28.52	370.21
33 14 13 13-0532 EA 12" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,126.03 51.41 92.54 38.56	403.86
33 14 13 13-0533 EA 14" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,449.64 77.65 139.78 58.24	444.26
33 14 13 13-0534 EA 16" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,731.50 98.36 177.05 73.77	493.61
33 14 13 13-0535 EA 18" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,099.90 125.85 226.53 94.39	555.31
33 14 13 13-0536 EA 20" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,480.73 151.91 273.45 113.94	634.63
33 14 13 13-0537 EA 24" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,122.96 200.11 360.20 150.08	740.42
33 14 13 13-0538 EA 30" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,537.67 419.15 754.46 314.36	888.50

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0539 EA 36" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,568.31 588.55 1,059.40 441.42	1,110.63
33 14 13 13-0540 EA 42" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,793.35 787.24 1,417.03 590.43	1,267.80
33 14 13 13-0541 EA 48" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,302.52 1,105.88 1,990.59 829.41	1,480.84
33 14 13 13-0542 Mechanical Joint Ductile Iron Gland Packs (33 14 13 13-0002) Note: Includes ductile iron retainer gland, gasket, break off torque bolts and all nuts.		
33 14 13 13-0543 Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts (33 14 13 13-0542) Note: Labor installation is included with pipe fittings or valves.		
33 14 13 13-0544 EA 3" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	35.70	
33 14 13 13-0545 EA 4" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	46.34	
Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0546 EA 6" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	56.00	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0547 EA 8" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	65.65	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0548 EA 10" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	90.76	
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0549 EA 12" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	96.55	
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0550 EA 14" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	158.34	
Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0551 EA 16" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	167.99	
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0552 EA 18" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	223.99	
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0553 EA 20" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	289.64	
Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0554 EA 24" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	403.57	
Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0555 EA 30" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	963.55	
Note: Includes twenty (20) 1" diameter plain finish Boltss with nut.		
33 14 13 13-0556 EA 36" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	2,077.71	
Note: Includes twenty-four (24) 1" diameter plain finish Boltss with nut.		
33 14 13 13-0557 EA 42" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	3,033.54	
Note: Includes twenty-eight (28) 1-1/4" diameter plain finish Boltss with nut.		
33 14 13 13-0558 EA 48" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	3,722.89	
Note: Includes thirty-two (32) 1-1/4" diameter plain finish Boltss with nut.		
33 14 13 13-0559 Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts (33 14 13 13-0542) Note: Labor installation is included with pipe fittings or valves.		
33 14 13 13-0560 EA 3" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts.....	60.69	
33 14 13 13-0561 EA 4" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts.....	65.65	
Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0562 EA 6" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts.....	83.03	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0563 EA 8" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts.....	90.76	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0564 EA 10" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	125.51	
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0565 EA 12" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	131.31	
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0566 EA 14" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	198.89	
Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0567 EA 16" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	218.20	
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0568 EA 18" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	289.64	
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0569 EA 20" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	374.61	
Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0570 EA 24" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts	523.29	
Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.		



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 14 13 13-0571		Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts (33 14 13-0542)			
Note: Labor installation is included with pipe fittings or valves.					
33 14 13 13-0572	EA	3" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	39.27		
33 14 13 13-0573	EA	4" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	50.20		
Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0574	EA	6" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	59.86		
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0575	EA	8" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	71.45		
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0576	EA	10" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	98.48		
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0577	EA	12" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	104.27		
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0578	EA	14" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	171.86		
Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0579	EA	16" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	181.51		
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0580	EA	18" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	245.23		
Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0581	EA	20" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	314.75		
Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0582	EA	24" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	440.26		
Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.					
33 14 13 13-0583	EA	30" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	1,054.30		
Note: Includes twenty (20) 1" diameter plain finish Boltss with nut.					
33 14 13 13-0584	EA	36" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	2,336.46		
Note: Includes twenty-four (24) 1" diameter plain finish Boltss with nut.					
33 14 13 13-0585	EA	42" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	3,383.04		
Note: Includes twenty-eight (28) 1-1/4" diameter plain finish Boltss with nut.					
33 14 13 13-0586	EA	48" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	4,163.15		
Note: Includes thirty-two (32) 1-1/4" diameter plain finish Boltss with nut.					
33 14 13 13-0587		Mechanical Joint Restraints With Accessories For Ductile Iron Pipe (MEGALUG® 1100DEC Series) (33 14 13 13-0002)			
Note: Includes ductile iron retainer gland, gasket, break off torque bolts and all nuts and bolts. Excludes pipe and fitting.					
33 14 13 13-0588	EA	3" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1103DSC).....	205.31	74.78	
33 14 13 13-0589	EA	4" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1104DEC).....	234.15	88.56	
33 14 13 13-0590	EA	6" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1106DEC).....	290.46	109.61	
33 14 13 13-0591	EA	8" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1108DEC).....	362.60	127.91	
33 14 13 13-0592	EA	10" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1110DEC).....	521.73	185.10	
33 14 13 13-0593	EA	12" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1112DEC).....	643.96	211.58	
33 14 13 13-0594	EA	14" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1114DEC).....	750.69	227.73	
33 14 13 13-0595	EA	16" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1116DEC).....	926.61	246.81	
33 14 13 13-0596	EA	18" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1118DEC).....	1,189.90	296.16	
33 14 13 13-0597	EA	20" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1120DEC).....	1,405.36	328.92	
33 14 13 13-0598	EA	24" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1124DEC).....	1,827.16	379.52	
33 14 13 13-0599	EA	30" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1130DEC).....	3,559.69	455.14	
33 14 13 13-0600	EA	36" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1136DEC).....	4,395.52	569.56	
33 14 13 13-0601	EA	42" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1142DEC).....	6,495.24	657.18	
33 14 13 13-0602	EA	48" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1148DEC).....	8,317.72	845.20	
33 14 13 13-0603		Mechanical Joint Ductile Iron Force Balanced Flexible Expansion Joint (FLEX-TEND®) (33 14 13 13-0002)			
33 14 13 13-0604	EA	3" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	4,428.25	61.20	
33 14 13 13-0605	EA	4" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	4,610.41	76.50	
33 14 13 13-0606	EA	6" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	6,689.98	113.05	
33 14 13 13-0607	EA	8" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	9,092.30	134.09	
33 14 13 13-0608	EA	10" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	11,460.40	147.75	
33 14 13 13-0609	EA	12" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	15,287.01	173.32	
33 14 13 13-0610	EA	14" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	18,832.79	194.36	
33 14 13 13-0611	EA	16" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	22,280.52	222.13	
33 14 13 13-0612	EA	18" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	25,116.03	310.98	
33 14 13 13-0613	EA	20" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	33,790.52	388.72	
33 14 13 13-0614	EA	24" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	46,821.83	518.29	
33 14 13 13-0615		Set Screw Flange Adapter For Ductile Iron Pipe (E-Z Flange 1000DSM Series) (33 14 13 13-0002)			
Note: Includes machined bolts and gasket.					
33 14 13 13-0616	EA	3" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1003DSM).....	203.83	74.78	
33 14 13 13-0617	EA	4" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1004DSM).....	261.70	88.56	
33 14 13 13-0618	EA	6" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1006DSM).....	338.24	109.61	
33 14 13 13-0619	EA	8" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1008DSM).....	386.02	127.91	
33 14 13 13-0620	EA	10" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1010DSM).....	678.20	196.16	
33 14 13 13-0621	EA	12" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1012DSM).....	767.53	224.21	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 13-0622 Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 2100 Series) (33 14 13 13-0002)

Note: Includes nuts, bolts and gasket.

33 14 13 13-0623	EA	3" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 2103000)	297.42	74.78
33 14 13 13-0624	EA	4" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210400)	369.98	88.56
33 14 13 13-0625	EA	6" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210600)	512.33	109.61
33 14 13 13-0626	EA	8" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210800)	741.03	127.91
33 14 13 13-0627	EA	10" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211000)	1,073.46	196.16
33 14 13 13-0628	EA	12" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211200)	1,334.84	224.21
33 14 13 13-0629	EA	14" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211400)	2,057.65	241.33
33 14 13 13-0630	EA	16" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211600)	2,884.40	261.54
33 14 13 13-0631	EA	18" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211800)	3,262.30	313.84
33 14 13 13-0632	EA	20" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 212000)	3,603.62	348.57
33 14 13 13-0633	EA	24" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 212400)	4,359.69	402.18
33 14 13 13-0634	EA	30" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 213000)	5,609.31	482.31
33 14 13 13-0635	EA	36" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 213600)	8,379.24	603.57
33 14 13 13-0636	EA	42" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 214200)	21,864.15	696.41
33 14 13 13-0637	EA	48" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 214800)	28,004.83	895.66

33 14 13 13-0638 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Piping (33 14 13 13-0001)

Note: See CSI section 33 14 13 13-0542 for bolts and gaskets.

33 14 13 13-0639 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow (33 14 13 13-0638)

33 14 13 13-0640	EA	3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	444.90	42.68
33 14 13 13-0641	EA	4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	532.49	51.12
33 14 13 13-0642	EA	6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	826.39	74.90
33 14 13 13-0643	EA	8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	1,129.82	89.16
33 14 13 13-0644	EA	10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	1,548.74	98.72
33 14 13 13-0645	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	1,963.69	115.55
33 14 13 13-0646	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	2,791.87	130.14
33 14 13 13-0647	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	3,387.60	148.08
33 14 13 13-0648	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	4,093.18	207.54
33 14 13 13-0649	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	5,101.78	259.15
33 14 13 13-0650	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	7,213.56	345.53
33 14 13 13-0651	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	11,551.91	370.21
33 14 13 13-0652	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	17,016.08	384.79
33 14 13 13-0653	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	28,037.21	444.26
33 14 13 13-0654	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow	36,677.31	472.30

33 14 13 13-0655 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow (33 14 13 13-0638)

33 14 13 13-0656	EA	3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	425.26	42.68
33 14 13 13-0657	EA	4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	498.57	51.12
33 14 13 13-0658	EA	6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	767.48	74.90
33 14 13 13-0659	EA	8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	1,038.78	89.16
33 14 13 13-0660	EA	10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	1,355.95	98.72
33 14 13 13-0661	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	1,790.53	115.55
33 14 13 13-0662	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	2,420.57	130.14
33 14 13 13-0663	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	2,898.48	148.08
33 14 13 13-0664	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	3,427.33	207.54
33 14 13 13-0665	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	4,161.02	259.15
33 14 13 13-0666	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	5,483.78	345.53
33 14 13 13-0667	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	10,093.47	370.21
33 14 13 13-0668	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	13,958.17	384.79
33 14 13 13-0669	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	20,743.21	444.26
33 14 13 13-0670	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow	26,555.68	472.30

33 14 13 13-0671 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow (33 14 13 13-0638)

33 14 13 13-0672	EA	3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	330.65	42.68
33 14 13 13-0673	EA	4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	493.21	51.12
33 14 13 13-0674	EA	6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	746.06	74.90
33 14 13 13-0675	EA	8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	1,031.64	89.16
33 14 13 13-0676	EA	10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	1,354.17	98.72
33 14 13 13-0677	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	1,687.00	115.55
33 14 13 13-0678	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	2,434.85	130.14
33 14 13 13-0679	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	2,834.22	148.08
33 14 13 13-0680	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	3,411.26	207.54
33 14 13 13-0681	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	4,309.18	259.15
33 14 13 13-0682	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	5,365.96	345.53
33 14 13 13-0683	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	8,981.34	370.21
33 14 13 13-0684	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	12,262.31	384.79
33 14 13 13-0685	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	17,549.63	444.26
33 14 13 13-0686	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow	22,473.11	472.30



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0687 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow (33 14 13 13-0638)			
33 14 13 13-0688	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	330.65	42.68
33 14 13 13-0689	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	591.39	51.12
33 14 13 13-0690	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	753.20	74.90
33 14 13 13-0691	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	999.51	89.16
33 14 13 13-0692	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	1,350.60	98.72
33 14 13 13-0693	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	1,638.80	115.55
33 14 13 13-0694	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	2,622.29	130.14
33 14 13 13-0695	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	2,921.69	148.08
33 14 13 13-0696	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	3,918.24	207.54
33 14 13 13-0697	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	4,155.66	259.15
33 14 13 13-0698	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	5,367.75	345.53
33 14 13 13-0699	EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	9,099.16	370.21
33 14 13 13-0700	EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	11,924.92	384.79
33 14 13 13-0701	EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	17,067.65	444.26
33 14 13 13-0702	EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow	22,344.58	472.30
33 14 13 13-0703 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow (33 14 13 13-0638)			
33 14 13 13-0704	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	389.56	42.68
33 14 13 13-0705	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	573.54	51.12
33 14 13 13-0706	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	894.23	74.90
33 14 13 13-0707	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	1,215.51	89.16
33 14 13 13-0708	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	1,673.70	98.72
33 14 13 13-0709	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	2,101.14	115.55
33 14 13 13-0710	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	3,779.05	130.14
33 14 13 13-0711	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	5,899.27	148.08
33 14 13 13-0712	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	6,740.51	207.54
33 14 13 13-0713	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	7,768.75	259.15
33 14 13 13-0714	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	8,398.88	345.53
33 14 13 13-0715 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow (33 14 13 13-0638)			
33 14 13 13-0716	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	389.56	42.68
33 14 13 13-0717	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	505.70	51.12
33 14 13 13-0718	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	796.05	74.90
33 14 13 13-0719	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,126.25	89.16
33 14 13 13-0720	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,493.41	98.72
33 14 13 13-0721	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,944.05	115.55
33 14 13 13-0722	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	2,591.94	130.14
33 14 13 13-0723	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	3,114.48	148.08
33 14 13 13-0724	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	5,830.09	207.54
33 14 13 13-0725	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	6,115.72	259.15
33 14 13 13-0726	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	6,367.41	345.53
33 14 13 13-0727 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee (33 14 13 13-0638)			
33 14 13 13-0728	EA 3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	548.65	64.03
33 14 13 13-0729	EA 4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	598.50	72.19
33 14 13 13-0730	EA 4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	631.81	74.90
33 14 13 13-0731	EA 6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	900.74	94.93
33 14 13 13-0732	EA 6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	976.29	98.67
33 14 13 13-0733	EA 6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,029.82	110.56

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 13-0734	EA	8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,198.24	114.13
33 14 13 13-0735	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,296.40	126.01
33 14 13 13-0736	EA	8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,426.12	134.33
33 14 13 13-0737	EA	10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,608.21	122.28
33 14 13 13-0738	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,605.41	133.50
33 14 13 13-0739	EA	10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,739.81	141.35
33 14 13 13-0740	EA	10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,877.39	148.08
33 14 13 13-0741	EA	12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,935.91	136.87
33 14 13 13-0742	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	1,952.73	148.08
33 14 13 13-0743	EA	12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	2,112.12	155.94
33 14 13 13-0744	EA	12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	2,435.36	162.67
33 14 13 13-0745	EA	12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	2,441.22	170.52
33 14 13 13-0746	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	2,766.38	172.76
33 14 13 13-0747	EA	14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	2,993.62	180.62
33 14 13 13-0748	EA	14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,634.59	187.35
33 14 13 13-0749	EA	14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,836.83	195.20
33 14 13 13-0750	EA	14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,553.70	207.54
33 14 13 13-0751	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,309.44	207.54
33 14 13 13-0752	EA	16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,488.56	214.27
33 14 13 13-0753	EA	16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,186.67	222.13
33 14 13 13-0754	EA	16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,926.57	228.86
33 14 13 13-0755	EA	16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,125.09	241.20
33 14 13 13-0756	EA	16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,635.30	259.15
33 14 13 13-0757	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,345.33	265.88
33 14 13 13-0758	EA	18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,583.26	272.61
33 14 13 13-0759	EA	18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,885.07	279.34
33 14 13 13-0760	EA	18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,164.05	287.19
33 14 13 13-0761	EA	18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,305.81	299.53
33 14 13 13-0762	EA	18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,669.30	316.36
33 14 13 13-0763	EA	18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,329.11	345.53
33 14 13 13-0764	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,992.85	380.31
33 14 13 13-0765	EA	20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,077.27	388.16
33 14 13 13-0766	EA	20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,580.80	394.89
33 14 13 13-0767	EA	20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,856.21	402.75
33 14 13 13-0768	EA	20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,914.06	415.09
33 14 13 13-0769	EA	20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,838.42	431.91
33 14 13 13-0770	EA	20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,467.55	461.08
33 14 13 13-0771	EA	20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,362.31	518.29
33 14 13 13-0772	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,059.35	494.74
33 14 13 13-0773	EA	24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,116.98	503.71
33 14 13 13-0774	EA	24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,227.79	509.32
33 14 13 13-0775	EA	24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,392.51	517.17
33 14 13 13-0776	EA	24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,273.30	529.52
33 14 13 13-0777	EA	24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,586.82	546.34
33 14 13 13-0778	EA	24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,340.91	575.51
33 14 13 13-0779	EA	24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,642.36	633.85
33 14 13 13-0780	EA	24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,042.04	691.06
33 14 13 13-0781	EA	30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	10,617.17	576.63
33 14 13 13-0782	EA	30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	10,107.14	584.48
33 14 13 13-0783	EA	30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	10,683.86	591.21
33 14 13 13-0784	EA	30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	11,262.76	599.07
33 14 13 13-0785	EA	30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,084.63	611.41
33 14 13 13-0786	EA	30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,971.16	813.34
33 14 13 13-0787	EA	30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,911.58	657.40
33 14 13 13-0788	EA	30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,893.49	714.62
33 14 13 13-0789	EA	30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	13,432.09	771.83
33 14 13 13-0790	EA	30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	16,039.47	813.34
33 14 13 13-0791	EA	36" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	10,955.47	648.43
33 14 13 13-0792	EA	36" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,262.29	655.16
33 14 13 13-0793	EA	36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,967.93	663.01
33 14 13 13-0794	EA	36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	13,466.69	675.35
33 14 13 13-0795	EA	36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	13,967.65	692.18
33 14 13 13-0796	EA	36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	14,932.72	721.35
33 14 13 13-0797	EA	36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	15,942.86	778.56
33 14 13 13-0798	EA	36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	17,666.78	835.78
33 14 13 13-0799	EA	36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	19,956.41	908.70
33 14 13 13-0800	EA	36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	23,000.23	908.70
33 14 13 13-0801	EA	42" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	26,210.49	698.91
33 14 13 13-0802	EA	42" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	26,737.81	710.13
33 14 13 13-0803	EA	42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	29,409.48	728.08
33 14 13 13-0804	EA	42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	33,527.07	757.25
33 14 13 13-0805	EA	42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	33,614.30	814.47
33 14 13 13-0806	EA	42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	27,792.51	871.67
33 14 13 13-0807	EA	42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	28,288.11	913.18
33 14 13 13-0808	EA	42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	35,059.25	944.59
33 14 13 13-0809	EA	42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	36,957.11	962.55
33 14 13 13-0810	EA	48" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	30,570.27	755.00
33 14 13 13-0811	EA	48" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	31,119.02	767.34
33 14 13 13-0812	EA	48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	31,898.46	785.30
33 14 13 13-0813	EA	48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	32,690.35	813.34
33 14 13 13-0814	EA	48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	33,530.92	871.67



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0815	EA	48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	33,717.85	928.89
33 14 13 13-0816	EA	48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	36,205.63	969.28
33 14 13 13-0817	EA	48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	29,101.03	1,001.81
33 14 13 13-0818	EA	48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	36,511.34	1,019.76
33 14 13 13-0819	EA	48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	48,666.48	1,047.81
33 14 13 13-0820 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Laterals) (33 14 13 13-0638)				
33 14 13 13-0821	EA	3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	615.39	71.55
33 14 13 13-0822	EA	4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	677.87	71.55
33 14 13 13-0823	EA	4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	796.05	74.90
33 14 13 13-0824	EA	6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	877.53	94.93
33 14 13 13-0825	EA	6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	979.86	98.67
33 14 13 13-0826	EA	6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,199.42	110.56
33 14 13 13-0827	EA	8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,578.47	114.13
33 14 13 13-0828	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,453.49	126.01
33 14 13 13-0829	EA	8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,634.98	134.33
33 14 13 13-0830	EA	10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,320.47	122.28
33 14 13 13-0831	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,415.86	133.50
33 14 13 13-0832	EA	10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,703.77	141.35
33 14 13 13-0833	EA	10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,952.03	148.08
33 14 13 13-0834	EA	12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,833.82	136.87
33 14 13 13-0835	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,214.81	148.08
33 14 13 13-0836	EA	12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,807.99	155.94
33 14 13 13-0837	EA	12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,809.90	162.67
33 14 13 13-0838	EA	12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,512.28	170.52
33 14 13 13-0839	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,180.20	172.76
33 14 13 13-0840	EA	14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,809.09	180.62
33 14 13 13-0841	EA	14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,346.19	187.35
33 14 13 13-0842	EA	14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,807.27	195.20
33 14 13 13-0843	EA	14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,629.46	207.54
33 14 13 13-0844	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,346.70	207.54
33 14 13 13-0845	EA	16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,804.20	214.27
33 14 13 13-0846	EA	16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,709.38	222.13
33 14 13 13-0847	EA	16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,890.20	228.86
33 14 13 13-0848	EA	16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,304.72	241.20
33 14 13 13-0849	EA	16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,902.40	259.15
33 14 13 13-0850	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,166.15	265.88
33 14 13 13-0851	EA	18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,654.00	272.61
33 14 13 13-0852	EA	18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,125.40	279.34
33 14 13 13-0853	EA	18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,636.44	287.19
33 14 13 13-0854	EA	18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,712.15	299.53
33 14 13 13-0855	EA	18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,797.17	316.36
33 14 13 13-0856	EA	18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,053.87	345.53
33 14 13 13-0857	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,245.67	380.31
33 14 13 13-0858	EA	20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,405.06	388.16
33 14 13 13-0859	EA	20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,165.65	394.89
33 14 13 13-0860	EA	20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,919.47	402.75
33 14 13 13-0861	EA	20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	9,000.53	415.09
33 14 13 13-0862	EA	20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	9,094.48	431.91
33 14 13 13-0863	EA	20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	10,577.22	461.08
33 14 13 13-0864	EA	20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	9,936.13	518.29
33 14 13 13-0865	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,774.51	494.74
33 14 13 13-0866	EA	24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,887.49	502.59
33 14 13 13-0867	EA	24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	9,947.98	509.32
33 14 13 13-0868	EA	24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	10,428.66	517.17
33 14 13 13-0869	EA	24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	12,109.19	529.52
33 14 13 13-0870	EA	24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	13,497.36	546.34
33 14 13 13-0871	EA	24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	15,138.98	575.51
33 14 13 13-0872	EA	24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	16,632.89	633.85
33 14 13 13-0873	EA	24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	14,625.92	691.06
33 14 13 13-0874	EA	30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	18,575.24	576.63
33 14 13 13-0875	EA	30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	20,889.26	584.48
33 14 13 13-0876	EA	30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	22,130.05	591.21
33 14 13 13-0877	EA	30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	23,373.02	599.07
33 14 13 13-0878	EA	30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	25,133.85	611.41
33 14 13 13-0879	EA	30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	27,025.41	628.23
33 14 13 13-0880	EA	30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	27,694.15	657.40
33 14 13 13-0881	EA	30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	28,654.32	714.62
33 14 13 13-0882	EA	30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	29,999.79	771.83
33 14 13 13-0883	EA	30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	32,539.33	813.34
33 14 13 13-0884	EA	36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	35,938.86	663.01
33 14 13 13-0885	EA	36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	37,362.31	675.35
33 14 13 13-0886	EA	36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	38,775.47	692.18
33 14 13 13-0887	EA	36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	41,506.01	721.35
33 14 13 13-0888	EA	36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	44,290.57	778.56
33 14 13 13-0889	EA	36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	49,158.08	835.78
33 14 13 13-0890	EA	36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	55,130.41	877.29
33 14 13 13-0891	EA	36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	65,937.72	908.70
33 14 13 13-0892	EA	42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	58,006.18	814.47

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

**SAN BERNARDINO
COUNTY**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 13-0893	EA	42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	59,415.92	871.67
33 14 13 13-0894	EA	42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	63,487.10	913.18
33 14 13 13-0895	EA	42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	72,705.65	944.59
33 14 13 13-0896	EA	42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	85,912.24	962.55
33 14 13 13-0897	EA	48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	57,153.41	871.67
33 14 13 13-0898	EA	48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	64,791.44	928.89
33 14 13 13-0899	EA	48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	69,075.04	969.28
33 14 13 13-0900	EA	48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	78,848.76	1,001.81
33 14 13 13-0901	EA	48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	103,399.79	1,019.76
33 14 13 13-0902	EA	48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral)	113,594.86	1,047.81

33 14 13 13-0903 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee (33 14 13 13-0638)

33 14 13 13-0904	EA	6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	1,095.87	110.56
33 14 13 13-0905	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	1,364.23	126.01
33 14 13 13-0906	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	1,962.44	133.50
33 14 13 13-0907	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	2,259.77	148.08
33 14 13 13-0908	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	2,993.09	172.76
33 14 13 13-0909	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	3,646.93	207.54
33 14 13 13-0910	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	4,300.70	265.88
33 14 13 13-0911	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	5,776.51	380.31
33 14 13 13-0912	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	6,735.70	494.74
33 14 13 13-0913	EA	30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee	12,293.40	576.63

33 14 13 13-0914 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross (33 14 13 13-0638)

33 14 13 13-0915	EA	3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	609.54	85.37
33 14 13 13-0916	EA	4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	763.77	92.90
33 14 13 13-0917	EA	4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	958.47	93.92
33 14 13 13-0918	EA	6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,013.64	116.44
33 14 13 13-0919	EA	6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,188.09	126.01
33 14 13 13-0920	EA	6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,308.83	156.92
33 14 13 13-0921	EA	8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,261.29	137.91
33 14 13 13-0922	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,485.56	168.82
33 14 13 13-0923	EA	8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,467.71	180.70
33 14 13 13-0924	EA	10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,484.36	143.60
33 14 13 13-0925	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,661.32	172.76
33 14 13 13-0926	EA	10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,978.07	183.98
33 14 13 13-0927	EA	10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	2,143.24	197.45
33 14 13 13-0928	EA	12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	1,913.60	155.94
33 14 13 13-0929	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	2,213.74	185.10
33 14 13 13-0930	EA	12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	2,403.74	196.32
33 14 13 13-0931	EA	12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	2,808.12	209.79
33 14 13 13-0932	EA	12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	3,210.60	222.13
33 14 13 13-0933	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	3,325.34	203.06
33 14 13 13-0934	EA	14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	3,949.12	214.27
33 14 13 13-0935	EA	14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	4,042.90	228.86
33 14 13 13-0936	EA	14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	4,266.86	240.07
33 14 13 13-0937	EA	14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	4,730.47	259.15
33 14 13 13-0938	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	3,721.62	229.98
33 14 13 13-0939	EA	16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	4,263.28	240.07
33 14 13 13-0940	EA	16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	5,149.64	254.65
33 14 13 13-0941	EA	16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	5,672.76	267.00
33 14 13 13-0942	EA	16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	7,010.03	284.95
33 14 13 13-0943	EA	16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	7,313.46	310.75
33 14 13 13-0944	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	6,455.60	271.49
33 14 13 13-0945	EA	18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	6,831.26	282.71
33 14 13 13-0946	EA	18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	7,151.73	296.16
33 14 13 13-0947	EA	18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	7,771.98	308.50
33 14 13 13-0948	EA	18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	9,113.86	326.46
33 14 13 13-0949	EA	18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	9,694.00	352.26
33 14 13 13-0950	EA	18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	10,116.26	394.89
33 14 13 13-0951	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	8,116.97	341.04
33 14 13 13-0952	EA	20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	8,496.18	351.14
33 14 13 13-0953	EA	20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	8,754.18	365.72
33 14 13 13-0954	EA	20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	9,369.09	378.06
33 14 13 13-0955	EA	20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	9,518.50	396.01
33 14 13 13-0956	EA	20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	11,592.79	421.82
33 14 13 13-0957	EA	20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	12,015.05	463.33



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR				TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION				UNIT COST	UNIT COST
33 14 13 13-0958	EA	20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	12,958.78	532.88	
33 14 13 13-0959	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	11,120.47	426.30	
33 14 13 13-0960	EA	24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	11,378.65	437.52	
33 14 13 13-0961	EA	24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	11,816.59	450.98	
33 14 13 13-0962	EA	24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	12,194.08	463.33	
33 14 13 13-0963	EA	24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	12,400.61	481.27	
33 14 13 13-0964	EA	24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	12,861.14	507.08	
33 14 13 13-0965	EA	24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	17,174.97	549.70	
33 14 13 13-0966	EA	24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	18,056.23	618.14	
33 14 13 13-0967	EA	24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	19,863.70	709.40	
33 14 13 13-0968	EA	30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	17,277.67	566.53	
33 14 13 13-0969	EA	30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	17,619.57	580.00	
33 14 13 13-0970	EA	30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	17,956.00	592.34	
33 14 13 13-0971	EA	30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	18,351.75	610.28	
33 14 13 13-0972	EA	30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	18,803.36	637.21	
33 14 13 13-0973	EA	30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	19,323.80	678.71	
33 14 13 13-0974	EA	30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	19,974.78	747.15	
33 14 13 13-0975	EA	30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	25,782.71	833.53	
33 14 13 13-0976	EA	30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	29,643.47	962.55	
33 14 13 13-0977	EA	36" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	24,258.29	613.65	
33 14 13 13-0978	EA	36" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	24,596.63	627.12	
33 14 13 13-0979	EA	36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	24,888.42	639.45	
33 14 13 13-0980	EA	36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	25,234.19	658.53	
33 14 13 13-0981	EA	36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	25,637.61	684.33	
33 14 13 13-0982	EA	36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	26,109.85	725.84	
33 14 13 13-0983	EA	36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	26,716.20	795.39	
33 14 13 13-0984	EA	36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	27,800.70	880.65	
33 14 13 13-0985	EA	36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	37,591.64	1,009.66	
33 14 13 13-0986	EA	36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	41,346.54	1,057.91	
33 14 13 13-0987	EA	42" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	32,688.30	667.50	
33 14 13 13-0988	EA	42" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	33,367.90	685.45	
33 14 13 13-0989	EA	42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	33,758.81	712.37	
33 14 13 13-0990	EA	42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	34,298.89	753.88	
33 14 13 13-0991	EA	42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	35,274.77	823.44	
33 14 13 13-0992	EA	42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	37,355.36	908.70	
33 14 13 13-0993	EA	42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	45,432.58	1,037.71	
33 14 13 13-0994	EA	42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	59,562.61	1,084.83	
33 14 13 13-0995	EA	42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	63,865.45	1,112.87	
33 14 13 13-0996	EA	48" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	44,300.27	777.44	
33 14 13 13-0997	EA	48" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	44,588.94	795.39	
33 14 13 13-0998	EA	48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	44,974.49	821.19	
33 14 13 13-0999	EA	48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	45,386.03	862.70	
33 14 13 13-1000	EA	48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	45,928.14	932.25	
33 14 13 13-1001	EA	48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	46,882.32	1,017.51	
33 14 13 13-1002	EA	48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	49,559.55	1,146.53	
33 14 13 13-1003	EA	48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	60,901.22	1,194.76	
33 14 13 13-1004	EA	48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	78,565.68	1,222.81	
33 14 13 13-1005	EA	48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross	83,647.68	1,331.63	

33 14 13 13-1006 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducers (33 14 13 13-0638)

33 14 13 13-1007	EA	4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	436.32	46.45
33 14 13 13-1008	EA	6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	611.25	58.22
33 14 13 13-1009	EA	6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	672.30	61.82
33 14 13 13-1010	EA	8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	884.23	70.14
33 14 13 13-1011	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	918.02	82.03
33 14 13 13-1012	EA	10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,083.58	72.92
33 14 13 13-1013	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,132.53	84.13
33 14 13 13-1014	EA	10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,177.67	91.99
33 14 13 13-1015	EA	12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,253.67	80.77
33 14 13 13-1016	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,386.52	91.99
33 14 13 13-1017	EA	12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,408.47	98.72
33 14 13 13-1018	EA	12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,471.08	106.57
33 14 13 13-1019	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	2,176.27	104.33
33 14 13 13-1020	EA	14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	2,187.49	111.06
33 14 13 13-1021	EA	14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,900.22	118.91

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1022	EA	14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		1,938.21	125.64
33 14 13 13-1023	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,609.39	121.16
33 14 13 13-1024	EA	16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,529.58	129.01
33 14 13 13-1025	EA	16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,372.61	135.74
33 14 13 13-1026	EA	16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,342.78	142.47
33 14 13 13-1027	EA	16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,650.53	154.81
33 14 13 13-1028	EA	18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		2,832.36	157.06
33 14 13 13-1029	EA	18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,196.65	164.91
33 14 13 13-1030	EA	18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,050.78	171.65
33 14 13 13-1031	EA	18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,651.29	183.98
33 14 13 13-1032	EA	18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,190.07	201.93
33 14 13 13-1033	EA	20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,771.10	215.40
33 14 13 13-1034	EA	20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,799.79	222.13
33 14 13 13-1035	EA	20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,446.84	229.98
33 14 13 13-1036	EA	20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,442.20	242.31
33 14 13 13-1037	EA	20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,354.07	259.15
33 14 13 13-1038	EA	20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		3,971.04	288.32
33 14 13 13-1039	EA	24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		4,747.69	287.19
33 14 13 13-1040	EA	24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		4,816.24	299.53
33 14 13 13-1041	EA	24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		4,899.48	316.36
33 14 13 13-1042	EA	24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		4,818.47	345.53
33 14 13 13-1043	EA	24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		5,557.27	402.75
33 14 13 13-1044	EA	30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		8,692.19	356.75
33 14 13 13-1045	EA	30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		9,059.22	385.92
33 14 13 13-1046	EA	30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		8,714.47	444.26
33 14 13 13-1047	EA	30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		7,362.63	501.46
33 14 13 13-1048	EA	36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		11,463.73	475.67
33 14 13 13-1049	EA	36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		10,638.52	532.88
33 14 13 13-1050	EA	36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		11,357.23	574.38
33 14 13 13-1051	EA	42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		17,016.66	407.23
33 14 13 13-1052	EA	42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		16,910.65	436.40
33 14 13 13-1053	EA	42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		16,942.55	493.61
33 14 13 13-1054	EA	42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		17,598.96	550.83
33 14 13 13-1055	EA	42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		14,354.72	592.34
33 14 13 13-1056	EA	42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		15,020.76	623.75
33 14 13 13-1057	EA	48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		21,460.08	435.27
33 14 13 13-1058	EA	48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		20,757.84	464.44
33 14 13 13-1059	EA	48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		19,699.03	521.66
33 14 13 13-1060	EA	48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		20,266.20	580.00
33 14 13 13-1061	EA	48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		24,299.88	620.38
33 14 13 13-1062	EA	48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		20,992.24	651.79
33 14 13 13-1063	EA	48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer		23,097.17	669.74



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1064 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps (33 14 13 13-0638)			
33 14 13 13-1065	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	393.16	98.08
33 14 13 13-1066	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	474.26	115.32
33 14 13 13-1067	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	696.36	143.85
33 14 13 13-1068	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	936.35	164.05
33 14 13 13-1069	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	1,239.73	246.81
33 14 13 13-1070	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	1,568.27	269.24
33 14 13 13-1071	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	1,784.01	296.16
33 14 13 13-1072	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	2,174.83	328.70
33 14 13 13-1073	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	2,549.55	370.21
33 14 13 13-1074	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	3,077.74	422.93
33 14 13 13-1075	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	3,952.19	493.61
33 14 13 13-1076	EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	7,207.87	592.34
33 14 13 13-1077	EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	11,843.27	740.42
33 14 13 13-1078	EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	17,090.97	888.50
33 14 13 13-1079	EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps	20,359.15	987.23
33 14 13 13-1080 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug (33 14 13 13-0638)			
33 14 13 13-1081	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	394.95	98.08
33 14 13 13-1082	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	492.11	115.32
33 14 13 13-1083	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	742.78	143.85
33 14 13 13-1084	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	982.76	164.05
33 14 13 13-1085	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	1,505.72	246.81
33 14 13 13-1086	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	1,628.96	269.24
33 14 13 13-1087	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	2,171.38	296.16
33 14 13 13-1088	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	2,622.89	328.70
33 14 13 13-1089	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	3,122.58	370.21
33 14 13 13-1090	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	3,852.48	422.93
33 14 13 13-1091	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	5,055.39	493.61
33 14 13 13-1092	EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	8,732.36	592.34
33 14 13 13-1093	EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	12,791.17	740.42
33 14 13 13-1094	EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	17,210.57	888.50
33 14 13 13-1095	EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	22,895.81	987.23
33 14 13 13-1096 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters (33 14 13 13-0638)			
33 14 13 13-1097	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	534.71	149.08
33 14 13 13-1098	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	709.61	172.38
33 14 13 13-1099	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	978.50	216.36
33 14 13 13-1100	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,289.39	246.08
33 14 13 13-1101	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,896.20	370.21
33 14 13 13-1102	EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,268.51	403.86
33 14 13 13-1103	EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,975.91	444.26
33 14 13 13-1104	EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	3,379.17	493.61
33 14 13 13-1105	EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	4,443.76	555.31
33 14 13 13-1106	EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	5,154.84	634.96
33 14 13 13-1107	EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	6,243.35	740.42
33 14 13 13-1108	EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	9,852.31	888.50
33 14 13 13-1109	EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	13,412.79	1,110.63
33 14 13 13-1110	EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	18,276.66	1,268.81
33 14 13 13-1111	EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	22,726.17	1,480.84
33 14 13 13-1112 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves (33 14 13 13-0638)			
33 14 13 13-1113	EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	556.13	149.08
33 14 13 13-1114	EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	682.83	172.38
33 14 13 13-1115	EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,008.85	216.36
33 14 13 13-1116	EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,371.50	246.08
33 14 13 13-1117	EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,781.95	370.21

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1118	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	2,161.40	403.86
33 14 13 13-1119	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	2,747.42	444.26
33 14 13 13-1120	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	3,257.78	493.61
33 14 13 13-1121	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	3,893.95	555.31
33 14 13 13-1122	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	4,535.40	634.96
33 14 13 13-1123	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	5,675.68	740.42
33 14 13 13-1124	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	9,557.76	888.50
33 14 13 13-1125	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	12,429.19	1,110.63
33 14 13 13-1126	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	16,200.14	1,267.68
33 14 13 13-1127	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	24,109.63	1,480.84
33 14 13 13-1128		Push-On Joint Ductile Iron Piping And Gaskets (33 14 13 13-0001)		
33 14 13 13-1129		Push-On Joint Ductile Iron Pipe (33 14 13 13-1128)		
		Note: Conforming to ANSI/AWWA C151/A21.51, federal specification WW-P-421D.		
33 14 13 13-1130	LF	4", Class 50, Push-On Joint Ductile Iron Pipe.....	34.91	9.81
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	14.04	
		For Cement Mortar Lining (CML), Add	2.01	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	10.83	
		For Fusion Bonded Epoxy Lining (206N), Add	3.61	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.50	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-1.75	
		For Class 51, Add	2.92	
		For Class 52, Add	6.29	
		For Class 53, Add	11.30	
		For Class 54, Add	16.11	
		For Class 55, Add	18.54	
		For Class 56, Add	20.93	
33 14 13 13-1131	LF	6", Class 50, Push-On Joint Ductile Iron Pipe.....	38.29	10.82
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	15.40	
		For Cement Mortar Lining (CML), Add	2.20	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	11.88	
		For Fusion Bonded Epoxy Lining (206N), Add	3.96	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.65	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-1.91	
		For Class 51, Add	3.20	
		For Class 52, Add	6.90	
		For Class 53, Add	12.40	
		For Class 54, Add	17.68	
		For Class 55, Add	20.35	
		For Class 56, Add	22.97	
33 14 13 13-1132	LF	8", Class 50, Push-On Joint Ductile Iron Pipe.....	47.92	11.88
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	21.06	
		For Cement Mortar Lining (CML), Add	3.01	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	16.24	
		For Fusion Bonded Epoxy Lining (206N), Add	5.41	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.26	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-2.40	
		For Class 51, Add	4.32	
		For Class 52, Add	9.32	
		For Class 53, Add	16.79	
		For Class 54, Add	23.95	
		For Class 55, Add	27.54	
		For Class 56, Add	31.07	
33 14 13 13-1133	LF	10", Class 50, Push-On Joint Ductile Iron Pipe.....	67.66	16.72
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	25.45	
		For Cement Mortar Lining (CML), Add	4.24	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	21.21	
		For Fusion Bonded Epoxy Lining (206N), Add	7.64	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.18	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-3.38	
		For Class 51, Add	6.10	
		For Class 52, Add	13.15	
		For Class 53, Add	23.68	
		For Class 54, Add	33.77	
		For Class 55, Add	38.84	
		For Class 56, Add	43.83	



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1134 LF 12", Class 50, Push-On Joint Ductile Iron Pipe.....	78.62	18.51
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	25.29	
For Cement Mortar Lining (CML), Add	5.06	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	20.23	
For Fusion Bonded Epoxy Lining (206N), Add	9.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.79	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-3.93	
For Class 51, Add	7.24	
For Class 52, Add	15.63	
For Class 53, Add	28.16	
For Class 54, Add	40.17	
For Class 55, Add	46.19	
For Class 56, Add	52.10	
33 14 13 13-1135 LF 14", Class 50, Push-On Joint Ductile Iron Pipe.....	95.99	20.87
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	28.37	
For Cement Mortar Lining (CML), Add	6.45	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	21.92	
For Fusion Bonded Epoxy Lining (206N), Add	11.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.84	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-4.80	
For Class 51, Add	9.18	
For Class 52, Add	19.81	
For Class 53, Add	35.73	
For Class 54, Add	50.99	
For Class 55, Add	58.61	
For Class 56, Add	66.09	
33 14 13 13-1136 LF 16", Class 50, Push-On Joint Ductile Iron Pipe.....	113.85	23.78
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	31.91	
For Cement Mortar Lining (CML), Add	7.78	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	24.13	
For Fusion Bonded Epoxy Lining (206N), Add	14.01	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.84	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-5.69	
For Class 51, Add	11.06	
For Class 52, Add	23.87	
For Class 53, Add	43.06	
For Class 54, Add	61.46	
For Class 55, Add	70.63	
For Class 56, Add	79.65	
33 14 13 13-1137 LF 18", Class 50, Push-On Joint Ductile Iron Pipe.....	132.47	27.82
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	37.06	
For Cement Mortar Lining (CML), Add	9.04	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	28.02	
For Fusion Bonded Epoxy Lining (206N), Add	16.27	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.78	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-6.62	
For Class 51, Add	12.85	
For Class 52, Add	27.73	
For Class 53, Add	50.02	
For Class 54, Add	71.39	
For Class 55, Add	82.05	
For Class 56, Add	92.52	
33 14 13 13-1138 LF 20", Class 50, Push-On Joint Ductile Iron Pipe.....	152.74	33.32
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	38.86	
For Cement Mortar Lining (CML), Add	10.23	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	28.63	
For Fusion Bonded Epoxy Lining (206N), Add	18.41	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.67	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-7.64	
For Class 51, Add	14.57	
For Class 52, Add	31.44	
For Class 53, Add	56.69	
For Class 54, Add	80.90	
For Class 55, Add	92.99	
For Class 56, Add	104.87	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 13-1139	LF 24", Class 50, Push-On Joint Ductile Iron Pipe.....	193.27	41.62
	For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	40.33	
	For Cement Mortar Lining (CML), Add	13.01	
	Note: ANSI/AWWA C104/A21.4		
	For 40 Mil Ceramic Epoxy Lining (P401), Add	27.32	
	For Fusion Bonded Epoxy Lining (206N), Add	23.42	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	9.76	
	Note: ANSI/AWWA C151/A21.51		
	For >1,000, Deduct	-9.66	
	For Class 51, Add	18.52	
	For Class 52, Add	39.97	
	For Class 53, Add	72.09	
	For Class 54, Add	102.87	
	For Class 55, Add	118.25	
	For Class 56, Add	133.35	
33 14 13 13-1140	LF 30", Class 50, Push-On Joint Ductile Iron Pipe.....	229.25	44.42
	For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	50.20	
	For Cement Mortar Lining (CML), Add	16.19	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	29.15	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	12.15	
	Note: ANSI/AWWA C151/A21.51		
	For >1,000, Deduct	-11.46	
	For Class 51, Add	22.91	
	For Class 52, Add	49.47	
	For Class 53, Add	89.31	
	For Class 54, Add	127.48	
	For Class 55, Add	146.47	
	For Class 56, Add	165.13	
33 14 13 13-1141	LF 36", Class 50, Push-On Joint Ductile Iron Pipe.....	284.76	47.23
	For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	66.09	
	For Cement Mortar Lining (CML), Add	21.32	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	38.37	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	15.99	
	Note: ANSI/AWWA C151/A21.51		
	For >1,000, Deduct	-14.24	
	For Class 51, Add	29.95	
	For Class 52, Add	64.70	
	For Class 53, Add	116.93	
	For Class 54, Add	166.97	
	For Class 55, Add	191.76	
	For Class 56, Add	216.11	
33 14 13 13-1142	LF 42", Class 50, Push-On Joint Ductile Iron Pipe.....	347.57	50.03
	For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	84.27	
	For Cement Mortar Lining (CML), Add	27.19	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	48.93	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	20.39	
	Note: ANSI/AWWA C151/A21.51		
	For >1,000, Deduct	-17.38	
	For Class 51, Add	38.00	
	For Class 52, Add	82.12	
	For Class 53, Add	148.52	
	For Class 54, Add	212.13	
	For Class 55, Add	243.55	
	For Class 56, Add	274.40	
33 14 13 13-1143	LF 48", Class 50, Push-On Joint Ductile Iron Pipe.....	418.88	52.72
	For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	105.06	
	For Cement Mortar Lining (CML), Add	33.89	
	Note: ANSI/AWWA C104/A21.4		
	For Fusion Bonded Epoxy Lining (206N), Add	61.00	
	Note: ANSI/AWWA C104/A21.4		
	For Bituminous Or Coal Tar Coating, 1 Mil, Add	25.42	
	Note: ANSI/AWWA C151/A21.51		
	For >1,000, Deduct	-20.94	
	For Class 51, Add	47.19	
	For Class 52, Add	102.01	
	For Class 53, Add	184.62	
	For Class 54, Add	263.73	
	For Class 55, Add	302.72	
	For Class 56, Add	341.00	



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 14 13 13-1144	LF 54", Class 50, Push-On Joint Ductile Iron Pipe..... For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51 For >1,000, Deduct For Class 51, Add For Class 52, Add For Class 53, Add For Class 54, Add For Class 55, Add For Class 56, Add	531.79 138.77 44.77 80.58 33.57 -26.59 62.07 134.21 243.06 347.29 398.63 448.82		55.53
33 14 13 13-1145	Push-On Joint Ductile Iron 90 Degree Elbow (33 14 13 13-1128)			
33 14 13 13-1146	EA 4" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	255.33 19.73 35.52 14.80		38.28
33 14 13 13-1147	EA 6" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	370.04 28.44 51.20 21.33		56.47
33 14 13 13-1148	EA 8" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	496.20 39.46 71.02 29.59		67.05
33 14 13 13-1149	EA 10" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	749.13 59.65 107.36 44.73		73.81
33 14 13 13-1150	EA 12" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	968.13 78.91 142.05 59.19		86.61
33 14 13 13-1151	EA 14" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,931.53 173.07 311.52 129.80		97.15
33 14 13 13-1152	EA 16" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,183.31 195.38 351.69 146.54		111.06
33 14 13 13-1153	EA 18" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,404.59 308.33 555.00 231.25		155.49
33 14 13 13-1154	EA 20" 90 Degree Elbow, Push-On Joint Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,826.45 343.45 618.21 257.59		195.98

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1155	EA	24"	90 Degree Elbow, Push-On Joint Ductile Iron	4,777.85	245.01
			For Cement Mortar Lining (CML), Add	428.79	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	771.83	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	321.59	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1156 Push-On Joint Ductile Iron 45 Degree Elbow (33 14 13 13-1128)					
33 14 13 13-1157	EA	4"	45 Degree Elbow, Push-On Joint Ductile Iron	210.47	38.28
			For Cement Mortar Lining (CML), Add	15.25	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	27.44	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.43	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1158	EA	6"	45 Degree Elbow, Push-On Joint Ductile Iron	309.71	56.47
			For Cement Mortar Lining (CML), Add	22.47	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	40.34	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	16.81	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1159	EA	8"	45 Degree Elbow, Push-On Joint Ductile Iron	431.28	67.05
			For Cement Mortar Lining (CML), Add	32.96	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	59.33	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	24.72	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1160	EA	10"	45 Degree Elbow, Push-On Joint Ductile Iron	659.51	73.81
			For Cement Mortar Lining (CML), Add	50.68	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	91.23	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	38.01	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1161	EA	12"	45 Degree Elbow, Push-On Joint Ductile Iron	853.93	86.61
			For Cement Mortar Lining (CML), Add	67.49	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	121.49	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	50.62	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1162	EA	14"	45 Degree Elbow, Push-On Joint Ductile Iron	1,218.46	97.15
			For Cement Mortar Lining (CML), Add	101.76	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	183.17	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	76.32	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1163	EA	16"	45 Degree Elbow, Push-On Joint Ductile Iron	1,809.93	111.06
			For Cement Mortar Lining (CML), Add	158.05	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	284.48	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	118.53	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1164	EA	18"	45 Degree Elbow, Push-On Joint Ductile Iron	2,076.28	155.49
			For Cement Mortar Lining (CML), Add	175.50	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	315.91	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	131.63	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1165	EA	20"	45 Degree Elbow, Push-On Joint Ductile Iron	2,917.01	195.98
			For Cement Mortar Lining (CML), Add	252.51	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	454.51	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	189.38	
			Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1166	EA	24"	45 Degree Elbow, Push-On Joint Ductile Iron	3,619.54	245.01
			For Cement Mortar Lining (CML), Add	312.96	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	563.33	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	234.72	
			Note: ANSI/AWWA C151/A21.51		

33 14 13 13-1167 Push-On Joint Ductile Iron Tee (33 14 13 13-1128)



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 14 13 13-1168	EA	4" Tee, Push-On Joint Ductile Iron	390.70	56.47
		For Cement Mortar Lining (CML), Add	30.51	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	54.92	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	22.88	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1169	EA	6" Tee, Push-On Joint Ductile Iron	543.27	82.98
		For Cement Mortar Lining (CML), Add	41.75	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	75.15	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	31.31	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1170	EA	8" Tee, Push-On Joint Ductile Iron	744.39	100.57
		For Cement Mortar Lining (CML), Add	59.19	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	106.53	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	44.39	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1171	EA	10" Tee, Push-On Joint Ductile Iron	1,099.61	112.19
		For Cement Mortar Lining (CML), Add	93.13	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	167.64	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	69.85	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1172	EA	12" Tee, Push-On Joint Ductile Iron	1,370.81	129.35
		For Cement Mortar Lining (CML), Add	117.45	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	211.41	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	88.09	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1173	EA	14" Tee, Push-On Joint Ductile Iron	2,216.75	155.49
		For Cement Mortar Lining (CML), Add	198.12	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	356.61	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	148.59	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1174	EA	16" Tee, Push-On Joint Ductile Iron	3,209.31	194.41
		For Cement Mortar Lining (CML), Add	291.48	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	524.67	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	218.61	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1175	EA	18" Tee, Push-On Joint Ductile Iron	4,031.19	259.37
		For Cement Mortar Lining (CML), Add	363.82	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	654.88	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	272.87	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1176	EA	20" Tee, Push-On Joint Ductile Iron	4,748.59	316.47
		For Cement Mortar Lining (CML), Add	426.91	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	768.44	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	320.18	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1177	EA	24" Tee, Push-On Joint Ductile Iron	6,222.71	395.56
		For Cement Mortar Lining (CML), Add	562.34	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	1,012.22	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	421.76	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1178		Flanged End x Push-On Joint Ductile Iron Adapters (33 14 13 13-1128)		
33 14 13 13-1179	EA	4" Flanged End x Push-On Joint Adapter, Ductile Iron	429.77	132.79
		For Cement Mortar Lining (CML), Add	22.86	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	41.14	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	17.14	
		Note: ANSI/AWWA C151/A21.51		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
33 14 13 13-1180	EA	6" Flanged End x Push-On Joint Adapter, Ductile Iron	526.14	164.41	
		For Cement Mortar Lining (CML), Add	27.71		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	49.87		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	20.78		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1181	EA	8" Flanged End x Push-On Joint Adapter, Ductile Iron	688.88	191.76	
		For Cement Mortar Lining (CML), Add	39.83		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	71.69		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	29.87		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1182	EA	10" Flanged End x Push-On Joint Adapter, Ductile Iron	940.18	277.65	
		For Cement Mortar Lining (CML), Add	51.95		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	93.51		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	38.96		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1183	EA	12" Flanged End x Push-On Joint Adapter, Ductile Iron	1,138.81	317.37	
		For Cement Mortar Lining (CML), Add	65.80		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	118.44		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	49.35		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1184	EA	14" Flanged End x Push-On Joint Adapter, Ductile Iron	1,314.32	341.71	
		For Cement Mortar Lining (CML), Add	79.66		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	143.38		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	59.74		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1185	EA	16" Flanged End x Push-On Joint Adapter, Ductile Iron	1,565.28	370.21	
		For Cement Mortar Lining (CML), Add	100.44		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	180.78		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	75.33		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1186	EA	18" Flanged End x Push-On Joint Adapter, Ductile Iron	1,850.62	444.26	
		For Cement Mortar Lining (CML), Add	117.75		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	211.95		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	88.31		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1187	EA	20" Flanged End x Push-On Joint Adapter, Ductile Iron	2,150.53	493.61	
		For Cement Mortar Lining (CML), Add	140.26		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	252.47		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	105.20		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1188	EA	24" Flanged End x Push-On Joint Adapter, Ductile Iron	2,698.50	569.56	
		For Cement Mortar Lining (CML), Add	183.55		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	330.40		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	137.67		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1189	EA	30" Flanged End x Push-On Joint Adapter, Ductile Iron	4,329.82	683.43	
		For Cement Mortar Lining (CML), Add	329.43		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	592.97		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	247.07		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1190	EA	36" Flanged End x Push-On Joint Adapter, Ductile Iron	5,994.80	854.29	
		For Cement Mortar Lining (CML), Add	470.04		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	846.06		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	352.53		
		Note: ANSI/AWWA C151/A21.51			
33 14 13 13-1191	EA	42" Flanged End x Push-On Joint Adapter, Ductile Iron	7,582.16	987.23	
		For Cement Mortar Lining (CML), Add	608.64		
		Note: ANSI/AWWA C104/A21.4			
		For Fusion Bonded Epoxy Lining (206N), Add	1,095.55		
		Note: ANSI/AWWA C104/A21.4			
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	456.48		
		Note: ANSI/AWWA C151/A21.51			



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1192 EA 48" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,676.75 775.36 1,395.65 581.52	1,269.26
33 14 13 13-1193 EA 54" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,760.01 951.57 1,712.83 713.68	1,481.17
33 14 13 13-1194 Push-On Joint Ductile Iron Pipe And Fitting Restraints (33 14 13 13-1128) Note: Includes ductile iron follower gland, restraint ring and all nuts and bolts. Excludes pipe and fitting.		
33 14 13 13-1195 EA 4" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	51.66	20.68
33 14 13 13-1196 EA 6" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	67.68	26.97
33 14 13 13-1197 EA 8" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	87.98	27.45
33 14 13 13-1198 EA 10" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	104.06	29.16
33 14 13 13-1199 EA 12" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	123.76	32.38
33 14 13 13-1200 EA 14" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	156.26	36.43
33 14 13 13-1201 EA 16" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	184.35	41.64
33 14 13 13-1202 EA 18" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	207.77	45.12
33 14 13 13-1203 EA 20" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	242.29	54.14
33 14 13 13-1204 EA 24" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	291.23	56.22
33 14 13 13-1205 EA 30" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	373.70	62.48
33 14 13 13-1206 EA 36" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	487.93	67.67
33 14 13 13-1207 EA 42" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	602.72	74.05
33 14 13 13-1208 EA 48" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	711.24	83.30
33 14 13 13-1209 EA 54" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	983.44	90.33
33 14 13 13-1210 Push-On Joint Ductile Iron Bell Restraint Harness (MEGALUG® 1700 Series) (33 14 13 13-1128)		
33 14 13 13-1211 EA 4" Bell Restraint Harness, Ductile Iron (MEGALUG® 170400)	240.99	75.72
33 14 13 13-1212 EA 6" Bell Restraint Harness, Ductile Iron (MEGALUG® 170600)	317.86	92.44
33 14 13 13-1213 EA 8" Bell Restraint Harness, Ductile Iron (MEGALUG® 170800)	409.19	112.74
33 14 13 13-1214 EA 10" Bell Restraint Harness, Ductile Iron (MEGALUG® 17100)	616.25	137.54
33 14 13 13-1215 EA 12" Bell Restraint Harness, Ductile Iron (MEGALUG® 171200)	764.33	167.72
33 14 13 13-1216 EA 14" Bell Restraint Harness, Ductile Iron (MEGALUG® 171400)	1,316.63	204.62
33 14 13 13-1217 EA 16" Bell Restraint Harness, Ductile Iron (MEGALUG® 171600)	1,503.32	249.72
33 14 13 13-1218 EA 18" Bell Restraint Harness, Ductile Iron (MEGALUG® 171800)	1,706.85	304.58
33 14 13 13-1219 EA 20" Bell Restraint Harness, Ductile Iron (MEGALUG® 172000)	2,319.70	371.67
33 14 13 13-1220 EA 24" Bell Restraint Harness, Ductile Iron (MEGALUG® 172400)	2,958.41	453.34
33 14 13 13-1221 EA 30" Bell Restraint Harness, Ductile Iron (MEGALUG® 173000)	5,103.38	553.18
33 14 13 13-1222 EA 36" Bell Restraint Harness, Ductile Iron (MEGALUG® 173600)	7,239.67	674.79
33 14 13 13-1223 EA 42" Bell Restraint Harness, Ductile Iron (MEGALUG® 174200)	13,146.17	823.33
33 14 13 13-1224 EA 48" Bell Restraint Harness, Ductile Iron (MEGALUG® 174800)	17,006.36	1,004.39
33 14 13 13-1225 Ductile Iron Pipe Repair (33 14 13 13-0001) See CSI section 33 14 13 13-0002 for mechanical joint fittings.		
33 14 13 13-1226 Ductile Iron Pipe Repair (33 14 13 13-1225) Note: Includes two transition sleeves, mechanical joint ductile iron sleeve and 16' of ductile iron pipe.		
33 14 13 13-1227 EA 30" Diameter Mechanical Ductile Iron Push Joint	3,834.98	
33 14 13 13-1228 EA 36" Diameter Mechanical Ductile Iron Push Joint	4,887.84	
33 14 13 13-1229 EA 42" Diameter Mechanical Ductile Iron Push Joint	6,244.69	
33 14 13 13-1230 EA 48" Diameter Mechanical Ductile Iron Push Joint	7,855.66	
33 14 13 13-1231 EA 54" Diameter Mechanical Ductile Iron Push Joint	11,443.30	
33 14 13 13-1232 WEKO Seals (33 14 13 13-1225) Note: Internal joint seal.		
33 14 13 13-1233 EA 16" WEKO Internal Joint Seal	2,209.83	199.08
For Extra Wide Seals, Add	85.08	
33 14 13 13-1234 EA 18" WEKO Internal Joint Seal	2,354.91	210.22
For Extra Wide Seals, Add	85.93	
33 14 13 13-1235 EA 20" WEKO Internal Joint Seal	2,499.81	221.35
For Extra Wide Seals, Add	86.77	
33 14 13 13-1236 EA 24" WEKO Internal Joint Seal	2,646.89	239.07
For Extra Wide Seals, Add	88.11	
33 14 13 13-1237 EA 30" WEKO Internal Joint Seal	2,728.96	256.77
For Extra Wide Seals, Add	89.45	
33 14 13 13-1238 EA 36" WEKO Internal Joint Seal	2,859.98	278.91
For Extra Wide Seals, Add	91.13	
33 14 13 13-1239 EA 42" WEKO Internal Joint Seal	3,046.49	305.47
For Extra Wide Seals, Add	93.14	
33 14 13 13-1240 EA 48" WEKO Internal Joint Seal	3,291.26	327.61
For Extra Wide Seals, Add	94.82	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

SAN BERNARDINO
COUNTY

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1241	EA	54" WEKO Internal Joint Seal..... <i>For Extra Wide Seals, Add</i>	3,412.34 96.16	345.32
33 14 13 13-1242	EA	60" WEKO Internal Joint Seal..... <i>For Extra Wide Seals, Add</i>	3,553.35 98.17	371.89
33 14 13 23 Plastic Public Water Utility Distribution Piping (33 14 13)				
33 14 13 23-0001		Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Piping (33 14 13 23)		
33 14 13 23-0002		Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe (33 14 13 23-0001)		
33 14 13 23-0003	LF	3/4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	2.62 -0.13 0.08	0.84
33 14 13 23-0004	LF	1" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	2.95 -0.15 0.10	0.91
33 14 13 23-0005	LF	1-1/4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	3.56 -0.18 0.16	0.99
33 14 13 23-0006	LF	1-1/2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	4.21 -0.21 0.22	1.09
33 14 13 23-0007	LF	2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	5.79 -0.29 0.41	1.23
33 14 13 23-0008	LF	2-1/2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	7.79 -0.39 0.65	1.39
33 14 13 23-0009	LF	3" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	9.90 -0.50 0.88	1.60
33 14 13 23-0010	LF	4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	14.55 -0.73 1.44	1.97
33 14 13 23-0011	LF	6" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	27.25 -1.36 3.15	2.50
33 14 13 23-0012	LF	8" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	43.86 -2.19 5.34	3.32
33 14 13 23-0013	LF	10" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	66.40 -3.32 8.30	4.44
33 14 13 23-0014	LF	12" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe..... <i>For >1,000, Deduct</i> <i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	92.87 -4.64 11.69	5.97
33 14 13 23-0015		90 Degree Elbows, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0016	EA	3/4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	25.89	10.12
33 14 13 23-0017	EA	1", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	32.91	12.65
33 14 13 23-0018	EA	1-1/4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	41.69	15.81
33 14 13 23-0019	EA	1-1/2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	74.29	17.50
33 14 13 23-0020	EA	2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	79.34	19.61
33 14 13 23-0021	EA	2-1/2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	95.55	22.24
33 14 13 23-0022	EA	3", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	108.98	25.66
33 14 13 23-0023	EA	4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	158.19	31.51
33 14 13 23-0024	EA	6", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	237.00	40.03
33 14 13 23-0025	EA	8", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	405.01	52.55
33 14 13 23-0026	EA	10", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	488.29	70.31
33 14 13 23-0027	EA	12", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	642.58	94.63
33 14 13 23-0028		45 Degree Elbows, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0029	EA	3/4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	26.71	10.12
33 14 13 23-0030	EA	1" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	33.49	12.65
33 14 13 23-0031	EA	1-1/4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	42.04	15.81
33 14 13 23-0032	EA	1-1/2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	63.54	17.50
33 14 13 23-0033	EA	2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	80.34	19.61
33 14 13 23-0034	EA	2-1/2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	99.60	22.24
33 14 13 23-0035	EA	3" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	107.27	25.66
33 14 13 23-0036	EA	4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	154.49	31.51
33 14 13 23-0037	EA	6" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	229.54	40.03
33 14 13 23-0038	EA	8" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	390.80	52.55
33 14 13 23-0039	EA	10" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	429.37	70.31
33 14 13 23-0040	EA	12" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	561.05	94.63
33 14 13 23-0041		Tees Or Wyes, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0042	EA	3/4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	38.77	15.18
33 14 13 23-0043	EA	1" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	49.12	19.08
33 14 13 23-0044	EA	1-1/4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	61.81	23.82



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0045	EA	1-1/2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	98.21	26.36
33 14 13 23-0046	EA	2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	112.91	29.30
33 14 13 23-0047	EA	2-1/2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	132.84	33.42
33 14 13 23-0048	EA	3" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	168.03	38.38
33 14 13 23-0049	EA	4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	226.33	47.31
33 14 13 23-0050	EA	6" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	406.96	60.15
33 14 13 23-0051	EA	8" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	629.42	78.83
33 14 13 23-0052	EA	10" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	702.35	106.49
33 14 13 23-0053	EA	12" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	858.93	143.31
33 14 13 23-0054 Couplings, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)				
33 14 13 23-0055	EA	3/4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	17.39	6.75
33 14 13 23-0056	EA	1" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	23.55	9.07
33 14 13 23-0057	EA	1-1/4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	31.85	11.91
33 14 13 23-0058	EA	1-1/2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	50.81	13.18
33 14 13 23-0059	EA	2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	55.72	14.66
33 14 13 23-0060	EA	2-1/2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	63.36	16.65
33 14 13 23-0061	EA	3" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	75.05	19.19
33 14 13 23-0062	EA	4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	107.76	23.60
33 14 13 23-0063	EA	6" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	160.60	30.07
33 14 13 23-0064	EA	8" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	293.27	39.41
33 14 13 23-0065	EA	10" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	328.07	53.30
33 14 13 23-0066	EA	12" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	410.82	71.66
33 14 13 23-0067 Schedule 40 Polyvinyl Chloride (PVC) Pipe And Fittings (33 14 13 23-0067)				
33 14 13 23-0068 Schedule 40 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0067)				
33 14 13 23-0069	LF	3/4" Schedule 40 Polyvinyl Chloride (PVC) Pipe	3.04	0.84
		For >1,000, Deduct	-0.15	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.14	
33 14 13 23-0070	LF	1" Schedule 40 Polyvinyl Chloride (PVC) Pipe	3.74	0.91
		For >1,000, Deduct	-0.19	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.22	
33 14 13 23-0071	LF	1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe	4.95	1.09
		For >1,000, Deduct	-0.25	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.33	
33 14 13 23-0072	LF	2" Schedule 40 Polyvinyl Chloride (PVC) Pipe	6.06	1.23
		For >1,000, Deduct	-0.30	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.45	
33 14 13 23-0073	LF	2-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe	8.22	1.39
		For >1,000, Deduct	-0.41	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.71	
33 14 13 23-0074	LF	3" Schedule 40 Polyvinyl Chloride (PVC) Pipe	10.18	1.60
		For >1,000, Deduct	-0.51	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.93	
33 14 13 23-0075	LF	4" Schedule 40 Polyvinyl Chloride (PVC) Pipe	13.80	1.97
		For >1,000, Deduct	-0.69	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	1.33	
33 14 13 23-0076	LF	6" Schedule 40 Polyvinyl Chloride (PVC) Pipe	21.76	2.50
		For >1,000, Deduct	-1.09	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	2.33	
33 14 13 23-0077 Schedule 40 Polyvinyl Chloride (PVC) 90 Degree Elbows (33 14 13 23-0067)				
33 14 13 23-0078	EA	3/4" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	26.18	10.12
33 14 13 23-0079	EA	1" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	33.08	12.65
33 14 13 23-0080	EA	1-1/2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	46.21	17.50
33 14 13 23-0081	EA	2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	52.67	19.61
33 14 13 23-0082	EA	2-1/2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	65.59	22.24
33 14 13 23-0083	EA	3" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	76.20	25.66
33 14 13 23-0084	EA	4" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	103.32	31.51
33 14 13 23-0085	EA	6" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	178.24	40.03
33 14 13 23-0086 Schedule 40 Polyvinyl Chloride (PVC) 45 Degree Elbows (33 14 13 23-0067)				
33 14 13 23-0087	EA	3/4" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	26.11	10.12
33 14 13 23-0088	EA	1" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	33.01	12.65
33 14 13 23-0089	EA	1-1/2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	46.24	17.50
33 14 13 23-0090	EA	2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	52.39	19.61
33 14 13 23-0091	EA	2-1/2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	64.82	22.24
33 14 13 23-0092	EA	3" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	75.30	25.66
33 14 13 23-0093	EA	4" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	101.51	31.51
33 14 13 23-0094	EA	6" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC).....	172.47	40.03
33 14 13 23-0095 Schedule 40 Polyvinyl Chloride (PVC) Tees Or Wyes (33 14 13 23-0067)				
33 14 13 23-0096	EA	3/4" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	39.08	15.18
33 14 13 23-0097	EA	1" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	49.35	19.08
33 14 13 23-0098	EA	1-1/2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	68.95	26.36
33 14 13 23-0099	EA	2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	78.01	29.30

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0100	EA	2-1/2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	98.82	33.42
33 14 13 23-0101	EA	3" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	117.98	38.38
33 14 13 23-0102	EA	4" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	147.61	47.31
33 14 13 23-0103	EA	6" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC).....	272.89	60.15
33 14 13 23-0104		Schedule 40 Polyvinyl Chloride (PVC) Couplings (33 14 13 23-0067)		
33 14 13 23-0105	EA	3/4" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	17.53	6.75
33 14 13 23-0106	EA	1" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	23.67	9.07
33 14 13 23-0107	EA	1-1/2" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	34.30	13.18
33 14 13 23-0108	EA	2" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	38.98	14.66
33 14 13 23-0109	EA	2-1/2" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	46.73	16.65
33 14 13 23-0110	EA	3" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	55.78	19.19
33 14 13 23-0111	EA	4" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	69.40	23.60
33 14 13 23-0112	EA	6" Coupling, Schedule 40 Polyvinyl Chloride (PVC).....	110.73	30.07
33 14 13 23-0113		Crosses, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0114	EA	3/4" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	52.38	20.24
33 14 13 23-0115	EA	1" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	65.72	25.40
33 14 13 23-0116	EA	1-1/2" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	91.92	35.11
33 14 13 23-0117	EA	2" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	103.99	39.11
33 14 13 23-0118	EA	2-1/2" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	131.67	44.49
33 14 13 23-0119	EA	3" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	157.17	51.22
33 14 13 23-0120	EA	4" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	196.64	63.01
33 14 13 23-0121	EA	6" Cross, Schedule 40 Polyvinyl Chloride (PVC).....	363.14	80.16
33 14 13 23-0122		Schedule 80 Polyvinyl Chloride (PVC) Pipe And Fittings (33 14 13 23)		
33 14 13 23-0123		Schedule 80 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0122)		
33 14 13 23-0124	LF	1" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	4.19	0.91
		For >1,000, Deduct.....	-0.21	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	0.29	
33 14 13 23-0125	LF	1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	5.85	1.09
		For >1,000, Deduct.....	-0.29	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	0.47	
33 14 13 23-0126	LF	2" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	7.59	1.23
		For >1,000, Deduct.....	-0.38	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	0.68	
33 14 13 23-0127	LF	2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	10.20	1.39
		For >1,000, Deduct.....	-0.51	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	1.01	
33 14 13 23-0128	LF	3" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	12.95	1.60
		For >1,000, Deduct.....	-0.65	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	1.34	
33 14 13 23-0129	LF	4" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	18.05	1.97
		For >1,000, Deduct.....	-0.90	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	1.97	
33 14 13 23-0130	LF	6" Schedule 80 Polyvinyl Chloride (PVC) Pipe.....	31.21	2.50
		For >1,000, Deduct.....	-1.56	
		For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add.....	3.74	
33 14 13 23-0131		Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbows (33 14 13 23-0122)		
33 14 13 23-0132	EA	1" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC).....	35.43	12.65
33 14 13 23-0133	EA	1-1/2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC).....	46.21	17.50
33 14 13 23-0134	EA	2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC).....	55.02	19.61
33 14 13 23-0135	EA	2-1/2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC).....	70.58	22.24
33 14 13 23-0136	EA	3" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	80.84	25.66
33 14 13 23-0137	EA	4" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	104.44	31.51
33 14 13 23-0138	EA	6" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	172.96	40.03
33 14 13 23-0139		Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbows (33 14 13 23-0122)		
33 14 13 23-0140	EA	1" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	45.06	12.65
33 14 13 23-0141	EA	1-1/2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	55.49	17.50
33 14 13 23-0142	EA	2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	63.95	19.61
33 14 13 23-0143	EA	2-1/2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	87.32	22.24
33 14 13 23-0144	EA	3" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	102.63	25.66
33 14 13 23-0145	EA	4" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	148.26	31.51
33 14 13 23-0146	EA	6" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow.....	170.02	40.03
33 14 13 23-0147		Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes (33 14 13 23-0122)		
33 14 13 23-0148	EA	1" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	54.29	19.08
33 14 13 23-0149	EA	1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	83.93	26.36
33 14 13 23-0150	EA	2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	95.87	29.30
33 14 13 23-0151	EA	2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	108.28	33.42
33 14 13 23-0152	EA	3" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	127.03	38.38
33 14 13 23-0153	EA	4" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	154.13	47.31



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
33 14 13 23-0154	EA	6" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes.....	272.66	60.15
33 14 13 23-0155		Schedule 80 Polyvinyl Chloride (PVC) Couplings (33 14 13 23-0122)		
33 14 13 23-0156	EA	1" Schedule 80 Polyvinyl Chloride (PVC) Coupling	27.19	9.07
33 14 13 23-0157	EA	1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	40.35	13.18
33 14 13 23-0158	EA	2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	44.68	14.66
33 14 13 23-0159	EA	2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	61.36	16.65
33 14 13 23-0160	EA	3" Schedule 80 Polyvinyl Chloride (PVC) Coupling	70.53	19.19
33 14 13 23-0161	EA	4" Schedule 80 Polyvinyl Chloride (PVC) Coupling	87.31	23.60
33 14 13 23-0162	EA	6" Schedule 80 Polyvinyl Chloride (PVC) Coupling	135.75	30.07
33 14 13 23-0163		Crosses, Schedule 80 Polyvinyl Chloride (PVC) (33 14 13 23-0122)		
33 14 13 23-0164	EA	1" Schedule 80 Polyvinyl Chloride (PVC) Cross	72.27	25.40
33 14 13 23-0165	EA	1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Cross	111.80	35.11
33 14 13 23-0166	EA	2" Schedule 80 Polyvinyl Chloride (PVC) Cross	127.69	39.11
33 14 13 23-0167	EA	2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Cross	144.22	44.49
33 14 13 23-0168	EA	3" Schedule 80 Polyvinyl Chloride (PVC) Cross	169.18	51.22
33 14 13 23-0169	EA	4" Schedule 80 Polyvinyl Chloride (PVC) Cross	205.29	63.01
33 14 13 23-0170	EA	6" Schedule 80 Polyvinyl Chloride (PVC) Cross	362.83	80.16
33 14 13 23-0171		AWWA C900/C905 Polyvinyl Chloride (PVC) Pipe (33 14 13 23)		
Note: Includes hub on one end of pipe. C900 is available in blue, white, purple or green.				
33 14 13 23-0172		AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0173	LF	4" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	11.04	4.04
33 14 13 23-0174	LF	6" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	15.84	4.89
33 14 13 23-0175	LF	8" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	21.44	5.51
33 14 13 23-0176	LF	10" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	27.96	6.12
33 14 13 23-0177	LF	12" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	35.95	6.85
33 14 13 23-0178		AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0179	LF	4" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	12.11	4.04
33 14 13 23-0180	LF	6" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	18.04	4.89
33 14 13 23-0181	LF	8" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	25.14	5.51
33 14 13 23-0182	LF	10" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	33.73	6.12
33 14 13 23-0183	LF	12" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	44.01	6.85
33 14 13 23-0184		AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0185	LF	4" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	13.15	4.04
33 14 13 23-0186	LF	6" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	20.23	4.89
33 14 13 23-0187	LF	8" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	28.85	5.51
33 14 13 23-0188	LF	10" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	39.37	6.12
33 14 13 23-0189	LF	12" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	52.06	6.85
33 14 13 23-0190		AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0191	LF	18" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	56.35	10.29
33 14 13 23-0192	LF	20" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	68.65	12.25
33 14 13 23-0193	LF	24" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	91.74	14.69
33 14 13 23-0194	LF	30" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	131.74	17.14
33 14 13 23-0195	LF	36" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	181.04	19.60
33 14 13 23-0196	LF	42" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	228.61	20.82
33 14 13 23-0197	LF	48" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	288.76	22.41
33 14 13 23-0198		AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0199	LF	14" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	41.61	7.72
33 14 13 23-0200	LF	16" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	51.99	8.57
33 14 13 23-0201	LF	18" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	64.42	10.29
33 14 13 23-0202	LF	20" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	79.12	12.25
33 14 13 23-0203	LF	24" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	107.89	14.69
33 14 13 23-0204	LF	30" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	154.91	17.14
33 14 13 23-0205	LF	36" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	212.07	19.60
33 14 13 23-0206	LF	42" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	280.20	20.82
33 14 13 23-0207	LF	48" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	355.70	22.41
33 14 13 23-0208		AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0209	LF	14" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	47.82	7.72
33 14 13 23-0210	LF	16" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	60.61	8.57
33 14 13 23-0211	LF	18" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	75.12	10.29
33 14 13 23-0212	LF	20" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	93.00	12.25
33 14 13 23-0213	LF	24" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	127.83	14.69
33 14 13 23-0214	LF	30" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	184.86	17.14
33 14 13 23-0215	LF	36" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	255.79	19.60

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0216	LF	42" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	332.00	20.82
33 14 13 23-0217	LF	48" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	423.29	22.41
33 14 13 23-0218		AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0219	LF	14" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	58.42	7.72
33 14 13 23-0220	LF	16" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	73.21	8.57
33 14 13 23-0221	LF	18" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	91.34	10.29
33 14 13 23-0222	LF	20" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	112.59	12.25
33 14 13 23-0223	LF	24" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	156.08	14.69
33 14 13 23-0224	LF	30" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	229.20	17.14
33 14 13 23-0225	LF	36" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	323.96	19.60
33 14 13 23-0226	LF	42" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	431.97	20.82
33 14 13 23-0227	LF	48" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	557.45	22.41
33 14 13 23-0228		AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0229	LF	14" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	66.40	7.72
33 14 13 23-0230	LF	16" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	83.58	8.57
33 14 13 23-0231	LF	18" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	104.43	10.29
33 14 13 23-0232	LF	20" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	128.89	12.25
33 14 13 23-0233	LF	24" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	179.52	14.69
33 14 13 23-0234	LF	30" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	265.26	17.14
33 14 13 23-0235	LF	36" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	376.63	19.60
33 14 13 23-0236	LF	42" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	504.17	20.82
33 14 13 23-0237		AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0238	LF	14" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	74.17	7.72
33 14 13 23-0239	LF	16" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	93.67	8.57
33 14 13 23-0240	LF	18" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	117.14	10.29
33 14 13 23-0241	LF	20" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	144.74	12.25
33 14 13 23-0242	LF	24" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	202.32	14.69
33 14 13 23-0243	LF	30" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	300.34	17.14
33 14 13 23-0244	LF	36" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	427.89	19.60
33 14 13 23-0245		AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) Fittings (33 14 13 23)		
		Note: Includes rubber gaskets.		
33 14 13 23-0246		90 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0247	EA	4" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	205.12	12.65
		For DR 25, Deduct	-10.79	
33 14 13 23-0248	EA	6" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	421.00	14.23
		For DR 25, Deduct	-23.55	
33 14 13 23-0249	EA	8" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	632.87	15.81
		For DR 25, Deduct	-36.07	
33 14 13 23-0250	EA	10" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	965.91	24.88
		For DR 25, Deduct	-54.97	
33 14 13 23-0251	EA	12" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,256.03	41.47
		For DR 25, Deduct	-70.39	
33 14 13 23-0252	EA	14" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,887.39	51.85
		For DR 25, Deduct	-107.02	
33 14 13 23-0253	EA	16" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,252.33	62.22
		For DR 25, Deduct	-127.67	
33 14 13 23-0254	EA	18" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,867.54	82.96
		For DR 25, Deduct	-222.10	
33 14 13 23-0255	EA	20" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,760.90	103.70
		For DR 25, Deduct	-273.21	
33 14 13 23-0256	EA	24" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	7,906.56	139.99
		For DR 25, Deduct	-457.59	
33 14 13 23-0257		45 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0258	EA	4" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	181.65	12.65
		For DR 25, Deduct	-9.38	
33 14 13 23-0259	EA	6" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	314.51	14.23
		For DR 25, Deduct	-17.16	
33 14 13 23-0260	EA	8" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	398.75	15.81
		For DR 25, Deduct	-22.03	
33 14 13 23-0261	EA	10" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	563.29	24.88
		For DR 25, Deduct	-30.81	
33 14 13 23-0262	EA	12" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	752.21	41.47
		For DR 25, Deduct	-40.16	
33 14 13 23-0263	EA	14" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,449.15	51.85
		For DR 25, Deduct	-80.73	
33 14 13 23-0264	EA	16" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,837.15	62.22
		For DR 25, Deduct	-102.76	
33 14 13 23-0265	EA	18" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,173.40	82.96
		For DR 25, Deduct	-180.45	



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 14 13 23-0266	EA 20" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,941.43		103.70
		-224.04		
33 14 13 23-0267	EA 24" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	5,562.83		139.99
		-316.97		
33 14 13 23-0268	22-1/2 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)			
33 14 13 23-0269	EA 4" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	178.79		12.65
		-9.27		
33 14 13 23-0270	EA 6" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	314.51		14.23
		-17.16		
33 14 13 23-0271	EA 8" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	398.75		15.81
		-22.03		
33 14 13 23-0272	EA 10" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	553.30		24.88
		-30.81		
33 14 13 23-0273	EA 12" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	752.22		41.47
		-40.16		
33 14 13 23-0274	EA 14" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,444.98		49.77
		-80.73		
33 14 13 23-0275	EA 16" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,837.13		62.22
		-102.76		
33 14 13 23-0276	EA 18" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,173.40		82.96
		-180.45		
33 14 13 23-0277	EA 20" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,941.43		103.70
		-224.04		
33 14 13 23-0278	EA 24" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	5,562.83		139.99
		-316.97		
33 14 13 23-0279	11-1/4 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)			
33 14 13 23-0280	EA 4" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	157.77		12.65
		-7.95		
33 14 13 23-0281	EA 6" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	314.51		14.23
		-17.16		
33 14 13 23-0282	EA 8" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	398.75		15.81
		-22.03		
33 14 13 23-0283	EA 10" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	563.30		24.88
		-30.81		
33 14 13 23-0284	EA 12" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	752.22		41.47
		-40.16		
33 14 13 23-0285	EA 14" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,444.98		49.77
		-80.73		
33 14 13 23-0286	EA 16" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,837.13		62.22
		-102.76		
33 14 13 23-0287	EA 18" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,173.40		82.96
		-180.45		
33 14 13 23-0288	EA 20" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,941.43		103.70
		-224.04		
33 14 13 23-0289	EA 24" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	5,562.83		139.99
		-316.97		
33 14 13 23-0290	Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)			
33 14 13 23-0291	EA 4" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	243.86		14.23
		-12.92		
33 14 13 23-0292	EA 6" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	471.96		15.81
		-26.42		
33 14 13 23-0293	EA 8" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	658.97		17.92
		-37.39		
33 14 13 23-0294	EA 10" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,358.59		31.11
		-77.78		
33 14 13 23-0295	EA 12" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	1,655.69		62.22
		-91.88		
33 14 13 23-0296	EA 14" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	2,993.85		77.77
		-170.30		
33 14 13 23-0297	EA 16" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	3,708.49		93.33
		-211.31		
33 14 13 23-0298	EA 18" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	4,678.53		124.43
		-265.78		
33 14 13 23-0299	EA 20" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	5,617.70		155.55
		-318.40		
33 14 13 23-0300	EA 24" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	7,718.60		105.77
		-450.42		
33 14 13 23-0301	Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)			
33 14 13 23-0302	EA 6" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)..... <i>For DR 25, Deduct</i>	469.54		20.55
		-25.71		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0303	EA	8" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	639.17	22.14
		For DR 25, Deduct	-35.69	
33 14 13 23-0304	EA	8" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	655.16	22.93
		For DR 25, Deduct	-36.56	
33 14 13 23-0305	EA	10" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	849.46	31.11
		For DR 25, Deduct	-47.23	
33 14 13 23-0306	EA	10" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,151.52	31.89
		For DR 25, Deduct	-65.27	
33 14 13 23-0307	EA	10" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,232.03	32.67
		For DR 25, Deduct	-70.00	
33 14 13 23-0308	EA	12" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,304.79	47.70
		For DR 25, Deduct	-72.56	
33 14 13 23-0309	EA	12" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,498.43	48.48
		For DR 25, Deduct	-84.09	
33 14 13 23-0310	EA	12" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,589.90	49.26
		For DR 25, Deduct	-89.48	
33 14 13 23-0311	EA	12" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,619.46	53.93
		For DR 25, Deduct	-90.70	
33 14 13 23-0312	EA	14" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,462.19	56.00
		For DR 25, Deduct	-141.01	
33 14 13 23-0313	EA	14" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,561.38	56.78
		For DR 25, Deduct	-146.87	
33 14 13 23-0314	EA	14" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,660.81	57.55
		For DR 25, Deduct	-152.74	
33 14 13 23-0315	EA	14" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,767.46	62.22
		For DR 25, Deduct	-158.58	
33 14 13 23-0316	EA	14" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,881.74	70.52
		For DR 25, Deduct	-164.44	
33 14 13 23-0317	EA	16" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,072.87	68.44
		For DR 25, Deduct	-176.16	
33 14 13 23-0318	EA	16" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,170.47	68.44
		For DR 25, Deduct	-182.02	
33 14 13 23-0319	EA	16" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,269.68	69.22
		For DR 25, Deduct	-187.88	
33 14 13 23-0320	EA	16" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,368.89	69.99
		For DR 25, Deduct	-193.73	
33 14 13 23-0321	EA	16" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,492.43	82.96
		For DR 25, Deduct	-199.59	
33 14 13 23-0322	EA	16" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,598.35	87.11
		For DR 25, Deduct	-205.45	
33 14 13 23-0323	EA	18" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,797.09	89.18
		For DR 25, Deduct	-217.12	
33 14 13 23-0324	EA	18" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,896.96	89.95
		For DR 25, Deduct	-223.02	
33 14 13 23-0325	EA	18" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,996.16	90.73
		For DR 25, Deduct	-228.88	
33 14 13 23-0326	EA	18" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,103.12	95.40
		For DR 25, Deduct	-234.74	
33 14 13 23-0327	EA	18" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,217.30	103.70
		For DR 25, Deduct	-240.59	
33 14 13 23-0328	EA	18" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,322.57	107.84
		For DR 25, Deduct	-246.41	
33 14 13 23-0329	EA	18" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,456.25	114.06
		For DR 25, Deduct	-253.69	
33 14 13 23-0330	EA	20" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,816.21	109.92
		For DR 25, Deduct	-275.78	
33 14 13 23-0331	EA	20" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,984.49	110.69
		For DR 25, Deduct	-285.79	
33 14 13 23-0332	EA	20" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,050.67	111.48
		For DR 25, Deduct	-289.66	
33 14 13 23-0333	EA	20" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,124.72	116.14
		For DR 25, Deduct	-293.55	
33 14 13 23-0334	EA	20" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,205.96	124.43
		For DR 25, Deduct	-297.43	
33 14 13 23-0335	EA	20" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,319.09	128.58
		For DR 25, Deduct	-303.72	
33 14 13 23-0336	EA	20" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,436.37	134.80
		For DR 25, Deduct	-310.01	
33 14 13 23-0337	EA	20" x 18" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,527.03	145.17
		For DR 25, Deduct	-314.20	
33 14 13 23-0338	EA	24" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,668.93	146.21
		For DR 25, Deduct	-322.59	
33 14 13 23-0339	EA	24" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,740.43	146.99
		For DR 25, Deduct	-326.79	
33 14 13 23-0340	EA	24" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,811.92	147.77
		For DR 25, Deduct	-330.98	
33 14 13 23-0341	EA	24" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,105.63	152.44
		For DR 25, Deduct	-348.05	
33 14 13 23-0342	EA	24" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,406.58	160.73
		For DR 25, Deduct	-365.11	
33 14 13 23-0343	EA	24" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,699.26	164.88
		For DR 25, Deduct	-382.17	
33 14 13 23-0344	EA	24" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,996.09	171.10
		For DR 25, Deduct	-399.23	



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0345	EA	24" x 18" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	7,301.23	181.47
		For DR 25, Deduct		-416.30	
33 14 13 23-0346	EA	24" x 20" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	7,606.34	191.84
		For DR 25, Deduct		-433.36	
33 14 13 23-0347 Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)					
33 14 13 23-0348	EA	4" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	337.80	25.30
		For DR 25, Deduct		-17.23	
33 14 13 23-0349	EA	6" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	608.11	28.46
		For DR 25, Deduct		-33.07	
33 14 13 23-0350	EA	8" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	842.54	31.62
		For DR 25, Deduct		-46.76	
33 14 13 23-0351	EA	10" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,719.33	49.77
		For DR 25, Deduct		-97.19	
33 14 13 23-0352	EA	12" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	2,038.87	62.22
		For DR 25, Deduct		-114.87	
33 14 13 23-0353	EA	14" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,713.99	82.96
		For DR 25, Deduct		-212.88	
33 14 13 23-0354	EA	16" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,608.97	103.70
		For DR 25, Deduct		-264.10	
33 14 13 23-0355	EA	18" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	5,869.73	165.92
		For DR 25, Deduct		-332.27	
33 14 13 23-0356	EA	20" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	7,048.14	207.39
		For DR 25, Deduct		-398.00	
33 14 13 23-0357	EA	24" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	9,943.22	279.98
		For DR 25, Deduct		-563.00	
33 14 13 23-0358 Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)					
33 14 13 23-0359	EA	6" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	589.73	26.88
		For DR 25, Deduct		-32.16	
33 14 13 23-0360	EA	8" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	801.47	28.46
		For DR 25, Deduct		-44.67	
33 14 13 23-0361	EA	8" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	821.88	30.04
		For DR 25, Deduct		-45.71	
33 14 13 23-0362	EA	10" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,232.51	37.33
		For DR 25, Deduct		-69.47	
33 14 13 23-0363	EA	10" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,437.64	38.89
		For DR 25, Deduct		-81.59	
33 14 13 23-0364	EA	10" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,579.54	40.44
		For DR 25, Deduct		-89.92	
33 14 13 23-0365	EA	12" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,620.07	53.93
		For DR 25, Deduct		-90.73	
33 14 13 23-0366	EA	12" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,862.73	55.48
		For DR 25, Deduct		-105.11	
33 14 13 23-0367	EA	12" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	1,978.25	57.04
		For DR 25, Deduct		-111.85	
33 14 13 23-0368	EA	12" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	2,022.10	66.37
		For DR 25, Deduct		-113.36	
33 14 13 23-0369	EA	14" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,062.16	62.22
		For DR 25, Deduct		-176.26	
33 14 13 23-0370	EA	14" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,186.95	63.77
		For DR 25, Deduct		-183.56	
33 14 13 23-0371	EA	14" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,313.08	65.33
		For DR 25, Deduct		-190.95	
33 14 13 23-0372	EA	14" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,454.27	74.66
		For DR 25, Deduct		-198.30	
33 14 13 23-0373	EA	14" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,609.03	91.25
		For DR 25, Deduct		-205.59	
33 14 13 23-0374	EA	16" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,818.74	74.66
		For DR 25, Deduct		-220.16	
33 14 13 23-0375	EA	16" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	3,945.18	76.21
		For DR 25, Deduct		-227.56	
33 14 13 23-0376	EA	16" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,070.26	77.77
		For DR 25, Deduct		-234.88	
33 14 13 23-0377	EA	16" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,211.32	87.11
		For DR 25, Deduct		-242.23	
33 14 13 23-0378	EA	16" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,279.16	103.70
		For DR 25, Deduct		-244.31	
33 14 13 23-0379	EA	16" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,504.53	111.99
		For DR 25, Deduct		-256.83	
33 14 13 23-0380	EA	18" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,714.83	95.40
		For DR 25, Deduct		-271.44	
33 14 13 23-0381	EA	18" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,840.96	96.95
		For DR 25, Deduct		-278.82	
33 14 13 23-0382	EA	18" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	4,966.23	98.51
		For DR 25, Deduct		-286.15	
33 14 13 23-0383	EA	18" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	5,105.47	107.84
		For DR 25, Deduct		-293.39	
33 14 13 23-0384	EA	18" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	.....	5,261.68	124.43
		For DR 25, Deduct		-300.77	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0385 EA 18" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,399.87	132.73
For DR 25, Deduct	-308.06	
33 14 13 23-0386 EA 18" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,576.07	145.17
For DR 25, Deduct	-317.14	
33 14 13 23-0387 EA 20" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,978.34	116.14
For DR 25, Deduct	-344.76	
33 14 13 23-0388 EA 20" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,189.49	117.70
For DR 25, Deduct	-357.25	
33 14 13 23-0389 EA 20" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,274.00	119.25
For DR 25, Deduct	-362.13	
33 14 13 23-0390 EA 20" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,373.19	128.58
For DR 25, Deduct	-366.96	
33 14 13 23-0391 EA 20" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,486.91	145.17
For DR 25, Deduct	-371.79	
33 14 13 23-0392 EA 20" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,633.62	153.47
For DR 25, Deduct	-379.60	
33 14 13 23-0393 EA 20" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,791.23	165.92
For DR 25, Deduct	-387.56	
33 14 13 23-0394 EA 20" x 18" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,919.87	186.65
For DR 25, Deduct	-392.79	
33 14 13 23-0395 EA 24" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,986.69	152.44
For DR 25, Deduct	-400.91	
33 14 13 23-0396 EA 24" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	7,116.48	153.99
For DR 25, Deduct	-408.51	
33 14 13 23-0397 EA 24" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	7,207.36	155.55
For DR 25, Deduct	-413.78	
33 14 13 23-0398 EA 24" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	7,581.09	164.88
For DR 25, Deduct	-435.08	
33 14 13 23-0399 EA 24" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	7,969.46	181.47
For DR 25, Deduct	-456.39	
33 14 13 23-0400 EA 24" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	8,341.17	189.76
For DR 25, Deduct	-477.70	
33 14 13 23-0401 EA 24" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	8,722.70	202.21
For DR 25, Deduct	-499.10	
33 14 13 23-0402 EA 24" x 18" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	9,118.54	222.94
For DR 25, Deduct	-520.36	
33 14 13 23-0403 EA 24" x 20" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	9,515.90	243.68
For DR 25, Deduct	-541.71	
33 14 13 23-0404 Couplings, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0405 EA 4" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	122.15	12.65
For DR 25, Deduct	-5.81	
33 14 13 23-0406 EA 6" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	228.36	14.23
For DR 25, Deduct	-11.99	
33 14 13 23-0407 EA 8" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	274.97	15.81
For DR 25, Deduct	-14.60	
33 14 13 23-0408 EA 10" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	390.17	24.88
For DR 25, Deduct	-20.42	
33 14 13 23-0409 EA 12" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	621.53	31.11
For DR 25, Deduct	-33.56	
33 14 13 23-0410 EA 14" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,079.63	41.47
For DR 25, Deduct	-59.80	
33 14 13 23-0411 EA 16" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,278.66	51.85
For DR 25, Deduct	-70.50	
33 14 13 23-0412 EA 18" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,065.38	82.96
For DR 25, Deduct	-173.97	
33 14 13 23-0413 EA 20" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,435.39	103.70
For DR 25, Deduct	-193.68	
33 14 13 23-0414 EA 24" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,837.73	139.99
For DR 25, Deduct	-273.47	
33 14 13 23-0415 Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0416 EA 4" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	151.64	12.65
For DR 25, Deduct	-7.58	
33 14 13 23-0417 EA 6" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	206.23	14.23
For DR 25, Deduct	-10.67	
33 14 13 23-0418 EA 8" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	300.17	15.81
For DR 25, Deduct	-16.11	
33 14 13 23-0419 EA 10" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	409.83	24.88
For DR 25, Deduct	-21.60	
33 14 13 23-0420 EA 12" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	656.60	41.47
For DR 25, Deduct	-34.42	
33 14 13 23-0421 EA 14" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,749.12	49.77
For DR 25, Deduct	-98.97	
33 14 13 23-0422 EA 16" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,368.23	62.22
For DR 25, Deduct	-134.63	
33 14 13 23-0423 EA 18" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,917.36	82.96
For DR 25, Deduct	-165.09	
33 14 13 23-0424 EA 20" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,484.96	103.70
For DR 25, Deduct	-196.65	



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0425	EA		24" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,734.30	139.99
			For DR 25, Deduct	-267.26	
33 14 13 23-0426			AWWA C906, High Density Polyethylene (HDPE) Pressure Piping (33 14 13 23)		
			Note: ASTM D3350 pipe, ASTM D2657 heat fusion.		
33 14 13 23-0427			High Density Polyethylene (HDPE) Pressure Pipe (33 14 13 23-0426)		
33 14 13 23-0428	LF		3" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	9.41	3.19
			For SDR 19, Add	0.27	
			For SDR 17, Add	0.66	
			For SDR 15.5, Add	0.97	
			For SDR 13.5, Add	1.51	
			For SDR 11, Add	2.44	
33 14 13 23-0429	LF		4" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	9.56	4.04
			For SDR 26, Deduct	-0.27	
			For SDR 19, Add	0.13	
			For SDR 17, Add	0.33	
			For SDR 15.5, Add	0.48	
			For SDR 13.5, Add	0.75	
			For SDR 11, Add	1.21	
33 14 13 23-0430	LF		6" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	13.00	4.89
			For SDR 26, Deduct	-0.59	
			For SDR 19, Add	0.29	
			For SDR 17, Add	0.71	
			For SDR 15.5, Add	1.04	
			For SDR 13.5, Add	1.63	
			For SDR 11, Add	2.62	
33 14 13 23-0431	LF		8" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	16.45	5.51
			For SDR 26, Deduct	-1.00	
			For SDR 19, Add	0.49	
			For SDR 17, Add	1.21	
			For SDR 15.5, Add	1.77	
			For SDR 13.5, Add	2.76	
			For SDR 11, Add	4.44	
33 14 13 23-0432	LF		10" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	20.70	6.12
			For SDR 26, Deduct	-1.55	
			For SDR 19, Add	0.76	
			For SDR 17, Add	1.88	
			For SDR 15.5, Add	2.75	
			For SDR 13.5, Add	4.29	
			For SDR 11, Add	6.91	
33 14 13 23-0433	LF		12" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	25.78	6.85
			For SDR 26, Deduct	-2.23	
			For SDR 19, Add	1.10	
			For SDR 17, Add	2.71	
			For SDR 15.5, Add	3.96	
			For SDR 13.5, Add	6.19	
			For SDR 11, Add	9.96	
33 14 13 23-0434	LF		14" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	29.62	7.72
			For SDR 26, Deduct	-2.62	
			For SDR 19, Add	1.29	
			For SDR 17, Add	3.18	
			For SDR 15.5, Add	4.66	
			For SDR 13.5, Add	7.27	
			For SDR 11, Add	11.71	
33 14 13 23-0435	LF		16" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	35.85	8.57
			For SDR 26, Deduct	-3.43	
			For SDR 19, Add	1.68	
			For SDR 17, Add	4.16	
			For SDR 15.5, Add	6.09	
			For SDR 13.5, Add	9.50	
			For SDR 11, Add	15.30	
33 14 13 23-0436	LF		18" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	44.27	10.29
			For SDR 26, Deduct	-4.33	
			For SDR 19, Add	2.13	
			For SDR 17, Add	5.25	
			For SDR 15.5, Add	7.69	
			For SDR 13.5, Add	12.01	
			For SDR 11, Add	19.33	
33 14 13 23-0437	LF		20" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	120.69	12.25
			For SDR 26, Deduct	-17.63	
			For SDR 19, Add	8.66	
			For SDR 17, Add	21.38	
			For SDR 15.5, Add	31.30	
			For SDR 13.5, Add	48.86	
			For SDR 11, Add	78.64	
33 14 13 23-0438	LF		24" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe	71.45	14.69
			For SDR 26, Deduct	-7.71	
			For SDR 19, Add	3.79	
			For SDR 17, Add	9.35	
			For SDR 15.5, Add	13.69	
			For SDR 13.5, Add	21.36	
			For SDR 11, Add	34.38	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0439			90 Degree Elbows, High Density Polyethylene (HDPE) Pressure Piping ^(33 14 13 23-0426)		
33 14 13 23-0440	EA		3" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	59.86	15.81
			For SDR 26, Deduct	-2.28	
			For SDR 19, Add	1.12	
			For SDR 17, Add	2.76	
			For SDR 15.5, Add	4.04	
			For SDR 13.5, Add	6.31	
			For SDR 11, Add	10.16	
33 14 13 23-0441	EA		4" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	67.52	17.58
			For SDR 26, Deduct	-2.71	
			For SDR 19, Add	1.33	
			For SDR 17, Add	3.29	
			For SDR 15.5, Add	4.82	
			For SDR 13.5, Add	7.52	
			For SDR 11, Add	12.11	
33 14 13 23-0442	EA		6" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	99.61	20.09
			For SDR 26, Deduct	-7.22	
			For SDR 19, Add	3.55	
			For SDR 17, Add	8.76	
			For SDR 15.5, Add	12.82	
			For SDR 13.5, Add	20.02	
			For SDR 11, Add	32.22	
33 14 13 23-0443	EA		8" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	152.67	23.45
			For SDR 26, Deduct	-15.10	
			For SDR 19, Add	7.41	
			For SDR 17, Add	18.30	
			For SDR 15.5, Add	26.80	
			For SDR 13.5, Add	41.84	
			For SDR 11, Add	67.34	
33 14 13 23-0444	EA		10" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	231.19	31.31
			For SDR 26, Deduct	-25.20	
			For SDR 19, Add	12.37	
			For SDR 17, Add	30.55	
			For SDR 15.5, Add	44.74	
			For SDR 13.5, Add	69.83	
			For SDR 11, Add	112.39	
33 14 13 23-0445	EA		12" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	341.84	46.86
			For SDR 26, Deduct	-36.90	
			For SDR 19, Add	18.12	
			For SDR 17, Add	44.74	
			For SDR 15.5, Add	65.51	
			For SDR 13.5, Add	102.26	
			For SDR 11, Add	164.59	
33 14 13 23-0446	EA		14" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	427.51	62.54
			For SDR 26, Deduct	-43.99	
			For SDR 19, Add	21.60	
			For SDR 17, Add	53.33	
			For SDR 15.5, Add	78.10	
			For SDR 13.5, Add	121.90	
			For SDR 11, Add	196.20	
33 14 13 23-0447	EA		16" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	568.44	93.71
			For SDR 26, Deduct	-52.68	
			For SDR 19, Add	25.87	
			For SDR 17, Add	63.86	
			For SDR 15.5, Add	93.52	
			For SDR 13.5, Add	145.98	
			For SDR 11, Add	234.96	
33 14 13 23-0448	EA		18" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	707.38	105.41
			For SDR 26, Deduct	-71.69	
			For SDR 19, Add	35.20	
			For SDR 17, Add	86.90	
			For SDR 15.5, Add	127.27	
			For SDR 13.5, Add	198.64	
			For SDR 11, Add	319.73	
33 14 13 23-0449	EA		20" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	950.77	119.64
			For SDR 26, Deduct	-107.81	
			For SDR 19, Add	52.93	
			For SDR 17, Add	130.69	
			For SDR 15.5, Add	191.38	
			For SDR 13.5, Add	298.72	
			For SDR 11, Add	480.81	
33 14 13 23-0450	EA		24" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	1,206.86	140.63
			For SDR 26, Deduct	-143.93	
			For SDR 19, Add	70.67	
			For SDR 17, Add	174.47	
			For SDR 15.5, Add	255.50	
			For SDR 13.5, Add	398.80	
			For SDR 11, Add	641.89	
33 14 13 23-0451			Tees, High Density Polyethylene (HDPE) Pressure Piping ^(33 14 13 23-0426)		



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0452	EA		3" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	65.81	16.55
			For SDR 26, Deduct	-2.98	
			For SDR 19, Add	1.46	
			For SDR 17, Add	3.61	
			For SDR 15.5, Add	5.29	
			For SDR 13.5, Add	8.26	
			For SDR 11, Add	13.29	
33 14 13 23-0453	EA		4" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	75.34	18.74
			For SDR 26, Deduct	-3.51	
			For SDR 19, Add	1.72	
			For SDR 17, Add	4.25	
			For SDR 15.5, Add	6.23	
			For SDR 13.5, Add	9.72	
			For SDR 11, Add	15.65	
33 14 13 23-0454	EA		6" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	114.88	21.64
			For SDR 26, Deduct	-9.17	
			For SDR 19, Add	4.50	
			For SDR 17, Add	11.12	
			For SDR 15.5, Add	16.28	
			For SDR 13.5, Add	25.42	
			For SDR 11, Add	40.91	
33 14 13 23-0455	EA		8" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	203.57	25.57
			For SDR 26, Deduct	-23.27	
			For SDR 19, Add	11.42	
			For SDR 17, Add	28.20	
			For SDR 15.5, Add	41.30	
			For SDR 13.5, Add	64.47	
			For SDR 11, Add	103.77	
33 14 13 23-0456	EA		10" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	279.69	37.53
			For SDR 26, Deduct	-30.65	
			For SDR 19, Add	15.05	
			For SDR 17, Add	37.16	
			For SDR 15.5, Add	54.42	
			For SDR 13.5, Add	84.94	
			For SDR 11, Add	136.71	
33 14 13 23-0457	EA		12" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	397.05	56.30
			For SDR 26, Deduct	-41.86	
			For SDR 19, Add	20.55	
			For SDR 17, Add	50.74	
			For SDR 15.5, Add	74.31	
			For SDR 13.5, Add	115.98	
			For SDR 11, Add	186.68	
33 14 13 23-0458	EA		14" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	479.47	70.32
			For SDR 26, Deduct	-49.24	
			For SDR 19, Add	24.18	
			For SDR 17, Add	59.69	
			For SDR 15.5, Add	87.42	
			For SDR 13.5, Add	136.44	
			For SDR 11, Add	219.61	
33 14 13 23-0459	EA		16" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	635.42	105.41
			For SDR 26, Deduct	-58.48	
			For SDR 19, Add	28.71	
			For SDR 17, Add	70.89	
			For SDR 15.5, Add	103.81	
			For SDR 13.5, Add	162.03	
			For SDR 11, Add	260.80	
33 14 13 23-0460	EA		18" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	811.62	122.81
			For SDR 26, Deduct	-81.25	
			For SDR 19, Add	39.89	
			For SDR 17, Add	98.49	
			For SDR 15.5, Add	144.24	
			For SDR 13.5, Add	225.13	
			For SDR 11, Add	362.37	
33 14 13 23-0461	EA		20" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	1,123.40	145.06
			For SDR 26, Deduct	-125.26	
			For SDR 19, Add	61.50	
			For SDR 17, Add	151.84	
			For SDR 15.5, Add	222.37	
			For SDR 13.5, Add	347.08	
			For SDR 11, Add	558.65	
33 14 13 23-0462	EA		24" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	1,450.54	175.84
			For SDR 26, Deduct	-169.27	
			For SDR 19, Add	83.11	
			For SDR 17, Add	205.19	
			For SDR 15.5, Add	300.49	
			For SDR 13.5, Add	469.03	
			For SDR 11, Add	754.93	
33 14 13 23-0463			AWWA C909 Oriented Polyvinyl Chloride (PVCO) Pipe (33 14 13 23)		
			Note: Includes hub on one end of pipe.		
33 14 13 23-0464			AWWA C909, DR 18, PC 235 Oriented Polyvinyl Chloride (PVCO) Pipe (33 14 13 23-0463)		
33 14 13 23-0465	LF		6" AWWA C909, DR 18, PC 235 Oriented Polyvinyl Chloride (PVCO) Pipe.....	18.04	4.89
33 14 13 23-0466	LF		8" AWWA C909, DR 18, PC 235 Oriented Polyvinyl Chloride (PVCO) Pipe.....	25.14	5.51
33 14 13 23-0467	LF		10" AWWA C909, DR 18, PC 235 Oriented Polyvinyl Chloride (PVCO) Pipe.....	33.73	6.12

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0468 LF 12" AWWA C909, DR 18, PC 235 Oriented Polyvinyl Chloride (PVCO) Pipe.....	44.01	6.85
33 14 13 23-0469 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pipe And Fittings (33 14 13 23-0469)		
33 14 13 23-0470 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe (33 14 13 23-0469)		
33 14 13 23-0471 LF 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe.....	53.68	3.25
33 14 13 23-0472 LF 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe.....	76.38	3.48
33 14 13 23-0473 LF 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe.....	103.12	4.05
33 14 13 23-0474 LF 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe.....	140.44	5.19
33 14 13 23-0475 LF 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Pressure Pipe.....	160.74	6.32
33 14 13 23-0476 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbows (33 14 13 23-0469)		
33 14 13 23-0477 EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbow.....	680.76	47.09
33 14 13 23-0478 EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbow.....	1,430.86	78.95
33 14 13 23-0479 EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbow.....	2,486.25	86.17
33 14 13 23-0480 EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbow.....	5,882.24	93.23
33 14 13 23-0481 EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 90 Degree Elbow.....	7,962.79	100.30
33 14 13 23-0482 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbows (33 14 13 23-0469)		
33 14 13 23-0483 EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbow.....	953.77	47.09
33 14 13 23-0484 EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbow.....	1,155.43	78.95
33 14 13 23-0485 EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbow.....	1,560.62	86.17
33 14 13 23-0486 EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbow.....	3,047.08	93.23
33 14 13 23-0487 EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) 45 Degree Elbow.....	4,357.98	100.30
33 14 13 23-0488 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tees (33 14 13 23-0469)		
33 14 13 23-0489 EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tee.....	1,319.28	75.34
33 14 13 23-0490 EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tee.....	1,945.19	112.59
33 14 13 23-0491 EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tee.....	2,570.79	120.08
33 14 13 23-0492 EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tee.....	6,249.84	127.14
33 14 13 23-0493 EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Tee.....	8,809.73	134.20
33 14 13 23-0494 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tees (33 14 13 23-0469)		
33 14 13 23-0495 EA 8" x 8" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	1,296.50	71.57
33 14 13 23-0496 EA 10" x 10" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	1,414.28	101.61
33 14 13 23-0497 EA 10" x 10" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	1,613.19	106.96
33 14 13 23-0498 EA 12" x 12" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	1,828.98	102.95
33 14 13 23-0499 EA 12" x 12" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	2,030.34	108.37
33 14 13 23-0500 EA 12" x 12" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	2,315.74	114.07
33 14 13 23-0501 EA 14" x 14" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	4,496.25	103.56
33 14 13 23-0502 EA 14" x 14" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	4,844.06	109.01
33 14 13 23-0503 EA 14" x 14" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	5,287.24	114.75
33 14 13 23-0504 EA 14" x 14" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	5,799.23	120.79
33 14 13 23-0505 EA 16" x 16" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	5,459.96	103.84
33 14 13 23-0506 EA 16" x 16" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	6,086.50	109.30
33 14 13 23-0507 EA 16" x 16" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	6,580.03	115.06
33 14 13 23-0508 EA 16" x 16" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	7,340.76	121.11
33 14 13 23-0509 EA 16" x 16" x 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Tee.....	8,137.99	127.49
33 14 13 23-0510 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wyes (33 14 13 23-0469)		
33 14 13 23-0511 EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wye.....	1,332.36	75.34
33 14 13 23-0512 EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wye.....	2,246.75	112.59
33 14 13 23-0513 EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wye.....	3,037.54	120.08
33 14 13 23-0514 EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wye.....	9,834.88	127.14
33 14 13 23-0515 EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Wye.....	12,272.92	134.20
33 14 13 23-0516 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wyes (33 14 13 23-0469)		
33 14 13 23-0517 EA 8" x 8" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	1,160.49	71.57
33 14 13 23-0518 EA 10" x 10" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	1,615.86	101.61
33 14 13 23-0519 EA 10" x 10" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	1,871.07	106.96
33 14 13 23-0520 EA 12" x 12" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	2,153.63	102.95
33 14 13 23-0521 EA 12" x 12" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	2,272.43	108.37
33 14 13 23-0522 EA 12" x 12" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	2,749.41	114.07
33 14 13 23-0523 EA 14" x 14" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	4,740.31	103.56
33 14 13 23-0524 EA 14" x 14" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	5,120.25	109.01
33 14 13 23-0525 EA 14" x 14" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	6,207.60	120.79
33 14 13 23-0526 EA 16" x 16" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	5,665.35	103.84
33 14 13 23-0527 EA 16" x 16" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	6,550.16	109.30
33 14 13 23-0528 EA 16" x 16" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	7,342.00	115.06
33 14 13 23-0529 EA 16" x 16" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	7,953.54	121.11
33 14 13 23-0530 EA 16" x 16" x 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Wye.....	9,943.16	127.49



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		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0531 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Couplings (33 14 13 23-0469)			
33 14 13 23-0532	EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Coupling	618.26	47.09
33 14 13 23-0533	EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Coupling	839.20	78.95
33 14 13 23-0534	EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Coupling	1,161.25	86.17
33 14 13 23-0535	EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Coupling	2,303.06	93.23
33 14 13 23-0536	EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Coupling	3,429.34	100.30
33 14 13 23-0537 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Couplings (33 14 13 23-0469)			
33 14 13 23-0538	EA 8" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	840.21	44.73
33 14 13 23-0539	EA 10" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	618.18	42.49
33 14 13 23-0540	EA 10" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	858.31	75.00
33 14 13 23-0541	EA 12" x 4" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,657.98	71.25
33 14 13 23-0542	EA 12" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,545.53	67.69
33 14 13 23-0543	EA 12" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,213.98	64.31
33 14 13 23-0544	EA 12" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	766.27	81.85
33 14 13 23-0545	EA 14" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	2,223.40	77.77
33 14 13 23-0546	EA 14" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,873.91	73.88
33 14 13 23-0547	EA 14" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,621.26	70.17
33 14 13 23-0548	EA 14" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	1,486.20	88.56
33 14 13 23-0549	EA 16" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	2,934.26	84.13
33 14 13 23-0550	EA 16" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	3,313.26	79.93
33 14 13 23-0551	EA 16" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	3,172.07	75.93
33 14 13 23-0552	EA 16" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	3,006.77	72.14
33 14 13 23-0553	EA 16" x 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Reducing Coupling	2,749.36	95.28
33 14 13 23-0554 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Couplings (33 14 13 23-0469)			
33 14 13 23-0555	EA 8" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	745.48	79.93
33 14 13 23-0556	EA 10" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,309.59	75.93
33 14 13 23-0557	EA 10" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	994.32	75.93
33 14 13 23-0558	EA 12" x 4" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	2,532.89	72.14
33 14 13 23-0559	EA 12" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,708.58	68.53
33 14 13 23-0560	EA 12" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,628.88	65.11
33 14 13 23-0561	EA 12" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,492.39	72.14
33 14 13 23-0562	EA 14" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	2,716.24	68.53
33 14 13 23-0563	EA 14" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	2,657.98	65.11
33 14 13 23-0564	EA 14" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,933.30	61.85
33 14 13 23-0565	EA 14" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	1,795.19	68.53
33 14 13 23-0566	EA 16" x 6" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	4,811.15	65.11
33 14 13 23-0567	EA 16" x 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	4,649.01	61.85
33 14 13 23-0568	EA 16" x 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	4,558.78	58.76
33 14 13 23-0569	EA 16" x 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	4,377.99	55.82
33 14 13 23-0570	EA 16" x 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Eccentric Reducing Coupling	4,125.76	90.52
33 14 13 23-0571 Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flanges (33 14 13 23-0469)			
33 14 13 23-0572	EA 8" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flange	819.89	47.09
33 14 13 23-0573	EA 10" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flange	1,887.74	78.95
33 14 13 23-0574	EA 12" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flange	2,751.86	86.17
33 14 13 23-0575	EA 14" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flange	3,091.22	93.23
33 14 13 23-0576	EA 16" Schedule 80 Chlorinated Polyvinyl Chloride (CPVC) Flange	3,823.44	100.30
33 14 13 23-0577	EA 8" Ethylene Propylene Diene Monomer (EPDM) Flange Gasket	25.59	
33 14 13 23-0578	EA 10" Ethylene Propylene Diene Monomer (EPDM) Flange Gasket	33.34	
33 14 13 23-0579	EA 12" Ethylene Propylene Diene Monomer (EPDM) Flange Gasket	45.89	
33 14 13 23-0580	EA 14" Ethylene Propylene Diene Monomer (EPDM) Flange Gasket	98.16	
33 14 13 23-0581	EA 16" Ethylene Propylene Diene Monomer (EPDM) Flange Gasket	174.15	
33 14 13 23-0582	EA Zinc Coated Flange Hardware Kit	163.53	
33 14 13 26 Galvanized Steel Public Water Utility Distribution Piping (33 14 13)			
See CSI section 22 11 16 00-0013 for galvanized steel pipe.			
33 14 13 36 Steel Public Water Utility Distribution Piping (33 14 13)			
33 14 13 36-0001 Steel Piping (33 14 13 36)			
33 14 13 36-0002 Welded, Plain End, Uncoated Steel Piping (33 14 13 36-0001)			
Note: ASTM A252 steel pipe. See CSI section 33 14 13 43-0001 for pipe coatings, 33 14 13 43-0053 for pipe linings.			
33 14 13 36-0003 Up To 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Piping (33 14 13 36-0002)			
33 14 13 36-0004	LF 8" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	106.60	28.38
	For <100, Add	11.78	
	For >1,000, Deduct	-5.33	
33 14 13 36-0005	LF 8" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	126.85	28.38
	For <100, Add	12.79	
	For >1,000, Deduct	-6.34	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0006	LF	10" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	126.54	30.96
		For <100, Add	13.36	
		For >1,000, Deduct	-6.33	
33 14 13 36-0007	LF	10" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	152.14	30.96
		For <100, Add	14.64	
		For >1,000, Deduct	-7.61	
33 14 13 36-0008	LF	12" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	152.66	32.44
		For <100, Add	15.00	
		For >1,000, Deduct	-7.63	
33 14 13 36-0009	LF	12" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	172.57	32.44
		For <100, Add	16.00	
		For >1,000, Deduct	-8.63	
33 14 13 36-0010	LF	14" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	184.60	35.86
		For <100, Add	17.38	
		For >1,000, Deduct	-9.23	
33 14 13 36-0011	LF	14" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	200.51	35.86
		For <100, Add	18.18	
		For >1,000, Deduct	-10.03	
33 14 13 36-0012	LF	16" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	195.91	37.85
		For <100, Add	18.40	
		For >1,000, Deduct	-9.80	
33 14 13 36-0013	LF	16" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	208.19	37.85
		For <100, Add	19.01	
		For >1,000, Deduct	-10.41	
33 14 13 36-0014	LF	18" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	242.32	42.58
		For <100, Add	21.79	
		For >1,000, Deduct	-12.12	
33 14 13 36-0015	LF	20" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	262.45	42.58
		For <100, Add	22.80	
		For >1,000, Deduct	-13.12	
33 14 13 36-0016 5/16" To 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Piping (33 14				
		13 36-0002)		
33 14 13 36-0017	LF	12" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	207.75	53.66
		For <100, Add	18.82	
		For >1,000, Deduct	-10.39	
33 14 13 36-0018	LF	14" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	246.42	59.02
		For <100, Add	21.64	
		For >1,000, Deduct	-12.32	
33 14 13 36-0019	LF	16" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	273.65	61.71
		For <100, Add	23.52	
		For >1,000, Deduct	-13.68	
33 14 13 36-0020	LF	18" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	308.69	69.76
		For <100, Add	26.50	
		For >1,000, Deduct	-15.43	
33 14 13 36-0021	LF	18" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	322.34	69.76
		For <100, Add	27.18	
		For >1,000, Deduct	-16.12	
33 14 13 36-0022	LF	20" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	334.97	69.76
		For <100, Add	27.82	
		For >1,000, Deduct	-16.75	
33 14 13 36-0023	LF	20" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	349.53	69.76
		For <100, Add	28.54	
		For >1,000, Deduct	-17.48	
33 14 13 36-0024	LF	24" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	405.13	80.49
		For <100, Add	32.91	
		For >1,000, Deduct	-20.26	
33 14 13 36-0025	LF	24" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	450.18	80.49
		For <100, Add	35.16	
		For >1,000, Deduct	-22.51	
33 14 13 36-0026	LF	24" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	560.75	80.49
		For <100, Add	40.69	
		For >1,000, Deduct	-28.04	
33 14 13 36-0027	LF	30" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	503.36	93.91
		For <100, Add	39.93	
		For >1,000, Deduct	-25.17	
33 14 13 36-0028	LF	30" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	521.79	93.91
		For <100, Add	40.85	
		For >1,000, Deduct	-26.09	
33 14 13 36-0029	LF	30" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	695.61	93.91
		For <100, Add	49.54	
		For >1,000, Deduct	-34.78	
33 14 13 36-0030	LF	36" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	598.92	93.91
		For <100, Add	44.70	
		For >1,000, Deduct	-29.95	
33 14 13 36-0031	LF	36" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	702.32	112.69
		For <100, Add	52.83	
		For >1,000, Deduct	-35.12	
33 14 13 36-0032	LF	36" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	837.13	112.69
		For <100, Add	59.57	
		For >1,000, Deduct	-41.86	
33 14 13 36-0033	LF	36" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	803.46	112.69
		For <100, Add	57.88	
		For >1,000, Deduct	-40.17	



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		Water Utilities	33 10	
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MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
33 14 13 36-0034	LF	42" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,228.95	126.11
		For <100, Add	81.12	
		For >1,000, Deduct	-61.45	
33 14 13 36-0035	LF	42" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	748.21	126.11
		For <100, Add	57.09	
		For >1,000, Deduct	-37.41	
33 14 13 36-0036	LF	48" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,409.15	142.21
		For <100, Add	92.59	
		For >1,000, Deduct	-70.46	
33 14 13 36-0037	LF	48" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	821.02	142.21
		For <100, Add	63.19	
		For >1,000, Deduct	-41.05	
33 14 13 36-0038	LF	54" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,476.89	160.98
		For <100, Add	99.14	
		For >1,000, Deduct	-73.84	
33 14 13 36-0039	LF	54" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,630.46	160.98
		For <100, Add	106.82	
		For >1,000, Deduct	-81.52	
33 14 13 36-0040	LF	60" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,823.51	187.82
		For <100, Add	120.69	
		For >1,000, Deduct	-91.18	
33 14 13 36-0041	LF	66" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,277.47	187.82
		For <100, Add	93.39	
		For >1,000, Deduct	-63.87	
33 14 13 36-0042	LF	72" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,418.43	154.07
		For <100, Add	117.14	
		For >1,000, Deduct	-70.92	
33 14 13 36-0043	LF	78" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	2,651.57	154.07
		For <100, Add	178.80	
		For >1,000, Deduct	-132.58	
33 14 13 36-0044 Flexible Couplings (Dresser Style 38) (33 14 13 36-0001)				
33 14 13 36-0045	EA	2" Dresser Coupling For Plain End Welded Steel Pipe.....	112.46	26.67
33 14 13 36-0046	EA	3" Dresser Coupling For Plain End Welded Steel Pipe.....	166.46	51.30
33 14 13 36-0047	EA	4" Dresser Coupling For Plain End Welded Steel Pipe.....	221.54	67.72
33 14 13 36-0048	EA	6" Dresser Coupling For Plain End Welded Steel Pipe.....	352.90	102.60
33 14 13 36-0049	EA	8" Dresser Coupling For Plain End Welded Steel Pipe.....	461.58	129.28
33 14 13 36-0050	EA	10" Dresser Coupling For Plain End Welded Steel Pipe.....	656.04	168.28
33 14 13 36-0051	EA	12" Dresser Coupling For Plain End Welded Steel Pipe.....	781.36	210.90
33 14 13 36-0052	EA	14" Dresser Coupling For Plain End Welded Steel Pipe.....	840.71	210.90
33 14 13 36-0053	EA	16" Dresser Coupling For Plain End Welded Steel Pipe.....	889.13	241.20
33 14 13 36-0054	EA	18" Dresser Coupling For Plain End Welded Steel Pipe.....	972.96	258.02
33 14 13 36-0055	EA	20" Dresser Coupling For Plain End Welded Steel Pipe.....	1,061.02	291.68
33 14 13 36-0056	EA	24" Dresser Coupling For Plain End Welded Steel Pipe.....	1,327.57	308.50
33 14 13 36-0057	EA	30" Dresser Coupling For Plain End Welded Steel Pipe.....	1,583.34	336.56
33 14 13 36-0058	EA	36" Dresser Coupling For Plain End Welded Steel Pipe.....	1,852.76	378.62
33 14 13 36-0059	EA	42" Dresser Coupling For Plain End Welded Steel Pipe.....	2,134.78	426.30
33 14 13 36-0060	EA	48" Dresser Coupling For Plain End Welded Steel Pipe.....	2,483.68	490.81
33 14 13 36-0061	EA	54" Dresser Coupling For Plain End Welded Steel Pipe.....	2,758.81	560.93
33 14 13 36-0062	EA	60" Dresser Coupling For Plain End Welded Steel Pipe.....	3,190.39	701.15
33 14 13 36-0063	EA	66" Dresser Coupling For Plain End Welded Steel Pipe.....	3,684.91	852.60
33 14 13 36-0064	EA	72" Dresser Coupling For Plain End Welded Steel Pipe.....	4,393.84	1,009.66
33 14 13 36-0065 Welded, Plain End, Cement Mortar Lined And Coated (33 14 13 36-0001)				
Note: Pipe manufacture shall be in accordance with AWWA C200, ANSI/ASTM A 139, API 5 L, or API 5 LX				
33 14 13 36-0066	LF	4" Diameter, Schedule 10 (0.12" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	66.02	21.35
33 14 13 36-0067	LF	4" Diameter, Schedule 40 (0.237" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	85.45	21.35
33 14 13 36-0068	LF	6" Diameter, Schedule 10 (0.134" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	87.32	28.38
33 14 13 36-0069	LF	6" Diameter, Schedule 40 (0.28" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	123.64	28.38
33 14 13 36-0070	LF	8" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	145.48	28.38
33 14 13 36-0071	LF	8" Diameter, Schedule 40 (0.322" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	167.28	28.38
33 14 13 36-0072	LF	10" Diameter, Schedule 10 (0.165" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	148.31	30.96
33 14 13 36-0073	LF	10" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	173.91	30.96
33 14 13 36-0074	LF	10" Diameter, Schedule 40 (0.365" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	179.98	30.96
33 14 13 36-0075	LF	12" Diameter, Schedule 10 (0.18" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	177.93	32.44
33 14 13 36-0076	LF	12" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	197.84	32.44
33 14 13 36-0077	LF	12" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	256.24	32.44
33 14 13 36-0078	LF	14" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	230.09	35.86
33 14 13 36-0079	LF	14" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	268.20	35.86
33 14 13 36-0080	LF	14" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	305.05	35.86
33 14 13 36-0081	LF	16" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	241.79	37.85
33 14 13 36-0082	LF	16" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	299.01	37.85
33 14 13 36-0083	LF	16" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	340.63	37.85
33 14 13 36-0084	LF	18" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	280.22	42.58
33 14 13 36-0085	LF	18" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	337.33	42.58
33 14 13 36-0086	LF	18" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	350.98	42.58
33 14 13 36-0087	LF	20" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	308.10	44.81
33 14 13 36-0088	LF	20" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	371.35	44.81
33 14 13 36-0089	LF	20" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	371.35	44.81
33 14 13 36-0090	LF	24" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	444.06	47.97
33 14 13 36-0091	LF	24" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated.....	489.11	47.97

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

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TOTAL DIRECT DEMOLITION
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33 14 13 36-0092	LF	30" Diameter, Schedule 10 (0.312" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated	553.78	56.54
33 14 13 36-0093	LF	30" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Plain End, Cement Mortar Lined And Coated	572.21	56.54

33 14 13 36-0094**Welded, Bell and Spigot, Cement Mortar Lined And Coated (33 14 13 36-0001)**

Note: Pipe manufacture shall be in accordance with AWWA C200, ANSI/ASTM A 139, API 5 L, or API 5 LX

33 14 13 36-0095	LF	4" Diameter, Schedule 10 (0.12" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	66.55	21.35
33 14 13 36-0096	LF	4" Diameter, Schedule 40 (0.237" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	86.46	21.35
33 14 13 36-0097	LF	6" Diameter, Schedule 10 (0.134" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	88.17	28.38
33 14 13 36-0098	LF	6" Diameter, Schedule 40 (0.28" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	125.40	28.38
33 14 13 36-0099	LF	8" Diameter, Schedule 10 (0.148" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	126.82	28.38
33 14 13 36-0100	LF	8" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	147.58	28.38
33 14 13 36-0101	LF	8" Diameter, Schedule 40 (0.322" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	168.96	28.38
33 14 13 36-0102	LF	10" Diameter, Schedule 10 (0.165" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	148.55	30.96
33 14 13 36-0103	LF	10" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	176.25	30.96
33 14 13 36-0104	LF	10" Diameter, Schedule 40 (0.365" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	182.10	30.96
33 14 13 36-0105	LF	12" Diameter, Schedule 10 (0.18" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	180.52	32.44
33 14 13 36-0106	LF	12" Diameter, Schedule 20 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	200.92	32.44
33 14 13 36-0107	LF	12" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	256.55	32.44
33 14 13 36-0108	LF	14" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	217.44	35.86
33 14 13 36-0109	LF	14" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	272.80	35.86
33 14 13 36-0110	LF	14" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	305.42	35.86
33 14 13 36-0111	LF	16" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	245.57	37.85
33 14 13 36-0112	LF	16" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	304.22	37.85
33 14 13 36-0113	LF	16" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	341.04	37.85
33 14 13 36-0114	LF	18" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	284.67	42.58
33 14 13 36-0115	LF	18" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	343.20	42.58
33 14 13 36-0116	LF	18" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	343.20	42.58
33 14 13 36-0117	LF	20" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	313.05	44.81
33 14 13 36-0118	LF	20" Diameter, Schedule 20 (0.312" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	377.88	44.81
33 14 13 36-0119	LF	20" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	392.81	44.81
33 14 13 36-0120	LF	24" Diameter, Schedule 10 (0.25" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	452.08	47.97
33 14 13 36-0121	LF	24" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	498.26	47.97
33 14 13 36-0122	LF	30" Diameter, Schedule 10 (0.312" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	563.90	56.54
33 14 13 36-0123	LF	30" Diameter, Standard Weight (0.375" Wall Thickness), Welded, Bell and Spigot, Cement Mortar Lined And Coated	582.79	56.54

33 14 13 36-0124**Plain End Steel Pipe Fittings, Standard Wall Thickness (33 14 13 36-0001)**

See CSI section 33 14 13 36-0317 for flanged end fittings.

33 14 13 36-0125**90 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0124)**

33 14 13 36-0126	EA	4" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	375.39	205.50
33 14 13 36-0127	EA	6" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	658.98	339.21
33 14 13 36-0128	EA	8" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	990.69	476.79
33 14 13 36-0129	EA	10" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,313.78	544.83
33 14 13 36-0130	EA	12" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,789.39	712.91
33 14 13 36-0131	EA	14" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,238.34	842.63
33 14 13 36-0132	EA	16" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,803.98	983.97
33 14 13 36-0133	EA	18" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	3,356.53	1,097.27
33 14 13 36-0134	EA	20" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	4,333.24	1,230.27
33 14 13 36-0135	EA	24" Diameter, 90 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	5,177.29	1,271.33

33 14 13 36-0136**45 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0124)**

33 14 13 36-0137	EA	4" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	360.51	205.50
33 14 13 36-0138	EA	6" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	622.38	339.21
33 14 13 36-0139	EA	8" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	922.77	476.79
33 14 13 36-0140	EA	10" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,189.08	544.83
33 14 13 36-0141	EA	12" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,608.57	712.91
33 14 13 36-0142	EA	14" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,993.60	842.63
33 14 13 36-0143	EA	16" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,468.98	983.97
33 14 13 36-0144	EA	18" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,925.37	1,097.27
33 14 13 36-0145	EA	20" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	3,699.52	1,230.27
33 14 13 36-0146	EA	24" Diameter, 45 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	4,349.09	1,271.33

33 14 13 36-0147**22.5 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0124)**

33 14 13 36-0148	EA	4" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	355.55	205.50
33 14 13 36-0149	EA	6" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	610.62	339.21
33 14 13 36-0150	EA	8" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	900.67	476.79
33 14 13 36-0151	EA	10" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,150.99	544.83
33 14 13 36-0152	EA	12" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,553.33	712.91
33 14 13 36-0153	EA	14" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,918.50	842.63
33 14 13 36-0154	EA	16" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,366.58	983.97
33 14 13 36-0155	EA	18" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,793.54	1,097.27



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0156 EA 20" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	3,507.83	1,230.27
33 14 13 36-0157 EA 24" Diameter, 22.5 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	4,074.45	1,271.33
33 14 13 36-0158 11.25 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0124)		
33 14 13 36-0159 EA 4" Diameter, 11.25 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	357.97	205.50
33 14 13 36-0160 EA 6" Diameter, 11.25 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	616.56	339.21
33 14 13 36-0161 EA 8" Diameter, 11.25 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	911.70	476.79
33 14 13 36-0162 EA 10" Diameter, 11.25 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,171.23	544.83
33 14 13 36-0163 EA 12" Diameter, 11.25 Degree Elbow, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,582.68	712.91
33 14 13 36-0164 Tees, Standard Wall Thickness, Steel (33 14 13 36-0124)		
33 14 13 36-0165 EA 4"x4"x4" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	582.63	308.24
33 14 13 36-0166 EA 6"x6"x6" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	972.31	508.69
33 14 13 36-0167 EA 8"x8"x8" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,454.32	715.13
33 14 13 36-0168 EA 10"x10"x10" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	1,857.93	817.30
33 14 13 36-0169 EA 12"x12"x12" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	2,558.47	1,069.35
33 14 13 36-0170 EA 14"x14"x14" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	3,412.66	1,264.06
33 14 13 36-0171 EA 16"x16"x16" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	4,056.73	1,476.01
33 14 13 36-0172 EA 18"x18"x18" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	5,430.51	1,645.89
33 14 13 36-0173 EA 20"x20"x20" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	7,288.57	1,845.48
33 14 13 36-0174 EA 24"x24"x24" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	8,420.63	1,906.94
33 14 13 36-0175 EA 30"x30"x30" Tees, Standard Wall Thickness, Plain End, Cement Mortar Lined And Coated	11,959.02	2,245.32
33 14 13 36-0176 Concentric Reducers, Standard Wall Thickness, Steel (33 14 13 36-0124)		
33 14 13 36-0177 EA 6" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	599.63	339.21
33 14 13 36-0178 EA 8" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	867.14	476.79
33 14 13 36-0179 EA 8" x 6", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	837.76	476.79
33 14 13 36-0180 EA 10" x 8", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,046.18	544.83
33 14 13 36-0181 EA 12" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,799.88	712.91
33 14 13 36-0182 EA 12" x 6", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,408.95	712.91
33 14 13 36-0183 EA 12" x 8", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,395.62	712.91
33 14 13 36-0184 EA 12" x 10", Concentric Reducer, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,358.79	712.91
33 14 13 36-0185 Reducing Tees, Standard Wall Thickness, Steel (33 14 13 36-0124)		
33 14 13 36-0186 EA 6"x6"x4", Reducing Tee, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	973.12	508.69
33 14 13 36-0187 EA 8"x8"x6", Reducing Tee, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,455.88	715.13
33 14 13 36-0188 EA 10"x10"x 8" Reducing Tees, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	1,860.57	817.30
33 14 13 36-0189 EA 12"x12"x6" Reducing Tees, Steel, Standard Wall Thickness, Plain Ends, Class 150, Cement Mortar Lined And Coated	2,562.46	1,069.35
33 14 13 36-0190 Slip-on Flanges, Steel, Class 150 (33 14 13 36-0124)		
33 14 13 36-0191 EA 4" Slip-on Flange, Steel, Class 150	205.11	102.75
33 14 13 36-0192 EA 6" Slip-on Flange, Steel, Class 150	332.95	169.61
33 14 13 36-0193 EA 8" Slip-on Flange, Steel, Class 150	477.06	238.34
33 14 13 36-0194 EA 10" Slip-on Flange, Steel, Class 150	615.01	272.47
33 14 13 36-0195 EA 12" Slip-on Flange, Steel, Class 150	860.34	356.45
33 14 13 36-0196 EA 14" Slip-on Flange, Steel, Class 150	1,107.98	421.31
33 14 13 36-0197 EA 16" Slip-on Flange, Steel, Class 150	1,378.88	492.04
33 14 13 36-0198 EA 18" Slip-on Flange, Steel, Class 150	1,541.41	548.58
33 14 13 36-0199 EA 20" Slip-on Flange, Steel, Class 150	1,739.48	615.20
33 14 13 36-0200 EA 24" Slip-on Flange, Steel, Class 150	1,871.21	635.61
33 14 13 36-0201 EA 30" Slip-on Flange, Steel, Class 150	2,499.46	748.44
33 14 13 36-0202 Slip-on Flanges, Steel, Class 300 (33 14 13 36-0124)		
33 14 13 36-0203 EA 4" Slip-on Flange, Steel, Class 300	243.45	102.75
33 14 13 36-0204 EA 6" Slip-on Flange, Steel, Class 300	391.95	169.61
33 14 13 36-0205 EA 8" Slip-on Flange, Steel, Class 300	566.82	238.34
33 14 13 36-0206 EA 10" Slip-on Flange, Steel, Class 300	769.96	272.47
33 14 13 36-0207 EA 12" Slip-on Flange, Steel, Class 300	1,104.82	356.45
33 14 13 36-0208 EA 14" Slip-on Flange, Steel, Class 300	1,465.17	421.31
33 14 13 36-0209 EA 16" Slip-on Flange, Steel, Class 300	1,859.79	492.04
33 14 13 36-0210 EA 18" Slip-on Flange, Steel, Class 300	2,080.63	548.58
33 14 13 36-0211 EA 20" Slip-on Flange, Steel, Class 300	2,352.38	615.20
33 14 13 36-0212 EA 24" Slip-on Flange, Steel, Class 300	2,559.87	635.61

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

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TOTAL DIRECT DEMOLITION
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33 14 13 36-0213 EA 30" Slip-on Flange, Steel, Class 300 3,601.31 748.44

33 14 13 36-0214 Blind Flanges, Steel, Class 150 (33 14 13 36-0124)

33 14 13 36-0215 EA 4" Blind Flange, Steel, Class 150 200.98 102.75
33 14 13 36-0216 EA 6" Blind Flange, Steel, Class 150 325.47 169.61
33 14 13 36-0217 EA 8" Blind Flange, Steel, Class 150 470.31 238.34
33 14 13 36-0218 EA 10" Blind Flange, Steel, Class 150 628.91 272.47
33 14 13 36-0219 EA 12" Blind Flange, Steel, Class 150 846.47 356.45
33 14 13 36-0220 EA 14" Blind Flange, Steel, Class 150 1,274.32 421.31
33 14 13 36-0221 EA 16" Blind Flange, Steel, Class 150 1,414.98 492.04
33 14 13 36-0222 EA 18" Blind Flange, Steel, Class 150 1,558.11 548.58
33 14 13 36-0223 EA 20" Blind Flange, Steel, Class 150 1,929.51 615.20
33 14 13 36-0224 EA 24" Blind Flange, Steel, Class 150 2,395.03 635.61
33 14 13 36-0225 EA 30" Blind Flange, Steel, Class 150 3,371.71 748.44

33 14 13 36-0226 Blind Flanges, Steel, Class 300 (33 14 13 36-0124)

33 14 13 36-0227 EA 4" Blind Flange, Steel, Class 300 236.21 102.75
33 14 13 36-0228 EA 6" Blind Flange, Steel, Class 300 378.86 169.61
33 14 13 36-0229 EA 8" Blind Flange, Steel, Class 300 554.99 238.34
33 14 13 36-0230 EA 10" Blind Flange, Steel, Class 300 794.29 272.47
33 14 13 36-0231 EA 12" Blind Flange, Steel, Class 300 1,080.54 356.45
33 14 13 36-0232 EA 14" Blind Flange, Steel, Class 300 1,756.25 421.31
33 14 13 36-0233 EA 16" Blind Flange, Steel, Class 300 1,922.97 492.04
33 14 13 36-0234 EA 18" Blind Flange, Steel, Class 300 2,109.85 548.58
33 14 13 36-0235 EA 20" Blind Flange, Steel, Class 300 2,684.94 615.20
33 14 13 36-0236 EA 24" Blind Flange, Steel, Class 300 3,476.56 635.61
33 14 13 36-0237 EA 30" Blind Flange, Steel, Class 300 5,058.89 748.44

33 14 13 36-0238 Screw Flanges, Steel, Class 150 (33 14 13 36-0124)

33 14 13 36-0239 EA 4" Diameter, Screw Flange, Steel, Class 150 195.33 102.75
33 14 13 36-0240 EA 6" Diameter, Screw Flange, Steel, Class 150 317.89 169.61
33 14 13 36-0241 EA 8" Diameter, Screw Flange, Steel, Class 150 456.98 238.34
33 14 13 36-0242 EA 10" Diameter, Screw Flange, Steel, Class 150 553.93 272.47
33 14 13 36-0243 EA 12" Diameter, Screw Flange, Steel, Class 150 746.56 356.45

33 14 13 36-0244 Screw Flanges, Steel, Class 300 (33 14 13 36-0124)

33 14 13 36-0245 EA 4" Diameter, Screw Flange, Steel, Class 300 230.23 102.75
33 14 13 36-0246 EA 6" Diameter, Screw Flange, Steel, Class 300 371.59 169.61
33 14 13 36-0247 EA 8" Diameter, Screw Flange, Steel, Class 300 541.08 238.34
33 14 13 36-0248 EA 10" Diameter, Screw Flange, Steel, Class 300 676.81 272.47
33 14 13 36-0249 EA 12" Diameter, Screw Flange, Steel, Class 300 925.73 356.45

33 14 13 36-0250 Steel Flange Gaskets (33 14 13 36-0124)**33 14 13 36-0251 1/16" Thick Cloth-Inserted Rubber Flange Gasket, Class 150 (Tripac)** (33 14 13 36-0250)

Note: Labor installation is included with pipe fittings or valves.

33 14 13 36-0252 EA 4" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 2.86
33 14 13 36-0253 EA 6" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 4.48
33 14 13 36-0254 EA 8" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 5.98
33 14 13 36-0255 EA 10" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 9.23
33 14 13 36-0256 EA 12" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 12.05
33 14 13 36-0257 EA 14" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 13.83
33 14 13 36-0258 EA 16" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 17.22
33 14 13 36-0259 EA 18" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 19.57
33 14 13 36-0260 EA 20" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 25.28
33 14 13 36-0261 EA 24" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 31.05
33 14 13 36-0262 EA 30" Cloth-Inserted Rubber Flange Gasket, 1/16" Thick, Class 150 (Tripac) 47.13

33 14 13 36-0263 1/8" Thick Cloth-Inserted Rubber Flange Gasket, Class 250 (Tripac) (33 14 13 36-0250)

Note: Labor installation is included with pipe fittings or valves.

33 14 13 36-0264 EA 4" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 8.75
33 14 13 36-0265 EA 6" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 16.35
33 14 13 36-0266 EA 8" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 23.17
33 14 13 36-0267 EA 10" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 29.48
33 14 13 36-0268 EA 12" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 35.68
33 14 13 36-0269 EA 14" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 44.33
33 14 13 36-0270 EA 16" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 52.66
33 14 13 36-0271 EA 18" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 72.62
33 14 13 36-0272 EA 20" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 81.66
33 14 13 36-0273 EA 24" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 113.49
33 14 13 36-0274 EA 30" Cloth-Inserted Rubber Flange Gasket, 1/8" Thick, Class 250 (Tripac) 200.38



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0275			Steel Flange Bolt Packs (33 14 13 36-0124)		
33 14 13 36-0276			Class 150, Steel Flange Bolt Packs (33 14 13 36-0275)		
Note: Includes plain finish A307B bolts, A563 heavy hex nut and two structural washers. Labor installation is included with pipe fittings or valves.					
33 14 13 36-0277	EA		1" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	13.02	
			For Zinc Plated, Add	3.65	
			For Hot Dip Galvanized, Add	5.21	
			For Advanced Fluoropolymer (Blue Coating), Add	9.11	
33 14 13 36-0278	EA		1-1/4" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	14.61	
			For Zinc Plated, Add	4.09	
			For Hot Dip Galvanized, Add	5.84	
			For Advanced Fluoropolymer (Blue Coating), Add	10.23	
33 14 13 36-0279	EA		1-1/2" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	14.61	
			For Zinc Plated, Add	4.09	
			For Hot Dip Galvanized, Add	5.84	
			For Advanced Fluoropolymer (Blue Coating), Add	10.23	
33 14 13 36-0280	EA		2" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	18.83	
			For Zinc Plated, Add	5.27	
			For Hot Dip Galvanized, Add	7.53	
			For Advanced Fluoropolymer (Blue Coating), Add	13.18	
33 14 13 36-0281	EA		2-1/2" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	18.95	
			For Zinc Plated, Add	5.31	
			For Hot Dip Galvanized, Add	7.58	
			For Advanced Fluoropolymer (Blue Coating), Add	13.27	
33 14 13 36-0282	EA		3" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	18.95	
			For Zinc Plated, Add	5.31	
			For Hot Dip Galvanized, Add	7.58	
			For Advanced Fluoropolymer (Blue Coating), Add	13.27	
33 14 13 36-0283	EA		4" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	44.25	
			For Zinc Plated, Add	12.39	
			For Hot Dip Galvanized, Add	17.70	
			For Advanced Fluoropolymer (Blue Coating), Add	30.98	
33 14 13 36-0284	EA		5" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	63.39	
			For Zinc Plated, Add	17.75	
			For Hot Dip Galvanized, Add	25.36	
			For Advanced Fluoropolymer (Blue Coating), Add	44.37	
33 14 13 36-0285	EA		6" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	68.28	
			For Zinc Plated, Add	19.12	
			For Hot Dip Galvanized, Add	27.31	
			For Advanced Fluoropolymer (Blue Coating), Add	47.80	
33 14 13 36-0286	EA		8" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	74.14	
			For Zinc Plated, Add	20.76	
			For Hot Dip Galvanized, Add	29.66	
			For Advanced Fluoropolymer (Blue Coating), Add	51.90	
33 14 13 36-0287	EA		10" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	166.53	
			For Zinc Plated, Add	46.63	
			For Hot Dip Galvanized, Add	66.61	
			For Advanced Fluoropolymer (Blue Coating), Add	116.57	
33 14 13 36-0288	EA		12" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	168.00	
			For Zinc Plated, Add	47.04	
			For Hot Dip Galvanized, Add	67.20	
			For Advanced Fluoropolymer (Blue Coating), Add	117.60	
33 14 13 36-0289	EA		14" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	188.22	
			For Zinc Plated, Add	52.70	
			For Hot Dip Galvanized, Add	75.29	
			For Advanced Fluoropolymer (Blue Coating), Add	131.75	
33 14 13 36-0290	EA		16" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	316.42	
			For Zinc Plated, Add	88.60	
			For Hot Dip Galvanized, Add	126.57	
			For Advanced Fluoropolymer (Blue Coating), Add	221.49	
33 14 13 36-0291	EA		18" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	459.67	
			For Zinc Plated, Add	128.71	
			For Hot Dip Galvanized, Add	183.87	
			For Advanced Fluoropolymer (Blue Coating), Add	321.77	
33 14 13 36-0292	EA		20" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	580.39	
			For Zinc Plated, Add	162.51	
			For Hot Dip Galvanized, Add	232.16	
			For Advanced Fluoropolymer (Blue Coating), Add	406.27	
33 14 13 36-0293	EA		22" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	830.44	
			For Zinc Plated, Add	232.52	
			For Hot Dip Galvanized, Add	332.18	
			For Advanced Fluoropolymer (Blue Coating), Add	581.31	
33 14 13 36-0294	EA		24" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	830.44	
			For Zinc Plated, Add	232.52	
			For Hot Dip Galvanized, Add	332.18	
			For Advanced Fluoropolymer (Blue Coating), Add	581.31	
33 14 13 36-0295	EA		30" Pipe Diameter, Class 150, Steel Flange Bolt Pack.....	1,312.22	
			For Zinc Plated, Add	367.42	
			For Hot Dip Galvanized, Add	524.89	
			For Advanced Fluoropolymer (Blue Coating), Add	918.55	
33 14 13 36-0296	EA		36" Pipe Diameter, Class 150 Steel Flange, Bolt Set	1,871.92	
Note: Includes thirty-two (32) 1-1/2" diameter plain finish bolts with washers and nut.					
			For Zinc Plated, Add	524.14	
			For Hot Dip Galvanized, Add	748.77	
			For Advanced Fluoropolymer (Blue Coating), Add	1,310.34	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0297		Class 300, Steel Flange Bolt Packs (33 14 13 36-0275) Note: Includes plain finish A307B bolts, A563 heavy hex nut and two structural washers. Labor installation is included with pipe fittings or valves.		
33 14 13 36-0298	EA	1" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	18.95	
		For Zinc Plated, Add.....	5.31	
		For Hot Dip Galvanized, Add.....	7.58	
		For Advanced Fluoropolymer (Blue Coating), Add.....	13.27	
33 14 13 36-0299	EA	1-1/4" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	18.95	
		For Zinc Plated, Add.....	5.31	
		For Hot Dip Galvanized, Add.....	7.58	
		For Advanced Fluoropolymer (Blue Coating), Add.....	13.27	
33 14 13 36-0300	EA	1-1/2" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	21.21	
		For Zinc Plated, Add.....	5.94	
		For Hot Dip Galvanized, Add.....	8.48	
		For Advanced Fluoropolymer (Blue Coating), Add.....	14.85	
33 14 13 36-0301	EA	2" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	42.42	
		For Zinc Plated, Add.....	11.88	
		For Hot Dip Galvanized, Add.....	16.97	
		For Advanced Fluoropolymer (Blue Coating), Add.....	29.69	
33 14 13 36-0302	EA	2-1/2" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	68.28	
		For Zinc Plated, Add.....	19.12	
		For Hot Dip Galvanized, Add.....	27.31	
		For Advanced Fluoropolymer (Blue Coating), Add.....	47.80	
33 14 13 36-0303	EA	3" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	74.14	
		For Zinc Plated, Add.....	20.76	
		For Hot Dip Galvanized, Add.....	29.66	
		For Advanced Fluoropolymer (Blue Coating), Add.....	51.90	
33 14 13 36-0304	EA	3-1/2" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	74.14	
		For Zinc Plated, Add.....	20.76	
		For Hot Dip Galvanized, Add.....	29.66	
		For Advanced Fluoropolymer (Blue Coating), Add.....	51.90	
33 14 13 36-0305	EA	4" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	75.48	
		For Zinc Plated, Add.....	21.13	
		For Hot Dip Galvanized, Add.....	30.19	
		For Advanced Fluoropolymer (Blue Coating), Add.....	52.84	
33 14 13 36-0306	EA	5" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	76.71	
		For Zinc Plated, Add.....	21.48	
		For Hot Dip Galvanized, Add.....	30.68	
		For Advanced Fluoropolymer (Blue Coating), Add.....	53.70	
33 14 13 36-0307	EA	6" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	115.06	
		For Zinc Plated, Add.....	32.22	
		For Hot Dip Galvanized, Add.....	46.02	
		For Advanced Fluoropolymer (Blue Coating), Add.....	80.54	
33 14 13 36-0308	EA	8" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	179.91	
		For Zinc Plated, Add.....	50.37	
		For Hot Dip Galvanized, Add.....	71.96	
		For Advanced Fluoropolymer (Blue Coating), Add.....	125.94	
33 14 13 36-0309	EA	10" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	337.42	
		For Zinc Plated, Add.....	94.48	
		For Hot Dip Galvanized, Add.....	134.97	
		For Advanced Fluoropolymer (Blue Coating), Add.....	236.19	
33 14 13 36-0310	EA	12" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	491.18	
		For Zinc Plated, Add.....	137.53	
		For Hot Dip Galvanized, Add.....	196.47	
		For Advanced Fluoropolymer (Blue Coating), Add.....	343.83	
33 14 13 36-0311	EA	14" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	675.04	
		For Zinc Plated, Add.....	189.01	
		For Hot Dip Galvanized, Add.....	270.02	
		For Advanced Fluoropolymer (Blue Coating), Add.....	472.53	
33 14 13 36-0312	EA	16" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	937.30	
		For Zinc Plated, Add.....	262.44	
		For Hot Dip Galvanized, Add.....	374.92	
		For Advanced Fluoropolymer (Blue Coating), Add.....	656.11	
33 14 13 36-0313	EA	18" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	1,200.60	
		For Zinc Plated, Add.....	336.17	
		For Hot Dip Galvanized, Add.....	480.24	
		For Advanced Fluoropolymer (Blue Coating), Add.....	840.42	
33 14 13 36-0314	EA	20" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	1,271.31	
		For Zinc Plated, Add.....	355.97	
		For Hot Dip Galvanized, Add.....	508.52	
		For Advanced Fluoropolymer (Blue Coating), Add.....	889.92	
33 14 13 36-0315	EA	24" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	1,605.44	
		For Zinc Plated, Add.....	449.52	
		For Hot Dip Galvanized, Add.....	642.18	
		For Advanced Fluoropolymer (Blue Coating), Add.....	1,123.81	
33 14 13 36-0316	EA	30" Pipe Diameter, Class 300, Steel Flange Bolt Pack.....	2,507.33	
		For Zinc Plated, Add.....	702.05	
		For Hot Dip Galvanized, Add.....	1,002.93	
		For Advanced Fluoropolymer (Blue Coating), Add.....	1,755.13	

33 14 13 36-0317 Flanged Steel Pipe Fittings, Standard Wall Thickness (33 14 13 36-0001)
See CSI section 33 14 13 36-0276 for bolt pack.



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR				TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION				UNIT COST		UNIT COST	
33 14 13 36-0318 Flanged 90 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0317)							
33 14 13 36-0319	EA	4" Diameter, 90 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	467.24		205.50		
For Class 300, Add			118.54				
33 14 13 36-0320	EA	6" Diameter, 90 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	800.31		339.21		
For Class 300, Add			217.43				
33 14 13 36-0321	EA	8" Diameter, 90 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,212.01		476.79		
For Class 300, Add			370.44				
33 14 13 36-0322	EA	10" Diameter, 90 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,637.16		544.83		
For Class 300, Add			611.15				
33 14 13 36-0323	EA	12" Diameter, 90 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,260.90		712.91		
For Class 300, Add			888.14				
33 14 13 36-0324 Flanged 45 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0317)							
33 14 13 36-0325	EA	4" Diameter, 45 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	452.36		205.50		
For Class 300, Add			107.45				
33 14 13 36-0326	EA	6" Diameter, 45 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	763.71		339.21		
For Class 300, Add			190.16				
33 14 13 36-0327	EA	8" Diameter, 45 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,196.99		476.79		
For Class 300, Add			359.25				
33 14 13 36-0328	EA	10" Diameter, 45 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,512.46		544.83		
For Class 300, Add			518.24				
33 14 13 36-0329	EA	12" Diameter, 45 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,080.08		712.91		
For Class 300, Add			753.43				
33 14 13 36-0330 Flanged 22.5 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0317)							
33 14 13 36-0331	EA	4" Diameter, 22.5 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	447.40		205.50		
For Class 300, Add			103.76				
33 14 13 36-0332	EA	6" Diameter, 22.5 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	751.94		339.21		
For Class 300, Add			181.39				
33 14 13 36-0333	EA	8" Diameter, 22.5 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,121.99		476.79		
For Class 300, Add			303.37				
33 14 13 36-0334	EA	10" Diameter, 22.5 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,474.36		544.83		
For Class 300, Add			489.86				
33 14 13 36-0335	EA	12" Diameter, 22.5 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,024.83		712.91		
For Class 300, Add			712.27				
33 14 13 36-0336 Flanged 11.25 Degree Elbows, Standard Wall Thickness, Steel (33 14 13 36-0317)							
33 14 13 36-0337	EA	4" Diameter, 11.25 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	449.81		205.50		
For Class 300, Add			105.55				
33 14 13 36-0338	EA	6" Diameter, 11.25 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	757.88		339.21		
For Class 300, Add			185.82				
33 14 13 36-0339	EA	8" Diameter, 11.25 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,133.01		476.79		
For Class 300, Add			311.58				
33 14 13 36-0340	EA	10" Diameter, 11.25 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,494.61		544.83		
For Class 300, Add			504.95				
33 14 13 36-0341	EA	12" Diameter, 11.25 Degree Elbow, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,054.19		712.91		
For Class 300, Add			734.15				
33 14 13 36-0342 Flanged Tees, Standard Wall Thickness, Steel (33 14 13 36-0317)							
33 14 13 36-0343	EA	4"x4"x4", Tee, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	720.41		308.24		
For Class 300, Add			192.42				
33 14 13 36-0344	EA	6"x6"x6", Tee, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,184.30		508.69		
For Class 300, Add			314.05				
33 14 13 36-0345	EA	8"x8"x8", Tee, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,786.30		715.13		
For Class 300, Add			532.03				

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0346	EA		10"x10"x10" Tees, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,342.99	817.30
			For Class 300, Add.....	832.73	
33 14 13 36-0347	EA		12"x12"x12" Tees, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	3,265.73	1,069.35
			For Class 300, Add.....	1,238.61	
33 14 13 36-0348			Flanged Reducing Tees, Standard Wall Thickness, Steel (33 14 13 36-0317)		
33 14 13 36-0349	EA		6"x6"x4", Reducing Tee, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,160.37	508.69
			For Class 300, Add.....	296.23	
33 14 13 36-0350	EA		8"x8"x6", Reducing Tee, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,747.86	715.13
			For Class 300, Add.....	503.39	
33 14 13 36-0351	EA		10"x10"x 8" Reducing Tees, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,294.60	817.30
			For Class 300, Add.....	796.68	
33 14 13 36-0352	EA		12"x12"x6" Reducing Tees, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	3,104.63	1,069.35
			For Class 300, Add.....	1,118.60	
33 14 13 36-0353			Flanged Eccentric Reducers, Standard Wall Thickness, Steel (33 14 13 36-0317)		
33 14 13 36-0354	EA		6" x 4", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	760.63	339.21
			For Class 300, Add.....	187.87	
33 14 13 36-0355	EA		8" x 4", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,177.44	476.79
			For Class 300, Add.....	344.68	
33 14 13 36-0356	EA		8" x 6", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,072.83	476.79
			For Class 300, Add.....	266.75	
33 14 13 36-0357	EA		10" x 8", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,324.26	544.83
			For Class 300, Add.....	378.04	
33 14 13 36-0358	EA		12" x 4", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,708.77	712.91
			For Class 300, Add.....	476.81	
33 14 13 36-0359	EA		12" x 6", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,227.41	712.91
			For Class 300, Add.....	863.19	
33 14 13 36-0360	EA		12" x 8", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,960.32	712.91
			For Class 300, Add.....	664.21	
33 14 13 36-0361	EA		12" x 10", Eccentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,829.69	712.91
			For Class 300, Add.....	566.89	
33 14 13 36-0362			Flanged Concentric Reducers, Standard Wall Thickness, Steel (33 14 13 36-0317)		
33 14 13 36-0363	EA		6" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	716.22	339.21
			For Class 300, Add.....	154.78	
33 14 13 36-0364	EA		8" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,023.73	476.79
			For Class 300, Add.....	230.17	
33 14 13 36-0365	EA		8" x 6", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,019.08	476.79
			For Class 300, Add.....	226.70	
33 14 13 36-0366	EA		10" x 8", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,318.52	544.83
			For Class 300, Add.....	373.76	
33 14 13 36-0367	EA		12" x 4", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	2,081.56	712.91
			For Class 300, Add.....	754.54	
33 14 13 36-0368	EA		12" x 6", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,715.37	712.91
			For Class 300, Add.....	481.72	
33 14 13 36-0369	EA		12" x 8", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,742.03	712.91
			For Class 300, Add.....	501.59	
33 14 13 36-0370	EA		12" x 10", Concentric Reducer, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Epoxy Coated.....	1,756.23	712.91
			For Class 300, Add.....	512.17	
33 14 13 36-0371			Flanged Crosses, Standard Wall Thickness, Steel (33 14 13 36-0317)		
33 14 13 36-0372	EA		8" x 8" x 8" x 8", Crosses, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Coated.....	2,423.52	950.06
			For Class 300, Add.....	742.94	
33 14 13 36-0373	EA		12" x 12" x 12" x 12", Crosses, Steel, Standard Wall Thickness, Flanged Ends, Class 150, Cement Mortar Lined And Coated.....	4,475.14	1,423.93
			For Class 300, Add.....	1,741.86	



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0374	Grooved-Joint Pipe, Cement Mortar Lined And Epoxy Coated (33 14 13 36)		
Note: Excludes fittings, elbow, tee, reducer fitting or couplings.			
33 14 13 36-0375	LF 3" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	81.39	24.87
33 14 13 36-0376	LF 4" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	102.98	27.69
33 14 13 36-0377	LF 6" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	185.55	48.56
33 14 13 36-0378	LF 8" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	253.10	55.01
33 14 13 36-0379	LF 10" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	347.20	65.68
33 14 13 36-0380	LF 12" Diameter, Schedule 40, AGS, Cement Mortar Lined And Epoxy Coated	417.80	75.42
33 14 13 36-0381	Grooved-Joint Pipe Fittings (33 14 13 36)		
33 14 13 36-0382	90 Degree Grooved Elbow (33 14 13 36-0381)		
33 14 13 36-0383	EA 3" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	196.72	37.77
33 14 13 36-0384	EA 4" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	228.27	49.85
33 14 13 36-0385	EA 6" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	537.28	81.52
33 14 13 36-0386	EA 8" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,011.95	97.00
33 14 13 36-0387	EA 10" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,516.79	113.19
33 14 13 36-0388	EA 12" 90 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	2,351.19	135.82
33 14 13 36-0389	45 Degree Grooved Elbow (33 14 13 36-0381)		
33 14 13 36-0390	EA 3" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	196.67	37.77
33 14 13 36-0391	EA 4" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	228.27	49.85
33 14 13 36-0392	EA 6" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	537.28	81.52
33 14 13 36-0393	EA 8" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,011.95	97.00
33 14 13 36-0394	EA 10" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,516.79	113.19
33 14 13 36-0395	EA 12" 45 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	2,351.19	135.82
33 14 13 36-0396	22.5 Degree Grooved Elbow (33 14 13 36-0381)		
33 14 13 36-0397	EA 3" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	180.73	37.77
33 14 13 36-0398	EA 4" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	239.53	49.85
33 14 13 36-0399	EA 6" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	569.73	81.52
33 14 13 36-0400	EA 8" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,074.91	97.00
33 14 13 36-0401	EA 10" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,447.31	113.19
33 14 13 36-0402	EA 12" 22.5 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,927.97	135.82
33 14 13 36-0403	11.25 Degree Grooved Elbow (33 14 13 36-0381)		
33 14 13 36-0404	EA 3" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	180.72	37.77
33 14 13 36-0405	EA 4" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	239.52	49.85
33 14 13 36-0406	EA 6" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	569.71	81.52
33 14 13 36-0407	EA 8" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,074.86	97.00
33 14 13 36-0408	EA 10" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,447.24	113.19
33 14 13 36-0409	EA 12" 11.25 Degree Elbow, Steel, AGS, Schedule 40, Cement Mortar Lined And Epoxy Coated	1,927.88	135.82
33 14 13 36-0410	Grooved Couplings (33 14 13 36-0381)		
33 14 13 36-0411	EA 3" Coupling, Steel, AGS, Schedule 40	59.09	18.65
33 14 13 36-0412	EA 4" Coupling, Steel, AGS, Schedule 40	87.65	24.87
33 14 13 36-0413	EA 6" Coupling, Steel, AGS, Schedule 40	152.25	40.70
33 14 13 36-0414	EA 8" Coupling, Steel, AGS, Schedule 40	221.31	48.56
33 14 13 36-0415	EA 10" Coupling, Steel, AGS, Schedule 40	334.22	58.18
33 14 13 36-0416	EA 12" Coupling, Steel, AGS, Schedule 40	376.62	63.69
33 14 13 39	Copper Public Water Utility Distribution Piping (33 14 13)		
33 14 13 39-0001	Type L Copper Water Distribution Piping (33 14 13 39)		
33 14 13 39-0002	LF 1/2" Type L Copper Water Distribution Pipe	7.57	2.00
33 14 13 39-0003	LF 3/4" Type L Copper Water Distribution Pipe	9.59	2.25
33 14 13 39-0004	LF 1" Type L Copper Water Distribution Pipe	12.73	2.49
33 14 13 39-0005	LF 1-1/4" Type L Copper Water Distribution Pipe	15.95	2.99
33 14 13 39-0006	LF 1-1/2" Type L Copper Water Distribution Pipe	19.71	3.99
33 14 13 39-0007	LF 2" Type L Copper Water Distribution Pipe	28.86	4.99
33 14 13 39-0008	LF 2-1/2" Type L Copper Water Distribution Pipe	36.39	5.99
33 14 13 39-0009	LF 3" Type L Copper Water Distribution Pipe	45.79	6.59
33 14 13 39-0010	LF 3-1/2" Type L Copper Water Distribution Pipe	61.48	8.29
33 14 13 39-0011	LF 4" Type L Copper Water Distribution Pipe	81.26	10.47
33 14 13 39-0012	LF 5" Type L Copper Water Distribution Pipe	131.52	13.08
33 14 13 39-0013	LF 6" Type L Copper Water Distribution Pipe	170.06	15.77
33 14 13 39-0014	LF 8" Type L Copper Water Distribution Pipe	294.46	17.66
33 14 13 39-0015	Type K Copper Water Distribution Piping (33 14 13 39)		
33 14 13 39-0016	LF 1/2" Type K Copper Water Distribution Pipe	8.09	2.00
33 14 13 39-0017	LF 3/4" Type K Copper Water Distribution Pipe	11.40	2.25

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

SAN BERNARDINO
COUNTY

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 39-0018	LF	1" Type K Copper Water Distribution Pipe.....	14.52	2.49
33 14 13 39-0019	LF	1-1/4" Type K Copper Water Distribution Pipe.....	17.06	2.99
33 14 13 39-0020	LF	1-1/2" Type K Copper Water Distribution Pipe.....	21.35	3.99
33 14 13 39-0021	LF	2" Type K Copper Water Distribution Pipe.....	31.07	4.99
33 14 13 39-0022	LF	2-1/2" Type K Copper Water Distribution Pipe.....	42.51	5.99
33 14 13 39-0023	LF	3" Type K Copper Water Distribution Pipe.....	54.97	6.59
33 14 13 39-0024	LF	3-1/2" Type K Copper Water Distribution Pipe.....	72.27	8.29
33 14 13 39-0025	LF	4" Type K Copper Water Distribution Pipe.....	97.63	10.47
33 14 13 39-0026	LF	5" Type K Copper Water Distribution Pipe.....	165.39	13.08
33 14 13 39-0027	LF	6" Type K Copper Water Distribution Pipe.....	230.98	15.77
33 14 13 39-0028	LF	8" Type K Copper Water Distribution Pipe.....	406.88	17.66
33 14 13 39-0029		Copper Flare x Female Copper Flare Service Fitting Coupling (33 14 13 39)		
		Note: Mueller H-15405		
33 14 13 39-0030	EA	3/4" Copper Flare x Female Copper Flare Service Fitting Coupling.....	45.88	
33 14 13 39-0031	EA	1" Copper Flare x Female Copper Flare Service Fitting Coupling.....	67.09	
33 14 13 39-0032	EA	1-1/2" Copper Flare x Female Copper Flare Service Fitting Coupling.....	177.75	
33 14 13 39-0033	EA	2" Copper Flare x Female Copper Flare Service Fitting Coupling.....	226.52	
33 14 13 39-0034		Copper Flare x Female Iron Pipe Service Fitting Coupling (33 14 13 39)		
		Note: Mueller H-15450		
33 14 13 39-0035	EA	1/2" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	57.62	
33 14 13 39-0036	EA	3/4" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	46.16	
33 14 13 39-0037	EA	1" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	64.75	
33 14 13 39-0038	EA	1-1/4" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	98.72	
33 14 13 39-0039	EA	1-1/2" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	130.67	
33 14 13 39-0040	EA	2" Copper Flare x Female Iron Pipe Service Fitting Coupling.....	218.28	
33 14 13 39-0041		Copper Flare x Male Iron Pipe Service Fitting Coupling (33 14 13 39)		
		Note: Mueller H-15425		
33 14 13 39-0042	EA	1/2" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	48.04	
33 14 13 39-0043	EA	3/4" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	46.33	
33 14 13 39-0044	EA	1" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	62.69	
33 14 13 39-0045	EA	1-1/4" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	98.72	
33 14 13 39-0046	EA	1-1/2" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	138.12	
33 14 13 39-0047	EA	2" Copper Flare x Male Iron Pipe Service Fitting Coupling.....	227.52	
33 14 13 39-0048		Brass Fittings (33 14 13 39)		
33 14 13 39-0049		Brass Compression Reducer Coupling (33 14 13 39-0048)		
33 14 13 39-0050	EA	3/4" x 1" Brass Compression Reducer Coupling.....	48.32	15.04
33 14 13 39-0051	EA	1" x 3/4" Brass Compression Reducer Coupling.....	37.60	15.04
33 14 13 39-0052	EA	1-1/2" x 1" Brass Compression Reducer Coupling.....	80.80	22.84
33 14 13 39-0053	EA	2" x 1-1/2" Brass Compression Reducer Coupling.....	99.95	28.97
33 14 13 39-0054		Copper Compression x Male NPT Brass Coupling (33 14 13 39-0048)		
		Note: A. Y. McDonald 74753Q		
33 14 13 39-0055	EA	3/4" Copper Compression x Male NPT Brass Coupling.....	50.08	16.71
33 14 13 39-0056	EA	3/4" x 1" Copper Compression x Male NPT Brass Coupling.....	57.20	19.50
33 14 13 39-0057	EA	1" Copper Compression x Male NPT Brass Coupling.....	58.74	19.50
33 14 13 39-0058	EA	1" x 3/4" Copper Compression x Male NPT Brass Coupling.....	57.46	19.50
33 14 13 39-0059	EA	1-1/4" Copper Compression x Male NPT Brass Coupling.....	79.10	22.29
33 14 13 39-0060	EA	1-1/4" x 1" Copper Compression x Male NPT Brass Coupling.....	76.75	22.29
33 14 13 39-0061	EA	1-1/2" Copper Compression x Male NPT Brass Coupling.....	105.15	27.86
33 14 13 39-0062	EA	2" Copper Compression x Male NPT Brass Coupling.....	138.92	33.43
33 14 13 39-0063		Brass Nipples (33 14 13 39-0048)		
33 14 13 39-0064	EA	3/4" x 6" Long Brass Nipple.....	34.93	6.96
33 14 13 39-0065	EA	1" x 6" Long Brass Nipple.....	45.64	7.52
33 14 13 39-0066	EA	1-1/2" x 6" Long Brass Nipple.....	69.95	8.08
33 14 13 39-0067		Brass "H" Style Meter Insetters (33 14 13 39-0048)		
33 14 13 39-0068	EA	5/8" x 3/4" Compression End, Brass "H" Style Meter Insetters.....	269.71	30.78
33 14 13 39-0069	EA	5/8" x 3/4" Threaded End, Brass "H" Style Meter Insetters.....	170.62	30.78
33 14 13 39-0070		Meter Setters - Resetter, Brass (33 14 13 39-0048)		
33 14 13 39-0071	EA	1" Meter, 10" High Brass Meter Setter - Resetter.....	725.22	30.78
		Note: Male meter thread, bottom inlet/outlet, angle ball valve, top inlet/outlet with meter nuts.		

33 14 13 43 Public Water Utility Distribution Piping Coatings and Wraps (33 14 13)**33 14 13 43-0001 Pipe Coatings (33 14 13 43)**



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 14 13 43-0002 Epoxy Wrap And Pipe Coating (33 14 13 43-0001)				
Note: Applied at fabrication shop.				
33 14 13 43-0003	LF	4" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	1.60	
33 14 13 43-0004	LF	6" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	1.97	
33 14 13 43-0005	LF	8" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	2.46	
33 14 13 43-0006	LF	10" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	2.93	
33 14 13 43-0007	LF	12" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	3.46	
33 14 13 43-0008	LF	14" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	4.60	
33 14 13 43-0009	LF	16" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	5.24	
33 14 13 43-0010	LF	18" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	5.51	
33 14 13 43-0011	LF	20" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	5.94	
33 14 13 43-0012	LF	24" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	6.92	
33 14 13 43-0013	LF	30" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	9.08	
33 14 13 43-0014	LF	36" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	14.35	
33 14 13 43-0015	LF	42" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	30.93	
33 14 13 43-0016	LF	48" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	35.35	
33 14 13 43-0017	LF	54" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	39.77	
33 14 13 43-0018	LF	60" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	44.19	
33 14 13 43-0019	LF	66" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	48.61	
33 14 13 43-0020	LF	72" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	53.01	
33 14 13 43-0021	LF	78" Outside Diameter Of Pipe, Epoxy Wrap And Pipe Coating	57.45	
33 14 13 43-0022 Cement Coating With Fiberglass Or Wire Mesh Reinforcing (33 14 13 43-0001)				
Note: Applied at fabrication shop. Thickness ranging between 1" and 2"				
33 14 13 43-0023	LF	4" Diameter Cement Coated Pipe 1" To 2" Mesh	7.27	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0024	LF	6" Diameter Cement Coated Pipe 1" To 2" Mesh	8.94	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0025	LF	8" Diameter Cement Coated Pipe 1" To 2" Mesh	11.18	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0026	LF	10" Diameter Cement Coated Pipe 1" To 2" Mesh	12.45	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0027	LF	12" Diameter Cement Coated Pipe 1" To 2" Mesh	14.06	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0028	LF	14" Diameter Cement Coated Pipe 1" To 2" Mesh	16.46	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0029	LF	16" Diameter Cement Coated Pipe 1" To 2" Mesh	18.70	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0030	LF	18" Diameter Cement Coated Pipe 1" To 2" Mesh	21.10	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0031	LF	20" Diameter Cement Coated Pipe 1" To 2" Mesh	23.45	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0032	LF	24" Diameter Cement Coated Pipe 1" To 2" Mesh	28.13	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0033	LF	30" Diameter Cement Coated Pipe 1" To 2" Mesh	35.16	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0034	LF	36" Diameter Cement Coated Pipe 1" To 2" Mesh	42.19	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0035	LF	42" Diameter Cement Coated Pipe 1" To 2" Mesh	49.23	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0036	LF	48" Diameter Cement Coated Pipe 1" To 2" Mesh	56.26	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0037	LF	54" Diameter Cement Coated Pipe 1" To 2" Mesh	63.29	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0038	LF	60" Diameter Cement Coated Pipe 1" To 2" Mesh	70.32	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0039	LF	66" Diameter Cement Coated Pipe 1" To 2" Mesh	77.36	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0040	LF	72" Diameter Cement Coated Pipe 1" To 2" Mesh	84.39	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0041	LF	78" Diameter Cement Coated Pipe 1" To 2" Mesh	91.42	
Note: Reinforcing applied at fabrication shop.				
33 14 13 43-0042 Epoxy Wrap And Fitting Coating (33 14 13 43-0001)				
Note: Applied at fabrication shop.				
33 14 13 43-0043	EA	4" Outside Diameter, Epoxy Wrap And Fitting Coating	9.45	
For 1/2" Thick, Add			0.37	
33 14 13 43-0044	EA	6" Outside Diameter, Epoxy Wrap And Fitting Coating	11.97	
For 1/2" Thick, Add			0.49	
33 14 13 43-0045	EA	8" Outside Diameter, Epoxy Wrap And Fitting Coating	17.45	
For 1/2" Thick, Add			0.64	
33 14 13 43-0046	EA	10" Outside Diameter, Epoxy Wrap And Fitting Coating	29.40	
For 1/2" Thick, Add			0.94	
33 14 13 43-0047	EA	12" Outside Diameter, Epoxy Wrap And Fitting Coating	44.93	
For 1/2" Thick, Add			1.38	
33 14 13 43-0048	EA	14" Outside Diameter, Epoxy Wrap And Fitting Coating	70.45	
For 1/2" Thick, Add			2.11	
33 14 13 43-0049	EA	16" Outside Diameter, Epoxy Wrap And Fitting Coating	108.68	
For 1/2" Thick, Add			2.73	
33 14 13 43-0050	EA	18" Outside Diameter, Epoxy Wrap And Fitting Coating	147.69	
For 1/2" Thick, Add			2.81	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 43-0051	EA	20" Outside Diameter, Epoxy Wrap And Fitting Coating..... <i>For 1/2" Thick, Add</i>	201.87 3.36	
33 14 13 43-0052	EA	24" Outside Diameter, Epoxy Wrap And Fitting Coating..... <i>For 1/2" Thick, Add</i>	293.79 4.70	
33 14 13 43-0053		Cement Pipe Lining (33 14 13 43)		
33 14 13 43-0054		Cement Pipe Lining (33 14 13 43-0053) Note: Shop applied.		
33 14 13 43-0055	LF	4" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	12.44 0.97	
33 14 13 43-0056	LF	6" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	15.47 1.19	
33 14 13 43-0057	LF	8" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	18.85 1.49	
33 14 13 43-0058	LF	10" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	24.53 1.86	
33 14 13 43-0059	LF	12" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	30.22 2.24	
33 14 13 43-0060	LF	14" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	38.77 2.62	
33 14 13 43-0061	LF	16" Outside Diameter, 1/4" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	50.54 2.98	
33 14 13 43-0062	LF	18" Outside Diameter, 5/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	60.53 2.86	
33 14 13 43-0063	LF	20" Outside Diameter, 5/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	73.32 3.18	
33 14 13 43-0064	LF	24" Outside Diameter, 5/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	88.94 3.81	
33 14 13 43-0065	LF	30" Outside Diameter, 5/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	106.90 4.76	
33 14 13 43-0066	LF	36" Outside Diameter, 5/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	128.66 5.72	
33 14 13 43-0067	LF	42" Outside Diameter, 3/8" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	150.14 4.90	
33 14 13 43-0068	LF	48" Outside Diameter, 3/8" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	171.51 5.60	
33 14 13 43-0069	LF	54" Outside Diameter, 3/8" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	192.99 6.30	
33 14 13 43-0070	LF	60" Outside Diameter, 3/8" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	214.46 7.00	
33 14 13 43-0071	LF	66" Outside Diameter, 7/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	235.84 4.11	
33 14 13 43-0072	LF	72" Outside Diameter, 7/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	257.31 4.48	
33 14 13 43-0073	LF	78" Outside Diameter, 7/16" Thick Cement Pipe Lining..... <i>For 1/2" Thick, Add</i>	278.79 4.86	
33 14 13 43-0074		Cement Fitting Lining (33 14 13 43-0053) Note: Shop applied.		
33 14 13 43-0075	EA	4" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	13.19 1.12	
33 14 13 43-0076	EA	6" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	16.96 1.49	
33 14 13 43-0077	EA	8" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	23.94 1.94	
33 14 13 43-0078	EA	10" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	39.62 2.98	
33 14 13 43-0079	EA	12" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	60.42 4.48	
33 14 13 43-0080	EA	14" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	90.04 6.03	
33 14 13 43-0081	EA	16" Outside Diameter, 1/4" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	133.78 7.75	
33 14 13 43-0082	EA	18" Outside Diameter, 5/16" Thick Cement Fittings Lining..... <i>For 1/2" Thick, Add</i>	181.58 8.57	
33 14 13 43-0083	EA	20" Outside Diameter, 5/16" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	244.31 10.58	
33 14 13 43-0084	EA	24" Outside Diameter, 5/16" Thick Cement Fitting Lining..... <i>For 1/2" Thick, Add</i>	355.77 15.24	
33 14 13 43-0085		8 Mil Polyethylene Encasement Tubing (33 14 13 43) Note: ANSI/AWWA C105/A21.5-99 section 4.2.		
33 14 13 43-0086	LF	3" To 8" Diameter, 8 Mil Polyethylene Encasement Tubing.....	1.59	
33 14 13 43-0087	LF	10" To 12" Diameter, 8 Mil Polyethylene Encasement Tubing.....	2.58	
33 14 13 43-0088	LF	14" To 16" Diameter, 8 Mil Polyethylene Encasement Tubing.....	3.12	
33 14 13 43-0089	LF	18" To 20" Diameter, 8 Mil Polyethylene Encasement Tubing.....	3.91	
33 14 13 43-0090	LF	24" Diameter, 8 Mil Polyethylene Encasement Tubing.....	5.32	
33 14 13 43-0091	LF	30" Diameter, 8 Mil Polyethylene Encasement Tubing.....	6.80	
33 14 13 43-0092	LF	36" To 42" Diameter, 8 Mil Polyethylene Encasement Tubing.....	8.69	
33 14 13 43-0093	LF	48" Diameter, 8 Mil Polyethylene Encasement Tubing.....	10.33	



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33 14 13 43-0094	LF	54" Diameter, 8 Mil Polyethylene Encasement Tubing		12.21	
33 14 13 43-0095	LF	60" Diameter, 8 Mil Polyethylene Encasement Tubing		13.15	
33 14 13 43-0096 Enecon Polymeric Pipe Wrap (33 14 13 43)					
Note: 1/4" thick polymeric wrap with three layers of integrated reinforcement. Includes minimal surface preparation.					
33 14 13 43-0097	LF	6" Diameter Pipe, Enecon Polymeric Pipe Wrap		422.28	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				168.91	
For <10', Add				422.28	
33 14 13 43-0098	LF	8" Diameter Pipe, Enecon Polymeric Pipe Wrap		571.32	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				228.33	
For <10', Add				571.32	
33 14 13 43-0099	LF	10" Diameter Pipe, Enecon Polymeric Pipe Wrap		695.52	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				278.21	
For <10', Add				695.52	
33 14 13 43-0100	LF	12" Diameter Pipe, Enecon Polymeric Pipe Wrap		819.72	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				327.89	
For <10', Add				819.72	
33 14 13 43-0101	LF	14" Diameter Pipe, Enecon Polymeric Pipe Wrap		894.24	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				357.70	
For <10', Add				894.24	
33 14 13 43-0102	LF	16" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,018.44	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				407.38	
For <10', Add				1,018.44	
33 14 13 43-0103	LF	18" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,167.48	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				466.99	
For <10', Add				1,167.48	
33 14 13 43-0104	LF	20" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,304.10	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				521.64	
For <10', Add				1,304.10	
33 14 13 43-0105	LF	22" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,428.30	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				571.32	
33 14 13 43-0106	LF	24" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,552.50	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				621.00	
33 14 13 43-0107	LF	26" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,689.12	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				675.65	
33 14 13 43-0108	LF	28" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,813.32	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				725.33	
33 14 13 43-0109	LF	30" Diameter Pipe, Enecon Polymeric Pipe Wrap		1,962.36	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				588.71	
33 14 13 43-0110	LF	32" Diameter Pipe, Enecon Polymeric Pipe Wrap		2,061.72	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				618.52	
33 14 13 43-0111	LF	34" Diameter Pipe, Enecon Polymeric Pipe Wrap		2,210.76	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				663.23	
33 14 13 43-0112	LF	36" Diameter Pipe, Enecon Polymeric Pipe Wrap		2,334.96	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				700.49	
33 14 13 43-0113	LF	42" Diameter Pipe, Enecon Polymeric Pipe Wrap		2,732.40	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				819.72	
33 14 13 43-0114	LF	48" Diameter Pipe, Enecon Polymeric Pipe Wrap		3,129.84	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				938.95	
33 14 13 43-0115	LF	60" Diameter Pipe, Enecon Polymeric Pipe Wrap		3,875.04	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				1,162.51	
33 14 13 43-0116	LF	96" Diameter Pipe, Enecon Polymeric Pipe Wrap		6,210.00	
Note: 1/4" thick polymeric wrap with three layers on integrated reinforcement.					
For abrasive pipe blasting and/or mechanical preparation (grinding), Add				1,863.00	
33 14 13 53 Public Water Utility Distribution Piping Saddles And Adapters (33 14 13)					
33 14 13 53-0001 Double Stud Stainless Steel Service Saddles (33 14 13 53)					
Note: 1/2" listed taps are compression, 3/4" to 2" are either compression or NPT.					
33 14 13 53-0002	EA	4" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)		262.10	
33 14 13 53-0003	EA	4" Diameter x 1-1/4" Or 1-1/2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)		367.18	
33 14 13 53-0004	EA	4" Diameter x 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)		379.41	
33 14 13 53-0005	EA	6" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)		313.46	

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33 14 13 53-0006	EA	6" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	393.66
33 14 13 53-0007	EA	8" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	327.62
33 14 13 53-0008	EA	8" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	412.28
33 14 13 53-0009	EA	10" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	368.70
33 14 13 53-0010	EA	10" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	434.32
33 14 13 53-0011	EA	12" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	384.56
33 14 13 53-0012	EA	12" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372)	445.67

33 14 13 53-0013**Double Bale Epoxy Coated Ductile Iron Body Service Saddles (33 14 13 53)**

Note: Electro-galvanized steel bales. 5/8" listed taps are compression. 3/4" to 2" are either compression or NPT. 2-1/2", 3" or 4" are NPT.

33 14 13 53-0014	EA	1-1/4" To 1-1/2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	220.08
33 14 13 53-0015	EA	2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	220.23
33 14 13 53-0016	EA	2" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	234.32
33 14 13 53-0017	EA	2-1/2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	223.84
33 14 13 53-0018	EA	3" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	239.48
33 14 13 53-0019	EA	3" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	264.69
33 14 13 53-0020	EA	3" Diameter x 2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	281.49
33 14 13 53-0021	EA	4" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	257.59
33 14 13 53-0022	EA	4" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	283.02
33 14 13 53-0023	EA	4" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	297.41
33 14 13 53-0024	EA	5" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	271.81
33 14 13 53-0025	EA	5" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	298.03
33 14 13 53-0026	EA	5" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	312.36
33 14 13 53-0027	EA	6" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	286.50
33 14 13 53-0028	EA	6" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	311.98
33 14 13 53-0029	EA	6" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	326.12
33 14 13 53-0030	EA	6" Diameter x 3" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	474.49
33 14 13 53-0031	EA	6" Diameter x 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	486.71
33 14 13 53-0032	EA	8" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	310.06
33 14 13 53-0033	EA	8" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	340.77
33 14 13 53-0034	EA	8" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	353.92
33 14 13 53-0035	EA	8" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	561.05
33 14 13 53-0036	EA	10" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	346.65
33 14 13 53-0037	EA	10" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	383.43
33 14 13 53-0038	EA	10" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	625.86
33 14 13 53-0039	EA	12" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	376.82
33 14 13 53-0040	EA	12" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	415.69
33 14 13 53-0041	EA	12" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	430.64
33 14 13 53-0042	EA	12" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	697.82
33 14 13 53-0043	EA	14" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	438.82
33 14 13 53-0044	EA	14" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	469.36
33 14 13 53-0045	EA	14" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	505.08
33 14 13 53-0046	EA	14" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	855.83
33 14 13 53-0047	EA	15" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	451.05
33 14 13 53-0048	EA	15" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	512.70
33 14 13 53-0049	EA	15" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	534.02
33 14 13 53-0050	EA	15" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	919.44
33 14 13 53-0051	EA	16" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	471.27
33 14 13 53-0052	EA	16" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	535.16
33 14 13 53-0053	EA	16" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	557.04
33 14 13 53-0054	EA	16" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	956.75
33 14 13 53-0055	EA	18" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	521.01
33 14 13 53-0056	EA	18" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	601.64
33 14 13 53-0057	EA	20" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	592.79
33 14 13 53-0058	EA	20" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	655.87
33 14 13 53-0059	EA	24" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	619.02
33 14 13 53-0060	EA	24" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313)	698.22

33 14 13 53-0061**Double Bale Bronze Service Saddles (33 14 13 53)**

33 14 13 53-0062	EA	4" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	303.14
33 14 13 53-0063	EA	4" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	331.22
33 14 13 53-0064	EA	6" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	344.52
33 14 13 53-0065	EA	6" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	372.86
33 14 13 53-0066	EA	8" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	383.47
33 14 13 53-0067	EA	8" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	403.01
33 14 13 53-0068	EA	10" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	372.28
33 14 13 53-0069	EA	10" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	395.84
33 14 13 53-0070	EA	12" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	470.50
33 14 13 53-0071	EA	12" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	508.49
33 14 13 53-0072	EA	14" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	703.82



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33 14 13 53-0073	EA	14" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)		794.31	
33 14 13 53-0074	EA	16" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	.....	817.85	
33 14 13 53-0075	EA	16" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	.....	912.13	
33 14 13 53-0076 Stainless Steel Double Straps, Bronze Body Service Saddle (33 14 13 53)					
Note: Taps are compression or NPT.					
33 14 13 53-0077	EA	4" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	318.21	
33 14 13 53-0078	EA	4" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	350.24	
33 14 13 53-0079	EA	6" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	362.32	
33 14 13 53-0080	EA	6" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	393.19	
33 14 13 53-0081	EA	8" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	405.47	
33 14 13 53-0082	EA	8" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	426.19	
33 14 13 53-0083	EA	10" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	456.15	
33 14 13 53-0084	EA	10" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	487.99	
33 14 13 53-0085	EA	12" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	490.66	
33 14 13 53-0086	EA	12" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	531.25	
33 14 13 53-0087	EA	14" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	753.78	
33 14 13 53-0088	EA	14" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	864.96	
33 14 13 53-0089	EA	16" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	877.13	
33 14 13 53-0090	EA	16" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	955.15	
33 14 13 53-0091	EA	18" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	1,862.97	
33 14 13 53-0092	EA	18" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	1,862.97	
33 14 13 53-0093	EA	20" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	1,932.82	
33 14 13 53-0094	EA	20" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	1,932.82	
33 14 13 53-0095	EA	24" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	2,074.86	
33 14 13 53-0096	EA	24" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	.....	2,074.86	
33 14 13 53-0097 Ductile Iron Mechanical Joint Tapping Sleeve (33 14 13 53)					
33 14 13 53-0098	EA	4" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	1,412.49	
33 14 13 53-0099	EA	6" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	1,705.91	
33 14 13 53-0100	EA	8" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	2,038.94	
33 14 13 53-0101	EA	8" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	2,156.93	
33 14 13 53-0102	EA	10" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	3,270.30	
33 14 13 53-0103	EA	10" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	3,435.11	
33 14 13 53-0104	EA	10" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	3,506.25	
33 14 13 53-0105	EA	12" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	3,453.68	
33 14 13 53-0106	EA	12" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	3,617.83	
33 14 13 53-0107	EA	12" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	4,016.72	
33 14 13 53-0108	EA	12" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	4,118.54	
33 14 13 53-0109	EA	14" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	6,875.30	
33 14 13 53-0110	EA	14" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,060.68	
33 14 13 53-0111	EA	14" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,144.47	
33 14 13 53-0112	EA	14" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,180.93	
33 14 13 53-0113	EA	14" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,444.28	
33 14 13 53-0114	EA	16" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,433.74	
33 14 13 53-0115	EA	16" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,458.20	
33 14 13 53-0116	EA	16" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,665.27	
33 14 13 53-0117	EA	16" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,714.69	
33 14 13 53-0118	EA	16" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	7,769.00	
33 14 13 53-0119	EA	16" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	11,896.94	
33 14 13 53-0120	EA	16" Diameter x 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	8,149.13	
33 14 13 53-0121	EA	18" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	10,337.50	
33 14 13 53-0122	EA	18" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	10,804.11	
33 14 13 53-0123	EA	18" Diameter x 8", 10", 12" Or 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	10,937.68	
33 14 13 53-0124	EA	18" Diameter x 18" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	11,339.40	
33 14 13 53-0125	EA	20" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	9,682.00	
33 14 13 53-0126	EA	20" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	9,328.89	
33 14 13 53-0127	EA	20" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	9,507.34	
33 14 13 53-0128	EA	20" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	9,577.49	
33 14 13 53-0129	EA	20" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	9,923.90	
33 14 13 53-0130	EA	20" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	13,406.39	
33 14 13 53-0131	EA	20" Diameter x 16", 18" Or 20" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	13,669.00	
33 14 13 53-0132	EA	24" Diameter x 4", 6" Or 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	11,696.08	
33 14 13 53-0133	EA	24" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	11,858.30	
33 14 13 53-0134	EA	24" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	11,905.13	
33 14 13 53-0135	EA	24" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	16,472.11	
33 14 13 53-0136	EA	24" Diameter x 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	16,684.97	
33 14 13 53-0137	EA	24" Diameter x 18" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	16,733.87	
33 14 13 53-0138	EA	24" Diameter x 20" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	17,192.63	
33 14 13 53-0139	EA	24" Diameter x 24" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	.....	17,411.39	
33 14 13 53-0140 Carbon Steel Epoxy Coated Flange, Stainless Steel Tapping Sleeve (33 14 13 53)					
33 14 13 53-0141	EA	4" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,164.09	
33 14 13 53-0142	EA	6" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,237.13	
33 14 13 53-0143	EA	6" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,352.39	
33 14 13 53-0144	EA	8" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,392.22	
33 14 13 53-0145	EA	8" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,449.95	
33 14 13 53-0146	EA	8" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	.....	1,664.76	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

SAN BERNARDINO
COUNTY

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 53-0147	EA	10" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,519.98
33 14 13 53-0148	EA	10" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,576.20
33 14 13 53-0149	EA	10" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,765.09
33 14 13 53-0150	EA	10" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,435.25
33 14 13 53-0151	EA	12" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,709.55
33 14 13 53-0152	EA	12" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,791.76
33 14 13 53-0153	EA	12" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,977.65
33 14 13 53-0154	EA	12" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,578.06
33 14 13 53-0155	EA	12" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,811.00
33 14 13 53-0156	EA	14" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,245.99
33 14 13 53-0157	EA	14" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,314.09
33 14 13 53-0158	EA	14" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,712.38
33 14 13 53-0159	EA	14" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,206.07
33 14 13 53-0160	EA	14" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,527.28
33 14 13 53-0161	EA	16" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,666.82
33 14 13 53-0162	EA	16" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,737.11
33 14 13 53-0163	EA	16" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,000.96
33 14 13 53-0164	EA	16" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,706.84
33 14 13 53-0165	EA	16" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,874.06
33 14 13 53-0166	EA	18" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,828.76
33 14 13 53-0167	EA	18" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,955.68
33 14 13 53-0168	EA	18" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,131.82
33 14 13 53-0169	EA	18" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,962.36
33 14 13 53-0170	EA	18" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,129.39
33 14 13 53-0171	EA	20" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,413.40
33 14 13 53-0172	EA	20" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,483.54
33 14 13 53-0173	EA	20" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,878.15
33 14 13 53-0174	EA	20" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,545.08
33 14 13 53-0175	EA	20" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,828.36
33 14 13 53-0176	EA	24" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,684.42
33 14 13 53-0177	EA	24" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,837.52
33 14 13 53-0178	EA	24" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,044.07
33 14 13 53-0179	EA	24" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,990.45
33 14 13 53-0180	EA	24" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	5,164.58

33 14 13 53-0181 Stainless Steel Flange, Stainless Steel Tapping Sleeve (33 14 13 53)

33 14 13 53-0182	EA	4" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,345.14
33 14 13 53-0183	EA	6" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,465.80
33 14 13 53-0184	EA	6" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,551.65
33 14 13 53-0185	EA	8" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,583.50
33 14 13 53-0186	EA	8" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,682.31
33 14 13 53-0187	EA	8" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,976.48
33 14 13 53-0188	EA	10" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,816.11
33 14 13 53-0189	EA	10" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,925.62
33 14 13 53-0190	EA	10" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,189.34
33 14 13 53-0191	EA	10" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,951.76
33 14 13 53-0192	EA	12" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,073.09
33 14 13 53-0193	EA	12" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,222.18
33 14 13 53-0194	EA	12" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,570.41
33 14 13 53-0195	EA	12" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,023.95
33 14 13 53-0196	EA	12" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,370.81
33 14 13 53-0197	EA	14" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,365.77
33 14 13 53-0198	EA	14" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,548.55
33 14 13 53-0199	EA	14" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,940.58
33 14 13 53-0200	EA	14" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,394.56
33 14 13 53-0201	EA	14" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,634.90
33 14 13 53-0202	EA	16" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,884.40
33 14 13 53-0203	EA	16" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,134.09
33 14 13 53-0204	EA	16" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,324.48
33 14 13 53-0205	EA	16" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,812.56
33 14 13 53-0206	EA	16" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,143.83
33 14 13 53-0207	EA	18" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,179.95
33 14 13 53-0208	EA	18" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,552.89
33 14 13 53-0209	EA	18" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,751.58
33 14 13 53-0210	EA	18" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,180.54
33 14 13 53-0211	EA	18" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,747.91
33 14 13 53-0212	EA	20" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,434.14
33 14 13 53-0213	EA	20" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,806.12
33 14 13 53-0214	EA	20" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,967.63
33 14 13 53-0215	EA	20" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,765.47
33 14 13 53-0216	EA	20" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	5,209.77
33 14 13 53-0217	EA	24" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,067.43
33 14 13 53-0218	EA	24" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,120.79
33 14 13 53-0219	EA	24" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,314.37
33 14 13 53-0220	EA	24" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	5,266.61
33 14 13 53-0221	EA	24" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	5,775.08

33 14 13 53-0222 Ductile Iron Body, Flanged Coupling Adapter (33 14 13 53)

33 14 13 53-0223	EA	3" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	329.06	59.89



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 53-0224 EA 4" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912).....	412.28	75.51
33 14 13 53-0225 EA 6" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912).....	541.98	104.15
33 14 13 53-0226 EA 8" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912).....	702.75	122.38
33 14 13 53-0227 EA 10" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912).....	1,105.09	138.01
33 14 13 53-0228 EA 12" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912).....	1,234.49	156.24
33 14 13 53-0229 Steel Body, Flanged Coupling Adapter (33 14 13 53)		
33 14 13 53-0230 EA 3" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	480.92	59.89
33 14 13 53-0231 EA 4" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	568.54	75.51
33 14 13 53-0232 EA 6" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	759.04	104.15
33 14 13 53-0233 EA 8" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	928.66	122.38
33 14 13 53-0234 EA 10" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	1,134.07	138.01
33 14 13 53-0235 EA 12" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	1,321.64	156.24
33 14 13 53-0236 EA 14" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	1,570.59	171.86
33 14 13 53-0237 EA 16" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	1,860.57	187.48
33 14 13 53-0238 EA 18" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	2,197.69	206.23
33 14 13 53-0239 EA 20" Steel Body, Flanged Coupling Adapter (Smith-Blair 913).....	2,597.53	226.85
33 14 13 53-0240 Steel Body, Flanged-Lock Restrained Coupling Adapters (33 14 13 53)		
33 14 13 53-0241 EA 4" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	422.44	75.51
33 14 13 53-0242 EA 6" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	567.05	104.15
33 14 13 53-0243 EA 8" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	627.73	122.38
33 14 13 53-0244 EA 10" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	917.53	138.01
33 14 13 53-0245 EA 12" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	1,169.10	156.24
33 14 13 53-0246 EA 14" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	1,311.36	171.86
33 14 13 53-0247 EA 16" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	1,541.85	187.48
33 14 13 53-0248 EA 18" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	1,730.41	206.23
33 14 13 53-0249 EA 20" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	2,080.13	226.85
33 14 13 53-0250 EA 24" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	2,506.36	249.56
33 14 13 53-0251 EA 30" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	5,226.23	274.46
33 14 13 53-0252 EA 36" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911).....	7,054.93	301.96
33 14 13 53-0253 Ductile Iron Body, Omni Coupling System (33 14 13 53)		
33 14 13 53-0254 EA 2" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	148.42	41.66
33 14 13 53-0255 EA 2-1/2" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	183.12	49.48
33 14 13 53-0256 EA 3" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	226.73	59.89
33 14 13 53-0257 EA 4" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	284.72	75.51
33 14 13 53-0258 EA 6" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	379.79	104.15
33 14 13 53-0259 EA 8" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	461.53	122.38
33 14 13 53-0260 EA 10" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	576.95	138.01
33 14 13 53-0261 EA 12" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	674.83	156.24
33 14 13 53-0262 EA 14" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	949.91	171.86
33 14 13 53-0263 EA 16" Ductile Iron Body, Omni Coupling System (Smith-Blair 441).....	1,185.64	187.48
33 14 13 53-0264 Fabricated Coupling (Smith-Blair 411) (33 14 13 53)		
33 14 13 53-0265 EA 4" Steel Fabricated Coupling.....	490.03	172.38
33 14 13 53-0266 EA 6" Steel Fabricated Coupling.....	651.57	215.17
33 14 13 53-0267 EA 8" Steel Fabricated Coupling.....	756.24	246.08
33 14 13 53-0268 EA 10" Steel Fabricated Coupling.....	1,064.52	392.31
33 14 13 53-0269 EA 12" Steel Fabricated Coupling.....	1,204.99	427.97
33 14 13 53-0270 EA 14" Steel Fabricated Coupling.....	1,509.71	470.78
33 14 13 53-0271 EA 16" Steel Fabricated Coupling.....	1,823.91	523.08
33 14 13 53-0272 EA 18" Steel Fabricated Coupling.....	1,966.59	588.47
33 14 13 53-0273 EA 20" Steel Fabricated Coupling.....	2,328.69	671.68
33 14 13 53-0274 EA 24" Steel Fabricated Coupling.....	2,825.08	784.62
33 14 13 53-0275 EA 30" Steel Fabricated Coupling.....	3,914.33	941.54
33 14 13 53-0276 EA 36" Steel Fabricated Coupling.....	4,995.60	1,176.93
33 14 13 53-0277 EA 42" Steel Fabricated Coupling.....	5,773.43	1,343.37
33 14 13 53-0278 EA 48" Steel Fabricated Coupling.....	6,799.84	1,569.24
33 14 13 53-0279 Transition Coupling (Smith-Blair 413) (33 14 13 53)		
33 14 13 53-0280 EA 4" Steel Transition Coupling.....	623.63	172.38
33 14 13 53-0281 EA 6" Steel Transition Coupling.....	867.66	215.17
33 14 13 53-0282 EA 8" Steel Transition Coupling.....	992.98	246.08
33 14 13 53-0283 EA 10" Steel Transition Coupling.....	1,395.09	392.31
33 14 13 53-0284 EA 12" Steel Transition Coupling.....	1,644.46	427.97
33 14 13 53-0285 EA 14" Steel Transition Coupling.....	1,862.18	470.78
33 14 13 53-0286 EA 16" Steel Transition Coupling.....	2,245.03	523.08
33 14 13 53-0287 EA 18" Steel Transition Coupling.....	2,837.73	588.47
33 14 13 53-0288 EA 20" Steel Transition Coupling.....	3,046.42	671.68
33 14 13 53-0289 EA 24" Steel Transition Coupling.....	3,681.65	784.62
33 14 13 53-0290 EA 30" Steel Transition Coupling.....	4,903.19	941.54
33 14 13 53-0291 EA 36" Steel Transition Coupling.....	5,835.47	1,176.93
33 14 13 53-0292 EA 42" Steel Transition Coupling.....	6,963.96	1,343.37
33 14 13 53-0293 EA 48" Steel Transition Coupling.....	7,786.44	1,569.24

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 19 Valves and Hydrants for Water Utility Service (33 14)

Note: Flanged valves excludes bolt and gasket set. Excludes excavation and backfill. See CSI section 23 21 13 23-0713 for bolt and gasket sets.

33 14 19 00-0001 Accessories For Valves (33 14 19)

33 14 19 00-0002	EA	1' Valve Extension Stem	114.69	
		<i>For Each Additional LF, Add</i>	8.44	
33 14 19 00-0003	EA	Up to 80" Long Indicator Post Telescoping Barrel Assembly	1,638.19	102.60
		Note: Excludes valve.		
33 14 19 00-0004	EA	>80" To 114" Long Indicator Post Telescoping Barrel Assembly	1,858.81	112.87
		Note: Excludes valve.		
33 14 19 00-0005	EA	Adjust Water Valve Box To Grade	102.60	

33 14 19 00-0006 Water Utility Distribution Valves (33 14 19)**33 14 19 00-0007 Angle Valves (33 14 19 00-0006)**

Note: For connecting meters to water service.

33 14 19 00-0008 Threaded, Class 150, Bronze Angle Valve (33 14 19 00-0007)

Note: Nibco T-335Y

33 14 19 00-0009	EA	1/2" Threaded, Class 150, Bronze Angle Valve	99.65	17.83
33 14 19 00-0010	EA	3/4" Threaded, Class 150, Bronze Angle Valve	134.38	23.95
33 14 19 00-0011	EA	1" Threaded, Class 150, Bronze Angle Valve	180.98	29.53
33 14 19 00-0012	EA	1-1/4" Threaded, Class 150, Bronze Angle Valve	233.02	37.10
33 14 19 00-0013	EA	1-1/2" Threaded, Class 150, Bronze Angle Valve	290.96	42.89
33 14 19 00-0014	EA	2" Threaded, Class 150, Bronze Angle Valve	433.94	50.14
33 14 19 00-0015	EA	2-1/2" Threaded, Class 150, Bronze Angle Valve	694.93	68.44
33 14 19 00-0016	EA	3" Threaded, Class 150, Bronze Angle Valve	1,054.68	79.00

33 14 19 00-0017 Butterfly Valves (33 14 19 00-0006)**33 14 19 00-0018 Lug Type Flanged, Cast Iron Disc, Butterfly Valves (33 14 19 00-0017)**

Note: ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, 304 Stainless Steel Pin

33 14 19 00-0019	EA	3" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 3,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	1,971.49	189.41
33 14 19 00-0020	EA	3" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 3,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	2,206.43	189.41
33 14 19 00-0021	EA	4" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 4,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	2,216.55	293.15
33 14 19 00-0022	EA	4" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 4,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	2,449.49	293.15
33 14 19 00-0023	EA	6" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 6,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	2,565.39	364.23
33 14 19 00-0024	EA	6" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 6,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	2,798.33	364.23
33 14 19 00-0025	EA	8" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 8,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	2,909.91	465.40
33 14 19 00-0026	EA	8" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 8,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	3,131.06	465.40
33 14 19 00-0027	EA	10" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 10,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	3,635.98	566.57
33 14 19 00-0028	EA	10" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 10,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	4,860.97	566.57
33 14 19 00-0029	EA	12" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 12,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD8 Modified)	4,162.38	686.73
33 14 19 00-0030	EA	12" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 12,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW8 Modified)	4,395.32	686.73
33 14 19 00-0031	EA	14" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 14,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD12 Modified)	5,605.01	987.27
33 14 19 00-0032	EA	14" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 14,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW12 Modified)	6,214.12	987.27
33 14 19 00-0033	EA	16" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 16,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-HD16 Modified)	6,527.63	1,086.00
33 14 19 00-0034	EA	16" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW, 16,F1,Ci,NBRN-NBR, 150B,Ci-S2*GS-6B-CW20 Modified)	7,274.64	1,086.00



Utilities			33	33
Water Utilities			33 10	
Water Utility Transmission and Distribution			33 14	

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0035	EA	18" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,18,F1,C1,NBRN-NBR,150B,C1-S2*GS-6B-HD24 Modified)		8,180.44	1,204.48
33 14 19 00-0036	EA	18" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,18,F1,C1,NBRN-NBR,150B,C1-S2*GS-6B-CW24 Modified)		8,971.62	1,204.48
33 14 19 00-0037	EA	20" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,20,F1,C1,NBRN-NBR,150B,C1-S2*GS-6B-HD24 Modified)		9,374.42	1,357.50
33 14 19 00-0038	EA	20" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,20,F1,C1,NBRN-NBR,150B,C1-S2*GS-6B-CW24 Modified)		10,164.27	1,357.50
33 14 19 00-0039		Lug Type Flanged, Ductile Iron Disc, Butterfly Valves (33 14 19 00-0017) Note: ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, 304 Stainless Steel Pin			
33 14 19 00-0040	EA	24" Chainwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,24,F1,D1,NBRN-NBR,150B,DI-S2*GS-12A-CW20 Modified)		15,652.96	1,666.03
33 14 19 00-0041	EA	24" Cylinder Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,24,F1,DI,NBRN-NBR,150B,DI-S2*GS-12A-HD20 Modified)		24,421.11	1,666.03
33 14 19 00-0042	EA	24" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,24,F1,DI,NBRN-NBR,150B,DI-S2*GS-12A-HD20 Modified)		15,605.97	1,666.03
33 14 19 00-0043	EA	30" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,30,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD24 Modified)		31,989.75	2,631.09
33 14 19 00-0044	EA	36" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,36,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD24 Modified)		37,888.32	3,508.13
33 14 19 00-0045	EA	42" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,42,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD32 Modified)		48,162.99	5,262.19
33 14 19 00-0046	EA	48" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,48,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR4L-HD24 Modified)		62,917.37	6,577.73
33 14 19 00-0047	EA	54" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,54,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR6L-HD24 Modified)		106,109.47	7,893.28
33 14 19 00-0048	EA	60" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,60,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR6L-HD36 Modified)		132,949.37	9,471.93
33 14 19 00-0049	EA	72" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,72,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR8L-HD36 Modified)		190,698.59	11,366.32
33 14 19 00-0050	LF	3/16" Link, 316 Stainless Steel Chain For Use With Dezurik Chainwheel		17.75	
33 14 19 00-0051	EA	316 Stainless Steel Closing Link For Use With Dezurik Chainwheel		9.40	
		Note: One required per valve.			
33 14 19 00-0052		Lug Type Flanged, Butterfly Valve, Cast Iron Body, Cast Iron Disc With 316 Stainless Steel Edge (33 14 19 00-0017) Note: AWWA C-504.			
33 14 19 00-0053		Aboveground Service (33 14 19 00-0052)			
33 14 19 00-0054		Valve (33 14 19 00-0053)			
33 14 19 00-0055	EA	3" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504		1,534.57	174.43
33 14 19 00-0056	EA	4" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504		1,694.23	292.42
33 14 19 00-0057	EA	6" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		2,237.51	364.23
33 14 19 00-0058	EA	8" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		2,638.87	465.40
33 14 19 00-0059	EA	10" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		3,789.71	566.57
33 14 19 00-0060	EA	12" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		4,024.37	687.97
33 14 19 00-0061	EA	14" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		6,487.63	987.27
33 14 19 00-0062	EA	16" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		7,555.06	1,086.00
33 14 19 00-0063	EA	18" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		9,239.32	987.44
33 14 19 00-0064	EA	20" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		11,126.34	1,112.89
33 14 19 00-0065	EA	24" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504		15,180.74	1,365.83
33 14 19 00-0066		Valve With 120 Volt AC Electric Motor Operator (33 14 19 00-0053)			
33 14 19 00-0067	EA	3" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504, With 120 Volt AC Electric Motor Operator		10,924.93	174.43
33 14 19 00-0068	EA	4" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504, With 120 Volt AC Electric Motor Operator		11,099.94	292.42

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0069	EA	6" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	11,209.59	364.23	
33 14 19 00-0070	EA	8" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	11,576.41	465.40	
33 14 19 00-0071	EA	10" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	12,209.19	566.57	
33 14 19 00-0072	EA	12" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	14,013.38	687.97	
33 14 19 00-0073	EA	14" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	15,122.00	987.27	
33 14 19 00-0074	EA	16" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	16,496.44	1,086.00	
33 14 19 00-0075	EA	18" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	23,317.94	1,204.48	
33 14 19 00-0076	EA	20" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With 120 Volt AC Electric Motor Operator	25,581.48	1,357.50	
33 14 19 00-0077 Valve With Pneumatic Or Hydraulic Motor Operator (33 14 19 00-0053)					
33 14 19 00-0078	EA	3" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504, With Pneumatic Or Hydraulic Operator	4,758.07	174.43	
33 14 19 00-0079	EA	4" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504, With Pneumatic Or Hydraulic Operator	4,933.07	292.42	
33 14 19 00-0080	EA	6" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	5,161.69	364.23	
33 14 19 00-0081	EA	8" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	5,524.67	465.40	
33 14 19 00-0082	EA	10" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	7,569.65	566.57	
33 14 19 00-0083	EA	12" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	8,126.65	687.97	
33 14 19 00-0084	EA	14" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	9,077.94	987.27	
33 14 19 00-0085	EA	16" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	10,191.42	1,086.00	
33 14 19 00-0086	EA	18" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	11,003.40	1,204.48	
33 14 19 00-0087	EA	20" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	15,680.73	1,357.50	
33 14 19 00-0088	EA	24" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, With Pneumatic Or Hydraulic Operator	25,507.46	1,365.83	
33 14 19 00-0089 Buried Service (33 14 19 00-0053)					
33 14 19 00-0090	EA	4" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Lever, AWWA C504, Buried Service	2,998.97	292.42	
33 14 19 00-0091	EA	6" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	3,204.56	364.23	
33 14 19 00-0092	EA	8" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	4,285.15	465.40	
33 14 19 00-0093	EA	10" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	6,380.02	566.57	
33 14 19 00-0094	EA	12" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	6,691.43	687.97	
33 14 19 00-0095	EA	14" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	10,827.84	987.27	
33 14 19 00-0096	EA	16" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	12,770.22	1,086.00	
33 14 19 00-0097	EA	18" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	16,134.14	1,204.48	
33 14 19 00-0098	EA	20" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	18,927.26	1,357.50	
33 14 19 00-0099	EA	24" Flanged Cast Iron Butterfly Valve, Cast Iron Disc With 316 Stainless Steel Edge, Gear Operator, AWWA C504, Buried Service	27,241.19	1,666.03	
33 14 19 00-0100 Ductile Iron, Flanged End, Short-Body Type, Class 150, Butterfly Valves (Henry Pratt, Mueller) (33 14 19 00-0017) Note: Shall conform to AWWA C504					
33 14 19 00-0101	EA	6" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	1,325.19	369.38	
33 14 19 00-0102	EA	8" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	1,690.56	465.40	
33 14 19 00-0103	EA	10" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	2,241.80	566.57	
33 14 19 00-0104	EA	12" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	2,695.70	687.97	
33 14 19 00-0105	EA	14" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	4,240.25	987.27	
33 14 19 00-0106	EA	16" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	4,934.36	1,086.00	
33 14 19 00-0107	EA	18" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	5,522.69	1,204.48	
33 14 19 00-0108	EA	20" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	7,108.72	1,357.50	
33 14 19 00-0109	EA	24" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	9,586.48	1,666.03	
33 14 19 00-0110	EA	30" Ductile Iron, Flanged End, Short-Body Type, 150 PSI, Butterfly Valve	16,879.88	2,631.09	



Utilities		33	CS
Water Utilities		33 10	
Water Utility Transmission and Distribution		33 14	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0111	Ductile Iron, Flanged End, Short-Body Type, Class 250, Butterfly Valves (Henry Pratt, Mueller) (33 14 19 00-0017) Note: Shall conform to AWWA C504		
33 14 19 00-0112	EA 6" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	3,224.12	369.38
33 14 19 00-0113	EA 8" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	3,646.81	465.40
33 14 19 00-0114	EA 10" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	4,145.35	566.57
33 14 19 00-0115	EA 12" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	5,131.14	687.97
33 14 19 00-0116	EA 14" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	6,422.37	987.27
33 14 19 00-0117	EA 16" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	6,774.67	1,086.00
33 14 19 00-0118	EA 18" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	8,984.69	1,204.48
33 14 19 00-0119	EA 20" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	13,141.24	1,357.50
33 14 19 00-0120	EA 24" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	19,474.82	1,666.03
33 14 19 00-0121	EA 30" Ductile Iron, Flanged End, Short-Body Type, 250 PSI, Butterfly Valve.....	25,610.76	2,631.09
33 14 19 00-0122	Check Valves (33 14 19 00-0006)		
33 14 19 00-0123	Flanged, Swing Type Gravity Operated Check Valves (33 14 19 00-0122) Note: AWWA C508, Bronze disc facing, Mueller A-2600-6.		
33 14 19 00-0124	EA 2-1/2" Flanged, Swing Type Gravity Operated Check Valve.....	1,389.12	148.78
33 14 19 00-0125	EA 3" Flanged, Swing Type Gravity Operated Check Valve.....	1,420.87	174.43
33 14 19 00-0126	EA 4" Flanged, Swing Type Gravity Operated Check Valve.....	1,922.62	220.60
33 14 19 00-0127	EA 4" x 6" Flanged, Swing Type Gravity Operated Check Valve.....	2,737.49	331.92
33 14 19 00-0128	EA 4" x 8" Flanged, Swing Type Gravity Operated Check Valve.....	2,833.26	370.70
33 14 19 00-0129	EA 6" Flanged, Swing Type Gravity Operated Check Valve.....	2,694.49	369.38
33 14 19 00-0130	EA 6" x 8" Flanged, Swing Type Gravity Operated Check Valve.....	3,546.41	419.87
33 14 19 00-0131	EA 6" x 10" Flanged, Swing Type Gravity Operated Check Valve.....	3,689.12	471.98
33 14 19 00-0132	EA 8" Flanged, Swing Type Gravity Operated Check Valve.....	3,851.98	471.98
33 14 19 00-0133	EA 10" Flanged, Swing Type Gravity Operated Check Valve.....	6,577.79	574.59
33 14 19 00-0134	EA 12" Flanged, Swing Type Gravity Operated Check Valve.....	10,034.17	430.94
33 14 19 00-0135	EA 14" Flanged, Swing Type Gravity Operated Check Valve.....	14,207.33	987.27
33 14 19 00-0136	EA 16" Flanged, Swing Type Gravity Operated Check Valve.....	18,940.43	1,086.00
33 14 19 00-0137	EA 18" Flanged, Swing Type Gravity Operated Check Valve.....	27,547.86	1,204.48
33 14 19 00-0138	EA 20" Flanged, Swing Type Gravity Operated Check Valve.....	32,081.48	1,357.50
33 14 19 00-0139	Threaded, Bronze, Swing Type Check Valves (33 14 19 00-0122) Note: Class 125, Watts WCV-2, Nibco T-413.		
33 14 19 00-0140	EA 1/4" Threaded, Bronze, Swing Type Check Valve.....	49.68	17.94
33 14 19 00-0141	EA 3/8" Threaded, Bronze, Swing Type Check Valve.....	51.39	17.94
33 14 19 00-0142	EA 1/2" Threaded, Bronze, Swing Type Check Valve.....	48.55	17.94
33 14 19 00-0143	EA 3/4" Threaded, Bronze, Swing Type Check Valve.....	64.52	24.23
33 14 19 00-0144	EA 1" Threaded, Bronze, Swing Type Check Valve.....	75.50	29.30
33 14 19 00-0145	EA 1-1/4" Threaded, Bronze, Swing Type Check Valve.....	106.06	37.10
33 14 19 00-0146	EA 1-1/2" Threaded, Bronze, Swing Type Check Valve.....	129.12	42.89
33 14 19 00-0147	EA 2" Threaded, Bronze, Swing Type Check Valve.....	168.34	50.14
33 14 19 00-0148	EA 2-1/2" Threaded, Bronze, Swing Type Check Valve.....	252.00	68.44
33 14 19 00-0149	Combination Air Release Valves (33 14 19 00-0006)		
33 14 19 00-0150	EA 1" Combination Air Release Valve.....	625.65	21.54
33 14 19 00-0151	EA 2" Combination Air Release Valve.....	1,009.28	36.94
33 14 19 00-0152	Corporation Stop And Curb Valve (33 14 19 00-0006) Note: AWWA C800		
33 14 19 00-0153	Ball Corporation Valves (33 14 19 00-0152) Note: Mueller B-25000.		
33 14 19 00-0154	EA 3/4" Ball Corporation Valve (Mueller B-25000).....	79.68	21.54
33 14 19 00-0155	EA 1" Ball Corporation Valve (Mueller B-25000).....	100.03	26.67
33 14 19 00-0156	EA 1-1/2" Ball Corporation Valve (Mueller B-25000).....	177.79	38.99
33 14 19 00-0157	EA 2" Ball Corporation Valve (Mueller B-25000).....	265.93	46.17
33 14 19 00-0158	Ground Key Corporation Valves (33 14 19 00-0152) Note: Mueller B-15000.		
33 14 19 00-0159	EA 1/2" Ground Key Corporation Valve.....	60.27	18.47
33 14 19 00-0160	EA 3/4" Ground Key Corporation Valve.....	66.74	21.54
33 14 19 00-0161	EA 1" Ground Key Corporation Valve.....	90.46	26.67
33 14 19 00-0162	EA 1-1/4" Ground Key Corporation Valve.....	165.29	32.83
33 14 19 00-0163	EA 1-1/2" Ground Key Corporation Valve.....	173.01	38.99
33 14 19 00-0164	EA 2" Ground Key Corporation Valve.....	265.87	46.17
33 14 19 00-0165	Ball Curb Valves (33 14 19 00-0152) Note: Mueller B-25204.		
33 14 19 00-0166	EA 3/4" Ball Curb Valve.....	95.68	21.54
33 14 19 00-0167	EA 1" Ball Curb Valve.....	127.01	26.67
33 14 19 00-0168	EA 1-1/2" Ball Curb Valve.....	240.24	38.99
33 14 19 00-0169	EA 2" Ball Curb Valve.....	357.38	46.17

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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 19 00-0170		O Ring Seal Curb Valves (33 14 19 00-0152)	
		Note: Mueller H-15204.	
33 14 19 00-0171	EA	3/4" O Ring Seal Curb Valve.....	95.68 21.54
33 14 19 00-0172	EA	1" O Ring Seal Curb Valve.....	134.25 26.67
33 14 19 00-0173	EA	1-1/4" O Ring Seal Curb Valve.....	179.67 32.83
33 14 19 00-0174	EA	1-1/2" O Ring Seal Curb Valve.....	240.24 38.99
33 14 19 00-0175	EA	2" O Ring Seal Curb Valve.....	357.30 46.17
33 14 19 00-0176		Corporation Stops (33 14 19 00-0152)	
33 14 19 00-0177	EA	1" Bronze Corporatopn Stop, Flare x MIP (Mueller B-24025N).....	180.36 28.97
33 14 19 00-0178	EA	1-1/2" Bronze Corporatopn Stop, Flare x MIP (Mueller B-24025N).....	386.29 42.34
33 14 19 00-0179	EA	2" Bronze Corporatopn Stop, Flare x MIP (Mueller B-24025N).....	609.50 50.14
33 14 19 00-0180	EA	1" Bronze Corporatopn Stop, Compression x MIP (Mueller B-25028N).....	187.19 28.97
33 14 19 00-0181	EA	1-1/2" Bronze Corporatopn Stop, Compression x MIP (Mueller B-25028N).....	382.80 42.34
33 14 19 00-0182	EA	2" Bronze Corporatopn Stop, Compression x MIP (Mueller B-25028N).....	600.15 50.14
33 14 19 00-0183	EA	1" Bronze Corporatopn Stop, MIP x MIP (Mueller B-20013N).....	186.20 28.97
33 14 19 00-0184	EA	1-1/2" Bronze Corporatopn Stop, MIP x MIP (Mueller B-22969N).....	335.83 42.34
33 14 19 00-0185	EA	2" Bronze Corporatopn Stop, MIP x MIP (Mueller B-22969N).....	535.47 50.14
33 14 19 00-0186		Gate Valve, AWWA C500 And C509 (33 14 19 00-0006)	
33 14 19 00-0187		Gate Valve, Flanged (33 14 19 00-0186)	
		Note: Mueller A-2380-6.	
33 14 19 00-0188	EA	2" Gate Valve, Flanged.....	849.48 136.77
33 14 19 00-0189	EA	2-1/2" Gate Valve, Flanged.....	996.69 148.78
33 14 19 00-0190	EA	3" Gate Valve, Flanged.....	1,179.72 174.43
33 14 19 00-0191	EA	4" Gate Valve, Flanged.....	1,511.44 218.55
33 14 19 00-0192	EA	6" Gate Valve, Flanged.....	1,899.55 369.38
33 14 19 00-0193	EA	8" Gate Valve, Flanged.....	2,830.60 471.98
33 14 19 00-0194	EA	10" Gate Valve, Flanged.....	4,284.65 574.59
33 14 19 00-0195	EA	12" Gate Valve, Flanged.....	5,167.83 430.94
33 14 19 00-0196	EA	14" Gate Valve, Flanged.....	11,517.78 987.27
33 14 19 00-0197	EA	16" Gate Valve, Flanged.....	15,099.55 1,086.00
33 14 19 00-0198	EA	18" Gate Valve, Flanged.....	23,998.94 1,204.48
33 14 19 00-0199	EA	20" Gate Valve, Flanged.....	28,711.84 1,357.50
33 14 19 00-0200		Resilient Wedge Gate Valve, Flanged (33 14 19 00-0186)	
		Note: Mueller A-2360-6.	
33 14 19 00-0201	EA	2" Resilient Wedge Gate Valve, Flanged.....	811.11 136.77
33 14 19 00-0202	EA	2-1/2" Resilient Wedge Gate Valve, Flanged.....	950.84 148.78
33 14 19 00-0203	EA	3" Resilient Wedge Gate Valve, Flanged.....	1,125.30 174.43
33 14 19 00-0204	EA	4" Resilient Wedge Gate Valve, Flanged.....	1,450.61 218.55
33 14 19 00-0205	EA	6" Resilient Wedge Gate Valve, Flanged.....	1,818.24 369.38
33 14 19 00-0206	EA	8" Resilient Wedge Gate Valve, Flanged.....	2,703.57 471.98
33 14 19 00-0207	EA	10" Resilient Wedge Gate Valve, Flanged.....	4,082.80 574.59
33 14 19 00-0208	EA	12" Resilient Wedge Gate Valve, Flanged.....	4,924.11 430.94
33 14 19 00-0209		Gate Valve, Mechanical Joint (33 14 19 00-0186)	
		Note: Mueller A-2380-20.	
33 14 19 00-0210	EA	2" Gate Valve, Mechanical Joint.....	992.61 109.27
33 14 19 00-0211	EA	2-1/2" Gate Valve, Mechanical Joint.....	1,068.47 136.98
33 14 19 00-0212	EA	3" Gate Valve, Mechanical Joint.....	1,344.89 165.71
33 14 19 00-0213	EA	4" Gate Valve, Mechanical Joint.....	1,596.36 218.55
33 14 19 00-0214	EA	6" Gate Valve, Mechanical Joint.....	2,013.64 256.51
33 14 19 00-0215	EA	8" Gate Valve, Mechanical Joint.....	2,950.17 307.81
33 14 19 00-0216	EA	10" Gate Valve, Mechanical Joint.....	4,346.24 359.12
33 14 19 00-0217	EA	12" Gate Valve, Mechanical Joint.....	5,447.55 430.94
33 14 19 00-0218	EA	14" Gate Valve, Mechanical Joint.....	12,256.01 604.70
33 14 19 00-0219	EA	16" Gate Valve, Mechanical Joint.....	15,881.09 678.75
33 14 19 00-0220	EA	18" Gate Valve, Mechanical Joint.....	25,397.15 752.80
33 14 19 00-0221	EA	20" Gate Valve, Mechanical Joint.....	30,222.28 848.44
33 14 19 00-0222		Resilient Wedge Gate Valve, Mechanical Joint (33 14 19 00-0186)	
		Note: Mueller A-2360-20.	
33 14 19 00-0223	EA	2" Resilient Wedge Gate Valve, Mechanical Joint.....	948.79 109.27
33 14 19 00-0224	EA	3" Resilient Wedge Gate Valve, Mechanical Joint.....	1,287.52 165.71
33 14 19 00-0225	EA	4" Resilient Wedge Gate Valve, Mechanical Joint.....	1,530.74 218.55
33 14 19 00-0226	EA	6" Resilient Wedge Gate Valve, Mechanical Joint.....	1,928.71 256.51
33 14 19 00-0227	EA	8" Resilient Wedge Gate Valve, Mechanical Joint.....	2,818.05 307.81
33 14 19 00-0228	EA	10" Resilient Wedge Gate Valve, Mechanical Joint.....	4,140.90 359.12
33 14 19 00-0229	EA	12" Resilient Wedge Gate Valve, Mechanical Joint.....	5,187.94 430.94



		Utilities	33	33
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 14 19 00-0230		Resilient Wedge Gate Valve, Mechanical Joint X Flange Joint (33 14 19 00-0186)			
Note: Mueller A-2361.					
33 14 19 00-0231	EA	14" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	8,204.59		987.27
33 14 19 00-0232	EA	16" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	8,920.03		1,086.00
33 14 19 00-0233	EA	18" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	13,882.11		1,204.48
33 14 19 00-0234	EA	20" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	16,564.78		1,357.50
33 14 19 00-0235	EA	24" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	23,513.74		1,666.03
33 14 19 00-0236		Gate Valve, Threaded, WW-V-51 Class A, Type 1 (33 14 19 00-0186)			
Note: NIBCO T-113.					
33 14 19 00-0237	EA	1/4" Gate Valve, Bronze, Threaded	58.12		17.94
33 14 19 00-0238	EA	3/8" Gate Valve, Bronze, Threaded	59.83		17.94
33 14 19 00-0239	EA	1/2" Gate Valve, Bronze, Threaded	59.20		17.94
33 14 19 00-0240	EA	3/4" Gate Valve, Bronze, Threaded	76.15		24.23
33 14 19 00-0241	EA	1" Gate Valve, Bronze, Threaded	93.93		29.30
33 14 19 00-0242	EA	1-1/4" Gate Valve, Bronze, Threaded	127.87		37.10
33 14 19 00-0243	EA	1-1/2" Gate Valve, Bronze, Threaded	148.40		42.89
33 14 19 00-0244	EA	2" Gate Valve, Bronze, Threaded	180.15		50.14
33 14 19 00-0245	EA	2-1/2" Gate Valve, Bronze, Threaded	349.14		68.44
33 14 19 00-0246	EA	3" Gate Valve, Bronze, Threaded	418.71		78.50
33 14 19 00-0247		Cast Iron Body, Gate Valve, Epoxy Lined, Flanged, 200 LB With Non-Rising Stem (33 14 19 00-0186)			
Note: Resilient Wedge, Non-rising Stem, 200 PSI, ANSI/AWWA C509, C550 and C111/A21.11 (Jenkins G-700, 701).					
33 14 19 00-0248	EA	2" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	507.09		148.53
33 14 19 00-0249	EA	2-1/2" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	523.68		148.78
33 14 19 00-0250	EA	3" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	592.08		174.43
33 14 19 00-0251	EA	4" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	772.34		292.42
33 14 19 00-0252	EA	5" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	965.56		327.80
33 14 19 00-0253	EA	6" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	1,172.03		364.23
33 14 19 00-0254	EA	8" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	1,711.00		465.40
33 14 19 00-0255	EA	10" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	2,396.70		566.57
33 14 19 00-0256	EA	12" Gate Valve, Cast Iron Body, Epoxy Lined, Epoxy Or Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	2,827.07		687.97
33 14 19 00-0257		Cast Iron Body, Gate Valve, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem (33 14 19 00-0186)			
Note: Resilient Wedge, OS&Y, 200 PSI, ANSI/AWWA C509, C550 & C111/A21.11.					
33 14 19 00-0258	EA	2-1/2" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	804.40		148.78
33 14 19 00-0259	EA	3" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	897.55		174.43
33 14 19 00-0260	EA	4" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	1,260.59		292.42
33 14 19 00-0261	EA	6" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	1,907.49		364.23
33 14 19 00-0262	EA	8" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	3,034.13		465.40
33 14 19 00-0263	EA	10" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	4,599.42		566.57
33 14 19 00-0264	EA	12" Gate Valve, Cast Iron Body, Epoxy Coated With Rubber Coated Disc, Flanged, 200 LB With Non-Rising Stem	7,470.44		687.97
33 14 19 00-0265		Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve (33 14 19 00-0186)			
33 14 19 00-0266	EA	4", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	1,477.82		218.55
33 14 19 00-0267	EA	6", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	1,904.26		256.51
33 14 19 00-0268	EA	8", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	2,789.70		307.81
33 14 19 00-0269	EA	10", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	4,173.07		359.12
33 14 19 00-0270	EA	12", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	5,033.08		430.94
33 14 19 00-0271	EA	14", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	19,648.37		678.75
33 14 19 00-0272	EA	16", 250 PSI, Ductile Body With Epoxy Coated Interior, Resilient Wedge Gate Valve	21,358.36		1,086.00
33 14 19 00-0273		Ductile Iron Body, Gate Valve (J & S Valve) (33 14 19 00-0186)			
33 14 19 00-0274	EA	3" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6603.5)	1,033.55		166.22
33 14 19 00-0275	EA	3" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6603T.5)	1,033.55		166.22
33 14 19 00-0276	EA	4" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6604.5)	1,433.74		218.55
33 14 19 00-0277	EA	4" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6604T)	1,433.74		218.55

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0278	EA	6" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6606.5).....	1,817.84	256.51
33 14 19 00-0279	EA	6" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6606T).....	1,817.84	256.51
33 14 19 00-0280	EA	8" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6608.5).....	2,772.77	307.81
33 14 19 00-0281	EA	8" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6608T).....	2,772.77	307.81
33 14 19 00-0282	EA	10" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6610.5).....	4,037.81	359.12
33 14 19 00-0283	EA	10" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6610T).....	4,037.81	359.12
33 14 19 00-0284	EA	12" Non-Rising Stem (NRS), Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6612.5).....	5,156.66	430.94
33 14 19 00-0285	EA	12" Non-Rising Stem (NRS), Tapping Raised Face Flanged X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6612T).....	5,156.66	430.94
33 14 19 00-0286	EA	3" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6803.5).....	939.21	189.41
33 14 19 00-0287	EA	4" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6804.5).....	1,471.29	237.32
33 14 19 00-0288	EA	6" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6806.5).....	1,861.91	278.55
33 14 19 00-0289	EA	8" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6808.5).....	2,825.65	334.26
33 14 19 00-0290	EA	10" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6810.5).....	4,099.52	389.96
33 14 19 00-0291	EA	12" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-5.6812.5).....	5,230.69	467.96
33 14 19 00-0292	EA	3" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6903.5).....	920.45	174.43
33 14 19 00-0293	EA	4" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6904.5).....	1,433.74	218.55
33 14 19 00-0294	EA	6" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6906.5).....	1,817.84	256.51
33 14 19 00-0295	EA	8" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6908.5).....	2,772.77	307.81
33 14 19 00-0296	EA	10" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6910.5).....	4,037.81	359.12
33 14 19 00-0297	EA	12" Non-Rising Stem (NRS), Mechanical Joint x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-5.6912.5).....	5,156.66	430.94
33 14 19 00-0298	EA	2" Threaded, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6302).....	803.43	50.14
33 14 19 00-0299	EA	2-1/2" Threaded, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6302.5).....	850.70	74.65
33 14 19 00-0300	EA	3" Threaded, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6303).....	873.56	85.79
33 14 19 00-0301	EA	4" Non-Rising Stem (NRS), Push On X Flange, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6404).....	1,363.10	292.42
33 14 19 00-0302	EA	6" Non-Rising Stem (NRS), Push On X Flange, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6406).....	1,761.73	364.23
33 14 19 00-0303	EA	8" Non-Rising Stem (NRS), Push On X Flange, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6408).....	2,735.27	465.40
33 14 19 00-0304	EA	10" Non-Rising Stem (NRS), Push On X Flange, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6410).....	4,027.78	566.57
33 14 19 00-0305	EA	12" Non-Rising Stem (NRS), Push On X Flange, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6412).....	5,153.22	687.97
33 14 19 00-0306	EA	4" Non-Rising Stem (NRS), Push On X Push On, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut, (J & S Valve GV-6504).....	1,357.98	288.35
33 14 19 00-0307	EA	6" Non-Rising Stem (NRS), Push On X Push On, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut, (J & S Valve GV-6506).....	1,761.73	364.23
33 14 19 00-0308	EA	8" Non-Rising Stem (NRS), Push On X Push On, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut, (J & S Valve GV-6508).....	2,735.27	465.40
33 14 19 00-0309	EA	10" Non-Rising Stem (NRS), Push On X Push On, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut, (J & S Valve GV-6510).....	4,027.78	566.57
33 14 19 00-0310	EA	12" Non-Rising Stem (NRS), Push On X Push On, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut, (J & S Valve GV-6512).....	5,153.22	687.97
33 14 19 00-0311	EA	2" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6602).....	653.80	148.18
33 14 19 00-0312	EA	3" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6603).....	939.21	189.41
33 14 19 00-0313	EA	3" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6603T).....	920.45	174.43
33 14 19 00-0314	EA	4" Non-Rising Stem (NRS), Flange x Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6604).....	1,433.74	218.55
33 14 19 00-0315	EA	4" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6604T).....	1,433.74	218.55
33 14 19 00-0316	EA	6" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6606).....	1,817.84	256.51
33 14 19 00-0317	EA	6" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6606T).....	1,817.84	256.51
33 14 19 00-0318	EA	8" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6608).....	2,772.77	307.81
33 14 19 00-0319	EA	8" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6608T).....	2,772.77	307.81
33 14 19 00-0320	EA	10" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6610).....	4,037.81	359.12



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0321	EA		10" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6610T)	4,037.81	359.12
33 14 19 00-0322	EA		12" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6612)	5,156.66	430.94
33 14 19 00-0323	EA		12" Non-Rising Stem (NRS), Tapping Raised Face Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6612T)	5,156.66	430.94
33 14 19 00-0324	EA		14" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6614)	12,437.19	987.27
33 14 19 00-0325	EA		16" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6616)	16,839.78	1,086.00
33 14 19 00-0326	EA		18" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6618)	28,493.95	1,204.48
33 14 19 00-0327	EA		20" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6620)	34,705.45	1,357.50
33 14 19 00-0328	EA		24" Non-Rising Stem (NRS), Flange X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6624)	44,897.72	1,666.03
33 14 19 00-0329	EA		2" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6702)	946.36	148.18
33 14 19 00-0330	EA		2-1/2" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6702.5)	1,010.05	161.56
33 14 19 00-0331	EA		3" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6703)	1,044.54	189.41
33 14 19 00-0332	EA		4" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6704)	1,552.72	218.55
33 14 19 00-0333	EA		5" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6705)	2,268.30	236.00
33 14 19 00-0334	EA		6" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6706)	2,309.34	256.51
33 14 19 00-0335	EA		8" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6708)	3,061.43	307.81
33 14 19 00-0336	EA		10" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6710)	5,022.76	359.12
33 14 19 00-0337	EA		12" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6712)	5,525.29	430.94
33 14 19 00-0338	EA		14" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6714)	14,052.12	987.27
33 14 19 00-0339	EA		16" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6716)	19,143.20	1,086.00
33 14 19 00-0340	EA		18" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6718)	30,491.16	1,204.48
33 14 19 00-0341	EA		20" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6720)	39,548.29	1,357.50
33 14 19 00-0342	EA		24" Outside Stem And Yoke, Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6724)	51,277.48	1,666.03
33 14 19 00-0343	EA		2-1/2" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6802.5)	717.49	161.56
33 14 19 00-0344	EA		3" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6803)	939.21	189.41
33 14 19 00-0345	EA		4" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6804)	1,433.74	218.55
33 14 19 00-0346	EA		5" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6805)	1,776.80	236.00
33 14 19 00-0347	EA		6" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6806)	1,817.84	256.51
33 14 19 00-0348	EA		8" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6808)	2,772.77	307.81
33 14 19 00-0349	EA		10" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6810)	4,037.81	359.12
33 14 19 00-0350	EA		12" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6812)	5,156.66	430.94
33 14 19 00-0351	EA		14" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6814)	12,437.19	987.27
33 14 19 00-0352	EA		16" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Handwheel (J & S Valve GV-6816)	16,839.78	1,086.00
33 14 19 00-0353	EA		18" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6818)	28,493.95	1,204.48
33 14 19 00-0354	EA		20" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6820)	34,705.45	1,357.50
33 14 19 00-0355	EA		24" Non-Rising Stem (NRS), Flanged, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J & S Valve GV-6824)	44,897.72	1,666.03
33 14 19 00-0356	EA		2" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6902)	653.80	148.18
33 14 19 00-0357	EA		2-1/2" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6902.5)	717.49	161.56
33 14 19 00-0358	EA		3" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6903)	939.21	189.41
33 14 19 00-0359	EA		4" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6904)	1,433.74	218.55
33 14 19 00-0360	EA		6" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6906)	1,817.84	256.51
33 14 19 00-0361	EA		8" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6908)	2,772.77	307.81
33 14 19 00-0362	EA		10" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6910)	4,037.81	359.12

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0363	EA	12" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6912)	5,156.66	430.94
33 14 19 00-0364	EA	14" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6914)	12,437.19	987.27
33 14 19 00-0365	EA	16" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve GV-6916)	16,839.78	1,086.00
33 14 19 00-0366	EA	18" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6918)	28,493.95	1,204.48
33 14 19 00-0367	EA	20" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6920)	34,705.45	1,357.50
33 14 19 00-0368	EA	24" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Resilient Seated, Ductile Iron Body, Gate Valve With Bevel Gear And 2" Nut (J & S Valve GV-6924)	44,897.72	1,666.03
33 14 19 00-0369	EA	2" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3702)	1,032.17	148.18
33 14 19 00-0370	EA	3" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3703)	1,319.54	189.41
33 14 19 00-0371	EA	4" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3704)	1,970.10	218.55
33 14 19 00-0372	EA	6" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3706)	2,545.34	256.51
33 14 19 00-0373	EA	8" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3708)	4,241.42	307.81
33 14 19 00-0374	EA	10" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3710)	6,452.41	359.12
33 14 19 00-0375	EA	12" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3712)	8,205.14	430.94
33 14 19 00-0376	EA	14" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3714)	22,610.47	987.27
33 14 19 00-0377	EA	16" Outside Stem And Yoke, Metal Seated, Ductile Iron Body, Gate Valve With Handwheel (J&S Valve MSGV-3716)	31,015.28	1,086.00
33 14 19 00-0378	EA	18" Outside Stem And Yoke, Rotary Tribo-Electrostatic Separator (RTS), By-Pass, Metal Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J&S Valve MSGV-3718)	48,538.21	1,204.48
33 14 19 00-0379	EA	20" Outside Stem And Yoke, Rotary Tribo-Electrostatic Separator (RTS), By-Pass, Metal Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J&S Valve MSGV-3720)	63,592.82	1,357.50
33 14 19 00-0380	EA	24" Outside Stem And Yoke, Rotary Tribo-Electrostatic Separator (RTS), By-Pass, Metal Seated, Ductile Iron Body, Gate Valve With Bevel Gear And Handwheel (J&S Valve MSGV-3724)	86,536.81	1,666.03
33 14 19 00-0381	EA	2" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3802)	1,000.97	148.18
33 14 19 00-0382	EA	2-1/2" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3802.5)	1,224.59	161.56
33 14 19 00-0383	EA	3" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3803)	1,259.08	189.41
33 14 19 00-0384	EA	4" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3804)	1,882.34	218.55
33 14 19 00-0385	EA	6" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3806)	2,430.26	256.51
33 14 19 00-0386	EA	8" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3808)	4,036.63	307.81
33 14 19 00-0387	EA	10" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3810)	6,128.64	359.12
33 14 19 00-0388	EA	12" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3812)	7,793.60	430.94
33 14 19 00-0389	EA	14" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3814)	21,403.18	987.27
33 14 19 00-0390	EA	16" Non-Rising Stem (NRS), Flanged, Metal Seated, Ductile Iron Body, Flange, Gate Valve With Handwheel (J&S Valve MSGV-3816)	30,810.49	1,086.00
33 14 19 00-0391	EA	18" Non-Rising Stem (NRS), Flanged, Metal Seated Gate Valve, Ductile Iron Body, Gate Valve With Bevel Gear, Handwheel, Rotary Tribo-Electrostatic Separator (RTS), And 3" By-Pass With Handwheel (J & S Valve MSGV-3818)	47,350.42	1,204.48
33 14 19 00-0392	EA	20" Non-Rising Stem (NRS), Flanged, Metal Seated Gate Valve, Ductile Iron Body, Gate Valve With Bevel Gear, Handwheel, Rotary Tribo-Electrostatic Separator (RTS), And 3" By-Pass With Handwheel (J & S Valve MSGV-3820)	61,564.41	1,357.50
33 14 19 00-0393	EA	24" Non-Rising Stem (NRS), Flanged, Metal Seated Gate Valve, Ductile Iron Body, Gate Valve With Bevel Gear, Handwheel, Rotary Tribo-Electrostatic Separator (RTS), And 3" By-Pass With Handwheel (J & S Valve MSGV-3824)	83,230.88	1,666.03
33 14 19 00-0394	EA	3" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3903)	1,259.08	189.41
33 14 19 00-0395	EA	4" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3904)	1,882.34	218.55
33 14 19 00-0396	EA	6" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3906)	2,430.26	256.51
33 14 19 00-0397	EA	8" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3908)	4,036.63	307.81
33 14 19 00-0398	EA	10" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3910)	6,128.64	359.12
33 14 19 00-0399	EA	12" Non-Rising Stem (NRS), Mechanical Joint X Mechanical Joint, Metal Seated, Gate Valve, Ductile Iron Body, Gate Valve With 2" Nut (J & S Valve MSGV-3912)	7,793.60	430.94
33 14 19 00-0400		Plug Valves (33 14 19 00-0006)		
33 14 19 00-0401		Ductile Iron Body, Plug Valve (J & S Valve) (33 14 19 00-0400)		
33 14 19 00-0402	EA	3" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4803)	1,550.43	174.43



		Utilities	33	CS
		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0403 EA 4" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4804).....	1,807.80	292.42
33 14 19 00-0404 EA 6" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4806).....	2,485.33	364.23
33 14 19 00-0405 EA 8" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4808).....	3,807.96	465.40
33 14 19 00-0406 EA 10" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4810).....	6,454.08	566.57
33 14 19 00-0407 EA 12" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4812).....	8,954.54	687.97
33 14 19 00-0408 EA 14" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4814).....	14,093.08	987.27
33 14 19 00-0409 EA 16" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4816).....	19,049.58	1,086.00
33 14 19 00-0410 EA 18" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4818).....	27,994.90	1,204.48
33 14 19 00-0411 EA 20" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4820).....	40,695.13	1,357.50
33 14 19 00-0412 EA 24" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4824).....	67,668.64	1,666.03
33 14 19 00-0413 EA 30" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4830).....	129,455.90	2,715.01
33 14 19 00-0414 EA 36" Stainless Steel, Flanged, Metal Seated, 316 To Nitronic 60 Stainless Steel Seating, Ductile Iron Body, Plug Valve With Worm Gear And Handwheel (J&S Valve PV-4836).....	163,186.16	3,702.28
33 14 19 00-0415 Globe Valve, AWWA (33 14 19 00-0006)		
33 14 19 00-0416 Globe Valve, Threaded, WW-V-51 Class B, Type 1 (33 14 19 00-0415) Note: NIBCO T-235.		
33 14 19 00-0417 EA 1/8" Globe Valve, Threaded.....	82.59	17.94
33 14 19 00-0418 EA 1/4" Globe Valve, Threaded.....	79.15	17.94
33 14 19 00-0419 EA 3/8" Globe Valve, Threaded.....	80.86	17.94
33 14 19 00-0420 EA 1/2" Globe Valve, Threaded.....	82.59	17.94
33 14 19 00-0421 EA 3/4" Globe Valve, Threaded.....	112.16	24.23
33 14 19 00-0422 EA 1" Globe Valve, Threaded.....	157.70	29.30
33 14 19 00-0423 EA 1-1/4" Globe Valve, Threaded.....	230.93	37.10
33 14 19 00-0424 EA 1-1/2" Globe Valve, Threaded.....	275.76	42.89
33 14 19 00-0425 EA 2" Globe Valve, Threaded.....	385.39	50.14
33 14 19 00-0426 EA 2-1/2" Globe Valve, Threaded.....	709.04	68.44
33 14 19 00-0427 EA 3" Globe Valve, Threaded.....	971.73	78.90
33 14 19 00-0428 Tapping Valve, AWWA C500 And C509 (33 14 19 00-0006)		
33 14 19 00-0429 Tapping Valve, AWWA C500 And C509 (33 14 19 00-0428) Note: Flanged inlet X mechanical joint, Mueller H-667.		
33 14 19 00-0430 EA 2" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	1,215.27	136.77
33 14 19 00-0431 EA 3" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	1,566.23	174.43
33 14 19 00-0432 EA 4" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	1,884.79	218.55
33 14 19 00-0433 EA 6" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	2,470.08	369.38
33 14 19 00-0434 EA 8" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	3,562.29	471.98
33 14 19 00-0435 EA 10" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	5,173.84	574.59
33 14 19 00-0436 EA 12" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	7,671.61	430.94
33 14 19 00-0437 EA 14" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	14,093.17	987.27
33 14 19 00-0438 EA 16" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	17,826.67	1,086.00
33 14 19 00-0439 EA 18" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	28,834.58	1,204.48
33 14 19 00-0440 Ball Meter Valves (33 14 19 00-0006)		
33 14 19 00-0441 EA 3/4" Ball Meter Valve (Ford B43-342W).....	135.79	27.86
Note: 1" service line size. Pack joint for copper or plastic tubing inlet by meter swivel nut.		
33 14 19 00-0442 EA 1" Ball Meter Valve (Ford B43-444W).....	147.57	29.53
Note: 1" service line size. Pack joint for copper or plastic tubing inlet by meter swivel nut.		
33 14 19 00-0443 EA 1-1/2" Ball Meter Valve (Ford BF43-666W).....	282.49	50.14
Note: 1-1/2" service line size. Pack joint for copper or plastic tubing inlet by meter flange.		
33 14 19 00-0444 EA 2" Ball Meter Valve (Ford BF43-777W).....	396.09	50.70
Note: 2" service line size. Pack joint for copper or plastic tubing inlet by meter flange.		
33 14 19 00-0445 EA 3/4" Threaded Ball Meter Valve (Mueller B-20200).....	138.59	27.86
33 14 19 00-0446 EA 1" Threaded Ball Meter Valve (Mueller B-20200).....	185.61	29.53
33 14 19 00-0447 EA 1-1/2" Threaded Ball Meter Valve (Mueller B-20200).....	335.24	50.14
33 14 19 00-0448 EA 2" Threaded Ball Meter Valve (Mueller B-20200).....	443.40	50.70
33 14 19 00-0449 EA 3/4", 150 PSI, Ball Valve (Ford B13-332W).....	172.50	27.86
33 14 19 00-0450 EA 1", 150 PSI, Ball Valve (Ford B13-444W).....	281.52	29.53
33 14 19 00-0451 EA 1-1/2", 150 PSI, Ball Valve (Ford B13-666W).....	648.20	50.14
33 14 19 00-0452 EA 2", 150 PSI, Ball Valve (Ford B13-777W).....	881.19	50.70
33 14 19 00-0453 EA 1" Bronze Angle Meter Stop With 90 Degree Lock Wing, Compression x Outlet Swivel Meter Nut (Mueller B-2458N).....	304.07	33.43
33 14 19 00-0454 EA 1" Bronze Angle Meter Stop With 90 Degree Lock Wing, Flare x Outlet Swivel Meter Nut (Mueller B-2455N).....	296.13	33.43
33 14 19 00-0455 EA 2" Bronze Angle Meter Stop With 90 Degree Lock Wing, Compression x Outlet Meter Flange (Mueller B-24276N).....	733.05	51.25
33 14 19 00-0456 EA 1" Bronze Angle Meter Stop With 90 Degree Lock Wing, Flare x Outlet Meter Flange (Mueller B-24277N).....	296.13	33.43
33 14 19 00-0457 EA 3/4" Bronze Shut-Off Valve, Inlet Swivel Meter Nut x Outlet FIP Thread, Lockable Tabs With Lever Handle (Mueller B-24351).....	176.67	24.51

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33 14 19 00-0458	EA	1" Bronze Shut-Off Valve, Inlet Swivel Meter Nut x Outlet FIP Thread, Lockable Tabs With Lever Handle (Mueller B-24351).....	249.63	28.97
33 14 19 00-0459	EA	1-1/2" Bronze Shut-Off Valve, Inlet Meter Flange x Outlet FIP Thread, Lockable Tabs With Lever Handle (Mueller B-24337).....	417.52	42.34
33 14 19 00-0460	EA	2" Bronze Shut-Off Valve, Inlet Meter Flange x Outlet FIP Thread, Lockable Tabs With Lever Handle (Mueller B-24337).....	676.80	50.14
33 14 19 00-0461		Yokes And Angles (33 14 19 00-0006)		
33 14 19 00-0462		Yoke, Meter (33 14 19 00-0461)		
33 14 19 00-0463	EA	Yoke, Meter, 5/8".....	52.89	16.71
33 14 19 00-0464	EA	Yoke, Meter, 3/4".....	60.00	18.38
33 14 19 00-0465	EA	Yoke, Meter, 1".....	78.52	21.17
33 14 19 00-0466		Angles And Ells (33 14 19 00-0461)		
33 14 19 00-0467	EA	1-1/2" Flanged Angle, ELL.....	132.34	11.70
33 14 19 00-0468	EA	ELL, Yoke, With Female I.P.T.....	39.22	10.03
33 14 19 00-0469		Air Release and Vacuum Combination Valves (33 14 19 00-0006)		
33 14 19 00-0470		Air Release and Vacuum Combination Valves, Ductile Iron Body (APCo or Crispin) (33 14 19 00-0469)		
33 14 19 00-0471	EA	1" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	699.08	21.54
33 14 19 00-0472	EA	1-1/2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	882.97	29.76
33 14 19 00-0473	EA	2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	1,065.85	37.45
33 14 19 00-0474	EA	2-1/2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	1,421.54	51.30
33 14 19 00-0475	EA	3" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	1,772.66	62.59
33 14 19 00-0476	EA	4" Flanged, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	2,716.07	170.94
33 14 19 00-0477	EA	6" Flanged, Air Release and Vacuum Combination Valves, Ductile Iron Body.....	3,408.44	185.35
33 14 19 00-0478		Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories, Ltd., D-040-C "Barak") (33 14 19 00-0469)		
33 14 19 00-0479	EA	1" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories D-040-C "Barak").....	357.13	21.54
33 14 19 00-0480	EA	1-1/2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories D-040-C "Barak").....	591.27	29.76
33 14 19 00-0481	EA	2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories D-040-C "Barak").....	824.39	36.94
33 14 19 00-0482	EA	2-1/2" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories D-040-C "Barak").....	1,204.02	51.30
33 14 19 00-0483	EA	3" Threaded, Air Release and Vacuum Combination Valves, Ductile Iron Body (A.R.I. Flow Control Accessories D-040-C "Barak").....	1,578.56	62.59
33 14 19 00-0484		Pressure Reducing Valves (33 14 19 00-0006)		
33 14 19 00-0485		Pressure Reducing Valves, Ductile Iron Body (Cla-Val Model 100-42 700 Series Roll Seal) (33 14 19 00-0484)		
33 14 19 00-0486	EA	2" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	2,334.43	109.27
33 14 19 00-0487	EA	2-1/2" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	2,686.65	136.98
33 14 19 00-0488	EA	3" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	3,040.92	164.17
33 14 19 00-0489	EA	4" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	4,860.52	218.55
33 14 19 00-0490	EA	6" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	7,281.23	256.51
33 14 19 00-0491	EA	8" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	12,413.94	307.81
33 14 19 00-0492	EA	10" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	23,263.43	359.12
33 14 19 00-0493	EA	12" Pressure Reducing Valves, Ductile Iron Body (Cal-Val Model 100-42 700 Series Roll Seal).....	29,149.93	430.94
33 14 19 00-0494		Booster Pump Control Valves (33 14 19 00-0006)		
33 14 19 00-0495		Pump Control Valves, Ductile Iron Body (Cla-Val Model 60-08/660-08) (33 14 19 00-0494)		
33 14 19 00-0496	EA	2" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	7,906.07	109.27
33 14 19 00-0497	EA	2-1/2" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	8,569.07	136.98
33 14 19 00-0498	EA	3" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	9,234.12	164.17
33 14 19 00-0499	EA	4" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	10,852.74	218.55
33 14 19 00-0500	EA	6" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	13,325.55	256.51
33 14 19 00-0501	EA	8" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	18,916.05	307.81
33 14 19 00-0502	EA	10" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	24,707.52	359.12
33 14 19 00-0503	EA	12" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	39,904.26	430.94
33 14 19 00-0504	EA	14" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	64,981.73	604.70
33 14 19 00-0505	EA	16" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	74,503.35	678.75
33 14 19 00-0506	EA	18" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	57,384.45	752.80
33 14 19 00-0507	EA	20" Pump Control Valves, Ductile Iron Body (Cal-Val Model 60-08/660-08).....	58,968.97	848.44
33 14 19 00-0508		Water Service Meter Accessories (33 14 19 00-0006)		



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33 14 19 00-0509	EA	Bronge Meter Flange With Gasket For 1-1/2" And 2" Meters (AY McDonald 610F).....	179.60	28.97
33 14 19 00-0510	EA	3/4" Bronze Ball Valve, FIP x Meter Swivel, With Locking Tabs (A.Y. McDonald 76101W).....	196.19	23.40
33 14 19 00-0511	EA	1" Bronze BallValve, FIP x Meter Swivel, With Locking Tabs (A.Y. McDonald 76101W).....	295.20	28.97
33 14 19 00-0512	EA	1-1/2" Bronze BallValve, FIP x Meter Swivel, With Locking Tabs (A.Y. McDonald 76101W)	462.42	42.34
33 14 19 00-0513	EA	2" Bronze BallValve, FIP x Meter Swivel, With Locking Tabs (A.Y. McDonald 76101W).....	718.08	50.14
33 14 19 00-0514	Fire Hydrants (33 14 19) Note: Breakaway type.			
33 14 19 00-0515	Three Way, Standard (Traditional) Model Fire Hydrant (33 14 19 00-0514) Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).			
33 14 19 00-0516	EA	1-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,564.19	283.28
33 14 19 00-0517	EA	2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,630.70	283.28
33 14 19 00-0518	EA	2-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,697.38	283.28
33 14 19 00-0519	EA	3' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,783.98	303.52
33 14 19 00-0520	EA	3-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,850.56	303.52
33 14 19 00-0521	EA	4' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,942.49	328.81
33 14 19 00-0522	EA	4-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,008.96	328.81
33 14 19 00-0523	EA	5' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,100.91	354.10
33 14 19 00-0524	EA	5-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,167.48	354.10
33 14 19 00-0525	EA	6' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,259.24	379.39
33 14 19 00-0526	EA	6-1/2' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,351.09	404.69
33 14 19 00-0527	EA	7' Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,468.12	455.27
33 14 19 00-0528	EA	1-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,624.89	283.28
33 14 19 00-0529	EA	2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,711.20	283.28
33 14 19 00-0530	EA	2-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,797.30	283.28
33 14 19 00-0531	EA	3' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,903.64	303.52
33 14 19 00-0532	EA	3-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	3,989.74	303.52
33 14 19 00-0533	EA	4' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,101.45	328.81
33 14 19 00-0534	EA	4-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,187.44	328.81
33 14 19 00-0535	EA	5' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,298.92	354.10
33 14 19 00-0536	EA	5-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,385.00	354.10
33 14 19 00-0537	EA	6' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,496.24	379.39
33 14 19 00-0538	EA	6-1/2' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,607.85	404.69
33 14 19 00-0539	EA	7' Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant.....	4,744.38	455.27
33 14 19 00-0540	Two Way, Standard (Traditional) Model Fire Hydrant (33 14 19 00-0514) Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).			
33 14 19 00-0541	EA	1-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,199.11	283.28
33 14 19 00-0542	EA	2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,265.39	283.28
33 14 19 00-0543	EA	2-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,332.05	283.28
33 14 19 00-0544	EA	3' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,418.93	303.52
33 14 19 00-0545	EA	3-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,485.29	303.52
33 14 19 00-0546	EA	4' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,577.07	328.81
33 14 19 00-0547	EA	4-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,643.64	328.81
33 14 19 00-0548	EA	5' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,735.65	354.10
33 14 19 00-0549	EA	5-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,802.08	354.10
33 14 19 00-0550	EA	6' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,894.20	379.39
33 14 19 00-0551	EA	6-1/2' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,985.63	404.69
33 14 19 00-0552	EA	7' Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,102.80	455.27
33 14 19 00-0553	EA	1-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,292.87	283.28
33 14 19 00-0554	EA	2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,378.99	283.28
33 14 19 00-0555	EA	2-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,464.98	283.28
33 14 19 00-0556	EA	3' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,571.54	303.52
33 14 19 00-0557	EA	3-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,657.42	303.52
33 14 19 00-0558	EA	4' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,768.98	328.81
33 14 19 00-0559	EA	4-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,854.91	328.81
33 14 19 00-0560	EA	5' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,966.67	354.10
33 14 19 00-0561	EA	5-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,052.55	354.10
33 14 19 00-0562	EA	6' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,164.09	379.39
33 14 19 00-0563	EA	6-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,275.28	404.69
33 14 19 00-0564	EA	7' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,412.28	455.27
33 14 19 00-0565	Three Way, Modern Model Fire Hydrant (33 14 19 00-0514) Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).			
33 14 19 00-0566	EA	1-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,719.41	283.28
33 14 19 00-0567	EA	2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,805.40	283.28
33 14 19 00-0568	EA	2-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,891.65	283.28
33 14 19 00-0569	EA	3' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,998.04	303.52
33 14 19 00-0570	EA	3-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,084.09	303.52
33 14 19 00-0571	EA	4' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,195.48	328.81
33 14 19 00-0572	EA	4-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,281.65	328.81
33 14 19 00-0573	EA	5' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,393.06	354.10
33 14 19 00-0574	EA	5-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,479.14	354.10
33 14 19 00-0575	EA	6' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,590.53	354.10
33 14 19 00-0576	EA	6-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,702.19	404.69
33 14 19 00-0577	EA	7' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,837.82	404.69

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CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 19 00-0578		Two Way, Modern Model Fire Hydrant (33 14 19 00-0514)	
		Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).	
33 14 19 00-0579	EA	1-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	2,641.15 283.28
33 14 19 00-0580	EA	2' Burial Section, Two Way, Modern Type Fire Hydrant	2,706.59 283.28
33 14 19 00-0581	EA	2-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	2,772.76 283.28
33 14 19 00-0582	EA	3' Burial Section, Two Way, Modern Type Fire Hydrant	2,857.67 303.52
33 14 19 00-0583	EA	3-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	2,923.09 303.52
33 14 19 00-0584	EA	4' Burial Section, Two Way, Modern Type Fire Hydrant	3,013.80 328.81
33 14 19 00-0585	EA	4-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	3,079.20 328.81
33 14 19 00-0586	EA	5' Burial Section, Two Way, Modern Type Fire Hydrant	3,169.99 354.10
33 14 19 00-0587	EA	5-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	3,235.22 354.10
33 14 19 00-0588	EA	6' Burial Section, Two Way, Modern Type Fire Hydrant	3,325.95 379.39
33 14 19 00-0589	EA	6-1/2' Burial Section, Two Way, Modern Type Fire Hydrant	3,416.76 404.69
33 14 19 00-0590	EA	7' Burial Section, Two Way, Modern Type Fire Hydrant	3,531.95 455.27
33 14 19 00-0591		Safetop Model With Breakable Section (33 14 19 00-0514)	
		Note: Prices listed are for mechanical joint. Includes shoe, lower barrel and upper barrel (hydrant).	
33 14 19 00-0592	EA	4" Safetop Model Fire Hydrant Breakable With 5' Burial Section	2,652.83 202.34
33 14 19 00-0593	EA	6" Safetop Model Fire Hydrant Breakable With 5' Burial Section	2,836.59 227.64
33 14 19 00-0594	EA	8" Safetop Model Fire Hydrant Breakable With 5' Burial Section	3,092.53 252.93
33 14 19 00-0595		Fire Hydrant Extension Kits (33 14 19 00-0514)	
33 14 19 00-0596	EA	6" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	548.37 25.29
33 14 19 00-0597	EA	12" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	651.21 31.61
33 14 19 00-0598	EA	18" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	709.53 37.94
33 14 19 00-0599	EA	24" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	805.66 46.79
33 14 19 00-0600	EA	30" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,221.48 48.69
33 14 19 00-0601	EA	36" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,304.92 50.59
33 14 19 00-0602	EA	42" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,324.38 53.11
33 14 19 00-0603	EA	48" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,398.65 56.91
33 14 19 00-0604	EA	54" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,540.74 68.29
33 14 19 00-0605	EA	60" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit	1,623.67 82.20
33 14 19 00-0606	EA	6" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	610.10 28.33
33 14 19 00-0607	EA	12" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	722.02 34.40
33 14 19 00-0608	EA	18" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	828.15 41.48
33 14 19 00-0609	EA	24" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	924.70 51.60
33 14 19 00-0610	EA	30" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,269.92 53.63
33 14 19 00-0611	EA	36" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,354.41 55.64
33 14 19 00-0612	EA	42" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,412.27 58.68
33 14 19 00-0613	EA	48" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,653.12 62.73
33 14 19 00-0614	EA	54" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,810.32 74.87
33 14 19 00-0615	EA	60" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit	1,899.62 90.05
33 14 19 00-0616		Removal And Reinstallation Of Standard Fire Hydrant (33 14 19 00-0514)	
		Note: Includes all necessary fittings for resetting, storage and cleaning. Excludes excavation, backfill and thrust blocking around fire hydrant.	
33 14 19 00-0617	EA	Up To 5' Burial Section, Removal And Reinstallation Of Fire Hydrant	809.38
33 14 19 00-0618	EA	>5' Burial Section, Removal And Reinstallation Of Fire Hydrant	1,180.34
33 14 19 00-0619	EA	Reset Fire Hydrant Upper Barrel	1,208.06
		Note: Includes Safety Repair Kit	
33 14 19 00-0620		Hydrant Head Replacement (33 14 19 00-0514)	
33 14 19 00-0621	EA	4" x 2-1/2" Bronze Hydrant Head Only With 2-1/2" Dome Cap (James Jones J-3708)	4,921.88 404.69
33 14 19 00-0622		Insertion Valves (33 14 19)	
33 14 19 00-0623	EA	4" Diameter x 16" Length, 150 PSI, Stainless Steel Bolt-On Sleeve And Nozzel, Carbon Steel Flange, Insertion Valve (Hydra-Stop Insta-Valve Complete Fittings)	4,018.39 186.74
		Note: Bolt-On sleeve for cast/ductile iron, steel, A.C. or P.V.C. Pipe	
33 14 19 00-0624	EA	6" Diameter x 16" Length, 150 PSI, Stainless Steel Bolt-On Sleeve And Nozzel, Carbon Steel Flange, Insertion Valve (Hydra-Stop Insta-Valve Complete Fittings)	4,483.89 205.21
		Note: Bolt-On sleeve for cast/ductile iron, steel, A.C. or P.V.C. Pipe	
33 14 19 00-0625	EA	8" Diameter x 20" Length, 150 PSI, Stainless Steel Bolt-On Sleeve And Nozzel, Carbon Steel Flange, Insertion Valve (Hydra-Stop Insta-Valve Complete Fittings)	5,221.60 307.81
		Note: Bolt-On sleeve for cast/ductile iron, steel, A.C. or P.V.C. Pipe	
33 14 19 00-0626	EA	10" Diameter x 20" Length, 150 PSI, Stainless Steel Bolt-On Sleeve And Nozzel, Carbon Steel Flange, Insertion Valve (Hydra-Stop Insta-Valve Complete Fittings)	8,037.94 359.12
		Note: Bolt-On sleeve for cast/ductile iron, steel, A.C. or P.V.C. Pipe	
33 14 19 00-0627	EA	12" Diameter x 24" Length, 150 PSI, Stainless Steel Bolt-On Sleeve And Nozzel, Carbon Steel Flange, Insertion Valve (Hydra-Stop Insta-Valve Complete Fittings)	9,767.99 436.07
		Note: Bolt-On sleeve for cast/ductile iron, steel, A.C. or P.V.C. Pipe	
33 14 19 00-0628		Yard Hydrants (33 14 19)	
		Note: With 3/4" hose thread outlet.	
33 14 19 00-0629	EA	2' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet	362.08 33.43
33 14 19 00-0630	EA	4' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet	389.61 33.43



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		Water Utilities	33 10	
		Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0631 EA 6' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet.....	417.13	33.43
33 14 19 00-0632 EA 2' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	331.78	42.34
33 14 19 00-0633 EA 4' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	348.20	42.34
33 14 19 00-0634 EA 6' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	364.61	42.34
33 14 19 00-0635 Sanitary Yard Hydrants (33 14 19) Note: With 3/4" hose thread outlet.		
33 14 19 00-0636 EA 2' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	1,660.83	69.64
33 14 19 00-0637 EA 4' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	1,746.85	69.64
33 14 19 00-0638 EA 6' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	1,832.86	69.64
33 14 19 00-0639 Flushing Hydrants (33 14 19)		
33 14 19 00-0640 EA 2" Inlet x 2-1/2" Outlet Steel Flushing Hydrant, 3' Bury Depth	856.68	42.92
33 14 23 Enclosures for Water Utility Piping and Valves (33 14) Note: Excludes excavation and backfill. See CSI section 22 11 19 00-0477 for Enclosures.		
33 14 23 00-0001 Roadway Utility Box (33 14 23)		
33 14 23 00-0002 Utility Box (33 14 23 00-0001) Note: Christy Concrete Products.		
33 14 23 00-0003 B3 Utility Box, 9-3/8" x 15-1/2" (33 14 23 00-0002)		
33 14 23 00-0004 EA 9-3/8" x 15-1/2" Precast Concrete Utility Box.....	116.88	50.82
33 14 23 00-0005 EA Cast Iron Lid For 9-3/8" x 15-1/2" Utility Box.....	120.78	5.65
33 14 23 00-0006 EA Reinforced Concrete Lid For 9-3/8" x 15-1/2" Utility Box	49.81	5.65
33 14 23 00-0007 EA Steel Checkered Plate Cover For 9-3/8" x 15-1/2" Utility Box.....	265.09	5.65
33 14 23 00-0008 EA 12-1/8" x 18-5/8" Reinforced Concrete Slab For 9-3/8" x 15-1/2" Utility Box	70.15	11.29
33 14 23 00-0009 EA 3" High Reinforced Concrete Base For 9-3/8" x 15-1/2" Utility Box	101.51	11.29
33 14 23 00-0010 B9 Utility Box, 10-1/4" x 17-1/4" (33 14 23 00-0002)		
33 14 23 00-0011 EA 10-1/4" x 17-1/4" Precast Concrete Utility Box.....	141.36	67.77
33 14 23 00-0012 EA Cast Iron Lid For 10-1/4" x 17-1/4" Utility Box.....	141.47	6.77
33 14 23 00-0013 EA Reinforced Concrete Lid For 10-1/4" x 17-1/4" Utility Box	55.21	6.77
33 14 23 00-0014 EA Steel Checkered Plate Cover For 10-1/4" x 17-1/4" Utility Box	278.14	5.65
33 14 23 00-0015 EA 13" x 19-3/4" Reinforced Concrete Slab For 10-1/4" x 17-1/4" Utility Box.....	78.77	11.29
33 14 23 00-0016 EA 5-3/4" High Reinforced Concrete Base For 10-1/4" x 17-1/4" Utility Box	105.24	16.94
33 14 23 00-0017 EA 12" High Reinforced Concrete Extension For 10-1/4" x 17-1/4" Utility Box.....	123.14	31.06
33 14 23 00-0018 B12 Utility Box, 12" x 20" (33 14 23 00-0002)		
33 14 23 00-0019 EA 12" x 20" Precast Concrete Utility Box.....	155.47	73.41
33 14 23 00-0020 EA Cast Iron Lid For 12" x 20" Utility Box.....	255.26	8.47
33 14 23 00-0021 EA Reinforced Concrete Lid For 12" x 20" Utility Box.....	73.74	11.29
33 14 23 00-0022 EA Steel Checkered Plate Cover For 12" x 20" Utility Box	373.59	11.29
33 14 23 00-0023 EA 12" High Reinforced Concrete Extension For 12" x 20" Utility Box	160.71	39.53
33 14 23 00-0024 B16 Utility Box, 12" x 22-1/4" (33 14 23 00-0002)		
33 14 23 00-0025 EA 12" x 22-1/4" Precast Concrete Utility Box.....	178.87	85.83
33 14 23 00-0026 EA Cast Iron Lid For 12" x 22-1/4" Utility Box.....	288.19	11.29
33 14 23 00-0027 EA Reinforced Concrete Lid For 12" x 22-1/4" Utility Box	91.53	11.29
33 14 23 00-0028 EA Steel Checkered Plate Cover For 12" x 22-1/4" Utility Box	375.70	11.29
33 14 23 00-0029 EA 16" x 27" Reinforced Concrete Slab For 12" x 22-1/4" Utility Box	128.03	19.20
33 14 23 00-0030 EA 12" High Reinforced Concrete Extension For 12" x 22-1/4" Utility Box	163.66	39.53
33 14 23 00-0031 B30 Utility Box, 13-1/4" x 24" (33 14 23 00-0002)		
33 14 23 00-0032 EA 13-1/4" x 24" Precast Concrete Utility Box (Christy B30BOX)	215.60	101.64
33 14 23 00-0033 EA Reinforced Concrete Lid For 13-1/4" x 24" Utility Box (Christy B30D).....	122.86	18.07
33 14 23 00-0034 EA Steel Checkered Plate Cover For 13-1/4" x 24" Utility Box (Christy B30-61G)	464.36	14.68
33 14 23 00-0035 EA 16" x 27" Reinforced Concrete Slab For 13-1/4" x 24" Utility Box (Christy B30SL).....	128.03	19.20
33 14 23 00-0036 EA 5-1/2" High Reinforced Concrete Base For 13-1/4" x 24" Utility Box (Christy B30BA).....	195.81	31.63
33 14 23 00-0037 EA 6" High Reinforced Concrete Extension For 13-1/4" x 24" Utility Box (Christy B30X6).....	153.40	21.45
33 14 23 00-0038 EA 12" High Reinforced Concrete Extension For 13-1/4" x 24" Utility Box (Christy B30X12).....	212.12	50.82
33 14 23 00-0039 B36 Utility Box, 17-1/4" x 30" (33 14 23 00-0002)		
33 14 23 00-0040 EA 17-1/4" x 30" Precast Concrete Utility Box (Christy B36BOX)	282.06	128.75
33 14 23 00-0041 EA Reinforced Concrete Lid For 17-1/4" x 30" Utility Box (Christy B36D).....	199.94	31.06
33 14 23 00-0042 EA Steel Checkered Plate Cover For 17-1/4" x 30" Utility Box (Christy B36-61D)	581.65	21.45
33 14 23 00-0043 EA 20" x 34" Reinforced Concrete Slab For 17-1/4" x 30" Utility Box (Christy B36SL).....	178.33	40.66
33 14 23 00-0044 EA 6" High Reinforced Concrete Base For 17-1/4" x 30" Utility Box (Christy B36BA).....	305.21	45.17
33 14 23 00-0045 EA 12" High Reinforced Concrete Extension For 17-1/4" x 30" Utility Box (Christy B36X12).....	283.56	65.51
33 14 23 00-0046 B40 Utility Box, 24-1/2" x 36" (33 14 23 00-0002)		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 23 00-0047	EA	24-1/2" x 36" Precast Concrete Utility Box.....	588.52	198.78
33 14 23 00-0048	EA	Reinforced Concrete Lid For 24-1/2" x 36" Utility Box.....	548.68	74.54
33 14 23 00-0049	EA	Steel Checkered Plate Cover For 24-1/2" x 36" Utility Box.....	825.84	32.75
33 14 23 00-0050	EA	30" x 40" Reinforced Concrete Slab For 24-1/2" x 36" Utility Box.....	447.30	70.03
33 14 23 00-0051	EA	10" High Reinforced Concrete Extension For 24-1/2" x 36" Utility Box.....	474.70	73.41
33 14 23 00-0052 B48 Utility Box, 30-1/4" x 48-1/4" (33 14 23 00-0002)				
33 14 23 00-0053	EA	30-1/4" x 48-1/4" Precast Concrete Utility Box.....	740.91	225.87
33 14 23 00-0054	EA	1 Piece Reinforced Concrete Lid For 30-1/4" x 48-1/4" Utility Box.....	753.35	123.10
33 14 23 00-0055	EA	2 Piece Reinforced Concrete Lid For 30-1/4" x 48-1/4" Utility Box.....	954.56	123.10
33 14 23 00-0056	EA	2 Piece Steel Checkered Plate Cover For 30-1/4" x 48-1/4" Utility Box.....	1,306.75	56.47
33 14 23 00-0057	EA	36" x 53" Reinforced Concrete Slab For 30-1/4" x 48-1/4" Utility Box.....	642.65	152.47
33 14 23 00-0058	EA	10" High Reinforced Concrete Extension For 30-1/4" x 48-1/4" Utility Box.....	584.96	102.77
33 14 23 00-0059 B65 Utility Box, 15" x 26-1/2" (33 14 23 00-0002)				
33 14 23 00-0060	EA	15" x 26-1/2" Precast Concrete Utility Box.....	194.91	128.75
33 14 23 00-0061	EA	Reinforced Concrete Lid For 15" x 26-1/2" Utility Box.....	120.65	31.06
33 14 23 00-0062	EA	Steel Checkered Plate Cover For 15" x 26-1/2" Utility Box.....	375.40	21.45
33 14 23 00-0063	EA	20" x 34" Reinforced Concrete Slab For 15" x 26-1/2" Utility Box.....	178.33	40.66
33 14 23 00-0064	EA	6" High Reinforced Concrete Base For 15" x 26-1/2" Utility Box.....	305.21	45.17
33 14 23 00-0065	EA	12" High Reinforced Concrete Extension For 15" x 26-1/2" Utility Box.....	210.91	65.51
33 14 23 00-0066 Roadway Or Curb Valve Boxes (33 14 23)				
33 14 23 00-0067 Round Head, Cast Iron Service, Roadway Or Valve Boxes (33 14 23 00-0066)				
33 14 23 00-0068	EA	36" To 48" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	269.32	13.54
Note: Includes cover, top section and bottom section.				
33 14 23 00-0069	EA	36" To 54" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	314.87	13.54
Note: Includes cover, top section and bottom section.				
33 14 23 00-0070	EA	42" To 60" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	316.96	13.54
Note: Includes cover, top section and bottom section.				
33 14 23 00-0071	EA	9" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	78.50	6.77
33 14 23 00-0072	EA	16" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	90.56	6.77
33 14 23 00-0073	EA	24" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box.....	108.71	6.77
33 14 23 00-0074	EA	36" To 48" High, Screw Type, 4-1/4" Shaft, Round Head, Cast Iron Roadway Box.....	409.28	16.93
Note: Includes cover, top section and bottom section.				
33 14 23 00-0075	EA	45" To 54" High, Three Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	713.97	23.70
Note: Includes cover, top section, bottom section and #6 round base.				
33 14 23 00-0076	EA	45" To 66" High, Three Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	798.93	23.70
Note: Includes cover, top section, bottom section and #6 round base.				
33 14 23 00-0077	EA	24" To 36" High, Two Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	426.13	16.93
Note: Includes cover, top section and bottom section.				
33 14 23 00-0078	EA	36" To 48" High, Two Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	446.42	16.93
Note: Includes cover, top section and bottom section.				
33 14 23 00-0079	EA	24" To 36" High, Two Piece, Slip Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	430.92	16.93
Note: Includes cover, top section and bottom section.				
33 14 23 00-0080	EA	12" Extension For Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	155.60	6.77
33 14 23 00-0081	EA	18" To 24" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	255.51	27.86
33 14 23 00-0082	EA	22" To 28" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	264.73	28.97
33 14 23 00-0083	EA	30" To 36" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	294.89	30.08
33 14 23 00-0084	EA	36" To 48" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	411.70	31.76
33 14 23 00-0085	EA	48" To 60" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	498.44	33.43
33 14 23 00-0086	EA	18" Cast Iron Service Box Extension Section.....	118.11	
33 14 23 00-0087 Plastic Roadway Grade Water Meter Box And Cover (33 14 23 00-0066)				
33 14 23 00-0088	EA	12" Wide x 16" Long x 16" Deep Plastic Meter Box And Cover.....	471.02	39.00
33 14 23 00-0089	EA	9-3/4" Wide x 19-1/4" Long x 16" Deep Oval Plastic Meter Box And Cover.....	356.72	27.86
33 14 23 00-0090	EA	Cast Iron Lid For Plastic Meter Box.....	110.99	
33 14 23 00-0091 Traffic Valve Box And Lid (33 14 23 00-0066)				
33 14 23 00-0092	EA	10-3/8" ID x 12" Traffic Valve Box And 11" OD Cast Iron Lid (Christy G-5).....	214.26	
33 14 23 00-0093	EA	14-1/2" ID x 12" Traffic Valve Box And 13-1/4" OD Cast Iron Lid (Christy G-12).....	709.93	
33 14 23 00-0094 Curb Box Components (33 14 23 00-0066)				
33 14 23 00-0095	EA	Curb Box Bolt.....	11.09	
33 14 23 00-0096	EA	Curb Box Cover.....	16.14	
33 14 23 00-0097	EA	Curb Box Foot Piece.....	11.56	
33 14 23 00-0098	EA	Curb Box Guide Ring.....	9.91	
33 14 23 00-0099	EA	Curb Box Rod.....	49.98	
33 14 23 00-0100	EA	Curb Box Top Section.....	69.45	
33 14 23 00-0101	EA	Curb Box Bottom Section.....	73.19	
33 14 23 00-0102	EA	Curb Box Pin, Secures Rod To Curb Box.....	9.64	
33 14 23 00-0103 Valve Box Components (33 14 23 00-0066)				



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33 14 23 00-0104 EA Valve Box Upper And Lower Section.....	140.59	
33 14 23 00-0105 EA Valve Box Cover "Water".....	22.85	
33 14 23 00-0106 EA Valve Box Lower Section, 4-1/2" x 6" Cutout.....	111.04	
33 14 23 00-0107 EA Valve Box Top Section.....	56.09	
33 14 23 00-0108 EA Valve Box Extension, 17".....	66.87	
33 14 23 00-0109 EA Meter, Cover, Single, Remote Sensor.....	44.48	
33 14 23 00-0110 EA Meter, Frame, Double, 15" Diameter.....	88.14	
33 14 23 00-0111 EA Meter, Frame, Double, 18" Diameter.....	85.67	
33 14 23 00-0112 EA Meter, Frame, Double, 21" Diameter.....	194.78	
33 14 23 00-0113 EA Extension Ring, 18" Meter Frame, 24" Pit.....	173.01	
33 14 23 00-0114 EA Meter, Housing, Concrete Or Clay, 21" Diameter.....	279.64	
33 14 23 00-0115 EA Meter, Housing, Clay, 24" Diameter.....	471.54	
33 14 23 00-0116 EA Meter, Housing, PE, 18" Diameter.....	129.10	
33 14 23 00-0117 EA Meter, Housing, PE, 24" Diameter.....	210.09	
33 14 23 00-0118 Service Meter Boxes (Brooks) (33 14 23)		
33 14 23 00-0119 EA 12" x 20", Precast Service Meter Box With Concrete Cover, Exposed To Traffic (Brooks #37-1 PC).....	193.50	58.29
33 14 23 00-0120 EA 12" x 20", Precast Service Meter Box, Concrete Cover With Cast Iron Reading Lid, Exposed To Traffic (Brooks #37-S).....	147.81	11.66
33 14 23 00-0121 EA 12" x 20", Precast Service Meter Box With Cast Iron Hinged Cover, Exposed To Traffic (Brooks #37-H4S).....	152.92	11.66
33 14 23 00-0122 EA 17" x 30", Precast Service Meter Box With Concrete Cover, Exposed To Traffic (Brooks 66-1 PC).....	356.34	87.43
33 14 23 00-0123 EA 17" x 30", Precast Service Meter Box With Concrete Cover With Cast Iron Reading Lid, Exposed To Traffic (Brooks 66-S).....	310.27	14.57
33 14 23 00-0124 Polyethylene Above Ground Enclosure (33 14 23)		
33 14 23 00-0125 EA 14" x 24" Polyethylene Above Ground Enclosure For 2" Air/Vacuum Valve.....	869.10	92.34
33 14 23 00-0126 EA 18" x 30" Polyethylene Above Ground Enclosure For 4" Air/Vacuum Valve.....	1,014.92	123.13
33 14 23 00-0127 EA 24" x 36" Polyethylene Above Ground Enclosure For 6" To 8" Air/Vacuum Valve.....	1,226.09	147.75
33 14 23 00-0128 Service Meter Boxes (Armorcast) (33 14 23)		
Note: Water meter boxes shall be polymer, rectangular in shape, with rounded corners and beveled edges throughout with a slot provided in the bottom of each end of the box for the water service pipe and the house lateral. Boxes shall have a polymer cover with AMR slot. Meter boxes are likely to be subjected to traffic loads, traffic rated boxes and covers shall have AASHTO load Traffic ratings of 20K.		
33 14 23 00-0129 EA 13" x 24" x 12" Polymer Concrete Meter Box (ARMORCAST - #A6001946PCX12).....	293.30	
33 14 23 00-0130 EA 17" x 30" x 12" Polymer Concrete Meter Box (ARMORCAST - #A6001640PCX12).....	314.54	
33 14 23 00-0131 EA 13" x 24" Polymer Concrete Meter Box Cover With AMR Slot And Hinged Reading Lid (ARMORCAST - #A6001866R-H9).....	119.96	
33 14 23 00-0132 EA 13" x 24" Polymer Concrete Meter Box Cover With Hinged Reading Lid (ARMORCAST - #A6001866R).....	124.41	
33 14 23 00-0133 EA 17" x 30" Polymer Concrete Meter Box Cover With AMR Slot And Hinged Reading Lid (ARMORCAST - #A6001643R-H9).....	158.97	
33 14 23 00-0134 EA 17" x 30" Polymer Concrete Meter Box Cover With Hinged Reading Lid (ARMORCAST - #A6001643R).....	164.08	
33 14 23 00-0135 EA 12" x 20" Polymer Concrete Meter Box Cover With Hinged Reading Lid (ARMORCAST - #A6000484R).....	84.93	
33 14 23 00-0136 EA 12" x 20" Polymer Concrete Meter Box Cover Only With No Hinged Reading Lid (ARMORCAST - #A6000482).....	52.40	
33 16 Water Utility Storage Tanks (33 10)		
33 16 23 Ground-Level Steel Water Storage Tanks (33 16)		
See CSI section 23 13 23 16-0000 for aboveground steel storage tanks.		
33 19 Water Utility Metering Equipment (33 10)		
33 19 13 Positive Displacement Water Meters (33 19)		
33 19 13 23 Nutating Disc Water Meters (33 19 13)		
33 19 13 23-0001 Bronze Disk Type Water Service Meters (33 19 13 23)		
33 19 13 23-0002 EA 5/8" Diameter, 0 To 20 GPM, Screwed, Disk Type, Bronze Water Supply Meter.....	314.57	57.94
33 19 13 23-0003 EA 3/4" Diameter, 0 To 30 GPM, Screwed, Disk Type, Bronze Water Supply Meter.....	395.78	69.08
33 19 13 23-0004 EA 1" Diameter, 0 To 50 GPM, Screwed, Disk Type, Bronze Water Supply Meter.....	532.82	79.10
33 19 13 23-0005 EA 1-1/2" Diameter, 0 To 100 GPM, Screwed, Disk Type, Bronze Water Supply Meter.....	1,040.09	118.10
33 19 13 23-0006 EA 2" Diameter, 0 To 160 GPM, Screwed, Disk Type, Bronze Water Supply Meter.....	1,409.83	153.75
33 19 13 23-0007 Magnetic Driven, Positive Displacement Type Water Service Meters (33 19 13 23)		
33 19 13 23-0008 EA 5/8" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i).....	577.30	57.94
For Owner Furnished Material, Deduct		
	-518.66	
33 19 13 23-0009 EA 3/4" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i).....	657.99	69.08
For Owner Furnished Material, Deduct		
	-588.35	
33 19 13 23-0010 EA 1" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i).....	982.35	79.10
For Owner Furnished Material, Deduct		
	-902.76	
33 19 13 23-0011 EA 1-1/2" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i).....	1,664.23	118.10
For Owner Furnished Material, Deduct		
	-1,545.70	
33 19 13 23-0012 EA 2" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i).....	2,059.50	153.75
For Owner Furnished Material, Deduct		
	-1,904.75	
33 19 13 23-0013 EA Electronic Transmitter.....	469.88	27.86
Note: For use with transmitting meter valve.		
For Owner Furnished Material, Deduct		
	-442.02	

33 Utilities**33 10 Water Utilities****33 19 Water Utility Metering Equipment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 19 16 Velocity-Type Water Meters (33 19)**33 19 16 13 Single-Jet Water Meters (33 19 16)****33 19 16 13-0001 Small/Large Spectrum Water Service Meter (33 19 16 13)**

Note: Metron-Farnier.

33 19 16 13-0002	EA	1-1/2" Diameter, 0 - 100 GPM, Flanged, Spectrum Water Meter.....	1,823.30	116.99
		Note: Metron-Farnier #Spectrum 50.		
33 19 16 13-0003	EA	2" Diameter, 0 - 125 GPM, Flanged, Spectrum Water Meter.....	2,615.05	148.53
		Note: Metron-Farnier #Spectrum 88.		
33 19 16 13-0004	EA	2" Diameter, 0 - 185 GPM, Flanged, Spectrum Water Meter.....	3,161.53	148.53
		Note: Metron-Farnier #Spectrum 130.		
33 19 16 13-0005	EA	3" Diameter, 0 - 320 GPM, Flanged, Spectrum Water Meter.....	4,232.13	174.43
		Note: Metron-Farnier #Spectrum 175.		
33 19 16 13-0006	EA	3" Diameter, 0 - 520 GPM, Flanged, Spectrum Water Meter.....	4,398.56	174.43
		Note: Metron-Farnier #Spectrum 260.		
33 19 16 13-0007	EA	4" Diameter, 0 - 520 GPM, Flanged, Spectrum Water Meter.....	6,134.09	272.93
		Note: Metron-Farnier #Spectrum 260.		
33 19 16 13-0008	EA	4" Diameter, 0 - 750 GPM, Flanged, Spectrum Water Meter.....	10,145.75	272.93
		Note: Metron-Farnier #Spectrum 440.		
33 19 16 13-0009	EA	6" Diameter, 0 - 750 GPM, Flanged, Spectrum Water Meter.....	12,725.73	369.38
		Note: Metron-Farnier #Spectrum 440.		
33 19 16 13-0010	EA	8" Diameter, 0 - 750 GPM, Flanged, Spectrum Water Meter.....	15,815.85	471.98
		Note: Metron-Farnier #Spectrum 440.		

33 19 16 23 Turbine Water Meters (33 19 16)**33 19 16 23-0001 Flanged Turbine Water Service Meter (33 19 16 23)****33 19 16 23-0002 Vertical Turbine Meters (33 19 16 23-0001)**

33 19 16 23-0003	EA	1-1/2" Diameter, 0 - 100 GPM Vertical Turbine Meter, Flanged.....	1,009.96	107.74
33 19 16 23-0004	EA	2" Diameter, 0 - 160 GPM Vertical Turbine Meter, Flanged.....	1,418.20	136.77
33 19 16 23-0005	EA	3" Diameter, 0 - 350 GPM Vertical Turbine Meter, Flanged.....	2,643.14	174.43
33 19 16 23-0006	EA	4" Diameter, 0 - 650 GPM Vertical Turbine Meter, Flanged.....	3,943.59	272.93
33 19 16 23-0007	EA	6" Diameter, 0 - 1,300 GPM Vertical Turbine Meter, Flanged.....	7,450.48	369.38

33 19 16 23-0008 Horizontal Turbine Meters (33 19 16 23-0001)

33 19 16 23-0009	EA	1-1/2" Diameter, 0 - 120 GPM Horizontal Turbine Meter, Flanged.....	1,593.26	107.74
33 19 16 23-0010	EA	2" Diameter, 0 - 160 GPM Horizontal Turbine Meter, Flanged.....	2,250.93	136.77
33 19 16 23-0011	EA	3" Diameter, 0 - 600 GPM Horizontal Turbine Meter, Flanged.....	2,977.00	174.43
33 19 16 23-0012	EA	4" Diameter, 0 - 1,000 GPM Horizontal Turbine Meter, Flanged.....	4,384.90	272.93
33 19 16 23-0013	EA	6" Diameter, 0 - 2,000 GPM Horizontal Turbine Meter, Flanged.....	9,058.39	369.38
33 19 16 23-0014	EA	8" Diameter, 0 - 3,500 GPM Horizontal Turbine Meter, Flanged.....	12,113.38	471.98
33 19 16 23-0015	EA	10" Diameter, 0 - 5,500 GPM Horizontal Turbine Meter, Flanged.....	16,916.95	574.59
33 19 16 23-0016	EA	12" Diameter, 0 - 6,600 GPM Horizontal Turbine Meter, Flanged.....	20,404.35	906.00

33 19 19 Compound Water Meters (33 19)**33 19 19 00-0001 Flanged Compound Type Water Service Meter (33 19 19)**

33 19 19 00-0002	EA	2" Diameter, 0 To 160 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	4,250.27	136.77
33 19 19 00-0003	EA	3" Diameter, 0 To 320 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	5,168.22	174.43
33 19 19 00-0004	EA	4" Diameter, 0 To 500 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	8,544.75	272.93
33 19 19 00-0005	EA	6" Diameter, 0 To 1,000 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	11,951.87	369.38
33 19 19 00-0006	EA	8" Diameter, 0 To 1,600 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	24,581.42	471.98
33 19 19 00-0007	EA	10" Diameter, 0 To 2,500 GPM, Flanged And Bronze, Compound Type Water Service Meter.....	42,113.97	574.59

33 19 23 Magnetic Water Meters (33 19)**33 19 23 00-0001 Flanged Electromagnetic Flow (EMF) Water Meter (33 19 23)**

33 19 23 00-0002	EA	2" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG).....	8,723.64	136.77
33 19 23 00-0003	EA	3" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG).....	12,282.56	174.43
33 19 23 00-0004	EA	4" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG).....	14,085.06	272.93

33 19 26 Ultrasonic Water Meters (33 19)**33 19 26 00-0001 Ultrasonic Water Service Meters (Mastermeter Octive) (33 19 26)**

33 19 26 00-0002	EA	3" Diameter, Ductile Iron Body, Flanged, Ultrasonic Water Meter (Mastermeter Octive).....	4,379.08	174.43
33 19 26 00-0003	EA	4" Diameter, Ductile Iron Body, Flanged, Ultrasonic Water Meter (Mastermeter Octive).....	5,032.06	272.93
33 19 26 00-0004	EA	6" Diameter, Ductile Iron Body, Flanged, Ultrasonic Water Meter (Mastermeter Octive).....	7,411.47	369.38
33 19 26 00-0005	EA	8" Diameter, Ductile Iron Body, Flanged, Ultrasonic Water Meter (Mastermeter Octive).....	10,689.06	471.98

33 30 Sanitary Sewerage Utilities (33)**33 31 Sanitary Sewerage Piping (33 30)**



		Utilities	33	CS
		Sanitary Sewerage Utilities	33 30	
		Sanitary Sewerage Piping	33 31	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 31 11	Public Sanitary Sewerage Gravity Piping (33 31)			
Note: Piping includes hydrostatic testing, disinfecting and warning tape. Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.				
33 31 11 00-0001	Plastic Sewer And Drain Piping (33 31 11)			
33 31 11 00-0002	Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe (33 31 11 00-0001)			
33 31 11 00-0003	LF 1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	11.35		4.42
33 31 11 00-0004	LF 2" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	13.83		5.22
33 31 11 00-0005	LF 3" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	19.64		6.32
33 31 11 00-0006	LF 4" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	24.82		7.37
33 31 11 00-0007	LF 6" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	34.72		8.57
33 31 11 00-0008	LF 8" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	47.33		9.97
33 31 11 00-0009	LF 10" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	66.34		10.33
33 31 11 00-0010	LF 12" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	88.59		10.69
33 31 11 00-0011	Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe (33 31 11 00-0001)			
Note: D-2729 PVC pipe.				
33 31 11 00-0012	LF 3" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	14.83		6.32
33 31 11 00-0013	LF 4" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	17.47		7.37
33 31 11 00-0014	LF 6" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	22.51		8.57
33 31 11 00-0015	Polyvinyl Chloride (PVC) Sewer And Drain Fittings (33 31 11 00-0001)			
33 31 11 00-0016	1/4 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)			
33 31 11 00-0017	EA 1-1/2" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	28.65		14.02
33 31 11 00-0018	EA 2" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	36.81		18.13
33 31 11 00-0019	EA 3" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	66.60		24.35
33 31 11 00-0020	EA 4" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	105.86		28.15
33 31 11 00-0021	EA 6" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	442.46		36.58
33 31 11 00-0022	EA 8" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	737.62		49.23
33 31 11 00-0023	EA 10" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	973.60		65.56
33 31 11 00-0024	1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)			
33 31 11 00-0025	EA 1-1/2" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	30.41		14.02
33 31 11 00-0026	EA 2" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	36.67		18.13
33 31 11 00-0027	EA 3" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	63.97		24.35
33 31 11 00-0028	EA 4" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	92.97		28.15
33 31 11 00-0029	EA 6" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	409.66		36.58
33 31 11 00-0030	EA 8" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	661.39		49.23
33 31 11 00-0031	EA 10" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	749.37		65.56
33 31 11 00-0032	EA 12" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	1,116.55		87.33
33 31 11 00-0033	Long Sweep 1/4 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)			
33 31 11 00-0034	EA 1-1/2" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	50.03		13.81
33 31 11 00-0035	EA 2" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	49.11		18.13
33 31 11 00-0036	EA 3" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	98.23		24.35
33 31 11 00-0037	EA 4" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	163.84		28.15
33 31 11 00-0038	EA 6" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	330.47		36.58
33 31 11 00-0039	EA 8" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	590.44		49.23
33 31 11 00-0040	EA 10" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	970.96		65.56
33 31 11 00-0041	EA 12" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	1,475.15		87.33
33 31 11 00-0042	1/16 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)			
33 31 11 00-0043	EA 1-1/2" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	34.15		14.02
33 31 11 00-0044	EA 2" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	40.47		18.13
33 31 11 00-0045	EA 3" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	74.91		24.35
33 31 11 00-0046	EA 4" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	113.29		28.15
33 31 11 00-0047	EA 6" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	551.55		36.58
33 31 11 00-0048	EA 8" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	896.44		49.23
33 31 11 00-0049	EA 10" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	1,009.75		65.56
33 31 11 00-0050	EA 12" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	1,029.76		87.33
33 31 11 00-0051	Reducers, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)			
33 31 11 00-0052	EA 2" x 1-1/2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	39.27		16.00
33 31 11 00-0053	EA 3" x 1-1/2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	77.28		19.10
33 31 11 00-0054	EA 3" x 2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	72.32		21.06
33 31 11 00-0055	EA 4" x 2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	115.10		23.02
33 31 11 00-0056	EA 4" x 3" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	123.40		26.12
33 31 11 00-0057	EA 6" x 4" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	390.12		32.33
33 31 11 00-0058	EA 8" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	835.50		42.87
33 31 11 00-0059	EA 10" x 4" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	221.66		46.81
33 31 11 00-0060	EA 10" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	312.80		51.05
33 31 11 00-0061	EA 10" x 8" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	288.70		57.34

33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0062	EA	12" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	864.35	61.98
33 31 11 00-0063	EA	12" x 8" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	912.28	68.26
33 31 11 00-0064	EA	12" x 10" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	965.08	76.44
33 31 11 00-0065		Sanitary Tees, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0066	EA	1-1/2" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	45.37	21.19
33 31 11 00-0067	EA	2" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	60.51	27.41
33 31 11 00-0068	EA	3" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	106.11	36.16
33 31 11 00-0069	EA	4" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	166.14	44.91
33 31 11 00-0070	EA	6" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	648.62	49.23
33 31 11 00-0071	EA	8" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	841.49	65.56
33 31 11 00-0072		Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0073	EA	1-1/2" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	58.98	21.19
33 31 11 00-0074	EA	2" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	68.42	27.41
33 31 11 00-0075	EA	3" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	116.21	36.16
33 31 11 00-0076	EA	4" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	182.68	44.91
33 31 11 00-0077	EA	6" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	586.54	49.23
33 31 11 00-0078	EA	8" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	723.58	65.56
33 31 11 00-0079	EA	10" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	951.55	87.49
33 31 11 00-0080	EA	12" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	1,507.60	116.76
33 31 11 00-0081		Reducing Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0082	EA	2" x 1-1/2" x 1-1/2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	80.36	21.19
33 31 11 00-0083	EA	2" x 2" x 1" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	89.21	27.41
33 31 11 00-0084	EA	3" x 3" x 2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	102.16	36.16
33 31 11 00-0085	EA	4" x 4" x 2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	159.99	44.91
33 31 11 00-0086	EA	4" x 4" x 3" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	175.50	44.91
33 31 11 00-0087		Double Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0088	EA	1-1/2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	99.02	27.41
33 31 11 00-0089	EA	2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	128.80	36.16
33 31 11 00-0090	EA	3" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	265.69	48.81
33 31 11 00-0091	EA	4" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	478.89	59.03
33 31 11 00-0092	EA	2" x 2" x 1-1/2" x 1-1/2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	122.36	36.16
33 31 11 00-0093	EA	3" x 3" x 2" x 2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	216.49	48.81
33 31 11 00-0094	EA	4" x 4" x 3" x 3" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	397.64	59.03
33 31 11 00-0095		Combination Wye And 1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0096	EA	1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	75.97	21.19
33 31 11 00-0097	EA	2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	94.92	27.41
33 31 11 00-0098	EA	3" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	195.85	36.16
33 31 11 00-0099	EA	4" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	361.29	44.91
33 31 11 00-0100	EA	2" x 2" x 1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	152.60	27.41
33 31 11 00-0101	EA	3" x 3" x 1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	248.10	36.16
33 31 11 00-0102	EA	3" x 3" x 2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	175.42	36.16
33 31 11 00-0103	EA	4" x 4" x 2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	336.80	44.91
33 31 11 00-0104	EA	4" x 4" x 3" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	359.20	44.91
33 31 11 00-0105		Double Combination Wye And 1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0106	EA	1-1/2" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	112.19	27.41
33 31 11 00-0107	EA	2" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	130.27	36.16
33 31 11 00-0108	EA	3" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	205.22	48.81
33 31 11 00-0109	EA	4" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	784.30	59.03
33 31 11 00-0110	EA	6" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	2,623.89	65.36
33 31 11 00-0111		Cleanout Tees With Plug, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0112	EA	4" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	604.18	115.68
33 31 11 00-0113	EA	6" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	1,475.17	149.24
33 31 11 00-0114	EA	8" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	1,873.52	210.30
33 31 11 00-0115	EA	10" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	2,573.94	338.29
33 31 11 00-0116		Couplings, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)		
33 31 11 00-0117	EA	1-1/2" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	27.72	14.02
33 31 11 00-0118	EA	2" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	34.45	18.03
33 31 11 00-0119	EA	3" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	55.34	24.14
33 31 11 00-0120	EA	4" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	73.53	28.15
33 31 11 00-0121	EA	6" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	228.00	36.58



		Utilities	33	CS
		Sanitary Sewerage Utilities	33 30	
		Sanitary Sewerage Piping	33 31	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	
33 31 11 00-0122	EA	8" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	573.78		49.23
33 31 11 00-0123	EA	10" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	873.18		65.56
33 31 11 00-0124	EA	12" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	1,450.92		87.33
33 31 11 00-0125 Adapters, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)					
33 31 11 00-0126	EA	4" Male, Plastic Pipe x Malleable Iron Pipe Adapter, Drain And Sewer Fitting	133.58		72.03
33 31 11 00-0127	EA	2" x 3" x 3" Downspout Adapter, Drain And Sewer Fitting	90.79		54.79
33 31 11 00-0128	EA	2" x 3" x 4" Downspout Adapter, Drain And Sewer Fitting	94.53		54.79
33 31 11 00-0129	EA	3" x 4" x 4" Downspout Adapter, Drain And Sewer Fitting	104.43		54.79
33 31 11 00-0130	EA	4" Hub, Cast Iron Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting.....	136.29		72.03
33 31 11 00-0131	EA	4" Spigot, Clay Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting	128.37		72.03
33 31 11 00-0132	EA	4" Spigot, Fiberglass Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting.....	115.36		72.03
33 31 11 00-0133	EA	4" Drain Grate, Drain And Sewer Fitting	65.25		37.04
33 31 11 00-0134 Caps, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)					
33 31 11 00-0135	EA	3" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	45.32		15.07
33 31 11 00-0136	EA	4" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	79.62		18.77
33 31 11 00-0137	EA	6" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	159.48		24.25
33 31 11 00-0138 Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0015)					
33 31 11 00-0139	EA	1-1/2" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain.....	25.56		14.02
33 31 11 00-0140	EA	2" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	33.37		18.13
33 31 11 00-0141	EA	3" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	51.29		24.35
33 31 11 00-0142	EA	4" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	70.46		28.15
33 31 11 00-0143	EA	6" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	129.61		36.58
33 31 11 00-0144	EA	8" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	554.80		49.23
33 31 11 00-0145 Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe (33 31 11 00-0001)					
Note: ASTM 3034.					
33 31 11 00-0146	LF	4" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	18.38		7.37
		For SDR 26, Add	0.71		
33 31 11 00-0147	LF	6" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	24.08		8.57
		For SDR 26, Add	1.36		
33 31 11 00-0148	LF	8" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	31.72		9.97
		For SDR 26, Add	2.31		
33 31 11 00-0149	LF	10" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	38.31		10.33
		For SDR 26, Add	3.46		
33 31 11 00-0150	LF	12" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	46.26		10.69
		For SDR 26, Add	4.88		
33 31 11 00-0151	LF	15" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	59.46		11.06
		For SDR 26, Add	7.32		
33 31 11 00-0152	LF	18" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	74.55		11.47
33 31 11 00-0153	LF	21" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	96.06		12.45
33 31 11 00-0154	LF	24" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	116.00		13.44
33 31 11 00-0155	LF	27" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe	143.94		15.76
33 31 11 00-0156 Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe (33 31 11 00-0001)					
Note: ASTM 3034.					
33 31 11 00-0157	LF	4" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	19.84		7.37
		For SDR 26, Add	1.00		
33 31 11 00-0158	LF	6" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	27.37		8.57
		For SDR 26, Add	2.00		
33 31 11 00-0159	LF	8" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	37.79		9.97
		For SDR 26, Add	3.50		
33 31 11 00-0160 Gasketed SDR 35 Polyvinyl Chloride (PVC) Fittings (33 31 11 00-0001)					
Note: ASTM 3034.					
33 31 11 00-0161 1/4 Bends, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)					
33 31 11 00-0162	EA	4" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	85.84		26.48
		For SDR 26, Add	4.00		
33 31 11 00-0163	EA	6" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	128.02		30.80
		For SDR 26, Add	7.36		
33 31 11 00-0164	EA	8" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	270.64		34.89
		For SDR 26, Add	20.37		
33 31 11 00-0165	EA	10" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	781.97		41.06
		For SDR 26, Add	68.50		
33 31 11 00-0166	EA	12" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,010.54		52.35
		For SDR 26, Add	88.64		
33 31 11 00-0167 1/8 Bends, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)					
33 31 11 00-0168	EA	4" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	77.27		26.48
		For SDR 26, Add	3.18		
33 31 11 00-0169	EA	6" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	118.57		30.80
		For SDR 26, Add	6.46		

33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0170	EA	8" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	246.75	34.89
		<i>For SDR 26, Add</i>	18.07	
33 31 11 00-0171	EA	10" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	556.98	41.06
		<i>For SDR 26, Add</i>	46.90	
33 31 11 00-0172	EA	12" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	796.61	52.35
		<i>For SDR 26, Add</i>	68.10	
33 31 11 00-0173	EA	15" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,711.60	73.90
		<i>For SDR 26, Add</i>	152.49	
33 31 11 00-0174	EA	18" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	2,716.87	104.69
33 31 11 00-0175	EA	21" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	4,536.69	138.56
33 31 11 00-0176	EA	24" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC)	6,186.26	184.74
33 31 11 00-0177 Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)				
33 31 11 00-0178	EA	4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	129.97	39.72
		<i>For SDR 26, Add</i>	6.12	
33 31 11 00-0179	EA	6" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	211.41	44.03
		<i>For SDR 26, Add</i>	13.25	
33 31 11 00-0180	EA	6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	237.93	46.18
		<i>For SDR 26, Add</i>	15.45	
33 31 11 00-0181	EA	8" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	262.94	48.34
		<i>For SDR 26, Add</i>	17.51	
33 31 11 00-0182	EA	8" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	301.65	50.49
		<i>For SDR 26, Add</i>	20.88	
33 31 11 00-0183	EA	8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	582.62	52.65
		<i>For SDR 26, Add</i>	47.51	
33 31 11 00-0184	EA	10" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	747.71	53.88
		<i>For SDR 26, Add</i>	63.16	
33 31 11 00-0185	EA	10" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	847.97	56.45
		<i>For SDR 26, Add</i>	72.38	
33 31 11 00-0186	EA	10" x 8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,254.86	58.60
		<i>For SDR 26, Add</i>	111.10	
33 31 11 00-0187	EA	10" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,637.21	61.58
		<i>For SDR 26, Add</i>	147.32	
33 31 11 00-0188	EA	12" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	920.10	65.59
		<i>For SDR 26, Add</i>	77.84	
33 31 11 00-0189	EA	12" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	976.98	67.74
		<i>For SDR 26, Add</i>	82.95	
33 31 11 00-0190	EA	12" x 8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,397.04	69.90
		<i>For SDR 26, Add</i>	122.93	
33 31 11 00-0191	EA	12" x 10" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	2,018.21	72.87
		<i>For SDR 26, Add</i>	182.09	
33 31 11 00-0192	EA	12" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	2,274.79	78.51
		<i>For SDR 26, Add</i>	205.82	
33 31 11 00-0193 Wyes, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)				
33 31 11 00-0194	EA	4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	123.32	39.72
		<i>For SDR 26, Add</i>	5.48	
33 31 11 00-0195	EA	6" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	189.25	44.03
		<i>For SDR 26, Add</i>	11.12	
33 31 11 00-0196	EA	6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	208.16	46.18
		<i>For SDR 26, Add</i>	12.59	
33 31 11 00-0197	EA	8" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	253.44	48.34
33 31 11 00-0198	EA	8" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	290.31	50.49
33 31 11 00-0199	EA	8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	447.18	52.65
33 31 11 00-0200	EA	10" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	683.37	54.30
33 31 11 00-0201	EA	10" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	696.97	56.45
33 31 11 00-0202	EA	10" x 8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,051.56	58.60
33 31 11 00-0203	EA	10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,163.97	61.58
33 31 11 00-0204	EA	12" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	866.43	65.59
33 31 11 00-0205	EA	12" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	893.63	67.74
33 31 11 00-0206	EA	12" x 8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,282.79	69.90
33 31 11 00-0207	EA	12" x 10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,546.99	72.87
33 31 11 00-0208	EA	12" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,614.97	78.51
33 31 11 00-0209	EA	15" x 10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,990.55	94.43
33 31 11 00-0210	EA	15" x 12" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	2,208.92	100.07
33 31 11 00-0211	EA	15" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC)	2,763.33	110.84
33 31 11 00-0212 Couplings, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)				
33 31 11 00-0213	EA	4" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	85.09	26.48
		<i>For SDR 26, Add</i>	3.93	
33 31 11 00-0214	EA	6" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	133.08	30.80
		<i>For SDR 26, Add</i>	7.85	
33 31 11 00-0215	EA	8" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	197.36	35.10
		<i>For SDR 26, Add</i>	13.33	
33 31 11 00-0216	EA	10" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	376.63	41.06
		<i>For SDR 26, Add</i>	29.58	
33 31 11 00-0217	EA	12" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	535.03	52.35
		<i>For SDR 26, Add</i>	42.99	
33 31 11 00-0218	EA	15" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)	1,049.61	73.90
		<i>For SDR 26, Add</i>	88.94	



		Utilities	33	33
		Sanitary Sewerage Utilities	33 30	
		Sanitary Sewerage Piping	33 31	

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
33 31 11 00-0219	EA	18" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)		1,977.94	104.69
33 31 11 00-0220	EA	21" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)		3,304.46	138.56
33 31 11 00-0221	EA	24" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC)		4,785.37	184.74
33 31 11 00-0222 Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)					
33 31 11 00-0223	EA	6" x 4" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		165.24	28.64
		For SDR 26, Add		11.28	
33 31 11 00-0224	EA	8" x 4" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		237.89	30.80
		For SDR 26, Add		17.97	
33 31 11 00-0225	EA	8" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		250.82	32.94
		For SDR 26, Add		18.81	
33 31 11 00-0226	EA	10" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		569.18	35.92
		For SDR 26, Add		48.90	
33 31 11 00-0227	EA	10" x 8" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		654.51	38.08
		For SDR 26, Add		56.74	
33 31 11 00-0228	EA	12" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		731.43	41.57
		For SDR 26, Add		63.57	
33 31 11 00-0229	EA	12" x 8" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		839.91	43.72
		For SDR 26, Add		73.64	
33 31 11 00-0230	EA	12" x 10" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		963.42	46.70
		For SDR 26, Add		85.02	
33 31 11 00-0231	EA	15" x 12" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC)		1,451.29	63.12
		For SDR 26, Add		129.22	
33 31 11 00-0232 Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)					
33 31 11 00-0233	EA	6" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		135.95	
		For SDR 26, Add		8.12	
33 31 11 00-0234	EA	8" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		179.99	
		For SDR 26, Add		11.37	
33 31 11 00-0235	EA	8" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		184.09	
		For SDR 26, Add		11.76	
33 31 11 00-0236	EA	10" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		306.65	
		For SDR 26, Add		22.54	
33 31 11 00-0237	EA	10" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		323.84	
		For SDR 26, Add		24.19	
33 31 11 00-0238	EA	10" x 8" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		619.49	
		For SDR 26, Add		52.57	
33 31 11 00-0239	EA	12" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		348.94	
		For SDR 26, Add		25.12	
33 31 11 00-0240	EA	12" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		381.16	
		For SDR 26, Add		28.22	
33 31 11 00-0241	EA	12" x 8" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		858.48	
		For SDR 26, Add		74.04	
33 31 11 00-0242	EA	12" x 10" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		1,013.60	
		For SDR 26, Add		88.93	
33 31 11 00-0243	EA	15" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		398.94	
		For SDR 26, Add		26.47	
33 31 11 00-0244	EA	15" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		427.05	
		For SDR 26, Add		29.17	
33 31 11 00-0245 Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)					
33 31 11 00-0246	EA	6" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		145.58	
		For SDR 26, Add		9.05	
33 31 11 00-0247	EA	8" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		179.99	
		For SDR 26, Add		11.37	
33 31 11 00-0248	EA	8" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		197.19	
		For SDR 26, Add		13.02	
33 31 11 00-0249	EA	10" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		281.16	
		For SDR 26, Add		20.09	
33 31 11 00-0250	EA	10" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		321.78	
		For SDR 26, Add		23.99	
33 31 11 00-0251	EA	10" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		491.16	
		For SDR 26, Add		40.25	
33 31 11 00-0252	EA	12" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		346.90	
		For SDR 26, Add		24.93	
33 31 11 00-0253	EA	12" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		379.21	
		For SDR 26, Add		28.03	
33 31 11 00-0254	EA	12" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		571.15	
		For SDR 26, Add		46.46	
33 31 11 00-0255	EA	12" x 10" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		696.42	
		For SDR 26, Add		58.48	
33 31 11 00-0256	EA	15" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		397.67	
		For SDR 26, Add		26.35	
33 31 11 00-0257	EA	15" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		417.52	
		For SDR 26, Add		28.26	
33 31 11 00-0258	EA	15" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		701.33	
		For SDR 26, Add		55.50	
33 31 11 00-0259	EA	15" x 10" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC)		776.93	
		For SDR 26, Add		62.76	

33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 31 11 00-0260 EA 15" x 12" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....1,101.84
For SDR 26, Add 93.95

33 31 11 00-0261 Caps, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0160)

33 31 11 00-0262 EA 4" Cap, Gasketed SDR 35 Polyvinyl Chloride (PVC).....42.96
33 31 11 00-0263 EA 6" Cap, Gasketed SDR 35 Polyvinyl Chloride (PVC).....65.75
33 31 11 00-0264 EA 8" Cap, Gasketed SDR 35 Polyvinyl Chloride (PVC).....139.02
33 31 11 00-0265 EA 10" Cap, Gasketed SDR 35 Polyvinyl Chloride (PVC).....374.42
33 31 11 00-0266 EA 12" Cap, Gasketed SDR 35 Polyvinyl Chloride (PVC).....549.61

33 31 11 00-0267 Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe and Fittings (33 31 11 00-0001)

Note: ASTM F949.

33 31 11 00-0268 Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe (33 31 11 00-0267)

33 31 11 00-0269 LF 4" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....18.30 7.37
33 31 11 00-0270 LF 6" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....26.20 8.57
33 31 11 00-0271 LF 8" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....33.52 9.97
33 31 11 00-0272 LF 10" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....40.19 10.33
33 31 11 00-0273 LF 12" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....42.62 10.69
33 31 11 00-0274 LF 15" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....50.63 11.06
33 31 11 00-0275 LF 18" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....65.43 11.47
33 31 11 00-0276 LF 21" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....76.64 12.45
33 31 11 00-0277 LF 24" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....94.56 13.44
33 31 11 00-0278 LF 30" Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) Pipe.....136.16 18.08

33 31 11 00-0279 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) (33 31 11 00-0267)

33 31 11 00-0280 EA 4" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....75.29
33 31 11 00-0281 EA 6" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....103.32
33 31 11 00-0282 EA 8" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....144.45
33 31 11 00-0283 EA 10" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....248.75
33 31 11 00-0284 EA 12" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....266.72
33 31 11 00-0285 EA 15" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....447.65
33 31 11 00-0286 EA 18" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....711.66
33 31 11 00-0287 EA 21" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,017.32
33 31 11 00-0288 EA 24" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,322.90
33 31 11 00-0289 EA 30" 1/4 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,747.10

33 31 11 00-0290 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) (33 31 11 00-0267)

33 31 11 00-0291 EA 4" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....69.95
33 31 11 00-0292 EA 6" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....95.40
33 31 11 00-0293 EA 8" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....132.93
33 31 11 00-0294 EA 10" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....227.10
33 31 11 00-0295 EA 12" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....244.04
33 31 11 00-0296 EA 15" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....407.58
33 31 11 00-0297 EA 18" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....646.33
33 31 11 00-0298 EA 21" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....920.36
33 31 11 00-0299 EA 24" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,194.46
33 31 11 00-0300 EA 30" 1/8 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,575.72

33 31 11 00-0301 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) (33 31 11 00-0267)

33 31 11 00-0302 EA 4" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....61.92
33 31 11 00-0303 EA 6" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....78.68
33 31 11 00-0304 EA 8" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....124.39
33 31 11 00-0305 EA 10" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....157.66
33 31 11 00-0306 EA 12" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....219.98
33 31 11 00-0307 EA 15" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....365.00
33 31 11 00-0308 EA 18" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....534.37
33 31 11 00-0309 EA 21" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....821.16
33 31 11 00-0310 EA 24" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,107.96
33 31 11 00-0311 EA 30" 1/16 Bend, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,571.61

33 31 11 00-0312 Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC) (33 31 11 00-0267)

33 31 11 00-0313 EA 4" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....117.65
33 31 11 00-0314 EA 6" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....153.66
33 31 11 00-0315 EA 8" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....278.31
33 31 11 00-0316 EA 10" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....451.06
33 31 11 00-0317 EA 12" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....755.58
33 31 11 00-0318 EA 15" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....1,080.50



		Utilities	33	33
		Sanitary Sewerage Utilities	33 30	
		Sanitary Sewerage Piping	33 31	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0319	EA	18" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	1,569.97	
33 31 11 00-0320	EA	21" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	1,808.32	
33 31 11 00-0321	EA	24" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	2,046.60	
33 31 11 00-0322	EA	30" Wye, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	3,734.31	
33 31 11 00-0323 Tees, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC)^(33 31 11 00-0267)				
33 31 11 00-0324	EA	4" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	106.70	
33 31 11 00-0325	EA	6" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	138.64	
33 31 11 00-0326	EA	8" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	247.60	
33 31 11 00-0327	EA	10" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	398.59	
33 31 11 00-0328	EA	12" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	663.39	
33 31 11 00-0329	EA	15" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	947.43	
33 31 11 00-0330	EA	18" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	1,375.14	
33 31 11 00-0331	EA	21" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	1,582.36	
33 31 11 00-0332	EA	24" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	1,789.52	
33 31 11 00-0333	EA	30" Tee, Smooth Interior, Double Wall, Corrugated Polyvinyl Chloride (PVC).....	3,251.32	
33 31 11 00-0334 Cast Iron Service Saddles With U Bolt^(33 31 11)				
33 31 11 00-0335	EA	2" Diameter x 2" Tapped Tee Cast Iron Service Saddles With U Bolt	121.33	
33 31 11 00-0336	EA	3" Diameter x 1-1/2" Tapped Tee Cast Iron Service Saddles With U Bolt	122.00	
33 31 11 00-0337	EA	3" Diameter x 2" Tapped Tee Cast Iron Service Saddles With U Bolt	134.23	
33 31 11 00-0338	EA	4" Diameter x 1-1/2" Tapped Tee Cast Iron Service Saddles With U Bolt	129.99	
33 31 11 00-0339	EA	4" Diameter x 2" Hub Tee Cast Iron Service Saddles With U Bolt	146.81	
33 31 11 00-0340	EA	4" Diameter x 3" Hub Tee Cast Iron Service Saddles With U Bolt	165.31	
33 31 11 00-0341	EA	4" Diameter x 4" Hub Tee Cast Iron Service Saddles With U Bolt	195.89	
33 31 11 00-0342	EA	6" Diameter x 2" Hub Tee Cast Iron Service Saddles With U Bolt	166.03	
33 31 11 00-0343	EA	6" Diameter x 3" Hub Tee Cast Iron Service Saddles With U Bolt	181.51	
33 31 11 00-0344	EA	6" Diameter x 4" Hub Tee Cast Iron Service Saddles With U Bolt	209.28	
33 31 11 00-0345	EA	2" Diameter x 2" Tapped Wye Cast Iron Service Saddle With U Bolt	169.55	
33 31 11 00-0346	EA	4" Diameter x 1-1/2" Tapped Wye Cast Iron Service Saddle With U Bolt	133.78	
33 31 11 00-0347	EA	4" Diameter x 2" Tapped Wye Cast Iron Service Saddle With U Bolt	146.00	
33 31 11 00-0348	EA	4" Diameter x 3" Hub Wye Cast Iron Service Saddle With U Bolt	174.17	
33 31 11 00-0349	EA	4" Diameter x 4" Hub Wye Cast Iron Service Saddle With U Bolt	206.77	
33 31 11 00-0350	EA	6" Diameter x 4" Hub Wye Cast Iron Service Saddle With U Bolt	222.84	
33 31 11 00-0351 Couplings And Plug Fittings^(33 31 11)				
33 31 11 00-0352 Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Couplings^(33 31 11 00-0351)				
Note: For cast iron or plastic to cast iron to plastic pipe. Includes stainless steel clamps.				
33 31 11 00-0353	EA	1-1/2" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-150)	19.18	6.77
33 31 11 00-0354	EA	2" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-22)	20.97	7.90
33 31 11 00-0355	EA	3" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-33)	24.28	9.03
33 31 11 00-0356	EA	4" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-44)	27.53	9.60
33 31 11 00-0357	EA	5" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-55)	33.78	10.16
33 31 11 00-0358	EA	6" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-66)	40.07	11.29
33 31 11 00-0359	EA	8" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-88)	51.09	12.42
33 31 11 00-0360	EA	10" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1010)	63.20	12.98
33 31 11 00-0361	EA	12" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1212)	104.83	13.55
33 31 11 00-0362	EA	15" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1515)	142.98	14.68
33 31 11 00-0363	EA	18" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1818)	276.53	15.24
33 31 11 00-0364	EA	21" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2121)	321.39	16.10
33 31 11 00-0365	EA	24" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2424)	356.11	16.94
33 31 11 00-0366	EA	27" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2727)	426.72	18.07
33 31 11 00-0367 Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Couplings^(33 31 11 00-0351)				
Note: For ductile iron or asbestos cement fiber to ductile iron or asbestos cement fiber (AC/DI to AC/DI). Includes stainless steel clamps.				
33 31 11 00-0368	EA	4" x 4" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-44)	32.30	
33 31 11 00-0369	EA	5" x 4" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-54)	45.39	
33 31 11 00-0370	EA	5" x 5" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-55)	42.89	
33 31 11 00-0371	EA	6" x 4" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-64)	54.55	
33 31 11 00-0372	EA	6" x 5" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-65)	57.16	
33 31 11 00-0373	EA	6" x 6" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-66)	51.98	
33 31 11 00-0374	EA	8" x 6" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-86)	76.67	
33 31 11 00-0375	EA	8" x 8" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-88)	68.95	

33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0376	EA	10" x 8" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-10-8)	95.73	
33 31 11 00-0377	EA	10" x 10" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-1010)	86.77	
33 31 11 00-0378	EA	12" x 10" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-1210)	115.10	
33 31 11 00-0379	EA	12" x 12" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-1212)	100.48	
33 31 11 00-0380	EA	16" x 15" Ductile Iron Or Asbestos Cement Fiber To Ductile Iron Or Asbestos Cement Fiber, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling (Fernco 1055-1615)	161.16	
33 31 11 00-0381		Manhole Inside Bowl Drop (33 31 11)		
33 31 11 00-0382	EA	Inside Pipe Drop, 4" Outlet for 4' to 5' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A4DB)	336.48	
33 31 11 00-0383	EA	Inside Pipe Drop, 4" Outlet for 6' to 8' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A4R96)	352.84	
33 31 11 00-0384	EA	Inside Pipe Drop, 6" Outlet for 4' to 5' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A6DB)	361.64	
33 31 11 00-0385	EA	Inside Pipe Drop, 6" Outlet for 6' to 8' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A6R96)	374.10	
33 31 11 00-0386	EA	Inside Pipe Drop, 8" Outlet for 4' to 5' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A8DB)	388.67	
33 31 11 00-0387	EA	Inside Pipe Drop, 8" Outlet for 6' to 8' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A8DBR84)	416.96	
33 31 11 00-0388	EA	Inside Pipe Drop, 10" Outlet for 4' to 5' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A10DB)	434.06	
33 31 11 00-0389	EA	Inside Pipe Drop, 10" Outlet for 6' to 8' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner A10R96)	448.21	
33 31 11 00-0390	EA	Inside Pipe Drop, 12" Outlet for 4' to 6' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner 24/12R60)	772.69	
33 31 11 00-0391	EA	Inside Pipe Drop, 12" Outlet for 7' to 8' Diameter Manhole With Stainless Steel Expansion Bolts (Reliner 24/12R96)	793.91	
33 32		Sanitary Sewerage Equipment (33 30)		
33 32 16		Packaged Wastewater Grinder Pump Assemblies (33 32)		
33 32 16 00-0001		Submersible Grinder Pumps, Cast Iron With Bronze Impeller (33 32 16)		
33 32 16 00-0002	EA	2 HP Submersible Grinder Pump, 200/208, 230 Volt, 1 Phase, 3450 RPM, 1-1/2" Threaded Discharge Note: Zoeller 840 series.	2,154.05	334.51
33 32 16 00-0003	EA	2 HP Submersible Grinder Pump, 200/208, 230, 460 Volt, 3 Phase, 3450 RPM, 1-1/2" Threaded Discharge Note: Zoeller 840 series.	2,123.35	334.51
33 32 16 00-0004	EA	Simplex Control Panel With Auto Reversing Switch Note: For Zoeller 840 series grinder pump.	1,020.05	111.47
33 32 16 00-0005	EA	Duplex Control Panel With Auto Reversing Switch Note: For Zoeller 840 series grinder pump.	1,590.54	111.47
33 32 16 00-0006	EA	Grinder Pump, 120 Gallon Sewage Basin, 1 HP, 120 V (Environment One 2012-74)	13,355.05	
33 32 16 00-0007		Submersible Grinder Pumps (33 32 16)		
		Note: Includes 50' of cord with pumps unless otherwise noted.		
33 32 16 00-0008	EA	2 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof	3,845.31	717.57
33 32 16 00-0009	EA	3 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof	5,736.31	837.16
33 32 16 00-0010	EA	5 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof	7,027.03	1,076.35
33 32 16 00-0011		In-Line Sewage Grinder, Single Shaft Design (33 32 16)		
33 32 16 00-0012	EA	In-Line Sewage Grinder, 4" Pipe Flanges, Single Shaft Design, Franklin Miller Super Shredder Series 4-8000, 3 HP, 230/460 Volt, 3 Phase, 60 Hertz, Totally Enclosed Explosion Proof Motor..... For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	14,641.68 2,700.00	1,326.30
		For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	9,600.00	
33 32 16 00-0013	EA	In-Line Sewage Grinder, 6" Pipe Flanges, Single Shaft Design, Franklin Miller Super Shredder Series 6-8000, 3 HP, 230/460 Volt, 3 Phase, 60 Hertz, Totally Enclosed Explosion Proof Motor..... For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	14,641.68 2,700.00	1,326.30
		For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	9,600.00	
33 32 16 00-0014	EA	In-Line Sewage Grinder, 8" Pipe Flanges, Single Shaft Design, Franklin Miller Super Shredder Series 8000, 5 HP, 230/460 Volt, 3 Phase, 60 Hertz, Totally Enclosed Explosion Proof Motor..... For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	14,641.68 2,700.00	1,326.30
		For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	9,600.00	
33 32 16 00-0015	EA	In-Line Sewage Grinder, 10" Pipe Flanges, Single Shaft Design, Franklin Miller Super Shredder Series 1000, 7-1/2 HP, 230/460 Volt, 3 Phase, 60 Hertz, Totally Enclosed Explosion Proof Motor..... For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	23,137.60 2,700.00	1,326.30
		For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	9,600.00	
33 32 16 00-0016	EA	In-Line Sewage Grinder, 10" Pipe Flanges, Single Shaft Design, Franklin Miller Super Shredder Series 1600, 10 HP, 230/460 Volt, 3 Phase, 60 Hertz, Totally Enclosed Explosion Proof Motor..... For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	31,219.08 2,700.00	1,326.30
		For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.	9,600.00	
33 32 16 00-0017	EA	Lower Housing Replacement, Including Casing, Liner, Cutter And Bearings. For Series 8000	29,995.88	
33 32 16 00-0018	EA	Lower Housing Replacement, Including Casing, Liner, Cutter And Bearings. For Series 1000	33,563.21	
33 32 16 00-0019	EA	Lower Housing Replacement, Including Casing, Liner, Cutter And Bearings. For Series 1600	117,766.90	



		Utilities	33	CS
		Sanitary Sewerage Utilities	33 30	
		Sanitary Sewerage Equipment	33 32	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 32 16 00-0020 In-Line Sewage Grinder, Double Shaft Design (33 32 16)					
33 32 16 00-0021	EA 4" Pipe Flanges, In-Line Sewage Grinder, 3 HP, Muffin Monster Series 30000	14,880.87		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 29:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0022	EA 6" Pipe Flanges, In-Line Sewage Grinder, 3 HP, Muffin Monster Series 30000	16,122.99		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 29:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0023	EA 8" Pipe Flanges, In-Line Sewage Grinder, 3 HP, Muffin Monster Series 30000	16,601.37		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 29:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0024	EA 10" Pipe Flanges, In-Line Sewage Grinder, 3 HP, Muffin Monster Series 30000	18,983.78		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 29:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0025	EA 12" Pipe Flanges, In-Line Sewage Grinder, 3 HP, Muffin Monster Series 30000	20,832.16		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 29:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0026	EA 12" Pipe Flanges, In-Line Sewage Grinder, 10 HP, Muffin Monster Series 40000	41,407.08		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 43:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0027	EA 16" Pipe Flanges, In-Line Sewage Grinder, 10 HP, Muffin Monster Series 40000	47,573.87		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 43:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0028	EA 18" Pipe Flanges, In-Line Sewage Grinder, 10 HP, Muffin Monster Series 40000	49,970.49		1,326.30	
	Note: Double shaft design, 0-1200 GPM capacity, 230/460 volt, 3 phase, 60 Hz totally enclosed explosion-proof motor with 43:1 reducer, and 12" high cutting cartridge.				
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
33 32 16 00-0029	EA Up To 8" Cutter Cartridge Replacement For Series 30000	37,209.26			
33 32 16 00-0030	EA 10" To 12" Cutter Cartridge Replacement For Series 30000	59,477.89			
33 32 16 00-0031	EA 12" Cutter Cartridge Replacement For Series 40000	124,828.20			
33 32 16 00-0032	EA 16" Cutter Cartridge Replacement For Series 40000	147,457.48			
33 32 16 00-0033	EA 18" Cutter Cartridge Replacement For Series 40000	156,251.96			
33 32 16 00-0034 Open Channel Sewage, Double Shaft Design (33 32 16)					
33 32 16 00-0035	EA Open Channel Sewage Grinder, Double Shaft Design, 40" High Cutter Cartridge, Muffin Monster Series 30000	27,388.52		1,326.30	
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect	3,701.00			
33 32 16 00-0036	EA Open Channel Sewage Grinder, Double Shaft Design, 50" High Cutter Cartridge, Muffin Monster Series 30000	29,756.72		1,326.30	
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect	3,701.00			
33 32 16 00-0037	EA Open Channel Sewage Grinder, Double Shaft Design, 60" High Cutter Cartridge, Muffin Monster Series 30000	32,124.92		1,326.30	
	For NEMA 4X Controller, Add	1,846.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For NEMA 7 Controller, Add	10,466.00			
	Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature.				
	For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect	3,701.00			

33 Utilities**33 30 Sanitary Sewerage Utilities****33 32 Sanitary Sewerage Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 32 16 00-0038 EA Open Channel Sewage Grinder, Double Shaft Design, 18" High Cutter Cartridge, Muffin Monster Series 40000 For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect, Add Note: With Quick Disconnect, Add	38,567.61 1,846.00 10,466.00 5,182.00	1,326.30
33 32 16 00-0039 EA Open Channel Sewage Grinder, Double Shaft Design, 24" High Cutter Cartridge, Muffin Monster Series 40000 For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect, Add Note: With Quick Disconnect, Add	41,722.05 1,846.00 10,466.00 5,182.00	1,326.30
33 32 16 00-0040 EA Open Channel Sewage Grinder, Double Shaft Design, 32" High Cutter Cartridge, Muffin Monster Series 40000 For NEMA 4X Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For NEMA 7 Controller, Add Note: Includes push to test lamp, ET meter door/window, CB disconnect and motor over temperature. For Power Pack, 5HP, 230/460V, 3 Phase, 60 Hertz Hydraulic Drive With Quick Disconnect, Add Note: With Quick Disconnect, Add	44,741.50 1,846.00 10,466.00 5,182.00	1,326.30
33 32 16 00-0041 EA For Cutter Cartridge Replacement For Series 30000, 40"	67,581.50	
33 32 16 00-0042 EA For Cutter Cartridge Replacement For Series 30000, 50"	75,511.31	
33 32 16 00-0043 EA For Cutter Cartridge Replacement For Series 30000, 60"	84,310.14	
33 32 16 00-0044 EA For Cutter Cartridge Replacement For Series 40000, 18"	93,326.22	
33 32 16 00-0045 EA For Cutter Cartridge Replacement For Series 40000, 24"	108,859.96	
33 32 16 00-0046 EA For Cutter Cartridge Replacement For Series 40000, 32"	121,026.24	
33 32 16 00-0047 Monoflo TR Muncher (33 32 16) Note: TR Muncher twin shaft sludge grinder, 3 HP TEXP motor, CI body, alloy steel cutter and spacers, 11 tooth cutters, 8mm thick, includes control panel monoflo priced separately.		
33 32 16 00-0048 EA CT203P Monoflo TR Muncher 4" Ports with 12" Throat For 5 HP TEXP Motor, Add For 5mm Thick Cutters, Add	38,834.93 1,150.00 725.00	442.18
33 32 16 00-0049 EA CT203Q Monoflo TR Muncher 6" Ports with 12" Throat For 5 HP TEXP Motor, Add For 5mm Thick Cutters, Add	38,834.93 1,150.00 725.00	442.18
33 32 16 00-0050 EA CT203R Monoflo TR Muncher 8" Ports with 12" Throat For 5 HP TEXP Motor, Add For 5mm Thick Cutters, Add	39,455.93 1,150.00 725.00	442.18
33 32 16 00-0051 EA CT203S Monoflo TR Muncher 10" Ports with 12" Throat For 5 HP TEXP Motor, Add For 5mm Thick Cutters, Add	45,293.33 1,150.00 950.00	442.18
33 32 16 00-0052 EA CT203T Monoflo TR Muncher 12" Ports with 12" Throat For 5 HP TEXP Motor, Add For 5mm Thick Cutters, Add	48,398.33 1,150.00 950.00	442.18
33 32 16 00-0053 EA Monoflo TR Muncher Control Panel (MF-511)	8,666.68	110.54
33 32 16 00-0054 EA Monoflo TR Muncher 12" Cutter Stack Rotating Assembly, spare part, material only For 5mm Thick Cutters, Add	19,847.16 725.00	
33 32 16 00-0055 EA Monoflo TR Muncher 20" Cutter Stack Rotating Assembly, spare part, material only For 5mm Thick Cutters, Add	20,865.60 950.00	
33 34 Onsite Wastewater Disposal (33 30) Note: Excludes distribution field piping, trenching or excavation.		
33 34 13 Septic Tanks (33 34)		
33 34 13 13 Concrete Septic Tanks (33 34 13)		
33 34 13 13-0001 Precast Concrete Septic Tank (33 34 13 13) Note: Includes external coating.		
33 34 13 13-0002 EA 1,000 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	4,135.35 -813.53	717.57
33 34 13 13-0003 EA 1,250 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	4,979.32 -1,001.71	792.08
33 34 13 13-0004 EA 1,500 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	5,790.36 -1,181.64	866.47
33 34 13 13-0005 EA 2,000 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	7,455.70 -1,575.68	941.81
33 34 13 13-0006 EA 2,500 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	8,859.96 -1,817.16	1,300.60
33 34 13 13-0007 EA 4,000 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	23,782.75 -5,395.55	1,793.93
33 34 13 13-0008 EA 5,000 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	43,324.19 -10,008.19	2,690.89
33 34 13 13-0009 EA 7,500 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	48,479.12 -10,973.66	3,767.25
33 34 13 13-0010 EA 10,000 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	59,458.14 -13,489.19	4,507.30
33 34 13 13-0011 EA 12,500 Gallon Precast Septic Tank For Non-Traffic Rated, Deduct	70,221.18 -15,836.11	5,583.66



		Utilities	33	CS
		Sanitary Sewerage Utilities	33 30	
		Onsite Wastewater Disposal	33 34	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 34 13 23 **Fiberglass Septic Tank** (33 34 13)

33 34 13 23-0001 **Fiberglass Septic Tank** (33 34 13 23)

33 34 13 23-0002	EA	1,000 Gallon Fiberglass Septic Tank	4,753.57	538.18
33 34 13 23-0003	EA	1,250 Gallon Fiberglass Septic Tank	5,584.58	717.57
33 34 13 23-0004	EA	1,500 Gallon Fiberglass Septic Tank	6,456.09	650.36
33 34 13 23-0005	EA	2,000 Gallon Fiberglass Septic Tank	10,854.90	704.05
33 34 13 23-0006	EA	2,500 Gallon Fiberglass Septic Tank	13,613.69	975.90
33 34 13 23-0007	EA	4,000 Gallon Fiberglass Septic Tank	21,618.84	1,345.45
33 34 13 23-0008	EA	5,000 Gallon Fiberglass Septic Tank	32,082.58	2,018.17
33 34 13 23-0009	EA	7,500 Gallon Fiberglass Septic Tank	44,042.77	2,825.44
33 34 13 23-0010	EA	10,000 Gallon Fiberglass Septic Tank	54,056.74	3,377.01

33 34 13 33 **Polyethylene Septic Tank** (33 34 13)

33 34 13 33-0001 **High Density Polyethylene (HDPE) Septic Tank** (33 34 13 33)

33 34 13 33-0002	EA	300 Gallon One Compartment One Manhole High Density Polyethylene (HDPE) Septic Tank	1,272.15	205.21
33 34 13 33-0003	EA	500 Gallon One Compartment One Manhole High Density Polyethylene (HDPE) Septic Tank	1,984.37	230.86
33 34 13 33-0004	EA	900 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	2,770.77	282.17
33 34 13 33-0005	EA	1,000 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	2,839.87	307.81
33 34 13 33-0006	EA	1,250 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	3,297.89	333.47
33 34 13 33-0007	EA	1,500 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	3,969.44	359.12
33 34 13 33-0008	EA	750 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	2,798.27	256.51
33 34 13 33-0009	EA	1,000 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	3,043.23	307.81
33 34 13 33-0010	EA	1,250 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	3,587.68	333.47
33 34 13 33-0011	EA	1,500 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank	4,223.63	359.12

33 34 51 **Drainage Field System** (33 34)

33 34 51 00-0001 **Leaching Pit - Precast Concrete** (33 34 51)

Note: Includes external coating.

33 34 51 00-0002	EA	3' Diameter, 3' High, Precast Concrete Leaching Pit	867.78	105.24
33 34 51 00-0003	EA	4' Diameter, 3' High, Precast Concrete Leaching Pit	1,214.86	149.50
33 34 51 00-0004	EA	6' Diameter, 3' High, Precast Concrete Leaching Pit	1,618.33	179.39
33 34 51 00-0005	EA	8' Diameter, 4' High, Precast Concrete Leaching Pit	2,637.58	298.99
33 34 51 00-0006	EA	10' Diameter, 4' High, Precast Concrete Leaching Pit	3,841.68	418.58

33 34 53 **Distribution Chambers** (33 34)

33 34 53 13 **Drainage Field Concrete Distribution Chambers** (33 34 53)

33 34 53 13-0001 **Concrete Distribution Boxes** (33 34 53 13)

Note: Includes internal and external coating.

33 34 53 13-0002	EA	3 Outlet Concrete Distribution Box	353.01	73.56
33 34 53 13-0003	EA	5 Outlet Concrete Distribution Box	410.40	88.27
33 34 53 13-0004	EA	8 Outlet Concrete Distribution Box	727.07	102.98
33 34 53 13-0005	EA	12 Outlet Concrete Distribution Box	1,441.04	176.54

33 34 53 13-0006 **Leaching Field Chambers - Precast Concrete** (33 34 53 13)

33 34 53 13-0007	EA	Standard Leaching Field Chamber 13' x 3'-7" x 1'-4"	1,034.86	100.32
33 34 53 13-0008	EA	Heavy Duty Leaching Field Chamber 13' x 3'-9" x 1'-6"	1,273.85	136.81

33 34 56 **Drainage Field Dosing Chambers** (33 34)

33 34 56 00-0001 **Dosing Siphon** (33 34 56)

33 34 56 00-0002	EA	Dosing Siphon With Electrical Connection And Solenoid Valve	5,961.04	
33 34 56 00-0003	EA	Solar Power Control For Dosing Siphon	4,107.31	
33 34 56 00-0004	EA	Electrical Power Control For Dosing Siphon	3,946.71	

33 40 **Stormwater Utilities** (33)

33 41 **Subdrainage** (33 40)

33 41 16 **Subdrainage Piping** (33 41)

33 41 16 13 **Subdrainage Piping** (33 41 16)

See CSI section 33 42 11 00-0274 for polyethylene drain pipe.

33 41 16 13-0001		Corrugated High Density Polyethylene (HDPE) Drainage Piping (33 41 16 13)		
33 41 16 13-0002		Single Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 41 16 13-0001)		
		Note: Excludes couplings and gaskets.		
33 41 16 13-0003		Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 41 16 13-0002)		

33 Utilities**33 40 Stormwater Utilities****33 41 Subdrainage**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 41 16 13-0004	LF	4" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	6.54	5.45
		For <100, Add	1.14	
		For >1,000, Deduct	-0.60	
33 41 16 13-0005	LF	6" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	8.25	5.83
		For <100, Add	1.29	
		For >1,000, Deduct	-0.70	
33 41 16 13-0006	LF	8" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	10.40	6.12
		For <100, Add	1.44	
		For >1,000, Deduct	-0.83	
33 41 16 13-0007	LF	10" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	14.23	6.32
		For <100, Add	1.66	
		For >1,000, Deduct	-1.03	
33 41 16 13-0008	LF	12" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	16.77	6.90
		For <100, Add	1.87	
		For >1,000, Deduct	-1.18	
33 41 16 13-0009	LF	15" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	22.15	7.78
		For <100, Add	2.27	
		For >1,000, Deduct	-1.50	
33 41 16 13-0010	LF	18" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	34.99	12.49
		For <100, Add	3.62	
		For >1,000, Deduct	-2.37	
33 41 16 13-0011	LF	24" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	48.85	13.72
		For <100, Add	4.50	
		For >1,000, Deduct	-3.13	
33 41 16 13-0012		Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 41 16 13-0002)		
33 41 16 13-0013	LF	4" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	6.38	5.45
		For <100, Add	1.14	
		For >1,000, Deduct	-0.59	
33 41 16 13-0014	LF	6" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	8.19	5.83
		For <100, Add	1.28	
		For >1,000, Deduct	-0.70	
33 41 16 13-0015	LF	8" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	13.35	6.12
		For <100, Add	1.59	
		For >1,000, Deduct	-0.97	
33 41 16 13-0016	LF	10" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	15.78	6.32
		For <100, Add	1.74	
		For >1,000, Deduct	-1.11	
33 41 16 13-0017	LF	12" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	18.46	6.90
		For <100, Add	1.96	
		For >1,000, Deduct	-1.27	
33 41 16 13-0018	LF	15" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	21.97	7.78
		For <100, Add	2.27	
		For >1,000, Deduct	-1.49	
33 41 16 13-0019	LF	18" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	33.87	12.49
		For <100, Add	3.57	
		For >1,000, Deduct	-2.32	
33 41 16 13-0020	LF	24" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe	47.07	13.72
		For <100, Add	4.41	
		For >1,000, Deduct	-3.04	
33 41 16 13-0021		Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe Fittings (33 41 16 13-0001)		
		Note: Excludes couplings and gaskets.		
33 41 16 13-0022		Tees, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 41 16 13-0021)		
33 41 16 13-0023	EA	4" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	47.68	24.64
33 41 16 13-0024	EA	6" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	56.90	28.75
33 41 16 13-0025	EA	8" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	96.57	34.91
33 41 16 13-0026	EA	10" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	124.57	43.13
33 41 16 13-0027	EA	12" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	189.48	51.35
33 41 16 13-0028	EA	15" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	427.36	67.09
33 41 16 13-0029	EA	18" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	507.40	90.36
33 41 16 13-0030	EA	24" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	984.45	102.69
33 41 16 13-0031		Wyes, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 41 16 13-0021)		
33 41 16 13-0032	EA	4" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	49.28	24.64
33 41 16 13-0033	EA	6" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	62.13	28.75
33 41 16 13-0034	EA	8" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	151.28	34.91
33 41 16 13-0035		45 Degree Bends, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 41 16 13-0021)		
33 41 16 13-0036	EA	4" 45 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	32.33	16.43
33 41 16 13-0037		90 Degree Bends, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 41 16 13-0021)		
33 41 16 13-0038	EA	4" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	34.01	16.43



		Utilities	33	33
		Stormwater Utilities	33 40	
		Subdrainage	33 41	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 41 16 13-0039	EA 6" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE).....	44.70		19.17
33 41 16 13-0040	EA 8" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE).....	68.27		23.28
33 41 16 13-0041	EA 10" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE).....	90.66		28.75
33 41 16 13-0042 Perforated Polyvinyl Chloride (PVC) Drainage Piping, D2729 (33 41 16 13)				
Note: Includes fittings, couplings, elbows, etc.				
33 41 16 13-0043	LF 3" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	8.43		3.96
	For <100, Add	1.02		
	For >1,000, Deduct	-0.62		
33 41 16 13-0044	LF 4" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	9.25		4.29
	For <100, Add	1.11		
	For >1,000, Deduct	-0.68		
33 41 16 13-0045	LF 6" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	13.69		5.14
	For <100, Add	1.46		
	For >1,000, Deduct	-0.94		
33 41 16 13-0046	LF 8" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	22.38		6.42
	For <100, Add	2.08		
	For >1,000, Deduct	-1.44		
33 41 16 13-0047	LF 10" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	38.60		6.68
	For <100, Add	2.93		
	For >1,000, Deduct	-2.26		
33 41 16 13-0048	LF 12" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	50.04		7.30
	For <100, Add	3.60		
	For >1,000, Deduct	-2.87		
33 41 16 13-0049	LF 15" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	70.19		8.22
	For <100, Add	4.74		
	For >1,000, Deduct	-3.92		
33 41 16 13-0050 Perforated Non-Reinforced Concrete Drainage Piping, C444 (33 41 16 13)				
33 41 16 13-0051	LF 6" Perforated Non-Reinforced Concrete Drainage Pipe.....	35.24		13.49
	For Extra Strength, Add	1.88		
	For >1,000, Deduct	-1.76		
33 41 16 13-0052	LF 8" Perforated Non-Reinforced Concrete Drainage Pipe.....	41.10		15.00
	For Extra Strength, Add	2.31		
	For >1,000, Deduct	-2.06		
33 41 16 13-0053	LF 10" Perforated Non-Reinforced Concrete Drainage Pipe.....	46.47		16.49
	For Extra Strength, Add	2.69		
	For >1,000, Deduct	-2.32		
33 41 16 13-0054	LF 12" Perforated Non-Reinforced Concrete Drainage Pipe.....	54.41		17.99
	For Extra Strength, Add	3.37		
	For >1,000, Deduct	-2.72		
33 41 16 13-0055 Extra Strength Porous Non-Reinforced Concrete Drainage Piping, C654 (33 41 16 13)				
Note: Bell and spigot or tongue and groove. With seals and gaskets.				
33 41 16 13-0056	LF 6" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	29.43		13.49
	For >1,000, Deduct	-1.47		
33 41 16 13-0057	LF 8" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	32.57		15.00
	For >1,000, Deduct	-1.63		
33 41 16 13-0058	LF 10" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	35.94		16.49
	For >1,000, Deduct	-1.80		
33 41 16 13-0059	LF 12" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	40.93		17.14
	For >1,000, Deduct	-2.05		
33 41 16 13-0060	LF 15" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	47.46		19.28
	For >1,000, Deduct	-2.37		
33 41 16 13-0061	LF 18" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	58.76		24.64
	For >1,000, Deduct	-2.94		
33 41 16 13-0062	LF 21" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	73.42		31.59
	For >1,000, Deduct	-3.67		
33 41 16 13-0063	LF 24" Extra Strength Porous Non-Reinforced Concrete Drainage Pipe.....	89.51		38.55
	For >1,000, Deduct	-4.48		
33 41 16 13-0064 Standard Strength Porous Non-Reinforced Concrete Drainage Piping, C654 (33 41 16 13)				
33 41 16 13-0065	LF 6" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	27.51		13.49
	For >1,000, Deduct	-1.38		
33 41 16 13-0066	LF 8" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	34.70		15.00
	For >1,000, Deduct	-1.74		
33 41 16 13-0067	LF 10" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	43.63		16.49
	For >1,000, Deduct	-2.18		
33 41 16 13-0068	LF 12" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	52.71		17.99
	For >1,000, Deduct	-2.64		
33 41 16 13-0069	LF 15" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	60.29		20.01
	For >1,000, Deduct	-3.01		
33 41 16 13-0070	LF 18" Standard Strength Porous Non-Reinforced Concrete Drainage Pipe.....	78.04		24.97
	For >1,000, Deduct	-3.90		
33 41 16 13-0071 Perforated Vitrified Clay Drainage Piping, C700 (33 41 16 13)				

33 Utilities**33 40 Stormwater Utilities****33 41 Subdrainage**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 41 16 13-0072 LF 4" Perforated Vitrified Clay Drainage Pipe	27.47	15.00
33 41 16 13-0073 LF 6" Perforated Vitrified Clay Drainage Pipe	32.68	16.86
33 41 16 13-0074 LF 8" Perforated Vitrified Clay Drainage Pipe	36.98	16.86
33 41 16 13-0075 LF 10" Perforated Vitrified Clay Drainage Pipe	49.30	20.62
33 41 16 13-0076 LF 12" Perforated Vitrified Clay Drainage Pipe	58.33	22.49
33 41 16 13-0077 Geotextile Filter Fabric Sock (33 41 16 13)		
33 41 16 13-0078 LF 3" Geotextile Filter Fabric Sock.....	0.87	
33 41 16 13-0079 LF 4" Geotextile Filter Fabric Sock.....	1.15	
33 41 16 13-0080 LF 6" Geotextile Filter Fabric Sock.....	1.75	
33 41 16 13-0081 LF 8" Geotextile Filter Fabric Sock.....	2.35	
33 41 16 13-0082 LF 10" Geotextile Filter Fabric Sock.....	3.50	
33 41 16 13-0083 LF 12" Geotextile Filter Fabric Sock.....	4.81	
33 41 16 13-0084 LF 15" Geotextile Filter Fabric Sock.....	5.76	
33 41 16 13-0085 Strip-Perforated, Galvanized, Corrugated Steel Pipe (33 41 16 13)		
Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0086 LF 6" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	25.74	6.43
For Full Perforated, Add	1.29	
33 41 16 13-0087 LF 8" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	32.57	7.78
For Full Perforated, Add	1.70	
33 41 16 13-0088 LF 10" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	41.07	9.88
For Full Perforated, Add	2.13	
33 41 16 13-0089 LF 12" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	45.64	11.69
For Full Perforated, Add	2.23	
33 41 16 13-0090 LF 15" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	52.19	12.09
For Full Perforated, Add	2.80	
33 41 16 13-0091 LF 18" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	58.88	12.54
For Full Perforated, Add	3.38	
33 41 16 13-0092 LF 21" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	67.30	13.52
For Full Perforated, Add	4.02	
33 41 16 13-0093 Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe (33 41 16 13)		
Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0094 LF 6" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	27.81	6.43
For Full Perforated, Add	1.50	
33 41 16 13-0095 LF 8" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	35.38	7.78
For Full Perforated, Add	1.98	
33 41 16 13-0096 LF 10" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	44.50	9.88
For Full Perforated, Add	2.47	
33 41 16 13-0097 LF 12" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	48.97	11.69
For Full Perforated, Add	2.56	
33 41 16 13-0098 LF 15" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	56.31	12.09
For Full Perforated, Add	3.21	
33 41 16 13-0099 LF 18" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	63.77	12.54
For Full Perforated, Add	3.87	
33 41 16 13-0100 LF 21" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	73.00	13.52
For Full Perforated, Add	4.59	
33 41 16 13-0101 Strip-Perforated, Corrugated Aluminum Pipe (33 41 16 13)		
Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0102 LF 6" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	28.48	6.43
For Full Perforated, Add	1.56	
33 41 16 13-0103 LF 8" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	36.24	7.78
For Full Perforated, Add	2.07	
33 41 16 13-0104 LF 10" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	45.60	9.88
For Full Perforated, Add	2.58	
33 41 16 13-0105 LF 12" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	57.20	11.69
For Full Perforated, Add	3.38	
33 41 16 13-0106 LF 15" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	66.55	12.09
For Full Perforated, Add	4.24	
33 41 16 13-0107 LF 18" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	76.19	12.54
For Full Perforated, Add	5.11	
33 41 16 13-0108 LF 21" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	87.48	13.52
For Full Perforated, Add	6.04	
33 41 16 13-0109 Prefabricated Composite Drains (33 41 16 13)		
33 41 16 13-0110 Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE) (33 41 16 13-0109)		
Note: Excludes excavation and backfill. See CSI section 31 23 16 13-0000 for excavation and backfill.		
33 41 16 13-0111 LF 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	11.60	2.45
For External Typar Geotextile Wrap, Add	2.11	
33 41 16 13-0112 EA Coupler For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	52.89	
33 41 16 13-0113 EA End Cap For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	52.89	
33 41 16 13-0114 EA Side Outlet For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	101.74	
33 41 16 13-0115 EA End Outlet For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	101.74	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Subdrainage	33 41	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 41 16 13-0116	LF 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	18.53		3.06
	For External Typar Geotextile Wrap, Add	3.16		
33 41 16 13-0117	EA Coupler For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	77.97		
33 41 16 13-0118	EA End Cap For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	77.97		
33 41 16 13-0119	EA Side Outlet For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	133.44		
33 41 16 13-0120	EA End Outlet For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE).....	133.44		
33 41 19 Underslab Drainage (33 41)				
33 41 19 13 Underslab Drainage Piping (33 41 19)				
33 41 19 13-0001 Capillary Water Barrier Underslab Drainage (33 41 19 13)				
Note: Consists of a layer of fine granular material overlying a coarse layer.				
33 41 19 13-0002	CY 2" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	43.06		
33 41 19 13-0003	CY 4" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	40.20		
33 41 19 13-0004	CY 6" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	39.06		
33 41 19 13-0005	CY 8" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	37.35		
33 42 Stormwater Conveyance (33 40)				
Note: Piping includes hydrostatic testing, disinfecting and warning tape. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.				
33 42 11 Stormwater Gravity Piping (33 42)				
33 42 11 00-0001 Reinforced Concrete Piping (33 42 11)				
33 42 11 00-0002 Class 3 Reinforced Concrete Pipe Without Gaskets (33 42 11 00-0001)				
33 42 11 00-0003	LF 12" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	52.51		17.99
	For >1,000, Deduct	-2.63		
	For Class 4, Add	2.55		
	For Class 5, Add	5.36		
33 42 11 00-0004	LF 15" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	62.91		20.01
	For >1,000, Deduct	-3.15		
	For Class 4, Add	3.26		
	For Class 5, Add	6.86		
33 42 11 00-0005	LF 18" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	71.77		24.97
	For >1,000, Deduct	-3.59		
	For Class 4, Add	3.43		
	For Class 5, Add	7.22		
33 42 11 00-0006	LF 21" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	91.90		31.49
	For >1,000, Deduct	-4.60		
	For Class 4, Add	4.46		
	For Class 5, Add	9.38		
33 42 11 00-0007	LF 24" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	107.71		38.23
	For >1,000, Deduct	-5.39		
	For Class 4, Add	5.04		
	For Class 5, Add	10.62		
33 42 11 00-0008	LF 27" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	136.41		48.58
	For >1,000, Deduct	-6.62		
	For Class 4, Add	6.37		
	For Class 5, Add	13.40		
33 42 11 00-0009	LF 30" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	144.99		50.16
	For >1,000, Deduct	-7.25		
	For Class 4, Add	6.89		
	For Class 5, Add	14.50		
33 42 11 00-0010	LF 36" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	178.89		57.00
	For >1,000, Deduct	-8.94		
	For Class 4, Add	9.34		
	For Class 5, Add	19.66		
33 42 11 00-0011	LF 42" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	230.92		62.71
	For >1,000, Deduct	-11.55		
	For Class 4, Add	13.51		
	For Class 5, Add	28.44		
33 42 11 00-0012	LF 48" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	276.16		69.83
	For >1,000, Deduct	-13.81		
	For Class 4, Add	16.76		
	For Class 5, Add	35.28		
33 42 11 00-0013	LF 54" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	343.06		79.81
	For >1,000, Deduct	-17.15		
	For Class 4, Add	21.76		
	For Class 5, Add	45.81		
33 42 11 00-0014	LF 60" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	413.95		92.58
	For >1,000, Deduct	-20.70		
	For Class 4, Add	26.76		
	For Class 5, Add	56.34		
33 42 11 00-0015	LF 66" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	634.63		102.61
	For >1,000, Deduct	-31.73		
	For Class 4, Add	46.43		
	For Class 5, Add	97.74		
33 42 11 00-0016	LF 72" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets.....	739.78		111.73
	For >1,000, Deduct	-36.99		
	For Class 4, Add	55.12		
	For Class 5, Add	116.03		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0017	LF		78" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	888.89	125.41
			For >1,000, Deduct	-44.44	
			For Class 4, Add	67.39	
			For Class 5, Add	141.86	
33 42 11 00-0018	LF		84" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	1,143.12	139.66
			For >1,000, Deduct	-57.16	
			For Class 4, Add	89.64	
			For Class 5, Add	188.72	
33 42 11 00-0019 HE-I Elliptical Reinforced Concrete Piping Without Gaskets (33 42 11 00-0001)					
33 42 11 00-0020	LF		12" x 18" Elliptical Reinforced Concrete Pipe Without Gaskets (15" Diameter Equivalent Round Size)	88.38	28.34
			For >1,000, Deduct	-4.42	
			For Horizontal Elliptical - II (HE- II), Add	4.79	
			For Horizontal Elliptical - III (HE- III), Add	10.54	
			For Horizontal Elliptical - IV (HE- IV), Add	22.99	
33 42 11 00-0021	LF		14" x 23" Elliptical Reinforced Concrete Pipe Without Gaskets (18" Diameter Equivalent Round Size)	125.54	33.20
			For >1,000, Deduct	-6.28	
			For Horizontal Elliptical - II (HE- II), Add	7.81	
			For Horizontal Elliptical - III (HE- III), Add	17.18	
			For Horizontal Elliptical - IV (HE- IV), Add	37.49	
33 42 11 00-0022	LF		19" x 30" Elliptical Reinforced Concrete Pipe Without Gaskets (24" Diameter Equivalent Round Size)	174.83	50.85
			For >1,000, Deduct	-8.74	
			For Horizontal Elliptical - II (HE- II), Add	10.22	
			For Horizontal Elliptical - III (HE- III), Add	22.48	
			For Horizontal Elliptical - IV (HE- IV), Add	49.05	
33 42 11 00-0023	LF		22" x 34" Elliptical Reinforced Concrete Pipe Without Gaskets (27" Diameter Equivalent Round Size)	206.55	64.61
			For >1,000, Deduct	-10.33	
			For Horizontal Elliptical - II (HE- II), Add	11.43	
			For Horizontal Elliptical - III (HE- III), Add	25.14	
			For Horizontal Elliptical - IV (HE- IV), Add	54.84	
33 42 11 00-0024	LF		24" x 38" Elliptical Reinforced Concrete Pipe Without Gaskets (30" Diameter Equivalent Round Size)	219.15	67.50
			For >1,000, Deduct	-10.96	
			For Horizontal Elliptical - II (HE- II), Add	12.27	
			For Horizontal Elliptical - III (HE- III), Add	27.00	
			For Horizontal Elliptical - IV (HE- IV), Add	58.90	
33 42 11 00-0025	LF		27" x 42" Elliptical Reinforced Concrete Pipe Without Gaskets (33" Diameter Equivalent Round Size)	251.04	71.28
			For >1,000, Deduct	-12.55	
			For Horizontal Elliptical - II (HE- II), Add	14.92	
			For Horizontal Elliptical - III (HE- III), Add	32.83	
			For Horizontal Elliptical - IV (HE- IV), Add	71.63	
33 42 11 00-0026	LF		29" x 45" Elliptical Reinforced Concrete Pipe Without Gaskets (36" Diameter Equivalent Round Size)	282.92	75.04
			For >1,000, Deduct	-14.15	
			For Horizontal Elliptical - II (HE- II), Add	17.57	
			For Horizontal Elliptical - III (HE- III), Add	38.66	
			For Horizontal Elliptical - IV (HE- IV), Add	84.35	
33 42 11 00-0027	LF		34" x 53" Elliptical Reinforced Concrete Pipe Without Gaskets (42" Diameter Equivalent Round Size)	344.03	82.58
			For >1,000, Deduct	-17.20	
			For Horizontal Elliptical - II (HE- II), Add	22.61	
			For Horizontal Elliptical - III (HE- III), Add	49.74	
			For Horizontal Elliptical - IV (HE- IV), Add	108.51	
33 42 11 00-0028	LF		38" x 60" Elliptical Reinforced Concrete Pipe Without Gaskets (48" Diameter Equivalent Round Size)	413.93	92.87
			For >1,000, Deduct	-20.70	
			For Horizontal Elliptical - II (HE- II), Add	28.13	
			For Horizontal Elliptical - III (HE- III), Add	61.88	
			For Horizontal Elliptical - IV (HE- IV), Add	135.00	
33 42 11 00-0029	LF		43" x 68" Elliptical Reinforced Concrete Pipe Without Gaskets (54" Diameter Equivalent Round Size)	471.24	106.14
			For >1,000, Deduct	-23.56	
			For Horizontal Elliptical - II (HE- II), Add	31.96	
			For Horizontal Elliptical - III (HE- III), Add	70.31	
			For Horizontal Elliptical - IV (HE- IV), Add	153.41	
33 42 11 00-0030	LF		48" x 76" Elliptical Reinforced Concrete Pipe Without Gaskets (60" Diameter Equivalent Round Size)	582.86	123.13
			For >1,000, Deduct	-29.14	
			For Horizontal Elliptical - II (HE- II), Add	40.70	
			For Horizontal Elliptical - III (HE- III), Add	89.53	
			For Horizontal Elliptical - IV (HE- IV), Add	195.35	
33 42 11 00-0031	LF		53" x 83" Elliptical Reinforced Concrete Pipe without Gaskets (66" Diameter Equivalent Round Size)	664.83	135.67
33 42 11 00-0032	LF		58" x 91" Elliptical Reinforced Concrete Pipe without Gaskets (72" Diameter Equivalent Round Size)	804.85	148.21
33 42 11 00-0033	LF		63" x 98" Elliptical Reinforced Concrete Pipe without Gaskets (78" Diameter Equivalent Round Size)	960.54	167.59
33 42 11 00-0034	LF		68" x 106" Elliptical Reinforced Concrete Pipe without Gaskets (84" Diameter Equivalent Round Size)	1,040.25	185.84
33 42 11 00-0035	LF		72" x 113" Elliptical Reinforced Concrete Pipe without Gaskets (90" Diameter Equivalent Round Size)	1,328.53	194.95
33 42 11 00-0036	LF		77" x 121" Elliptical Reinforced Concrete Pipe without Gaskets (96" Diameter Equivalent Round Size)	1,537.81	204.08
33 42 11 00-0037 Concrete Reducing Wye Without Gaskets (33 42 11 00-0001)					
33 42 11 00-0038	EA		12" Concrete Reducing Wye Without Gaskets	627.97	68.55
33 42 11 00-0039	EA		15" Concrete Reducing Wye Without Gaskets	753.18	83.53
33 42 11 00-0040	EA		18" Concrete Reducing Wye Without Gaskets	929.84	92.10
33 42 11 00-0041	EA		21" Concrete Reducing Wye Without Gaskets	1,067.81	113.52
33 42 11 00-0042	EA		24" Concrete Reducing Wye Without Gaskets	1,207.44	137.08
33 42 11 00-0043 Concrete Pipe Joint Gaskets (33 42 11 00-0001)					
33 42 11 00-0044	EA		12" Diameter Concrete Pipe Joint Gasket	5.94	



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0045 EA 15" Diameter Concrete Pipe Joint Gasket	7.03	
33 42 11 00-0046 EA 18" Diameter Concrete Pipe Joint Gasket	8.15	
33 42 11 00-0047 EA 21" Diameter Concrete Pipe Joint Gasket	9.85	
33 42 11 00-0048 EA 24" Diameter Concrete Pipe Joint Gasket	11.54	
33 42 11 00-0049 EA 27" Diameter Concrete Pipe Joint Gasket	12.85	
33 42 11 00-0050 EA 30" Diameter Concrete Pipe Joint Gasket	14.12	
33 42 11 00-0051 EA 36" Diameter Concrete Pipe Joint Gasket	17.26	
33 42 11 00-0052 EA 42" Diameter Concrete Pipe Joint Gasket	20.00	
33 42 11 00-0053 EA 48" Diameter Concrete Pipe Joint Gasket	23.07	
33 42 11 00-0054 EA 54" Diameter Concrete Pipe Joint Gasket	28.28	
33 42 11 00-0055 EA 60" Diameter Concrete Pipe Joint Gasket	41.86	
33 42 11 00-0056 EA 66" Diameter Concrete Pipe Joint Gasket	43.52	
33 42 11 00-0057 EA 72" Diameter Concrete Pipe Joint Gasket	45.12	
33 42 11 00-0058 EA 78" Diameter Concrete Pipe Joint Gasket	51.96	
33 42 11 00-0059 EA 84" Diameter Concrete Pipe Joint Gasket	62.30	
 33 42 11 00-0060 Couplings (33 42 11 00-0001)		
33 42 11 00-0061 Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Couplings (33 42 11 00-0060)		
Note: For concrete to cast iron or plastic pipe. Includes stainless steel clamps. Fernco 1006.		
33 42 11 00-0062 EA 4" x 3" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	34.67	
33 42 11 00-0063 EA 4" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	32.30	
33 42 11 00-0064 EA 6" x 4" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	53.04	
33 42 11 00-0065 EA 6" x 5" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	54.93	
33 42 11 00-0066 EA 6" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	51.30	
33 42 11 00-0067 EA 8" x 6" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	76.67	
33 42 11 00-0068 EA 8" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	66.79	
33 42 11 00-0069 EA 10" x 8" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	95.73	
33 42 11 00-0070 EA 10" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	85.30	
33 42 11 00-0071 EA 12" x 10" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	115.05	
33 42 11 00-0072 EA 12" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	96.99	
33 42 11 00-0073 EA 15" Concrete To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Coupling	292.42	
 33 42 11 00-0074 Precast Concrete Cut Off Wall (33 42 11 00-0001)		
33 42 11 00-0075 EA 12" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	271.27	200.66
33 42 11 00-0076 EA 15" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	334.82	248.54
33 42 11 00-0077 EA 18" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	416.63	314.67
33 42 11 00-0078 EA 21" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	493.87	376.23
33 42 11 00-0079 EA 24" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	568.71	435.40
33 42 11 00-0080 EA 27" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	705.35	556.36
33 42 11 00-0081 EA 30" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	930.95	766.15
33 42 11 00-0082 EA 36" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,163.09	966.80
33 42 11 00-0083 EA 42" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,440.33	1,212.83
33 42 11 00-0084 EA 48" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,614.11	1,366.98
33 42 11 00-0085 EA 54" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,803.43	1,532.29
33 42 11 00-0086 EA 60" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,995.91	1,702.17
33 42 11 00-0087 EA 66" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	2,073.60	1,767.15
33 42 11 00-0088 EA 72" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	2,141.90	1,824.16
33 42 11 00-0089 EA 78" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	2,210.20	1,881.16
33 42 11 00-0090 EA 84" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	2,279.92	1,938.17
 33 42 11 00-0091 Strap Assembly (33 42 11 00-0001)		
Note: Includes drilling holes in concrete pipe, setting threaded rod, bolts, and mounting the 12' strap.		
33 42 11 00-0092 EA Up To 24" Diameter Pipe, 12' Strap Assembly	253.36	
33 42 11 00-0093 EA >24" Diameter Pipe, 12' Strap Assembly	357.86	
 33 42 11 00-0094 Prestressed Concrete Cylinder Piping (33 42 11)		
33 42 11 00-0095 150 PSI Prestressed Concrete Cylinder Pipe And Fittings (33 42 11 00-0094)		
33 42 11 00-0096 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets (33 42 11 00-0095)		
Note: Lined-cylinder pipe (AWWA C301) up to 48". Embedded-cylinder pipe (AWWA C301) >48".		
33 42 11 00-0097 LF 12" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets.....	141.18	17.99
For >1,000, Deduct	-7.06	
For 100 PSI, Deduct	-28.87	
33 42 11 00-0098 LF 15" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets.....	150.75	20.01
For >1,000, Deduct	-7.54	
For 100 PSI, Deduct	-30.54	
33 42 11 00-0099 LF 18" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets.....	164.52	24.97
For >1,000, Deduct	-8.23	
For 100 PSI, Deduct	-32.21	
33 42 11 00-0100 LF 21" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets.....	180.51	31.49
For >1,000, Deduct	-9.03	
For 100 PSI, Deduct	-33.88	
33 42 11 00-0101 LF 24" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets.....	196.84	38.23
For >1,000, Deduct	-9.84	
For 100 PSI, Deduct	-35.56	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0102	LF	30"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	231.74 -11.59 -39.81	50.16
33 42 11 00-0103	LF	36"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	256.85 -12.84 -44.06	57.00
33 42 11 00-0104	LF	42"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	297.77 -14.89 -52.27	62.71
33 42 11 00-0105	LF	48"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	341.65 -17.08 -60.47	69.83
33 42 11 00-0106	LF	54"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	451.21 -22.56 -80.83	89.52
33 42 11 00-0107	LF	60"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	543.39 -27.17 -98.76	103.84
33 42 11 00-0108	LF	66"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	610.39 -30.52 -111.68	115.09
33 42 11 00-0109	LF	72"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	680.43 -34.02 -125.35	125.33
33 42 11 00-0110	LF	78"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	772.70 -38.64 -142.82	140.67
33 42 11 00-0111	LF	84"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	864.98 -43.25 -160.30	156.65
33 42 11 00-0112	LF	90"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	1,067.44 -53.37 -201.32	182.87
33 42 11 00-0113	LF	96"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	1,255.57 -62.78 -239.31	208.83
33 42 11 00-0114	LF	102"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	1,462.26 -73.11 -284.89	225.90
33 42 11 00-0115	LF	108"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	1,649.38 -82.47 -326.67	239.89
33 42 11 00-0116	LF	114"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	1,988.44 -99.42 -406.44	253.87
33 42 11 00-0117	LF	120"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	2,310.62 -115.53 -482.41	266.69
33 42 11 00-0118	LF	126"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	2,517.32 -125.87 -529.51	279.49
33 42 11 00-0119	LF	132"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	2,727.06 -136.35 -577.37	292.30
33 42 11 00-0120	LF	138"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	2,935.28 -146.76 -624.85	305.10
33 42 11 00-0121	LF	144"	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets..... <i>For >1,000, Deduct</i> <i>For 100 PSI, Deduct</i>	3,143.51 -157.18 -672.34	317.92
33 42 11 00-0122	EA	90	150 PSI Prestressed Concrete Cylinder 90 Degree Elbows With Gaskets ⁽³³⁾ <i>42 11 00-0095</i>		
33 42 11 00-0123	EA	12"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	492.34	168.68
33 42 11 00-0124	EA	15"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	682.50	240.96
33 42 11 00-0125	EA	18"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	879.62	321.29
33 42 11 00-0126	EA	21"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,076.72	401.61
33 42 11 00-0127	EA	24"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,309.16	499.08
33 42 11 00-0128	EA	30"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,674.19	669.36
33 42 11 00-0129	EA	36"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	2,082.03	798.07
33 42 11 00-0130	EA	42"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	2,425.10	931.46
33 42 11 00-0131	EA	48"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	2,732.90	1,063.71
33 42 11 00-0132	EA	54"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	3,365.23	1,328.21
33 42 11 00-0133	EA	60"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	4,393.45	1,790.33
33 42 11 00-0134	EA	66"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	4,900.29	1,982.15
33 42 11 00-0135	EA	72"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	5,407.14	2,173.97
33 42 11 00-0136	EA	78"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	6,488.43	2,493.67
33 42 11 00-0137	EA	84"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	7,562.64	2,813.38
33 42 11 00-0138	EA	90"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	8,943.44	3,197.02
33 42 11 00-0139	EA	96"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	10,317.18	3,580.66
33 42 11 00-0140	EA	102"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	13,732.09	4,541.65
33 42 11 00-0141	EA	108"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	17,085.45	5,449.98
33 42 11 00-0142	EA	114"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	22,233.84	7,266.63
33 42 11 00-0143	EA	120"	90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	27,296.25	9,083.29



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0144	EA	126" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	30,734.24	9,796.98
33 42 11 00-0145	EA	132" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	34,177.06	10,510.67
33 42 11 00-0146	EA	138" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	44,213.82	11,224.36
33 42 11 00-0147	EA	144" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	41,131.80	11,938.05
33 42 11 00-0148 150 PSI Prestressed Concrete Cylinder 45 Degree Elbows With Gaskets (33 42 11 00-0095)				
33 42 11 00-0149	EA	12" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	461.34	168.68
33 42 11 00-0150	EA	15" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	642.39	240.96
33 42 11 00-0151	EA	18" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	832.21	321.29
33 42 11 00-0152	EA	21" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,022.02	401.61
33 42 11 00-0153	EA	24" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,247.17	499.08
33 42 11 00-0154	EA	30" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,589.11	624.38
33 42 11 00-0155	EA	36" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	1,984.79	798.07
33 42 11 00-0156	EA	42" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	2,312.66	931.46
33 42 11 00-0157	EA	48" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	2,611.96	1,063.71
33 42 11 00-0158	EA	54" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	3,189.26	1,328.21
33 42 11 00-0159	EA	60" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	4,229.75	1,790.33
33 42 11 00-0160	EA	66" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	4,724.73	1,982.15
33 42 11 00-0161	EA	72" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	5,219.72	2,173.97
33 42 11 00-0162	EA	78" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	6,050.94	2,493.67
33 42 11 00-0163	EA	84" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	6,875.08	2,813.38
33 42 11 00-0164	EA	90" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	8,075.74	3,197.02
33 42 11 00-0165	EA	96" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	9,269.34	3,580.66
33 42 11 00-0166	EA	102" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	12,056.90	4,475.82
33 42 11 00-0167	EA	108" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	15,046.22	5,449.98
33 42 11 00-0168	EA	114" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	19,698.48	7,266.63
33 42 11 00-0169	EA	120" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	24,264.74	9,083.29
33 42 11 00-0170	EA	126" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	27,035.26	9,796.98
33 42 11 00-0171	EA	132" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	29,810.61	11,938.05
33 42 11 00-0172	EA	138" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	32,595.01	11,224.36
33 42 11 00-0173	EA	144" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping.....	35,730.25	11,938.05
33 42 11 00-0174 400 PSI Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11 00-0094)				
33 42 11 00-0175 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11 00-0174)				
Note: AWWA C301				
33 42 11 00-0176	LF	30" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints.....	271.71	50.16
		For >1,000, Deduct	-13.59	
33 42 11 00-0177	LF	36" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints.....	330.66	57.00
		For >1,000, Deduct	-16.53	
33 42 11 00-0178	LF	42" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints.....	385.39	62.71
		For >1,000, Deduct	-19.27	
33 42 11 00-0179 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11 00-0174)				
Note: AWWA C301				
33 42 11 00-0180	LF	48" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints.....	517.65	69.77
		For >1,000, Deduct	-25.88	
33 42 11 00-0181	LF	54" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints.....	620.14	89.52
		For >1,000, Deduct	-31.01	
33 42 11 00-0182	LF	60" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints.....	714.98	103.84
		For >1,000, Deduct	-35.75	
33 42 11 00-0183	LF	66" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints.....	804.69	115.09
		For >1,000, Deduct	-40.23	
33 42 11 00-0184	LF	72" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints.....	973.26	125.33
		For >1,000, Deduct	-48.66	
33 42 11 00-0185 Welded Joints For Prestressed Concrete Cylinder Pipe (33 42 11 00-0174)				
Note: All pipe joints to be exposed and dewatered. Internal joint welding also requires joints to be ventilated and air quality checked.				
33 42 11 00-0186	EA	30" Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,621.68	
33 42 11 00-0187	EA	36" Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,815.88	
33 42 11 00-0188	EA	42" Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,912.98	
33 42 11 00-0189	EA	48" Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,301.38	
33 42 11 00-0190	EA	54" Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,398.48	
33 42 11 00-0191	EA	60" Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,592.68	
33 42 11 00-0192	EA	66" Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,689.78	
33 42 11 00-0193	EA	72" Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,786.88	
33 42 11 00-0194	EA	30" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	4,854.97	
33 42 11 00-0195	EA	36" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	4,854.97	
33 42 11 00-0196	EA	42" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	5,534.67	
33 42 11 00-0197	EA	48" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	5,534.67	
33 42 11 00-0198	EA	54" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	5,923.06	
33 42 11 00-0199	EA	60" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	5,923.06	
33 42 11 00-0200	EA	66" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	6,408.56	
33 42 11 00-0201	EA	72" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	6,408.56	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-0202 Quick Test Joints (33 42 11 00-0174)

33 42 11 00-0203	EA	30" Quick Test Joint.....	622.41
33 42 11 00-0204	EA	36" Quick Test Joint.....	628.10
33 42 11 00-0205	EA	42" Quick Test Joint.....	633.81
33 42 11 00-0206	EA	48" Quick Test Joint.....	646.82
33 42 11 00-0207	EA	54" Quick Test Joint.....	676.14
33 42 11 00-0208	EA	60" Quick Test Joint.....	701.11
33 42 11 00-0209	EA	66" Quick Test Joint.....	738.27
33 42 11 00-0210	EA	72" Quick Test Joint.....	775.42

33 42 11 00-0211 Harnessed Joints (33 42 11 00-0174)**33 42 11 00-0212 Harness Clamp Restrained Joints (33 42 11 00-0211)**

33 42 11 00-0213	EA	30" Harness Clamp Restrained Joint.....	4,819.68
33 42 11 00-0214	EA	36" Harness Clamp Restrained Joint.....	5,007.23
33 42 11 00-0215	EA	42" Harness Clamp Restrained Joint.....	5,194.81
33 42 11 00-0216	EA	48" Harness Clamp Restrained Joint.....	5,382.37
33 42 11 00-0217	EA	54" Harness Clamp Restrained Joint.....	5,583.80
33 42 11 00-0218	EA	60" Harness Clamp Restrained Joint.....	5,869.39
33 42 11 00-0219	EA	66" Harness Clamp Restrained Joint.....	6,064.05
33 42 11 00-0220	EA	72" Harness Clamp Restrained Joint.....	6,495.11

33 42 11 00-0221 Snap Ring Restrained Joints (33 42 11 00-0211)

33 42 11 00-0222	EA	30" Snap Ring Restrained Joint.....	818.67
33 42 11 00-0223	EA	36" Snap Ring Restrained Joint.....	933.48
33 42 11 00-0224	EA	42" Snap Ring Restrained Joint.....	1,248.35
33 42 11 00-0225	EA	48" Snap Ring Restrained Joint.....	1,417.73
33 42 11 00-0226	EA	54" Snap Ring Restrained Joint.....	1,600.98
33 42 11 00-0227	EA	60" Snap Ring Restrained Joint.....	1,813.82
33 42 11 00-0228	EA	66" Snap Ring Restrained Joint.....	2,008.47
33 42 11 00-0229	EA	72" Snap Ring Restrained Joint.....	2,239.49

33 42 11 00-0230 Pipe Repairs (33 42 11 00-0174)

Note: For repair of damaged or defective lined or embedded cylinder concrete pipe. Includes 2 concrete adapters, MJDI sleeve, 20' pipe.

33 42 11 00-0231 Lined Cylinder Pipe Repair (33 42 11 00-0230)

33 42 11 00-0232	EA	30" Lined Cylinder Pipe Repair.....	5,690.36
33 42 11 00-0233	EA	36" Lined Cylinder Pipe Repair.....	7,033.66
33 42 11 00-0234	EA	42" Lined Cylinder Pipe Repair.....	10,467.81

33 42 11 00-0235 Embedded Cylinder Pipe Repair (33 42 11 00-0230)

Note: Field welded concrete enclosure assembly with concrete pipe.

33 42 11 00-0236	EA	48" Embedded Cylinder Pipe Repair.....	15,544.21
33 42 11 00-0237	EA	54" Embedded Cylinder Pipe Repair.....	18,045.19
33 42 11 00-0238	EA	60" Embedded Cylinder Pipe Repair.....	20,565.25
33 42 11 00-0239	EA	66" Embedded Cylinder Pipe Repair.....	23,233.93
33 42 11 00-0240	EA	72" Embedded Cylinder Pipe Repair.....	27,920.95

33 42 11 00-0241 Tapping For Prestressed Concrete Cylinder Pipe (33 42 11 00-0094)**33 42 11 00-0242 Tapping Assembly For Prestressed Concrete Cylinder Pipe (33 42 11 00-0241)**

Note: For use with lock-joint style pipe.

33 42 11 00-0243	EA	4" Tapping Assembly, 16" Diameter Prestressed Concrete Cylinder Pipe.....	3,071.82
33 42 11 00-0244	EA	6" Tapping Assembly, 16" Diameter Prestressed Concrete Cylinder Pipe.....	3,162.74
33 42 11 00-0245	EA	8" Tapping Assembly, 16" Diameter Prestressed Concrete Cylinder Pipe.....	3,610.62
33 42 11 00-0246	EA	10" Tapping Assembly, 16" Diameter Prestressed Concrete Cylinder Pipe.....	4,085.60
33 42 11 00-0247	EA	12" Tapping Assembly, 16" Diameter Prestressed Concrete Cylinder Pipe.....	4,400.32
33 42 11 00-0248	EA	4" Tapping Assembly, 20" Diameter Prestressed Concrete Cylinder Pipe.....	3,131.09
33 42 11 00-0249	EA	6" Tapping Assembly, 20" Diameter Prestressed Concrete Cylinder Pipe.....	3,450.87
33 42 11 00-0250	EA	8" Tapping Assembly, 20" Diameter Prestressed Concrete Cylinder Pipe.....	3,605.19
33 42 11 00-0251	EA	10" Tapping Assembly, 20" Diameter Prestressed Concrete Cylinder Pipe.....	4,231.33
33 42 11 00-0252	EA	12" Tapping Assembly, 20" Diameter Prestressed Concrete Cylinder Pipe.....	5,395.37
33 42 11 00-0253	EA	4" Tapping Assembly, 24" Diameter Prestressed Concrete Cylinder Pipe.....	3,161.82
33 42 11 00-0254	EA	6" Tapping Assembly, 24" Diameter Prestressed Concrete Cylinder Pipe.....	3,368.98
33 42 11 00-0255	EA	8" Tapping Assembly, 24" Diameter Prestressed Concrete Cylinder Pipe.....	3,857.77
33 42 11 00-0256	EA	10" Tapping Assembly, 24" Diameter Prestressed Concrete Cylinder Pipe.....	4,891.47
33 42 11 00-0257	EA	12" Tapping Assembly, 24" Diameter Prestressed Concrete Cylinder Pipe.....	4,861.17
33 42 11 00-0258	EA	6" Tapping Assembly, 30" Diameter Prestressed Concrete Cylinder Pipe.....	29,629.68
33 42 11 00-0259	EA	8" Tapping Assembly, 30" Diameter Prestressed Concrete Cylinder Pipe.....	4,184.96



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 42 11 00-0260 Tapping Assembly And Gland Insert For Prestressed Concrete Cylinder Pipe (33 42 11 00-0241)

Note: For use with lock-joint style pipe.

33 42 11 00-0261	EA	3/4" Tap Assembly And Gland Insert For 16" Diameter Prestressed Concrete Cylinder Pipe	715.46	
33 42 11 00-0262	EA	1" Tap Assembly And Gland Insert For 16" Diameter Prestressed Concrete Cylinder Pipe	750.46	
33 42 11 00-0263	EA	1-1/4" Tap Assembly And Gland Insert For 16" Diameter Prestressed Concrete Cylinder Pipe	827.95	
33 42 11 00-0264	EA	1-1/2" Tap Assembly And Gland Insert For 16" Diameter Prestressed Concrete Cylinder Pipe	761.26	
33 42 11 00-0265	EA	2" Tap Assembly And Gland Insert For 16" Diameter Prestressed Concrete Cylinder Pipe	761.41	
33 42 11 00-0266	EA	3/4" Tap Assembly And Gland Insert For 20" Diameter Prestressed Concrete Cylinder Pipe	767.94	
33 42 11 00-0267	EA	1" Tap Assembly And Gland Insert For 20" Diameter Prestressed Concrete Cylinder Pipe	829.32	
33 42 11 00-0268	EA	1-1/2" Tap Assembly And Gland Insert For 20" Diameter Prestressed Concrete Cylinder Pipe	792.07	
33 42 11 00-0269	EA	2" Tap Assembly And Gland Insert For 20" Diameter Prestressed Concrete Cylinder Pipe	792.07	
33 42 11 00-0270	EA	1" Tap Assembly And Gland Insert For 24" Diameter Prestressed Concrete Cylinder Pipe	863.60	
33 42 11 00-0271	EA	1-1/4" Tap Assembly And Gland Insert For 24" Diameter Prestressed Concrete Cylinder Pipe	893.73	
33 42 11 00-0272	EA	1-1/2" Tap Assembly And Gland Insert For 24" Diameter Prestressed Concrete Cylinder Pipe	890.74	
33 42 11 00-0273	EA	2" Tap Assembly And Gland Insert For 24" Diameter Prestressed Concrete Cylinder Pipe	898.78	

33 42 11 00-0274 High Density Polyethylene (HDPE) Piping (33 42 11 00-0274)

33 42 11 00-0275 Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0274)

Note: Excludes couplings and gaskets.

33 42 11 00-0276 Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0275)

33 42 11 00-0277	LF	4" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	16.52	7.37
		For <100, Add	2.95	
		For >1,000, Deduct	-1.56	
33 42 11 00-0278	LF	6" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	21.65	8.57
		For <100, Add	3.43	
		For >1,000, Deduct	-1.94	
33 42 11 00-0279	LF	8" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	26.67	9.97
		For <100, Add	3.99	
		For >1,000, Deduct	-2.33	
33 42 11 00-0280	LF	10" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	30.35	10.33
		For <100, Add	4.13	
		For >1,000, Deduct	-2.55	
33 42 11 00-0281	LF	12" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	31.93	10.69
		For <100, Add	4.28	
		For >1,000, Deduct	-2.67	
33 42 11 00-0282	LF	15" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	36.28	11.06
		For <100, Add	4.43	
		For >1,000, Deduct	-2.92	
33 42 11 00-0283	LF	18" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	44.04	11.47
		For <100, Add	4.59	
		For >1,000, Deduct	-3.35	
33 42 11 00-0284	LF	24" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	60.48	13.44
		For <100, Add	5.37	
		For >1,000, Deduct	-4.37	
33 42 11 00-0285	LF	30" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	85.82	18.08
		For <100, Add	7.23	
		For >1,000, Deduct	-6.10	
33 42 11 00-0286	LF	36" Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	112.84	22.85
		For <100, Add	9.14	
		For >1,000, Deduct	-7.93	

33 42 11 00-0287 Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0275)

33 42 11 00-0288	LF	12" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	31.74	10.69
		For <100, Add	4.28	
		For >1,000, Deduct	-2.66	
33 42 11 00-0289	LF	15" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	37.02	11.06
		For <100, Add	4.43	
		For >1,000, Deduct	-2.96	
33 42 11 00-0290	LF	18" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	45.16	11.47
		For <100, Add	4.59	
		For >1,000, Deduct	-3.41	
33 42 11 00-0291	LF	24" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	62.24	13.44
		For <100, Add	5.37	
		For >1,000, Deduct	-4.46	
33 42 11 00-0292	LF	30" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	90.66	18.08
		For <100, Add	7.23	
		For >1,000, Deduct	-6.34	
33 42 11 00-0293	LF	36" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	116.44	22.85
		For <100, Add	9.14	
		For >1,000, Deduct	-8.11	
33 42 11 00-0294	LF	42" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe	151.96	24.93
		For <100, Add	9.97	
		For >1,000, Deduct	-10.09	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0295	LF		48" Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	165.67 11.25 -11.10	28.13
33 42 11 00-0296			Perforated, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0274) Note: Excludes couplings and gaskets.		
33 42 11 00-0297			Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0296)		
33 42 11 00-0298	LF		4" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	17.45 2.95 -1.61	7.37
33 42 11 00-0299	LF		6" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	21.68 3.43 -1.94	8.57
33 42 11 00-0300	LF		8" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	26.67 3.99 -2.33	9.97
33 42 11 00-0301	LF		10" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	30.38 4.13 -2.55	10.33
33 42 11 00-0302	LF		12" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	31.93 4.28 -2.67	10.69
33 42 11 00-0303	LF		15" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	36.31 4.43 -2.92	11.06
33 42 11 00-0304	LF		18" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	44.07 4.59 -3.35	11.47
33 42 11 00-0305	LF		24" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	60.48 5.37 -4.37	13.44
33 42 11 00-0306	LF		30" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	86.13 7.23 -6.12	18.08
33 42 11 00-0307	LF		36" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	112.84 9.14 -7.93	22.85
33 42 11 00-0308			Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0296)		
33 42 11 00-0309	LF		12" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	31.78 4.28 -2.66	10.69
33 42 11 00-0310	LF		15" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	37.06 4.43 -2.96	11.06
33 42 11 00-0311	LF		18" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	45.19 4.59 -3.41	11.47
33 42 11 00-0312	LF		24" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	62.24 5.37 -4.46	13.44
33 42 11 00-0313	LF		30" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	90.66 7.23 -6.34	18.08
33 42 11 00-0314	LF		36" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	116.44 9.14 -8.11	22.85
33 42 11 00-0315	LF		42" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	151.96 9.97 -10.09	24.93
33 42 11 00-0316	LF		48" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	165.67 11.25 -11.10	28.13
33 42 11 00-0317			Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe Fittings (33 42 11 00-0274) Note: Excludes couplings and gaskets.		
33 42 11 00-0318			Tees, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0317)		



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 42 11 00-0319	EA 4" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	73.69		24.64	
33 42 11 00-0320	EA 6" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	93.43		28.75	
33 42 11 00-0321	EA 8" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	155.21		34.91	
33 42 11 00-0322	EA 10" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	240.57		43.13	
33 42 11 00-0323	EA 12" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	385.90		51.35	
33 42 11 00-0324	EA 15" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	546.69		67.09	
33 42 11 00-0325	EA 18" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	788.52		90.36	
33 42 11 00-0326	EA 24" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,015.56		103.15	
33 42 11 00-0327	EA 30" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,797.28		119.12	
33 42 11 00-0328	EA 36" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	2,314.10		137.60	
33 42 11 00-0329	EA 42" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	3,876.91		164.30	
33 42 11 00-0330	EA 48" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	4,870.38		195.11	
33 42 11 00-0331	Wyes, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0317)				
33 42 11 00-0332	EA 4" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	112.33		24.64	
33 42 11 00-0333	EA 6" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	135.83		28.75	
33 42 11 00-0334	EA 8" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	181.98		34.91	
33 42 11 00-0335	EA 10" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	270.07		43.13	
33 42 11 00-0336	EA 12" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	480.85		51.35	
33 42 11 00-0337	EA 15" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	517.56		67.09	
33 42 11 00-0338	EA 18" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	731.86		90.36	
33 42 11 00-0339	22-1/2 Degree Bends, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0317)				
33 42 11 00-0340	EA 4" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	44.27		16.43	
33 42 11 00-0341	EA 6" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	55.05		19.17	
33 42 11 00-0342	EA 8" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	82.04		23.28	
33 42 11 00-0343	EA 10" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	103.45		28.75	
33 42 11 00-0344	EA 12" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	152.85		34.23	
33 42 11 00-0345	EA 15" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	245.26		43.81	
33 42 11 00-0346	EA 18" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	324.24		60.25	
33 42 11 00-0347	EA 24" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	632.23		68.46	
33 42 11 00-0348	EA 30" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	884.25		79.41	
33 42 11 00-0349	EA 36" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,036.71		91.73	
33 42 11 00-0350	EA 42" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,327.72		109.53	
33 42 11 00-0351	EA 48" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,801.53		130.07	
33 42 11 00-0352	45 Degree Bends, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0317)				
33 42 11 00-0353	EA 4" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	48.50		16.43	
33 42 11 00-0354	EA 6" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	63.86		19.17	
33 42 11 00-0355	EA 8" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	86.53		23.28	
33 42 11 00-0356	EA 10" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	140.03		28.75	
33 42 11 00-0357	EA 12" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	152.85		34.23	
33 42 11 00-0358	EA 15" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	244.52		43.81	
33 42 11 00-0359	EA 18" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	383.23		60.25	
33 42 11 00-0360	EA 24" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	677.81		68.46	
33 42 11 00-0361	EA 30" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	886.42		79.41	
33 42 11 00-0362	EA 36" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,134.93		91.73	
33 42 11 00-0363	EA 42" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,706.82		109.53	
33 42 11 00-0364	EA 48" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	2,141.32		130.07	
33 42 11 00-0365	Couplings And End Caps, Corrugated High Density Polyethylene (HDPE) Pipe Fittings (33 42 11 00-0274)				
Note: For single and double wall high density polyethylene (HDPE) piping.					
33 42 11 00-0366	Couplings, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0365)				
33 42 11 00-0367	EA 4" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	2.52			
33 42 11 00-0368	EA 6" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	4.52			
33 42 11 00-0369	EA 8" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	6.96			
33 42 11 00-0370	EA 10" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	8.56			
33 42 11 00-0371	EA 12" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	9.21			
33 42 11 00-0372	EA 15" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	13.11			
33 42 11 00-0373	EA 18" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	19.40			
33 42 11 00-0374	EA 24" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	30.89			
33 42 11 00-0375	EA 30" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	47.42			
33 42 11 00-0376	EA 36" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	62.05			
33 42 11 00-0377	EA 42" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	97.55			
33 42 11 00-0378	EA 48" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	131.93			
33 42 11 00-0379	Self Adhering Gaskets, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0365)				
33 42 11 00-0380	EA 4" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	133.58			

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0381 EA 6" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	139.87	
33 42 11 00-0382 EA 8" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	146.45	
33 42 11 00-0383 EA 10" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	153.34	
33 42 11 00-0384 EA 12" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	181.87	
33 42 11 00-0385 EA 15" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	187.78	
33 42 11 00-0386 EA 18" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	195.85	
33 42 11 00-0387 EA 24" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	223.08	
33 42 11 00-0388 EA 30" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	357.61	
33 42 11 00-0389 EA 36" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	391.70	
33 42 11 00-0390 EA 42" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	426.79	
33 42 11 00-0391 EA 48" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe.....	518.35	
33 42 11 00-0392 End Caps, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0365)		
33 42 11 00-0393 EA 6" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	34.91	
33 42 11 00-0394 EA 8" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	40.84	
33 42 11 00-0395 EA 10" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	65.30	
33 42 11 00-0396 EA 12" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	110.07	
33 42 11 00-0397 EA 15" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	127.91	
33 42 11 00-0398 EA 18" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	172.41	
33 42 11 00-0399 EA 24" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe.....	178.88	
33 42 11 00-0400 Vitrified Clay Piping (33 42 11)		
33 42 11 00-0401 Extra Strength Vitrified Clay Piping (33 42 11 00-0400)		
33 42 11 00-0402 Plain Joint, Extra Strength, Vitrified Clay Piping (33 42 11 00-0401)		
Note: ASTM C700.		
33 42 11 00-0403 LF 4" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	21.80	
For 3' Lengths, Add	1.83	
For 2' Lengths, Add	2.44	
For Standard Strength, Deduct	-0.61	
For >1,000, Deduct	-1.09	
33 42 11 00-0404 LF 6" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	36.22	
For 3' Lengths, Add	2.84	
For 2' Lengths, Add	3.79	
For Standard Strength, Deduct	-0.95	
For >1,000, Deduct	-1.81	
33 42 11 00-0405 LF 8" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	43.27	
For 3' Lengths, Add	4.07	
For 2' Lengths, Add	5.42	
For Standard Strength, Deduct	-1.36	
For >1,000, Deduct	-2.16	
33 42 11 00-0406 LF 10" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	51.60	
For 3' Lengths, Add	6.23	
For 2' Lengths, Add	8.30	
For Standard Strength, Deduct	-2.08	
For >1,000, Deduct	-2.58	
33 42 11 00-0407 LF 12" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	62.95	
For 3' Lengths, Add	8.79	
For 2' Lengths, Add	11.72	
For Standard Strength, Deduct	-2.93	
For >1,000, Deduct	-3.15	
33 42 11 00-0408 LF 15" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	92.39	
For 3' Lengths, Add	16.48	
For 2' Lengths, Add	21.98	
For Standard Strength, Deduct	-5.49	
For >1,000, Deduct	-4.62	
33 42 11 00-0409 LF 18" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	125.46	
For 3' Lengths, Add	23.63	
For 2' Lengths, Add	31.50	
For Standard Strength, Deduct	-7.88	
For >1,000, Deduct	-6.27	
33 42 11 00-0410 LF 21" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	185.05	
For 3' Lengths, Add	37.85	
For 2' Lengths, Add	50.46	
For Standard Strength, Deduct	-12.62	
For >1,000, Deduct	-9.25	
33 42 11 00-0411 LF 24" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	236.34	
For 3' Lengths, Add	49.45	
For 2' Lengths, Add	65.93	
For Standard Strength, Deduct	-16.48	
For >1,000, Deduct	-11.82	
33 42 11 00-0412 LF 30" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	292.35	
For 3' Lengths, Add	61.65	
For 2' Lengths, Add	82.20	
For Standard Strength, Deduct	-20.55	
For >1,000, Deduct	-14.62	
33 42 11 00-0413 LF 36" Plain Joint, Extra Strength, Vitrified Clay Pipe.....	353.70	
For 3' Lengths, Add	74.47	
For 2' Lengths, Add	99.30	
For Standard Strength, Deduct	-24.82	
For >1,000, Deduct	-17.69	



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0414 Compression Joint, Extra Strength, Vitrified Clay Piping (33 42 11 00-0401) Note: ASTM C425.		
33 42 11 00-0415 LF 4" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	30.98	
For 3' Lengths, Add	2.16	
For 2' Lengths, Add	2.88	
For Standard Strength, Deduct	-0.72	
For >1,000, Deduct	-1.55	
33 42 11 00-0416 LF 6" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	38.50	
For 3' Lengths, Add	3.53	
For 2' Lengths, Add	4.70	
For Standard Strength, Deduct	-1.18	
For >1,000, Deduct	-1.93	
33 42 11 00-0417 LF 8" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	46.32	
For 3' Lengths, Add	4.98	
For 2' Lengths, Add	6.64	
For Standard Strength, Deduct	-1.66	
For >1,000, Deduct	-2.32	
33 42 11 00-0418 LF 10" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	58.12	
For 3' Lengths, Add	8.18	
For 2' Lengths, Add	10.91	
For Standard Strength, Deduct	-2.73	
For >1,000, Deduct	-2.91	
33 42 11 00-0419 LF 12" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	69.46	
For 3' Lengths, Add	10.74	
For 2' Lengths, Add	14.32	
For Standard Strength, Deduct	-3.58	
For >1,000, Deduct	-3.47	
33 42 11 00-0420 LF 15" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	102.77	
For 3' Lengths, Add	19.60	
For 2' Lengths, Add	26.13	
For Standard Strength, Deduct	-6.53	
For >1,000, Deduct	-5.14	
33 42 11 00-0421 LF 18" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	142.34	
For 3' Lengths, Add	28.69	
For 2' Lengths, Add	38.25	
For Standard Strength, Deduct	-9.56	
For >1,000, Deduct	-7.12	
33 42 11 00-0422 LF 21" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	204.38	
For 3' Lengths, Add	43.65	
For 2' Lengths, Add	58.20	
For Standard Strength, Deduct	-14.55	
For >1,000, Deduct	-10.22	
33 42 11 00-0423 LF 24" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	266.86	
For 3' Lengths, Add	58.60	
For 2' Lengths, Add	78.14	
For Standard Strength, Deduct	-19.53	
For >1,000, Deduct	-13.34	
33 42 11 00-0424 LF 30" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	426.65	
For 3' Lengths, Add	101.94	
For 2' Lengths, Add	135.92	
For Standard Strength, Deduct	-33.98	
For >1,000, Deduct	-21.33	
33 42 11 00-0425 LF 36" Compression Joint, Extra Strength, Vitrified Clay Pipe.....	606.01	
For 3' Lengths, Add	150.17	
For 2' Lengths, Add	200.22	
For Standard Strength, Deduct	-50.06	
For >1,000, Deduct	-30.30	
33 42 11 00-0426 Extra Strength, Vitrified Clay Pipe Fittings (33 42 11 00-0400)		
33 42 11 00-0427 1/8 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0426)		
33 42 11 00-0428 Plain End 1/8 Bend, Extra Strength, Vitrified Clay (33 42 11 00-0427)		
33 42 11 00-0429 EA 4" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	90.65	
33 42 11 00-0430 EA 6" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	122.20	
33 42 11 00-0431 EA 8" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	174.20	
33 42 11 00-0432 EA 10" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	238.53	
33 42 11 00-0433 EA 12" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	314.79	
33 42 11 00-0434 EA 15" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	749.13	
33 42 11 00-0435 EA 18" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	1,056.20	
33 42 11 00-0436 EA 21" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	1,647.08	
33 42 11 00-0437 EA 24" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	1,901.21	
33 42 11 00-0438 EA 30" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	2,208.13	
33 42 11 00-0439 EA 36" Plain End 1/8 Bend, Extra Strength, Vitrified Clay.....	3,310.45	
33 42 11 00-0440 Compression Joint 1/8 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0427)		
33 42 11 00-0441 EA 4" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	102.57	
33 42 11 00-0442 EA 6" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	145.47	
33 42 11 00-0443 EA 8" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	196.68	
33 42 11 00-0444 EA 10" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	262.59	
33 42 11 00-0445 EA 12" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	332.99	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-0446	EA	15" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	840.55	
33 42 11 00-0447	EA	18" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	1,222.23	
33 42 11 00-0448	EA	21" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	1,257.38	
33 42 11 00-0449	EA	24" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	2,434.35	
33 42 11 00-0450	EA	30" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	2,711.86	
33 42 11 00-0451	EA	36" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay.....	4,024.68	

33 42 11 00-0452 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0452)**33 42 11 00-0453 Plain End 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0452)**

33 42 11 00-0454	EA	4" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	106.34	
33 42 11 00-0455	EA	6" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	141.11	
33 42 11 00-0456	EA	8" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	196.32	
33 42 11 00-0457	EA	10" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	262.43	
33 42 11 00-0458	EA	12" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	341.72	
33 42 11 00-0459	EA	15" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	779.09	
33 42 11 00-0460	EA	18" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	1,093.56	
33 42 11 00-0461	EA	21" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	1,694.20	
33 42 11 00-0462	EA	24" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	1,958.42	
33 42 11 00-0463	EA	30" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	2,279.48	
33 42 11 00-0464	EA	36" Plain End 1/4 Bend, Extra Strength, Vitrified Clay.....	3,389.77	

33 42 11 00-0465 Compression Joint 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0465)

33 42 11 00-0466	EA	4" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	121.40	
33 42 11 00-0467	EA	6" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	168.16	
33 42 11 00-0468	EA	8" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	223.22	
33 42 11 00-0469	EA	10" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	291.27	
33 42 11 00-0470	EA	12" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	365.30	
33 42 11 00-0471	EA	15" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	876.50	
33 42 11 00-0472	EA	18" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	1,267.07	
33 42 11 00-0473	EA	21" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	2,454.55	
33 42 11 00-0474	EA	24" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	2,503.01	
33 42 11 00-0475	EA	30" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	2,797.47	
33 42 11 00-0476	EA	36" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay.....	4,119.86	

33 42 11 00-0477 Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0477)**33 42 11 00-0478 Plain End Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0477)**

33 42 11 00-0479	EA	4" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	117.20	
33 42 11 00-0480	EA	6" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	152.70	
33 42 11 00-0481	EA	8" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	206.87	
33 42 11 00-0482	EA	10" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	271.96	
33 42 11 00-0483	EA	12" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	343.29	
33 42 11 00-0484	EA	15" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	787.83	
33 42 11 00-0485	EA	18" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	1,101.75	
33 42 11 00-0486	EA	21" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	1,590.75	
33 42 11 00-0487	EA	24" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	2,212.31	
33 42 11 00-0488	EA	30" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	2,343.18	
33 42 11 00-0489	EA	36" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay.....	3,366.19	

33 42 11 00-0490 Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0477)

33 42 11 00-0491	EA	4" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	143.11	
33 42 11 00-0492	EA	6" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	195.69	
33 42 11 00-0493	EA	8" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	257.07	
33 42 11 00-0494	EA	10" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	330.98	
33 42 11 00-0495	EA	12" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	412.36	
33 42 11 00-0496	EA	15" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	958.24	
33 42 11 00-0497	EA	18" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	1,379.89	
33 42 11 00-0498	EA	21" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	2,046.98	
33 42 11 00-0499	EA	24" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	2,710.94	
33 42 11 00-0500	EA	30" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay.....	3,136.86	
33 42 11 00-0501	EA	36" Compression Joint, Extra Strength, Vitrified Clay Wye Or Tee.....	4,448.74	

33 42 11 00-0502 Vitrified Clay Couplings (33 42 11 00-0400)**33 42 11 00-0503 Vitrified Clay To Cast Iron Or Plastic Pipe Couplings (33 42 11 00-0502)**

Note: Stainless steel tightening band at each end (Fernco #1002)

33 42 11 00-0504	EA	4" x 3" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	32.59	
33 42 11 00-0505	EA	4" x 4" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	32.30	
33 42 11 00-0506	EA	5" x 4" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	43.72	
33 42 11 00-0507	EA	5" x 5" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	41.40	
33 42 11 00-0508	EA	6" x 4" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	53.04	
33 42 11 00-0509	EA	6" x 5" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	55.05	
33 42 11 00-0510	EA	6" x 6" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	50.60	
33 42 11 00-0511	EA	8" x 6" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	71.88	
33 42 11 00-0512	EA	8" x 8" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	66.79	



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0513	EA	10" x 8" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	93.17	
33 42 11 00-0514	EA	10" x 10" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	95.30	
33 42 11 00-0515	EA	12" x 10" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	115.05	
33 42 11 00-0516	EA	12" x 12" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	96.99	
33 42 11 00-0517	EA	15" x 12" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	191.68	
33 42 11 00-0518	EA	15" x 15" Vitrified Clay To Cast Iron Or Plastic Pipe Coupling.....	148.64	
33 42 11 00-0519		Vitrified Clay To Vitrified Clay Pipe Non-Shear Couplings (33 42 11 00-0502)		
		Note: Stainless steel tightening band at each end. (NDS Non-shear)		
33 42 11 00-0520	EA	4" x 4" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	72.27	
33 42 11 00-0521	EA	6" x 4" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	96.55	
33 42 11 00-0522	EA	6" x 6" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	102.23	
33 42 11 00-0523	EA	8" x 8" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	107.17	
33 42 11 00-0524	EA	10" x 10" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	132.71	
33 42 11 00-0525	EA	12" x 12" Vitrified Clay To Vitrified Clay Pipe Non-Shear Coupling.....	154.22	
33 42 11 00-0526		Vitrified Clay To Plastic Pipe Non-Shear Couplings (33 42 11 00-0502)		
		Note: Stainless steel tightening band at each end. (NDS Non-shear)		
33 42 11 00-0527	EA	4" x 4" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	74.17	
33 42 11 00-0528	EA	6" x 4" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	98.46	
33 42 11 00-0529	EA	6" x 6" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	89.99	
33 42 11 00-0530	EA	8" x 8" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	118.55	
33 42 11 00-0531	EA	10" x 10" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	172.57	
33 42 11 00-0532	EA	12" x 12" Vitrified Clay To Plastic Pipe Non-Shear Coupling.....	195.16	
33 42 11 00-0533		Corrugated Metal Piping (33 42 11)		
33 42 11 00-0534		Galvanized Corrugated Steel Piping (33 42 11 00-0533)		
33 42 11 00-0535		2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0534)		
33 42 11 00-0536		16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0535)		
33 42 11 00-0537	LF	12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	47.06	11.24
		For Bituminous Coated Pipe, Add	5.74	
		For Bituminous Coated And 25% Paved, Add	11.73	
		For Smooth-Flo, Add	20.95	
33 42 11 00-0538	LF	15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	54.02	11.78
		For Bituminous Coated Pipe, Add	7.22	
		For Bituminous Coated And 25% Paved, Add	14.77	
		For Smooth-Flo, Add	26.37	
33 42 11 00-0539	LF	18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	61.21	12.85
		For Bituminous Coated Pipe, Add	8.75	
		For Bituminous Coated And 25% Paved, Add	17.89	
		For Smooth-Flo, Add	31.95	
33 42 11 00-0540	LF	21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	70.29	13.93
		For Bituminous Coated Pipe, Add	10.46	
		For Bituminous Coated And 25% Paved, Add	21.40	
		For Smooth-Flo, Add	38.22	
33 42 11 00-0541	LF	24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	78.03	15.00
		For Bituminous Coated Pipe, Add	11.77	
		For Bituminous Coated And 25% Paved, Add	24.08	
		For Smooth-Flo, Add	43.01	
33 42 11 00-0542	LF	30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	102.66	19.28
		For Bituminous Coated Pipe, Add	15.28	
		For Bituminous Coated And 25% Paved, Add	31.24	
		For Smooth-Flo, Add	55.80	
33 42 11 00-0543	LF	36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	132.82	25.09
		For Bituminous Coated Pipe, Add	19.27	
		For Bituminous Coated And 25% Paved, Add	39.41	
		For Smooth-Flo, Add	70.38	
33 42 11 00-0544	LF	42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	152.24	29.64
		For Bituminous Coated Pipe, Add	22.80	
		For Bituminous Coated And 25% Paved, Add	46.63	
		For Smooth-Flo, Add	83.27	
33 42 11 00-0545	LF	48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	170.99	34.20
		For Bituminous Coated Pipe, Add	25.53	
		For Bituminous Coated And 25% Paved, Add	52.23	
		For Smooth-Flo, Add	93.27	
33 42 11 00-0546		14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0535)		
33 42 11 00-0547	LF	12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	52.18	11.24
		For Bituminous Coated Pipe, Add	5.82	
		For Bituminous Coated And 25% Paved, Add	13.49	
		For Smooth-Flo, Add	27.26	
33 42 11 00-0548	LF	15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	60.33	11.78
		For Bituminous Coated Pipe, Add	7.30	
		For Bituminous Coated And 25% Paved, Add	16.91	
		For Smooth-Flo, Add	34.19	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0549	LF	18"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	68.83	12.85
			For Bituminous Coated Pipe, Add	8.84	
			For Bituminous Coated And 25% Paved, Add	20.48	
			For Smooth-Flo, Add	41.40	
33 42 11 00-0550	LF	21"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	79.10	13.93
			For Bituminous Coated Pipe, Add	10.51	
			For Bituminous Coated And 25% Paved, Add	24.35	
			For Smooth-Flo, Add	49.23	
33 42 11 00-0551	LF	24"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	88.27	15.00
			For Bituminous Coated Pipe, Add	11.90	
			For Bituminous Coated And 25% Paved, Add	27.56	
			For Smooth-Flo, Add	55.71	
33 42 11 00-0552	LF	30"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	115.16	19.28
			For Bituminous Coated Pipe, Add	15.28	
			For Bituminous Coated And 25% Paved, Add	35.39	
			For Smooth-Flo, Add	71.54	
33 42 11 00-0553	LF	36"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	148.00	25.09
			For Bituminous Coated Pipe, Add	19.15	
			For Bituminous Coated And 25% Paved, Add	44.36	
			For Smooth-Flo, Add	89.67	
33 42 11 00-0554	LF	42"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	169.62	29.64
			For Bituminous Coated Pipe, Add	22.54	
			For Bituminous Coated And 25% Paved, Add	52.22	
			For Smooth-Flo, Add	105.55	
33 42 11 00-0555	LF	48"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	190.88	34.20
			For Bituminous Coated Pipe, Add	25.33	
			For Bituminous Coated And 25% Paved, Add	58.69	
			For Smooth-Flo, Add	118.63	
33 42 11 00-0556	LF	54"	14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	229.34	38.76
			For Bituminous Coated Pipe, Add	31.15	
			For Bituminous Coated And 25% Paved, Add	72.17	
			For Smooth-Flo, Add	145.89	
33 42 11 00-0557			12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping ⁽³³⁾		
			^{42 11 00-0535)}		
33 42 11 00-0558	LF	18"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	84.61	12.85
			For Bituminous Coated Pipe, Add	10.12	
			For Bituminous Coated And 25% Paved, Add	18.28	
			For Smooth-Flo, Add	35.13	
33 42 11 00-0559	LF	21"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	97.44	13.93
			For Bituminous Coated Pipe, Add	11.96	
			For Bituminous Coated And 25% Paved, Add	21.61	
			For Smooth-Flo, Add	41.52	
33 42 11 00-0560	LF	24"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	109.17	13.93
			For Bituminous Coated Pipe, Add	13.56	
			For Bituminous Coated And 25% Paved, Add	24.50	
			For Smooth-Flo, Add	47.08	
33 42 11 00-0561	LF	30"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	141.00	19.28
			For Bituminous Coated Pipe, Add	17.25	
			For Bituminous Coated And 25% Paved, Add	31.15	
			For Smooth-Flo, Add	59.86	
33 42 11 00-0562	LF	36"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	178.67	25.09
			For Bituminous Coated Pipe, Add	21.33	
			For Bituminous Coated And 25% Paved, Add	38.52	
			For Smooth-Flo, Add	74.02	
33 42 11 00-0563	LF	42"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	205.05	29.64
			For Bituminous Coated Pipe, Add	24.99	
			For Bituminous Coated And 25% Paved, Add	45.13	
			For Smooth-Flo, Add	86.74	
33 42 11 00-0564	LF	48"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	231.49	34.20
			For Bituminous Coated Pipe, Add	28.22	
			For Bituminous Coated And 25% Paved, Add	50.97	
			For Smooth-Flo, Add	97.95	
33 42 11 00-0565	LF	54"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	274.17	38.76
			For Bituminous Coated Pipe, Add	33.84	
			For Bituminous Coated And 25% Paved, Add	61.11	
			For Smooth-Flo, Add	117.44	
33 42 11 00-0566	LF	60"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	299.84	41.05
			For Bituminous Coated Pipe, Add	37.06	
			For Bituminous Coated And 25% Paved, Add	66.92	
			For Smooth-Flo, Add	128.61	
33 42 11 00-0567	LF	66"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	363.61	50.16
			For Bituminous Coated Pipe, Add	45.11	
			For Bituminous Coated And 25% Paved, Add	81.47	
			For Smooth-Flo, Add	156.57	
33 42 11 00-0568			10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping ⁽³³⁾		
			^{42 11 00-0535)}		
33 42 11 00-0569	LF	36"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	207.37	25.09
			For Bituminous Coated Pipe, Add	27.13	
			For Bituminous Coated And 25% Paved, Add	45.32	
			For Smooth-Flo, Add	64.67	



Utilities			33	33
Stormwater Utilities			33 40	
Stormwater Conveyance			33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
33 42 11 00-0570	LF 42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	238.63 31.78 53.09 75.76		29.64
33 42 11 00-0571	LF 48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	269.59 35.92 60.01 85.62		34.20
33 42 11 00-0572	LF 54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	316.86 42.55 71.07 101.41		38.76
33 42 11 00-0573	LF 60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	347.35 46.73 78.06 111.38		41.05
33 42 11 00-0574	LF 66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	415.83 55.90 93.37 133.23		50.16
33 42 11 00-0575	LF 72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	486.10 60.02 100.25 143.05		72.96
33 42 11 00-0576	3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0534)			
33 42 11 00-0577	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0576)			
33 42 11 00-0578	LF 36" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	159.14 21.19 48.09 95.76		25.09
33 42 11 00-0579	LF 42" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	182.43 24.88 56.47 112.45		29.64
33 42 11 00-0580	LF 48" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	204.99 27.90 63.34 126.12		34.20
33 42 11 00-0581	LF 54" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	245.53 34.08 77.37 154.05		38.76
33 42 11 00-0582	LF 60" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	267.51 37.13 84.29 167.84		41.05
33 42 11 00-0583	LF 66" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	336.70 47.69 108.27 215.58		50.16
33 42 11 00-0584	LF 72" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	399.29 50.84 115.40 229.79		72.96
33 42 11 00-0585	LF 78" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	429.58 53.99 122.57 244.05		79.81
33 42 11 00-0586	LF 84" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	456.76 57.15 129.73 258.32		85.51
33 42 11 00-0587	LF 90" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	484.01 60.32 136.92 272.64		91.21
33 42 11 00-0588	LF 96" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	511.95 63.46 144.05 286.84		96.90
33 42 11 00-0589	LF 102" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	543.22 66.64 151.27 301.21		102.61
33 42 11 00-0590	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0576)			
33 42 11 00-0591	LF 54" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	272.39 39.45 77.33 156.24		38.76

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0592	LF	60"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	297.22	41.05
			For Bituminous Coated Pipe, Add	43.07	
			For Bituminous Coated And 25% Paved, Add	84.43	
			For Smooth-Flo, Add	170.57	
33 42 11 00-0593	LF	66"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	369.39	50.16
			For Bituminous Coated Pipe, Add	54.23	
			For Bituminous Coated And 25% Paved, Add	106.29	
			For Smooth-Flo, Add	214.76	
33 42 11 00-0594	LF	72"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	434.90	72.96
			For Bituminous Coated Pipe, Add	57.96	
			For Bituminous Coated And 25% Paved, Add	113.60	
			For Smooth-Flo, Add	229.52	
33 42 11 00-0595	LF	78"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	468.04	79.81
			For Bituminous Coated Pipe, Add	61.69	
			For Bituminous Coated And 25% Paved, Add	120.90	
			For Smooth-Flo, Add	244.28	
33 42 11 00-0596	LF	84"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	498.26	85.51
			For Bituminous Coated Pipe, Add	65.45	
			For Bituminous Coated And 25% Paved, Add	128.28	
			For Smooth-Flo, Add	259.18	
33 42 11 00-0597	LF	90"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	528.31	91.21
			For Bituminous Coated Pipe, Add	69.18	
			For Bituminous Coated And 25% Paved, Add	135.59	
			For Smooth-Flo, Add	273.94	
33 42 11 00-0598	LF	96"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	559.17	96.90
			For Bituminous Coated Pipe, Add	72.90	
			For Bituminous Coated And 25% Paved, Add	142.89	
			For Smooth-Flo, Add	288.70	
33 42 11 00-0599	LF	102"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	593.30	102.61
			For Bituminous Coated Pipe, Add	76.66	
			For Bituminous Coated And 25% Paved, Add	150.25	
			For Smooth-Flo, Add	303.56	
33 42 11 00-0600	LF	108"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	630.05	114.01
			For Bituminous Coated Pipe, Add	80.41	
			For Bituminous Coated And 25% Paved, Add	157.60	
			For Smooth-Flo, Add	318.41	
33 42 11 00-0601	LF	114"	14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	665.99	125.41
			For Bituminous Coated Pipe, Add	84.09	
			For Bituminous Coated And 25% Paved, Add	164.81	
			For Smooth-Flo, Add	332.98	
33 42 11 00-0602			12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-		
			0576)		
33 42 11 00-0603	LF	60"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	363.13	41.05
			For Bituminous Coated Pipe, Add	56.26	
			For Bituminous Coated And 25% Paved, Add	107.17	
			For Smooth-Flo, Add	174.67	
33 42 11 00-0604	LF	66"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	442.39	50.16
			For Bituminous Coated Pipe, Add	68.83	
			For Bituminous Coated And 25% Paved, Add	131.12	
			For Smooth-Flo, Add	213.72	
33 42 11 00-0605	LF	72"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	514.27	72.96
			For Bituminous Coated Pipe, Add	73.83	
			For Bituminous Coated And 25% Paved, Add	140.65	
			For Smooth-Flo, Add	229.25	
33 42 11 00-0606	LF	78"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	553.84	79.81
			For Bituminous Coated Pipe, Add	78.85	
			For Bituminous Coated And 25% Paved, Add	150.20	
			For Smooth-Flo, Add	244.82	
33 42 11 00-0607	LF	84"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	590.43	85.51
			For Bituminous Coated Pipe, Add	83.88	
			For Bituminous Coated And 25% Paved, Add	159.80	
			For Smooth-Flo, Add	260.46	
33 42 11 00-0608	LF	90"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	626.91	91.21
			For Bituminous Coated Pipe, Add	88.90	
			For Bituminous Coated And 25% Paved, Add	169.35	
			For Smooth-Flo, Add	276.03	
33 42 11 00-0609	LF	96"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	664.27	96.90
			For Bituminous Coated Pipe, Add	93.92	
			For Bituminous Coated And 25% Paved, Add	178.93	
			For Smooth-Flo, Add	291.63	
33 42 11 00-0610	LF	102"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	704.82	102.61
			For Bituminous Coated Pipe, Add	98.96	
			For Bituminous Coated And 25% Paved, Add	188.52	
			For Smooth-Flo, Add	307.27	
33 42 11 00-0611	LF	108"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	747.89	114.01
			For Bituminous Coated Pipe, Add	103.97	
			For Bituminous Coated And 25% Paved, Add	198.07	
			For Smooth-Flo, Add	322.84	
33 42 11 00-0612	LF	114"	12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe.....	790.32	125.41
			For Bituminous Coated Pipe, Add	108.95	
			For Bituminous Coated And 25% Paved, Add	207.55	
			For Smooth-Flo, Add	338.30	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 42 11 00-0613	LF 120" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	831.61 113.99 217.15 353.94		136.81
33 42 11 00-0614	10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0576)			
33 42 11 00-0615	LF 72" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	588.28 88.64 168.41 225.14		72.96
33 42 11 00-0616	LF 78" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	633.93 94.86 180.24 240.95		79.81
33 42 11 00-0617	LF 84" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	676.59 101.12 192.12 256.83		85.51
33 42 11 00-0618	LF 90" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	719.14 107.34 203.95 272.65		91.21
33 42 11 00-0619	LF 96" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	762.57 113.58 215.81 288.50		96.90
33 42 11 00-0620	LF 102" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	809.20 119.84 227.69 304.38		102.61
33 42 11 00-0621	LF 108" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	858.34 126.06 239.52 320.20		114.01
33 42 11 00-0622	LF 114" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	906.78 132.24 251.26 335.90		125.41
33 42 11 00-0623	LF 120" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	954.20 138.51 263.17 351.81		136.81
33 42 11 00-0624	LF 126" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	1,003.59 144.71 274.96 367.57		148.21
33 42 11 00-0625	LF 132" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	1,055.99 150.97 286.84 383.45		159.61
33 42 11 00-0626	LF 138" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	1,111.89 157.23 298.74 399.36		171.01
33 42 11 00-0627	125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0534)			
33 42 11 00-0628	16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0627)			
33 42 11 00-0629	LF 48" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	205.76 35.07 79.96 126.95		34.20
33 42 11 00-0630	LF 54" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	247.02 42.98 97.98 155.57		38.76
33 42 11 00-0631	LF 60" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	268.81 46.74 106.57 169.20		41.05
33 42 11 00-0632	LF 66" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	333.60 58.84 134.16 213.01		50.16
33 42 11 00-0633	LF 72" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	395.84 62.69 142.92 226.92		72.96

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0634	LF	78" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	425.65	79.81
		For Bituminous Coated Pipe, Add	66.51	
		For Bituminous Coated And 25% Paved, Add	151.64	
		For Smooth-Flo, Add	240.77	
33 42 11 00-0635	LF	84" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	452.29	85.51
		For Bituminous Coated Pipe, Add	70.32	
		For Bituminous Coated And 25% Paved, Add	160.33	
		For Smooth-Flo, Add	254.56	
33 42 11 00-0636	LF	90" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	478.88	91.21
		For Bituminous Coated Pipe, Add	74.12	
		For Bituminous Coated And 25% Paved, Add	168.98	
		For Smooth-Flo, Add	268.30	
33 42 11 00-0637	LF	96" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	506.54	96.90
		For Bituminous Coated Pipe, Add	77.97	
		For Bituminous Coated And 25% Paved, Add	177.78	
		For Smooth-Flo, Add	282.26	
33 42 11 00-0638	LF	102" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	537.69	102.61
		For Bituminous Coated Pipe, Add	81.92	
		For Bituminous Coated And 25% Paved, Add	186.77	
		For Smooth-Flo, Add	296.54	
33 42 11 00-0639 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping				
		(33 42 11 00-0627)		
33 42 11 00-0640	LF	54" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	280.60	38.76
		For Bituminous Coated Pipe, Add	41.10	
		For Bituminous Coated And 25% Paved, Add	96.58	
		For Smooth-Flo, Add	174.86	
33 42 11 00-0641	LF	60" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	306.15	41.05
		For Bituminous Coated Pipe, Add	44.86	
		For Bituminous Coated And 25% Paved, Add	105.42	
		For Smooth-Flo, Add	190.88	
33 42 11 00-0642	LF	66" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	374.33	50.16
		For Bituminous Coated Pipe, Add	55.22	
		For Bituminous Coated And 25% Paved, Add	129.77	
		For Smooth-Flo, Add	234.96	
33 42 11 00-0643	LF	72" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	439.84	72.96
		For Bituminous Coated Pipe, Add	58.95	
		For Bituminous Coated And 25% Paved, Add	138.53	
		For Smooth-Flo, Add	250.82	
33 42 11 00-0644	LF	78" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	473.64	79.81
		For Bituminous Coated Pipe, Add	62.81	
		For Bituminous Coated And 25% Paved, Add	147.59	
		For Smooth-Flo, Add	267.24	
33 42 11 00-0645	LF	84" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	504.03	85.51
		For Bituminous Coated Pipe, Add	66.60	
		For Bituminous Coated And 25% Paved, Add	156.52	
		For Smooth-Flo, Add	283.40	
33 42 11 00-0646	LF	90" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	532.47	91.21
		For Bituminous Coated Pipe, Add	70.01	
		For Bituminous Coated And 25% Paved, Add	164.52	
		For Smooth-Flo, Add	297.89	
33 42 11 00-0647	LF	96" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	565.54	96.90
		For Bituminous Coated Pipe, Add	74.18	
		For Bituminous Coated And 25% Paved, Add	174.32	
		For Smooth-Flo, Add	315.63	
33 42 11 00-0648	LF	102" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	599.85	102.61
		For Bituminous Coated Pipe, Add	77.97	
		For Bituminous Coated And 25% Paved, Add	183.22	
		For Smooth-Flo, Add	331.75	
33 42 11 00-0649	LF	108" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	636.60	114.01
		For Bituminous Coated Pipe, Add	81.72	
		For Bituminous Coated And 25% Paved, Add	192.03	
		For Smooth-Flo, Add	347.70	
33 42 11 00-0650	LF	114" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	673.38	125.41
		For Bituminous Coated Pipe, Add	85.56	
		For Bituminous Coated And 25% Paved, Add	201.08	
		For Smooth-Flo, Add	364.07	
33 42 11 00-0651 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping				
		(33 42 11 00-0627)		
33 42 11 00-0652	LF	60" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	376.05	41.05
		For Bituminous Coated Pipe, Add	58.84	
		For Bituminous Coated And 25% Paved, Add	111.80	
		For Smooth-Flo, Add	201.82	
33 42 11 00-0653	LF	66" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	451.32	50.16
		For Bituminous Coated Pipe, Add	70.62	
		For Bituminous Coated And 25% Paved, Add	134.17	
		For Smooth-Flo, Add	242.22	
33 42 11 00-0654	LF	72" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	524.15	72.96
		For Bituminous Coated Pipe, Add	75.81	
		For Bituminous Coated And 25% Paved, Add	144.04	
		For Smooth-Flo, Add	260.03	



		Utilities	33	
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 42 11 00-0655	LF	78" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	564.44	79.81
		For Bituminous Coated Pipe, Add	80.97	
		For Bituminous Coated And 25% Paved, Add	153.64	
		For Smooth-Flo, Add	277.71	
33 42 11 00-0656	LF	84" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	601.39	85.51
		For Bituminous Coated Pipe, Add	86.08	
		For Bituminous Coated And 25% Paved, Add	163.54	
		For Smooth-Flo, Add	295.24	
33 42 11 00-0657	LF	90" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	638.70	91.21
		For Bituminous Coated Pipe, Add	91.26	
		For Bituminous Coated And 25% Paved, Add	173.39	
		For Smooth-Flo, Add	313.01	
33 42 11 00-0658	LF	96" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	676.65	96.90
		For Bituminous Coated Pipe, Add	96.40	
		For Bituminous Coated And 25% Paved, Add	183.16	
		For Smooth-Flo, Add	330.65	
33 42 11 00-0659	LF	102" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	717.68	102.61
		For Bituminous Coated Pipe, Add	101.53	
		For Bituminous Coated And 25% Paved, Add	192.91	
		For Smooth-Flo, Add	348.25	
33 42 11 00-0660	LF	108" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	761.58	114.01
		For Bituminous Coated Pipe, Add	106.71	
		For Bituminous Coated And 25% Paved, Add	202.75	
		For Smooth-Flo, Add	366.02	
33 42 11 00-0661	LF	114" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	804.85	125.41
		For Bituminous Coated Pipe, Add	111.86	
		For Bituminous Coated And 25% Paved, Add	212.53	
		For Smooth-Flo, Add	383.67	
33 42 11 00-0662	LF	120" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	846.67	136.81
		For Bituminous Coated Pipe, Add	117.00	
		For Bituminous Coated And 25% Paved, Add	222.30	
		For Smooth-Flo, Add	401.32	
33 42 11 00-0663		10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0627)		
33 42 11 00-0664	LF	72" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	604.89	72.96
		For Bituminous Coated Pipe, Add	91.96	
		For Bituminous Coated And 25% Paved, Add	174.72	
		For Smooth-Flo, Add	274.49	
33 42 11 00-0665	LF	78" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	652.69	79.81
		For Bituminous Coated Pipe, Add	98.62	
		For Bituminous Coated And 25% Paved, Add	187.37	
		For Smooth-Flo, Add	294.37	
33 42 11 00-0666	LF	84" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	696.66	85.51
		For Bituminous Coated Pipe, Add	105.13	
		For Bituminous Coated And 25% Paved, Add	199.75	
		For Smooth-Flo, Add	313.81	
33 42 11 00-0667	LF	90" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	740.34	91.21
		For Bituminous Coated Pipe, Add	111.58	
		For Bituminous Coated And 25% Paved, Add	212.01	
		For Smooth-Flo, Add	333.08	
33 42 11 00-0668	LF	96" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	785.20	96.90
		For Bituminous Coated Pipe, Add	118.11	
		For Bituminous Coated And 25% Paved, Add	224.41	
		For Smooth-Flo, Add	352.56	
33 42 11 00-0669	LF	102" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	832.90	102.61
		For Bituminous Coated Pipe, Add	124.58	
		For Bituminous Coated And 25% Paved, Add	236.69	
		For Smooth-Flo, Add	371.86	
33 42 11 00-0670	LF	108" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	883.47	114.01
		For Bituminous Coated Pipe, Add	131.09	
		For Bituminous Coated And 25% Paved, Add	249.07	
		For Smooth-Flo, Add	391.30	
33 42 11 00-0671	LF	114" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	933.52	125.41
		For Bituminous Coated Pipe, Add	137.59	
		For Bituminous Coated And 25% Paved, Add	261.42	
		For Smooth-Flo, Add	410.71	
33 42 11 00-0672	LF	120" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	981.95	136.81
		For Bituminous Coated Pipe, Add	144.06	
		For Bituminous Coated And 25% Paved, Add	273.71	
		For Smooth-Flo, Add	430.01	
33 42 11 00-0673	LF	126" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	1,043.00	148.21
		For Bituminous Coated Pipe, Add	152.60	
		For Bituminous Coated And 25% Paved, Add	289.93	
		For Smooth-Flo, Add	455.50	
33 42 11 00-0674	LF	132" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	1,099.33	159.61
		For Bituminous Coated Pipe, Add	159.63	
		For Bituminous Coated And 25% Paved, Add	303.30	
		For Smooth-Flo, Add	476.51	
33 42 11 00-0675	LF	138" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	1,160.47	171.01
		For Bituminous Coated Pipe, Add	166.95	
		For Bituminous Coated And 25% Paved, Add	317.20	
		For Smooth-Flo, Add	498.33	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-0676	Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0534)		
33 42 11 00-0677	16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0676)		
33 42 11 00-0678	LF 18" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	71.45 10.81	12.85
33 42 11 00-0679	LF 21" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	82.32 12.88	13.93
33 42 11 00-0680	LF 24" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	92.14 14.62	15.00
33 42 11 00-0681	LF 30" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	120.40 18.84	19.28
33 42 11 00-0682	LF 36" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	154.55 23.61	25.09
33 42 11 00-0683	LF 42" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	177.54 27.84	29.64
33 42 11 00-0684	LF 48" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	199.99 31.34	34.20
33 42 11 00-0685	LF 54" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	239.88 38.39	38.76
33 42 11 00-0686	LF 60" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	261.73 41.91	41.05
33 42 11 00-0687	14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0676)		
33 42 11 00-0688	LF 18" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	79.19 12.50	12.85
33 42 11 00-0689	LF 21" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	91.37 14.86	13.93
33 42 11 00-0690	LF 24" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	102.44 16.88	15.00
33 42 11 00-0691	LF 30" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	133.20 21.64	19.28
33 42 11 00-0692	LF 36" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	169.97 26.97	25.09
33 42 11 00-0693	LF 42" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	195.58 31.77	29.64
33 42 11 00-0694	LF 48" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	220.59 35.83	34.20
33 42 11 00-0695	LF 54" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	263.04 43.41	38.76
33 42 11 00-0696	LF 60" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	287.51 47.51	41.05
33 42 11 00-0697	LF 66" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	353.73 59.02	50.16
33 42 11 00-0698	LF 72" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	418.10 63.06	72.96
33 42 11 00-0699	LF 78" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	450.42 67.18	79.81
33 42 11 00-0700	12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0676)		
33 42 11 00-0701	LF 30" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	159.16 22.61	19.28
33 42 11 00-0702	LF 36" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	201.00 27.93	25.09
33 42 11 00-0703	LF 42" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	231.91 32.86	29.64
33 42 11 00-0704	LF 48" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	262.03 37.15	34.20
33 42 11 00-0705	LF 54" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	309.72 44.34	38.76
33 42 11 00-0706	LF 60" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	339.43 48.68	41.05
33 42 11 00-0707	LF 66" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	410.71 59.06	50.16
33 42 11 00-0708	LF 72" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	480.21 63.34	72.96
33 42 11 00-0709	LF 78" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	517.64 67.67	79.81
33 42 11 00-0710	LF 84" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	551.85 71.98	85.51
33 42 11 00-0711	LF 90" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	586.00 76.28	91.21
33 42 11 00-0712	LF 96" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	620.98 80.58	96.90
33 42 11 00-0713	LF 102" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... For Bituminous Coated Pipe, Add	656.59 84.40	102.61
33 42 11 00-0714	1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0534)		
33 42 11 00-0715	1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0714)		



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 11 00-0716	LF 6" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	24.12	2.76	6.43
33 42 11 00-0717	LF 6" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	26.43	3.33	6.43
33 42 11 00-0718	LF 8" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	30.50	3.66	8.03
33 42 11 00-0719	LF 8" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	33.42	4.37	8.03
33 42 11 00-0720	LF 10" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	38.51	4.59	9.64
33 42 11 00-0721	LF 10" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	42.22	5.50	9.64
33 42 11 00-0722 Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping⁽³³⁾				
33 42 11 00-0723	LF 6" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	24.44	2.72	6.43
33 42 11 00-0724	LF 6" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	26.68	3.25	6.43
33 42 11 00-0725	LF 8" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	30.82	3.58	8.03
33 42 11 00-0726	LF 8" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	33.93	4.31	8.03
33 42 11 00-0727	LF 10" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	39.06	4.53	9.64
33 42 11 00-0728	LF 10" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	42.87	5.43	9.64
33 42 11 00-0729 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe Fittings^(33 42 11 00-0714)				
33 42 11 00-0730	EA 6" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	17.06	3.84	
33 42 11 00-0731	EA 8" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	22.58	5.08	
33 42 11 00-0732	EA 10" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	27.69	6.23	
33 42 11 00-0733	EA 6" 18 Gauge, Band Elbows For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	61.52	8.49	
33 42 11 00-0734	EA 6" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	11.56	1.94	
33 42 11 00-0735	EA 8" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	15.00	2.91	
33 42 11 00-0736 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping^(33 42 11 00-0534)				
33 42 11 00-0737 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping^(33 42 11 00-0736)				
33 42 11 00-0738	LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	80.91		11.24
33 42 11 00-0739	LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	96.70		11.78
33 42 11 00-0740	LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	112.96		12.85
33 42 11 00-0741	LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	132.12		13.93
33 42 11 00-0742	LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	147.70		15.00
33 42 11 00-0743	LF 30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	192.91		19.28
33 42 11 00-0744	LF 36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	246.80		25.09
33 42 11 00-0745	LF 42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	287.05		29.64
33 42 11 00-0746	LF 48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	322.04		34.20
33 42 11 00-0747 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping^(33 42 11 00-0736)				
33 42 11 00-0748	LF 12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	93.37		11.24
33 42 11 00-0749	LF 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	112.13		11.78
33 42 11 00-0750	LF 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	131.44		12.85
33 42 11 00-0751	LF 21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	153.53		13.93
33 42 11 00-0752	LF 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	172.57		15.00
33 42 11 00-0753	LF 30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	223.43		19.28
33 42 11 00-0754	LF 36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	283.64		25.09
33 42 11 00-0755	LF 42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	329.33		29.64
33 42 11 00-0756	LF 48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	370.29		34.20
33 42 11 00-0757	LF 54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	450.03		38.76
33 42 11 00-0758 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping^(33 42 11 00-0736)				
33 42 11 00-0759	LF 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	169.97		12.85
33 42 11 00-0760	LF 21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	198.52		13.93
33 42 11 00-0761	LF 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	223.72		15.00
33 42 11 00-0762	LF 30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	287.33		19.28
33 42 11 00-0763	LF 36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	344.65		25.09
33 42 11 00-0764	LF 42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	418.72		29.64
33 42 11 00-0765	LF 48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	472.30		34.20

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0766	LF	54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	566.42	38.76
33 42 11 00-0767	LF	60" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	619.02	41.05
33 42 11 00-0768	LF	66" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	758.95	50.16
33 42 11 00-0769		10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0736)		
33 42 11 00-0770	LF	36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	430.37	25.09
33 42 11 00-0771	LF	42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	500.15	29.64
33 42 11 00-0772	LF	48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	564.79	34.20
33 42 11 00-0773	LF	54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	670.04	38.76
33 42 11 00-0774	LF	60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	734.37	41.05
33 42 11 00-0775	LF	66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	885.64	50.16
33 42 11 00-0776	LF	72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	989.31	72.96
33 42 11 00-0777		3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0534)		
33 42 11 00-0778		16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0777)		
33 42 11 00-0779	LF	36" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	317.54	25.09
33 42 11 00-0780	LF	42" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	368.61	29.64
33 42 11 00-0781	LF	48" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	413.48	34.20
33 42 11 00-0782	LF	54" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	502.03	38.76
33 42 11 00-0783	LF	60" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	546.60	41.05
33 42 11 00-0784	LF	66" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	698.32	50.16
33 42 11 00-0785	LF	72" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	784.25	72.96
33 42 11 00-0786	LF	78" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	837.80	79.81
33 42 11 00-0787	LF	84" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	888.38	85.51
33 42 11 00-0788	LF	90" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	939.01	91.21
33 42 11 00-0789	LF	96" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	990.28	96.90
33 42 11 00-0790	LF	102" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,045.04	102.61
33 42 11 00-0791		14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0777)		
33 42 11 00-0792	LF	54" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	568.65	38.76
33 42 11 00-0793	LF	60" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	620.23	41.05
33 42 11 00-0794	LF	66" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	779.42	50.16
33 42 11 00-0795	LF	72" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	872.46	72.96
33 42 11 00-0796	LF	78" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	933.22	79.81
33 42 11 00-0797	LF	84" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	991.27	85.51
33 42 11 00-0798	LF	90" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,048.90	91.21
33 42 11 00-0799	LF	96" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,107.32	96.90
33 42 11 00-0800	LF	102" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,169.34	102.61
33 42 11 00-0801	LF	108" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,233.80	114.01
33 42 11 00-0802	LF	114" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,296.94	125.41
33 42 11 00-0803		12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0777)		
33 42 11 00-0804	LF	60" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	787.75	41.05
33 42 11 00-0805	LF	66" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	965.78	50.16
33 42 11 00-0806	LF	72" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,074.97	72.96
33 42 11 00-0807	LF	78" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,151.97	79.81
33 42 11 00-0808	LF	84" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,226.17	85.51
33 42 11 00-0809	LF	90" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,300.07	91.21
33 42 11 00-0810	LF	96" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,374.86	96.90
33 42 11 00-0811	LF	102" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,453.01	102.61
33 42 11 00-0812	LF	108" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,533.49	114.01
33 42 11 00-0813	LF	114" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,613.12	125.41
33 42 11 00-0814	LF	120" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,692.02	136.81
33 42 11 00-0815		10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0777)		
33 42 11 00-0816	LF	72" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,259.50	72.96
33 42 11 00-0817	LF	78" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,351.53	79.81
33 42 11 00-0818	LF	84" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,440.90	85.51
33 42 11 00-0819	LF	90" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,529.88	91.21
33 42 11 00-0820	LF	96" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,619.87	96.90
33 42 11 00-0821	LF	102" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,713.16	102.61
33 42 11 00-0822	LF	108" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,808.81	114.01
33 42 11 00-0823	LF	114" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,903.49	125.41
33 42 11 00-0824	LF	120" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	1,997.53	136.81
33 42 11 00-0825	LF	126" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	2,093.27	148.21
33 42 11 00-0826	LF	132" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	2,192.33	159.61
33 42 11 00-0827	LF	138" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe.....	2,294.91	171.01
33 42 11 00-0828		125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0534)		
33 42 11 00-0829		16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0828)		
33 42 11 00-0830	LF	48" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	399.12	34.20



		Utilities	33	CS
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 42 11 00-0831	LF	54" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	486.23		38.76
33 42 11 00-0832	LF	60" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	528.49		41.05
33 42 11 00-0833	LF	66" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	664.66		50.16
33 42 11 00-0834	LF	72" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	747.84		72.96
33 42 11 00-0835	LF	78" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	798.52		79.81
33 42 11 00-0836	LF	84" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	845.85		85.51
33 42 11 00-0837	LF	90" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	893.06		91.21
33 42 11 00-0838	LF	96" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	941.62		96.80
33 42 11 00-0839	LF	102" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	994.37		102.61
33 42 11 00-0840		14 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0828)			
33 42 11 00-0841	LF	54" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	565.35		38.76
33 42 11 00-0842	LF	60" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	616.61		41.05
33 42 11 00-0843	LF	66" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	760.77		50.16
33 42 11 00-0844	LF	72" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	851.69		72.96
33 42 11 00-0845	LF	78" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	911.75		79.81
33 42 11 00-0846	LF	84" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	967.90		85.51
33 42 11 00-0847	LF	90" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,019.53		91.21
33 42 11 00-0848	LF	96" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,080.93		96.90
33 42 11 00-0849	LF	102" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,141.04		102.61
33 42 11 00-0850	LF	108" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,203.25		114.01
33 42 11 00-0851	LF	114" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,266.18		125.41
33 42 11 00-0852		12 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0828)			
33 42 11 00-0853	LF	60" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	793.24		41.05
33 42 11 00-0854	LF	66" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	956.19		50.16
33 42 11 00-0855	LF	72" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,065.57		72.96
33 42 11 00-0856	LF	78" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,141.86		79.81
33 42 11 00-0857	LF	84" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,214.57		85.51
33 42 11 00-0858	LF	90" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,288.25		91.21
33 42 11 00-0859	LF	96" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,362.27		96.90
33 42 11 00-0860	LF	102" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,439.18		102.61
33 42 11 00-0861	LF	108" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,519.43		114.01
33 42 11 00-0862	LF	114" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,598.76		125.41
33 42 11 00-0863	LF	120" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,676.59		136.81
33 42 11 00-0864		10 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0828)			
33 42 11 00-0865	LF	72" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,259.42		72.96
33 42 11 00-0866	LF	78" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,353.75		79.81
33 42 11 00-0867	LF	84" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,443.45		85.51
33 42 11 00-0868	LF	90" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,532.37		91.21
33 42 11 00-0869	LF	96" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,622.82		96.90
33 42 11 00-0870	LF	102" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,715.94		102.61
33 42 11 00-0871	LF	108" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,812.05		114.01
33 42 11 00-0872	LF	114" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	1,907.64		125.41
33 42 11 00-0873	LF	120" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	2,001.47		136.81
33 42 11 00-0874	LF	126" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	2,122.29		148.21
33 42 11 00-0875	LF	132" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	2,228.00		159.61
33 42 11 00-0876	LF	138" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe.....	2,340.33		171.01
33 42 11 00-0877		Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0533)			
33 42 11 00-0878		2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0877)			
33 42 11 00-0879		16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0878)			
33 42 11 00-0880	LF	17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	55.75		11.78
		For Bituminous Coated Pipe, Add	7.86		
		For Bituminous Coated And 25% Paved, Add	19.00		
		For Smooth-Flo, Add	31.34		
33 42 11 00-0881	LF	21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	62.76		12.85
		For Bituminous Coated Pipe, Add	9.38		
		For Bituminous Coated And 25% Paved, Add	22.69		
		For Smooth-Flo, Add	37.43		
33 42 11 00-0882	LF	24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	72.43		13.93
		For Bituminous Coated Pipe, Add	11.30		
		For Bituminous Coated And 25% Paved, Add	27.31		
		For Smooth-Flo, Add	45.05		
33 42 11 00-0883	LF	28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	81.66		15.00
		For Bituminous Coated Pipe, Add	13.02		
		For Bituminous Coated And 25% Paved, Add	31.47		
		For Smooth-Flo, Add	51.91		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0884	LF		35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	105.93 16.53 39.97 65.93	19.28
33 42 11 00-0885	LF		42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	138.83 21.32 51.54 85.02	25.09
33 42 11 00-0886 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0878)					
33 42 11 00-0887	LF		17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	62.12 8.15 19.08 31.29	11.78
33 42 11 00-0888	LF		21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	70.56 9.78 22.88 37.53	12.85
33 42 11 00-0889	LF		24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	81.12 11.62 27.19 44.60	13.93
33 42 11 00-0890	LF		28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	91.72 13.40 31.36 51.43	15.00
33 42 11 00-0891	LF		35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	118.49 16.97 39.71 65.13	19.28
33 42 11 00-0892	LF		42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	153.78 21.62 50.59 82.97	25.09
33 42 11 00-0893	LF		49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	177.84 25.76 60.26 98.84	29.64
33 42 11 00-0894 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0878)					
33 42 11 00-0895	LF		21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	92.30 10.58 23.54 36.20	13.69
33 42 11 00-0896	LF		24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	106.13 12.55 27.92 42.93	14.82
33 42 11 00-0897	LF		28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	119.67 14.39 32.02 49.24	15.96
33 42 11 00-0898	LF		35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	153.85 18.12 40.32 62.01	20.52
33 42 11 00-0899	LF		42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	184.26 22.67 50.45 77.58	25.09
33 42 11 00-0900	LF		49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	213.03 26.81 59.67 91.75	29.64
33 42 11 00-0901	LF		57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	249.29 31.80 70.77 108.82	34.20
33 42 11 00-0902	LF		64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	278.10 35.12 78.15 120.16	38.76
33 42 11 00-0903 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0878)					
33 42 11 00-0904	LF		42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	212.96 27.32 57.51 72.53	25.09



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0905	LF	49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	246.49 32.22 67.64 85.56	29.64
33 42 11 00-0906	LF	57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	287.22 37.92 79.83 100.67	34.20
33 42 11 00-0907	LF	64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	320.97 42.04 88.51 111.62	38.76
33 42 11 00-0908	LF	71" x 47" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	351.76 46.15 97.17 122.54	41.05
33 42 11 00-0909		3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0877)		
33 42 11 00-0910		14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0909)		
33 42 11 00-0911	LF	60" x 46" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	277.69 40.51 123.16 137.75	38.76
33 42 11 00-0912	LF	66" x 51" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	303.53 44.34 134.78 150.74	41.05
33 42 11 00-0913	LF	73" x 55" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	376.65 55.68 169.28 189.33	50.16
33 42 11 00-0914	LF	81" x 59" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	443.59 59.70 181.48 202.97	72.96
33 42 11 00-0915	LF	87" x 63" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	479.18 63.91 194.30 217.31	79.81
33 42 11 00-0916	LF	95" x 67" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	511.77 68.15 207.18 231.72	85.51
33 42 11 00-0917	LF	103" x 71" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	544.26 72.37 220.00 246.05	91.21
33 42 11 00-0918	LF	112" x 75" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	577.51 76.57 232.78 260.34	96.90
33 42 11 00-0919		12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0909)		
33 42 11 00-0920	LF	66" x 51" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	369.50 57.53 150.73 178.34	41.05
33 42 11 00-0921	LF	73" x 55" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	449.83 70.32 184.24 217.99	50.16
33 42 11 00-0922	LF	81" x 59" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	523.26 75.63 198.16 234.46	72.96
33 42 11 00-0923	LF	87" x 63" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	565.28 81.13 212.57 251.52	79.81
33 42 11 00-0924	LF	95" x 67" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	604.30 86.66 227.04 268.64	85.51
33 42 11 00-0925	LF	103" x 71" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	643.28 92.17 241.49 285.73	91.21
33 42 11 00-0926	LF	112" x 75" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	682.96 97.66 255.87 302.75	96.90

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0927	LF	117" x 79" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	726.08 103.21 270.42 319.96	102.61
33 42 11 00-0928	LF	128" x 83" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	771.65 108.73 284.86 337.05	114.01
33 42 11 00-0929	LF	137" x 87" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	819.50 114.79 300.74 355.84	125.41
33 42 11 00-0930		10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0909)		
33 42 11 00-0931	LF	81" x 59" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	597.27 90.43 215.23 233.77	72.96
33 42 11 00-0932	LF	87" x 63" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	645.42 97.16 231.25 251.16	79.81
33 42 11 00-0933	LF	95" x 67" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	690.52 103.90 247.29 268.59	85.51
33 42 11 00-0934	LF	103" x 71" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	735.46 110.61 263.25 285.92	91.21
33 42 11 00-0935	LF	112" x 75" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	781.27 117.32 279.23 303.28	96.90
33 42 11 00-0936	LF	117" x 79" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	830.40 124.08 295.30 320.74	102.61
33 42 11 00-0937	LF	128" x 83" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	882.04 130.80 311.31 338.13	114.01
33 42 11 00-0938	LF	137" x 87" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	935.48 137.98 328.40 356.69	125.41
33 42 11 00-0939	LF	142" x 91" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	994.69 146.61 348.92 378.98	136.81
33 42 11 00-0940		125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0877)		
33 42 11 00-0941		12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0940)		
33 42 11 00-0942	LF	81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	530.52 77.08 188.08 239.35	72.96
33 42 11 00-0943	LF	87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	571.83 82.44 201.16 255.99	79.81
33 42 11 00-0944	LF	95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	609.72 87.74 214.09 272.44	85.51
33 42 11 00-0945	LF	103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	647.63 93.04 227.02 288.90	91.21
33 42 11 00-0946	LF	112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	686.53 98.38 240.04 305.46	96.90
33 42 11 00-0947	LF	117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	729.06 103.81 253.29 322.32	102.61



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0948	LF		128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	774.03 109.20 266.45 339.07	114.01
33 42 11 00-0949	LF		137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	825.39 115.97 282.96 360.07	125.41
33 42 11 00-0950 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0940)					
33 42 11 00-0951	LF		81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	612.45 93.47 211.24 229.47	72.96
33 42 11 00-0952	LF		87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	660.31 100.14 226.32 245.84	79.81
33 42 11 00-0953	LF		95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	704.87 106.77 241.30 262.13	85.51
33 42 11 00-0954	LF		103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	749.63 113.44 256.38 278.50	91.21
33 42 11 00-0955	LF		112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	794.07 119.88 270.94 294.32	96.90
33 42 11 00-0956	LF		117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	844.15 126.83 286.63 311.36	102.61
33 42 11 00-0957	LF		128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	895.91 133.58 301.89 327.93	114.01
33 42 11 00-0958	LF		137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	954.00 141.69 320.21 347.64	125.41
33 42 11 00-0959	LF		142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	1,008.39 149.35 337.52 366.64	136.81
33 42 11 00-0960 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0877)					
33 42 11 00-0961 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0960)					
33 42 11 00-0962	LF		17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	96.80	11.78
33 42 11 00-0963	LF		21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	111.83	12.85
33 42 11 00-0964	LF		24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	131.64	13.93
33 42 11 00-0965	LF		28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	149.98	15.00
33 42 11 00-0966	LF		35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	192.96	19.28
33 42 11 00-0967	LF		42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	251.89	25.09
33 42 11 00-0968 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0960)					
33 42 11 00-0969	LF		17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	111.46	11.78
33 42 11 00-0970	LF		21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	129.73	12.85
33 42 11 00-0971	LF		24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	151.63	13.93
33 42 11 00-0972	LF		28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	173.21	15.00
33 42 11 00-0973	LF		35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	221.85	19.28
33 42 11 00-0974	LF		42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	286.24	25.09
33 42 11 00-0975	LF		49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	335.98	29.64
33 42 11 00-0976 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0960)					
33 42 11 00-0977	LF		21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	173.62	12.85
33 42 11 00-0978	LF		24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	203.61	13.93
33 42 11 00-0979	LF		28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	232.08	15.00
33 42 11 00-0980	LF		35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	295.32	19.28
33 42 11 00-0981	LF		42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	374.98	25.09
33 42 11 00-0982	LF		49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	439.32	29.64
33 42 11 00-0983	LF		57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	519.48	34.20
33 42 11 00-0984	LF		64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	575.67	38.76

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

SAN BERNARDINO
COUNTY

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-0985	10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0960)		
33 42 11 00-0986	LF 42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	444.60	25.09
33 42 11 00-0987	LF 49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	520.54	29.64
33 42 11 00-0988	LF 57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	611.55	34.20
33 42 11 00-0989	LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	679.76	38.76
33 42 11 00-0990	LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	744.85	41.05
33 42 11 00-0991	3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0877)		
33 42 11 00-0992	14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0991)		
33 42 11 00-0993	LF 60" x 46" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	581.72	38.76
33 42 11 00-0994	LF 66" x 51" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	635.61	41.05
33 42 11 00-0995	LF 73" x 55" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	797.27	50.16
33 42 11 00-0996	LF 81" x 59" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	893.89	72.96
33 42 11 00-0997	LF 87" x 63" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	960.73	79.81
33 42 11 00-0998	LF 95" x 67" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,024.68	85.51
33 42 11 00-0999	LF 103" x 71" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,088.34	91.21
33 42 11 00-1000	LF 112" x 75" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,152.95	96.90
33 42 11 00-1001	12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0991)		
33 42 11 00-1002	LF 66" x 51" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	803.45	41.05
33 42 11 00-1003	LF 73" x 55" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	984.10	50.16
33 42 11 00-1004	LF 81" x 59" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,097.24	72.96
33 42 11 00-1005	LF 87" x 63" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,180.28	79.81
33 42 11 00-1006	LF 95" x 67" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,260.52	85.51
33 42 11 00-1007	LF 103" x 71" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,340.66	91.21
33 42 11 00-1008	LF 112" x 75" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,421.40	96.90
33 42 11 00-1009	LF 117" x 79" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,505.85	102.61
33 42 11 00-1010	LF 128" x 83" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,592.58	114.01
33 42 11 00-1011	LF 137" x 87" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,685.70	125.41
33 42 11 00-1012	10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0991)		
33 42 11 00-1013	LF 81" x 59" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,281.72	72.96
33 42 11 00-1014	LF 87" x 63" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,380.01	79.81
33 42 11 00-1015	LF 95" x 67" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,475.49	85.51
33 42 11 00-1016	LF 103" x 71" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,570.45	91.21
33 42 11 00-1017	LF 112" x 75" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,666.38	96.90
33 42 11 00-1018	LF 117" x 79" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,765.91	102.61
33 42 11 00-1019	LF 128" x 83" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,867.83	114.01
33 42 11 00-1020	LF 137" x 87" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,974.81	125.41
33 42 11 00-1021	LF 142" x 91" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	2,098.33	136.81
33 42 11 00-1022	125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-0877)		
33 42 11 00-1023	12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-1022)		
33 42 11 00-1024	LF 81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,080.65	72.96
33 42 11 00-1025	LF 87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,159.55	79.81
33 42 11 00-1026	LF 95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,234.61	85.51
33 42 11 00-1027	LF 103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,309.58	91.21
33 42 11 00-1028	LF 112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,385.85	96.90
33 42 11 00-1029	LF 117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,466.43	102.61
33 42 11 00-1030	LF 128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,549.17	114.01
33 42 11 00-1031	LF 137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,647.90	125.41
33 42 11 00-1032	10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (33 42 11 00-1022)		
33 42 11 00-1033	LF 81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,277.40	72.96
33 42 11 00-1034	LF 87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,371.92	79.81
33 42 11 00-1035	LF 95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,462.95	85.51
33 42 11 00-1036	LF 103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,554.42	91.21
33 42 11 00-1037	LF 112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,644.12	96.90
33 42 11 00-1038	LF 117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,742.74	102.61
33 42 11 00-1039	LF 128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,841.84	114.01
33 42 11 00-1040	LF 137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,956.94	125.41
33 42 11 00-1041	LF 142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	2,064.68	136.81
33 42 11 00-1042	Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-0533)		
33 42 11 00-1043	2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1042)		



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 11 00-1044	16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1043)			
33 42 11 00-1045	LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	52.30 11.69		11.24
33 42 11 00-1046	LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	60.63 14.72		11.78
33 42 11 00-1047	LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	69.25 17.85		12.85
33 42 11 00-1048	LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	79.87 21.34		13.93
33 42 11 00-1049	LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	88.86 24.03		15.00
33 42 11 00-1050	LF 30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	116.71 31.18		19.28
33 42 11 00-1051	LF 36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	150.56 39.33		25.09
33 42 11 00-1052	LF 42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	173.20 46.52		29.64
33 42 11 00-1053	LF 48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	194.51 52.13		34.20
33 42 11 00-1054	14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1043)			
33 42 11 00-1055	LF 12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	58.61 11.10		11.24
33 42 11 00-1056	LF 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	68.43 13.94		11.78
33 42 11 00-1057	LF 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	78.54 16.84		12.85
33 42 11 00-1058	LF 21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	90.65 20.03		13.93
33 42 11 00-1059	LF 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	101.37 22.68		15.00
33 42 11 00-1060	LF 30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	132.01 29.13		19.28
33 42 11 00-1061	LF 36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	169.08 36.50		25.09
33 42 11 00-1062	LF 42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	194.51 42.99		29.64
33 42 11 00-1063	LF 48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	218.80 48.30		34.20
33 42 11 00-1064	LF 54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	263.63 59.38		38.76
33 42 11 00-1065	12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1043)			
33 42 11 00-1066	LF 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	98.07 15.70		12.85
33 42 11 00-1067	LF 21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	113.46 18.58		13.93
33 42 11 00-1068	LF 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	127.27 21.05		15.00
33 42 11 00-1069	LF 30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	164.34 26.83		19.28
33 42 11 00-1070	LF 36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	208.08 33.30		25.09
33 42 11 00-1071	LF 42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	239.71 39.06		29.64
33 42 11 00-1072	LF 48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	270.37 44.05		34.20
33 42 11 00-1073	LF 54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	322.52 53.19		38.76
33 42 11 00-1074	LF 60" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	352.35 58.16		41.05
33 42 11 00-1075	LF 66" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	430.90 71.52		50.16
33 42 11 00-1076	10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1043)			
33 42 11 00-1077	LF 36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	243.15 36.47		25.09
33 42 11 00-1078	LF 42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	280.73 42.76		29.64
33 42 11 00-1079	LF 48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	316.93 48.28		34.20
33 42 11 00-1080	LF 54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe For 1/2 Bituminous Coated And 25% Paved, Add	374.74 57.53		38.76

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1081	LF	60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	410.47 63.10	41.05
33 42 11 00-1082	LF	66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	494.73 76.13	50.16
33 42 11 00-1083	LF	72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	570.18 81.62	72.96
33 42 11 00-1084 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1042)				
33 42 11 00-1085 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1084)				
33 42 11 00-1086	LF	36" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	178.13 43.72	25.09
33 42 11 00-1087	LF	42" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	204.75 51.35	29.64
33 42 11 00-1088	LF	48" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	230.00 57.58	34.20
33 42 11 00-1089	LF	54" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	276.08 70.34	38.76
33 42 11 00-1090	LF	60" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	300.79 76.63	41.05
33 42 11 00-1091	LF	66" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	379.45 98.43	50.16
33 42 11 00-1092	LF	72" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	444.84 104.91	72.96
33 42 11 00-1093	LF	78" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	477.93 111.41	79.81
33 42 11 00-1094	LF	84" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	507.96 117.93	85.51
33 42 11 00-1095	LF	90" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	538.01 124.46	91.21
33 42 11 00-1096	LF	96" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	568.82 130.96	96.90
33 42 11 00-1097	LF	102" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	602.94 137.52	102.61
33 42 11 00-1098 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1084)				
33 42 11 00-1099	LF	54" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	307.75 60.95	38.76
33 42 11 00-1100	LF	60" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	335.80 66.53	41.05
33 42 11 00-1101	LF	66" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	417.98 83.77	50.16
33 42 11 00-1102	LF	72" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	486.82 89.53	72.96
33 42 11 00-1103	LF	78" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	523.30 95.29	79.81
33 42 11 00-1104	LF	84" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	556.91 101.11	85.51
33 42 11 00-1105	LF	90" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	590.29 106.86	91.21
33 42 11 00-1106	LF	96" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	624.49 112.62	96.90
33 42 11 00-1107	LF	102" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	662.01 118.42	102.61
33 42 11 00-1108	LF	108" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	702.10 124.21	114.01
33 42 11 00-1109	LF	114" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	741.37 129.90	125.41
33 42 11 00-1110 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1084)				
33 42 11 00-1111	LF	60" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	413.62 89.25	41.05
33 42 11 00-1112	LF	66" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	504.13 109.19	50.16
33 42 11 00-1113	LF	72" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	580.48 117.12	72.96
33 42 11 00-1114	LF	78" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	624.58 125.08	79.81
33 42 11 00-1115	LF	84" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	665.69 133.07	85.51
33 42 11 00-1116	LF	90" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	706.70 141.03	91.21
33 42 11 00-1117	LF	96" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	748.46 148.97	96.90
33 42 11 00-1118	LF	102" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	793.54 156.97	102.61
33 42 11 00-1119	LF	108" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	841.13 164.93	114.01



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 11 00-1120	LF 114" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	888.03		125.41
	For 1/2 Bituminous Coated And 25% Paved, Add	172.82		
33 42 11 00-1121	LF 120" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	933.84		136.81
	For 1/2 Bituminous Coated And 25% Paved, Add	180.82		
33 42 11 00-1122 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping				
	(33 42 11 00-1084)			
33 42 11 00-1123	LF 72" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	667.83		72.96
	For 1/2 Bituminous Coated And 25% Paved, Add	143.75		
33 42 11 00-1124	LF 78" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	718.96		79.81
	For 1/2 Bituminous Coated And 25% Paved, Add	153.82		
33 42 11 00-1125	LF 84" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	767.27		85.51
	For 1/2 Bituminous Coated And 25% Paved, Add	163.97		
33 42 11 00-1126	LF 90" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	815.36		91.21
	For 1/2 Bituminous Coated And 25% Paved, Add	174.06		
33 42 11 00-1127	LF 96" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	864.39		96.90
	For 1/2 Bituminous Coated And 25% Paved, Add	164.18		
33 42 11 00-1128	LF 102" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	916.68		102.61
	For 1/2 Bituminous Coated And 25% Paved, Add	194.33		
33 42 11 00-1129	LF 108" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	971.35		114.01
	For 1/2 Bituminous Coated And 25% Paved, Add	204.42		
33 42 11 00-1130	LF 114" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,025.39		125.41
	For 1/2 Bituminous Coated And 25% Paved, Add	214.45		
33 42 11 00-1131	LF 120" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,078.41		136.81
	For 1/2 Bituminous Coated And 25% Paved, Add	224.61		
33 42 11 00-1132	LF 126" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,133.39		148.21
	For 1/2 Bituminous Coated And 25% Paved, Add	234.68		
33 42 11 00-1133	LF 132" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,191.39		159.61
	For 1/2 Bituminous Coated And 25% Paved, Add	244.81		
33 42 11 00-1134	LF 138" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,252.88		171.01
	For 1/2 Bituminous Coated And 25% Paved, Add	254.96		
33 42 11 00-1135 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping				
	(33 42 11 00-1042)			
33 42 11 00-1136 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping				
	(33 42 11 00-1135)			
33 42 11 00-1137	LF 48" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	231.01		34.20
	For 1/2 Bituminous Coated And 25% Paved, Add	71.34		
33 42 11 00-1138	LF 54" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	277.92		38.76
	For 1/2 Bituminous Coated And 25% Paved, Add	87.41		
33 42 11 00-1139	LF 60" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	302.40		41.05
	For 1/2 Bituminous Coated And 25% Paved, Add	95.06		
33 42 11 00-1140	LF 66" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	375.88		50.16
	For 1/2 Bituminous Coated And 25% Paved, Add	119.67		
33 42 11 00-1141	LF 72" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	440.85		72.96
	For 1/2 Bituminous Coated And 25% Paved, Add	127.47		
33 42 11 00-1142	LF 78" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	473.46		79.81
	For 1/2 Bituminous Coated And 25% Paved, Add	135.27		
33 42 11 00-1143	LF 84" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	502.84		85.51
	For 1/2 Bituminous Coated And 25% Paved, Add	143.02		
33 42 11 00-1144	LF 90" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	532.12		91.21
	For 1/2 Bituminous Coated And 25% Paved, Add	150.72		
33 42 11 00-1145	LF 96" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	562.57		96.90
	For 1/2 Bituminous Coated And 25% Paved, Add	158.57		
33 42 11 00-1146	LF 102" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	596.57		102.61
	For 1/2 Bituminous Coated And 25% Paved, Add	166.60		
33 42 11 00-1147 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping				
	(33 42 11 00-1135)			
33 42 11 00-1148	LF 54" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	317.52		38.76
	For 1/2 Bituminous Coated And 25% Paved, Add	82.42		
33 42 11 00-1149	LF 60" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	346.52		41.05
	For 1/2 Bituminous Coated And 25% Paved, Add	89.99		
33 42 11 00-1150	LF 66" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	423.93		50.16
	For 1/2 Bituminous Coated And 25% Paved, Add	110.74		
33 42 11 00-1151	LF 72" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	492.83		72.96
	For 1/2 Bituminous Coated And 25% Paved, Add	118.23		
33 42 11 00-1152	LF 78" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	530.09		79.81
	For 1/2 Bituminous Coated And 25% Paved, Add	125.96		
33 42 11 00-1153	LF 84" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	563.87		85.51
	For 1/2 Bituminous Coated And 25% Paved, Add	133.57		
33 42 11 00-1154	LF 90" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	595.41		91.21
	For 1/2 Bituminous Coated And 25% Paved, Add	140.42		
33 42 11 00-1155	LF 96" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	632.17		96.90
	For 1/2 Bituminous Coated And 25% Paved, Add	148.76		
33 42 11 00-1156	LF 102" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	669.93		102.61
	For 1/2 Bituminous Coated And 25% Paved, Add	156.37		
33 42 11 00-1157	LF 108" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	710.08		114.01
	For 1/2 Bituminous Coated And 25% Paved, Add	163.90		

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33 42 11 00-1158 LF 114" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 750.31 125.41
For 1/2 Bituminous Coated And 25% Paved, Add 171.62

33 42 11 00-1159 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1135)

33 42 11 00-1160 LF 60" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 428.99 41.05
For 1/2 Bituminous Coated And 25% Paved, Add 99.28
33 42 11 00-1161 LF 66" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 514.85 50.16
For 1/2 Bituminous Coated And 25% Paved, Add 119.15
33 42 11 00-1162 LF 72" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 592.39 72.96
For 1/2 Bituminous Coated And 25% Paved, Add 127.92
33 42 11 00-1163 LF 78" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 637.26 79.81
For 1/2 Bituminous Coated And 25% Paved, Add 136.61
33 42 11 00-1164 LF 84" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 678.85 85.51
For 1/2 Bituminous Coated And 25% Paved, Add 145.24
33 42 11 00-1165 LF 90" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 720.87 91.21
For 1/2 Bituminous Coated And 25% Paved, Add 154.00
33 42 11 00-1166 LF 96" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 763.40 96.90
For 1/2 Bituminous Coated And 25% Paved, Add 162.66
33 42 11 00-1167 LF 102" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 809.08 102.61
For 1/2 Bituminous Coated And 25% Paved, Add 171.33
33 42 11 00-1168 LF 108" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 857.63 114.01
For 1/2 Bituminous Coated And 25% Paved, Add 180.07
33 42 11 00-1169 LF 114" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 905.53 125.41
For 1/2 Bituminous Coated And 25% Paved, Add 188.75
33 42 11 00-1170 LF 120" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 952.00 136.81
For 1/2 Bituminous Coated And 25% Paved, Add 197.44

33 42 11 00-1171 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1135)

33 42 11 00-1172 LF 72" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 687.72 72.96
For 1/2 Bituminous Coated And 25% Paved, Add 155.19
33 42 11 00-1173 LF 78" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 741.46 79.81
For 1/2 Bituminous Coated And 25% Paved, Add 166.41
33 42 11 00-1174 LF 84" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 791.33 85.51
For 1/2 Bituminous Coated And 25% Paved, Add 177.41
33 42 11 00-1175 LF 90" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 840.85 91.21
For 1/2 Bituminous Coated And 25% Paved, Add 188.31
33 42 11 00-1176 LF 96" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 891.48 96.90
For 1/2 Bituminous Coated And 25% Paved, Add 199.29
33 42 11 00-1177 LF 102" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 945.08 102.61
For 1/2 Bituminous Coated And 25% Paved, Add 210.23
33 42 11 00-1178 LF 108" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,001.48 114.01
For 1/2 Bituminous Coated And 25% Paved, Add 221.21
33 42 11 00-1179 LF 114" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,057.37 125.41
For 1/2 Bituminous Coated And 25% Paved, Add 232.18
33 42 11 00-1180 LF 120" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,111.64 136.81
For 1/2 Bituminous Coated And 25% Paved, Add 243.09
33 42 11 00-1181 LF 126" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,180.43 148.21
For 1/2 Bituminous Coated And 25% Paved, Add 257.52
33 42 11 00-1182 LF 132" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,243.07 159.61
For 1/2 Bituminous Coated And 25% Paved, Add 269.39
33 42 11 00-1183 LF 138" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe 1,310.76 171.01
For 1/2 Bituminous Coated And 25% Paved, Add 281.72

33 42 11 00-1184 Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1042)

33 42 11 00-1185 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1184)

33 42 11 00-1186 LF 18" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 79.91 12.85
33 42 11 00-1187 LF 21" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 92.20 13.93
33 42 11 00-1188 LF 24" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 103.45 15.00
33 42 11 00-1189 LF 30" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 134.51 19.28
33 42 11 00-1190 LF 36" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 171.46 25.09
33 42 11 00-1191 LF 42" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 197.31 29.64
33 42 11 00-1192 LF 48" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 222.55 34.20
33 42 11 00-1193 LF 54" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 265.30 38.76
33 42 11 00-1194 LF 60" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 289.95 41.05

33 42 11 00-1195 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1184)

33 42 11 00-1196 LF 18" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 89.08 12.85
33 42 11 00-1197 LF 21" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 102.92 13.93
33 42 11 00-1198 LF 24" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 115.60 15.00
33 42 11 00-1199 LF 30" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 149.69 19.28
33 42 11 00-1200 LF 36" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 189.74 25.09
33 42 11 00-1201 LF 42" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 218.69 29.64
33 42 11 00-1202 LF 48" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 246.97 34.20
33 42 11 00-1203 LF 54" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe 292.75 38.76



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33 42 11 00-1204	LF	60" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	320.56	41.05
33 42 11 00-1205	LF	66" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	390.41	50.16
33 42 11 00-1206	LF	72" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	458.06	72.96
33 42 11 00-1207	LF	78" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	493.65	79.81
33 42 11 00-1208 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1184)				
33 42 11 00-1209	LF	30" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	180.48	19.28
33 42 11 00-1210	LF	36" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	226.60	25.09
33 42 11 00-1211	LF	42" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	261.86	29.64
33 42 11 00-1212	LF	48" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	296.21	34.20
33 42 11 00-1213	LF	54" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	348.12	38.76
33 42 11 00-1214	LF	60" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	382.18	41.05
33 42 11 00-1215	LF	66" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	458.05	50.16
33 42 11 00-1216	LF	72" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	531.77	72.96
33 42 11 00-1217	LF	78" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	573.49	79.81
33 42 11 00-1218	LF	84" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	611.93	85.51
33 42 11 00-1219	LF	90" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	650.43	91.21
33 42 11 00-1220	LF	96" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	689.57	96.90
33 42 11 00-1221	LF	102" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe	729.00	102.61
33 42 11 00-1222 Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-0533)				
33 42 11 00-1223 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1222)				
33 42 11 00-1224 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1223)				
33 42 11 00-1225	LF	17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	62.77	11.78
For 1/2 Bituminous Coated And 40% Paved, Add			19.02	
33 42 11 00-1226	LF	21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	71.16	12.85
For 1/2 Bituminous Coated And 40% Paved, Add			22.72	
33 42 11 00-1227	LF	24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	82.49	13.93
For 1/2 Bituminous Coated And 40% Paved, Add			27.33	
33 42 11 00-1228	LF	28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	93.27	15.00
For 1/2 Bituminous Coated And 40% Paved, Add			31.50	
33 42 11 00-1229	LF	35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	120.70	19.28
For 1/2 Bituminous Coated And 40% Paved, Add			40.01	
33 42 11 00-1230	LF	42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	157.89	25.09
For 1/2 Bituminous Coated And 40% Paved, Add			51.61	
33 42 11 00-1231 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1223)				
33 42 11 00-1232	LF	17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	70.57	11.78
For 1/2 Bituminous Coated And 40% Paved, Add			19.71	
33 42 11 00-1233	LF	21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	80.62	12.85
For 1/2 Bituminous Coated And 40% Paved, Add			23.61	
33 42 11 00-1234	LF	24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	93.15	13.93
For 1/2 Bituminous Coated And 40% Paved, Add			28.09	
33 42 11 00-1235	LF	28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	105.60	15.00
For 1/2 Bituminous Coated And 40% Paved, Add			32.39	
33 42 11 00-1236	LF	35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	136.06	19.28
For 1/2 Bituminous Coated And 40% Paved, Add			41.02	
33 42 11 00-1237	LF	42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	176.17	25.09
For 1/2 Bituminous Coated And 40% Paved, Add			52.26	
33 42 11 00-1238	LF	49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	204.52	29.64
For 1/2 Bituminous Coated And 40% Paved, Add			62.25	
33 42 11 00-1239 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1223)				
33 42 11 00-1240	LF	21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	99.92	12.85
For 1/2 Bituminous Coated And 40% Paved, Add			21.63	
33 42 11 00-1241	LF	24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	116.02	13.93
For 1/2 Bituminous Coated And 40% Paved, Add			25.71	
33 42 11 00-1242	LF	28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	131.50	15.00
For 1/2 Bituminous Coated And 40% Paved, Add			29.51	
33 42 11 00-1243	LF	35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	168.39	19.28
For 1/2 Bituminous Coated And 40% Paved, Add			37.24	
33 42 11 00-1244	LF	42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	215.23	25.09
For 1/2 Bituminous Coated And 40% Paved, Add			46.82	
33 42 11 00-1245	LF	49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	250.07	29.64
For 1/2 Bituminous Coated And 40% Paved, Add			55.50	
33 42 11 00-1246	LF	57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	294.13	34.20
For 1/2 Bituminous Coated And 40% Paved, Add			66.08	
33 42 11 00-1247	LF	64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	327.17	38.76
For 1/2 Bituminous Coated And 40% Paved, Add			72.84	

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33 42 11 00-1248	10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1223)		
33 42 11 00-1249	LF 42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	250.30 49.27	25.09
33 42 11 00-1250	LF 49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	290.97 58.23	29.64
33 42 11 00-1251	LF 57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	340.51 68.76	34.20
33 42 11 00-1252	LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	379.62 76.13	38.76
33 42 11 00-1253	LF 71" x 47" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	415.77 83.48	41.05
33 42 11 00-1254	3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1222)		
33 42 11 00-1255	14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1254)		
33 42 11 00-1256	LF 60" x 46" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	314.01 109.41	38.76
33 42 11 00-1257	LF 66" x 51" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	343.24 119.72	41.05
33 42 11 00-1258	LF 73" x 55" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	426.55 150.37	50.16
33 42 11 00-1259	LF 81" x 59" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	497.06 161.20	72.96
33 42 11 00-1260	LF 87" x 63" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	536.46 172.60	79.81
33 42 11 00-1261	LF 95" x 67" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	572.81 184.02	85.51
33 42 11 00-1262	LF 103" x 71" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	609.05 195.40	91.21
33 42 11 00-1263	LF 112" x 75" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	646.16 206.79	96.90
33 42 11 00-1264	12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1254)		
33 42 11 00-1265	LF 66" x 51" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	421.13 136.05	41.05
33 42 11 00-1266	LF 73" x 55" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	512.89 166.28	50.16
33 42 11 00-1267	LF 81" x 59" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	591.08 178.84	72.96
33 42 11 00-1268	LF 87" x 63" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	637.98 191.83	79.81
33 42 11 00-1269	LF 95" x 67" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	682.01 204.91	85.51
33 42 11 00-1270	LF 103" x 71" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	725.93 217.95	91.21
33 42 11 00-1271	LF 112" x 75" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	770.55 230.94	96.90
33 42 11 00-1272	LF 117" x 79" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	818.61 244.04	102.61
33 42 11 00-1273	LF 128" x 83" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	869.12 257.08	114.01
33 42 11 00-1274	LF 137" x 87" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	922.44 271.43	125.41
33 42 11 00-1275	10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1254)		
33 42 11 00-1276	LF 81" x 59" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	678.37 193.58	72.96
33 42 11 00-1277	LF 87" x 63" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	732.53 207.97	79.81
33 42 11 00-1278	LF 95" x 67" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	783.71 222.41	85.51
33 42 11 00-1279	LF 103" x 71" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	834.65 236.76	91.21
33 42 11 00-1280	LF 112" x 75" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	891.30 252.88	96.90
33 42 11 00-1281	LF 112" x 75" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	941.68 265.59	102.61
33 42 11 00-1282	LF 128" x 83" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	999.40 280.01	114.01
33 42 11 00-1283	LF 137" x 87" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	1,059.22 295.36	125.41
33 42 11 00-1284	LF 142" x 91" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch..... For 1/2 Bituminous Coated And 40% Paved, Add	1,126.16 313.81	136.81



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1285	125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1282)		
33 42 11 00-1286	12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1285)		
33 42 11 00-1287	LF 81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	599.89 176.00	72.96
33 42 11 00-1288	LF 87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	646.02 188.24	79.81
33 42 11 00-1289	LF 95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	688.74 200.36	85.51
33 42 11 00-1290	LF 103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	731.41 212.46	91.21
33 42 11 00-1291	LF 112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	775.08 224.63	96.90
33 42 11 00-1292	LF 117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	822.48 237.02	102.61
33 42 11 00-1293	LF 128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	872.33 249.35	114.01
33 42 11 00-1294	LF 137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	929.77 264.79	125.41
33 42 11 00-1295	10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1285)		
33 42 11 00-1296	LF 81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	696.59 195.23	72.96
33 42 11 00-1297	LF 87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	750.46 209.16	79.81
33 42 11 00-1298	LF 95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	800.97 223.01	85.51
33 42 11 00-1299	LF 103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	851.74 236.94	91.21
33 42 11 00-1300	LF 112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	902.02 250.41	96.90
33 42 11 00-1301	LF 117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	958.30 264.89	102.61
33 42 11 00-1302	LF 128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	1,016.19 279.01	114.01
33 42 11 00-1303	LF 137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	1,081.54 295.94	125.41
33 42 11 00-1304	LF 142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch For 1/2 Bituminous Coated And 40% Paved, Add	1,142.84 311.94	136.81
33 42 11 00-1305	Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-0533)		
33 42 11 00-1306	1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1305)		
33 42 11 00-1307	18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1306)		
33 42 11 00-1308	LF 6" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	31.69 3.62	6.43
33 42 11 00-1309	LF 8" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	41.17 4.91	8.03
33 42 11 00-1310	LF 10" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	53.48 6.47	9.64
33 42 11 00-1311	16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1306)		
33 42 11 00-1312	LF 6" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	35.84 3.59	6.43
33 42 11 00-1313	LF 8" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	47.04 4.91	8.03
33 42 11 00-1314	LF 10" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	61.30 6.48	9.64
33 42 11 00-1315	2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1305)		
33 42 11 00-1316	16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1315)		
33 42 11 00-1317	LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	61.84 7.12	11.24
33 42 11 00-1318	LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	72.47 8.93	11.78
33 42 11 00-1319	LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	83.75 10.86	12.85
33 42 11 00-1320	LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe For Bituminous Coated Pipe, Add	97.10 12.96	13.93

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1321	LF	24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	108.80 14.69	15.00
33 42 11 00-1322 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1315)				
33 42 11 00-1323	LF	12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	70.73 6.96	11.24
33 42 11 00-1324	LF	15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	83.81 8.76	11.78
33 42 11 00-1325	LF	18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	97.33 10.62	12.85
33 42 11 00-1326	LF	21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	112.86 12.61	13.93
33 42 11 00-1327	LF	24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	126.88 14.33	15.00
33 42 11 00-1328	LF	30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	164.51 18.37	19.28
33 42 11 00-1329	LF	36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	208.59 22.84	25.09
33 42 11 00-1330 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1315)				
33 42 11 00-1331	LF	24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	161.45 13.60	15.00
33 42 11 00-1332	LF	30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	207.54 17.30	19.28
33 42 11 00-1333	LF	36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	260.28 21.33	25.09
33 42 11 00-1334	LF	42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	301.57 25.08	29.64
33 42 11 00-1335	LF	48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	341.14 28.39	34.20
33 42 11 00-1336	LF	54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	402.14 33.68	38.76
33 42 11 00-1337 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1315)				
33 42 11 00-1338	LF	36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	315.37 20.97	25.09
33 42 11 00-1339	LF	42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	365.75 24.62	29.64
33 42 11 00-1340	LF	48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	414.69 27.94	34.20
33 42 11 00-1341	LF	54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	484.89 32.78	38.76
33 42 11 00-1342	LF	60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe <i>For Bituminous Coated Pipe, Add</i>	533.39 36.12	41.05
33 42 11 00-1343 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1305)				
33 42 11 00-1344 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1343)				
33 42 11 00-1345	LF	30" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	161.70	19.28
33 42 11 00-1346	LF	36" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	205.08	25.09
33 42 11 00-1347	LF	42" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	236.03	29.64
33 42 11 00-1348	LF	48" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	267.40	34.20
33 42 11 00-1349	LF	54" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	316.72	38.76
33 42 11 00-1350 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1343)				
33 42 11 00-1351	LF	30" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	184.36	19.28
33 42 11 00-1352	LF	36" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	237.42	25.09
33 42 11 00-1353	LF	42" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	273.57	29.64
33 42 11 00-1354	LF	48" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	308.37	34.20
33 42 11 00-1355	LF	54" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	364.71	38.76
33 42 11 00-1356	LF	60" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	398.88	41.05
33 42 11 00-1357	LF	66" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	485.78	50.16
33 42 11 00-1358	LF	72" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	560.39	72.96
33 42 11 00-1359	LF	78" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	602.71	79.81
33 42 11 00-1360 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1343)				
33 42 11 00-1361	LF	30" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	237.28	19.28
33 42 11 00-1362	LF	36" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	296.93	25.09



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1363 LF 42" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	344.69	29.64
33 42 11 00-1364 LF 48" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	399.93	34.20
33 42 11 00-1365 LF 54" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	456.27	38.76
33 42 11 00-1366 LF 60" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	500.27	41.05
33 42 11 00-1367 LF 66" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	596.98	50.16
33 42 11 00-1368 LF 72" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	681.66	72.96
33 42 11 00-1369 LF 78" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	733.89	79.81
33 42 11 00-1370 LF 84" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	783.18	85.61
33 42 11 00-1371 LF 90" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	832.32	91.21
33 42 11 00-1372 LF 96" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	882.27	96.90
33 42 11 00-1373 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping (33 42 11 00-1343)		
33 42 11 00-1374 LF 60" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	606.91	41.05
33 42 11 00-1375 LF 66" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	709.78	50.16
33 42 11 00-1376 LF 72" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	804.59	72.96
33 42 11 00-1377 LF 78" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	866.95	79.81
33 42 11 00-1378 LF 84" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	926.21	85.61
33 42 11 00-1379 LF 90" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	985.45	91.21
33 42 11 00-1380 LF 96" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	1,045.45	96.90
33 42 11 00-1381 LF 102" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	1,108.84	102.61
33 42 11 00-1382 LF 108" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe	1,174.69	114.01
33 42 11 00-1383 Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1305)		
Note: Contech ULTRA FLO. HS 20 and HS 25 vehicular loading.		
33 42 11 00-1384 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1383)		
33 42 11 00-1385 LF 18" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	114.27	12.85
33 42 11 00-1386 LF 21" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	122.86	13.93
33 42 11 00-1387 LF 24" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	149.36	15.00
33 42 11 00-1388 LF 27" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	172.50	17.14
33 42 11 00-1389 LF 30" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	192.74	19.28
33 42 11 00-1390 LF 33" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	216.25	21.42
33 42 11 00-1391 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1383)		
33 42 11 00-1392 LF 18" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	133.44	12.85
33 42 11 00-1393 LF 21" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	155.02	13.93
33 42 11 00-1394 LF 24" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	175.14	15.00
33 42 11 00-1395 LF 27" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	201.43	17.14
33 42 11 00-1396 LF 30" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	224.84	19.28
33 42 11 00-1397 LF 33" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	251.61	21.42
33 42 11 00-1398 LF 36" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	281.44	25.09
33 42 11 00-1399 LF 42" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	326.22	29.64
33 42 11 00-1400 LF 48" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	369.21	34.20
33 42 11 00-1401 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1383)		
33 42 11 00-1402 LF 30" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	287.60	19.28
33 42 11 00-1403 LF 33" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	320.51	21.42
33 42 11 00-1404 LF 36" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	356.70	25.09
33 42 11 00-1405 LF 42" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	414.11	29.64
33 42 11 00-1406 LF 48" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	469.66	34.20
33 42 11 00-1407 LF 54" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	655.78	38.76
33 42 11 00-1408 LF 60" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	722.06	41.05
33 42 11 00-1409 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1383)		
33 42 11 00-1410 LF 48" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	674.31	34.20
33 42 11 00-1411 LF 54" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	781.96	38.76
33 42 11 00-1412 LF 60" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	862.40	41.05
33 42 11 00-1413 LF 66" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,000.72	50.16
33 42 11 00-1414 LF 72" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,119.70	72.96
33 42 11 00-1415 LF 78" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,207.39	79.81
33 42 11 00-1416 LF 84" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	1,291.19	85.51
33 42 11 00-1417 Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-0533)		
33 42 11 00-1418 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1417)		
33 42 11 00-1419 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1419)		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1420	LF	17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	76.52 8.95	11.78
33 42 11 00-1421	LF	21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	87.58 10.69	12.85
33 42 11 00-1422	LF	24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	101.47 12.72	13.93
33 42 11 00-1423 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1424	LF	17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	87.88 8.92	11.78
33 42 11 00-1425	LF	21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	98.49 10.28	12.85
33 42 11 00-1426	LF	24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	117.22 12.62	13.93
33 42 11 00-1427	LF	28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	132.81 14.48	15.00
33 42 11 00-1428	LF	35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	170.40 18.32	19.28
33 42 11 00-1429 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1430	LF	28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	167.40 13.80	15.00
33 42 11 00-1431	LF	35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	213.54 17.40	19.28
33 42 11 00-1432	LF	42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	270.43 21.72	25.09
33 42 11 00-1433	LF	49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	314.94 25.69	29.64
33 42 11 00-1434 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1435	LF	42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	325.44 20.96	25.09
33 42 11 00-1436	LF	49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	379.22 24.73	29.64
33 42 11 00-1437	LF	57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	441.75 28.97	34.20
33 42 11 00-1438	LF	64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i>	493.78 32.24	38.76
33 42 11 00-1439 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1440 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1441	LF	60" x 46" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	373.61	38.76
33 42 11 00-1442	LF	66" x 51" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	409.22	41.05
33 42 11 00-1443	LF	73" x 55" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	498.56	50.16
33 42 11 00-1444 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1445	LF	60" x 46" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	465.17	38.76
33 42 11 00-1446	LF	66" x 51" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	510.61	41.05
33 42 11 00-1447	LF	73" x 55" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	609.31	50.16
33 42 11 00-1448	LF	81" x 59" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	694.92	72.96
33 42 11 00-1449	LF	87" x 63" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	748.09	79.81
33 42 11 00-1450	LF	95" x 67" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	798.32	85.51
33 42 11 00-1451 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch				
33 42 11 00-1452	LF	66" x 51" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	617.09	41.05
33 42 11 00-1453	LF	73" x 55" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	721.65	50.16
33 42 11 00-1454	LF	81" x 59" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	817.37	72.96
33 42 11 00-1455	LF	87" x 63" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	880.67	79.81
33 42 11 00-1456	LF	95" x 67" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	940.87	85.51
33 42 11 00-1457	LF	103" x 71" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch.....	1,001.01	91.21
33 42 11 00-1458 Corrugated Steel Pipe Fittings				
Note: Equivalent pipe-arch sizes are approximate.				
33 42 11 00-1459 Fabricate 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fittings				
Note: Excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.				
33 42 11 00-1460	EA	Fabricate 6" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe)	89.60	
33 42 11 00-1461	EA	Fabricate 8" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe)	112.36	
33 42 11 00-1462	EA	Fabricate 10" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe)	135.13	
33 42 11 00-1463	EA	Fabricate 12" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe)	159.32	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1464	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	193.44	
33 42 11 00-1465	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	227.57	
33 42 11 00-1466	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	261.72	
33 42 11 00-1467	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	295.83	
33 42 11 00-1468	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	385.46	
33 42 11 00-1469	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	459.40	
33 42 11 00-1470	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	533.38	
33 42 11 00-1471	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	689.84	
33 42 11 00-1472	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	778.03	
33 42 11 00-1473	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	869.06	
33 42 11 00-1474	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	962.94	
33 42 11 00-1475	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	1,173.44	
33 42 11 00-1476	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	1,280.10	
33 42 11 00-1477	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	1,389.63	
33 42 11 00-1478	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,705.39	
33 42 11 00-1479	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,830.57	
33 42 11 00-1480	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,957.16	
33 42 11 00-1481	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	2,083.74	
33 42 11 00-1482	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	2,208.90	
33 42 11 00-1483	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	2,335.50	
33 42 11 00-1484	EA	Fabricate 126" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,468.97	
33 42 11 00-1485	EA	Fabricate 132" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,610.06	
33 42 11 00-1486	EA	Fabricate 138" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,759.19	

33 42 11 00-1487

Fabricate Corrugated Steel Pipe Tees Or Laterals (33 42 11 00-1458)

Note: Fabrication charge excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.

33 42 11 00-1488	EA	Fabricate 6" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	116.64	
33 42 11 00-1489	EA	Fabricate 8" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	149.35	
33 42 11 00-1490	EA	Fabricate 10" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	182.04	
33 42 11 00-1491	EA	Fabricate 12" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	214.78	
33 42 11 00-1492	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	261.72	
33 42 11 00-1493	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	310.06	
33 42 11 00-1494	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	358.45	
33 42 11 00-1495	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	406.77	
33 42 11 00-1496	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	533.38	
33 42 11 00-1497	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe).....	635.79	
33 42 11 00-1498	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe).....	739.62	
33 42 11 00-1499	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe).....	960.07	
33 42 11 00-1500	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,080.98	
33 42 11 00-1501	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,206.14	
33 42 11 00-1502	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,334.15	
33 42 11 00-1503	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,627.14	
33 42 11 00-1504	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	1,772.25	
33 42 11 00-1505	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	1,920.16	
33 42 11 00-1506	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe).....	2,362.49	
33 42 11 00-1507	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe).....	2,531.76	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1508	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe).....	2,701.02	
33 42 11 00-1509	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe).....	2,871.69	
33 42 11 00-1510	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe).....	3,042.38	
33 42 11 00-1511	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe).....	3,211.62	
33 42 11 00-1512	EA	Fabricate 126" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 23' Of Appropriate Pipe).....	3,390.30	
33 42 11 00-1513	EA	Fabricate 132" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe).....	3,578.90	
33 42 11 00-1514	EA	Fabricate 138" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe).....	3,777.97	
33 42 11 00-1515 Fabricate Skew Or Bevel Ends, Corrugated Steel Pipe Fitting (33 42 11 00-1458)				
Note: Applied to pipe tasks.				
33 42 11 00-1516	EA	Fabricate 6" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	45.11	
33 42 11 00-1517	EA	Fabricate 8" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	56.75	
33 42 11 00-1518	EA	Fabricate 10" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	71.38	
33 42 11 00-1519	EA	Fabricate 12" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	87.41	
33 42 11 00-1520	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	110.61	
33 42 11 00-1521	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	135.44	
33 42 11 00-1522	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	158.65	
33 42 11 00-1523	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	184.32	
33 42 11 00-1524	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	226.39	
33 42 11 00-1525	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	269.92	
33 42 11 00-1526	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	322.07	
33 42 11 00-1527	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	396.18	
33 42 11 00-1528	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	448.43	
33 42 11 00-1529	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	505.01	
33 42 11 00-1530	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	612.42	
33 42 11 00-1531	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	679.15	
33 42 11 00-1532	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	828.64	
33 42 11 00-1533	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	902.67	
33 42 11 00-1534	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	981.07	
33 42 11 00-1535	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,057.92	
33 42 11 00-1536	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,136.29	
33 42 11 00-1537	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,216.10	
33 42 11 00-1538	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,294.49	
33 42 11 00-1539	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,372.84	
33 42 11 00-1540	EA	Fabricate 126" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,455.93	
33 42 11 00-1541	EA	Fabricate 132" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,544.04	
33 42 11 00-1542	EA	Fabricate 138" Skew Or Bevel End, Corrugated Steel Pipe Fitting.....	1,637.49	
33 42 11 00-1543 Saddles, Corrugated Steel Pipe Fitting (33 42 11 00-1458)				
Note: For Field Tap				
33 42 11 00-1544	EA	6" Saddle, Corrugated Steel Pipe Fitting.....	339.99	
33 42 11 00-1545	EA	8" Saddle, Corrugated Steel Pipe Fitting.....	383.47	
33 42 11 00-1546	EA	10" Saddle, Corrugated Steel Pipe Fitting.....	440.76	
33 42 11 00-1547	EA	12" Saddle, Corrugated Steel Pipe Fitting.....	539.57	
33 42 11 00-1548	EA	15" Saddle, Corrugated Steel Pipe Fitting.....	666.73	
33 42 11 00-1549	EA	18" Saddle, Corrugated Steel Pipe Fitting.....	796.57	
33 42 11 00-1550	EA	21" Saddle, Corrugated Steel Pipe Fitting.....	1,005.26	
33 42 11 00-1551	EA	24" Saddle, Corrugated Steel Pipe Fitting.....	1,195.44	
33 42 11 00-1552	EA	30" Saddle, Corrugated Steel Pipe Fitting.....	1,502.19	
33 42 11 00-1553	EA	36" Saddle, Corrugated Steel Pipe Fitting.....	1,939.19	
33 42 11 00-1554	EA	42" Saddle, Corrugated Steel Pipe Fitting.....	2,290.66	
33 42 11 00-1555	EA	48" Saddle, Corrugated Steel Pipe Fitting.....	2,694.83	
33 42 11 00-1556	EA	54" Saddle, Corrugated Steel Pipe Fitting.....	3,207.13	
33 42 11 00-1557	EA	60" Saddle, Corrugated Steel Pipe Fitting.....	3,802.57	
33 42 11 00-1558	EA	66" Saddle, Corrugated Steel Pipe Fitting.....	4,330.82	
33 42 11 00-1559	EA	72" Saddle, Corrugated Steel Pipe Fitting.....	4,827.94	
33 42 11 00-1560	EA	78" Saddle, Corrugated Steel Pipe Fitting.....	5,663.35	
33 42 11 00-1561	EA	84" Saddle, Corrugated Steel Pipe Fitting.....	6,256.68	
33 42 11 00-1562	EA	90" Saddle, Corrugated Steel Pipe Fitting.....	7,410.10	
33 42 11 00-1563	EA	96" Saddle, Corrugated Steel Pipe Fitting.....	8,192.24	
33 42 11 00-1564	EA	102" Saddle, Corrugated Steel Pipe Fitting.....	9,297.03	
33 42 11 00-1565	EA	108" Saddle, Corrugated Steel Pipe Fitting.....	10,552.50	
33 42 11 00-1566	EA	114" Saddle, Corrugated Steel Pipe Fitting.....	11,976.21	
33 42 11 00-1567	EA	120" Saddle, Corrugated Steel Pipe Fitting.....	13,590.36	
33 42 11 00-1568 Coupling Bands, Corrugated Metal Pipe Fitting (33 42 11 00-1458)				
33 42 11 00-1569	EA	6" Coupling Band, Corrugated Metal Pipe Fitting.....	20.72	
		For Bituminous Coated, Add	6.01	
33 42 11 00-1570	EA	8" Coupling Band, Corrugated Metal Pipe Fitting.....	27.51	
		For Bituminous Coated, Add	7.98	
33 42 11 00-1571	EA	10" Coupling Band, Corrugated Metal Pipe Fitting.....	34.65	
		For Bituminous Coated, Add	10.05	
33 42 11 00-1572	EA	12" Coupling Band, Corrugated Metal Pipe Fitting.....	57.52	
		For Bituminous Coated, Add	16.68	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1573	EA		15" Coupling Band, Corrugated Metal Pipe Fitting	72.52	
			For Bituminous Coated, Add	21.03	
33 42 11 00-1574	EA		18" Coupling Band, Corrugated Metal Pipe Fitting	106.40	
			For Bituminous Coated, Add	30.86	
33 42 11 00-1575	EA		21" Coupling Band, Corrugated Metal Pipe Fitting	126.29	
			For Bituminous Coated, Add	36.62	
33 42 11 00-1576	EA		24" Coupling Band, Corrugated Metal Pipe Fitting	143.20	
			For Bituminous Coated, Add	41.53	
33 42 11 00-1577	EA		30" Coupling Band, Corrugated Metal Pipe Fitting	247.82	
			For Bituminous Coated, Add	71.87	
33 42 11 00-1578	EA		36" Coupling Band, Corrugated Metal Pipe Fitting	396.50	
			For Bituminous Coated, Add	95.16	
33 42 11 00-1579	EA		42" Coupling Band, Corrugated Metal Pipe Fitting	465.86	
			For Bituminous Coated, Add	111.81	
33 42 11 00-1580	EA		48" Coupling Band, Corrugated Metal Pipe Fitting	522.01	
			For Bituminous Coated, Add	125.28	
33 42 11 00-1581	EA		54" Coupling Band, Corrugated Metal Pipe Fitting	740.30	
			For Bituminous Coated, Add	177.67	
33 42 11 00-1582	EA		60" Coupling Band, Corrugated Metal Pipe Fitting	1,058.85	
			For Bituminous Coated, Add	190.59	
33 42 11 00-1583	EA		66" Coupling Band, Corrugated Metal Pipe Fitting	1,301.31	
			For Bituminous Coated, Add	234.24	
33 42 11 00-1584	EA		72" Coupling Band, Corrugated Metal Pipe Fitting	1,671.61	
			For Bituminous Coated, Add	234.03	
33 42 11 00-1585	EA		78" Coupling Band, Corrugated Metal Pipe Fitting	1,787.90	
			For Bituminous Coated, Add	250.31	
33 42 11 00-1586	EA		84" Coupling Band, Corrugated Metal Pipe Fitting	1,904.84	
			For Bituminous Coated, Add	266.68	
33 42 11 00-1587	EA		90" Coupling Band, Corrugated Metal Pipe Fitting	2,021.19	
			For Bituminous Coated, Add	282.97	
33 42 11 00-1588	EA		96" Coupling Band, Corrugated Metal Pipe Fitting	2,137.83	
			For Bituminous Coated, Add	299.30	
33 42 11 00-1589	EA		102" Coupling Band, Corrugated Metal Pipe Fitting	2,254.77	
			For Bituminous Coated, Add	315.67	
33 42 11 00-1590	EA		108" Coupling Band, Corrugated Metal Pipe Fitting	2,371.18	
			For Bituminous Coated, Add	331.97	
33 42 11 00-1591	EA		114" Coupling Band, Corrugated Metal Pipe Fitting	2,808.41	
			For Bituminous Coated, Add	337.01	
33 42 11 00-1592	EA		120" Coupling Band, Corrugated Metal Pipe Fitting	2,603.82	
			For Bituminous Coated, Add	312.46	
33 42 11 00-1593	EA		126" Coupling Band, Corrugated Metal Pipe Fitting	2,719.86	
			For Bituminous Coated, Add	326.38	
33 42 11 00-1594	EA		132" Coupling Band, Corrugated Metal Pipe Fitting	2,836.75	
			For Bituminous Coated, Add	340.41	
33 42 11 00-1595	EA		138" Coupling Band, Corrugated Metal Pipe Fitting	2,953.75	
			For Bituminous Coated, Add	354.45	
33 42 11 00-1596			Wyes Or Tees, Galvanized Corrugated Metal Pipe Fitting (33 42 11 00-1458)		
33 42 11 00-1597	EA		12" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	766.68	171.36
33 42 11 00-1598	EA		15" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	881.61	214.20
33 42 11 00-1599	EA		18" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	1,020.91	278.46
33 42 11 00-1600	EA		24" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	1,481.11	385.55
33 42 11 00-1601	EA		30" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	1,947.82	449.81
33 42 11 00-1602	EA		36" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	2,647.99	524.44
33 42 11 00-1603	EA		42" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	3,160.10	615.65
33 42 11 00-1604	EA		48" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	3,695.89	615.65
33 42 11 00-1605	EA		54" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	4,455.15	843.67
33 42 11 00-1606	EA		60" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	5,062.49	843.67
33 42 11 00-1607	EA		66" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	5,903.12	1,071.69
33 42 11 00-1608	EA		72" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	6,257.40	1,140.10
33 42 11 00-1609	EA		78" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	7,590.12	1,419.42
33 42 11 00-1610	EA		84" Wye Or Tee, Galvanized Corrugated Metal Pipe Fitting	8,841.53	1,527.73
33 42 11 00-1611			90 Degree Bends, Galvanized Corrugated Metal Pipe Fitting (33 42 11 00-1458)		
33 42 11 00-1612	EA		12" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	523.14	128.52
33 42 11 00-1613	EA		15" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	638.39	160.65
33 42 11 00-1614	EA		18" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	745.46	214.20
33 42 11 00-1615	EA		24" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	1,029.85	299.87
33 42 11 00-1616	EA		30" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	1,319.15	342.72
33 42 11 00-1617	EA		36" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	1,805.08	387.63
33 42 11 00-1618	EA		42" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	2,151.83	456.04
33 42 11 00-1619	EA		48" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	2,468.25	456.04
33 42 11 00-1620	EA		54" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	3,025.14	638.45
33 42 11 00-1621	EA		60" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	3,467.96	638.45
33 42 11 00-1622	EA		66" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	4,136.46	798.07
33 42 11 00-1623	EA		72" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	4,440.13	849.37
33 42 11 00-1624	EA		78" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	5,186.94	1,064.05
33 42 11 00-1625	EA		84" 90 Degree Bend, Galvanized Corrugated Metal Pipe Fitting	5,782.82	1,140.10

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-1626 Galvanized Culvert-End Bar Grate System (33 42 11 00-0533)			
33 42 11 00-1627	SF	Galvanized Culvert-End Bar Grate System.....	626.40
33 42 11 00-1628	SF	Heavy Duty Galvanized Culvert-End Bar Grate System	36.93
			2.86
			2.86
33 42 11 00-1629 Galvanized Tapered Adapter Sleeves (33 42 11 00-0533)			
33 42 11 00-1630	EA	12" Galvanized Tapered Adapter Sleeves	485.67
33 42 11 00-1631	EA	15" Galvanized Tapered Adapter Sleeves	599.69
33 42 11 00-1632	EA	18" Galvanized Tapered Adapter Sleeves	674.96
33 42 11 00-1633	EA	21" Galvanized Tapered Adapter Sleeves	762.64
33 42 11 00-1634	EA	24" Galvanized Tapered Adapter Sleeves	849.12
33 42 11 00-1635	EA	30" Galvanized Tapered Adapter Sleeves	1,030.86
33 42 11 00-1636	EA	36" Galvanized Tapered Adapter Sleeves	1,243.77
			74.97
			80.33
			85.67
			93.71
			101.74
			115.13
			131.19
33 42 11 00-1637 Concrete Pipe Collar (33 42 11)			
33 42 11 00-1638	EA	8" Diameter Pipe, Concrete Pipe Collar.....	620.55
33 42 11 00-1639	EA	10" Diameter Pipe, Concrete Pipe Collar.....	693.51
33 42 11 00-1640	EA	12" Diameter Pipe, Concrete Pipe Collar.....	772.00
33 42 11 00-1641	EA	15" Diameter Pipe, Concrete Pipe Collar.....	864.40
33 42 11 00-1642	EA	18" Diameter Pipe, Concrete Pipe Collar.....	963.52
33 42 11 00-1643	EA	21" Diameter Pipe, Concrete Pipe Collar.....	1,069.68
33 42 11 00-1644	EA	24" Diameter Pipe, Concrete Pipe Collar.....	1,182.72
33 42 11 00-1645	EA	27" Diameter Pipe, Concrete Pipe Collar.....	1,300.33
33 42 11 00-1646	EA	30" Diameter Pipe, Concrete Pipe Collar.....	1,417.93
33 42 11 00-1647	EA	36" Diameter Pipe, Concrete Pipe Collar.....	1,653.28
33 42 11 00-1648	EA	42" Diameter Pipe, Concrete Pipe Collar.....	1,889.51
33 42 11 00-1649	EA	48" Diameter Pipe, Concrete Pipe Collar.....	2,126.44
33 42 11 00-1650	EA	54" Diameter Pipe, Concrete Pipe Collar.....	2,361.80
33 42 11 00-1651	EA	60" Diameter Pipe, Concrete Pipe Collar.....	2,598.01
33 42 11 00-1652	EA	66" Diameter Pipe, Concrete Pipe Collar.....	2,861.31
33 42 11 00-1653	EA	72" Diameter Pipe, Concrete Pipe Collar.....	3,124.58
33 42 11 00-1654	EA	78" Diameter Pipe, Concrete Pipe Collar.....	3,387.87
33 42 11 00-1655	EA	84" Diameter Pipe, Concrete Pipe Collar.....	3,651.15
33 42 11 00-1656	EA	90" Diameter Pipe, Concrete Pipe Collar.....	3,914.42
33 42 11 00-1657	EA	96" Diameter Pipe, Concrete Pipe Collar.....	4,177.72
33 42 11 00-1658	EA	102" Diameter Pipe, Concrete Pipe Collar.....	4,441.00
33 42 11 00-1659	EA	108" Diameter Pipe, Concrete Pipe Collar.....	4,704.28
33 42 11 00-1660	EA	114" Diameter Pipe, Concrete Pipe Collar.....	4,967.56
33 42 11 00-1661	EA	120" Diameter Pipe, Concrete Pipe Collar.....	5,230.85
33 42 11 00-1662 Concrete Drainage Pipe Lug (33 42 11)			
33 42 11 00-1663	EA	12" Diameter Pipe, Concrete Pipe Lug	376.69
33 42 11 00-1664	EA	15" Diameter Pipe, Concrete Pipe Lug	439.34
33 42 11 00-1665	EA	18" Diameter Pipe, Concrete Pipe Lug	501.72
33 42 11 00-1666	EA	21" Diameter Pipe, Concrete Pipe Lug	564.37
33 42 11 00-1667	EA	24" Diameter Pipe, Concrete Pipe Lug	626.73
33 42 11 00-1668	EA	27" Diameter Pipe, Concrete Pipe Lug	689.32
33 42 11 00-1669	EA	30" Diameter Pipe, Concrete Pipe Lug	751.89
33 42 11 00-1670	EA	36" Diameter Pipe, Concrete Pipe Lug	876.92
33 42 11 00-1671	EA	42" Diameter Pipe, Concrete Pipe Lug	1,000.94
33 42 11 00-1672	EA	48" Diameter Pipe, Concrete Pipe Lug	1,125.96
33 42 11 00-1673	EA	54" Diameter Pipe, Concrete Pipe Lug	1,250.97
33 42 11 00-1674	EA	60" Diameter Pipe, Concrete Pipe Lug	1,376.00
33 42 11 00-1675	EA	66" Diameter Pipe, Concrete Pipe Lug	1,501.01
33 42 13 Stormwater Culverts (33 42)			
33 42 13 13 Precast Concrete Stormwater Culverts (33 42 13)			
33 42 13 13-0001 Precast Reinforced Concrete Box Culvert (33 42 13 13)			
Note: The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes crane, excavation and backfill. Minimum length 6'-0". See CSI section 01 22 23 00-0967 for crane lifting equipment.			
33 42 13 13-0002	LF	3' x 3' Precast Reinforced Concrete Box Culvert	418.46
		For Each LF Of Cut-Off Section, Add	16.74
33 42 13 13-0003	LF	4' x 2' Precast Reinforced Concrete Box Culvert	469.39
		For Each LF Of Cut-Off Section, Add	18.78
33 42 13 13-0004	LF	4' x 3' Precast Reinforced Concrete Box Culvert	551.65
		For Each LF Of Cut-Off Section, Add	22.07
33 42 13 13-0005	LF	5' x 3' Precast Reinforced Concrete Box Culvert	663.12
		For Each LF Of Cut-Off Section, Add	26.52
33 42 13 13-0006	LF	5' x 4' Precast Reinforced Concrete Box Culvert	678.79
		For Each LF Of Cut-Off Section, Add	27.15
33 42 13 13-0007	LF	5' x 5' Precast Reinforced Concrete Box Culvert	686.63
		For Each LF Of Cut-Off Section, Add	27.47
33 42 13 13-0008	LF	6' x 3' Precast Reinforced Concrete Box Culvert	708.14
		For Each LF Of Cut-Off Section, Add	28.33
			57.00
			57.00
			57.00
			71.25
			71.25
			71.25
			74.10



		Utilities	33	CS
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
33 42 13 13-0009	LF	6' x 4' Precast Reinforced Concrete Box Culvert	712.06	74.10
		For Each LF Of Cut-Off Section, Add	28.48	
33 42 13 13-0010	LF	6' x 6' Precast Reinforced Concrete Box Culvert	782.58	74.10
		For Each LF Of Cut-Off Section, Add	31.30	
33 42 13 13-0011	LF	7' x 4' Precast Reinforced Concrete Box Culvert	805.94	85.51
		For Each LF Of Cut-Off Section, Add	32.24	
33 42 13 13-0012	LF	7' x 6' Precast Reinforced Concrete Box Culvert	869.01	116.29
		For Each LF Of Cut-Off Section, Add	34.76	
33 42 13 13-0013	LF	8' x 2' Precast Reinforced Concrete Box Culvert	786.50	74.10
		For Each LF Of Cut-Off Section, Add	31.46	
33 42 13 13-0014	LF	8' x 3' Precast Reinforced Concrete Box Culvert	809.86	85.51
		For Each LF Of Cut-Off Section, Add	32.39	
33 42 13 13-0015	LF	8' x 4' Precast Reinforced Concrete Box Culvert	821.61	85.51
		For Each LF Of Cut-Off Section, Add	32.86	
33 42 13 13-0016	LF	8' x 5' Precast Reinforced Concrete Box Culvert	994.40	114.01
		For Each LF Of Cut-Off Section, Add	39.78	
33 42 13 13-0017	LF	8' x 6' Precast Reinforced Concrete Box Culvert	997.53	114.01
		For Each LF Of Cut-Off Section, Add	39.90	
33 42 13 13-0018	LF	8' x 8' Precast Reinforced Concrete Box Culvert	1,108.44	142.51
		For Each LF Of Cut-Off Section, Add	44.34	
33 42 13 13-0019	LF	9' x 4' Precast Reinforced Concrete Box Culvert	1,095.47	114.01
		For Each LF Of Cut-Off Section, Add	43.82	
33 42 13 13-0020	LF	9' x 6' Precast Reinforced Concrete Box Culvert	1,165.63	142.51
		For Each LF Of Cut-Off Section, Add	46.63	
33 42 13 13-0021	LF	10' x 3' Precast Reinforced Concrete Box Culvert	1,169.55	142.51
		For Each LF Of Cut-Off Section, Add	46.78	
33 42 13 13-0022	LF	10' x 4' Precast Reinforced Concrete Box Culvert	1,412.43	142.51
		For Each LF Of Cut-Off Section, Add	56.50	
33 42 13 13-0023	LF	10' x 5' Precast Reinforced Concrete Box Culvert	1,486.51	171.01
		For Each LF Of Cut-Off Section, Add	59.46	
33 42 13 13-0024	LF	10' x 6' Precast Reinforced Concrete Box Culvert	1,502.17	171.01
		For Each LF Of Cut-Off Section, Add	60.09	
33 42 13 13-0025	LF	10' x 7' Precast Reinforced Concrete Box Culvert	1,506.09	171.01
		For Each LF Of Cut-Off Section, Add	60.24	
33 42 13 13-0026	LF	10' x 8' Precast Reinforced Concrete Box Culvert	1,511.58	171.01
		For Each LF Of Cut-Off Section, Add	60.46	
33 42 13 13-0027	LF	12' x 3' Precast Reinforced Concrete Box Culvert	1,576.26	199.51
		For Each LF Of Cut-Off Section, Add	63.05	
33 42 13 13-0028	LF	12' x 4' Precast Reinforced Concrete Box Culvert	1,576.26	199.51
		For Each LF Of Cut-Off Section, Add	63.05	
33 42 13 13-0029	LF	12' x 6' Precast Reinforced Concrete Box Culvert	1,576.26	199.51
		For Each LF Of Cut-Off Section, Add	63.05	
33 42 13 13-0030	LF	12' x 8' Precast Reinforced Concrete Box Culvert	1,576.26	199.51
		For Each LF Of Cut-Off Section, Add	63.05	
33 42 13 13-0031	LF	16' x 10' Precast Reinforced Concrete Box Culvert	2,277.12	228.02
		For Each LF Of Cut-Off Section, Add	91.08	
33 42 13 13-0032	LF	24' x 10' Precast Reinforced Concrete Box Culvert	3,138.98	228.02
		For Each LF Of Cut-Off Section, Add	125.56	
33 42 13 13-0033		Precast Reinforced Concrete Box Culvert For Roadways (33 42 13 13)		
		Note: AASHTO HL-93 Rated. The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes crane, excavation and backfill. Minimum length 6'-0". See CSI section 01 22 23 00-0967 for crane lifting equipment.		
33 42 13 13-0034	LF	3' x 3' Precast Reinforced Concrete Box Culvert For Roadways	1,018.23	57.00
		For Each LF Of Cut-Off Section, Add	40.73	
33 42 13 13-0035	LF	4' x 2' Precast Reinforced Concrete Box Culvert For Roadways	1,093.48	57.00
		For Each LF Of Cut-Off Section, Add	43.74	
33 42 13 13-0036	LF	4' x 3' Precast Reinforced Concrete Box Culvert For Roadways	1,226.67	57.00
		For Each LF Of Cut-Off Section, Add	49.07	
33 42 13 13-0037	LF	5' x 3' Precast Reinforced Concrete Box Culvert For Roadways	1,389.02	71.25
		For Each LF Of Cut-Off Section, Add	55.56	
33 42 13 13-0038	LF	5' x 4' Precast Reinforced Concrete Box Culvert For Roadways	1,522.21	71.25
		For Each LF Of Cut-Off Section, Add	60.89	
33 42 13 13-0039	LF	5' x 5' Precast Reinforced Concrete Box Culvert For Roadways	1,655.40	71.25
		For Each LF Of Cut-Off Section, Add	66.22	
33 42 13 13-0040	LF	6' x 3' Precast Reinforced Concrete Box Culvert For Roadways	1,528.06	74.10
		For Each LF Of Cut-Off Section, Add	61.12	
33 42 13 13-0041	LF	6' x 4' Precast Reinforced Concrete Box Culvert For Roadways	1,661.25	74.10
		For Each LF Of Cut-Off Section, Add	66.45	
33 42 13 13-0042	LF	6' x 6' Precast Reinforced Concrete Box Culvert For Roadways	1,927.62	74.10
		For Each LF Of Cut-Off Section, Add	77.10	
33 42 13 13-0043	LF	7' x 4' Precast Reinforced Concrete Box Culvert For Roadways	1,817.80	85.51
		For Each LF Of Cut-Off Section, Add	72.71	
33 42 13 13-0044	LF	7' x 6' Precast Reinforced Concrete Box Culvert For Roadways	2,147.21	116.29
		For Each LF Of Cut-Off Section, Add	85.89	
33 42 13 13-0045	LF	8' x 2' Precast Reinforced Concrete Box Culvert For Roadways	1,661.25	74.10
		For Each LF Of Cut-Off Section, Add	66.45	
33 42 13 13-0046	LF	8' x 3' Precast Reinforced Concrete Box Culvert For Roadways	1,817.80	85.51
		For Each LF Of Cut-Off Section, Add	72.71	
33 42 13 13-0047	LF	8' x 4' Precast Reinforced Concrete Box Culvert For Roadways	1,950.98	85.51
		For Each LF Of Cut-Off Section, Add	78.04	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 13 13-0048 LF 8' x 5' Precast Reinforced Concrete Box Culvert For Roadways	2,142.54	114.01
For Each LF Of Cut-Off Section, Add	85.70	
33 42 13 13-0049 LF 8' x 6' Precast Reinforced Concrete Box Culvert For Roadways	2,275.73	114.01
For Each LF Of Cut-Off Section, Add	91.03	
33 42 13 13-0050 LF 8' x 8' Precast Reinforced Concrete Box Culvert For Roadways	2,600.51	142.51
For Each LF Of Cut-Off Section, Add	104.02	
33 42 13 13-0051 LF 9' x 4' Precast Reinforced Concrete Box Culvert For Roadways	2,297.52	114.01
For Each LF Of Cut-Off Section, Add	91.90	
33 42 13 13-0052 LF 9' x 6' Precast Reinforced Concrete Box Culvert For Roadways	2,640.59	142.51
For Each LF Of Cut-Off Section, Add	105.62	
33 42 13 13-0053 LF 10' x 3' Precast Reinforced Concrete Box Culvert For Roadways	2,611.61	142.51
For Each LF Of Cut-Off Section, Add	104.46	
33 42 13 13-0054 LF 10' x 4' Precast Reinforced Concrete Box Culvert For Roadways	2,769.76	142.51
For Each LF Of Cut-Off Section, Add	110.79	
33 42 13 13-0055 LF 10' x 5' Precast Reinforced Concrete Box Culvert For Roadways	2,986.30	171.01
For Each LF Of Cut-Off Section, Add	119.45	
33 42 13 13-0056 LF 10' x 6' Precast Reinforced Concrete Box Culvert For Roadways	3,144.45	171.01
For Each LF Of Cut-Off Section, Add	125.78	
33 42 13 13-0057 LF 10' x 7' Precast Reinforced Concrete Box Culvert For Roadways	3,302.63	171.01
For Each LF Of Cut-Off Section, Add	132.11	
33 42 13 13-0058 LF 10' x 8' Precast Reinforced Concrete Box Culvert For Roadways	3,460.78	171.01
For Each LF Of Cut-Off Section, Add	138.43	
33 42 13 13-0059 LF 12' x 3' Precast Reinforced Concrete Box Culvert For Roadways	3,465.37	199.51
For Each LF Of Cut-Off Section, Add	138.61	
33 42 13 13-0060 LF 12' x 4' Precast Reinforced Concrete Box Culvert For Roadways	3,645.13	199.51
For Each LF Of Cut-Off Section, Add	145.81	
33 42 13 13-0061 LF 12' x 6' Precast Reinforced Concrete Box Culvert For Roadways	4,004.73	199.51
For Each LF Of Cut-Off Section, Add	160.19	
33 42 13 13-0062 LF 12' x 8' Precast Reinforced Concrete Box Culvert For Roadways	4,364.32	199.51
For Each LF Of Cut-Off Section, Add	174.57	
33 42 13 13-0063 LF 16' x 10' Precast Reinforced Concrete Box Culvert For Roadways	5,221.82	228.02
For Each LF Of Cut-Off Section, Add	208.87	
33 42 13 13-0064 LF 24' x 10' Precast Reinforced Concrete Box Culvert For Roadways	6,580.26	228.02
For Each LF Of Cut-Off Section, Add	263.21	

33 42 23 Headwalls and Endwalls for Stormwater Piping (33 42)**33 42 23 00-0001 Headwalls (33 42 23)**

Note: Excludes excavation and backfill. Select pipe with closest opening area for square or round culverts.

33 42 23 00-0002 Cast In Place Concrete Headwalls (33 42 23 00-0001)

Note: Includes concrete, forms, rebar (where required), finish and curing.

33 42 23 00-0003 Skewed Wingwall, Cast In Place Concrete Headwall (33 42 23 00-0002)

Note: Sized by pipe diameter.

33 42 23 00-0004 EA 12" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,630.47	688.25
33 42 23 00-0005 EA 15" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	2,050.50	734.13
33 42 23 00-0006 EA 18" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	2,685.88	961.61
33 42 23 00-0007 EA 24" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	4,226.31	1,376.50
33 42 23 00-0008 EA 30" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	5,886.50	1,835.34
33 42 23 00-0009 EA 36" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	7,008.57	2,419.17
33 42 23 00-0010 EA 42" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	9,588.76	3,336.94
33 42 23 00-0011 EA 48" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	11,406.20	3,932.82
33 42 23 00-0012 EA 54" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	13,712.83	4,787.88
33 42 23 00-0013 EA 60" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	16,433.64	5,795.79

33 42 23 00-0014 Straight, Double Pipe, Cast In Place Concrete Headwall (33 42 23 00-0002)

Note: Sized by pipe diameter.

33 42 23 00-0015 EA 12" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	1,221.86	740.24
33 42 23 00-0016 EA 15" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	1,564.30	954.13
33 42 23 00-0017 EA 18" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	2,083.02	1,253.47
33 42 23 00-0018 EA 24" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	3,210.88	1,887.49
33 42 23 00-0019 EA 30" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	4,451.94	2,546.84
33 42 23 00-0020 EA 36" Pipes, Straight, Double Pipe, Cast In Place Concrete Headwall	6,273.21	3,521.74

33 42 23 00-0021 Straight, Single Pipe, Cast In Place Concrete Headwall (33 42 23 00-0002)

Note: Sized by pipe diameter.

33 42 23 00-0022 EA 12" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	913.87	592.14
33 42 23 00-0023 EA 15" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	1,181.85	691.32
33 42 23 00-0024 EA 18" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	1,519.73	914.75
33 42 23 00-0025 EA 24" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	2,374.94	1,392.54
33 42 23 00-0026 EA 30" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	3,271.14	1,872.34
33 42 23 00-0027 EA 36" Pipe, Straight, Single Pipe, Cast In Place Concrete Headwall	4,602.01	2,581.84

33 42 23 00-0028 Precast Concrete Headwalls (33 42 23 00-0001)

33 42 23 00-0029 EA 12" Pipe, Precast Concrete Headwall	984.16	192.77
33 42 23 00-0030 EA 15" Pipe, Precast Concrete Headwall	1,016.29	203.48
33 42 23 00-0031 EA 18" Pipe, Precast Concrete Headwall	1,117.85	231.33
33 42 23 00-0032 EA 24" Pipe, Precast Concrete Headwall	1,236.18	246.32
33 42 23 00-0033 EA 30" Pipe, Precast Concrete Headwall	1,671.79	289.17



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 23 00-0034	EA	36" Pipe, Precast Concrete Headwall	1,874.90	299.87
33 42 23 00-0035	EA	42" Pipe, Precast Concrete Headwall	2,499.66	351.83
33 42 23 00-0036	EA	48" Pipe, Precast Concrete Headwall	2,730.12	387.63
33 42 23 00-0037	EA	54" Pipe, Precast Concrete Headwall	3,015.76	410.44
33 42 23 00-0038	EA	60" Pipe, Precast Concrete Headwall	3,427.13	410.44
33 42 23 00-0039	EA	72" Pipe, Precast Concrete Headwall	4,158.66	513.04
33 42 23 00-0040	EA	84" Pipe, Precast Concrete Headwall	5,918.77	615.65
33 42 23 00-0041 Precast Concrete Wingwalls (33 42 23 00-0001)				
33 42 23 00-0042	EA	18" ID Pipe (26" Hole) Precast Concrete Wingwall..... Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	6,079.14	2,031.66
33 42 23 00-0043	EA	24" ID Pipe (32" Hole) Precast Concrete Wingwall..... Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	6,421.17	2,257.39
33 42 23 00-0044	EA	30" ID Pipe (42" Hole) Precast Concrete Wingwall..... Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	6,991.22	2,633.62
33 42 23 00-0045	EA	33" ID Pipe (46" Hole) Precast Concrete Wingwall..... Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.	7,561.27	3,009.86
33 42 23 00-0046	EA	36" ID Pipe (50" Hole) Precast Concrete Wingwall..... Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	7,561.27	3,009.86
33 42 23 00-0047	EA	44" ID Pipe (58" Hole) Precast Concrete Wingwall..... Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	7,789.29	3,160.34
33 42 23 00-0048	EA	48" ID Pipe (62" Hole) Precast Concrete Wingwall..... Note: 12" thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.	13,842.63	3,235.59
33 42 23 00-0049	EA	52" ID Pipe (66" Hole) Precast Concrete Wingwall..... Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.	14,184.66	3,461.34
33 42 23 00-0050 Precast Concrete Transverse Drainage Interceptor (33 42 23 00-0001)				
33 42 23 00-0051	EA	34" x 48" x 28" Precast Concrete Transverse Drainage Interceptor With Frame And Grate	3,282.94	798.07
33 42 26 End Sections for Stormwater Piping (33 42)				
33 42 26 16 Corrugated Metal End Sections for Stormwater Piping (33 42 26)				
33 42 26 16-0001 Corrugated Metal Pipe End Sections (33 42 26 16)				
33 42 26 16-0002 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0001)				
33 42 26 16-0003 Type 1 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)				
Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.				
33 42 26 16-0004	EA	12" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section	359.88	74.97
33 42 26 16-0005	EA	15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section	423.23	80.33
33 42 26 16-0006	EA	18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section	500.87	85.67
33 42 26 16-0007	EA	21" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section	614.95	93.71
33 42 26 16-0008	EA	24" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section	682.92	101.74
33 42 26 16-0009 Type 2 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)				
Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.				
33 42 26 16-0010	EA	30" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	1,141.86	115.13
33 42 26 16-0011	EA	36" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	1,489.12	136.81
33 42 26 16-0012	EA	42" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	2,332.68	159.61
33 42 26 16-0013	EA	48" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	2,860.10	182.42
33 42 26 16-0014	EA	54" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	3,398.18	228.02
33 42 26 16-0015	EA	60" 10 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section	3,962.41	273.62
33 42 26 16-0016 Type 3 Or 5 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)				
Note: Stubbed with 1' of pipe (excluded in price). Used with all pipe having annular end corrugations.				
33 42 26 16-0017	EA	12" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	378.63	74.97
33 42 26 16-0018	EA	15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	442.53	80.33
33 42 26 16-0019	EA	18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	530.52	85.67
33 42 26 16-0020	EA	21" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	650.55	93.71
33 42 26 16-0021	EA	24" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	723.29	101.74
33 42 26 16-0022	EA	30" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,265.83	115.13
33 42 26 16-0023	EA	36" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,645.67	136.81
33 42 26 16-0024	EA	42" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	2,668.80	159.61
33 42 26 16-0025	EA	48" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,293.87	182.42
33 42 26 16-0026	EA	54" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,836.83	228.02
33 42 26 16-0027	EA	60" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	5,351.73	273.62
33 42 26 16-0028	EA	66" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	5,991.49	410.44
33 42 26 16-0029	EA	72" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	6,956.15	547.25
33 42 26 16-0030	EA	78" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	7,584.44	587.15
33 42 26 16-0031	EA	84" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	8,228.90	627.05
33 42 26 16-0032 Toe Plate Extensions For Galvanized Corrugated Steel Pipe End Section^(33 42 26 16-0002)				
33 42 26 16-0033	EA	Toe Plate Extension For 12" Diameter Galvanized Corrugated Steel Pipe End Section	50.23	
33 42 26 16-0034	EA	Toe Plate Extension For 15" Diameter Galvanized Corrugated Steel Pipe End Section	56.39	
33 42 26 16-0035	EA	Toe Plate Extension For 18" Diameter Galvanized Corrugated Steel Pipe End Section	63.94	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 26 16-0036	EA	Toe Plate Extension For 21" Diameter Galvanized Corrugated Steel Pipe End Section	69.58	
33 42 26 16-0037	EA	Toe Plate Extension For 24" Diameter Galvanized Corrugated Steel Pipe End Section	78.06	
33 42 26 16-0038	EA	Toe Plate Extension For 30" Diameter Galvanized Corrugated Steel Pipe End Section	138.82	
33 42 26 16-0039	EA	Toe Plate Extension For 36" Diameter Galvanized Corrugated Steel Pipe End Section	149.32	
33 42 26 16-0040	EA	Toe Plate Extension For 42" Diameter Galvanized Corrugated Steel Pipe End Section	207.04	
33 42 26 16-0041	EA	Toe Plate Extension For 48" Diameter Galvanized Corrugated Steel Pipe End Section	221.06	
33 42 26 16-0042	EA	Toe Plate Extension For 54" Diameter Galvanized Corrugated Steel Pipe End Section	270.77	
33 42 26 16-0043	EA	Toe Plate Extension For 60" Diameter Galvanized Corrugated Steel Pipe End Section	276.55	
33 42 26 16-0044	EA	Toe Plate Extension For 66" Diameter Galvanized Corrugated Steel Pipe End Section	293.41	
33 42 26 16-0045	EA	Toe Plate Extension For 72" Diameter Galvanized Corrugated Steel Pipe End Section	328.22	
33 42 26 16-0046	EA	Toe Plate Extension For 78" Diameter Galvanized Corrugated Steel Pipe End Section	367.56	
33 42 26 16-0047	EA	84" Diameter Galvanized Corrugated Steel Pipe End Section Toe Plate Extension	375.34	

33 42 26 16-0048 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0001)**33 42 26 16-0049 Type 1 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)**

Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.

33 42 26 16-0050	EA	17" x 13" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section	423.23	80.33
33 42 26 16-0051	EA	21" x 15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section	500.87	85.67
33 42 26 16-0052	EA	24" x 18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section	614.94	93.71
33 42 26 16-0053	EA	28" x 20" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section	682.92	101.74

33 42 26 16-0054 Type 2 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)

Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.

33 42 26 16-0055	EA	17" x 13" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	407.04	80.33
33 42 26 16-0056	EA	21" x 15" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	470.92	85.67
33 42 26 16-0057	EA	24" x 18" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	529.21	93.71
33 42 26 16-0058	EA	28" x 20" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	601.05	101.74
33 42 26 16-0059	EA	35" x 24" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	908.45	115.13
33 42 26 16-0060	EA	42" x 29" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	1,351.47	136.81
33 42 26 16-0061	EA	49" x 33" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	2,148.15	159.61
33 42 26 16-0062	EA	57" x 38" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section	2,737.14	182.42

33 42 26 16-0063 Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)

Note: Studded with 1" of pipe (excluded in price). Used with all pipe having annular end corrugations.

33 42 26 16-0064	EA	17" x 13" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	415.26	80.33
33 42 26 16-0065	EA	21" x 15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	488.78	85.67
33 42 26 16-0066	EA	24" x 18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	557.13	93.71
33 42 26 16-0067	EA	28" x 20" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	634.15	101.74
33 42 26 16-0068	EA	35" x 24" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	964.72	115.13
33 42 26 16-0069	EA	42" x 29" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	1,428.22	136.81
33 42 26 16-0070	EA	49" x 33" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	2,270.93	159.61
33 42 26 16-0071	EA	57" x 38" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	2,878.44	182.42
33 42 26 16-0072	EA	64" x 43" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	3,456.23	228.02
33 42 26 16-0073	EA	71" x 47" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	4,565.21	273.62
33 42 26 16-0074	EA	77" x 52" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	6,348.01	410.44
33 42 26 16-0075	EA	83" x 57" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	6,951.38	547.25

33 42 26 16-0076 Toe Plate Extensions For Galvanized Corrugated Steel Pipe-Arch End Section (33 42 26 16-0048)

33 42 26 16-0077	EA	Toe Plate Extension For 17" x 13" Galvanized Corrugated Steel Pipe-Arch End Section	56.39	
33 42 26 16-0078	EA	Toe Plate Extension For 21" x 15" Galvanized Corrugated Steel Pipe-Arch End Section	63.94	
33 42 26 16-0079	EA	Toe Plate Extension For 24" x 18" Galvanized Corrugated Steel Pipe-Arch End Section	69.58	
33 42 26 16-0080	EA	Toe Plate Extension For 28" x 20" Galvanized Corrugated Steel Pipe-Arch End Section	78.06	
33 42 26 16-0081	EA	Toe Plate Extension For 35" x 24" Galvanized Corrugated Steel Pipe-Arch End Section	138.82	
33 42 26 16-0082	EA	Toe Plate Extension For 42" x 29" Galvanized Corrugated Steel Pipe-Arch End Section	149.32	
33 42 26 16-0083	EA	Toe Plate Extension For 49" x 33" Galvanized Corrugated Steel Pipe-Arch End Section	207.04	
33 42 26 16-0084	EA	Toe Plate Extension For 57" x 38" Galvanized Corrugated Steel Pipe-Arch End Section	230.35	
33 42 26 16-0085	EA	Toe Plate Extension For 64" x 43" Galvanized Corrugated Steel Pipe-Arch End Section	270.77	
33 42 26 16-0086	EA	Toe Plate Extension For 71" x 47" Galvanized Corrugated Steel Pipe-Arch End Section	280.25	
33 42 26 16-0087	EA	Toe Plate Extension For 77" x 52" Galvanized Corrugated Steel Pipe-Arch End Section	323.54	
33 42 26 16-0088	EA	Toe Plate Extension For 83" x 57" Galvanized Corrugated Steel Pipe-Arch End Section	361.38	

33 42 26 16-0089 Corrugated Aluminum Pipe End Sections (33 42 26 16-0001)**33 42 26 16-0090 Corrugated Aluminum Pipe End Sections (33 42 26 16-0089)**

33 42 26 16-0091	EA	12" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	577.89	74.97
33 42 26 16-0092	EA	15" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	671.46	80.33
33 42 26 16-0093	EA	18" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	804.65	85.67
33 42 26 16-0094	EA	21" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	1,008.77	93.71
33 42 26 16-0095	EA	24" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	1,336.06	101.74
33 42 26 16-0096	EA	30" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	2,037.20	115.13
33 42 26 16-0097	EA	36" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	2,787.34	136.81
33 42 26 16-0098	EA	36" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	3,500.61	136.81
33 42 26 16-0099	EA	42" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	4,478.57	159.61
33 42 26 16-0100	EA	48" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	6,434.07	182.42



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 26 16-0101	EA	54" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section.....	7,102.97	228.02
33 42 26 16-0102	EA	60" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	9,604.74	273.62
33 42 26 16-0103	EA	66" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	10,786.22	410.44
33 42 26 16-0104	EA	72" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	12,553.90	547.25
33 42 26 16-0105	EA	78" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	13,720.70	587.15
33 42 26 16-0106	EA	84" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	14,470.94	627.05
33 42 26 16-0107	EA	90" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	19,957.83	684.06
33 42 26 16-0108	EA	96" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	22,109.06	741.06
33 42 26 16-0109 Toe Plate Extensions For Corrugated Aluminum Pipe End Section (33 42 26 16-0089)				
33 42 26 16-0110	EA	Toe Plate Extension For 12" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section.....	90.49	
33 42 26 16-0111	EA	Toe Plate Extension For 15" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section.....	96.24	
33 42 26 16-0112	EA	Toe Plate Extension For 18" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section.....	104.98	
33 42 26 16-0113	EA	Toe Plate Extension For 21" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section.....	118.76	
33 42 26 16-0114	EA	Toe Plate Extension For 24" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section.....	125.66	
33 42 26 16-0115	EA	Toe Plate Extension For 30" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section.....	162.02	
33 42 26 16-0116	EA	Toe Plate Extension For 36" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section.....	190.75	
33 42 26 16-0117	EA	Toe Plate Extension For 36" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section.....	202.66	
33 42 26 16-0118	EA	Toe Plate Extension For 42" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section.....	222.44	
33 42 26 16-0119	EA	Toe Plate Extension For 48" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section.....	251.49	
33 42 26 16-0120	EA	Toe Plate Extension For 54" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section.....	298.47	
33 42 26 16-0121	EA	Toe Plate Extension For 60" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	428.33	
33 42 26 16-0122	EA	Toe Plate Extension For 66" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	456.83	
33 42 26 16-0123	EA	Toe Plate Extension For 72" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	569.52	
33 42 26 16-0124	EA	Toe Plate Extension For 78" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	615.14	
33 42 26 16-0125	EA	Toe Plate Extension For 84" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	655.03	
33 42 26 16-0126	EA	Toe Plate Extension For 90" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	697.23	
33 42 26 16-0127	EA	Toe Plate Extension For 96" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section.....	739.59	
33 42 26 16-0128 Corrugated Aluminum Pipe-Arch End Sections (33 42 26 16-0001)				
33 42 26 16-0129 Corrugated Aluminum Pipe-Arch End Sections (33 42 26 16-0128)				
33 42 26 16-0130	EA	17" x 13" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	694.52	80.33
33 42 26 16-0131	EA	21" x 15" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	860.85	85.67
33 42 26 16-0132	EA	24" x 18" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	934.23	93.71
33 42 26 16-0133	EA	28" x 20" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	1,007.52	101.74
33 42 26 16-0134	EA	35" x 24" 14 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	1,544.40	115.13
33 42 26 16-0135	EA	42" x 29" 14 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	2,820.12	136.81
33 42 26 16-0136	EA	42" x 29" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	3,000.96	136.81
33 42 26 16-0137	EA	49" x 33" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	4,032.53	159.61
33 42 26 16-0138	EA	57" x 38" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	6,260.37	182.42
33 42 26 16-0139	EA	64" x 43" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	7,150.13	228.02
33 42 26 16-0140	EA	71" x 47" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	8,647.04	273.62
33 42 26 16-0141	EA	77" x 52" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	14,529.72	410.44
33 42 26 16-0142	EA	83" x 57" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	15,142.87	547.25
33 42 26 16-0143	EA	87" x 63" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	16,495.95	587.15
33 42 26 16-0144	EA	95" x 67" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	17,204.54	627.05
33 42 26 16-0145	EA	103" x 71" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	18,752.54	684.06
33 42 26 16-0146	EA	112" x 75" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	19,850.98	741.06
33 42 26 16-0147 Toe Plate Extensions For Corrugated Aluminum Pipe-Arch End Section (33 42 26 16-0129)				
33 42 26 16-0148	EA	Toe Plate Extension For 17" x 13", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	96.24	
33 42 26 16-0149	EA	Toe Plate Extension For 21" x 15", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	104.98	
33 42 26 16-0150	EA	Toe Plate Extension For 24" x 18", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	110.42	
33 42 26 16-0151	EA	Toe Plate Extension For 28" x 20", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	121.08	
33 42 26 16-0152	EA	Toe Plate Extension For 35" x 24", 14 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	135.82	
33 42 26 16-0153	EA	Toe Plate Extension For 42" x 29", 14 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	175.69	
33 42 26 16-0154	EA	Toe Plate Extension For 42" x 29", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	194.68	
33 42 26 16-0155	EA	Toe Plate Extension For 49" x 33", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	222.44	
33 42 26 16-0156	EA	Toe Plate Extension For 57" x 38", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	251.49	
33 42 26 16-0157	EA	Toe Plate Extension For 64" x 43", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	298.47	
33 42 26 16-0158	EA	Toe Plate Extension For 71" x 47", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	386.09	
33 42 26 16-0159	EA	Toe Plate Extension For 77" x 52", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	492.20	
33 42 26 16-0160	EA	Toe Plate Extension For 83" x 57", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	657.94	
33 42 26 16-0161	EA	Toe Plate Extension For 87" x 63", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	749.74	
33 42 26 16-0162	EA	Toe Plate Extension For 95" x 67", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	783.41	
33 42 26 16-0163	EA	Toe Plate Extension For 103" x 71", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	809.88	
33 42 26 16-0164	EA	Toe Plate Extension For 112" x 75", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section.....	843.07	
33 42 26 16-0165 Low Slope Corrugated Steel Pipe End Sections And Accessories (33 42 26 16-0001)				
33 42 26 16-0166 4:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165)				
33 42 26 16-0167	EA	15" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	915.93	80.33
33 42 26 16-0168	EA	18" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	1,196.51	85.67
33 42 26 16-0169	EA	21" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	1,475.76	93.71
33 42 26 16-0170	EA	24" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	1,775.34	101.74

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 26 16-0171	EA	30" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	1,871.15	115.13
33 42 26 16-0172	EA	36" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	2,454.67	136.81
33 42 26 16-0173	EA	42" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	3,943.43	159.61
33 42 26 16-0174		3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165) Note: Includes nut and bolt set.		
33 42 26 16-0175	EA	3" Diameter Parallel Safety Bar For 15" 4:1 Corrugated Steel Pipe End Section	669.16	
33 42 26 16-0176	EA	3" Diameter Parallel Safety Bar For 18" 4:1 Corrugated Steel Pipe End Section	1,377.96	
33 42 26 16-0177	EA	3" Diameter Parallel Safety Bar For 21" 4:1 Corrugated Steel Pipe End Section	1,512.31	
33 42 26 16-0178	EA	3" Diameter Parallel Safety Bar For 24" 4:1 Corrugated Steel Pipe End Section	1,570.18	
33 42 26 16-0179		6:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165)		
33 42 26 16-0180	EA	15" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	962.77	80.33
33 42 26 16-0181	EA	18" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	1,280.75	85.67
33 42 26 16-0182	EA	21" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	1,723.66	93.71
33 42 26 16-0183	EA	24" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	2,033.00	101.74
33 42 26 16-0184	EA	30" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	2,418.11	115.13
33 42 26 16-0185	EA	36" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	2,937.44	136.81
33 42 26 16-0186	EA	42" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	4,547.47	159.61
33 42 26 16-0187		3" Diameter Parallel Safety Bar For 6:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165) Note: Includes nut and bolt set.		
33 42 26 16-0188	EA	3" Diameter Parallel Safety Bar For 15" 6:1 Corrugated Steel Pipe End Section	1,329.24	
33 42 26 16-0189	EA	3" Diameter Parallel Safety Bar For 18" 6:1 Corrugated Steel Pipe End Section	1,407.42	
33 42 26 16-0190	EA	3" Diameter Parallel Safety Bar For 21" 6:1 Corrugated Steel Pipe End Section	1,547.12	
33 42 26 16-0191	EA	3" Diameter Parallel Safety Bar For 24" 6:1 Corrugated Steel Pipe End Section	1,618.37	
33 42 26 16-0192		Toe Plate Extensions For Low Slope Corrugated Steel Pipe End Section (33 42 26 16-0165)		
33 42 26 16-0193	EA	Toe Plate Extension For 15" Low Slope Corrugated Steel Pipe End Section	108.65	
33 42 26 16-0194	EA	Toe Plate Extension For 18" Low Slope Corrugated Steel Pipe End Section	122.98	
33 42 26 16-0195	EA	Toe Plate Extension For 21" Low Slope Corrugated Steel Pipe End Section	133.97	
33 42 26 16-0196	EA	Toe Plate Extension For 24" Low Slope Corrugated Steel Pipe End Section	150.01	
33 42 26 16-0197	EA	Toe Plate Extension For 30" Low Slope Corrugated Steel Pipe End Section	234.50	
33 42 26 16-0198	EA	Toe Plate Extension For 36" Low Slope Corrugated Steel Pipe End Section	251.74	
33 42 26 16-0199	EA	Toe Plate Extension For 42" Low Slope Corrugated Steel Pipe End Section	342.01	
33 42 26 16-0200		Low Slope Corrugated Steel Pipe-Arch End Sections And Accessories (33 42 26 16-0001)		
33 42 26 16-0201		4:1 Corrugated Steel Pipe-Arch End Section (33 42 26 16-0200)		
33 42 26 16-0202	EA	21" x 15" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	1,097.86	85.67
33 42 26 16-0203	EA	24" x 18" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	1,390.76	93.71
33 42 26 16-0204	EA	28" x 20" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	1,654.98	101.74
33 42 26 16-0205	EA	35" x 24" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	3,192.59	115.13
33 42 26 16-0206		3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0200) Note: Includes nut and bolt set.		
33 42 26 16-0207	EA	3" Diameter Parallel Safety Bar For 21" x 15" 4:1 Corrugated Steel Pipe-Arch End Section	802.10	
33 42 26 16-0208	EA	3" Diameter Parallel Safety Bar For 24" x 18" 4:1 Corrugated Steel Pipe-Arch End Section	1,491.68	
33 42 26 16-0209	EA	3" Diameter Parallel Safety Bar For 28" x 20" 4:1 Corrugated Steel Pipe-Arch End Section	1,570.18	
33 42 26 16-0210	EA	3" Diameter Parallel Safety Bar For 35" x 24" 4:1 Corrugated Steel Pipe-Arch End Section	2,327.91	
33 42 26 16-0211		Toe Plate Extensions For Low Slope Corrugated Steel Pipe-Arch End Section (33 42 26 16-0200)		
33 42 26 16-0212	EA	Toe Plate Extension For 21" x 15" Low Slope Corrugated Steel Pipe-Arch End Section	109.53	
33 42 26 16-0213	EA	Toe Plate Extension For 24" x 18" Low Slope Corrugated Steel Pipe-Arch End Section	124.97	
33 42 26 16-0214	EA	Toe Plate Extension For 28" x 20" Low Slope Corrugated Steel Pipe-Arch End Section	136.29	
33 42 26 16-0215	EA	Toe Plate Extension For 35" x 24" Low Slope Corrugated Steel Pipe-Arch End Section	160.17	
33 42 26 19		Corrugated High-Density Polyethylene (HDPE) End Sections for Stormwater Piping (33 42 26)		
33 42 26 19-0001		Corrugated High Density Polyethylene (HDPE) Pipe End Sections (33 42 26 19)		
33 42 26 19-0002	EA	4" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	67.83	20.52
33 42 26 19-0003	EA	6" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	131.18	30.80
33 42 26 19-0004	EA	8" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	180.27	38.48
33 42 26 19-0005	EA	10" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	283.30	61.58
33 42 26 19-0006	EA	12" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	338.93	69.28



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 26 19-0007	EA		15" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	359.21	74.41
33 42 26 19-0008	EA		18" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	432.20	82.11
33 42 26 19-0009	EA		24" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	564.00	97.50
33 42 26 19-0010	EA		30" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	1,222.14	110.34
33 42 26 19-0011	EA		36" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	1,498.17	123.16

33 42 26 23 Concrete End Sections for Stormwater Piping (33 42 26)

33 42 26 23-0001 Precast Concrete End Sections (33 42 26 23)

33 42 26 23-0002 Precast Concrete End Sections (33 42 26 23-0001)

33 42 26 23-0003	EA	12" Diameter Pipe, Precast Concrete End Section	684.10	125.63
33 42 26 23-0004	EA	15" Diameter Pipe, Precast Concrete End Section	916.07	155.50
33 42 26 23-0005	EA	18" Diameter Pipe, Precast Concrete End Section	1,135.00	196.84
33 42 26 23-0006	EA	21" Diameter Pipe, Precast Concrete End Section	1,394.15	235.40
33 42 26 23-0007	EA	24" Diameter Pipe, Precast Concrete End Section	1,389.95	272.45
33 42 26 23-0008	EA	27" Diameter Pipe, Precast Concrete End Section	1,751.84	339.74
33 42 26 23-0009	EA	30" Diameter Pipe, Precast Concrete End Section	2,180.54	510.31
33 42 26 23-0010	EA	36" Diameter Pipe, Precast Concrete End Section	2,694.69	643.93
33 42 26 23-0011	EA	42" Diameter Pipe, Precast Concrete End Section	3,265.16	807.76
33 42 26 23-0012	EA	48" Diameter Pipe, Precast Concrete End Section	3,583.03	910.94
33 42 26 23-0013	EA	54" Diameter Pipe, Precast Concrete End Section	3,912.75	1,020.38
33 42 26 23-0014	EA	60" Diameter Pipe, Precast Concrete End Section	4,251.00	1,134.39
33 42 26 23-0015	EA	66" Diameter Pipe Precast Concrete End Section	4,201.45	913.00
33 42 26 23-0016	EA	72" Diameter Pipe Precast Concrete End Section	4,828.80	1,141.23
33 42 26 23-0017	EA	78" Diameter Pipe Precast Concrete End Section	5,753.40	1,426.54
33 42 26 23-0018	EA	84" Diameter Pipe Precast Concrete End Section	6,811.98	1,711.85

33 42 26 23-0019 Flared Precast Concrete End Sections (33 42 26 23-0001)

33 42 26 23-0020	EA	12" Diameter Pipe, Flared Precast Concrete End Section	855.63	132.82
33 42 26 23-0021	EA	15" Diameter Pipe, Flared Precast Concrete End Section	1,031.17	165.54
33 42 26 23-0022	EA	18" Diameter Pipe, Flared Precast Concrete End Section	1,253.38	209.55
33 42 26 23-0023	EA	21" Diameter Pipe, Flared Precast Concrete End Section	1,434.13	250.59
33 42 26 23-0024	EA	24" Diameter Pipe, Flared Precast Concrete End Section	1,747.24	290.05
33 42 26 23-0025	EA	27" Diameter Pipe, Flared Precast Concrete End Section	2,126.86	463.22
33 42 26 23-0026	EA	30" Diameter Pipe, Flared Precast Concrete End Section	2,239.99	637.77
33 42 26 23-0027	EA	36" Diameter Pipe, Flared Precast Concrete End Section	3,016.55	804.91
33 42 26 23-0028	EA	42" Diameter Pipe, Flared Precast Concrete End Section	3,627.48	1,009.90
33 42 26 23-0029	EA	48" Diameter Pipe, Flared Precast Concrete End Section	3,933.17	1,138.96
33 42 26 23-0030	EA	54" Diameter Pipe, Flared Precast Concrete End Section	4,399.59	1,275.65
33 42 26 23-0031	EA	60" Diameter Pipe, Flared Precast Concrete End Section	4,875.25	1,416.91
33 42 26 23-0032	EA	66" Diameter Pipe, Flared Precast Concrete End Section	5,682.79	1,632.50
33 42 26 23-0033	EA	72" Diameter Pipe, Flared Precast Concrete End Section	6,613.98	1,822.10
33 42 26 23-0034	EA	78" Diameter Pipe, Flared Precast Concrete End Section	7,497.16	2,049.78
33 42 26 23-0035	EA	84" Diameter Pipe, Flared Precast Concrete End Section	8,633.15	2,277.23

33 42 26 23-0036 Elliptical Precast Concrete End Sections (33 42 26 23-0001)

33 42 26 23-0037	EA	14" x 23" Elliptical Precast Concrete End Section	1,488.06	209.55
33 42 26 23-0038	EA	18" x 24" Elliptical Precast Concrete End Section	1,698.61	250.59
33 42 26 23-0039	EA	19" x 30" Elliptical Precast Concrete End Section	2,075.17	290.05
33 42 26 23-0040	EA	22" x 34" Elliptical Precast Concrete End Section	2,484.71	463.22
33 42 26 23-0041	EA	24" x 38" Elliptical Precast Concrete End Section	2,560.55	637.77
33 42 26 23-0042	EA	27" x 42" Elliptical Precast Concrete End Section	3,014.56	721.68
33 42 26 23-0043	EA	29" x 45" Elliptical Precast Concrete End Section	3,468.57	804.91
33 42 26 23-0044	EA	34" x 53" Elliptical Precast Concrete End Section	4,155.33	1,009.90
33 42 26 23-0045	EA	38" x 60" Elliptical Precast Concrete End Section	4,488.95	1,138.96
33 42 26 23-0046	EA	43" x 68" Elliptical Precast Concrete End Section	5,020.69	1,275.65
33 42 26 23-0047	EA	48" x 76" Elliptical Precast Concrete End Section	5,562.02	1,416.91

33 42 26 23-0048 Mitered Precast Concrete End Sections (33 42 26 23-0001)

33 42 26 23-0049	EA	12" Round Mitered Precast Concrete End Sections	526.61	132.82
33 42 26 23-0050	EA	15" Round Mitered Precast Concrete End Sections	574.49	165.54
33 42 26 23-0051	EA	18" Round Mitered Precast Concrete End Sections	693.05	209.55
33 42 26 23-0052	EA	24" Round Mitered Precast Concrete End Sections	1,003.09	290.05
33 42 26 23-0053	EA	12" x 18" Elliptical Mitered Precast Concrete End Sections	615.52	165.54
33 42 26 23-0054	EA	14" x 23" Elliptical Mitered Precast Concrete End Sections	765.99	209.55
33 42 26 23-0055	EA	19" x 30" Elliptical Mitered Precast Concrete End Sections	1,091.98	290.05

33 42 31 Stormwater Area Drains and Inlets (33 42)

33 42 31 00-0001 Storm Drains (33 42 31)

33 42 31 00-0002 Catch Basins And Inlet Basins (33 42 31 00-0001)

Note: Includes base slab, opening and grout. Excludes frame, grate, excavation and backfill.

33 42 31 00-0003 Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0002)

Note: Inside dimensions.

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

SAN BERNARDINO
COUNTY

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 31 00-0004	3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0005	EA 2' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,723.34	338.52
33 42 31 00-0006	EA 3' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,051.55	396.63
33 42 31 00-0007	EA 4' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,379.77	454.65
33 42 31 00-0008	EA 5' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,707.99	512.77
33 42 31 00-0009	EA 6' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,036.22	570.79
33 42 31 00-0010	3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0011	EA 2' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,141.51	336.48
33 42 31 00-0012	EA 3' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,667.81	448.63
33 42 31 00-0013	EA 4' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,434.59	611.78
33 42 31 00-0014	EA 5' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	4,161.66	713.74
33 42 31 00-0015	EA 6' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	4,769.09	815.70
33 42 31 00-0016	4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0017	EA 2' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,297.52	367.07
33 42 31 00-0018	EA 3' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,667.81	509.82
33 42 31 00-0019	EA 4' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,917.49	662.76
33 42 31 00-0020	EA 5' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	4,524.84	764.72
33 42 31 00-0021	EA 6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	5,746.57	978.85
33 42 31 00-0022	Cast In Place, Catch Basin (33 42 31 00-0002)		
Note: Inside span, overall depth. Includes concrete, forms, rebar (where required), finish and curing.			
33 42 31 00-0023	3' x 3', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0024	EA 3' Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	2,212.23	409.28
33 42 31 00-0025	EA 3'-6" Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	2,344.23	435.18
33 42 31 00-0026	EA 4' Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	2,579.39	467.40
33 42 31 00-0027	EA 4'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,882.34	517.36
33 42 31 00-0028	EA 5' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,125.51	550.71
33 42 31 00-0029	EA 5'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,269.18	577.52
33 42 31 00-0030	EA 6' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,512.54	610.86
33 42 31 00-0031	EA 6'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,652.97	637.78
33 42 31 00-0032	EA 7' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,898.07	671.01
33 42 31 00-0033	EA 7'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	4,040.01	697.94
33 42 31 00-0034	EA 8' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	4,283.28	731.28
33 42 31 00-0035	VLF >8' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	535.44	91.36
33 42 31 00-0036	3'-6" x 3'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0037	EA 3' Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,539.61	473.11
33 42 31 00-0038	EA 3'-6" Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,707.27	506.35
33 42 31 00-0039	EA 4' Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,950.85	539.69
33 42 31 00-0040	EA 4'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,304.63	597.71
33 42 31 00-0041	EA 5' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,569.89	635.43
33 42 31 00-0042	EA 5'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,735.44	666.74
33 42 31 00-0043	EA 6' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,003.72	704.46
33 42 31 00-0044	EA 6'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,169.27	735.76
33 42 31 00-0045	EA 7' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,436.15	773.49
33 42 31 00-0046	EA 7'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,601.40	804.80
33 42 31 00-0047	EA 8' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,868.36	842.53
33 42 31 00-0048	VLF >8' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	608.57	105.33
33 42 31 00-0049	4' x 4', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0050	EA 3' Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	2,890.20	541.22
33 42 31 00-0051	EA 3'-6" Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	3,066.28	575.58
33 42 31 00-0052	EA 4' Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	3,343.79	616.26
33 42 31 00-0053	EA 4'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	3,749.01	682.43
33 42 31 00-0054	EA 5' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	4,039.29	724.55
33 42 31 00-0055	EA 5'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	4,228.04	760.34
33 42 31 00-0056	EA 6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	4,518.31	802.45
33 42 31 00-0057	EA 6'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	4,707.38	838.24
33 42 31 00-0058	EA 7' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	4,997.66	880.35
33 42 31 00-0059	EA 7'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	5,186.39	916.14
33 42 31 00-0060	EA 8' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	5,476.67	958.35
33 42 31 00-0061	VLF >8' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	684.54	119.80
33 42 31 00-0062	4'-6" x 4'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0063	EA 3' Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin	3,339.13	627.58
33 42 31 00-0064	EA 3'-6" Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin	3,545.23	663.06
33 42 31 00-0065	EA 4' Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin	3,851.43	708.95
33 42 31 00-0066	EA 4'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,313.60	784.20
33 42 31 00-0067	EA 5' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,634.60	831.71
33 42 31 00-0068	EA 5'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	4,854.18	872.80
33 42 31 00-0069	EA 6' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,174.86	920.32



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 31 00-0070	EA 6'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,394.44		961.51
33 42 31 00-0071	EA 7' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,715.45		1,009.03
33 42 31 00-0072	EA 7'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,933.29		1,050.12
33 42 31 00-0073	EA 8' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	6,255.70		1,097.63
33 42 31 00-0074	VLF >8' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin	782.01		137.24
33 42 31 00-0075 5' x 5', Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0076	EA 4' Deep, 5' x 5' x 6" Thick Wall, Cast In Place, Catch Basin	4,304.70		796.03
33 42 31 00-0077	EA 4'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	4,819.41		879.64
33 42 31 00-0078	EA 5' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	5,165.84		931.74
33 42 31 00-0079	EA 5'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	5,409.13		977.42
33 42 31 00-0080	EA 6' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	5,752.42		1,029.42
33 42 31 00-0081	EA 6'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	5,997.43		1,075.10
33 42 31 00-0082	EA 7' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	6,342.14		1,127.20
33 42 31 00-0083	EA 7'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	6,584.01		1,172.88
33 42 31 00-0084	EA 8' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	6,930.43		1,224.89
33 42 31 00-0085	VLF >8' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin	1,331.42		153.15
33 42 31 00-0086 5'-6" x 5'-6", Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0087	EA 4' Deep, 5'-6" x 5'-6" x 6" Thick Wall, Cast In Place, Catch Basin	4,780.27		887.69
33 42 31 00-0088	EA 4'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,541.00		1,004.85
33 42 31 00-0089	EA 5' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	5,923.45		1,062.76
33 42 31 00-0090	EA 5'-6" Deep, 5'-6" x 5' x 8" Thick Wall, Cast In Place, Catch Basin	6,202.76		1,114.66
33 42 31 00-0091	EA 6' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	6,586.61		1,172.99
33 42 31 00-0092	EA 6'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	6,867.64		1,224.89
33 42 31 00-0093	EA 7' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	7,250.10		1,283.21
33 42 31 00-0094	EA 7'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	7,529.39		1,335.11
33 42 31 00-0095	EA 8' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	7,911.84		1,393.42
33 42 31 00-0096	VLF >8' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin	988.99		174.15
33 42 31 00-0097 6' x 6', Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0098	EA 4' Deep, 6' x 6' x 6" Thick Wall, Cast In Place, Catch Basin	5,280.85		983.64
33 42 31 00-0099	EA 4'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	6,119.38		1,112.21
33 42 31 00-0100	EA 5' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	6,527.85		1,175.23
33 42 31 00-0101	EA 5'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	6,833.52		1,231.81
33 42 31 00-0102	EA 6' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	7,240.28		1,294.83
33 42 31 00-0103	EA 6'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	7,547.35		1,351.42
33 42 31 00-0104	EA 7' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	7,954.42		1,414.43
33 42 31 00-0105	EA 7'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	8,259.76		1,471.03
33 42 31 00-0106	EA 8' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	8,668.25		1,534.03
33 42 31 00-0107	VLF >8' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin	1,083.58		191.79
33 42 31 00-0108 6'-6" x 6'-6", Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0109	EA 4' Deep, 6'-6" x 6'-6" x 6" Thick Wall, Cast In Place, Catch Basin	5,803.32		1,084.17
33 42 31 00-0110	EA 4'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	6,966.45		1,256.08
33 42 31 00-0111	EA 5' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	7,414.63		1,325.82
33 42 31 00-0112	EA 5'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	7,761.27		1,389.14
33 42 31 00-0113	EA 6' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	8,209.43		1,458.79
33 42 31 00-0114	EA 6'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	8,556.07		1,522.21
33 42 31 00-0115	EA 7' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	9,004.24		1,591.85
33 42 31 00-0116	EA 7'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	9,350.89		1,655.17
33 42 31 00-0117	EA 8' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	9,800.46		1,724.91
33 42 31 00-0118	VLF >8' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin	1,225.00		215.65
33 42 31 00-0119 7' x 7', Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0120	EA 4' Deep, 7' x 7' x 6" Thick Wall, Cast In Place, Catch Basin	6,349.59		1,189.10
33 42 31 00-0121	EA 4'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	7,623.24		1,376.70
33 42 31 00-0122	EA 5' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	8,098.07		1,451.34
33 42 31 00-0123	EA 5'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	8,470.05		1,519.46
33 42 31 00-0124	EA 6' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	8,946.49		1,593.99
33 42 31 00-0125	EA 6'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	9,318.47		1,662.20
33 42 31 00-0126	EA 7' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	9,793.30		1,736.74
33 42 31 00-0127	EA 7'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	10,166.99		1,804.96
33 42 31 00-0128	EA 8' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	10,641.71		1,879.48
33 42 31 00-0129	VLF >8' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin	1,330.26		234.92
33 42 31 00-0130 7'-6" x 7'-6", Cast In Place, Catch Basins (33 42 31 00-0022)				
33 42 31 00-0131	EA 4' Deep, 7'-6" x 7'-6" x 6" Thick Wall, Cast In Place, Catch Basin	7,197.97		1,334.59
33 42 31 00-0132	EA 4'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	8,306.79		1,502.22
33 42 31 00-0133	EA 5' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	8,806.85		1,581.65
33 42 31 00-0134	EA 5'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	9,207.20		1,654.66
33 42 31 00-0135	EA 6' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	9,708.88		1,734.09
33 42 31 00-0136	EA 6'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	10,109.25		1,807.09
33 42 31 00-0137	EA 7' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	10,609.30		1,886.52

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

SAN BERNARDINO
COUNTY

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0138	EA	7'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	11,009.67	1,959.52
33 42 31 00-0139	EA	8' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	11,511.44	2,038.96
33 42 31 00-0140	VLF	>8' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin	1,438.90	254.91
33 42 31 00-0141		8' x 8', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0142	EA	4' Deep, 8' x 8' x 6" Thick Wall, Cast In Place, Catch Basin	7,818.12	1,452.06
33 42 31 00-0143	EA	4'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	9,015.45	1,632.63
33 42 31 00-0144	EA	5' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	9,542.58	1,716.85
33 42 31 00-0145	EA	5'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	9,969.59	1,794.76
33 42 31 00-0146	EA	6' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	10,496.62	1,878.98
33 42 31 00-0147	EA	6'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	10,920.18	1,956.87
33 42 31 00-0148	EA	7' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	11,450.65	2,041.10
33 42 31 00-0149	EA	7'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	11,877.66	2,119.00
33 42 31 00-0150	EA	8' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	12,395.63	2,203.22
33 42 31 00-0151	VLF	>8' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin	1,550.59	275.40
33 42 31 00-0152		Precast Concrete Catch Basins (33 42 31 00-0002)		
		Note: Inside dimensions.		
33 42 31 00-0153		1'-6" Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0154	EA	4' Deep, 1'-6" Diameter Precast Catch Basins	676.75	230.64
33 42 31 00-0155	EA	6' Deep, 1'-6" Diameter Precast Catch Basins	951.92	345.96
33 42 31 00-0156	EA	8' Deep, 1'-6" Diameter Precast Catch Basins	1,215.19	449.74
33 42 31 00-0157	EA	10' Deep, 1'-6" Diameter Precast Catch Basins	1,450.56	531.62
33 42 31 00-0158	EA	12' Deep, 1'-6" Diameter Precast Catch Basins	1,795.36	674.62
33 42 31 00-0159	EA	14' Deep, 1'-6" Diameter Precast Catch Basins	2,056.97	778.41
33 42 31 00-0160	VLF	Vertical Linear Foot Over 14' Deep, 1'-6" Diameter Precast Catch Basins	144.10	51.89
33 42 31 00-0161		2' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0162	EA	4' Deep, 2' Diameter Precast Catch Basin	768.46	256.58
33 42 31 00-0163	EA	6' Deep, 2' Diameter Precast Catch Basin	1,075.20	380.56
33 42 31 00-0164	EA	8' Deep, 2' Diameter Precast Catch Basin	1,366.93	501.65
33 42 31 00-0165	EA	10' Deep, 2' Diameter Precast Catch Basin	1,625.82	585.25
33 42 31 00-0166	EA	12' Deep, 2' Diameter Precast Catch Basin	2,025.84	749.58
33 42 31 00-0167	EA	14' Deep, 2' Diameter Precast Catch Basin	2,318.06	864.89
33 42 31 00-0168	VLF	Vertical Linear Foot Over 14' Deep, 2' Diameter Precast Catch Basin	162.50	62.27
33 42 31 00-0169		3' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0170	EA	4' Deep, 3' Diameter Precast Catch Basin	996.77	302.71
33 42 31 00-0171	EA	6' Deep, 3' Diameter Precast Catch Basin	1,376.70	447.44
33 42 31 00-0172	EA	8' Deep, 3' Diameter Precast Catch Basin	1,743.57	591.02
33 42 31 00-0173	EA	10' Deep, 3' Diameter Precast Catch Basin	2,171.28	738.05
33 42 31 00-0174	EA	12' Deep, 3' Diameter Precast Catch Basin	2,569.85	879.89
33 42 31 00-0175	EA	14' Deep, 3' Diameter Precast Catch Basin	2,957.11	1,024.04
33 42 31 00-0176	VLF	Vertical Linear Foot Over 14' Deep, 3' Diameter Precast Catch Basin	204.72	73.14
33 42 31 00-0177		4' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0178	EA	4' Deep, 4' Diameter Precast Catch Basin	1,191.89	336.73
33 42 31 00-0179	EA	6' Deep, 4' Diameter Precast Catch Basin	1,561.23	461.28
33 42 31 00-0180	EA	8' Deep, 4' Diameter Precast Catch Basin	2,125.69	691.92
33 42 31 00-0181	EA	10' Deep, 4' Diameter Precast Catch Basin	2,652.92	864.89
33 42 31 00-0182	EA	12' Deep, 4' Diameter Precast Catch Basin	3,142.88	1,037.88
33 42 31 00-0183	EA	14' Deep, 4' Diameter Precast Catch Basin	3,620.97	1,210.86
33 42 31 00-0184	VLF	Vertical Linear Foot Over 14' Deep, 4' Diameter Precast Catch Basin	250.12	86.49
33 42 31 00-0185		5' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0186	EA	4' Deep, 5' Diameter Precast Catch Basin	1,608.30	461.28
33 42 31 00-0187	EA	6' Deep, 5' Diameter Precast Catch Basin	2,230.30	691.92
33 42 31 00-0188	EA	8' Deep, 5' Diameter Precast Catch Basin	2,855.71	922.56
33 42 31 00-0189	EA	10' Deep, 5' Diameter Precast Catch Basin	3,502.29	1,153.20
33 42 31 00-0190	EA	12' Deep, 5' Diameter Precast Catch Basin	4,141.84	1,383.84
33 42 31 00-0191	EA	14' Deep, 5' Diameter Precast Catch Basin	4,826.20	1,614.48
33 42 31 00-0192	VLF	Vertical Linear Foot Over 14' Deep, 5' Diameter Precast Catch Basin	332.90	115.32
33 42 31 00-0193		6' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0194	EA	4' Deep, 6' Diameter Precast Catch Basin	2,361.06	691.92
33 42 31 00-0195	EA	6' Deep, 6' Diameter Precast Catch Basin	3,247.49	1,037.88
33 42 31 00-0196	EA	8' Deep, 6' Diameter Precast Catch Basin	4,188.40	1,383.84
33 42 31 00-0197	EA	10' Deep, 6' Diameter Precast Catch Basin	5,222.43	1,729.80
33 42 31 00-0198	EA	12' Deep, 6' Diameter Precast Catch Basin	6,230.30	2,075.76
33 42 31 00-0199	EA	14' Deep, 6' Diameter Precast Catch Basin	7,221.04	2,421.72
33 42 31 00-0200	VLF	Vertical Linear Foot Over 14' Deep, 6' Diameter Precast Catch Basin	496.74	172.98



		Utilities	33	CS
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0201		Precast Catch Basins Accessories (33 42 31 00-0152)		
33 42 31 00-0202	EA	Single Or Double Wing Slab Top With Throat	1,583.22	749.58
33 42 31 00-0203	EA	4' x 4' Weir Box, Precast Catch Basin	607.68	92.25
33 42 31 00-0204	EA	4' Diameter Inlet Round To Square Adapter, Precast Catch Basin	364.26	98.02
33 42 31 00-0205	EA	3' Diameter, Up To 6" High, Precast Extension Ring	463.69	144.15
		For Each Additional Inch In Height, Add	53.24	
33 42 31 00-0206	EA	4' Diameter, Up To 6" High, Precast Extension Ring	548.39	172.98
		For Each Additional Inch In Height, Add	62.54	
33 42 31 00-0207	EA	5' Diameter, Up To 6" High, Precast Extension Ring	639.46	201.81
		For Each Additional Inch In Height, Add	72.98	
33 42 31 00-0208	EA	6' Diameter, Up To 6" High, Precast Extension Ring	817.57	288.30
		For Each Additional Inch In Height, Add	88.26	
33 42 31 00-0209	EA	Adjust Existing Catch Basin Inlet Grate To Match Grade	691.88	
33 42 31 00-0210		Catch Basin Risers (33 42 31 00-0152)		
33 42 31 00-0211	EA	Up To 860 Square Inch, Up To 2" Rise, Catch Basin Riser	420.01	
33 42 31 00-0212	EA	>860 To 1140 Square Inch, Up To 2" Rise, Catch Basin Riser	468.58	
33 42 31 00-0213	EA	>1140 Square Inch, Up To 2" Rise, Catch Basin Riser	526.32	
33 42 31 00-0214	EA	Up To 860 Square Inch, >2" To 3" Rise, Catch Basin Riser	452.12	
33 42 31 00-0215	EA	>860 To 1140 Square Inch, >2" To 3" Rise, Catch Basin Riser	503.96	
33 42 31 00-0216	EA	>1140 Square Inch, >2" To 3" Rise, Catch Basin Riser	567.96	
33 42 31 00-0217	EA	Up To 860 Square Inch, >3" To 4" Rise, Catch Basin Riser	499.99	
33 42 31 00-0218	EA	>860 To 1140 Square Inch, >3" To 4" Rise, Catch Basin Riser	546.04	
33 42 31 00-0219	EA	>1140 Square Inch, >3" To 4" Rise, Catch Basin Riser	610.27	
33 42 31 00-0220		Cast In Place, Storm Drain Cleanout (33 42 31 00-0002)		
		Note: Inside span.		
33 42 31 00-0221	EA	6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	4,636.03	807.35
33 42 31 00-0222	EA	6' Deep, 4' x 5' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	5,279.11	921.34
33 42 31 00-0223	EA	6' Deep, 4' x 6' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	6,003.40	1,045.64
33 42 31 00-0224	EA	7' Deep, 4' x 7' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	7,202.38	1,254.35
33 42 31 00-0225	EA	8' Deep, 4' x 8' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	8,754.95	1,514.36
33 42 31 00-0226		Precast Concrete Inlet Boxes (33 42 31 00-0002)		
		Note: Inside dimensions.		
33 42 31 00-0227		Precast Concrete Inlet Boxes (33 42 31 00-0226)		
33 42 31 00-0228		24" x 24" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
		Note: Yard inlet		
33 42 31 00-0229		24" x 24" ID, Precast Concrete Inlet Boxes (33 42 31 00-0228)		
33 42 31 00-0230	EA	24" Height, 24" x 24" ID, Precast Concrete Inlet Box	831.14	80.73
33 42 31 00-0231	EA	30" Height, 24" x 24" ID, Precast Concrete Inlet Box	977.35	98.02
33 42 31 00-0232	EA	36" Height, 24" x 24" ID, Precast Concrete Inlet Box	1,123.56	115.32
33 42 31 00-0233	EA	42" Height, 24" x 24" ID, Precast Concrete Inlet Box	1,271.20	133.34
33 42 31 00-0234		24" x 24" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0228)		
33 42 31 00-0235	EA	6" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	209.63	
33 42 31 00-0236	EA	12" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	338.55	
33 42 31 00-0237	EA	18" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	478.99	
33 42 31 00-0238	EA	24" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	619.44	
33 42 31 00-0239	EA	30" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	759.88	
33 42 31 00-0240	EA	36" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	900.33	
33 42 31 00-0241		22" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
33 42 31 00-0242		22" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0241)		
33 42 31 00-0243	EA	36" Height, 22" x 48" ID, Precast Concrete Inlet Box	1,711.06	228.02
33 42 31 00-0244	EA	42" Height, 22" x 48" ID, Precast Concrete Inlet Box	1,925.34	263.65
33 42 31 00-0245	EA	48" Height, 22" x 48" ID, Precast Concrete Inlet Box	2,139.64	299.27
33 42 31 00-0246	EA	54" Height, 22" x 48" ID, Precast Concrete Inlet Box	2,354.10	334.99
33 42 31 00-0247	EA	60" Height, 22" x 48" ID, Precast Concrete Inlet Box	2,568.57	370.70
33 42 31 00-0248	EA	66" Height, 22" x 48" ID, Precast Concrete Inlet Box	2,783.02	406.42
33 42 31 00-0249	EA	72" Height, 22" x 48" ID, Precast Concrete Inlet Box	2,997.48	442.13
33 42 31 00-0250		22" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0241)		
33 42 31 00-0251	EA	6" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	410.58	
33 42 31 00-0252	EA	12" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	659.70	
33 42 31 00-0253	EA	18" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	717.40	
33 42 31 00-0254	EA	24" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	918.10	
33 42 31 00-0255	EA	30" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	1,118.79	
33 42 31 00-0256	EA	36" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	1,314.25	
33 42 31 00-0257	EA	42" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	1,528.53	
33 42 31 00-0258	EA	48" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser	1,742.83	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 31 00-0259	EA	54" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,957.29	
33 42 31 00-0260	EA	60" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	2,171.76	
33 42 31 00-0261	EA	66" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	2,386.21	
33 42 31 00-0262	EA	72" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	2,600.66	

33 42 31 00-0263 30" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)**33 42 31 00-0264 30" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0263)**

33 42 31 00-0265	EA	36" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,652.16	250.82
33 42 31 00-0266	EA	42" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,867.08	290.01
33 42 31 00-0267	EA	48" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,081.98	329.20
33 42 31 00-0268	EA	54" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,297.08	368.48
33 42 31 00-0269	EA	60" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,512.17	407.77
33 42 31 00-0270	EA	66" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,727.26	447.06
33 42 31 00-0271	EA	72" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,942.36	486.35

33 42 31 00-0272 30" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0263)

33 42 31 00-0273	EA	6" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	408.86	
33 42 31 00-0274	EA	12" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	648.98	
33 42 31 00-0275	EA	18" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	708.29	
33 42 31 00-0276	EA	24" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	905.23	
33 42 31 00-0277	EA	30" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,102.18	
33 42 31 00-0278	EA	36" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,298.00	
33 42 31 00-0279	EA	42" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,509.77	
33 42 31 00-0280	EA	48" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,720.40	
33 42 31 00-0281	EA	54" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,932.18	
33 42 31 00-0282	EA	60" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	2,142.81	
33 42 31 00-0283	EA	66" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	2,354.58	
33 42 31 00-0284	EA	72" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	2,566.36	

33 42 31 00-0285 42" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)**33 42 31 00-0286 42" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0285)**

33 42 31 00-0287	EA	36" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	1,963.34	273.62
33 42 31 00-0288	EA	42" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,215.68	318.09
33 42 31 00-0289	EA	48" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,468.01	363.69
33 42 31 00-0290	EA	54" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,719.21	408.15
33 42 31 00-0291	EA	60" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,971.55	453.75
33 42 31 00-0292	EA	66" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	3,223.89	498.22
33 42 31 00-0293	EA	72" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	3,475.10	542.69

33 42 31 00-0294 42" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0285)

33 42 31 00-0295	EA	6" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	450.90	
33 42 31 00-0296	EA	12" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	730.79	
33 42 31 00-0297	EA	18" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	791.79	
33 42 31 00-0298	EA	24" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,015.06	
33 42 31 00-0299	EA	30" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,238.33	
33 42 31 00-0300	EA	36" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,461.59	
33 42 31 00-0301	EA	42" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,700.24	
33 42 31 00-0302	EA	48" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,938.91	
33 42 31 00-0303	EA	54" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,177.56	
33 42 31 00-0304	EA	60" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,416.23	
33 42 31 00-0305	EA	66" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,654.89	
33 42 31 00-0306	EA	72" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,893.54	

33 42 31 00-0307 42" x 48" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0285)

33 42 31 00-0308	EA	42" x 48" ID, Precast Concrete Inlet Box Top Slab.....	1,114.85	171.01

33 42 31 00-0309 48" x 54" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)**33 42 31 00-0310 48" x 54" ID, Precast Concrete Inlet Boxes (33 42 31 00-0309)**

33 42 31 00-0311	EA	36" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	2,779.91	304.03
33 42 31 00-0312	EA	42" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	3,116.48	353.99
33 42 31 00-0313	EA	48" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	3,453.06	403.97
33 42 31 00-0314	EA	54" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	3,789.25	453.76
33 42 31 00-0315	EA	60" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	4,125.45	503.55
33 42 31 00-0316	EA	66" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	4,461.66	553.34
33 42 31 00-0317	EA	72" Height, 48" x 54" ID, Precast Concrete Inlet Box.....	4,797.86	603.14

33 42 31 00-0318 48" x 54" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0309)

33 42 31 00-0319	EA	6" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser.....	453.24	
33 42 31 00-0320	EA	12" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser.....	720.26	
33 42 31 00-0321	EA	18" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser.....	1,051.90	
33 42 31 00-0322	EA	24" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser.....	1,383.52	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 31 00-0323	EA 30" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	1,696.15		
33 42 31 00-0324	EA 36" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,027.78		
33 42 31 00-0325	EA 42" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,364.36		
33 42 31 00-0326	EA 48" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,700.93		
33 42 31 00-0327	EA 54" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	3,037.12		
33 42 31 00-0328	EA 60" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	3,373.32		
33 42 31 00-0329	EA 66" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	3,709.54		
33 42 31 00-0330	EA 72" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	4,045.73		
33 42 31 00-0331	48" x 54" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0309)			
33 42 31 00-0332	EA 48" x 54" ID, Precast Concrete Inlet Box Top Slab	1,211.62		185.26
33 42 31 00-0333	48" x 66" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)			
33 42 31 00-0334	48" x 66" ID, Precast Concrete Inlet Boxes (33 42 31 00-0333)			
33 42 31 00-0335	EA 36" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,206.90		383.07
33 42 31 00-0336	EA 42" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,577.57		447.08
33 42 31 00-0337	EA 48" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,948.23		511.08
33 42 31 00-0338	EA 54" Height, 48" x 66" ID, Precast Concrete Inlet Box	4,318.20		574.73
33 42 31 00-0339	EA 60" Height, 48" x 66" ID, Precast Concrete Inlet Box	4,688.16		638.38
33 42 31 00-0340	EA 66" Height, 48" x 66" ID, Precast Concrete Inlet Box	5,058.13		702.03
33 42 31 00-0341	EA 72" Height, 48" x 66" ID, Precast Concrete Inlet Box	5,428.10		765.67
33 42 31 00-0342	48" x 66" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0333)			
33 42 31 00-0343	EA 6" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	498.05		
33 42 31 00-0344	EA 12" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	772.64		
33 42 31 00-0345	EA 18" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,142.99		
33 42 31 00-0346	EA 24" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,513.35		
33 42 31 00-0347	EA 30" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,851.78		
33 42 31 00-0348	EA 36" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,222.14		
33 42 31 00-0349	EA 42" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,592.81		
33 42 31 00-0350	EA 48" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,963.48		
33 42 31 00-0351	EA 54" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	3,333.44		
33 42 31 00-0352	EA 60" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	3,703.40		
33 42 31 00-0353	EA 66" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	4,073.37		
33 42 31 00-0354	EA 72" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	4,443.34		
33 42 31 00-0355	48" x 66" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0333)			
33 42 31 00-0356	EA 48" x 66" ID, Precast Concrete Inlet Box Top Slab	1,347.13		207.50
33 42 31 00-0357	42" x 102" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)			
33 42 31 00-0358	42" x 102" ID, Precast Concrete Inlet Boxes (33 42 31 00-0357)			
33 42 31 00-0359	EA 36" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,018.89		516.47
33 42 31 00-0360	EA 42" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,488.17		601.97
33 42 31 00-0361	EA 48" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,957.45		686.34
33 42 31 00-0362	EA 54" Height, 42" x 102" ID, Precast Concrete Inlet Box	5,425.60		771.84
33 42 31 00-0363	EA 60" Height, 42" x 102" ID, Precast Concrete Inlet Box	5,894.89		856.21
33 42 31 00-0364	EA 66" Height, 42" x 102" ID, Precast Concrete Inlet Box	6,363.03		940.58
33 42 31 00-0365	EA 72" Height, 42" x 102" ID, Precast Concrete Inlet Box	6,833.45		1,026.09
33 42 31 00-0366	42" x 102" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0357)			
33 42 31 00-0367	EA 6" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	667.66		
33 42 31 00-0368	EA 12" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	1,018.37		
33 42 31 00-0369	EA 18" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	1,479.68		
33 42 31 00-0370	EA 24" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	1,940.99		
33 42 31 00-0371	EA 30" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	2,369.22		
33 42 31 00-0372	EA 36" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	2,830.53		
33 42 31 00-0373	EA 42" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	3,299.81		
33 42 31 00-0374	EA 48" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	3,769.09		
33 42 31 00-0375	EA 54" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	4,237.24		
33 42 31 00-0376	EA 60" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	4,706.53		
33 42 31 00-0377	EA 66" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	5,174.67		
33 42 31 00-0378	EA 72" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	5,643.96		
33 42 31 00-0379	42" x 102" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0357)			
33 42 31 00-0380	EA 42" x 102" ID, Precast Concrete Inlet Box Top Slab	1,833.60		228.02
33 42 31 00-0381	Frames And Grates For Inlets (33 42 31 00-0226)			
33 42 31 00-0382	Inlet Frames And Grates (33 42 31 00-0381)			

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0383 EA 24" x 24", Heavy Duty Inlet Grate Note: For type A, B, D, or E inlets.	417.87	53.55
33 42 31 00-0384 EA 47-3/4" x 21-3/4", Bicycle Safe Inlet Grate (US Foundry 6352 GRT)..... Note: For type A, B, D, or E inlets.	541.40	53.55
33 42 31 00-0385 EA 47-3/4" x 21-3/4", Phase II Stormwater Compliant Inlet Grate (US Foundry 6352 GRT) Note: Includes legend: Dump No Waste "Drains To Waterways".	541.40	53.55
33 42 31 00-0386 EA Phase II Storm Water Compliant Grate, Echo Grate, Type "B" And "D" Inlet Covers (US Foundry 6352 GRT) Note: Legend: Dump No Waste "Drains to Waterways"	541.40	53.55
33 42 31 00-0387 EA Parallel Bar Grates For Type A, B, D And E Inlets (Campbell Foundry 2617-0362).....	593.11	53.55
33 42 31 00-0388 EA Type B Inlet Dirt Plate (US Foundry 5217 BK).....	441.69	107.10
33 42 31 00-0389 EA Back Plate For Type B Inlets (Campbell Foundry 2548-1942).....	514.08	107.10
33 42 31 00-0390 EA Phase II Echo-Safe Bar For Series 2500/2600 Curb Inlets (Campbell Foundry 25419EC4)..... Note: Includes cam action clamping system, stainless steel badge labeled to center of plate, steel plate welded to bar with legend: Dump No Waste "Drains to Waterways".	640.00	133.87
33 42 31 00-0391 EA 1-1/2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	546.93	133.87
33 42 31 00-0392 EA 2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	557.28	133.87
33 42 31 00-0393 EA 2-1/2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	577.96	133.87
33 42 31 00-0394 EA 3" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	598.64	133.87
33 42 31 00-0395 EA 2" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	577.96	133.87
33 42 31 00-0396 EA 2-1/2" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	598.64	133.87
33 42 31 00-0397 EA 3" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	619.32	133.87
33 42 31 00-0398 EA 2" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	888.17	133.87
33 42 31 00-0399 EA 2-1/2" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	929.54	133.87
33 42 31 00-0400 EA 3" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	970.90	133.87
33 42 31 00-0401 EA 2", 3 Sided Extension Frame For Type A, B, D, And E Inlet (Campbell Foundry 2701).....	660.68	133.87
33 42 31 00-0402 EA 6" Type N Curb Back Piece For Type B And D Inlets (US Foundry 5218N6).....	598.64	133.87
33 42 31 00-0403 EA 8" Type N Curb Back Piece For Type B And D Inlets (US Foundry 5218N8).....	598.64	133.87
33 42 31 00-0404 EA 6" Radius Curb Back Piece For Type B And D Inlets (Campbell Foundry BSCB-6).....	1,220.86	133.87
33 42 31 00-0405 EA 8" Radius Curb Back Piece For Type B And D Inlets (Campbell Foundry BSCB-8).....	1,220.86	133.87
33 42 31 00-0406 EA Safety Bars For Type B And D Inlets (General Foundries 5218 SB).....	501.33	147.26
33 42 31 00-0407 EA 6", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 648)..... Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.	697.80	147.26
33 42 31 00-0408 EA 8", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 848)..... Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.	697.80	147.26
33 42 31 00-0409 EA 10", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 1048)..... Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.	770.19	147.26
33 42 31 00-0410 EA Type B Inlet Frame (US Foundry 5216 FRM).....	883.93	147.26
33 42 31 00-0411 EA Type D Inlet Frame (US Foundry 2999 FRM).....	759.84	147.26
33 42 31 00-0412 EA Type B Inlet Frame (Campbell Foundry 2618-0202).....	1,080.40	147.26
33 42 31 00-0413 EA Type D Inlet Frame (Campbell Foundry 2617-0002).....	956.32	147.26
33 42 31 00-0414 EA Type A Inlet, Single Frame And Grate (US Foundry 52340).....	1,234.95	214.20
33 42 31 00-0415 EA Type E Inlet, Single Frame And Grate (US Foundry 52342).....	1,979.47	214.20
33 42 31 00-0416 EA Type A Inlet, Single Frame And Grate (General Foundries 52340).....	1,203.93	214.20
33 42 31 00-0417 EA Type E Inlet, Double Frame And Grate (General Foundries 52342).....	1,882.27	214.20
33 42 31 00-0418 EA Oversized Type A Inlet, Single Frame And Reticuline Grate (US Foundry 82340).....	2,017.88	321.29
33 42 31 00-0419 EA Heavy Duty Rectangular Frame And Grate (Campbell Foundry 3084).....	2,075.88	428.39
33 42 31 00-0420 EA 6" Curb Piece, Type B Inlet Frame And Grate (US Foundry 52186).....	2,273.44	428.39
33 42 31 00-0421 EA 8" Curb Piece, Type B Inlet Frame And Grate (US Foundry 52198).....	2,273.44	428.39
33 42 31 00-0422 EA 6" Curb Piece, Type D Inlet Frame And Grate (US Foundry 72266).....	2,014.92	428.39
33 42 31 00-0423 EA 8" Curb Piece, Type D Inlet Frame And Grate (US Foundry 72268).....	2,014.92	428.39
33 42 31 00-0424 EA Type B And C Inlet Frame And Grate With Type N Curb And Back Plate (Campbell Foundry GFI 52198).....	2,356.16	428.39
33 42 31 00-0425 Concrete Drainage Inlet Structures (CALTRANS) (33 42 31 00-0001)		
33 42 31 00-0426 Type OS Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0427 EA 3' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,393.33	
33 42 31 00-0428 EA 4' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,778.70	
33 42 31 00-0429 EA 5' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,135.81	
33 42 31 00-0430 EA 6' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,464.65	
33 42 31 00-0431 EA 7' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,765.22	
33 42 31 00-0432 EA 8' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,037.54	
33 42 31 00-0433 EA 8' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,493.94	
33 42 31 00-0434 EA 10' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,402.49	
33 42 31 00-0435 EA 12' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,239.97	
33 42 31 00-0436 EA 14' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,008.72	
33 42 31 00-0437 EA 16' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,745.11	
33 42 31 00-0438 EA 18' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,420.28	
33 42 31 00-0439 EA 20' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	10,034.21	
33 42 31 00-0440 Type OL-7 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0441 EA 3' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,259.01	
33 42 31 00-0442 EA 4' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,618.56	
33 42 31 00-0443 EA 5' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,949.84	
33 42 31 00-0444 EA 6' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,252.86	
33 42 31 00-0445 EA 7' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,526.46	
33 42 31 00-0446 EA 8' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,772.95	
33 42 31 00-0447 EA 8' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,186.09	
33 42 31 00-0448 EA 10' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,073.11	
33 42 31 00-0449 EA 12' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,889.08	
33 42 31 00-0450 EA 14' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,635.14	



	Utilities	33	
	Stormwater Utilities	33 40	
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0451 EA 16' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,352.70	
33 42 31 00-0452 EA 18' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,009.04	
33 42 31 00-0453 EA 20' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,604.15	
33 42 31 00-0454 Type OL-10 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0455 EA 3' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,056.78	
33 42 31 00-0456 EA 4' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,392.79	
33 42 31 00-0457 EA 5' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,699.37	
33 42 31 00-0458 EA 6' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,978.84	
33 42 31 00-0459 EA 7' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,228.90	
33 42 31 00-0460 EA 8' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,450.69	
33 42 31 00-0461 EA 8' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,878.24	
33 42 31 00-0462 EA 10' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,742.59	
33 42 31 00-0463 EA 12' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,538.18	
33 42 31 00-0464 EA 14' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,262.72	
33 42 31 00-0465 EA 16' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,960.30	
33 42 31 00-0466 EA 18' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,597.81	
33 42 31 00-0467 EA 20' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,172.94	
33 42 31 00-0468 Type OL-14 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0469 EA 3' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,194.04	
33 42 31 00-0470 EA 4' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,495.13	
33 42 31 00-0471 EA 5' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,767.94	
33 42 31 00-0472 EA 6' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,012.50	
33 42 31 00-0473 EA 7' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,228.78	
33 42 31 00-0474 EA 8' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,416.82	
33 42 31 00-0475 EA 8' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,858.80	
33 42 31 00-0476 EA 10' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,692.55	
33 42 31 00-0477 EA 12' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,456.40	
33 42 31 00-0478 EA 14' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,150.37	
33 42 31 00-0479 EA 16' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,822.32	
33 42 31 00-0480 EA 18' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,431.89	
33 42 31 00-0481 EA 20' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,980.24	
33 42 31 00-0482 Type OL-21 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0483 EA 3' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	7,502.51	
33 42 31 00-0484 EA 4' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	7,734.34	
33 42 31 00-0485 EA 5' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	7,937.93	
33 42 31 00-0486 EA 6' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	8,113.22	
33 42 31 00-0487 EA 7' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	8,259.12	
33 42 31 00-0488 EA 8' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	8,377.91	
33 42 31 00-0489 EA 8' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,776.63	
33 42 31 00-0490 EA 10' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,550.06	
33 42 31 00-0491 EA 12' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,253.57	
33 42 31 00-0492 EA 14' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,887.20	
33 42 31 00-0493 EA 16' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	12,506.28	
33 42 31 00-0494 EA 18' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	13,062.98	
33 42 31 00-0495 EA 20' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	13,558.44	
33 42 31 00-0496 Type GOL-7 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0497 EA 3' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,954.93	
33 42 31 00-0498 EA 4' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,351.63	
33 42 31 00-0499 EA 5' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,715.78	
33 42 31 00-0500 EA 6' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,047.40	
33 42 31 00-0501 EA 7' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,347.65	
33 42 31 00-0502 EA 8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,616.52	
33 42 31 00-0503 EA 8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,152.22	
33 42 31 00-0504 EA 10' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,140.00	
33 42 31 00-0505 EA 12' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,049.15	
33 42 31 00-0506 EA 14' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,878.53	
33 42 31 00-0507 EA 16' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,677.69	
33 42 31 00-0508 EA 18' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,407.93	
33 42 31 00-0509 EA 20' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	12,068.14	
33 42 31 00-0510 Type GOL-10 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0511 EA 3' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,820.62	
33 42 31 00-0512 EA 4' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,190.33	
33 42 31 00-0513 EA 5' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,528.66	
33 42 31 00-0514 EA 6' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,835.61	
33 42 31 00-0515 EA 7' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,110.03	
33 42 31 00-0516 EA 8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,351.92	
33 42 31 00-0517 EA 8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,887.63	
33 42 31 00-0518 EA 10' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,851.90	
33 42 31 00-0519 EA 12' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,737.53	
33 42 31 00-0520 EA 14' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,544.54	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 31 00-0521	EA	16' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,323.03
33 42 31 00-0522	EA	18' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	12,032.64
33 42 31 00-0523	EA	20' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	12,673.34

33 42 31 00-0524 Type G-1 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0525	EA	3' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,612.53
33 42 31 00-0526	EA	4' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,926.65
33 42 31 00-0527	EA	5' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,216.92
33 42 31 00-0528	EA	6' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,486.61
33 42 31 00-0529	EA	7' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,732.77
33 42 31 00-0530	EA	8' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,956.06

33 42 31 00-0531 Type G-2 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0532	EA	3' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,223.59
33 42 31 00-0533	EA	4' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,576.25
33 42 31 00-0534	EA	5' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,903.09
33 42 31 00-0535	EA	6' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,204.11
33 42 31 00-0536	EA	7' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,479.30
33 42 31 00-0537	EA	8' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,727.52
33 42 31 00-0538	EA	8' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,046.93
33 42 31 00-0539	EA	10' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,885.08
33 42 31 00-0540	EA	12' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,659.01
33 42 31 00-0541	EA	14' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,368.70
33 42 31 00-0542	EA	16' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,048.63
33 42 31 00-0543	EA	18' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,672.34
33 42 31 00-0544	EA	20' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,238.66

33 42 31 00-0545 Type G-3 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0546	EA	3' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,748.32
33 42 31 00-0547	EA	4' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,057.90
33 42 31 00-0548	EA	5' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,344.76
33 42 31 00-0549	EA	6' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,610.07
33 42 31 00-0550	EA	7' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,851.52
33 42 31 00-0551	EA	8' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,071.42

33 42 31 00-0552 Type G-4_24 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0553	EA	3' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,155.70
33 42 31 00-0554	EA	4' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,510.63
33 42 31 00-0555	EA	5' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,839.74
33 42 31 00-0556	EA	6' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,141.89
33 42 31 00-0557	EA	7' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,419.34
33 42 31 00-0558	EA	8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,669.83
33 42 31 00-0559	EA	8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,018.09
33 42 31 00-0560	EA	10' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,857.96
33 42 31 00-0561	EA	12' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,632.44
33 42 31 00-0562	EA	14' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,342.69
33 42 31 00-0563	EA	16' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,023.07
33 42 31 00-0564	EA	18' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,647.23
33 42 31 00-0565	EA	20' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,215.15

33 42 31 00-0566 Type G-4_18 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0567	EA	3' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,223.59
33 42 31 00-0568	EA	4' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,576.25
33 42 31 00-0569	EA	5' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,903.09
33 42 31 00-0570	EA	6' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,204.11
33 42 31 00-0571	EA	7' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,479.30
33 42 31 00-0572	EA	8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,727.52
33 42 31 00-0573	EA	8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,046.93
33 42 31 00-0574	EA	10' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,885.08
33 42 31 00-0575	EA	12' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,659.01
33 42 31 00-0576	EA	14' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,368.70
33 42 31 00-0577	EA	16' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,048.63
33 42 31 00-0578	EA	18' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,672.34
33 42 31 00-0579	EA	20' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,238.66

33 42 31 00-0580 Type G-5 Concrete Drainage Inlet Structure (33 42 31 00-0425)

33 42 31 00-0581	EA	3' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,731.35
33 42 31 00-0582	EA	4' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,041.20
33 42 31 00-0583	EA	5' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,329.50
33 42 31 00-0584	EA	6' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,593.94
33 42 31 00-0585	EA	7' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,836.83
33 42 31 00-0586	EA	8' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,057.00



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 42 31 00-0587	Type G-6 Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0588	EA 3' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		1,765.29	
33 42 31 00-0589	EA 4' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,074.58	
33 42 31 00-0590	EA 5' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,361.17	
33 42 31 00-0591	EA 6' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,625.06	
33 42 31 00-0592	EA 7' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,866.21	
33 42 31 00-0593	EA 8' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,085.83	
33 42 31 00-0594	Type GT1 Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0595	EA 3' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,953.47	
33 42 31 00-0596	EA 4' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,437.23	
33 42 31 00-0597	EA 5' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,916.75	
33 42 31 00-0598	EA 6' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,298.95	
33 42 31 00-0599	EA 7' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,675.77	
33 42 31 00-0600	EA 8' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,018.09	
33 42 31 00-0601	Type GT2 Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0602	EA 3' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,581.52	
33 42 31 00-0603	EA 4' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,108.02	
33 42 31 00-0604	EA 5' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,584.50	
33 42 31 00-0605	EA 6' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,042.11	
33 42 31 00-0606	EA 7' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,449.68	
33 42 31 00-0607	EA 8' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,818.39	
33 42 31 00-0608	EA 8' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		7,786.69	
33 42 31 00-0609	EA 10' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		9,022.32	
33 42 31 00-0610	EA 12' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		10,161.64	
33 42 31 00-0611	EA 14' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		11,205.81	
33 42 31 00-0612	EA 16' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		12,207.71	
33 42 31 00-0613	EA 18' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		13,125.18	
33 42 31 00-0614	EA 20' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness		13,958.21	
33 42 31 00-0615	Type GT3 Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0616	EA 3' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		2,936.49	
33 42 31 00-0617	EA 4' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,420.54	
33 42 31 00-0618	EA 5' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,870.08	
33 42 31 00-0619	EA 6' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,283.97	
33 42 31 00-0620	EA 7' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,661.07	
33 42 31 00-0621	EA 8' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,003.67	
33 42 31 00-0622	Type GT4 Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0623	EA 3' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		3,700.33	
33 42 31 00-0624	EA 4' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,222.57	
33 42 31 00-0625	EA 5' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		4,705.93	
33 42 31 00-0626	EA 6' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,149.28	
33 42 31 00-0627	EA 7' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,553.74	
33 42 31 00-0628	EA 8' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness		5,919.32	
33 42 31 00-0629	EA 8' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		7,801.11	
33 42 31 00-0630	EA 10' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		9,036.46	
33 42 31 00-0631	EA 12' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		10,175.50	
33 42 31 00-0632	EA 14' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		11,218.24	
33 42 31 00-0633	EA 16' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		12,219.91	
33 42 31 00-0634	EA 18' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		13,137.15	
33 42 31 00-0635	EA 20' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness		13,969.96	
33 42 31 00-0636	Type GO Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0637	EA 3' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		2,104.77	
33 42 31 00-0638	EA 4' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		2,445.01	
33 42 31 00-0639	EA 5' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		2,759.98	
33 42 31 00-0640	EA 6' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		3,049.69	
33 42 31 00-0641	EA 7' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		3,314.14	
33 42 31 00-0642	EA 8' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness		3,554.49	
33 42 31 00-0643	EA 8' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		4,888.31	
33 42 31 00-0644	EA 10' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		5,701.67	
33 42 31 00-0645	EA 12' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		6,450.88	
33 42 31 00-0646	EA 14' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		7,138.23	
33 42 31 00-0647	EA 16' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		7,798.26	
33 42 31 00-0648	EA 18' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		8,401.91	
33 42 31 00-0649	EA 20' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness		8,951.45	
33 42 31 00-0650	Type GDO Concrete Drainage Inlet Structure (33 42 31 00-0425)			
33 42 31 00-0651	EA 3' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness		2,749.79	
33 42 31 00-0652	EA 4' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness		3,196.96	
33 42 31 00-0653	EA 5' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness		3,611.10	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 31 00-0654	EA	6' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness	3,993.35	
33 42 31 00-0655	EA	7' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness	4,341.41	
33 42 31 00-0656	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness	4,657.59	
33 42 31 00-0657	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	6,287.03	
33 42 31 00-0658	EA	10' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	7,335.25	
33 42 31 00-0659	EA	12' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	8,302.33	
33 42 31 00-0660	EA	14' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	9,189.46	
33 42 31 00-0661	EA	16' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	10,039.88	
33 42 31 00-0662	EA	18' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	10,819.18	
33 42 31 00-0663	EA	20' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	11,527.35	

33 42 31 00-0664 Catch Basin Frames And Covers (33 42 31 00-0001)**33 42 31 00-0665 Cast Iron Frames And Covers (33 42 31 00-0664)**

33 42 31 00-0666	EA	18" Diameter Cast Iron Catch Basin Frame And Cover	803.02	115.32
33 42 31 00-0667	EA	22" Diameter Cast Iron Catch Basin Frame And Cover	1,012.56	130.31
33 42 31 00-0668	EA	24" Diameter Cast Iron Catch Basin Frame And Cover	1,143.70	134.93
33 42 31 00-0669	EA	26" Diameter Cast Iron Catch Basin Frame And Cover	1,287.87	156.83
33 42 31 00-0670	EA	28" Diameter Cast Iron Catch Basin Frame And Cover	1,506.66	178.75
33 42 31 00-0671	EA	32" Diameter Cast Iron Catch Basin Frame And Cover	2,390.82	186.82
33 42 31 00-0672	EA	16" x 16" Cast Iron Catch Basin Frame And Cover	1,300.63	141.85
33 42 31 00-0673	EA	18" x 24" Cast Iron Catch Basin Frame And Cover	1,691.89	163.75
33 42 31 00-0674	EA	20" x 27" Cast Iron Catch Basin Frame And Cover	1,910.64	170.67
33 42 31 00-0675	EA	23" x 23" Cast Iron Catch Basin Frame And Cover	1,806.98	170.67
33 42 31 00-0676	EA	24" x 24" Cast Iron Catch Basin Frame And Cover	1,867.88	177.59
33 42 31 00-0677	EA	26" x 26" Cast Iron Catch Basin Frame And Cover	2,004.79	184.51
33 42 31 00-0678	EA	24" x 36" Cast Iron Catch Basin Frame And Cover	2,405.98	198.35

33 42 31 00-0679 Area Yard Drain (33 42 31 00-0001)

See CSI section 22 14 26 16-0001 for drains.

33 42 31 00-0680 Ductile Iron Grates (33 42 31 00-0679)

Note: Not for traffic loading.

33 42 31 00-0681	EA	8" Diameter Ductile Iron Grate Adapter Necks Down To 4" and 6" Diameter Pipe	165.62	38.48
33 42 31 00-0682	EA	10" Diameter Ductile Iron Grate Adapters To 4", 6", or 8" Diameter Pipe	203.38	41.06
33 42 31 00-0683	EA	12" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe	475.69	51.32
33 42 31 00-0684	EA	15" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe	568.38	61.58

33 42 33 Stormwater Curbside Drains and Inlets (33 42)**33 42 33 00-0001 Curb Inlet Frames And Covers (33 42 33)****33 42 33 00-0002 Cast Iron Curb Inlet Frames And Covers (33 42 33 00-0001)**

33 42 33 00-0003	EA	20" x 22" Cast Iron Curb Inlet Frame And Cover	1,619.48	134.93
33 42 33 00-0004	EA	22" x 24" Cast Iron Curb Inlet Frame And Cover	1,732.23	156.83
33 42 33 00-0005	EA	24" x 24" Cast Iron Curb Inlet Frame And Cover	1,800.15	156.83
33 42 33 00-0006	EA	27" x 27" Cast Iron Curb Inlet Frame And Cover	1,971.44	184.51
33 42 33 00-0007	EA	36" x 24" Cast Iron Curb Inlet Frame And Cover	1,951.86	197.20

33 42 36 Stormwater Trench Drains (33 42)**33 42 36 00-0001 Modular Trench Drains (33 42 36)**

See CSI section 03 31 13 00-0011 for concrete.

33 42 36 00-0002 Modular Trench Drains (33 42 36 00-0001)

Note: Excludes grates. See CSI section 33 42 36 00-0118 for grates.

33 42 36 00-0003 4" Wide, Modular Trench Drains (33 42 36 00-0002)**33 42 36 00-0004 4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0003)****33 42 36 00-0005 4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0004)**

33 42 36 00-0006	LF	4" Wide, High Density Polyethylene, Shallow Modular Trench Drain (Zurn Z844-C)	70.20	18.45
		For Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	104.23	
		For Galvanized Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	208.46	
		For Stainless Steel Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	333.53	
		For Type 304 Stainless Steel Top Veneer Frame, Add	83.38	
		For Aluminum Veneer Bronze Anodized Frame, Add	41.69	

33 42 36 00-0007 Outlet Adapters For 4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0004)

33 42 36 00-0008	EA	Closed End Cap For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	53.15	
33 42 36 00-0009	EA	No-Hub End Outlet For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	64.67	
33 42 36 00-0010	EA	No-Hub Bottom Outlet For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	64.67	

33 42 36 00-0011 6" Wide, Modular Trench Drains (33 42 36 00-0002)



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0012	6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0013	6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0014	LF 6" Wide, High Density Polyethylene, Modular Trench Drain For Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add For Galvanized Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add For Stainless Steel Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add For Type 304 Stainless Steel Top Veneer Frame, Add For Aluminum Veneer Bronze Anodized Frame, Add	215.24 104.23 208.46 333.53 83.38 41.69	18.45
33 42 36 00-0015	Outlet Adapters For 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0016	EA Closed End Cap For 6" Wide, High Density Polyethylene, Modular Trench Drains	98.11	
33 42 36 00-0017	EA No-Hub End Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	109.63	
33 42 36 00-0018	EA No-Hub Bottom Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	109.63	
33 42 36 00-0019	Other Fittings For 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0020	EA Bottom Dome Strainer For 6" Wide, High Density Polyethylene, Modular Trench Drains	188.23	
33 42 36 00-0021	EA Joint Connector For 6" Wide, High Density Polyethylene, Modular Trench Drains	188.23	
33 42 36 00-0022	EA 90 Degree, 45 Degree, Tee Or Side Outlet Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains	891.48	
33 42 36 00-0023	EA Cross For 6" Wide, High Density Polyethylene, Modular Trench Drains	1,725.30	
33 42 36 00-0024	EA Cutting Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains	208.46	
33 42 36 00-0025	6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0026	6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0027	LF 6" Wide, Fiber Reinforced Polyester, Modular Trench Drain For Black Acid Resistant Coated Frame, Add For Galvanized Top Frame Assembly, Add For Type 304 Stainless Steel Top Frame Assembly, Add	313.21 79.21 79.21 291.84	18.45
33 42 36 00-0028	Outlet Adapters For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0029	EA Closed End Cap For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	106.45	
33 42 36 00-0030	EA No-Hub End Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	117.97	
33 42 36 00-0031	EA No-Hub Bottom Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	117.97	
33 42 36 00-0032	Other Fittings For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0033	EA Bottom Dome Strainer For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	188.23	
33 42 36 00-0034	EA Joint Connector For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	188.23	
33 42 36 00-0035	EA 90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	891.48	
33 42 36 00-0036	EA Cross For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	1,725.30	
33 42 36 00-0037	EA Cutting Charge For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	208.46	
33 42 36 00-0038	6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0039	6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0038)		
33 42 36 00-0040	LF 6" Wide, Vinylester Fiberglass, Modular Trench Drain For Black Acid Resistant Coated Frame, Add For Galvanized Top Frame Assembly, Add For Type 304 Stainless Steel Top Frame Assembly, Add	404.93 79.21 79.21 291.84	18.45
33 42 36 00-0041	Outlet Adapters For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0038)		
33 42 36 00-0042	EA Closed End Cap For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	173.16	
33 42 36 00-0043	EA No-Hub End Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	184.68	
33 42 36 00-0044	EA No-Hub Bottom Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	184.68	
33 42 36 00-0045	Other Fittings For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0038)		
33 42 36 00-0046	EA Bottom Dome Strainer For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	188.23	
33 42 36 00-0047	EA Joint Connector For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	188.23	
33 42 36 00-0048	EA 90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	891.48	
33 42 36 00-0049	EA Cross For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	1,725.30	
33 42 36 00-0050	EA Cutting Charge For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	208.46	
33 42 36 00-0051	6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0052	6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0051)		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0053	LF	6" Wide, Polymer Concrete, Modular Trench Drain	480.38	
33 42 36 00-0054		Outlet Adapters For 6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0051)		
33 42 36 00-0055	EA	Closed End Cap For 6" Wide, Polymer Concrete, Modular Trench Drain	190.68	
33 42 36 00-0056	EA	No-Hub End Outlet For 6" Wide, Polymer Concrete, Modular Trench Drain	232.45	
33 42 36 00-0057	EA	No-Hub Bottom Outlet For 6" Wide, Polymer Concrete, Modular Trench Drain	74.16	
33 42 36 00-0058		12" Wide, Modular Trench Drains (33 42 36 00-0002)		
33 42 36 00-0059		12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0060		12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0061	LF	12" Wide, High Density Polyethylene, Modular Trench Drain	405.11	25.37
		For Acid Resistant Coated Top Frame, Add	108.40	
		For Galvanized Welded Frame Assembly, Add	113.61	
		For Type 304 Stainless Steel Top Frame, Add	650.38	
33 42 36 00-0062		Outlet Adapters For 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0063	EA	End Cap For 12" Wide, High Density Polyethylene, Modular Trench Drains	201.68	
33 42 36 00-0064	EA	No-Hub End Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	217.06	
33 42 36 00-0065	EA	No-Hub Bottom Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	217.06	
33 42 36 00-0066		Other Fittings For 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0067	EA	Bottom Dome Strainer For 12" Wide, High Density Polyethylene, Modular Trench Drains	336.33	
33 42 36 00-0068	EA	Joint Connector For 12" Wide, High Density Polyethylene, Modular Trench Drains	440.56	
33 42 36 00-0069	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	1,756.35	
33 42 36 00-0070	EA	Cross For 12" Wide, High Density Polyethylene, Modular Trench Drains	3,423.99	
33 42 36 00-0071	EA	Cutting Charges For 12" Wide, High Density Polyethylene, Modular Trench Drains	416.91	
33 42 36 00-0072		12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0073		12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0074	LF	12" Wide, Fiber Reinforced Polyester, Modular Trench Drain	509.34	25.37
		For Acid Resistant Coated Top Frame, Add	108.40	
		For Galvanized Welded Frame Assembly, Add	113.61	
		For Type 304 Stainless Steel Top Frame, Add	650.38	
33 42 36 00-0075		Outlet Adapters For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0076	EA	End Cap For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	210.02	
33 42 36 00-0077	EA	No-Hub End Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	225.40	
33 42 36 00-0078	EA	No-Hub Bottom Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	225.40	
33 42 36 00-0079		Other Fittings For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0080	EA	Bottom Dome Strainer For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	336.33	
33 42 36 00-0081	EA	Joint Connector For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	440.56	
33 42 36 00-0082	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	1,756.35	
33 42 36 00-0083	EA	Cross For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	3,423.99	
33 42 36 00-0084	EA	Cutting Charges For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	416.91	
33 42 36 00-0085		12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0086		12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0087	LF	12" Wide, Vinylester Fiberglass, Modular Trench Drain	717.80	25.37
		For Acid Resistant Coated Top Frame, Add	108.40	
		For Galvanized Welded Frame Assembly, Add	113.61	
		For Type 304 Stainless Steel Top Frame, Add	650.38	
33 42 36 00-0088		Outlet Adapters For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0089	EA	End Cap For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	522.70	
33 42 36 00-0090	EA	No-Hub End Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	538.08	
33 42 36 00-0091	EA	No-Hub Bottom Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	538.08	
33 42 36 00-0092		Other Fittings For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0093	EA	Bottom Dome Strainer For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	336.33	



		Utilities	33	33
		Stormwater Utilities	33 40	
		Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0094 EA Joint Connector For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	440.56	
33 42 36 00-0095 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	1,756.35	
33 42 36 00-0096 EA Cross For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	3,423.99	
33 42 36 00-0097 EA Cutting Charges For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	416.91	
33 42 36 00-0098 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0099 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0098)		
33 42 36 00-0100 LF 12" Wide, Polymer Concrete, Modular Trench Drain	644.31	
33 42 36 00-0101 Outlet Adapters For 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0098)		
33 42 36 00-0102 EA Closed End Cap For 12" Wide, Polymer Concrete, Modular Trench Drain.....	324.12	
33 42 36 00-0103 EA No-Hub End Outlet For 12" Wide, Polymer Concrete, Modular Trench Drain.....	558.28	
33 42 36 00-0104 EA No-Hub Bottom Outlet For 12" Wide, Polymer Concrete, Modular Trench Drain.....	129.83	
33 42 36 00-0105 23" Wide, Modular Trench Drains (33 42 36 00-0002)		
33 42 36 00-0106 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0105)		
33 42 36 00-0107 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0108 LF 23" Wide, High Density Polyethylene, Modular Trench Drain	567.94	34.59
For Acid Resistant Coated Frame, Add	162.59	
For Galvanized Frame Assembly, Add	162.59	
For Type 304 Stainless Steel Top Frame, Add	1,000.58	
33 42 36 00-0109 Outlet Adapters For 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0110 EA End Cap For 23" Wide, High Density Polyethylene, Modular Trench Drains	641.35	
33 42 36 00-0111 EA No-Hub End Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	936.32	
33 42 36 00-0112 EA No-Hub Bottom Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	936.32	
33 42 36 00-0113 Other Fittings For 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0114 EA Bottom Dome Strainer For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	764.18	
33 42 36 00-0115 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	3,479.41	
33 42 36 00-0116 EA Cross For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	6,814.69	
33 42 36 00-0117 EA Cutting Charges For 23" Wide, High Density Polyethylene, Modular Trench Drains	833.82	
33 42 36 00-0118 Modular Trench Drain Grates (33 42 36 00-0001)		
33 42 36 00-0119 4" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0120 LF 4" Wide, Polypropylene, Silver Heel Proof, Modular Trench Drain Grate (Zurn Z884-P4-HPP)	44.12	3.46
33 42 36 00-0121 LF 4" Wide, Class C Cast Iron, Modular Trench Drain Grate (Zurn Z884-P4-CG).....	46.38	3.46
33 42 36 00-0122 LF 4" Wide, Galvanized Steel Slotted, Modular Trench Drain Grate (Zurn Z884-P4-FG).....	37.36	3.46
33 42 36 00-0123 LF 4" Wide, Stainless Steel Slotted, Modular Trench Drain Grate (Zurn Z884-P4-FS).....	99.40	3.46
33 42 36 00-0124 LF 4" Wide, Galvanized Steel Perforated, Modular Trench Drain Grate (Zurn Z884-P4-FG).....	37.36	3.46
33 42 36 00-0125 LF 4" Wide, Stainless Steel Perforated, Modular Trench Drain Grate (Zurn Z884-P4-FS)	99.40	3.46
33 42 36 00-0126 6" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0127 LF 6" Wide, Galvanized Ductile Iron Cast Bar, Modular Trench Drain Grate	205.89	3.46
33 42 36 00-0128 LF 6" Wide, Ductile Iron Cast Bar, Modular Trench Drain Grate	174.41	3.46
33 42 36 00-0129 LF 6" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate	183.17	3.46
33 42 36 00-0130 LF 6" Wide, Ductile Iron Slotted, Modular Trench Drain Grate.....	160.03	3.46
33 42 36 00-0131 LF 6" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate.....	172.53	3.46
33 42 36 00-0132 LF 6" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate	174.62	3.46
33 42 36 00-0133 LF 6" Wide, Ductile Iron Longitudinal Slotted, Modular Trench Drain Grate	174.62	3.46
33 42 36 00-0134 LF 6" Wide, Galvanized Cast Iron Slotted, Modular Trench Drain Grate	172.53	3.46
33 42 36 00-0135 LF 6" Wide, Galvanized Steel Slotted, Modular Trench Drain Grate.....	151.69	3.46
33 42 36 00-0136 LF 6" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate	151.69	3.46
33 42 36 00-0137 LF 6" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate	161.28	3.46
33 42 36 00-0138 LF 6" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate	161.28	3.46
33 42 36 00-0139 LF 6" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate	210.06	3.46
33 42 36 00-0140 LF 6" Wide, Perforated Stainless Steel, Modular Trench Drain Grate	210.06	3.46
33 42 36 00-0141 LF 6" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate	385.16	3.46
33 42 36 00-0142 LF 6" Wide, Reinforced Perforated Stainless Steel, Modular Trench Drain Grate	385.16	3.46
33 42 36 00-0143 LF 6" Wide, Stainless Steel Bar, Modular Trench Drain Grate.....	1,073.06	3.46
33 42 36 00-0144 LF 6" Wide, Heel Proof Polyethylene, Modular Trench Drain Grate	143.35	3.46
33 42 36 00-0145 LF 6" Wide, Fiberglass, Modular Trench Drain Grate	310.11	3.46
33 42 36 00-0146 12" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0147 LF 12" Wide, Black Acid Resistant Coated Ductile Iron, Modular Trench Drain Grate.....	569.17	3.75
33 42 36 00-0148 LF 12" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate	544.15	3.75

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 36 00-0149	LF	12" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate	473.28	3.75
33 42 36 00-0150	LF	12" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate	497.25	3.75
33 42 36 00-0151	LF	12" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate	429.50	3.75
33 42 36 00-0152	LF	12" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate	841.20	3.75
33 42 36 00-0153	LF	12" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate	841.20	3.75
33 42 36 00-0154	LF	12" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate	1,073.63	3.75
33 42 36 00-0155	LF	12" Wide, Perforated Stainless Steel, Modular Trench Drain Grate	1,073.63	3.75
33 42 36 00-0156	LF	12" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate	1,370.68	3.75
33 42 36 00-0157	LF	12" Wide, Reinforced Perforated Stainless Steel Slotted, Modular Trench Drain Grate	1,370.68	3.75
33 42 36 00-0158	LF	12" Wide, Stainless Steel Cast Bar, Modular Trench Drain Grate	1,300.85	3.75
33 42 36 00-0159	LF	12" Wide, Fiberglass, Modular Trench Drain Grate	613.99	3.75

33 42 36 00-0160 23" Wide, Modular Trench Drain Grates (33 42 36 00-0118)

33 42 36 00-0161	LF	23" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate	899.11	4.03
33 42 36 00-0162	LF	23" Wide, Ductile Iron Slotted, Modular Trench Drain Grate	757.36	4.03
33 42 36 00-0163	LF	23" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate	1,174.27	4.03
33 42 36 00-0164	LF	23" Wide, Heel Proof Longitudinal Ductile Iron, Modular Trench Drain Grate	869.92	4.03

33 44 Storm Utility Water Drains (33 40)**33 44 33 Stormwater Trash and Debris Guards (33 44)****33 44 33 00-0001 Storm Water Trash Collection (33 44 33)****33 44 33 00-0002 Trash Racks And Debris Cages For Storm Water Structures (33 44 33 00-0001)****33 44 33 00-0003 High Density Polyethylene (HDPE) Structural Trash Rack And Debris Cage (33 44 33 00-0002)**

33 44 33 00-0004	EA	30" Diameter High Density Polyethylene (HDPE) Pyramid Trash Rack	2,273.79	148.95
Note: For 24" inside diameter concrete pipe.				
33 44 33 00-0005	EA	44" Diameter High Density Polyethylene (HDPE) Pyramid Trash Rack	2,679.57	163.85
Note: For 36" inside diameter concrete pipe.				
33 44 33 00-0006	EA	58" Diameter High Density Polyethylene (HDPE) Pyramid Trash Rack	3,758.51	186.19
Note: For 48" inside diameter concrete pipe.				
33 44 33 00-0007	EA	72" Diameter High Density Polyethylene (HDPE) Pyramid Trash Rack	4,799.53	223.43
Note: For 60" inside diameter concrete pipe.				
33 44 33 00-0008	SF	Up To 4 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	201.42	22.35
33 44 33 00-0009	SF	>4 To 8 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	144.27	18.62
33 44 33 00-0010	SF	>8 To 12 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	114.76	14.90
33 44 33 00-0011	SF	>12 To 20 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	101.61	13.03
33 44 33 00-0012	SF	>20 To 35 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	95.70	11.17
33 44 33 00-0013	SF	>35 To 55 SF Opening Flat Roof High Density Polyethylene (HDPE) Trash Rack	86.54	9.34
33 44 33 00-0014	SF	Up To 4 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	244.33	22.35
33 44 33 00-0015	SF	>4 To 8 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	174.13	18.62
33 44 33 00-0016	SF	>8 To 12 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	138.48	14.90
33 44 33 00-0017	SF	>12 To 20 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	122.66	13.03
33 44 33 00-0018	SF	>20 To 35 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	115.90	11.17
33 44 33 00-0019	SF	>35 To 55 SF Opening Arched Roof High Density Polyethylene (HDPE) Trash Rack	105.08	9.34

33 44 33 00-0020 Galvanized Steel Structural Trash Rack And Debris Cage (33 44 33 00-0002)

33 44 33 00-0021	EA	30" Diameter Galvanized Steel Pyramid Trash Rack With Baffle	3,983.79	223.43
Note: For 24" inside diameter concrete pipe.				
33 44 33 00-0022	EA	44" Diameter Galvanized Steel Pyramid Trash Rack With Baffle	4,937.94	248.25
Note: For 36" inside diameter concrete pipe.				
33 44 33 00-0023	EA	58" Diameter Galvanized Steel Pyramid Trash Rack With Baffle	5,629.68	278.04
Note: For 48" inside diameter concrete pipe.				
33 44 33 00-0024	EA	72" Diameter Galvanized Steel Pyramid Trash Rack With Baffle	6,249.52	335.15
Note: For 60" inside diameter concrete pipe.				
33 44 33 00-0025	SF	Up To 4 SF Opening Flat Roof Galvanized Steel Trash Rack	242.07	33.51
33 44 33 00-0026	SF	>4 To 8 SF Opening Flat Roof Galvanized Steel Trash Rack	174.60	27.93
33 44 33 00-0027	SF	>8 To 12 SF Opening Flat Roof Galvanized Steel Trash Rack	138.93	22.35
33 44 33 00-0028	SF	>12 To 20 SF Opening Flat Roof Galvanized Steel Trash Rack	122.93	19.55
33 44 33 00-0029	SF	>20 To 35 SF Opening Flat Roof Galvanized Steel Trash Rack	115.26	16.76
33 44 33 00-0030	SF	>35 To 55 SF Opening Flat Roof Galvanized Steel Trash Rack	103.86	13.96

33 44 36 Oil and Stormwater Separators (33 44)**33 44 36 00-0001 Oil/Water Separator (33 44 36)**

Note: Complete with internal sensors and detectors.

33 44 36 00-0002 Coalescing Oil Water Separator (33 44 36 00-0001)

Note: Underground tank with interior polyurethane coating. Includes manways, coalescer, inlet and outlet spools, pump mount, 2" level sensor pipe and 4" pump out pipe. HighGuard as manufactured by Highland Tank, Stoystown, PA.

33 44 36 00-0003 Single Wall Steel Coalescing Oil Water Separator (33 44 36 00-0002)

33 44 36 00-0004	EA	550 Gallon, 55 GPM Single Wall Steel Coalescing Oil Water Separator With Manways	19,044.60	
Note: HTC-G 550. 3'-6" diameter x 10'-9" long tank.				

For Interior Polyurethane Coating, Add

711.00



		Utilities	33	33
		Stormwater Utilities	33 40	
		Storm Utility Water Drains	33 44	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 44 36 00-0005	EA	1,000 Gallon, 100 GPM Single Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 1000. 4' diameter x 14' long tank. <i>For Interior Polyurethane Coating, Add</i>	23,293.69 893.70	
33 44 36 00-0006	EA	2,000 Gallon, 200 GPM Single Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 2000. 5'-4" diameter x 15' long tank. <i>For Interior Polyurethane Coating, Add</i>	27,887.95 1,340.10	
33 44 36 00-0007 Double Wall Steel Coalescing Oil Water Separator (33 44 36 00-0002)				
33 44 36 00-0008	EA	550 Gallon, 55 GPM Double Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 550. 3'-6" diameter x 10'-9" long tank. <i>For Interior Polyurethane Coating, Add</i>	29,561.84 711.00	
33 44 36 00-0009	EA	1,000 Gallon, 100 GPM Double Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 1000. 4' diameter x 14' long tank. <i>For Interior Polyurethane Coating, Add</i>	33,996.32 893.70	
33 44 36 00-0010	EA	2,000 Gallon, 200 GPM Double Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 2000. 5'-4" diameter x 15' long tank. <i>For Interior Polyurethane Coating, Add</i>	41,598.01 1,340.10	
33 44 36 00-0011	EA	3,000 Gallon, 300 GPM Double Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 3000. 5'-4" diameter x 21'-4" long tank. <i>For Interior Polyurethane Coating, Add</i>	48,305.88 1,550.70	
33 44 36 00-0012	EA	5,000 Gallon, 500 GPM Double Wall Steel Coalescing Oil Water Separator With Manways Note: HTC-G 5000. 6' diameter x 28'-8" long tank. <i>For Interior Polyurethane Coating, Add</i>	64,126.00 2,057.80	
33 44 36 00-0013 Accessories For Coalescing Oil Water Separators (33 44 36 00-0002)				
33 44 36 00-0014	EA	Single Channel Alarm Panel For Coalescing Oil Water Separator Note: HTAP1.	1,181.90	
33 44 36 00-0015	EA	Two Channel Alarm Panel For Coalescing Oil Water Separator Note: HTAP2.	1,607.36	
33 44 36 00-0016	EA	Float Interface Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	954.91	
33 44 36 00-0017	EA	1-1/2" Liquid Only Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	705.34	
33 44 36 00-0018	EA	Polyvinyl Chloride (PVC) Cap For 2" Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	237.38	
33 44 36 00-0019	EA	550, 1,000 Or 2,000 Gallon Tank Concrete Deadmen Set (2 Each) For Coalescing Oil Water Separator	4,040.57	
33 44 36 00-0020	EA	3,000 Gallon Tank Concrete Deadmen Set (4 Each) For Coalescing Oil Water Separator	8,081.12	
33 44 36 00-0021	EA	5,000 Gallon Tank Concrete Deadmen Set (6 Each) For Coalescing Oil Water Separator	12,121.77	
33 44 36 00-0022	EA	550 Or 1,000 Gallon Tank Polyester Hold Down Straps (2 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator	724.59	
33 44 36 00-0023	EA	2,000 Gallon Tank Polyester Hold Down Straps (2 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator	857.70	
33 44 36 00-0024	EA	3,000 Gallon Tank Polyester Hold Down Straps (4 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator	1,715.41	
33 44 36 00-0025	EA	5,000 Gallon Tank Polyester Hold Down Straps (6 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator	3,821.01	
33 44 36 00-0026	EA	30" Diameter Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	1,036.56	
33 44 36 00-0027	EA	36" Diameter Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	1,352.80	
33 44 36 00-0028	EA	48" Diameter Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	1,877.02	
33 44 36 00-0029	EA	54" x 54" Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	3,432.72	
33 44 36 00-0030	EA	66" x 54" Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	4,418.55	
33 44 36 00-0031	EA	66" x 66" Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	5,549.97	
33 44 36 00-0032	EA	78" x 66" Grade Level Manway For Coalescing Oil Water Separator..... Note: Required when installed in paved areas.	7,001.67	
33 44 36 00-0033	EA	550 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	1,387.23	
33 44 36 00-0034	EA	1,000 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	1,690.89	
33 44 36 00-0035	EA	2,000 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	2,655.92	
33 44 36 00-0036	EA	550 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator	1,322.76	
33 44 36 00-0037	EA	1,000 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator	1,605.61	
33 44 36 00-0038	EA	2,000 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator	1,905.11	
33 44 36 00-0039	EA	18" Manhole Gasket (Material Only) For Coalescing Oil Water Separator	112.31	
33 44 36 00-0040	EA	24" Manhole Gasket (Material Only) For Coalescing Oil Water Separator	126.87	
33 44 36 00-0041 Oil Skimmers (33 44 36)				
33 44 36 00-0042 Oil Skimmers, 12" And 24" Models (33 44 36 00-0041)				
33 44 36 00-0043	EA	Oil Skimmers, TENV, 12" Open, 1/2 HP, 230/460 Volt, 3 Phase	5,080.58	615.73
33 44 36 00-0044	EA	Oil Skimmers, Explosion-Proof, 12" Open, 1/2 HP, 230/460 Volt, 3 Phase	5,316.38	615.73
33 44 36 00-0045	EA	Oil Skimmers, TENV, 12" Open, 1/2 HP, 115/220 Volt, 1 Phase	5,102.42	615.73
33 44 36 00-0046	EA	Oil Skimmers, Explosion-Proof, 12" Open, 1/2 HP, 115/220 Volt, 1 Phase	5,404.80	615.73
33 44 36 00-0047	EA	Oil Skimmers, TENV, 12" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase	5,350.22	615.73
33 44 36 00-0048	EA	Oil Skimmers, Explosion-Proof, 12" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase	5,549.99	615.73
33 44 36 00-0049	EA	Oil Skimmers, TENV, 12" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase	5,401.52	615.73
33 44 36 00-0050	EA	Oil Skimmers, Explosion-Proof, 12" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase	5,702.82	615.73

33 Utilities**33 40 Stormwater Utilities****33 44 Storm Utility Water Drains**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 44 36 00-0051 EA Oil Skimmers, TENV, 24" Open, 1/2 HP, 230/460 Volt, 3 Phase.....	5,744.58	821.15
33 44 36 00-0052 EA Oil Skimmers, Explosion-Proof, 24" Open, 1/2 HP, 230/460 Volt, 3 Phase.....	5,996.75	821.15
33 44 36 00-0053 EA Oil Skimmers, TENV, 24" Open, 1/2 HP, 115/220 Volt, 1 Phase.....	5,811.17	821.15
33 44 36 00-0054 EA Oil Skimmers, Explosion-Proof, 24" Open, 1/2 HP, 115/220 Volt, 1 Phase.....	6,173.60	821.15
33 44 36 00-0055 EA Oil Skimmers, TENV, 24" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase.....	6,382.10	821.15
33 44 36 00-0056 EA Oil Skimmers, Explosion-Proof, 24" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase.....	6,634.27	821.15
33 44 36 00-0057 EA Oil Skimmers, TENV, 24" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase.....	6,435.59	821.15
33 44 36 00-0058 EA Oil Skimmers, Explosion-Proof, 24" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase.....	6,799.11	821.15
33 44 36 00-0059 Oil Skimmers, Add-Ons (33 44 36 00-0041)		
33 44 36 00-0060 LF Add For Belt Projection, 12" Width.....	16.37	
33 44 36 00-0061 LF Add For Belt Projection, 24" Width.....	30.57	
33 44 36 00-0062 LF Add For Spacer Stands, 12" Models.....	264.16	
33 44 36 00-0063 LF Add For Spacer Stands, 24" Models.....	312.19	
33 46 Stormwater Management (33 40)		
33 46 23 Modular Buried Stormwater Storage Units (33 46)		
33 46 23 00-0001 Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™) (33 46 23)		
Note: Includes chambers and end caps delivery to site. Excludes excavation and earthwork, foundation stone, embedment and perimeter stone, geotextile fabrics and cutting holes in chambers. See CSI section 31 05 16 00-0000 for aggregate (foundation, embedment and perimeter stone), 31 23 16 36-0000 for excavation and earth backfill, 31 32 19 16-0000 for woven and non-woven geotextile fabric.		
33 46 23 00-0002 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740) (33 46 23 00-0001)		
33 46 23 00-0003 EA Up To 10, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740).....	577.40	
33 46 23 00-0004 EA >10 To 20, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740).....	534.13	
33 46 23 00-0005 EA >20 To 30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740).....	502.30	
33 46 23 00-0006 EA >30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740).....	471.53	
33 46 23 00-0007 EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740).....	233.27	
33 46 23 00-0008 EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740).....	207.21	
33 46 23 00-0009 EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740).....	191.73	
33 46 23 00-0010 EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740).....	176.49	
33 46 23 00-0011 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310) (33 46 23 00-0001)		
33 46 23 00-0012 EA Up To 10, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310).....	325.25	
33 46 23 00-0013 EA >10 To 20, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310).....	298.74	
33 46 23 00-0014 EA >20 To 30, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310).....	279.95	
33 46 23 00-0015 EA >30, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310).....	262.71	
33 46 23 00-0016 EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310).....	181.64	
33 46 23 00-0017 EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310).....	162.29	
33 46 23 00-0018 EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310).....	150.30	
33 46 23 00-0019 EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310).....	139.54	
33 46 23 00-0020 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500) (33 46 23 00-0001)		
33 46 23 00-0021 EA Up To 10, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500).....	990.12	
33 46 23 00-0022 EA >10 To 20, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500).....	924.43	
33 46 23 00-0023 EA >20 To 30, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500).....	871.14	
33 46 23 00-0024 EA >30, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500).....	822.44	
33 46 23 00-0025 EA Up To 10, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500).....	831.80	
33 46 23 00-0026 EA >10 To 20, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500).....	774.01	
33 46 23 00-0027 EA >20 To 30, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500).....	728.25	
33 46 23 00-0028 EA >30, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500).....	686.70	



		Utilities	33	CS
		Stormwater Utilities	33 40	
		Stormwater Management	33 46	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

33 46 23 00-0029	85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780) (33 46 23 00-0001)	
33 46 23 00-0030	EA Up To 10, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780).....	600.10
33 46 23 00-0031	EA >10 To 20, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780).....	555.72
33 46 23 00-0032	EA >20 To 30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780).....	522.79
33 46 23 00-0033	EA >30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780).....	490.99
33 46 23 00-0034	EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780).....	233.27
33 46 23 00-0035	EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780).....	202.92
33 46 23 00-0036	EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780).....	191.73
33 46 23 00-0037	EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780).....	176.49

33 46 23 00-0038	52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500) (33 46 23 00-0001)	
33 46 23 00-0039	EA Up To 10, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500).....	1,028.21
33 46 23 00-0040	EA >10 To 20, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500).....	958.83
33 46 23 00-0041	EA >20 To 30, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500).....	901.89
33 46 23 00-0042	EA >30, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500).....	852.17
33 46 23 00-0043	EA Up To 10, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500).....	1,284.53
33 46 23 00-0044	EA >10 To 20, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500).....	1,202.32
33 46 23 00-0045	EA >20 To 30, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500).....	1,133.21
33 46 23 00-0046	EA >30, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500).....	1,071.93

33 46 23 00-0047	Cut Opening In Polypropylene Corrugated Wall Stormwater Collection Chambers (33 46 23 00-0001)	
33 46 23 00-0048	EA Cut Up To 6" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	58.45
33 46 23 00-0049	EA Cut >6" To 12" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	74.07
33 46 23 00-0050	EA Cut >12" To 24" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	96.94
33 46 23 00-0051	EA Cut >24" To 36" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	122.46
33 46 23 00-0052	EA 12" x 6" Inspection Port Kit	731.86
Note: (2712AG6IPKIT)		

33 46 53 Stormwater Leaching Pits (33 46)

33 46 53 00-0001	Drainage Wells (33 46 53) Note: Includes augering hole.	
33 46 53 00-0002	LF 12" Diameter Drainage Well With Corrugated Metal Liner.....	36.02
33 46 53 00-0003	LF 18" Diameter Drainage Well With Corrugated Metal Liner.....	44.71
33 46 53 00-0004	LF 24" Diameter Drainage Well With Corrugated Metal Liner.....	61.01

33 50 Hydrocarbon Utilities (33)

33 52 Hydrocarbon Transmission and Distribution (33 50)

33 52 16 Gas Hydrocarbon Piping (33 52)

33 52 16 13 Steel Natural Gas Piping (33 52 16)

See CSI section 23 05 23 00-0000 for gas valves.

33 52 16 13-0001 Gas Distribution Lines (33 52 16 13)

Note: Excludes excavation and backfill.

33 52 16 13-0002 Steel, Schedule 40, Plain End, Coal Tar Enamel And Wrapped (33 52 16 13-0001)

33 52 16 13-0003	LF 1/2" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	29.20	2.83
33 52 16 13-0004	LF 3/4" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	34.26	3.11
33 52 16 13-0005	LF 1" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	40.71	3.20
33 52 16 13-0006	LF 1-1/4" (3.2 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	41.76	3.28
33 52 16 13-0007	LF 1-1/2" (3.6 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	43.66	3.32
33 52 16 13-0008	LF 2" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	46.09	3.56
33 52 16 13-0009	LF 2-1/2" (6.0 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	67.84	4.35
33 52 16 13-0010	LF 3" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	84.34	5.49
33 52 16 13-0011	LF 4" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	116.58	6.62
33 52 16 13-0012	LF 5" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	162.25	7.68
33 52 16 13-0013	LF 6" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	205.04	9.38
33 52 16 13-0014	LF 8" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel.....	304.41	12.07

33 Utilities**33 50 Hydrocarbon Utilities****33 52 Hydrocarbon Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 52 16 13-0015		Gas Line Taps (33 52 16 13-0001) Note: Includes material to tap into main and gas valve.	
33 52 16 13-0016		Polyethylene, 60 PSI (33 52 16 13-0015)	
33 52 16 13-0017	EA	2" Polyethylene Hot Tap, With Valve	4,805.34
33 52 16 13-0018	EA	2-1/2" Polyethylene Hot Tap, With Valve	2,842.96
33 52 16 13-0019	EA	3" Polyethylene Hot Tap, With Valve	2,982.43
33 52 16 13-0020	EA	4" Polyethylene Hot Tap, With Valve	8,320.24
33 52 16 13-0021	EA	6" Polyethylene Hot Tap, With Valve	13,066.37
33 52 16 13-0022		Steel, Schedule 40 (33 52 16 13-0015) Note: For punch steel service tee.	
33 52 16 13-0023	EA	1/2" Iron Pipe Size Weld Base, 1/2" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,306.58
33 52 16 13-0024	EA	3/4" Iron Pipe Size Weld Base, 1/2" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,362.72
33 52 16 13-0025	EA	3/4" Iron Pipe Size Weld Base, 3/4" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,435.58
33 52 16 13-0026	EA	3/4" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,506.50
33 52 16 13-0027	EA	1" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,562.49
33 52 16 13-0028	EA	1-1/4" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,883.43
33 52 16 13-0029	EA	1-1/4" Iron Pipe Size Weld Base, 1-1/4" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	3,976.78
33 52 16 13-0030		Protective Pipe And Fitting Wrap (33 52 16 13-0001) Note: Includes cleaning and priming pipe.	
33 52 16 13-0031		Corrosion Protection Pipe Wrap For Pipe (33 52 16 13-0030) Note: Field applied.	
33 52 16 13-0032	LF	1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.08
33 52 16 13-0033	LF	3/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.25
33 52 16 13-0034	LF	1" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.46
33 52 16 13-0035	LF	1-1/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.87
33 52 16 13-0036	LF	1-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	4.17
33 52 16 13-0037	LF	2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	4.78
33 52 16 13-0038	LF	2-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	5.74
33 52 16 13-0039	LF	3" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	7.03
33 52 16 13-0040	LF	4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	8.78
33 52 16 13-0041	LF	6" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	11.53
33 52 16 13-0042		Corrosion Resistance Wrap And Coat - Fittings (33 52 16 13-0030) Note: Field applied.	
33 52 16 13-0043	EA	1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	18.71
33 52 16 13-0044	EA	3/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	18.71
33 52 16 13-0045	EA	1" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	23.17
33 52 16 13-0046	EA	1-1/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	25.95
33 52 16 13-0047	EA	1-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	25.95
33 52 16 13-0048	EA	2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	30.70
33 52 16 13-0049	EA	2-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	41.07
33 52 16 13-0050	EA	3" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	55.05
33 52 16 13-0051	EA	4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	55.55
33 52 16 13-0052	EA	6" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings	63.75
33 52 16 13-0053		Service Fittings (33 52 16 13-0001)	
33 52 16 13-0054		Brass Fittings (33 52 16 13-0053)	
33 52 16 13-0055	EA	1/2" X 2" Long Nipples, Threaded Both Ends, Brass	38.31
33 52 16 13-0056	EA	3/4" X 2" Long Nipples, Threaded Both Ends, Brass	44.70
33 52 16 13-0057	EA	1" X 2" Long Nipples, Threaded Both Ends, Brass	57.01
33 52 16 13-0058	EA	1-1/4" X 2" Long Nipples, Threaded Both Ends, Brass	71.20
33 52 16 13-0059	EA	1-1/2" X 2" Long Nipples, Threaded Both Ends, Brass	80.10
33 52 16 13-0060	EA	2" X 2" Long Nipples, Threaded Both Ends, Brass	105.18
33 52 16 13-0061	EA	1/2" 90 Degree Elbow, Brass	32.86
33 52 16 13-0062	EA	3/4" 90 Degree Elbow, Brass	37.94
33 52 16 13-0063	EA	1" 90 Degree Elbow, Brass	49.62
33 52 16 13-0064	EA	1-1/4" 90 Degree Elbow, Brass	64.77
33 52 16 13-0065	EA	1-1/2" 90 Degree Elbow, Brass	74.34
33 52 16 13-0066	EA	2" 90 Degree Elbow, Brass	100.43
33 52 16 13-0067	EA	1/2" Diameter Chrome Plated Nipple	26.16
33 52 16 13-0068	EA	3/4" Diameter Chrome Plated Nipple	33.80
33 52 16 13-0069	EA	1" Diameter Chrome Plated Nipple	44.05
33 52 16 13-0070	EA	1-1/4" Diameter Chrome Plated Nipple	62.93
33 52 16 13-0071	EA	1-1/2" Diameter Chrome Plated Nipple	76.58
33 52 16 13-0072	EA	2" Diameter Chrome Plated Nipple	103.94



		Utilities	33	CS
		Hydrocarbon Utilities	33 50	
		Hydrocarbon Transmission and Distribution	33 52	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 52 16 13-0073 Anodless Gas Riser (33 52 16 13-0053)				
33 52 16 13-0074	EA 3/4" Anodless Gas Riser.....		98.54	
33 52 16 13-0075	EA 1" Anodless Gas Riser.....		122.23	
33 52 16 13-0076	EA 1-1/4" Anodless Gas Riser.....		144.08	
33 52 16 13-0077	EA 1-1/2" Anodless Gas Riser.....		181.63	
33 52 16 13-0078	EA 2" Anodless Gas Riser.....		209.27	
33 52 16 13-0079 Brass Service Adapter (33 52 16 13-0053)				
33 52 16 13-0080	EA 1/2" Brass Service Adapter.....		78.57	
33 52 16 13-0081	EA 3/4" Brass Service Adapter.....		86.48	
33 52 16 13-0082	EA 1" Brass Service Adapter.....		104.55	
33 52 16 13-0083	EA 1-1/4" Brass Service Adapter.....		133.90	
33 52 16 13-0084	EA 1-1/2" Brass Service Adapter.....		167.97	
33 52 16 13-0085	EA 2" Brass Service Adapter.....		210.09	
33 52 16 13-0086	EA 2-1/2" Brass Service Adapter.....		370.39	
33 52 16 13-0087	EA 3" Brass Service Adapter.....		453.95	
33 52 16 13-0088	EA 4" Brass Service Adapter.....		662.95	
33 52 16 23 Medium Density Polyethylene Piping for Natural Gas (33 52 16)				
33 52 16 23-0001 Medium Density Polyethylene (MDPE) Gas Distribution Piping (33 52 16 23)				
Note: PE2406/PE2708. Includes couplings, #12 tracer wire, helically wrapped around piping.				
33 52 16 23-0002	LF 1/2" Diameter, SDR 9, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		4.03	1.79
	For Colors, Add		0.05	
33 52 16 23-0003	LF 3/4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		4.48	1.92
	For SDR 13.5, Deduct		-0.11	
	For Colors, Add		0.07	
33 52 16 23-0004	LF 1" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		4.93	2.05
	For SDR 13.5, Deduct		-0.13	
	For Colors, Add		0.08	
33 52 16 23-0005	LF 1-1/4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		5.40	2.18
	For SDR 13.5, Deduct		-0.16	
	For Colors, Add		0.10	
33 52 16 23-0006	LF 1-1/2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		6.20	2.62
	For SDR 13.5, Deduct		-0.22	
	For Colors, Add		0.14	
33 52 16 23-0007	LF 2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		7.00	2.85
	For SDR 13.5, Deduct		-0.29	
	For SDR 15.5, Deduct		-0.53	
	For Colors, Add		0.19	
33 52 16 23-0008	LF 2-1/2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		8.80	3.34
	For SDR 13.5, Deduct		-0.48	
	For SDR 15.5, Deduct		-0.88	
	For Colors, Add		0.31	
33 52 16 23-0009	LF 3" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		10.75	3.97
	For SDR 13.5, Deduct		-0.66	
	For SDR 15.5, Deduct		-1.21	
	For Colors, Add		0.42	
33 52 16 23-0010	LF 4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		17.64	4.75
	For SDR 13.5, Deduct		-1.22	
	For SDR 15.5, Deduct		-2.23	
	For Colors, Add		0.78	
33 52 16 23-0011	LF 5" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		22.21	4.75
	For SDR 13.5, Deduct		-1.69	
	For SDR 15.5, Deduct		-3.10	
	For Colors, Add		1.09	
33 52 16 23-0012	LF 6" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		26.89	4.75
	For SDR 13.5, Deduct		-2.16	
	For SDR 15.5, Deduct		-3.96	
	For Colors, Add		1.39	
33 52 16 23-0013	LF 8" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe.....		39.64	5.94
	For SDR 13.5, Deduct		-3.59	
	For SDR 15.5, Deduct		-6.60	
	For Colors, Add		2.32	
33 52 16 26 High Density Polyethylene Piping for Natural Gas (33 52 16)				
33 52 16 26-0001 High Density Polyethylene (HDPE) Gas Distribution Piping (33 52 16 26)				
Note: ASTM F2619, ASTM D2513, API 15 LE. Includes couplings, #12 tracer wire, helically wrapped around piping.				
33 52 16 26-0002	LF 1/2" Diameter, SDR 9 High Density Polyethylene (HDPE) Gas Distribution Pipe.....		4.10	1.79
33 52 16 26-0003	LF 3/4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....		4.58	1.92
	For SDR 13.5, Deduct		-0.12	
33 52 16 26-0004	LF 1" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....		5.03	2.05
	For SDR 13.5, Deduct		-0.14	
33 52 16 26-0005	LF 1-1/4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....		5.53	2.18
	For SDR 13.5, Deduct		-0.17	
33 52 16 26-0006	LF 1-1/2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....		6.38	2.62
	For SDR 13.5, Deduct		-0.24	

33 Utilities**33 50 Hydrocarbon Utilities****33 52 Hydrocarbon Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 52 16 26-0007 LF 2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	7.23	2.85
For SDR 13.5, Deduct	-0.32	
For SDR 15.5, Deduct	-0.58	
For SDR 17, Deduct	-0.85	
33 52 16 26-0008 LF 2-1/2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	9.19	3.34
For SDR 13.5, Deduct	-0.53	
For SDR 15.5, Deduct	-0.97	
For SDR 17, Deduct	-1.41	
33 52 16 26-0009 LF 3" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	11.28	3.97
For SDR 13.5, Deduct	-0.72	
For SDR 15.5, Deduct	-1.33	
For SDR 17, Deduct	-1.93	
For SDR 21, Deduct	-2.64	
33 52 16 26-0010 LF 4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	18.62	4.75
For SDR 13.5, Deduct	-1.34	
For SDR 15.5, Deduct	-2.46	
For SDR 17, Deduct	-3.57	
For SDR 21, Deduct	-4.88	
33 52 16 26-0011 LF 6" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	28.63	4.75
For SDR 13.5, Deduct	-2.37	
For SDR 15.5, Deduct	-4.36	
For SDR 17, Deduct	-6.33	
For SDR 21, Deduct	-8.66	
33 52 16 26-0012 LF 8" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe.....	42.53	5.94
For SDR 13.5, Deduct	-3.95	
For SDR 15.5, Deduct	-7.26	
For SDR 17, Deduct	-10.54	
For SDR 21, Deduct	-14.42	

33 53 Hydrocarbon Utility Pressure Regulation (33 50)**33 53 16 Gas Hydrocarbon Pressure Regulation (33 53)****33 53 16 00-0001 Gas Pressure Regulators With Screwed And Flanged Ends (33 53 16)**

33 53 16 00-0002 EA 3/4" Gas Pressure Regulator, Screwed End.....	270.12	17.83
33 53 16 00-0003 EA 1" Gas Pressure Regulator, Screwed End.....	274.16	17.83
33 53 16 00-0004 EA 1-1/4" Gas Pressure Regulator, Screwed End.....	283.88	21.17
33 53 16 00-0005 EA 1-1/2" Gas Pressure Regulator, Screwed End.....	1,012.39	24.51
33 53 16 00-0006 EA 2" Gas Pressure Regulator, Screwed End.....	1,063.58	37.97
33 53 16 00-0007 EA 3" Gas Pressure Regulator, Screwed End.....	3,012.46	85.16
33 53 16 00-0008 EA 4" Gas Pressure Regulator, Screwed End.....	4,195.41	112.87

33 56 Hydrocarbon Storage (33 50)**33 56 13 Aboveground Hydrocarbon Storage Tanks (33 56)**

See CSI section 23 13 23 00-0000 for aboveground storage tanks.

33 56 33 Underground Hydrocarbon Storage (33 56)

See CSI section 23 13 13 00-0000 for underground storage tanks.

33 59 Hydrocarbon Utility Metering (33 50)**33 59 11 Diaphragm/Bellows Hydrocarbons Meters (33 59)****33 59 11 00-0001 Diaphragm Meters (33 59 11)**

Note: With standard direct digital reading maximum working pressures 5 lbs to 100 lbs, threaded connections. Excludes pressure and temperature compensation.

33 59 11 00-0002 EA 250 CF/Hour Gas Diaphragm Meter At 5 LB, Direct Digital, Threaded.....	625.33	69.77
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0003 EA 425 CF/Hour Gas Diaphragm Meter At 10 LB, Direct Digital, Threaded.....	1,268.89	106.71
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0004 EA 425 CF/Hour Gas Diaphragm Meter At 25 LB, Direct Digital, Threaded.....	1,517.48	106.71
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0005 EA 800 CF/Hour Gas Diaphragm Meter At 20 LB, Direct Digital, Threaded.....	3,459.93	133.38
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0006 EA 1,000 CF/Hour Gas Diaphragm Meter At 25 LB, Direct Digital, Threaded.....	3,892.81	164.17
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0007 EA 800 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded.....	5,236.19	133.38
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0008 EA 1,000 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded.....	5,804.26	164.17
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0009 EA 1,400 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded.....	7,718.03	174.43
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	
33 59 11 00-0010 EA 2,300 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded.....	10,971.44	205.21
For Temperature And Pressure Compensation, Add	8.40	
For Pulsers, Add	26.50	



		Utilities	33	33
		Hydrocarbon Utilities	33 50	
		Hydrocarbon Utility Metering	33 59	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 59 11 00-0011 EA 5,000 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded For Temperature And Pressure Compensation, Add For Pulsers, Add	16,720.92 8.40 26.50	338.60
33 59 16 Hydrocarbons Turbine Meters (33 59)		
33 59 16 00-0001 Gas Turbine Meters With Direct-Digital Reading (33 59 16)		
Note: Maximum working pressure 175 PSI, flanged end connections.		
33 59 16 00-0002 EA 4", 18,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	13,320.74	364.84
33 59 16 00-0003 EA 6", 30,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	14,603.71	423.69
33 59 16 00-0004 EA 8", 60,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	22,686.00	465.40
33 59 16 00-0005 EA 10", 90,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	44,219.63	566.57
33 59 16 00-0006 EA 12", 150,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	72,504.17	708.20
33 60 Hydronic and Steam Energy Utilities (33)		
33 61 Hydronic Energy Distribution (33 60)		
33 61 13 Buried Hydronic Energy Distribution (33 61)		
33 61 13 00-0001 Glass Lined Steel Piping (33 61 13)		
33 61 13 00-0002 Glass Lined Steel Pipe (33 61 13 00-0001)		
Note: 150 PSIG		
33 61 13 00-0003 EA 4" X 1' Glass Lined Steel Pipe	1,583.78	
33 61 13 00-0004 EA 4" X 2' Glass Lined Steel Pipe	1,748.72	
33 61 13 00-0005 EA 4" X 3' Glass Lined Steel Pipe	1,748.72	
33 61 13 00-0006 EA 4" X 4' Glass Lined Steel Pipe	2,078.59	
33 61 13 00-0007 EA 4" X 5' Glass Lined Steel Pipe	2,954.80	
33 61 13 00-0008 EA 4" X 10' Glass Lined Steel Pipe	3,422.12	
33 61 13 00-0009 EA 6" X 1' Glass Lined Steel Pipe	1,326.07	
33 61 13 00-0010 EA 6" X 2' Glass Lined Steel Pipe	2,872.33	
33 61 13 00-0011 EA 6" X 3' Glass Lined Steel Pipe	2,872.33	
33 61 13 00-0012 EA 6" X 4' Glass Lined Steel Pipe	3,253.74	
33 61 13 00-0013 EA 6" X 5' Glass Lined Steel Pipe	5,250.14	
33 61 13 00-0014 EA 6" X 10' Glass Lined Steel Pipe	6,076.12	
33 61 13 00-0015 EA 8" X 1' Glass Lined Steel Pipe	3,276.74	
33 61 13 00-0016 EA 8" X 2' Glass Lined Steel Pipe	3,946.79	
33 61 13 00-0017 EA 8" X 3' Glass Lined Steel Pipe	3,946.79	
33 61 13 00-0018 EA 8" X 4' Glass Lined Steel Pipe	4,538.98	
33 61 13 00-0019 EA 8" X 5' Glass Lined Steel Pipe	6,148.28	
33 61 13 00-0020 EA 8" X 10' Glass Lined Steel Pipe	6,987.89	
33 61 13 00-0021 EA 12" X 1' Glass Lined Steel Pipe	8,891.93	
33 61 13 00-0022 EA 12" X 2' Glass Lined Steel Pipe	8,891.93	
33 61 13 00-0023 EA 12" X 3' Glass Lined Steel Pipe	9,214.93	
33 61 13 00-0024 EA 12" X 4' Glass Lined Steel Pipe	9,827.68	
33 61 13 00-0025 EA 12" X 5' Glass Lined Steel Pipe	11,028.02	
33 61 13 00-0026 EA 12" X 10' Glass Lined Steel Pipe	13,623.41	
33 61 13 00-0027 EA 16" X 10' Glass Lined Steel Pipe	18,557.43	
33 61 13 00-0028 90 Degree Elbow, Glass Lined Steel Fittings (33 61 13 00-0001)		
Note: 150 PSIG		
33 61 13 00-0029 EA 4" 90 Degree Elbow, Glass Lined Steel Fittings	1,896.69	
33 61 13 00-0030 EA 6" 90 Degree Elbow, Glass Lined Steel Fittings	3,102.67	
33 61 13 00-0031 EA 8" 90 Degree Elbow, Glass Lined Steel Fittings	5,723.76	
33 61 13 00-0032 EA 10" 90 Degree Elbow, Glass Lined Steel Fittings	10,163.62	
33 61 13 00-0033 EA 12" 90 Degree Elbow, Glass Lined Steel Fittings	15,041.49	
33 61 13 00-0034 EA 14" 90 Degree Elbow, Glass Lined Steel Fittings	17,670.11	
33 61 13 00-0035 EA 16" 90 Degree Elbow, Glass Lined Steel Fittings	20,298.34	
33 61 13 00-0036 45 Degree Elbow, Glass Lined Steel Fittings (33 61 13 00-0001)		
Note: 150 PSIG		
33 61 13 00-0037 EA 4" 45 Degree Elbow, Glass Lined Steel Fittings	1,858.89	
33 61 13 00-0038 EA 6" 45 Degree Elbow, Glass Lined Steel Fittings	3,102.67	
33 61 13 00-0039 EA 8" 45 Degree Elbow, Glass Lined Steel Fittings	5,984.90	
33 61 13 00-0040 EA 10" 45 Degree Elbow, Glass Lined Steel Fittings	16,884.69	
33 61 13 00-0041 EA 12" 45 Degree Elbow, Glass Lined Steel Fittings	15,041.49	
33 61 13 00-0042 EA 14" 45 Degree Elbow, Glass Lined Steel Fittings	17,670.11	
33 61 13 00-0043 EA 16" 45 Degree Elbow, Glass Lined Steel Fittings	20,298.34	
33 61 13 00-0044 Tee, Glass Lined Steel Fittings (33 61 13 00-0001)		
Note: 150 PSIG		
33 61 13 00-0045 EA 4" Tee, Glass Lined Steel Fittings	2,948.16	
33 61 13 00-0046 EA 6" Tee, Glass Lined Steel Fittings	5,065.51	
33 61 13 00-0047 EA 8" Tee, Glass Lined Steel Fittings	7,504.72	
33 61 13 00-0048 EA 10" Tee, Glass Lined Steel Fittings	12,947.10	
33 61 13 00-0049 EA 12" Tee, Glass Lined Steel Fittings	18,431.40	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0050	EA	14" Tee, Glass Lined Steel Fittings.....	21,719.70	
33 61 13 00-0051	EA	16" Tee, Glass Lined Steel Fittings.....	24,952.05	
33 61 13 00-0052		Prefabricated/Preinsulated Pipe (33 61 13) Note: Includes coupling per full length of pipe. Insulation and jacketing sealed for seamless system including all fittings. Excludes excavation and backfill. See CSI section 23 01 20 91-0041 for purging of existing system.		
33 61 13 00-0053		Preinsulated Schedule 40 Black Steel Pipe (33 61 13 00-0052) Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.		
33 61 13 00-0054		Standard Black Steel Carrier Pipe (33 61 13 00-0053) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0055	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	158.37 2.64 26.42	19.70
33 61 13 00-0056	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	173.63 2.91 29.06	21.26
33 61 13 00-0057	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	193.74 3.27 32.73	22.57
33 61 13 00-0058	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	207.41 3.51 35.12	23.83
33 61 13 00-0059	LF	2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	217.34 3.67 36.72	25.30
33 61 13 00-0060	LF	2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	241.28 3.99 39.91	31.29
33 61 13 00-0061	LF	3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	266.45 4.31 43.11	38.17
33 61 13 00-0062	LF	4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	336.24 5.43 54.28	48.62
33 61 13 00-0063	LF	5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	426.65 6.95 69.45	59.55
33 61 13 00-0064	LF	6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	496.16 8.06 80.63	69.77
33 61 13 00-0065	LF	8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	699.13 11.73 117.35	84.30
33 61 13 00-0066	LF	10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	908.09 15.49 154.87	100.31
33 61 13 00-0067	LF	12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	1,130.54 19.32 193.19	123.45
33 61 13 00-0068		Standard Black Steel Carrier Pipe (33 61 13 00-0053) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0069	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	171.58 2.91 29.07	19.70
33 61 13 00-0070	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	188.16 3.20 31.96	21.26
33 61 13 00-0071	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	210.11 3.60 36.00	22.57
33 61 13 00-0072	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	224.98 3.86 38.64	23.83



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
33 61 13 00-0073	LF 2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	235.70 4.04 40.39		25.30
33 61 13 00-0074	LF 2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pip With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	261.24 4.39 43.91		31.29
33 61 13 00-0075	LF 3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	288.00 4.74 47.42		38.17
33 61 13 00-0076	LF 4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	363.38 5.97 59.71		48.62
33 61 13 00-0077	LF 5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	461.37 7.64 76.40		59.55
33 61 13 00-0078	LF 6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	536.47 8.87 88.69		69.77
33 61 13 00-0079	LF 8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	757.81 12.91 129.08		84.30
33 61 13 00-0080	LF 10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	985.53 17.04 170.36		100.31
33 61 13 00-0081	LF 12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	1,227.13 21.25 212.50		123.45
33 61 13 00-0082	Standard Black Steel Carrier Pipe (33 61 13 00-0083) Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0083	LF 3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	178.19 3.04 30.39		19.70
33 61 13 00-0084	LF 1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	195.42 3.34 33.42		21.26
33 61 13 00-0085	LF 1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	218.29 3.76 37.64		22.57
33 61 13 00-0086	LF 1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	233.76 4.04 40.39		23.83
33 61 13 00-0087	LF 2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	244.88 4.22 42.23		25.30
33 61 13 00-0088	LF 2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	271.22 4.59 45.90		31.29
33 61 13 00-0089	LF 3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	298.78 4.96 49.57		38.17
33 61 13 00-0090	LF 4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	376.95 6.24 62.43		48.62
33 61 13 00-0091	LF 5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	478.74 7.99 79.87		59.55
33 61 13 00-0092	LF 6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	556.63 9.27 92.72		69.77
33 61 13 00-0093	LF 8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket For High Density Polyethylene (HDPE) Jacket, Add For Schedule 80 Pipe, Add	787.14 13.50 134.95		84.30

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0094	LF	10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	1,024.24 17.81 178.10	100.31
33 61 13 00-0095	LF	12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	1,275.43 22.22 222.16	123.45
33 61 13 00-0096 Standard Black Steel Carrier Pipe (33 61 13 00-0053)				
Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.				
33 61 13 00-0097	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	188.09 3.24 32.37	19.70
33 61 13 00-0098	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	206.32 3.56 35.60	21.26
33 61 13 00-0099	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	230.56 4.01 40.09	22.57
33 61 13 00-0100	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	246.93 4.30 43.03	23.83
33 61 13 00-0101	LF	2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	258.65 4.50 44.98	25.30
33 61 13 00-0102	LF	2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	286.19 4.89 48.90	31.29
33 61 13 00-0103	LF	3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	314.94 5.28 52.81	38.17
33 61 13 00-0104	LF	4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	397.31 6.65 66.50	48.62
33 61 13 00-0105	LF	5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	504.78 8.51 85.08	59.55
33 61 13 00-0106	LF	6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	586.86 9.88 98.77	69.77
33 61 13 00-0107	LF	8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	831.15 14.38 143.75	84.30
33 61 13 00-0108	LF	10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	1,082.32 18.97 189.71	100.31
33 61 13 00-0109	LF	12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i> <i>For Schedule 80 Pipe, Add</i>	1,347.87 23.67 236.65	123.45
33 61 13 00-0110 Preinsulated Black Steel Fittings (33 61 13 00-0052)				
Note: No excavation or backfill.				
33 61 13 00-0111 Elbows (33 61 13 00-0110)				
33 61 13 00-0112 Elbows (33 61 13 00-0111)				
Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.				
33 61 13 00-0113	EA	3/4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,124.13 20.13	
33 61 13 00-0114	EA	1" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,156.91 20.60	
33 61 13 00-0115	EA	1-1/4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,322.07 23.44	
33 61 13 00-0116	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,461.93 25.57	



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 61 13 00-0117	EA 2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,606.84	
	For High Density Polyethylene (HDPE) Jacket, Add		26.64	
33 61 13 00-0118	EA 2-1/2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,787.17	
	For High Density Polyethylene (HDPE) Jacket, Add		27.70	
33 61 13 00-0119	EA 3" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		2,069.26	
	For High Density Polyethylene (HDPE) Jacket, Add		31.97	
33 61 13 00-0120	EA 4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		2,414.51	
	For High Density Polyethylene (HDPE) Jacket, Add		37.29	
33 61 13 00-0121	EA 5" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		2,985.95	
	For High Density Polyethylene (HDPE) Jacket, Add		47.95	
33 61 13 00-0122	EA 6" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		3,340.85	
	For High Density Polyethylene (HDPE) Jacket, Add		54.46	
33 61 13 00-0123	EA 8" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		4,761.33	
	For High Density Polyethylene (HDPE) Jacket, Add		78.73	
33 61 13 00-0124	EA 10" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		6,278.95	
	For High Density Polyethylene (HDPE) Jacket, Add		100.64	
33 61 13 00-0125	EA 12" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		8,157.01	
	For High Density Polyethylene (HDPE) Jacket, Add		133.20	
33 61 13 00-0126	Elbows (33 61 13 00-0111) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0127	EA 3/4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,199.61	
	For High Density Polyethylene (HDPE) Jacket, Add		21.64	
33 61 13 00-0128	EA 1" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,234.17	
	For High Density Polyethylene (HDPE) Jacket, Add		22.15	
33 61 13 00-0129	EA 1-1/4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,409.98	
	For High Density Polyethylene (HDPE) Jacket, Add		25.20	
33 61 13 00-0130	EA 1-1/2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,557.83	
	For High Density Polyethylene (HDPE) Jacket, Add		27.49	
33 61 13 00-0131	EA 2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,706.74	
	For High Density Polyethylene (HDPE) Jacket, Add		28.64	
33 61 13 00-0132	EA 2-1/2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,891.06	
	For High Density Polyethylene (HDPE) Jacket, Add		29.78	
33 61 13 00-0133	EA 3" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		2,189.14	
	For High Density Polyethylene (HDPE) Jacket, Add		34.36	
33 61 13 00-0134	EA 4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		2,554.37	
	For High Density Polyethylene (HDPE) Jacket, Add		40.09	
33 61 13 00-0135	EA 5" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		3,165.77	
	For High Density Polyethylene (HDPE) Jacket, Add		51.55	
33 61 13 00-0136	EA 6" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		3,545.09	
	For High Density Polyethylene (HDPE) Jacket, Add		58.55	
33 61 13 00-0137	EA 8" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		5,056.58	
	For High Density Polyethylene (HDPE) Jacket, Add		84.64	
33 61 13 00-0138	EA 10" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		6,656.34	
	For High Density Polyethylene (HDPE) Jacket, Add		108.18	
33 61 13 00-0139	EA 12" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		8,656.49	
	For High Density Polyethylene (HDPE) Jacket, Add		143.18	
33 61 13 00-0140	Elbows (33 61 13 00-0111) Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0141	EA 3/4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,275.09	
	For High Density Polyethylene (HDPE) Jacket, Add		23.15	
33 61 13 00-0142	EA 1" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,311.42	
	For High Density Polyethylene (HDPE) Jacket, Add		23.69	
33 61 13 00-0143	EA 1-1/4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....		1,497.89	
	For High Density Polyethylene (HDPE) Jacket, Add		26.96	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0144	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,653.73	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.41	
33 61 13 00-0145	EA	2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,806.63	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	30.63	
33 61 13 00-0146	EA	2-1/2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,994.95	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.86	
33 61 13 00-0147	EA	3" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,309.01	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	36.76	
33 61 13 00-0148	EA	4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,694.22	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	42.89	
33 61 13 00-0149	EA	5" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,345.58	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	55.14	
33 61 13 00-0150	EA	6" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,749.32	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	62.63	
33 61 13 00-0151	EA	8" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,351.83	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	90.54	
33 61 13 00-0152	EA	10" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,033.72	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	115.73	
33 61 13 00-0153	EA	12" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	9,155.97	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	153.17	
33 61 13 00-0154		Elbows (33 61 13 00-0111) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0155	EA	3/4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,350.57	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	24.66	
33 61 13 00-0156	EA	1" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,388.67	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.24	
33 61 13 00-0157	EA	1-1/4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,585.79	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	28.72	
33 61 13 00-0158	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,749.64	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.33	
33 61 13 00-0159	EA	2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,906.53	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.63	
33 61 13 00-0160	EA	2-1/2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,098.85	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	33.94	
33 61 13 00-0161	EA	3" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,428.89	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	39.16	
33 61 13 00-0162	EA	4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,834.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.69	
33 61 13 00-0163	EA	5" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,525.39	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	58.74	
33 61 13 00-0164	EA	6" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,953.55	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	66.72	
33 61 13 00-0165	EA	8" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,647.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	96.45	
33 61 13 00-0166	EA	10" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,411.11	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	123.28	
33 61 13 00-0167	EA	12" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	9,655.46	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	163.16	
33 61 13 00-0168		Tees (33 61 13 00-0110)		
33 61 13 00-0169		Tees (33 61 13 00-0168) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0170	EA	3/4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,671.04	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.89	
33 61 13 00-0171	EA	1" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,719.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	30.59	



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 61 13 00-0172	EA 1-1/4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,965.31		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	34.61		
33 61 13 00-0173	EA 1-1/2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,173.49		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.98		
33 61 13 00-0174	EA 2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,389.78		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	39.56		
33 61 13 00-0175	EA 2-1/2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,659.26		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	41.14		
33 61 13 00-0176	EA 3" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,079.90		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	47.47		
33 61 13 00-0177	EA 4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,593.80		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	55.38		
33 61 13 00-0178	EA 5" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,446.08		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	71.21		
33 61 13 00-0179	EA 6" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,971.28		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	80.88		
33 61 13 00-0180	EA 8" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,081.43		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	116.92		
33 61 13 00-0181	EA 10" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	9,345.14		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	149.45		
33 61 13 00-0182	EA 12" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	12,135.62		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	197.79		
33 61 13 00-0183	Tees (33 61 13 00-0168) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0184	EA 3/4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,783.12		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.13		
33 61 13 00-0185	EA 1" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,834.46		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.89		
33 61 13 00-0186	EA 1-1/4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,095.85		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.42		
33 61 13 00-0187	EA 1-1/2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,315.90		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	40.82		
33 61 13 00-0188	EA 2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,538.12		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	42.53		
33 61 13 00-0189	EA 2-1/2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,813.54		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	44.23		
33 61 13 00-0190	EA 3" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,257.91		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	51.03		
33 61 13 00-0191	EA 4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,801.48		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	59.54		
33 61 13 00-0192	EA 5" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,713.10		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	76.55		
33 61 13 00-0193	EA 6" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,274.56		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	86.94		
33 61 13 00-0194	EA 8" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,519.87		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	125.69		
33 61 13 00-0195	EA 10" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	9,905.56		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	160.65		
33 61 13 00-0196	EA 12" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	12,877.35		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	212.63		
33 61 13 00-0197	Tees (33 61 13 00-0168) Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0198	EA 3/4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,895.21		
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	34.37		

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0199	EA		1" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,949.19	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.18	
33 61 13 00-0200	EA		1-1/4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,226.39	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	40.03	
33 61 13 00-0201	EA		1-1/2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,458.32	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	43.67	
33 61 13 00-0202	EA		2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,686.47	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.49	
33 61 13 00-0203	EA		2-1/2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,967.82	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	47.31	
33 61 13 00-0204	EA		3" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,435.93	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	54.59	
33 61 13 00-0205	EA		4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,009.17	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	63.69	
33 61 13 00-0206	EA		5" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,980.12	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	81.89	
33 61 13 00-0207	EA		6" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,577.85	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	93.01	
33 61 13 00-0208	EA		8" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,958.32	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	134.46	
33 61 13 00-0209	EA		10" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	10,465.97	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	171.86	
33 61 13 00-0210	EA		12" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	13,619.09	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	227.46	
33 61 13 00-0211			Tees (33 61 13 00-0168) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0212	EA		3/4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,007.29	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	36.61	
33 61 13 00-0213	EA		1" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,063.91	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.48	
33 61 13 00-0214	EA		1-1/4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,356.94	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	42.64	
33 61 13 00-0215	EA		1-1/2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,600.73	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	46.52	
33 61 13 00-0216	EA		2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,834.82	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	48.46	
33 61 13 00-0217	EA		2-1/2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,122.10	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	50.40	
33 61 13 00-0218	EA		3" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,613.94	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	58.15	
33 61 13 00-0219	EA		4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,216.85	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	67.84	
33 61 13 00-0220	EA		5" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,247.15	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	87.23	
33 61 13 00-0221	EA		6" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,881.13	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	99.07	
33 61 13 00-0222	EA		8" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	8,396.77	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	143.23	
33 61 13 00-0223	EA		10" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	11,026.39	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	183.07	
33 61 13 00-0224	EA		12" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	14,360.82	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	242.30	
33 61 13 00-0225			Reducers (33 61 13 00-0110)		
33 61 13 00-0226			Reducers (33 61 13 00-0225) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 61 13 00-0227	EA 3/4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		941.30	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		16.71	
33 61 13 00-0228	EA 1" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		969.09	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		17.10	
33 61 13 00-0229	EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,107.81	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		19.46	
33 61 13 00-0230	EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,226.16	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		21.23	
33 61 13 00-0231	EA 2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,352.80	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		22.11	
33 61 13 00-0232	EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,520.52	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		22.99	
33 61 13 00-0233	EA 3" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,754.23	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		26.53	
33 61 13 00-0234	EA 4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,042.29	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		30.95	
33 61 13 00-0235	EA 5" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,519.72	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		39.80	
33 61 13 00-0236	EA 6" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,816.35	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		45.20	
33 61 13 00-0237	EA 8" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		4,009.83	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		65.35	
33 61 13 00-0238	EA 10" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		5,299.35	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		83.53	
33 61 13 00-0239	EA 12" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		6,872.85	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		110.55	
33 61 13 00-0240	Reducers (33 61 13 00-0225)			
	Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0241	EA 3/4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,003.95	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		17.96	
33 61 13 00-0242	EA 1" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,033.21	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		18.38	
33 61 13 00-0243	EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,180.77	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		20.92	
33 61 13 00-0244	EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,305.76	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		22.82	
33 61 13 00-0245	EA 2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,435.71	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		23.77	
33 61 13 00-0246	EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,606.75	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		24.72	
33 61 13 00-0247	EA 3" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,853.73	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		28.52	
33 61 13 00-0248	EA 4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,158.37	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		33.28	
33 61 13 00-0249	EA 5" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,668.96	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		42.78	
33 61 13 00-0250	EA 6" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,985.87	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		48.59	
33 61 13 00-0251	EA 8" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		4,254.89	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		70.25	
33 61 13 00-0252	EA 10" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		5,612.58	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		89.79	
33 61 13 00-0253	EA 12" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		7,287.42	
	<i>For High Density Polyethylene (HDPE) Jacket, Add</i>		118.84	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 61 13 00-0254**Reducers** (33 61 13 00-0225)

Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.

33 61 13 00-0255	EA	3/4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,066.59
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.21
33 61 13 00-0256	EA	1" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,097.33
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.66
33 61 13 00-0257	EA	1-1/4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,253.74
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.38
33 61 13 00-0258	EA	1-1/2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,385.35
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	24.41
33 61 13 00-0259	EA	2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,518.63
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.43
33 61 13 00-0260	EA	2-1/2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,692.98
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	26.44
33 61 13 00-0261	EA	3" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,953.23
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	30.51
33 61 13 00-0262	EA	4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,274.45
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.60
33 61 13 00-0263	EA	5" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,818.21
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.77
33 61 13 00-0264	EA	6" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,155.38
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	51.98
33 61 13 00-0265	EA	8" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,499.93
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	75.15
33 61 13 00-0266	EA	10" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,925.81
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	96.06
33 61 13 00-0267	EA	12" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	7,701.99
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	127.13

33 61 13 00-0268**Reducers** (33 61 13 00-0225)

Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.

33 61 13 00-0269	EA	3/4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,129.24
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.46
33 61 13 00-0270	EA	1" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,161.45
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.95
33 61 13 00-0271	EA	1-1/4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,326.70
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.84
33 61 13 00-0272	EA	1-1/2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,464.95
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	26.00
33 61 13 00-0273	EA	2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,601.54
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.09
33 61 13 00-0274	EA	2-1/2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,779.21
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	28.17
33 61 13 00-0275	EA	3" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,052.72
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.50
33 61 13 00-0276	EA	4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,390.53
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.92
33 61 13 00-0277	EA	5" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,967.45
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	48.75
33 61 13 00-0278	EA	6" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,324.89
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	55.37
33 61 13 00-0279	EA	8" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,744.99
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	80.05
33 61 13 00-0280	EA	10" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	6,239.04
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	102.32
33 61 13 00-0281	EA	12" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	8,116.56
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	135.43



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 61 13 00-0282	Preinsulated Type K Copper Pipe (33 61 13 00-0052)				
Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.					
33 61 13 00-0283	Type K Copper Carrier Pipe (33 61 13 00-0282)				
Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.					
33 61 13 00-0284	LF	3/4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	46.88		17.63
		For High Density Polyethylene (HDPE) Jacket, Add	0.41		
33 61 13 00-0285	LF	1" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	51.03		19.04
		For High Density Polyethylene (HDPE) Jacket, Add	0.45		
33 61 13 00-0286	LF	1-1/4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	55.63		20.22
		For High Density Polyethylene (HDPE) Jacket, Add	0.51		
33 61 13 00-0287	LF	1-1/2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	59.19		21.36
		For High Density Polyethylene (HDPE) Jacket, Add	0.54		
33 61 13 00-0288	LF	2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	62.39		22.67
		For High Density Polyethylene (HDPE) Jacket, Add	0.57		
33 61 13 00-0289	LF	2-1/2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	72.90		28.03
		For High Density Polyethylene (HDPE) Jacket, Add	0.62		
33 61 13 00-0290	LF	3" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	84.62		34.21
		For High Density Polyethylene (HDPE) Jacket, Add	0.67		
33 61 13 00-0291	LF	4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	107.29		43.56
		For High Density Polyethylene (HDPE) Jacket, Add	0.84		
33 61 13 00-0292	LF	5" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	133.70		53.35
		For High Density Polyethylene (HDPE) Jacket, Add	1.07		
33 61 13 00-0293	LF	6" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	156.08		62.51
		For High Density Polyethylene (HDPE) Jacket, Add	1.25		
33 61 13 00-0294	LF	8" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	203.99		75.82
		For High Density Polyethylene (HDPE) Jacket, Add	1.82		
33 61 13 00-0295	LF	10" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	254.54		89.88
		For High Density Polyethylene (HDPE) Jacket, Add	2.40		
33 61 13 00-0296	LF	12" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	315.26		110.60
		For High Density Polyethylene (HDPE) Jacket, Add	2.99		
33 61 13 00-0297	Type K Copper Carrier Pipe (33 61 13 00-0282)				
Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.					
33 61 13 00-0298	LF	3/4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	48.92		17.63
		For High Density Polyethylene (HDPE) Jacket, Add	0.45		
33 61 13 00-0299	LF	1" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	53.27		19.04
		For High Density Polyethylene (HDPE) Jacket, Add	0.49		
33 61 13 00-0300	LF	1-1/4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	58.16		20.22
		For High Density Polyethylene (HDPE) Jacket, Add	0.56		
33 61 13 00-0301	LF	1-1/2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	61.91		21.36
		For High Density Polyethylene (HDPE) Jacket, Add	0.60		
33 61 13 00-0302	LF	2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	65.23		22.67
		For High Density Polyethylene (HDPE) Jacket, Add	0.63		
33 61 13 00-0303	LF	2-1/2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	75.98		28.03
		For High Density Polyethylene (HDPE) Jacket, Add	0.68		
33 61 13 00-0304	LF	3" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	87.96		34.21
		For High Density Polyethylene (HDPE) Jacket, Add	0.73		
33 61 13 00-0305	LF	4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	111.49		43.56
		For High Density Polyethylene (HDPE) Jacket, Add	0.92		
33 61 13 00-0306	LF	5" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	139.07		53.35
		For High Density Polyethylene (HDPE) Jacket, Add	1.18		
33 61 13 00-0307	LF	6" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	162.31		62.51
		For High Density Polyethylene (HDPE) Jacket, Add	1.37		
33 61 13 00-0308	LF	8" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	213.07		75.82
		For High Density Polyethylene (HDPE) Jacket, Add	2.00		
33 61 13 00-0309	LF	10" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket	266.51		89.88
		For High Density Polyethylene (HDPE) Jacket, Add	2.64		

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0310	LF		12" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	330.20	110.60
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.29	
33 61 13 00-0311			Type K Copper Carrier Pipe (33 61 13 00-0282) Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0312	LF		3/4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	49.95	17.63
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.47	
33 61 13 00-0313	LF		1" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	54.40	19.04
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.52	
33 61 13 00-0314	LF		1-1/4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	59.43	20.22
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.58	
33 61 13 00-0315	LF		1-1/2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	63.27	21.36
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.63	
33 61 13 00-0316	LF		2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	66.65	22.67
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.65	
33 61 13 00-0317	LF		2-1/2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	77.53	28.03
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.71	
33 61 13 00-0318	LF		3" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	89.63	34.21
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.77	
33 61 13 00-0319	LF		4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	113.59	43.56
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.97	
33 61 13 00-0320	LF		5" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	141.76	53.35
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.24	
33 61 13 00-0321	LF		6" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	165.43	62.51
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.43	
33 61 13 00-0322	LF		8" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	217.61	75.53
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.09	
33 61 13 00-0323	LF		10" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	272.50	89.88
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.76	
33 61 13 00-0324	LF		12" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	337.67	110.60
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.44	
33 61 13 00-0325			Type K Copper Carrier Pipe (33 61 13 00-0282) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0326	LF		3/4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	51.48	17.63
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.50	
33 61 13 00-0327	LF		1" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	56.08	19.04
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.55	
33 61 13 00-0328	LF		1-1/4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	61.32	20.22
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.62	
33 61 13 00-0329	LF		1-1/2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	65.30	21.36
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.67	
33 61 13 00-0330	LF		2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	68.78	22.67
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.70	
33 61 13 00-0331	LF		2-1/2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	79.84	28.03
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.76	
33 61 13 00-0332	LF		3" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	92.13	34.21
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.82	
33 61 13 00-0333	LF		4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	116.74	43.56
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.03	
33 61 13 00-0334	LF		5" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	145.79	53.35
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.32	
33 61 13 00-0335	LF		6" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	170.11	62.51
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.53	
33 61 13 00-0336	LF		8" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	224.42	75.53
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.22	



		Utilities	33	CS
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0337	LF	10" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	281.49 2.94	89.88
33 61 13 00-0338	LF	12" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	348.88 3.66	110.60
33 61 13 00-0339		Preinsulated Copper Fittings (33 61 13 00-0052)		
33 61 13 00-0340		Elbows (33 61 13 00-0339)		
33 61 13 00-0341		Elbows (33 61 13 00-0340) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0342	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	335.37 4.66	
33 61 13 00-0343	EA	1" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	348.78 4.77	
33 61 13 00-0344	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	401.72 5.43	
33 61 13 00-0345	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	455.36 5.92	
33 61 13 00-0346	EA	2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	547.38 6.17	
33 61 13 00-0347	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	670.17 6.41	
33 61 13 00-0348	EA	3" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	779.47 7.40	
33 61 13 00-0349	EA	4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	909.72 8.63	
33 61 13 00-0350	EA	5" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,066.66 11.10	
33 61 13 00-0351	EA	6" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,167.55 12.61	
33 61 13 00-0352	EA	8" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,628.42 18.23	
33 61 13 00-0353	EA	10" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,249.18 23.30	
33 61 13 00-0354	EA	12" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,843.66 30.83	
33 61 13 00-0355		Elbows (33 61 13 00-0340) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0356	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	352.84 5.01	
33 61 13 00-0357	EA	1" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	366.66 5.13	
33 61 13 00-0358	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	422.07 5.83	
33 61 13 00-0359	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	477.56 6.36	
33 61 13 00-0360	EA	2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	570.50 6.63	
33 61 13 00-0361	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	694.22 6.89	
33 61 13 00-0362	EA	3" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	807.22 7.96	
33 61 13 00-0363	EA	4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	942.09 9.28	
33 61 13 00-0364	EA	5" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,108.29 11.93	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0365	EA	6" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,214.83	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	73.55	
33 61 13 00-0366	EA	8" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,696.77	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.59	
33 61 13 00-0367	EA	10" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,336.54	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.04	
33 61 13 00-0368	EA	12" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,959.29	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	33.15	
33 61 13 00-0369		Elbows (33 61 13 00-0340)		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0370	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	370.31	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.36	
33 61 13 00-0371	EA	1" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	384.55	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.48	
33 61 13 00-0372	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	442.42	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.24	
33 61 13 00-0373	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	499.76	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.81	
33 61 13 00-0374	EA	2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	593.63	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.09	
33 61 13 00-0375	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	718.27	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.38	
33 61 13 00-0376	EA	3" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	834.97	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.51	
33 61 13 00-0377	EA	4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	974.47	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.93	
33 61 13 00-0378	EA	5" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,149.91	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.77	
33 61 13 00-0379	EA	6" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,262.37	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.50	
33 61 13 00-0380	EA	8" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,764.97	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.96	
33 61 13 00-0381	EA	10" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,423.46	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	26.79	
33 61 13 00-0382	EA	12" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,075.23	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.46	
33 61 13 00-0383		Elbows (33 61 13 00-0340)		
		Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0384	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	387.79	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.71	
33 61 13 00-0385	EA	1" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	402.43	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.84	
33 61 13 00-0386	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	462.77	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.65	
33 61 13 00-0387	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	521.96	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.25	
33 61 13 00-0388	EA	2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	616.76	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.55	
33 61 13 00-0389	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	742.32	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.86	
33 61 13 00-0390	EA	3" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	862.72	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.07	
33 61 13 00-0391	EA	4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,006.84	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.58	



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61	13 00-0392	EA	5" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,191.54 13.60	
33 61	13 00-0393	EA	6" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,309.65 15.44	
33 61	13 00-0394	EA	8" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,833.32 22.33	
33 61	13 00-0395	EA	10" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,510.83 28.54	
33 61	13 00-0396	EA	12" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3,190.86 37.77	
33 61	13 00-0397		Tees (33 61 13 00-0397)		
33 61	13 00-0398		Tees (33 61 13 00-0397) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0399	EA	3/4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	499.51 6.92	
33 61	13 00-0400	EA	1" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	519.42 7.08	
33 61	13 00-0401	EA	1-1/4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	598.34 8.06	
33 61	13 00-0402	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	678.40 8.79	
33 61	13 00-0403	EA	2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	815.97 9.16	
33 61	13 00-0404	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	999.84 9.52	
33 61	13 00-0405	EA	3" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,163.70 10.99	
33 61	13 00-0406	EA	4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,358.15 12.82	
33 61	13 00-0407	EA	5" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,594.42 16.48	
33 61	13 00-0408	EA	6" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,742.52 18.72	
33 61	13 00-0409	EA	8" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,427.47 27.07	
33 61	13 00-0410	EA	10" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3,358.13 34.60	
33 61	13 00-0411	EA	12" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4,242.36 45.79	
33 61	13 00-0412		Tees (33 61 13 00-0397) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0413	EA	3/4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	525.45 7.44	
33 61	13 00-0414	EA	1" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	545.97 7.61	
33 61	13 00-0415	EA	1-1/4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	628.56 8.66	
33 61	13 00-0416	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	711.37 9.45	
33 61	13 00-0417	EA	2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	850.32 9.84	
33 61	13 00-0418	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,035.55 10.24	
33 61	13 00-0419	EA	3" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,204.91 11.81	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0420	EA	4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,406.23	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.78	
33 61 13 00-0421	EA	5" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,656.24	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.72	
33 61 13 00-0422	EA	6" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,812.73	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.13	
33 61 13 00-0423	EA	8" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,528.97	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.10	
33 61 13 00-0424	EA	10" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,487.87	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.19	
33 61 13 00-0425	EA	12" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,414.07	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	49.22	
33 61 13 00-0426 Tees (33 61 13 00-0397)				
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0427	EA	3/4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	551.40	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.96	
33 61 13 00-0428	EA	1" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	572.53	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.14	
33 61 13 00-0429	EA	1-1/4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	658.78	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.27	
33 61 13 00-0430	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	744.33	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.11	
33 61 13 00-0431	EA	2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	884.66	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.53	
33 61 13 00-0432	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,071.27	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.95	
33 61 13 00-0433	EA	3" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,246.12	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.64	
33 61 13 00-0434	EA	4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,454.30	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.74	
33 61 13 00-0435	EA	5" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,718.05	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.96	
33 61 13 00-0436	EA	6" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,883.33	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	21.53	
33 61 13 00-0437	EA	8" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,629.44	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.13	
33 61 13 00-0438	EA	10" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,615.10	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	39.79	
33 61 13 00-0439	EA	12" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,588.66	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	52.66	
33 61 13 00-0440 Tees (33 61 13 00-0397)				
		Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0441	EA	3/4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	577.35	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.48	
33 61 13 00-0442	EA	1" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	599.09	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.68	
33 61 13 00-0443	EA	1-1/4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	689.00	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.87	
33 61 13 00-0444	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	777.30	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.77	
33 61 13 00-0445	EA	2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	919.00	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.22	
33 61 13 00-0446	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,106.98	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.67	



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61	13 00-0447	EA	3" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,287.33 13.46	
33 61	13 00-0448	EA	4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,502.38 15.71	
33 61	13 00-0449	EA	5" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,779.86 20.19	
33 61	13 00-0450	EA	6" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,953.54 22.94	
33 61	13 00-0451	EA	8" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,730.94 33.16	
33 61	13 00-0452	EA	10" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3,744.84 42.38	
33 61	13 00-0453	EA	12" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4,760.36 56.09	
33 61	13 00-0454		Reducers (33 61 13 00-0339)		
33 61	13 00-0455		Reducers (33 61 13 00-0454) Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0456	EA	3/4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	285.55 3.87	
33 61	13 00-0457	EA	1" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	297.17 3.96	
33 61	13 00-0458	EA	1-1/4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	342.56 4.50	
33 61	13 00-0459	EA	1-1/2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	389.03 4.91	
33 61	13 00-0460	EA	2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	470.95 5.12	
33 61	13 00-0461	EA	2-1/2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	588.56 5.32	
33 61	13 00-0462	EA	3" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	678.92 6.14	
33 61	13 00-0463	EA	4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	788.32 7.17	
33 61	13 00-0464	EA	5" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	921.33 9.21	
33 61	13 00-0465	EA	6" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,006.85 10.46	
33 61	13 00-0466	EA	8" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,401.89 15.13	
33 61	13 00-0467	EA	10" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1,943.29 19.34	
33 61	13 00-0468	EA	12" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2,449.39 25.59	
33 61	13 00-0469		Reducers (33 61 13 00-0454) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0470	EA	3/4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	300.06 4.16	
33 61	13 00-0471	EA	1" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	312.02 4.26	
33 61	13 00-0472	EA	1-1/4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	359.45 4.84	
33 61	13 00-0473	EA	1-1/2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	407.46 5.28	
33 61	13 00-0474	EA	2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket..... <i>For High Density Polyethylene (HDPE) Jacket, Add</i>	490.15 5.50	

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0475	EA		2-1/2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	608.52	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.72	
33 61 13 00-0476	EA		3" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	701.95	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.60	
33 61 13 00-0477	EA		4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	815.19	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.70	
33 61 13 00-0478	EA		5" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	955.88	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.90	
33 61 13 00-0479	EA		6" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,046.09	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.25	
33 61 13 00-0480	EA		8" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,458.62	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.26	
33 61 13 00-0481	EA		10" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,015.80	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.79	
33 61 13 00-0482	EA		12" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,545.36	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.51	
33 61 13 00-0483			Reducers (33 61 13 00-0454)		
			Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0484	EA		3/4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	314.56	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.45	
33 61 13 00-0485	EA		1" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	326.86	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.55	
33 61 13 00-0486	EA		1-1/4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	376.34	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.18	
33 61 13 00-0487	EA		1-1/2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	425.89	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.65	
33 61 13 00-0488	EA		2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	509.34	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.89	
33 61 13 00-0489	EA		2-1/2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	628.48	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.12	
33 61 13 00-0490	EA		3" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	724.98	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.06	
33 61 13 00-0491	EA		4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	842.06	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.24	
33 61 13 00-0492	EA		5" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	990.43	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.60	
33 61 13 00-0493	EA		6" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,085.55	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.03	
33 61 13 00-0494	EA		8" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,514.98	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.40	
33 61 13 00-0495	EA		10" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,087.95	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.24	
33 61 13 00-0496	EA		12" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,641.58	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.43	
33 61 13 00-0497			Reducers (33 61 13 00-0454)		
			Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0498	EA		3/4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	329.06	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.74	
33 61 13 00-0499	EA		1" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	341.70	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.85	
33 61 13 00-0500	EA		1-1/4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	393.23	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.52	
33 61 13 00-0501	EA		1-1/2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	444.31	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.02	



		Utilities	33	33
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR		TOTAL DIRECT		DEMOLITION	
CSI UOM DESCRIPTION		UNIT COST		UNIT COST	
33 61 13 00-0502	EA 2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		528.53		
	For High Density Polyethylene (HDPE) Jacket, Add		6.27		
33 61 13 00-0503	EA 2-1/2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		648.44		
	For High Density Polyethylene (HDPE) Jacket, Add		6.52		
33 61 13 00-0504	EA 3" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		748.02		
	For High Density Polyethylene (HDPE) Jacket, Add		7.52		
33 61 13 00-0505	EA 4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		868.94		
	For High Density Polyethylene (HDPE) Jacket, Add		8.78		
33 61 13 00-0506	EA 5" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,024.98		
	For High Density Polyethylene (HDPE) Jacket, Add		11.29		
33 61 13 00-0507	EA 6" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,124.79		
	For High Density Polyethylene (HDPE) Jacket, Add		12.82		
33 61 13 00-0508	EA 8" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		1,571.71		
	For High Density Polyethylene (HDPE) Jacket, Add		18.53		
33 61 13 00-0509	EA 10" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,160.46		
	For High Density Polyethylene (HDPE) Jacket, Add		23.69		
33 61 13 00-0510	EA 12" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket		2,737.55		
	For High Density Polyethylene (HDPE) Jacket, Add		31.35		
33 61 13 00-0511	Preinsulated Ductile Iron Carrier Pipe (33 61 13 00-0502) Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.				
33 61 13 00-0512	Ductile Iron Carrier Pipe (33 61 13 00-0511) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.				
33 61 13 00-0513	LF 4" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		205.77		56.28
33 61 13 00-0514	LF 6" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		301.84		80.83
33 61 13 00-0515	LF 8" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		412.68		97.65
33 61 13 00-0516	LF 10" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		527.73		116.20
33 61 13 00-0517	LF 12" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		655.72		143.03
33 61 13 00-0518	Ductile Iron Carrier Pipe (33 61 13 00-0511) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.				
33 61 13 00-0519	LF 4" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		220.61		56.32
33 61 13 00-0520	LF 6" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		323.89		80.83
33 61 13 00-0521	LF 8" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		444.78		97.65
33 61 13 00-0522	LF 10" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		570.09		116.20
33 61 13 00-0523	LF 12" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		708.56		143.03
33 61 13 00-0524	LF 14" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		777.03		152.61
33 61 13 00-0525	LF 16" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		879.34		163.51
33 61 13 00-0526	LF 18" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		994.03		174.42
33 61 13 00-0527	LF 20" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		1,096.98		185.32
33 61 13 00-0528	LF 24" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....		1,306.93		201.67
33 61 13 00-0529	Preinsulated Ductile Iron Fittings (33 61 13 00-0502)				
33 61 13 00-0530	Elbows (33 61 13 00-0529)				
33 61 13 00-0531	Elbows (33 61 13 00-0530) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.				
33 61 13 00-0532	EA 4" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket		1,864.29		
33 61 13 00-0533	EA 6" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket		2,537.36		
33 61 13 00-0534	EA 8" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket		3,599.76		
33 61 13 00-0535	EA 10" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket		4,794.24		

33 Utilities**33 60 Hydronic and Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0536	EA	12" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	6,191.96	
33 61 13 00-0537		Elbows (33 61 13 00-0530) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0538	EA	4" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	2,047.72	
33 61 13 00-0539	EA	6" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	2,805.21	
33 61 13 00-0540	EA	8" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	3,986.99	
33 61 13 00-0541	EA	10" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	5,289.19	
33 61 13 00-0542	EA	12" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	6,847.03	
33 61 13 00-0543	EA	14" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	8,349.18	
33 61 13 00-0544	EA	16" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	9,913.17	
33 61 13 00-0545	EA	18" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	12,386.38	
33 61 13 00-0546	EA	20" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	15,681.71	
33 61 13 00-0547	EA	24" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	20,136.82	
33 61 13 00-0548		Tees (33 61 13 00-0529)		
33 61 13 00-0549		Tees (33 61 13 00-0548) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0550	EA	4" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	2,776.73	
33 61 13 00-0551	EA	6" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	3,778.09	
33 61 13 00-0552	EA	8" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	5,356.50	
33 61 13 00-0553	EA	10" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	7,140.35	
33 61 13 00-0554	EA	12" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	9,217.51	
33 61 13 00-0555		Tees (33 61 13 00-0548) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0556	EA	4" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	3,049.11	
33 61 13 00-0557	EA	6" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	4,175.86	
33 61 13 00-0558	EA	8" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	5,931.53	
33 61 13 00-0559	EA	10" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	7,875.34	
33 61 13 00-0560	EA	12" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	10,190.31	
33 61 13 00-0561	EA	14" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	12,251.40	
33 61 13 00-0562	EA	16" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	14,550.56	
33 61 13 00-0563	EA	18" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	18,182.48	
33 61 13 00-0564	EA	20" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	23,028.73	
33 61 13 00-0565	EA	24" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	29,560.67	
33 61 13 00-0566		Reducers (33 61 13 00-0529)		
33 61 13 00-0567		Reducers (33 61 13 00-0566) Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0568	EA	4" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	1,585.61	
33 61 13 00-0569	EA	6" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	2,149.46	
33 61 13 00-0570	EA	8" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	3,045.73	
33 61 13 00-0571	EA	10" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	4,067.04	
33 61 13 00-0572	EA	12" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	5,241.86	



		Utilities	33	CS
		Hydronic and Steam Energy Utilities	33 60	
		Hydronic Energy Distribution	33 61	

MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0573	Reducers (33 61 13 00-0566) Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0574	EA 4" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	1,737.85	
33 61 13 00-0575	EA 6" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	2,371.77	
33 61 13 00-0576	EA 8" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	3,367.12	
33 61 13 00-0577	EA 10" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	4,477.84	
33 61 13 00-0578	EA 12" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	5,785.57	
33 61 13 00-0579	EA 14" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	6,947.82	
33 61 13 00-0580	EA 16" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	8,242.66	
33 61 13 00-0581	EA 18" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	10,247.68	
33 61 13 00-0582	EA 20" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	13,045.99	
33 61 13 00-0583	EA 24" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket	16,783.27	
33 61 13 00-0584	Tempered Water Piping Pre-Insulated (33 61 13 00-0052)		
33 61 13 00-0585	Fiberglass Reinforced Polyester (FRP) Carrier And Casing, 1" Polyurethane Insulation (33 61 13 00-0584)		
33 61 13 00-0586	LF 4" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	169.45	22.81
33 61 13 00-0587	LF 6" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	219.03	24.52
33 61 13 00-0588	LF 8" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	310.85	27.36
33 61 13 00-0589	LF 10" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	431.30	34.21
33 61 13 00-0590	LF 12" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	553.62	42.19
33 61 13 00-0591	Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing, 1" Polyurethane Insulation (33 61 13 00-0584)		
33 61 13 00-0592	LF 4" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation	74.10	24.52
33 61 13 00-0593	LF 6" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation	90.44	24.52
33 61 13 00-0594	LF 8" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation	105.91	24.52
33 61 13 00-0595	LF 10" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation	126.79	28.98
33 61 13 00-0596	LF 12" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation	152.37	36.79
33 61 13 00-0597	Polyvinyl Chloride (PVC) Carrier And Casing, 1" Polyurethane Insulation (33 61 13 00-0584)		
33 61 13 00-0598	LF 4" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation	74.10	24.52
33 61 13 00-0599	LF 6" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation	90.44	24.52
33 61 13 00-0600	LF 8" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation	104.79	24.52
33 61 13 00-0601	LF 10" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation	126.79	28.98
33 61 13 00-0602	LF 12" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation	152.36	36.79
33 70	Electrical Utilities (33)		
33 71	Electrical Utility Transmission and Distribution (33 70)		
33 71 19	Electrical Underground Ducts, Ductbanks and Manholes (33 71) Note: Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.		
33 71 19 13	Electrical Manholes and Handholes (33 71 19)		
33 71 19 13-0001	Electrical Handholes And Pull Boxes (33 71 19 13)		
33 71 19 13-0002	Electrical Pull Boxes (33 71 19 13-0001) See CSI section 33 05 63 00-0427 for handholes.		
33 71 19 13-0003	EA 24" x 36" x 24", Electric Pull Boxes, Precast Concrete	2,337.16	515.23
33 71 19 13-0004	EA 24" x 36" x 36", Electric Pull Boxes, Precast Concrete	2,822.39	571.10
33 71 19 13-0005	EA 30" x 48" x 36", Electric Pull Boxes, Precast Concrete	3,287.89	620.76
33 71 19 13-0006	EA 36" x 72" x 24", Electric Pull Boxes, Precast Concrete	5,223.60	744.91
33 71 19 13-0007	EA 36" x 60" x 36", Electric Pull Boxes, Precast Concrete	5,596.97	744.91
33 71 19 13-0008	EA 48" x 48" x 36", Electric Pull Boxes, Precast Concrete	6,032.35	775.95
33 71 19 13-0009	EA 48" x 60" x 48", Electric Pull Boxes, Precast Concrete	6,949.11	869.06
33 71 19 13-0010	Electrical Pull Boxes (CALTRANS) (33 71 19 13-0001)		
33 71 19 13-0011	EA Body, CALTRANS 3-1/2 Precast Concrete Pull Box	146.19	

33	Utilities
33 70	Electrical Utilities
33 71	Electrical Utility Transmission and Distribution



MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 71 19 13-0012	EA	Concrete Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	57.24	
33 71 19 13-0013	EA	Bolt Down Concrete Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	88.49	
33 71 19 13-0014	EA	Bolt Down Cast Iron Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	184.80	
33 71 19 13-0015	EA	Bolt Down Steel Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	284.65	
		<i>For Galvanized Steel Cover, Add</i>	<i>48.34</i>	
33 71 19 13-0016	EA	12" Extension, CALTRANS 3-1/2 Precast Concrete Pull Box.....	73.13	
33 71 19 13-0017	EA	Flat Plate Base, CALTRANS 3-1/2 Precast Concrete Pull Box.....	73.13	
33 71 19 13-0018	EA	Body, CALTRANS 5 Precast Concrete Pull Box.....	209.53	
33 71 19 13-0019	EA	Concrete Cover, CALTRANS 5 Precast Concrete Pull Box.....	76.15	
33 71 19 13-0020	EA	Bolt Down Concrete Cover, CALTRANS 5 Precast Concrete Pull Box.....	107.40	
33 71 19 13-0021	EA	Bolt Down Steel Cover, CALTRANS 5 Precast Concrete Pull Box.....	376.82	
		<i>For Galvanized Steel Cover, Add</i>	<i>88.63</i>	
33 71 19 13-0022	EA	12" Extension, CALTRANS 5 Precast Concrete Pull Box.....	102.67	
33 71 19 13-0023	EA	Flat Plate Base, CALTRANS 5 Precast Concrete Pull Box.....	96.17	
33 71 19 13-0024	EA	Body, CALTRANS 6 Precast Concrete Pull Box.....	228.44	
33 71 19 13-0025	EA	Concrete Cover, CALTRANS 6 Precast Concrete Pull Box.....	101.56	
33 71 19 13-0026	EA	Bolt Down Concrete Cover, CALTRANS 6 Precast Concrete Pull Box.....	132.80	
33 71 19 13-0027	EA	Bolt Down Steel Cover, CALTRANS 6 Precast Concrete Pull Box.....	516.26	
		<i>For Galvanized Steel Cover, Add</i>	<i>124.08</i>	
33 71 19 13-0028	EA	12" Extension, CALTRANS 6 Precast Concrete Pull Box.....	121.58	
33 71 19 13-0029	EA	Flat Plate Base, CALTRANS 6 Precast Concrete Pull Box.....	114.49	
33 71 19 13-0030	EA	6" Return Flat Plate Base, CALTRANS 6 Precast Concrete Pull Box.....	157.03	
33 71 19 13-0031	EA	Body, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	319.30	
33 71 19 13-0032	EA	Bolt Down Concrete Cover, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	452.45	
33 71 19 13-0033	EA	12" Extension, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	145.21	
33 71 19 13-0034	EA	Flat Plate Base, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	133.39	
33 71 19 13-0035	EA	Body, CALTRANS 5-T Precast Concrete Pull Box.....	417.51	
33 71 19 13-0036	EA	Bolt Down Concrete Cover, CALTRANS 5-T Precast Concrete Pull Box.....	653.33	
33 71 19 13-0037	EA	12" Extension, CALTRANS 5-T Precast Concrete Pull Box.....	173.57	
33 71 19 13-0038	EA	Flat Plate Base, CALTRANS 5-T Precast Concrete Pull Box.....	168.84	
33 71 19 13-0039	EA	Body, CALTRANS 6-T Precast Concrete Pull Box.....	590.03	
33 71 19 13-0040	EA	Bolt Down Concrete Cover, CALTRANS 6-T Precast Concrete Pull Box.....	913.30	
33 71 19 13-0041	EA	12" Extension, CALTRANS 6-T Precast Concrete Pull Box.....	291.74	
33 71 19 13-0042	EA	Flat Plate Base, CALTRANS 6-T Precast Concrete Pull Box.....	227.93	

33 71 19 13-0043 Precast Concrete Box Extensions (33 71 19 13-0001)

33 71 19 13-0044	EA	14" x 20" x 12", Precast Concrete Extension.....	205.71	44.01
33 71 19 13-0045	EA	18" x 28" x 12", Precast Concrete Extension.....	258.60	55.76
33 71 19 13-0046	EA	24" x 36" x 12", Precast Concrete Extension.....	338.92	76.29
33 71 19 13-0047	EA	30" x 48" x 12", Precast Concrete Extension.....	423.10	105.63
33 71 19 13-0048	EA	36" x 60" x 12", Precast Concrete Extension.....	660.31	129.11
33 71 19 13-0049	EA	36" x 72" x 12", Precast Concrete Extension.....	872.04	146.72
33 71 19 13-0050	EA	48" x 48" x 12", Precast Concrete Extension.....	976.06	134.97
33 71 19 13-0051	EA	48" x 60" x 12", Precast Concrete Extension.....	1,195.59	158.45

33 71 19 13-0052 Electrical Property Line Boxes (33 71 19 13)

33 71 19 13-0053	EA	3'-6" x 2'-9" x 2' Deep Property Line Box.....	4,939.04	419.01
33 71 19 13-0054	EA	4'-6" x 3'-6" x 4' Deep Property Line Box.....	5,807.64	434.53
33 71 19 13-0055	EA	6' x 4' x 5' Deep Property Line Box.....	6,369.32	527.64
33 71 19 13-0056	EA	11'-6" x 4'-6" x 6' Deep Property Line Box.....	9,753.99	775.95

33 71 19 13-0057 Manhole Accessories (33 71 19 13)

33 71 19 13-0058	EA	6" Precast Grade Ring Riser Casting.....	468.22	147.59
33 71 19 13-0059	EA	12" Precast Grade Ring Riser Casting.....	507.10	159.89
33 71 19 13-0060	EA	36" Opening Cast Iron Frame And Cover (NEENAH #R-1640-D).....	2,481.46	245.99
33 71 19 13-0061	EA	42" Opening Cast Iron Frame And Cover (NEENAH #R-1740-E1).....	3,241.55	307.48
33 71 19 13-0062	EA	Cast Iron Adjusting Ring (NEENAH #R-1979).....	1,032.55	164.20
33 71 19 13-0063	EA	Cast Iron Frame And Cover (NEENAH #R-1640-B).....	1,319.03	184.49

33 71 19 23 Trenched Electrical Underground Duct and Ductbanks (33 71 19)

33 71 19 23-0001 Underground Ductbank (33 71 19 23)

Note: Installation of single or multiple configuration underground utility raceways assembly to have minimum 3" concrete leveling base and encased in concrete envelope. Based on minimum 100' run, minimum 30" bury depth. Includes installation in trench using the appropriate supports, cleaning to remove any obstructions and installation of nylon pull string. Excludes trenching, concrete, backfilling, grading and seeding. Duct Banks are to be installed according to the appropriate sections of the accompanying specifications. Individual rows to be stacked for larger duct bank configurations. See CSI section 03 30 53 00-0001 for concrete.

33 71 19 23-0002 Rigid Galvanized Steel Conduit, Galvanized Rigid Conduit (GRC) Or Rigid Galvanized Steel (RGS), Duct Bank (33 71 19 23-0001)

Note: Includes appropriate spacers and fittings.

33 71 19 23-0003	LF	2 At 2", Rigid Galvanized Conduit Duct Bank.....	39.17	
33 71 19 23-0004	LF	4 At 2", Rigid Galvanized Conduit Duct Bank.....	78.37	
33 71 19 23-0005	LF	2 At 3", Rigid Galvanized Conduit Duct Bank.....	81.23	
33 71 19 23-0006	LF	4 At 3", Rigid Galvanized Conduit Duct Bank.....	162.94	
33 71 19 23-0007	LF	2 At 4", Rigid Galvanized Conduit Duct Bank.....	119.68	
33 71 19 23-0008	LF	4 At 4", Rigid Galvanized Conduit Duct Bank.....	240.49	



		Utilities	33	33
		Electrical Utilities	33 70	
		Electrical Utility Transmission and Distribution	33 71	

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
33 71 19 23-0009	LF	6 At 4", Rigid Galvanized Conduit Duct Bank	361.13	
33 71 19 23-0010	LF	2 At 5", Rigid Galvanized Conduit Duct Bank	227.71	
33 71 19 23-0011	LF	4 At 5", Rigid Galvanized Conduit Duct Bank	454.29	
33 71 19 23-0012	LF	6 At 5", Rigid Galvanized Conduit Duct Bank	697.68	
33 71 19 23-0013	LF	2 At 6", Rigid Galvanized Conduit Duct Bank	323.29	
33 71 19 23-0014	LF	4 At 6", Rigid Galvanized Conduit Duct Bank	649.00	
33 71 19 23-0015	LF	6 At 6", Rigid Galvanized Conduit Duct Bank	966.71	
33 71 19 23-0016 Polyvinyl Chloride (PVC), Type EB-20 Duct Bank System (33 71 19 23-0001)				
Note: Includes appropriate spacers and fittings.				
33 71 19 23-0017	LF	1 At 2", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	8.88	
33 71 19 23-0018	LF	2 At 2", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	19.33	
33 71 19 23-0019	LF	4 At 2", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	37.28	
33 71 19 23-0020	LF	1 At 3", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	11.83	
33 71 19 23-0021	LF	2 At 3", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	23.62	
33 71 19 23-0022	LF	4 At 3", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	47.88	
33 71 19 23-0023	LF	1 At 4", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	16.15	
33 71 19 23-0024	LF	2 At 4", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	32.34	
33 71 19 23-0025	LF	4 At 4", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	64.77	
33 71 19 23-0026	LF	6 At 4", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	97.12	
33 71 19 23-0027	LF	1 At 5", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	20.96	
33 71 19 23-0028	LF	2 At 5", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	41.86	
33 71 19 23-0029	LF	4 At 5", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	81.45	
33 71 19 23-0030	LF	6 At 5", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	116.54	
33 71 19 23-0031	LF	1 At 6", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	35.96	
33 71 19 23-0032	LF	2 At 6", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	57.23	
33 71 19 23-0033	LF	4 At 6", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	114.68	
33 71 19 23-0034	LF	6 At 6", Duplex Polyvinyl Chloride (PVC), Type EB Duct Bank	183.24	
33 71 19 23-0035 Polyvinyl Chloride (PVC), Type DB-60 Duct Bank System (33 71 19 23-0001)				
Note: Includes appropriate spacers and fittings.				
33 71 19 23-0036	LF	1 At 2", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	9.90	
33 71 19 23-0037	LF	2 At 2", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	21.40	
33 71 19 23-0038	LF	4 At 2", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	41.19	
33 71 19 23-0039	LF	1 At 3", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	12.40	
33 71 19 23-0040	LF	2 At 3", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	24.78	
33 71 19 23-0041	LF	4 At 3", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	49.34	
33 71 19 23-0042	LF	1 At 4", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	16.73	
33 71 19 23-0043	LF	2 At 4", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	33.52	
33 71 19 23-0044	LF	4 At 4", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	67.13	
33 71 19 23-0045	LF	6 At 4", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	100.66	
33 71 19 23-0046	LF	1 At 5", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	21.85	
33 71 19 23-0047	LF	2 At 5", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	43.63	
33 71 19 23-0048	LF	4 At 5", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	85.00	
33 71 19 23-0049	LF	6 At 5", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	121.87	
33 71 19 23-0050	LF	1 At 6", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	37.19	
33 71 19 23-0051	LF	2 At 6", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	59.78	
33 71 19 23-0052	LF	4 At 6", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	119.79	
33 71 19 23-0053	LF	6 At 6", Duplex Polyvinyl Chloride (PVC), Type DB Duct Bank	190.89	
33 71 19 23-0054 Male Or Female Adapters (33 71 19 23-0001)				
33 71 19 23-0055	EA	2" Adapter	45.68	
33 71 19 23-0056	EA	3" Adapter	70.34	
33 71 19 23-0057	EA	4" Adapter	92.50	
33 71 19 23-0058	EA	5" Adapter	155.45	
33 71 19 23-0059	EA	6" Adapter	189.11	
33 71 19 23-0060 Underground Electrical Concrete Markers (33 71 19 23)				
33 71 19 23-0061	EA	36" x 6" x 6", Underground Electric Concrete Marker	363.27	

END OF SECTION 33

33	33	Utilities
	33 70	Electrical Utilities
	33 71	Electrical Utility Transmission and Distribution



MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST		UNIT COST

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34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0020 EA Remove And Patch Up To 16 SF Of Verticals Or Overheads, Up To 6" SSI Flex Patch (Other Than Specified)	4,265.75	
For Owner Furnished Material, Deduct	-1,613.02	
34 05 43 00-0021 SF Remove And Patch >16 SF Verticals Or Overheads, Up To 6" SSI Flex Patch (Other Than Specified)	211.93	
For Owner Furnished Material, Deduct	-100.81	
34 05 43 00-0022 Remove And Patch Pier Caps And Pedestals (34 05 43 00-0003)		
Note: For patching pier caps and pedestals, there are tasks with a unit of measure of EA for a quantity of less than 16 SF, followed by a SF task for other quantities. For those tasks the contractor will be paid the first task with a unit of measure of EA, plus an additional task (less the initial 16 SF) to arrive at the total quantity for the project.		
34 05 43 00-0023 EA Remove And Patch Up To 16 SF Of Pier Caps And Pedestals, Up To 6" Portland Cement Based Repair Material	3,326.74	
34 05 43 00-0024 SF Remove And Patch >16 SF Pier Caps And Pedestals, Up To 6" Portland Cement Based Repair Material	142.30	
34 05 43 00-0025 EA Remove And Patch Up To 16 SF Of Pier Caps And Pedestals, Up To 6" Rapid Set Concrete Repair Material	3,404.39	
34 05 43 00-0026 SF Remove And Patch >16 SF Pier Caps And Pedestals, Up To 6" Rapid Set Concrete Repair Material	147.15	
34 05 43 00-0027 EA Patch Up To 16 SF Of Pier Caps And Pedestals, Up To 6" Rapid Set Polymer Concrete Methyl Methacrylate	3,387.21	
34 05 43 00-0028 SF Remove And Patch >16 SF Pier Caps And Pedestals, Up To 6" Rapid Set Polymer Concrete Methyl Methacrylate	146.08	
34 05 43 00-0029 EA Remove And Patch Up To 16 SF Of Pier Caps And Pedestals, Up To 6" SSI Flex Patch (Other Than Specified)	4,703.24	
For Owner Furnished Material, Deduct	-1,613.02	
34 05 43 00-0030 SF Remove And Patch >16 SF Pier Caps And Pedestals, Up To 6" SSI Flex Patch (Other Than Specified)	228.33	
For Owner Furnished Material, Deduct	-100.81	
34 05 43 00-0031 Remove And Patch Circular Piers (34 05 43 00-0003)		
Note: For patching circular piers, there are tasks with a unit of measure of EA for a quantity of less than 16 SF, followed by a SF task for other quantities. For those tasks the contractor will be paid the first task with a unit of measure of EA, plus an additional task (less the initial 16 SF) to arrive at the total quantity for the project.		
34 05 43 00-0032 EA Remove And Patch Up To 16 SF Of Circular Pier, Up To 6" Portland Cement Based Repair Material	3,982.98	
34 05 43 00-0033 SF Remove And Patch >16 SF Of Circular Pier, Up To 6" Portland Cement Based Repair Material	158.70	
34 05 43 00-0034 EA Remove And Patch Up To 16 SF Of Circular Pier, Up To 6" Rapid Set Concrete Repair Material	4,060.63	
34 05 43 00-0035 SF Remove And Patch >16 SF Of Circular Pier, Up To 6" Rapid Set Concrete Repair Material	163.55	
34 05 43 00-0036 EA Remove And Patch Up To 16 SF Of Circular Pier, Up To 6" Rapid Set Polymer Concrete Methyl Methacrylate	4,043.45	
34 05 43 00-0037 SF Remove And Patch >16 SF Circular Pier, Up To 6" Rapid Set Polymer Concrete Methyl Methacrylate	183.77	
34 05 43 00-0038 EA Remove And Patch Up To 16 SF Of Circular Pier, Up To 6" SSI Flex Patch (Other Than Specified)	5,359.48	
For Owner Furnished Material, Deduct	-1,613.02	
34 05 43 00-0039 SF Remove And Patch >16 SF Of Circular Pier, Up To 6" SSI Flex Patch (Other Than Specified)	244.73	
For Owner Furnished Material, Deduct	-100.81	
34 05 43 00-0040 Fiber Reinforced Shotcrete Repair For Bridges (34 05 43)		
34 05 43 00-0041 EA Mobilize Fiber Reinforced Shotcrete Repair Crew	863.01	
34 05 43 00-0042 SF Up To 2" Thick, Fiber Reinforced Shotcrete Repair	66.04	
For Up To 25, Add	32.37	
For >25 To 50, Add	16.18	
For >50 To 150, Add	6.47	
34 05 43 00-0043 SF >2" To 4" Thick, Fiber Reinforced Shotcrete Repair	78.14	
For Up To 25, Add	37.76	
For >25 To 50, Add	18.88	
For >50 To 150, Add	7.55	
34 05 43 00-0044 SF >4" To 6" Thick, Fiber Reinforced Shotcrete Repair	90.22	
For Up To 25, Add	43.15	
For >25 To 50, Add	21.58	
For >50 To 150, Add	8.63	
34 05 43 00-0045 Bridge Railing (34 05 43)		
34 05 43 00-0046 Remove And Store Bridge Railings (34 05 43 00-0045)		
34 05 43 00-0047 LF Removal And Storage Of One Rail Bridge Railing	7.43	
34 05 43 00-0048 LF Removal And Storage Of Two Rail Bridge Railing	14.85	
34 05 43 00-0049 LF Removal And Storage Of Three Rail Bridge Railing	22.28	
34 05 43 00-0050 LF Removal And Storage Of Four Rail Bridge Railing	29.70	
34 05 43 00-0051 Install Stored Or Supplied Bridge Railings (34 05 43 00-0045)		
34 05 43 00-0052 LF Install Stored Or Supplied One Rail Bridge Railing	62.57	
34 05 43 00-0053 LF Install Stored Or Supplied Two Rail Bridge Railing	125.14	
34 05 43 00-0054 LF Install Stored Or Supplied Three Rail Bridge Railing	187.71	
34 05 43 00-0055 LF Install Stored Or Supplied Four Rail Bridge Railing	250.29	
34 05 43 00-0056 Bridge Bearings (34 05 43)		
Note: Excludes drilling and anchor bolts.		
34 05 43 00-0057 Elastomeric Bearings (34 05 43 00-0056)		
34 05 43 00-0058 EA Plain Elastomeric, Type EP Bearing, 716-10, All Loads	1,192.78	319.80
34 05 43 00-0059 EA Steel Laminated Elastomeric, Type EL Bearing, 716-11, Up To 100K	1,785.50	639.59
For >100K To 250K Load, Add	90.61	
For >250K To 500K Load, Add	181.21	
For >500K To 750K Load, Add	271.82	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0060	EA		Elastomeric with External Load Plates, Type EB Bearing, 716-12, Up To 100K <i>For >100K To 250K Load, Add</i> <i>For >250K To 500K Load, Add</i> <i>For >500K To 750K Load, Add</i>	4,067.57 274.84 549.68 824.52	959.39
34 05 43 00-0061			Fixed Structural Pot Bearings (34 05 43 00-0056)		
34 05 43 00-0062	EA		100K To 250K Fixed Structural Pot Bearing	3,580.74	
34 05 43 00-0063	EA		>250K To 500K Fixed Structural Pot Bearing	6,470.19	
34 05 43 00-0064	EA		>500K To 750K Fixed Structural Pot Bearing	7,359.61	
34 05 43 00-0065			Universal Structural Expansion Pot Bearings (34 05 43 00-0056)		
34 05 43 00-0066	EA		100K To 250K Universal Structural Pot Bearing	4,439.38	
34 05 43 00-0067	EA		>250K To 500K Universal Structural Pot Bearing	6,788.82	
34 05 43 00-0068	EA		>500K To 750K Universal Structural Pot Bearing	9,142.21	
34 05 43 00-0069			Guided Structural Expansion Pot Bearings (34 05 43 00-0056)		
34 05 43 00-0070	EA		100K To 250K Guided Structural Pot Bearing	4,597.71	
34 05 43 00-0071	EA		>250K To 500K Guided Structural Pot Bearing	7,026.24	
34 05 43 00-0072	EA		>500K To 750K Guided Structural Pot Bearing	9,458.78	
34 05 43 00-0073			Remove, Repair And Install Bridge Bearings (34 05 43 00-0056)		
34 05 43 00-0074			Remove Structural Bearings (34 05 43 00-0073)		
34 05 43 00-0075	EA		100K To 250K Structural Bearing Removal	459.71	
34 05 43 00-0076	EA		>250K To 500K Structural Bearing Removal	919.42	
34 05 43 00-0077	EA		>500K To 750K Structural Bearing Removal	1,379.13	
34 05 43 00-0078			Install And Set Supplied Or Restored Structural Bearings (34 05 43 00-0073)		
34 05 43 00-0079	EA		100K To 250K Structural Bearing - Install And Set Supplied Or Restored Bearing	689.56	
34 05 43 00-0080	EA		>250K To 500K Structural Bearing - Install And Set Supplied Or Restored Bearing	1,379.13	
34 05 43 00-0081	EA		>500K To 750K Structural Bearing - Install And Set Supplied Or Restored Bearing	2,068.68	
34 05 43 00-0082			Power Wash And Paint Structural Bearings (34 05 43 00-0073) Note: Includes bearing plates.		
34 05 43 00-0083	EA		100K To 250K Structural Bearing - Power Wash And Paint	1,075.90	
34 05 43 00-0084	EA		>250K To 500K Structural Bearing - Power Wash And Paint	1,215.53	
34 05 43 00-0085	EA		>500K To 750K Structural Bearing - Power Wash And Paint	1,355.15	
34 05 43 00-0086			Power Wash, Mechanically Clean And Paint Structural Bearings (34 05 43 00-0073) Note: Includes bearing plates. Excludes paint removal.		
34 05 43 00-0087	EA		100K To 250K Structural Bearing - Power Wash, Mechanically Clean And Paint	1,431.27	
			<i>For Vacuum Contained Cleaning, Add</i>	355.34	
34 05 43 00-0088	EA		>250K To 500K Structural Bearing - Power Wash, Mechanically Clean And Paint	1,615.28	
			<i>For Vacuum Contained Cleaning, Add</i>	399.75	
34 05 43 00-0089	EA		>500K To 750K Structural Bearing - Power Wash, Mechanically Clean And Paint	1,798.88	
			<i>For Vacuum Contained Cleaning, Add</i>	444.05	
34 05 43 00-0090			Power Wash And Paint Only Bearing Plates (34 05 43 00-0073)		
34 05 43 00-0091	EA		100K To 250K Structural Bearing - Power Wash And Paint Only Bearing Plates	671.19	
34 05 43 00-0092	EA		>250K To 500K Structural Bearing - Power Wash And Paint Only Bearing Plates	807.63	
34 05 43 00-0093	EA		>500K To 750K Structural Bearing - Power Wash And Paint Only Bearing Plates	944.09	
34 05 43 00-0094			Power Wash, Mechanically Clean And Paint Only Bearing Plates (34 05 43 00-0073)		
34 05 43 00-0095	EA		100K To 250K Structural Bearing - Power Wash, Mechanically Clean And Paint Only Bearing Plates	895.09	
			<i>For Vacuum Contained Cleaning, Add</i>	222.09	
34 05 43 00-0096	EA		>250K To 500K Structural Bearing - Power Wash, Mechanically Clean And Paint Only Bearing Plates	1,074.13	
			<i>For Vacuum Contained Cleaning, Add</i>	266.50	
34 05 43 00-0097	EA		>500K To 750K Structural Bearing - Power Wash, Mechanically Clean And Paint Only Bearing Plates	1,252.78	
			<i>For Vacuum Contained Cleaning, Add</i>	310.80	
34 05 43 00-0098			Sand Blast And Paint Structural Bearings (34 05 43 00-0073) Note: Includes bearing plates.		
34 05 43 00-0099	EA		100K To 250K Structural Bearing - Sand Blast And Paint	1,715.50	
			<i>For Vacuum Contained Cleaning, Add</i>	426.40	
34 05 43 00-0100	EA		>250K To 500K Structural Bearing - Sand Blast And Paint	1,935.07	
			<i>For Vacuum Contained Cleaning, Add</i>	479.70	
34 05 43 00-0101	EA		>500K To 750K Structural Bearing - Sand Blast And Paint	2,154.65	
			<i>For Vacuum Contained Cleaning, Add</i>	533.00	
34 05 43 00-0102			Sand Blast And Paint Only Bearing Plates (34 05 43 00-0073)		

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
34 05 43 00-0103	EA	100K To 250K Structural Bearing - Sand Blast And Paint Only Bearing Plates.....	1,072.71		
		<i>For Vacuum Contained Cleaning, Add</i>	266.50		
34 05 43 00-0104	EA	>250K To 500K Structural Bearing - Sand Blast And Paint Only Bearing Plates.....	1,287.33		
		<i>For Vacuum Contained Cleaning, Add</i>	319.80		
34 05 43 00-0105	EA	>500K To 750K Structural Bearing - Sand Blast And Paint Only Bearing Plates.....	1,501.96		
		<i>For Vacuum Contained Cleaning, Add</i>	373.10		
34 05 43 00-0106		Grease Structural Bearings (34 05 43 00-0073)			
34 05 43 00-0107	EA	100K To 250K Structural Bearing - Grease	66.63		
34 05 43 00-0108	EA	>250K To 500K Structural Bearing - Grease	99.93		
34 05 43 00-0109	EA	>500K To 750K Structural Bearing - Grease	133.25		
34 05 43 00-0110		Replace Bronze Plate Wearing Pad (34 05 43 00-0073)			
34 05 43 00-0111	SF	Removal And Replacement Of Bronze Plate Wearing Pad	458.82		
34 05 43 00-0112		Bridge Bearing Rivet Removal (34 05 43 00-0073)			
		See CSI section 02 41 19 13-0082 for reaming of hole, 34 05 43 00-0272 for anchors and grouting.			
34 05 43 00-0113	EA	Bridge Bearing Rivet Removal.....	266.49		
34 05 43 00-0114		Bridge Pintels, Side Keeper, And Shim Plates (34 05 43)			
34 05 43 00-0115	EA	Removal And Replacement Of Bridge Pintel	280.84		
34 05 43 00-0116	EA	Removal And Replacement Of Bridge Side Keeper	286.86		
34 05 43 00-0117	EA	Refabricate And Install Shim Plates At One Bearing	171.52		
34 05 43 00-0118	EA	Refabricate And Install Beveled Shim Plates At One Bearing	171.52		
34 05 43 00-0119	EA	Refabricate And Install Finger Shim Plates At One Bearing	171.52		
34 05 43 00-0120		Vertical Jacking And Lifting For Bridges (34 05 43)			
		Note: For vertical jacking of structural members. Includes jacks, hydraulics, and synchronizing equipment where appropriate. Excludes engineering and design. See CSI section 03 01 30 71-0000 for concrete repair, 05 12 23 00-0000 for temporary steel members.			
34 05 43 00-0121		Mobilize Jacking Crew And Equipment (34 05 43 00-0120)			
		Note: Includes removing equipment after completion.			
34 05 43 00-0122	EA	Mobilize Bridge Jacking Crew and Equipment.....	2,398.48		
		<i>For Temporary Support Mobilization, Add</i>	4,796.96		
34 05 43 00-0123		Vertical Jacking And Lifting Per Point of Contact (34 05 43 00-0120)			
		Note: Includes positioning jack, shims, lifting, and lowering. Excludes temporary steel, temporary lumber, and concrete repairs.			
34 05 43 00-0124	EA	Up To 10 Ton Jack, Per Point Of Contact.....	399.75		
		<i>For Synchronized Lift, Add</i>	79.95		
		<i>For Jacking From Temporary Support, Add</i>	159.90		
34 05 43 00-0125	EA	>10 To 20 Ton Jack, Per Point Of Contact	466.37		
		<i>For Synchronized Lift, Add</i>	93.27		
		<i>For Jacking From Temporary Support, Add</i>	186.55		
34 05 43 00-0126	EA	>20 To 40 Ton Jack, Per Point Of Contact	533.00		
		<i>For Synchronized Lift, Add</i>	106.60		
		<i>For Jacking From Temporary Support, Add</i>	213.20		
34 05 43 00-0127	EA	>40 To 60 Ton Jack, Per Point Of Contact	599.62		
		<i>For Synchronized Lift, Add</i>	119.92		
		<i>For Jacking From Temporary Support, Add</i>	239.85		
34 05 43 00-0128	EA	>60 To 80 Ton Jack, Per Point Of Contact	666.24		
		<i>For Synchronized Lift, Add</i>	133.25		
		<i>For Jacking From Temporary Support, Add</i>	266.50		
34 05 43 00-0129	EA	>80 To 100 Ton Jack, Per Point Of Contact	732.87		
		<i>For Synchronized Lift, Add</i>	146.57		
		<i>For Jacking From Temporary Support, Add</i>	293.15		
34 05 43 00-0130	EA	>100 To 120 Ton Jack, Per Point Of Contact	799.49		
		<i>For Synchronized Lift, Add</i>	159.90		
		<i>For Jacking From Temporary Support, Add</i>	319.80		
34 05 43 00-0131	EA	>120 To 140 Ton Jack, Per Point Of Contact	832.80		
		<i>For Synchronized Lift, Add</i>	166.56		
		<i>For Jacking From Temporary Support, Add</i>	333.12		
34 05 43 00-0132	EA	>140 To 160 Ton Jack, Per Point Of Contact	866.12		
		<i>For Synchronized Lift, Add</i>	173.22		
		<i>For Jacking From Temporary Support, Add</i>	346.45		
34 05 43 00-0133	EA	>160 To 250 Ton Jack, Per Point Of Contact	866.12		
		<i>For Synchronized Lift, Add</i>	173.22		
		<i>For Jacking From Temporary Support, Add</i>	346.45		
34 05 43 00-0134	EA	>250 To 300 Ton Jack, Per Point Of Contact	932.75		
		<i>For Synchronized Lift, Add</i>	186.55		
		<i>For Jacking From Temporary Support, Add</i>	373.10		
34 05 43 00-0135	EA	>300 To 400 Ton Jack, Per Point Of Contact	999.36		
		<i>For Synchronized Lift, Add</i>	199.87		
		<i>For Jacking From Temporary Support, Add</i>	399.74		
34 05 43 00-0136	EA	>400 To 500 Ton Jack, Per Point Of Contact	1,065.99		
		<i>For Synchronized Lift, Add</i>	213.20		
		<i>For Jacking From Temporary Support, Add</i>	426.40		



MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0137	EA >500 To 600 Ton Jack, Per Point Of Contact For Synchronized Lift, Add For Jacking From Temporary Support, Add	1,132.61 226.52 453.04	
34 05 43 00-0138	Daily Charge For Vertical Jacking Equipment (34 05 43 00-0120) Note: Includes hydraulics and synchronizing equipment.		
34 05 43 00-0139	DAY Up To 10 Ton Jacking Equipment Charge By The Day	21.12	
34 05 43 00-0140	DAY >10 To 20 Ton Jacking Equipment Charge By The Day	42.25	
34 05 43 00-0141	DAY >20 To 40 Ton Jacking Equipment Charge By The Day	84.49	
34 05 43 00-0142	DAY >40 To 60 Ton Jacking Equipment Charge By The Day	126.74	
34 05 43 00-0143	DAY >60 To 80 Ton Jacking Equipment Charge By The Day	168.98	
34 05 43 00-0144	DAY >80 To 100 Ton Jacking Equipment Charge By The Day	211.23	
34 05 43 00-0145	DAY >100 To 120 Ton Jacking Equipment Charge By The Day	253.47	
34 05 43 00-0146	DAY >120 To 140 Ton Jacking Equipment Charge By The Day	295.72	
34 05 43 00-0147	DAY >140 To 160 Ton Jacking Equipment Charge By The Day	337.97	
34 05 43 00-0148	DAY >160 To 250 Ton Jacking Equipment Charge By The Day	385.65	
34 05 43 00-0149	DAY >250 To 300 Ton Jacking Equipment Charge By The Day	439.64	
34 05 43 00-0150	DAY >300 To 400 Ton Jacking Equipment Charge By The Day	556.88	
34 05 43 00-0151	DAY >400 To 500 Ton Jacking Equipment Charge By The Day	661.28	
34 05 43 00-0152	DAY >500 To 600 Ton Jacking Equipment Charge By The Day	753.89	
34 05 43 00-0153	Temporary Shoring (34 05 43 00-0120) Note: Setup includes material use cost and initial erection. Setup is also used for relocation to the opposite abutment. Relocation includes moving and setup at a new jacking location. Takedown includes disassembly and removal from the site. Excludes earthwork and temporary stone.		
34 05 43 00-0154	HP8x36 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0155	EA HP8x36 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Setup	3,329.10	
34 05 43 00-0156	EA HP8x36 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Relocation	2,390.00	
34 05 43 00-0157	EA HP8x36 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Take Down And Removal	425.81	
34 05 43 00-0158	HP12x53 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0159	EA HP12x53 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Setup	3,472.11	
34 05 43 00-0160	EA HP12x53 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Relocation	2,264.95	
34 05 43 00-0161	EA HP12x53 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Take Down And Removal	408.47	
34 05 43 00-0162	HP12x53 Column Attached To Existing Footing, Temporary Wood Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0163	EA HP12x53 Column Attached To Existing Footing, Temporary Wood Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Setup	2,354.81	
34 05 43 00-0164	EA HP12x53 Column Attached To Existing Footing, Temporary Wood Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Relocation	1,129.48	
34 05 43 00-0165	EA HP12x53 Column Attached To Existing Footing, Temporary Wood Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Take Down And Removal	260.04	
34 05 43 00-0166	HP14x117 Column Attached to Existing Footing, Permanent Steel Stiffeners, Braced by Angles Attached to Abutment Face, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0167	EA HP14x117 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Setup	6,129.77	
34 05 43 00-0168	EA HP14x117 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Relocation	3,502.61	
34 05 43 00-0169	EA HP14x117 Column Attached To Existing Footing, Permanent Steel Stiffener, Braced By Angles Attached To Abutment Face, Temporary Shoring Take Down And Removal	699.93	
34 05 43 00-0170	Mat Supported HP12x63 Column, Braced by Channel and Angles, Attached to Existing 4" Diameter Concrete Column, Temporary Shoring (34 05 43 00-0153) Note: Excludes mats. See CSI section 01 22 23 00-0587 for mats.		
34 05 43 00-0171	EA Mat Supported HP12x63 Column, Braced By Channel And Angles Attached To Existing 4' Diameter Concrete Column, Temporary Shoring Setup	6,197.40	
	Note: Excludes mats.		

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0172	EA	Mat Supported HP12x63 Column, Braced By Channel And Angles Attached To Existing 4' Diameter Concrete Column, Temporary Shoring Relocation..... Note: Excludes mats.	2,194.12	
34 05 43 00-0173	EA	Mat Supported HP12x63 Column, Braced By Channel And Angles Attached To Existing 4' Diameter Concrete Column, Temporary Shoring Take Down And Removal..... Note: Excludes mats.	1,068.32	
34 05 43 00-0174		Mat Supported HP12x53 Column, Braced by Channel and Angles, Attached to Abutment Face, Temporary Shoring (34 05 43 00-0153) Note: Excludes mats. See CSI section 01 22 23 00-0587 for mats.		
34 05 43 00-0175	EA	Mat Supported HP12x53 Column, Braced By Angles Attached To Abutment Face, Temporary Shoring Setup.....	2,631.10	
34 05 43 00-0176	EA	Mat Supported HP12x53 Column, Braced By Angles Attached To Abutment Face, Temporary Shoring Relocation..... Note: Excludes mats.	659.20	
34 05 43 00-0177	EA	Mat Supported HP12x53 Column, Braced By Angles Attached To Abutment Face, Temporary Shoring Take Down And Removal..... Note: Excludes mats.	366.22	
34 05 43 00-0178		MC18x51.9 Attached to Abutment Face, Temporary Wood Stiffeners, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0179	EA	MC18x51.9 Attached To Abutment Face, Temporary Shoring Setup.....	3,784.74	
34 05 43 00-0180	EA	MC18x51.9 Attached To Abutment Face, Temporary Shoring Relocation.....	3,539.03	
34 05 43 00-0181	EA	MC18x51.9 Attached To Abutment Face, Temporary Shoring Take Down And Removal.....	357.55	
34 05 43 00-0182		MC15x74 Attached to Abutment Face, Temporary Wood Stiffeners, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0183	EA	WT15x74 Attached To Abutment Face, Temporary Shoring Setup.....	2,521.78	
34 05 43 00-0184	EA	WT15x74 Attached To Abutment Face, Temporary Shoring Relocation.....	2,325.15	
34 05 43 00-0185	EA	WT15x74 Attached To Abutment Face, Temporary Shoring Take Down And Removal.....	294.71	
34 05 43 00-0186		Plates And Angles Connecting Existing Diaphragm To Existing Bearing Stiffener At Pedestrian Bridge Column, Temporary Shoring (34 05 43 00-0153)		
34 05 43 00-0187	EA	Plates And Angles Connecting Existing Diaphragm To Existing Bearing Stiffener At Pedestrian Bridge, Temporary Shoring Setup..... Note: Left in place.	1,453.88	
34 05 43 00-0188		Temporary Bridge Shoring Components (34 05 43 00-0153) Note: For temporary shoring of columns and abutments associated with vertical jacking of structural members. Includes lifting equipment where appropriate. Excludes engineering and design. See CSI section 01 54 23 00-0060 for temporary lumber.		
34 05 43 00-0189		Fabricate, Install And Remove After Use Temporary Steel Bridge Shoring (34 05 43 00-0189) Note: Includes cutting, drilling and welds. Excludes gravel, mats, anchors, and bolts.		
34 05 43 00-0190	LF	Fabricate And Install MC7 x 19.1 For Temporary Bridge Shoring..... Note: Remove after use.	102.59	
34 05 43 00-0191	LF	Fabricate And Install MC18 x 51.9 For Temporary Bridge Shoring..... Note: Remove after use.	225.60	
34 05 43 00-0192	LF	Fabricate And Install HP12 x 53 For Temporary Bridge Shoring..... Note: Remove after use.	178.87	
34 05 43 00-0193	LF	Fabricate And Install HP12 x 63 For Temporary Bridge Shoring..... Note: Remove after use.	200.82	
34 05 43 00-0194	LF	Fabricate And Install 3" x 3" x 3/8" Angle Iron For Temporary Bridge Shoring..... Note: Remove after use.	25.63	
		<i>For Galvanized Steel, Add</i>	6.63	
34 05 43 00-0195	LF	Fabricate And Install 4" x 4" x 3/8" Angle Iron For Temporary Bridge Shoring..... Note: Remove after use.	32.69	
		<i>For Galvanized Steel, Add</i>	9.02	
34 05 43 00-0196	LF	Fabricate And Install 7" x 4" x 5/8" Angle Iron For Temporary Bridge Shoring..... Note: Remove after use.	66.37	
		<i>For Galvanized Steel, Add</i>	20.40	
34 05 43 00-0197	LF	Fabricate And Install 5" x 3-1/2" x 3/4" Angle Iron For Temporary Bridge Shoring..... Note: Remove after use.	57.63	
		<i>For Galvanized Steel, Add</i>	18.27	
34 05 43 00-0198	LF	Fabricate And Install 7" x 4" x 3/4" Angle Iron For Temporary Bridge Shoring..... Note: Remove after use.	76.26	
		<i>For Galvanized Steel, Add</i>	24.18	
34 05 43 00-0199	SF	Fabricate And Install 5/8" A36 Steel Plates For Temporary Bridge Shoring..... Note: Remove after use.	105.55	
		<i>For A50 Grade Steel, Add</i>	3.23	
34 05 43 00-0200	SF	Fabricate And Install 7/8" A36 Steel Plates For Temporary Bridge Shoring..... Note: Remove after use.	147.76	
		<i>For A50 Grade Steel, Add</i>	4.52	
34 05 43 00-0201	SF	Fabricate And Install 1-3/8" A36 Steel Plates For Temporary Bridge Shoring..... Note: Remove after use.	232.21	
		<i>For A50 Grade Steel, Add</i>	7.11	
34 05 43 00-0202	SF	Fabricate And Install 1-1/2" A36 Steel Plates For Temporary Bridge Shoring..... Note: Remove after use.	253.33	
		<i>For A50 Grade Steel, Add</i>	7.76	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0203		Relocate Temporary Steel Bridge Shoring (34 05 43 00-0188) Note: Includes removal after use.		
34 05 43 00-0204	EA	Relocate Complete Temporary Steel Bridge Shoring.....	4,682.46	
		Note: Remove after use. Includes relocating support mats. Excludes anchors, bolts or additional steel if required.		
34 05 43 00-0205	SF	Relocate 1-3/8" A36 Steel Plates For Temorary Bridge Shoring.....	90.04	
		Note: Remove after use.		
34 05 43 00-0206	LF	Relocate HP12 x 63 For Temorary Bridge Shoring.....	74.92	
		Note: Remove after use.		
34 05 43 00-0207	LF	Relocate 3" x 3" x 3/8" Angle Iron For Temorary Bridge Shoring.....	14.94	
		Note: Remove after use.		
34 05 43 00-0208	LF	Relocate 4" x 4" x 3/8" Angle Iron For Temorary Bridge Shoring.....	18.14	
		Note: Remove after use.		
34 05 43 00-0209	LF	Relocate 7" x 4" x 3/4" Angle Iron For Temorary Bridge Shoring.....	37.26	
		Note: Remove after use.		
34 05 43 00-0210	SF	Relocate 7/8" A36 Steel Plates For Temorary Bridge Shoring.....	57.29	
		Note: Remove after use.		
34 05 43 00-0211	LF	Relocate MC7 x 19.1 For Temorary Bridge Shoring.....	43.44	
		Note: Remove after use.		
34 05 43 00-0212	LF	Relocate HP12 x 53 For Temorary Bridge Shoring.....	73.36	
		Note: Remove after use.		
34 05 43 00-0213	SF	Relocate 5/8" A36 Steel Plates For Temorary Bridge Shoring.....	40.93	
		Note: Remove after use.		
34 05 43 00-0214	LF	Relocate 7" x 4" x 5/8" Angle Iron For Temorary Bridge Shoring.....	33.47	
		Note: Remove after use.		
34 05 43 00-0215	SF	Relocate 1-1/2" A36 Steel Plates For Temorary Bridge Shoring.....	98.23	
		Note: Remove after use.		
34 05 43 00-0216	LF	Relocate MC18 x 51.9 For Temorary Bridge Shoring.....	125.39	
		Note: Remove after use.		
34 05 43 00-0217	LF	Relocate 5" x 3-1/2" x 3/4" Angle Iron For Temorary Bridge Shoring.....	28.16	
		Note: Remove after use.		
34 05 43 00-0218		Pier Caps And Pedestal Replacement For Bridges (34 05 43) See CSI section 03 15 19 00-0001 for anchor bolts.		
34 05 43 00-0219	SF	Bridge Wood Formwork For Seats, Pedestals, Pier Caps And Miscellaneous Areas For Bridges.....	26.66	
34 05 43 00-0220	CWT	Rebar For Pier Cap Or Pedestals For Bridges.....	463.90	
34 05 43 00-0221	CY	Pour Pedestals For Bridges.....	383.01	
34 05 43 00-0222	CY	Demolish Concrete Pedestals For Bridges.....	4,558.46	
34 05 43 00-0223	CY	Pour Pier Cap For Bridges.....	453.50	
34 05 43 00-0224	CY	Demolish Concrete Pier Cap For Bridges.....	5,241.72	
34 05 43 00-0225		Bridge Deck Repair (34 05 43)		
34 05 43 00-0226		Remove Existing Steel Joint System (34 05 43 00-0225)		
34 05 43 00-0227	LF	Removal Of Existing Steel Joint System.....	65.01	
34 05 43 00-0228		Break-Up And Remove Bridge Decking By Machine (34 05 43 00-0225) Note: Includes work around obstacles, breaking into manageable sizes by machine and loading into truck, dumpster or moving material to stockpile. Excludes saw cutting, See CSI section 02 41 19 13-0059 for saw cutting.		
34 05 43 00-0229	SY	Break-Up And Remove Up To 3" Thick Bituminous Pavement Bridge Decking By Machine.....	22.20	
		For >500 To 1,000, Deduct	-2.22	
		For >1,000 To 2,500, Deduct	-4.00	
		For >2,500 To 5,000, Deduct	-5.77	
		For >5,000 To 10,000, Deduct	-7.55	
		For >10,000, Deduct	-9.32	
34 05 43 00-0230	SY	Break-Up And Remove >3" To 6" Thick Bituminous Pavement Bridge Decking By Machine.....	30.32	
		For >500 To 1,000, Deduct	-3.03	
		For >1,000 To 2,500, Deduct	-5.46	
		For >2,500 To 5,000, Deduct	-7.88	
		For >5,000 To 10,000, Deduct	-10.31	
		For >10,000, Deduct	-12.73	
34 05 43 00-0231	SY	Break-Up And Remove To 3" Thick Concrete With Reinforcing Bridge Decking By Machine.....	36.78	
		For >500 To 1,000, Deduct	-3.68	
		For >1,000 To 2,500, Deduct	-6.62	
		For >2,500 To 5,000, Deduct	-9.56	
		For >5,000 To 10,000, Deduct	-12.51	
		For >10,000, Deduct	-15.45	
34 05 43 00-0232	SY	Break-Up And Remove > 3" To 6" Thick Concrete With Reinforcing Bridge Decking By Machine.....	47.29	
		For >500 To 1,000, Deduct	-4.73	
		For >1,000 To 2,500, Deduct	-8.51	
		For >2,500 To 5,000, Deduct	-12.30	
		For >5,000 To 10,000, Deduct	-16.08	
		For >10,000, Deduct	-19.86	
34 05 43 00-0233	SY	Break-Up And Remove > 6" To 9" Thick Concrete With Reinforcing Bridge Decking By Machine.....	84.55	
		For >500 To 1,000, Deduct	-8.46	
		For >1,000 To 2,500, Deduct	-15.22	
		For >2,500 To 5,000, Deduct	-21.98	
		For >5,000 To 10,000, Deduct	-28.75	
		For >10,000, Deduct	-35.51	

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0234 SY Break-Up And Remove >9" To 14" Thick Concrete With Reinforcing Bridge Decking By Machine 110.34 For >500 To 1,000, Deduct .....-11.03 For >1,000 To 2,500, Deduct .....-19.86 For >2,500 To 5,000, Deduct .....-28.69 For >5,000 To 10,000, Deduct .....-37.52 For >10,000, Deduct .....-46.34		
34 05 43 00-0235 SY Break-Up And Remove >14" To 19" Thick Concrete With Reinforcing Bridge Decking By Machine 144.25 For >500 To 1,000, Deduct .....-14.43 For >1,000 To 2,500, Deduct .....-25.97 For >2,500 To 5,000, Deduct .....-37.51 For >5,000 To 10,000, Deduct .....-49.05 For >10,000, Deduct .....-60.59		
34 05 43 00-0236 SY Break-Up And Remove >19" To 24" Thick Concrete With Reinforcing Bridge Decking By Machine 175.06 For >500 To 1,000, Deduct .....-17.51 For >1,000 To 2,500, Deduct .....-31.51 For >2,500 To 5,000, Deduct .....-45.52 For >5,000 To 10,000, Deduct .....-59.52 For >10,000, Deduct .....-73.53		
34 05 43 00-0237 Break-Up And Remove Bridge Decking By Hand (34 05 43 00-0225) Note: Includes work around obstacles. Work includes breaking into manageable size with jackhammer and hand tools, removal and loading onto a truck or dumpster. For individual work areas up to 100 SF where conventional equipment access is limited or prohibited. Task is only to be used when requested by owner. Excludes saw cutting. See CSI section 02 41 19 13-0059 for saw cutting.		
34 05 43 00-0238 SF Break-Up And Remove 1" To 3" Thick Bituminous Pavement Bridge Decking By Hand 14.58 Note: Includes jackhammer and hand tools.		
34 05 43 00-0239 SF Break-Up And Remove >3" To 6" Thick Bituminous Pavement Bridge Decking By Hand 19.18 Note: Includes jackhammer and hand tools.		
34 05 43 00-0240 SF Break-Up And Remove >6" To 8" Thick Bituminous Pavement Bridge Decking By Hand 24.95 Note: Includes jackhammer and hand tools.		
34 05 43 00-0241 SF Break-Up And Remove 1" To 3" Thick Concrete Bridge Decking By Hand 18.22 Note: Includes jackhammer and hand tools.		
34 05 43 00-0242 SF Break-Up And Remove >3" To 6" Thick Concrete Bridge Decking By Hand 22.78 Note: Includes jackhammer and hand tools.		
34 05 43 00-0243 SF Break-Up And Remove >6" To 8" Thick Concrete Bridge Decking By Hand 27.34 Note: Includes jackhammer and hand tools.		
34 05 43 00-0244 SF Chipping And Cleaning Of Bridge Deck After Break-Up And Removals.....5.72		
34 05 43 00-0245 Hydro Blasting Of Bridge Decks (34 05 43 00-0225) Note: Excludes hauling and disposal of water and debris.		
34 05 43 00-0246 EA Mobilization Of Hydro Blasting Equipment.....14,213.70 Note: Includes trailer with power, hydro milling machine, vacuum machine.		
34 05 43 00-0247 EA Mobilization Of Hydro Blasting Equipment.....1,845.93 Note: Includes water tank, pump and miscellaneous fittings.		
34 05 43 00-0248 SF Hydroblasting Of Up To 2-1/2" Of Bridge Decks 11.96		
34 05 43 00-0249 SF Vacuuming And Cleaning Of Bridge Decks Up To 2-1/2", Following Hydroblasting 8.84		
34 05 43 00-0250 SF Chipping And Cleaning Of Bridge Deck After Hydroblasting And Vacuum Up To 2-1/2" 2.19		
34 05 43 00-0251 SF Hydroblasting 3" To 4-1/2" Of Bridge Decks 17.68		
34 05 43 00-0252 SF Vacuuming And Cleaning Of Bridge Decks 3" To 4-1/2", Following Hydroblasting.....11.96		
34 05 43 00-0253 SF Chipping And Cleaning Of Bridge Deck After Hydroblasting And Vacuum 3" To 4-1/2" 5.72		
34 05 43 00-0254 GAL Water For Hydro Blasting.....0.18 Note: Includes delivery.		
34 05 43 00-0255 Patch For Bridge Deck (34 05 43 00-0225)		
34 05 43 00-0256 CF Fast-Setting, Rapid-Hardening Structural Repair Mortar For Bridge Deck.....128.85 Note: Includes forming, cleaning, primer, and concrete material. Excludes reinforcing, dowels, and seal.		
34 05 43 00-0257 CF Polyester-Based Polymer Patch For Bridge Deck 106.10 Note: Includes forming, cleaning, primer, and concrete material. Excludes reinforcing, dowels, and seal.		
34 05 43 00-0258 SF Hand Placed Hot Mixed Asphalt Repair For Bridge Approach.....25.58 Note: Includes removal of HMA, tack coat, and installation of HMA and compaction by roller.		
34 05 43 00-0259 Pressure Washing For Bridge Deck (34 05 43 00-0225)		
34 05 43 00-0260 SF Pressure Washing For Bridge Deck.....0.10 Note: Includes pressure washer and water.		
34 05 43 00-0261 Galvanic Anodes For Bridges (34 05 43)		
34 05 43 00-0262 EA 2.6" Diameter x 1.2" Deep , Anode Type 1A Class P, Galvanic Anodes Embedded In Concrete Patch (Galvashield® XP).....58.13 Note: Corrosion prevention only (preventing the initiation of corrosion).		
34 05 43 00-0263 EA 4.9" Long x 1.0" Wide x 1.0" Deep , Anode Type 1A Class P, Galvanic Anodes Embedded In Concrete Patch (Galvashield® XPT) 58.13 Note: Corrosion prevention only (preventing the initiation of corrosion).		
34 05 43 00-0264 EA 2.8" Long x 2.4" Wide x 1.2" Deep , Anode Type 1A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® XP2) 66.46 Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0265	EA		4.3" Long x 2.2" Wide x 1.2" Deep , Anode Type 1A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® XP4).....	72.80	
			Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		
34 05 43 00-0266	EA		2.5" Diameter x 1.1" Deep , Anode Type 1A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® XP+).....	66.46	
			Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		
34 05 43 00-0267	EA		1-3/4" Diameter x 2-1/2" Long, Anode Type 2A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® CC65).....	68.57	
			Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		
34 05 43 00-0268	EA		1-3/4" Diameter x 4" Long, Anode Type 2A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® CC100).....	83.35	
			Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		
34 05 43 00-0269	EA		1-1/8" Diameter x 5-3/8" Long, Anode Type 2A Class C, Galvanic Anodes Embedded In Concrete Patch (Galvashield® CC135).....	77.02	
			Note: Corrosion control (reducing existing active corrosion) and corrosion prevention (preventing the initiation of corrosion).		
34 05 43 00-0270			Bridge Netting Panels (34 05 43)		
34 05 43 00-0271	SF		Bridge Netting Panel.....	9.87	
			Note: Includes cable, beam clamps to attach to the bridge structure without the need for drilling/welding and snap hooks for attaching the net.		
			For Up To 160, Add	9.28	
			For >160 To 320, Add	4.64	
			For >320 To 480, Add	2.32	
			For >2,000 To 10,000, Deduct	-0.44	
			For >10,000 To 25,000, Deduct	-0.87	
			For >25,000, Deduct	-1.31	
34 05 43 00-0272			Anchors For Bridges (34 05 43)		
			Note: Excludes core drilling. See CSI section 02 41 19 13-0082 for core drilling.		
34 05 43 00-0273			Threaded Rod, A449 (34 05 43 00-0272)		
34 05 43 00-0274	LF		7/8" Diameter Continuous Threaded Rod, A449.....	20.96	
34 05 43 00-0275	LF		1" Diameter Continuous Threaded Rod, A449.....	24.94	
34 05 43 00-0276	LF		1-1/8" Diameter Continuous Threaded Rod, A449.....	28.90	
34 05 43 00-0277	LF		1-1/4" Diameter Continuous Threaded Rod, A449.....	36.51	
34 05 43 00-0278			Flat Washers, F436 (34 05 43 00-0272)		
34 05 43 00-0279	EA		7/8" Flat Washer, F436.....	2.25	
34 05 43 00-0280	EA		1" Flat Washer, F436.....	2.62	
34 05 43 00-0281	EA		1-1/8" Flat Washer, F436.....	2.88	
34 05 43 00-0282	EA		1-1/4" Flat Washer, F436.....	3.28	
34 05 43 00-0283			Heavy Hex Nut, A194 (34 05 43 00-0272)		
34 05 43 00-0284	EA		7/8" Hex Nut, A194.....	4.55	
34 05 43 00-0285	EA		1" Hex Nut, A194.....	6.18	
34 05 43 00-0286	EA		1-1/8" Hex Nut, A194.....	7.34	
34 05 43 00-0287	EA		1-1/4" Hex Nut, A194.....	8.78	
34 05 43 00-0288			Grout For Threaded Rod (34 05 43 00-0272)		
34 05 43 00-0289	IN		Grout 7/8" Rod In Hole.....	3.34	
34 05 43 00-0290	IN		Grout 1" Rod In Hole.....	3.80	
34 05 43 00-0291	IN		Grout 1-1/8" Rod In Hole.....	4.45	
34 05 43 00-0292	IN		Grout 1-1/4" Rod In Hole.....	5.32	
34 05 43 00-0293			Test Grouted Anchor (34 05 43 00-0272)		
34 05 43 00-0294	EA		Test Grouted Anchor.....	35.55	
34 05 43 00-0295			Removal Of Fasteners Or Anchors In Concrete (34 05 43 00-0272)		
			Note: Includes removal of damaged, chemically adhered or mechanically fastened bolts, studs, threaded rod or concrete anchors with a carbide drill bit.		
34 05 43 00-0296	EA		Drill Out 3/8" Diameter Fastener/Anchor In Concrete.....	30.69	
34 05 43 00-0297	EA		Drill Out 1/2" Diameter Fastener/Anchor In Concrete.....	32.99	
34 05 43 00-0298	EA		Drill Out 9/16" Diameter Fastener/Anchor In Concrete.....	34.55	
34 05 43 00-0299	EA		Drill Out 5/8" Diameter Fastener/Anchor In Concrete.....	37.54	
34 05 43 00-0300	EA		Drill Out 3/4" Diameter Fastener/Anchor In Concrete.....	41.06	
34 05 43 00-0301	EA		Drill Out 7/8" Diameter Fastener/Anchor In Concrete.....	45.40	
34 05 43 00-0302	EA		Drill Out 1" Diameter Fastener/Anchor In Concrete.....	48.01	
34 05 43 00-0303	EA		Drill Out 1-1/8" Diameter Fastener/Anchor In Concrete.....	51.08	
34 05 43 00-0304	EA		Drill Out 1-1/4" Diameter Fastener/Anchor In Concrete.....	54.90	
34 05 43 00-0305	EA		Drill Out 1-1/2" Diameter Fastener/Anchor In Concrete.....	61.63	

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 05 43 00-0306	Bridge Surfacing (34 05 43)		
34 05 43 00-0307	Bridge Coatings (34 05 43 00-0306)		
	Note: Includes sweeping of bridge deck.		
34 05 43 00-0308	SF Penetrating Corrosion Inhibitor Sealer For Bridge Decks (Two Coats).....	1.22	
	Note: Includes power washing and drying after power washing.		
34 05 43 00-0309	SF Protective Seal Coat For Existing Bridge Decks	2.32	
34 05 43 00-0310	SF Penetrating Sealer For Existing Bridge Decks	3.79	
34 05 43 00-0311	Bridge Membranes (34 05 43 00-0306)		
	Note: Excludes abrasive blasting of deck.		
34 05 43 00-0312	SF Spray Applied Waterproofing Membrane For Bridge Decks	14.66	
34 05 43 00-0313	SF Sheet Applied Waterproofing Membrane For Bridge Decks	4.22	
34 05 43 00-0314	Sealer And Overlay For Bridge Deck (34 05 43 00-0306)		
	Note: Excludes sweeping, cleaning and abrasive blasting.		
34 05 43 00-0315	SY Shot Blasting Bridge Decks	14.57	
	Note: Includes steel ball media. Includes air cleaning of deck surface after shot blasting.		
34 05 43 00-0316	SY Thin Polymer (Epoxy) Overlay For Bridge Deck	92.11	
	Note: Includes epoxy overlay applied in two coats with aggregate.		
34 05 43 00-0317	SY 3/4" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	170.79	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0318	SY 1" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	194.92	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0319	SY 1-1/2" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	249.05	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0320	SY 2" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	303.18	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0321	SY 2-1/2" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	357.33	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0322	SY 3" Thin Polyester Polymer Overlay Wearing Surface For Bridge Deck	411.47	
	Note: Includes HMWM resin primer and polyester concrete. Excludes finishing sand.		
34 05 43 00-0323	Broadcast Silica Sand (34 05 43 00-0306)		
	Note: Includes removing loose sand..		
34 05 43 00-0324	SF Broadcast Silica Sand.....	0.30	
34 05 43 00-0325	Sweeping And Cleaning Of Bridge Deck (34 05 43 00-0306)		
	See CSI section 01 22 23 00-1483 for water trucks, 01 22 23 00-1508 for vacuum sweeper trucks.		
34 05 43 00-0326	Concrete Overlay For Bridge Deck (34 05 43 00-0306)		
	Note: Includes sweeping and cleaning. Excludes abrasive blasting.		
34 05 43 00-0327	SY 3" Concrete Overlay For Bridge Deck.....	180.24	
	For DOT Class DP, Add	31.49	
	For DOT Class E, Add	10.28	
	For DOT Class HP, Add	30.07	
34 05 43 00-0328	Bridge Roadway Grooving (34 05 43 00-0306)		
34 05 43 00-0329	EA Up To 500 SY Of Bridge Pavement Grooving, Concrete, Longitudinal	4,158.06	
34 05 43 00-0330	SY Each SY Over First 500 SY Of Bridge Pavement Grooving, Concrete, Longitudinal	6.73	
34 05 43 00-0331	EA Up To 500 SY Of Bridge Pavement Grooving, Concrete, Traverse	4,632.23	
34 05 43 00-0332	SY Each SY Over First 500 SY Of Bridge Pavement Grooving, Concrete, Traverse	8.78	
34 05 43 00-0333	Gravity Fed Concrete Crack Repair (34 05 43 00-0306)		
	Note: Includes removing loose materials and cleaning.		
34 05 43 00-0334	LF Epoxy Low Viscosity Gravity Fed Concrete Crack Repair	3.73	
34 05 43 00-0335	LF HMWM Low Viscosity Gravity Fed Concrete Crack Repair	4.38	
34 05 43 00-0336	Concrete Pumping With Boom Truck (34 05 43 00-0306)		
	See CSI section 03 31 13 00-0010 for concrete delivery for small quantities, 03 37 16 00-0001 for concrete pump truck.		
34 05 43 00-0337	Bridge Girder Repair (34 05 43)		
34 05 43 00-0338	Bridge Girder Repair (34 05 43 00-0337)		
	Note: Does not include mobilization of bridge jacking crew. See CSI section 05 05 23 00-0033 for bolts, nuts and washers, 05 12 23 00-0000 for additional steel shapes, angles and channels.		
34 05 43 00-0339	HR UT, MT, PT Testing.....	75.00	
	Note: Does not include mileage to job site.		
34 05 43 00-0340	EA Mobilization of Bridge Girder Repair Crew	2,697.68	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0341	LF	3" x 3" x 1/4"	Angle Iron For Bridge Repair.....	14.87	5.69
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	23.30	
			For Aluminum, Add	1.31	
			For Galvanized Steel, Add	4.51	
34 05 43 00-0342	LF	4" x 4" x 1/4"	Angle Iron For Bridge Repair.....	19.08	6.94
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	31.46	
			For Aluminum, Add	1.77	
			For Galvanized Steel, Add	6.09	
34 05 43 00-0343	LF	3" x 3" x 3/8"	Angle Iron For Bridge Repair.....	19.22	6.40
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	34.21	
			For Aluminum, Add	1.92	
			For Galvanized Steel, Add	6.63	
34 05 43 00-0344	LF	4" x 4" x 3/8"	Angle Iron For Bridge Repair.....	24.92	7.78
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	46.56	
			For Aluminum, Add	2.62	
			For Galvanized Steel, Add	9.02	
34 05 43 00-0345	LF	6" x 4" x 3/8"	Angle Iron For Bridge Repair.....	31.85	10.16
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	58.59	
			For Aluminum, Add	3.30	
			For Galvanized Steel, Add	11.35	
34 05 43 00-0346	LF	6" x 6" x 3/8"	Angle Iron For Bridge Repair.....	35.72	10.16
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	70.98	
			For Aluminum, Add	3.99	
			For Galvanized Steel, Add	13.75	
34 05 43 00-0347	LF	6" x 6" x 1/2"	Angle Iron For Bridge Repair.....	47.34	13.63
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	93.34	
			For Aluminum, Add	5.25	
			For Galvanized Steel, Add	18.09	
34 05 43 00-0348	LF	7" x 4" x 5/8"	Angle Iron For Bridge Repair.....	52.05	14.37
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	105.28	
			For Aluminum, Add	5.92	
			For Galvanized Steel, Add	20.40	
34 05 43 00-0349	LF	5" x 3-1/2" x 3/4"	Angle Iron For Bridge Repair.....	45.56	12.07
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	94.30	
			For Aluminum, Add	5.30	
			For Galvanized Steel, Add	18.27	
34 05 43 00-0350	LF	6" x 4" x 3/4"	Angle Iron For Bridge Repair.....	54.32	14.39
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	112.45	
			For Aluminum, Add	6.33	
			For Galvanized Steel, Add	21.79	
34 05 43 00-0351	LF	7" x 4" x 3/4"	Angle Iron For Bridge Repair.....	60.29	15.97
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	124.80	
			For Aluminum, Add	7.02	
			For Galvanized Steel, Add	24.18	
34 05 43 00-0352	LF	8" x 6" x 7/8"	Angle Iron For Bridge Repair.....	87.87	22.24
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	186.27	
			For Aluminum, Add	10.48	
			For Galvanized Steel, Add	36.09	
34 05 43 00-0353	LF	C4 x 5.4 - 4"	Wide Channels For Bridge Repair.....	17.79	7.31
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	25.73	
			For Aluminum, Add	1.45	
			For Galvanized Steel, Add	4.98	
34 05 43 00-0354	LF	C6 x 8.2 - 6"	Wide Channels For Bridge Repair.....	25.86	10.24
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	39.07	
			For Aluminum, Add	2.20	
			For Galvanized Steel, Add	7.57	

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0355	LF		C8 x 11.5 - 8" Wide Channels For Bridge Repair.....	35.00	13.41
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	54.78	
			For Aluminum, Add	3.08	
			For Galvanized Steel, Add	10.61	
34 05 43 00-0356	LF		C10 x 15.3 - 10" Wide Channels For Bridge Repair.....	46.56	17.83
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	72.86	
			For Aluminum, Add	4.10	
			For Galvanized Steel, Add	14.12	
34 05 43 00-0357	LF		C12 x 20.7 - 12" Wide Channels For Bridge Repair.....	62.99	24.14
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	98.59	
			For Aluminum, Add	5.55	
			For Galvanized Steel, Add	19.10	
34 05 43 00-0358	LF		C15 x 33.9 - 15" Wide Channels For Bridge Repair.....	103.16	39.52
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
			For Fractured Critical, Add	20.00	
			For Stainless Steel, Add	161.47	
			For Aluminum, Add	9.08	
			For Galvanized Steel, Add	31.29	
34 05 43 00-0359	SF		1/2" A36 Steel Plates For Bridge Repair.....	68.07	15.56
			For A50 Grade Steel, Add	2.59	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0360	SF		5/8" A36 Steel Plates For Bridge Repair.....	85.08	19.44
			For A50 Grade Steel, Add	3.23	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0361	SF		3/4" A36 Steel Plates For Bridge Repair.....	102.11	23.22
			For A50 Grade Steel, Add	3.88	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0362	SF		7/8" A36 Steel Plates For Bridge Repair.....	119.12	27.22
			For A50 Grade Steel, Add	4.52	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0363	SF		1" A36 Steel Plates For Bridge Repair.....	136.14	31.11
			For A50 Grade Steel, Add	5.17	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0364	SF		1-1/4" A36 Steel Plates For Bridge Repair.....	170.18	38.89
			For A50 Grade Steel, Add	6.46	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0365	SF		1-3/8" A36 Steel Plates For Bridge Repair.....	187.19	42.77
			For A50 Grade Steel, Add	7.11	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0366	SF		1-1/2" A36 Steel Plates For Bridge Repair.....	204.21	46.66
			For A50 Grade Steel, Add	7.76	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			For Fractured Critical, Add	20.00	
34 05 43 00-0367	CWT		Removal Of Existing Steel For Bridge Repair A36.....	67.58	
			Note: For use with angles, channels and steel plates up to 5' x 5'.		
			For Removal Over 30' To 50', Add	13.52	
			For Removal Over 50' To 75', Add	23.65	
			For Removal Over 75', Add	33.79	
34 05 43 00-0368	TON		Removal Of Existing Steel For Bridge Repair A36.....	901.08	
			Note: For use with I-beams, floor beams and plates over 5' x 5'.		
			For Removal Over 30' To 50', Add	180.22	
			For Removal Over 50' To 75', Add	315.38	
			For Removal Over 75', Add	450.54	
34 05 43 00-0369	CWT		Miscellaneous Steel For Bridge Repair A36.....	532.66	
			Note: For use with angles, channels and steel plates up to 5' x 5'.		
			For A50 Grade Steel, Add	93.02	
			Cutting Fee For Plates 1/2" And Over, Add Per Each Piece	30.00	
			Cutting Fee For Channels And Angles, Add Per Each Piece	20.00	
34 05 43 00-0370	TON		Miscellaneous Steel For Bridge Repair A36.....	8,534.94	
			Note: For use with I-beams, floor beams and plates over 5' x 5'.		
			For A50 Grade Steel, Add	1,526.77	
			Cutting Fee For I-beams, Floor Beams And Plates Over 5' x 5', Add Per Each Piece	30.00	
34 05 43 00-0371	EA		Field Or Shop Drilled Holes In Miscellaneous Steel For Bridge Repair Up To 15/16" Diameter.....	38.84	
			Note: Per each hole drilled per steel member.		
34 05 43 00-0372	EA		Field Or Shop Drilled Holes In Miscellaneous Steel For Bridge Repair >15/16" Diameter.....	50.48	
			Note: Per each hole drilled per steel member.		
34 05 43 00-0373	EA		Bolts A325 For Steel Repair Connections Up To 7/8".....	32.07	2.17
34 05 43 00-0374	EA		Bridge Girder Rivet Removal.....	335.91	
34 05 43 00-0375	LF		Up To 1/2" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	7.28	
			Note: Includes rust or scale removal.		
34 05 43 00-0376	LF		>1/2" To 1" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	12.69	
			Note: Includes rust or scale removal.		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0377	LF		>1" To 1-1/2" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	18.11	
			Note: Includes rust or scale removal.		
34 05 43 00-0378	LF		>1-1/2" To 2" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	23.53	
			Note: Includes rust or scale removal.		
34 05 43 00-0379	LF		>2" To 2-1/2" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	28.95	
			Note: Includes rust or scale removal.		
34 05 43 00-0380	LF		>2-1/2" To 3" Thick Edge Grinding, Smoothing Surface After Torch Cutting.....	34.36	
			Note: Includes rust or scale removal.		
34 05 43 00-0381			Cleaning And Preparation Of Painted And Unpainted Metal Surfaces (34 05 43 00-0337)		
34 05 43 00-0382	SF		Loose Mill Scale With Fine Powder, Commercial Blast, Surface Preparation, Bridge Girder Repair.....	1.20	
			For Up To 100, Add	0.74	
			For >100 To 250, Add	0.35	
			For >250 To 500, Add	0.15	
			For >5,000 To 10,000, Deduct	-0.06	
			For >10,000 To 15,000, Deduct	-0.11	
			For >15,000 To 30,000, Deduct	-0.17	
			For >30,000, Deduct	-0.23	
34 05 43 00-0383	SF		Tight Mill Scale With Fine Powder Rust, Commercial Blast, Surface Preparation, Bridge Girder Repair.....	1.63	
			For Up To 100, Add	0.99	
			For >100 To 250, Add	0.46	
			For >250 To 500, Add	0.20	
			For >5,000 To 10,000, Deduct	-0.08	
			For >10,000 To 15,000, Deduct	-0.15	
			For >15,000 To 30,000, Deduct	-0.24	
			For >30,000, Deduct	-0.31	
34 05 43 00-0384	SF		Exterior Coating Blistered Pitted, Rust, Commercial Blast, Surface Preparation, Bridge Girder Repair.....	2.40	
			For Up To 100, Add	1.49	
			For >100 To 250, Add	0.70	
			For >250 To 500, Add	0.30	
			For >5,000 To 10,000, Deduct	-0.11	
			For >10,000 To 15,000, Deduct	-0.22	
			For >15,000 To 30,000, Deduct	-0.35	
			For >30,000, Deduct	-0.46	
34 05 43 00-0385	SF		Badly Pitted With Rust Nodules, Commercial Blast, Surface Preparation, Bridge Girder Repair.....	4.01	
			For Up To 100, Add	2.48	
			For >100 To 250, Add	1.16	
			For >250 To 500, Add	0.50	
			For >5,000 To 10,000, Deduct	-0.19	
			For >10,000 To 15,000, Deduct	-0.37	
			For >15,000 To 30,000, Deduct	-0.58	
			For >30,000, Deduct	-0.77	
34 05 43 00-0386	SF		Loose Mill Scale With Fine Powder Rust, Near White Blast, Surface Preparation, Bridge Girder Repair.....	3.05	
			For Up To 100, Add	1.86	
			For >100 To 250, Add	0.87	
			For >250 To 500, Add	0.37	
			For >5,000 To 10,000, Deduct	-0.14	
			For >10,000 To 15,000, Deduct	-0.28	
			For >15,000 To 30,000, Deduct	-0.44	
			For >30,000, Deduct	-0.58	
34 05 43 00-0387	SF		Tight Mill Scale Little Rust, Near White Blast, Surface Preparation, Bridge Girder Repair.....	3.78	
			For Up To 100, Add	2.30	
			For >100 To 250, Add	1.07	
			For >250 To 500, Add	0.46	
			For >5,000 To 10,000, Deduct	-0.17	
			For >10,000 To 15,000, Deduct	-0.35	
			For >15,000 To 30,000, Deduct	-0.55	
			For >30,000, Deduct	-0.72	
34 05 43 00-0388	SF		Exterior Coat Blistered Pitted Rust, Near White Blast, Surface Preparation, Bridge Girder Repair.....	4.91	
			For Up To 100, Add	2.99	
			For >100 To 250, Add	1.39	
			For >250 To 500, Add	0.60	
			For >5,000 To 10,000, Deduct	-0.23	
			For >10,000 To 15,000, Deduct	-0.45	
			For >15,000 To 30,000, Deduct	-0.71	
			For >30,000, Deduct	-0.94	
34 05 43 00-0389	SF		Badly Pitted Rust Nodules, Near White Blast, Surface Preparation, Bridge Girder Repair.....	6.12	
			For Up To 100, Add	3.72	
			For >100 To 250, Add	1.74	
			For >250 To 500, Add	0.74	
			For >5,000 To 10,000, Deduct	-0.28	
			For >10,000 To 15,000, Deduct	-0.57	
			For >15,000 To 30,000, Deduct	-0.88	
			For >30,000, Deduct	-1.17	
34 05 43 00-0390			Galvanized Anchor Bolts For Bridge Bearings (34 05 43 00-0337)		
34 05 43 00-0391	EA		1/2" Diameter x 6" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	16.71	
34 05 43 00-0392	EA		1/2" Diameter x 12" Long, J-Type Galvanized Anchor Bolts For Bridge Bearings.....	24.88	
34 05 43 00-0393	EA		1/2" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	31.83	
34 05 43 00-0394	EA		5/8" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	38.82	
34 05 43 00-0395	EA		5/8" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	49.63	
34 05 43 00-0396	EA		5/8" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	56.30	
34 05 43 00-0397	EA		3/4" Diameter x 8" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	55.98	

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 05 43 00-0398	EA	3/4" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	64.65	
34 05 43 00-0399	EA	3/4" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	80.95	
34 05 43 00-0400	EA	3/4" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	100.13	
34 05 43 00-0401	EA	7/8" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	75.26	
34 05 43 00-0402	EA	7/8" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	89.38	
34 05 43 00-0403	EA	7/8" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	116.57	
34 05 43 00-0404	EA	1" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	95.31	
34 05 43 00-0405	EA	1" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	114.13	
34 05 43 00-0406	EA	1" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	142.11	
34 05 43 00-0407	EA	1" Diameter x 36" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	174.24	
34 05 43 00-0408	EA	1-1/8" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	116.81	
34 05 43 00-0409	EA	1-1/8" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	139.94	
34 05 43 00-0410	EA	1-1/8" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	174.38	
34 05 43 00-0411	EA	1-1/8" Diameter x 36" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	213.69	
34 05 43 00-0412	EA	1-1/4" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	143.58	
34 05 43 00-0413	EA	1-1/4" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	172.14	
34 05 43 00-0414	EA	1-1/4" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	214.64	
34 05 43 00-0415	EA	1-1/4" Diameter x 36" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	262.88	
34 05 43 00-0416	EA	1-1/2" Diameter x 12" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	177.07	
34 05 43 00-0417	EA	1-1/2" Diameter x 18" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	212.34	
34 05 43 00-0418	EA	1-1/2" Diameter x 24" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	264.97	
34 05 43 00-0419	EA	1-1/2" Diameter x 36" Long, J-Type A449 Galvanized Anchor Bolts For Bridge Bearings.....	324.40	

34 05 43 00-0420 Welding For Bridge Repair (34 05 43 00-0337)

34 05 43 00-0421	EA	Minimum Charge For Welding For Bridge Repair.....	1,913.75	
Note: For projects where the total welding charge is less than the minimum charge, Use this item exclusively. This item should not be used in conjunction with any other items in this section.				
34 05 43 00-0422	LF	3/16" Fillet Welding For Bridge Repair.....	15.67	
For Full Penetration Weld, Add			5.92	
34 05 43 00-0423	LF	1/4" Fillet Welding For Bridge Repair.....	23.53	
For Full Penetration Weld, Add			8.88	
34 05 43 00-0424	LF	5/16" Fillet Welding For Bridge Repair.....	31.39	
For Full Penetration Weld, Add			11.84	
34 05 43 00-0425	LF	3/8" Fillet Welding For Bridge Repair.....	39.20	
For Full Penetration Weld, Add			14.80	
34 05 43 00-0426	LF	7/16" Fillet Welding For Bridge Repair.....	46.14	
For Full Penetration Weld, Add			17.76	
34 05 43 00-0427	LF	1/2" Fillet Welding For Bridge Repair.....	54.46	
For Full Penetration Weld, Add			20.56	
34 05 43 00-0428	LF	9/16" Fillet Welding For Bridge Repair.....	63.30	
For Full Penetration Weld, Add			24.22	
34 05 43 00-0429	LF	5/8" Fillet Welding For Bridge Repair.....	69.86	
For Full Penetration Weld, Add			26.65	
34 05 43 00-0430	LF	3/4" Fillet Welding For Bridge Repair.....	96.60	
For Full Penetration Weld, Add			36.42	
34 05 43 00-0431	LF	7/8" Fillet Welding For Bridge Repair.....	126.88	
For Full Penetration Weld, Add			48.27	
34 05 43 00-0432	LF	1" Fillet Welding For Bridge Repair.....	176.94	
For Full Penetration Weld, Add			66.62	

34 05 43 00-0433 Bridge Trough Repair (34 05 43)

34 05 43 00-0434	EA	New Bridge Trough Hanger.....	306.94	27.09
34 05 43 00-0435	EA	Reattach By Welding Existing Bridge Trough Hanger, Top And/or Bottom.....	68.69	
34 05 43 00-0436	EA	Removal And Replacement Of All Thread For Existing Bridge Trough Hanger.....	131.59	
34 05 43 00-0437	EA	Removal And Replacement Of Steel Angle Attachment For Existing Bridge Trough Hanger.....	71.20	

34 05 43 00-0438 Spot Paint Removal And Painting, Bridge Structural Steel (34 05 43)

34 05 43 00-0439	HR	Testing For Lead And Asbestos Paint Removal By Asbestos Contractor.....	122.50	
34 05 43 00-0440	EA	Up To 4 SF, Flat Surfaces, Non-Contaminated Paint Removal.....	203.49	
34 05 43 00-0441	SF	>4 SF, Flat Surfaces, Non-Contaminated Paint Removal.....	50.88	
34 05 43 00-0442	EA	Up To 4 SF, Flat Surfaces, Lead Or Asbestos Paint Removal.....	292.84	
Note: Includes high efficiency particulate air (HEPA) vacuuming.				
34 05 43 00-0443	SF	>4 SF, Flat Surfaces, Lead Or Asbestos Paint Removal.....	73.21	
Note: Includes high efficiency particulate air (HEPA) vacuuming.				
34 05 43 00-0444	CF	Treat and Dispose of Removed Paint Waste.....	6.46	
34 05 43 00-0445	SF	Flat Surfaces Spot Painting.....	53.93	
Note: Includes 1 coat epoxy rust inhibiting primer and 2 coats epoxy paint finish.				
34 05 43 00-0446	EA	Minimum Charge For Plastic Barrier Enclosure For Paint Removal.....	1,214.43	
Note: Up to an 8' x 8' area, 7' high. Includes 10 mil plastic on walls and floor. 2"x4" construction. Excludes scaffolding.				
34 05 43 00-0447	SF	Plastic Barrier Enclosure For Paint Removal.....	3.79	
Note: For projects where the total charge exceeds the minimum charge for plastic barrier enclosures. Includes 10 mil plastic on floor and walls. 2" x 4" construction. Excludes scaffolding. Use area of walls and floor for quantity.				

34 05 43 00-0448 End Beam Cleaning And Painting For Bridges (34 05 43)



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 05 43 00-0449	SF		End Beam Cleaning and Painting..... Note: Includes high pressure wash at minimum 3003 to 5000 PSI, spot cleaning damaged/rusted areas with hand and power tools (SSPC – SP2 and SP3), solvent cleaning (SSPC-SP1), one coat of aluminum epoxy mastic (minimum 6 mils) to spot cleaned areas, one coat sealer (1-2 mils), and one coat polyurethane finish. For Up To 100, Add For >100 To 500, Add For >500 To 3,000, Add For >5,000 To 7,500, Deduct For >7,500 To 10,000, Deduct For >10,000, Deduct	4.04 4.04 2.67 1.33 -0.65 -0.97 -1.37	
34 05 43 00-0450			Snow And Pedestrian Fences For Bridges (34 05 43)		
34 05 43 00-0451			Snow And Pedestrian Fence Assembly For Bridges (34 05 43 00-0450) Note: Includes 1", 11 gauge coiled spring mesh (knuckled selvage), tension bars, post tension bands, wire ties, 1-5/8" top rail, 1-5/8" bottom rail, 2-7/8" post 10' on-center. Posts exclude installation onto bridge. Heights indicated are for mesh to top.		
34 05 43 00-0452			Galvanized Snow And Pedestrian Fence Assembly For Bridges (34 05 43 00-0451)		
34 05 43 00-0453	LF		4' Galvanized Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	51.66 2.84 10.67 9.85 3.64	11.60
34 05 43 00-0454	LF		>4' To 5' Galvanized Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	56.40 3.09 11.59 10.67 3.92	12.18
34 05 43 00-0455	LF		>5' To 6' Galvanized Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	61.17 3.34 12.51 11.49 4.22	12.77
34 05 43 00-0456	LF		>6' To 7' Galvanized Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	64.36 3.51 13.16 12.07 4.43	13.34
34 05 43 00-0457	LF		>7' To 8' Galvanized Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	73.29 3.98 14.90 13.62 4.98	14.51
34 05 43 00-0458			Vinyl Coated Snow And Pedestrian Fence Assembly For Bridges (34 05 43 00-0451)		
34 05 43 00-0459	LF		4' Vinyl (PVC) Coated Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Powder Coated, Add For Aluminum Coated, Add For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	54.40 6.67 13.34 2.97 11.16 10.26 3.77	11.60
34 05 43 00-0460	LF		>4' To 5' Vinyl (PVC) Coated Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Powder Coated, Add For Aluminum Coated, Add For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	59.85 7.55 15.10 3.26 12.21 11.19 4.10	12.18
34 05 43 00-0461	LF		>5' To 6' Vinyl (PVC) Coated Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Powder Coated, Add For Aluminum Coated, Add For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	68.18 9.01 18.02 3.69 13.78 12.54 4.57	12.77
34 05 43 00-0462	LF		>6' To 7' Vinyl (PVC) Coated Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center..... For Powder Coated, Add For Aluminum Coated, Add For Posts 8' On Centers, Add For Posts 5' On Centers, Add For Up To 100, Add For >100 To 250, Add	72.51 9.66 19.32 3.92 14.62 13.30 4.84	13.34

34 Transportation**34 05 Common Work Results for Transportation****34 05 43 Common Work Results for Bridges**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 05 43 00-0463	LF	>7' To 8' Vinyl (PVC) Coated Chain Link Fence, 11 Gauge Coiled Spring 1" Mesh, Top And Bottom Rails, 2-7/8" Post At 10' On-Center.....	82.78	14.51
		For Powder Coated, Add.....	11.30	
		For Aluminum Coated, Add.....	22.59	
		For Posts 8' On Centers, Add.....	4.45	
		For Posts 5' On Centers, Add.....	16.61	
		For Up To 100, Add.....	15.05	
		For >100 To 250, Add.....	5.45	

34 05 43 00-0464 Bridge Connection Mounting For Snow And Pedestrian Fence Assembly (34 05 43 00-0461)

34 05 43 00-0465	EA	Attach Bridge Fence Post To Steel Bridge Railing Post With U-Bolt, Washers And Nuts.....	57.25	
		Note: Includes drilling into steel post.		
34 05 43 00-0466	EA	Attach Bridge Fence Post Base To Existing Plate, Welding And Touch-up With Galvanized Paint.....	33.22	
34 05 43 00-0467	EA	Attach Bridge Fence Post Base With Plate, Welding And Touch-up With Galvanized Paint.....	99.48	
34 05 43 00-0468	EA	Attach Bridge Fence Post To Concrete Safety Shape Barrier With Bolt, 5/8" Diameter x 4-3/4" Anchor Rods, Washers And Nuts.....	92.43	
		Note: Includes drilling into steel post.		
34 05 43 00-0469	EA	Attach Bridge Fence Post To Stone Faced Barrier Top With Plate, 3/8" Diameter Anchor Rods, Washers And Nuts.....	141.38	
		Note: Includes drilling into steel post.		

34 10 Guideways/Railways (34)**34 11 Rail Tracks (34 10)****34 11 93 Track Appurtenances and Accessories (34 11)****34 11 93 00-0001 Railroad Crossings (34 11 93)****34 11 93 00-0002 Asphalt Railroad Crossings (34 11 93 00-0001)**

Note: Based on 8" thickness x 20' including track and approach.

34 11 93 00-0003	EA	8" Asphalt Railroad Crossing, 12' Roadway 6 CY.....	2,094.11	381.37
34 11 93 00-0004	EA	8" Asphalt Railroad Crossing, 15' Roadway 7.4 CY.....	2,444.71	432.21
34 11 93 00-0005	EA	8" Asphalt Railroad Crossing, 18' Roadway 8.9 CY.....	2,877.45	508.48
34 11 93 00-0006	EA	8" Asphalt Railroad Crossing, 21' Roadway 10.4 CY.....	3,426.41	610.18
34 11 93 00-0007	EA	8" Asphalt Railroad Crossing, 24' Roadway 11.9 CY.....	4,178.72	762.72

34 11 93 00-0008 Railroad Crossings - Precast Concrete Inserts (34 11 93 00-0001)

Note: Based on 6" thickness x standard rail width gauge.

34 11 93 00-0009	EA	Precast Concrete, Railroad Crossing, 12' Road 6" Thick, Standard Gauge.....	4,684.43	161.93
34 11 93 00-0010	EA	Precast Concrete, Railroad Crossing, 15' Road 6" Thick, Standard Gauge.....	5,855.54	196.62
34 11 93 00-0011	EA	Precast Concrete, Railroad Crossing, 18' Road 6" Thick, Standard Gauge.....	7,020.92	242.89
34 11 93 00-0012	EA	Precast Concrete, Railroad Crossing, 21' Road 6" Thick, Standard Gauge.....	8,187.76	277.59
34 11 93 00-0013	EA	Precast Concrete, Railroad Crossing, 24' Road 6" Thick, Standard Gauge.....	9,353.68	323.86

34 11 93 00-0014 Molded Rubber Railroad Crossings With Headers (34 11 93 00-0001)

Note: Based on 3' x 8'-6" sections.

34 11 93 00-0015	EA	Molded Rubber Railroad Crossing, 12' Road 3' x 8'-6" Sections With Headers.....	3,316.18	161.93
34 11 93 00-0016	EA	Molded Rubber Railroad Crossing, 15' Road 3' x 8'-6" Sections With Headers.....	3,938.90	196.62
34 11 93 00-0017	EA	Molded Rubber Railroad Crossing, 18' Road 3' x 8'-6" Sections With Headers.....	4,555.90	242.89
34 11 93 00-0018	EA	Molded Rubber Railroad Crossing, 21' Road 3' x 8'-6" Sections With Headers.....	5,174.35	277.59
34 11 93 00-0019	EA	Molded Rubber Railroad Crossing, 24' Road 3' x 8'-6" Sections With Headers.....	5,791.89	323.86

34 11 93 00-0020 Railroad Trackage Demolition (34 11 93)

34 11 93 00-0021	CY	Removal Of Railroad Track Ballast.....	10.28	
34 11 93 00-0022	LF	Removal Of Railroad Track Rail And Spikes.....	25.71	
34 11 93 00-0023	EA	Removal And Disposal Of Concrete Post Footings.....	150.94	
34 11 93 00-0024	EA	Backfill Holes From Post Removal.....	62.91	

34 40 Transportation Signaling and Control Equipment (34)**34 41 Roadway Signaling and Control Equipment (34 40)****34 41 13 Traffic Signals (34 41)****34 41 13 00-0001 Traffic Signals (34 41 13)**

34 41 13 00-0002	EA	Single Traffic Signal Head, 4 Way Pattern.....	8,423.78	820.91

34 41 13 00-0003 Traffic Detector Induction Loop (34 41 13)

34 41 13 00-0004	EA	6' x 6', Type A, 3 Turns Per Loop, Traffic Detector Induction Loop.....	401.23	
		Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.		



		Transportation	34	34
		Transportation Signaling and Control Equipment	34 40	
		Roadway Signaling and Control Equipment	34 41	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 13 00-0005	EA	6' x 6', Type D, 3 Turns Per Loop, Traffic Detector Induction Loop.....	500.59		
Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0006	EA	6' x 6', Type D, 5 Turns Per Loop, Traffic Detector Induction Loop.....	568.07		
Note: Includes saw cutting, 5 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0007	EA	6' x 6', Type Q, 3 Turns Per Loop, Traffic Detector Induction Loop.....	489.72		
Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0008	EA	6' x 20', Type C, 3 Turns Per Loop, Traffic Detector Induction Loop.....	849.89		
Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0009	EA	6' x 28', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop.....	1,042.02		
Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0010	EA	6' x 28', Type C, 3 Turns Per Loop, Traffic Detector Induction Loop.....	1,111.50		
Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0011	EA	6' x 40', Type C, 1 Turn Per Loop, Traffic Detector Induction Loop.....	1,385.35		
Note: Includes saw cutting, 1 turn wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0012	EA	6' x 40', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop.....	1,487.85		
Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0013	EA	6' x 50', Type C, 1 Turn Per Loop, Traffic Detector Induction Loop.....	1,582.33		
Note: Includes saw cutting, 1 turn wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0014	EA	6' x 50', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop.....	1,707.55		
Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.					
34 41 13 00-0015	LF	In Pavement, Lead Wire For Traffic Signal Detector.....	8.62		
Note: Includes saw cutting, sealing and splicing into traffic signal loop wire in street. Excludes junction box or conduit.					
34 41 13 00-0016	LF	In Earthwork, Lead Wire For Traffic Signal Detector.....	3.78		
Note: Includes trenching in earthwork and splicing into traffic signal loop wire. Excludes junction box or conduit.					
34 41 13 00-0017	EA	2 Channel, Rack Mounted, Traffic Loop Vehicle Detector (Reno A&E Model 222).....	279.03		
34 41 13 00-0018	EA	4 Channel, Rack Mounted, Traffic Loop Vehicle Detector (Reno A&E Model E-1100).....	794.91		
34 41 13 00-0019	EA	2 Channel, Rack Mounted, Traffic Loop Bicycle Detector (Reno A&E Model C-1100).....	492.22		
34 41 13 00-0020 Overhead Traffic Signals (34 41 13)					
34 41 13 00-0021	EA	Vehicle Signal Face, LED, 1 - 12" Sections.....	579.11		174.45
34 41 13 00-0022	EA	Vehicle Signal Face, LED, 2 - 12" Sections.....	946.14		246.27
34 41 13 00-0023	EA	Vehicle Signal Face, LED, 3 - 12" Sections.....	1,331.41		301.00
34 41 13 00-0024	EA	Vehicle Signal Face, LED, 3 - 12" Sections, Middle Section Blank.....	1,263.03		301.00
34 41 13 00-0025	EA	Vehicle Signal Face, LED, 4 - 12" Sections.....	1,696.14		335.21
34 41 13 00-0026	EA	Vehicle Signal Face, LED, 5 - 12" Sections.....	2,033.51		355.73
34 41 13 00-0027	EA	Vehicle Signal Face, LED, 5 - 12" Sections, Cluster.....	2,165.72		355.73
34 41 13 00-0028	EA	Vehicle Signal Face, LED, 1 - 8" Section.....	544.92		174.45
34 41 13 00-0029	EA	Vehicle Signal Face, LED, 2 - 8" Sections.....	877.76		246.27
34 41 13 00-0030	EA	Vehicle Signal Face, LED, 3 - 8" Sections.....	1,165.01		301.00
34 41 13 00-0031	EA	Vehicle Signal Face, LED, 2 - 8" Sections, 1 - 12" Section.....	1,249.35		301.00
34 41 13 00-0032	EA	Vehicle Signal Face, LED, 2 - 8" Sections, 2 - 12" Sections.....	1,550.26		335.21
34 41 13 00-0033	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 1 - 12" Section.....	1,502.39		335.21
34 41 13 00-0034	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 2 - 12" Sections.....	1,782.78		355.73
34 41 13 00-0035	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 2 - 12" Sections In Cluster.....	1,889.91		355.73
34 41 13 00-0036	EA	Vehicle Signal Face, LED, 3 - 12" Sections, Optically Programmed.....	2,744.64		301.00
34 41 13 00-0037	EA	Vehicle Signal Face, LED, 4 - 12" Sections, Optically Programmed.....	3,594.88		335.21
34 41 13 00-0038	EA	Vehicle Signal Face, LED, 5 - 12" Sections, Optically Programmed.....	4,700.41		355.73
34 41 13 00-0039	EA	Vehicle Signal Face, LED, 5 - 12" Sections In Cluster, Optically Programmed.....	5,099.30		355.73
34 41 13 00-0040	EA	Bracket Signal Mounting Assembly.....	560.84		136.82
34 41 13 00-0041	EA	Mast Arm Signal Mounting Assembly.....	989.47		273.64
34 41 13 00-0042	EA	Top Pole Signal Mounting Assembly.....	346.55		102.61
34 41 13 00-0043	EA	Pedestrian Signal Head.....	1,025.90		205.23
34 41 13 00-0044	EA	Pedestrian Signal Insert.....	636.04		102.61
34 41 13 00-0045	EA	Audible Pedestrian Signal.....	1,490.28		
34 41 13 00-0046	EA	Junction Box, Pole Or Post Mounted.....	625.57		
34 41 13 00-0047	EA	Pedestrian Push Button.....	552.88		
34 41 13 00-0048	EA	Illuminated Sign, Bracket Mounted, Symbolic.....	4,582.67		
34 41 13 00-0049	EA	Illuminated Sign, Mast Arm Mounted, Symbolic.....	4,774.51		
34 41 13 00-0050	EA	Sign, Message, "BLANK OUT", Bracket Mounted.....	5,058.15		
34 41 13 00-0051	EA	Sign, Message, "BLANK OUT", Mast Arm Mounted.....	5,371.89		
34 41 13 00-0052	EA	Sign, Fiber Optic, Bracket Mounted.....	5,779.66		
34 41 13 00-0053	EA	Sign, Fiber Optic, Mast Arm Mounted.....	6,099.94		
34 41 13 00-0054	EA	16' Pedestal With Base Plate And Cover.....	1,800.52		187.65
34 41 13 00-0055	EA	30' Type 15TS Signal And Lighting Standard.....	8,654.44		
Note: 8" diameter base and 3-7/8" diameter top. 0.1793" wall thickness.					
34 41 13 00-0056	EA	35' Type 21TS Signal And Lighting Standard.....	10,104.94		
Note: 9-3/8" diameter base and 3-9/16" diameter top. 0.1793" wall thickness.					
34 41 13 00-0057	EA	17' Type 18-2-100 Signal And Lighting Standard.....	4,801.72		
Note: 10-3/4" diameter base and 8-7/16" diameter top. 0.1793" wall thickness.					
34 41 13 00-0058	EA	17' Type 18-3-100 Signal And Lighting Standard.....	5,361.76		
Note: 10-3/4" diameter base and 8-7/16" diameter top. 0.2391" wall thickness.					

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 13 00-0059	EA	17' Type 18-4-100 Or 23-4-100 Signal And Lighting Standard Note: 12" diameter base and 9" diameter top. 0.2391" wall thickness.	5,576.44	
34 41 13 00-0060	EA	17' Type 23-3-100 Signal And Lighting Standard Note: 12" diameter base and 9-5/8" diameter top. 0.2391" wall thickness.	5,576.44	
34 41 13 00-0061	EA	17' Type 23-4-100 Signal And Lighting Standard Note: 12" diameter base and 9-5/8" diameter top. 0.2391" wall thickness.	5,689.15	
34 41 13 00-0062	EA	17' Type 27-3-100 Signal And Lighting Standard Note: 12-1/8" diameter base and 9-3/4" diameter top. 0.3125" wall thickness.	6,252.71	
34 41 13 00-0063	EA	17' Type 27-4-100 Signal And Lighting Standard Note: 13-1/2" diameter base and 9-3/4" diameter top. 0.3125" wall thickness.	6,382.30	
34 41 13 00-0064	EA	17' Type 28-5-100 Signal And Lighting Standard Note: 14" diameter base and 11-11/16" diameter top. 0.3125" wall thickness.	6,648.02	
34 41 13 00-0065	EA	17' Type 60-5-100 Signal And Lighting Standard Note: 16" diameter base and 13-11/16" diameter top. 0.3125" wall thickness.	7,066.52	
34 41 13 00-0066	EA	18'-6" Type 16-2-100 Or 16-3-100 Signal And Lighting Standard Note: 10-3/4" diameter base and 8-1/4" diameter top. 0.1793" wall thickness.	5,131.17	
34 41 13 00-0067	EA	30' Type 17-2-100 Or 17-3-100 Signal And Lighting Standard Note: 10-3/4" diameter base and 6-5/8" diameter top. 0.1793" wall thickness.	9,242.48	
34 41 13 00-0068	EA	30' Type 19-2-100 Signal And Lighting Standard Note: 10-3/4" diameter base and 6-5/8" diameter top. 0.2391" wall thickness.	10,418.56	
34 41 13 00-0069	EA	30' Type 19-3-100 Or 24-3-100 Signal And Lighting Standard Note: 12" diameter base and 7-7/8" diameter top. 0.2391" wall thickness.	10,869.40	
34 41 13 00-0070	EA	30' Type 19-4-100 Or 24-4-100 Signal And Lighting Standard Note: 12" diameter base and 8" diameter top. 0.2391" wall thickness.	10,869.40	
34 41 13 00-0071	EA	30' Type 26-3-100 Signal And Lighting Standard Note: 12-1/8" diameter base and 8" diameter top. 0.3125" wall thickness.	12,289.51	
34 41 13 00-0072	EA	30' Type 26-4-100 Signal And Lighting Standard Note: 13-1/2" diameter base and 8" diameter top. 0.3125" wall thickness.	12,833.90	
34 41 13 00-0073	EA	30' Type 29-5-100 Signal And Lighting Standard Note: 14" diameter base and 9-7/8" diameter top. 0.3125" wall thickness.	13,405.48	
34 41 13 00-0074	EA	30' Type 61-5-100 Signal And Lighting Standard Note: 16" diameter base and 11-7/8" diameter top. 0.3125" wall thickness.	14,305.76	
34 41 13 00-0075	EA	35' Type 17A-2-100 Signal And Lighting Standard Note: 10-3/4" diameter base and 5-15/16" diameter top. 0.1793" wall thickness.	10,749.51	
34 41 13 00-0076	EA	35' Type 19A-2-100 Signal And Lighting Standard Note: 10-3/4" diameter base and 5-15/16" diameter top. 0.2391" wall thickness.	12,121.61	
34 41 13 00-0077	EA	35' Type 19A-3-100 Or 24A-3-100 Signal And Lighting Standard Note: 12" diameter base and 7-3/16" diameter top. 0.2391" wall thickness.	12,647.60	
34 41 13 00-0078	EA	35' Type 19A-4-100 Or 24A-4-100 Signal And Lighting Standard Note: 12" diameter base and 7-5/16" diameter top. 0.2391" wall thickness.	12,647.60	
34 41 13 00-0079	EA	35' Type 26A-3-100 Signal And Lighting Standard Note: 12-1/8" diameter base and 7-5/16" diameter top. 0.3125" wall thickness.	14,304.38	
34 41 13 00-0080	EA	35' Type 26A-4-100 Signal And Lighting Standard Note: 13-1/2" diameter base and 7-5/16" diameter top. 0.3125" wall thickness.	14,939.51	
34 41 13 00-0081	EA	35' Type 29A-5-100 Signal And Lighting Standard Note: 14" diameter base and 9-3/16" diameter top. 0.3125" wall thickness.	15,606.36	
34 41 13 00-0082	EA	35' Type 61A-5-100 Signal And Lighting Standard Note: 16" diameter base and 11" diameter top. 0.3125" wall thickness.	16,656.66	
34 41 13 00-0083	EA	15' Steel Straight Mast Arm, MONOTUBE.....	3,413.16	
34 41 13 00-0084	EA	20' Steel Straight Mast Arm, MONOTUBE.....	3,580.94	
34 41 13 00-0085	EA	25' Steel Straight Mast Arm, MONOTUBE.....	3,844.14	
34 41 13 00-0086	EA	30' Steel Straight Mast Arm, MONOTUBE.....	5,260.96	
34 41 13 00-0087	EA	35' Steel Straight Mast Arm, MONOTUBE.....	6,366.11	
34 41 13 00-0088	EA	40' Steel Straight Mast Arm, MONOTUBE.....	6,844.06	
34 41 13 00-0089	EA	45' Steel Straight Mast Arm, MONOTUBE.....	7,512.66	
34 41 13 00-0090	EA	50' Steel Straight Mast Arm, MONOTUBE.....	8,530.29	
		<i>For Curved Mast Arm, Add</i>	971.67	
34 41 13 00-0091	EA	55' Steel Straight Mast Arm, MONOTUBE.....	9,687.06	
		<i>For Curved Mast Arm, Add</i>	1,083.68	
34 41 13 00-0092	EA	60' Steel Straight Mast Arm, MONOTUBE.....	10,415.07	
		<i>For Curved Mast Arm, Add</i>	1,131.28	
34 41 13 00-0093	EA	65' Steel Straight Mast Arm, MONOTUBE.....	12,094.96	
		<i>For Curved Mast Arm, Add</i>	1,321.70	
34 41 13 00-0094	EA	70' Steel Straight Mast Arm, MONOTUBE.....	15,858.55	
		<i>For Curved Mast Arm, Add</i>	1,598.91	
34 41 13 00-0095	EA	4' Steel Curved Luminaire Mast Arm	1,156.53	
34 41 13 00-0096	EA	6' Steel Curved Luminaire Mast Arm	1,508.04	
		<i>For High Rise Arm, Add</i>	140.01	
34 41 13 00-0097	EA	8' Steel Curved Luminaire Mast Arm	1,886.91	
34 41 13 00-0098	EA	10' Steel Curved Luminaire Mast Arm	2,546.96	
		<i>For High Rise Arm, Add</i>	206.09	
34 41 13 00-0099	EA	12' Steel Curved Luminaire Mast Arm	2,831.23	
		<i>For High Rise Arm, Add</i>	243.06	
34 41 13 00-0100	EA	15' Steel Curved Luminaire Mast Arm	2,980.06	
		<i>For High Rise Arm, Add</i>	271.06	
34 41 13 00-0101	EA	15' Tubular Aluminum Post.....	1,213.01	
34 41 13 00-0102	EA	17' Tubular Aluminum Post.....	1,287.47	
34 41 13 00-0103	EA	20' Tubular Aluminum Post.....	1,427.05	
34 41 13 00-0104	EA	14' High Galvanized Steel Traffic Signal Pole..... Note: For mast arm.	4,241.68	
34 41 13 00-0105	EA	21' High Galvanized Steel Traffic Signal Pole..... Note: For mast arm.	6,556.51	
34 41 13 00-0106	EA	22' High Galvanized Steel Traffic Signal Pole..... Note: For mast arm and luminaire arm.	6,817.86	



		Transportation	34
		Transportation Signaling and Control Equipment	34 40
		Roadway Signaling and Control Equipment	34 41

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41	13 00-0107	EA 30' High Galvanized Steel Traffic Signal Pole, Tapered, For >55' Mast Arm Note: For mast arm and luminaire arm.	9,237.06	
34 41	13 00-0108	EA 32' High Galvanized Steel Traffic Signal Pole, Tapered, For Up To 55' Mast Arm Note: For mast arm and luminaire arm.	9,842.08	
34 41	13 00-0109	EA 30' High Galvanized Steel Traffic Signal Pole, Tapered, For Up To 55' Mast Arm Note: For mast arm and luminaire arm.	7,619.09	
34 41	13 00-0110	EA 30' High Galvanized Steel Traffic Signal Pole, Octafute	6,768.09	
34 41	13 00-0111	EA 30' (High Spun Aluminum Traffic Signal Pole, Tapered	5,480.93	
34 41	13 00-0112	EA CUT-OFF POLE AND CAPPED	196.94	
34 41	13 00-0113	EA PAINT EXISTING SL/TS CONTROLLER COMPLETE	59.60	
34 41	13 00-0114	EA PAINT EXISTING TS POST COMPLETE	279.08	
34 41	13 00-0115	EA 1 Channel Loop Detector Amplifier	1,968.83	
34 41	13 00-0116	EA 4 Channel Loop Detector Amplifier	3,751.74	
34 41	13 00-0117	EA FLASHING BEACON WITH DOWNLIGHT	2,652.28	
34 41	13 00-0118	EA Flashing Beacon, Bracket Mounted	847.74	
34 41	13 00-0119	EA Flashing Beacon, Mast Arm Mounted	847.74	
34 41	13 00-0120	EA Flashing Beacon, Solar Powered, Bracket Mounted	24,384.40	
34 41	13 00-0121	EA Wireless Access Point (Proxim Tsunami MP11 954-BSUR-US)	4,155.24	
34 41	13 00-0122	EA Ruggedized Subscriber Unit (Proxim Tsunami MP11 954-SUA-US)	2,231.32	
34 41	13 00-0123	EA Smart Sensor HD (Wavetronix HD125)	11,877.55	
34 41	13 00-0124	EA Access Point (Sensys AP240-ES)	5,492.21	
		Note: RJ45 port supports simultaneous Ethernet and CC card communications (split via Access Box) combined with data relay, statistics-processing and VPN functionality.		
34 41	13 00-0125	EA Sensys Access Point AP240-ESC-VER - RJ45 port supports simultaneous Ethernet and CC card communications (split via Access Box) combined with data relay, statistics-processing and VPN functionality with Integrated 1xRTT cellular data modem for data relay via CDMA	9,501.87	
34 41	13 00-0126	EA Mounting Kit for Access Points and Repeaters (KIT-MTG)	336.60	
34 41	13 00-0127	EA Repeater (Sensys RP240-B-LL)	2,516.21	
		Note: Nominal battery capacity of 171 Ah with seven (7) year battery-life.		
34 41	13 00-0128	EA Wireless Flush Mounted Sensor (Sensys VSN240-F)	1,125.31	
		Note: Excludes coring.		
34 41	13 00-0129	EA Sensor Mounting Bracket, Cable, Lightning Surge Protector, Power Supply, Breaker, AC Surge Protector, Din Rail and Power Plug	2,811.82	
34 41	13 00-0130	EA Pole Base Foundation for 17-2-80, 17-2-100, 19-2-80 Poles	7,504.98	1.79
34 41	13 00-0131	EA Pole Base Foundation for 17-3-80, 19-3-80, 26-3-80 & 26-4-80 Poles	9,813.54	1.79
34 41	13 00-0132	EA Pole Base Foundation for Type 15 and 21 Poles	5,862.55	1.79
34 41	13 00-0133	EA Pole Base Foundation for 18-4-100, 19-4-100, 23-4-100, And 24-4-100 Poles	7,504.98	1.79
34 41	13 00-0134	EA Pole Base Foundation for 26-4-100 And 27-4-100 Poles	9,813.54	1.79
34 41	13 00-0135	EA LED Enhanced Pedestrian Crossing Symbol Sign	1,981.76	112.37
		Note: 2 required per system.		
34 41	13 00-0136	EA 42" Height, 6-1/2" Diameter Automatic Bollard Activation System	5,700.21	674.21
		Note: 4 required per system.		
34 41	13 00-0137	EA Power Control Unit With Enclosure (Solar)	20,189.19	449.47
		Note: LightGuard Systems solar power equipment includes: one solar array consisting of 1 Siemens SP70 solar power module (21" x 47" to be pole mounted, pole not included), #14 AWG solar tray cable, mounting hardware, one enclosure (16-1/2" width x 27-1/2" height x 15" depth), two 12V 80AH deep cycle gel cell batteries and a solar power control unit (PCU).		
34 41	13 00-0138	EA Power Control Unit With Enclosure (A/C)	12,936.54	449.47
34 41	13 00-0139	EA Push Button Assembly With Sign	1,126.59	224.73
34 41	13 00-0140	EA Advanced Warning Signs	2,240.06	224.73
34 41	13 00-0141	EA Traffic Signal Controller Unit, TS 2 Type 1 (ASC/3-1000)	6,428.57	
34 41	13 00-0142	EA Traffic Signal Controller Unit, TS 2 Type 2 (ASC/3-2100)	6,622.32	
34 41	13 00-0143	EA Traffic Signal Controller Unit, TS 2 Type 2 Econolite Model ASC/2S-2100	59,538.59	
34 41	13 00-0144	EA Optical Detector For Mast Arm Mounting, 1 Channel, 1 Way	1,200.95	
34 41	13 00-0145	EA Optical Detector For Mast Arm Mounting, 1 Channel, 2 Way	1,314.92	
34 41	13 00-0146	EA Optical Detector For Mast Arm Mounting, 2 Channel	1,688.74	
34 41	13 00-0147	EA 2 Channel Phase Selector	3,879.49	
34 41	13 00-0148	EA 4 Channel Phase Selector	6,033.52	
34 41	13 00-0149	EA Malfunction Management Unit For Use With NEMA Controller	1,946.51	
34 41	13 00-0150	EA Optical Detector For Pole-Side Mounting, 1 Channel, 1 Way	1,200.95	245.99
34 41	13 00-0151	EA Optical Detector For Pole-Side Mounting, 1 Channel, 2 Way	1,314.92	245.99
34 41	13 00-0152	EA Optical Detector For Pole-Side Mounting, 2 Channel	1,688.74	245.99
34 41	13 00-0153	EA Optical Detector For Pedestal Or Pipe Mounting, 1 Channel, 1 Way	1,200.95	245.99
34 41	13 00-0154	EA Optical Detector For Pedestal Or Pipe Mounting, 1 Channel, 2 Way	1,314.92	245.99
34 41	13 00-0155	EA Optical Detector For Pedestal Or Pipe Mounting, 2 Channel	1,688.74	245.99
34 41	13 00-0156	EA Optical Detector For Span Wire Mounting, 1 Channel, 1 Way	1,200.95	245.99
34 41	13 00-0157	EA Optical Detector For Span Wire Mounting, 1 Channel, 2 Way	1,314.92	245.99
34 41	13 00-0158	EA Optical Detector For Span Wire Mounting, 2 Channel	1,688.74	245.99
34 41	13 00-0159	EA Optical Detector For Signal Top Mounting, 1 Channel, 1 Way	1,200.95	245.99
34 41	13 00-0160	EA Optical Detector For Signal Top Mounting, 1 Channel, 2 Way	1,314.92	245.99
34 41	13 00-0161	EA Optical Detector For Signal Top Mounting, 2 Channel	1,688.74	245.99
34 41	13 00-0162	EA Time Switch, 1-Circuit	268.68	
34 41	13 00-0163	EA Digital Loop-Type Vehicle Detector Card, 2-Channel, Normal	390.90	
34 41	13 00-0164	EA Digital Loop-Type Vehicle Detector Card, 2-Channel, Stretch/Delay	511.70	
34 41	13 00-0165	EA Digital Loop-Type Vehicle Detector Card, 4-Channel, Normal	728.25	
34 41	13 00-0166	EA Digital Loop-Type Vehicle Detector Card, 4-Channel, Stretch/Delay	915.16	
34 41	13 00-0167	EA Digital Loop-Type Vehicle Detector Card Rack With Power Supply	2,487.94	
34 41	13 00-0168	EA Digital Loop-Type Vehicle Detector Card Rack With Power Supply For Remote Detector Cabinet	2,487.94	
34 41	13 00-0169	EA Power Line Surge Protector - Edco SHP 300-10	229.04	
34 41	13 00-0170	EA Loop Detector Surge Protector - Edco SRA-6LC	116.12	
34 41	13 00-0171	EA Controller Cabinet (Econolite Type "O")	34,125.83	
34 41	13 00-0172	EA Controller Cabinet With 1 Detector Rack And 1 Load Switch Bay	14,803.35	
34 41	13 00-0173	EA Controller Cabinet With 1 Detector Rack And 2 Load Switch Bays	16,102.61	

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 41 13 00-0174	EA	Controller Cabinet With 2 Detector Racks And 1 Load Switch Bay	17,664.00	
34 41 13 00-0175	EA	Controller Cabinet With 2 Detector Racks And 2 Load Switch Bays	18,142.67	
34 41 13 00-0176	EA	Speed Limit Beacon Control Cabinet	7,340.33	
34 41 13 00-0177	EA	Remote Detector Cabinet	3,807.26	
34 41 13 00-0178	EA	Traffic Signal Hand Control	1,071.43	
34 41 13 00-0179	EA	Extra Pedestrian Detector Isolation Assembly	843.49	
34 41 13 00-0180	EA	Fiber Optic Transceivers-Repeater Module	1,085.08	
34 41 13 00-0181	EA	Field Transceiver-Repeater	510.07	
34 41 13 00-0182	EA	Load Switch	107.35	
34 41 13 00-0183	EA	30" Pedestal With Base Plate And Cover	937.60	
34 41 13 00-0184	EA	8' Pedestal With Base Plate And Cover	1,379.35	
34 41 13 00-0185	EA	11' Pedestal With Base Plate And Cover	1,535.23	
34 41 13 00-0186	EA	15' Pedestal With Base Plate And Cover	1,705.54	
34 41 13 00-0187	LF	6-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.66	
34 41 13 00-0188	LF	12-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.77	
34 41 13 00-0189	LF	24-Fiber Interconnect Cable, Fiber Optic, Single Mode	2.13	
34 41 13 00-0190	LF	36-Fiber Interconnect Cable, Fiber Optic, Single Mode	2.48	
34 41 13 00-0191	LF	48-Fiber Interconnect Cable, Fiber Optic, Single Mode	2.84	
34 41 13 00-0192	LF	72-Fiber Interconnect Cable, Fiber Optic, Single Mode	3.46	
34 41 13 00-0193	LF	96-Fiber Interconnect Cable, Fiber Optic, Single Mode	4.07	
34 41 13 00-0194	LF	144-Fiber Interconnect Cable, Fiber Optic, Single Mode	5.25	
34 41 13 00-0195	LF	3/16" Diameter Messenger Cable	0.72	0.11
34 41 13 00-0196	LF	1/4" Diameter Messenger Cable	0.87	0.11
34 41 13 00-0197	LF	3/8" Diameter Messenger Cable	1.60	0.11
34 41 13 00-0198	LF	1/2" Diameter Messenger Cable	3.35	0.22
34 41 13 00-0199	EA	4' Diameter x 10' Concrete Base For Poles	2,850.97	
Note: Includes drilling in earth, rebar, bolts, forms for exposed base, bolts and concrete.				
34 41 13 00-0200	EA	4' Diameter x 16' Concrete Base For Poles	4,498.91	
Note: Includes drilling in earth, rebar, bolts, forms for exposed base, bolts and concrete.				
34 41 13 00-0201	EA	Internally Illuminated Street Name Sign, 1 Line, 4'	2,917.85	273.64
34 41 13 00-0202	EA	Internally Illuminated Street Name Sign, 1 Line, 6'	3,601.73	342.04
34 41 13 00-0203	EA	Internally Illuminated Street Name Sign, 1 Line, 8'	3,920.89	410.46
34 41 13 00-0204	EA	Internally Illuminated Street Name Sign, 1 Line, 10'	4,422.42	478.87
34 41 13 00-0205	EA	Internally Illuminated Street Name Sign, 1 Line, 12'	4,741.60	547.27
34 41 13 00-0206	EA	Internally Illuminated Street Name Sign, 2 Line, 4'	4,641.07	273.64
34 41 13 00-0207	EA	Internally Illuminated Street Name Sign, 2 Line, 6'	5,717.02	342.04
34 41 13 00-0208	EA	Internally Illuminated Street Name Sign, 2 Line, 8'	6,163.82	410.46
34 41 13 00-0209	EA	Internally Illuminated Street Name Sign, 2 Line, 10'	6,884.17	478.87
34 41 13 00-0210	EA	Internally Illuminated Street Name Sign, 2 Line, 12'	7,385.70	547.27
34 41 13 00-0211	EA	Photoelectric Controller, Multi-Volt	98.15	31.98
34 41 13 00-0212	EA	Photoelectric Controller, 120 Volt	90.81	31.98
34 41 13 00-0213	EA	Photoelectric Controller, 480 Volt	90.81	31.98
34 41 13 00-0214	EA	Wi-Fi Communication Unit	1,525.03	136.82
34 41 13 00-0215	EA	Wi-Fi Communication Unit Mounting Bracket	319.20	102.61
34 41 13 00-0216	EA	Wi-Fi Communication Unit Power Supply / POE Injector	294.10	68.41
34 41 13 00-0217	EA	Wi-Fi Communication Unit Packet	2,138.33	205.23
34 41 13 00-0218	LF	Preemptor Detector Cable	1.70	
34 41 13 00-0219	EA	Sno-Shoe Cable Storage Assembly	273.79	

34 41 13 00-0220 Traffic Signal Cable (34 41 13)

34 41 13 00-0221	LF	16 AWG, 2-Conductor, Solid, Traffic Signal Cable	2.28	0.95
34 41 13 00-0222	LF	16 AWG, 3-Conductor, Solid, Traffic Signal Cable	2.59	1.02
34 41 13 00-0223	LF	16 AWG, 4-Conductor, Solid, Traffic Signal Cable	2.88	1.09
34 41 13 00-0224	LF	16 AWG, 5-Conductor, Solid, Traffic Signal Cable	3.16	1.15
34 41 13 00-0225	LF	16 AWG, 6-Conductor, Solid, Traffic Signal Cable	3.51	1.22
34 41 13 00-0226	LF	16 AWG, 8-Conductor, Solid, Traffic Signal Cable	4.10	1.36
34 41 13 00-0227	LF	16 AWG, 10-Conductor, Solid, Traffic Signal Cable	4.85	1.56
34 41 13 00-0228	LF	16 AWG, 12-Conductor, Solid, Traffic Signal Cable	5.58	1.77
34 41 13 00-0229	LF	16 AWG, 16-Conductor, Solid, Traffic Signal Cable	6.67	1.97
34 41 13 00-0230	LF	16 AWG, 20-Conductor, Solid, Traffic Signal Cable	7.99	2.17
34 41 13 00-0231	LF	14 AWG, 2-Conductor, Solid, Traffic Signal Cable	2.38	0.95
34 41 13 00-0232	LF	14 AWG, 3-Conductor, Solid, Traffic Signal Cable	2.73	1.02
34 41 13 00-0233	LF	14 AWG, 4-Conductor, Solid, Traffic Signal Cable	3.06	1.09
34 41 13 00-0234	LF	14 AWG, 5-Conductor, Solid, Traffic Signal Cable	3.37	1.15
34 41 13 00-0235	LF	14 AWG, 6-Conductor, Solid, Traffic Signal Cable	3.77	1.22
34 41 13 00-0236	LF	14 AWG, 8-Conductor, Solid, Traffic Signal Cable	4.44	1.36
34 41 13 00-0237	LF	14 AWG, 10-Conductor, Solid, Traffic Signal Cable	5.28	1.56
34 41 13 00-0238	LF	14 AWG, 12-Conductor, Solid, Traffic Signal Cable	6.09	1.77
34 41 13 00-0239	LF	14 AWG, 16-Conductor, Solid, Traffic Signal Cable	7.35	1.97
34 41 13 00-0240	LF	14 AWG, 20-Conductor, Solid, Traffic Signal Cable	8.90	2.17
34 41 13 00-0241	LF	12 AWG, 2-Conductor, Solid, Traffic Signal Cable	2.61	0.95
34 41 13 00-0242	LF	12 AWG, 3-Conductor, Solid, Traffic Signal Cable	3.07	1.02
34 41 13 00-0243	LF	12 AWG, 4-Conductor, Solid, Traffic Signal Cable	3.48	1.09
34 41 13 00-0244	LF	12 AWG, 5-Conductor, Solid, Traffic Signal Cable	3.88	1.15
34 41 13 00-0245	LF	12 AWG, 6-Conductor, Solid, Traffic Signal Cable	4.41	1.22
34 41 13 00-0246	LF	12 AWG, 8-Conductor, Solid, Traffic Signal Cable	5.28	1.36
34 41 13 00-0247	LF	12 AWG, 10-Conductor, Solid, Traffic Signal Cable	6.31	1.56
34 41 13 00-0248	LF	12 AWG, 12-Conductor, Solid, Traffic Signal Cable	7.32	1.77
34 41 13 00-0249	LF	12 AWG, 16-Conductor, Solid, Traffic Signal Cable	8.99	1.97
34 41 13 00-0250	LF	12 AWG, 20-Conductor, Solid, Traffic Signal Cable	11.08	2.17



Transportation		34
Transportation Signaling and Control Equipment		34 40
Roadway Signaling and Control Equipment		34 41

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 13 00-0251			School Zone Flasher Beacons (34 41 13)		
34 41 13 00-0252	EA		One 8" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly.....	6,044.29	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 30 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0253	EA		One 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly.....	6,087.58	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 30 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0254	EA		Two 8" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly.....	6,822.72	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0255	EA		Two 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly.....	6,961.29	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0256	EA		10" Digit Radar Display, One 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly...	12,813.32	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 80 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0257	EA		10" Digit Radar Display, Two 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly...	13,356.33	205.69
			Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.		
34 41 13 00-0258			Traffic Light Control Synchronization (34 41 13)		
34 41 13 00-0259	EA		ENCOM COMPAK IP Radio/Wireless Ethernet Transceiver, 900 MHz FHSS 1 Watt output power and 128-bit data encryption with 1.1Mbps Throughput.....	5,247.53	
34 41 13 00-0260	EA		ENCOM 5200R 900 MHz Serial Radio Modem, contains one Serial (RS-232 or RS-485) interface and 170/TS1/TS2 detector rack (EPR-5200R).....	3,908.87	
34 41 13 00-0261	EA		ENCOM Dual 2.4/2.4 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB24/24).....	8,917.14	
34 41 13 00-0262	EA		5.8 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB58INT).....	6,109.69	
34 41 13 00-0263	EA		2.4 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB24INT).....	6,109.69	
34 41 13 00-0264	EA		Solar Cabinet Assembly.....	16,420.00	
34 41 13 00-0265	EA		Data Controller Interface Cable Assembly.....	644.93	
34 41 13 00-0266	EA		900 MHz Splitter.....	772.25	
34 41 13 00-0267	EA		900 MHz Surge Suppressor.....	279.04	
34 41 13 00-0268	EA		Surge-Radio Lead in Cable.....	175.62	
34 41 13 00-0269	EA		12DB GAIN YAGI Antenna.....	781.57	
34 41 13 00-0270	EA		PELCO Antenna Mounting Bracket.....	517.39	
34 41 13 00-0271	MLF		Coaxial Cable, LMR-400.....	4,252.63	
34 41 13 00-0272	EA		Perle 16 Port Serial Server.....	4,364.62	
34 41 13 00-0273	EA		Serial to Ethernet Card.....	2,348.84	
34 41 13 00-0274	EA		404 Stand Alone Modem (GDI 404).....	2,148.02	
34 41 13 00-0275			Traffic Signal Controls (34 41 13)		
34 41 13 00-0276	EA		Master Card for Type 2070 or NEMA TS2 traffic controllers (CC-TS2).....	1,848.45	
34 41 13 00-0277	EA		Extension Card for Type 2070 or NEMA traffic controllers (EX-TS2).....	779.05	
34 41 13 00-0278	EA		AccessBox for contract closure master card (CC-ACC).....	274.15	
34 41 13 00-0279	EA		Flush Mount Wireless Sensor (ATT VSN240-F).....	1,054.92	
34 41 13 00-0280	EA		Flush Mount Wireless Sensor (Speed & Count VSN240-F).....	1,054.92	
34 41 13 00-0281	EA		Epoxy Tube for Installation of Wireless Sensor (VSN240-EPX).....	162.43	
34 41 13 00-0282	EA		SNAPS License for each enabled AP (SNAPS-PER-AP).....	448.18	
34 41 13 00-0283			Traffic Signal Devices (34 41 13)		
34 41 13 00-0284	EA		12" Polycarbonate Signal Head Housing (McCain).....	982.43	101.13
34 41 13 00-0285	EA		16" Polycarbonate Pedestrian Signal Housing (McCain).....	498.63	78.66
34 41 13 00-0286	EA		Pedestrian Push Button Cap & Switch (McCain M31334).....	370.17	146.08
34 41 13 00-0287	EA		Pedestrian Push Button Frame Assembly 4" Diameter Pole (McCain M19712).....	505.02	213.49
34 41 13 00-0288	EA		Pedestrian Push Button Frame Assembly 2" Diameter Pole (McCain M30793).....	387.81	168.55
34 41 13 00-0289	EA		16 Channel Conflict Monitor (McCain 2010 ECLIP).....	1,482.10	73.04
34 41 13 00-0290	EA		LED Countdown Head (McCain GTX PS7-CFF1-VLA).....	303.88	28.09
34 41 13 00-0291	EA		Traffic signal Video Detection Camera (Iteris RZ4-awdr).....	3,358.10	123.61
34 41 13 00-0292	EA		Camera processor card (Iteris Edge Connect).....	7,673.58	179.79
34 41 13 00-0293	EA		Wireless Broadband Radio (Encom BB58).....	7,246.39	168.55
34 41 13 00-0294	EA		24-port Gigabit and 4-port 1G/10G SFP+ Ethernet Switch (Etherwan EX77900).....	4,784.86	134.84
34 41 13 00-0295	EA		Power Adapter (Mean Well DR-120-48).....	165.43	42.14
34 41 13 00-0296	LF		14/1 Cal Trans Type 2 Inductive Traffic Detection Loops (Advanced Digital Cable 8452).....	0.96	
34 41 13 00-0297	EA		Radar Detection System (Wavetronix Matrix).....	13,860.87	427.00
34 41 13 00-0298	EA		Pedestrian Audio Push Button (Polaris APS).....	408.10	106.75
34 41 13 00-0299	EA		Opticom Infrared System - Detector (GTT 711).....	1,070.34	100.23
34 41 13 00-0300	EA		Opticom Infrared System - Detector (GTT 721).....	1,197.53	112.14
34 41 13 00-0301	EA		Opticom Infrared System - Detector (GTT 722).....	1,667.91	156.19
34 41 13 00-0302	EA		Opticom Multimode Phase Selector (GTT 764).....	5,550.34	92.39
34 41 13 00-0303	LF		Opticom GPS Installation Cable (GTT 1070).....	1.15	
34 41 13 00-0304	EA		Precast Concrete Traffic Pull Box, 5-T, with steel frame & diamond steel plate lid ("Traffic Signal") (Jensen Precast HT1324).....	923.97	
34 41 13 00-0305	EA		Precast Concrete Traffic Pull Box, 6-T, with steel frame & diamond steel plate lid ("Traffic Signal") (Jensen Precast HT1730).....	980.04	
34 41 13 00-0306	EA		UPS Module (Alpha Technologies FXM 350).....	1,503.76	61.49
			Note: For battery backup in traffic signal control cabinet		

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 41 13 00-0307	EA	Web Connected Relay Switch (Control by Web X-301 WebRelay-Dual).....	471.61	50.57
		Note: To control flashing "School" signs		
34 41 13 00-0308	LF	Fiber optic cable, 72 strand, single mode, riser non-plenum jacket (Optical Cable Corp DX072DSLX9KR).....	10.61	0.52
34 41 13 00-0309	LF	Fiber optic cable, 12 strand, multi mode, riser non-plenum jacket (Superior Essex W30126G01 MM Fiber).....	2.55	0.44
34 41 13 00-0310	EA	12" LED Signal Module, Tinted Lens, Red (GE DR6-RTFB-VLA).....	138.88	50.57
34 41 13 00-0311	EA	12" LED Signal Module, Tinted Lens, Yellow (GE DR6-YTFB-VLA).....	138.88	50.57
34 41 13 00-0312	EA	12" LED Signal Module, Tinted Lens, Green (GE DR6-GTFB-VLA).....	138.88	50.57
34 41 13 00-0313	EA	12" LED Signal Module, Clear Lens, Red (GE DR6-RCFB-VLA).....	138.88	50.57
34 41 13 00-0314	EA	12" LED Signal Module, Clear Lens, Yellow (GE DR6-YCFB-VLA).....	138.88	50.57
34 41 13 00-0315	EA	12" LED Signal Module, Clear Lens, Green (GE DR6-GCFB-VLA).....	138.88	50.57
34 41 13 00-0316	EA	LED Countdown Pedestrian Signal, 16" x 18" (GE PS7-CFF1-VLA).....	410.79	129.22
34 41 13 00-0317	EA	EOC Switch (Actellis ML688).....	5,490.29	399.72
34 41 13 00-0318	EA	Ethernet Extender Kit (ENABLE-IT 860 Pro).....	1,479.88	92.24
34 41 13 00-0319	EA	#5 pull box lid (Concrete, Bolt down) (Christy N30T).....	112.24	21.45
34 41 13 00-0320	EA	#5 pull box lid (Steel, Bolt down) (Christy N30-61J).....	416.83	31.06
34 41 13 00-0321	EA	#6 pull box lid (Concrete, Bolt down) (Christy N36T).....	141.32	21.45
34 41 13 00-0322	EA	#6 pull box lid (Steel, Bolt down) (Christy N36-61J).....	506.85	31.06
34 41 13 00-0323	EA	Battery Back-up (Alpha FXM110 UPS).....	3,563.82	122.99
34 41 13 00-0324	EA	Battery (Alpha AlphaCell 220GXL).....	503.86	30.75
34 41 13 00-0325	EA	BBS Cabinet (Alpha SE48-1616).....	4,092.48	276.73
34 41 13 00-0326	LF	Fiber 72 Strands (Corning 072ZU4-T3F22D20).....	6.13	2.40
34 41 13 00-0327	LF	Fiber 12 Strands (Corning 012ZU4-T3F22D20).....	2.70	1.10
34 41 13 00-0328	EA	FDU & Splice Cassette with LC connector type (Corning CCH-01U, CCH-CS12-B3-P00RE).....	1,271.13	92.24
34 41 13 00-0329	EA	12" THREE SECTION HOUSING (McCain M22435).....	875.03	61.49
34 41 13 00-0330	EA	12" FOUR SECTION HOUSING (McCain M30883).....	1,124.54	92.24
34 41 13 00-0331	EA	12" FIVE SECTION HOUSING (McCain M31769).....	1,312.55	92.24
34 41 13 00-0332	EA	12" CLUSTER, WITHOUT MAS (McCain M30987).....	1,406.55	92.24
34 41 13 00-0333	EA	CMU DATAKEY PROGRAMMER, EDI MONITORKEY-USB (McCain M84650).....	875.03	61.49
34 41 13 00-0334	EA	NAVIGATOR iN2 APS 2 WIRE PPB #IN250N0-B (Polara iN250N0-B).....	875.03	61.49
34 41 13 00-0335	EA	NAVIGATOR iN2 CONTROLLER RACK MOUNT iCCU-C (Polara iCCU-C).....	5,130.72	215.24
34 41 13 00-0336	EA	NAVIGATOR iN2 INTERCONNECT BOARD iN2-ICB-C (Polara iN2-ICB-C).....	249.50	30.75
34 41 13 00-0337	EA	NAVIGATOR iN2 POWER SUPPLY iN2-150-WPS-C (Polara iN2-150-WPS-C).....	249.50	30.75
34 41 13 00-0338	EA	NAVIGATOR iN2 CONNECTOR iN2-C4CABLE-C (Polara iN2-c4cable-C).....	562.26	46.12
34 41 13 00-0339	EA	12" Visor (McCain M19302).....	43.39	12.30
34 41 13 00-0340	EA	LS,2202-HV (iPack), HDSP/FLASHER UNIT,ATC (McCain M36256).....	468.26	46.12
34 41 13 00-0341	EA	SIU,2218 SERIAL INTERFACE UNIT,ATC (McCain M36258).....	781.03	61.49
34 41 13 00-0342	EA	CMU,2212-HV (ip),32 CH W/ ETHERNET PORT, ATC (McCain M36259).....	1,453.56	92.24
34 41 13 00-0343	EA	ATCC-HV, INPUT ASSEMBLY, 24 CH W/ CONN IDC26 (McCain M54487).....	781.03	61.49
34 41 13 00-0344	EA	HARN, SB1/SB2,COMM EXTENSION (McCain M48062).....	155.49	30.75
34 41 13 00-0345	EA	ATCC-HV/LV, FITA ASSEMBLY, 24CH (McCain M54489).....	468.26	46.12
34 41 13 00-0346	EA	CMU DATAKEY PROGRAMMER, EDI MONITORKEY-USB (McCain M84650).....	875.03	61.49
34 41 13 00-0347	EA	242L ISOLATOR, EDI (McCain M56812).....	155.49	30.75
34 41 13 00-0348	EA	EDI 222 DETECTOR (McCain M11407).....	202.50	30.75
34 41 13 00-0349	EA	ALPHA BBS, INVERTER & BYPASS SWITCH (McCain M59763).....	3,503.65	153.73
34 41 13 00-0350	EA	GENERATOR SWITCH AND PLUG ASS'Y FOR ALPHA BBS (McCain M68752-2).....	574.21	61.49
34 41 13 00-0351	EA	BBS BATTERY, ALPHACELL 165GXL (McCain M59884).....	781.03	61.49
34 41 13 00-0352	EA	Battery Backup Cabinet Anodize 44x26x12 (McCain M64438A).....	1,641.57	92.24

34 41 16 Traffic Control Equipment (34 41)**34 41 16 00-0001 Transportation Control Equipment (34 41 16)**

34 41 16 00-0002	EA	CONTROLLER/SL/POLE MTD/1-PHASE/100A.....	12,064.05	945.69
34 41 16 00-0003	EA	CONTROLLER/SL/ON EMB POLE 1-PH/100A.....	12,172.99	1,000.14
34 41 16 00-0004	EA	CONTROLLER, SL, 3-PHASE, 100A, BASE MTD.....	14,949.66	1,011.92
34 41 16 00-0005	EA	CONTROLLER, SL, 3-PHASE, 200A, BASE MTD.....	17,757.53	1,228.63
34 41 16 00-0006	EA	CONTROLLER/SL/BASE MTD/1-PHASE/100A.....	14,821.19	606.11
34 41 16 00-0007	EA	CONTROLLER/SL/BASE MTD/1-PHASE/200A.....	16,437.02	663.57
34 41 16 00-0008	EA	CONTROLLER, TS, 12-BAY, "M" CABINET.....	27,101.61	1,043.24
34 41 16 00-0009	EA	CONTROLLER, TS, 12-BAY, "P" CABINET.....	28,820.80	1,156.12
34 41 16 00-0010	EA	CONTROLLER, TS, 12-BAY "P" CABINET With FO MASTER.....	41,429.00	1,299.78
34 41 16 00-0011	EA	CONTROLLER, TS, 16-BAY, "P" CABINET.....	32,704.90	1,231.37
34 41 16 00-0012	EA	CONTROLLER, PEDESTRIAN CROSSING, ADD-IN.....	905.15	144.61
34 41 16 00-0013	EA	CONCRETE BLOCK PEDESTAL.....	728.58	217.13
34 41 16 00-0014	WK	MAINTAIN EXIST TS INSTALLATION.....	341.62	170.80
34 41 16 00-0015	EA	INST SIGN BOARDS, ST. NAME.....	616.02	286.37
34 41 16 00-0016	EA	F.O. ADD-IN FOR LOCAL CONTROLLER.....	13,835.81	384.63
34 41 16 00-0017	EA	F.O. ADD-IN FOR MASTER CONTROLLER.....	33,636.46	577.12
34 41 16 00-0018	EA	PDU Equipped netBooter With IEC320 C13 Outlets (Synaccess NP-0808DUH).....	1,073.39	16.01
34 41 16 00-0019	EA	Remote Power Switched netBooter PDU, 8 Independent Outlets (Synaccess NP-0801DU).....	609.21	16.01

34 41 16 00-0020 Transportation Cabinets (34 41 16)**34 41 16 00-0021 Transportation Cabinets (Dudlik Enclosures) (34 41 16 00-0020)**

34 41 16 00-0022	EA	50" x 30" x 17", Aluminum CCTV Cabinet (Dudlik Enclosures).....	2,805.99	184.49
34 41 16 00-0023	EA	66" x 48" x 30", Quad Door, 19" Racks, Aluminum CCTV Cabinet (Dudlik Enclosures).....	12,042.11	184.49
34 41 16 00-0024	EA	46" x 30" x 20", 19" Rack, Aluminum TTS Cabinet (Dudlik Enclosures).....	2,621.68	184.49
34 41 16 00-0025	EA	50" x 30" x 17", Aluminum ITS Controller Cabinet (Dudlik Enclosures).....	2,805.99	184.49
34 41 16 00-0026	EA	60" x 50" x 36", Quad Door, 19" Racks, Aluminum Fiber Cross Connect Cabinet (Dudlik Enclosures).....	12,451.70	184.49
34 41 16 00-0027	EA	55" x 16" x 17", Aluminum ITS Meter Cabinet (Dudlik Enclosures).....	1,802.51	184.49



Transportation			34
Transportation Signaling and Control Equipment			34 40
Roadway Signaling and Control Equipment			34 41

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 16 00-0028	Transportation Cabinets (APX Enclosures) (34 41 16 00-0020)			
34 41 16 00-0029	EA	28" Wide, 16" Depth, 46" High, ITS Controller Cabinet (APX Enclosure LS503017)..... Note: 3R, single door, pad mounted aluminum enclosure. Includes natural finish, aluminum back panel, light kit with door switch, thermostatically controlled fan kit, heater kit with thermostat, one aluminum moveable shelf, and one aluminum moveable shelf with slide out drawer. Excludes pad.	6,869.07	215.24
34 41 16 00-0030	Transportation Cabinets (Transportation Control Systems) (34 41 16 00-0020)			
34 41 16 00-0031	EA	30" Wide, 16" Depth, 48" High, Type 4, Aluminum Transportation Cabinet With Door Vents (Transportation Control Systems B483016B2D2S)	2,645.13	184.49
34 41 16 00-0032	EA	30" Wide, 16" Depth, 60" High, Type 4 Stretch, Aluminum Transportation Cabinet With Door Vents (Transportation Control Systems B603016B2D2S)	3,302.01	196.79
34 41 16 00-0033	Transportation Cabinets (McCain) (34 41 16 00-0020)			
34 41 16 00-0034	EA	24" Wide, 30" Depth, 67" High, ATC Cabinet (McCain 352i)	12,548.31	215.24
		Note: 3R, single door, pad mounted anodized aluminum enclosure. Excludes pad.		
34 41 16 00-0035	EA	24" Wide, 30" Depth, 67" High, ATC Cabinet (McCain 332)	12,548.31	215.24
		Note: 3R, single door, pad mounted anodized aluminum enclosure. Excludes pad.		
34 41 16 00-0036	EA	ATC ColdFire Controller (McCain 170)	6,414.16	
34 41 16 00-0037	Traffic Control Equipment (34 41 16)			
34 41 16 00-0038	EA	ProStar PWM Charge Controller 12/24 Volt, 15 Amperes Without Display (Morningstar PS-15)	314.36	61.49
34 41 16 00-0039	EA	ProStar PWM Charge Controller 12/24 Volt, 15 Amperes With Display (Morningstar PS-15M)	418.05	61.49
34 41 16 00-0040	EA	ProStar PWM Charge Controller 12/24 Volt, 30 Amperes With Display (Morningstar PS-30M)	483.91	61.49
34 41 16 00-0041	EA	ProStar PWM Charge Controller 12/24 Volt, 30 Amperes Without Display (Morningstar PS-30)	371.93	61.49
34 41 16 00-0042	MLF	10 AWG, 2 Conductor, 600V, Type TC, Non-Shielded Control Tray Cable (EnerSys A51002R)	2,915.10	674.21
34 41 16 00-0043	EA	Vehicle Detector, Circuit Breaker, 0.2 Amperes, Wavetronix SmartSensor (Wavetronix WX-CLK-210-02)	124.72	30.75
34 41 16 00-0044	EA	Vehicle Detector, 2.4 GHz 12 dBi Omni Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0141)	579.72	68.56
34 41 16 00-0045	EA	Detection System, Vehicle, Two Sensor Preamsembled Backplate, with AC Power (Wavetronix WX-SSB01-0003)	3,066.91	205.69
34 41 16 00-0046	EA	Vehicle Detector, Power Supply, 24 Volt DC, 4 Amperes (Wavetronix WX-CLK-204)	556.77	30.75
34 41 16 00-0047	EA	Vehicle Detector, 4-Channel Contact Matrix Closure, Rack Card (Wavetronix WX-CLK-114)	799.14	30.75
34 41 16 00-0048	EA	4 Channel Din-Rail Contact Closure Module (Wavetronix WX-CLK-104)	913.33	61.49
34 41 16 00-0049	EA	Detection System, Vehicle, Four Sensor Preamsembled Backplate, With AC Power, Wavetronix SmartSensor (Wavetronix WX-SS-B01-0005)	4,043.05	61.49
34 41 16 00-0050	EA	50' Wavetronix Wiring Whip (Wavetronix WX-SS-708-060)	411.38	205.69
34 41 16 00-0051	EA	60', 6-Conductor Power And Communication Cable With Connector (Wavetronix WX-SS-704-060)	577.04	51.42
34 41 16 00-0052	EA	900 MHz 5 dBi Omni Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0119)	495.42	68.56
34 41 16 00-0053	EA	900 MHz 9 dBi Yagi Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0120)	305.73	68.56
34 41 16 00-0054	EA	Wavetronix Click 201 AC To DC Power Converter (Wavetronix WX-CLK-201)	346.01	30.75
34 41 16 00-0055	EA	24 Volt DC 2 Amperes, Wavetronix SmartSensor (Wavetronix WX-CLK-202)	419.78	30.75
34 41 16 00-0056	EA	Coax Surge N-Type, Wavetronix SmartSensor (Wavetronix WX-CLK-250)	187.94	30.75
34 41 16 00-0057	EA	Power, RS232/RS485 Surge, Wavetronix SmartSensor (Wavetronix WX-CLK-200)	567.30	30.75
34 41 16 00-0058	EA	Two Sensor Surge, Wavetronix SmartSensor (Wavetronix WX-CLK-222)	641.07	30.75
34 41 16 00-0059	EA	RS232 to RS485 Converter, Wavetronix SmartSensor (Wavetronix WX-CLK-304)	799.14	30.75
34 41 16 00-0060	EA	Wavetronix Click 301 Serial To Ethernet Converter (Wavetronix CLK-301)	61.49	30.75
34 41 16 00-0061	EA	Sensor Mount, Heavy Duty, 6 inch, 2 Axis Aluminum Bracket (Wavetronix WX-SS-611)	505.95	68.56
34 41 16 00-0062	MLF	LF, UV Resistant Polyethylene Jacketed Cable (Times Microwave Systems LMR-400)	3,441.99	674.21
34 41 16 00-0063	EA	N-Male (Plug) Clamp Connector (Times Microwave Systems TC-400-NMC)	60.08	18.45
34 41 16 00-0064	EA	Spectra IV SE Back Box, Heavy-Duty, Pendant Mount (Pelco BB4HD-PG-E)	1,037.63	73.79
34 41 16 00-0065	EA	Spectra III Clear Pendant Lower Dome, Heavy Duty (Pelco Id53hdpb-1)	1,004.23	92.24
34 41 16 00-0066	EA	24" Height, Ceiling/Pedestal Mount For Pan/Tilts Or Enclosures (Pelco pm2000)	218.62	30.75
34 41 16 00-0067	EA	10" Height, Ceiling/Pedestal Mount For Pan/Tilts Or Enclosures (Pelco pm2010)	158.95	30.75
34 41 16 00-0068	EA	24 Volt AC, Remote Data Port (Pelco IPS-RDPE-2)	541.29	30.75
34 41 16 00-0069	EA	Spectra IV Remote Monitor Interface Cable (Pelco IPS-CABLE)	221.56	30.75
34 41 16 00-0070	EA	120 Volt AC, 12.5 Watt, 12 Volt DC, 600 mA, External Plug In Power Supply (Triad Magnetics WDU12-600)	85.47	30.75
34 41 16 00-0071	EA	Control Area Network Direct Current Input/Output (Daktronics 0P-1247-0009)	755.26	61.49
		Note: Input/Output for sign peripherals.		
34 41 16 00-0072	EA	Control Area Network Direct Current Input/Output (Daktronics 0P-1247-4009)	755.26	61.49
		Note: Input/Output for sign peripherals.		
34 41 16 00-0073	EA	Control Area Network Distribution Board (Daktronics 0P-1248-0005)	1,440.21	61.49
		Note: Signal distribution point between sign modules and peripherals, and VFC-3000 Field Controller.		
34 41 16 00-0074	EA	Control Area Network Distribution Board (Daktronics 0P-1248-0011)	1,440.21	61.49
		Note: Signal distribution point between sign modules and peripherals, and VFC-3000 Field Controller.		
34 41 16 00-0075	EA	Control Area Network Temperature And Light Sensor (Daktronics 0P-1247-0019)	481.28	61.49
		Note: Measures temperature and detects light and reports to CAN Dist Board.		
34 41 16 00-0076	EA	Control Area Network Temperature, Light Sensor, And Humidity (Daktronics 0P-1247-0015)	692.03	61.49
		Note: Measures temperature and detects light and humidity and reports to CAN Dist board.		
34 41 16 00-0077	EA	Control Area Network Temperature, Light Sensor, And Humidity (Daktronics 0P-1247-0021)	692.03	61.49
		Note: Measures temperature and detects light and humidity and reports to CAN Dist board.		
34 41 16 00-0078	EA	Control Area Network Temperature And Light Sensor (Daktronics 0P-1247-0003)	565.58	61.49
		Note: Measures temperature and detects light and reports to CAN Dist board.		
34 41 16 00-0079	EA	Controller, VFC-3000 Field Controller NTCIPv1 (Daktronics 0A-1248-0016)	9,975.98	245.99
		Note: The "brains" of the sign. Receives information from NTCIP central software and reports status and diagnostic information.		
34 41 16 00-0080	EA	DC/DC, Direct Current to Direct Current Converter (Daktronics 0P-1247-0025)	419.78	30.75
		Note: Takes 24 Volt DC input from two power supplies and outputs 9 Volt DC for CAN Dist Board, providing power redundancy.		

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 16 00-0081 EA Driver (Daktronics 0P-1100-0026) Note: Driver takes data packets from Control Area Network to determine what pixels (LED clusters) are ON and which are OFF.	793.88	49.20
34 41 16 00-0082 EA External Temp Sensor (Daktronics 0P-1100-0014) Note: Sensor that measures ambient temperature.	699.04	49.20
34 41 16 00-0083 EA Internal Temp Sensor (Daktronics 0P-1100-0038) Note: Sensor that measures sign internal temperature.	783.35	49.20
34 41 16 00-0084 EA Light Level Detector (Daktronics 0P-1151-0002) Note: The values from the light sensors are used by the sign controller to determine the appropriate sign brightness.	467.21	49.20
34 41 16 00-0085 EA Module (Daktronics 0A-1253-0608) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,440.21	61.49
34 41 16 00-0086 EA Module (Daktronics 0A-1253-3018) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,809.04	61.49
34 41 16 00-0087 EA Module (Daktronics 0A-1266-5002) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,598.28	61.49
34 41 16 00-0088 EA Module (Daktronics 0A-1332-6252) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	2,230.55	61.49
34 41 16 00-0089 EA Module (Daktronics 0A-1332-6455) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,809.04	61.49
34 41 16 00-0090 EA Module (Daktronics 0A-1332-6654) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,809.04	61.49
34 41 16 00-0091 EA Module (Daktronics 0P-1332-3015) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	966.01	61.49
34 41 16 00-0092 EA Module (Daktronics 0P-1332-4116) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	966.01	61.49
34 41 16 00-0093 EA Module (Daktronics 0P-1332-5031) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	966.01	61.49
34 41 16 00-0094 EA Module (Daktronics 0P-1332-5017) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	966.01	61.49
34 41 16 00-0095 EA Module Without Pan (Daktronics 0A-1253-0603) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	1,440.21	61.49
34 41 16 00-0096 EA Module Without Pan (Daktronics 0A-1253-1605) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	1,440.21	61.49
34 41 16 00-0097 EA Module Without Pan (Daktronics 0A-1254-1601) Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	1,440.21	61.49
34 41 16 00-0098 EA Pixel Strip (Daktronics 0P-1100-0016) Note: Pixel Strip is a smaller section of a module. Typically has three pixels (LED clusters) per strip.	491.81	61.49
34 41 16 00-0099 EA Pixel Strip (Daktronics 0P-1100-0029) Note: Pixel Strip is a smaller section of a module. Typically has three pixels (LED clusters) per strip.	576.12	61.49
34 41 16 00-0100 EA Power Supply (Daktronics A-1593) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	1,703.66	61.49
34 41 16 00-0101 EA Power Supply (Daktronics A-1648) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	1,703.66	61.49
34 41 16 00-0102 EA Power Supply (Daktronics A-2307) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	649.88	61.49
34 41 16 00-0103 EA Surge Suppressor (Daktronics A-1129) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	263.47	36.90
34 41 16 00-0104 EA Surge Suppressor (Daktronics A-1412) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	547.99	36.90
34 41 16 00-0105 EA Surge Suppressor (Daktronics A-1772) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	547.99	36.90
34 41 16 00-0106 EA Surge Suppressor (Daktronics A-2139) Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	811.44	36.90
34 41 16 00-0107 EA VCB, Vanguard Control Board (Daktronics 0P-1248-0022) Note: Receives high speed serial communication over fiber or CAT5 from VFC-3000 and reports sign status and peripheral diagnostics.	1,376.99	61.49
34 41 16 00-0108 EA VMS I/O, Variable Message Sign Input/Output (Daktronics 0P-1194-0001) Note: Input/Output board for sign peripherals.	1,861.73	61.49
34 41 16 00-0109 EA Power Supply Assembly (Daktronics A-1856R)	1,229.46	61.49
34 41 16 00-0110 EA Power Supply Isolation Board (Daktronics 0P-1447-2000)	807.95	61.49
34 41 16 00-0111 EA Ventilation/Circulation Fan (Daktronics B-1075)	302.13	61.49
34 41 16 00-0112 EA VMS Controller (V2) (Daktronics 0A-1248-0028)	9,975.98	245.99
34 41 16 00-0113 EA Photo/Temp Sensor (Daktronics 0P-1247-0015)	692.03	61.49
34 41 16 00-0114 EA Defog Fan (Daktronics B-1053)	114.18	30.75
34 41 16 00-0115 EA Defog Heater (Daktronics A-1792)	145.79	30.75
34 41 16 00-0116 EA Display Card 1500, 15' Clear (Ver-Mac PB-AFF-06023A-03 PF)	913.33	61.49
34 41 16 00-0117 EA Display Card 1500, 30' Amber (Ver-Mac PB-AFF-06023-01 PF)	913.33	61.49
34 41 16 00-0118 EA 1-Port Decoder With H.264 And High-Definition Technology (Verint S1801E-R)	1,190.75	61.59
34 41 16 00-0119 EA 1-Port Video Encoder Featuring H.264 Technology With One Bi-directional Audio Channel And 12V DC Universal Power Supply (Verint S1801E)	1,190.75	61.59
34 41 16 00-0120 EA 16-Port Video Encoder Featuring H.264 Technology (Verint S1816E)	6,447.79	61.59
34 41 16 00-0121 EA Encoder H.264 Compact, Hiperfmc (Verint S1802E)	1,538.82	61.59
34 41 16 00-0122 EA 110 Volt AC To 12 Volt DC At 45 Watt, Transformer (Verint PS1261)	209.17	30.75
34 41 16 00-0123 EA 1-Channel Encoder, H.264 Dual-Streaming, SD Card Slot (Bosch VIP-X1XF-E)	733.31	61.59
34 41 16 00-0124 EA Single/Quad-Stream Decoder (Bosch VIP-XD)	1,915.59	61.59
34 41 16 00-0125 EA 1-Output, Outdoor-Rated CCTV Power Supply Unit, 24/26/28 Volt AC (Pelco WCS1-4)	295.96	61.49
34 41 16 00-0126 EA 4-Outputs, Outdoor-Rated CCTV Power Supply With Circuit Breaker, 24/28 Volt AC (Pelco WCS4-20B)	648.93	61.49
34 41 16 00-0127 EA 12.5KVA, 12 Volt, 75Ah, UPS Battery (UPG UB12750)	291.56	15.40
34 41 16 00-0128 EA Managed Ethernet Switch with 4 10/100TX Ports + 4 100FX Fiber Ports (EtherWAN EX71440-B0B)	3,693.61	122.99



Transportation			34
Transportation Signaling and Control Equipment			34 40
Roadway Signaling and Control Equipment			34 41

MINOR			TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION			UNIT COST		UNIT COST
34 41 16 00-0129	EA	Power Supply, Hardened, External 100-240 Volt AC Input; TS2 rated; 12 Volt DC Output Power (EtherWAN 41-136046-1).....	228.59		30.75
34 41 16 00-0130	EA	4kVA / 3.6kW Split-Phase Power Module (Eaton 9PXMSPPM).....	3,354.62		61.49
34 41 16 00-0131	EA	208-240 Volt, 4-20kVA Rack/Tower UPS (Eaton 9PXM).....	7,866.98		304.40
34 41 16 00-0132	EA	30 Amperes, 600 Volt, 3-Pole, Fusible, NEMA 3R Rainproof, Safety Switch (Square D H361RB).....	1,049.57		159.89
34 41 16 00-0133	EA	30 Amperes, 600 Volt, LKS Fuse (Eaton Bussmann LKS-30).....	25.56		9.84
34 41 16 00-0134	EA	60 Amperes, 600 Volt, 3-Pole, Fusible, Heavy Duty, Safety Switch (Square D H362DS).....	2,734.54		122.99
34 41 16 00-0135	EA	60 Amperes, 600 Volt, Dual Element, Time-Delay Fuse (Eaton Bussmann FRS-R-60).....	57.56		9.84
34 41 16 00-0136	EA	50 Mbps, MIMO 2x2, 15 dBi Integrated Antenna (Proxim Wireless TSUNAMI QB-820).....	2,432.52		68.56
34 41 16 00-0137	EA	Singlemode Loaded Fiber Adapter Panel, 6 Simplex SC/UPC Adapters (Multi-Link 10-4810).....	131.68		46.74
34 41 16 00-0138	EA	12" x 6" x 5-1/2", 2 Panel, 2 Splice Dual Security Door, Compact Wall Mount Fiber Distribution Unit (Multilink 10-4469).....	381.03		61.49
34 41 16 00-0139	EA	Single AC Inlet, 8 Nema 5-15 Outlets, Built-in AC Current Drawing Sensing Module (Synaccess NP-0801DT).....	684.09		16.01
34 41 16 00-0140	EA	Aggregated TRMS AC Current Sensing, One Readout For All Outlets (Synaccess NP-0801DT(H)).....	737.33		16.01
34 41 16 00-0141	EA	550 Watt, 120 Volt AC, Fan Heater With Adjustable Thermostat, 32-140 Degree Fahrenheit (Stego CR-027).....	390.59		24.59
34 41 16 00-0142	EA	10/100M Switch, 4 x 1G Combo, LAN Base (Cisco IE-4000-4TC4G-E).....	4,715.16		147.59
34 41 16 00-0143	EA	12 Port, 2 Panel, Wall Mount, Compact Fiber Distribution Unit (Multilink FWM012XLC).....	173.40		28.29
34 41 16 00-0144	EA	6-Fiber, Singlemode, SC Simplex, Fiber Optic Cable Connector Panel (Multilink MSC-06-SM-C-BLK).....	44.22		6.15
34 41 16 00-0145	EA	170 Watt AC To DC, Industrial Ethernet Family Power Supply (Cisco PWR-IE170W-PC-AC).....	1,485.69		61.49
34 41 16 00-0146	EA	12 Port, Industrial Ethernet Layer 3 Switch Installed In Transportation Control Equipment (Cisco IE-4000-4GC4GP4G-E).....	5,124.51		122.99
34 41 16 00-0147	EA	2 KVA, 1,800 Watt, 120 Volt AC Output, 120 Volt AC Input, Single Phase, On-Line Uninterruptible Power Supply (UPS) (Xtreme Power P90-3000).....	3,453.36		202.93
34 41 16 00-0148	EA	100 Amperes, 16 Circuit, Main Lug Load Center Panelboard, 8-1 AWG, 120/240 Volt, Single Phase (Square D QO816L100DS).....	794.10		351.76
34 41 16 00-0149	EA	70 Amperes, 4 Circuit, Main Lug Load Center Panelboard, 3 Wire, 120/240 Volt, Single Phase (Square D QO24L70S).....	553.38		245.99
34 41 16 00-0150	EA	60 Amperes, 120/240 Volt, 2 Pole Common Trip Miniature Circuit Breaker, Plug On Mounting (Square D QO260).....	114.73		33.21
34 41 16 00-0151	EA	15 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QOT1515).....	87.07		22.14
34 41 16 00-0152	EA	15 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QO120).....	68.02		22.14
34 41 16 00-0153	EA	20 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QO120).....	68.02		22.14
34 41 16 00-0154	EA	One Output Outdoor-rated CCTV Power Supply Unit, 24/26/28 Volt AC At 4 Amperes Total Supply Current, Fuse Protected Output, UL Listed (Pelco WCS1-4).....	295.96		61.49
34 41 16 00-0155	EA	DIN Rail Mount, Switching Power Supply (TKH Security PSR12DC).....	322.49		30.80
34 41 16 00-0156	EA	H.264 Multi-coded Video Encoder With Audio, Data And CO's (TKH Security C-60-E-MC).....	3,018.13		30.80
34 41 16 00-0157	EA	Expansion Power Module For IE-3000-4TC And IE-3000-8TC (Cisco PWR-IE50W-AC-IEC).....	588.71		16.01
34 41 16 00-0158	EA	Traffic Monitoring System (BlueToad Spectra Cellular/Solar Version).....	12,125.48		205.69
34 41 16 00-0159	EA	Ubiquiti Rocket M9 Wireless Access Point (ROCKETM9).....	458.55		68.56

34 41 23 Roadway Monitoring Equipment (34 41)

34 41 23 00-0001 Radar Speed Display Signs (34 41 23)

34 41 23 00-0002	EA	Pole Mounted Radar Speed Sign (RU2 Systems, Inc. Model 250).....	5,827.17		
Note: 12" Full Matrix (rounded) Characters for quick recognition.					
34 41 23 00-0003	EA	Pole Mounted Radar Speed Sign (RU2 Systems, Inc. Model 350).....	6,852.10		
Note: 18" Full Matrix (rounded) Characters for quick recognition.					
34 41 23 00-0004	EA	Dolly Mounted Radar Speed Sign (RU2 Systems, Inc. Model 500).....	9,735.55		
Note: 12" Amber AllnGaP LED display characters.					
34 41 23 00-0005	EA	Trailer Mounted Radar Speed Sign (RU2 Systems, Inc. Model 600).....	12,231.03		
Note: 12" full graphic characters					
34 41 23 00-0006	EA	Trailer Mounted Radar Speed Sign (RU2 Systems, Inc. Model 750).....	15,358.26		
Note: 18" Amber AllnGaP LED display characters					
34 41 23 00-0007	EA	Trailer Mounted Radar Speed Sign (RU2 Systems, Inc. Model 800).....	16,073.87		
Note: 18" Amber AllnGaP LED full graphic display characters, on top. 18" x 24" MUTCD R2-1 speed sign / 5-65 MPH overlays.					
34 41 23 00-0008	EA	Trailer Mounted Radar Speed Sign (RU2 Systems, Inc. Model 950).....	19,468.47		
Note: 18" Amber AllnGaP LED full graphic display characters. 18" x 24" MUTCD R2-1 speed sign / 5-65 MPH overlays.					
34 41 23 00-0009	EA	Trailer Mounted Radar Speed Sign (RU2 Systems, Inc. Model 1000).....	22,286.38		
Note: Up to 30" Amber AllnGaP LED digits.					

34 43 Airfield Signaling and Control Equipment (34 40)

34 43 13 Airfield Signals and Lighting (34 43)

34 43 13 09 Airport Rotating Beacons (34 43 13)

34 43 13 09-0001	EA	Rotating Heliport Beacon, 3 - 500 Watt Quartz Lamps.....	9,061.88		2,247.35

34 43 13 12 Airport Obstruction Lights (34 43 13)

34 43 13 12-0001 Hazard Beacon Flashing Red, Two Lamps-620 Watts (34 43 13 12)

34 43 13 12-0002	EA	Hazard Beacon Flashing Red, 2 - 620 Watt With 2 Wire Cable.....	4,315.52		224.73
34 43 13 12-0003	EA	Hazard Beacon Flashing Red, 2 - 620 Watt With 3 Wire Cable.....	4,814.36		224.73
34 43 13 12-0004	EA	Beacon Failure Alarm Relay Assembly.....	1,060.55		224.73

34 43 13 12-0005 Obstruction Marker Lights (34 43 13 12)

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 43 Airfield Signaling and Control Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 12-0006 EA Obstruction Marker Light, 1 - 69 Watt FAA Spec L-810	468.21	140.46
34 43 13 12-0007 EA Obstruction Marker Light, 2 - 69 Watt FAA Spec L-810	754.37	168.55
34 43 13 12-0008 EA Obstruction Marker Light, 1 - 116 Watt Mil Spec M16-6-7830B	637.81	140.46
34 43 13 12-0009 EA Obstruction Marker Light, 2 - 116 Watt Mil Spec M16-6-7830B	1,036.21	168.55
34 43 13 12-0010 EA Transfer Relay Assembly	1,512.01	224.73
34 43 13 12-0011 Solid State Flashers With Cast Aluminum Housing (34 43 13 12)		
34 43 13 12-0012 EA Solid State Flashers, 1 Circuit, With Cast Aluminum Housing	15,414.81	224.73
34 43 13 12-0013 EA Solid State Flashers, 2 Circuit Simultaneous Flash, With Cast Aluminum Housing	30,492.21	280.92
34 43 13 12-0014 EA Solid State Flashers, 3 Circuit Simultaneous Flash, With Cast Aluminum Housing	45,570.54	337.10
34 43 13 12-0015 EA Sequential Flasher	10,944.22	1,217.73
34 43 13 13 Airfield Runway Identification Lights (34 43 13)		
34 43 13 13-0001 Taxi Guidance Sign Internally Illuminated, 18" Letters (34 43 13 13)		
34 43 13 13-0002 EA Taxi Guidance Sign 1 Face, 4' Wide Internally Illuminated, 18" Letter	3,078.38	224.73
For LED, Add	525.78	
34 43 13 13-0003 EA Taxi Guidance Sign 1 Face, 6' Wide Internally Illuminated, 18" Letter	5,006.24	280.92
For LED, Add	888.94	
34 43 13 13-0004 EA Taxi Guidance Sign 1 Face, 8' Wide Internally Illuminated, 18" Letter	6,860.20	337.10
For LED, Add	1,237.13	
34 43 13 13-0005 EA Taxi Guidance Sign 1 Face, 10' Wide Internally Illuminated, 18" Letter	8,516.30	337.10
For LED, Add	1,523.47	
34 43 13 13-0006 EA Taxi Guidance Sign 2 Face, 4' Wide Internally Illuminated, 18" Letter	3,552.86	337.10
For LED, Add	575.67	
34 43 13 13-0007 EA Taxi Guidance Sign 2 Face, 6' Wide Internally Illuminated, 18" Letter	5,729.44	393.28
For LED, Add	988.71	
34 43 13 13-0008 EA Taxi Guidance Sign 2 Face, 8' Wide Internally Illuminated, 18" Letter	7,832.88	449.47
For LED, Add	1,386.79	
34 43 13 13-0009 EA Taxi Guidance Sign 2 Face, 10' Wide Internally Illuminated, 18" Letter	9,738.00	561.84
For LED, Add	1,723.01	
34 43 13 13-0010 Taxi Guidance Sign Internally Illuminated, 12" And 15" Letters (34 43 13 13)		
34 43 13 13-0011 EA Taxi Guidance Sign 1 Face, 2 1/2' Wide Internally Illuminated, 12 - 15" Letters	2,634.41	224.73
For LED, Add	436.99	
34 43 13 13-0012 EA Taxi Guidance Sign 1 Face, 4' Wide Internally Illuminated, 12 - 15" Letters	4,081.06	224.73
For LED, Add	726.32	
34 43 13 13-0013 EA Taxi Guidance Sign 1 Face, 6' Wide Internally Illuminated, 12 - 15" Letters	5,752.02	280.92
For LED, Add	1,038.10	
34 43 13 13-0014 EA Taxi Guidance Sign 1 Face, 8' Wide Internally Illuminated, 12 - 15" Letters	7,244.31	337.10
For LED, Add	1,313.96	
34 43 13 13-0015 EA Taxi Guidance Sign 2 Face, 2 1/2' Wide Internally Illuminated, 12 - 15" Letters	2,946.02	280.92
For LED, Add	476.90	
34 43 13 13-0016 EA Taxi Guidance Sign 2 Face, 4' Wide Internally Illuminated, 12 - 15" Letters	4,592.20	280.92
For LED, Add	806.13	
34 43 13 13-0017 EA Taxi Guidance Sign 2 Face, 6' Wide Internally Illuminated, 12 - 15" Letters	6,463.62	337.10
For LED, Add	1,157.82	
34 43 13 13-0018 EA Taxi Guidance Sign 2 Face, 8' Wide Internally Illuminated, 12 - 15" Letters	10,199.09	393.28
For LED, Add	1,882.64	
34 43 13 13-0019 Taxi Guidance Sign Unlighted, 18" Letters (34 43 13 13)		
34 43 13 13-0020 EA Taxi Guidance Sign 1 Face, 4' Wide Unlighted, 18" Letters	2,161.78	140.46
For LED, Add	376.13	
34 43 13 13-0021 EA Taxi Guidance Sign 1 Face, 6' Wide Unlighted, 18" Letters	3,977.58	140.46
For LED, Add	739.29	
34 43 13 13-0022 EA Taxi Guidance Sign 1 Face, 8' Wide Unlighted, 18" Letters	5,775.24	168.55
For LED, Add	1,087.48	
34 43 13 13-0023 EA Taxi Guidance Sign 1 Face, 10' Wide Unlighted, 18" Letters	7,206.92	168.55
For LED, Add	1,373.82	
34 43 13 13-0024 EA Taxi Guidance Sign 2 Face, 4' Wide Unlighted, 18" Letters	2,467.90	168.55
For LED, Add	426.01	
34 43 13 13-0025 EA Taxi Guidance Sign 2 Face, 6' Wide Unlighted, 18" Letters	4,533.11	168.55
For LED, Add	839.06	
34 43 13 13-0026 EA Taxi Guidance Sign 2 Face, 8' Wide Unlighted, 18" Letters	6,490.48	224.73
For LED, Add	1,208.20	
34 43 13 13-0027 EA Taxi Guidance Sign 2 Face, 10' Wide Unlighted, 18" Letters	6,537.87	224.73
For LED, Add	1,217.68	
34 43 13 13-0028 Distance Marker Sign, Internally Illuminated (34 43 13 13)		
34 43 13 13-0029 EA Distance Marker Sign, 48" x 48"	4,165.86	224.73
34 43 13 13-0030 Options And Accessories (34 43 13 13)		
34 43 13 13-0031 EA 100 Watt Transformer Guidance Signs Accessories	381.99	56.18
34 43 13 13-0032 EA Connection Kit For 1 Conduit Cable Guidance Signs Accessories	196.35	84.27
34 43 13 13-0033 EA Base Housing, 12" Diameter Guidance Signs Accessories	499.57	112.37



Transportation			34
Transportation Signaling and Control Equipment			34 40
Airfield Signaling and Control Equipment			34 43

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MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 13-0034	Tools (34 43 13 13)			
34 43 13 13-0035	EA Impact Nut Driver Guidance Signs Accessories		483.88	
34 43 13 13-0036	EA Leveling Tool Guidance Signs Accessories		244.43	
34 43 13 13-0037	EA Contact Straightener Guidance Signs Accessories		107.25	
34 43 13 13-0038	EA Installation Fixture Guidance Signs Accessories		498.84	
34 43 13 13-0039	EA Drill Jig Guidance Signs Accessories		598.61	
34 43 13 13-0040	EA Installation And Align Tool Guidance Signs Accessories		304.30	
34 43 13 13-0041	EA Prism Setting Fixture Guidance Signs Accessories		426.91	
34 43 13 13-0042	EA Pressure Test Fitting Guidance Signs Accessories		111.89	
34 43 13 13-0043	EA Lifting Handles Guidance Signs Accessories		62.36	
34 43 13 13-0044	EA Leveling Tool Guidance Signs Accessories		244.43	
34 43 13 13-0045	EA Flector Alignment Tool Guidance Signs Accessories		199.56	
34 43 13 13-0046	EA Lamp Extractor Guidance Signs Accessories		32.43	
34 43 13 13-0047	EA Cable Stripper/Penciller Guidance Signs Accessories		324.45	
34 43 13 13-0048	Taxiway Marker Tubular Reflectors Post (34 43 13 13)			
	Note: With reflective strips on contract background.			
34 43 13 13-0049	EA Taxiway Marker Reflector Post 18" With Reflector Strips On Contract Background		172.47	56.18
34 43 13 13-0050	EA Taxiway Marker Reflector Post 24" With Reflector Strips On Contract Background		182.45	56.18
34 43 13 13-0051	EA Taxiway Marker Reflector Post 30" With Reflector Strips On Contract Background		197.41	56.18
34 43 13 13-0052	EA Taxiway Marker Reflector Post 36" With Reflector Strips On Contract Background		207.39	56.18
34 43 13 16	Airfield Runway and Taxiway Inset Lighting (34 43 13 16)			
34 43 13 16-0001	Runway And Taxiway Lights (34 43 13 16)			
34 43 13 16-0002	Runway In-Pavement Lights (34 43 13 16-0001)			
34 43 13 16-0003	Runway Centerline, Land And Hold Short Operations (LAHSO) (34 43 13 16-0002)			
	Note: L-850A.			
34 43 13 16-0004	EA Uni-Directional Runway Centerline Light With Shallow Base And Film Disc Cutout		1,601.57	168.55
34 43 13 16-0005	EA Uni-Directional Runway Centerline Light With Cord Set And Film Disc Cutout		875.01	112.37
34 43 13 16-0006	EA Uni-Directional Runway Centerline Light With Two (2) Cord Sets And Film Disc Cutout		919.77	112.37
34 43 13 16-0007	EA Uni-Directional Runway Centerline Light With Shallow Base And Without Film Disc Cutout		1,568.22	168.55
34 43 13 16-0008	EA Uni-Directional Runway Centerline Light With Cord Set And Without Film Disc Cutout		865.61	112.37
34 43 13 16-0009	EA Uni-Directional Runway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout		894.73	112.37
34 43 13 16-0010	EA Bi-Directional Runway Centerline Light With Shallow Base And Film Disc Cutout		1,664.79	168.55
34 43 13 16-0011	EA Bi-Directional Runway Centerline Light With Cord Set And Film Disc Cutout		907.52	112.37
34 43 13 16-0012	EA Bi-Directional Runway Centerline Light With Two (2) Cord Sets And Film Disc Cutout		954.53	112.37
34 43 13 16-0013	EA Bi-Directional Runway Centerline Light With Shallow Base And Without Film Disc Cutout		1,629.78	168.55
34 43 13 16-0014	EA Bi-Directional Runway Centerline Light With Cord Set And Without Film Disc Cutout		897.65	112.37
34 43 13 16-0015	EA Bi-Directional Runway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout		928.23	112.37
34 43 13 16-0016	Runway Touchdown Zone, Medium Intensity Approach Lighting System (34 43 13 16-0002)			
	Note: L-850B.			
34 43 13 16-0017	EA Uni-Directional Straight Or Toe-in Runway Touchdown Zone Light With Shallow Base And Film Disc Cutout		1,451.79	168.55
34 43 13 16-0018	EA Uni-Directional Straight Or Toe-in Runway Touchdown Zone Light With Single Cord Set And Film Disc Cutout		744.95	112.37
34 43 13 16-0019	EA Uni-Directional Straight Or Toe-in Runway Touchdown Zone Light With Shallow Base And Without Film Disc Cutout		1,421.86	168.55
34 43 13 16-0020	EA Uni-Directional Straight Or Toe-in Runway Touchdown Zone Light With Single Cord Set And Without Film Disc Cutout		715.04	112.37
34 43 13 16-0021	Runway Edge, Displaced Threshold (34 43 13 16-0002)			
	Note: L-850C.			
34 43 13 16-0022	EA Bi-Directional Displaced Threshold Runway Edge Light With Cord Set And Film Disc Cutout		1,326.13	112.37
34 43 13 16-0023	EA Bi-Directional Displaced Threshold Runway Edge Light With Two (2) Cord Sets And Film Disc Cutout		1,333.65	112.37
34 43 13 16-0024	EA Bi-Directional Displaced Threshold Runway Edge Light With Cord Set And Without Film Disc Cutout		1,306.47	112.37
34 43 13 16-0025	EA Bi-Directional Displaced Threshold Runway Edge Light With Two (2) Cord Sets And Without Film Disc Cutout		1,313.47	112.37
34 43 13 16-0026	Runway Threshold/End (34 43 13 16-0002)			
	Note: L-850D.			
34 43 13 16-0027	EA Uni-Directional Obscured Beam Threshold/End Light With Cord Set And Film Disc Cutout		1,459.58	112.37
34 43 13 16-0028	EA Uni-Directional Obscured Beam Threshold/End Light With Two (2) Cord Sets And Film Disc Cutout		1,482.34	112.37
34 43 13 16-0029	EA Uni-Directional Obscured Beam Threshold/End Light With Cord Set And Without Film Disc Cutout		1,429.67	112.37
34 43 13 16-0030	EA Uni-Directional Obscured Beam Threshold/End Light With Two (2) Cord Sets And Without Film Disc Cutout		1,434.49	112.37
34 43 13 16-0031	EA Uni-Directional Straight or Toed Beam Threshold/End Light With Cord Set And Film Disc Cutout		1,827.29	112.37
34 43 13 16-0032	EA Uni-Directional Straight or Toed Beam Threshold/End Light With Two (2) Cord Sets And Film Disc Cutout		1,856.81	112.37
34 43 13 16-0033	EA Uni-Directional Straight or Toed Beam Threshold/End Light With Cord Set And Without Film Disc Cutout		1,761.27	112.37
34 43 13 16-0034	EA Uni-Directional Straight or Toed Beam Threshold/End Light With Two (2) Cord Sets And Without Film Disc Cutout		1,767.42	112.37
34 43 13 16-0035	EA Bi-Directional Obscured Beam Threshold/End Light With Cord Set And Film Disc Cutout		1,521.32	112.37
34 43 13 16-0036	EA Bi-Directional Obscured Beam Threshold/End Light With Two (2) Cord Sets And Film Disc Cutout		1,545.22	112.37
34 43 13 16-0037	EA Bi-Directional Obscured Beam Threshold/End Light With Cord Set And Without Film Disc Cutout		1,489.91	112.37
34 43 13 16-0038	EA Bi-Directional Obscured Beam Threshold/End Light With Two (2) Cord Sets And Without Film Disc Cutout		1,494.97	112.37
34 43 13 16-0039	EA Bi-Directional Straight or Toed Beam Threshold/End Light With Cord Set And Film Disc Cutout		1,907.41	112.37

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 43 Airfield Signaling and Control Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 16-0040 EA Bi-Directional Straight or Toed Beam Threshold/End Light With Two (2) Cord Sets And Film Disc Cutout.....	1,938.42	112.37
34 43 13 16-0041 EA Bi-Directional Straight or Toed Beam Threshold/End Light With Cord Set And Without Film Disc Cutout.....	1,838.10	112.37
34 43 13 16-0042 EA Bi-Directional Straight or Toed Beam Threshold/End Light With Two (2) Cord Sets And Without Film Disc Cutout.....	1,844.56	112.37
34 43 13 16-0043 Runway Threshold, Medium Intensity Approach Lighting System (34 43 13 16-0002)		
Note: L-850E.		
34 43 13 16-0044 EA Uni-Directional Straight Or Toe-in Runway Threshold Light With Single Cord Set And Film Disc Cutout.....	1,584.39	112.37
34 43 13 16-0045 EA Uni-Directional Straight Or Toe-in Runway Threshold Light With Single Cord Set And Without Film Disc Cutout.....	1,524.52	112.37
34 43 13 16-0046 Land And Hold Short Operations (LAHSO) (34 43 13 16-0002)		
Note: L-850F.		
34 43 13 16-0047 EA Uni-Directional Runway LAHSO With Shallow Base And Film Disc Cutout.....	1,921.33	168.55
34 43 13 16-0048 EA Uni-Directional Runway LAHSO With Two (2) Cord Sets And Film Disc Cutout.....	964.09	112.37
34 43 13 16-0049 EA Uni-Directional Runway LAHSO With Shallow Base And Without Film Disc Cutout.....	1,878.79	168.55
34 43 13 16-0050 EA Uni-Directional Runway LAHSO With Two (2) Cord Sets And Without Film Disc Cutout.....	921.58	112.37
34 43 13 16-0051 Runway Guard (34 43 13 16-0002)		
Note: L-852G.		
34 43 13 16-0052 EA Uni-Directional 105 Watt Runway Guard Light With Shallow Base.....	1,401.49	168.55
34 43 13 16-0053 EA Uni-Directional 105 Watt Runway Guard Light With Two (2) Cord Sets.....	1,149.74	168.55
34 43 13 16-0054 Stop Bar (34 43 13 16-0002)		
Note: L-852S.		
34 43 13 16-0055 EA Uni-Directional 105 Watt Stop Bar Light With Shallow Base And Film Disc Cutout.....	1,392.16	168.55
34 43 13 16-0056 EA Uni-Directional 105 Watt Stop Bar Light With Cord Set And Film Disc Cutout.....	971.61	168.55
34 43 13 16-0057 EA Uni-Directional 105 Watt Stop Bar Light With Shallow Base And Without Film Disc Cutout.....	1,389.36	168.55
34 43 13 16-0058 EA Uni-Directional 105 Watt Stop Bar Light With Cord Set And Without Film Disc Cutout.....	941.68	168.55
34 43 13 16-0059 Taxiway In-Pavement Lights (34 43 13 16-0001)		
34 43 13 16-0060 Taxiway Centerline, Straight Sections; Clearance Bar (>= 1,200 or <1,200 Runway Visual Range (RVR)) (34 43 13 16-0059)		
Note: L-852A or L-852C.		
34 43 13 16-0061 EA Uni-Directional Straight Taxiway Centerline Light With Shallow Base And Film Disc Cutout.....	1,601.57	168.55
34 43 13 16-0062 EA Uni-Directional Straight Taxiway Centerline Light With Cord Set And Film Disc Cutout.....	1,006.65	112.37
34 43 13 16-0063 EA Uni-Directional Straight Taxiway Centerline Light With Two (2) Cord Sets And Film Disc Cutout.....	1,055.50	112.37
34 43 13 16-0064 EA Uni-Directional Straight Taxiway Centerline Light With Shallow Base And Without Film Disc Cutout.....	1,579.87	168.55
34 43 13 16-0065 EA Uni-Directional Straight Taxiway Centerline Light With Cord Set And Without Film Disc Cutout.....	950.32	112.37
34 43 13 16-0066 EA Uni-Directional Straight Taxiway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout.....	995.66	112.37
34 43 13 16-0067 EA Bi-Directional Straight Taxiway Centerline Light With Shallow Base And Film Disc Cutout.....	1,659.56	168.55
34 43 13 16-0068 EA Bi-Directional Straight Taxiway Centerline Light With Cord Set And Film Disc Cutout.....	1,042.52	112.37
34 43 13 16-0069 EA Bi-Directional Straight Taxiway Centerline Light With Two (2) Cord Sets And Film Disc Cutout.....	1,090.35	112.37
34 43 13 16-0070 EA Bi-Directional Straight Taxiway Centerline Light With Shallow Base And Without Film Disc Cutout.....	1,636.87	168.55
34 43 13 16-0071 EA Bi-Directional Straight Taxiway Centerline Light With Cord Set And Without Film Disc Cutout.....	983.60	112.37
34 43 13 16-0072 EA Bi-Directional Straight Taxiway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout.....	1,027.99	112.37
34 43 13 16-0073 Taxiway Centerline, Curved Sections; Clearance Bar (>= 1,200 or <1,200 Runway Visual Range (RVR)) (34 43 13 16-0059)		
Note: L-852B or L-852D or L-852J or L-852K.		
34 43 13 16-0074 EA Uni-Directional Curved Taxiway Centerline Light With Shallow Base And Film Disc Cutout.....	1,638.10	168.55
34 43 13 16-0075 EA Uni-Directional Curved Taxiway Centerline Light With Cord Set And Film Disc Cutout.....	1,004.21	112.37
34 43 13 16-0076 EA Uni-Directional Curved Taxiway Centerline Light With Two (2) Cord Sets And Film Disc Cutout.....	1,060.94	112.37
34 43 13 16-0077 EA Uni-Directional Curved Taxiway Centerline Light With Shallow Base And Without Film Disc Cutout.....	1,535.20	168.55
34 43 13 16-0078 EA Uni-Directional Curved Taxiway Centerline Light With Cord Set And Without Film Disc Cutout.....	942.56	112.37
34 43 13 16-0079 EA Uni-Directional Curved Taxiway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout.....	997.44	112.37
34 43 13 16-0080 EA Bi-Directional Curved Taxiway Centerline Light With Shallow Base And Film Disc Cutout.....	1,695.43	168.55
34 43 13 16-0081 EA Bi-Directional Curved Taxiway Centerline Light With Cord Set And Film Disc Cutout.....	1,038.55	112.37
34 43 13 16-0082 EA Bi-Directional Curved Taxiway Centerline Light With Two (2) Cord Sets And Film Disc Cutout.....	1,097.78	112.37
34 43 13 16-0083 EA Bi-Directional Curved Taxiway Centerline Light With Shallow Base And Without Film Disc Cutout.....	1,585.33	168.55
34 43 13 16-0084 EA Bi-Directional Curved Taxiway Centerline Light With Cord Set And Without Film Disc Cutout.....	975.79	112.37
34 43 13 16-0085 EA Bi-Directional Curved Taxiway Centerline Light With Two (2) Cord Sets And Without Film Disc Cutout.....	1,029.77	112.37
34 43 13 16-0086 Taxiway Intersections; Clearance Bar (>= 1,200 Runway Visual Range (RVR)) (34 43 13 16-0059)		
Note: L-852E.		
34 43 13 16-0087 EA Omni-Directional 45 Watt Taxiway Intersection Light With Shallow Base And Film Disc Cutout.....	1,392.16	168.55
34 43 13 16-0088 EA Omni-Directional 150 Watt Taxiway Intersection Light With Shallow Base And Film Disc Cutout.....	1,647.45	168.55
34 43 13 16-0089 EA Omni-Directional 30 Watt Taxiway Intersection Light With Shallow Base And Film Disc Cutout.....	1,450.67	168.55
34 43 13 16-0090 EA Omni-Directional 40 Watt, 120 Volt AC, Taxiway Intersection Light With Shallow Base And Film Disc Cutout.....	1,615.55	168.55
34 43 13 16-0091 EA Omni-Directional 45 Watt Taxiway Intersection Light With Cord Set And Film Disc Cutout.....	822.05	112.37
34 43 13 16-0092 EA Omni-Directional 150 Watt Taxiway Intersection Light With Cord Set And Film Disc Cutout.....	1,031.91	168.55
34 43 13 16-0093 EA Omni-Directional 30 Watt Taxiway Intersection Light With Cord Set And Film Disc Cutout.....	927.56	168.55
34 43 13 16-0094 EA Omni-Directional 40 Watt, 120 Volt AC, Taxiway Intersection Light With Cord Set And Film Disc Cutout.....	980.66	168.55



Transportation			34
Transportation Signaling and Control Equipment			34 40
Airfield Signaling and Control Equipment			34 43

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 16-0095	EA		Omni-Directional 45 Watt Taxiway Intersection Light With Shallow Base And Without Film Disc Cutout.....	1,367.33	168.55
34 43 13 16-0096	EA		Omni-Directional 150 Watt Taxiway Intersection Light With Shallow Base And Without Film Disc Cutout.....	1,616.62	168.55
34 43 13 16-0097	EA		Omni-Directional 30 Watt Taxiway Intersection Light With Shallow Base And Without Film Disc Cutout.....	1,424.47	168.55
34 43 13 16-0098	EA		Omni-Directional 40 Watt, 120 Volt AC, Taxiway Intersection Light With Shallow Base And Without Film Disc Cutout.....	1,585.48	168.55
34 43 13 16-0099	EA		Omni-Directional 45Watt Taxiway Intersection Light With Cord Set And Without Film Disc Cutout.....	802.27	112.37
34 43 13 16-0100	EA		Omni-Directional 150 Watt Taxiway Intersection Light With Cord Set And Without Film Disc Cutout.....	1,014.08	168.55
34 43 13 16-0101	EA		Omni-Directional 30 Watt Taxiway Intersection Light With Cord Set And Without Film Disc Cutout.....	912.41	168.55
34 43 13 16-0102	EA		Omni-Directional 40 Watt, 120 Volt AC, Taxiway Intersection Light With Cord Set And Without Film Disc Cutout.....	997.61	168.55
34 43 13 16-0103			Taxiway Intersections; Clearance Bar (<1,200 Runway Visual Range (RVR)) (34 43 13 16-0059) Note: L-852F.		
34 43 13 16-0104	EA		Omni-Directional 120 Watt Taxiway Intersection Light With Shallow Base And Film Disc Cutout.....	1,626.59	168.55
34 43 13 16-0105	EA		Omni-Directional 120 Watt Taxiway Intersection Light With Cord Set And Film Disc Cutout.....	1,036.37	168.55
34 43 13 16-0106	EA		Omni-Directional 120 Watt Taxiway Intersection Light With Shallow Base And Without Film Disc Cutout.....	1,586.00	168.55
34 43 13 16-0107	EA		Omni-Directional 120 Watt Taxiway Intersection Light With Cord Set And Without Film Disc Cutout.....	1,014.36	168.55
34 43 13 16-0108			Taxiway Edge, Apron Edge (34 43 13 16-0059) Note: L-852T.		
34 43 13 16-0109	EA		Omni-Directional 45 Watt Taxiway Edge Light With Cord Set And Film Disc Cutout.....	1,560.74	168.55
34 43 13 16-0110	EA		Omni-Directional 45 Watt Taxiway Edge Light With Cord Set And Without Film Disc Cutout.....	1,370.66	168.55
34 43 13 16-0111			Elevated Lights (34 43 13 16-0001)		
34 43 13 16-0112			Elevated Runway Guard (34 43 13 16-0111) Note: L-804		
34 43 13 16-0113	EA		Elevated Runway Guard.....	2,055.97	112.37
34 43 13 16-0114			Elevated Runway Edge (34 43 13 16-0111) Note: L-860		
34 43 13 16-0115	EA		14" Omni-Directional Elevated Runway Edge Light.....	650.73	140.46
34 43 13 16-0116	EA		24" Omni-Directional Elevated Runway Edge Light.....	661.33	140.46
34 43 13 16-0117	EA		30" Omni-Directional Elevated Runway Edge Light.....	743.34	140.46
34 43 13 16-0118			Elevated Runway Threshold/End (34 43 13 16-0111) Note: L-860E		
34 43 13 16-0119	EA		14" Uni-Directional Elevated Runway Threshold/End Light.....	619.92	140.46
34 43 13 16-0120	EA		24" Uni-Directional Elevated Runway Threshold/End Light.....	629.63	140.46
34 43 13 16-0121	EA		30" Uni-Directional Elevated Runway Threshold/End Light.....	704.80	140.46
34 43 13 16-0122	EA		14" Bi-Directional Elevated Runway Threshold/End Light.....	636.86	140.46
34 43 13 16-0123	EA		24" Bi-Directional Elevated Runway Threshold/End Light.....	647.06	140.46
34 43 13 16-0124	EA		30" Bi-Directional Elevated Runway Threshold/End Light.....	726.00	140.46
34 43 13 16-0125			Elevated Runway Edge or Threshold/End, Displaced Threshold, Non-Precision IFR Runways (34 43 13 16-0111) Note: L-861, L-861E, L-861SE or L-861T		
34 43 13 16-0126	EA		14" Omni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	589.10	140.46
34 43 13 16-0127	EA		20" Omni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	594.58	140.46
34 43 13 16-0128	EA		24" Omni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	597.93	140.46
34 43 13 16-0129	EA		30" Omni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	666.27	140.46
34 43 13 16-0130	EA		14" Uni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	592.47	140.46
34 43 13 16-0131	EA		20" Uni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	598.02	140.46
34 43 13 16-0132	EA		24" Uni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	601.39	140.46
34 43 13 16-0133	EA		30" Uni-Directional Elevated Runway Light, Non-Precision IFR Runways.....	670.49	140.46
34 43 13 16-0134	EA		14" Bi-Directional Elevated Runway Light, Non-Precision IFR Runways.....	608.05	140.46
34 43 13 16-0135	EA		20" Bi-Directional Elevated Runway Light, Non-Precision IFR Runways.....	613.88	140.46
34 43 13 16-0136	EA		24" Bi-Directional Elevated Runway Light, Non-Precision IFR Runways.....	617.42	140.46
34 43 13 16-0137	EA		30" Bi-Directional Elevated Runway Light, Non-Precision IFR Runways.....	689.97	140.46
34 43 13 16-0138			Elevated Runway Edge or Threshold/End, Displaced Threshold, Precision IFR Runways (34 43 13 16-0111) Note: L-862 Or L-862E		
34 43 13 16-0139	EA		14" Uni-Directional Elevated Runway Light, Precision IFR Runways.....	549.22	140.46
34 43 13 16-0140	EA		24" Uni-Directional Elevated Runway Light, Precision IFR Runways.....	554.82	140.46
34 43 13 16-0141	EA		30" Uni-Directional Elevated Runway Light, Precision IFR Runways.....	563.49	140.46
34 43 13 16-0142	EA		14" Swivel Head Uni-Directional Elevated Runway Light, Precision IFR Runways.....	665.15	140.46
34 43 13 16-0143	EA		24" Swivel Head Uni-Directional Elevated Runway Light, Precision IFR Runways.....	673.17	140.46
34 43 13 16-0144	EA		30" Swivel Head Uni-Directional Elevated Runway Light, Precision IFR Runways.....	692.16	140.46
34 43 13 16-0145	EA		14" Bi-Directional Elevated Runway Light, Precision IFR Runways.....	562.63	140.46
34 43 13 16-0146	EA		24" Bi-Directional Elevated Runway Light, Precision IFR Runways.....	568.52	140.46
34 43 13 16-0147	EA		30" Bi-Directional Elevated Runway Light, Precision IFR Runways.....	577.61	140.46
34 43 13 16-0148	EA		14" Swivel Head Bi-Directional Elevated Runway Light, Precision IFR Runways.....	684.36	140.46

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 43 Airfield Signaling and Control Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 16-0149 EA 24" Swivel Head Bi-Directional Elevated Runway Light, Precision IFR Runways.....	692.79	140.46
34 43 13 16-0150 EA 30" Swivel Head Bi-Directional Elevated Runway Light, Precision IFR Runways.....	712.73	140.46
34 43 13 16-0151 Elevated Stop Bar (34 43 13 16-0111) Note: L-862S		
34 43 13 16-0152 EA 14" Uni-Directional Elevated Stop Bar	554.09	140.46
34 43 13 16-0153 EA 24" Uni-Directional Elevated Stop Bar	560.42	140.46
34 43 13 16-0154 EA 30" Uni-Directional Elevated Stop Bar	563.49	140.46
34 43 13 16-0155 Airfield Optional Accessories (34 43 13 16-0001)		
34 43 13 16-0156 EA 30/45 Watt Transformer, Airfield Optional Accessories.....	307.16	56.18
34 43 13 16-0157 EA 65 Watt Transformer, Airfield Optional Accessories	344.57	56.18
34 43 13 16-0158 EA 100 Watt Transformer, Airfield Optional Accessories	381.99	56.18
34 43 13 16-0159 EA 200 Watt Transformer, Airfield Optional Accessories	395.38	56.18
34 43 13 16-0160 EA 300 Watt Transformer, Airfield Optional Accessories	482.44	84.27
34 43 13 16-0161 EA 500 Watt Transformer, Airfield Optional Accessories	535.56	84.27
34 43 13 16-0162 EA 10" Diameter Base Housing, Non-Load Bearing, Airfield Optional Accessories	502.07	112.37
34 43 13 16-0163 EA 12" Diameter Base Housing, Non-Load Bearing, Airfield Optional Accessories	586.87	112.37
34 43 13 16-0164 EA 15" Diameter Base Housing, Non-Load Bearing, Airfield Optional Accessories	699.11	112.37
34 43 13 16-0165 EA 12" Diameter Adjustable Base Housing, Load Bearing, Airfield Optional Accessories	677.29	112.37
Note: L-867.		
34 43 13 16-0166 EA 16" Diameter Adjustable Base Housing, Load Bearing, Airfield Optional Accessories	817.59	112.37
Note: L-867.		
34 43 13 16-0167 EA Connection Kit For Conduit Cable, Airfield Optional Accessories	196.35	84.27
34 43 13 16-0168 MLF #8 AWG Cable - XLP (XHHW), Underground Feeder And Branch Circuit, Airfield Optional Accessories	1,440.67	
Note: L-824.		
34 43 13 16-0169 MLF #6 AWG Cable - XLP (XHHW), Underground Feeder And Branch Circuit, Airfield Optional Accessories	1,847.04	
Note: L-824.		
34 43 13 16-0170 MLF #4 AWG Cable - XLP (XHHW), Underground Feeder And Branch Circuit, Airfield Optional Accessories	2,449.61	
Note: L-824.		
34 43 13 16-0171 EA Frangible Coupling (Complete), Airfield Optional Accessories.....	165.80	6.63
34 43 13 16-0172 EA Precast Concrete Base, Airfield Optional Accessories	589.09	91.02
34 43 13 23 Airfield Short-Approach Lighting Equipment (34 43 13)		
34 43 13 23-0001 Land And Hold Short (LAHSO) Light System (34 43 13 23)		
34 43 13 23-0002 EA Land And Hold Short (LAHSO) Lighting System, Five (5) Unidirectional Inpavement Light Fixtures (FAA L850A), Power Control And Monitoring Unit And Tower Control Panel.....	23,410.16	
34 43 13 26 Airfield Omni-Directional-Approach Lighting Equipment (34 43 13)		
34 43 13 26-0001 Elevated Approach (34 43 13 26)		
34 43 13 26-0002 EA Approach And Navigational Light 200 Watt - Heavy Duty Assembly Only Elevated Approach.....	541.98	112.37
For LED, Add	126.71	
34 43 13 26-0003 EA Approach And Navigational Light 300 Watt - Heavy Duty Assembly Only Elevated Approach.....	541.98	112.37
For LED, Add	126.71	
34 43 13 26-0004 EA Approach And Navigational Light 500 Watt - Heavy Duty Assembly Only Elevated Approach.....	541.98	112.37
For LED, Add	126.71	
34 43 13 26-0005 EA Approach And Navigational Light 200 Watt - With Filter Bracket Elevated Approach.....	584.59	123.61
For LED, Add	134.69	
34 43 13 26-0006 EA Approach And Navigational Light 300 Watt - With Filter Bracket Elevated Approach.....	584.59	123.61
For LED, Add	134.69	
34 43 13 26-0007 EA Approach And Navigational Light 500 Watt - With Filter Bracket Elevated Approach.....	584.59	123.61
For LED, Add	134.69	
34 43 13 29 Airfield Low-Intensity-Approach Lighting Equipment (34 43 13)		
34 43 13 29-0001 Rotating Beacon (34 43 13 29)		
34 43 13 29-0002 EA Rotating Airport Beacon, 12 RPM, 400 Watt Metal Halide 1 Beam Clear, 400 Watt Metal Halide 1 Beam Green.....	32,807.04	2,685.58
34 43 13 29-0003 EA Rotating Beam Single Drum, 12 RPM Clear Beam, 500 Watt Quartz.....	73,255.69	2,247.35
34 43 13 29-0004 EA Rotating Beam, Double Drum, 6 RPM Clear And Green Beams, 1,000 Watt Quartz	79,530.69	2,472.09
34 43 13 29-0005 EA Beacon Tower, Tubular Type, 51'.....	26,431.48	1,368.19
34 43 13 29-0006 EA Weatherproof Panelboard, 4 - 15 Amperes Breakers	4,141.50	337.10
34 43 13 29-0007 Runway Approach Lights, Semi-Flush Unidirectional (34 43 13 29)		
34 43 13 29-0008 EA Runway Approach Light, Unidirectional, S-Flash, 115 Watt With Shallow Insert Base.....	2,300.78	168.55
34 43 13 29-0009 EA Runway Approach Light, Unidirectional, S-Flash, 200 Watt With Shallow Insert Base.....	2,325.73	168.55
34 43 13 29-0010 EA Runway Approach Light, Unidirectional, TD Zone, 115 Watt S-Flash, For Mounted In Base Housing	863.73	112.37
34 43 13 29-0011 EA Runway Approach Light, Unidirectional, TD Zone, 200 Watt S-Flash, For Mounted In Base Housing	908.63	112.37
34 43 13 33 Airfield High-Intensity-Approach Lighting Equipment (34 43 13)		
34 43 13 33-0001 High Intensity Approach/ Threshold Light, Semi-Flush (34 43 13 33) Note: Unidirectional.		



Transportation		34
Transportation Signaling and Control Equipment		34 40
Airfield Signaling and Control Equipment		34 43

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 43 13 33-0002	EA	High Intensity Approach Light, 500 Watt Quartz, Clear Semi-Flush, Unidirectional..... For LED, Add	3,348.36 602.11	168.55
34 43 13 33-0003	EA	High Intensity Threshold Light, Clear 500 Watt Quartz, Semi-Flush, Unidirectional..... For LED, Add	3,642.67 660.97	168.55
34 43 13 33-0004	EA	High Intensity Approach Light, 500 Watt Quartz, Red Semi-Flush, Unidirectional..... For LED, Add	3,289.74 590.38	168.55
34 43 13 33-0005	EA	High Intensity Threshold/End Light, Green/Red Semi-Flush, Unidirectional..... For LED, Add	3,842.21 700.88	168.55
34 43 13 36 Airfield Precision-Approach Path Indicator Equipment (34 43 13)				
34 43 13 36-0001		Precision Approach Path Indicator (34 43 13 36)		
34 43 13 36-0002	EA	Approach And Navigational Light Precision Approach Path Indicator - 4 System, 4 Units, 3 Projectors Per Unit.....	22,873.75	898.94
34 43 13 36-0003	EA	Approach And Navigational Light Series Power Kit (3 x 200), Precision Approach Path Indicator.....	2,719.21	224.73
34 43 13 36-0004	EA	Approach And Navigational Light Clinometer Precision Approach Path Indicator.....	2,290.23	224.73
34 43 13 36-0005	EA	Approach And Navigational Light Optical Bench Precision Approach Path Indicator.....	5,164.13	337.10
34 43 13 36-0006	EA	Approach And Navigational Light Radio Receiver, Air-Ground Precision Approach Path Indicator.....	3,554.78	224.73
34 43 13 36-0007	EA	Approach And Navigational Light Radio Receiver, Interface Unidirectional Precision Approach Path Indicator.....	1,107.94	224.73
34 43 23 Weather Observation Equipment (34 43)				
34 43 23 16 Airfield Wind Cones (34 43 23)				
34 43 23 16-0001		Wind Cone, 12 Foot Long, Illuminated With 16' Hinged Pole (34 43 23 16)		
34 43 23 16-0002	EA	Wind Cone, 12' Lighted Assembly, With Light Rigid With Obstruction Light.....	25,079.58	1,348.41
34 43 23 16-0003	EA	Wind Cone, 12' Lighted Assembly Rigid.....	21,187.08	1,236.04
34 43 23 16-0004	EA	Wind Cone, 12' Unlighted Assembly, With Light Rigid With Obstruction Light.....	22,561.12	1,123.67
34 43 23 16-0005	EA	Wind Cone, 12' Unlighted Assembly Rigid.....	20,737.61	1,011.31
34 43 23 16-0006	EA	Wind Cone Slip Fitter, 2.5" Pipe.....	416.84	84.27
34 43 23 16-0007	EA	12' x 3' Wind Cone Cotton Sock With Frame.....	1,457.01	292.69
34 43 23 16-0008	EA	12' x 3' Wind Cone Nylon Sock With Frame.....	1,368.31	292.69
34 43 23 16-0009	EA	Booster Transformer, 1 KW Weatherproof Cabinet.....	1,521.86	168.55
34 43 23 16-0010		Wind Cone, Up To 8 Foot Long, Illuminated With 8' Hinged Pole (34 43 23 16)		
34 43 23 16-0011	EA	Wind Cone, 8' Lighted Assembly With Light Frangible With Obstruction Light.....	19,034.42	1,123.67
34 43 23 16-0012	EA	Wind Cone, 8' Lighted Assembly Frangible.....	20,463.21	1,011.31
34 43 23 16-0013	EA	Wind Cone, 8' Lighted Assembly Rigid.....	16,058.85	1,011.31
34 43 23 16-0014	EA	Wind Cone, 8' Unlighted Assembly, With Light Rigid With Obstruction Light.....	17,257.93	1,011.31
34 43 23 16-0015	EA	Wind Cone, 8' Unlighted Assembly Frangible.....	20,689.68	898.94
34 43 23 16-0016	EA	Wind Cone, 8' Unlighted Assembly Rigid.....	15,834.11	898.94
34 43 23 16-0017	EA	8' x 1-1/2' Wind Cone Nylon Sock With Frame.....	829.90	292.69
34 43 23 16-0018	EA	Removal And Replacement Of 8' x 1-1/2' Wind Cone Nylon Sock.....	309.66	
34 43 26 Airfield Control Equipment (34 43)				
34 43 26 13 Airfield Lighting Control Equipment (34 43 26)				
34 43 26 13-0001		Power Cable Assemblies (34 43 26 13)		
34 43 26 13-0002	EA	Approach And Navigational Light Upper Cable Assembly Power Cable Assemblies.....	221.29	84.27
34 43 26 13-0003	EA	Approach And Navigational Light Lower Cable Assembly Power Cable Assemblies.....	221.29	84.27
34 43 26 13-0004	EA	Approach And Navigational Light Cable Clamp Power Cable Assemblies.....	88.65	28.09
34 43 26 13-0005		Power Distribution And Control Equipment (34 43 26 13)		
34 43 26 13-0006		Control Panel (34 43 26 13-0005)		
34 43 26 13-0007	EA	Control Panel, Series Circuit Monitor 6.6 Amperes, 48 Volt DC Current.....	9,827.15	674.21
34 43 26 13-0008	EA	Key Selector Switch.....	124.60	36.52
34 43 26 13-0009		Series/Isolation Transformers (34 43 26 13-0005)		
34 43 26 13-0010	EA	Series / Isolation Transformers 30/45 Watt - FAA.....	307.16	56.18
34 43 26 13-0011	EA	Series / Isolation Transformers 65 Watt - FAA.....	344.57	56.18
34 43 26 13-0012	EA	Series / Isolation Transformers 100 Watt - FAA.....	381.99	56.18
34 43 26 13-0013	EA	Series / Isolation Transformers 300 Watt - FAA.....	518.10	84.27
34 43 26 13-0014	EA	Series / Isolation Transformers 500 Watt - FAA.....	540.55	84.27
34 43 26 13-0015	EA	Series / Isolation Transformers 30/45 Watt - MIL.....	398.20	56.18
34 43 26 13-0016	EA	Series / Isolation Transformers 200 Watt - MIL.....	468.04	56.18
34 43 26 13-0017	EA	Series / Isolation Transformers 300 Watt - MIL.....	631.59	84.27
34 43 26 13-0018	EA	Series / Isolation Transformers 500 Watt - MIL.....	713.90	84.27
34 43 26 13-0019		Auxiliary Pilot Relay Cabinet (34 43 26 13-0005)		
34 43 26 13-0020	EA	Relay Cabinet, 20 Circuit, 120 Volt, 50/60 Hertz Auxiliary Pilot Relay Cabinet.....	4,844.80	449.47
34 43 26 13-0021	EA	Relay Cabinet, 20 Circuit, 120 Volt, 50 Hertz Auxiliary Pilot Relay Cabinet.....	4,844.80	449.47
34 43 26 13-0022	EA	Relay Cabinet, 20 Circuit, 120 Volt, 60 Hertz Auxiliary Pilot Relay Cabinet.....	5,664.93	561.84
34 43 26 13-0023	EA	Master Timer Cabinet.....	20,277.35	1,217.73

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 43 Airfield Signaling and Control Equipment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 43 26 13-0024	Radio Control (34 43 26 13-0005)		
34 43 26 13-0025	EA Radio Control Receiver Controller	9,684.33	3,607.00
34 43 26 13-0026	Constant Current Regulator (34 43 26 13-0005)		
34 43 26 13-0027	EA Constant Current Regulator, 10 KW - Wet Type Power Distribution And Control Equipment	15,314.44	674.21
34 43 26 13-0028	EA Constant Current Regulator, 20 KW - Wet Type Power Distribution And Control Equipment	26,466.69	1,011.31
34 43 26 13-0029	EA Constant Current Regulator, 50 KW - Wet Type Power Distribution And Control Equipment	40,368.96	1,685.52
34 43 26 13-0030	EA Constant Current Regulator, 4 KW - Dry Type Power Distribution And Control Equipment	5,912.40	337.10
34 43 26 13-0031	EA Constant Current Regulator, 7.5 KW - Dry Type Power Distribution And Control Equipment	8,631.03	449.47
34 43 26 13-0032	EA Constant Current Regulator, 10 KW - Dry Type Power Distribution And Control Equipment	11,074.26	674.21
34 43 26 13-0033	Lamp Failure Detector (34 43 26 13-0005)		
34 43 26 13-0034	EA Lamp Failure Detector, 120/240 Volt, 1 - 6.6 Amperes And 3 - 20 Amperes Circuit Monitoring	13,302.51	449.47
34 43 26 13-0035	Accessories (34 43 26 13-0005)		
34 43 26 13-0036	EA Plug Cutout Power Distribution And Control Equipment Accessory	1,384.80	224.73
34 43 26 13-0037	EA Primary Connector Kit Power Distribution And Control Equipment Accessory	252.65	112.37
34 43 26 13-0038	EA Secondary Connector Kit Power Distribution And Control Equipment Accessory	270.11	112.37
34 43 26 13-0039	EA Heat Shrink Kit Power Distribution And Control Equipment Accessory	352.80	168.55
34 43 26 13-0040	Runway Lighting Cable (34 43 26 13-0005)		
34 43 26 13-0041	LF Electric Type "C" Cable	11.42	1.12
34 43 26 13-0042	Terminal Blocks (34 43 26 13-0005)		
34 43 26 13-0043	EA Terminal Blocks	142.25	12.14
34 43 26 13-0044	Tower Lighting Controllers (34 43 26 13)		
34 43 26 13-0045	EA Tower Light Controllers 0-150' Tower Cabinets Only	4,127.17	898.94
34 43 26 13-0046	EA Light Controllers 150-450' Tower Cabinets Only	7,291.11	1,011.31
34 43 26 13-0047	EA One Obstruction Light Alarm	2,707.25	449.47
34 43 26 13-0048	EA 2 Obstruction Lights And 1 Beacon Alarm, Flasher Fail Safe	5,611.91	674.21
34 43 26 13-0049	EA Alarm Test Switch For 2 Lights Obstruction	5,164.06	449.47
34 43 26 13-0050	Junction Boxes And Tower Accessories (34 43 26 13)		
34 43 26 13-0051	EA Size 1 Junction Box, With 4 Hubs, 4" Diameter x 2" Deep	379.85	112.37
34 43 26 13-0052	EA Size 2 Junction Box, With 2 Or 4 Hubs, 8" x 4" x 2.5"	640.31	140.46
34 43 26 13-0053	EA Size 3 Junction Box, With 4 Hubs 8 1/2" x 11 5/8" x 3 5/8"	1,028.73	168.55
34 43 26 13-0054	EA Size 4 Junction Box, With 4 Hubs, 18" x 12" x 6"	1,422.22	224.73
34 43 26 13-0055	EA Junction Box Breather, Screened 1" Nipple With Threaded 90 Degree Elbow	262.62	112.37
34 43 26 13-0056	EA Junction Box Drain, Screened 1" Nipple	262.62	112.37
34 43 26 13-0057	EA Wraplock Tape, Galvanized Steel 100' Roll	1,421.69	674.21
34 43 26 13-0058	EA Telephone Jack Assembly In Field Box With 1/2" Hub	670.30	112.37
34 43 26 13-0059	EA Elevated Approach Bar	12,171.84	3,878.82
34 43 26 13-0060	Lighting Kits For Towers (34 43 26 13)		
Note: Includes fixtures, junction boxes, controllers, accessories, less wire and conduit.			
34 43 26 13-0061	EA Lighting Kits For Up To 100' Tower	10,717.12	4,025.82
34 43 26 13-0062	EA Lighting Kits For From 101'-150' Tower	20,041.45	5,032.27
34 43 26 13-0063	EA Lighting Kits For From 151'-200' Tower	24,953.91	7,548.42
34 43 26 13-0064	EA Lighting Kits For From 201'-300' Tower	32,674.02	11,322.63
34 43 26 13-0065	EA Lighting Kits For From 301'-450' Tower	56,955.83	18,619.43
34 43 26 13-0066	Junction Boxes And Tower Accessories (34 43 26 13)		
34 43 26 13-0067	EA Termination Bar Complete	7,390.01	1,217.73

34 70 Transportation Construction and Equipment (34)**34 71 Roadway Construction (34 70)****34 71 13 Vehicle Barriers (34 71)****34 71 13 13 Vehicle Median Barriers (34 71 13)****34 71 13 13-0001 Concrete Median Barrier (34 71 13 13)**

34 71 13 13-0002	LF Median Barrier, Precast, 42" High Single Face	61.30	4.56
34 71 13 13-0003	LF Median Barrier, Precast, 32" High, 2' Wide Base, Double Face	107.66	4.56
34 71 13 13-0004	LF Median Barrier, Precast, 42" High, 2' Wide Base, Double Face	155.99	4.56



Transportation			34
Transportation Construction and Equipment			34 70
Roadway Construction			34 71

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 13-0005	LF		Median Barrier, Cast In Place With Steel Forms.....	43.66	6.15
34 71 13 13-0006	LF		Median Barrier, Slipformed Concrete.....	36.95	3.63
34 71 13 16 Vehicle Crash Barriers (34 71 13)					
34 71 13 16-0001			Impact Barrier, Non-Redirective (34 71 13 16)		
34 71 13 16-0002			Sand Barrel Impact Attenuator (34 71 13 16-0001)		
Note: Includes containers, inserts, and lid. Excludes sand.					
34 71 13 16-0003	EA		200, 400 Or 700 LB Sand Barrel.....	599.91	55.97
Note: Includes containers, inserts, and lid.					
34 71 13 26 Vehicle Guide Rails (34 71 13)					
34 71 13 26-0001			Mobilize Guide Rail Crew (34 71 13 26)		
34 71 13 26-0002	EA		Mobilize Guide Rail Crew	1,416.81	
Note: Excludes equipment mobilization.					
34 71 13 26-0003			Corrugated Beam Guide Rail (34 71 13 26)		
34 71 13 26-0004			Corrugated Beam Guide Railing (34 71 13 26-0003)		
34 71 13 26-0005			Corrugated Beam Guide Railing, Straight Sections (34 71 13 26-0004)		
Note: Add additional length for back-up sections.					
34 71 13 26-0006	LF		Corrugated Beam Guide Railing	19.31	2.53
34 71 13 26-0007	LF		Corrugated Beam Guide Railing (Rustic).....	20.80	2.53
34 71 13 26-0008			Corrugated Beam Guide Railing, Shop Curved (34 71 13 26-0004)		
Note: Add additional length for back-up sections.					
34 71 13 26-0009	LF		Shop Curved Corrugated Beam Guide Railing	25.18	2.53
34 71 13 26-0010	LF		Shop Curved Corrugated Beam Guide Railing (Rustic).....	27.25	2.53
34 71 13 26-0011	LF		Shop Curved Corrugated Beam Guide Railing End.....	64.36	2.53
Note: Treatment for mall barriers driveways, walkways, special end, etc.					
34 71 13 26-0012	LF		Shop Curved Corrugated Beam Guide Railing (Rustic) End	70.21	2.53
Note: Treatment for mall barriers shop curved corrugated beam guide railing end etc.					
34 71 13 26-0013			Corrugated Beam Guide Railing, Manufactured End Sections (34 71 13 26-0003)		
34 71 13 26-0014	EA		Corrugated Beam Guide Railing End Section At Anchor Unit.....	146.57	33.40
34 71 13 26-0015	EA		Corrugated Beam Guide Railing End Section (Rustic) At Anchor Unit	154.57	33.40
34 71 13 26-0016	EA		Corrugated Beam Guide Railing Flared Or 180 Degree End Section	194.56	33.40
34 71 13 26-0017	EA		Corrugated Beam Guide Railing Flared Or 180 Degree End Section (Rustic).....	202.56	33.40
34 71 13 26-0018	EA		Corrugated Beam Guide Railing 225 Degree End Section	194.56	33.40
34 71 13 26-0019	EA		Corrugated Beam Guide Railing 225 Degree End Section (Rustic).....	202.56	33.40
34 71 13 26-0020			Corrugated Beam Guide Rail Posts (34 71 13 26-0003)		
Note: Includes mounting hardware.					
34 71 13 26-0021	EA		Standard Post For Corrugated Beam Guide Rail	150.50	16.90
For Installation Without Soil Plate, Deduct				-5.00	
For Installation In Rock, Add				4.51	
34 71 13 26-0022	EA		Standard Post For (Rustic) Corrugated Beam Guide Rail	158.49	16.90
For Installation Without Soil Plate, Deduct				-5.00	
For Installation In Rock, Add				4.51	
34 71 13 26-0023	EA		Extra Long Post For Corrugated Beam Guide Rail	166.49	16.90
For Installation Without Soil Plate, Deduct				-5.00	
For Installation In Rock, Add				4.51	
34 71 13 26-0024	EA		Extra Long Post (Rustic) for Corrugated Beam Guide Rail	174.49	16.90
For Installation Without Soil Plate, Deduct				-5.00	
For Installation In Rock, Add				4.51	
34 71 13 26-0025	EA		6B8-1/2" or Mall Barrier Post for Corrugated Beam Guide Rail	150.50	16.90
For Installation Without Soil Plate, Deduct				-5.00	
For Installation In Rock, Add				4.51	
34 71 13 26-0026	EA		Post Struts for Corrugated Beam Guide Rail Mall Barrier Post.....	214.48	16.90
For Installation In Rock, Add				4.51	
34 71 13 26-0027			Heavy Post Blocked Out Corrugated Beam Guide Rail Posts (34 71 13 26-0003)		
Note: Includes mounting hardware. Excludes triangular mounting brackets.					
34 71 13 26-0028	EA		Standard Post For Heavy Post Blocked Out Corrugated Beam Guide	150.50	16.90
34 71 13 26-0029	EA		Standard Rustic Post For Heavy Post Blocked Out Corrugated Beam Guide	158.49	16.90
34 71 13 26-0030	EA		Extra Long Post for Heavy Post Blocked Out Corrugated Beam Guide.....	166.49	16.90
34 71 13 26-0031	EA		Extra Long Post (Rustic) For heavy post blocked out corrugated beam guide rail.....	174.49	16.90
Note: For heavy post blocked out corrugated beam guide (rustic)					
34 71 13 26-0032	EA		Type A Post 1630mm Post	146.50	16.90
Note: For heavy post blocked out corrugated beam guide rail					
34 71 13 26-0033	EA		Type A Post 1630mm Post (Rustic).....	154.50	16.90
Note: For heavy post blocked out corrugated beam guide rail					
34 71 13 26-0034	EA		Type B Post 1460mm	138.50	16.90
Note: For heavy post blocked out corrugated beam guide rail					

34 Transportation**34 70 Transportation Construction and Equipment****34 71 Roadway Construction**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0035	EA	Type B Post 1460mm (Rustic)..... Note: For heavy post blocked out corrugated beam guide rail	146.50	16.90
34 71 13 26-0036	EA	Type C Post 1290mm Note: For heavy post blocked out corrugated beam guide rail	130.50	16.90
34 71 13 26-0037	EA	Type C Post 1290mm (Rustic)..... Note: For heavy post blocked out corrugated beam guide rail	138.50	16.90
34 71 13 26-0038	EA	Breakaway Wood Or Steel Post In Steel Foundation Tube	551.67	16.90
34 71 13 26-0039	EA	Wood, Metal, Plastic Or Composite Offset Block Or Beam..... Note: For heavy post blocked out corrugated beam guide rail.	62.52	16.90
34 71 13 26-0040		Corrugated Beam Guide Rail Accessories (34 71 13 26-0003)		
34 71 13 26-0041	EA	Triangular Mounting Brackets (Galvanized Or Rustic) For All Post Types A, B And C	130.58	37.95
34 71 13 26-0042		Corrugated Beam Guide Rail Repair for Existing Guide Rail (34 71 13 26-0003) Note: Includes associated hardware.		
34 71 13 26-0043	LF	Removal And Storage Of Corrugated Beam Guide Railing And Post	14.83	
34 71 13 26-0044	EA	Install Stored Post For Corrugated Beam Guide Rail	50.60	
34 71 13 26-0045	LF	Install Stored Corrugated Beam Guide Railing And Post.....	8.60	
34 71 13 26-0046		Corrugated Thrie Beam Guide Railing (34 71 13 26-0003)		
34 71 13 26-0047		Corrugated Thrie Beam Guide Railing. Straight Sections (34 71 13 26-0046) Note: Add additional length for back-up sections.		
34 71 13 26-0048	LF	Corrugated Thrie Beam Guide Railing.....	45.08	3.19
34 71 13 26-0049	LF	Corrugated Thrie Beam Guide Railing (Rustic).....	47.52	3.19
34 71 13 26-0050		Corrugated Thrie Beam Guide Railing. Shop Curved (34 71 13 26-0046) Note: Add additional length for back-up sections.		
34 71 13 26-0051	LF	Shop Curved Corrugated Thrie Beam Guide Railing	54.83	3.19
34 71 13 26-0052	LF	Shop Curved Corrugated Thrie Beam Guide Railing (Rustic).....	57.27	3.19
34 71 13 26-0053		Corrugated Thrie Beam Guide Rail Posts (34 71 13 26-0046) Note: Includes hardware for mounting.		
34 71 13 26-0054	EA	Standard Post For Corrugated Thrie Beam Guide Rail..... For Installation Without Soil Plate, Deduct For 32" Soil Plate, Add	180.20 -5.00 7.00	3.19
34 71 13 26-0055	EA	Standard Post (Rustic) For Corrugated Thrie Beam Guide Rail	188.20	3.19
		For Installation Without Soil Plate, Deduct For 32" Soil Plate, Add	-5.00 7.00	
34 71 13 26-0056		Timber Guide Rails (34 71 13 26) Note: Includes drilling and fasteners. Excludes excavation, auguring and concrete.		
34 71 13 26-0057		Timber Guide Rail Posts (34 71 13 26-0056)		
34 71 13 26-0058	EA	6" x 8" Timber Guide Rail Post	116.40	12.65
34 71 13 26-0059	EA	6" x 9" Timber Guide Rail Post	132.88	12.65
34 71 13 26-0060	EA	10" x 10" Timber Guide Rail Post	262.06	12.65
34 71 13 26-0061	EA	10" x 12" Timber Guide Rail Post	277.47	12.65
34 71 13 26-0062	EA	12" x 12" Timber Guide Rail Post	321.38	12.65
34 71 13 26-0063		Timber Guide Rails (34 71 13 26-0056) Note: Excludes posts, spacer blocks and steel backup plates.		
34 71 13 26-0064	LF	4" x 9" Timber Guide Rail.....	14.45	1.52
34 71 13 26-0065	LF	6" x 10" Timber Guide Rail.....	20.38	1.52
34 71 13 26-0066	LF	6" x 12" Timber Guide Rail.....	23.86	1.52
34 71 13 26-0067		Spacer Blocks For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0068	EA	4" x 9" Spacer Block For Timber Guide Rails	18.81	2.03
34 71 13 26-0069	EA	6" x 8" Spacer Block For Timber Guide Rails	21.66	2.03
34 71 13 26-0070	EA	8" x 8" Spacer Block For Timber Guide Rails	25.29	2.03
34 71 13 26-0071		Weathering Steel Backup Plates For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0072	LF	6" High, Weathering Steel Backup Plate For Timber Guide Rails.....	26.30	1.27
34 71 13 26-0073		Weathering Steel Splice And Bearing Plates For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0074	EA	Weathering Steel Splice Plate For Timber Guide Rails.....	182.27	17.71
34 71 13 26-0075	EA	Weathering Steel Bearing Termination Plate For Timber Guide Rails	114.21	12.65
34 71 13 26-0076		Cable Guide Rail (34 71 13 26)		



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Transportation Construction and Equipment			34 70
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MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0077	Cable Guide Rail (34 71 13 26-0076)			
34 71 13 26-0078	LF	Cable (Each Cable) Note: Includes tensioning. Excludes splices.	10.46	2.73
34 71 13 26-0079	EA	Cable Splice With Wedges	265.24	18.97
34 71 13 26-0080	Cable Guide Rail Posts (34 71 13 26-0076) Note: Includes hardware for cable mounting.			
34 71 13 26-0081	EA	Standard Post for Cable Guide Rail	195.06	56.32
		For Installation Without Soil Plate, Deduct	-5.00	
		For Installation In Rock, Add	15.02	
34 71 13 26-0082	EA	Standard Post (Rustic) for Cable Guide Rail	203.06	56.32
		For Installation Without Soil Plate, Deduct	-5.00	
		For Installation In Rock, Add	15.02	
34 71 13 26-0083	EA	Extra Long Post for Cable Guide Rail	203.06	56.32
		For Installation Without Soil Plate, Deduct	-5.00	
		For Installation In Rock, Add	15.02	
34 71 13 26-0084	EA	Extra Long Post (Rustic) for Cable Guide Rail	211.05	56.32
		For Installation Without Soil Plate, Deduct	-5.00	
		For Installation In Rock, Add	15.02	
34 71 13 26-0085	EA	Slip Impact Post Top for Anchor Unit	126.01	22.53
34 71 13 26-0086	EA	Slip Impact Post Base and Keeper Plate	325.96	22.53
		Note: For anchor unit.		
34 71 13 26-0087	Cable Guide Rail Accessories For Breakaway Anchor Angle Systems (34 71 13 26-0076)			
34 71 13 26-0088	EA	Turnbuckle Cable End Assembly For Use With Breakaway Anchors	609.94	253.51
34 71 13 26-0089	EA	Turnbuckle Cable End Assembly	176.86	12.68
34 71 13 26-0090	EA	Spring Cable End Assembly (Compensating Device) For Use With Breakaway Anchors	568.25	6.30
34 71 13 26-0091	EA	Spring Cable End Assembly (Compensating Device) Without Turnbuckle	584.25	6.30
34 71 13 26-0092	EA	Breakaway Anchor Angle	224.85	12.68
34 71 13 26-0093	EA	Standard End Post Cap Assembly	104.37	6.30
34 71 13 26-0094	EA	Driveway End Post Cap Assembly	88.38	6.30
34 71 13 26-0095	EA	End Post Ground Support Plates	48.39	6.30
34 71 13 26-0096	EA	11" Stud Bolt, Cable Guide Rail	42.39	6.30
34 71 13 26-0097	EA	18" Stud Bolt, Cable Guide Rail	50.39	6.30
34 71 13 26-0098	EA	25" Stud Bolt, Cable Guide Rail	58.39	6.30
34 71 13 26-0099	EA	1-1/4" Diameter Turnbuckle, Cable Guide Rail	496.77	12.68
34 71 13 26-0100	EA	1-1/2" Diameter Turnbuckle, Cable Guide Rail	528.77	12.68
34 71 13 26-0101	EA	5/8" Diameter Turnbuckle With 12" Take-up And Shackle Ends, Cable Guide Rail	352.81	12.68
34 71 13 26-0102	EA	5/8" Eye Bolt 18" Long, Cable Guide Rail	216.35	6.30
34 71 13 26-0103	EA	3/4" Eye Bolt 8'-6" Long, Cable Guide Rail	224.85	12.68
34 71 13 26-0104	EA	1-5/8" Anchor Rod 10' Long With Plate, Cable Guide Rail	241.24	18.97
34 71 13 26-0105	Cable Guide Rail Accessories For Slip Impact Post Systems (34 71 13 26-0076)			
34 71 13 26-0106	EA	Turnbuckle Cable End Assembly	400.98	18.81
		Note: For use with slip impact post.		
34 71 13 26-0107	EA	Spring Cable End Assembly (Compensating Device)	784.88	18.81
		Note: For use with slip impact post.		
34 71 13 26-0108	EA	Anchor Angle For Slip Impact Post System	233.03	18.81
34 71 13 26-0109	EA	Cable End Assembly Rod	193.04	18.81
		Note: Includes cable end, threaded rod and keeper to anchor angle.		
34 71 13 26-0110	Cable Guide Rail Repair For Existing Guide Rail (34 71 13 26-0076) Note: Includes associated hardware.			
34 71 13 26-0111	LF	Retention Existing Cable (Each Cable)	1.69	
34 71 13 26-0112	LF	Removal And Storage Of Cable Guide Railing	10.19	
34 71 13 26-0113	EA	Install Stored Post For Cable Guide Railing	75.09	
34 71 13 26-0114	LF	Install Stored Cable, (Each Cable)	4.51	
		Note: Includes retensioning. Excludes splices.		
34 71 13 26-0115	6" x 6" Box Beam Guide Rail (34 71 13 26)			
34 71 13 26-0116	Box Beam Guide Rail, 6" x 6" (34 71 13 26-0115)			
34 71 13 26-0117	Straight Sections, Box Beam Guide Rail (34 71 13 26-0116)			
34 71 13 26-0118	LF	Box Beam Guide Railing 6" x 6" x 3/16" Galvanized	54.22	3.19
		Note: Excludes splices.		
		For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0119	LF	Box Beam Guide Railing 6" x 6" x 3/16" (Rustic)	61.54	3.19
		Note: Excludes splices.		
		For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0120	Shop Curved, Box Beam Guide Rail (34 71 13 26-0116)			

34 Transportation**34 70 Transportation Construction and Equipment****34 71 Roadway Construction**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0121	LF	Shop Curved Box Beam Guide Railing 6" x 6" x 3/16" Galvanized..... Note: Excludes splices. For Shop Curved At <20' Radius, Add For Flush Mounting Directly To Structure, Add	82.26 2.44 1.83	3.19
34 71 13 26-0122	LF	Shop Curved Box Beam Guide Railing 6" x 6" x 3/16" (Rustic) Note: Excludes splices. For Shop Curved At <20' Radius, Add For Flush Mounting Directly To Structure, Add	89.57 2.44 1.83	3.19
34 71 13 26-0123		Box Beam Guide Rail End Treatment Sections (34 71 13 26-0115) Note: Includes rail, end cover plate and hardware only. Excludes posts and splice.		
34 71 13 26-0124	EA	Box Beam End Piece Guide Railing Section..... Note: Galvanized excludes splices.	850.39	37.95
34 71 13 26-0125	EA	Box Beam End Piece Guide Railing Section (Rustic) Note: Excludes splices.	938.37	37.95
34 71 13 26-0126	EA	Box Beam Guide Railing End Treatment Section At Driveway, Galvanized Note: Excludes splices.	802.40	37.95
34 71 13 26-0127	EA	Box Beam Guide Railing End Treatment Section At Driveway, (Rustic) Note: Excludes splices.	834.39	37.95
34 71 13 26-0128		Splices For Box Beam Guide Rail (34 71 13 26-0115)		
34 71 13 26-0129	EA	Splice For Box Beam Guide Rail	232.64	56.34
34 71 13 26-0130	EA	Splice For Box Beam Guide Rail (Rustic)	288.62	56.34
34 71 13 26-0131		Box Beam Guide Rail Posts (34 71 13 26-0115) Note: Includes hardware for box beam mounting.		
34 71 13 26-0132	EA	Standard Post For Box Beam Guide Rail..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	203.06 -5.00 15.02	56.32
34 71 13 26-0133	EA	Standard Post (Rustic) for Box Beam Guide Railing..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	211.05 -5.00 15.02	56.32
34 71 13 26-0134	EA	Extra Long Post For Box Beam Guide Rail..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	219.05 -5.00 15.02	56.32
34 71 13 26-0135	EA	Extra Long Post (Rustic) For Box Beam Guide Rail For Installation Without Soil Plate, Deduct For Installation In Rock, Add	227.05 -5.00 15.02	56.32
34 71 13 26-0136	EA	Type I End Assembly Post..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	195.06 -5.00 15.02	56.32
34 71 13 26-0137	EA	Type I End Assembly Post (Rustic) For Installation Without Soil Plate, Deduct For Installation In Rock, Add	203.06 -5.00 15.02	56.32
34 71 13 26-0138	EA	Type II End Assembly Post..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	187.06 -5.00 15.02	56.32
34 71 13 26-0139	EA	Type II End Assembly Post (Rustic)..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	195.06 -5.00 15.02	56.32
34 71 13 26-0140		Box Beam Guide Rail Accessories (34 71 13 26-0115)		
34 71 13 26-0141	EA	Box Beam Guide Rail End Cover Plate.....	111.15	11.38
34 71 13 26-0142	EA	Box Beam Guide Rail End Cover Plate (Rustic)	119.15	11.38
34 71 13 26-0143		Box Beam Guide Railing Repair, And Resetting (34 71 13 26-0115) Note: For existing guide rail.		
34 71 13 26-0144	LF	Removal And Storage Of Box Beam Guide Rail And Post	5.00	
34 71 13 26-0145	LF	Reset Box Beam Guide Rail	14.59	
34 71 13 26-0146		6" x 8" Box Beam Median Barrier (34 71 13 26)		
34 71 13 26-0147		Box Beam Median Barrier, 6" x 8" (34 71 13 26-0146)		
34 71 13 26-0148		Straight Sections, Box Beam Median Barrier (34 71 13 26-0147)		
34 71 13 26-0149	LF	Box Beam Median Barrier Galvanized Excludes Splices..... For Flush Mounting Directly To Structure, Add	91.97 1.83	11.38
34 71 13 26-0150	LF	Box Beam Median Barrier (Rustic) Excludes Splices..... For Flush Mounting Directly To Structure, Add	99.28 1.83	11.38
34 71 13 26-0151		Shop Curved, Box Beam Median Barrier (34 71 13 26-0147)		
34 71 13 26-0152	LF	Shop Curved Box Beam Median Barrier Galvanized Note: Excludes splices. For Shop Curved At <20' Radius, Add For Flush Mounting Directly To Structure, Add	111.19 2.44 1.83	11.38



		Transportation	34
		Transportation Construction and Equipment	34 70
		Roadway Construction	34 71

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0153	LF	Shop Curved Box Beam Median Barrier Rustic..... Note: Excludes splices. For Shop Curved At <20' Radius, Add For Flush Mounting Directly To Structure, Add	135.19 2.44 1.83	11.38
34 71 13 26-0154		Box Beam Median Barrier End Treatment Sections (34 71 13 26-0146) Note: Includes rail, end cover plate and hardware. Excludes posts.		
34 71 13 26-0155	EA	Box Beam Median Barrier Type A End Treatment Section, Galvanized..... Note: Excludes splices and post.	2,761.89	37.95
34 71 13 26-0156	EA	Box Beam Median Barrier Type A End Treatment Section (Rustic)..... Note: Excludes splices and post.	2,825.87	37.95
34 71 13 26-0157	EA	Box Beam Median Barrier Type B End Treatment Section, Galvanized..... Note: Excludes splices and post.	2,761.89	37.95
34 71 13 26-0158	EA	Box Beam Median Barrier Type B End Treatment Section (Rustic)..... Note: Excludes splices and post.	2,825.87	37.95
34 71 13 26-0159		Splices For Box Beam Median Barrier (34 71 13 26-0146)		
34 71 13 26-0160	EA	Splice for Box Beam Median Barrier.....	216.43	30.36
34 71 13 26-0161	EA	Splice for Box Beam Median Barrier (Rustic)	336.40	30.36
34 71 13 26-0162		Box Beam Median Barrier Posts Driven With Soil Plate (34 71 13 26-0146) Note: Includes all associated hardware.		
34 71 13 26-0163	EA	Standard Post for Box Beam Median Barrier..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	203.06 -5.00 15.02	56.32
34 71 13 26-0164	EA	Standard Post (Rustic) for Box Beam Median Barrier..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	211.05 -5.00 15.02	56.32
34 71 13 26-0165	EA	Extra Long Post for Box Beam Median Barrier..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	219.05 -5.00 15.02	56.32
34 71 13 26-0166	EA	Extra Long Post (Rustic) for Box Beam Median Barrier..... For Installation Without Soil Plate, Deduct For Installation In Rock, Add	227.05 -5.00 15.02	56.32
34 71 13 26-0167	EA	Type B End Treatment or Rub Back Anchor Post for Box Beam..... Note: For median barrier. For Installation Without Soil Plate, Deduct For Installation In Rock, Add	187.06 -5.00 15.02	56.32
34 71 13 26-0168	EA	Type B End Treatment or Rub Back Anchor Post (Rustic)..... Note: For box beam median barrier. For Installation Without Soil Plate, Deduct For Installation In Rock, Add	187.06 -5.00 15.02	56.32
34 71 13 26-0169	EA	Type I End Assembly Post for Box Beam Median Barrier to Concrete..... Note: For median barrier transition. For Installation Without Soil Plate, Deduct For Installation In Rock, Add	219.05 -5.00 15.02	56.32
34 71 13 26-0170	EA	Type I End Assembly Post (Rustic) for Box Beam Median Barrier..... Note: For Concrete median barrier transition. For Installation Without Soil Plate, Deduct For Installation In Rock, Add	227.05 -5.00 15.02	56.32
34 71 13 26-0171		Box Beam Median Barrier Accessories (34 71 13 26-0146)		
34 71 13 26-0172	EA	Box Beam Median Barrier End Cover Plate.....	140.45	26.71
34 71 13 26-0173	EA	Box Beam Median Barrier End Cover Plate (Rustic)	148.45	26.71
34 71 13 26-0174		Box Beam Median Barrier Repair, And Resetting (34 71 13 26-0146) Note: For existing guide rail.		
34 71 13 26-0175	LF	Removal And Storage Of Box Beam Median Barrier and Posts	5.17	
34 71 13 26-0176	LF	Reset Box Beam Median Barrier	15.27	
34 71 13 26-0177		Universal Guide Rail Items (34 71 13 26)		
34 71 13 26-0178		Guide Rail Concrete Anchor Units For All Types Of Guide Rail (34 71 13 26-0177) Note: For cast in place or precast. Includes excavation, formwork, concrete, reinforcement, anchor rods and/or imbedded plate. Excludes anchor angle. For anchor angles and other terminal connections, use accessories section for respective guide rail type.		
34 71 13 26-0179	CY	Guide Rail Concrete Anchor Unit..... For Each Additional Set Of Anchor Rods, Add	862.19 38.00	
34 71 13 26-0180	EA	Reset Existing Anchorage Unit for All Types of Guide Rail..... Note: Includes excavation and backfill.	580.32	
34 71 13 26-0181	EA	Removal Of Guide Rail Concrete Anchor Unit.....	608.45	
34 71 13 26-0182		Guide Rail Repair For All Types Of Existing Guide Rail (34 71 13 26-0177) Note: Includes associated hardware.		
34 71 13 26-0183	EA	Straighten And Reset Driven Post For Guide Rail	75.09	
34 71 13 26-0184	EA	Straighten And Reset Post Mounted On Concrete For Guide Rail	86.61	
		Note: With base plate for guide rail. Includes new anchor bolts.		

34 Transportation**34 70 Transportation Construction and Equipment****34 71 Roadway Construction**

MINOR		TOTAL DIRECT		DEMOLITION	
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST	
34 71 13 26-0185	Additional Wood and Steel Posts (34 71 13 26-0177)				
34 71 13 26-0186	LF 4" x 6" Wood Post.....	63.07		18.82	
	For Installation In Rock, Add.....	5.02			
34 71 13 26-0187	LF 6" x 8" Wood Post.....	75.06		18.82	
	For Installation In Rock, Add.....	5.02			
34 71 13 26-0188	LF 6" x 7/8" Galvanized Steel Post.....	47.74		18.82	
	For Installation In Rock, Add.....	5.02			
34 71 13 26-0189	EA Base Plate With Anchor Bolts For Mounting Post On Concrete.....	434.80		18.81	
34 71 13 26-0190	Accessories For All Types of Guide Rail (34 71 13 26-0177)				
34 71 13 26-0191	EA Reflector For Guard Rail.....	52.24			
34 71 13 26-0192	Guide Rail Transitions (34 71 13 26)				
34 71 13 26-0193	Transition Box Beam Guide Rail To Corrugated Beam (34 71 13 26-0192)				
34 71 13 26-0194	EA Box Beam To Corrugated Beam Rail Bolted Section.....	817.88			
34 71 13 26-0195	EA Box Beam To Corrugated Beam Rail Bolted Plate.....	497.97			
	Note: For making cable connections.				
34 71 13 26-0196	Transition Box Beam Median Barrier To Corrugated Beam Median (34 71 13 26-0192)				
34 71 13 26-0197	EA Box Beam Median Barrier To Corrugated Beam Bolted Section.....	833.88			
34 71 13 26-0198	EA Box Beam Median Barrier To Corrugated Beam Harness Plate.....	497.97			
	Note: For making cable connections.				
34 71 13 26-0199	Transition Box Beam Guide Rail To Cable Guide Rail (34 71 13 26-0192)				
34 71 13 26-0200	EA Box Beam To Cable Guide Rail U-bolt And Plate.....	113.79		20.24	
34 71 13 26-0201	Transition Box Beam Median Barrier To Concrete Median Barrier (34 71 13 26-0192)				
34 71 13 26-0202	EA Box Beam Median Barrier To Concrete Barrier End Connection.....	1,137.80			
34 71 13 26-0203	Transition Thrie Beam To Concrete Median Barrier (34 71 13 26-0192)				
34 71 13 26-0204	EA Thrie Beam Terminal Connector At Concrete Median Barrier.....	737.91			
34 71 13 26-0205	EA Thrie Beam Transition Section To Corrugated Beam Guide Rail.....	937.85			
34 71 13 26-0206	Resilient Guard Fence And Light Shield (34 71 13 26)				
34 71 13 26-0207	LF Resilient Guard Fence And Light Shield, Up To 6' High.....	100.03		7.79	
34 71 13 26-0208	Individual Concrete Guard Rail Posts (34 71 13 26)				
34 71 13 26-0209	EA 6'-5" Concrete Guard Rail Posts, Round.....	82.97		7.79	
34 71 13 26-0210	EA 6'-5" Concrete Posts, Square.....	92.93		8.76	
34 71 13 26-0211	EA 6'-5" Concrete Posts, Triangular.....	90.68		8.76	
34 71 16	Impact Attenuating Devices (34 71)				
34 71 16 00-0001	Guard Rail Energy Absorbing Terminals (34 71 16)				
	Note: Crushable foam cartridges surrounded by steel guardrail for narrow hazards. QuadGuard System as manufactured by Energy Absorption Systems, Inc.				
34 71 16 00-0002	24" Wide Guard Rail Energy Absorbing Terminals (34 71 16 00-0001)				
34 71 16 00-0003	EA 24" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	36,858.15		3,796.94	
34 71 16 00-0004	EA 24" Wide, 5 Cartridge Bays Energy Absorbing Crash Attenuator.....	51,162.31		5,062.59	
34 71 16 00-0005	EA 24" Wide, 7 Cartridge Bays Energy Absorbing Crash Attenuator.....	69,791.06		6,644.64	
34 71 16 00-0006	EA 24" Wide, 9 Cartridge Bays Energy Absorbing Crash Attenuator.....	77,680.54		8,226.71	
34 71 16 00-0007	30" Wide Guard Rail Energy Absorbing Terminals (34 71 16 00-0001)				
34 71 16 00-0008	EA 30" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	39,712.30		4,271.56	
34 71 16 00-0009	EA 30" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	55,287.23		5,695.41	
34 71 16 00-0010	EA 30" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	75,850.56		7,593.89	
34 71 16 00-0011	EA 30" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	86,928.01		9,175.94	
34 71 16 00-0012	36" Wide Guard Rail Energy Absorbing Terminals (34 71 16 00-0001)				
34 71 16 00-0013	EA 36" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	42,598.66		4,746.18	
34 71 16 00-0014	EA 36" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	59,443.57		6,328.24	
34 71 16 00-0015	EA 36" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	81,246.80		8,384.91	
34 71 16 00-0016	EA 36" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	96,142.24		10,125.17	



Transportation		34
Transportation Construction and Equipment		34 70
Roadway Construction		34 71

MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
34 71 16 00-0017	69" Wide Guard Rail Energy Absorbing Terminals (34 71 16 00-0001)			
34 71 16 00-0018	EA 69" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	46,138.93		5,220.79
34 71 16 00-0019	EA 69" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	63,854.80		6,961.06
34 71 16 00-0020	EA 69" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	87,660.97		9,175.94
34 71 16 00-0021	EA 69" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	103,251.78		11,074.42
34 71 16 00-0022	90" Wide Guard Rail Energy Absorbing Terminals (34 71 16 00-0001)			
34 71 16 00-0023	EA 90" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	49,774.07		5,695.41
34 71 16 00-0024	EA 90" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	68,377.51		7,593.89
34 71 16 00-0025	EA 90" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	94,931.25		10,125.17
34 71 16 00-0026	EA 90" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	110,557.31		12,023.65
34 71 19	Vehicle Delineators (34 71)			
34 71 19 16	Flexible Vehicle Delineators (34 71 19)			
34 71 19 16-0001	EA 2' High, 3" Diameter Flexible Fixed Stanchion Delineator	97.97		9.73
34 71 19 16-0002	EA 3' High, 3" Diameter Flexible Fixed Stanchion Delineator	99.32		9.73
34 71 19 16-0003	EA 3-1/2' High, 3" Diameter Flexible Fixed Stanchion Delineator	100.68		9.73
34 71 19 16-0004	EA 4' High, 3" Diameter Flexible Fixed Stanchion Delineator	102.03		9.73
34 80	Bridges (34)			
34 82	Bridge Specialties (34 80)			
34 82 23	Bridge Railing (34 82)			
34 82 23 00-0001	Metal Bridge Railing (34 82 23)			
	Note: Includes hardware for bridge rail mounting.			
34 82 23 00-0002	LF 2" x 2" x 1/8" Bridge Railing	40.48		3.76
34 82 23 00-0003	LF 3" x 3" x 5/16" Bridge Railing	69.56		5.86
34 82 23 00-0004	LF 5" x 3" x 1/4" Bridge Railing	89.36		8.59
34 82 23 00-0005	LF 6" x 6" x 3/16" Bridge Railing	118.48		10.81
34 82 23 00-0006	LF 5" Outside Diameter x 1/4" Bridge Railing	95.28		8.34
34 82 23 00-0007	Bridge Post (34 82 23)			
	Note: Includes hardware for bridge post mounting.			
34 82 23 00-0008	EA 6" x 9" x 5'-6" Bridge Post	176.51		53.84
34 82 23 00-0009	EA 6" x 9" x 7' Bridge Post	215.75		57.20
34 82 23 00-0010	EA Two Rail With Base Plate Bridge Post Assembly	484.92		100.95
34 82 23 00-0011	EA Two Rail With Curb Bridge Post Assembly	589.09		107.68
34 82 23 00-0012	EA Two Rail (Curbless) Bridge Post Assembly	541.22		107.68
34 82 23 00-0013	EA Two Rail With Optional Handrail Bridge Post Assembly	643.12		107.68
34 82 23 00-0014	EA Three Rail With Base Plate Bridge Post Assembly	503.86		107.68
34 82 23 00-0015	EA Three Rail With Curb Bridge Post Assembly	672.47		111.05
34 82 23 00-0016	EA Three Rail (Curbless) Bridge Post Assembly	659.85		111.05
34 82 23 00-0017	EA Three Rail With Optional Handrail Bridge Post Assembly	803.14		111.05
34 82 23 00-0018	EA Four Rail (Curbless) With Base Plate Bridge Post	558.21		114.41
34 82 23 00-0019	EA Four Rail With Base Plate (Sidewalk Type) Bridge Post	558.34		114.41
34 82 23 00-0020	EA Four Rail With Curb Bridge Post Assembly	814.44		114.41
34 82 23 00-0021	EA Four Rail (Curbless) Bridge Post Assembly	835.24		114.41
34 82 23 00-0022	EA Five Rail With Base Plate (Curbless) Bridge Post Assembly	618.53		121.13
34 82 23 00-0023	Bridge Railing Splices (34 82 23)			
	Note: Includes hardware for splices.			
34 82 23 00-0024	EA 5" Outside Diameter Bridge Railing Splice	246.87		25.97
34 82 23 00-0025	EA 5" x 3" Bridge Railing Splice	149.51		22.72
34 82 23 00-0026	EA 3" x 3" Bridge Railing Splice	92.82		16.23
34 82 23 00-0027	EA 2" x 2" Bridge Railing Splice	48.54		11.68
34 82 23 00-0028	EA 5" x 5" x 3' Expansion Splice Tube	189.43		25.10
34 82 23 00-0029	EA 4" x 2" x 3' Expansion Splice Bar	201.13		25.10
34 82 23 00-0030	EA 5" x 5" x 2' Fixed Splice Tube	174.05		25.10
34 82 23 00-0031	EA 4" x 2" x 2' Fixed Splice Bar	178.28		25.10
34 82 23 00-0032	EA 6" x 6" x 3/16" Box x 9' Flare Tube	255.79		33.91
34 82 23 00-0033	Transition For Bridge Railing (34 82 23)			
	Note: Includes hardware for transition for bridge railing.			
34 82 23 00-0034	EA Two Rail Box Beam To Bridge Transition With Splices	1,040.88		134.59
34 82 23 00-0035	EA Three Rail Box Beam To Bridge Transition With Splices	1,106.90		141.33
34 82 23 00-0036	EA Four Rail Box Beam To Bridge Transition With Splices	1,283.72		148.06
34 82 23 00-0037	EA 6" x 6" x 16-1/2' Bottom Transition Tube	444.11		67.30
34 82 23 00-0038	EA 6" x 6" x 22' Bottom Transition Tube	543.74		74.03
34 82 23 00-0039	EA 8" x 6" x 16-1/2' Bottom Transition Tube	512.97		67.30
34 82 23 00-0040	EA 6" x 6" x 16-1/2' Top Transition Tube	454.46		67.30
34 82 23 00-0041	EA 6" x 6" x 21-1/2' Top Transition Tube	535.19		74.03

34	34	Transportation
	34 80	Bridges
	34 82	Bridge Specialties



MINOR				TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION				UNIT COST		UNIT COST
34 82 23 00-0042	EA	8" x 6" x 16-1/2' Top Transition Tube	525.81		67.30	
34 82 23 00-0043	EA	6" x 6" x 16-1/2' Middle Transition Tube	429.92		67.30	
34 82 23 00-0044	EA	8" x 6" x 16-1/2' Middle Transition Tube	519.39		67.30	
34 82 23 00-0045		Anchor Plates And End Caps For Bridge Railing (34 82 23)				
34 82 23 00-0046	EA	14" x 14" Bridge Railing Anchor Plate	46.73		6.49	
34 82 23 00-0047	EA	18" x 22" Deck Anchor Plate	278.98		32.46	
34 82 23 00-0048	EA	2" x 2" Bridge Railing End Cap	37.01		3.25	
34 82 23 00-0049	EA	3" x 3" Bridge Railing End Cap	23.72		3.25	
34 82 23 00-0050	EA	5" O.D Bridge Railing End Cap	23.56		3.25	
34 82 26		Bridge Slope Protection (34 82)				
34 82 26 00-0001		Bridge Slope Protection (34 82 26)				
		Note: Solid concrete masonry unit installed in sand bedding.				
34 82 26 00-0002	SF	8" x 16" x 4" Solid Concrete Block, Bridge Slope Protection	13.73		4.99	
34 82 26 00-0003	SF	8" x 16" x 6" Solid Concrete Block, Bridge Slope Protection	16.60		5.50	
34 82 26 00-0004	SF	8" x 16" x 8" Solid Concrete Block, Bridge Slope Protection	18.46		5.84	

END OF SECTION 34



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

35 Waterway and Marine Construction

35 05 Common Work Results for Waterway and Marine Construction⁽³⁵⁾

35 05 70 Common Work Results for Dams^(35 05)

35 05 70 00-0001	Rubber Dam Repair ^(35 05 70)		
35 05 70 00-0002	EA Class A Rubber Dam Repair (Bullet And Similar Holes).....	40.86	
35 05 70 00-0003	SF Class B Rubber Dam Repair (Minor Surface Rubber Damage).....	81.36	
35 05 70 00-0004	SF Class C Rubber Dam Repair (Major Surface Rubber Damage).....	119.21	
35 05 70 00-0005	SF Class D Rubber Dam Repair (Serious Surface Rubber Damage), Per Layer Of Material	133.10	

35 20 Waterway and Marine Construction and Equipment⁽³⁵⁾

35 22 Hydraulic Gates^(35 20)

35 22 26 Sluice Gates^(35 22)

35 22 26 00-0001 Heavy Duty Cast Iron Sluice Gates Self Contained^(35 22 26)

Note: Includes crank operated geared gate lift, anchor bolts, and grouting.

35 22 26 00-0002	EA 18" x 18" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	10,387.92	1,243.61
	For Electric Motor Operated Valve, Add	1,098.73	
35 22 26 00-0003	EA 24" x 24" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	14,883.42	1,865.48
	For Electric Motor Operated Valve, Add	1,223.10	
35 22 26 00-0004	EA 30" x 30" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	18,018.53	2,131.98
	For Electric Motor Operated Valve, Add	1,276.40	
35 22 26 00-0005	EA 36" x 36" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	20,542.88	2,331.85
	For Electric Motor Operated Valve, Add	1,316.37	
35 22 26 00-0006	EA 42" x 42" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	23,057.57	2,664.98
	For Electric Motor Operated Valve, Add	1,383.00	
35 22 26 00-0007	EA 48" x 48" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	32,327.18	4,263.96
	For Electric Motor Operated Valve, Add	1,702.79	
35 22 26 00-0008	EA 54" x 54" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	43,054.95	5,329.95
	For Electric Motor Operated Valve, Add	1,915.99	
35 22 26 00-0009	EA 60" x 60" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	50,268.31	7,062.18
	For Electric Motor Operated Valve, Add	2,262.44	
35 22 26 00-0010	EA 66" x 66" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	62,608.41	9,327.41
	For Electric Motor Operated Valve, Add	2,715.48	
35 22 26 00-0011	EA 72" x 72" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	65,783.41	10,659.90
	For Electric Motor Operated Valve, Add	2,981.98	
35 22 26 00-0012	EA 78" x 78" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	73,719.74	10,659.90
	For Electric Motor Operated Valve, Add	3,381.98	
35 22 26 00-0013	EA 84" x 84" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	85,484.05	11,992.38
	For Electric Motor Operated Valve, Add	3,648.48	
35 22 26 00-0014	EA 90" x 90" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	102,695.92	13,751.90
	For Electric Motor Operated Valve, Add	4,000.38	
35 22 26 00-0015	EA 96" x 96" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	115,726.58	14,406.74
	For Electric Motor Operated Valve, Add	4,131.35	
35 22 26 00-0016	EA 108" x 108" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	143,387.24	17,026.16
	For Electric Motor Operated Valve, Add	4,655.23	
35 22 26 00-0017	EA 120" x 120" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	177,143.32	20,955.27
	For Electric Motor Operated Valve, Add	5,441.05	
35 22 26 00-0018	EA 132" x 132" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	216,076.64	23,574.68
	For Electric Motor Operated Valve, Add	5,964.94	

35 22 59 Hydraulic Closure Gates^(35 22)

35 22 59 00-0001 Steel Slide Gates Self Contained^(35 22 59)

Note: Includes anchors and bolts.

35 22 59 00-0002	EA 12" x 12" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	3,573.55	466.37
	For Electric Motor Operated Valve, Add	943.28	
35 22 59 00-0003	EA 18" x 18" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	4,761.21	533.00
	For Electric Motor Operated Valve, Add	956.60	
35 22 59 00-0004	EA 24" x 24" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	5,432.83	621.87
	For Electric Motor Operated Valve, Add	974.37	
35 22 59 00-0005	EA 30" x 30" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	6,565.00	746.19
	For Electric Motor Operated Valve, Add	999.24	
35 22 59 00-0006	EA 36" x 36" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	8,400.98	932.75
	For Electric Motor Operated Valve, Add	1,036.55	
35 22 59 00-0007	EA 42" x 42" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	9,849.25	1,243.61
	For Electric Motor Operated Valve, Add	1,098.73	
35 22 59 00-0008	EA 48" x 48" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	13,505.72	1,865.48
	For Electric Motor Operated Valve, Add	1,223.10	
35 22 59 00-0009	EA 54" x 54" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	20,494.25	2,331.85
	For Electric Motor Operated Valve, Add	1,316.37	
35 22 59 00-0010	EA 60" x 60" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	26,745.46	3,730.96
	For Electric Motor Operated Valve, Add	1,596.19	

35 Waterway and Marine Construction**35 20 Waterway and Marine Construction and Equipment****35 22 Hydraulic Gates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
35 22 59 00-0011	EA	72" x 72" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting..... <i>For Electric Motor Operated Valve, Add</i>	34,109.15 2,093.66	6,218.32
35 22 59 00-0012	SF	Over 36 SF Steel Slide Gates Self Contained Including Anchor..... <i>For Electric Motor Operated Valve, Add</i>	946.00 1,584.38	171.89
35 22 59 00-0013		Stainless Steel, Slide Gates, Frame Assembly Only (35 22 59)		
35 22 59 00-0014	EA	24" x 24" Stainless Steel Slide Gate, Frame Assembly Only	19,041.64	608.95
35 22 59 00-0015	EA	30" x 30" Stainless Steel Slide Gate, Frame Assembly Only	23,543.57	760.85
35 22 59 00-0016	EA	36" x 36" Stainless Steel Slide Gate, Frame Assembly Only	30,027.19	927.42
35 22 59 00-0017	EA	48" x 48" Stainless Steel Slide Gate, Frame Assembly Only	45,818.00	1,776.21
35 22 59 00-0018	EA	60" x 60" Stainless Steel Slide Gate, Frame Assembly Only	67,455.26	3,876.20
35 22 59 00-0019	EA	72" x 72" Stainless Steel Slide Gate, Frame Assembly Only	88,590.03	5,921.57
35 22 59 00-0020	EA	84" x 84" Stainless Steel Slide Gate, Frame Assembly Only	133,895.90	7,403.30
35 22 59 00-0021	Day	Start Up And Training, Stainless Steel Slide Gate, Frame Assembly	3,572.19	
35 22 59 00-0022		Aluminum Flap Gates (35 22 59)		
35 22 59 00-0023	EA	18" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	3,464.92 943.28	466.37
35 22 59 00-0024	EA	20" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	3,855.33 949.93	499.68
35 22 59 00-0025	EA	24" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	4,242.33 956.60	533.00
35 22 59 00-0026	EA	30" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	5,745.83 974.37	621.87
35 22 59 00-0027	EA	36" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	7,121.76 999.24	746.19
35 22 59 00-0028	EA	42" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	10,073.68 1,036.55	932.75
35 22 59 00-0029	EA	48" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	12,749.62 1,098.73	1,243.61
35 22 59 00-0030	EA	54" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	16,509.20 1,223.10	1,865.48
35 22 59 00-0031	EA	60" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	21,834.84 1,383.00	2,664.98
35 22 59 00-0032	EA	66" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	28,252.13 1,596.19	3,730.96
35 22 59 00-0033	EA	72" Diameter Aluminum Flap Gates..... <i>For Electric Motor Operated Valve, Add</i>	35,270.70 1,915.99	5,329.95
35 22 59 00-0034		Stainless Steel Flap Gates (35 22 59)		
35 22 59 00-0035	EA	12" x 12" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	7,686.30 929.95	399.75
35 22 59 00-0036	EA	18" x 18" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	9,850.06 943.28	466.37
35 22 59 00-0037	EA	24" x 24" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	12,700.05 956.60	533.00
35 22 59 00-0038	EA	30" x 30" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	16,538.26 974.37	622.27
35 22 59 00-0039	EA	36" x 36" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	24,557.46 999.24	746.19
35 22 59 00-0040	EA	48" x 48" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	35,962.49 1,098.73	1,243.21
35 22 59 00-0041	EA	60" x 60" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	55,049.19 1,383.00	2,664.98
35 22 59 00-0042	EA	72" x 72" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	79,715.97 1,915.99	5,329.95
35 22 59 00-0043	EA	84" x 84" Stainless Steel Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	114,418.59 2,981.98	10,659.90
35 22 59 00-0044		Cast Iron Flap Gates (35 22 59)		
35 22 59 00-0045	EA	12" x 12" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	13,647.73 949.94	499.68
35 22 59 00-0046	EA	18" x 18" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	19,186.68 966.59	583.62
35 22 59 00-0047	EA	24" x 24" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	24,504.71 983.25	666.24
35 22 59 00-0048	EA	30" x 30" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	34,381.10 1,005.46	776.84
35 22 59 00-0049	EA	36" x 36" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	38,818.85 1,036.55	932.75
35 22 59 00-0050	EA	48" x 48" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	48,208.04 1,160.91	1,555.01
35 22 59 00-0051	EA	60" x 60" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	82,509.93 1,436.30	2,931.47
35 22 59 00-0052	EA	72" x 72" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	131,315.77 1,995.94	5,729.70
35 22 59 00-0053	EA	84" x 84" Cast Iron Flap Gate..... <i>For Electric Motor Operated Valve, Add</i>	152,112.69 3,088.58	11,192.89



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
35 22 59 00-0054 Steel Knife Gates Including Handwheel Operator (35 22 59) Note: ANSI 150 PSI. for hub, flange, or spigot ends.		
35 22 59 00-0055 EA 6" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	1,811.37 882.95	164.77
35 22 59 00-0056 EA 8" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	2,431.73 888.45	192.19
35 22 59 00-0057 EA 10" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	3,419.47 907.67	288.34
35 22 59 00-0058 EA 12" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	4,274.63 926.89	384.50
35 22 59 00-0059 EA 14" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	5,230.35 932.38	411.92
35 22 59 00-0060 EA 16" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	6,759.96 938.72	443.58
35 22 59 00-0061 EA 18" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	8,971.40 942.27	461.35
35 22 59 00-0062 EA 20" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	11,210.80 954.85	524.32
35 22 59 00-0063 EA 24" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	14,361.21 965.34	576.69
35 22 59 00-0064 EA 30" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	26,105.10 1,003.78	768.88
35 22 59 00-0065 EA 36" Diameter Knife Gates Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	34,747.24 1,080.68	1,153.38
35 22 59 00-0066 Steel Hollow Jet Flow Gate Valve (35 22 59)		
35 22 59 00-0067 EA 6" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	1,701.93 887.31	186.55
35 22 59 00-0068 EA 8" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	2,622.64 893.57	217.86
35 22 59 00-0069 EA 10" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	3,160.72 915.29	326.46
35 22 59 00-0070 EA 12" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	4,032.93 937.03	435.06
35 22 59 00-0071 EA 14" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	6,037.15 943.28	466.37
35 22 59 00-0072 EA 16" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	7,271.18 950.47	502.35
35 22 59 00-0073 EA 18" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	12,165.57 954.47	522.34
35 22 59 00-0074 EA 20" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	15,289.38 968.73	593.63
35 22 59 00-0075 EA 24" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	21,954.07 980.60	652.92
35 22 59 00-0076 EA 30" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	26,905.56 1,024.15	870.78
35 22 59 00-0077 EA 36" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	38,405.83 1,111.13	1,305.84
35 22 59 00-0078 EA 42" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	45,779.53 1,569.87	1,598.99
35 22 59 00-0079 EA 48" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	54,280.46 1,623.10	1,865.48
35 22 59 00-0080 EA 54" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	71,462.98 1,716.37	2,331.85
35 22 59 00-0081 EA 60" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	79,625.04 1,809.87	2,798.23
35 22 59 00-0082 EA 66" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub For Electric Motor Operated Valve, Add	101,663.51 2,023.42	3,864.22
35 22 59 00-0083 Steel Dish Head Valve (35 22 59)		
35 22 59 00-0084 EA 12" Diameter Dish Head Valve	2,199.21	466.37
35 22 59 00-0085 EA 18" Diameter Dish Head Valve	3,150.28	533.00
35 22 59 00-0086 EA 20" Diameter Dish Head Valve	3,622.93	582.97
35 22 59 00-0087 EA 24" Diameter Dish Head Valve	4,257.93	621.87
35 22 59 00-0088 EA 30" Diameter Dish Head Valve	6,357.29	746.19
35 22 59 00-0089 EA 36" Diameter Dish Head Valve	7,837.95	932.75
35 22 59 00-0090 EA 42" Diameter Dish Head Valve	13,086.35	1,243.61
35 22 59 00-0091 EA 48" Diameter Dish Head Valve	17,171.36	1,865.48
35 22 59 00-0092 EA 54" Diameter Dish Head Valve	24,342.96	2,331.85
35 22 59 00-0093 EA 60" Diameter Dish Head Valve	31,445.28	3,730.96
35 22 59 00-0094 EA 66" Diameter Dish Head Valve	43,442.47	4,663.71
35 22 59 00-0095 EA 72" Diameter Dish Head Valve	53,019.45	6,218.32
35 22 63 Through-Levee Access Gates (35 22)		
35 22 63 00-0001 Cast Iron Canal Gates (35 22 63)		
35 22 63 00-0002 EA 12" Diameter Cast Iron Canal Gates With Fabricated Frame For Electric Motor Operated Valve, Add	2,671.90 943.28	466.37

35 Waterway and Marine Construction**35 20 Waterway and Marine Construction and Equipment****35 22 Hydraulic Gates**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
35 22 63 00-0003 EA 18" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	3,928.20 956.60	533.00
35 22 63 00-0004 EA 20" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	4,497.88 966.59	582.97
35 22 63 00-0005 EA 24" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	5,382.95 974.37	621.87
35 22 63 00-0006 EA 30" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	8,173.03 999.24	746.19
35 22 63 00-0007 EA 36" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	10,067.07 1,086.55	932.75
35 22 63 00-0008 EA 42" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	17,042.25 1,098.73	1,243.61
35 22 63 00-0009 EA 48" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	22,187.75 1,223.10	1,865.48
35 22 63 00-0010 EA 54" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	31,687.89 1,316.37	2,331.85
35 22 63 00-0011 EA 60" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	40,396.64 1,596.19	3,730.96
35 22 63 00-0012 EA 66" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	56,175.31 1,782.74	4,663.71
35 22 63 00-0013 EA 72" Diameter Cast Iron Canal Gates With Fabricated Frame <i>For Electric Motor Operated Valve, Add</i>	66,389.64 1,915.99	5,329.95

35 24 Dredging (35 20)**35 24 23 Clamshell Dredging** (35 24)**35 24 23 00-0001 Dredging, Barge Mounted** (35 24 23)

See CSI section 01 74 19 00-0048 for hauling material from shore or barge, 31 23 16 33-0019 for loading.

35 24 23 00-0002 EA Dredge Excavation Mobilization And Demobilization..... <i>For Inlet Rivers And Canals, Deduct</i>	24,588.73 -6,147.18	
35 24 23 00-0003 CY Barge Mounted Clamshell Excavation Into Scows, Dumping Up To 10 Miles Note: Includes tugboat to move scows or barge.	27.32	
35 24 23 00-0004 CY Barge Mounted Dragline Or Clamshell, Hopper Dumped, Pumped 1,000' To Shore..... Note: Includes tugboat to move barge.	24.59	
35 24 23 00-0005 CY Hydraulic Dredge Excavation Into Scows, Dumping Up To 10 Miles..... Note: Includes tugboat to move scows or barge.	27.22	
35 24 23 00-0006 CY Hydraulic Dredge Excavation, Pumped 1,000' To Shore..... Note: Includes tugboat to move barge.	22.83	

35 24 26 Backhoe/Dipper Dredging (35 24)**35 24 26 00-0001 Dredging, Shoreline Excavators** (35 24 26)

35 24 26 00-0002 CY Back Hoe, 1 CY Bucket, Dredging From Shore.....	16.05	
35 24 26 00-0003 CY Hydraulic Excavator, 2 CY Bucket, Dredging From Shore.....	10.70	

END OF SECTION 35



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

40 Process Interconnections

40 05 Common Work Results For Process Interconnections ⁽⁴⁰⁾

40 05 19 Ductile Iron Process Pipe ^(40 05)

40 05 19 00-0001	Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Piping ^(40 05 19) Note: C110 Fittings, 350 PSI rating for 2" - 24" sizes, 250 PSI rating for 30" - 48" sizes. Pipe barrels conform to ANSI/AWWA C151/A21.51. The bolt holes are aligned per ANSI/AWWA C115/A21.15. Flanged fittings conform to ANSI/AWWA C110/A21.10. Interiors shall be cement lined in accordance with ANSI/AWWA C104/A21.04. Exterior shall be bituminous coating, in accordance with ANSI/AWWA C104/A21.04. See CSI section 40 05 19 00-4062 for bolts, 40 05 19 00-4077 for gaskets.		
40 05 19 00-0002	Flanged End (FxF), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe ^(40 05 19 00-0001)		
40 05 19 00-0003	4" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe ^(40 05 19 00-0002)		
40 05 19 00-0004	EA 4" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	882.57 -60.06 85.93 129.83 173.18	222.16
40 05 19 00-0005	EA 4" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	946.87 -66.48 94.77 143.00 190.62	226.04
40 05 19 00-0006	EA 4" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,011.18 -72.91 103.60 156.17 208.07	229.92
40 05 19 00-0007	EA 4" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,075.47 -79.33 112.43 169.33 225.51	233.80
40 05 19 00-0008	EA 4" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,139.78 -85.76 121.27 182.50 242.96	237.69
40 05 19 00-0009	EA 4" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,204.08 -92.19 130.10 195.67 260.40	241.57
40 05 19 00-0010	EA 4" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,268.37 -98.61 138.93 208.84 277.85	245.46
40 05 19 00-0011	EA 4" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,332.68 -105.04 147.77 222.01 295.29	249.34
40 05 19 00-0012	EA 4" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,396.98 -111.46 156.60 235.18 312.74	253.23
40 05 19 00-0013	EA 4" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,461.28 -117.89 165.43 248.34 330.18	257.11
40 05 19 00-0014	EA 4" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,525.58 -124.32 174.27 261.51 347.63	260.99
40 05 19 00-0015	EA 4" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,589.89 -130.74 183.10 274.68 365.07	264.87
40 05 19 00-0016	EA 4" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,654.18 -137.17 191.93 287.85 382.52	268.76

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0017	EA	4" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,718.49	272.64
		For Class 52 Rating, Deduct	-143.59	
		For Class 54 Rating, Add	200.77	
		For Class 55 Rating, Add	301.02	
		For Class 56 Rating, Add	399.96	
40 05 19 00-0018	EA	4" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,782.79	276.53
		For Class 52 Rating, Deduct	-150.02	
		For Class 54 Rating, Add	209.60	
		For Class 55 Rating, Add	314.19	
		For Class 56 Rating, Add	417.41	
40 05 19 00-0019	EA	4" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,847.09	280.41
		For Class 52 Rating, Deduct	-156.44	
		For Class 54 Rating, Add	218.43	
		For Class 55 Rating, Add	327.35	
		For Class 56 Rating, Add	434.85	
40 05 19 00-0020	EA	4" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,911.39	284.30
		For Class 52 Rating, Deduct	-162.87	
		For Class 54 Rating, Add	227.27	
		For Class 55 Rating, Add	340.52	
		For Class 56 Rating, Add	452.30	
40 05 19 00-0021	EA	4" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,975.69	288.18
		For Class 52 Rating, Deduct	-169.30	
		For Class 54 Rating, Add	236.10	
		For Class 55 Rating, Add	353.69	
		For Class 56 Rating, Add	469.74	
40 05 19 00-0022	EA	4" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,039.99	292.06
		For Class 52 Rating, Deduct	-175.72	
		For Class 54 Rating, Add	244.93	
		For Class 55 Rating, Add	366.86	
		For Class 56 Rating, Add	487.18	
40 05 19 00-0023	EA	4" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,104.29	295.94
		For Class 52 Rating, Deduct	-182.15	
		For Class 54 Rating, Add	253.76	
		For Class 55 Rating, Add	380.03	
		For Class 56 Rating, Add	504.63	
40 05 19 00-0024	EA	4" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,168.60	299.83
		For Class 52 Rating, Deduct	-188.57	
		For Class 54 Rating, Add	262.60	
		For Class 55 Rating, Add	393.19	
		For Class 56 Rating, Add	522.08	
40 05 19 00-0025	EA	4" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,232.90	303.71
		For Class 52 Rating, Deduct	-195.00	
		For Class 54 Rating, Add	271.43	
		For Class 55 Rating, Add	406.36	
		For Class 56 Rating, Add	539.52	
40 05 19 00-0026	EA	4" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,297.20	307.60
		For Class 52 Rating, Deduct	-201.43	
		For Class 54 Rating, Add	280.26	
		For Class 55 Rating, Add	419.53	
		For Class 56 Rating, Add	556.96	
40 05 19 00-0027	EA	4" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,361.50	311.48
		For Class 52 Rating, Deduct	-207.85	
		For Class 54 Rating, Add	289.10	
		For Class 55 Rating, Add	432.70	
		For Class 56 Rating, Add	574.41	
40 05 19 00-0028	EA	4" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,425.81	315.37
		For Class 52 Rating, Deduct	-214.28	
		For Class 54 Rating, Add	297.93	
		For Class 55 Rating, Add	445.87	
		For Class 56 Rating, Add	591.86	
40 05 19 00-0029	EA	4" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,490.10	319.25
		For Class 52 Rating, Deduct	-220.70	
		For Class 54 Rating, Add	306.76	
		For Class 55 Rating, Add	459.03	
		For Class 56 Rating, Add	609.30	
40 05 19 00-0030	EA	4" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,554.41	323.14
		For Class 52 Rating, Deduct	-227.13	
		For Class 54 Rating, Add	315.60	
		For Class 55 Rating, Add	472.20	
		For Class 56 Rating, Add	626.74	
40 05 19 00-0031	EA	4" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,618.71	327.01
		For Class 52 Rating, Deduct	-233.56	
		For Class 54 Rating, Add	324.43	
		For Class 55 Rating, Add	485.37	
		For Class 56 Rating, Add	644.19	
40 05 19 00-0032	EA	4" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,683.01	330.90
		For Class 52 Rating, Deduct	-239.98	
		For Class 54 Rating, Add	333.26	
		For Class 55 Rating, Add	498.54	
		For Class 56 Rating, Add	661.63	
40 05 19 00-0033	EA	4" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,747.31	334.78
		For Class 52 Rating, Deduct	-246.41	
		For Class 54 Rating, Add	342.10	
		For Class 55 Rating, Add	511.71	
		For Class 56 Rating, Add	679.08	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0034	EA	4"	Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,811.61	338.67
			For Class 52 Rating, Deduct	-252.83	
			For Class 54 Rating, Add	350.93	
			For Class 55 Rating, Add	524.88	
			For Class 56 Rating, Add	696.52	
40 05 19 00-0035	EA	4"	Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,875.91	342.55
			For Class 52 Rating, Deduct	-259.26	
			For Class 54 Rating, Add	359.76	
			For Class 55 Rating, Add	538.04	
			For Class 56 Rating, Add	713.97	
40 05 19 00-0036	EA	4"	Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,940.21	346.44
			For Class 52 Rating, Deduct	-265.68	
			For Class 54 Rating, Add	368.60	
			For Class 55 Rating, Add	551.21	
			For Class 56 Rating, Add	731.41	
40 05 19 00-0037	EA	4"	Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,004.52	350.32
			For Class 52 Rating, Deduct	-272.11	
			For Class 54 Rating, Add	377.43	
			For Class 55 Rating, Add	564.38	
			For Class 56 Rating, Add	748.86	
40 05 19 00-0038	EA	4"	Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,068.81	354.21
			For Class 52 Rating, Deduct	-278.54	
			For Class 54 Rating, Add	386.26	
			For Class 55 Rating, Add	577.55	
			For Class 56 Rating, Add	766.30	
40 05 19 00-0039	EA	4"	Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,133.12	358.08
			For Class 52 Rating, Deduct	-284.96	
			For Class 54 Rating, Add	395.09	
			For Class 55 Rating, Add	590.72	
			For Class 56 Rating, Add	783.75	
40 05 19 00-0040	EA	4"	Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,197.42	361.97
			For Class 52 Rating, Deduct	-291.39	
			For Class 54 Rating, Add	403.93	
			For Class 55 Rating, Add	603.89	
			For Class 56 Rating, Add	801.19	
40 05 19 00-0041	EA	4"	Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,261.72	365.85
			For Class 52 Rating, Deduct	-297.81	
			For Class 54 Rating, Add	412.76	
			For Class 55 Rating, Add	617.05	
			For Class 56 Rating, Add	818.64	
40 05 19 00-0042	EA	4"	Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,326.02	369.74
			For Class 52 Rating, Deduct	-304.24	
			For Class 54 Rating, Add	421.59	
			For Class 55 Rating, Add	630.22	
			For Class 56 Rating, Add	836.08	
40 05 19 00-0043			6" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0044	EA	6"	Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,117.95	279.63
			For Class 52 Rating, Deduct	-76.37	
			For Class 54 Rating, Add	109.22	
			For Class 55 Rating, Add	164.99	
			For Class 56 Rating, Add	220.06	
40 05 19 00-0045	EA	6"	Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,195.73	283.52
			For Class 52 Rating, Deduct	-84.28	
			For Class 54 Rating, Add	120.08	
			For Class 55 Rating, Add	181.16	
			For Class 56 Rating, Add	241.48	
40 05 19 00-0046	EA	6"	Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,273.52	287.40
			For Class 52 Rating, Deduct	-92.19	
			For Class 54 Rating, Add	130.93	
			For Class 55 Rating, Add	197.34	
			For Class 56 Rating, Add	262.90	
40 05 19 00-0047	EA	6"	Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,351.29	291.29
			For Class 52 Rating, Deduct	-100.09	
			For Class 54 Rating, Add	141.79	
			For Class 55 Rating, Add	213.51	
			For Class 56 Rating, Add	284.32	
40 05 19 00-0048	EA	6"	Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,429.08	295.17
			For Class 52 Rating, Deduct	-108.00	
			For Class 54 Rating, Add	152.64	
			For Class 55 Rating, Add	229.69	
			For Class 56 Rating, Add	305.75	
40 05 19 00-0049	EA	6"	Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,506.86	299.06
			For Class 52 Rating, Deduct	-115.91	
			For Class 54 Rating, Add	163.50	
			For Class 55 Rating, Add	245.86	
			For Class 56 Rating, Add	327.17	
40 05 19 00-0050	EA	6"	Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,584.65	302.94
			For Class 52 Rating, Deduct	-123.82	
			For Class 54 Rating, Add	174.36	
			For Class 55 Rating, Add	262.04	
			For Class 56 Rating, Add	348.59	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0051 EA 6" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,662.42	306.83
For Class 52 Rating, Deduct	-131.73	
For Class 54 Rating, Add	185.21	
For Class 55 Rating, Add	278.21	
For Class 56 Rating, Add	370.01	
40 05 19 00-0052 EA 6" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,740.21	310.71
For Class 52 Rating, Deduct	-139.64	
For Class 54 Rating, Add	196.07	
For Class 55 Rating, Add	294.38	
For Class 56 Rating, Add	391.43	
40 05 19 00-0053 EA 6" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,817.99	314.59
For Class 52 Rating, Deduct	-147.55	
For Class 54 Rating, Add	206.92	
For Class 55 Rating, Add	310.56	
For Class 56 Rating, Add	412.85	
40 05 19 00-0054 EA 6" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,895.77	318.47
For Class 52 Rating, Deduct	-155.46	
For Class 54 Rating, Add	217.78	
For Class 55 Rating, Add	326.73	
For Class 56 Rating, Add	434.28	
40 05 19 00-0055 EA 6" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,973.55	322.36
For Class 52 Rating, Deduct	-163.36	
For Class 54 Rating, Add	228.63	
For Class 55 Rating, Add	342.91	
For Class 56 Rating, Add	455.70	
40 05 19 00-0056 EA 6" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,051.33	326.24
For Class 52 Rating, Deduct	-171.27	
For Class 54 Rating, Add	239.49	
For Class 55 Rating, Add	359.08	
For Class 56 Rating, Add	477.12	
40 05 19 00-0057 EA 6" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,129.12	330.13
For Class 52 Rating, Deduct	-179.18	
For Class 54 Rating, Add	250.34	
For Class 55 Rating, Add	375.26	
For Class 56 Rating, Add	498.54	
40 05 19 00-0058 EA 6" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,206.90	334.01
For Class 52 Rating, Deduct	-187.09	
For Class 54 Rating, Add	261.20	
For Class 55 Rating, Add	391.43	
For Class 56 Rating, Add	519.96	
40 05 19 00-0059 EA 6" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,284.69	337.90
For Class 52 Rating, Deduct	-195.00	
For Class 54 Rating, Add	272.05	
For Class 55 Rating, Add	407.61	
For Class 56 Rating, Add	541.39	
40 05 19 00-0060 EA 6" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,362.46	341.78
For Class 52 Rating, Deduct	-202.91	
For Class 54 Rating, Add	282.91	
For Class 55 Rating, Add	423.78	
For Class 56 Rating, Add	562.81	
40 05 19 00-0061 EA 6" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,440.25	345.66
For Class 52 Rating, Deduct	-210.82	
For Class 54 Rating, Add	293.76	
For Class 55 Rating, Add	439.95	
For Class 56 Rating, Add	584.23	
40 05 19 00-0062 EA 6" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,518.03	349.54
For Class 52 Rating, Deduct	-218.73	
For Class 54 Rating, Add	304.62	
For Class 55 Rating, Add	456.13	
For Class 56 Rating, Add	605.65	
40 05 19 00-0063 EA 6" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,595.82	353.43
For Class 52 Rating, Deduct	-226.64	
For Class 54 Rating, Add	315.47	
For Class 55 Rating, Add	472.30	
For Class 56 Rating, Add	627.07	
40 05 19 00-0064 EA 6" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,673.59	357.31
For Class 52 Rating, Deduct	-234.54	
For Class 54 Rating, Add	326.33	
For Class 55 Rating, Add	488.48	
For Class 56 Rating, Add	648.49	
40 05 19 00-0065 EA 6" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,751.37	361.20
For Class 52 Rating, Deduct	-242.45	
For Class 54 Rating, Add	337.18	
For Class 55 Rating, Add	504.65	
For Class 56 Rating, Add	669.91	
40 05 19 00-0066 EA 6" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,829.16	365.08
For Class 52 Rating, Deduct	-250.36	
For Class 54 Rating, Add	348.04	
For Class 55 Rating, Add	520.83	
For Class 56 Rating, Add	691.34	
40 05 19 00-0067 EA 6" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,906.94	368.97
For Class 52 Rating, Deduct	-258.27	
For Class 54 Rating, Add	358.89	
For Class 55 Rating, Add	537.00	
For Class 56 Rating, Add	712.76	



MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-0068	EA	6" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,984.72	372.85
		For Class 52 Rating, Deduct	-266.18	
		For Class 54 Rating, Add	369.75	
		For Class 55 Rating, Add	553.17	
		For Class 56 Rating, Add	734.18	
40 05 19 00-0069	EA	6" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,062.50	376.73
		For Class 52 Rating, Deduct	-274.09	
		For Class 54 Rating, Add	380.60	
		For Class 55 Rating, Add	569.35	
		For Class 56 Rating, Add	755.60	
40 05 19 00-0070	EA	6" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,140.29	380.61
		For Class 52 Rating, Deduct	-282.00	
		For Class 54 Rating, Add	391.46	
		For Class 55 Rating, Add	585.52	
		For Class 56 Rating, Add	777.02	
40 05 19 00-0071	EA	6" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,218.07	384.50
		For Class 52 Rating, Deduct	-289.91	
		For Class 54 Rating, Add	402.32	
		For Class 55 Rating, Add	601.70	
		For Class 56 Rating, Add	798.45	
40 05 19 00-0072	EA	6" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,295.85	388.38
		For Class 52 Rating, Deduct	-297.81	
		For Class 54 Rating, Add	413.17	
		For Class 55 Rating, Add	617.87	
		For Class 56 Rating, Add	819.86	
40 05 19 00-0073	EA	6" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,373.63	392.27
		For Class 52 Rating, Deduct	-305.72	
		For Class 54 Rating, Add	424.03	
		For Class 55 Rating, Add	634.05	
		For Class 56 Rating, Add	841.29	
40 05 19 00-0074	EA	6" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,451.42	396.15
		For Class 52 Rating, Deduct	-313.63	
		For Class 54 Rating, Add	434.88	
		For Class 55 Rating, Add	650.22	
		For Class 56 Rating, Add	862.71	
40 05 19 00-0075	EA	6" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,529.20	400.04
		For Class 52 Rating, Deduct	-321.54	
		For Class 54 Rating, Add	445.74	
		For Class 55 Rating, Add	666.40	
		For Class 56 Rating, Add	884.13	
40 05 19 00-0076	EA	6" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,606.98	403.92
		For Class 52 Rating, Deduct	-329.45	
		For Class 54 Rating, Add	456.59	
		For Class 55 Rating, Add	682.57	
		For Class 56 Rating, Add	905.55	
40 05 19 00-0077	EA	6" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,684.76	407.81
		For Class 52 Rating, Deduct	-337.36	
		For Class 54 Rating, Add	467.45	
		For Class 55 Rating, Add	698.74	
		For Class 56 Rating, Add	926.97	
40 05 19 00-0078	EA	6" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,762.54	411.68
		For Class 52 Rating, Deduct	-345.27	
		For Class 54 Rating, Add	478.30	
		For Class 55 Rating, Add	714.92	
		For Class 56 Rating, Add	948.40	
40 05 19 00-0079	EA	6" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,840.33	415.57
		For Class 52 Rating, Deduct	-353.17	
		For Class 54 Rating, Add	489.16	
		For Class 55 Rating, Add	731.09	
		For Class 56 Rating, Add	969.82	
40 05 19 00-0080	EA	6" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,918.10	419.45
		For Class 52 Rating, Deduct	-361.08	
		For Class 54 Rating, Add	500.01	
		For Class 55 Rating, Add	747.27	
		For Class 56 Rating, Add	991.24	
40 05 19 00-0081	EA	6" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,995.89	423.34
		For Class 52 Rating, Deduct	-368.99	
		For Class 54 Rating, Add	510.87	
		For Class 55 Rating, Add	763.44	
		For Class 56 Rating, Add	1,012.66	
40 05 19 00-0082	EA	6" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,073.67	427.22
		For Class 52 Rating, Deduct	-376.90	
		For Class 54 Rating, Add	521.72	
		For Class 55 Rating, Add	779.62	
		For Class 56 Rating, Add	1,034.08	
40 05 19 00-0083		8" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
40 05 19 00-0084	EA	8" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,563.67	357.31
		For Class 52 Rating, Deduct	-112.45	
		For Class 54 Rating, Add	159.84	
		For Class 55 Rating, Add	240.96	
		For Class 56 Rating, Add	321.07	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0085	EA	8" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,668.41	361.20
		For Class 52 Rating, Deduct	-123.33	
		For Class 54 Rating, Add	174.74	
		For Class 55 Rating, Add	263.15	
		For Class 56 Rating, Add	350.44	
40 05 19 00-0086	EA	8" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,773.16	365.08
		For Class 52 Rating, Deduct	-134.20	
		For Class 54 Rating, Add	189.64	
		For Class 55 Rating, Add	285.34	
		For Class 56 Rating, Add	379.82	
40 05 19 00-0087	EA	8" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,877.90	368.97
		For Class 52 Rating, Deduct	-145.08	
		For Class 54 Rating, Add	204.54	
		For Class 55 Rating, Add	307.52	
		For Class 56 Rating, Add	409.19	
40 05 19 00-0088	EA	8" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,982.65	372.85
		For Class 52 Rating, Deduct	-155.95	
		For Class 54 Rating, Add	219.44	
		For Class 55 Rating, Add	329.71	
		For Class 56 Rating, Add	438.57	
40 05 19 00-0089	EA	8" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,087.39	376.73
		For Class 52 Rating, Deduct	-166.82	
		For Class 54 Rating, Add	234.34	
		For Class 55 Rating, Add	351.90	
		For Class 56 Rating, Add	467.94	
40 05 19 00-0090	EA	8" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,192.14	380.61
		For Class 52 Rating, Deduct	-177.70	
		For Class 54 Rating, Add	249.24	
		For Class 55 Rating, Add	374.09	
		For Class 56 Rating, Add	497.32	
40 05 19 00-0091	EA	8" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,296.88	384.50
		For Class 52 Rating, Deduct	-188.57	
		For Class 54 Rating, Add	264.14	
		For Class 55 Rating, Add	396.27	
		For Class 56 Rating, Add	526.69	
40 05 19 00-0092	EA	8" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,401.63	388.38
		For Class 52 Rating, Deduct	-199.45	
		For Class 54 Rating, Add	279.04	
		For Class 55 Rating, Add	418.46	
		For Class 56 Rating, Add	556.07	
40 05 19 00-0093	EA	8" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,506.37	392.27
		For Class 52 Rating, Deduct	-210.32	
		For Class 54 Rating, Add	293.94	
		For Class 55 Rating, Add	440.65	
		For Class 56 Rating, Add	585.45	
40 05 19 00-0094	EA	8" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,611.12	396.15
		For Class 52 Rating, Deduct	-221.20	
		For Class 54 Rating, Add	308.84	
		For Class 55 Rating, Add	462.83	
		For Class 56 Rating, Add	614.82	
40 05 19 00-0095	EA	8" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,715.86	400.04
		For Class 52 Rating, Deduct	-232.07	
		For Class 54 Rating, Add	323.74	
		For Class 55 Rating, Add	485.02	
		For Class 56 Rating, Add	644.20	
40 05 19 00-0096	EA	8" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,820.60	403.92
		For Class 52 Rating, Deduct	-242.95	
		For Class 54 Rating, Add	338.63	
		For Class 55 Rating, Add	507.21	
		For Class 56 Rating, Add	673.57	
40 05 19 00-0097	EA	8" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,925.34	407.81
		For Class 52 Rating, Deduct	-253.82	
		For Class 54 Rating, Add	353.53	
		For Class 55 Rating, Add	529.39	
		For Class 56 Rating, Add	702.94	
40 05 19 00-0098	EA	8" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,030.08	411.68
		For Class 52 Rating, Deduct	-264.70	
		For Class 54 Rating, Add	368.43	
		For Class 55 Rating, Add	551.58	
		For Class 56 Rating, Add	732.32	
40 05 19 00-0099	EA	8" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,134.83	415.57
		For Class 52 Rating, Deduct	-275.57	
		For Class 54 Rating, Add	383.33	
		For Class 55 Rating, Add	573.77	
		For Class 56 Rating, Add	761.70	
40 05 19 00-0100	EA	8" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,239.57	419.45
		For Class 52 Rating, Deduct	-286.44	
		For Class 54 Rating, Add	398.23	
		For Class 55 Rating, Add	595.95	
		For Class 56 Rating, Add	791.07	
40 05 19 00-0101	EA	8" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,344.32	423.34
		For Class 52 Rating, Deduct	-297.32	
		For Class 54 Rating, Add	413.13	
		For Class 55 Rating, Add	618.14	
		For Class 56 Rating, Add	820.45	



MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	
40 05 19 00-0102	EA	8" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,449.06		427.22
		For Class 52 Rating, Deduct	-308.19		
		For Class 54 Rating, Add	428.03		
		For Class 55 Rating, Add	640.33		
		For Class 56 Rating, Add	849.82		
40 05 19 00-0103	EA	8" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,553.81		431.11
		For Class 52 Rating, Deduct	-319.07		
		For Class 54 Rating, Add	442.93		
		For Class 55 Rating, Add	662.51		
		For Class 56 Rating, Add	879.20		
40 05 19 00-0104	EA	8" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,658.55		434.99
		For Class 52 Rating, Deduct	-329.94		
		For Class 54 Rating, Add	457.83		
		For Class 55 Rating, Add	684.70		
		For Class 56 Rating, Add	908.57		
40 05 19 00-0105	EA	8" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,763.30		438.88
		For Class 52 Rating, Deduct	-340.82		
		For Class 54 Rating, Add	472.73		
		For Class 55 Rating, Add	706.89		
		For Class 56 Rating, Add	937.95		
40 05 19 00-0106	EA	8" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,868.04		442.75
		For Class 52 Rating, Deduct	-351.69		
		For Class 54 Rating, Add	487.63		
		For Class 55 Rating, Add	729.08		
		For Class 56 Rating, Add	967.32		
40 05 19 00-0107	EA	8" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,972.79		446.64
		For Class 52 Rating, Deduct	-362.57		
		For Class 54 Rating, Add	502.53		
		For Class 55 Rating, Add	751.26		
		For Class 56 Rating, Add	996.70		
40 05 19 00-0108	EA	8" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,077.52		450.52
		For Class 52 Rating, Deduct	-373.44		
		For Class 54 Rating, Add	517.43		
		For Class 55 Rating, Add	773.45		
		For Class 56 Rating, Add	1,026.07		
40 05 19 00-0109	EA	8" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,182.26		454.41
		For Class 52 Rating, Deduct	-384.31		
		For Class 54 Rating, Add	532.33		
		For Class 55 Rating, Add	795.63		
		For Class 56 Rating, Add	1,055.45		
40 05 19 00-0110	EA	8" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,287.01		458.29
		For Class 52 Rating, Deduct	-395.19		
		For Class 54 Rating, Add	547.23		
		For Class 55 Rating, Add	817.82		
		For Class 56 Rating, Add	1,084.82		
40 05 19 00-0111	EA	8" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,391.75		462.18
		For Class 52 Rating, Deduct	-406.06		
		For Class 54 Rating, Add	562.13		
		For Class 55 Rating, Add	840.01		
		For Class 56 Rating, Add	1,114.20		
40 05 19 00-0112	EA	8" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,496.50		466.06
		For Class 52 Rating, Deduct	-416.94		
		For Class 54 Rating, Add	577.03		
		For Class 55 Rating, Add	862.20		
		For Class 56 Rating, Add	1,143.57		
40 05 19 00-0113	EA	8" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,601.24		469.95
		For Class 52 Rating, Deduct	-427.81		
		For Class 54 Rating, Add	591.93		
		For Class 55 Rating, Add	884.38		
		For Class 56 Rating, Add	1,172.95		
40 05 19 00-0114	EA	8" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,705.99		473.83
		For Class 52 Rating, Deduct	-438.69		
		For Class 54 Rating, Add	606.83		
		For Class 55 Rating, Add	906.57		
		For Class 56 Rating, Add	1,202.33		
40 05 19 00-0115	EA	8" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,810.73		477.71
		For Class 52 Rating, Deduct	-449.56		
		For Class 54 Rating, Add	621.73		
		For Class 55 Rating, Add	928.76		
		For Class 56 Rating, Add	1,231.70		
40 05 19 00-0116	EA	8" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,915.48		481.59
		For Class 52 Rating, Deduct	-460.44		
		For Class 54 Rating, Add	636.62		
		For Class 55 Rating, Add	950.94		
		For Class 56 Rating, Add	1,261.08		
40 05 19 00-0117	EA	8" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,020.22		485.48
		For Class 52 Rating, Deduct	-471.31		
		For Class 54 Rating, Add	651.52		
		For Class 55 Rating, Add	973.13		
		For Class 56 Rating, Add	1,290.45		
40 05 19 00-0118	EA	8" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,124.97		489.36
		For Class 52 Rating, Deduct	-482.19		
		For Class 54 Rating, Add	666.42		
		For Class 55 Rating, Add	995.32		
		For Class 56 Rating, Add	1,319.83		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0119	EA		8" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,229.71	493.25
			For Class 52 Rating, Deduct	-493.06	
			For Class 54 Rating, Add	681.32	
			For Class 55 Rating, Add	1,017.50	
			For Class 56 Rating, Add	1,349.20	
40 05 19 00-0120	EA		8" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,334.45	497.13
			For Class 52 Rating, Deduct	-503.94	
			For Class 54 Rating, Add	696.22	
			For Class 55 Rating, Add	1,039.69	
			For Class 56 Rating, Add	1,378.58	
40 05 19 00-0121	EA		8" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,439.19	501.02
			For Class 52 Rating, Deduct	-514.81	
			For Class 54 Rating, Add	711.12	
			For Class 55 Rating, Add	1,061.88	
			For Class 56 Rating, Add	1,407.95	
40 05 19 00-0122	EA		8" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,543.93	504.90
			For Class 52 Rating, Deduct	-525.68	
			For Class 54 Rating, Add	726.02	
			For Class 55 Rating, Add	1,084.06	
			For Class 56 Rating, Add	1,437.33	
40 05 19 00-0123 10" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe					
			(40 05 19 00-0002)		
40 05 19 00-0124	EA		10" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,971.20	434.99
			For Class 52 Rating, Deduct	-144.33	
			For Class 54 Rating, Add	204.73	
			For Class 55 Rating, Add	308.42	
			For Class 56 Rating, Add	410.80	
40 05 19 00-0125	EA		10" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,107.41	438.88
			For Class 52 Rating, Deduct	-158.67	
			For Class 54 Rating, Add	224.35	
			For Class 55 Rating, Add	337.63	
			For Class 56 Rating, Add	449.46	
40 05 19 00-0126	EA		10" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,243.60	442.75
			For Class 52 Rating, Deduct	-173.00	
			For Class 54 Rating, Add	243.96	
			For Class 55 Rating, Add	366.83	
			For Class 56 Rating, Add	488.11	
40 05 19 00-0127	EA		10" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,379.80	446.64
			For Class 52 Rating, Deduct	-187.34	
			For Class 54 Rating, Add	263.58	
			For Class 55 Rating, Add	396.03	
			For Class 56 Rating, Add	526.77	
40 05 19 00-0128	EA		10" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,516.00	450.52
			For Class 52 Rating, Deduct	-201.67	
			For Class 54 Rating, Add	283.20	
			For Class 55 Rating, Add	425.23	
			For Class 56 Rating, Add	565.42	
40 05 19 00-0129	EA		10" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,652.19	454.41
			For Class 52 Rating, Deduct	-216.01	
			For Class 54 Rating, Add	302.82	
			For Class 55 Rating, Add	454.43	
			For Class 56 Rating, Add	604.08	
40 05 19 00-0130	EA		10" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,788.40	458.29
			For Class 52 Rating, Deduct	-230.34	
			For Class 54 Rating, Add	322.44	
			For Class 55 Rating, Add	483.63	
			For Class 56 Rating, Add	642.73	
40 05 19 00-0131	EA		10" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,924.59	462.18
			For Class 52 Rating, Deduct	-244.68	
			For Class 54 Rating, Add	342.05	
			For Class 55 Rating, Add	512.83	
			For Class 56 Rating, Add	681.39	
40 05 19 00-0132	EA		10" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,060.80	466.06
			For Class 52 Rating, Deduct	-259.01	
			For Class 54 Rating, Add	361.67	
			For Class 55 Rating, Add	542.03	
			For Class 56 Rating, Add	720.04	
40 05 19 00-0133	EA		10" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,196.99	469.95
			For Class 52 Rating, Deduct	-273.35	
			For Class 54 Rating, Add	381.29	
			For Class 55 Rating, Add	571.23	
			For Class 56 Rating, Add	758.70	
40 05 19 00-0134	EA		10" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,333.20	473.83
			For Class 52 Rating, Deduct	-287.68	
			For Class 54 Rating, Add	400.91	
			For Class 55 Rating, Add	600.44	
			For Class 56 Rating, Add	797.35	
40 05 19 00-0135	EA		10" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,469.39	477.71
			For Class 52 Rating, Deduct	-302.01	
			For Class 54 Rating, Add	420.52	
			For Class 55 Rating, Add	629.64	
			For Class 56 Rating, Add	836.01	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0136	EA	10"	Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,605.59	481.59
			For Class 52 Rating, Deduct	-316.35	
			For Class 54 Rating, Add	440.14	
			For Class 55 Rating, Add	658.84	
			For Class 56 Rating, Add	874.66	
40 05 19 00-0137	EA	10"	Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,741.79	485.48
			For Class 52 Rating, Deduct	-330.68	
			For Class 54 Rating, Add	459.76	
			For Class 55 Rating, Add	688.04	
			For Class 56 Rating, Add	913.32	
40 05 19 00-0138	EA	10"	Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,877.99	489.36
			For Class 52 Rating, Deduct	-345.02	
			For Class 54 Rating, Add	479.38	
			For Class 55 Rating, Add	717.24	
			For Class 56 Rating, Add	951.97	
40 05 19 00-0139	EA	10"	Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,014.19	493.25
			For Class 52 Rating, Deduct	-359.35	
			For Class 54 Rating, Add	499.00	
			For Class 55 Rating, Add	746.44	
			For Class 56 Rating, Add	990.62	
40 05 19 00-0140	EA	10"	Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,150.38	497.13
			For Class 52 Rating, Deduct	-373.69	
			For Class 54 Rating, Add	518.61	
			For Class 55 Rating, Add	775.64	
			For Class 56 Rating, Add	1,029.28	
40 05 19 00-0141	EA	10"	Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,286.59	501.02
			For Class 52 Rating, Deduct	-388.02	
			For Class 54 Rating, Add	538.23	
			For Class 55 Rating, Add	804.85	
			For Class 56 Rating, Add	1,067.93	
40 05 19 00-0142	EA	10"	Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,422.78	504.90
			For Class 52 Rating, Deduct	-402.36	
			For Class 54 Rating, Add	557.85	
			For Class 55 Rating, Add	834.05	
			For Class 56 Rating, Add	1,106.59	
40 05 19 00-0143	EA	10"	Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,558.98	508.78
			For Class 52 Rating, Deduct	-416.69	
			For Class 54 Rating, Add	577.47	
			For Class 55 Rating, Add	863.25	
			For Class 56 Rating, Add	1,145.24	
40 05 19 00-0144	EA	10"	Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,695.18	512.66
			For Class 52 Rating, Deduct	-431.03	
			For Class 54 Rating, Add	597.08	
			For Class 55 Rating, Add	892.45	
			For Class 56 Rating, Add	1,183.90	
40 05 19 00-0145	EA	10"	Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,831.38	516.55
			For Class 52 Rating, Deduct	-445.36	
			For Class 54 Rating, Add	616.70	
			For Class 55 Rating, Add	921.65	
			For Class 56 Rating, Add	1,222.55	
40 05 19 00-0146	EA	10"	Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,967.58	520.43
			For Class 52 Rating, Deduct	-459.70	
			For Class 54 Rating, Add	636.32	
			For Class 55 Rating, Add	950.85	
			For Class 56 Rating, Add	1,261.21	
40 05 19 00-0147	EA	10"	Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,103.78	524.32
			For Class 52 Rating, Deduct	-474.03	
			For Class 54 Rating, Add	655.94	
			For Class 55 Rating, Add	980.05	
			For Class 56 Rating, Add	1,299.86	
40 05 19 00-0148	EA	10"	Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,239.98	528.20
			For Class 52 Rating, Deduct	-488.36	
			For Class 54 Rating, Add	675.56	
			For Class 55 Rating, Add	1,009.26	
			For Class 56 Rating, Add	1,338.52	
40 05 19 00-0149	EA	10"	Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,376.18	532.09
			For Class 52 Rating, Deduct	-502.70	
			For Class 54 Rating, Add	695.17	
			For Class 55 Rating, Add	1,038.46	
			For Class 56 Rating, Add	1,377.17	
40 05 19 00-0150	EA	10"	Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,512.38	535.97
			For Class 52 Rating, Deduct	-517.03	
			For Class 54 Rating, Add	714.79	
			For Class 55 Rating, Add	1,067.66	
			For Class 56 Rating, Add	1,415.83	
40 05 19 00-0151	EA	10"	Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,648.57	539.86
			For Class 52 Rating, Deduct	-531.37	
			For Class 54 Rating, Add	734.41	
			For Class 55 Rating, Add	1,096.86	
			For Class 56 Rating, Add	1,454.48	
40 05 19 00-0152	EA	10"	Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,784.77	543.73
			For Class 52 Rating, Deduct	-545.70	
			For Class 54 Rating, Add	754.03	
			For Class 55 Rating, Add	1,126.06	
			For Class 56 Rating, Add	1,493.13	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0153	EA	10" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,920.97	547.62
		For Class 52 Rating, Deduct	-560.04	
		For Class 54 Rating, Add	773.64	
		For Class 55 Rating, Add	1,155.26	
		For Class 56 Rating, Add	1,531.79	
40 05 19 00-0154	EA	10" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,057.17	551.50
		For Class 52 Rating, Deduct	-574.37	
		For Class 54 Rating, Add	793.26	
		For Class 55 Rating, Add	1,184.46	
		For Class 56 Rating, Add	1,570.44	
40 05 19 00-0155	EA	10" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,191.12	555.39
		For Class 52 Rating, Deduct	-588.46	
		For Class 54 Rating, Add	812.54	
		For Class 55 Rating, Add	1,213.16	
		For Class 56 Rating, Add	1,608.43	
40 05 19 00-0156	EA	10" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,329.57	559.27
		For Class 52 Rating, Deduct	-603.04	
		For Class 54 Rating, Add	832.50	
		For Class 55 Rating, Add	1,242.87	
		For Class 56 Rating, Add	1,647.75	
40 05 19 00-0157	EA	10" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,465.77	563.16
		For Class 52 Rating, Deduct	-617.38	
		For Class 54 Rating, Add	852.12	
		For Class 55 Rating, Add	1,272.07	
		For Class 56 Rating, Add	1,686.41	
40 05 19 00-0158	EA	10" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,601.97	567.04
		For Class 52 Rating, Deduct	-631.71	
		For Class 54 Rating, Add	871.73	
		For Class 55 Rating, Add	1,301.27	
		For Class 56 Rating, Add	1,725.06	
40 05 19 00-0159	EA	10" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,738.17	570.93
		For Class 52 Rating, Deduct	-646.05	
		For Class 54 Rating, Add	891.35	
		For Class 55 Rating, Add	1,330.47	
		For Class 56 Rating, Add	1,763.72	
40 05 19 00-0160	EA	10" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,874.37	574.80
		For Class 52 Rating, Deduct	-660.38	
		For Class 54 Rating, Add	910.97	
		For Class 55 Rating, Add	1,359.67	
		For Class 56 Rating, Add	1,802.37	
40 05 19 00-0161	EA	10" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,010.56	578.69
		For Class 52 Rating, Deduct	-674.71	
		For Class 54 Rating, Add	930.59	
		For Class 55 Rating, Add	1,388.87	
		For Class 56 Rating, Add	1,841.02	
40 05 19 00-0162	EA	10" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,146.77	582.57
		For Class 52 Rating, Deduct	-689.05	
		For Class 54 Rating, Add	950.20	
		For Class 55 Rating, Add	1,418.07	
		For Class 56 Rating, Add	1,879.68	
40 05 19 00-0163		12" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0164	EA	12" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,580.84	543.73
		For Class 52 Rating, Deduct	-193.27	
		For Class 54 Rating, Add	273.44	
		For Class 55 Rating, Add	411.58	
		For Class 56 Rating, Add	547.97	
40 05 19 00-0165	EA	12" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,750.73	547.62
		For Class 52 Rating, Deduct	-211.31	
		For Class 54 Rating, Add	298.11	
		For Class 55 Rating, Add	448.30	
		For Class 56 Rating, Add	596.57	
40 05 19 00-0166	EA	12" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,920.64	551.50
		For Class 52 Rating, Deduct	-229.35	
		For Class 54 Rating, Add	322.78	
		For Class 55 Rating, Add	485.02	
		For Class 56 Rating, Add	645.17	
40 05 19 00-0167	EA	12" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,090.54	555.39
		For Class 52 Rating, Deduct	-247.40	
		For Class 54 Rating, Add	347.46	
		For Class 55 Rating, Add	521.73	
		For Class 56 Rating, Add	693.76	
40 05 19 00-0168	EA	12" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,260.44	559.27
		For Class 52 Rating, Deduct	-265.44	
		For Class 54 Rating, Add	372.13	
		For Class 55 Rating, Add	558.45	
		For Class 56 Rating, Add	742.36	
40 05 19 00-0169	EA	12" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,430.34	563.16
		For Class 52 Rating, Deduct	-283.48	
		For Class 54 Rating, Add	396.80	
		For Class 55 Rating, Add	595.17	
		For Class 56 Rating, Add	790.96	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0170	EA	12" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,600.25	567.04
		For Class 52 Rating, Deduct		-301.52	
		For Class 54 Rating, Add		421.47	
		For Class 55 Rating, Add		631.88	
		For Class 56 Rating, Add		839.55	
40 05 19 00-0171	EA	12" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,770.14	570.93
		For Class 52 Rating, Deduct		-319.66	
		For Class 54 Rating, Add		446.15	
		For Class 55 Rating, Add		668.60	
		For Class 56 Rating, Add		888.15	
40 05 19 00-0172	EA	12" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,940.05	574.80
		For Class 52 Rating, Deduct		-337.60	
		For Class 54 Rating, Add		470.82	
		For Class 55 Rating, Add		705.32	
		For Class 56 Rating, Add		936.75	
40 05 19 00-0173	EA	12" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,109.95	578.69
		For Class 52 Rating, Deduct		-355.65	
		For Class 54 Rating, Add		495.49	
		For Class 55 Rating, Add		742.04	
		For Class 56 Rating, Add		985.34	
40 05 19 00-0174	EA	12" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,279.85	582.57
		For Class 52 Rating, Deduct		-373.69	
		For Class 54 Rating, Add		520.17	
		For Class 55 Rating, Add		778.75	
		For Class 56 Rating, Add		1,033.94	
40 05 19 00-0175	EA	12" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,449.75	586.46
		For Class 52 Rating, Deduct		-391.73	
		For Class 54 Rating, Add		544.84	
		For Class 55 Rating, Add		815.47	
		For Class 56 Rating, Add		1,082.54	
40 05 19 00-0176	EA	12" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,619.64	590.34
		For Class 52 Rating, Deduct		-409.77	
		For Class 54 Rating, Add		569.51	
		For Class 55 Rating, Add		852.18	
		For Class 56 Rating, Add		1,131.13	
40 05 19 00-0177	EA	12" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,789.55	594.23
		For Class 52 Rating, Deduct		-427.81	
		For Class 54 Rating, Add		594.19	
		For Class 55 Rating, Add		888.90	
		For Class 56 Rating, Add		1,179.73	
40 05 19 00-0178	EA	12" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,959.45	598.11
		For Class 52 Rating, Deduct		-445.86	
		For Class 54 Rating, Add		618.86	
		For Class 55 Rating, Add		925.62	
		For Class 56 Rating, Add		1,228.33	
40 05 19 00-0179	EA	12" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,129.35	602.00
		For Class 52 Rating, Deduct		-463.90	
		For Class 54 Rating, Add		643.53	
		For Class 55 Rating, Add		962.34	
		For Class 56 Rating, Add		1,276.92	
40 05 19 00-0180	EA	12" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,299.25	605.88
		For Class 52 Rating, Deduct		-481.94	
		For Class 54 Rating, Add		668.20	
		For Class 55 Rating, Add		999.05	
		For Class 56 Rating, Add		1,325.52	
40 05 19 00-0181	EA	12" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,469.16	609.76
		For Class 52 Rating, Deduct		-499.98	
		For Class 54 Rating, Add		692.88	
		For Class 55 Rating, Add		1,035.77	
		For Class 56 Rating, Add		1,374.12	
40 05 19 00-0182	EA	12" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,639.05	613.64
		For Class 52 Rating, Deduct		-518.02	
		For Class 54 Rating, Add		717.55	
		For Class 55 Rating, Add		1,072.49	
		For Class 56 Rating, Add		1,422.71	
40 05 19 00-0183	EA	12" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,808.96	617.53
		For Class 52 Rating, Deduct		-536.06	
		For Class 54 Rating, Add		742.22	
		For Class 55 Rating, Add		1,109.20	
		For Class 56 Rating, Add		1,471.31	
40 05 19 00-0184	EA	12" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	5,978.86	621.41
		For Class 52 Rating, Deduct		-554.11	
		For Class 54 Rating, Add		766.90	
		For Class 55 Rating, Add		1,145.92	
		For Class 56 Rating, Add		1,519.91	
40 05 19 00-0185	EA	12" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	6,148.76	625.30
		For Class 52 Rating, Deduct		-572.15	
		For Class 54 Rating, Add		791.57	
		For Class 55 Rating, Add		1,182.64	
		For Class 56 Rating, Add		1,568.50	
40 05 19 00-0186	EA	12" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	6,318.66	629.18
		For Class 52 Rating, Deduct		-590.19	
		For Class 54 Rating, Add		816.24	
		For Class 55 Rating, Add		1,219.35	
		For Class 56 Rating, Add		1,617.10	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0187	EA	12" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,488.55	633.07
		For Class 52 Rating, Deduct	-608.23	
		For Class 54 Rating, Add	840.92	
		For Class 55 Rating, Add	1,256.07	
		For Class 56 Rating, Add	1,665.69	
40 05 19 00-0188	EA	12" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,658.46	636.95
		For Class 52 Rating, Deduct	-626.27	
		For Class 54 Rating, Add	865.59	
		For Class 55 Rating, Add	1,292.79	
		For Class 56 Rating, Add	1,714.29	
40 05 19 00-0189	EA	12" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,826.36	640.83
		For Class 52 Rating, Deduct	-644.32	
		For Class 54 Rating, Add	890.26	
		For Class 55 Rating, Add	1,329.51	
		For Class 56 Rating, Add	1,762.89	
40 05 19 00-0190	EA	12" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,998.26	644.71
		For Class 52 Rating, Deduct	-662.36	
		For Class 54 Rating, Add	914.94	
		For Class 55 Rating, Add	1,366.22	
		For Class 56 Rating, Add	1,811.49	
40 05 19 00-0191	EA	12" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,168.16	648.60
		For Class 52 Rating, Deduct	-680.40	
		For Class 54 Rating, Add	939.61	
		For Class 55 Rating, Add	1,402.94	
		For Class 56 Rating, Add	1,860.08	
40 05 19 00-0192	EA	12" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,338.07	652.48
		For Class 52 Rating, Deduct	-698.44	
		For Class 54 Rating, Add	964.28	
		For Class 55 Rating, Add	1,439.66	
		For Class 56 Rating, Add	1,908.68	
40 05 19 00-0193	EA	12" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,507.96	656.37
		For Class 52 Rating, Deduct	-716.48	
		For Class 54 Rating, Add	988.95	
		For Class 55 Rating, Add	1,476.37	
		For Class 56 Rating, Add	1,957.28	
40 05 19 00-0194	EA	12" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,677.87	660.25
		For Class 52 Rating, Deduct	-734.52	
		For Class 54 Rating, Add	1,013.63	
		For Class 55 Rating, Add	1,513.09	
		For Class 56 Rating, Add	2,005.87	
40 05 19 00-0195	EA	12" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,847.77	664.14
		For Class 52 Rating, Deduct	-752.57	
		For Class 54 Rating, Add	1,038.30	
		For Class 55 Rating, Add	1,549.81	
		For Class 56 Rating, Add	2,054.47	
40 05 19 00-0196	EA	12" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,017.67	668.02
		For Class 52 Rating, Deduct	-770.61	
		For Class 54 Rating, Add	1,062.97	
		For Class 55 Rating, Add	1,586.52	
		For Class 56 Rating, Add	2,103.07	
40 05 19 00-0197	EA	12" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,187.57	671.90
		For Class 52 Rating, Deduct	-788.65	
		For Class 54 Rating, Add	1,087.65	
		For Class 55 Rating, Add	1,623.24	
		For Class 56 Rating, Add	2,151.66	
40 05 19 00-0198	EA	12" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,357.47	675.78
		For Class 52 Rating, Deduct	-806.69	
		For Class 54 Rating, Add	1,112.32	
		For Class 55 Rating, Add	1,659.96	
		For Class 56 Rating, Add	2,200.26	
40 05 19 00-0199	EA	12" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,527.37	679.67
		For Class 52 Rating, Deduct	-824.73	
		For Class 54 Rating, Add	1,136.99	
		For Class 55 Rating, Add	1,696.67	
		For Class 56 Rating, Add	2,248.86	
40 05 19 00-0200	EA	12" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,697.27	683.55
		For Class 52 Rating, Deduct	-842.77	
		For Class 54 Rating, Add	1,161.67	
		For Class 55 Rating, Add	1,733.39	
		For Class 56 Rating, Add	2,297.45	
40 05 19 00-0201	EA	12" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,867.17	687.44
		For Class 52 Rating, Deduct	-860.82	
		For Class 54 Rating, Add	1,186.34	
		For Class 55 Rating, Add	1,770.11	
		For Class 56 Rating, Add	2,346.05	
40 05 19 00-0202	EA	12" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,037.07	691.32
		For Class 52 Rating, Deduct	-878.86	
		For Class 54 Rating, Add	1,211.01	
		For Class 55 Rating, Add	1,806.82	
		For Class 56 Rating, Add	2,394.65	

40 05 19 00-0203 14" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat,
Ductile Iron Pipe (40 05 19 00-0002)



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0204	EA		14" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,448.86	652.48
			For Class 52 Rating, Deduct	-270.63	
			For Class 54 Rating, Add	380.90	
			For Class 55 Rating, Add	572.36	
			For Class 56 Rating, Add	761.36	
40 05 19 00-0205	EA		14" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,654.70	656.37
			For Class 52 Rating, Deduct	-292.62	
			For Class 54 Rating, Add	410.97	
			For Class 55 Rating, Add	617.09	
			For Class 56 Rating, Add	820.56	
40 05 19 00-0206	EA		14" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,860.56	660.25
			For Class 52 Rating, Deduct	-314.62	
			For Class 54 Rating, Add	441.03	
			For Class 55 Rating, Add	661.83	
			For Class 56 Rating, Add	879.77	
40 05 19 00-0207	EA		14" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,066.40	664.14
			For Class 52 Rating, Deduct	-336.62	
			For Class 54 Rating, Add	471.10	
			For Class 55 Rating, Add	706.56	
			For Class 56 Rating, Add	938.97	
40 05 19 00-0208	EA		14" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,272.26	668.02
			For Class 52 Rating, Deduct	-358.61	
			For Class 54 Rating, Add	501.16	
			For Class 55 Rating, Add	751.30	
			For Class 56 Rating, Add	998.17	
40 05 19 00-0209	EA		14" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,478.10	671.90
			For Class 52 Rating, Deduct	-380.61	
			For Class 54 Rating, Add	531.23	
			For Class 55 Rating, Add	796.03	
			For Class 56 Rating, Add	1,057.37	
40 05 19 00-0210	EA		14" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,683.95	675.78
			For Class 52 Rating, Deduct	-402.60	
			For Class 54 Rating, Add	561.29	
			For Class 55 Rating, Add	840.76	
			For Class 56 Rating, Add	1,116.57	
40 05 19 00-0211	EA		14" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,889.80	679.67
			For Class 52 Rating, Deduct	-424.60	
			For Class 54 Rating, Add	591.36	
			For Class 55 Rating, Add	885.50	
			For Class 56 Rating, Add	1,175.77	
40 05 19 00-0212	EA		14" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,095.65	683.55
			For Class 52 Rating, Deduct	-446.60	
			For Class 54 Rating, Add	621.42	
			For Class 55 Rating, Add	930.23	
			For Class 56 Rating, Add	1,234.98	
40 05 19 00-0213	EA		14" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,301.50	687.44
			For Class 52 Rating, Deduct	-468.59	
			For Class 54 Rating, Add	651.49	
			For Class 55 Rating, Add	974.96	
			For Class 56 Rating, Add	1,294.18	
40 05 19 00-0214	EA		14" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,507.35	691.32
			For Class 52 Rating, Deduct	-490.59	
			For Class 54 Rating, Add	681.55	
			For Class 55 Rating, Add	1,019.70	
			For Class 56 Rating, Add	1,353.38	
40 05 19 00-0215	EA		14" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,713.20	695.21
			For Class 52 Rating, Deduct	-512.58	
			For Class 54 Rating, Add	711.62	
			For Class 55 Rating, Add	1,064.43	
			For Class 56 Rating, Add	1,412.58	
40 05 19 00-0216	EA		14" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,919.05	699.09
			For Class 52 Rating, Deduct	-534.58	
			For Class 54 Rating, Add	741.69	
			For Class 55 Rating, Add	1,109.16	
			For Class 56 Rating, Add	1,471.78	
40 05 19 00-0217	EA		14" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,124.90	702.98
			For Class 52 Rating, Deduct	-556.58	
			For Class 54 Rating, Add	771.75	
			For Class 55 Rating, Add	1,153.90	
			For Class 56 Rating, Add	1,530.98	
40 05 19 00-0218	EA		14" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,330.75	706.85
			For Class 52 Rating, Deduct	-578.57	
			For Class 54 Rating, Add	801.82	
			For Class 55 Rating, Add	1,198.63	
			For Class 56 Rating, Add	1,590.18	
40 05 19 00-0219	EA		14" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,536.60	710.74
			For Class 52 Rating, Deduct	-600.57	
			For Class 54 Rating, Add	831.88	
			For Class 55 Rating, Add	1,243.36	
			For Class 56 Rating, Add	1,649.39	
40 05 19 00-0220	EA		14" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,742.45	714.62
			For Class 52 Rating, Deduct	-622.57	
			For Class 54 Rating, Add	861.95	
			For Class 55 Rating, Add	1,288.10	
			For Class 56 Rating, Add	1,708.59	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0221	EA	14" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,948.30	718.51	
		For Class 52 Rating, Deduct	-644.56		
		For Class 54 Rating, Add	892.01		
		For Class 55 Rating, Add	1,332.83		
		For Class 56 Rating, Add	1,767.79		
40 05 19 00-0222	EA	14" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,154.15	722.39	
		For Class 52 Rating, Deduct	-666.56		
		For Class 54 Rating, Add	922.08		
		For Class 55 Rating, Add	1,377.56		
		For Class 56 Rating, Add	1,826.99		
40 05 19 00-0223	EA	14" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,359.99	726.28	
		For Class 52 Rating, Deduct	-688.55		
		For Class 54 Rating, Add	952.14		
		For Class 55 Rating, Add	1,422.30		
		For Class 56 Rating, Add	1,886.19		
40 05 19 00-0224	EA	14" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,665.85	730.16	
		For Class 52 Rating, Deduct	-710.55		
		For Class 54 Rating, Add	982.21		
		For Class 55 Rating, Add	1,467.03		
		For Class 56 Rating, Add	1,945.39		
40 05 19 00-0225	EA	14" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,771.70	734.05	
		For Class 52 Rating, Deduct	-732.55		
		For Class 54 Rating, Add	1,012.27		
		For Class 55 Rating, Add	1,511.77		
		For Class 56 Rating, Add	2,004.60		
40 05 19 00-0226	EA	14" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,977.55	737.92	
		For Class 52 Rating, Deduct	-754.54		
		For Class 54 Rating, Add	1,042.34		
		For Class 55 Rating, Add	1,556.50		
		For Class 56 Rating, Add	2,063.80		
40 05 19 00-0227	EA	14" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,183.40	741.81	
		For Class 52 Rating, Deduct	-776.54		
		For Class 54 Rating, Add	1,072.40		
		For Class 55 Rating, Add	1,601.23		
		For Class 56 Rating, Add	2,123.00		
40 05 19 00-0228	EA	14" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,389.25	745.69	
		For Class 52 Rating, Deduct	-798.54		
		For Class 54 Rating, Add	1,102.47		
		For Class 55 Rating, Add	1,645.96		
		For Class 56 Rating, Add	2,182.20		
40 05 19 00-0229	EA	14" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,595.10	749.58	
		For Class 52 Rating, Deduct	-820.53		
		For Class 54 Rating, Add	1,132.54		
		For Class 55 Rating, Add	1,690.70		
		For Class 56 Rating, Add	2,241.40		
40 05 19 00-0230	EA	14" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,800.95	753.46	
		For Class 52 Rating, Deduct	-842.53		
		For Class 54 Rating, Add	1,162.60		
		For Class 55 Rating, Add	1,735.43		
		For Class 56 Rating, Add	2,300.60		
40 05 19 00-0231	EA	14" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,006.80	757.35	
		For Class 52 Rating, Deduct	-864.52		
		For Class 54 Rating, Add	1,192.67		
		For Class 55 Rating, Add	1,780.17		
		For Class 56 Rating, Add	2,359.81		
40 05 19 00-0232	EA	14" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,212.65	761.23	
		For Class 52 Rating, Deduct	-886.52		
		For Class 54 Rating, Add	1,222.73		
		For Class 55 Rating, Add	1,824.90		
		For Class 56 Rating, Add	2,419.01		
40 05 19 00-0233	EA	14" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,418.50	765.12	
		For Class 52 Rating, Deduct	-908.52		
		For Class 54 Rating, Add	1,252.80		
		For Class 55 Rating, Add	1,869.63		
		For Class 56 Rating, Add	2,478.21		
40 05 19 00-0234	EA	14" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,624.34	769.00	
		For Class 52 Rating, Deduct	-930.51		
		For Class 54 Rating, Add	1,282.86		
		For Class 55 Rating, Add	1,914.36		
		For Class 56 Rating, Add	2,537.41		
40 05 19 00-0235	EA	14" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,830.20	772.88	
		For Class 52 Rating, Deduct	-952.51		
		For Class 54 Rating, Add	1,312.93		
		For Class 55 Rating, Add	1,959.10		
		For Class 56 Rating, Add	2,596.61		
40 05 19 00-0236	EA	14" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,036.04	776.76	
		For Class 52 Rating, Deduct	-974.50		
		For Class 54 Rating, Add	1,342.99		
		For Class 55 Rating, Add	2,003.83		
		For Class 56 Rating, Add	2,655.81		
40 05 19 00-0237	EA	14" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,241.90	780.65	
		For Class 52 Rating, Deduct	-996.50		
		For Class 54 Rating, Add	1,373.06		
		For Class 55 Rating, Add	2,048.57		
		For Class 56 Rating, Add	2,715.02		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0238	EA	14"	Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,447.74	784.53
			For Class 52 Rating, Deduct	-1,018.50	
			For Class 54 Rating, Add	1,403.12	
			For Class 55 Rating, Add	2,093.30	
			For Class 56 Rating, Add	2,774.22	
40 05 19 00-0239	EA	14"	Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,653.60	788.42
			For Class 52 Rating, Deduct	-1,040.49	
			For Class 54 Rating, Add	1,433.19	
			For Class 55 Rating, Add	2,138.03	
			For Class 56 Rating, Add	2,833.42	
40 05 19 00-0240	EA	14"	Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,859.44	792.30
			For Class 52 Rating, Deduct	-1,062.49	
			For Class 54 Rating, Add	1,463.25	
			For Class 55 Rating, Add	2,182.77	
			For Class 56 Rating, Add	2,892.62	
40 05 19 00-0241	EA	14"	Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,053.30	796.19
			For Class 52 Rating, Deduct	-1,084.49	
			For Class 54 Rating, Add	1,493.32	
			For Class 55 Rating, Add	2,227.50	
			For Class 56 Rating, Add	2,951.82	
40 05 19 00-0242			16" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0243	EA	16"	Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,046.19	745.69
			For Class 52 Rating, Deduct	-320.80	
			For Class 54 Rating, Add	451.01	
			For Class 55 Rating, Add	677.46	
			For Class 56 Rating, Add	901.00	
40 05 19 00-0244	EA	16"	Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,285.73	749.58
			For Class 52 Rating, Deduct	-346.50	
			For Class 54 Rating, Add	486.13	
			For Class 55 Rating, Add	729.71	
			For Class 56 Rating, Add	970.14	
40 05 19 00-0245	EA	16"	Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,525.29	753.46
			For Class 52 Rating, Deduct	-372.20	
			For Class 54 Rating, Add	521.25	
			For Class 55 Rating, Add	781.96	
			For Class 56 Rating, Add	1,039.28	
40 05 19 00-0246	EA	16"	Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,764.84	757.35
			For Class 52 Rating, Deduct	-397.91	
			For Class 54 Rating, Add	556.37	
			For Class 55 Rating, Add	834.21	
			For Class 56 Rating, Add	1,108.43	
40 05 19 00-0247	EA	16"	Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,004.40	761.23
			For Class 52 Rating, Deduct	-423.61	
			For Class 54 Rating, Add	591.49	
			For Class 55 Rating, Add	886.46	
			For Class 56 Rating, Add	1,177.57	
40 05 19 00-0248	EA	16"	Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,243.94	765.12
			For Class 52 Rating, Deduct	-449.31	
			For Class 54 Rating, Add	626.61	
			For Class 55 Rating, Add	938.71	
			For Class 56 Rating, Add	1,246.71	
40 05 19 00-0249	EA	16"	Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,483.49	769.00
			For Class 52 Rating, Deduct	-475.02	
			For Class 54 Rating, Add	661.73	
			For Class 55 Rating, Add	990.96	
			For Class 56 Rating, Add	1,315.86	
40 05 19 00-0250	EA	16"	Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,723.05	772.88
			For Class 52 Rating, Deduct	-500.72	
			For Class 54 Rating, Add	696.86	
			For Class 55 Rating, Add	1,043.21	
			For Class 56 Rating, Add	1,385.00	
40 05 19 00-0251	EA	16"	Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,962.59	776.76
			For Class 52 Rating, Deduct	-526.42	
			For Class 54 Rating, Add	731.97	
			For Class 55 Rating, Add	1,095.45	
			For Class 56 Rating, Add	1,454.14	
40 05 19 00-0252	EA	16"	Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,202.15	780.65
			For Class 52 Rating, Deduct	-552.13	
			For Class 54 Rating, Add	767.10	
			For Class 55 Rating, Add	1,147.70	
			For Class 56 Rating, Add	1,523.29	
40 05 19 00-0253	EA	16"	Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,441.70	784.53
			For Class 52 Rating, Deduct	-577.83	
			For Class 54 Rating, Add	802.22	
			For Class 55 Rating, Add	1,199.95	
			For Class 56 Rating, Add	1,592.43	
40 05 19 00-0254	EA	16"	Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,681.26	788.42
			For Class 52 Rating, Deduct	-603.54	
			For Class 54 Rating, Add	837.34	
			For Class 55 Rating, Add	1,252.20	
			For Class 56 Rating, Add	1,661.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0255	EA		16" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,920.80	792.30
			For Class 52 Rating, Deduct	-629.24	
			For Class 54 Rating, Add	872.46	
			For Class 55 Rating, Add	1,304.45	
			For Class 56 Rating, Add	1,730.72	
40 05 19 00-0256	EA		16" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,160.36	796.19
			For Class 52 Rating, Deduct	-654.94	
			For Class 54 Rating, Add	907.58	
			For Class 55 Rating, Add	1,356.70	
			For Class 56 Rating, Add	1,799.86	
40 05 19 00-0257	EA		16" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,399.91	800.07
			For Class 52 Rating, Deduct	-680.65	
			For Class 54 Rating, Add	942.70	
			For Class 55 Rating, Add	1,408.95	
			For Class 56 Rating, Add	1,869.01	
40 05 19 00-0258	EA		16" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,639.46	803.95
			For Class 52 Rating, Deduct	-706.35	
			For Class 54 Rating, Add	977.82	
			For Class 55 Rating, Add	1,461.20	
			For Class 56 Rating, Add	1,938.15	
40 05 19 00-0259	EA		16" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,879.01	807.83
			For Class 52 Rating, Deduct	-732.05	
			For Class 54 Rating, Add	1,012.94	
			For Class 55 Rating, Add	1,513.45	
			For Class 56 Rating, Add	2,007.29	
40 05 19 00-0260	EA		16" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,118.56	811.72
			For Class 52 Rating, Deduct	-757.76	
			For Class 54 Rating, Add	1,048.06	
			For Class 55 Rating, Add	1,565.69	
			For Class 56 Rating, Add	2,076.44	
40 05 19 00-0261	EA		16" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,358.12	815.60
			For Class 52 Rating, Deduct	-783.46	
			For Class 54 Rating, Add	1,083.18	
			For Class 55 Rating, Add	1,617.94	
			For Class 56 Rating, Add	2,145.58	
40 05 19 00-0262	EA		16" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,597.66	819.49
			For Class 52 Rating, Deduct	-809.16	
			For Class 54 Rating, Add	1,118.30	
			For Class 55 Rating, Add	1,670.19	
			For Class 56 Rating, Add	2,214.72	
40 05 19 00-0263	EA		16" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,837.22	823.37
			For Class 52 Rating, Deduct	-834.87	
			For Class 54 Rating, Add	1,153.42	
			For Class 55 Rating, Add	1,722.44	
			For Class 56 Rating, Add	2,283.87	
40 05 19 00-0264	EA		16" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,076.77	827.26
			For Class 52 Rating, Deduct	-860.57	
			For Class 54 Rating, Add	1,188.54	
			For Class 55 Rating, Add	1,774.69	
			For Class 56 Rating, Add	2,353.01	
40 05 19 00-0265	EA		16" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,316.32	831.14
			For Class 52 Rating, Deduct	-886.27	
			For Class 54 Rating, Add	1,223.66	
			For Class 55 Rating, Add	1,826.94	
			For Class 56 Rating, Add	2,422.16	
40 05 19 00-0266	EA		16" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,555.87	835.03
			For Class 52 Rating, Deduct	-911.98	
			For Class 54 Rating, Add	1,258.79	
			For Class 55 Rating, Add	1,879.19	
			For Class 56 Rating, Add	2,491.30	
40 05 19 00-0267	EA		16" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,795.43	838.90
			For Class 52 Rating, Deduct	-937.68	
			For Class 54 Rating, Add	1,293.91	
			For Class 55 Rating, Add	1,931.44	
			For Class 56 Rating, Add	2,560.44	
40 05 19 00-0268	EA		16" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,034.98	842.79
			For Class 52 Rating, Deduct	-963.38	
			For Class 54 Rating, Add	1,329.03	
			For Class 55 Rating, Add	1,983.69	
			For Class 56 Rating, Add	2,629.59	
40 05 19 00-0269	EA		16" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,274.53	846.67
			For Class 52 Rating, Deduct	-989.09	
			For Class 54 Rating, Add	1,364.15	
			For Class 55 Rating, Add	2,035.94	
			For Class 56 Rating, Add	2,698.73	
40 05 19 00-0270	EA		16" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,514.08	850.56
			For Class 52 Rating, Deduct	-1,014.79	
			For Class 54 Rating, Add	1,399.27	
			For Class 55 Rating, Add	2,088.18	
			For Class 56 Rating, Add	2,767.88	
40 05 19 00-0271	EA		16" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,753.63	854.44
			For Class 52 Rating, Deduct	-1,040.49	
			For Class 54 Rating, Add	1,434.39	
			For Class 55 Rating, Add	2,140.43	
			For Class 56 Rating, Add	2,837.02	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0272	EA	16"	Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,993.19	858.33
			For Class 52 Rating, Deduct	-1,066.20	
			For Class 54 Rating, Add	1,469.51	
			For Class 55 Rating, Add	2,192.68	
			For Class 56 Rating, Add	2,906.16	
40 05 19 00-0273	EA	16"	Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,232.73	862.21
			For Class 52 Rating, Deduct	-1,091.90	
			For Class 54 Rating, Add	1,604.63	
			For Class 55 Rating, Add	2,244.93	
			For Class 56 Rating, Add	2,975.31	
40 05 19 00-0274	EA	16"	Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,472.29	866.10
			For Class 52 Rating, Deduct	-1,117.60	
			For Class 54 Rating, Add	1,539.75	
			For Class 55 Rating, Add	2,297.18	
			For Class 56 Rating, Add	3,044.45	
40 05 19 00-0275	EA	16"	Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,711.84	869.97
			For Class 52 Rating, Deduct	-1,143.31	
			For Class 54 Rating, Add	1,574.87	
			For Class 55 Rating, Add	2,349.43	
			For Class 56 Rating, Add	3,113.59	
40 05 19 00-0276	EA	16"	Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,951.39	873.86
			For Class 52 Rating, Deduct	-1,169.01	
			For Class 54 Rating, Add	1,609.99	
			For Class 55 Rating, Add	2,401.68	
			For Class 56 Rating, Add	3,182.74	
40 05 19 00-0277	EA	16"	Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,190.94	877.74
			For Class 52 Rating, Deduct	-1,194.71	
			For Class 54 Rating, Add	1,645.11	
			For Class 55 Rating, Add	2,453.93	
			For Class 56 Rating, Add	3,251.88	
40 05 19 00-0278	EA	16"	Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,430.50	881.63
			For Class 52 Rating, Deduct	-1,220.42	
			For Class 54 Rating, Add	1,680.23	
			For Class 55 Rating, Add	2,506.18	
			For Class 56 Rating, Add	3,321.03	
40 05 19 00-0279	EA	16"	Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,670.05	885.51
			For Class 52 Rating, Deduct	-1,246.12	
			For Class 54 Rating, Add	1,715.36	
			For Class 55 Rating, Add	2,558.43	
			For Class 56 Rating, Add	3,390.17	
40 05 19 00-0280	EA	16"	Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,909.60	889.40
			For Class 52 Rating, Deduct	-1,271.82	
			For Class 54 Rating, Add	1,750.48	
			For Class 55 Rating, Add	2,610.67	
			For Class 56 Rating, Add	3,459.31	
40 05 19 00-0281			18" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0282	EA	18"	Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,711.02	840.46
			For Class 52 Rating, Deduct	-378.14	
			For Class 54 Rating, Add	530.92	
			For Class 55 Rating, Add	797.15	
			For Class 56 Rating, Add	1,059.94	
40 05 19 00-0283	EA	18"	Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,986.52	844.34
			For Class 52 Rating, Deduct	-407.79	
			For Class 54 Rating, Add	571.43	
			For Class 55 Rating, Add	857.41	
			For Class 56 Rating, Add	1,139.68	
40 05 19 00-0284	EA	18"	Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,262.03	848.23
			For Class 52 Rating, Deduct	-437.45	
			For Class 54 Rating, Add	611.95	
			For Class 55 Rating, Add	917.68	
			For Class 56 Rating, Add	1,219.43	
40 05 19 00-0285	EA	18"	Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,537.52	852.11
			For Class 52 Rating, Deduct	-467.11	
			For Class 54 Rating, Add	652.46	
			For Class 55 Rating, Add	977.94	
			For Class 56 Rating, Add	1,299.18	
40 05 19 00-0286	EA	18"	Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,813.03	856.00
			For Class 52 Rating, Deduct	-496.77	
			For Class 54 Rating, Add	692.97	
			For Class 55 Rating, Add	1,038.21	
			For Class 56 Rating, Add	1,378.93	
40 05 19 00-0287	EA	18"	Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,088.52	859.88
			For Class 52 Rating, Deduct	-526.42	
			For Class 54 Rating, Add	733.49	
			For Class 55 Rating, Add	1,098.47	
			For Class 56 Rating, Add	1,458.68	
40 05 19 00-0288	EA	18"	Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,364.03	863.76
			For Class 52 Rating, Deduct	-556.08	
			For Class 54 Rating, Add	774.00	
			For Class 55 Rating, Add	1,158.74	
			For Class 56 Rating, Add	1,538.43	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0289	EA	18" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	6,639.53	867.64
		For Class 52 Rating, Deduct	.....	-585.74	
		For Class 54 Rating, Add	.....	814.51	
		For Class 55 Rating, Add	.....	1,219.01	
		For Class 56 Rating, Add	.....	1,618.18	
40 05 19 00-0290	EA	18" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	6,915.03	871.53
		For Class 52 Rating, Deduct	.....	-615.40	
		For Class 54 Rating, Add	.....	855.03	
		For Class 55 Rating, Add	.....	1,279.27	
		For Class 56 Rating, Add	.....	1,697.92	
40 05 19 00-0291	EA	18" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	7,190.53	875.41
		For Class 52 Rating, Deduct	.....	-645.06	
		For Class 54 Rating, Add	.....	895.54	
		For Class 55 Rating, Add	.....	1,339.54	
		For Class 56 Rating, Add	.....	1,777.67	
40 05 19 00-0292	EA	18" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	7,466.03	879.30
		For Class 52 Rating, Deduct	.....	-674.71	
		For Class 54 Rating, Add	.....	936.05	
		For Class 55 Rating, Add	.....	1,399.80	
		For Class 56 Rating, Add	.....	1,857.42	
40 05 19 00-0293	EA	18" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	7,741.53	883.18
		For Class 52 Rating, Deduct	.....	-704.37	
		For Class 54 Rating, Add	.....	976.56	
		For Class 55 Rating, Add	.....	1,460.07	
		For Class 56 Rating, Add	.....	1,937.17	
40 05 19 00-0294	EA	18" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	8,017.04	887.07
		For Class 52 Rating, Deduct	.....	-734.03	
		For Class 54 Rating, Add	.....	1,017.08	
		For Class 55 Rating, Add	.....	1,520.34	
		For Class 56 Rating, Add	.....	2,016.92	
40 05 19 00-0295	EA	18" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	8,292.53	890.95
		For Class 52 Rating, Deduct	.....	-763.69	
		For Class 54 Rating, Add	.....	1,057.59	
		For Class 55 Rating, Add	.....	1,580.60	
		For Class 56 Rating, Add	.....	2,096.67	
40 05 19 00-0296	EA	18" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	8,568.03	894.83
		For Class 52 Rating, Deduct	.....	-793.35	
		For Class 54 Rating, Add	.....	1,098.10	
		For Class 55 Rating, Add	.....	1,640.87	
		For Class 56 Rating, Add	.....	2,176.42	
40 05 19 00-0297	EA	18" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	8,843.53	898.71
		For Class 52 Rating, Deduct	.....	-823.00	
		For Class 54 Rating, Add	.....	1,138.62	
		For Class 55 Rating, Add	.....	1,701.13	
		For Class 56 Rating, Add	.....	2,256.16	
40 05 19 00-0298	EA	18" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	9,119.03	902.60
		For Class 52 Rating, Deduct	.....	-852.66	
		For Class 54 Rating, Add	.....	1,179.13	
		For Class 55 Rating, Add	.....	1,761.40	
		For Class 56 Rating, Add	.....	2,335.91	
40 05 19 00-0299	EA	18" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	9,394.54	906.48
		For Class 52 Rating, Deduct	.....	-882.32	
		For Class 54 Rating, Add	.....	1,219.64	
		For Class 55 Rating, Add	.....	1,821.66	
		For Class 56 Rating, Add	.....	2,415.66	
40 05 19 00-0300	EA	18" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	9,670.03	910.37
		For Class 52 Rating, Deduct	.....	-911.98	
		For Class 54 Rating, Add	.....	1,260.16	
		For Class 55 Rating, Add	.....	1,881.93	
		For Class 56 Rating, Add	.....	2,495.41	
40 05 19 00-0301	EA	18" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	9,945.54	914.25
		For Class 52 Rating, Deduct	.....	-941.63	
		For Class 54 Rating, Add	.....	1,300.67	
		For Class 55 Rating, Add	.....	1,942.19	
		For Class 56 Rating, Add	.....	2,575.16	
40 05 19 00-0302	EA	18" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	10,221.03	918.14
		For Class 52 Rating, Deduct	.....	-971.29	
		For Class 54 Rating, Add	.....	1,341.18	
		For Class 55 Rating, Add	.....	2,002.46	
		For Class 56 Rating, Add	.....	2,654.91	
40 05 19 00-0303	EA	18" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	10,496.54	922.02
		For Class 52 Rating, Deduct	.....	-1,000.95	
		For Class 54 Rating, Add	.....	1,381.70	
		For Class 55 Rating, Add	.....	2,062.73	
		For Class 56 Rating, Add	.....	2,734.66	
40 05 19 00-0304	EA	18" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	10,772.04	925.91
		For Class 52 Rating, Deduct	.....	-1,030.61	
		For Class 54 Rating, Add	.....	1,422.21	
		For Class 55 Rating, Add	.....	2,122.99	
		For Class 56 Rating, Add	.....	2,814.41	
40 05 19 00-0305	EA	18" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	11,047.54	929.78
		For Class 52 Rating, Deduct	.....	-1,060.26	
		For Class 54 Rating, Add	.....	1,462.72	
		For Class 55 Rating, Add	.....	2,183.26	
		For Class 56 Rating, Add	.....	2,894.15	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0306	EA	18" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,323.04	933.67	
		For Class 52 Rating, Deduct	-1,089.92		
		For Class 54 Rating, Add	1,503.23		
		For Class 55 Rating, Add	2,243.52		
		For Class 56 Rating, Add	2,973.90		
40 05 19 00-0307	EA	18" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,598.53	937.55	
		For Class 52 Rating, Deduct	-1,119.58		
		For Class 54 Rating, Add	1,543.75		
		For Class 55 Rating, Add	2,303.79		
		For Class 56 Rating, Add	3,053.65		
40 05 19 00-0308	EA	18" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,874.04	941.44	
		For Class 52 Rating, Deduct	-1,149.24		
		For Class 54 Rating, Add	1,584.26		
		For Class 55 Rating, Add	2,364.05		
		For Class 56 Rating, Add	3,133.40		
40 05 19 00-0309	EA	18" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,149.54	945.32	
		For Class 52 Rating, Deduct	-1,178.90		
		For Class 54 Rating, Add	1,624.77		
		For Class 55 Rating, Add	2,424.32		
		For Class 56 Rating, Add	3,213.15		
40 05 19 00-0310	EA	18" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,425.04	949.21	
		For Class 52 Rating, Deduct	-1,208.55		
		For Class 54 Rating, Add	1,665.29		
		For Class 55 Rating, Add	2,484.58		
		For Class 56 Rating, Add	3,292.90		
40 05 19 00-0311	EA	18" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,700.54	953.09	
		For Class 52 Rating, Deduct	-1,238.21		
		For Class 54 Rating, Add	1,705.80		
		For Class 55 Rating, Add	2,544.85		
		For Class 56 Rating, Add	3,372.65		
40 05 19 00-0312	EA	18" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,976.04	956.98	
		For Class 52 Rating, Deduct	-1,267.87		
		For Class 54 Rating, Add	1,746.31		
		For Class 55 Rating, Add	2,605.11		
		For Class 56 Rating, Add	3,452.39		
40 05 19 00-0313	EA	18" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,251.54	960.85	
		For Class 52 Rating, Deduct	-1,297.53		
		For Class 54 Rating, Add	1,786.83		
		For Class 55 Rating, Add	2,665.38		
		For Class 56 Rating, Add	3,532.14		
40 05 19 00-0314	EA	18" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,527.05	964.74	
		For Class 52 Rating, Deduct	-1,327.19		
		For Class 54 Rating, Add	1,827.34		
		For Class 55 Rating, Add	2,725.65		
		For Class 56 Rating, Add	3,611.89		
40 05 19 00-0315	EA	18" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,802.54	968.62	
		For Class 52 Rating, Deduct	-1,356.84		
		For Class 54 Rating, Add	1,867.85		
		For Class 55 Rating, Add	2,785.91		
		For Class 56 Rating, Add	3,691.64		
40 05 19 00-0316	EA	18" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,078.05	972.51	
		For Class 52 Rating, Deduct	-1,386.50		
		For Class 54 Rating, Add	1,908.36		
		For Class 55 Rating, Add	2,846.18		
		For Class 56 Rating, Add	3,771.39		
40 05 19 00-0317	EA	18" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,353.54	976.39	
		For Class 52 Rating, Deduct	-1,416.16		
		For Class 54 Rating, Add	1,948.88		
		For Class 55 Rating, Add	2,906.44		
		For Class 56 Rating, Add	3,851.13		
40 05 19 00-0318	EA	18" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,629.04	980.28	
		For Class 52 Rating, Deduct	-1,445.82		
		For Class 54 Rating, Add	1,989.39		
		For Class 55 Rating, Add	2,966.71		
		For Class 56 Rating, Add	3,930.88		
40 05 19 00-0319	EA	18" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,904.55	984.16	
		For Class 52 Rating, Deduct	-1,475.47		
		For Class 54 Rating, Add	2,029.90		
		For Class 55 Rating, Add	3,026.98		
		For Class 56 Rating, Add	4,010.63		
40 05 19 00-0320		20" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)			
40 05 19 00-0321	EA	20" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,517.95	959.31	
		For Class 52 Rating, Deduct	-447.09		
		For Class 54 Rating, Add	627.11		
		For Class 55 Rating, Add	941.26		
		For Class 56 Rating, Add	1,251.34		
40 05 19 00-0322	EA	20" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,833.89	963.19	
		For Class 52 Rating, Deduct	-481.20		
		For Class 54 Rating, Add	673.69		
		For Class 55 Rating, Add	1,010.54		
		For Class 56 Rating, Add	1,343.02		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0323	EA	20" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,149.84	967.07
		For Class 52 Rating, Deduct	-515.30	
		For Class 54 Rating, Add	720.27	
		For Class 55 Rating, Add	1,079.83	
		For Class 56 Rating, Add	1,434.70	
40 05 19 00-0324	EA	20" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,465.78	970.95
		For Class 52 Rating, Deduct	-549.41	
		For Class 54 Rating, Add	766.85	
		For Class 55 Rating, Add	1,149.11	
		For Class 56 Rating, Add	1,526.38	
40 05 19 00-0325	EA	20" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,781.72	974.84
		For Class 52 Rating, Deduct	-583.52	
		For Class 54 Rating, Add	813.43	
		For Class 55 Rating, Add	1,218.39	
		For Class 56 Rating, Add	1,618.06	
40 05 19 00-0326	EA	20" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,097.66	978.72
		For Class 52 Rating, Deduct	-617.62	
		For Class 54 Rating, Add	860.01	
		For Class 55 Rating, Add	1,287.68	
		For Class 56 Rating, Add	1,709.74	
40 05 19 00-0327	EA	20" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,413.61	982.61
		For Class 52 Rating, Deduct	-651.73	
		For Class 54 Rating, Add	906.59	
		For Class 55 Rating, Add	1,356.96	
		For Class 56 Rating, Add	1,801.42	
40 05 19 00-0328	EA	20" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,729.55	986.49
		For Class 52 Rating, Deduct	-685.84	
		For Class 54 Rating, Add	953.17	
		For Class 55 Rating, Add	1,426.25	
		For Class 56 Rating, Add	1,893.10	
40 05 19 00-0329	EA	20" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,045.49	990.38
		For Class 52 Rating, Deduct	-719.94	
		For Class 54 Rating, Add	999.75	
		For Class 55 Rating, Add	1,495.53	
		For Class 56 Rating, Add	1,984.77	
40 05 19 00-0330	EA	20" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,361.44	994.26
		For Class 52 Rating, Deduct	-754.05	
		For Class 54 Rating, Add	1,046.33	
		For Class 55 Rating, Add	1,564.82	
		For Class 56 Rating, Add	2,076.45	
40 05 19 00-0331	EA	20" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,677.38	998.15
		For Class 52 Rating, Deduct	-788.16	
		For Class 54 Rating, Add	1,092.91	
		For Class 55 Rating, Add	1,634.10	
		For Class 56 Rating, Add	2,168.13	
40 05 19 00-0332	EA	20" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,993.32	1,002.02
		For Class 52 Rating, Deduct	-822.26	
		For Class 54 Rating, Add	1,139.48	
		For Class 55 Rating, Add	1,703.38	
		For Class 56 Rating, Add	2,259.81	
40 05 19 00-0333	EA	20" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,309.26	1,005.91
		For Class 52 Rating, Deduct	-856.37	
		For Class 54 Rating, Add	1,186.06	
		For Class 55 Rating, Add	1,772.67	
		For Class 56 Rating, Add	2,351.49	
40 05 19 00-0334	EA	20" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,625.21	1,009.79
		For Class 52 Rating, Deduct	-890.47	
		For Class 54 Rating, Add	1,232.64	
		For Class 55 Rating, Add	1,841.95	
		For Class 56 Rating, Add	2,443.17	
40 05 19 00-0335	EA	20" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,941.15	1,013.68
		For Class 52 Rating, Deduct	-924.58	
		For Class 54 Rating, Add	1,279.22	
		For Class 55 Rating, Add	1,911.24	
		For Class 56 Rating, Add	2,534.85	
40 05 19 00-0336	EA	20" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,257.10	1,017.56
		For Class 52 Rating, Deduct	-958.69	
		For Class 54 Rating, Add	1,325.80	
		For Class 55 Rating, Add	1,980.52	
		For Class 56 Rating, Add	2,626.53	
40 05 19 00-0337	EA	20" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,573.04	1,021.45
		For Class 52 Rating, Deduct	-992.79	
		For Class 54 Rating, Add	1,372.38	
		For Class 55 Rating, Add	2,049.81	
		For Class 56 Rating, Add	2,718.21	
40 05 19 00-0338	EA	20" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,888.98	1,025.33
		For Class 52 Rating, Deduct	-1,026.90	
		For Class 54 Rating, Add	1,418.96	
		For Class 55 Rating, Add	2,119.09	
		For Class 56 Rating, Add	2,809.88	
40 05 19 00-0339	EA	20" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,204.92	1,029.22
		For Class 52 Rating, Deduct	-1,061.01	
		For Class 54 Rating, Add	1,465.54	
		For Class 55 Rating, Add	2,188.37	
		For Class 56 Rating, Add	2,901.56	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0340	EA	20"	Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,520.86	1,033.09
			For Class 52 Rating, Deduct	-1,095.11	
			For Class 54 Rating, Add	1,512.12	
			For Class 55 Rating, Add	2,257.66	
			For Class 56 Rating, Add	2,993.24	
40 05 19 00-0341	EA	20"	Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,836.81	1,036.98
			For Class 52 Rating, Deduct	-1,129.22	
			For Class 54 Rating, Add	1,658.70	
			For Class 55 Rating, Add	2,326.94	
			For Class 56 Rating, Add	3,084.92	
40 05 19 00-0342	EA	20"	Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,152.75	1,040.86
			For Class 52 Rating, Deduct	-1,163.33	
			For Class 54 Rating, Add	1,605.28	
			For Class 55 Rating, Add	2,396.23	
			For Class 56 Rating, Add	3,176.60	
40 05 19 00-0343	EA	20"	Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,468.70	1,044.75
			For Class 52 Rating, Deduct	-1,197.43	
			For Class 54 Rating, Add	1,651.86	
			For Class 55 Rating, Add	2,465.51	
			For Class 56 Rating, Add	3,268.28	
40 05 19 00-0344	EA	20"	Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,784.63	1,048.63
			For Class 52 Rating, Deduct	-1,231.54	
			For Class 54 Rating, Add	1,698.44	
			For Class 55 Rating, Add	2,534.80	
			For Class 56 Rating, Add	3,359.96	
40 05 19 00-0345	EA	20"	Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,100.58	1,052.52
			For Class 52 Rating, Deduct	-1,265.64	
			For Class 54 Rating, Add	1,745.02	
			For Class 55 Rating, Add	2,604.08	
			For Class 56 Rating, Add	3,451.64	
40 05 19 00-0346	EA	20"	Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,416.52	1,056.40
			For Class 52 Rating, Deduct	-1,299.75	
			For Class 54 Rating, Add	1,791.60	
			For Class 55 Rating, Add	2,673.36	
			For Class 56 Rating, Add	3,543.32	
40 05 19 00-0347	EA	20"	Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,732.47	1,060.29
			For Class 52 Rating, Deduct	-1,333.86	
			For Class 54 Rating, Add	1,838.17	
			For Class 55 Rating, Add	2,742.65	
			For Class 56 Rating, Add	3,635.00	
40 05 19 00-0348	EA	20"	Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,048.41	1,064.17
			For Class 52 Rating, Deduct	-1,367.96	
			For Class 54 Rating, Add	1,884.75	
			For Class 55 Rating, Add	2,811.93	
			For Class 56 Rating, Add	3,726.68	
40 05 19 00-0349	EA	20"	Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,364.36	1,068.05
			For Class 52 Rating, Deduct	-1,402.07	
			For Class 54 Rating, Add	1,931.33	
			For Class 55 Rating, Add	2,881.22	
			For Class 56 Rating, Add	3,818.36	
40 05 19 00-0350	EA	20"	Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,680.29	1,071.93
			For Class 52 Rating, Deduct	-1,436.18	
			For Class 54 Rating, Add	1,977.91	
			For Class 55 Rating, Add	2,950.50	
			For Class 56 Rating, Add	3,910.03	
40 05 19 00-0351	EA	20"	Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,996.24	1,075.82
			For Class 52 Rating, Deduct	-1,470.28	
			For Class 54 Rating, Add	2,024.49	
			For Class 55 Rating, Add	3,019.79	
			For Class 56 Rating, Add	4,001.71	
40 05 19 00-0352	EA	20"	Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,312.18	1,079.70
			For Class 52 Rating, Deduct	-1,504.39	
			For Class 54 Rating, Add	2,071.07	
			For Class 55 Rating, Add	3,089.07	
			For Class 56 Rating, Add	4,093.39	
40 05 19 00-0353	EA	20"	Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,628.12	1,083.59
			For Class 52 Rating, Deduct	-1,538.50	
			For Class 54 Rating, Add	2,117.65	
			For Class 55 Rating, Add	3,158.35	
			For Class 56 Rating, Add	4,185.07	
40 05 19 00-0354	EA	20"	Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,944.07	1,087.47
			For Class 52 Rating, Deduct	-1,572.60	
			For Class 54 Rating, Add	2,164.23	
			For Class 55 Rating, Add	3,227.64	
			For Class 56 Rating, Add	4,276.75	
40 05 19 00-0355	EA	20"	Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,260.01	1,091.36
			For Class 52 Rating, Deduct	-1,606.71	
			For Class 54 Rating, Add	2,210.81	
			For Class 55 Rating, Add	3,296.92	
			For Class 56 Rating, Add	4,368.43	
40 05 19 00-0356	EA	20"	Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,575.96	1,095.24
			For Class 52 Rating, Deduct	-1,640.82	
			For Class 54 Rating, Add	2,257.39	
			For Class 55 Rating, Add	3,366.21	
			For Class 56 Rating, Add	4,460.11	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0357	EA		20" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,891.89	1,099.12
			For Class 52 Rating, Deduct	-1,674.92	
			For Class 54 Rating, Add	2,303.97	
			For Class 55 Rating, Add	3,435.49	
			For Class 56 Rating, Add	4,551.79	
40 05 19 00-0358	EA		20" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,207.84	1,103.00
			For Class 52 Rating, Deduct	-1,709.03	
			For Class 54 Rating, Add	2,350.55	
			For Class 55 Rating, Add	3,504.78	
			For Class 56 Rating, Add	4,643.47	
40 05 19 00-0359 24" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)					
40 05 19 00-0360	EA		24" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,791.56	1,134.07
			For Class 52 Rating, Deduct	-558.06	
			For Class 54 Rating, Add	781.61	
			For Class 55 Rating, Add	1,172.58	
			For Class 56 Rating, Add	1,558.47	
40 05 19 00-0361	EA		24" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,181.66	1,137.96
			For Class 52 Rating, Deduct	-600.32	
			For Class 54 Rating, Add	839.31	
			For Class 55 Rating, Add	1,258.40	
			For Class 56 Rating, Add	1,672.03	
40 05 19 00-0362	EA		24" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,571.74	1,141.84
			For Class 52 Rating, Deduct	-642.58	
			For Class 54 Rating, Add	897.01	
			For Class 55 Rating, Add	1,344.22	
			For Class 56 Rating, Add	1,785.58	
40 05 19 00-0363	EA		24" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,961.83	1,145.73
			For Class 52 Rating, Deduct	-684.85	
			For Class 54 Rating, Add	954.71	
			For Class 55 Rating, Add	1,430.03	
			For Class 56 Rating, Add	1,899.13	
40 05 19 00-0364	EA		24" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,351.92	1,149.61
			For Class 52 Rating, Deduct	-727.11	
			For Class 54 Rating, Add	1,012.42	
			For Class 55 Rating, Add	1,515.85	
			For Class 56 Rating, Add	2,012.68	
40 05 19 00-0365	EA		24" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,742.01	1,153.50
			For Class 52 Rating, Deduct	-769.37	
			For Class 54 Rating, Add	1,070.12	
			For Class 55 Rating, Add	1,601.67	
			For Class 56 Rating, Add	2,126.23	
40 05 19 00-0366	EA		24" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,132.09	1,157.38
			For Class 52 Rating, Deduct	-811.63	
			For Class 54 Rating, Add	1,127.82	
			For Class 55 Rating, Add	1,687.49	
			For Class 56 Rating, Add	2,239.78	
40 05 19 00-0367	EA		24" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,522.18	1,161.27
			For Class 52 Rating, Deduct	-853.90	
			For Class 54 Rating, Add	1,185.52	
			For Class 55 Rating, Add	1,773.31	
			For Class 56 Rating, Add	2,353.34	
40 05 19 00-0368	EA		24" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,912.27	1,165.14
			For Class 52 Rating, Deduct	-896.16	
			For Class 54 Rating, Add	1,243.22	
			For Class 55 Rating, Add	1,859.13	
			For Class 56 Rating, Add	2,466.89	
40 05 19 00-0369	EA		24" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,302.35	1,169.03
			For Class 52 Rating, Deduct	-938.42	
			For Class 54 Rating, Add	1,300.92	
			For Class 55 Rating, Add	1,944.95	
			For Class 56 Rating, Add	2,580.44	
40 05 19 00-0370	EA		24" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,692.44	1,172.91
			For Class 52 Rating, Deduct	-980.68	
			For Class 54 Rating, Add	1,358.62	
			For Class 55 Rating, Add	2,030.76	
			For Class 56 Rating, Add	2,693.99	
40 05 19 00-0371	EA		24" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,082.53	1,176.80
			For Class 52 Rating, Deduct	-1,022.95	
			For Class 54 Rating, Add	1,416.32	
			For Class 55 Rating, Add	2,116.58	
			For Class 56 Rating, Add	2,807.54	
40 05 19 00-0372	EA		24" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,472.62	1,180.68
			For Class 52 Rating, Deduct	-1,065.21	
			For Class 54 Rating, Add	1,474.02	
			For Class 55 Rating, Add	2,202.40	
			For Class 56 Rating, Add	2,921.10	
40 05 19 00-0373	EA		24" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,862.70	1,184.57
			For Class 52 Rating, Deduct	-1,107.47	
			For Class 54 Rating, Add	1,531.72	
			For Class 55 Rating, Add	2,288.22	
			For Class 56 Rating, Add	3,034.65	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0374	EA	24"	Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,252.79	1,188.45
			For Class 52 Rating, Deduct	-1,149.73	
			For Class 54 Rating, Add	1,589.42	
			For Class 55 Rating, Add	2,374.04	
			For Class 56 Rating, Add	3,148.20	
40 05 19 00-0375	EA	24"	Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,642.88	1,192.34
			For Class 52 Rating, Deduct	-1,192.00	
			For Class 54 Rating, Add	1,647.13	
			For Class 55 Rating, Add	2,459.86	
			For Class 56 Rating, Add	3,261.75	
40 05 19 00-0376	EA	24"	Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,032.97	1,196.21
			For Class 52 Rating, Deduct	-1,234.26	
			For Class 54 Rating, Add	1,704.83	
			For Class 55 Rating, Add	2,545.67	
			For Class 56 Rating, Add	3,375.30	
40 05 19 00-0377	EA	24"	Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,423.05	1,200.10
			For Class 52 Rating, Deduct	-1,276.52	
			For Class 54 Rating, Add	1,762.53	
			For Class 55 Rating, Add	2,631.49	
			For Class 56 Rating, Add	3,488.85	
40 05 19 00-0378	EA	24"	Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,813.14	1,203.98
			For Class 52 Rating, Deduct	-1,318.78	
			For Class 54 Rating, Add	1,820.23	
			For Class 55 Rating, Add	2,717.31	
			For Class 56 Rating, Add	3,602.40	
40 05 19 00-0379	EA	24"	Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,203.23	1,207.87
			For Class 52 Rating, Deduct	-1,361.04	
			For Class 54 Rating, Add	1,877.93	
			For Class 55 Rating, Add	2,803.13	
			For Class 56 Rating, Add	3,715.96	
40 05 19 00-0380	EA	24"	Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,593.31	1,211.75
			For Class 52 Rating, Deduct	-1,403.31	
			For Class 54 Rating, Add	1,935.63	
			For Class 55 Rating, Add	2,888.95	
			For Class 56 Rating, Add	3,829.51	
40 05 19 00-0381	EA	24"	Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,983.40	1,215.64
			For Class 52 Rating, Deduct	-1,445.57	
			For Class 54 Rating, Add	1,993.33	
			For Class 55 Rating, Add	2,974.77	
			For Class 56 Rating, Add	3,943.06	
40 05 19 00-0382	EA	24"	Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,373.49	1,219.52
			For Class 52 Rating, Deduct	-1,487.83	
			For Class 54 Rating, Add	2,051.03	
			For Class 55 Rating, Add	3,060.59	
			For Class 56 Rating, Add	4,056.61	
40 05 19 00-0383	EA	24"	Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,763.58	1,223.41
			For Class 52 Rating, Deduct	-1,530.09	
			For Class 54 Rating, Add	2,108.73	
			For Class 55 Rating, Add	3,146.40	
			For Class 56 Rating, Add	4,170.16	
40 05 19 00-0384	EA	24"	Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,153.66	1,227.29
			For Class 52 Rating, Deduct	-1,572.36	
			For Class 54 Rating, Add	2,166.44	
			For Class 55 Rating, Add	3,232.22	
			For Class 56 Rating, Add	4,283.71	
40 05 19 00-0385	EA	24"	Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,543.75	1,231.17
			For Class 52 Rating, Deduct	-1,614.62	
			For Class 54 Rating, Add	2,224.14	
			For Class 55 Rating, Add	3,318.04	
			For Class 56 Rating, Add	4,397.27	
40 05 19 00-0386	EA	24"	Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,933.84	1,235.05
			For Class 52 Rating, Deduct	-1,656.88	
			For Class 54 Rating, Add	2,281.84	
			For Class 55 Rating, Add	3,403.86	
			For Class 56 Rating, Add	4,510.82	
40 05 19 00-0387	EA	24"	Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,323.93	1,238.94
			For Class 52 Rating, Deduct	-1,699.14	
			For Class 54 Rating, Add	2,339.54	
			For Class 55 Rating, Add	3,489.68	
			For Class 56 Rating, Add	4,624.37	
40 05 19 00-0388	EA	24"	Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,714.01	1,242.82
			For Class 52 Rating, Deduct	-1,741.40	
			For Class 54 Rating, Add	2,397.24	
			For Class 55 Rating, Add	3,575.50	
			For Class 56 Rating, Add	4,737.92	
40 05 19 00-0389	EA	24"	Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,204.14	1,312.73
			For Class 52 Rating, Deduct	-1,783.67	
			For Class 54 Rating, Add	2,456.14	
			For Class 55 Rating, Add	3,663.72	
			For Class 56 Rating, Add	4,855.08	
40 05 19 00-0390	EA	24"	Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,594.23	1,316.62
			For Class 52 Rating, Deduct	-1,825.93	
			For Class 54 Rating, Add	2,513.84	
			For Class 55 Rating, Add	3,749.53	
			For Class 56 Rating, Add	4,968.63	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0391	EA	24"	Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,984.31	1,320.50
			For Class 52 Rating, Deduct	-1,868.19	
			For Class 54 Rating, Add	2,571.54	
			For Class 55 Rating, Add	3,835.35	
			For Class 56 Rating, Add	5,082.18	
40 05 19 00-0392	EA	24"	Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,374.40	1,324.39
			For Class 52 Rating, Deduct	-1,910.45	
			For Class 54 Rating, Add	2,629.24	
			For Class 55 Rating, Add	3,921.17	
			For Class 56 Rating, Add	5,195.73	
40 05 19 00-0393	EA	24"	Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,764.49	1,328.26
			For Class 52 Rating, Deduct	-1,952.72	
			For Class 54 Rating, Add	2,686.95	
			For Class 55 Rating, Add	4,006.99	
			For Class 56 Rating, Add	5,309.28	
40 05 19 00-0394	EA	24"	Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,154.58	1,332.15
			For Class 52 Rating, Deduct	-1,994.98	
			For Class 54 Rating, Add	2,744.65	
			For Class 55 Rating, Add	4,092.81	
			For Class 56 Rating, Add	5,422.83	
40 05 19 00-0395	EA	24"	Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,544.66	1,336.03
			For Class 52 Rating, Deduct	-2,037.24	
			For Class 54 Rating, Add	2,802.35	
			For Class 55 Rating, Add	4,178.63	
			For Class 56 Rating, Add	5,536.38	
40 05 19 00-0396	EA	24"	Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,934.76	1,339.92
			For Class 52 Rating, Deduct	-2,079.50	
			For Class 54 Rating, Add	2,860.05	
			For Class 55 Rating, Add	4,264.45	
			For Class 56 Rating, Add	5,649.94	
40 05 19 00-0397	EA	24"	Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,324.84	1,343.80
			For Class 52 Rating, Deduct	-2,121.77	
			For Class 54 Rating, Add	2,917.75	
			For Class 55 Rating, Add	4,350.26	
			For Class 56 Rating, Add	5,763.49	
40 05 19 00-0398			30" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0399	EA	30"	Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,490.45	1,600.13
			For Class 52 Rating, Deduct	-887.26	
			For Class 54 Rating, Add	1,238.99	
			For Class 55 Rating, Add	1,856.91	
			For Class 56 Rating, Add	2,466.75	
40 05 19 00-0400	EA	30"	Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,051.30	1,604.02
			For Class 52 Rating, Deduct	-948.31	
			For Class 54 Rating, Add	1,322.31	
			For Class 55 Rating, Add	1,980.80	
			For Class 56 Rating, Add	2,630.68	
40 05 19 00-0401	EA	30"	Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,612.14	1,607.90
			For Class 52 Rating, Deduct	-1,009.35	
			For Class 54 Rating, Add	1,405.62	
			For Class 55 Rating, Add	2,104.70	
			For Class 56 Rating, Add	2,794.60	
40 05 19 00-0402	EA	30"	Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,172.99	1,611.79
			For Class 52 Rating, Deduct	-1,070.40	
			For Class 54 Rating, Add	1,488.94	
			For Class 55 Rating, Add	2,228.60	
			For Class 56 Rating, Add	2,958.53	
40 05 19 00-0403	EA	30"	Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,733.83	1,615.67
			For Class 52 Rating, Deduct	-1,131.44	
			For Class 54 Rating, Add	1,572.25	
			For Class 55 Rating, Add	2,352.50	
			For Class 56 Rating, Add	3,122.45	
40 05 19 00-0404	EA	30"	Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,294.67	1,619.56
			For Class 52 Rating, Deduct	-1,192.49	
			For Class 54 Rating, Add	1,655.57	
			For Class 55 Rating, Add	2,476.39	
			For Class 56 Rating, Add	3,286.38	
40 05 19 00-0405	EA	30"	Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,855.52	1,623.43
			For Class 52 Rating, Deduct	-1,253.53	
			For Class 54 Rating, Add	1,738.88	
			For Class 55 Rating, Add	2,600.29	
			For Class 56 Rating, Add	3,450.30	
40 05 19 00-0406	EA	30"	Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,416.36	1,627.32
			For Class 52 Rating, Deduct	-1,314.58	
			For Class 54 Rating, Add	1,822.20	
			For Class 55 Rating, Add	2,724.19	
			For Class 56 Rating, Add	3,614.23	
40 05 19 00-0407	EA	30"	Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,977.21	1,631.20
			For Class 52 Rating, Deduct	-1,375.63	
			For Class 54 Rating, Add	1,905.51	
			For Class 55 Rating, Add	2,848.09	
			For Class 56 Rating, Add	3,778.15	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0408	EA	30"	Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,538.05	1,635.09
			For Class 52 Rating, Deduct	-1,436.67	
			For Class 54 Rating, Add	1,988.63	
			For Class 55 Rating, Add	2,971.98	
			For Class 56 Rating, Add	3,942.08	
40 05 19 00-0409	EA	30"	Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,098.90	1,638.97
			For Class 52 Rating, Deduct	-1,497.72	
			For Class 54 Rating, Add	2,072.14	
			For Class 55 Rating, Add	3,095.88	
			For Class 56 Rating, Add	4,106.00	
40 05 19 00-0410	EA	30"	Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,659.74	1,642.86
			For Class 52 Rating, Deduct	-1,558.76	
			For Class 54 Rating, Add	2,155.46	
			For Class 55 Rating, Add	3,219.78	
			For Class 56 Rating, Add	4,269.93	
40 05 19 00-0411	EA	30"	Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,220.59	1,646.74
			For Class 52 Rating, Deduct	-1,619.81	
			For Class 54 Rating, Add	2,238.77	
			For Class 55 Rating, Add	3,343.67	
			For Class 56 Rating, Add	4,433.85	
40 05 19 00-0412	EA	30"	Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,781.43	1,650.63
			For Class 52 Rating, Deduct	-1,680.85	
			For Class 54 Rating, Add	2,322.08	
			For Class 55 Rating, Add	3,467.57	
			For Class 56 Rating, Add	4,597.78	
40 05 19 00-0413	EA	30"	Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,342.28	1,654.51
			For Class 52 Rating, Deduct	-1,741.90	
			For Class 54 Rating, Add	2,405.40	
			For Class 55 Rating, Add	3,591.47	
			For Class 56 Rating, Add	4,761.70	
40 05 19 00-0414	EA	30"	Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,903.12	1,658.39
			For Class 52 Rating, Deduct	-1,802.95	
			For Class 54 Rating, Add	2,488.71	
			For Class 55 Rating, Add	3,715.37	
			For Class 56 Rating, Add	4,925.63	
40 05 19 00-0415	EA	30"	Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,463.96	1,662.27
			For Class 52 Rating, Deduct	-1,863.99	
			For Class 54 Rating, Add	2,572.03	
			For Class 55 Rating, Add	3,839.26	
			For Class 56 Rating, Add	5,089.55	
40 05 19 00-0416	EA	30"	Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,024.81	1,666.16
			For Class 52 Rating, Deduct	-1,925.04	
			For Class 54 Rating, Add	2,655.34	
			For Class 55 Rating, Add	3,963.16	
			For Class 56 Rating, Add	5,253.48	
40 05 19 00-0417	EA	30"	Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,585.64	1,670.04
			For Class 52 Rating, Deduct	-1,986.08	
			For Class 54 Rating, Add	2,738.66	
			For Class 55 Rating, Add	4,087.06	
			For Class 56 Rating, Add	5,417.40	
40 05 19 00-0418	EA	30"	Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,146.49	1,673.93
			For Class 52 Rating, Deduct	-2,047.13	
			For Class 54 Rating, Add	2,821.97	
			For Class 55 Rating, Add	4,210.95	
			For Class 56 Rating, Add	5,581.33	
40 05 19 00-0419	EA	30"	Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,707.33	1,677.81
			For Class 52 Rating, Deduct	-2,108.17	
			For Class 54 Rating, Add	2,905.29	
			For Class 55 Rating, Add	4,334.85	
			For Class 56 Rating, Add	5,745.25	
40 05 19 00-0420	EA	30"	Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,268.18	1,681.70
			For Class 52 Rating, Deduct	-2,169.22	
			For Class 54 Rating, Add	2,988.60	
			For Class 55 Rating, Add	4,458.75	
			For Class 56 Rating, Add	5,909.18	
40 05 19 00-0421	EA	30"	Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,829.02	1,685.58
			For Class 52 Rating, Deduct	-2,230.26	
			For Class 54 Rating, Add	3,071.91	
			For Class 55 Rating, Add	4,582.65	
			For Class 56 Rating, Add	6,073.10	
40 05 19 00-0422	EA	30"	Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,389.87	1,689.46
			For Class 52 Rating, Deduct	-2,291.31	
			For Class 54 Rating, Add	3,155.23	
			For Class 55 Rating, Add	4,706.54	
			For Class 56 Rating, Add	6,237.03	
40 05 19 00-0423	EA	30"	Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,950.71	1,693.34
			For Class 52 Rating, Deduct	-2,352.11	
			For Class 54 Rating, Add	3,238.21	
			For Class 55 Rating, Add	4,829.94	
			For Class 56 Rating, Add	6,400.29	
40 05 19 00-0424	EA	30"	Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,511.56	1,697.23
			For Class 52 Rating, Deduct	-2,413.40	
			For Class 54 Rating, Add	3,321.86	
			For Class 55 Rating, Add	4,954.34	
			For Class 56 Rating, Add	6,564.88	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0425	EA	30" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,072.40	1,701.11
		For Class 52 Rating, Deduct	-2,474.45	
		For Class 54 Rating, Add	3,405.17	
		For Class 55 Rating, Add	5,078.23	
		For Class 56 Rating, Add	6,728.80	
40 05 19 00-0426	EA	30" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,633.25	1,705.00
		For Class 52 Rating, Deduct	-2,535.49	
		For Class 54 Rating, Add	3,488.49	
		For Class 55 Rating, Add	5,202.13	
		For Class 56 Rating, Add	6,892.73	
40 05 19 00-0427	EA	30" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,194.09	1,708.88
		For Class 52 Rating, Deduct	-2,596.54	
		For Class 54 Rating, Add	3,571.80	
		For Class 55 Rating, Add	5,326.03	
		For Class 56 Rating, Add	7,056.65	
40 05 19 00-0428	EA	30" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,754.93	1,712.77
		For Class 52 Rating, Deduct	-2,657.58	
		For Class 54 Rating, Add	3,665.12	
		For Class 55 Rating, Add	5,449.93	
		For Class 56 Rating, Add	7,220.58	
40 05 19 00-0429	EA	30" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,315.78	1,716.65
		For Class 52 Rating, Deduct	-2,718.63	
		For Class 54 Rating, Add	3,738.43	
		For Class 55 Rating, Add	5,573.82	
		For Class 56 Rating, Add	7,384.50	
40 05 19 00-0430	EA	30" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,876.62	1,720.53
		For Class 52 Rating, Deduct	-2,779.67	
		For Class 54 Rating, Add	3,821.75	
		For Class 55 Rating, Add	5,697.72	
		For Class 56 Rating, Add	7,548.43	
40 05 19 00-0431	EA	30" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,437.47	1,724.41
		For Class 52 Rating, Deduct	-2,840.72	
		For Class 54 Rating, Add	3,905.06	
		For Class 55 Rating, Add	5,821.62	
		For Class 56 Rating, Add	7,712.35	
40 05 19 00-0432	EA	30" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,998.31	1,728.30
		For Class 52 Rating, Deduct	-2,901.76	
		For Class 54 Rating, Add	3,988.38	
		For Class 55 Rating, Add	5,945.52	
		For Class 56 Rating, Add	7,876.28	
40 05 19 00-0433	EA	30" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,559.16	1,732.18
		For Class 52 Rating, Deduct	-2,962.81	
		For Class 54 Rating, Add	4,071.69	
		For Class 55 Rating, Add	6,069.41	
		For Class 56 Rating, Add	8,040.20	
40 05 19 00-0434	EA	30" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,120.00	1,736.07
		For Class 52 Rating, Deduct	-3,023.86	
		For Class 54 Rating, Add	4,155.00	
		For Class 55 Rating, Add	6,193.31	
		For Class 56 Rating, Add	8,204.13	
40 05 19 00-0435	EA	30" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,680.85	1,739.95
		For Class 52 Rating, Deduct	-3,084.90	
		For Class 54 Rating, Add	4,238.32	
		For Class 55 Rating, Add	6,317.21	
		For Class 56 Rating, Add	8,368.05	
40 05 19 00-0436	EA	30" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,241.69	1,743.84
		For Class 52 Rating, Deduct	-3,145.95	
		For Class 54 Rating, Add	4,321.63	
		For Class 55 Rating, Add	6,441.11	
		For Class 56 Rating, Add	8,531.98	
40 05 19 00-0437		36" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0438	EA	36" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,613.56	2,027.35
		For Class 52 Rating, Deduct	-1,269.60	
		For Class 54 Rating, Add	1,768.13	
		For Class 55 Rating, Add	2,647.55	
		For Class 56 Rating, Add	3,515.42	
40 05 19 00-0439	EA	36" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,374.38	2,031.24
		For Class 52 Rating, Deduct	-1,352.64	
		For Class 54 Rating, Add	1,881.44	
		For Class 55 Rating, Add	2,816.04	
		For Class 56 Rating, Add	3,738.33	
40 05 19 00-0440	EA	36" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,135.18	2,035.12
		For Class 52 Rating, Deduct	-1,435.68	
		For Class 54 Rating, Add	1,994.75	
		For Class 55 Rating, Add	2,984.52	
		For Class 56 Rating, Add	3,961.25	
40 05 19 00-0441	EA	36" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,896.00	2,039.01
		For Class 52 Rating, Deduct	-1,518.72	
		For Class 54 Rating, Add	2,108.06	
		For Class 55 Rating, Add	3,153.02	
		For Class 56 Rating, Add	4,184.16	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0442	EA	36"	Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,656.80	2,042.89
			For Class 52 Rating, Deduct	-1,601.77	
			For Class 54 Rating, Add	2,221.37	
			For Class 55 Rating, Add	3,321.50	
			For Class 56 Rating, Add	4,407.08	
40 05 19 00-0443	EA	36"	Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,417.62	2,046.78
			For Class 52 Rating, Deduct	-1,684.81	
			For Class 54 Rating, Add	2,334.68	
			For Class 55 Rating, Add	3,489.99	
			For Class 56 Rating, Add	4,629.99	
40 05 19 00-0444	EA	36"	Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,178.42	2,050.65
			For Class 52 Rating, Deduct	-1,767.85	
			For Class 54 Rating, Add	2,447.99	
			For Class 55 Rating, Add	3,658.48	
			For Class 56 Rating, Add	4,852.91	
40 05 19 00-0445	EA	36"	Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,939.24	2,054.54
			For Class 52 Rating, Deduct	-1,850.89	
			For Class 54 Rating, Add	2,561.30	
			For Class 55 Rating, Add	3,826.97	
			For Class 56 Rating, Add	5,075.82	
40 05 19 00-0446	EA	36"	Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,700.04	2,058.42
			For Class 52 Rating, Deduct	-1,933.93	
			For Class 54 Rating, Add	2,674.61	
			For Class 55 Rating, Add	3,995.46	
			For Class 56 Rating, Add	5,298.73	
40 05 19 00-0447	EA	36"	Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,460.85	2,062.31
			For Class 52 Rating, Deduct	-2,016.97	
			For Class 54 Rating, Add	2,787.92	
			For Class 55 Rating, Add	4,163.95	
			For Class 56 Rating, Add	5,521.65	
40 05 19 00-0448	EA	36"	Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,221.66	2,066.19
			For Class 52 Rating, Deduct	-2,100.02	
			For Class 54 Rating, Add	2,901.23	
			For Class 55 Rating, Add	4,332.44	
			For Class 56 Rating, Add	5,744.56	
40 05 19 00-0449	EA	36"	Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,982.46	2,070.08
			For Class 52 Rating, Deduct	-2,183.06	
			For Class 54 Rating, Add	3,014.53	
			For Class 55 Rating, Add	4,500.93	
			For Class 56 Rating, Add	5,967.48	
40 05 19 00-0450	EA	36"	Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,743.28	2,073.96
			For Class 52 Rating, Deduct	-2,266.10	
			For Class 54 Rating, Add	3,127.84	
			For Class 55 Rating, Add	4,669.42	
			For Class 56 Rating, Add	6,190.39	
40 05 19 00-0451	EA	36"	Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,504.08	2,077.85
			For Class 52 Rating, Deduct	-2,349.14	
			For Class 54 Rating, Add	3,241.15	
			For Class 55 Rating, Add	4,837.91	
			For Class 56 Rating, Add	6,413.31	
40 05 19 00-0452	EA	36"	Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,264.90	2,081.72
			For Class 52 Rating, Deduct	-2,432.18	
			For Class 54 Rating, Add	3,354.46	
			For Class 55 Rating, Add	5,006.40	
			For Class 56 Rating, Add	6,636.22	
40 05 19 00-0453	EA	36"	Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,025.70	2,085.61
			For Class 52 Rating, Deduct	-2,515.22	
			For Class 54 Rating, Add	3,467.77	
			For Class 55 Rating, Add	5,174.89	
			For Class 56 Rating, Add	6,859.14	
40 05 19 00-0454	EA	36"	Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,786.52	2,089.49
			For Class 52 Rating, Deduct	-2,598.27	
			For Class 54 Rating, Add	3,581.08	
			For Class 55 Rating, Add	5,343.38	
			For Class 56 Rating, Add	7,082.05	
40 05 19 00-0455	EA	36"	Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,547.32	2,093.38
			For Class 52 Rating, Deduct	-2,681.31	
			For Class 54 Rating, Add	3,694.39	
			For Class 55 Rating, Add	5,511.87	
			For Class 56 Rating, Add	7,304.97	
40 05 19 00-0456	EA	36"	Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,308.14	2,097.26
			For Class 52 Rating, Deduct	-2,764.35	
			For Class 54 Rating, Add	3,807.70	
			For Class 55 Rating, Add	5,680.36	
			For Class 56 Rating, Add	7,527.88	
40 05 19 00-0457	EA	36"	Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,068.94	2,101.15
			For Class 52 Rating, Deduct	-2,847.39	
			For Class 54 Rating, Add	3,921.01	
			For Class 55 Rating, Add	5,848.85	
			For Class 56 Rating, Add	7,750.80	
40 05 19 00-0458	EA	36"	Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,829.76	2,105.03
			For Class 52 Rating, Deduct	-2,930.43	
			For Class 54 Rating, Add	4,034.32	
			For Class 55 Rating, Add	6,017.34	
			For Class 56 Rating, Add	7,973.71	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0459	EA		36" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,590.56	2,108.92
			For Class 52 Rating, Deduct	-3,013.48	
			For Class 54 Rating, Add	4,147.63	
			For Class 55 Rating, Add	6,185.82	
			For Class 56 Rating, Add	8,196.62	
40 05 19 00-0460	EA		36" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,351.37	2,112.80
			For Class 52 Rating, Deduct	-3,096.52	
			For Class 54 Rating, Add	4,260.94	
			For Class 55 Rating, Add	6,354.31	
			For Class 56 Rating, Add	8,419.54	
40 05 19 00-0461	EA		36" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,112.18	2,116.68
			For Class 52 Rating, Deduct	-3,179.56	
			For Class 54 Rating, Add	4,374.25	
			For Class 55 Rating, Add	6,522.80	
			For Class 56 Rating, Add	8,642.45	
40 05 19 00-0462	EA		36" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,872.99	2,120.56
			For Class 52 Rating, Deduct	-3,262.60	
			For Class 54 Rating, Add	4,487.56	
			For Class 55 Rating, Add	6,691.29	
			For Class 56 Rating, Add	8,865.37	
40 05 19 00-0463	EA		36" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,633.80	2,124.45
			For Class 52 Rating, Deduct	-3,345.64	
			For Class 54 Rating, Add	4,600.87	
			For Class 55 Rating, Add	6,859.78	
			For Class 56 Rating, Add	9,088.28	
40 05 19 00-0464	EA		36" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,394.61	2,128.33
			For Class 52 Rating, Deduct	-3,428.68	
			For Class 54 Rating, Add	4,714.18	
			For Class 55 Rating, Add	7,028.27	
			For Class 56 Rating, Add	9,311.20	
40 05 19 00-0465	EA		36" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,155.42	2,132.22
			For Class 52 Rating, Deduct	-3,511.73	
			For Class 54 Rating, Add	4,827.48	
			For Class 55 Rating, Add	7,196.76	
			For Class 56 Rating, Add	9,534.11	
40 05 19 00-0466	EA		36" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,916.23	2,136.10
			For Class 52 Rating, Deduct	-3,594.77	
			For Class 54 Rating, Add	4,940.79	
			For Class 55 Rating, Add	7,365.25	
			For Class 56 Rating, Add	9,757.03	
40 05 19 00-0467	EA		36" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,677.04	2,139.99
			For Class 52 Rating, Deduct	-3,677.81	
			For Class 54 Rating, Add	5,054.10	
			For Class 55 Rating, Add	7,533.74	
			For Class 56 Rating, Add	9,979.94	
40 05 19 00-0468	EA		36" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,437.85	2,143.87
			For Class 52 Rating, Deduct	-3,760.85	
			For Class 54 Rating, Add	5,167.41	
			For Class 55 Rating, Add	7,702.23	
			For Class 56 Rating, Add	10,202.86	
40 05 19 00-0469	EA		36" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,198.66	2,147.75
			For Class 52 Rating, Deduct	-3,843.89	
			For Class 54 Rating, Add	5,280.72	
			For Class 55 Rating, Add	7,870.72	
			For Class 56 Rating, Add	10,425.77	
40 05 19 00-0470	EA		36" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,959.47	2,151.63
			For Class 52 Rating, Deduct	-3,926.94	
			For Class 54 Rating, Add	5,394.03	
			For Class 55 Rating, Add	8,039.21	
			For Class 56 Rating, Add	10,648.69	
40 05 19 00-0471	EA		36" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,720.27	2,155.52
			For Class 52 Rating, Deduct	-4,009.98	
			For Class 54 Rating, Add	5,507.34	
			For Class 55 Rating, Add	8,207.70	
			For Class 56 Rating, Add	10,871.60	
40 05 19 00-0472	EA		36" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	40,481.08	2,159.40
			For Class 52 Rating, Deduct	-4,093.02	
			For Class 54 Rating, Add	5,620.65	
			For Class 55 Rating, Add	8,376.19	
			For Class 56 Rating, Add	11,094.51	
40 05 19 00-0473	EA		36" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	41,241.89	2,163.29
			For Class 52 Rating, Deduct	-4,176.06	
			For Class 54 Rating, Add	5,733.96	
			For Class 55 Rating, Add	8,544.68	
			For Class 56 Rating, Add	11,317.43	
40 05 19 00-0474	EA		36" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,002.70	2,167.17
			For Class 52 Rating, Deduct	-4,259.10	
			For Class 54 Rating, Add	5,847.27	
			For Class 55 Rating, Add	8,713.17	
			For Class 56 Rating, Add	11,540.34	
40 05 19 00-0475	EA		36" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,763.51	2,171.06
			For Class 52 Rating, Deduct	-4,342.14	
			For Class 54 Rating, Add	5,960.58	
			For Class 55 Rating, Add	8,881.66	
			For Class 56 Rating, Add	11,763.26	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0476			42" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0477	EA		42" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	19,269.38	2,555.55
			For Class 52 Rating, Deduct	-1,693.71	
			For Class 54 Rating, Add	2,356.06	
			For Class 55 Rating, Add	3,526.53	
			For Class 56 Rating, Add	4,681.60	
40 05 19 00-0478	EA		42" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	20,403.15	2,559.44
			For Class 52 Rating, Deduct	-1,817.77	
			For Class 54 Rating, Add	2,525.32	
			For Class 55 Rating, Add	3,778.19	
			For Class 56 Rating, Add	5,014.54	
40 05 19 00-0479	EA		42" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	21,523.45	2,563.32
			For Class 52 Rating, Deduct	-1,940.36	
			For Class 54 Rating, Add	2,692.55	
			For Class 55 Rating, Add	4,026.85	
			For Class 56 Rating, Add	5,343.51	
40 05 19 00-0480	EA		42" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	22,654.98	2,567.21
			For Class 52 Rating, Deduct	-2,064.18	
			For Class 54 Rating, Add	2,861.47	
			For Class 55 Rating, Add	4,278.01	
			For Class 56 Rating, Add	5,675.78	
40 05 19 00-0481	EA		42" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	23,775.28	2,571.09
			For Class 52 Rating, Deduct	-2,186.77	
			For Class 54 Rating, Add	3,028.70	
			For Class 55 Rating, Add	4,526.67	
			For Class 56 Rating, Add	6,004.75	
40 05 19 00-0482	EA		42" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	24,909.06	2,574.97
			For Class 52 Rating, Deduct	-2,310.83	
			For Class 54 Rating, Add	3,197.95	
			For Class 55 Rating, Add	4,778.33	
			For Class 56 Rating, Add	6,337.69	
40 05 19 00-0483	EA		42" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	26,027.11	2,578.85
			For Class 52 Rating, Deduct	-2,433.17	
			For Class 54 Rating, Add	3,364.85	
			For Class 55 Rating, Add	5,026.48	
			For Class 56 Rating, Add	6,665.99	
40 05 19 00-0484	EA		42" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	27,160.89	2,582.74
			For Class 52 Rating, Deduct	-2,557.24	
			For Class 54 Rating, Add	3,534.11	
			For Class 55 Rating, Add	5,278.14	
			For Class 56 Rating, Add	6,998.93	
40 05 19 00-0485	EA		42" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	28,281.18	2,586.62
			For Class 52 Rating, Deduct	-2,679.83	
			For Class 54 Rating, Add	3,701.34	
			For Class 55 Rating, Add	5,526.80	
			For Class 56 Rating, Add	7,327.89	
40 05 19 00-0486	EA		42" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	29,412.72	2,590.51
			For Class 52 Rating, Deduct	-2,803.65	
			For Class 54 Rating, Add	3,870.26	
			For Class 55 Rating, Add	5,777.96	
			For Class 56 Rating, Add	7,660.17	
40 05 19 00-0487	EA		42" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	30,533.01	2,594.39
			For Class 52 Rating, Deduct	-2,926.23	
			For Class 54 Rating, Add	4,037.49	
			For Class 55 Rating, Add	6,026.61	
			For Class 56 Rating, Add	7,989.13	
40 05 19 00-0488	EA		42" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	31,664.55	2,598.28
			For Class 52 Rating, Deduct	-3,050.05	
			For Class 54 Rating, Add	4,206.41	
			For Class 55 Rating, Add	6,277.77	
			For Class 56 Rating, Add	8,321.41	
40 05 19 00-0489	EA		42" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	32,784.84	2,602.16
			For Class 52 Rating, Deduct	-3,172.64	
			For Class 54 Rating, Add	4,373.64	
			For Class 55 Rating, Add	6,526.43	
			For Class 56 Rating, Add	8,650.38	
40 05 19 00-0490	EA		42" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	33,907.38	2,606.04
			For Class 52 Rating, Deduct	-3,295.47	
			For Class 54 Rating, Add	4,541.21	
			For Class 55 Rating, Add	6,775.58	
			For Class 56 Rating, Add	8,980.00	
40 05 19 00-0491	EA		42" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	35,036.67	2,609.92
			For Class 52 Rating, Deduct	-3,419.05	
			For Class 54 Rating, Add	4,709.79	
			For Class 55 Rating, Add	7,026.24	
			For Class 56 Rating, Add	9,311.62	
40 05 19 00-0492	EA		42" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	36,156.96	2,613.81
			For Class 52 Rating, Deduct	-3,541.63	
			For Class 54 Rating, Add	4,877.02	
			For Class 55 Rating, Add	7,274.90	
			For Class 56 Rating, Add	9,640.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0493	EA		42" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,290.75	2,617.69
			For Class 52 Rating, Deduct	-3,665.70	
			For Class 54 Rating, Add	5,046.28	
			For Class 55 Rating, Add	7,526.56	
			For Class 56 Rating, Add	9,973.52	
40 05 19 00-0494	EA		42" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,411.04	2,621.58
			For Class 52 Rating, Deduct	-3,788.28	
			For Class 54 Rating, Add	5,213.51	
			For Class 55 Rating, Add	7,775.22	
			For Class 56 Rating, Add	10,302.49	
40 05 19 00-0495	EA		42" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,542.58	2,625.46
			For Class 52 Rating, Deduct	-3,912.11	
			For Class 54 Rating, Add	5,382.43	
			For Class 55 Rating, Add	8,026.38	
			For Class 56 Rating, Add	10,634.76	
40 05 19 00-0496	EA		42" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	40,662.87	2,629.35
			For Class 52 Rating, Deduct	-4,034.69	
			For Class 54 Rating, Add	5,549.66	
			For Class 55 Rating, Add	8,275.03	
			For Class 56 Rating, Add	10,963.73	
40 05 19 00-0497	EA		42" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	41,796.65	2,633.23
			For Class 52 Rating, Deduct	-4,158.76	
			For Class 54 Rating, Add	5,718.91	
			For Class 55 Rating, Add	8,526.69	
			For Class 56 Rating, Add	11,296.67	
40 05 19 00-0498	EA		42" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,916.95	2,637.12
			For Class 52 Rating, Deduct	-4,281.35	
			For Class 54 Rating, Add	5,886.15	
			For Class 55 Rating, Add	8,775.35	
			For Class 56 Rating, Add	11,625.63	
40 05 19 00-0499	EA		42" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	44,048.48	2,640.99
			For Class 52 Rating, Deduct	-4,405.17	
			For Class 54 Rating, Add	6,055.06	
			For Class 55 Rating, Add	9,026.51	
			For Class 56 Rating, Add	11,957.91	
40 05 19 00-0500	EA		42" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	45,168.78	2,644.88
			For Class 52 Rating, Deduct	-4,527.75	
			For Class 54 Rating, Add	6,222.30	
			For Class 55 Rating, Add	9,275.17	
			For Class 56 Rating, Add	12,286.87	
40 05 19 00-0501	EA		42" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	46,302.55	2,648.76
			For Class 52 Rating, Deduct	-4,651.82	
			For Class 54 Rating, Add	6,391.55	
			For Class 55 Rating, Add	9,526.83	
			For Class 56 Rating, Add	12,619.81	
40 05 19 00-0502	EA		42" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	47,422.85	2,652.65
			For Class 52 Rating, Deduct	-4,774.40	
			For Class 54 Rating, Add	6,558.78	
			For Class 55 Rating, Add	9,775.48	
			For Class 56 Rating, Add	12,948.78	
40 05 19 00-0503	EA		42" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	48,552.13	2,656.53
			For Class 52 Rating, Deduct	-4,897.98	
			For Class 54 Rating, Add	6,727.36	
			For Class 55 Rating, Add	10,026.14	
			For Class 56 Rating, Add	13,280.39	
40 05 19 00-0504	EA		42" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	49,674.68	2,660.42
			For Class 52 Rating, Deduct	-5,020.81	
			For Class 54 Rating, Add	6,894.93	
			For Class 55 Rating, Add	10,275.30	
			For Class 56 Rating, Add	13,610.02	
40 05 19 00-0505	EA		42" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	50,570.29	2,664.30
			For Class 52 Rating, Deduct	-5,118.68	
			For Class 54 Rating, Add	7,028.46	
			For Class 55 Rating, Add	10,473.85	
			For Class 56 Rating, Add	13,872.70	
40 05 19 00-0506	EA		42" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	51,926.51	2,668.19
			For Class 52 Rating, Deduct	-5,267.22	
			For Class 54 Rating, Add	7,231.08	
			For Class 55 Rating, Add	10,775.11	
			For Class 56 Rating, Add	14,271.26	
40 05 19 00-0507	EA		42" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	53,046.80	2,672.06
			For Class 52 Rating, Deduct	-5,389.80	
			For Class 54 Rating, Add	7,398.31	
			For Class 55 Rating, Add	11,023.77	
			For Class 56 Rating, Add	14,600.22	
40 05 19 00-0508	EA		42" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	54,178.34	2,675.95
			For Class 52 Rating, Deduct	-5,513.62	
			For Class 54 Rating, Add	7,567.23	
			For Class 55 Rating, Add	11,274.93	
			For Class 56 Rating, Add	14,932.50	
40 05 19 00-0509	EA		42" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	55,298.63	2,679.83
			For Class 52 Rating, Deduct	-5,636.21	
			For Class 54 Rating, Add	7,734.46	
			For Class 55 Rating, Add	11,523.58	
			For Class 56 Rating, Add	15,261.46	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0510	EA		42" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	56,432.42	2,683.72
			For Class 52 Rating, Deduct	-5,760.28	
			For Class 54 Rating, Add	7,903.72	
			For Class 55 Rating, Add	11,775.25	
			For Class 56 Rating, Add	15,994.41	
40 05 19 00-0511	EA		42" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	57,550.46	2,687.60
			For Class 52 Rating, Deduct	-5,882.62	
			For Class 54 Rating, Add	8,070.62	
			For Class 55 Rating, Add	12,023.40	
			For Class 56 Rating, Add	15,922.70	
40 05 19 00-0512	EA		42" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	58,684.25	2,691.49
			For Class 52 Rating, Deduct	-6,006.69	
			For Class 54 Rating, Add	8,239.87	
			For Class 55 Rating, Add	12,275.06	
			For Class 56 Rating, Add	16,255.63	
40 05 19 00-0513	EA		42" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	59,804.54	2,695.37
			For Class 52 Rating, Deduct	-6,129.27	
			For Class 54 Rating, Add	8,407.10	
			For Class 55 Rating, Add	12,523.72	
			For Class 56 Rating, Add	16,584.61	
40 05 19 00-0514	EA		42" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	60,936.07	2,699.26
			For Class 52 Rating, Deduct	-6,253.09	
			For Class 54 Rating, Add	8,576.02	
			For Class 55 Rating, Add	12,774.88	
			For Class 56 Rating, Add	16,916.89	
40 05 19 00-0515			48" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0516	EA		48" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,171.06	3,211.92
			For Class 52 Rating, Deduct	-2,123.50	
			For Class 54 Rating, Add	2,954.08	
			For Class 55 Rating, Add	4,421.70	
			For Class 56 Rating, Add	5,870.03	
40 05 19 00-0517	EA		48" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,819.35	3,215.81
			For Class 52 Rating, Deduct	-2,304.16	
			For Class 54 Rating, Add	3,200.51	
			For Class 55 Rating, Add	4,788.10	
			For Class 56 Rating, Add	6,354.75	
40 05 19 00-0518	EA		48" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,465.40	3,219.69
			For Class 52 Rating, Deduct	-2,484.58	
			For Class 54 Rating, Add	3,446.60	
			For Class 55 Rating, Add	5,154.00	
			For Class 56 Rating, Add	6,838.81	
40 05 19 00-0519	EA		48" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,124.93	3,223.58
			For Class 52 Rating, Deduct	-2,666.48	
			For Class 54 Rating, Add	3,694.72	
			For Class 55 Rating, Add	5,522.90	
			For Class 56 Rating, Add	7,326.85	
40 05 19 00-0520	EA		48" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,773.23	3,227.45
			For Class 52 Rating, Deduct	-2,847.15	
			For Class 54 Rating, Add	3,941.15	
			For Class 55 Rating, Add	5,889.30	
			For Class 56 Rating, Add	7,811.57	
40 05 19 00-0521	EA		48" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,421.52	3,231.34
			For Class 52 Rating, Deduct	-3,027.81	
			For Class 54 Rating, Add	4,187.58	
			For Class 55 Rating, Add	6,255.70	
			For Class 56 Rating, Add	8,296.29	
40 05 19 00-0522	EA		48" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,078.79	3,235.22
			For Class 52 Rating, Deduct	-3,209.46	
			For Class 54 Rating, Add	4,435.36	
			For Class 55 Rating, Add	6,624.10	
			For Class 56 Rating, Add	8,783.66	
40 05 19 00-0523	EA		48" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,729.34	3,239.11
			For Class 52 Rating, Deduct	-3,390.38	
			For Class 54 Rating, Add	4,682.13	
			For Class 55 Rating, Add	6,991.00	
			For Class 56 Rating, Add	9,269.05	
40 05 19 00-0524	EA		48" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,375.39	3,242.99
			For Class 52 Rating, Deduct	-3,570.79	
			For Class 54 Rating, Add	4,928.23	
			For Class 55 Rating, Add	7,356.90	
			For Class 56 Rating, Add	9,753.11	
40 05 19 00-0525	EA		48" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,034.92	3,246.88
			For Class 52 Rating, Deduct	-3,752.70	
			For Class 54 Rating, Add	5,176.35	
			For Class 55 Rating, Add	7,725.80	
			For Class 56 Rating, Add	10,241.15	
40 05 19 00-0526	EA		48" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	40,683.21	3,250.76
			For Class 52 Rating, Deduct	-3,933.36	
			For Class 54 Rating, Add	5,422.78	
			For Class 55 Rating, Add	8,092.20	
			For Class 56 Rating, Add	10,725.87	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0527	EA		48" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,342.75	3,254.65
			For Class 52 Rating, Deduct	-4,115.26	
			For Class 54 Rating, Add	5,670.90	
			For Class 55 Rating, Add	8,461.11	
			For Class 56 Rating, Add	11,213.91	
40 05 19 00-0528	EA		48" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	43,988.79	3,258.53
			For Class 52 Rating, Deduct	-4,295.68	
			For Class 54 Rating, Add	5,916.99	
			For Class 55 Rating, Add	8,827.01	
			For Class 56 Rating, Add	11,697.97	
40 05 19 00-0529	EA		48" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	45,637.09	3,262.41
			For Class 52 Rating, Deduct	-4,476.34	
			For Class 54 Rating, Add	6,163.42	
			For Class 55 Rating, Add	9,193.40	
			For Class 56 Rating, Add	12,182.69	
40 05 19 00-0530	EA		48" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	47,296.62	3,266.29
			For Class 52 Rating, Deduct	-4,658.25	
			For Class 54 Rating, Add	6,411.54	
			For Class 55 Rating, Add	9,562.31	
			For Class 56 Rating, Add	12,670.73	
40 05 19 00-0531	EA		48" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	48,944.92	3,270.18
			For Class 52 Rating, Deduct	-4,838.91	
			For Class 54 Rating, Add	6,657.97	
			For Class 55 Rating, Add	9,928.71	
			For Class 56 Rating, Add	13,155.45	
40 05 19 00-0532	EA		48" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	50,590.96	3,274.06
			For Class 52 Rating, Deduct	-5,019.33	
			For Class 54 Rating, Add	6,904.07	
			For Class 55 Rating, Add	10,294.60	
			For Class 56 Rating, Add	13,639.51	
40 05 19 00-0533	EA		48" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	52,250.49	3,277.95
			For Class 52 Rating, Deduct	-5,201.23	
			For Class 54 Rating, Add	7,152.19	
			For Class 55 Rating, Add	10,663.51	
			For Class 56 Rating, Add	14,127.55	
40 05 19 00-0534	EA		48" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	53,898.79	3,281.83
			For Class 52 Rating, Deduct	-5,381.90	
			For Class 54 Rating, Add	7,398.62	
			For Class 55 Rating, Add	11,029.91	
			For Class 56 Rating, Add	14,612.27	
40 05 19 00-0535	EA		48" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	55,544.83	3,285.72
			For Class 52 Rating, Deduct	-5,562.31	
			For Class 54 Rating, Add	7,644.71	
			For Class 55 Rating, Add	11,395.81	
			For Class 56 Rating, Add	15,096.33	
40 05 19 00-0536	EA		48" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	57,204.37	3,289.60
			For Class 52 Rating, Deduct	-5,744.21	
			For Class 54 Rating, Add	7,892.83	
			For Class 55 Rating, Add	11,764.71	
			For Class 56 Rating, Add	15,584.37	
40 05 19 00-0537	EA		48" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	58,854.90	3,293.48
			For Class 52 Rating, Deduct	-5,925.13	
			For Class 54 Rating, Add	8,139.60	
			For Class 55 Rating, Add	12,131.61	
			For Class 56 Rating, Add	16,069.75	
40 05 19 00-0538	EA		48" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	60,500.96	3,297.36
			For Class 52 Rating, Deduct	-6,105.54	
			For Class 54 Rating, Add	8,385.69	
			For Class 55 Rating, Add	12,497.51	
			For Class 56 Rating, Add	16,553.82	
40 05 19 00-0539	EA		48" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	62,160.48	3,301.25
			For Class 52 Rating, Deduct	-6,287.44	
			For Class 54 Rating, Add	8,633.81	
			For Class 55 Rating, Add	12,866.41	
			For Class 56 Rating, Add	17,041.85	
40 05 19 00-0540	EA		48" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	63,808.78	3,305.13
			For Class 52 Rating, Deduct	-6,468.11	
			For Class 54 Rating, Add	8,880.24	
			For Class 55 Rating, Add	13,232.81	
			For Class 56 Rating, Add	17,526.58	
40 05 19 00-0541	EA		48" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	65,454.83	3,309.02
			For Class 52 Rating, Deduct	-6,648.53	
			For Class 54 Rating, Add	9,126.34	
			For Class 55 Rating, Add	13,598.71	
			For Class 56 Rating, Add	18,010.64	
40 05 19 00-0542	EA		48" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	67,114.36	3,312.90
			For Class 52 Rating, Deduct	-6,830.43	
			For Class 54 Rating, Add	9,374.46	
			For Class 55 Rating, Add	13,967.61	
			For Class 56 Rating, Add	18,498.67	
40 05 19 00-0543	EA		48" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	68,762.65	3,316.79
			For Class 52 Rating, Deduct	-7,011.09	
			For Class 54 Rating, Add	9,620.89	
			For Class 55 Rating, Add	14,334.01	
			For Class 56 Rating, Add	18,983.40	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0544	EA		48" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	70,208.74	3,320.67
			For Class 52 Rating, Deduct	-7,169.52	
			For Class 54 Rating, Add	9,836.99	
			For Class 55 Rating, Add	14,655.32	
			For Class 56 Rating, Add	19,408.47	
40 05 19 00-0545	EA		48" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	72,070.48	3,324.56
			For Class 52 Rating, Deduct	-7,373.66	
			For Class 54 Rating, Add	10,115.44	
			For Class 55 Rating, Add	15,069.31	
			For Class 56 Rating, Add	19,956.16	
40 05 19 00-0546	EA		48" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	73,716.52	3,328.43
			For Class 52 Rating, Deduct	-7,554.08	
			For Class 54 Rating, Add	10,361.53	
			For Class 55 Rating, Add	15,435.21	
			For Class 56 Rating, Add	20,440.22	
40 05 19 00-0547	EA		48" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	75,378.30	3,332.32
			For Class 52 Rating, Deduct	-7,736.23	
			For Class 54 Rating, Add	10,609.99	
			For Class 55 Rating, Add	15,804.62	
			For Class 56 Rating, Add	20,928.92	
40 05 19 00-0548	EA		48" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	77,024.35	3,336.20
			For Class 52 Rating, Deduct	-7,916.65	
			For Class 54 Rating, Add	10,856.08	
			For Class 55 Rating, Add	16,170.51	
			For Class 56 Rating, Add	21,412.98	
40 05 19 00-0549	EA		48" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	78,670.40	3,340.09
			For Class 52 Rating, Deduct	-8,097.06	
			For Class 54 Rating, Add	11,102.18	
			For Class 55 Rating, Add	16,536.41	
			For Class 56 Rating, Add	21,897.04	
40 05 19 00-0550	EA		48" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	80,332.17	3,343.97
			For Class 52 Rating, Deduct	-8,279.21	
			For Class 54 Rating, Add	11,350.63	
			For Class 55 Rating, Add	16,905.82	
			For Class 56 Rating, Add	22,385.74	
40 05 19 00-0551	EA		48" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	81,978.23	3,347.86
			For Class 52 Rating, Deduct	-8,459.63	
			For Class 54 Rating, Add	11,596.73	
			For Class 55 Rating, Add	17,271.72	
			For Class 56 Rating, Add	22,869.80	
40 05 19 00-0552	EA		48" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	83,626.52	3,351.74
			For Class 52 Rating, Deduct	-8,640.29	
			For Class 54 Rating, Add	11,843.16	
			For Class 55 Rating, Add	17,638.11	
			For Class 56 Rating, Add	23,354.52	
40 05 19 00-0553	EA		48" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	85,286.05	3,355.63
			For Class 52 Rating, Deduct	-8,822.19	
			For Class 54 Rating, Add	12,091.28	
			For Class 55 Rating, Add	18,007.02	
			For Class 56 Rating, Add	23,842.56	
40 05 19 00-0554			Flanged End x Grooved End (FxF), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0001)		
40 05 19 00-0555			4" Flanged End x Grooved End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0556	EA		4" Flanged x Grooved (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	651.24	177.73
			For Class 52 Rating, Deduct	-42.02	
			For Class 54 Rating, Add	60.53	
			For Class 55 Rating, Add	91.64	
			For Class 56 Rating, Add	122.37	
40 05 19 00-0557	EA		4" Flanged x Grooved (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	714.36	180.83
			For Class 52 Rating, Deduct	-48.44	
			For Class 54 Rating, Add	69.34	
			For Class 55 Rating, Add	104.78	
			For Class 56 Rating, Add	139.77	
40 05 19 00-0558	EA		4" Flanged x Grooved (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	777.48	183.94
			For Class 52 Rating, Deduct	-54.87	
			For Class 54 Rating, Add	78.16	
			For Class 55 Rating, Add	117.92	
			For Class 56 Rating, Add	157.18	
40 05 19 00-0559	EA		4" Flanged x Grooved (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	840.61	187.05
			For Class 52 Rating, Deduct	-61.29	
			For Class 54 Rating, Add	86.98	
			For Class 55 Rating, Add	131.06	
			For Class 56 Rating, Add	174.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0560	EA		4" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	903.73	190.16
			For Class 52 Rating, Deduct	-67.72	
			For Class 54 Rating, Add	95.80	
			For Class 55 Rating, Add	144.20	
			For Class 56 Rating, Add	191.98	
40 05 19 00-0561	EA		4" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	966.86	193.26
			For Class 52 Rating, Deduct	-74.14	
			For Class 54 Rating, Add	104.62	
			For Class 55 Rating, Add	157.34	
			For Class 56 Rating, Add	209.38	
40 05 19 00-0562	EA		4" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,029.98	196.37
			For Class 52 Rating, Deduct	-80.57	
			For Class 54 Rating, Add	113.44	
			For Class 55 Rating, Add	170.48	
			For Class 56 Rating, Add	226.79	
40 05 19 00-0563	EA		4" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,093.10	199.47
			For Class 52 Rating, Deduct	-87.00	
			For Class 54 Rating, Add	122.26	
			For Class 55 Rating, Add	183.62	
			For Class 56 Rating, Add	244.19	
40 05 19 00-0564	EA		4" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,156.23	202.59
			For Class 52 Rating, Deduct	-93.42	
			For Class 54 Rating, Add	131.08	
			For Class 55 Rating, Add	196.76	
			For Class 56 Rating, Add	261.59	
40 05 19 00-0565	EA		4" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,219.36	205.69
			For Class 52 Rating, Deduct	-99.85	
			For Class 54 Rating, Add	139.90	
			For Class 55 Rating, Add	209.90	
			For Class 56 Rating, Add	278.99	
40 05 19 00-0566	EA		4" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,282.47	208.80
			For Class 52 Rating, Deduct	-106.27	
			For Class 54 Rating, Add	148.71	
			For Class 55 Rating, Add	223.04	
			For Class 56 Rating, Add	296.39	
40 05 19 00-0567	EA		4" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,345.60	211.90
			For Class 52 Rating, Deduct	-112.70	
			For Class 54 Rating, Add	157.53	
			For Class 55 Rating, Add	236.18	
			For Class 56 Rating, Add	313.80	
40 05 19 00-0568	EA		4" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,408.73	215.01
			For Class 52 Rating, Deduct	-119.13	
			For Class 54 Rating, Add	166.35	
			For Class 55 Rating, Add	249.32	
			For Class 56 Rating, Add	331.20	
40 05 19 00-0569	EA		4" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,471.85	218.12
			For Class 52 Rating, Deduct	-125.55	
			For Class 54 Rating, Add	175.17	
			For Class 55 Rating, Add	262.46	
			For Class 56 Rating, Add	348.60	
40 05 19 00-0570	EA		4" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,534.97	221.23
			For Class 52 Rating, Deduct	-131.98	
			For Class 54 Rating, Add	183.99	
			For Class 55 Rating, Add	275.60	
			For Class 56 Rating, Add	366.00	
40 05 19 00-0571	EA		4" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,598.10	224.33
			For Class 52 Rating, Deduct	-138.40	
			For Class 54 Rating, Add	192.81	
			For Class 55 Rating, Add	288.74	
			For Class 56 Rating, Add	383.41	
40 05 19 00-0572	EA		4" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,661.22	227.44
			For Class 52 Rating, Deduct	-144.83	
			For Class 54 Rating, Add	201.63	
			For Class 55 Rating, Add	301.88	
			For Class 56 Rating, Add	400.81	
40 05 19 00-0573	EA		4" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,724.35	230.54
			For Class 52 Rating, Deduct	-151.25	
			For Class 54 Rating, Add	210.45	
			For Class 55 Rating, Add	315.02	
			For Class 56 Rating, Add	418.21	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0574	EA	4" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,787.48	233.66
		For Class 52 Rating, Deduct	-157.68	
		For Class 54 Rating, Add	219.27	
		For Class 55 Rating, Add	328.16	
		For Class 56 Rating, Add	435.62	
40 05 19 00-0575	EA	4" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,850.60	236.76
		For Class 52 Rating, Deduct	-164.11	
		For Class 54 Rating, Add	228.09	
		For Class 55 Rating, Add	341.30	
		For Class 56 Rating, Add	453.02	
40 05 19 00-0576	EA	4" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,913.72	239.87
		For Class 52 Rating, Deduct	-170.53	
		For Class 54 Rating, Add	236.90	
		For Class 55 Rating, Add	354.44	
		For Class 56 Rating, Add	470.42	
40 05 19 00-0577	EA	4" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,976.85	242.97
		For Class 52 Rating, Deduct	-176.96	
		For Class 54 Rating, Add	245.72	
		For Class 55 Rating, Add	367.58	
		For Class 56 Rating, Add	487.82	
40 05 19 00-0578	EA	4" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,039.98	246.08
		For Class 52 Rating, Deduct	-183.38	
		For Class 54 Rating, Add	254.54	
		For Class 55 Rating, Add	380.72	
		For Class 56 Rating, Add	505.23	
40 05 19 00-0579	EA	4" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,103.09	249.19
		For Class 52 Rating, Deduct	-189.81	
		For Class 54 Rating, Add	263.36	
		For Class 55 Rating, Add	393.86	
		For Class 56 Rating, Add	522.63	
40 05 19 00-0580	EA	4" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,166.22	252.30
		For Class 52 Rating, Deduct	-196.24	
		For Class 54 Rating, Add	272.18	
		For Class 55 Rating, Add	407.00	
		For Class 56 Rating, Add	540.03	
40 05 19 00-0581	EA	4" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,229.35	255.40
		For Class 52 Rating, Deduct	-202.66	
		For Class 54 Rating, Add	281.00	
		For Class 55 Rating, Add	420.14	
		For Class 56 Rating, Add	557.43	
40 05 19 00-0582	EA	4" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,292.47	258.51
		For Class 52 Rating, Deduct	-209.09	
		For Class 54 Rating, Add	289.82	
		For Class 55 Rating, Add	433.28	
		For Class 56 Rating, Add	574.83	
40 05 19 00-0583	EA	4" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,355.59	261.61
		For Class 52 Rating, Deduct	-215.51	
		For Class 54 Rating, Add	298.64	
		For Class 55 Rating, Add	446.42	
		For Class 56 Rating, Add	592.24	
40 05 19 00-0584	EA	4" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,418.72	264.73
		For Class 52 Rating, Deduct	-221.94	
		For Class 54 Rating, Add	307.46	
		For Class 55 Rating, Add	459.56	
		For Class 56 Rating, Add	609.64	
40 05 19 00-0585	EA	4" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,481.84	267.83
		For Class 52 Rating, Deduct	-228.36	
		For Class 54 Rating, Add	316.28	
		For Class 55 Rating, Add	472.70	
		For Class 56 Rating, Add	627.04	
40 05 19 00-0586	EA	4" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,544.97	270.94
		For Class 52 Rating, Deduct	-234.79	
		For Class 54 Rating, Add	325.10	
		For Class 55 Rating, Add	485.84	
		For Class 56 Rating, Add	644.44	
40 05 19 00-0587	EA	4" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,608.10	274.04
		For Class 52 Rating, Deduct	-241.22	
		For Class 54 Rating, Add	333.91	
		For Class 55 Rating, Add	498.98	
		For Class 56 Rating, Add	661.85	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0588	EA		4" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,671.21	277.15
			For Class 52 Rating, Deduct	-247.64	
			For Class 54 Rating, Add	342.73	
			For Class 55 Rating, Add	512.12	
			For Class 56 Rating, Add	679.25	
40 05 19 00-0589	EA		4" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,734.34	280.26
			For Class 52 Rating, Deduct	-254.07	
			For Class 54 Rating, Add	351.55	
			For Class 55 Rating, Add	525.26	
			For Class 56 Rating, Add	696.65	
40 05 19 00-0590	EA		4" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,797.47	283.37
			For Class 52 Rating, Deduct	-260.49	
			For Class 54 Rating, Add	360.37	
			For Class 55 Rating, Add	538.40	
			For Class 56 Rating, Add	714.05	
40 05 19 00-0591	EA		4" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,860.59	286.47
			For Class 52 Rating, Deduct	-266.92	
			For Class 54 Rating, Add	369.19	
			For Class 55 Rating, Add	551.54	
			For Class 56 Rating, Add	731.46	
40 05 19 00-0592	EA		4" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,923.71	289.58
			For Class 52 Rating, Deduct	-273.35	
			For Class 54 Rating, Add	378.01	
			For Class 55 Rating, Add	564.68	
			For Class 56 Rating, Add	748.86	
40 05 19 00-0593	EA		4" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,986.84	292.68
			For Class 52 Rating, Deduct	-279.77	
			For Class 54 Rating, Add	386.83	
			For Class 55 Rating, Add	577.82	
			For Class 56 Rating, Add	766.26	
40 05 19 00-0594	EA		4" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,049.96	295.80
			For Class 52 Rating, Deduct	-286.20	
			For Class 54 Rating, Add	395.65	
			For Class 55 Rating, Add	590.96	
			For Class 56 Rating, Add	783.66	
40 05 19 00-0595			6" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0596	EA		6" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	813.02	223.70
			For Class 52 Rating, Deduct	-52.15	
			For Class 54 Rating, Add	75.18	
			For Class 55 Rating, Add	113.85	
			For Class 56 Rating, Add	152.05	
40 05 19 00-0597	EA		6" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	889.63	226.82
			For Class 52 Rating, Deduct	-60.06	
			For Class 54 Rating, Add	86.02	
			For Class 55 Rating, Add	130.00	
			For Class 56 Rating, Add	173.43	
40 05 19 00-0598	EA		6" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	966.24	229.92
			For Class 52 Rating, Deduct	-67.97	
			For Class 54 Rating, Add	96.86	
			For Class 55 Rating, Add	146.15	
			For Class 56 Rating, Add	194.81	
40 05 19 00-0599	EA		6" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,042.84	233.03
			For Class 52 Rating, Deduct	-75.87	
			For Class 54 Rating, Add	107.70	
			For Class 55 Rating, Add	162.29	
			For Class 56 Rating, Add	216.19	
40 05 19 00-0600	EA		6" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,119.45	236.13
			For Class 52 Rating, Deduct	-83.78	
			For Class 54 Rating, Add	118.54	
			For Class 55 Rating, Add	178.44	
			For Class 56 Rating, Add	237.57	
40 05 19 00-0601	EA		6" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,196.05	239.24
			For Class 52 Rating, Deduct	-91.69	
			For Class 54 Rating, Add	129.38	
			For Class 55 Rating, Add	194.58	
			For Class 56 Rating, Add	258.95	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0602	EA	6" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,272.66	242.35
		For Class 52 Rating, Deduct	-99.60	
		For Class 54 Rating, Add	140.23	
		For Class 55 Rating, Add	210.73	
		For Class 56 Rating, Add	280.33	
40 05 19 00-0603	EA	6" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,349.26	245.46
		For Class 52 Rating, Deduct	-107.51	
		For Class 54 Rating, Add	151.07	
		For Class 55 Rating, Add	226.88	
		For Class 56 Rating, Add	301.71	
40 05 19 00-0604	EA	6" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,425.87	248.56
		For Class 52 Rating, Deduct	-175.42	
		For Class 54 Rating, Add	161.91	
		For Class 55 Rating, Add	243.02	
		For Class 56 Rating, Add	323.09	
40 05 19 00-0605	EA	6" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,502.47	251.67
		For Class 52 Rating, Deduct	-123.33	
		For Class 54 Rating, Add	172.75	
		For Class 55 Rating, Add	259.17	
		For Class 56 Rating, Add	344.47	
40 05 19 00-0606	EA	6" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,579.08	254.77
		For Class 52 Rating, Deduct	-131.24	
		For Class 54 Rating, Add	183.59	
		For Class 55 Rating, Add	275.31	
		For Class 56 Rating, Add	365.85	
40 05 19 00-0607	EA	6" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,655.69	257.89
		For Class 52 Rating, Deduct	-139.14	
		For Class 54 Rating, Add	194.43	
		For Class 55 Rating, Add	291.46	
		For Class 56 Rating, Add	387.23	
40 05 19 00-0608	EA	6" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,732.29	260.99
		For Class 52 Rating, Deduct	-147.05	
		For Class 54 Rating, Add	205.27	
		For Class 55 Rating, Add	307.61	
		For Class 56 Rating, Add	408.61	
40 05 19 00-0609	EA	6" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,808.89	264.10
		For Class 52 Rating, Deduct	-154.96	
		For Class 54 Rating, Add	216.11	
		For Class 55 Rating, Add	323.75	
		For Class 56 Rating, Add	429.98	
40 05 19 00-0610	EA	6" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,885.50	267.20
		For Class 52 Rating, Deduct	-162.87	
		For Class 54 Rating, Add	226.95	
		For Class 55 Rating, Add	339.90	
		For Class 56 Rating, Add	451.36	
40 05 19 00-0611	EA	6" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,962.11	270.31
		For Class 52 Rating, Deduct	-170.78	
		For Class 54 Rating, Add	237.80	
		For Class 55 Rating, Add	356.05	
		For Class 56 Rating, Add	472.74	
40 05 19 00-0612	EA	6" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,038.71	273.42
		For Class 52 Rating, Deduct	-178.69	
		For Class 54 Rating, Add	248.64	
		For Class 55 Rating, Add	372.19	
		For Class 56 Rating, Add	494.12	
40 05 19 00-0613	EA	6" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,115.31	276.53
		For Class 52 Rating, Deduct	-186.60	
		For Class 54 Rating, Add	259.48	
		For Class 55 Rating, Add	388.34	
		For Class 56 Rating, Add	515.50	
40 05 19 00-0614	EA	6" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,191.92	279.63
		For Class 52 Rating, Deduct	-194.51	
		For Class 54 Rating, Add	270.32	
		For Class 55 Rating, Add	404.48	
		For Class 56 Rating, Add	536.88	
40 05 19 00-0615	EA	6" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,268.53	282.74
		For Class 52 Rating, Deduct	-202.41	
		For Class 54 Rating, Add	281.16	
		For Class 55 Rating, Add	420.63	
		For Class 56 Rating, Add	558.26	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0616	EA		6" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,345.13	285.84
			For Class 52 Rating, Deduct	-210.32	
			For Class 54 Rating, Add	292.00	
			For Class 55 Rating, Add	436.78	
			For Class 56 Rating, Add	579.64	
40 05 19 00-0617	EA		6" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,421.73	288.96
			For Class 52 Rating, Deduct	-218.23	
			For Class 54 Rating, Add	302.84	
			For Class 55 Rating, Add	452.92	
			For Class 56 Rating, Add	601.02	
40 05 19 00-0618	EA		6" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,498.34	292.06
			For Class 52 Rating, Deduct	-226.14	
			For Class 54 Rating, Add	313.68	
			For Class 55 Rating, Add	469.07	
			For Class 56 Rating, Add	622.40	
40 05 19 00-0619	EA		6" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,574.95	295.17
			For Class 52 Rating, Deduct	-234.05	
			For Class 54 Rating, Add	324.52	
			For Class 55 Rating, Add	485.22	
			For Class 56 Rating, Add	643.78	
40 05 19 00-0620	EA		6" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,651.55	298.27
			For Class 52 Rating, Deduct	-241.96	
			For Class 54 Rating, Add	335.37	
			For Class 55 Rating, Add	501.36	
			For Class 56 Rating, Add	665.16	
40 05 19 00-0621	EA		6" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,728.15	301.38
			For Class 52 Rating, Deduct	-249.87	
			For Class 54 Rating, Add	346.21	
			For Class 55 Rating, Add	517.51	
			For Class 56 Rating, Add	686.53	
40 05 19 00-0622	EA		6" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,804.76	304.50
			For Class 52 Rating, Deduct	-257.78	
			For Class 54 Rating, Add	357.05	
			For Class 55 Rating, Add	533.65	
			For Class 56 Rating, Add	707.91	
40 05 19 00-0623	EA		6" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,881.37	307.60
			For Class 52 Rating, Deduct	-265.68	
			For Class 54 Rating, Add	367.89	
			For Class 55 Rating, Add	549.80	
			For Class 56 Rating, Add	729.29	
40 05 19 00-0624	EA		6" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,957.98	310.71
			For Class 52 Rating, Deduct	-273.59	
			For Class 54 Rating, Add	378.73	
			For Class 55 Rating, Add	565.95	
			For Class 56 Rating, Add	750.67	
40 05 19 00-0625	EA		6" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,034.58	313.81
			For Class 52 Rating, Deduct	-281.50	
			For Class 54 Rating, Add	389.57	
			For Class 55 Rating, Add	582.09	
			For Class 56 Rating, Add	772.05	
40 05 19 00-0626	EA		6" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,111.18	316.92
			For Class 52 Rating, Deduct	-289.41	
			For Class 54 Rating, Add	400.41	
			For Class 55 Rating, Add	598.24	
			For Class 56 Rating, Add	793.43	
40 05 19 00-0627	EA		6" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,187.79	320.03
			For Class 52 Rating, Deduct	-297.32	
			For Class 54 Rating, Add	411.25	
			For Class 55 Rating, Add	614.38	
			For Class 56 Rating, Add	814.81	
40 05 19 00-0628	EA		6" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,264.40	323.14
			For Class 52 Rating, Deduct	-305.23	
			For Class 54 Rating, Add	422.10	
			For Class 55 Rating, Add	630.53	
			For Class 56 Rating, Add	836.19	
40 05 19 00-0629	EA		6" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,341.00	326.24
			For Class 52 Rating, Deduct	-313.14	
			For Class 54 Rating, Add	432.94	
			For Class 55 Rating, Add	646.68	
			For Class 56 Rating, Add	857.57	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0630	EA	6"	Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	3,417.60 -321.04 443.78 662.82 878.95	329.35
40 05 19 00-0631	EA	6"	Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	3,494.21 -328.95 454.62 678.97 900.33	332.45
40 05 19 00-0632	EA	6"	Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	3,570.82 -336.86 465.46 695.12 921.71	335.57
40 05 19 00-0633	EA	6"	Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	3,647.42 -344.77 476.30 711.26 943.09	338.67
40 05 19 00-0634	EA	6"	Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	3,724.02 -352.68 487.14 727.41 964.47	341.78
40 05 19 00-0635			8" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0636	EA	8"	Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,125.11 -76.12 109.00 164.71 219.73	285.84
40 05 19 00-0637	EA	8"	Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,228.68 -87.00 123.88 186.87 249.07	288.96
40 05 19 00-0638	EA	8"	Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,332.25 -97.87 138.77 209.03 278.40	292.06
40 05 19 00-0639	EA	8"	Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,435.82 -108.74 153.66 231.19 307.73	295.17
40 05 19 00-0640	EA	8"	Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,539.38 -119.62 168.54 253.35 337.07	298.27
40 05 19 00-0641	EA	8"	Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,642.95 -130.49 183.43 275.51 366.40	301.38
40 05 19 00-0642	EA	8"	Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,746.52 -141.37 198.31 297.67 395.73	304.50
40 05 19 00-0643	EA	8"	Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	1,850.09 -152.24 213.20 319.82 425.07	307.60

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

40 05 19 00-0644	EA	8" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,953.66	310.71
		For Class 52 Rating, Deduct	-163.12	
		For Class 54 Rating, Add	228.08	
		For Class 55 Rating, Add	341.98	
		For Class 56 Rating, Add	454.40	
40 05 19 00-0645	EA	8" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,057.22	313.81
		For Class 52 Rating, Deduct	-173.99	
		For Class 54 Rating, Add	242.97	
		For Class 55 Rating, Add	364.14	
		For Class 56 Rating, Add	483.73	
40 05 19 00-0646	EA	8" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,160.79	316.92
		For Class 52 Rating, Deduct	-184.87	
		For Class 54 Rating, Add	257.85	
		For Class 55 Rating, Add	386.30	
		For Class 56 Rating, Add	513.07	
40 05 19 00-0647	EA	8" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,264.36	320.03
		For Class 52 Rating, Deduct	-195.74	
		For Class 54 Rating, Add	272.74	
		For Class 55 Rating, Add	408.46	
		For Class 56 Rating, Add	542.40	
40 05 19 00-0648	EA	8" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,367.92	323.14
		For Class 52 Rating, Deduct	-206.62	
		For Class 54 Rating, Add	287.62	
		For Class 55 Rating, Add	430.62	
		For Class 56 Rating, Add	571.73	
40 05 19 00-0649	EA	8" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,471.48	326.24
		For Class 52 Rating, Deduct	-217.49	
		For Class 54 Rating, Add	302.51	
		For Class 55 Rating, Add	452.77	
		For Class 56 Rating, Add	601.06	
40 05 19 00-0650	EA	8" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,575.05	329.35
		For Class 52 Rating, Deduct	-228.36	
		For Class 54 Rating, Add	317.39	
		For Class 55 Rating, Add	474.93	
		For Class 56 Rating, Add	630.40	
40 05 19 00-0651	EA	8" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,678.62	332.45
		For Class 52 Rating, Deduct	-239.24	
		For Class 54 Rating, Add	332.28	
		For Class 55 Rating, Add	497.09	
		For Class 56 Rating, Add	659.73	
40 05 19 00-0652	EA	8" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,782.19	335.57
		For Class 52 Rating, Deduct	-250.11	
		For Class 54 Rating, Add	347.17	
		For Class 55 Rating, Add	519.25	
		For Class 56 Rating, Add	689.06	
40 05 19 00-0653	EA	8" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,885.75	338.67
		For Class 52 Rating, Deduct	-260.99	
		For Class 54 Rating, Add	362.05	
		For Class 55 Rating, Add	541.41	
		For Class 56 Rating, Add	718.40	
40 05 19 00-0654	EA	8" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,989.32	341.78
		For Class 52 Rating, Deduct	-271.86	
		For Class 54 Rating, Add	376.94	
		For Class 55 Rating, Add	563.57	
		For Class 56 Rating, Add	747.73	
40 05 19 00-0655	EA	8" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,092.89	344.88
		For Class 52 Rating, Deduct	-282.74	
		For Class 54 Rating, Add	391.82	
		For Class 55 Rating, Add	585.73	
		For Class 56 Rating, Add	777.06	
40 05 19 00-0656	EA	8" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,196.46	347.99
		For Class 52 Rating, Deduct	-293.61	
		For Class 54 Rating, Add	406.71	
		For Class 55 Rating, Add	607.89	
		For Class 56 Rating, Add	806.40	
40 05 19 00-0657	EA	8" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,300.02	351.10
		For Class 52 Rating, Deduct	-304.49	
		For Class 54 Rating, Add	421.59	
		For Class 55 Rating, Add	630.04	
		For Class 56 Rating, Add	835.73	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0658	EA	8" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,403.59	354.21
		For Class 52 Rating, Deduct	-315.36	
		For Class 54 Rating, Add	436.48	
		For Class 55 Rating, Add	652.20	
		For Class 56 Rating, Add	865.06	
40 05 19 00-0659	EA	8" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,507.16	357.31
		For Class 52 Rating, Deduct	-326.24	
		For Class 54 Rating, Add	451.36	
		For Class 55 Rating, Add	674.36	
		For Class 56 Rating, Add	894.39	
40 05 19 00-0660	EA	8" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,610.73	360.42
		For Class 52 Rating, Deduct	-337.11	
		For Class 54 Rating, Add	466.25	
		For Class 55 Rating, Add	696.52	
		For Class 56 Rating, Add	923.73	
40 05 19 00-0661	EA	8" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,714.29	363.52
		For Class 52 Rating, Deduct	-347.98	
		For Class 54 Rating, Add	481.13	
		For Class 55 Rating, Add	718.68	
		For Class 56 Rating, Add	953.06	
40 05 19 00-0662	EA	8" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,817.85	366.64
		For Class 52 Rating, Deduct	-358.86	
		For Class 54 Rating, Add	496.02	
		For Class 55 Rating, Add	740.84	
		For Class 56 Rating, Add	982.39	
40 05 19 00-0663	EA	8" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,921.42	369.74
		For Class 52 Rating, Deduct	-369.73	
		For Class 54 Rating, Add	510.90	
		For Class 55 Rating, Add	762.99	
		For Class 56 Rating, Add	1,011.72	
40 05 19 00-0664	EA	8" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,024.99	372.85
		For Class 52 Rating, Deduct	-380.61	
		For Class 54 Rating, Add	525.79	
		For Class 55 Rating, Add	785.15	
		For Class 56 Rating, Add	1,041.06	
40 05 19 00-0665	EA	8" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,128.56	375.95
		For Class 52 Rating, Deduct	-391.48	
		For Class 54 Rating, Add	540.68	
		For Class 55 Rating, Add	807.31	
		For Class 56 Rating, Add	1,070.39	
40 05 19 00-0666	EA	8" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,232.12	379.06
		For Class 52 Rating, Deduct	-402.36	
		For Class 54 Rating, Add	555.56	
		For Class 55 Rating, Add	829.47	
		For Class 56 Rating, Add	1,099.72	
40 05 19 00-0667	EA	8" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,335.69	382.17
		For Class 52 Rating, Deduct	-413.23	
		For Class 54 Rating, Add	570.45	
		For Class 55 Rating, Add	851.63	
		For Class 56 Rating, Add	1,129.06	
40 05 19 00-0668	EA	8" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,439.26	385.28
		For Class 52 Rating, Deduct	-424.11	
		For Class 54 Rating, Add	585.33	
		For Class 55 Rating, Add	873.79	
		For Class 56 Rating, Add	1,158.39	
40 05 19 00-0669	EA	8" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,542.83	388.38
		For Class 52 Rating, Deduct	-434.98	
		For Class 54 Rating, Add	600.22	
		For Class 55 Rating, Add	895.95	
		For Class 56 Rating, Add	1,187.72	
40 05 19 00-0670	EA	8" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,646.39	391.49
		For Class 52 Rating, Deduct	-445.86	
		For Class 54 Rating, Add	615.10	
		For Class 55 Rating, Add	918.11	
		For Class 56 Rating, Add	1,217.06	
40 05 19 00-0671	EA	8" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,749.96	394.59
		For Class 52 Rating, Deduct	-456.73	
		For Class 54 Rating, Add	629.99	
		For Class 55 Rating, Add	940.26	
		For Class 56 Rating, Add	1,246.39	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION				UNIT COST	UNIT COST
40 05 19 00-0672	EA	8" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,853.53	397.71
		For Class 52 Rating, Deduct		-467.60	
		For Class 54 Rating, Add		644.87	
		For Class 55 Rating, Add		962.42	
		For Class 56 Rating, Add		1,275.72	
40 05 19 00-0673	EA	8" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,957.09	400.81
		For Class 52 Rating, Deduct		-478.48	
		For Class 54 Rating, Add		659.76	
		For Class 55 Rating, Add		984.58	
		For Class 56 Rating, Add		1,305.05	
40 05 19 00-0674	EA	8" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		5,060.66	403.92
		For Class 52 Rating, Deduct		-489.35	
		For Class 54 Rating, Add		674.64	
		For Class 55 Rating, Add		1,006.74	
		For Class 56 Rating, Add		1,334.39	
40 05 19 00-0675 10" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)					
40 05 19 00-0676	EA	10" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		1,412.50	347.99
		For Class 52 Rating, Deduct		-97.38	
		For Class 54 Rating, Add		139.11	
		For Class 55 Rating, Add		210.06	
		For Class 56 Rating, Add		280.13	
40 05 19 00-0677	EA	10" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		1,547.51	351.10
		For Class 52 Rating, Deduct		-111.71	
		For Class 54 Rating, Add		158.72	
		For Class 55 Rating, Add		239.23	
		For Class 56 Rating, Add		318.74	
40 05 19 00-0678	EA	10" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		1,682.54	354.21
		For Class 52 Rating, Deduct		-126.05	
		For Class 54 Rating, Add		178.32	
		For Class 55 Rating, Add		268.41	
		For Class 56 Rating, Add		357.35	
40 05 19 00-0679	EA	10" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		1,817.56	357.31
		For Class 52 Rating, Deduct		-140.38	
		For Class 54 Rating, Add		197.92	
		For Class 55 Rating, Add		297.58	
		For Class 56 Rating, Add		395.96	
40 05 19 00-0680	EA	10" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		1,952.59	360.42
		For Class 52 Rating, Deduct		-154.72	
		For Class 54 Rating, Add		217.53	
		For Class 55 Rating, Add		326.76	
		For Class 56 Rating, Add		434.58	
40 05 19 00-0681	EA	10" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,087.61	363.52
		For Class 52 Rating, Deduct		-169.05	
		For Class 54 Rating, Add		237.13	
		For Class 55 Rating, Add		355.93	
		For Class 56 Rating, Add		473.19	
40 05 19 00-0682	EA	10" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,222.63	366.64
		For Class 52 Rating, Deduct		-183.38	
		For Class 54 Rating, Add		256.74	
		For Class 55 Rating, Add		385.10	
		For Class 56 Rating, Add		511.80	
40 05 19 00-0683	EA	10" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,357.65	369.74
		For Class 52 Rating, Deduct		-197.72	
		For Class 54 Rating, Add		276.34	
		For Class 55 Rating, Add		414.27	
		For Class 56 Rating, Add		550.41	
40 05 19 00-0684	EA	10" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,492.67	372.85
		For Class 52 Rating, Deduct		-212.05	
		For Class 54 Rating, Add		295.94	
		For Class 55 Rating, Add		443.45	
		For Class 56 Rating, Add		589.02	
40 05 19 00-0685	EA	10" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,627.70	375.95
		For Class 52 Rating, Deduct		-226.39	
		For Class 54 Rating, Add		315.55	
		For Class 55 Rating, Add		472.62	
		For Class 56 Rating, Add		627.64	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0686	EA	10" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,762.71	379.06
		For Class 52 Rating, Deduct	-240.72	
		For Class 54 Rating, Add	335.15	
		For Class 55 Rating, Add	501.79	
		For Class 56 Rating, Add	666.25	
40 05 19 00-0687	EA	10" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,897.74	382.17
		For Class 52 Rating, Deduct	-255.06	
		For Class 54 Rating, Add	354.75	
		For Class 55 Rating, Add	530.97	
		For Class 56 Rating, Add	704.86	
40 05 19 00-0688	EA	10" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,032.76	385.28
		For Class 52 Rating, Deduct	-269.39	
		For Class 54 Rating, Add	374.36	
		For Class 55 Rating, Add	560.14	
		For Class 56 Rating, Add	743.47	
40 05 19 00-0689	EA	10" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,167.79	388.38
		For Class 52 Rating, Deduct	-283.73	
		For Class 54 Rating, Add	393.96	
		For Class 55 Rating, Add	589.31	
		For Class 56 Rating, Add	782.09	
40 05 19 00-0690	EA	10" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,302.80	391.49
		For Class 52 Rating, Deduct	-298.06	
		For Class 54 Rating, Add	413.56	
		For Class 55 Rating, Add	618.49	
		For Class 56 Rating, Add	820.70	
40 05 19 00-0691	EA	10" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,437.83	394.59
		For Class 52 Rating, Deduct	-312.40	
		For Class 54 Rating, Add	433.17	
		For Class 55 Rating, Add	647.66	
		For Class 56 Rating, Add	859.31	
40 05 19 00-0692	EA	10" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,572.85	397.71
		For Class 52 Rating, Deduct	-326.73	
		For Class 54 Rating, Add	452.77	
		For Class 55 Rating, Add	676.83	
		For Class 56 Rating, Add	897.92	
40 05 19 00-0693	EA	10" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,707.87	400.81
		For Class 52 Rating, Deduct	-341.06	
		For Class 54 Rating, Add	472.37	
		For Class 55 Rating, Add	706.00	
		For Class 56 Rating, Add	936.53	
40 05 19 00-0694	EA	10" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,842.90	403.92
		For Class 52 Rating, Deduct	-355.40	
		For Class 54 Rating, Add	491.98	
		For Class 55 Rating, Add	735.18	
		For Class 56 Rating, Add	975.15	
40 05 19 00-0695	EA	10" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,977.91	407.02
		For Class 52 Rating, Deduct	-369.73	
		For Class 54 Rating, Add	511.58	
		For Class 55 Rating, Add	764.35	
		For Class 56 Rating, Add	1,013.76	
40 05 19 00-0696	EA	10" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,112.94	410.13
		For Class 52 Rating, Deduct	-384.07	
		For Class 54 Rating, Add	531.19	
		For Class 55 Rating, Add	793.53	
		For Class 56 Rating, Add	1,052.37	
40 05 19 00-0697	EA	10" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,247.96	413.24
		For Class 52 Rating, Deduct	-398.40	
		For Class 54 Rating, Add	550.79	
		For Class 55 Rating, Add	822.70	
		For Class 56 Rating, Add	1,090.98	
40 05 19 00-0698	EA	10" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,382.99	416.35
		For Class 52 Rating, Deduct	-412.74	
		For Class 54 Rating, Add	570.39	
		For Class 55 Rating, Add	851.87	
		For Class 56 Rating, Add	1,129.60	
40 05 19 00-0699	EA	10" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,518.00	419.45
		For Class 52 Rating, Deduct	-427.07	
		For Class 54 Rating, Add	590.00	
		For Class 55 Rating, Add	881.04	
		For Class 56 Rating, Add	1,168.21	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

40 05 19 00-0700	EA	10" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,653.02	422.56
		For Class 52 Rating, Deduct	-441.41	
		For Class 54 Rating, Add	609.60	
		For Class 55 Rating, Add	910.22	
		For Class 56 Rating, Add	1,206.82	
40 05 19 00-0701	EA	10" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,788.05	425.66
		For Class 52 Rating, Deduct	-455.74	
		For Class 54 Rating, Add	629.20	
		For Class 55 Rating, Add	939.39	
		For Class 56 Rating, Add	1,245.43	
40 05 19 00-0702	EA	10" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,923.07	428.78
		For Class 52 Rating, Deduct	-470.08	
		For Class 54 Rating, Add	648.81	
		For Class 55 Rating, Add	968.56	
		For Class 56 Rating, Add	1,284.04	
40 05 19 00-0703	EA	10" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,058.09	431.88
		For Class 52 Rating, Deduct	-484.41	
		For Class 54 Rating, Add	668.41	
		For Class 55 Rating, Add	997.74	
		For Class 56 Rating, Add	1,322.66	
40 05 19 00-0704	EA	10" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,193.11	434.99
		For Class 52 Rating, Deduct	-498.74	
		For Class 54 Rating, Add	688.01	
		For Class 55 Rating, Add	1,026.91	
		For Class 56 Rating, Add	1,361.27	
40 05 19 00-0705	EA	10" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,328.14	438.09
		For Class 52 Rating, Deduct	-513.08	
		For Class 54 Rating, Add	707.62	
		For Class 55 Rating, Add	1,056.08	
		For Class 56 Rating, Add	1,399.88	
40 05 19 00-0706	EA	10" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,463.16	441.20
		For Class 52 Rating, Deduct	-527.41	
		For Class 54 Rating, Add	727.22	
		For Class 55 Rating, Add	1,085.26	
		For Class 56 Rating, Add	1,438.49	
40 05 19 00-0707	EA	10" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,598.18	444.31
		For Class 52 Rating, Deduct	-541.75	
		For Class 54 Rating, Add	746.83	
		For Class 55 Rating, Add	1,114.43	
		For Class 56 Rating, Add	1,477.11	
40 05 19 00-0708	EA	10" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,733.20	447.42
		For Class 52 Rating, Deduct	-556.08	
		For Class 54 Rating, Add	766.43	
		For Class 55 Rating, Add	1,143.60	
		For Class 56 Rating, Add	1,515.72	
40 05 19 00-0709	EA	10" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,868.22	450.52
		For Class 52 Rating, Deduct	-570.42	
		For Class 54 Rating, Add	786.03	
		For Class 55 Rating, Add	1,172.77	
		For Class 56 Rating, Add	1,554.33	
40 05 19 00-0710	EA	10" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,003.25	453.63
		For Class 52 Rating, Deduct	-584.75	
		For Class 54 Rating, Add	805.64	
		For Class 55 Rating, Add	1,201.95	
		For Class 56 Rating, Add	1,592.94	
40 05 19 00-0711	EA	10" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,138.27	456.73
		For Class 52 Rating, Deduct	-599.09	
		For Class 54 Rating, Add	825.24	
		For Class 55 Rating, Add	1,231.12	
		For Class 56 Rating, Add	1,631.55	
40 05 19 00-0712	EA	10" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,273.29	459.85
		For Class 52 Rating, Deduct	-613.42	
		For Class 54 Rating, Add	844.84	
		For Class 55 Rating, Add	1,260.29	
		For Class 56 Rating, Add	1,670.17	
40 05 19 00-0713	EA	10" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,408.31	462.95
		For Class 52 Rating, Deduct	-627.76	
		For Class 54 Rating, Add	864.45	
		For Class 55 Rating, Add	1,289.47	
		For Class 56 Rating, Add	1,708.78	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0714	EA	10" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,543.34	466.06
		For Class 52 Rating, Deduct	-642.09	
		For Class 54 Rating, Add	884.05	
		For Class 55 Rating, Add	1,318.64	
		For Class 56 Rating, Add	1,747.39	
40 05 19 00-0715 12" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)				
40 05 19 00-0716	EA	12" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,831.90	434.99
		For Class 52 Rating, Deduct	-129.01	
		For Class 54 Rating, Add	183.83	
		For Class 55 Rating, Add	277.36	
		For Class 56 Rating, Add	369.71	
40 05 19 00-0717	EA	12" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,000.63	438.09
		For Class 52 Rating, Deduct	-147.05	
		For Class 54 Rating, Add	208.49	
		For Class 55 Rating, Add	314.05	
		For Class 56 Rating, Add	418.27	
40 05 19 00-0718	EA	12" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,169.35	441.20
		For Class 52 Rating, Deduct	-165.09	
		For Class 54 Rating, Add	233.15	
		For Class 55 Rating, Add	350.74	
		For Class 56 Rating, Add	466.82	
40 05 19 00-0719	EA	12" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,338.07	444.31
		For Class 52 Rating, Deduct	-183.14	
		For Class 54 Rating, Add	257.81	
		For Class 55 Rating, Add	387.42	
		For Class 56 Rating, Add	515.37	
40 05 19 00-0720	EA	12" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,506.80	447.42
		For Class 52 Rating, Deduct	-201.18	
		For Class 54 Rating, Add	282.47	
		For Class 55 Rating, Add	424.11	
		For Class 56 Rating, Add	563.93	
40 05 19 00-0721	EA	12" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,675.52	450.52
		For Class 52 Rating, Deduct	-219.22	
		For Class 54 Rating, Add	307.13	
		For Class 55 Rating, Add	460.80	
		For Class 56 Rating, Add	612.48	
40 05 19 00-0722	EA	12" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,844.25	453.63
		For Class 52 Rating, Deduct	-237.26	
		For Class 54 Rating, Add	331.79	
		For Class 55 Rating, Add	497.49	
		For Class 56 Rating, Add	661.04	
40 05 19 00-0723	EA	12" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,012.97	456.73
		For Class 52 Rating, Deduct	-255.30	
		For Class 54 Rating, Add	356.45	
		For Class 55 Rating, Add	534.18	
		For Class 56 Rating, Add	709.59	
40 05 19 00-0724	EA	12" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,181.69	459.85
		For Class 52 Rating, Deduct	-273.35	
		For Class 54 Rating, Add	381.10	
		For Class 55 Rating, Add	570.87	
		For Class 56 Rating, Add	758.15	
40 05 19 00-0725	EA	12" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,350.42	462.95
		For Class 52 Rating, Deduct	-291.39	
		For Class 54 Rating, Add	405.76	
		For Class 55 Rating, Add	607.56	
		For Class 56 Rating, Add	806.70	
40 05 19 00-0726	EA	12" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,519.14	466.06
		For Class 52 Rating, Deduct	-309.43	
		For Class 54 Rating, Add	430.42	
		For Class 55 Rating, Add	644.24	
		For Class 56 Rating, Add	855.25	
40 05 19 00-0727	EA	12" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,687.87	469.16
		For Class 52 Rating, Deduct	-327.47	
		For Class 54 Rating, Add	455.08	
		For Class 55 Rating, Add	680.93	
		For Class 56 Rating, Add	903.81	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0728	EA		12" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,856.59	472.27
			For Class 52 Rating, Deduct	-345.51	
			For Class 54 Rating, Add	479.74	
			For Class 55 Rating, Add	717.62	
			For Class 56 Rating, Add	952.36	
40 05 19 00-0729	EA		12" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,025.31	475.38
			For Class 52 Rating, Deduct	-363.55	
			For Class 54 Rating, Add	504.40	
			For Class 55 Rating, Add	754.31	
			For Class 56 Rating, Add	1,000.92	
40 05 19 00-0730	EA		12" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,194.04	478.49
			For Class 52 Rating, Deduct	-381.60	
			For Class 54 Rating, Add	529.06	
			For Class 55 Rating, Add	791.00	
			For Class 56 Rating, Add	1,049.47	
40 05 19 00-0731	EA		12" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,362.77	481.59
			For Class 52 Rating, Deduct	-399.64	
			For Class 54 Rating, Add	553.72	
			For Class 55 Rating, Add	827.69	
			For Class 56 Rating, Add	1,098.03	
40 05 19 00-0732	EA		12" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,531.48	484.70
			For Class 52 Rating, Deduct	-417.68	
			For Class 54 Rating, Add	578.38	
			For Class 55 Rating, Add	864.38	
			For Class 56 Rating, Add	1,146.58	
40 05 19 00-0733	EA		12" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,700.21	487.80
			For Class 52 Rating, Deduct	-435.72	
			For Class 54 Rating, Add	603.04	
			For Class 55 Rating, Add	901.07	
			For Class 56 Rating, Add	1,195.14	
40 05 19 00-0734	EA		12" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,868.93	490.92
			For Class 52 Rating, Deduct	-453.76	
			For Class 54 Rating, Add	627.69	
			For Class 55 Rating, Add	937.75	
			For Class 56 Rating, Add	1,243.69	
40 05 19 00-0735	EA		12" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,037.66	494.02
			For Class 52 Rating, Deduct	-471.81	
			For Class 54 Rating, Add	652.35	
			For Class 55 Rating, Add	974.44	
			For Class 56 Rating, Add	1,292.24	
40 05 19 00-0736	EA		12" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,206.38	497.13
			For Class 52 Rating, Deduct	-489.85	
			For Class 54 Rating, Add	677.01	
			For Class 55 Rating, Add	1,011.13	
			For Class 56 Rating, Add	1,340.80	
40 05 19 00-0737	EA		12" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,375.10	500.23
			For Class 52 Rating, Deduct	-507.89	
			For Class 54 Rating, Add	701.67	
			For Class 55 Rating, Add	1,047.82	
			For Class 56 Rating, Add	1,389.35	
40 05 19 00-0738	EA		12" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,543.83	503.34
			For Class 52 Rating, Deduct	-525.93	
			For Class 54 Rating, Add	726.33	
			For Class 55 Rating, Add	1,084.51	
			For Class 56 Rating, Add	1,437.91	
40 05 19 00-0739	EA		12" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,712.56	506.45
			For Class 52 Rating, Deduct	-543.97	
			For Class 54 Rating, Add	750.99	
			For Class 55 Rating, Add	1,121.20	
			For Class 56 Rating, Add	1,486.46	
40 05 19 00-0740	EA		12" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,881.28	509.56
			For Class 52 Rating, Deduct	-562.01	
			For Class 54 Rating, Add	775.65	
			For Class 55 Rating, Add	1,157.89	
			For Class 56 Rating, Add	1,535.01	
40 05 19 00-0741	EA		12" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,050.00	512.66
			For Class 52 Rating, Deduct	-580.06	
			For Class 54 Rating, Add	800.31	
			For Class 55 Rating, Add	1,194.57	
			For Class 56 Rating, Add	1,583.57	



MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST
40 05 19 00-0742	EA 12" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,218.73		515.77
	For Class 52 Rating, Deduct	-598.10		
	For Class 54 Rating, Add	824.97		
	For Class 55 Rating, Add	1,231.26		
	For Class 56 Rating, Add	1,632.12		
40 05 19 00-0743	EA 12" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,387.45		518.87
	For Class 52 Rating, Deduct	-616.14		
	For Class 54 Rating, Add	849.62		
	For Class 55 Rating, Add	1,267.95		
	For Class 56 Rating, Add	1,680.68		
40 05 19 00-0744	EA 12" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,556.18		521.99
	For Class 52 Rating, Deduct	-634.18		
	For Class 54 Rating, Add	874.28		
	For Class 55 Rating, Add	1,304.64		
	For Class 56 Rating, Add	1,729.23		
40 05 19 00-0745	EA 12" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,724.90		525.09
	For Class 52 Rating, Deduct	-652.22		
	For Class 54 Rating, Add	898.94		
	For Class 55 Rating, Add	1,341.33		
	For Class 56 Rating, Add	1,777.79		
40 05 19 00-0746	EA 12" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,893.62		528.20
	For Class 52 Rating, Deduct	-670.27		
	For Class 54 Rating, Add	923.60		
	For Class 55 Rating, Add	1,378.02		
	For Class 56 Rating, Add	1,826.34		
40 05 19 00-0747	EA 12" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,062.35		531.30
	For Class 52 Rating, Deduct	-688.31		
	For Class 54 Rating, Add	948.26		
	For Class 55 Rating, Add	1,414.71		
	For Class 56 Rating, Add	1,874.90		
40 05 19 00-0748	EA 12" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,231.07		534.41
	For Class 52 Rating, Deduct	-706.35		
	For Class 54 Rating, Add	972.92		
	For Class 55 Rating, Add	1,451.39		
	For Class 56 Rating, Add	1,923.45		
40 05 19 00-0749	EA 12" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,399.79		537.52
	For Class 52 Rating, Deduct	-724.39		
	For Class 54 Rating, Add	997.58		
	For Class 55 Rating, Add	1,488.08		
	For Class 56 Rating, Add	1,972.00		
40 05 19 00-0750	EA 12" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,568.52		540.63
	For Class 52 Rating, Deduct	-742.43		
	For Class 54 Rating, Add	1,022.24		
	For Class 55 Rating, Add	1,524.77		
	For Class 56 Rating, Add	2,020.56		
40 05 19 00-0751	EA 12" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,737.24		543.73
	For Class 52 Rating, Deduct	-760.47		
	For Class 54 Rating, Add	1,046.90		
	For Class 55 Rating, Add	1,561.46		
	For Class 56 Rating, Add	2,069.11		
40 05 19 00-0752	EA 12" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,905.97		546.84
	For Class 52 Rating, Deduct	-778.52		
	For Class 54 Rating, Add	1,071.56		
	For Class 55 Rating, Add	1,598.15		
	For Class 56 Rating, Add	2,117.67		
40 05 19 00-0753	EA 12" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,074.69		549.94
	For Class 52 Rating, Deduct	-796.56		
	For Class 54 Rating, Add	1,096.22		
	For Class 55 Rating, Add	1,634.84		
	For Class 56 Rating, Add	2,166.22		
40 05 19 00-0754	EA 12" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,243.41		553.06
	For Class 52 Rating, Deduct	-814.60		
	For Class 54 Rating, Add	1,120.87		
	For Class 55 Rating, Add	1,671.53		
	For Class 56 Rating, Add	2,214.77		
40 05 19 00-0755	14" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)			

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 19 00-0756	EA	14" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,543.39	521.99
		For Class 52 Rating, Deduct		-192.78	
		For Class 54 Rating, Add		272.37	
		For Class 55 Rating, Add		409.79	
		For Class 56 Rating, Add		545.46	
40 05 19 00-0757	EA	14" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,748.06	525.09
		For Class 52 Rating, Deduct		-214.77	
		For Class 54 Rating, Add		302.42	
		For Class 55 Rating, Add		454.49	
		For Class 56 Rating, Add		604.62	
40 05 19 00-0758	EA	14" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,952.73	528.20
		For Class 52 Rating, Deduct		-236.77	
		For Class 54 Rating, Add		332.47	
		For Class 55 Rating, Add		499.20	
		For Class 56 Rating, Add		663.78	
40 05 19 00-0759	EA	14" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,157.41	531.30
		For Class 52 Rating, Deduct		-258.76	
		For Class 54 Rating, Add		362.52	
		For Class 55 Rating, Add		543.91	
		For Class 56 Rating, Add		722.94	
40 05 19 00-0760	EA	14" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,362.08	534.41
		For Class 52 Rating, Deduct		-280.76	
		For Class 54 Rating, Add		392.57	
		For Class 55 Rating, Add		588.61	
		For Class 56 Rating, Add		782.10	
40 05 19 00-0761	EA	14" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,566.75	537.52
		For Class 52 Rating, Deduct		-302.76	
		For Class 54 Rating, Add		422.62	
		For Class 55 Rating, Add		633.32	
		For Class 56 Rating, Add		841.26	
40 05 19 00-0762	EA	14" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,771.43	540.63
		For Class 52 Rating, Deduct		-324.75	
		For Class 54 Rating, Add		452.67	
		For Class 55 Rating, Add		678.02	
		For Class 56 Rating, Add		900.42	
40 05 19 00-0763	EA	14" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,976.10	543.73
		For Class 52 Rating, Deduct		-346.75	
		For Class 54 Rating, Add		482.73	
		For Class 55 Rating, Add		722.73	
		For Class 56 Rating, Add		959.57	
40 05 19 00-0764	EA	14" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,180.78	546.84
		For Class 52 Rating, Deduct		-368.75	
		For Class 54 Rating, Add		512.78	
		For Class 55 Rating, Add		767.43	
		For Class 56 Rating, Add		1,018.74	
40 05 19 00-0765	EA	14" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,385.44	549.94
		For Class 52 Rating, Deduct		-390.74	
		For Class 54 Rating, Add		542.83	
		For Class 55 Rating, Add		812.14	
		For Class 56 Rating, Add		1,077.89	
40 05 19 00-0766	EA	14" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,590.12	553.06
		For Class 52 Rating, Deduct		-412.74	
		For Class 54 Rating, Add		572.88	
		For Class 55 Rating, Add		856.84	
		For Class 56 Rating, Add		1,137.05	
40 05 19 00-0767	EA	14" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,794.79	556.16
		For Class 52 Rating, Deduct		-434.73	
		For Class 54 Rating, Add		602.93	
		For Class 55 Rating, Add		901.55	
		For Class 56 Rating, Add		1,196.21	
40 05 19 00-0768	EA	14" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,999.47	559.27
		For Class 52 Rating, Deduct		-456.73	
		For Class 54 Rating, Add		632.98	
		For Class 55 Rating, Add		946.25	
		For Class 56 Rating, Add		1,255.37	
40 05 19 00-0769	EA	14" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		5,204.14	562.37
		For Class 52 Rating, Deduct		-478.73	
		For Class 54 Rating, Add		663.03	
		For Class 55 Rating, Add		990.96	
		For Class 56 Rating, Add		1,314.53	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0770	EA	14" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,408.81	565.48
		For Class 52 Rating, Deduct	-500.72	
		For Class 54 Rating, Add	693.08	
		For Class 55 Rating, Add	1,035.66	
		For Class 56 Rating, Add	1,373.69	
40 05 19 00-0771	EA	14" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,613.48	568.59
		For Class 52 Rating, Deduct	-522.72	
		For Class 54 Rating, Add	723.14	
		For Class 55 Rating, Add	1,080.37	
		For Class 56 Rating, Add	1,432.85	
40 05 19 00-0772	EA	14" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,818.16	571.70
		For Class 52 Rating, Deduct	-544.71	
		For Class 54 Rating, Add	753.19	
		For Class 55 Rating, Add	1,125.07	
		For Class 56 Rating, Add	1,492.01	
40 05 19 00-0773	EA	14" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,022.83	574.80
		For Class 52 Rating, Deduct	-566.71	
		For Class 54 Rating, Add	783.24	
		For Class 55 Rating, Add	1,169.78	
		For Class 56 Rating, Add	1,551.17	
40 05 19 00-0774	EA	14" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,227.50	577.91
		For Class 52 Rating, Deduct	-588.71	
		For Class 54 Rating, Add	813.29	
		For Class 55 Rating, Add	1,214.48	
		For Class 56 Rating, Add	1,610.33	
40 05 19 00-0775	EA	14" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,432.17	581.01
		For Class 52 Rating, Deduct	-610.70	
		For Class 54 Rating, Add	843.34	
		For Class 55 Rating, Add	1,259.19	
		For Class 56 Rating, Add	1,669.48	
40 05 19 00-0776	EA	14" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,636.85	584.13
		For Class 52 Rating, Deduct	-632.70	
		For Class 54 Rating, Add	873.39	
		For Class 55 Rating, Add	1,303.89	
		For Class 56 Rating, Add	1,728.65	
40 05 19 00-0777	EA	14" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,841.52	587.23
		For Class 52 Rating, Deduct	-654.69	
		For Class 54 Rating, Add	903.44	
		For Class 55 Rating, Add	1,348.60	
		For Class 56 Rating, Add	1,787.80	
40 05 19 00-0778	EA	14" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,046.19	590.34
		For Class 52 Rating, Deduct	-676.69	
		For Class 54 Rating, Add	933.49	
		For Class 55 Rating, Add	1,393.30	
		For Class 56 Rating, Add	1,846.96	
40 05 19 00-0779	EA	14" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,250.86	593.44
		For Class 52 Rating, Deduct	-698.69	
		For Class 54 Rating, Add	963.54	
		For Class 55 Rating, Add	1,438.01	
		For Class 56 Rating, Add	1,906.12	
40 05 19 00-0780	EA	14" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,455.54	596.55
		For Class 52 Rating, Deduct	-720.68	
		For Class 54 Rating, Add	993.60	
		For Class 55 Rating, Add	1,482.72	
		For Class 56 Rating, Add	1,965.28	
40 05 19 00-0781	EA	14" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,660.21	599.66
		For Class 52 Rating, Deduct	-742.68	
		For Class 54 Rating, Add	1,023.65	
		For Class 55 Rating, Add	1,527.42	
		For Class 56 Rating, Add	2,024.44	
40 05 19 00-0782	EA	14" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,864.88	602.77
		For Class 52 Rating, Deduct	-764.68	
		For Class 54 Rating, Add	1,053.70	
		For Class 55 Rating, Add	1,572.13	
		For Class 56 Rating, Add	2,083.60	
40 05 19 00-0783	EA	14" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,069.55	605.88
		For Class 52 Rating, Deduct	-786.67	
		For Class 54 Rating, Add	1,083.75	
		For Class 55 Rating, Add	1,616.83	
		For Class 56 Rating, Add	2,142.76	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0784	EA	14" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,274.23	608.98
		For Class 52 Rating, Deduct		-808.67	
		For Class 54 Rating, Add		1,113.80	
		For Class 55 Rating, Add		1,661.54	
		For Class 56 Rating, Add		2,201.92	
40 05 19 00-0785	EA	14" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,478.90	612.10
		For Class 52 Rating, Deduct		-830.66	
		For Class 54 Rating, Add		1,143.85	
		For Class 55 Rating, Add		1,706.24	
		For Class 56 Rating, Add		2,261.08	
40 05 19 00-0786	EA	14" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,683.58	615.20
		For Class 52 Rating, Deduct		-852.66	
		For Class 54 Rating, Add		1,173.90	
		For Class 55 Rating, Add		1,750.95	
		For Class 56 Rating, Add		2,320.24	
40 05 19 00-0787	EA	14" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,888.25	618.31
		For Class 52 Rating, Deduct		-874.66	
		For Class 54 Rating, Add		1,203.96	
		For Class 55 Rating, Add		1,795.65	
		For Class 56 Rating, Add		2,379.40	
40 05 19 00-0788	EA	14" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,092.92	621.41
		For Class 52 Rating, Deduct		-896.65	
		For Class 54 Rating, Add		1,234.01	
		For Class 55 Rating, Add		1,840.36	
		For Class 56 Rating, Add		2,438.56	
40 05 19 00-0789	EA	14" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,297.60	624.52
		For Class 52 Rating, Deduct		-918.65	
		For Class 54 Rating, Add		1,264.06	
		For Class 55 Rating, Add		1,885.06	
		For Class 56 Rating, Add		2,497.72	
40 05 19 00-0790	EA	14" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,502.27	627.63
		For Class 52 Rating, Deduct		-940.65	
		For Class 54 Rating, Add		1,294.11	
		For Class 55 Rating, Add		1,929.77	
		For Class 56 Rating, Add		2,556.87	
40 05 19 00-0791	EA	14" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,706.94	630.74
		For Class 52 Rating, Deduct		-962.64	
		For Class 54 Rating, Add		1,324.16	
		For Class 55 Rating, Add		1,974.47	
		For Class 56 Rating, Add		2,616.03	
40 05 19 00-0792	EA	14" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,911.61	633.84
		For Class 52 Rating, Deduct		-984.64	
		For Class 54 Rating, Add		1,354.21	
		For Class 55 Rating, Add		2,019.18	
		For Class 56 Rating, Add		2,675.19	
40 05 19 00-0793	EA	14" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		10,116.29	636.95
		For Class 52 Rating, Deduct		-1,006.63	
		For Class 54 Rating, Add		1,384.26	
		For Class 55 Rating, Add		2,063.88	
		For Class 56 Rating, Add		2,734.35	
40 05 19 00-0794		16" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)			
40 05 19 00-0795	EA	16" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,977.67	596.55
		For Class 52 Rating, Deduct		-228.12	
		For Class 54 Rating, Add		321.92	
		For Class 55 Rating, Add		484.15	
		For Class 56 Rating, Add		644.31	
40 05 19 00-0796	EA	16" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,216.04	599.66
		For Class 52 Rating, Deduct		-253.82	
		For Class 54 Rating, Add		357.02	
		For Class 55 Rating, Add		536.37	
		For Class 56 Rating, Add		713.41	
40 05 19 00-0797	EA	16" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,454.41	602.77
		For Class 52 Rating, Deduct		-279.52	
		For Class 54 Rating, Add		392.13	
		For Class 55 Rating, Add		588.59	
		For Class 56 Rating, Add		782.51	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0798	EA	16" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,692.79	605.88
		For Class 52 Rating, Deduct	-305.23	
		For Class 54 Rating, Add	427.24	
		For Class 55 Rating, Add	640.81	
		For Class 56 Rating, Add	851.61	
40 05 19 00-0799	EA	16" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,931.17	608.98
		For Class 52 Rating, Deduct	-330.93	
		For Class 54 Rating, Add	462.34	
		For Class 55 Rating, Add	693.03	
		For Class 56 Rating, Add	920.72	
40 05 19 00-0800	EA	16" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,169.54	612.10
		For Class 52 Rating, Deduct	-356.63	
		For Class 54 Rating, Add	497.45	
		For Class 55 Rating, Add	745.25	
		For Class 56 Rating, Add	989.82	
40 05 19 00-0801	EA	16" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,407.92	615.20
		For Class 52 Rating, Deduct	-382.34	
		For Class 54 Rating, Add	532.56	
		For Class 55 Rating, Add	797.47	
		For Class 56 Rating, Add	1,058.92	
40 05 19 00-0802	EA	16" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,646.29	618.31
		For Class 52 Rating, Deduct	-408.04	
		For Class 54 Rating, Add	567.66	
		For Class 55 Rating, Add	849.70	
		For Class 56 Rating, Add	1,128.02	
40 05 19 00-0803	EA	16" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,884.66	621.41
		For Class 52 Rating, Deduct	-433.74	
		For Class 54 Rating, Add	602.77	
		For Class 55 Rating, Add	901.91	
		For Class 56 Rating, Add	1,197.12	
40 05 19 00-0804	EA	16" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,100.57	624.52
		For Class 52 Rating, Deduct	-456.98	
		For Class 54 Rating, Add	634.50	
		For Class 55 Rating, Add	949.13	
		For Class 56 Rating, Add	1,259.59	
40 05 19 00-0805	EA	16" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,361.42	627.63
		For Class 52 Rating, Deduct	-485.15	
		For Class 54 Rating, Add	672.98	
		For Class 55 Rating, Add	1,006.36	
		For Class 56 Rating, Add	1,335.32	
40 05 19 00-0806	EA	16" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,599.79	630.74
		For Class 52 Rating, Deduct	-510.86	
		For Class 54 Rating, Add	708.09	
		For Class 55 Rating, Add	1,058.58	
		For Class 56 Rating, Add	1,404.42	
40 05 19 00-0807	EA	16" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,838.16	633.84
		For Class 52 Rating, Deduct	-536.56	
		For Class 54 Rating, Add	743.19	
		For Class 55 Rating, Add	1,110.80	
		For Class 56 Rating, Add	1,473.52	
40 05 19 00-0808	EA	16" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,076.54	636.95
		For Class 52 Rating, Deduct	-562.26	
		For Class 54 Rating, Add	778.30	
		For Class 55 Rating, Add	1,163.02	
		For Class 56 Rating, Add	1,542.63	
40 05 19 00-0809	EA	16" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,314.92	640.05
		For Class 52 Rating, Deduct	-587.97	
		For Class 54 Rating, Add	813.41	
		For Class 55 Rating, Add	1,215.24	
		For Class 56 Rating, Add	1,611.73	
40 05 19 00-0810	EA	16" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,553.28	643.17
		For Class 52 Rating, Deduct	-613.67	
		For Class 54 Rating, Add	848.51	
		For Class 55 Rating, Add	1,267.46	
		For Class 56 Rating, Add	1,680.83	
40 05 19 00-0811	EA	16" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,791.66	646.27
		For Class 52 Rating, Deduct	-639.37	
		For Class 54 Rating, Add	883.62	
		For Class 55 Rating, Add	1,319.68	
		For Class 56 Rating, Add	1,749.93	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0812	EA		16" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,030.04	649.38
			For Class 52 Rating, Deduct	-665.08	
			For Class 54 Rating, Add	918.73	
			For Class 55 Rating, Add	1,371.90	
			For Class 56 Rating, Add	1,819.03	
40 05 19 00-0813	EA		16" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,268.42	652.48
			For Class 52 Rating, Deduct	-690.78	
			For Class 54 Rating, Add	953.83	
			For Class 55 Rating, Add	1,424.12	
			For Class 56 Rating, Add	1,888.13	
40 05 19 00-0814	EA		16" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,506.79	655.59
			For Class 52 Rating, Deduct	-716.48	
			For Class 54 Rating, Add	988.94	
			For Class 55 Rating, Add	1,476.34	
			For Class 56 Rating, Add	1,967.23	
40 05 19 00-0815	EA		16" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,745.16	658.70
			For Class 52 Rating, Deduct	-742.19	
			For Class 54 Rating, Add	1,024.05	
			For Class 55 Rating, Add	1,528.56	
			For Class 56 Rating, Add	2,026.34	
40 05 19 00-0816	EA		16" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,983.54	661.81
			For Class 52 Rating, Deduct	-767.89	
			For Class 54 Rating, Add	1,059.15	
			For Class 55 Rating, Add	1,580.79	
			For Class 56 Rating, Add	2,095.44	
40 05 19 00-0817	EA		16" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,221.91	664.91
			For Class 52 Rating, Deduct	-793.59	
			For Class 54 Rating, Add	1,094.26	
			For Class 55 Rating, Add	1,633.01	
			For Class 56 Rating, Add	2,164.54	
40 05 19 00-0818	EA		16" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,460.29	668.02
			For Class 52 Rating, Deduct	-819.30	
			For Class 54 Rating, Add	1,129.37	
			For Class 55 Rating, Add	1,685.23	
			For Class 56 Rating, Add	2,233.64	
40 05 19 00-0819	EA		16" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,698.66	671.12
			For Class 52 Rating, Deduct	-845.00	
			For Class 54 Rating, Add	1,164.47	
			For Class 55 Rating, Add	1,737.45	
			For Class 56 Rating, Add	2,302.74	
40 05 19 00-0820	EA		16" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,937.04	674.24
			For Class 52 Rating, Deduct	-870.70	
			For Class 54 Rating, Add	1,199.58	
			For Class 55 Rating, Add	1,789.67	
			For Class 56 Rating, Add	2,371.84	
40 05 19 00-0821	EA		16" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,175.41	677.34
			For Class 52 Rating, Deduct	-896.41	
			For Class 54 Rating, Add	1,234.69	
			For Class 55 Rating, Add	1,841.89	
			For Class 56 Rating, Add	2,440.94	
40 05 19 00-0822	EA		16" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,413.79	680.45
			For Class 52 Rating, Deduct	-922.11	
			For Class 54 Rating, Add	1,269.79	
			For Class 55 Rating, Add	1,894.11	
			For Class 56 Rating, Add	2,510.04	
40 05 19 00-0823	EA		16" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,652.16	683.55
			For Class 52 Rating, Deduct	-947.81	
			For Class 54 Rating, Add	1,304.90	
			For Class 55 Rating, Add	1,946.33	
			For Class 56 Rating, Add	2,579.15	
40 05 19 00-0824	EA		16" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,890.54	686.66
			For Class 52 Rating, Deduct	-973.52	
			For Class 54 Rating, Add	1,340.01	
			For Class 55 Rating, Add	1,998.55	
			For Class 56 Rating, Add	2,648.25	
40 05 19 00-0825	EA		16" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,128.91	689.77
			For Class 52 Rating, Deduct	-999.22	
			For Class 54 Rating, Add	1,375.11	
			For Class 55 Rating, Add	2,050.77	
			For Class 56 Rating, Add	2,717.35	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0826	EA	16"	Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,367.29	692.88
			For Class 52 Rating, Deduct	-1,024.92	
			For Class 54 Rating, Add	1,410.22	
			For Class 55 Rating, Add	2,102.99	
			For Class 56 Rating, Add	2,786.45	
40 05 19 00-0827	EA	16"	Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,605.66	695.98
			For Class 52 Rating, Deduct	-1,050.63	
			For Class 54 Rating, Add	1,445.33	
			For Class 55 Rating, Add	2,155.21	
			For Class 56 Rating, Add	2,855.55	
40 05 19 00-0828	EA	16"	Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,844.03	699.09
			For Class 52 Rating, Deduct	-1,076.33	
			For Class 54 Rating, Add	1,480.43	
			For Class 55 Rating, Add	2,207.43	
			For Class 56 Rating, Add	2,924.65	
40 05 19 00-0829	EA	16"	Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,082.41	702.19
			For Class 52 Rating, Deduct	-1,102.03	
			For Class 54 Rating, Add	1,515.54	
			For Class 55 Rating, Add	2,259.66	
			For Class 56 Rating, Add	2,993.75	
40 05 19 00-0830	EA	16"	Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,320.79	705.31
			For Class 52 Rating, Deduct	-1,127.74	
			For Class 54 Rating, Add	1,550.65	
			For Class 55 Rating, Add	2,311.88	
			For Class 56 Rating, Add	3,062.86	
40 05 19 00-0831	EA	16"	Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,559.17	708.41
			For Class 52 Rating, Deduct	-1,153.44	
			For Class 54 Rating, Add	1,585.75	
			For Class 55 Rating, Add	2,364.10	
			For Class 56 Rating, Add	3,131.96	
40 05 19 00-0832	EA	16"	Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,797.53	711.52
			For Class 52 Rating, Deduct	-1,179.14	
			For Class 54 Rating, Add	1,620.86	
			For Class 55 Rating, Add	2,416.32	
			For Class 56 Rating, Add	3,201.06	
40 05 19 00-0833			18" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0834	EA	18"	Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,478.99	672.38
			For Class 52 Rating, Deduct	-270.63	
			For Class 54 Rating, Add	381.26	
			For Class 55 Rating, Add	573.09	
			For Class 56 Rating, Add	762.45	
40 05 19 00-0835	EA	18"	Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,753.30	675.48
			For Class 52 Rating, Deduct	-300.28	
			For Class 54 Rating, Add	421.76	
			For Class 55 Rating, Add	633.32	
			For Class 56 Rating, Add	842.15	
40 05 19 00-0836	EA	18"	Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,027.63	678.59
			For Class 52 Rating, Deduct	-329.94	
			For Class 54 Rating, Add	462.26	
			For Class 55 Rating, Add	693.56	
			For Class 56 Rating, Add	921.86	
40 05 19 00-0837	EA	18"	Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,301.95	681.69
			For Class 52 Rating, Deduct	-359.60	
			For Class 54 Rating, Add	502.76	
			For Class 55 Rating, Add	753.80	
			For Class 56 Rating, Add	1,001.56	
40 05 19 00-0838	EA	18"	Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,576.28	684.80
			For Class 52 Rating, Deduct	-389.26	
			For Class 54 Rating, Add	543.26	
			For Class 55 Rating, Add	814.03	
			For Class 56 Rating, Add	1,081.27	
40 05 19 00-0839	EA	18"	Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,850.60	687.91
			For Class 52 Rating, Deduct	-418.92	
			For Class 54 Rating, Add	583.76	
			For Class 55 Rating, Add	874.27	
			For Class 56 Rating, Add	1,160.98	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0840	EA		18" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,124.92	691.02
			For Class 52 Rating, Deduct	-448.57	
			For Class 54 Rating, Add	624.25	
			For Class 55 Rating, Add	934.51	
			For Class 56 Rating, Add	1,240.68	
40 05 19 00-0841	EA		18" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,399.25	694.12
			For Class 52 Rating, Deduct	-478.23	
			For Class 54 Rating, Add	664.75	
			For Class 55 Rating, Add	994.75	
			For Class 56 Rating, Add	1,320.39	
40 05 19 00-0842	EA		18" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,673.57	697.23
			For Class 52 Rating, Deduct	-507.89	
			For Class 54 Rating, Add	705.25	
			For Class 55 Rating, Add	1,054.98	
			For Class 56 Rating, Add	1,400.10	
40 05 19 00-0843	EA		18" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,947.90	700.33
			For Class 52 Rating, Deduct	-537.55	
			For Class 54 Rating, Add	745.75	
			For Class 55 Rating, Add	1,115.22	
			For Class 56 Rating, Add	1,479.80	
40 05 19 00-0844	EA		18" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,222.22	703.45
			For Class 52 Rating, Deduct	-567.21	
			For Class 54 Rating, Add	786.25	
			For Class 55 Rating, Add	1,175.46	
			For Class 56 Rating, Add	1,559.51	
40 05 19 00-0845	EA		18" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,496.54	706.55
			For Class 52 Rating, Deduct	-596.86	
			For Class 54 Rating, Add	826.75	
			For Class 55 Rating, Add	1,235.69	
			For Class 56 Rating, Add	1,639.21	
40 05 19 00-0846	EA		18" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,770.87	709.66
			For Class 52 Rating, Deduct	-626.52	
			For Class 54 Rating, Add	867.25	
			For Class 55 Rating, Add	1,295.93	
			For Class 56 Rating, Add	1,718.92	
40 05 19 00-0847	EA		18" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,045.19	712.76
			For Class 52 Rating, Deduct	-656.18	
			For Class 54 Rating, Add	907.75	
			For Class 55 Rating, Add	1,356.17	
			For Class 56 Rating, Add	1,798.63	
40 05 19 00-0848	EA		18" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,319.51	715.87
			For Class 52 Rating, Deduct	-685.84	
			For Class 54 Rating, Add	948.25	
			For Class 55 Rating, Add	1,416.41	
			For Class 56 Rating, Add	1,878.33	
40 05 19 00-0849	EA		18" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,593.84	718.98
			For Class 52 Rating, Deduct	-715.49	
			For Class 54 Rating, Add	988.75	
			For Class 55 Rating, Add	1,476.65	
			For Class 56 Rating, Add	1,958.04	
40 05 19 00-0850	EA		18" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,868.16	722.09
			For Class 52 Rating, Deduct	-745.15	
			For Class 54 Rating, Add	1,029.24	
			For Class 55 Rating, Add	1,536.88	
			For Class 56 Rating, Add	2,037.75	
40 05 19 00-0851	EA		18" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,142.49	725.19
			For Class 52 Rating, Deduct	-774.81	
			For Class 54 Rating, Add	1,069.74	
			For Class 55 Rating, Add	1,597.12	
			For Class 56 Rating, Add	2,117.45	
40 05 19 00-0852	EA		18" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,416.80	728.30
			For Class 52 Rating, Deduct	-804.47	
			For Class 54 Rating, Add	1,110.24	
			For Class 55 Rating, Add	1,657.36	
			For Class 56 Rating, Add	2,197.16	
40 05 19 00-0853	EA		18" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,691.13	731.40
			For Class 52 Rating, Deduct	-834.12	
			For Class 54 Rating, Add	1,150.74	
			For Class 55 Rating, Add	1,717.59	
			For Class 56 Rating, Add	2,276.86	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0854	EA	18" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,965.46	734.52
		For Class 52 Rating, Deduct	-863.78	
		For Class 54 Rating, Add	1,191.24	
		For Class 55 Rating, Add	1,777.83	
		For Class 56 Rating, Add	2,356.57	
40 05 19 00-0855	EA	18" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,239.78	737.62
		For Class 52 Rating, Deduct	-893.44	
		For Class 54 Rating, Add	1,231.74	
		For Class 55 Rating, Add	1,838.07	
		For Class 56 Rating, Add	2,436.28	
40 05 19 00-0856	EA	18" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,514.10	740.73
		For Class 52 Rating, Deduct	-923.10	
		For Class 54 Rating, Add	1,272.24	
		For Class 55 Rating, Add	1,898.31	
		For Class 56 Rating, Add	2,515.98	
40 05 19 00-0857	EA	18" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,788.42	743.83
		For Class 52 Rating, Deduct	-952.76	
		For Class 54 Rating, Add	1,312.74	
		For Class 55 Rating, Add	1,958.54	
		For Class 56 Rating, Add	2,595.69	
40 05 19 00-0858	EA	18" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,062.75	746.94
		For Class 52 Rating, Deduct	-982.41	
		For Class 54 Rating, Add	1,353.24	
		For Class 55 Rating, Add	2,018.78	
		For Class 56 Rating, Add	2,675.40	
40 05 19 00-0859	EA	18" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,337.08	750.05
		For Class 52 Rating, Deduct	-1,012.07	
		For Class 54 Rating, Add	1,393.73	
		For Class 55 Rating, Add	2,079.02	
		For Class 56 Rating, Add	2,755.10	
40 05 19 00-0860	EA	18" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,611.40	753.16
		For Class 52 Rating, Deduct	-1,041.73	
		For Class 54 Rating, Add	1,434.23	
		For Class 55 Rating, Add	2,139.26	
		For Class 56 Rating, Add	2,834.81	
40 05 19 00-0861	EA	18" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,885.72	756.26
		For Class 52 Rating, Deduct	-1,071.39	
		For Class 54 Rating, Add	1,474.73	
		For Class 55 Rating, Add	2,199.49	
		For Class 56 Rating, Add	2,914.51	
40 05 19 00-0862	EA	18" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,160.04	759.37
		For Class 52 Rating, Deduct	-1,101.04	
		For Class 54 Rating, Add	1,515.23	
		For Class 55 Rating, Add	2,259.73	
		For Class 56 Rating, Add	2,994.22	
40 05 19 00-0863	EA	18" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,434.37	762.47
		For Class 52 Rating, Deduct	-1,130.70	
		For Class 54 Rating, Add	1,555.73	
		For Class 55 Rating, Add	2,319.97	
		For Class 56 Rating, Add	3,073.93	
40 05 19 00-0864	EA	18" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,708.70	765.59
		For Class 52 Rating, Deduct	-1,160.36	
		For Class 54 Rating, Add	1,596.23	
		For Class 55 Rating, Add	2,380.21	
		For Class 56 Rating, Add	3,153.63	
40 05 19 00-0865	EA	18" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,983.01	768.69
		For Class 52 Rating, Deduct	-1,190.02	
		For Class 54 Rating, Add	1,636.73	
		For Class 55 Rating, Add	2,440.44	
		For Class 56 Rating, Add	3,233.34	
40 05 19 00-0866	EA	18" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,257.34	771.80
		For Class 52 Rating, Deduct	-1,219.68	
		For Class 54 Rating, Add	1,677.23	
		For Class 55 Rating, Add	2,500.68	
		For Class 56 Rating, Add	3,313.05	
40 05 19 00-0867	EA	18" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,531.66	774.90
		For Class 52 Rating, Deduct	-1,249.33	
		For Class 54 Rating, Add	1,717.72	
		For Class 55 Rating, Add	2,560.92	
		For Class 56 Rating, Add	3,392.75	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0868	EA		18" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,805.99	778.01
			For Class 52 Rating, Deduct	-1,278.99	
			For Class 54 Rating, Add	1,758.22	
			For Class 55 Rating, Add	2,621.15	
			For Class 56 Rating, Add	3,472.46	
40 05 19 00-0869	EA		18" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,080.31	781.12
			For Class 52 Rating, Deduct	-1,308.65	
			For Class 54 Rating, Add	1,798.72	
			For Class 55 Rating, Add	2,681.39	
			For Class 56 Rating, Add	3,552.16	
40 05 19 00-0870	EA		18" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,354.63	784.23
			For Class 52 Rating, Deduct	-1,338.31	
			For Class 54 Rating, Add	1,839.22	
			For Class 55 Rating, Add	2,741.63	
			For Class 56 Rating, Add	3,631.87	
40 05 19 00-0871	EA		18" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,628.96	787.33
			For Class 52 Rating, Deduct	-1,367.96	
			For Class 54 Rating, Add	1,879.72	
			For Class 55 Rating, Add	2,801.87	
			For Class 56 Rating, Add	3,711.58	
40 05 19 00-0872			20" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0873	EA		20" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,036.45	767.45
			For Class 52 Rating, Deduct	-316.10	
			For Class 54 Rating, Add	445.00	
			For Class 55 Rating, Add	668.73	
			For Class 56 Rating, Add	889.59	
40 05 19 00-0874	EA		20" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,351.22	770.55
			For Class 52 Rating, Deduct	-350.21	
			For Class 54 Rating, Add	491.57	
			For Class 55 Rating, Add	737.99	
			For Class 56 Rating, Add	981.23	
40 05 19 00-0875	EA		20" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,665.98	773.66
			For Class 52 Rating, Deduct	-384.31	
			For Class 54 Rating, Add	538.13	
			For Class 55 Rating, Add	807.24	
			For Class 56 Rating, Add	1,072.86	
40 05 19 00-0876	EA		20" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,980.74	776.76
			For Class 52 Rating, Deduct	-418.42	
			For Class 54 Rating, Add	584.70	
			For Class 55 Rating, Add	876.50	
			For Class 56 Rating, Add	1,164.50	
40 05 19 00-0877	EA		20" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,295.51	779.87
			For Class 52 Rating, Deduct	-452.53	
			For Class 54 Rating, Add	631.26	
			For Class 55 Rating, Add	945.76	
			For Class 56 Rating, Add	1,256.14	
40 05 19 00-0878	EA		20" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,610.28	782.98
			For Class 52 Rating, Deduct	-486.63	
			For Class 54 Rating, Add	677.83	
			For Class 55 Rating, Add	1,015.01	
			For Class 56 Rating, Add	1,347.77	
40 05 19 00-0879	EA		20" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,925.05	786.09
			For Class 52 Rating, Deduct	-520.74	
			For Class 54 Rating, Add	724.39	
			For Class 55 Rating, Add	1,084.27	
			For Class 56 Rating, Add	1,439.41	
40 05 19 00-0880	EA		20" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,239.81	789.19
			For Class 52 Rating, Deduct	-554.85	
			For Class 54 Rating, Add	770.96	
			For Class 55 Rating, Add	1,153.53	
			For Class 56 Rating, Add	1,531.05	
40 05 19 00-0881	EA		20" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,554.57	792.30
			For Class 52 Rating, Deduct	-588.95	
			For Class 54 Rating, Add	817.52	
			For Class 55 Rating, Add	1,222.78	
			For Class 56 Rating, Add	1,622.68	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0882	EA	20" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,869.34	795.40
		For Class 52 Rating, Deduct	-623.06	
		For Class 54 Rating, Add	864.09	
		For Class 55 Rating, Add	1,292.04	
		For Class 56 Rating, Add	1,714.32	
40 05 19 00-0883	EA	20" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,184.11	798.52
		For Class 52 Rating, Deduct	-657.17	
		For Class 54 Rating, Add	910.65	
		For Class 55 Rating, Add	1,361.29	
		For Class 56 Rating, Add	1,805.96	
40 05 19 00-0884	EA	20" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,498.87	801.62
		For Class 52 Rating, Deduct	-691.27	
		For Class 54 Rating, Add	957.22	
		For Class 55 Rating, Add	1,430.55	
		For Class 56 Rating, Add	1,897.59	
40 05 19 00-0885	EA	20" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,813.64	804.73
		For Class 52 Rating, Deduct	-725.38	
		For Class 54 Rating, Add	1,003.79	
		For Class 55 Rating, Add	1,499.81	
		For Class 56 Rating, Add	1,989.23	
40 05 19 00-0886	EA	20" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,128.41	807.83
		For Class 52 Rating, Deduct	-759.49	
		For Class 54 Rating, Add	1,050.35	
		For Class 55 Rating, Add	1,569.06	
		For Class 56 Rating, Add	2,080.87	
40 05 19 00-0887	EA	20" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,443.17	810.94
		For Class 52 Rating, Deduct	-793.59	
		For Class 54 Rating, Add	1,096.91	
		For Class 55 Rating, Add	1,638.32	
		For Class 56 Rating, Add	2,172.50	
40 05 19 00-0888	EA	20" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,757.94	814.05
		For Class 52 Rating, Deduct	-827.70	
		For Class 54 Rating, Add	1,143.48	
		For Class 55 Rating, Add	1,707.57	
		For Class 56 Rating, Add	2,264.14	
40 05 19 00-0889	EA	20" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,072.70	817.16
		For Class 52 Rating, Deduct	-861.80	
		For Class 54 Rating, Add	1,190.05	
		For Class 55 Rating, Add	1,776.83	
		For Class 56 Rating, Add	2,355.78	
40 05 19 00-0890	EA	20" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,387.47	820.26
		For Class 52 Rating, Deduct	-895.91	
		For Class 54 Rating, Add	1,236.61	
		For Class 55 Rating, Add	1,846.08	
		For Class 56 Rating, Add	2,447.41	
40 05 19 00-0891	EA	20" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,702.24	823.37
		For Class 52 Rating, Deduct	-930.02	
		For Class 54 Rating, Add	1,283.18	
		For Class 55 Rating, Add	1,915.34	
		For Class 56 Rating, Add	2,539.05	
40 05 19 00-0892	EA	20" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,017.01	826.47
		For Class 52 Rating, Deduct	-964.12	
		For Class 54 Rating, Add	1,329.74	
		For Class 55 Rating, Add	1,984.60	
		For Class 56 Rating, Add	2,630.69	
40 05 19 00-0893	EA	20" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,331.77	829.59
		For Class 52 Rating, Deduct	-998.23	
		For Class 54 Rating, Add	1,376.31	
		For Class 55 Rating, Add	2,053.85	
		For Class 56 Rating, Add	2,722.32	
40 05 19 00-0894	EA	20" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,646.53	832.69
		For Class 52 Rating, Deduct	-1,032.34	
		For Class 54 Rating, Add	1,422.87	
		For Class 55 Rating, Add	2,123.11	
		For Class 56 Rating, Add	2,813.96	
40 05 19 00-0895	EA	20" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,961.30	835.80
		For Class 52 Rating, Deduct	-1,066.44	
		For Class 54 Rating, Add	1,469.44	
		For Class 55 Rating, Add	2,192.36	
		For Class 56 Rating, Add	2,905.60	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0896	EA	20" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		11,276.07	838.90
		For Class 52 Rating, Deduct		-1,100.55	
		For Class 54 Rating, Add		1,516.00	
		For Class 55 Rating, Add		2,261.62	
		For Class 56 Rating, Add		2,997.23	
40 05 19 00-0897	EA	20" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		11,590.83	842.01
		For Class 52 Rating, Deduct		-1,134.66	
		For Class 54 Rating, Add		1,562.57	
		For Class 55 Rating, Add		2,330.88	
		For Class 56 Rating, Add		3,088.87	
40 05 19 00-0898	EA	20" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		11,905.60	845.12
		For Class 52 Rating, Deduct		-1,168.76	
		For Class 54 Rating, Add		1,609.13	
		For Class 55 Rating, Add		2,400.13	
		For Class 56 Rating, Add		3,180.51	
40 05 19 00-0899	EA	20" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,220.37	848.23
		For Class 52 Rating, Deduct		-1,202.87	
		For Class 54 Rating, Add		1,655.70	
		For Class 55 Rating, Add		2,469.39	
		For Class 56 Rating, Add		3,272.14	
40 05 19 00-0900	EA	20" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,535.13	851.33
		For Class 52 Rating, Deduct		-1,236.98	
		For Class 54 Rating, Add		1,702.26	
		For Class 55 Rating, Add		2,538.64	
		For Class 56 Rating, Add		3,363.78	
40 05 19 00-0901	EA	20" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,849.89	854.44
		For Class 52 Rating, Deduct		-1,271.08	
		For Class 54 Rating, Add		1,748.83	
		For Class 55 Rating, Add		2,607.90	
		For Class 56 Rating, Add		3,455.42	
40 05 19 00-0902	EA	20" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,164.66	857.54
		For Class 52 Rating, Deduct		-1,305.19	
		For Class 54 Rating, Add		1,795.39	
		For Class 55 Rating, Add		2,677.16	
		For Class 56 Rating, Add		3,547.05	
40 05 19 00-0903	EA	20" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,479.43	860.66
		For Class 52 Rating, Deduct		-1,339.30	
		For Class 54 Rating, Add		1,841.96	
		For Class 55 Rating, Add		2,746.41	
		For Class 56 Rating, Add		3,638.69	
40 05 19 00-0904	EA	20" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,794.20	863.76
		For Class 52 Rating, Deduct		-1,373.40	
		For Class 54 Rating, Add		1,888.53	
		For Class 55 Rating, Add		2,815.67	
		For Class 56 Rating, Add		3,730.33	
40 05 19 00-0905	EA	20" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,108.97	866.87
		For Class 52 Rating, Deduct		-1,407.51	
		For Class 54 Rating, Add		1,935.09	
		For Class 55 Rating, Add		2,884.93	
		For Class 56 Rating, Add		3,821.97	
40 05 19 00-0906	EA	20" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,423.72	869.97
		For Class 52 Rating, Deduct		-1,441.61	
		For Class 54 Rating, Add		1,981.65	
		For Class 55 Rating, Add		2,954.18	
		For Class 56 Rating, Add		3,913.60	
40 05 19 00-0907	EA	20" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,738.49	873.08
		For Class 52 Rating, Deduct		-1,475.72	
		For Class 54 Rating, Add		2,028.22	
		For Class 55 Rating, Add		3,023.44	
		For Class 56 Rating, Add		4,005.24	
40 05 19 00-0908	EA	20" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		15,053.26	876.19
		For Class 52 Rating, Deduct		-1,509.83	
		For Class 54 Rating, Add		2,074.79	
		For Class 55 Rating, Add		3,092.69	
		For Class 56 Rating, Add		4,096.87	
40 05 19 00-0909	EA	20" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		15,368.03	879.30
		For Class 52 Rating, Deduct		-1,543.93	
		For Class 54 Rating, Add		2,121.35	
		For Class 55 Rating, Add		3,161.95	
		For Class 56 Rating, Add		4,188.51	



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0910	EA	20" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,692.79 -1,578.04 2,167.92 3,231.21 4,280.15	882.40
40 05 19 00-0911		24" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0912	EA	24" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	5,005.46 -399.39 561.12 842.67 1,220.58	907.27
40 05 19 00-0913	EA	24" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	5,394.37 -441.65 618.81 928.46 1,234.09	910.37
40 05 19 00-0914	EA	24" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	5,783.28 -483.92 676.49 1,014.25 1,347.60	913.48
40 05 19 00-0915	EA	24" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	6,172.20 -526.18 734.18 1,100.04 1,461.11	916.58
40 05 19 00-0916	EA	24" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	6,561.11 -568.44 791.87 1,185.83 1,574.62	919.69
40 05 19 00-0917	EA	24" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	6,950.01 -610.70 849.55 1,271.62 1,688.13	922.80
40 05 19 00-0918	EA	24" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	7,338.93 -652.97 907.24 1,357.41 1,801.64	925.91
40 05 19 00-0919	EA	24" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	7,727.84 -695.23 964.93 1,443.20 1,915.15	929.01
40 05 19 00-0920	EA	24" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	8,116.75 -737.49 1,022.62 1,528.99 2,028.66	932.12
40 05 19 00-0921	EA	24" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	8,505.65 -779.75 1,080.30 1,614.78 2,142.16	935.22
40 05 19 00-0922	EA	24" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	8,894.57 -822.01 1,137.99 1,700.57 2,255.68	938.34
40 05 19 00-0923	EA	24" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	9,283.48 -864.28 1,195.68 1,786.36 2,369.18	941.44

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0924	EA		24" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	9,672.39	944.55
			For Class 52 Rating, Deduct	-906.54	
			For Class 54 Rating, Add	1,253.36	
			For Class 55 Rating, Add	1,872.15	
			For Class 56 Rating, Add	2,482.69	
40 05 19 00-0925	EA		24" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	10,061.30	947.65
			For Class 52 Rating, Deduct	-948.80	
			For Class 54 Rating, Add	1,311.05	
			For Class 55 Rating, Add	1,957.94	
			For Class 56 Rating, Add	2,596.20	
40 05 19 00-0926	EA		24" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	10,450.21	950.76
			For Class 52 Rating, Deduct	-991.06	
			For Class 54 Rating, Add	1,368.74	
			For Class 55 Rating, Add	2,043.73	
			For Class 56 Rating, Add	2,709.71	
40 05 19 00-0927	EA		24" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	10,839.12	953.87
			For Class 52 Rating, Deduct	-1,033.33	
			For Class 54 Rating, Add	1,426.42	
			For Class 55 Rating, Add	2,129.52	
			For Class 56 Rating, Add	2,823.22	
40 05 19 00-0928	EA		24" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	11,228.03	956.98
			For Class 52 Rating, Deduct	-1,075.59	
			For Class 54 Rating, Add	1,484.11	
			For Class 55 Rating, Add	2,215.31	
			For Class 56 Rating, Add	2,936.73	
40 05 19 00-0929	EA		24" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	11,616.94	960.08
			For Class 52 Rating, Deduct	-1,117.85	
			For Class 54 Rating, Add	1,541.80	
			For Class 55 Rating, Add	2,301.10	
			For Class 56 Rating, Add	3,050.24	
40 05 19 00-0930	EA		24" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	12,005.85	963.19
			For Class 52 Rating, Deduct	-1,160.11	
			For Class 54 Rating, Add	1,599.48	
			For Class 55 Rating, Add	2,386.89	
			For Class 56 Rating, Add	3,163.75	
40 05 19 00-0931	EA		24" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	12,394.76	966.29
			For Class 52 Rating, Deduct	-1,202.37	
			For Class 54 Rating, Add	1,657.17	
			For Class 55 Rating, Add	2,472.68	
			For Class 56 Rating, Add	3,277.26	
40 05 19 00-0932	EA		24" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	12,783.67	969.41
			For Class 52 Rating, Deduct	-1,244.64	
			For Class 54 Rating, Add	1,714.86	
			For Class 55 Rating, Add	2,558.47	
			For Class 56 Rating, Add	3,390.77	
40 05 19 00-0933	EA		24" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	13,172.59	972.51
			For Class 52 Rating, Deduct	-1,286.90	
			For Class 54 Rating, Add	1,772.55	
			For Class 55 Rating, Add	2,644.26	
			For Class 56 Rating, Add	3,504.28	
40 05 19 00-0934	EA		24" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	13,561.49	975.62
			For Class 52 Rating, Deduct	-1,329.16	
			For Class 54 Rating, Add	1,830.23	
			For Class 55 Rating, Add	2,730.05	
			For Class 56 Rating, Add	3,617.79	
40 05 19 00-0935	EA		24" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	13,950.40	978.72
			For Class 52 Rating, Deduct	-1,371.42	
			For Class 54 Rating, Add	1,887.92	
			For Class 55 Rating, Add	2,815.84	
			For Class 56 Rating, Add	3,731.29	
40 05 19 00-0936	EA		24" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	14,339.32	981.83
			For Class 52 Rating, Deduct	-1,413.69	
			For Class 54 Rating, Add	1,945.61	
			For Class 55 Rating, Add	2,901.63	
			For Class 56 Rating, Add	3,844.81	
40 05 19 00-0937	EA		24" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron		
			Pipe	14,728.23	984.94
			For Class 52 Rating, Deduct	-1,455.95	
			For Class 54 Rating, Add	2,003.29	
			For Class 55 Rating, Add	2,987.42	
			For Class 56 Rating, Add	3,958.31	



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0938	EA	24" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,117.13 -1,498.21 2,060.98 3,073.21 4,071.82	988.05
40 05 19 00-0939	EA	24" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,506.04 -1,540.47 2,118.67 3,159.00 4,185.33	991.15
40 05 19 00-0940	EA	24" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,894.96 -1,582.74 2,176.35 3,244.79 4,298.84	994.26
40 05 19 00-0941	EA	24" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	16,363.90 -1,625.00 2,235.00 3,332.50 4,415.23	1,050.19
40 05 19 00-0942	EA	24" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	16,752.80 -1,667.26 2,292.69 3,418.29 4,528.74	1,053.29
40 05 19 00-0943	EA	24" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	17,141.72 -1,709.52 2,350.38 3,504.08 4,642.25	1,056.40
40 05 19 00-0944	EA	24" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	17,530.63 -1,751.79 2,408.06 3,589.87 4,755.76	1,059.50
40 05 19 00-0945	EA	24" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	17,919.54 -1,794.05 2,465.75 3,675.66 4,869.27	1,062.62
40 05 19 00-0946	EA	24" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	18,308.45 -1,836.31 2,523.43 3,761.45 4,982.78	1,065.72
40 05 19 00-0947	EA	24" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	18,697.36 -1,878.57 2,581.12 3,847.24 5,096.29	1,068.83
40 05 19 00-0948	EA	24" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	19,086.27 -1,920.83 2,638.81 3,933.03 5,209.80	1,071.93
40 05 19 00-0949	EA	24" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	19,475.18 -1,963.10 2,696.50 4,018.82 5,323.31	1,075.04
40 05 19 00-0950		30" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0951	EA	30" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	7,736.29 -637.64 892.79 1,339.22 1,779.86	1,280.11

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0952	EA		30" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,295.96	1,283.22
			For Class 52 Rating, Deduct	-698.69	
			For Class 54 Rating, Add	976.09	
			For Class 55 Rating, Add	1,463.09	
			For Class 56 Rating, Add	1,943.74	
40 05 19 00-0953	EA		30" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,855.63	1,286.32
			For Class 52 Rating, Deduct	-759.73	
			For Class 54 Rating, Add	1,059.39	
			For Class 55 Rating, Add	1,586.96	
			For Class 56 Rating, Add	2,107.63	
40 05 19 00-0954	EA		30" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,415.30	1,289.43
			For Class 52 Rating, Deduct	-820.78	
			For Class 54 Rating, Add	1,142.69	
			For Class 55 Rating, Add	1,710.83	
			For Class 56 Rating, Add	2,271.51	
40 05 19 00-0955	EA		30" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,974.96	1,292.53
			For Class 52 Rating, Deduct	-881.82	
			For Class 54 Rating, Add	1,225.99	
			For Class 55 Rating, Add	1,834.70	
			For Class 56 Rating, Add	2,435.39	
40 05 19 00-0956	EA		30" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,534.63	1,295.65
			For Class 52 Rating, Deduct	-942.87	
			For Class 54 Rating, Add	1,309.29	
			For Class 55 Rating, Add	1,958.57	
			For Class 56 Rating, Add	2,599.28	
40 05 19 00-0957	EA		30" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,094.30	1,298.75
			For Class 52 Rating, Deduct	-1,003.92	
			For Class 54 Rating, Add	1,392.59	
			For Class 55 Rating, Add	2,082.44	
			For Class 56 Rating, Add	2,763.16	
40 05 19 00-0958	EA		30" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,653.97	1,301.86
			For Class 52 Rating, Deduct	-1,064.96	
			For Class 54 Rating, Add	1,475.89	
			For Class 55 Rating, Add	2,206.31	
			For Class 56 Rating, Add	2,927.04	
40 05 19 00-0959	EA		30" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,213.63	1,304.96
			For Class 52 Rating, Deduct	-1,126.01	
			For Class 54 Rating, Add	1,559.19	
			For Class 55 Rating, Add	2,330.17	
			For Class 56 Rating, Add	3,090.92	
40 05 19 00-0960	EA		30" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,773.30	1,308.07
			For Class 52 Rating, Deduct	-1,187.05	
			For Class 54 Rating, Add	1,642.49	
			For Class 55 Rating, Add	2,454.04	
			For Class 56 Rating, Add	3,254.81	
40 05 19 00-0961	EA		30" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,332.97	1,311.18
			For Class 52 Rating, Deduct	-1,248.10	
			For Class 54 Rating, Add	1,725.79	
			For Class 55 Rating, Add	2,577.91	
			For Class 56 Rating, Add	3,418.69	
40 05 19 00-0962	EA		30" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,892.64	1,314.29
			For Class 52 Rating, Deduct	-1,309.14	
			For Class 54 Rating, Add	1,809.09	
			For Class 55 Rating, Add	2,701.78	
			For Class 56 Rating, Add	3,582.57	
40 05 19 00-0963	EA		30" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,452.31	1,317.39
			For Class 52 Rating, Deduct	-1,370.19	
			For Class 54 Rating, Add	1,892.39	
			For Class 55 Rating, Add	2,825.65	
			For Class 56 Rating, Add	3,746.45	
40 05 19 00-0964	EA		30" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,011.97	1,320.50
			For Class 52 Rating, Deduct	-1,431.23	
			For Class 54 Rating, Add	1,975.69	
			For Class 55 Rating, Add	2,949.52	
			For Class 56 Rating, Add	3,910.34	
40 05 19 00-0965	EA		30" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,571.64	1,323.60
			For Class 52 Rating, Deduct	-1,492.28	
			For Class 54 Rating, Add	2,058.99	
			For Class 55 Rating, Add	3,073.39	
			For Class 56 Rating, Add	4,074.22	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-0966	EA	30" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,131.31	1,326.72
		For Class 52 Rating, Deduct	-1,553.33	
		For Class 54 Rating, Add	2,142.29	
		For Class 55 Rating, Add	3,197.26	
		For Class 56 Rating, Add	4,238.10	
40 05 19 00-0967	EA	30" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,690.98	1,329.82
		For Class 52 Rating, Deduct	-1,614.37	
		For Class 54 Rating, Add	2,225.59	
		For Class 55 Rating, Add	3,321.13	
		For Class 56 Rating, Add	4,401.99	
40 05 19 00-0968	EA	30" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,250.64	1,332.93
		For Class 52 Rating, Deduct	-1,675.42	
		For Class 54 Rating, Add	2,308.89	
		For Class 55 Rating, Add	3,445.00	
		For Class 56 Rating, Add	4,565.87	
40 05 19 00-0969	EA	30" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,810.31	1,336.03
		For Class 52 Rating, Deduct	-1,736.46	
		For Class 54 Rating, Add	2,392.19	
		For Class 55 Rating, Add	3,568.87	
		For Class 56 Rating, Add	4,729.75	
40 05 19 00-0970	EA	30" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,369.98	1,339.14
		For Class 52 Rating, Deduct	-1,797.51	
		For Class 54 Rating, Add	2,475.50	
		For Class 55 Rating, Add	3,692.73	
		For Class 56 Rating, Add	4,893.63	
40 05 19 00-0971	EA	30" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,929.65	1,342.25
		For Class 52 Rating, Deduct	-1,858.55	
		For Class 54 Rating, Add	2,558.80	
		For Class 55 Rating, Add	3,816.60	
		For Class 56 Rating, Add	5,057.52	
40 05 19 00-0972	EA	30" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,489.31	1,345.36
		For Class 52 Rating, Deduct	-1,919.60	
		For Class 54 Rating, Add	2,642.10	
		For Class 55 Rating, Add	3,940.47	
		For Class 56 Rating, Add	5,221.40	
40 05 19 00-0973	EA	30" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,048.98	1,348.46
		For Class 52 Rating, Deduct	-1,980.64	
		For Class 54 Rating, Add	2,725.40	
		For Class 55 Rating, Add	4,064.34	
		For Class 56 Rating, Add	5,385.28	
40 05 19 00-0974	EA	30" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,608.64	1,351.57
		For Class 52 Rating, Deduct	-2,041.69	
		For Class 54 Rating, Add	2,808.70	
		For Class 55 Rating, Add	4,188.21	
		For Class 56 Rating, Add	5,549.16	
40 05 19 00-0975	EA	30" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,168.31	1,354.67
		For Class 52 Rating, Deduct	-2,102.73	
		For Class 54 Rating, Add	2,892.00	
		For Class 55 Rating, Add	4,312.08	
		For Class 56 Rating, Add	5,713.04	
40 05 19 00-0976	EA	30" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,727.97	1,357.79
		For Class 52 Rating, Deduct	-2,163.78	
		For Class 54 Rating, Add	2,975.30	
		For Class 55 Rating, Add	4,435.95	
		For Class 56 Rating, Add	5,876.93	
40 05 19 00-0977	EA	30" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,287.64	1,360.89
		For Class 52 Rating, Deduct	-2,224.63	
		For Class 54 Rating, Add	3,058.60	
		For Class 55 Rating, Add	4,559.82	
		For Class 56 Rating, Add	6,040.81	
40 05 19 00-0978	EA	30" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,847.31	1,364.00
		For Class 52 Rating, Deduct	-2,285.87	
		For Class 54 Rating, Add	3,141.90	
		For Class 55 Rating, Add	4,683.68	
		For Class 56 Rating, Add	6,204.69	
40 05 19 00-0979	EA	30" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,406.98	1,367.10
		For Class 52 Rating, Deduct	-2,346.92	
		For Class 54 Rating, Add	3,225.20	
		For Class 55 Rating, Add	4,807.55	
		For Class 56 Rating, Add	6,368.57	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0980	EA		30" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,966.65	1,370.21
			For Class 52 Rating, Deduct	-2,407.96	
			For Class 54 Rating, Add	3,308.50	
			For Class 55 Rating, Add	4,931.42	
			For Class 56 Rating, Add	6,532.46	
40 05 19 00-0981	EA		30" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,526.31	1,373.32
			For Class 52 Rating, Deduct	-2,469.07	
			For Class 54 Rating, Add	3,391.80	
			For Class 55 Rating, Add	5,055.29	
			For Class 56 Rating, Add	6,696.34	
40 05 19 00-0982	EA		30" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,085.98	1,376.43
			For Class 52 Rating, Deduct	-2,530.05	
			For Class 54 Rating, Add	3,475.10	
			For Class 55 Rating, Add	5,179.16	
			For Class 56 Rating, Add	6,860.22	
40 05 19 00-0983	EA		30" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,645.65	1,379.53
			For Class 52 Rating, Deduct	-2,591.10	
			For Class 54 Rating, Add	3,558.40	
			For Class 55 Rating, Add	5,303.03	
			For Class 56 Rating, Add	7,024.10	
40 05 19 00-0984	EA		30" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,205.32	1,382.64
			For Class 52 Rating, Deduct	-2,652.15	
			For Class 54 Rating, Add	3,641.70	
			For Class 55 Rating, Add	5,426.90	
			For Class 56 Rating, Add	7,187.99	
40 05 19 00-0985	EA		30" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,764.98	1,385.74
			For Class 52 Rating, Deduct	-2,713.19	
			For Class 54 Rating, Add	3,725.00	
			For Class 55 Rating, Add	5,550.77	
			For Class 56 Rating, Add	7,351.87	
40 05 19 00-0986	EA		30" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,324.65	1,388.86
			For Class 52 Rating, Deduct	-2,774.24	
			For Class 54 Rating, Add	3,808.30	
			For Class 55 Rating, Add	5,674.64	
			For Class 56 Rating, Add	7,515.75	
40 05 19 00-0987	EA		30" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,884.32	1,391.96
			For Class 52 Rating, Deduct	-2,835.28	
			For Class 54 Rating, Add	3,891.60	
			For Class 55 Rating, Add	5,798.51	
			For Class 56 Rating, Add	7,679.64	
40 05 19 00-0988	EA		30" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,443.99	1,395.07
			For Class 52 Rating, Deduct	-2,896.33	
			For Class 54 Rating, Add	3,974.90	
			For Class 55 Rating, Add	5,922.38	
			For Class 56 Rating, Add	7,843.52	
40 05 19 00-0989			36" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0990	EA		36" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,629.01	1,621.89
			For Class 52 Rating, Deduct	-898.88	
			For Class 54 Rating, Add	1,255.23	
			For Class 55 Rating, Add	1,881.25	
			For Class 56 Rating, Add	2,499.09	
40 05 19 00-0991	EA		36" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,388.64	1,624.99
			For Class 52 Rating, Deduct	-981.92	
			For Class 54 Rating, Add	1,368.53	
			For Class 55 Rating, Add	2,049.71	
			For Class 56 Rating, Add	2,721.96	
40 05 19 00-0992	EA		36" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,148.27	1,628.10
			For Class 52 Rating, Deduct	-1,064.96	
			For Class 54 Rating, Add	1,481.82	
			For Class 55 Rating, Add	2,218.17	
			For Class 56 Rating, Add	2,944.84	
40 05 19 00-0993	EA		36" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,907.91	1,631.20
			For Class 52 Rating, Deduct	-1,148.00	
			For Class 54 Rating, Add	1,595.12	
			For Class 55 Rating, Add	2,386.63	
			For Class 56 Rating, Add	3,167.71	



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0994	EA	36" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	13,667.54 -1,231.04 1,708.41 2,555.09 3,390.58	1,634.31
40 05 19 00-0995	EA	36" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	14,427.17 -1,314.09 1,821.71 2,723.55 3,613.45	1,637.42
40 05 19 00-0996	EA	36" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,186.80 -1,397.13 1,935.00 2,892.01 3,826.33	1,640.53
40 05 19 00-0997	EA	36" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	15,946.44 -1,480.17 2,048.30 3,060.48 4,059.20	1,643.63
40 05 19 00-0998	EA	36" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	16,706.07 -1,563.21 2,161.59 3,228.94 4,282.07	1,646.74
40 05 19 00-0999	EA	36" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	17,465.69 -1,646.25 2,274.89 3,397.40 4,504.94	1,649.84
40 05 19 00-1000	EA	36" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	18,225.33 -1,729.29 2,388.18 3,565.86 4,727.81	1,652.96
40 05 19 00-1001	EA	36" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	18,984.96 -1,812.34 2,501.48 3,734.32 4,950.69	1,656.06
40 05 19 00-1002	EA	36" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	19,744.60 -1,895.38 2,614.77 3,902.78 5,173.56	1,659.17
40 05 19 00-1003	EA	36" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	20,504.22 -1,978.42 2,728.07 4,071.24 5,396.43	1,662.27
40 05 19 00-1004	EA	36" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	21,263.86 -2,061.46 2,841.36 4,239.70 5,619.30	1,665.38
40 05 19 00-1005	EA	36" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	22,023.49 -2,144.50 2,954.66 4,408.16 5,842.17	1,668.49
40 05 19 00-1006	EA	36" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	22,783.13 -2,227.55 3,067.95 4,576.63 6,065.05	1,671.60
40 05 19 00-1007	EA	36" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	23,542.76 -2,310.59 3,181.25 4,745.09 6,287.92	1,674.70

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1008	EA		36" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,302.39	1,677.81
			For Class 52 Rating, Deduct	-2,393.63	
			For Class 54 Rating, Add	3,294.54	
			For Class 55 Rating, Add	4,913.55	
			For Class 56 Rating, Add	6,510.79	
40 05 19 00-1009	EA		36" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,062.02	1,680.91
			For Class 52 Rating, Deduct	-2,476.67	
			For Class 54 Rating, Add	3,407.84	
			For Class 55 Rating, Add	5,082.01	
			For Class 56 Rating, Add	6,733.66	
40 05 19 00-1010	EA		36" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,821.66	1,684.03
			For Class 52 Rating, Deduct	-2,559.71	
			For Class 54 Rating, Add	3,521.14	
			For Class 55 Rating, Add	5,250.47	
			For Class 56 Rating, Add	6,956.54	
40 05 19 00-1011	EA		36" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,581.29	1,687.13
			For Class 52 Rating, Deduct	-2,642.75	
			For Class 54 Rating, Add	3,634.43	
			For Class 55 Rating, Add	5,418.93	
			For Class 56 Rating, Add	7,179.41	
40 05 19 00-1012	EA		36" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,340.92	1,690.24
			For Class 52 Rating, Deduct	-2,725.80	
			For Class 54 Rating, Add	3,747.73	
			For Class 55 Rating, Add	5,587.39	
			For Class 56 Rating, Add	7,402.28	
40 05 19 00-1013	EA		36" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,100.55	1,693.34
			For Class 52 Rating, Deduct	-2,808.84	
			For Class 54 Rating, Add	3,861.02	
			For Class 55 Rating, Add	5,755.85	
			For Class 56 Rating, Add	7,625.15	
40 05 19 00-1014	EA		36" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,860.19	1,696.45
			For Class 52 Rating, Deduct	-2,891.88	
			For Class 54 Rating, Add	3,974.32	
			For Class 55 Rating, Add	5,924.32	
			For Class 56 Rating, Add	7,848.03	
40 05 19 00-1015	EA		36" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,619.82	1,699.56
			For Class 52 Rating, Deduct	-2,974.92	
			For Class 54 Rating, Add	4,087.61	
			For Class 55 Rating, Add	6,092.78	
			For Class 56 Rating, Add	8,070.90	
40 05 19 00-1016	EA		36" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,379.45	1,702.67
			For Class 52 Rating, Deduct	-3,057.96	
			For Class 54 Rating, Add	4,200.91	
			For Class 55 Rating, Add	6,261.24	
			For Class 56 Rating, Add	8,293.77	
40 05 19 00-1017	EA		36" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,139.08	1,705.77
			For Class 52 Rating, Deduct	-3,141.00	
			For Class 54 Rating, Add	4,314.20	
			For Class 55 Rating, Add	6,429.70	
			For Class 56 Rating, Add	8,516.64	
40 05 19 00-1018	EA		36" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,898.72	1,708.88
			For Class 52 Rating, Deduct	-3,224.05	
			For Class 54 Rating, Add	4,427.50	
			For Class 55 Rating, Add	6,598.16	
			For Class 56 Rating, Add	8,739.52	
40 05 19 00-1019	EA		36" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,658.35	1,711.99
			For Class 52 Rating, Deduct	-3,307.09	
			For Class 54 Rating, Add	4,540.79	
			For Class 55 Rating, Add	6,766.62	
			For Class 56 Rating, Add	8,962.39	
40 05 19 00-1020	EA		36" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,417.98	1,715.10
			For Class 52 Rating, Deduct	-3,390.13	
			For Class 54 Rating, Add	4,654.09	
			For Class 55 Rating, Add	6,935.08	
			For Class 56 Rating, Add	9,185.26	
40 05 19 00-1021	EA		36" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,177.61	1,718.20
			For Class 52 Rating, Deduct	-3,473.17	
			For Class 54 Rating, Add	4,767.38	
			For Class 55 Rating, Add	7,103.54	
			For Class 56 Rating, Add	9,408.13	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1022	EA		36" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,937.25	1,721.31
			For Class 52 Rating, Deduct	-3,556.21	
			For Class 54 Rating, Add	4,880.68	
			For Class 55 Rating, Add	7,272.01	
			For Class 56 Rating, Add	9,631.01	
40 05 19 00-1023	EA		36" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,696.88	1,724.41
			For Class 52 Rating, Deduct	-3,639.25	
			For Class 54 Rating, Add	4,993.97	
			For Class 55 Rating, Add	7,440.47	
			For Class 56 Rating, Add	9,853.88	
40 05 19 00-1024	EA		36" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,456.51	1,727.53
			For Class 52 Rating, Deduct	-3,722.30	
			For Class 54 Rating, Add	5,107.27	
			For Class 55 Rating, Add	7,608.93	
			For Class 56 Rating, Add	10,076.75	
40 05 19 00-1025	EA		36" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,216.14	1,730.63
			For Class 52 Rating, Deduct	-3,805.34	
			For Class 54 Rating, Add	5,220.56	
			For Class 55 Rating, Add	7,777.39	
			For Class 56 Rating, Add	10,299.62	
40 05 19 00-1026	EA		36" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,975.77	1,733.74
			For Class 52 Rating, Deduct	-3,888.38	
			For Class 54 Rating, Add	5,333.86	
			For Class 55 Rating, Add	7,945.85	
			For Class 56 Rating, Add	10,522.49	
40 05 19 00-1027	EA		36" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,735.41	1,736.84
			For Class 52 Rating, Deduct	-3,971.42	
			For Class 54 Rating, Add	5,447.15	
			For Class 55 Rating, Add	8,114.31	
			For Class 56 Rating, Add	10,745.37	
40 05 19 00-1028			Flanged End x Plain End (FxPE), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0001)		
40 05 19 00-1029			4" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1030	EA		4" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	556.02	151.96
			For Class 52 Rating, Deduct	-35.84	
			For Class 54 Rating, Add	51.63	
			For Class 55 Rating, Add	78.18	
			For Class 56 Rating, Add	104.40	
40 05 19 00-1031	EA		4" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	618.45	154.61
			For Class 52 Rating, Deduct	-42.26	
			For Class 54 Rating, Add	60.44	
			For Class 55 Rating, Add	91.30	
			For Class 56 Rating, Add	121.77	
40 05 19 00-1032	EA		4" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	680.89	157.27
			For Class 52 Rating, Deduct	-48.69	
			For Class 54 Rating, Add	69.25	
			For Class 55 Rating, Add	104.42	
			For Class 56 Rating, Add	139.15	
40 05 19 00-1033	EA		4" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	743.34	159.91
			For Class 52 Rating, Deduct	-55.11	
			For Class 54 Rating, Add	78.06	
			For Class 55 Rating, Add	117.55	
			For Class 56 Rating, Add	156.53	
40 05 19 00-1034	EA		4" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	805.78	162.58
			For Class 52 Rating, Deduct	-61.54	
			For Class 54 Rating, Add	86.87	
			For Class 55 Rating, Add	130.67	
			For Class 56 Rating, Add	173.91	
40 05 19 00-1035	EA		4" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	868.23	165.24
			For Class 52 Rating, Deduct	-67.97	
			For Class 54 Rating, Add	95.68	
			For Class 55 Rating, Add	143.79	
			For Class 56 Rating, Add	191.28	
40 05 19 00-1036	EA		4" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	930.67	167.90
			For Class 52 Rating, Deduct	-74.39	
			For Class 54 Rating, Add	104.50	
			For Class 55 Rating, Add	156.92	
			For Class 56 Rating, Add	208.66	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1037	EA		4" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	993.11	170.55
			For Class 52 Rating, Deduct	-80.82	
			For Class 54 Rating, Add	113.31	
			For Class 55 Rating, Add	170.04	
			For Class 56 Rating, Add	226.04	
40 05 19 00-1038	EA		4" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,055.55	173.21
			For Class 52 Rating, Deduct	-87.24	
			For Class 54 Rating, Add	122.12	
			For Class 55 Rating, Add	183.16	
			For Class 56 Rating, Add	243.42	
40 05 19 00-1039	EA		4" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,117.99	175.86
			For Class 52 Rating, Deduct	-93.67	
			For Class 54 Rating, Add	130.93	
			For Class 55 Rating, Add	196.29	
			For Class 56 Rating, Add	260.80	
40 05 19 00-1040	EA		4" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,180.43	178.51
			For Class 52 Rating, Deduct	-100.09	
			For Class 54 Rating, Add	139.74	
			For Class 55 Rating, Add	209.41	
			For Class 56 Rating, Add	278.17	
40 05 19 00-1041	EA		4" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,242.87	181.18
			For Class 52 Rating, Deduct	-106.52	
			For Class 54 Rating, Add	148.55	
			For Class 55 Rating, Add	222.53	
			For Class 56 Rating, Add	295.55	
40 05 19 00-1042	EA		4" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,305.32	183.83
			For Class 52 Rating, Deduct	-112.95	
			For Class 54 Rating, Add	157.36	
			For Class 55 Rating, Add	235.66	
			For Class 56 Rating, Add	312.93	
40 05 19 00-1043	EA		4" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,367.75	186.49
			For Class 52 Rating, Deduct	-119.37	
			For Class 54 Rating, Add	166.17	
			For Class 55 Rating, Add	248.78	
			For Class 56 Rating, Add	330.31	
40 05 19 00-1044	EA		4" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,430.20	189.15
			For Class 52 Rating, Deduct	-125.80	
			For Class 54 Rating, Add	174.98	
			For Class 55 Rating, Add	261.91	
			For Class 56 Rating, Add	347.68	
40 05 19 00-1045	EA		4" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,492.65	191.80
			For Class 52 Rating, Deduct	-132.22	
			For Class 54 Rating, Add	183.79	
			For Class 55 Rating, Add	275.03	
			For Class 56 Rating, Add	365.06	
40 05 19 00-1046	EA		4" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,555.08	194.46
			For Class 52 Rating, Deduct	-138.65	
			For Class 54 Rating, Add	192.60	
			For Class 55 Rating, Add	288.15	
			For Class 56 Rating, Add	382.44	
40 05 19 00-1047	EA		4" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,617.53	197.11
			For Class 52 Rating, Deduct	-145.08	
			For Class 54 Rating, Add	201.41	
			For Class 55 Rating, Add	301.28	
			For Class 56 Rating, Add	399.82	
40 05 19 00-1048	EA		4" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,679.97	199.77
			For Class 52 Rating, Deduct	-151.50	
			For Class 54 Rating, Add	210.23	
			For Class 55 Rating, Add	314.40	
			For Class 56 Rating, Add	417.20	
40 05 19 00-1049	EA		4" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,742.41	202.43
			For Class 52 Rating, Deduct	-157.93	
			For Class 54 Rating, Add	219.04	
			For Class 55 Rating, Add	327.52	
			For Class 56 Rating, Add	434.58	
40 05 19 00-1050	EA		4" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,804.85	205.09
			For Class 52 Rating, Deduct	-164.35	
			For Class 54 Rating, Add	227.85	
			For Class 55 Rating, Add	340.65	
			For Class 56 Rating, Add	451.95	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1051	EA	4" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,867.29	207.74
		For Class 52 Rating, Deduct	-170.78	
		For Class 54 Rating, Add	236.66	
		For Class 55 Rating, Add	353.77	
		For Class 56 Rating, Add	469.33	
40 05 19 00-1052	EA	4" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,929.74	210.40
		For Class 52 Rating, Deduct	-177.21	
		For Class 54 Rating, Add	245.47	
		For Class 55 Rating, Add	366.89	
		For Class 56 Rating, Add	486.71	
40 05 19 00-1053	EA	4" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,992.17	213.06
		For Class 52 Rating, Deduct	-183.63	
		For Class 54 Rating, Add	254.28	
		For Class 55 Rating, Add	380.02	
		For Class 56 Rating, Add	504.08	
40 05 19 00-1054	EA	4" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,054.62	215.70
		For Class 52 Rating, Deduct	-190.06	
		For Class 54 Rating, Add	263.09	
		For Class 55 Rating, Add	393.14	
		For Class 56 Rating, Add	521.46	
40 05 19 00-1055	EA	4" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,117.07	218.37
		For Class 52 Rating, Deduct	-196.48	
		For Class 54 Rating, Add	271.90	
		For Class 55 Rating, Add	406.27	
		For Class 56 Rating, Add	538.84	
40 05 19 00-1056	EA	4" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,179.50	221.02
		For Class 52 Rating, Deduct	-202.91	
		For Class 54 Rating, Add	280.71	
		For Class 55 Rating, Add	419.39	
		For Class 56 Rating, Add	556.22	
40 05 19 00-1057	EA	4" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,241.95	223.68
		For Class 52 Rating, Deduct	-209.33	
		For Class 54 Rating, Add	289.52	
		For Class 55 Rating, Add	432.51	
		For Class 56 Rating, Add	573.60	
40 05 19 00-1058	EA	4" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,304.39	226.34
		For Class 52 Rating, Deduct	-215.76	
		For Class 54 Rating, Add	298.33	
		For Class 55 Rating, Add	445.64	
		For Class 56 Rating, Add	590.98	
40 05 19 00-1059	EA	4" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,366.82	228.99
		For Class 52 Rating, Deduct	-222.19	
		For Class 54 Rating, Add	307.14	
		For Class 55 Rating, Add	458.76	
		For Class 56 Rating, Add	608.35	
40 05 19 00-1060	EA	4" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,429.27	231.65
		For Class 52 Rating, Deduct	-228.61	
		For Class 54 Rating, Add	315.96	
		For Class 55 Rating, Add	471.88	
		For Class 56 Rating, Add	625.73	
40 05 19 00-1061	EA	4" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,491.71	234.31
		For Class 52 Rating, Deduct	-235.04	
		For Class 54 Rating, Add	324.77	
		For Class 55 Rating, Add	485.01	
		For Class 56 Rating, Add	643.11	
40 05 19 00-1062	EA	4" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,554.15	236.96
		For Class 52 Rating, Deduct	-241.46	
		For Class 54 Rating, Add	333.58	
		For Class 55 Rating, Add	498.13	
		For Class 56 Rating, Add	660.49	
40 05 19 00-1063	EA	4" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,616.59	239.62
		For Class 52 Rating, Deduct	-247.89	
		For Class 54 Rating, Add	342.39	
		For Class 55 Rating, Add	511.25	
		For Class 56 Rating, Add	677.86	
40 05 19 00-1064	EA	4" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,679.04	242.28
		For Class 52 Rating, Deduct	-254.32	
		For Class 54 Rating, Add	351.20	
		For Class 55 Rating, Add	524.38	
		For Class 56 Rating, Add	695.24	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1065	EA		4" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,741.48	244.93
			For Class 52 Rating, Deduct	-260.74	
			For Class 54 Rating, Add	360.01	
			For Class 55 Rating, Add	537.50	
			For Class 56 Rating, Add	712.62	
40 05 19 00-1066	EA		4" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,803.92	247.59
			For Class 52 Rating, Deduct	-267.17	
			For Class 54 Rating, Add	368.82	
			For Class 55 Rating, Add	550.62	
			For Class 56 Rating, Add	730.00	
40 05 19 00-1067	EA		4" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,866.37	250.25
			For Class 52 Rating, Deduct	-273.59	
			For Class 54 Rating, Add	377.63	
			For Class 55 Rating, Add	563.75	
			For Class 56 Rating, Add	747.38	
40 05 19 00-1068	EA		4" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,928.80	252.90
			For Class 52 Rating, Deduct	-280.02	
			For Class 54 Rating, Add	386.44	
			For Class 55 Rating, Add	576.87	
			For Class 56 Rating, Add	764.75	
40 05 19 00-1069			6" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1070	EA		6" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	696.47	191.28
			For Class 52 Rating, Deduct	-44.73	
			For Class 54 Rating, Add	64.48	
			For Class 55 Rating, Add	97.64	
			For Class 56 Rating, Add	130.40	
40 05 19 00-1071	EA		6" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	772.40	193.93
			For Class 52 Rating, Deduct	-52.64	
			For Class 54 Rating, Add	75.31	
			For Class 55 Rating, Add	113.77	
			For Class 56 Rating, Add	151.76	
40 05 19 00-1072	EA		6" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	848.32	196.58
			For Class 52 Rating, Deduct	-60.55	
			For Class 54 Rating, Add	86.14	
			For Class 55 Rating, Add	129.90	
			For Class 56 Rating, Add	173.11	
40 05 19 00-1073	EA		6" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	924.24	199.24
			For Class 52 Rating, Deduct	-68.46	
			For Class 54 Rating, Add	96.98	
			For Class 55 Rating, Add	146.03	
			For Class 56 Rating, Add	194.46	
40 05 19 00-1074	EA		6" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,000.17	201.90
			For Class 52 Rating, Deduct	-76.37	
			For Class 54 Rating, Add	107.81	
			For Class 55 Rating, Add	162.16	
			For Class 56 Rating, Add	215.82	
40 05 19 00-1075	EA		6" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,076.09	204.55
			For Class 52 Rating, Deduct	-84.28	
			For Class 54 Rating, Add	118.64	
			For Class 55 Rating, Add	178.29	
			For Class 56 Rating, Add	237.17	
40 05 19 00-1076	EA		6" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,152.02	207.20
			For Class 52 Rating, Deduct	-92.19	
			For Class 54 Rating, Add	129.48	
			For Class 55 Rating, Add	194.42	
			For Class 56 Rating, Add	258.53	
40 05 19 00-1077	EA		6" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,227.93	209.87
			For Class 52 Rating, Deduct	-100.09	
			For Class 54 Rating, Add	140.31	
			For Class 55 Rating, Add	210.55	
			For Class 56 Rating, Add	279.88	
40 05 19 00-1078	EA		6" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,303.85	212.53
			For Class 52 Rating, Deduct	-108.00	
			For Class 54 Rating, Add	151.14	
			For Class 55 Rating, Add	226.68	
			For Class 56 Rating, Add	301.24	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1079	EA	6" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,379.78	215.17
		For Class 52 Rating, Deduct	-115.91	
		For Class 54 Rating, Add	161.97	
		For Class 55 Rating, Add	242.81	
		For Class 56 Rating, Add	322.59	
40 05 19 00-1080	EA	6" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,455.70	217.83
		For Class 52 Rating, Deduct	-123.62	
		For Class 54 Rating, Add	172.81	
		For Class 55 Rating, Add	258.94	
		For Class 56 Rating, Add	343.95	
40 05 19 00-1081	EA	6" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,531.62	220.50
		For Class 52 Rating, Deduct	-131.73	
		For Class 54 Rating, Add	183.64	
		For Class 55 Rating, Add	275.07	
		For Class 56 Rating, Add	365.30	
40 05 19 00-1082	EA	6" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,607.54	223.14
		For Class 52 Rating, Deduct	-139.64	
		For Class 54 Rating, Add	194.47	
		For Class 55 Rating, Add	291.20	
		For Class 56 Rating, Add	386.66	
40 05 19 00-1083	EA	6" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,683.47	225.80
		For Class 52 Rating, Deduct	-147.55	
		For Class 54 Rating, Add	205.31	
		For Class 55 Rating, Add	307.33	
		For Class 56 Rating, Add	408.01	
40 05 19 00-1084	EA	6" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,759.40	228.47
		For Class 52 Rating, Deduct	-155.46	
		For Class 54 Rating, Add	216.14	
		For Class 55 Rating, Add	323.46	
		For Class 56 Rating, Add	429.37	
40 05 19 00-1085	EA	6" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,835.31	231.12
		For Class 52 Rating, Deduct	-163.36	
		For Class 54 Rating, Add	226.97	
		For Class 55 Rating, Add	339.59	
		For Class 56 Rating, Add	450.72	
40 05 19 00-1086	EA	6" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,911.24	233.77
		For Class 52 Rating, Deduct	-171.27	
		For Class 54 Rating, Add	237.81	
		For Class 55 Rating, Add	355.72	
		For Class 56 Rating, Add	472.08	
40 05 19 00-1087	EA	6" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,987.16	236.43
		For Class 52 Rating, Deduct	-179.18	
		For Class 54 Rating, Add	248.64	
		For Class 55 Rating, Add	371.85	
		For Class 56 Rating, Add	493.43	
40 05 19 00-1088	EA	6" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,063.08	239.09
		For Class 52 Rating, Deduct	-187.09	
		For Class 54 Rating, Add	259.47	
		For Class 55 Rating, Add	387.98	
		For Class 56 Rating, Add	514.79	
40 05 19 00-1089	EA	6" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,139.01	241.75
		For Class 52 Rating, Deduct	-195.00	
		For Class 54 Rating, Add	270.30	
		For Class 55 Rating, Add	404.11	
		For Class 56 Rating, Add	536.14	
40 05 19 00-1090	EA	6" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,214.92	244.39
		For Class 52 Rating, Deduct	-202.91	
		For Class 54 Rating, Add	281.14	
		For Class 55 Rating, Add	420.24	
		For Class 56 Rating, Add	557.49	
40 05 19 00-1091	EA	6" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,290.85	247.06
		For Class 52 Rating, Deduct	-210.82	
		For Class 54 Rating, Add	291.97	
		For Class 55 Rating, Add	436.37	
		For Class 56 Rating, Add	578.85	
40 05 19 00-1092	EA	6" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,366.77	249.72
		For Class 52 Rating, Deduct	-218.73	
		For Class 54 Rating, Add	302.80	
		For Class 55 Rating, Add	452.50	
		For Class 56 Rating, Add	600.20	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1093	EA		6" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,442.70	252.36
			For Class 52 Rating, Deduct	-226.64	
			For Class 54 Rating, Add	313.64	
			For Class 55 Rating, Add	468.63	
			For Class 56 Rating, Add	621.56	
40 05 19 00-1094	EA		6" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,518.62	255.02
			For Class 52 Rating, Deduct	-234.54	
			For Class 54 Rating, Add	324.47	
			For Class 55 Rating, Add	484.76	
			For Class 56 Rating, Add	642.91	
40 05 19 00-1095	EA		6" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,594.54	257.69
			For Class 52 Rating, Deduct	-242.45	
			For Class 54 Rating, Add	335.30	
			For Class 55 Rating, Add	500.89	
			For Class 56 Rating, Add	664.27	
40 05 19 00-1096	EA		6" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,670.47	260.34
			For Class 52 Rating, Deduct	-250.36	
			For Class 54 Rating, Add	346.14	
			For Class 55 Rating, Add	517.02	
			For Class 56 Rating, Add	685.62	
40 05 19 00-1097	EA		6" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,746.39	262.99
			For Class 52 Rating, Deduct	-258.27	
			For Class 54 Rating, Add	356.97	
			For Class 55 Rating, Add	533.15	
			For Class 56 Rating, Add	706.98	
40 05 19 00-1098	EA		6" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,822.30	265.66
			For Class 52 Rating, Deduct	-266.18	
			For Class 54 Rating, Add	367.80	
			For Class 55 Rating, Add	549.28	
			For Class 56 Rating, Add	728.33	
40 05 19 00-1099	EA		6" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,898.23	268.31
			For Class 52 Rating, Deduct	-274.09	
			For Class 54 Rating, Add	378.63	
			For Class 55 Rating, Add	565.41	
			For Class 56 Rating, Add	749.69	
40 05 19 00-1100	EA		6" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,974.15	270.96
			For Class 52 Rating, Deduct	-282.00	
			For Class 54 Rating, Add	389.47	
			For Class 55 Rating, Add	581.54	
			For Class 56 Rating, Add	771.04	
40 05 19 00-1101	EA		6" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,050.08	273.63
			For Class 52 Rating, Deduct	-289.91	
			For Class 54 Rating, Add	400.30	
			For Class 55 Rating, Add	597.67	
			For Class 56 Rating, Add	792.40	
40 05 19 00-1102	EA		6" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,125.99	276.28
			For Class 52 Rating, Deduct	-297.81	
			For Class 54 Rating, Add	411.13	
			For Class 55 Rating, Add	613.79	
			For Class 56 Rating, Add	813.75	
40 05 19 00-1103	EA		6" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,201.92	278.94
			For Class 52 Rating, Deduct	-305.72	
			For Class 54 Rating, Add	421.97	
			For Class 55 Rating, Add	629.92	
			For Class 56 Rating, Add	835.11	
40 05 19 00-1104	EA		6" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,277.85	281.59
			For Class 52 Rating, Deduct	-313.63	
			For Class 54 Rating, Add	432.80	
			For Class 55 Rating, Add	646.06	
			For Class 56 Rating, Add	856.46	
40 05 19 00-1105	EA		6" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,353.77	284.25
			For Class 52 Rating, Deduct	-321.54	
			For Class 54 Rating, Add	443.63	
			For Class 55 Rating, Add	662.19	
			For Class 56 Rating, Add	877.82	
40 05 19 00-1106	EA		6" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,429.69	286.91
			For Class 52 Rating, Deduct	-329.45	
			For Class 54 Rating, Add	454.46	
			For Class 55 Rating, Add	678.31	
			For Class 56 Rating, Add	899.17	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1107	EA		6" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,505.61	289.55
			For Class 52 Rating, Deduct	-337.36	
			For Class 54 Rating, Add	465.30	
			For Class 55 Rating, Add	694.44	
			For Class 56 Rating, Add	920.52	
40 05 19 00-1108	EA		6" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,581.53	292.21
			For Class 52 Rating, Deduct	-345.27	
			For Class 54 Rating, Add	476.13	
			For Class 55 Rating, Add	710.57	
			For Class 56 Rating, Add	941.88	
40 05 19 00-1109			8" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1110	EA		8" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	961.21	244.39
			For Class 52 Rating, Deduct	-65.00	
			For Class 54 Rating, Add	93.08	
			For Class 55 Rating, Add	140.66	
			For Class 56 Rating, Add	187.65	
40 05 19 00-1111	EA		8" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,064.10	247.06
			For Class 52 Rating, Deduct	-75.87	
			For Class 54 Rating, Add	107.96	
			For Class 55 Rating, Add	162.80	
			For Class 56 Rating, Add	216.96	
40 05 19 00-1112	EA		8" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,166.98	249.72
			For Class 52 Rating, Deduct	-86.75	
			For Class 54 Rating, Add	122.83	
			For Class 55 Rating, Add	184.94	
			For Class 56 Rating, Add	246.27	
40 05 19 00-1113	EA		8" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,269.87	252.36
			For Class 52 Rating, Deduct	-97.62	
			For Class 54 Rating, Add	137.71	
			For Class 55 Rating, Add	207.09	
			For Class 56 Rating, Add	275.58	
40 05 19 00-1114	EA		8" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,372.76	255.02
			For Class 52 Rating, Deduct	-108.50	
			For Class 54 Rating, Add	152.59	
			For Class 55 Rating, Add	229.23	
			For Class 56 Rating, Add	304.68	
40 05 19 00-1115	EA		8" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,475.63	257.69
			For Class 52 Rating, Deduct	-119.37	
			For Class 54 Rating, Add	167.47	
			For Class 55 Rating, Add	251.37	
			For Class 56 Rating, Add	334.19	
40 05 19 00-1116	EA		8" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,578.52	260.34
			For Class 52 Rating, Deduct	-130.25	
			For Class 54 Rating, Add	182.34	
			For Class 55 Rating, Add	273.51	
			For Class 56 Rating, Add	363.50	
40 05 19 00-1117	EA		8" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,681.40	262.99
			For Class 52 Rating, Deduct	-141.12	
			For Class 54 Rating, Add	197.22	
			For Class 55 Rating, Add	295.65	
			For Class 56 Rating, Add	392.81	
40 05 19 00-1118	EA		8" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,784.28	265.66
			For Class 52 Rating, Deduct	-152.00	
			For Class 54 Rating, Add	212.10	
			For Class 55 Rating, Add	317.80	
			For Class 56 Rating, Add	422.12	
40 05 19 00-1119	EA		8" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,887.17	268.31
			For Class 52 Rating, Deduct	-162.87	
			For Class 54 Rating, Add	226.97	
			For Class 55 Rating, Add	339.94	
			For Class 56 Rating, Add	451.42	
40 05 19 00-1120	EA		8" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,990.05	270.96
			For Class 52 Rating, Deduct	-173.75	
			For Class 54 Rating, Add	241.85	
			For Class 55 Rating, Add	362.08	
			For Class 56 Rating, Add	480.73	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

40 05 19 00-1121	EA	8" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,092.94	273.63
		For Class 52 Rating, Deduct	-184.62	
		For Class 54 Rating, Add	256.73	
		For Class 55 Rating, Add	384.22	
		For Class 56 Rating, Add	510.04	
40 05 19 00-1122	EA	8" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,195.82	276.28
		For Class 52 Rating, Deduct	-195.49	
		For Class 54 Rating, Add	271.61	
		For Class 55 Rating, Add	406.37	
		For Class 56 Rating, Add	539.35	
40 05 19 00-1123	EA	8" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,298.71	278.94
		For Class 52 Rating, Deduct	-206.37	
		For Class 54 Rating, Add	286.48	
		For Class 55 Rating, Add	428.51	
		For Class 56 Rating, Add	568.66	
40 05 19 00-1124	EA	8" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,401.60	281.59
		For Class 52 Rating, Deduct	-217.24	
		For Class 54 Rating, Add	301.36	
		For Class 55 Rating, Add	450.65	
		For Class 56 Rating, Add	597.97	
40 05 19 00-1125	EA	8" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,504.48	284.25
		For Class 52 Rating, Deduct	-228.12	
		For Class 54 Rating, Add	316.24	
		For Class 55 Rating, Add	472.79	
		For Class 56 Rating, Add	627.28	
40 05 19 00-1126	EA	8" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,607.37	286.91
		For Class 52 Rating, Deduct	-238.99	
		For Class 54 Rating, Add	331.12	
		For Class 55 Rating, Add	494.94	
		For Class 56 Rating, Add	656.58	
40 05 19 00-1127	EA	8" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,710.24	289.55
		For Class 52 Rating, Deduct	-249.87	
		For Class 54 Rating, Add	345.99	
		For Class 55 Rating, Add	517.08	
		For Class 56 Rating, Add	685.89	
40 05 19 00-1128	EA	8" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,813.12	292.21
		For Class 52 Rating, Deduct	-260.74	
		For Class 54 Rating, Add	360.87	
		For Class 55 Rating, Add	539.22	
		For Class 56 Rating, Add	715.20	
40 05 19 00-1129	EA	8" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,916.01	294.88
		For Class 52 Rating, Deduct	-271.62	
		For Class 54 Rating, Add	375.75	
		For Class 55 Rating, Add	561.36	
		For Class 56 Rating, Add	744.51	
40 05 19 00-1130	EA	8" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,018.89	297.53
		For Class 52 Rating, Deduct	-282.49	
		For Class 54 Rating, Add	390.62	
		For Class 55 Rating, Add	583.50	
		For Class 56 Rating, Add	773.82	
40 05 19 00-1131	EA	8" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,121.78	300.18
		For Class 52 Rating, Deduct	-293.36	
		For Class 54 Rating, Add	405.50	
		For Class 55 Rating, Add	605.65	
		For Class 56 Rating, Add	803.12	
40 05 19 00-1132	EA	8" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,224.66	302.85
		For Class 52 Rating, Deduct	-304.24	
		For Class 54 Rating, Add	420.38	
		For Class 55 Rating, Add	627.79	
		For Class 56 Rating, Add	832.43	
40 05 19 00-1133	EA	8" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,327.56	305.50
		For Class 52 Rating, Deduct	-315.11	
		For Class 54 Rating, Add	435.26	
		For Class 55 Rating, Add	649.93	
		For Class 56 Rating, Add	861.74	
40 05 19 00-1134	EA	8" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,430.44	308.16
		For Class 52 Rating, Deduct	-325.99	
		For Class 54 Rating, Add	450.13	
		For Class 55 Rating, Add	672.07	
		For Class 56 Rating, Add	891.05	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1135	EA	8" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,533.32	310.82
		For Class 52 Rating, Deduct	-336.86	
		For Class 54 Rating, Add	465.01	
		For Class 55 Rating, Add	694.22	
		For Class 56 Rating, Add	920.36	
40 05 19 00-1136	EA	8" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,636.21	313.47
		For Class 52 Rating, Deduct	-347.74	
		For Class 54 Rating, Add	479.89	
		For Class 55 Rating, Add	716.36	
		For Class 56 Rating, Add	949.67	
40 05 19 00-1137	EA	8" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,739.09	316.13
		For Class 52 Rating, Deduct	-358.61	
		For Class 54 Rating, Add	494.76	
		For Class 55 Rating, Add	738.50	
		For Class 56 Rating, Add	978.98	
40 05 19 00-1138	EA	8" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,841.98	318.78
		For Class 52 Rating, Deduct	-369.49	
		For Class 54 Rating, Add	509.64	
		For Class 55 Rating, Add	760.64	
		For Class 56 Rating, Add	1,008.28	
40 05 19 00-1139	EA	8" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,944.86	321.44
		For Class 52 Rating, Deduct	-380.36	
		For Class 54 Rating, Add	524.52	
		For Class 55 Rating, Add	782.78	
		For Class 56 Rating, Add	1,037.59	
40 05 19 00-1140	EA	8" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,047.73	324.10
		For Class 52 Rating, Deduct	-391.23	
		For Class 54 Rating, Add	539.39	
		For Class 55 Rating, Add	804.92	
		For Class 56 Rating, Add	1,066.90	
40 05 19 00-1141	EA	8" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,150.62	326.76
		For Class 52 Rating, Deduct	-402.11	
		For Class 54 Rating, Add	554.27	
		For Class 55 Rating, Add	827.07	
		For Class 56 Rating, Add	1,096.21	
40 05 19 00-1142	EA	8" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,253.50	329.41
		For Class 52 Rating, Deduct	-412.98	
		For Class 54 Rating, Add	569.15	
		For Class 55 Rating, Add	849.21	
		For Class 56 Rating, Add	1,125.52	
40 05 19 00-1143	EA	8" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,356.40	332.07
		For Class 52 Rating, Deduct	-423.86	
		For Class 54 Rating, Add	584.03	
		For Class 55 Rating, Add	871.35	
		For Class 56 Rating, Add	1,154.82	
40 05 19 00-1144	EA	8" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,459.28	334.73
		For Class 52 Rating, Deduct	-434.73	
		For Class 54 Rating, Add	598.90	
		For Class 55 Rating, Add	893.49	
		For Class 56 Rating, Add	1,184.13	
40 05 19 00-1145	EA	8" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,562.16	337.37
		For Class 52 Rating, Deduct	-445.61	
		For Class 54 Rating, Add	613.78	
		For Class 55 Rating, Add	915.64	
		For Class 56 Rating, Add	1,213.44	
40 05 19 00-1146	EA	8" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,665.05	340.04
		For Class 52 Rating, Deduct	-456.48	
		For Class 54 Rating, Add	628.66	
		For Class 55 Rating, Add	937.78	
		For Class 56 Rating, Add	1,242.75	
40 05 19 00-1147	EA	8" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,767.93	342.69
		For Class 52 Rating, Deduct	-467.36	
		For Class 54 Rating, Add	643.54	
		For Class 55 Rating, Add	959.92	
		For Class 56 Rating, Add	1,272.06	
40 05 19 00-1148	EA	8" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,870.82	345.35
		For Class 52 Rating, Deduct	-478.23	
		For Class 54 Rating, Add	658.41	
		For Class 55 Rating, Add	982.06	
		For Class 56 Rating, Add	1,301.37	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
40 05 19 00-1149	10" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)			
40 05 19 00-1150	EA 10" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,212.47		297.53
	For Class 52 Rating, Deduct	-83.78		
	For Class 54 Rating, Add	119.66		
	For Class 55 Rating, Add	180.67		
	For Class 56 Rating, Add	240.92		
40 05 19 00-1151	EA 10" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,346.81		300.18
	For Class 52 Rating, Deduct	-98.12		
	For Class 54 Rating, Add	139.25		
	For Class 55 Rating, Add	209.83		
	For Class 56 Rating, Add	279.51		
40 05 19 00-1152	EA 10" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,481.14		302.85
	For Class 52 Rating, Deduct	-112.45		
	For Class 54 Rating, Add	158.85		
	For Class 55 Rating, Add	238.98		
	For Class 56 Rating, Add	318.09		
40 05 19 00-1153	EA 10" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,615.50		305.50
	For Class 52 Rating, Deduct	-126.79		
	For Class 54 Rating, Add	178.45		
	For Class 55 Rating, Add	268.14		
	For Class 56 Rating, Add	356.68		
40 05 19 00-1154	EA 10" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,749.83		308.16
	For Class 52 Rating, Deduct	-141.12		
	For Class 54 Rating, Add	198.04		
	For Class 55 Rating, Add	297.30		
	For Class 56 Rating, Add	395.27		
40 05 19 00-1155	EA 10" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,884.17		310.82
	For Class 52 Rating, Deduct	-155.46		
	For Class 54 Rating, Add	217.64		
	For Class 55 Rating, Add	326.45		
	For Class 56 Rating, Add	433.86		
40 05 19 00-1156	EA 10" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,018.51		313.47
	For Class 52 Rating, Deduct	-169.79		
	For Class 54 Rating, Add	237.23		
	For Class 55 Rating, Add	355.61		
	For Class 56 Rating, Add	472.45		
40 05 19 00-1157	EA 10" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,152.85		316.13
	For Class 52 Rating, Deduct	-184.13		
	For Class 54 Rating, Add	256.83		
	For Class 55 Rating, Add	384.77		
	For Class 56 Rating, Add	511.03		
40 05 19 00-1158	EA 10" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,287.19		318.78
	For Class 52 Rating, Deduct	-198.46		
	For Class 54 Rating, Add	276.42		
	For Class 55 Rating, Add	413.92		
	For Class 56 Rating, Add	549.62		
40 05 19 00-1159	EA 10" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,421.52		321.44
	For Class 52 Rating, Deduct	-212.79		
	For Class 54 Rating, Add	296.02		
	For Class 55 Rating, Add	443.08		
	For Class 56 Rating, Add	588.21		
40 05 19 00-1160	EA 10" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,555.86		324.10
	For Class 52 Rating, Deduct	-227.13		
	For Class 54 Rating, Add	315.61		
	For Class 55 Rating, Add	472.24		
	For Class 56 Rating, Add	626.80		
40 05 19 00-1161	EA 10" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,690.20		326.76
	For Class 52 Rating, Deduct	-241.46		
	For Class 54 Rating, Add	335.21		
	For Class 55 Rating, Add	501.39		
	For Class 56 Rating, Add	665.38		
40 05 19 00-1162	EA 10" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,824.54		329.41
	For Class 52 Rating, Deduct	-255.80		
	For Class 54 Rating, Add	354.81		
	For Class 55 Rating, Add	530.55		
	For Class 56 Rating, Add	703.97		
40 05 19 00-1163	EA 10" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,958.89		332.07
	For Class 52 Rating, Deduct	-270.13		
	For Class 54 Rating, Add	374.40		
	For Class 55 Rating, Add	559.71		
	For Class 56 Rating, Add	742.56		



MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-1164	EA	10" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,093.23	334.73
		For Class 52 Rating, Deduct	-284.47	
		For Class 54 Rating, Add	394.00	
		For Class 55 Rating, Add	588.87	
		For Class 56 Rating, Add	781.15	
40 05 19 00-1165	EA	10" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,227.56	337.37
		For Class 52 Rating, Deduct	-298.80	
		For Class 54 Rating, Add	413.59	
		For Class 55 Rating, Add	618.02	
		For Class 56 Rating, Add	819.73	
40 05 19 00-1166	EA	10" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,361.91	340.04
		For Class 52 Rating, Deduct	-313.14	
		For Class 54 Rating, Add	433.19	
		For Class 55 Rating, Add	647.18	
		For Class 56 Rating, Add	858.32	
40 05 19 00-1167	EA	10" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,496.24	342.69
		For Class 52 Rating, Deduct	-327.47	
		For Class 54 Rating, Add	452.78	
		For Class 55 Rating, Add	676.33	
		For Class 56 Rating, Add	896.91	
40 05 19 00-1168	EA	10" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,630.58	345.35
		For Class 52 Rating, Deduct	-341.81	
		For Class 54 Rating, Add	472.38	
		For Class 55 Rating, Add	705.49	
		For Class 56 Rating, Add	935.50	
40 05 19 00-1169	EA	10" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,764.92	348.01
		For Class 52 Rating, Deduct	-356.14	
		For Class 54 Rating, Add	491.97	
		For Class 55 Rating, Add	734.65	
		For Class 56 Rating, Add	974.09	
40 05 19 00-1170	EA	10" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,899.25	350.66
		For Class 52 Rating, Deduct	-370.47	
		For Class 54 Rating, Add	511.57	
		For Class 55 Rating, Add	763.80	
		For Class 56 Rating, Add	1,012.67	
40 05 19 00-1171	EA	10" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,033.60	353.32
		For Class 52 Rating, Deduct	-384.81	
		For Class 54 Rating, Add	531.16	
		For Class 55 Rating, Add	792.96	
		For Class 56 Rating, Add	1,051.26	
40 05 19 00-1172	EA	10" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,167.93	355.97
		For Class 52 Rating, Deduct	-399.14	
		For Class 54 Rating, Add	550.76	
		For Class 55 Rating, Add	822.12	
		For Class 56 Rating, Add	1,089.85	
40 05 19 00-1173	EA	10" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,302.29	358.63
		For Class 52 Rating, Deduct	-413.48	
		For Class 54 Rating, Add	570.36	
		For Class 55 Rating, Add	851.28	
		For Class 56 Rating, Add	1,128.44	
40 05 19 00-1174	EA	10" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,436.62	361.29
		For Class 52 Rating, Deduct	-427.81	
		For Class 54 Rating, Add	589.95	
		For Class 55 Rating, Add	880.43	
		For Class 56 Rating, Add	1,167.02	
40 05 19 00-1175	EA	10" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,570.96	363.95
		For Class 52 Rating, Deduct	-442.15	
		For Class 54 Rating, Add	609.55	
		For Class 55 Rating, Add	909.59	
		For Class 56 Rating, Add	1,205.61	
40 05 19 00-1176	EA	10" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,705.30	366.60
		For Class 52 Rating, Deduct	-456.48	
		For Class 54 Rating, Add	629.14	
		For Class 55 Rating, Add	938.75	
		For Class 56 Rating, Add	1,244.20	
40 05 19 00-1177	EA	10" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,839.63	369.26
		For Class 52 Rating, Deduct	-470.82	
		For Class 54 Rating, Add	648.74	
		For Class 55 Rating, Add	967.90	
		For Class 56 Rating, Add	1,282.79	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 19 00-1178	EA	10" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,973.98		371.92
		For Class 52 Rating, Deduct	-485.15		
		For Class 54 Rating, Add	668.33		
		For Class 55 Rating, Add	997.06		
		For Class 56 Rating, Add	1,321.38		
40 05 19 00-1179	EA	10" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,108.31		374.57
		For Class 52 Rating, Deduct	-499.49		
		For Class 54 Rating, Add	687.93		
		For Class 55 Rating, Add	1,026.21		
		For Class 56 Rating, Add	1,369.96		
40 05 19 00-1180	EA	10" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,242.65		377.23
		For Class 52 Rating, Deduct	-513.82		
		For Class 54 Rating, Add	707.52		
		For Class 55 Rating, Add	1,055.37		
		For Class 56 Rating, Add	1,398.55		
40 05 19 00-1181	EA	10" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,376.99		379.89
		For Class 52 Rating, Deduct	-528.16		
		For Class 54 Rating, Add	727.12		
		For Class 55 Rating, Add	1,084.53		
		For Class 56 Rating, Add	1,437.14		
40 05 19 00-1182	EA	10" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,511.33		382.54
		For Class 52 Rating, Deduct	-542.49		
		For Class 54 Rating, Add	746.71		
		For Class 55 Rating, Add	1,113.69		
		For Class 56 Rating, Add	1,475.73		
40 05 19 00-1183	EA	10" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,645.68		385.20
		For Class 52 Rating, Deduct	-556.82		
		For Class 54 Rating, Add	766.31		
		For Class 55 Rating, Add	1,142.84		
		For Class 56 Rating, Add	1,514.31		
40 05 19 00-1184	EA	10" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,780.01		387.85
		For Class 52 Rating, Deduct	-571.16		
		For Class 54 Rating, Add	785.90		
		For Class 55 Rating, Add	1,172.00		
		For Class 56 Rating, Add	1,552.90		
40 05 19 00-1185	EA	10" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,914.35		390.51
		For Class 52 Rating, Deduct	-585.49		
		For Class 54 Rating, Add	805.50		
		For Class 55 Rating, Add	1,201.16		
		For Class 56 Rating, Add	1,591.49		
40 05 19 00-1186	EA	10" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,048.69		393.17
		For Class 52 Rating, Deduct	-599.83		
		For Class 54 Rating, Add	825.10		
		For Class 55 Rating, Add	1,230.31		
		For Class 56 Rating, Add	1,630.07		
40 05 19 00-1187	EA	10" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,183.03		395.82
		For Class 52 Rating, Deduct	-614.16		
		For Class 54 Rating, Add	844.69		
		For Class 55 Rating, Add	1,259.47		
		For Class 56 Rating, Add	1,668.66		
40 05 19 00-1188	EA	10" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,317.37		398.48
		For Class 52 Rating, Deduct	-628.50		
		For Class 54 Rating, Add	864.29		
		For Class 55 Rating, Add	1,288.63		
		For Class 56 Rating, Add	1,707.25		
40 05 19 00-1189		12" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)			
40 05 19 00-1190	EA	12" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,579.06		371.92
		For Class 52 Rating, Deduct	-111.71		
		For Class 54 Rating, Add	159.09		
		For Class 55 Rating, Add	239.99		
		For Class 56 Rating, Add	319.87		
40 05 19 00-1191	EA	12" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,747.10		374.57
		For Class 52 Rating, Deduct	-129.75		
		For Class 54 Rating, Add	183.75		
		For Class 55 Rating, Add	276.66		
		For Class 56 Rating, Add	368.40		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1192	EA	12" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,915.14	377.23
		For Class 52 Rating, Deduct	-147.79	
		For Class 54 Rating, Add	208.40	
		For Class 55 Rating, Add	313.34	
		For Class 56 Rating, Add	416.93	
40 05 19 00-1193	EA	12" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,083.18	379.89
		For Class 52 Rating, Deduct	-165.84	
		For Class 54 Rating, Add	233.05	
		For Class 55 Rating, Add	350.01	
		For Class 56 Rating, Add	465.46	
40 05 19 00-1194	EA	12" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,251.22	382.54
		For Class 52 Rating, Deduct	-183.88	
		For Class 54 Rating, Add	257.70	
		For Class 55 Rating, Add	386.68	
		For Class 56 Rating, Add	513.99	
40 05 19 00-1195	EA	12" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,419.28	385.20
		For Class 52 Rating, Deduct	-201.92	
		For Class 54 Rating, Add	282.35	
		For Class 55 Rating, Add	423.36	
		For Class 56 Rating, Add	562.52	
40 05 19 00-1196	EA	12" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,587.31	387.85
		For Class 52 Rating, Deduct	-219.96	
		For Class 54 Rating, Add	307.00	
		For Class 55 Rating, Add	460.03	
		For Class 56 Rating, Add	611.05	
40 05 19 00-1197	EA	12" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,755.35	390.51
		For Class 52 Rating, Deduct	-238.00	
		For Class 54 Rating, Add	331.65	
		For Class 55 Rating, Add	496.70	
		For Class 56 Rating, Add	659.58	
40 05 19 00-1198	EA	12" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,923.39	393.17
		For Class 52 Rating, Deduct	-256.04	
		For Class 54 Rating, Add	356.30	
		For Class 55 Rating, Add	533.37	
		For Class 56 Rating, Add	708.11	
40 05 19 00-1199	EA	12" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,091.43	395.82
		For Class 52 Rating, Deduct	-274.09	
		For Class 54 Rating, Add	380.95	
		For Class 55 Rating, Add	570.04	
		For Class 56 Rating, Add	756.64	
40 05 19 00-1200	EA	12" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,259.48	398.48
		For Class 52 Rating, Deduct	-292.13	
		For Class 54 Rating, Add	405.60	
		For Class 55 Rating, Add	606.72	
		For Class 56 Rating, Add	805.17	
40 05 19 00-1201	EA	12" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,427.51	401.14
		For Class 52 Rating, Deduct	-310.17	
		For Class 54 Rating, Add	430.25	
		For Class 55 Rating, Add	643.39	
		For Class 56 Rating, Add	853.70	
40 05 19 00-1202	EA	12" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,595.55	403.79
		For Class 52 Rating, Deduct	-328.21	
		For Class 54 Rating, Add	454.90	
		For Class 55 Rating, Add	680.06	
		For Class 56 Rating, Add	902.23	
40 05 19 00-1203	EA	12" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,763.60	406.45
		For Class 52 Rating, Deduct	-346.25	
		For Class 54 Rating, Add	479.56	
		For Class 55 Rating, Add	716.73	
		For Class 56 Rating, Add	950.76	
40 05 19 00-1204	EA	12" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,931.64	409.11
		For Class 52 Rating, Deduct	-364.30	
		For Class 54 Rating, Add	504.21	
		For Class 55 Rating, Add	753.40	
		For Class 56 Rating, Add	999.29	
40 05 19 00-1205	EA	12" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,099.69	411.76
		For Class 52 Rating, Deduct	-382.34	
		For Class 54 Rating, Add	528.86	
		For Class 55 Rating, Add	790.08	
		For Class 56 Rating, Add	1,047.82	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

40 05 19 00-1206	EA	12" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,267.73	414.42
		For Class 52 Rating, Deduct	-400.38	
		For Class 54 Rating, Add	553.51	
		For Class 55 Rating, Add	826.75	
		For Class 56 Rating, Add	1,096.35	
40 05 19 00-1207	EA	12" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,435.76	417.08
		For Class 52 Rating, Deduct	-418.42	
		For Class 54 Rating, Add	578.16	
		For Class 55 Rating, Add	863.42	
		For Class 56 Rating, Add	1,144.88	
40 05 19 00-1208	EA	12" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,603.81	419.73
		For Class 52 Rating, Deduct	-436.46	
		For Class 54 Rating, Add	602.81	
		For Class 55 Rating, Add	900.09	
		For Class 56 Rating, Add	1,193.41	
40 05 19 00-1209	EA	12" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,771.85	422.39
		For Class 52 Rating, Deduct	-454.51	
		For Class 54 Rating, Add	627.46	
		For Class 55 Rating, Add	936.77	
		For Class 56 Rating, Add	1,241.94	
40 05 19 00-1210	EA	12" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,939.89	425.04
		For Class 52 Rating, Deduct	-472.55	
		For Class 54 Rating, Add	652.11	
		For Class 55 Rating, Add	973.44	
		For Class 56 Rating, Add	1,290.47	
40 05 19 00-1211	EA	12" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,107.93	427.70
		For Class 52 Rating, Deduct	-490.59	
		For Class 54 Rating, Add	676.76	
		For Class 55 Rating, Add	1,010.11	
		For Class 56 Rating, Add	1,339.00	
40 05 19 00-1212	EA	12" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,275.97	430.36
		For Class 52 Rating, Deduct	-508.63	
		For Class 54 Rating, Add	701.41	
		For Class 55 Rating, Add	1,046.78	
		For Class 56 Rating, Add	1,387.53	
40 05 19 00-1213	EA	12" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,444.01	433.01
		For Class 52 Rating, Deduct	-526.67	
		For Class 54 Rating, Add	726.06	
		For Class 55 Rating, Add	1,083.45	
		For Class 56 Rating, Add	1,436.06	
40 05 19 00-1214	EA	12" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,612.06	435.67
		For Class 52 Rating, Deduct	-544.71	
		For Class 54 Rating, Add	750.71	
		For Class 55 Rating, Add	1,120.13	
		For Class 56 Rating, Add	1,484.59	
40 05 19 00-1215	EA	12" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,780.10	438.33
		For Class 52 Rating, Deduct	-562.76	
		For Class 54 Rating, Add	775.36	
		For Class 55 Rating, Add	1,156.80	
		For Class 56 Rating, Add	1,533.12	
40 05 19 00-1216	EA	12" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,948.14	440.99
		For Class 52 Rating, Deduct	-580.80	
		For Class 54 Rating, Add	800.01	
		For Class 55 Rating, Add	1,193.47	
		For Class 56 Rating, Add	1,581.65	
40 05 19 00-1217	EA	12" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,116.19	443.64
		For Class 52 Rating, Deduct	-598.84	
		For Class 54 Rating, Add	824.67	
		For Class 55 Rating, Add	1,230.14	
		For Class 56 Rating, Add	1,630.18	
40 05 19 00-1218	EA	12" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,284.22	446.30
		For Class 52 Rating, Deduct	-616.88	
		For Class 54 Rating, Add	849.32	
		For Class 55 Rating, Add	1,266.82	
		For Class 56 Rating, Add	1,678.71	
40 05 19 00-1219	EA	12" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,452.26	448.95
		For Class 52 Rating, Deduct	-634.92	
		For Class 54 Rating, Add	873.97	
		For Class 55 Rating, Add	1,303.49	
		For Class 56 Rating, Add	1,727.24	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1220	EA	12"	Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,620.31	451.61
			For Class 52 Rating, Deduct	-652.97	
			For Class 54 Rating, Add	898.62	
			For Class 55 Rating, Add	1,340.16	
			For Class 56 Rating, Add	1,775.77	
40 05 19 00-1221	EA	12"	Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,788.34	454.27
			For Class 52 Rating, Deduct	-671.01	
			For Class 54 Rating, Add	923.27	
			For Class 55 Rating, Add	1,376.83	
			For Class 56 Rating, Add	1,824.30	
40 05 19 00-1222	EA	12"	Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,956.39	456.92
			For Class 52 Rating, Deduct	-689.05	
			For Class 54 Rating, Add	947.92	
			For Class 55 Rating, Add	1,413.51	
			For Class 56 Rating, Add	1,872.83	
40 05 19 00-1223	EA	12"	Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,124.42	459.59
			For Class 52 Rating, Deduct	-707.09	
			For Class 54 Rating, Add	972.57	
			For Class 55 Rating, Add	1,450.18	
			For Class 56 Rating, Add	1,921.35	
40 05 19 00-1224	EA	12"	Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,292.47	462.24
			For Class 52 Rating, Deduct	-725.13	
			For Class 54 Rating, Add	997.22	
			For Class 55 Rating, Add	1,486.85	
			For Class 56 Rating, Add	1,969.89	
40 05 19 00-1225	EA	12"	Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,460.52	464.89
			For Class 52 Rating, Deduct	-743.17	
			For Class 54 Rating, Add	1,021.87	
			For Class 55 Rating, Add	1,523.52	
			For Class 56 Rating, Add	2,018.42	
40 05 19 00-1226	EA	12"	Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,628.55	467.55
			For Class 52 Rating, Deduct	-761.22	
			For Class 54 Rating, Add	1,046.52	
			For Class 55 Rating, Add	1,560.19	
			For Class 56 Rating, Add	2,066.94	
40 05 19 00-1227	EA	12"	Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,796.60	470.20
			For Class 52 Rating, Deduct	-779.26	
			For Class 54 Rating, Add	1,071.17	
			For Class 55 Rating, Add	1,596.87	
			For Class 56 Rating, Add	2,115.48	
40 05 19 00-1228	EA	12"	Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,964.64	472.86
			For Class 52 Rating, Deduct	-797.30	
			For Class 54 Rating, Add	1,095.82	
			For Class 55 Rating, Add	1,633.54	
			For Class 56 Rating, Add	2,164.01	
40 05 19 00-1229			14" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1230	EA	14"	Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,125.40	446.30
			For Class 52 Rating, Deduct	-159.41	
			For Class 54 Rating, Add	225.49	
			For Class 55 Rating, Add	339.40	
			For Class 56 Rating, Add	451.85	
40 05 19 00-1231	EA	14"	Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,329.38	448.95
			For Class 52 Rating, Deduct	-181.41	
			For Class 54 Rating, Add	255.54	
			For Class 55 Rating, Add	384.09	
			For Class 56 Rating, Add	510.99	
40 05 19 00-1232	EA	14"	Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,533.38	451.61
			For Class 52 Rating, Deduct	-203.40	
			For Class 54 Rating, Add	285.58	
			For Class 55 Rating, Add	428.78	
			For Class 56 Rating, Add	570.12	
40 05 19 00-1233	EA	14"	Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,737.36	454.27
			For Class 52 Rating, Deduct	-225.40	
			For Class 54 Rating, Add	315.62	
			For Class 55 Rating, Add	473.46	
			For Class 56 Rating, Add	629.26	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
40 05 19 00-1234	EA	14" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,941.36		456.92
		For Class 52 Rating, Deduct	-247.40		
		For Class 54 Rating, Add	345.67		
		For Class 55 Rating, Add	518.15		
		For Class 56 Rating, Add	688.39		
40 05 19 00-1235	EA	14" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,145.34		459.59
		For Class 52 Rating, Deduct	-269.39		
		For Class 54 Rating, Add	375.71		
		For Class 55 Rating, Add	562.84		
		For Class 56 Rating, Add	747.53		
40 05 19 00-1236	EA	14" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,349.34		462.24
		For Class 52 Rating, Deduct	-291.39		
		For Class 54 Rating, Add	405.75		
		For Class 55 Rating, Add	607.53		
		For Class 56 Rating, Add	806.66		
40 05 19 00-1237	EA	14" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,553.33		464.89
		For Class 52 Rating, Deduct	-313.38		
		For Class 54 Rating, Add	435.79		
		For Class 55 Rating, Add	652.22		
		For Class 56 Rating, Add	865.80		
40 05 19 00-1238	EA	14" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,757.32		467.55
		For Class 52 Rating, Deduct	-335.38		
		For Class 54 Rating, Add	465.84		
		For Class 55 Rating, Add	696.91		
		For Class 56 Rating, Add	924.93		
40 05 19 00-1239	EA	14" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,961.31		470.20
		For Class 52 Rating, Deduct	-357.38		
		For Class 54 Rating, Add	495.88		
		For Class 55 Rating, Add	741.60		
		For Class 56 Rating, Add	984.06		
40 05 19 00-1240	EA	14" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,165.30		472.86
		For Class 52 Rating, Deduct	-379.37		
		For Class 54 Rating, Add	525.92		
		For Class 55 Rating, Add	786.29		
		For Class 56 Rating, Add	1,043.20		
40 05 19 00-1241	EA	14" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,369.28		475.52
		For Class 52 Rating, Deduct	-401.37		
		For Class 54 Rating, Add	555.97		
		For Class 55 Rating, Add	830.97		
		For Class 56 Rating, Add	1,102.33		
40 05 19 00-1242	EA	14" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,573.28		478.18
		For Class 52 Rating, Deduct	-423.36		
		For Class 54 Rating, Add	586.01		
		For Class 55 Rating, Add	875.66		
		For Class 56 Rating, Add	1,161.47		
40 05 19 00-1243	EA	14" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,777.26		480.83
		For Class 52 Rating, Deduct	-445.36		
		For Class 54 Rating, Add	616.05		
		For Class 55 Rating, Add	920.35		
		For Class 56 Rating, Add	1,220.60		
40 05 19 00-1244	EA	14" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,981.26		483.49
		For Class 52 Rating, Deduct	-467.36		
		For Class 54 Rating, Add	646.10		
		For Class 55 Rating, Add	965.04		
		For Class 56 Rating, Add	1,279.74		
40 05 19 00-1245	EA	14" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,185.24		486.14
		For Class 52 Rating, Deduct	-489.35		
		For Class 54 Rating, Add	676.14		
		For Class 55 Rating, Add	1,009.73		
		For Class 56 Rating, Add	1,338.87		
40 05 19 00-1246	EA	14" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,389.24		488.80
		For Class 52 Rating, Deduct	-511.35		
		For Class 54 Rating, Add	706.18		
		For Class 55 Rating, Add	1,054.42		
		For Class 56 Rating, Add	1,398.01		
40 05 19 00-1247	EA	14" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,593.23		491.46
		For Class 52 Rating, Deduct	-533.34		
		For Class 54 Rating, Add	736.22		
		For Class 55 Rating, Add	1,099.11		
		For Class 56 Rating, Add	1,457.14		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1248	EA	14" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,797.22	494.11
		For Class 52 Rating, Deduct	-555.34	
		For Class 54 Rating, Add	766.27	
		For Class 55 Rating, Add	1,143.80	
		For Class 56 Rating, Add	1,516.28	
40 05 19 00-1249	EA	14" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,001.21	496.78
		For Class 52 Rating, Deduct	-577.34	
		For Class 54 Rating, Add	796.31	
		For Class 55 Rating, Add	1,188.48	
		For Class 56 Rating, Add	1,575.41	
40 05 19 00-1250	EA	14" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,205.20	499.43
		For Class 52 Rating, Deduct	-599.33	
		For Class 54 Rating, Add	826.35	
		For Class 55 Rating, Add	1,233.17	
		For Class 56 Rating, Add	1,634.55	
40 05 19 00-1251	EA	14" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,409.19	502.08
		For Class 52 Rating, Deduct	-621.33	
		For Class 54 Rating, Add	856.40	
		For Class 55 Rating, Add	1,277.86	
		For Class 56 Rating, Add	1,693.68	
40 05 19 00-1252	EA	14" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,613.18	504.74
		For Class 52 Rating, Deduct	-643.33	
		For Class 54 Rating, Add	886.44	
		For Class 55 Rating, Add	1,322.55	
		For Class 56 Rating, Add	1,752.82	
40 05 19 00-1253	EA	14" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,817.17	507.41
		For Class 52 Rating, Deduct	-665.32	
		For Class 54 Rating, Add	916.48	
		For Class 55 Rating, Add	1,367.24	
		For Class 56 Rating, Add	1,811.95	
40 05 19 00-1254	EA	14" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,021.16	510.05
		For Class 52 Rating, Deduct	-687.32	
		For Class 54 Rating, Add	946.53	
		For Class 55 Rating, Add	1,411.93	
		For Class 56 Rating, Add	1,871.08	
40 05 19 00-1255	EA	14" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,225.15	512.71
		For Class 52 Rating, Deduct	-709.32	
		For Class 54 Rating, Add	976.57	
		For Class 55 Rating, Add	1,456.62	
		For Class 56 Rating, Add	1,930.22	
40 05 19 00-1256	EA	14" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,429.14	515.38
		For Class 52 Rating, Deduct	-731.31	
		For Class 54 Rating, Add	1,006.61	
		For Class 55 Rating, Add	1,501.31	
		For Class 56 Rating, Add	1,989.35	
40 05 19 00-1257	EA	14" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,633.14	518.02
		For Class 52 Rating, Deduct	-753.31	
		For Class 54 Rating, Add	1,036.66	
		For Class 55 Rating, Add	1,546.00	
		For Class 56 Rating, Add	2,048.49	
40 05 19 00-1258	EA	14" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,837.12	520.68
		For Class 52 Rating, Deduct	-775.30	
		For Class 54 Rating, Add	1,066.70	
		For Class 55 Rating, Add	1,590.68	
		For Class 56 Rating, Add	2,107.62	
40 05 19 00-1259	EA	14" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,041.12	523.33
		For Class 52 Rating, Deduct	-797.30	
		For Class 54 Rating, Add	1,096.74	
		For Class 55 Rating, Add	1,635.37	
		For Class 56 Rating, Add	2,166.76	
40 05 19 00-1260	EA	14" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,245.10	526.00
		For Class 52 Rating, Deduct	-819.30	
		For Class 54 Rating, Add	1,126.78	
		For Class 55 Rating, Add	1,680.06	
		For Class 56 Rating, Add	2,225.89	
40 05 19 00-1261	EA	14" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,449.09	528.65
		For Class 52 Rating, Deduct	-841.29	
		For Class 54 Rating, Add	1,156.83	
		For Class 55 Rating, Add	1,724.75	
		For Class 56 Rating, Add	2,285.03	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1262	EA	14" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,653.08	531.30
		For Class 52 Rating, Deduct		-863.29	
		For Class 54 Rating, Add		1,186.87	
		For Class 55 Rating, Add		1,769.44	
		For Class 56 Rating, Add		2,344.16	
40 05 19 00-1263	EA	14" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		8,857.07	533.97
		For Class 52 Rating, Deduct		-885.28	
		For Class 54 Rating, Add		1,216.97	
		For Class 55 Rating, Add		1,814.13	
		For Class 56 Rating, Add		2,403.30	
40 05 19 00-1264	EA	14" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,061.06	536.62
		For Class 52 Rating, Deduct		-907.28	
		For Class 54 Rating, Add		1,246.96	
		For Class 55 Rating, Add		1,858.82	
		For Class 56 Rating, Add		2,462.43	
40 05 19 00-1265	EA	14" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,265.05	539.27
		For Class 52 Rating, Deduct		-929.28	
		For Class 54 Rating, Add		1,277.00	
		For Class 55 Rating, Add		1,903.51	
		For Class 56 Rating, Add		2,521.57	
40 05 19 00-1266	EA	14" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,469.04	541.93
		For Class 52 Rating, Deduct		-951.27	
		For Class 54 Rating, Add		1,307.04	
		For Class 55 Rating, Add		1,948.20	
		For Class 56 Rating, Add		2,580.70	
40 05 19 00-1267	EA	14" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		9,673.04	544.60
		For Class 52 Rating, Deduct		-973.27	
		For Class 54 Rating, Add		1,337.09	
		For Class 55 Rating, Add		1,992.89	
		For Class 56 Rating, Add		2,639.84	
40 05 19 00-1268		16" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)			
40 05 19 00-1269	EA	16" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,487.12	510.05
		For Class 52 Rating, Deduct		-188.57	
		For Class 54 Rating, Add		266.42	
		For Class 55 Rating, Add		400.84	
		For Class 56 Rating, Add		533.54	
40 05 19 00-1270	EA	16" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,724.81	512.71
		For Class 52 Rating, Deduct		-214.28	
		For Class 54 Rating, Add		301.52	
		For Class 55 Rating, Add		453.04	
		For Class 56 Rating, Add		602.62	
40 05 19 00-1271	EA	16" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		2,962.50	515.38
		For Class 52 Rating, Deduct		-239.98	
		For Class 54 Rating, Add		336.62	
		For Class 55 Rating, Add		505.25	
		For Class 56 Rating, Add		671.69	
40 05 19 00-1272	EA	16" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,200.20	518.02
		For Class 52 Rating, Deduct		-265.68	
		For Class 54 Rating, Add		371.72	
		For Class 55 Rating, Add		557.45	
		For Class 56 Rating, Add		740.77	
40 05 19 00-1273	EA	16" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,437.89	520.68
		For Class 52 Rating, Deduct		-291.39	
		For Class 54 Rating, Add		406.81	
		For Class 55 Rating, Add		609.66	
		For Class 56 Rating, Add		809.85	
40 05 19 00-1274	EA	16" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,675.58	523.33
		For Class 52 Rating, Deduct		-317.09	
		For Class 54 Rating, Add		441.91	
		For Class 55 Rating, Add		661.86	
		For Class 56 Rating, Add		878.92	
40 05 19 00-1275	EA	16" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		3,913.27	526.00
		For Class 52 Rating, Deduct		-342.79	
		For Class 54 Rating, Add		477.01	
		For Class 55 Rating, Add		714.06	
		For Class 56 Rating, Add		948.00	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1276	EA	16" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,150.96	528.65
		For Class 52 Rating, Deduct	-368.50	
		For Class 54 Rating, Add	512.11	
		For Class 55 Rating, Add	766.27	
		For Class 56 Rating, Add	1,017.08	
40 05 19 00-1277	EA	16" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,388.66	531.30
		For Class 52 Rating, Deduct	-394.20	
		For Class 54 Rating, Add	547.21	
		For Class 55 Rating, Add	818.47	
		For Class 56 Rating, Add	1,086.16	
40 05 19 00-1278	EA	16" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,626.34	533.97
		For Class 52 Rating, Deduct	-419.90	
		For Class 54 Rating, Add	582.30	
		For Class 55 Rating, Add	870.68	
		For Class 56 Rating, Add	1,155.23	
40 05 19 00-1279	EA	16" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,864.04	536.62
		For Class 52 Rating, Deduct	-445.61	
		For Class 54 Rating, Add	617.40	
		For Class 55 Rating, Add	922.88	
		For Class 56 Rating, Add	1,224.31	
40 05 19 00-1280	EA	16" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,101.73	539.27
		For Class 52 Rating, Deduct	-471.31	
		For Class 54 Rating, Add	652.50	
		For Class 55 Rating, Add	975.09	
		For Class 56 Rating, Add	1,293.39	
40 05 19 00-1281	EA	16" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,339.42	541.93
		For Class 52 Rating, Deduct	-497.01	
		For Class 54 Rating, Add	687.60	
		For Class 55 Rating, Add	1,027.29	
		For Class 56 Rating, Add	1,362.46	
40 05 19 00-1282	EA	16" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,577.12	544.60
		For Class 52 Rating, Deduct	-522.72	
		For Class 54 Rating, Add	722.70	
		For Class 55 Rating, Add	1,079.49	
		For Class 56 Rating, Add	1,431.54	
40 05 19 00-1283	EA	16" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,814.81	547.24
		For Class 52 Rating, Deduct	-548.42	
		For Class 54 Rating, Add	757.80	
		For Class 55 Rating, Add	1,131.70	
		For Class 56 Rating, Add	1,500.62	
40 05 19 00-1284	EA	16" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,052.51	549.90
		For Class 52 Rating, Deduct	-574.13	
		For Class 54 Rating, Add	792.90	
		For Class 55 Rating, Add	1,183.90	
		For Class 56 Rating, Add	1,569.69	
40 05 19 00-1285	EA	16" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,290.19	552.57
		For Class 52 Rating, Deduct	-599.83	
		For Class 54 Rating, Add	827.99	
		For Class 55 Rating, Add	1,236.11	
		For Class 56 Rating, Add	1,638.77	
40 05 19 00-1286	EA	16" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,527.89	555.21
		For Class 52 Rating, Deduct	-625.53	
		For Class 54 Rating, Add	863.09	
		For Class 55 Rating, Add	1,288.31	
		For Class 56 Rating, Add	1,707.85	
40 05 19 00-1287	EA	16" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,765.58	557.87
		For Class 52 Rating, Deduct	-651.24	
		For Class 54 Rating, Add	898.19	
		For Class 55 Rating, Add	1,340.52	
		For Class 56 Rating, Add	1,776.92	
40 05 19 00-1288	EA	16" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,003.27	560.53
		For Class 52 Rating, Deduct	-676.94	
		For Class 54 Rating, Add	933.29	
		For Class 55 Rating, Add	1,392.72	
		For Class 56 Rating, Add	1,846.00	
40 05 19 00-1289	EA	16" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,240.96	563.19
		For Class 52 Rating, Deduct	-702.64	
		For Class 54 Rating, Add	968.39	
		For Class 55 Rating, Add	1,444.93	
		For Class 56 Rating, Add	1,915.08	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1290	EA		16" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,478.65	565.84
			For Class 52 Rating, Deduct	-728.35	
			For Class 54 Rating, Add	1,003.49	
			For Class 55 Rating, Add	1,497.13	
			For Class 56 Rating, Add	1,984.15	
40 05 19 00-1291	EA		16" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,716.36	568.49
			For Class 52 Rating, Deduct	-754.05	
			For Class 54 Rating, Add	1,038.58	
			For Class 55 Rating, Add	1,549.34	
			For Class 56 Rating, Add	2,053.23	
40 05 19 00-1292	EA		16" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,954.04	571.16
			For Class 52 Rating, Deduct	-779.75	
			For Class 54 Rating, Add	1,073.68	
			For Class 55 Rating, Add	1,601.54	
			For Class 56 Rating, Add	2,122.31	
40 05 19 00-1293	EA		16" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,191.73	573.82
			For Class 52 Rating, Deduct	-805.46	
			For Class 54 Rating, Add	1,108.78	
			For Class 55 Rating, Add	1,653.74	
			For Class 56 Rating, Add	2,191.38	
40 05 19 00-1294	EA		16" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,429.43	576.46
			For Class 52 Rating, Deduct	-831.16	
			For Class 54 Rating, Add	1,143.88	
			For Class 55 Rating, Add	1,705.95	
			For Class 56 Rating, Add	2,260.46	
40 05 19 00-1295	EA		16" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,667.12	579.12
			For Class 52 Rating, Deduct	-856.86	
			For Class 54 Rating, Add	1,178.98	
			For Class 55 Rating, Add	1,758.15	
			For Class 56 Rating, Add	2,329.54	
40 05 19 00-1296	EA		16" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,904.81	581.79
			For Class 52 Rating, Deduct	-882.57	
			For Class 54 Rating, Add	1,214.08	
			For Class 55 Rating, Add	1,810.36	
			For Class 56 Rating, Add	2,398.61	
40 05 19 00-1297	EA		16" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,142.50	584.43
			For Class 52 Rating, Deduct	-908.27	
			For Class 54 Rating, Add	1,249.17	
			For Class 55 Rating, Add	1,862.56	
			For Class 56 Rating, Add	2,467.69	
40 05 19 00-1298	EA		16" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,380.19	587.09
			For Class 52 Rating, Deduct	-933.97	
			For Class 54 Rating, Add	1,284.27	
			For Class 55 Rating, Add	1,914.77	
			For Class 56 Rating, Add	2,536.77	
40 05 19 00-1299	EA		16" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,617.88	589.76
			For Class 52 Rating, Deduct	-959.68	
			For Class 54 Rating, Add	1,319.37	
			For Class 55 Rating, Add	1,966.97	
			For Class 56 Rating, Add	2,605.84	
40 05 19 00-1300	EA		16" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,855.57	592.41
			For Class 52 Rating, Deduct	-985.38	
			For Class 54 Rating, Add	1,354.47	
			For Class 55 Rating, Add	2,019.17	
			For Class 56 Rating, Add	2,674.92	
40 05 19 00-1301	EA		16" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,093.28	595.06
			For Class 52 Rating, Deduct	-1,011.08	
			For Class 54 Rating, Add	1,389.57	
			For Class 55 Rating, Add	2,071.38	
			For Class 56 Rating, Add	2,744.00	
40 05 19 00-1302	EA		16" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,330.97	597.72
			For Class 52 Rating, Deduct	-1,036.79	
			For Class 54 Rating, Add	1,424.67	
			For Class 55 Rating, Add	2,123.58	
			For Class 56 Rating, Add	2,813.08	
40 05 19 00-1303	EA		16" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,568.65	600.38
			For Class 52 Rating, Deduct	-1,062.49	
			For Class 54 Rating, Add	1,459.76	
			For Class 55 Rating, Add	2,175.79	
			For Class 56 Rating, Add	2,882.15	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1304	EA		16" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,806.35	603.03
			For Class 52 Rating, Deduct	-1,088.19	
			For Class 54 Rating, Add	1,494.86	
			For Class 55 Rating, Add	2,227.99	
			For Class 56 Rating, Add	2,951.23	
40 05 19 00-1305	EA		16" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,044.04	605.68
			For Class 52 Rating, Deduct	-1,113.90	
			For Class 54 Rating, Add	1,529.96	
			For Class 55 Rating, Add	2,280.20	
			For Class 56 Rating, Add	3,020.30	
40 05 19 00-1306	EA		16" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,281.73	608.35
			For Class 52 Rating, Deduct	-1,139.60	
			For Class 54 Rating, Add	1,565.06	
			For Class 55 Rating, Add	2,332.40	
			For Class 56 Rating, Add	3,089.38	
40 05 19 00-1307			18" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1308	EA		18" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,881.92	574.87
			For Class 52 Rating, Deduct	-221.20	
			For Class 54 Rating, Add	312.09	
			For Class 55 Rating, Add	469.33	
			For Class 56 Rating, Add	624.57	
40 05 19 00-1309	EA		18" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,155.55	577.54
			For Class 52 Rating, Deduct	-250.86	
			For Class 54 Rating, Add	352.58	
			For Class 55 Rating, Add	529.55	
			For Class 56 Rating, Add	704.25	
40 05 19 00-1310	EA		18" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,429.20	580.18
			For Class 52 Rating, Deduct	-280.51	
			For Class 54 Rating, Add	393.07	
			For Class 55 Rating, Add	589.77	
			For Class 56 Rating, Add	783.93	
40 05 19 00-1311	EA		18" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,702.83	582.84
			For Class 52 Rating, Deduct	-310.17	
			For Class 54 Rating, Add	433.56	
			For Class 55 Rating, Add	649.99	
			For Class 56 Rating, Add	863.61	
40 05 19 00-1312	EA		18" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,976.47	585.51
			For Class 52 Rating, Deduct	-339.83	
			For Class 54 Rating, Add	474.05	
			For Class 55 Rating, Add	710.22	
			For Class 56 Rating, Add	943.29	
40 05 19 00-1313	EA		18" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,250.12	588.15
			For Class 52 Rating, Deduct	-369.49	
			For Class 54 Rating, Add	514.54	
			For Class 55 Rating, Add	770.44	
			For Class 56 Rating, Add	1,022.98	
40 05 19 00-1314	EA		18" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,523.75	590.81
			For Class 52 Rating, Deduct	-399.14	
			For Class 54 Rating, Add	555.03	
			For Class 55 Rating, Add	830.66	
			For Class 56 Rating, Add	1,102.66	
40 05 19 00-1315	EA		18" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,797.40	593.47
			For Class 52 Rating, Deduct	-428.80	
			For Class 54 Rating, Add	595.52	
			For Class 55 Rating, Add	890.88	
			For Class 56 Rating, Add	1,182.34	
40 05 19 00-1316	EA		18" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,071.03	596.13
			For Class 52 Rating, Deduct	-458.46	
			For Class 54 Rating, Add	636.01	
			For Class 55 Rating, Add	951.10	
			For Class 56 Rating, Add	1,262.02	
40 05 19 00-1317	EA		18" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,344.68	598.78
			For Class 52 Rating, Deduct	-488.12	
			For Class 54 Rating, Add	676.50	
			For Class 55 Rating, Add	1,011.32	
			For Class 56 Rating, Add	1,341.70	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1318	EA		18" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,618.33	601.44
			For Class 52 Rating, Deduct	-517.78	
			For Class 54 Rating, Add	716.99	
			For Class 55 Rating, Add	1,071.54	
			For Class 56 Rating, Add	1,421.39	
40 05 19 00-1319	EA		18" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,891.96	604.10
			For Class 52 Rating, Deduct	-547.43	
			For Class 54 Rating, Add	757.48	
			For Class 55 Rating, Add	1,131.76	
			For Class 56 Rating, Add	1,501.07	
40 05 19 00-1320	EA		18" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,165.61	606.75
			For Class 52 Rating, Deduct	-577.09	
			For Class 54 Rating, Add	797.97	
			For Class 55 Rating, Add	1,191.98	
			For Class 56 Rating, Add	1,580.75	
40 05 19 00-1321	EA		18" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,439.24	609.41
			For Class 52 Rating, Deduct	-606.75	
			For Class 54 Rating, Add	838.46	
			For Class 55 Rating, Add	1,252.20	
			For Class 56 Rating, Add	1,660.43	
40 05 19 00-1322	EA		18" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,712.88	612.06
			For Class 52 Rating, Deduct	-636.41	
			For Class 54 Rating, Add	878.95	
			For Class 55 Rating, Add	1,312.43	
			For Class 56 Rating, Add	1,740.11	
40 05 19 00-1323	EA		18" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,986.53	614.73
			For Class 52 Rating, Deduct	-666.06	
			For Class 54 Rating, Add	919.45	
			For Class 55 Rating, Add	1,372.65	
			For Class 56 Rating, Add	1,819.79	
40 05 19 00-1324	EA		18" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,260.16	617.38
			For Class 52 Rating, Deduct	-695.72	
			For Class 54 Rating, Add	959.94	
			For Class 55 Rating, Add	1,432.87	
			For Class 56 Rating, Add	1,899.47	
40 05 19 00-1325	EA		18" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,533.81	620.03
			For Class 52 Rating, Deduct	-725.38	
			For Class 54 Rating, Add	1,000.43	
			For Class 55 Rating, Add	1,493.09	
			For Class 56 Rating, Add	1,979.16	
40 05 19 00-1326	EA		18" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,807.44	622.70
			For Class 52 Rating, Deduct	-755.04	
			For Class 54 Rating, Add	1,040.92	
			For Class 55 Rating, Add	1,553.31	
			For Class 56 Rating, Add	2,058.84	
40 05 19 00-1327	EA		18" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,081.09	625.34
			For Class 52 Rating, Deduct	-784.69	
			For Class 54 Rating, Add	1,081.41	
			For Class 55 Rating, Add	1,613.53	
			For Class 56 Rating, Add	2,138.52	
40 05 19 00-1328	EA		18" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,354.74	628.00
			For Class 52 Rating, Deduct	-814.35	
			For Class 54 Rating, Add	1,121.90	
			For Class 55 Rating, Add	1,673.75	
			For Class 56 Rating, Add	2,218.20	
40 05 19 00-1329	EA		18" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,628.37	630.66
			For Class 52 Rating, Deduct	-844.01	
			For Class 54 Rating, Add	1,162.39	
			For Class 55 Rating, Add	1,733.97	
			For Class 56 Rating, Add	2,297.88	
40 05 19 00-1330	EA		18" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,902.02	633.32
			For Class 52 Rating, Deduct	-873.67	
			For Class 54 Rating, Add	1,202.88	
			For Class 55 Rating, Add	1,794.19	
			For Class 56 Rating, Add	2,377.56	
40 05 19 00-1331	EA		18" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,175.65	635.97
			For Class 52 Rating, Deduct	-903.33	
			For Class 54 Rating, Add	1,243.37	
			For Class 55 Rating, Add	1,854.41	
			For Class 56 Rating, Add	2,457.24	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1332	EA	18" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,449.29	638.63
		For Class 52 Rating, Deduct	-932.98	
		For Class 54 Rating, Add	1,283.86	
		For Class 55 Rating, Add	1,914.64	
		For Class 56 Rating, Add	2,536.93	
40 05 19 00-1333	EA	18" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,722.94	641.29
		For Class 52 Rating, Deduct	-962.64	
		For Class 54 Rating, Add	1,324.35	
		For Class 55 Rating, Add	1,974.86	
		For Class 56 Rating, Add	2,616.61	
40 05 19 00-1334	EA	18" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,996.57	643.95
		For Class 52 Rating, Deduct	-992.30	
		For Class 54 Rating, Add	1,364.84	
		For Class 55 Rating, Add	2,035.08	
		For Class 56 Rating, Add	2,696.29	
40 05 19 00-1335	EA	18" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,270.22	646.60
		For Class 52 Rating, Deduct	-1,021.96	
		For Class 54 Rating, Add	1,405.33	
		For Class 55 Rating, Add	2,095.30	
		For Class 56 Rating, Add	2,775.97	
40 05 19 00-1336	EA	18" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,543.85	649.25
		For Class 52 Rating, Deduct	-1,051.61	
		For Class 54 Rating, Add	1,445.82	
		For Class 55 Rating, Add	2,155.52	
		For Class 56 Rating, Add	2,855.65	
40 05 19 00-1337	EA	18" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,817.50	651.92
		For Class 52 Rating, Deduct	-1,081.27	
		For Class 54 Rating, Add	1,486.32	
		For Class 55 Rating, Add	2,215.74	
		For Class 56 Rating, Add	2,935.34	
40 05 19 00-1338	EA	18" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,091.15	654.57
		For Class 52 Rating, Deduct	-1,110.93	
		For Class 54 Rating, Add	1,526.81	
		For Class 55 Rating, Add	2,275.96	
		For Class 56 Rating, Add	3,015.02	
40 05 19 00-1339	EA	18" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,364.78	657.22
		For Class 52 Rating, Deduct	-1,140.59	
		For Class 54 Rating, Add	1,567.30	
		For Class 55 Rating, Add	2,336.18	
		For Class 56 Rating, Add	3,094.70	
40 05 19 00-1340	EA	18" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,638.43	659.89
		For Class 52 Rating, Deduct	-1,170.25	
		For Class 54 Rating, Add	1,607.79	
		For Class 55 Rating, Add	2,396.40	
		For Class 56 Rating, Add	3,174.38	
40 05 19 00-1341	EA	18" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,912.06	662.55
		For Class 52 Rating, Deduct	-1,199.90	
		For Class 54 Rating, Add	1,648.28	
		For Class 55 Rating, Add	2,456.62	
		For Class 56 Rating, Add	3,254.06	
40 05 19 00-1342	EA	18" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,185.70	665.19
		For Class 52 Rating, Deduct	-1,229.56	
		For Class 54 Rating, Add	1,688.77	
		For Class 55 Rating, Add	2,516.84	
		For Class 56 Rating, Add	3,333.74	
40 05 19 00-1343	EA	18" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,459.35	667.85
		For Class 52 Rating, Deduct	-1,259.22	
		For Class 54 Rating, Add	1,729.26	
		For Class 55 Rating, Add	2,577.07	
		For Class 56 Rating, Add	3,413.43	
40 05 19 00-1344	EA	18" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,732.98	670.52
		For Class 52 Rating, Deduct	-1,288.88	
		For Class 54 Rating, Add	1,769.75	
		For Class 55 Rating, Add	2,637.29	
		For Class 56 Rating, Add	3,493.11	
40 05 19 00-1345	EA	18" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,006.63	673.16
		For Class 52 Rating, Deduct	-1,318.53	
		For Class 54 Rating, Add	1,810.24	
		For Class 55 Rating, Add	2,697.51	
		For Class 56 Rating, Add	3,572.79	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
40 05 19 00-1346	20" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)			
40 05 19 00-1347	EA 20" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,362.32		656.17
	For Class 52 Rating, Deduct	-260.49		
	For Class 54 Rating, Add	367.15		
	For Class 55 Rating, Add	551.95		
	For Class 56 Rating, Add	734.39		
40 05 19 00-1348	EA 20" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,676.40		658.82
	For Class 52 Rating, Deduct	-294.60		
	For Class 54 Rating, Add	413.71		
	For Class 55 Rating, Add	621.19		
	For Class 56 Rating, Add	826.00		
40 05 19 00-1349	EA 20" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,990.48		661.47
	For Class 52 Rating, Deduct	-328.71		
	For Class 54 Rating, Add	460.26		
	For Class 55 Rating, Add	690.43		
	For Class 56 Rating, Add	917.61		
40 05 19 00-1350	EA 20" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,304.56		664.14
	For Class 52 Rating, Deduct	-362.81		
	For Class 54 Rating, Add	506.82		
	For Class 55 Rating, Add	759.67		
	For Class 56 Rating, Add	1,009.22		
40 05 19 00-1351	EA 20" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,618.65		666.79
	For Class 52 Rating, Deduct	-396.92		
	For Class 54 Rating, Add	553.38		
	For Class 55 Rating, Add	828.91		
	For Class 56 Rating, Add	1,100.84		
40 05 19 00-1352	EA 20" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,932.73		669.44
	For Class 52 Rating, Deduct	-431.03		
	For Class 54 Rating, Add	599.93		
	For Class 55 Rating, Add	898.15		
	For Class 56 Rating, Add	1,192.45		
40 05 19 00-1353	EA 20" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,246.81		672.10
	For Class 52 Rating, Deduct	-465.13		
	For Class 54 Rating, Add	646.49		
	For Class 55 Rating, Add	967.39		
	For Class 56 Rating, Add	1,284.06		
40 05 19 00-1354	EA 20" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,560.91		674.76
	For Class 52 Rating, Deduct	-499.24		
	For Class 54 Rating, Add	693.05		
	For Class 55 Rating, Add	1,036.63		
	For Class 56 Rating, Add	1,375.67		
40 05 19 00-1355	EA 20" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,874.98		677.42
	For Class 52 Rating, Deduct	-533.34		
	For Class 54 Rating, Add	739.61		
	For Class 55 Rating, Add	1,105.87		
	For Class 56 Rating, Add	1,467.28		
40 05 19 00-1356	EA 20" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,189.07		680.07
	For Class 52 Rating, Deduct	-567.45		
	For Class 54 Rating, Add	786.16		
	For Class 55 Rating, Add	1,175.11		
	For Class 56 Rating, Add	1,558.90		
40 05 19 00-1357	EA 20" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,503.15		682.73
	For Class 52 Rating, Deduct	-601.56		
	For Class 54 Rating, Add	832.72		
	For Class 55 Rating, Add	1,244.35		
	For Class 56 Rating, Add	1,650.51		
40 05 19 00-1358	EA 20" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,817.23		685.39
	For Class 52 Rating, Deduct	-635.66		
	For Class 54 Rating, Add	879.28		
	For Class 55 Rating, Add	1,313.59		
	For Class 56 Rating, Add	1,742.12		
40 05 19 00-1359	EA 20" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,131.32		688.03
	For Class 52 Rating, Deduct	-669.77		
	For Class 54 Rating, Add	925.83		
	For Class 55 Rating, Add	1,382.83		
	For Class 56 Rating, Add	1,833.73		
40 05 19 00-1360	EA 20" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,445.40		690.69
	For Class 52 Rating, Deduct	-703.88		
	For Class 54 Rating, Add	972.39		
	For Class 55 Rating, Add	1,452.07		
	For Class 56 Rating, Add	1,925.35		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1361	EA	20" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,759.48	693.36
		For Class 52 Rating, Deduct	-737.98	
		For Class 54 Rating, Add	1,018.95	
		For Class 55 Rating, Add	1,521.31	
		For Class 56 Rating, Add	2,016.96	
40 05 19 00-1362	EA	20" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,073.56	696.02
		For Class 52 Rating, Deduct	-772.09	
		For Class 54 Rating, Add	1,065.50	
		For Class 55 Rating, Add	1,590.55	
		For Class 56 Rating, Add	2,108.57	
40 05 19 00-1363	EA	20" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,387.64	698.66
		For Class 52 Rating, Deduct	-806.20	
		For Class 54 Rating, Add	1,112.06	
		For Class 55 Rating, Add	1,659.79	
		For Class 56 Rating, Add	2,200.18	
40 05 19 00-1364	EA	20" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,701.74	701.33
		For Class 52 Rating, Deduct	-840.30	
		For Class 54 Rating, Add	1,158.62	
		For Class 55 Rating, Add	1,729.03	
		For Class 56 Rating, Add	2,291.79	
40 05 19 00-1365	EA	20" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,015.82	703.98
		For Class 52 Rating, Deduct	-874.41	
		For Class 54 Rating, Add	1,205.18	
		For Class 55 Rating, Add	1,798.27	
		For Class 56 Rating, Add	2,383.41	
40 05 19 00-1366	EA	20" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,329.91	706.64
		For Class 52 Rating, Deduct	-908.52	
		For Class 54 Rating, Add	1,251.73	
		For Class 55 Rating, Add	1,867.51	
		For Class 56 Rating, Add	2,475.02	
40 05 19 00-1367	EA	20" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,643.99	709.29
		For Class 52 Rating, Deduct	-942.62	
		For Class 54 Rating, Add	1,298.29	
		For Class 55 Rating, Add	1,936.75	
		For Class 56 Rating, Add	2,566.63	
40 05 19 00-1368	EA	20" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,958.06	711.95
		For Class 52 Rating, Deduct	-976.73	
		For Class 54 Rating, Add	1,344.85	
		For Class 55 Rating, Add	2,005.98	
		For Class 56 Rating, Add	2,658.24	
40 05 19 00-1369	EA	20" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,272.15	714.61
		For Class 52 Rating, Deduct	-1,010.84	
		For Class 54 Rating, Add	1,391.40	
		For Class 55 Rating, Add	2,075.22	
		For Class 56 Rating, Add	2,749.85	
40 05 19 00-1370	EA	20" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,586.23	717.26
		For Class 52 Rating, Deduct	-1,044.94	
		For Class 54 Rating, Add	1,437.96	
		For Class 55 Rating, Add	2,144.46	
		For Class 56 Rating, Add	2,841.47	
40 05 19 00-1371	EA	20" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,900.32	719.92
		For Class 52 Rating, Deduct	-1,079.05	
		For Class 54 Rating, Add	1,484.52	
		For Class 55 Rating, Add	2,213.70	
		For Class 56 Rating, Add	2,933.08	
40 05 19 00-1372	EA	20" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,214.40	722.58
		For Class 52 Rating, Deduct	-1,113.15	
		For Class 54 Rating, Add	1,531.08	
		For Class 55 Rating, Add	2,282.94	
		For Class 56 Rating, Add	3,024.69	
40 05 19 00-1373	EA	20" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,528.48	725.24
		For Class 52 Rating, Deduct	-1,147.26	
		For Class 54 Rating, Add	1,577.63	
		For Class 55 Rating, Add	2,352.18	
		For Class 56 Rating, Add	3,116.30	
40 05 19 00-1374	EA	20" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,842.57	727.88
		For Class 52 Rating, Deduct	-1,181.37	
		For Class 54 Rating, Add	1,624.19	
		For Class 55 Rating, Add	2,421.42	
		For Class 56 Rating, Add	3,207.91	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1375	EA	20" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,156.65	730.55
		For Class 52 Rating, Deduct		-1,215.47	
		For Class 54 Rating, Add		1,670.75	
		For Class 55 Rating, Add		2,490.66	
		For Class 56 Rating, Add		3,299.53	
40 05 19 00-1376	EA	20" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,470.74	733.21
		For Class 52 Rating, Deduct		-1,249.58	
		For Class 54 Rating, Add		1,717.30	
		For Class 55 Rating, Add		2,559.90	
		For Class 56 Rating, Add		3,391.14	
40 05 19 00-1377	EA	20" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		12,784.82	735.85
		For Class 52 Rating, Deduct		-1,283.69	
		For Class 54 Rating, Add		1,763.86	
		For Class 55 Rating, Add		2,629.14	
		For Class 56 Rating, Add		3,482.75	
40 05 19 00-1378	EA	20" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,098.90	738.52
		For Class 52 Rating, Deduct		-1,317.79	
		For Class 54 Rating, Add		1,810.42	
		For Class 55 Rating, Add		2,698.38	
		For Class 56 Rating, Add		3,574.36	
40 05 19 00-1379	EA	20" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,412.99	741.17
		For Class 52 Rating, Deduct		-1,351.90	
		For Class 54 Rating, Add		1,856.98	
		For Class 55 Rating, Add		2,767.62	
		For Class 56 Rating, Add		3,665.98	
40 05 19 00-1380	EA	20" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		13,727.06	743.83
		For Class 52 Rating, Deduct		-1,386.01	
		For Class 54 Rating, Add		1,903.53	
		For Class 55 Rating, Add		2,836.86	
		For Class 56 Rating, Add		3,757.59	
40 05 19 00-1381	EA	20" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,041.15	746.48
		For Class 52 Rating, Deduct		-1,420.11	
		For Class 54 Rating, Add		1,950.09	
		For Class 55 Rating, Add		2,906.10	
		For Class 56 Rating, Add		3,849.20	
40 05 19 00-1382	EA	20" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,355.23	749.14
		For Class 52 Rating, Deduct		-1,454.22	
		For Class 54 Rating, Add		1,996.65	
		For Class 55 Rating, Add		2,975.34	
		For Class 56 Rating, Add		3,940.81	
40 05 19 00-1383	EA	20" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,669.32	751.80
		For Class 52 Rating, Deduct		-1,488.33	
		For Class 54 Rating, Add		2,043.20	
		For Class 55 Rating, Add		3,044.58	
		For Class 56 Rating, Add		4,032.43	
40 05 19 00-1384	EA	20" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		14,983.41	754.45
		For Class 52 Rating, Deduct		-1,522.43	
		For Class 54 Rating, Add		2,089.76	
		For Class 55 Rating, Add		3,113.82	
		For Class 56 Rating, Add		4,124.04	
40 05 19 00-1385		24" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)			
40 05 19 00-1386	EA	24" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,132.10	775.71
		For Class 52 Rating, Deduct		-325.25	
		For Class 54 Rating, Add		457.62	
		For Class 55 Rating, Add		687.57	
		For Class 56 Rating, Add		914.56	
40 05 19 00-1387	EA	24" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,520.32	778.37
		For Class 52 Rating, Deduct		-367.51	
		For Class 54 Rating, Add		515.30	
		For Class 55 Rating, Add		773.34	
		For Class 56 Rating, Add		1,028.05	
40 05 19 00-1388	EA	24" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		4,908.56	781.02
		For Class 52 Rating, Deduct		-409.77	
		For Class 54 Rating, Add		572.98	
		For Class 55 Rating, Add		859.12	
		For Class 56 Rating, Add		1,141.53	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1389	EA	24" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,296.79	783.67
		For Class 52 Rating, Deduct	-452.03	
		For Class 54 Rating, Add	630.66	
		For Class 55 Rating, Add	944.89	
		For Class 56 Rating, Add	1,255.02	
40 05 19 00-1390	EA	24" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,685.02	786.33
		For Class 52 Rating, Deduct	-494.30	
		For Class 54 Rating, Add	688.34	
		For Class 55 Rating, Add	1,030.67	
		For Class 56 Rating, Add	1,368.50	
40 05 19 00-1391	EA	24" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,073.24	788.99
		For Class 52 Rating, Deduct	-536.56	
		For Class 54 Rating, Add	746.02	
		For Class 55 Rating, Add	1,116.44	
		For Class 56 Rating, Add	1,481.99	
40 05 19 00-1392	EA	24" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,461.48	791.65
		For Class 52 Rating, Deduct	-578.82	
		For Class 54 Rating, Add	803.70	
		For Class 55 Rating, Add	1,202.22	
		For Class 56 Rating, Add	1,595.47	
40 05 19 00-1393	EA	24" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,849.70	794.30
		For Class 52 Rating, Deduct	-621.08	
		For Class 54 Rating, Add	861.37	
		For Class 55 Rating, Add	1,287.99	
		For Class 56 Rating, Add	1,708.96	
40 05 19 00-1394	EA	24" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,237.92	796.96
		For Class 52 Rating, Deduct	-663.35	
		For Class 54 Rating, Add	919.05	
		For Class 55 Rating, Add	1,373.76	
		For Class 56 Rating, Add	1,822.44	
40 05 19 00-1395	EA	24" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,626.15	799.62
		For Class 52 Rating, Deduct	-705.61	
		For Class 54 Rating, Add	976.73	
		For Class 55 Rating, Add	1,459.53	
		For Class 56 Rating, Add	1,935.93	
40 05 19 00-1396	EA	24" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,014.38	802.26
		For Class 52 Rating, Deduct	-747.87	
		For Class 54 Rating, Add	1,034.41	
		For Class 55 Rating, Add	1,545.31	
		For Class 56 Rating, Add	2,049.41	
40 05 19 00-1397	EA	24" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,402.62	804.93
		For Class 52 Rating, Deduct	-790.13	
		For Class 54 Rating, Add	1,092.09	
		For Class 55 Rating, Add	1,631.08	
		For Class 56 Rating, Add	2,162.90	
40 05 19 00-1398	EA	24" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,790.84	807.59
		For Class 52 Rating, Deduct	-832.39	
		For Class 54 Rating, Add	1,149.77	
		For Class 55 Rating, Add	1,716.86	
		For Class 56 Rating, Add	2,276.38	
40 05 19 00-1399	EA	24" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,179.07	810.24
		For Class 52 Rating, Deduct	-874.66	
		For Class 54 Rating, Add	1,207.45	
		For Class 55 Rating, Add	1,802.63	
		For Class 56 Rating, Add	2,389.87	
40 05 19 00-1400	EA	24" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,567.30	812.90
		For Class 52 Rating, Deduct	-916.92	
		For Class 54 Rating, Add	1,265.12	
		For Class 55 Rating, Add	1,888.41	
		For Class 56 Rating, Add	2,503.35	
40 05 19 00-1401	EA	24" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,955.52	815.56
		For Class 52 Rating, Deduct	-959.18	
		For Class 54 Rating, Add	1,322.80	
		For Class 55 Rating, Add	1,974.18	
		For Class 56 Rating, Add	2,616.83	
40 05 19 00-1402	EA	24" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,343.75	818.21
		For Class 52 Rating, Deduct	-1,001.44	
		For Class 54 Rating, Add	1,380.48	
		For Class 55 Rating, Add	2,059.95	
		For Class 56 Rating, Add	2,730.32	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1403	EA		24" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,731.98	820.86
			For Class 52 Rating, Deduct	-1,043.71	
			For Class 54 Rating, Add	1,438.16	
			For Class 55 Rating, Add	2,145.73	
			For Class 56 Rating, Add	2,843.81	
40 05 19 00-1404	EA		24" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,120.20	823.53
			For Class 52 Rating, Deduct	-1,085.97	
			For Class 54 Rating, Add	1,495.84	
			For Class 55 Rating, Add	2,231.50	
			For Class 56 Rating, Add	2,957.29	
40 05 19 00-1405	EA		24" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,508.43	826.18
			For Class 52 Rating, Deduct	-1,128.23	
			For Class 54 Rating, Add	1,553.52	
			For Class 55 Rating, Add	2,317.27	
			For Class 56 Rating, Add	3,070.77	
40 05 19 00-1406	EA		24" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,896.65	828.84
			For Class 52 Rating, Deduct	-1,170.49	
			For Class 54 Rating, Add	1,611.20	
			For Class 55 Rating, Add	2,403.05	
			For Class 56 Rating, Add	3,184.26	
40 05 19 00-1407	EA		24" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,284.90	831.49
			For Class 52 Rating, Deduct	-1,212.76	
			For Class 54 Rating, Add	1,668.88	
			For Class 55 Rating, Add	2,488.82	
			For Class 56 Rating, Add	3,297.74	
40 05 19 00-1408	EA		24" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,673.12	834.15
			For Class 52 Rating, Deduct	-1,255.02	
			For Class 54 Rating, Add	1,726.55	
			For Class 55 Rating, Add	2,574.60	
			For Class 56 Rating, Add	3,411.23	
40 05 19 00-1409	EA		24" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,061.34	836.81
			For Class 52 Rating, Deduct	-1,297.28	
			For Class 54 Rating, Add	1,784.23	
			For Class 55 Rating, Add	2,660.37	
			For Class 56 Rating, Add	3,524.71	
40 05 19 00-1410	EA		24" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,449.58	839.47
			For Class 52 Rating, Deduct	-1,339.54	
			For Class 54 Rating, Add	1,841.91	
			For Class 55 Rating, Add	2,746.14	
			For Class 56 Rating, Add	3,638.20	
40 05 19 00-1411	EA		24" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,837.80	842.12
			For Class 52 Rating, Deduct	-1,381.80	
			For Class 54 Rating, Add	1,899.59	
			For Class 55 Rating, Add	2,831.92	
			For Class 56 Rating, Add	3,751.68	
40 05 19 00-1412	EA		24" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,226.03	844.78
			For Class 52 Rating, Deduct	-1,424.07	
			For Class 54 Rating, Add	1,957.27	
			For Class 55 Rating, Add	2,917.69	
			For Class 56 Rating, Add	3,865.17	
40 05 19 00-1413	EA		24" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,614.25	847.43
			For Class 52 Rating, Deduct	-1,466.33	
			For Class 54 Rating, Add	2,014.95	
			For Class 55 Rating, Add	3,003.46	
			For Class 56 Rating, Add	3,978.65	
40 05 19 00-1414	EA		24" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,002.48	850.09
			For Class 52 Rating, Deduct	-1,508.59	
			For Class 54 Rating, Add	2,072.63	
			For Class 55 Rating, Add	3,089.24	
			For Class 56 Rating, Add	4,092.14	
40 05 19 00-1415	EA		24" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,459.14	897.91
			For Class 52 Rating, Deduct	-1,550.85	
			For Class 54 Rating, Add	2,131.13	
			For Class 55 Rating, Add	3,176.65	
			For Class 56 Rating, Add	4,208.08	
40 05 19 00-1416	EA		24" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,847.36	900.56
			For Class 52 Rating, Deduct	-1,593.12	
			For Class 54 Rating, Add	2,188.80	
			For Class 55 Rating, Add	3,262.43	
			For Class 56 Rating, Add	4,321.57	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1417	EA	24"	Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,235.60	903.22
			For Class 52 Rating, Deduct	-1,635.38	
			For Class 54 Rating, Add	2,246.48	
			For Class 55 Rating, Add	3,348.20	
			For Class 56 Rating, Add	4,435.06	
40 05 19 00-1418	EA	24"	Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,623.82	905.89
			For Class 52 Rating, Deduct	-1,677.64	
			For Class 54 Rating, Add	2,304.16	
			For Class 55 Rating, Add	3,433.98	
			For Class 56 Rating, Add	4,548.54	
40 05 19 00-1419	EA	24"	Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,012.04	908.53
			For Class 52 Rating, Deduct	-1,719.90	
			For Class 54 Rating, Add	2,361.84	
			For Class 55 Rating, Add	3,519.75	
			For Class 56 Rating, Add	4,662.02	
40 05 19 00-1420	EA	24"	Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,400.28	911.19
			For Class 52 Rating, Deduct	-1,762.16	
			For Class 54 Rating, Add	2,419.52	
			For Class 55 Rating, Add	3,605.52	
			For Class 56 Rating, Add	4,775.51	
40 05 19 00-1421	EA	24"	Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,788.51	913.86
			For Class 52 Rating, Deduct	-1,804.43	
			For Class 54 Rating, Add	2,477.20	
			For Class 55 Rating, Add	3,691.30	
			For Class 56 Rating, Add	4,888.99	
40 05 19 00-1422	EA	24"	Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,176.74	916.50
			For Class 52 Rating, Deduct	-1,846.69	
			For Class 54 Rating, Add	2,534.88	
			For Class 55 Rating, Add	3,777.07	
			For Class 56 Rating, Add	5,002.48	
40 05 19 00-1423	EA	24"	Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,564.96	919.16
			For Class 52 Rating, Deduct	-1,888.95	
			For Class 54 Rating, Add	2,592.56	
			For Class 55 Rating, Add	3,862.84	
			For Class 56 Rating, Add	5,115.96	
40 05 19 00-1424			30" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1425	EA	30"	Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,331.66	1,094.50
			For Class 52 Rating, Deduct	-514.07	
			For Class 54 Rating, Add	720.90	
			For Class 55 Rating, Add	1,081.95	
			For Class 56 Rating, Add	1,438.33	
40 05 19 00-1426	EA	30"	Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,890.65	1,097.14
			For Class 52 Rating, Deduct	-575.11	
			For Class 54 Rating, Add	804.19	
			For Class 55 Rating, Add	1,205.81	
			For Class 56 Rating, Add	1,602.19	
40 05 19 00-1427	EA	30"	Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,449.63	1,099.81
			For Class 52 Rating, Deduct	-636.16	
			For Class 54 Rating, Add	887.49	
			For Class 55 Rating, Add	1,329.66	
			For Class 56 Rating, Add	1,766.05	
40 05 19 00-1428	EA	30"	Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,008.62	1,102.46
			For Class 52 Rating, Deduct	-697.20	
			For Class 54 Rating, Add	970.78	
			For Class 55 Rating, Add	1,453.51	
			For Class 56 Rating, Add	1,929.91	
40 05 19 00-1429	EA	30"	Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,567.60	1,105.12
			For Class 52 Rating, Deduct	-758.25	
			For Class 54 Rating, Add	1,054.07	
			For Class 55 Rating, Add	1,577.37	
			For Class 56 Rating, Add	2,093.77	
40 05 19 00-1430	EA	30"	Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,126.59	1,107.77
			For Class 52 Rating, Deduct	-819.30	
			For Class 54 Rating, Add	1,137.36	
			For Class 55 Rating, Add	1,701.22	
			For Class 56 Rating, Add	2,257.63	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1431	EA		30" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,685.57	1,110.43
			For Class 52 Rating, Deduct	-880.34	
			For Class 54 Rating, Add	1,220.65	
			For Class 55 Rating, Add	1,825.07	
			For Class 56 Rating, Add	2,421.48	
40 05 19 00-1432	EA		30" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,244.55	1,113.09
			For Class 52 Rating, Deduct	-941.39	
			For Class 54 Rating, Add	1,303.95	
			For Class 55 Rating, Add	1,948.92	
			For Class 56 Rating, Add	2,585.34	
40 05 19 00-1433	EA		30" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,803.54	1,115.74
			For Class 52 Rating, Deduct	-1,002.43	
			For Class 54 Rating, Add	1,387.24	
			For Class 55 Rating, Add	2,072.78	
			For Class 56 Rating, Add	2,749.20	
40 05 19 00-1434	EA		30" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,362.52	1,118.40
			For Class 52 Rating, Deduct	-1,063.48	
			For Class 54 Rating, Add	1,470.53	
			For Class 55 Rating, Add	2,196.63	
			For Class 56 Rating, Add	2,913.06	
40 05 19 00-1435	EA		30" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,921.51	1,121.06
			For Class 52 Rating, Deduct	-1,124.52	
			For Class 54 Rating, Add	1,553.82	
			For Class 55 Rating, Add	2,320.48	
			For Class 56 Rating, Add	3,076.92	
40 05 19 00-1436	EA		30" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,480.50	1,123.72
			For Class 52 Rating, Deduct	-1,185.57	
			For Class 54 Rating, Add	1,637.12	
			For Class 55 Rating, Add	2,444.33	
			For Class 56 Rating, Add	3,240.77	
40 05 19 00-1437	EA		30" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,039.48	1,126.36
			For Class 52 Rating, Deduct	-1,246.61	
			For Class 54 Rating, Add	1,720.41	
			For Class 55 Rating, Add	2,568.19	
			For Class 56 Rating, Add	3,404.63	
40 05 19 00-1438	EA		30" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,598.47	1,129.03
			For Class 52 Rating, Deduct	-1,307.66	
			For Class 54 Rating, Add	1,803.70	
			For Class 55 Rating, Add	2,692.04	
			For Class 56 Rating, Add	3,568.49	
40 05 19 00-1439	EA		30" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,157.45	1,131.69
			For Class 52 Rating, Deduct	-1,368.71	
			For Class 54 Rating, Add	1,886.99	
			For Class 55 Rating, Add	2,815.89	
			For Class 56 Rating, Add	3,732.35	
40 05 19 00-1440	EA		30" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,716.44	1,134.33
			For Class 52 Rating, Deduct	-1,429.75	
			For Class 54 Rating, Add	1,970.29	
			For Class 55 Rating, Add	2,939.74	
			For Class 56 Rating, Add	3,896.21	
40 05 19 00-1441	EA		30" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,275.42	1,137.00
			For Class 52 Rating, Deduct	-1,490.80	
			For Class 54 Rating, Add	2,053.58	
			For Class 55 Rating, Add	3,063.60	
			For Class 56 Rating, Add	4,060.06	
40 05 19 00-1442	EA		30" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,834.40	1,139.66
			For Class 52 Rating, Deduct	-1,551.84	
			For Class 54 Rating, Add	2,136.87	
			For Class 55 Rating, Add	3,187.45	
			For Class 56 Rating, Add	4,223.92	
40 05 19 00-1443	EA		30" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,393.39	1,142.31
			For Class 52 Rating, Deduct	-1,612.89	
			For Class 54 Rating, Add	2,220.16	
			For Class 55 Rating, Add	3,311.30	
			For Class 56 Rating, Add	4,387.78	
40 05 19 00-1444	EA		30" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,952.37	1,144.96
			For Class 52 Rating, Deduct	-1,673.93	
			For Class 54 Rating, Add	2,303.45	
			For Class 55 Rating, Add	3,435.16	
			For Class 56 Rating, Add	4,551.64	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1445	EA	30" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,511.37	1,147.62
		For Class 52 Rating, Deduct	-1,734.98	
		For Class 54 Rating, Add	2,386.75	
		For Class 55 Rating, Add	3,559.01	
		For Class 56 Rating, Add	4,715.50	
40 05 19 00-1446	EA	30" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,070.35	1,150.28
		For Class 52 Rating, Deduct	-1,796.03	
		For Class 54 Rating, Add	2,470.04	
		For Class 55 Rating, Add	3,682.86	
		For Class 56 Rating, Add	4,879.36	
40 05 19 00-1447	EA	30" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,629.34	1,152.93
		For Class 52 Rating, Deduct	-1,857.07	
		For Class 54 Rating, Add	2,553.33	
		For Class 55 Rating, Add	3,806.71	
		For Class 56 Rating, Add	5,043.21	
40 05 19 00-1448	EA	30" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,188.31	1,155.59
		For Class 52 Rating, Deduct	-1,918.12	
		For Class 54 Rating, Add	2,636.62	
		For Class 55 Rating, Add	3,930.56	
		For Class 56 Rating, Add	5,207.07	
40 05 19 00-1449	EA	30" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,747.29	1,158.25
		For Class 52 Rating, Deduct	-1,979.16	
		For Class 54 Rating, Add	2,719.91	
		For Class 55 Rating, Add	4,054.42	
		For Class 56 Rating, Add	5,370.93	
40 05 19 00-1450	EA	30" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,306.28	1,160.91
		For Class 52 Rating, Deduct	-2,040.21	
		For Class 54 Rating, Add	2,803.21	
		For Class 55 Rating, Add	4,178.27	
		For Class 56 Rating, Add	5,534.78	
40 05 19 00-1451	EA	30" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,865.26	1,163.55
		For Class 52 Rating, Deduct	-2,101.25	
		For Class 54 Rating, Add	2,886.50	
		For Class 55 Rating, Add	4,302.12	
		For Class 56 Rating, Add	5,698.64	
40 05 19 00-1452	EA	30" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,424.25	1,166.22
		For Class 52 Rating, Deduct	-2,162.30	
		For Class 54 Rating, Add	2,969.79	
		For Class 55 Rating, Add	4,425.97	
		For Class 56 Rating, Add	5,862.50	
40 05 19 00-1453	EA	30" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,983.23	1,168.88
		For Class 52 Rating, Deduct	-2,223.34	
		For Class 54 Rating, Add	3,053.08	
		For Class 55 Rating, Add	4,549.83	
		For Class 56 Rating, Add	6,026.36	
40 05 19 00-1454	EA	30" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,542.21	1,171.53
		For Class 52 Rating, Deduct	-2,284.39	
		For Class 54 Rating, Add	3,136.38	
		For Class 55 Rating, Add	4,673.68	
		For Class 56 Rating, Add	6,190.22	
40 05 19 00-1455	EA	30" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,101.21	1,174.19
		For Class 52 Rating, Deduct	-2,345.43	
		For Class 54 Rating, Add	3,219.67	
		For Class 55 Rating, Add	4,797.53	
		For Class 56 Rating, Add	6,354.08	
40 05 19 00-1456	EA	30" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,660.19	1,176.85
		For Class 52 Rating, Deduct	-2,406.48	
		For Class 54 Rating, Add	3,302.96	
		For Class 55 Rating, Add	4,921.39	
		For Class 56 Rating, Add	6,517.93	
40 05 19 00-1457	EA	30" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,219.18	1,179.50
		For Class 52 Rating, Deduct	-2,467.53	
		For Class 54 Rating, Add	3,386.25	
		For Class 55 Rating, Add	5,045.24	
		For Class 56 Rating, Add	6,681.79	
40 05 19 00-1458	EA	30" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,778.16	1,182.15
		For Class 52 Rating, Deduct	-2,528.57	
		For Class 54 Rating, Add	3,469.55	
		For Class 55 Rating, Add	5,169.09	
		For Class 56 Rating, Add	6,845.65	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1459	EA		30" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,337.14	1,184.82
			For Class 52 Rating, Deduct	-2,589.62	
			For Class 54 Rating, Add	3,552.84	
			For Class 55 Rating, Add	5,292.94	
			For Class 56 Rating, Add	7,009.51	
40 05 19 00-1460	EA		30" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,896.13	1,187.47
			For Class 52 Rating, Deduct	-2,650.66	
			For Class 54 Rating, Add	3,636.13	
			For Class 55 Rating, Add	5,416.80	
			For Class 56 Rating, Add	7,173.37	
40 05 19 00-1461	EA		30" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,455.11	1,190.13
			For Class 52 Rating, Deduct	-2,711.71	
			For Class 54 Rating, Add	3,719.42	
			For Class 55 Rating, Add	5,540.65	
			For Class 56 Rating, Add	7,337.22	
40 05 19 00-1462	EA		30" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,014.10	1,192.78
			For Class 52 Rating, Deduct	-2,772.75	
			For Class 54 Rating, Add	3,802.71	
			For Class 55 Rating, Add	5,664.50	
			For Class 56 Rating, Add	7,501.08	
40 05 19 00-1463			36" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1464	EA		36" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,756.10	1,386.72
			For Class 52 Rating, Deduct	-732.05	
			For Class 54 Rating, Add	1,023.47	
			For Class 55 Rating, Add	1,534.50	
			For Class 56 Rating, Add	2,038.87	
40 05 19 00-1465	EA		36" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,515.05	1,389.37
			For Class 52 Rating, Deduct	-815.09	
			For Class 54 Rating, Add	1,136.75	
			For Class 55 Rating, Add	1,702.94	
			For Class 56 Rating, Add	2,261.72	
40 05 19 00-1466	EA		36" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,274.00	1,392.02
			For Class 52 Rating, Deduct	-898.14	
			For Class 54 Rating, Add	1,250.04	
			For Class 55 Rating, Add	1,871.39	
			For Class 56 Rating, Add	2,484.57	
40 05 19 00-1467	EA		36" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,032.95	1,394.68
			For Class 52 Rating, Deduct	-981.18	
			For Class 54 Rating, Add	1,363.33	
			For Class 55 Rating, Add	2,039.83	
			For Class 56 Rating, Add	2,707.41	
40 05 19 00-1468	EA		36" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,791.90	1,397.34
			For Class 52 Rating, Deduct	-1,064.22	
			For Class 54 Rating, Add	1,476.61	
			For Class 55 Rating, Add	2,208.27	
			For Class 56 Rating, Add	2,930.26	
40 05 19 00-1469	EA		36" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,550.85	1,399.99
			For Class 52 Rating, Deduct	-1,147.26	
			For Class 54 Rating, Add	1,589.90	
			For Class 55 Rating, Add	2,376.72	
			For Class 56 Rating, Add	3,153.11	
40 05 19 00-1470	EA		36" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,309.80	1,402.65
			For Class 52 Rating, Deduct	-1,230.30	
			For Class 54 Rating, Add	1,703.19	
			For Class 55 Rating, Add	2,545.16	
			For Class 56 Rating, Add	3,375.96	
40 05 19 00-1471	EA		36" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,068.75	1,405.31
			For Class 52 Rating, Deduct	-1,313.35	
			For Class 54 Rating, Add	1,816.48	
			For Class 55 Rating, Add	2,713.61	
			For Class 56 Rating, Add	3,598.81	
40 05 19 00-1472	EA		36" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,827.69	1,407.97
			For Class 52 Rating, Deduct	-1,396.39	
			For Class 54 Rating, Add	1,929.76	
			For Class 55 Rating, Add	2,882.05	
			For Class 56 Rating, Add	3,821.65	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1473	EA	36" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,586.64	1,410.61
		For Class 52 Rating, Deduct	-1,479.43	
		For Class 54 Rating, Add	2,043.05	
		For Class 55 Rating, Add	3,050.50	
		For Class 56 Rating, Add	4,044.50	
40 05 19 00-1474	EA	36" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,345.60	1,413.27
		For Class 52 Rating, Deduct	-1,562.47	
		For Class 54 Rating, Add	2,156.34	
		For Class 55 Rating, Add	3,218.94	
		For Class 56 Rating, Add	4,267.35	
40 05 19 00-1475	EA	36" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,104.55	1,415.94
		For Class 52 Rating, Deduct	-1,645.51	
		For Class 54 Rating, Add	2,269.62	
		For Class 55 Rating, Add	3,387.39	
		For Class 56 Rating, Add	4,490.19	
40 05 19 00-1476	EA	36" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,863.50	1,418.58
		For Class 52 Rating, Deduct	-1,728.55	
		For Class 54 Rating, Add	2,382.91	
		For Class 55 Rating, Add	3,555.83	
		For Class 56 Rating, Add	4,713.04	
40 05 19 00-1477	EA	36" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,622.44	1,421.24
		For Class 52 Rating, Deduct	-1,811.59	
		For Class 54 Rating, Add	2,496.20	
		For Class 55 Rating, Add	3,724.28	
		For Class 56 Rating, Add	4,935.89	
40 05 19 00-1478	EA	36" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,381.40	1,423.91
		For Class 52 Rating, Deduct	-1,894.64	
		For Class 54 Rating, Add	2,609.48	
		For Class 55 Rating, Add	3,892.72	
		For Class 56 Rating, Add	5,158.74	
40 05 19 00-1479	EA	36" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,140.34	1,426.56
		For Class 52 Rating, Deduct	-1,977.68	
		For Class 54 Rating, Add	2,722.77	
		For Class 55 Rating, Add	4,061.17	
		For Class 56 Rating, Add	5,381.58	
40 05 19 00-1480	EA	36" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,899.30	1,429.21
		For Class 52 Rating, Deduct	-2,060.72	
		For Class 54 Rating, Add	2,836.06	
		For Class 55 Rating, Add	4,229.61	
		For Class 56 Rating, Add	5,604.43	
40 05 19 00-1481	EA	36" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,658.24	1,431.87
		For Class 52 Rating, Deduct	-2,143.76	
		For Class 54 Rating, Add	2,949.35	
		For Class 55 Rating, Add	4,398.06	
		For Class 56 Rating, Add	5,827.28	
40 05 19 00-1482	EA	36" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,417.19	1,434.53
		For Class 52 Rating, Deduct	-2,226.80	
		For Class 54 Rating, Add	3,062.63	
		For Class 55 Rating, Add	4,566.50	
		For Class 56 Rating, Add	6,050.13	
40 05 19 00-1483	EA	36" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,176.14	1,437.19
		For Class 52 Rating, Deduct	-2,309.84	
		For Class 54 Rating, Add	3,175.92	
		For Class 55 Rating, Add	4,734.95	
		For Class 56 Rating, Add	6,272.98	
40 05 19 00-1484	EA	36" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,935.10	1,439.84
		For Class 52 Rating, Deduct	-2,392.89	
		For Class 54 Rating, Add	3,289.21	
		For Class 55 Rating, Add	4,903.39	
		For Class 56 Rating, Add	6,495.83	
40 05 19 00-1485	EA	36" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,694.05	1,442.50
		For Class 52 Rating, Deduct	-2,475.93	
		For Class 54 Rating, Add	3,402.49	
		For Class 55 Rating, Add	5,071.84	
		For Class 56 Rating, Add	6,718.67	
40 05 19 00-1486	EA	36" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,453.00	1,445.16
		For Class 52 Rating, Deduct	-2,558.97	
		For Class 54 Rating, Add	3,515.78	
		For Class 55 Rating, Add	5,240.28	
		For Class 56 Rating, Add	6,941.52	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1487	EA		36" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,211.94	1,447.81
			For Class 52 Rating, Deduct	-2,642.01	
			For Class 54 Rating, Add	3,629.07	
			For Class 55 Rating, Add	5,408.73	
			For Class 56 Rating, Add	7,164.37	
40 05 19 00-1488	EA		36" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,970.90	1,450.46
			For Class 52 Rating, Deduct	-2,725.05	
			For Class 54 Rating, Add	3,742.36	
			For Class 55 Rating, Add	5,577.17	
			For Class 56 Rating, Add	7,387.22	
40 05 19 00-1489	EA		36" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,729.84	1,453.13
			For Class 52 Rating, Deduct	-2,808.10	
			For Class 54 Rating, Add	3,855.64	
			For Class 55 Rating, Add	5,745.62	
			For Class 56 Rating, Add	7,610.06	
40 05 19 00-1490	EA		36" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,488.80	1,455.79
			For Class 52 Rating, Deduct	-2,891.14	
			For Class 54 Rating, Add	3,968.93	
			For Class 55 Rating, Add	5,914.06	
			For Class 56 Rating, Add	7,832.91	
40 05 19 00-1491	EA		36" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,247.74	1,458.43
			For Class 52 Rating, Deduct	-2,974.18	
			For Class 54 Rating, Add	4,082.22	
			For Class 55 Rating, Add	6,082.51	
			For Class 56 Rating, Add	8,055.76	
40 05 19 00-1492	EA		36" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,006.69	1,461.10
			For Class 52 Rating, Deduct	-3,057.22	
			For Class 54 Rating, Add	4,195.50	
			For Class 55 Rating, Add	6,250.95	
			For Class 56 Rating, Add	8,278.61	
40 05 19 00-1493	EA		36" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,765.64	1,463.75
			For Class 52 Rating, Deduct	-3,140.26	
			For Class 54 Rating, Add	4,308.79	
			For Class 55 Rating, Add	6,419.40	
			For Class 56 Rating, Add	8,501.45	
40 05 19 00-1494	EA		36" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,524.60	1,466.40
			For Class 52 Rating, Deduct	-3,223.30	
			For Class 54 Rating, Add	4,422.08	
			For Class 55 Rating, Add	6,587.84	
			For Class 56 Rating, Add	8,724.30	
40 05 19 00-1495	EA		36" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,283.55	1,469.06
			For Class 52 Rating, Deduct	-3,306.35	
			For Class 54 Rating, Add	4,535.36	
			For Class 55 Rating, Add	6,756.29	
			For Class 56 Rating, Add	8,947.15	
40 05 19 00-1496	EA		36" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,042.50	1,471.72
			For Class 52 Rating, Deduct	-3,389.39	
			For Class 54 Rating, Add	4,648.65	
			For Class 55 Rating, Add	6,924.73	
			For Class 56 Rating, Add	9,170.00	
40 05 19 00-1497	EA		36" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,801.44	1,474.38
			For Class 52 Rating, Deduct	-3,472.43	
			For Class 54 Rating, Add	4,761.94	
			For Class 55 Rating, Add	7,093.18	
			For Class 56 Rating, Add	9,392.84	
40 05 19 00-1498	EA		36" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,560.39	1,477.03
			For Class 52 Rating, Deduct	-3,555.47	
			For Class 54 Rating, Add	4,875.22	
			For Class 55 Rating, Add	7,261.62	
			For Class 56 Rating, Add	9,615.69	
40 05 19 00-1499	EA		36" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,319.34	1,479.69
			For Class 52 Rating, Deduct	-3,638.51	
			For Class 54 Rating, Add	4,988.51	
			For Class 55 Rating, Add	7,430.06	
			For Class 56 Rating, Add	9,838.54	
40 05 19 00-1500	EA		36" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,078.29	1,482.35
			For Class 52 Rating, Deduct	-3,721.55	
			For Class 54 Rating, Add	5,101.80	
			For Class 55 Rating, Add	7,598.51	
			For Class 56 Rating, Add	10,061.39	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1501	EA		36" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,837.24	1,485.00
			For Class 52 Rating, Deduct	-3,804.60	
			For Class 54 Rating, Add	5,215.09	
			For Class 55 Rating, Add	7,766.95	
			For Class 56 Rating, Add	10,284.24	
40 05 19 00-1502			42" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1503	EA		42" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,570.52	1,748.00
			For Class 52 Rating, Deduct	-981.42	
			For Class 54 Rating, Add	1,370.09	
			For Class 55 Rating, Add	2,053.18	
			For Class 56 Rating, Add	2,727.35	
40 05 19 00-1504	EA		42" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,702.45	1,750.65
			For Class 52 Rating, Deduct	-1,105.49	
			For Class 54 Rating, Add	1,539.32	
			For Class 55 Rating, Add	2,304.80	
			For Class 56 Rating, Add	3,060.22	
40 05 19 00-1505	EA		42" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,820.88	1,753.31
			For Class 52 Rating, Deduct	-1,228.08	
			For Class 54 Rating, Add	1,706.53	
			For Class 55 Rating, Add	2,553.41	
			For Class 56 Rating, Add	3,389.12	
40 05 19 00-1506	EA		42" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,950.56	1,755.97
			For Class 52 Rating, Deduct	-1,351.90	
			For Class 54 Rating, Add	1,875.43	
			For Class 55 Rating, Add	2,804.52	
			For Class 56 Rating, Add	3,721.33	
40 05 19 00-1507	EA		42" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,069.00	1,758.63
			For Class 52 Rating, Deduct	-1,474.49	
			For Class 54 Rating, Add	2,042.64	
			For Class 55 Rating, Add	3,053.13	
			For Class 56 Rating, Add	4,050.23	
40 05 19 00-1508	EA		42" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,200.91	1,761.28
			For Class 52 Rating, Deduct	-1,598.55	
			For Class 54 Rating, Add	2,211.87	
			For Class 55 Rating, Add	3,304.75	
			For Class 56 Rating, Add	4,383.10	
40 05 19 00-1509	EA		42" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,317.11	1,763.94
			For Class 52 Rating, Deduct	-1,720.89	
			For Class 54 Rating, Add	2,378.74	
			For Class 55 Rating, Add	3,552.86	
			For Class 56 Rating, Add	4,711.33	
40 05 19 00-1510	EA		42" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,449.02	1,766.60
			For Class 52 Rating, Deduct	-1,844.96	
			For Class 54 Rating, Add	2,547.97	
			For Class 55 Rating, Add	3,804.48	
			For Class 56 Rating, Add	5,044.21	
40 05 19 00-1511	EA		42" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,567.45	1,769.26
			For Class 52 Rating, Deduct	-1,967.54	
			For Class 54 Rating, Add	2,715.18	
			For Class 55 Rating, Add	4,053.09	
			For Class 56 Rating, Add	5,373.10	
40 05 19 00-1512	EA		42" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,697.13	1,771.90
			For Class 52 Rating, Deduct	-2,091.37	
			For Class 54 Rating, Add	2,884.08	
			For Class 55 Rating, Add	4,304.20	
			For Class 56 Rating, Add	5,705.31	
40 05 19 00-1513	EA		42" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,815.56	1,774.56
			For Class 52 Rating, Deduct	-2,213.95	
			For Class 54 Rating, Add	3,051.29	
			For Class 55 Rating, Add	4,552.81	
			For Class 56 Rating, Add	6,034.21	
40 05 19 00-1514	EA		42" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,945.24	1,777.23
			For Class 52 Rating, Deduct	-2,337.77	
			For Class 54 Rating, Add	3,220.19	
			For Class 55 Rating, Add	4,803.93	
			For Class 56 Rating, Add	6,366.42	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1515	EA		42" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,063.67	1,779.87
			For Class 52 Rating, Deduct	-2,460.36	
			For Class 54 Rating, Add	3,387.39	
			For Class 55 Rating, Add	5,052.54	
			For Class 56 Rating, Add	6,695.32	
40 05 19 00-1516	EA		42" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,184.36	1,782.53
			For Class 52 Rating, Deduct	-2,583.19	
			For Class 54 Rating, Add	3,554.94	
			For Class 55 Rating, Add	5,301.65	
			For Class 56 Rating, Add	7,024.88	
40 05 19 00-1517	EA		42" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,311.79	1,785.20
			For Class 52 Rating, Deduct	-2,706.76	
			For Class 54 Rating, Add	3,723.50	
			For Class 55 Rating, Add	5,552.27	
			For Class 56 Rating, Add	7,356.42	
40 05 19 00-1518	EA		42" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,430.23	1,787.85
			For Class 52 Rating, Deduct	-2,829.35	
			For Class 54 Rating, Add	3,890.71	
			For Class 55 Rating, Add	5,800.88	
			For Class 56 Rating, Add	7,685.32	
40 05 19 00-1519	EA		42" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,562.15	1,790.50
			For Class 52 Rating, Deduct	-2,953.42	
			For Class 54 Rating, Add	4,059.94	
			For Class 55 Rating, Add	6,052.49	
			For Class 56 Rating, Add	8,018.20	
40 05 19 00-1520	EA		42" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,680.58	1,793.16
			For Class 52 Rating, Deduct	-3,076.00	
			For Class 54 Rating, Add	4,227.15	
			For Class 55 Rating, Add	6,301.10	
			For Class 56 Rating, Add	8,347.09	
40 05 19 00-1521	EA		42" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,810.25	1,795.82
			For Class 52 Rating, Deduct	-3,199.83	
			For Class 54 Rating, Add	4,396.05	
			For Class 55 Rating, Add	6,552.22	
			For Class 56 Rating, Add	8,679.30	
40 05 19 00-1522	EA		42" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,928.69	1,798.47
			For Class 52 Rating, Deduct	-3,322.41	
			For Class 54 Rating, Add	4,563.26	
			For Class 55 Rating, Add	6,800.83	
			For Class 56 Rating, Add	9,008.20	
40 05 19 00-1523	EA		42" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,060.61	1,801.13
			For Class 52 Rating, Deduct	-3,446.48	
			For Class 54 Rating, Add	4,732.49	
			For Class 55 Rating, Add	7,052.45	
			For Class 56 Rating, Add	9,341.07	
40 05 19 00-1524	EA		42" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,179.05	1,803.79
			For Class 52 Rating, Deduct	-3,569.06	
			For Class 54 Rating, Add	4,899.70	
			For Class 55 Rating, Add	7,301.06	
			For Class 56 Rating, Add	9,669.97	
40 05 19 00-1525	EA		42" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,308.72	1,806.45
			For Class 52 Rating, Deduct	-3,692.89	
			For Class 54 Rating, Add	5,068.60	
			For Class 55 Rating, Add	7,552.18	
			For Class 56 Rating, Add	10,002.18	
40 05 19 00-1526	EA		42" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,427.16	1,809.09
			For Class 52 Rating, Deduct	-3,815.47	
			For Class 54 Rating, Add	5,235.81	
			For Class 55 Rating, Add	7,800.79	
			For Class 56 Rating, Add	10,331.08	
40 05 19 00-1527	EA		42" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,559.08	1,811.75
			For Class 52 Rating, Deduct	-3,939.54	
			For Class 54 Rating, Add	5,405.04	
			For Class 55 Rating, Add	8,052.40	
			For Class 56 Rating, Add	10,663.95	
40 05 19 00-1528	EA		42" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,677.51	1,814.42
			For Class 52 Rating, Deduct	-4,062.12	
			For Class 54 Rating, Add	5,572.25	
			For Class 55 Rating, Add	8,301.01	
			For Class 56 Rating, Add	10,992.85	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1529	EA		42" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	40,804.94	1,817.06
			For Class 52 Rating, Deduct	-4,185.70	
			For Class 54 Rating, Add	5,740.81	
			For Class 55 Rating, Add	8,551.63	
			For Class 56 Rating, Add	11,324.39	
40 05 19 00-1530	EA		42" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	41,925.62	1,819.72
			For Class 52 Rating, Deduct	-4,308.53	
			For Class 54 Rating, Add	5,908.35	
			For Class 55 Rating, Add	8,800.74	
			For Class 56 Rating, Add	11,653.95	
40 05 19 00-1531	EA		42" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,819.38	1,822.39
			For Class 52 Rating, Deduct	-4,406.40	
			For Class 54 Rating, Add	6,041.86	
			For Class 55 Rating, Add	8,999.25	
			For Class 56 Rating, Add	11,916.57	
40 05 19 00-1532	EA		42" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	44,173.73	1,825.04
			For Class 52 Rating, Deduct	-4,554.94	
			For Class 54 Rating, Add	6,244.46	
			For Class 55 Rating, Add	9,300.47	
			For Class 56 Rating, Add	12,315.06	
40 05 19 00-1533	EA		42" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	45,292.17	1,827.69
			For Class 52 Rating, Deduct	-4,677.52	
			For Class 54 Rating, Add	6,411.67	
			For Class 55 Rating, Add	9,549.08	
			For Class 56 Rating, Add	12,643.96	
40 05 19 00-1534	EA		42" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	46,421.84	1,830.35
			For Class 52 Rating, Deduct	-4,801.34	
			For Class 54 Rating, Add	6,580.57	
			For Class 55 Rating, Add	9,800.19	
			For Class 56 Rating, Add	12,976.17	
40 05 19 00-1535	EA		42" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	47,540.28	1,833.01
			For Class 52 Rating, Deduct	-4,923.93	
			For Class 54 Rating, Add	6,747.78	
			For Class 55 Rating, Add	10,048.80	
			For Class 56 Rating, Add	13,305.07	
40 05 19 00-1536	EA		42" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	48,672.20	1,835.67
			For Class 52 Rating, Deduct	-5,048.00	
			For Class 54 Rating, Add	6,917.01	
			For Class 55 Rating, Add	10,300.42	
			For Class 56 Rating, Add	13,637.94	
40 05 19 00-1537	EA		42" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	49,788.40	1,838.32
			For Class 52 Rating, Deduct	-5,170.34	
			For Class 54 Rating, Add	7,083.88	
			For Class 55 Rating, Add	10,548.53	
			For Class 56 Rating, Add	13,966.17	
40 05 19 00-1538	EA		42" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	50,920.31	1,840.98
			For Class 52 Rating, Deduct	-5,294.40	
			For Class 54 Rating, Add	7,253.11	
			For Class 55 Rating, Add	10,800.15	
			For Class 56 Rating, Add	14,299.05	
40 05 19 00-1539	EA		42" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	52,038.75	1,843.64
			For Class 52 Rating, Deduct	-5,416.99	
			For Class 54 Rating, Add	7,420.32	
			For Class 55 Rating, Add	11,048.76	
			For Class 56 Rating, Add	14,627.94	
40 05 19 00-1540	EA		42" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	53,168.42	1,846.29
			For Class 52 Rating, Deduct	-5,540.81	
			For Class 54 Rating, Add	7,589.22	
			For Class 55 Rating, Add	11,299.87	
			For Class 56 Rating, Add	14,960.15	
40 05 19 00-1541			48" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1542	EA		48" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,931.19	2,196.95
			For Class 52 Rating, Deduct	-1,276.27	
			For Class 54 Rating, Add	1,780.32	
			For Class 55 Rating, Add	2,667.24	
			For Class 56 Rating, Add	3,542.57	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1543	EA		48" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,577.63	2,199.61
			For Class 52 Rating, Deduct	-1,456.94	
			For Class 54 Rating, Add	2,026.73	
			For Class 55 Rating, Add	3,033.60	
			For Class 56 Rating, Add	4,027.22	
40 05 19 00-1544	EA		48" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,221.81	2,202.26
			For Class 52 Rating, Deduct	-1,637.36	
			For Class 54 Rating, Add	2,272.80	
			For Class 55 Rating, Add	3,399.45	
			For Class 56 Rating, Add	4,511.21	
40 05 19 00-1545	EA		48" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,879.49	2,204.93
			For Class 52 Rating, Deduct	-1,819.26	
			For Class 54 Rating, Add	2,520.89	
			For Class 55 Rating, Add	3,768.31	
			For Class 56 Rating, Add	4,999.18	
40 05 19 00-1546	EA		48" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,525.93	2,207.58
			For Class 52 Rating, Deduct	-1,999.92	
			For Class 54 Rating, Add	2,767.30	
			For Class 55 Rating, Add	4,134.66	
			For Class 56 Rating, Add	5,483.84	
40 05 19 00-1547	EA		48" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,172.36	2,210.23
			For Class 52 Rating, Deduct	-2,180.59	
			For Class 54 Rating, Add	3,013.71	
			For Class 55 Rating, Add	4,501.02	
			For Class 56 Rating, Add	5,968.50	
40 05 19 00-1548	EA		48" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,827.78	2,212.90
			For Class 52 Rating, Deduct	-2,362.24	
			For Class 54 Rating, Add	3,261.47	
			For Class 55 Rating, Add	4,869.37	
			For Class 56 Rating, Add	6,455.80	
40 05 19 00-1549	EA		48" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,476.46	2,215.54
			For Class 52 Rating, Deduct	-2,543.15	
			For Class 54 Rating, Add	3,508.22	
			For Class 55 Rating, Add	5,236.23	
			For Class 56 Rating, Add	6,941.12	
40 05 19 00-1550	EA		48" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,120.66	2,218.20
			For Class 52 Rating, Deduct	-2,723.57	
			For Class 54 Rating, Add	3,754.29	
			For Class 55 Rating, Add	5,602.08	
			For Class 56 Rating, Add	7,425.12	
40 05 19 00-1551	EA		48" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,778.32	2,220.86
			For Class 52 Rating, Deduct	-2,905.47	
			For Class 54 Rating, Add	4,002.39	
			For Class 55 Rating, Add	5,970.94	
			For Class 56 Rating, Add	7,913.08	
40 05 19 00-1552	EA		48" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,424.75	2,223.53
			For Class 52 Rating, Deduct	-3,086.14	
			For Class 54 Rating, Add	4,248.80	
			For Class 55 Rating, Add	6,337.30	
			For Class 56 Rating, Add	8,397.74	
40 05 19 00-1553	EA		48" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,082.43	2,226.17
			For Class 52 Rating, Deduct	-3,268.04	
			For Class 54 Rating, Add	4,496.89	
			For Class 55 Rating, Add	6,706.16	
			For Class 56 Rating, Add	8,885.71	
40 05 19 00-1554	EA		48" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,726.61	2,228.83
			For Class 52 Rating, Deduct	-3,448.46	
			For Class 54 Rating, Add	4,742.96	
			For Class 55 Rating, Add	7,072.01	
			For Class 56 Rating, Add	9,369.70	
40 05 19 00-1555	EA		48" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,373.06	2,231.49
			For Class 52 Rating, Deduct	-3,629.12	
			For Class 54 Rating, Add	4,989.37	
			For Class 55 Rating, Add	7,438.36	
			For Class 56 Rating, Add	9,854.36	
40 05 19 00-1556	EA		48" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,030.73	2,234.15
			For Class 52 Rating, Deduct	-3,811.02	
			For Class 54 Rating, Add	5,237.47	
			For Class 55 Rating, Add	7,807.22	
			For Class 56 Rating, Add	10,342.33	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-1557	EA	48" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,677.17	2,236.80
		For Class 52 Rating, Deduct	-3,997.69	
		For Class 54 Rating, Add	5,483.88	
		For Class 55 Rating, Add	8,173.58	
		For Class 56 Rating, Add	10,826.99	
40 05 19 00-1558	EA	48" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	41,321.35	2,239.45
		For Class 52 Rating, Deduct	-4,172.17	
		For Class 54 Rating, Add	5,729.95	
		For Class 55 Rating, Add	8,539.43	
		For Class 56 Rating, Add	11,310.98	
40 05 19 00-1559	EA	48" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	42,979.02	2,242.12
		For Class 52 Rating, Deduct	-4,354.07	
		For Class 54 Rating, Add	5,978.05	
		For Class 55 Rating, Add	8,908.29	
		For Class 56 Rating, Add	11,798.95	
40 05 19 00-1560	EA	48" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	44,625.46	2,244.77
		For Class 52 Rating, Deduct	-4,534.67	
		For Class 54 Rating, Add	6,224.46	
		For Class 55 Rating, Add	9,274.64	
		For Class 56 Rating, Add	12,283.61	
40 05 19 00-1561	EA	48" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	46,269.64	2,247.42
		For Class 52 Rating, Deduct	-4,715.09	
		For Class 54 Rating, Add	6,470.53	
		For Class 55 Rating, Add	9,640.50	
		For Class 56 Rating, Add	12,767.60	
40 05 19 00-1562	EA	48" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	47,927.32	2,250.09
		For Class 52 Rating, Deduct	-4,896.99	
		For Class 54 Rating, Add	6,718.63	
		For Class 55 Rating, Add	10,009.36	
		For Class 56 Rating, Add	13,255.57	
40 05 19 00-1563	EA	48" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	49,575.99	2,252.75
		For Class 52 Rating, Deduct	-5,077.90	
		For Class 54 Rating, Add	6,965.37	
		For Class 55 Rating, Add	10,376.21	
		For Class 56 Rating, Add	13,740.89	
40 05 19 00-1564	EA	48" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	51,220.18	2,255.39
		For Class 52 Rating, Deduct	-5,258.32	
		For Class 54 Rating, Add	7,211.45	
		For Class 55 Rating, Add	10,742.07	
		For Class 56 Rating, Add	14,224.88	
40 05 19 00-1565	EA	48" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	52,877.86	2,258.05
		For Class 52 Rating, Deduct	-5,440.22	
		For Class 54 Rating, Add	7,459.54	
		For Class 55 Rating, Add	11,110.92	
		For Class 56 Rating, Add	14,712.85	
40 05 19 00-1566	EA	48" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	54,524.29	2,260.72
		For Class 52 Rating, Deduct	-5,620.89	
		For Class 54 Rating, Add	7,705.95	
		For Class 55 Rating, Add	11,477.28	
		For Class 56 Rating, Add	15,197.51	
40 05 19 00-1567	EA	48" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	56,168.49	2,263.36
		For Class 52 Rating, Deduct	-5,801.31	
		For Class 54 Rating, Add	7,952.02	
		For Class 55 Rating, Add	11,843.13	
		For Class 56 Rating, Add	15,681.50	
40 05 19 00-1568	EA	48" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	57,826.15	2,266.02
		For Class 52 Rating, Deduct	-5,983.21	
		For Class 54 Rating, Add	8,200.12	
		For Class 55 Rating, Add	12,211.99	
		For Class 56 Rating, Add	16,169.47	
40 05 19 00-1569	EA	48" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	59,472.58	2,268.68
		For Class 52 Rating, Deduct	-6,163.87	
		For Class 54 Rating, Add	8,446.53	
		For Class 55 Rating, Add	12,578.34	
		For Class 56 Rating, Add	16,654.13	
40 05 19 00-1570	EA	48" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	60,916.81	2,271.34
		For Class 52 Rating, Deduct	-6,322.29	
		For Class 54 Rating, Add	8,662.61	
		For Class 55 Rating, Add	12,899.61	
		For Class 56 Rating, Add	17,079.13	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1571	EA		48" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	62,776.69	2,273.99
			For Class 52 Rating, Deduct	-6,526.44	
			For Class 54 Rating, Add	8,941.03	
			For Class 55 Rating, Add	13,313.56	
			For Class 56 Rating, Add	17,626.75	
40 05 19 00-1572	EA		48" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	64,420.88	2,276.64
			For Class 52 Rating, Deduct	-6,706.86	
			For Class 54 Rating, Add	9,187.11	
			For Class 55 Rating, Add	13,679.41	
			For Class 56 Rating, Add	18,110.75	
40 05 19 00-1573	EA		48" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	66,080.79	2,279.31
			For Class 52 Rating, Deduct	-6,889.00	
			For Class 54 Rating, Add	9,435.54	
			For Class 55 Rating, Add	14,048.77	
			For Class 56 Rating, Add	18,599.38	
40 05 19 00-1574	EA		48" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	67,724.99	2,281.96
			For Class 52 Rating, Deduct	-7,069.42	
			For Class 54 Rating, Add	9,681.61	
			For Class 55 Rating, Add	14,414.63	
			For Class 56 Rating, Add	19,083.37	
40 05 19 00-1575	EA		48" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	69,369.18	2,284.61
			For Class 52 Rating, Deduct	-7,249.84	
			For Class 54 Rating, Add	9,927.68	
			For Class 55 Rating, Add	14,780.48	
			For Class 56 Rating, Add	19,567.37	
40 05 19 00-1576	EA		48" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	71,029.09	2,287.28
			For Class 52 Rating, Deduct	-7,431.99	
			For Class 54 Rating, Add	10,176.11	
			For Class 55 Rating, Add	15,149.84	
			For Class 56 Rating, Add	20,056.00	
40 05 19 00-1577	EA		48" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	72,673.29	2,289.94
			For Class 52 Rating, Deduct	-7,612.41	
			For Class 54 Rating, Add	10,422.19	
			For Class 55 Rating, Add	15,515.69	
			For Class 56 Rating, Add	20,539.99	
40 05 19 00-1578	EA		48" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	74,319.72	2,292.58
			For Class 52 Rating, Deduct	-7,793.07	
			For Class 54 Rating, Add	10,668.60	
			For Class 55 Rating, Add	15,882.05	
			For Class 56 Rating, Add	21,024.65	
40 05 19 00-1579	EA		48" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	75,977.38	2,295.25
			For Class 52 Rating, Deduct	-7,974.97	
			For Class 54 Rating, Add	10,916.69	
			For Class 55 Rating, Add	16,250.91	
			For Class 56 Rating, Add	21,512.62	
40 05 19 00-1580			Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbows (40 05 19 00-0001)		
40 05 19 00-1581	EA		4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	406.29	128.17
40 05 19 00-1582	EA		6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	576.54	163.89
40 05 19 00-1583	EA		8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	821.59	185.65
40 05 19 00-1584	EA		10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,214.28	235.36
40 05 19 00-1585	EA		12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,513.21	260.99
40 05 19 00-1586	EA		14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,900.32	283.52
40 05 19 00-1587	EA		16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	2,340.96	349.54
40 05 19 00-1588	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	3,084.72	419.45
40 05 19 00-1589	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	3,795.99	528.20
40 05 19 00-1590	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	5,844.85	598.11
40 05 19 00-1591	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	9,902.66	792.30
40 05 19 00-1592	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	14,114.63	897.17
40 05 19 00-1593	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	23,802.14	1,025.33
40 05 19 00-1594	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	31,728.81	1,258.36
40 05 19 00-1595			Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbows (40 05 19 00-0001)		
40 05 19 00-1596	EA		4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	383.07	128.17
40 05 19 00-1597	EA		6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	539.38	163.89
40 05 19 00-1598	EA		8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	727.15	185.65
40 05 19 00-1599	EA		10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	1,078.04	235.36
40 05 19 00-1600	EA		12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	1,339.82	260.99
40 05 19 00-1601	EA		14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	1,547.34	283.52
40 05 19 00-1602	EA		16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	1,950.82	349.54
40 05 19 00-1603	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	2,559.89	419.45



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1604	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	3,317.61	528.20
40 05 19 00-1605	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	4,401.97	598.11
40 05 19 00-1606	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	6,846.81	792.30
40 05 19 00-1607	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	13,343.65	897.17
40 05 19 00-1608	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	20,487.53	1,025.33
40 05 19 00-1609	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow	27,979.16	1,258.36
40 05 19 00-1610	Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbows (40 05 19 00-0001)				
40 05 19 00-1611	EA		4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	381.52	128.17
40 05 19 00-1612	EA		6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	527.00	163.89
40 05 19 00-1613	EA		8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	716.31	185.65
40 05 19 00-1614	EA		10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,047.08	235.36
40 05 19 00-1615	EA		12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,497.94	260.99
40 05 19 00-1616	EA		14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,762.54	283.52
40 05 19 00-1617	EA		16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,998.81	349.54
40 05 19 00-1618	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	2,618.72	419.45
40 05 19 00-1619	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	3,573.05	528.20
40 05 19 00-1620	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	4,984.07	598.11
40 05 19 00-1621	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	8,950.54	792.30
40 05 19 00-1622	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	13,582.06	897.17
40 05 19 00-1623	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	20,962.81	1,025.33
40 05 19 00-1624	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	28,598.43	1,258.36
40 05 19 00-1625	Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbows (40 05 19 00-0001)				
40 05 19 00-1626	EA		4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	420.22	128.17
40 05 19 00-1627	EA		6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	599.76	163.89
40 05 19 00-1628	EA		8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	747.28	185.65
40 05 19 00-1629	EA		10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	1,157.00	235.36
40 05 19 00-1630	EA		12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	1,610.75	260.99
40 05 19 00-1631	EA		14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	1,815.17	283.52
40 05 19 00-1632	EA		16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	2,218.65	349.54
40 05 19 00-1633	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	2,618.72	419.45
40 05 19 00-1634	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	3,573.05	528.20
40 05 19 00-1635	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	5,193.08	598.11
40 05 19 00-1636	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	9,054.27	792.30
40 05 19 00-1637	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	13,684.24	897.17
40 05 19 00-1638	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	21,071.18	1,025.33
40 05 19 00-1639	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	28,816.72	1,258.36
40 05 19 00-1640	Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbows (40 05 19 00-0001)				
40 05 19 00-1641	EA		6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	547.92	146.03
40 05 19 00-1642	EA		8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	683.61	156.91
40 05 19 00-1643	EA		8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	771.06	174.78
40 05 19 00-1644	EA		10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,046.38	181.76
40 05 19 00-1645	EA		10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,102.87	199.63
40 05 19 00-1646	EA		10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,207.58	210.50
40 05 19 00-1647	EA		12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,125.22	194.96
40 05 19 00-1648	EA		12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,269.94	212.83
40 05 19 00-1649	EA		12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,466.01	223.70
40 05 19 00-1650	EA		12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,559.40	248.56
40 05 19 00-1651	EA		14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,466.01	223.70
40 05 19 00-1652	EA		14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,628.02	234.59
40 05 19 00-1653	EA		14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,814.30	259.44
40 05 19 00-1654	EA		14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,012.35	272.64
40 05 19 00-1655	EA		16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,690.97	256.72
40 05 19 00-1656	EA		16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,826.66	267.60
40 05 19 00-1657	EA		16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,101.19	292.46
40 05 19 00-1658	EA		16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,297.10	305.27
40 05 19 00-1659	EA		16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,462.79	316.53
40 05 19 00-1660	EA		18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,980.81	291.67
40 05 19 00-1661	EA		18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,382.77	302.55
40 05 19 00-1662	EA		18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,449.85	327.41
40 05 19 00-1663	EA		18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,588.48	340.22
40 05 19 00-1664	EA		18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,813.00	351.48
40 05 19 00-1665	EA		18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,067.37	384.50
40 05 19 00-1666	EA		20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,564.79	346.05
40 05 19 00-1667	EA		20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,740.74	356.92
40 05 19 00-1668	EA		20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,414.69	381.78
40 05 19 00-1669	EA		20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,544.02	394.59
40 05 19 00-1670	EA		20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,917.17	405.86
40 05 19 00-1671	EA		20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,820.11	438.88
40 05 19 00-1672	EA		20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,065.04	473.83
40 05 19 00-1673	EA		24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,636.44	381.01
40 05 19 00-1674	EA		24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,813.93	391.88

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-1675	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,105.49	416.74
40 05 19 00-1676	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,316.87	429.55
40 05 19 00-1677	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,716.34	440.82
40 05 19 00-1678	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,083.73	473.83
40 05 19 00-1679	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,200.17	508.78
40 05 19 00-1680	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,478.05	503.16
40 05 19 00-1681	EA	30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,532.33	526.64
40 05 19 00-1682	EA	30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,959.67	537.91
40 05 19 00-1683	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	7,854.97	570.93
40 05 19 00-1684	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,146.46	605.88
40 05 19 00-1685	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	10,586.59	660.25
40 05 19 00-1686	EA	30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	11,181.40	695.21
40 05 19 00-1687	EA	36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,037.74	579.08
40 05 19 00-1688	EA	36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	11,748.60	590.34
40 05 19 00-1689	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,515.09	623.35
40 05 19 00-1690	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	12,466.21	658.31
40 05 19 00-1691	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	11,903.01	712.68
40 05 19 00-1692	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	12,985.49	747.63
40 05 19 00-1693	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	13,841.67	844.73
40 05 19 00-1694	EA	42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	16,087.66	654.42
40 05 19 00-1695	EA	42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	13,532.12	687.44
40 05 19 00-1696	EA	42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	18,280.65	722.39
40 05 19 00-1697	EA	42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	17,971.35	776.76
40 05 19 00-1698	EA	42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	15,650.98	811.72
40 05 19 00-1699	EA	42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	18,454.74	908.81
40 05 19 00-1700	EA	42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	26,144.95	961.25
40 05 19 00-1701	EA	48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	25,018.18	937.94
40 05 19 00-1702	EA	48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	27,204.22	1,035.03
40 05 19 00-1703	EA	48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	27,995.82	1,087.47
40 05 19 00-1704	EA	48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	35,863.13	1,151.55

40 05 19 00-1705 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbows (40 05 19 00-0001)

40 05 19 00-1706	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	491.44	128.17
40 05 19 00-1707	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	766.96	163.89
40 05 19 00-1708	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	1,140.51	185.65
40 05 19 00-1709	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	1,629.19	235.36
40 05 19 00-1710	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	2,319.80	260.99
40 05 19 00-1711	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	2,710.01	283.52
40 05 19 00-1712	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	3,520.66	349.54
40 05 19 00-1713	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	4,365.05	419.45
40 05 19 00-1714	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	5,963.41	528.20
40 05 19 00-1715	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	8,808.03	598.11
40 05 19 00-1716	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	15,573.57	792.30
40 05 19 00-1717	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	23,789.08	897.17
40 05 19 00-1718	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	36,984.72	1,025.33

40 05 19 00-1719 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbows With Base (40 05 19 00-0001)

40 05 19 00-1720	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	520.85	128.17
40 05 19 00-1721	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	709.68	163.89
40 05 19 00-1722	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	1,180.76	185.65
40 05 19 00-1723	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	1,599.77	235.36
40 05 19 00-1724	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	2,163.44	260.99
40 05 19 00-1725	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	2,561.39	283.52
40 05 19 00-1726	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	3,164.58	349.54
40 05 19 00-1727	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	3,981.10	419.45
40 05 19 00-1728	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	5,260.55	528.20
40 05 19 00-1729	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	7,470.42	598.11
40 05 19 00-1730	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	12,296.11	792.30
40 05 19 00-1731	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	17,644.44	897.17
40 05 19 00-1732	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	32,940.93	1,025.33
40 05 19 00-1733	EA	48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	35,480.00	1,258.36

40 05 19 00-1734 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tees (40 05 19 00-0001)

40 05 19 00-1735	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	698.92	205.85
40 05 19 00-1736	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	866.70	253.23
40 05 19 00-1737	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	1,234.99	282.74
40 05 19 00-1738	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	1,782.82	367.41
40 05 19 00-1739	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	2,390.77	400.81
40 05 19 00-1740	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	3,227.78	431.11
40 05 19 00-1741	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	3,643.04	543.73
40 05 19 00-1742	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	4,452.76	621.41
40 05 19 00-1743	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	5,616.42	784.53
40 05 19 00-1744	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	8,344.00	866.10
40 05 19 00-1745	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	14,270.49	1,196.21
40 05 19 00-1746	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	20,658.27	1,370.99



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1747	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee.....	43,038.55	1,584.60
40 05 19 00-1748 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tees				
(40 05 19 00-0001)				
40 05 19 00-1749	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	882.49	229.92
40 05 19 00-1750	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,104.74	234.59
40 05 19 00-1751	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,096.82	264.10
40 05 19 00-1752	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,489.06	259.44
40 05 19 00-1753	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,442.57	288.96
40 05 19 00-1754	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,520.36	307.60
40 05 19 00-1755	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,876.11	272.64
40 05 19 00-1756	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,863.55	302.16
40 05 19 00-1757	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	1,967.66	320.80
40 05 19 00-1758	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	2,344.69	380.61
40 05 19 00-1759	EA	14" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	2,762.65	283.52
40 05 19 00-1760	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	2,694.36	313.04
40 05 19 00-1761	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	2,812.39	331.68
40 05 19 00-1762	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	2,960.30	391.49
40 05 19 00-1763	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,140.12	412.08
40 05 19 00-1764	EA	16" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,357.63	316.53
40 05 19 00-1765	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,080.33	346.05
40 05 19 00-1766	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,024.98	364.69
40 05 19 00-1767	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,550.63	424.51
40 05 19 00-1768	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,437.84	445.09
40 05 19 00-1769	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,841.33	464.12
40 05 19 00-1770	EA	18" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,115.00	351.48
40 05 19 00-1771	EA	18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,072.91	381.01
40 05 19 00-1772	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,715.78	399.65
40 05 19 00-1773	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	3,715.06	459.46
40 05 19 00-1774	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,048.13	480.04
40 05 19 00-1775	EA	18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,425.31	499.07
40 05 19 00-1776	EA	18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,723.98	578.69
40 05 19 00-1777	EA	20" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	9,185.55	405.86
40 05 19 00-1778	EA	20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,548.65	435.38
40 05 19 00-1779	EA	20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,640.36	454.02
40 05 19 00-1780	EA	20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	4,826.97	513.83
40 05 19 00-1781	EA	20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	5,016.07	534.41
40 05 19 00-1782	EA	20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	5,077.42	553.44
40 05 19 00-1783	EA	20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,122.29	633.07
40 05 19 00-1784	EA	20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,250.50	675.78
40 05 19 00-1785	EA	24" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,053.95	440.82
40 05 19 00-1786	EA	24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	5,206.94	470.33
40 05 19 00-1787	EA	24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	5,444.18	488.97
40 05 19 00-1788	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	5,650.91	548.79
40 05 19 00-1789	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,344.71	569.37
40 05 19 00-1790	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,500.50	588.40
40 05 19 00-1791	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	6,704.73	668.02
40 05 19 00-1792	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	8,851.74	710.74
40 05 19 00-1793	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	9,150.07	759.49
40 05 19 00-1794	EA	30" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	10,795.83	567.43
40 05 19 00-1795	EA	30" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	10,856.59	586.07
40 05 19 00-1796	EA	30" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,153.12	645.88
40 05 19 00-1797	EA	30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,184.30	666.47
40 05 19 00-1798	EA	30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,213.14	685.49
40 05 19 00-1799	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,435.95	765.12
40 05 19 00-1800	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,568.80	807.83
40 05 19 00-1801	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	11,902.31	916.58
40 05 19 00-1802	EA	30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	15,285.99	963.19
40 05 19 00-1803	EA	36" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	14,885.24	812.10
40 05 19 00-1804	EA	36" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	15,934.03	826.87
40 05 19 00-1805	EA	36" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,032.23	869.20
40 05 19 00-1806	EA	36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,159.71	885.90
40 05 19 00-1807	EA	36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,216.72	901.04
40 05 19 00-1808	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,370.17	957.36
40 05 19 00-1809	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,463.08	996.20
40 05 19 00-1810	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,722.89	1,077.76
40 05 19 00-1811	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	17,092.76	1,118.54
40 05 19 00-1812	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	22,427.01	1,283.60
40 05 19 00-1813	EA	42" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	26,802.68	702.58
40 05 19 00-1814	EA	42" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,205.70	762.39
40 05 19 00-1815	EA	42" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,236.88	782.98
40 05 19 00-1816	EA	42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,301.33	802.01
40 05 19 00-1817	EA	42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,494.73	881.63
40 05 19 00-1818	EA	42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,742.14	924.35
40 05 19 00-1819	EA	42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	24,906.90	1,033.09
40 05 19 00-1820	EA	42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	25,268.57	1,079.70
40 05 19 00-1821	EA	42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	32,029.48	1,312.73
40 05 19 00-1822	EA	42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	41,209.66	1,435.07
40 05 19 00-1823	EA	48" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	32,803.68	909.20
40 05 19 00-1824	EA	48" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	32,832.51	928.24
40 05 19 00-1825	EA	48" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	33,061.52	1,007.85

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1826	EA	48" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	33,126.25	1,050.57	
40 05 19 00-1827	EA	48" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	33,435.00	1,159.32	
40 05 19 00-1828	EA	48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	33,761.06	1,205.92	
40 05 19 00-1829	EA	48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	34,625.03	1,438.95	
40 05 19 00-1830 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tees With Base (40 05 19 00-0001)					
40 05 19 00-1831	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base	757.75	205.85	
40 05 19 00-1832	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base	1,035.45	253.23	
40 05 19 00-1833	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base	1,526.05	282.74	
40 05 19 00-1834	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	2,332.42	367.41	
40 05 19 00-1835	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	3,152.47	400.81	
40 05 19 00-1836	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	3,525.03	431.11	
40 05 19 00-1837	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	4,373.77	543.73	
40 05 19 00-1838	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	5,321.27	621.41	
40 05 19 00-1839	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	7,115.04	784.53	
40 05 19 00-1840	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	10,297.78	866.10	
40 05 19 00-1841	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	17,312.63	1,196.21	
40 05 19 00-1842	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	24,743.86	1,370.99	
40 05 19 00-1843 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wyes (40 05 19 00-0001)					
40 05 19 00-1844	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	609.13	205.85	
40 05 19 00-1845	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	858.96	253.23	
40 05 19 00-1846	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	1,258.21	282.74	
40 05 19 00-1847	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	1,654.33	367.41	
40 05 19 00-1848	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	2,383.03	400.81	
40 05 19 00-1849	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	3,110.12	431.11	
40 05 19 00-1850 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Crosses (40 05 19 00-0001)					
40 05 19 00-1851	EA	4" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	836.74	283.52	
40 05 19 00-1852	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,117.25	307.21	
40 05 19 00-1853	EA	6" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,180.08	342.55	
40 05 19 00-1854	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,391.18	312.26	
40 05 19 00-1855	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,513.94	353.43	
40 05 19 00-1856	EA	8" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,564.78	379.84	
40 05 19 00-1857	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,812.78	337.11	
40 05 19 00-1858	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,994.37	378.28	
40 05 19 00-1859	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,183.00	404.69	
40 05 19 00-1860	EA	10" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,710.54	499.46	
40 05 19 00-1861	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,364.77	349.94	
40 05 19 00-1862	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,485.98	391.10	
40 05 19 00-1863	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,676.17	417.51	
40 05 19 00-1864	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,233.11	512.27	
40 05 19 00-1865	EA	12" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,033.00	540.63	
40 05 19 00-1866	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,976.78	402.36	
40 05 19 00-1867	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,165.42	428.78	
40 05 19 00-1868	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,516.45	523.54	
40 05 19 00-1869	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,827.25	551.89	
40 05 19 00-1870	EA	14" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,014.92	578.69	
40 05 19 00-1871	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,560.92	435.38	
40 05 19 00-1872	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,777.42	461.79	
40 05 19 00-1873	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,128.46	556.56	
40 05 19 00-1874	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,468.66	584.90	
40 05 19 00-1875	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	6,272.62	611.70	
40 05 19 00-1876	EA	16" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,055.04	737.92	
40 05 19 00-1877	EA	18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,703.68	470.33	
40 05 19 00-1878	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,918.63	496.74	
40 05 19 00-1879	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,210.83	591.51	
40 05 19 00-1880	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,549.49	619.86	
40 05 19 00-1881	EA	18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,240.33	646.65	
40 05 19 00-1882	EA	18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,699.40	772.88	
40 05 19 00-1883	EA	18" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,953.94	823.37	
40 05 19 00-1884	EA	20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,843.45	524.70	
40 05 19 00-1885	EA	20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,073.89	551.11	
40 05 19 00-1886	EA	20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,344.42	645.88	
40 05 19 00-1887	EA	20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,706.29	674.24	
40 05 19 00-1888	EA	20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,810.38	701.03	
40 05 19 00-1889	EA	20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,085.33	827.26	
40 05 19 00-1890	EA	20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,352.25	877.74	
40 05 19 00-1891	EA	20" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	8,046.82	1,040.86	
40 05 19 00-1892	EA	24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	6,425.99	559.66	
40 05 19 00-1893	EA	24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	6,591.41	586.07	
40 05 19 00-1894	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	6,957.93	680.84	
40 05 19 00-1895	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,192.85	709.19	
40 05 19 00-1896	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,329.44	735.99	
40 05 19 00-1897	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,743.62	862.21	
40 05 19 00-1898	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	10,083.53	912.70	



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1899	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	10,651.58	1,015.82
40 05 19 00-1900	EA	24" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	11,724.05	1,134.07
40 05 19 00-1901	EA	30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	11,908.59	806.29
40 05 19 00-1902	EA	30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	11,983.25	833.08
40 05 19 00-1903	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	12,412.91	959.31
40 05 19 00-1904	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	12,557.53	1,009.79
40 05 19 00-1905	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	13,180.89	1,172.91
40 05 19 00-1906	EA	30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	17,195.29	1,231.17
40 05 19 00-1907	EA	30" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	19,492.90	1,600.13
40 05 19 00-1908	EA	36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	16,846.84	1,025.72
40 05 19 00-1909	EA	36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	16,881.55	1,048.63
40 05 19 00-1910	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	17,244.96	1,151.55
40 05 19 00-1911	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	17,382.14	1,198.15
40 05 19 00-1912	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	17,896.18	1,334.09
40 05 19 00-1913	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	18,522.12	1,386.53
40 05 19 00-1914	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	25,087.22	1,687.52
40 05 19 00-1915	EA	36" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	27,510.00	1,844.82
40 05 19 00-1916	EA	42" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	24,995.22	922.80
40 05 19 00-1917	EA	42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	25,035.83	949.59
40 05 19 00-1918	EA	42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	25,445.38	1,075.82
40 05 19 00-1919	EA	42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	25,557.47	1,126.31
40 05 19 00-1920	EA	42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	26,132.84	1,289.43
40 05 19 00-1921	EA	42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	26,767.60	1,347.69
40 05 19 00-1922	EA	42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	34,462.11	1,716.65
40 05 19 00-1923	EA	42" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	47,717.69	1,908.90
40 05 19 00-1924	EA	48" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	35,219.34	2,143.87
40 05 19 00-1925	EA	48" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	33,563.93	1,075.82
40 05 19 00-1926	EA	48" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	33,975.02	1,202.04
40 05 19 00-1927	EA	48" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	34,087.12	1,252.53
40 05 19 00-1928	EA	48" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	34,625.33	1,415.66
40 05 19 00-1929	EA	48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	35,260.10	1,473.91
40 05 19 00-1930	EA	48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross	36,802.21	1,842.88
40 05 19 00-1931 Flanged End x Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducers (40 05 19 00-0001)				
40 05 19 00-1932	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	447.29	146.03
40 05 19 00-1933	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	576.79	156.91
40 05 19 00-1934	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	634.82	174.78
40 05 19 00-1935	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	781.65	181.76
40 05 19 00-1936	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	785.50	199.63
40 05 19 00-1937	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	922.72	210.50
40 05 19 00-1938	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,006.02	194.96
40 05 19 00-1939	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,037.72	212.83
40 05 19 00-1940	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,139.35	223.70
40 05 19 00-1941	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,282.28	248.56
40 05 19 00-1942	EA	14" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,591.96	212.83
40 05 19 00-1943	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,257.01	223.70
40 05 19 00-1944	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,392.70	234.59
40 05 19 00-1945	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,530.99	259.44
40 05 19 00-1946	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,484.43	272.64
40 05 19 00-1947	EA	16" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,886.85	238.86
40 05 19 00-1948	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,516.03	256.72
40 05 19 00-1949	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,427.24	267.60
40 05 19 00-1950	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,591.84	292.46
40 05 19 00-1951	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,984.37	305.27
40 05 19 00-1952	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,137.68	316.53
40 05 19 00-1953	EA	18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,389.53	291.67
40 05 19 00-1954	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,879.62	302.55
40 05 19 00-1955	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,065.90	327.41
40 05 19 00-1956	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,049.72	340.22
40 05 19 00-1957	EA	18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,367.13	351.48
40 05 19 00-1958	EA	18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,356.76	384.50
40 05 19 00-1959	EA	20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,436.30	346.05
40 05 19 00-1960	EA	20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,358.34	356.92
40 05 19 00-1961	EA	20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,555.46	381.78
40 05 19 00-1962	EA	20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,486.63	394.59
40 05 19 00-1963	EA	20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,879.90	405.86
40 05 19 00-1964	EA	20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,691.50	438.88
40 05 19 00-1965	EA	20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,332.76	473.83
40 05 19 00-1966	EA	24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,207.05	391.88
40 05 19 00-1967	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,627.11	416.74
40 05 19 00-1968	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,905.06	429.55
40 05 19 00-1969	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,008.83	440.82
40 05 19 00-1970	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,530.93	473.83
40 05 19 00-1971	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,275.91	508.78
40 05 19 00-1972	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,522.83	503.16
40 05 19 00-1973	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,190.70	570.93
40 05 19 00-1974	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,449.57	605.88
40 05 19 00-1975	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,942.22	660.25
40 05 19 00-1976	EA	30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	7,677.92	695.21

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-1977	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	8,490.21	623.35
40 05 19 00-1978	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	8,917.83	658.31
40 05 19 00-1979	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	9,478.59	712.68
40 05 19 00-1980	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	10,318.01	747.63
40 05 19 00-1981	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	11,898.73	844.73
40 05 19 00-1982	EA	42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	14,485.22	811.72
40 05 19 00-1983	EA	42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	16,378.66	908.81
40 05 19 00-1984	EA	42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	18,534.19	961.25
40 05 19 00-1985	EA	48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	18,426.12	937.94
40 05 19 00-1986	EA	48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	20,684.92	1,035.03
40 05 19 00-1987	EA	48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	23,131.50	1,087.47
40 05 19 00-1988	EA	48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer	25,923.94	1,151.55

40 05 19 00-1989 Flanged End x Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducers (40 05 19 00-0001)

40 05 19 00-1990	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	149.09	146.03
40 05 19 00-1991	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	624.78	156.91
40 05 19 00-1992	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	710.68	174.78
40 05 19 00-1993	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	781.65	181.76
40 05 19 00-1994	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	836.59	199.63
40 05 19 00-1995	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	970.72	210.50
40 05 19 00-1996	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,006.02	194.96
40 05 19 00-1997	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,093.45	212.83
40 05 19 00-1998	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,198.18	223.70
40 05 19 00-1999	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,384.46	248.56
40 05 19 00-2000	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,257.01	223.70
40 05 19 00-2001	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,363.28	234.59
40 05 19 00-2002	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,520.15	259.44
40 05 19 00-2003	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,746.07	272.64
40 05 19 00-2004	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,516.03	256.72
40 05 19 00-2005	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,648.62	267.60
40 05 19 00-2006	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,834.91	292.46
40 05 19 00-2007	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,032.36	305.27
40 05 19 00-2008	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,137.68	316.53
40 05 19 00-2009	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,879.62	302.55
40 05 19 00-2010	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,065.90	327.41
40 05 19 00-2011	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,263.36	340.22
40 05 19 00-2012	EA	18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,367.13	351.48
40 05 19 00-2013	EA	18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,595.18	384.50
40 05 19 00-2014	EA	20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,767.60	346.05
40 05 19 00-2015	EA	20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,517.80	356.92
40 05 19 00-2016	EA	20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,555.46	381.78
40 05 19 00-2017	EA	20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,797.81	394.59
40 05 19 00-2018	EA	20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,879.90	405.86
40 05 19 00-2019	EA	20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,149.76	438.88
40 05 19 00-2020	EA	20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,331.21	473.83
40 05 19 00-2021	EA	24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,525.98	391.88
40 05 19 00-2022	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,627.11	416.74
40 05 19 00-2023	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,709.99	429.55
40 05 19 00-2024	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,790.54	440.82
40 05 19 00-2025	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,065.04	473.83
40 05 19 00-2026	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,275.91	508.78
40 05 19 00-2027	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,522.83	503.16
40 05 19 00-2028	EA	30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,439.60	537.91
40 05 19 00-2029	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,249.64	570.93
40 05 19 00-2030	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	6,483.63	605.88
40 05 19 00-2031	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	6,942.22	660.25
40 05 19 00-2032	EA	30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,677.92	695.21
40 05 19 00-2033	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	8,558.33	623.35
40 05 19 00-2034	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	8,917.83	658.31
40 05 19 00-2035	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	9,444.53	712.68
40 05 19 00-2036	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	10,280.86	747.63
40 05 19 00-2037	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	11,864.67	844.73
40 05 19 00-2038	EA	42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	14,485.22	811.72
40 05 19 00-2039	EA	42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	12,198.63	908.81
40 05 19 00-2040	EA	42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	18,534.19	961.25
40 05 19 00-2041	EA	48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	20,684.92	1,035.03
40 05 19 00-2042	EA	48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	23,131.50	1,087.47
40 05 19 00-2043	EA	48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer	25,923.94	1,151.55

40 05 19 00-2044 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flanges (40 05 19 00-0001)

40 05 19 00-2045	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	174.03	50.49
40 05 19 00-2046	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	261.60	74.57
40 05 19 00-2047	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	383.42	88.55
40 05 19 00-2048	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	531.18	103.31
40 05 19 00-2049	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	688.30	121.18
40 05 19 00-2050	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	915.02	135.94
40 05 19 00-2051	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	1,094.61	155.35



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2052	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	1,481.37	217.49
40 05 19 00-2053	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	1,970.92	271.87
40 05 19 00-2054	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	2,819.33	330.13
40 05 19 00-2055	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	3,991.62	384.50
40 05 19 00-2056	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	7,183.94	423.34
40 05 19 00-2057	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	10,156.12	466.06
40 05 19 00-2058	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange.....	13,441.34	524.32
40 05 19 00-2059			Flanged End, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Piping (40 05 19) Note: 350 PSI rating for 2" - 24" sizes, 250 PSI rating for 30" - 48" sizes. Pipe barrels conform to ANSI/AWWA C151/A21.51. The bolt holes are aligned per ANSI/AWWA C115/A21.15. Flanged fittings conform to ANSI/AWWA C110/A21.10. Interiors shall be ceramic epoxy. Exterior shall be bituminous coating, in accordance with ANSI/AWWA C104/A21.04. See CSI section 40 05 19 00-4062 for bolts, 40 05 19 00-4077 for gaskets.		
40 05 19 00-2060			Flanged End (FxF), Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2059)		
40 05 19 00-2061			4" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)		
40 05 19 00-2062	EA		4" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,087.28	222.16
			For Class 52 Rating, Deduct.....	-82.57	
			For Class 54 Rating, Add.....	116.64	
			For Class 55 Rating, Add.....	175.48	
			For Class 56 Rating, Add.....	233.57	
40 05 19 00-2063	EA		4" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,199.99	226.04
			For Class 52 Rating, Deduct.....	-94.33	
			For Class 54 Rating, Add.....	132.74	
			For Class 55 Rating, Add.....	199.44	
			For Class 56 Rating, Add.....	265.29	
40 05 19 00-2064	EA		4" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,312.72	229.92
			For Class 52 Rating, Deduct.....	-106.08	
			For Class 54 Rating, Add.....	148.83	
			For Class 55 Rating, Add.....	223.41	
			For Class 56 Rating, Add.....	297.02	
40 05 19 00-2065	EA		4" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,425.44	233.80
			For Class 52 Rating, Deduct.....	-117.83	
			For Class 54 Rating, Add.....	164.93	
			For Class 55 Rating, Add.....	247.38	
			For Class 56 Rating, Add.....	328.75	
40 05 19 00-2066	EA		4" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,538.17	237.69
			For Class 52 Rating, Deduct.....	-129.58	
			For Class 54 Rating, Add.....	181.03	
			For Class 55 Rating, Add.....	271.34	
			For Class 56 Rating, Add.....	360.48	
40 05 19 00-2067	EA		4" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,650.88	241.57
			For Class 52 Rating, Deduct.....	-141.33	
			For Class 54 Rating, Add.....	197.12	
			For Class 55 Rating, Add.....	295.31	
			For Class 56 Rating, Add.....	392.21	
40 05 19 00-2068	EA		4" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,763.60	245.46
			For Class 52 Rating, Deduct.....	-153.09	
			For Class 54 Rating, Add.....	213.22	
			For Class 55 Rating, Add.....	319.27	
			For Class 56 Rating, Add.....	423.94	
40 05 19 00-2069	EA		4" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,876.33	249.34
			For Class 52 Rating, Deduct.....	-164.84	
			For Class 54 Rating, Add.....	229.31	
			For Class 55 Rating, Add.....	343.24	
			For Class 56 Rating, Add.....	455.67	
40 05 19 00-2070	EA		4" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,989.05	253.23
			For Class 52 Rating, Deduct.....	-176.59	
			For Class 54 Rating, Add.....	245.41	
			For Class 55 Rating, Add.....	367.21	
			For Class 56 Rating, Add.....	487.40	
40 05 19 00-2071	EA		4" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,101.78	257.11
			For Class 52 Rating, Deduct.....	-188.34	
			For Class 54 Rating, Add.....	261.51	
			For Class 55 Rating, Add.....	391.17	
			For Class 56 Rating, Add.....	519.13	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2072	EA		4" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,214.49	260.99
			For Class 52 Rating, Deduct	-200.10	
			For Class 54 Rating, Add	277.60	
			For Class 55 Rating, Add	415.14	
			For Class 56 Rating, Add	550.86	
40 05 19 00-2073	EA		4" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,327.22	264.87
			For Class 52 Rating, Deduct	-211.85	
			For Class 54 Rating, Add	293.70	
			For Class 55 Rating, Add	439.11	
			For Class 56 Rating, Add	582.59	
40 05 19 00-2074	EA		4" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,439.94	268.76
			For Class 52 Rating, Deduct	-223.60	
			For Class 54 Rating, Add	309.80	
			For Class 55 Rating, Add	463.07	
			For Class 56 Rating, Add	614.31	
40 05 19 00-2075	EA		4" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,552.67	272.64
			For Class 52 Rating, Deduct	-235.35	
			For Class 54 Rating, Add	325.89	
			For Class 55 Rating, Add	487.04	
			For Class 56 Rating, Add	646.04	
40 05 19 00-2076	EA		4" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,665.38	276.53
			For Class 52 Rating, Deduct	-247.10	
			For Class 54 Rating, Add	341.99	
			For Class 55 Rating, Add	511.00	
			For Class 56 Rating, Add	677.77	
40 05 19 00-2077	EA		4" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,778.11	280.41
			For Class 52 Rating, Deduct	-258.86	
			For Class 54 Rating, Add	358.08	
			For Class 55 Rating, Add	534.97	
			For Class 56 Rating, Add	709.50	
40 05 19 00-2078	EA		4" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,890.83	284.30
			For Class 52 Rating, Deduct	-270.61	
			For Class 54 Rating, Add	374.18	
			For Class 55 Rating, Add	558.94	
			For Class 56 Rating, Add	741.23	
40 05 19 00-2079	EA		4" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,003.55	288.18
			For Class 52 Rating, Deduct	-282.36	
			For Class 54 Rating, Add	390.28	
			For Class 55 Rating, Add	582.90	
			For Class 56 Rating, Add	772.96	
40 05 19 00-2080	EA		4" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,116.28	292.06
			For Class 52 Rating, Deduct	-294.11	
			For Class 54 Rating, Add	406.37	
			For Class 55 Rating, Add	606.87	
			For Class 56 Rating, Add	804.69	
40 05 19 00-2081	EA		4" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,228.99	295.94
			For Class 52 Rating, Deduct	-305.86	
			For Class 54 Rating, Add	422.47	
			For Class 55 Rating, Add	630.83	
			For Class 56 Rating, Add	836.42	
40 05 19 00-2082	EA		4" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,341.72	299.83
			For Class 52 Rating, Deduct	-317.62	
			For Class 54 Rating, Add	438.57	
			For Class 55 Rating, Add	654.80	
			For Class 56 Rating, Add	868.15	
40 05 19 00-2083	EA		4" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,454.44	303.71
			For Class 52 Rating, Deduct	-329.37	
			For Class 54 Rating, Add	454.66	
			For Class 55 Rating, Add	678.77	
			For Class 56 Rating, Add	899.88	
40 05 19 00-2084	EA		4" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,567.17	307.60
			For Class 52 Rating, Deduct	-341.12	
			For Class 54 Rating, Add	470.76	
			For Class 55 Rating, Add	702.73	
			For Class 56 Rating, Add	931.61	
40 05 19 00-2085	EA		4" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,679.88	311.48
			For Class 52 Rating, Deduct	-352.87	
			For Class 54 Rating, Add	486.85	
			For Class 55 Rating, Add	726.70	
			For Class 56 Rating, Add	963.33	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2086	EA	4" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,792.61	315.37
		For Class 52 Rating, Deduct	-364.63	
		For Class 54 Rating, Add	502.95	
		For Class 55 Rating, Add	750.66	
		For Class 56 Rating, Add	995.06	
40 05 19 00-2087	EA	4" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,905.33	319.25
		For Class 52 Rating, Deduct	-376.38	
		For Class 54 Rating, Add	519.05	
		For Class 55 Rating, Add	774.63	
		For Class 56 Rating, Add	1,026.79	
40 05 19 00-2088	EA	4" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,018.06	323.14
		For Class 52 Rating, Deduct	-388.13	
		For Class 54 Rating, Add	535.14	
		For Class 55 Rating, Add	798.60	
		For Class 56 Rating, Add	1,058.52	
40 05 19 00-2089	EA	4" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,130.78	327.01
		For Class 52 Rating, Deduct	-399.88	
		For Class 54 Rating, Add	551.24	
		For Class 55 Rating, Add	822.56	
		For Class 56 Rating, Add	1,090.25	
40 05 19 00-2090	EA	4" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,243.50	330.90
		For Class 52 Rating, Deduct	-411.63	
		For Class 54 Rating, Add	567.34	
		For Class 55 Rating, Add	846.53	
		For Class 56 Rating, Add	1,121.98	
40 05 19 00-2091	EA	4" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,356.22	334.78
		For Class 52 Rating, Deduct	-423.39	
		For Class 54 Rating, Add	583.43	
		For Class 55 Rating, Add	870.49	
		For Class 56 Rating, Add	1,153.71	
40 05 19 00-2092	EA	4" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,468.94	338.67
		For Class 52 Rating, Deduct	-435.14	
		For Class 54 Rating, Add	599.53	
		For Class 55 Rating, Add	894.46	
		For Class 56 Rating, Add	1,185.44	
40 05 19 00-2093	EA	4" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,581.67	342.55
		For Class 52 Rating, Deduct	-446.89	
		For Class 54 Rating, Add	615.63	
		For Class 55 Rating, Add	918.43	
		For Class 56 Rating, Add	1,217.17	
40 05 19 00-2094	EA	4" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,694.38	346.44
		For Class 52 Rating, Deduct	-458.64	
		For Class 54 Rating, Add	631.72	
		For Class 55 Rating, Add	942.39	
		For Class 56 Rating, Add	1,248.89	
40 05 19 00-2095	EA	4" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,807.11	350.32
		For Class 52 Rating, Deduct	-470.40	
		For Class 54 Rating, Add	647.82	
		For Class 55 Rating, Add	966.36	
		For Class 56 Rating, Add	1,280.62	
40 05 19 00-2096	EA	4" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,919.83	354.21
		For Class 52 Rating, Deduct	-482.15	
		For Class 54 Rating, Add	663.91	
		For Class 55 Rating, Add	990.32	
		For Class 56 Rating, Add	1,312.35	
40 05 19 00-2097	EA	4" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,032.56	358.08
		For Class 52 Rating, Deduct	-493.90	
		For Class 54 Rating, Add	680.01	
		For Class 55 Rating, Add	1,014.29	
		For Class 56 Rating, Add	1,344.08	
40 05 19 00-2098	EA	4" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,145.28	361.97
		For Class 52 Rating, Deduct	-505.65	
		For Class 54 Rating, Add	696.11	
		For Class 55 Rating, Add	1,038.26	
		For Class 56 Rating, Add	1,375.81	
40 05 19 00-2099	EA	4" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,258.00	365.85
		For Class 52 Rating, Deduct	-517.40	
		For Class 54 Rating, Add	712.20	
		For Class 55 Rating, Add	1,062.22	
		For Class 56 Rating, Add	1,407.54	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-2100	EA	4" Flanged (FxF), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,370.72	369.74
		For Class 52 Rating, Deduct	-529.16	
		For Class 54 Rating, Add	728.30	
		For Class 55 Rating, Add	1,086.19	
		For Class 56 Rating, Add	1,439.27	

40 05 19 00-2101 6" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)

40 05 19 00-2102	EA	6" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,359.93	279.63
		For Class 52 Rating, Deduct	-102.99	
		For Class 54 Rating, Add	145.52	
		For Class 55 Rating, Add	218.95	
		For Class 56 Rating, Add	291.44	
40 05 19 00-2103	EA	6" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,489.51	283.52
		For Class 52 Rating, Deduct	-116.59	
		For Class 54 Rating, Add	164.15	
		For Class 55 Rating, Add	246.68	
		For Class 56 Rating, Add	328.15	
40 05 19 00-2104	EA	6" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,619.11	287.40
		For Class 52 Rating, Deduct	-130.20	
		For Class 54 Rating, Add	182.77	
		For Class 55 Rating, Add	274.40	
		For Class 56 Rating, Add	364.85	
40 05 19 00-2105	EA	6" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,748.70	291.29
		For Class 52 Rating, Deduct	-143.81	
		For Class 54 Rating, Add	201.40	
		For Class 55 Rating, Add	302.13	
		For Class 56 Rating, Add	401.56	
40 05 19 00-2106	EA	6" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,878.29	295.17
		For Class 52 Rating, Deduct	-157.42	
		For Class 54 Rating, Add	220.03	
		For Class 55 Rating, Add	329.86	
		For Class 56 Rating, Add	438.26	
40 05 19 00-2107	EA	6" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,007.88	299.06
		For Class 52 Rating, Deduct	-171.02	
		For Class 54 Rating, Add	238.65	
		For Class 55 Rating, Add	357.59	
		For Class 56 Rating, Add	474.97	
40 05 19 00-2108	EA	6" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,137.48	302.94
		For Class 52 Rating, Deduct	-184.63	
		For Class 54 Rating, Add	257.28	
		For Class 55 Rating, Add	385.32	
		For Class 56 Rating, Add	511.68	
40 05 19 00-2109	EA	6" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,267.06	306.83
		For Class 52 Rating, Deduct	-198.24	
		For Class 54 Rating, Add	275.91	
		For Class 55 Rating, Add	413.04	
		For Class 56 Rating, Add	548.38	
40 05 19 00-2110	EA	6" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,396.66	310.71
		For Class 52 Rating, Deduct	-211.85	
		For Class 54 Rating, Add	294.53	
		For Class 55 Rating, Add	440.77	
		For Class 56 Rating, Add	585.09	
40 05 19 00-2111	EA	6" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,526.25	314.59
		For Class 52 Rating, Deduct	-225.46	
		For Class 54 Rating, Add	313.16	
		For Class 55 Rating, Add	468.50	
		For Class 56 Rating, Add	621.79	
40 05 19 00-2112	EA	6" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,655.83	318.47
		For Class 52 Rating, Deduct	-239.06	
		For Class 54 Rating, Add	331.79	
		For Class 55 Rating, Add	496.23	
		For Class 56 Rating, Add	658.49	
40 05 19 00-2113	EA	6" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,785.43	322.36
		For Class 52 Rating, Deduct	-252.67	
		For Class 54 Rating, Add	350.41	
		For Class 55 Rating, Add	523.96	
		For Class 56 Rating, Add	695.20	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2114	EA	6" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,915.02	326.24
		For Class 52 Rating, Deduct	-266.28	
		For Class 54 Rating, Add	369.04	
		For Class 55 Rating, Add	551.68	
		For Class 56 Rating, Add	731.91	
40 05 19 00-2115	EA	6" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,044.62	330.13
		For Class 52 Rating, Deduct	-279.89	
		For Class 54 Rating, Add	387.67	
		For Class 55 Rating, Add	579.41	
		For Class 56 Rating, Add	768.61	
40 05 19 00-2116	EA	6" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,174.20	334.01
		For Class 52 Rating, Deduct	-293.49	
		For Class 54 Rating, Add	406.29	
		For Class 55 Rating, Add	607.14	
		For Class 56 Rating, Add	805.32	
40 05 19 00-2117	EA	6" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,303.80	337.90
		For Class 52 Rating, Deduct	-307.10	
		For Class 54 Rating, Add	424.92	
		For Class 55 Rating, Add	634.87	
		For Class 56 Rating, Add	842.02	
40 05 19 00-2118	EA	6" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,433.39	341.78
		For Class 52 Rating, Deduct	-320.71	
		For Class 54 Rating, Add	443.55	
		For Class 55 Rating, Add	662.60	
		For Class 56 Rating, Add	878.73	
40 05 19 00-2119	EA	6" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,562.98	345.66
		For Class 52 Rating, Deduct	-334.32	
		For Class 54 Rating, Add	462.17	
		For Class 55 Rating, Add	690.32	
		For Class 56 Rating, Add	915.43	
40 05 19 00-2120	EA	6" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,692.57	349.54
		For Class 52 Rating, Deduct	-347.93	
		For Class 54 Rating, Add	480.80	
		For Class 55 Rating, Add	718.05	
		For Class 56 Rating, Add	952.14	
40 05 19 00-2121	EA	6" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,822.17	353.43
		For Class 52 Rating, Deduct	-361.53	
		For Class 54 Rating, Add	499.43	
		For Class 55 Rating, Add	745.78	
		For Class 56 Rating, Add	988.85	
40 05 19 00-2122	EA	6" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,951.75	357.31
		For Class 52 Rating, Deduct	-375.14	
		For Class 54 Rating, Add	518.05	
		For Class 55 Rating, Add	773.51	
		For Class 56 Rating, Add	1,025.55	
40 05 19 00-2123	EA	6" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,081.34	361.20
		For Class 52 Rating, Deduct	-388.75	
		For Class 54 Rating, Add	536.68	
		For Class 55 Rating, Add	801.23	
		For Class 56 Rating, Add	1,062.25	
40 05 19 00-2124	EA	6" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,210.94	365.08
		For Class 52 Rating, Deduct	-402.36	
		For Class 54 Rating, Add	555.31	
		For Class 55 Rating, Add	828.96	
		For Class 56 Rating, Add	1,098.96	
40 05 19 00-2125	EA	6" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,340.52	368.97
		For Class 52 Rating, Deduct	-415.96	
		For Class 54 Rating, Add	573.93	
		For Class 55 Rating, Add	856.69	
		For Class 56 Rating, Add	1,135.66	
40 05 19 00-2126	EA	6" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,470.12	372.85
		For Class 52 Rating, Deduct	-429.57	
		For Class 54 Rating, Add	592.56	
		For Class 55 Rating, Add	884.42	
		For Class 56 Rating, Add	1,172.37	
40 05 19 00-2127	EA	6" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,599.71	376.73
		For Class 52 Rating, Deduct	-443.18	
		For Class 54 Rating, Add	611.19	
		For Class 55 Rating, Add	912.15	
		For Class 56 Rating, Add	1,209.08	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-2128	EA	6" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,729.31	380.61
		For Class 52 Rating, Deduct	-456.79	
		For Class 54 Rating, Add	629.81	
		For Class 55 Rating, Add	939.87	
		For Class 56 Rating, Add	1,245.78	
40 05 19 00-2129	EA	6" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,858.89	384.50
		For Class 52 Rating, Deduct	-470.40	
		For Class 54 Rating, Add	648.44	
		For Class 55 Rating, Add	967.60	
		For Class 56 Rating, Add	1,282.49	
40 05 19 00-2130	EA	6" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,988.49	388.38
		For Class 52 Rating, Deduct	-484.00	
		For Class 54 Rating, Add	667.07	
		For Class 55 Rating, Add	995.33	
		For Class 56 Rating, Add	1,319.19	
40 05 19 00-2131	EA	6" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,118.08	392.27
		For Class 52 Rating, Deduct	-497.61	
		For Class 54 Rating, Add	685.69	
		For Class 55 Rating, Add	1,023.06	
		For Class 56 Rating, Add	1,355.90	
40 05 19 00-2132	EA	6" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,247.67	396.15
		For Class 52 Rating, Deduct	-511.22	
		For Class 54 Rating, Add	704.32	
		For Class 55 Rating, Add	1,050.78	
		For Class 56 Rating, Add	1,392.60	
40 05 19 00-2133	EA	6" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,377.26	400.04
		For Class 52 Rating, Deduct	-524.83	
		For Class 54 Rating, Add	722.95	
		For Class 55 Rating, Add	1,078.51	
		For Class 56 Rating, Add	1,429.31	
40 05 19 00-2134	EA	6" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,506.86	403.92
		For Class 52 Rating, Deduct	-538.43	
		For Class 54 Rating, Add	741.57	
		For Class 55 Rating, Add	1,106.24	
		For Class 56 Rating, Add	1,466.02	
40 05 19 00-2135	EA	6" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,636.44	407.81
		For Class 52 Rating, Deduct	-552.04	
		For Class 54 Rating, Add	760.20	
		For Class 55 Rating, Add	1,133.97	
		For Class 56 Rating, Add	1,502.72	
40 05 19 00-2136	EA	6" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,766.03	411.68
		For Class 52 Rating, Deduct	-565.65	
		For Class 54 Rating, Add	778.83	
		For Class 55 Rating, Add	1,161.70	
		For Class 56 Rating, Add	1,539.43	
40 05 19 00-2137	EA	6" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,895.63	415.57
		For Class 52 Rating, Deduct	-579.26	
		For Class 54 Rating, Add	797.45	
		For Class 55 Rating, Add	1,189.43	
		For Class 56 Rating, Add	1,576.13	
40 05 19 00-2138	EA	6" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,025.21	419.45
		For Class 52 Rating, Deduct	-592.86	
		For Class 54 Rating, Add	816.08	
		For Class 55 Rating, Add	1,217.15	
		For Class 56 Rating, Add	1,612.83	
40 05 19 00-2139	EA	6" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,154.81	423.34
		For Class 52 Rating, Deduct	-606.47	
		For Class 54 Rating, Add	834.71	
		For Class 55 Rating, Add	1,244.88	
		For Class 56 Rating, Add	1,649.54	
40 05 19 00-2140	EA	6" Flanged (FxF), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,284.40	427.22
		For Class 52 Rating, Deduct	-620.08	
		For Class 54 Rating, Add	853.33	
		For Class 55 Rating, Add	1,272.61	
		For Class 56 Rating, Add	1,686.25	

40 05 19 00-2141 8" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2142	EA	8" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,893.72	357.31
		For Class 52 Rating, Deduct	-148.76	
		For Class 54 Rating, Add	209.35	
		For Class 55 Rating, Add	314.56	
		For Class 56 Rating, Add	418.43	
40 05 19 00-2143	EA	8" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,059.86	361.20
		For Class 52 Rating, Deduct	-166.39	
		For Class 54 Rating, Add	233.46	
		For Class 55 Rating, Add	350.44	
		For Class 56 Rating, Add	465.92	
40 05 19 00-2144	EA	8" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,226.00	365.08
		For Class 52 Rating, Deduct	-184.01	
		For Class 54 Rating, Add	257.57	
		For Class 55 Rating, Add	386.32	
		For Class 56 Rating, Add	513.40	
40 05 19 00-2145	EA	8" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,392.14	368.97
		For Class 52 Rating, Deduct	-201.64	
		For Class 54 Rating, Add	281.67	
		For Class 55 Rating, Add	422.20	
		For Class 56 Rating, Add	560.89	
40 05 19 00-2146	EA	8" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,558.29	372.85
		For Class 52 Rating, Deduct	-219.27	
		For Class 54 Rating, Add	305.78	
		For Class 55 Rating, Add	458.08	
		For Class 56 Rating, Add	608.38	
40 05 19 00-2147	EA	8" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,724.42	376.73
		For Class 52 Rating, Deduct	-236.90	
		For Class 54 Rating, Add	329.89	
		For Class 55 Rating, Add	493.96	
		For Class 56 Rating, Add	655.87	
40 05 19 00-2148	EA	8" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,890.57	380.61
		For Class 52 Rating, Deduct	-254.53	
		For Class 54 Rating, Add	354.00	
		For Class 55 Rating, Add	529.84	
		For Class 56 Rating, Add	703.36	
40 05 19 00-2149	EA	8" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,056.71	384.50
		For Class 52 Rating, Deduct	-272.16	
		For Class 54 Rating, Add	378.11	
		For Class 55 Rating, Add	565.71	
		For Class 56 Rating, Add	750.84	
40 05 19 00-2150	EA	8" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,222.85	388.38
		For Class 52 Rating, Deduct	-289.78	
		For Class 54 Rating, Add	402.22	
		For Class 55 Rating, Add	601.59	
		For Class 56 Rating, Add	798.33	
40 05 19 00-2151	EA	8" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,388.99	392.27
		For Class 52 Rating, Deduct	-307.41	
		For Class 54 Rating, Add	426.33	
		For Class 55 Rating, Add	637.47	
		For Class 56 Rating, Add	845.82	
40 05 19 00-2152	EA	8" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,555.14	396.15
		For Class 52 Rating, Deduct	-325.04	
		For Class 54 Rating, Add	450.44	
		For Class 55 Rating, Add	673.35	
		For Class 56 Rating, Add	893.31	
40 05 19 00-2153	EA	8" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,721.27	400.04
		For Class 52 Rating, Deduct	-342.67	
		For Class 54 Rating, Add	474.55	
		For Class 55 Rating, Add	709.23	
		For Class 56 Rating, Add	940.79	
40 05 19 00-2154	EA	8" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,887.42	403.92
		For Class 52 Rating, Deduct	-360.30	
		For Class 54 Rating, Add	498.66	
		For Class 55 Rating, Add	745.11	
		For Class 56 Rating, Add	988.28	
40 05 19 00-2155	EA	8" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,053.56	407.81
		For Class 52 Rating, Deduct	-377.92	
		For Class 54 Rating, Add	522.77	
		For Class 55 Rating, Add	780.99	
		For Class 56 Rating, Add	1,035.77	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 19 00-2156	EA	8" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,219.69		411.68
		For Class 52 Rating, Deduct	-395.55		
		For Class 54 Rating, Add	546.87		
		For Class 55 Rating, Add	816.86		
		For Class 56 Rating, Add	1,083.25		
40 05 19 00-2157	EA	8" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,385.84		415.57
		For Class 52 Rating, Deduct	-413.18		
		For Class 54 Rating, Add	570.98		
		For Class 55 Rating, Add	852.74		
		For Class 56 Rating, Add	1,130.74		
40 05 19 00-2158	EA	8" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,551.98		419.45
		For Class 52 Rating, Deduct	-430.81		
		For Class 54 Rating, Add	595.09		
		For Class 55 Rating, Add	888.62		
		For Class 56 Rating, Add	1,178.23		
40 05 19 00-2159	EA	8" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,718.12		423.34
		For Class 52 Rating, Deduct	-448.44		
		For Class 54 Rating, Add	619.20		
		For Class 55 Rating, Add	924.50		
		For Class 56 Rating, Add	1,225.72		
40 05 19 00-2160	EA	8" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,884.26		427.22
		For Class 52 Rating, Deduct	-466.07		
		For Class 54 Rating, Add	643.31		
		For Class 55 Rating, Add	960.38		
		For Class 56 Rating, Add	1,273.21		
40 05 19 00-2161	EA	8" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,050.41		431.11
		For Class 52 Rating, Deduct	-483.69		
		For Class 54 Rating, Add	667.42		
		For Class 55 Rating, Add	996.26		
		For Class 56 Rating, Add	1,320.69		
40 05 19 00-2162	EA	8" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,216.54		434.99
		For Class 52 Rating, Deduct	-501.32		
		For Class 54 Rating, Add	691.53		
		For Class 55 Rating, Add	1,032.13		
		For Class 56 Rating, Add	1,368.18		
40 05 19 00-2163	EA	8" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,382.69		438.88
		For Class 52 Rating, Deduct	-518.95		
		For Class 54 Rating, Add	715.64		
		For Class 55 Rating, Add	1,068.01		
		For Class 56 Rating, Add	1,415.67		
40 05 19 00-2164	EA	8" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,548.83		442.75
		For Class 52 Rating, Deduct	-536.58		
		For Class 54 Rating, Add	739.75		
		For Class 55 Rating, Add	1,103.89		
		For Class 56 Rating, Add	1,463.16		
40 05 19 00-2165	EA	8" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,714.97		446.64
		For Class 52 Rating, Deduct	-554.21		
		For Class 54 Rating, Add	763.86		
		For Class 55 Rating, Add	1,139.77		
		For Class 56 Rating, Add	1,510.64		
40 05 19 00-2166	EA	8" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,881.11		450.52
		For Class 52 Rating, Deduct	-571.84		
		For Class 54 Rating, Add	787.97		
		For Class 55 Rating, Add	1,175.65		
		For Class 56 Rating, Add	1,558.13		
40 05 19 00-2167	EA	8" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,047.25		454.41
		For Class 52 Rating, Deduct	-589.46		
		For Class 54 Rating, Add	812.08		
		For Class 55 Rating, Add	1,211.53		
		For Class 56 Rating, Add	1,605.62		
40 05 19 00-2168	EA	8" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,213.39		458.29
		For Class 52 Rating, Deduct	-607.09		
		For Class 54 Rating, Add	836.18		
		For Class 55 Rating, Add	1,247.40		
		For Class 56 Rating, Add	1,653.11		
40 05 19 00-2169	EA	8" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,379.53		462.18
		For Class 52 Rating, Deduct	-624.72		
		For Class 54 Rating, Add	860.29		
		For Class 55 Rating, Add	1,283.28		
		For Class 56 Rating, Add	1,700.59		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2170	EA	8" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,545.68	466.06
		For Class 52 Rating, Deduct	-642.35	
		For Class 54 Rating, Add	884.40	
		For Class 55 Rating, Add	1,319.16	
		For Class 56 Rating, Add	1,748.08	
40 05 19 00-2171	EA	8" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,711.81	469.95
		For Class 52 Rating, Deduct	-659.98	
		For Class 54 Rating, Add	908.51	
		For Class 55 Rating, Add	1,355.04	
		For Class 56 Rating, Add	1,795.57	
40 05 19 00-2172	EA	8" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,877.96	473.83
		For Class 52 Rating, Deduct	-677.60	
		For Class 54 Rating, Add	932.62	
		For Class 55 Rating, Add	1,390.92	
		For Class 56 Rating, Add	1,843.06	
40 05 19 00-2173	EA	8" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,044.10	477.71
		For Class 52 Rating, Deduct	-695.23	
		For Class 54 Rating, Add	956.73	
		For Class 55 Rating, Add	1,426.80	
		For Class 56 Rating, Add	1,890.55	
40 05 19 00-2174	EA	8" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,210.24	481.59
		For Class 52 Rating, Deduct	-712.86	
		For Class 54 Rating, Add	980.84	
		For Class 55 Rating, Add	1,462.68	
		For Class 56 Rating, Add	1,938.03	
40 05 19 00-2175	EA	8" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,376.38	485.48
		For Class 52 Rating, Deduct	-730.49	
		For Class 54 Rating, Add	1,004.95	
		For Class 55 Rating, Add	1,498.55	
		For Class 56 Rating, Add	1,985.52	
40 05 19 00-2176	EA	8" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,542.53	489.36
		For Class 52 Rating, Deduct	-748.12	
		For Class 54 Rating, Add	1,029.06	
		For Class 55 Rating, Add	1,534.43	
		For Class 56 Rating, Add	2,033.01	
40 05 19 00-2177	EA	8" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,708.66	493.25
		For Class 52 Rating, Deduct	-765.75	
		For Class 54 Rating, Add	1,053.17	
		For Class 55 Rating, Add	1,570.31	
		For Class 56 Rating, Add	2,080.49	
40 05 19 00-2178	EA	8" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,874.80	497.13
		For Class 52 Rating, Deduct	-783.37	
		For Class 54 Rating, Add	1,077.28	
		For Class 55 Rating, Add	1,606.19	
		For Class 56 Rating, Add	2,127.98	
40 05 19 00-2179	EA	8" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,040.95	501.02
		For Class 52 Rating, Deduct	-801.00	
		For Class 54 Rating, Add	1,101.39	
		For Class 55 Rating, Add	1,642.07	
		For Class 56 Rating, Add	2,175.47	
40 05 19 00-2180	EA	8" Flanged (FxF), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,207.08	504.90
		For Class 52 Rating, Deduct	-818.63	
		For Class 54 Rating, Add	1,125.49	
		For Class 55 Rating, Add	1,677.95	
		For Class 56 Rating, Add	2,222.96	
40 05 19 00-2181		10" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2080)		
40 05 19 00-2182	EA	10" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,390.97	434.99
		For Class 52 Rating, Deduct	-190.51	
		For Class 54 Rating, Add	267.69	
		For Class 55 Rating, Add	402.03	
		For Class 56 Rating, Add	534.64	
40 05 19 00-2183	EA	10" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,604.91	438.88
		For Class 52 Rating, Deduct	-213.39	
		For Class 54 Rating, Add	298.97	
		For Class 55 Rating, Add	448.57	
		For Class 56 Rating, Add	596.22	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2184	EA	10" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		2,818.84	442.75
		For Class 52 Rating, Deduct		-236.28	
		For Class 54 Rating, Add		330.25	
		For Class 55 Rating, Add		495.10	
		For Class 56 Rating, Add		657.81	
40 05 19 00-2185	EA	10" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,032.78	446.64
		For Class 52 Rating, Deduct		-259.17	
		For Class 54 Rating, Add		361.53	
		For Class 55 Rating, Add		541.64	
		For Class 56 Rating, Add		719.40	
40 05 19 00-2186	EA	10" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,246.72	450.52
		For Class 52 Rating, Deduct		-282.05	
		For Class 54 Rating, Add		392.81	
		For Class 55 Rating, Add		588.18	
		For Class 56 Rating, Add		780.99	
40 05 19 00-2187	EA	10" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,460.65	454.41
		For Class 52 Rating, Deduct		-304.94	
		For Class 54 Rating, Add		424.09	
		For Class 55 Rating, Add		634.72	
		For Class 56 Rating, Add		842.57	
40 05 19 00-2188	EA	10" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,674.59	458.29
		For Class 52 Rating, Deduct		-327.82	
		For Class 54 Rating, Add		455.36	
		For Class 55 Rating, Add		681.25	
		For Class 56 Rating, Add		904.16	
40 05 19 00-2189	EA	10" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,888.52	462.18
		For Class 52 Rating, Deduct		-350.71	
		For Class 54 Rating, Add		486.64	
		For Class 55 Rating, Add		727.79	
		For Class 56 Rating, Add		965.75	
40 05 19 00-2190	EA	10" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,102.47	466.06
		For Class 52 Rating, Deduct		-373.60	
		For Class 54 Rating, Add		517.92	
		For Class 55 Rating, Add		774.33	
		For Class 56 Rating, Add		1,027.34	
40 05 19 00-2191	EA	10" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,316.40	469.95
		For Class 52 Rating, Deduct		-396.48	
		For Class 54 Rating, Add		549.20	
		For Class 55 Rating, Add		820.86	
		For Class 56 Rating, Add		1,088.92	
40 05 19 00-2192	EA	10" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,530.34	473.83
		For Class 52 Rating, Deduct		-419.37	
		For Class 54 Rating, Add		580.48	
		For Class 55 Rating, Add		867.40	
		For Class 56 Rating, Add		1,150.51	
40 05 19 00-2193	EA	10" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,744.27	477.71
		For Class 52 Rating, Deduct		-442.25	
		For Class 54 Rating, Add		611.76	
		For Class 55 Rating, Add		913.94	
		For Class 56 Rating, Add		1,212.10	
40 05 19 00-2194	EA	10" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,958.22	481.59
		For Class 52 Rating, Deduct		-465.14	
		For Class 54 Rating, Add		643.04	
		For Class 55 Rating, Add		960.47	
		For Class 56 Rating, Add		1,273.69	
40 05 19 00-2195	EA	10" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,172.15	485.48
		For Class 52 Rating, Deduct		-488.02	
		For Class 54 Rating, Add		674.31	
		For Class 55 Rating, Add		1,007.01	
		For Class 56 Rating, Add		1,335.27	
40 05 19 00-2196	EA	10" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,386.09	489.36
		For Class 52 Rating, Deduct		-510.91	
		For Class 54 Rating, Add		705.59	
		For Class 55 Rating, Add		1,053.55	
		For Class 56 Rating, Add		1,396.86	
40 05 19 00-2197	EA	10" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,600.02	493.25
		For Class 52 Rating, Deduct		-533.79	
		For Class 54 Rating, Add		736.87	
		For Class 55 Rating, Add		1,100.08	
		For Class 56 Rating, Add		1,458.44	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2198	EA	10" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,813.96	497.13
		For Class 52 Rating, Deduct	-556.68	
		For Class 54 Rating, Add	768.15	
		For Class 55 Rating, Add	1,146.62	
		For Class 56 Rating, Add	1,520.03	
40 05 19 00-2199	EA	10" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,027.90	501.02
		For Class 52 Rating, Deduct	-579.57	
		For Class 54 Rating, Add	799.43	
		For Class 55 Rating, Add	1,193.16	
		For Class 56 Rating, Add	1,581.62	
40 05 19 00-2200	EA	10" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,241.83	504.90
		For Class 52 Rating, Deduct	-602.45	
		For Class 54 Rating, Add	830.71	
		For Class 55 Rating, Add	1,239.70	
		For Class 56 Rating, Add	1,643.21	
40 05 19 00-2201	EA	10" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,455.77	508.78
		For Class 52 Rating, Deduct	-625.34	
		For Class 54 Rating, Add	861.98	
		For Class 55 Rating, Add	1,286.23	
		For Class 56 Rating, Add	1,704.79	
40 05 19 00-2202	EA	10" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,669.71	512.66
		For Class 52 Rating, Deduct	-648.22	
		For Class 54 Rating, Add	893.26	
		For Class 55 Rating, Add	1,332.77	
		For Class 56 Rating, Add	1,766.38	
40 05 19 00-2203	EA	10" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,883.65	516.55
		For Class 52 Rating, Deduct	-671.11	
		For Class 54 Rating, Add	924.54	
		For Class 55 Rating, Add	1,379.31	
		For Class 56 Rating, Add	1,827.97	
40 05 19 00-2204	EA	10" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,097.58	520.43
		For Class 52 Rating, Deduct	-694.00	
		For Class 54 Rating, Add	955.82	
		For Class 55 Rating, Add	1,425.84	
		For Class 56 Rating, Add	1,889.56	
40 05 19 00-2205	EA	10" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,311.52	524.32
		For Class 52 Rating, Deduct	-716.88	
		For Class 54 Rating, Add	987.10	
		For Class 55 Rating, Add	1,472.38	
		For Class 56 Rating, Add	1,951.14	
40 05 19 00-2206	EA	10" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,525.46	528.20
		For Class 52 Rating, Deduct	-739.77	
		For Class 54 Rating, Add	1,018.38	
		For Class 55 Rating, Add	1,518.92	
		For Class 56 Rating, Add	2,012.73	
40 05 19 00-2207	EA	10" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,739.40	532.09
		For Class 52 Rating, Deduct	-762.65	
		For Class 54 Rating, Add	1,049.66	
		For Class 55 Rating, Add	1,565.45	
		For Class 56 Rating, Add	2,074.32	
40 05 19 00-2208	EA	10" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,953.33	535.97
		For Class 52 Rating, Deduct	-785.54	
		For Class 54 Rating, Add	1,080.93	
		For Class 55 Rating, Add	1,611.99	
		For Class 56 Rating, Add	2,135.91	
40 05 19 00-2209	EA	10" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,167.26	539.86
		For Class 52 Rating, Deduct	-808.42	
		For Class 54 Rating, Add	1,112.21	
		For Class 55 Rating, Add	1,658.53	
		For Class 56 Rating, Add	2,197.49	
40 05 19 00-2210	EA	10" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,381.21	543.73
		For Class 52 Rating, Deduct	-831.31	
		For Class 54 Rating, Add	1,143.49	
		For Class 55 Rating, Add	1,705.07	
		For Class 56 Rating, Add	2,259.08	
40 05 19 00-2211	EA	10" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,595.14	547.62
		For Class 52 Rating, Deduct	-854.20	
		For Class 54 Rating, Add	1,174.77	
		For Class 55 Rating, Add	1,751.60	
		For Class 56 Rating, Add	2,320.67	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION				UNIT COST	UNIT COST
40 05 19 00-2212	EA	10" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,809.08	551.50
		For Class 52 Rating, Deduct		-877.08	
		For Class 54 Rating, Add		1,206.05	
		For Class 55 Rating, Add		1,798.14	
		For Class 56 Rating, Add		2,382.26	
40 05 19 00-2213	EA	10" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,023.01	555.39
		For Class 52 Rating, Deduct		-899.97	
		For Class 54 Rating, Add		1,237.33	
		For Class 55 Rating, Add		1,844.67	
		For Class 56 Rating, Add		2,443.84	
40 05 19 00-2214	EA	10" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,236.96	559.27
		For Class 52 Rating, Deduct		-922.85	
		For Class 54 Rating, Add		1,268.61	
		For Class 55 Rating, Add		1,891.21	
		For Class 56 Rating, Add		2,505.43	
40 05 19 00-2215	EA	10" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,450.89	563.16
		For Class 52 Rating, Deduct		-945.74	
		For Class 54 Rating, Add		1,299.88	
		For Class 55 Rating, Add		1,937.75	
		For Class 56 Rating, Add		2,567.02	
40 05 19 00-2216	EA	10" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,664.83	567.04
		For Class 52 Rating, Deduct		-968.62	
		For Class 54 Rating, Add		1,331.16	
		For Class 55 Rating, Add		1,984.29	
		For Class 56 Rating, Add		2,628.61	
40 05 19 00-2217	EA	10" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,878.76	570.93
		For Class 52 Rating, Deduct		-991.51	
		For Class 54 Rating, Add		1,362.44	
		For Class 55 Rating, Add		2,030.82	
		For Class 56 Rating, Add		2,690.19	
40 05 19 00-2218	EA	10" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,092.71	574.80
		For Class 52 Rating, Deduct		-1,014.40	
		For Class 54 Rating, Add		1,393.72	
		For Class 55 Rating, Add		2,077.36	
		For Class 56 Rating, Add		2,751.78	
40 05 19 00-2219	EA	10" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,306.64	578.69
		For Class 52 Rating, Deduct		-1,037.28	
		For Class 54 Rating, Add		1,425.00	
		For Class 55 Rating, Add		2,123.90	
		For Class 56 Rating, Add		2,813.37	
40 05 19 00-2220	EA	10" Flanged (FxF), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,520.58	582.57
		For Class 52 Rating, Deduct		-1,060.17	
		For Class 54 Rating, Add		1,456.28	
		For Class 55 Rating, Add		2,170.43	
		For Class 56 Rating, Add		2,874.95	
40 05 19 00-2221		12" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)			
40 05 19 00-2222	EA	12" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,129.29	543.73
		For Class 52 Rating, Deduct		-253.60	
		For Class 54 Rating, Add		355.70	
		For Class 55 Rating, Add		533.89	
		For Class 56 Rating, Add		709.77	
40 05 19 00-2223	EA	12" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,393.83	547.62
		For Class 52 Rating, Deduct		-282.05	
		For Class 54 Rating, Add		394.57	
		For Class 55 Rating, Add		591.71	
		For Class 56 Rating, Add		786.28	
40 05 19 00-2224	EA	12" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,658.38	551.50
		For Class 52 Rating, Deduct		-310.50	
		For Class 54 Rating, Add		433.44	
		For Class 55 Rating, Add		649.53	
		For Class 56 Rating, Add		862.80	
40 05 19 00-2225	EA	12" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		3,922.92	555.39
		For Class 52 Rating, Deduct		-338.96	
		For Class 54 Rating, Add		472.31	
		For Class 55 Rating, Add		707.35	
		For Class 56 Rating, Add		939.32	



MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2226	EA	12" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,187.47	559.27
		For Class 52 Rating, Deduct		-367.41	
		For Class 54 Rating, Add		511.18	
		For Class 55 Rating, Add		765.18	
		For Class 56 Rating, Add		1,015.83	
40 05 19 00-2227	EA	12" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,452.01	563.16
		For Class 52 Rating, Deduct		-395.66	
		For Class 54 Rating, Add		550.05	
		For Class 55 Rating, Add		823.00	
		For Class 56 Rating, Add		1,092.35	
40 05 19 00-2228	EA	12" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,716.56	567.04
		For Class 52 Rating, Deduct		-424.32	
		For Class 54 Rating, Add		588.92	
		For Class 55 Rating, Add		880.82	
		For Class 56 Rating, Add		1,168.87	
40 05 19 00-2229	EA	12" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		4,981.10	570.93
		For Class 52 Rating, Deduct		-452.77	
		For Class 54 Rating, Add		627.79	
		For Class 55 Rating, Add		938.64	
		For Class 56 Rating, Add		1,245.38	
40 05 19 00-2230	EA	12" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,245.65	574.80
		For Class 52 Rating, Deduct		-481.22	
		For Class 54 Rating, Add		666.66	
		For Class 55 Rating, Add		996.47	
		For Class 56 Rating, Add		1,321.90	
40 05 19 00-2231	EA	12" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,510.18	578.69
		For Class 52 Rating, Deduct		-509.67	
		For Class 54 Rating, Add		705.53	
		For Class 55 Rating, Add		1,054.29	
		For Class 56 Rating, Add		1,398.41	
40 05 19 00-2232	EA	12" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		5,774.73	582.57
		For Class 52 Rating, Deduct		-538.12	
		For Class 54 Rating, Add		744.40	
		For Class 55 Rating, Add		1,112.11	
		For Class 56 Rating, Add		1,474.93	
40 05 19 00-2233	EA	12" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,039.27	586.46
		For Class 52 Rating, Deduct		-566.58	
		For Class 54 Rating, Add		783.27	
		For Class 55 Rating, Add		1,169.93	
		For Class 56 Rating, Add		1,551.45	
40 05 19 00-2234	EA	12" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,303.81	590.34
		For Class 52 Rating, Deduct		-595.03	
		For Class 54 Rating, Add		822.14	
		For Class 55 Rating, Add		1,227.75	
		For Class 56 Rating, Add		1,627.96	
40 05 19 00-2235	EA	12" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,568.36	594.23
		For Class 52 Rating, Deduct		-623.48	
		For Class 54 Rating, Add		861.01	
		For Class 55 Rating, Add		1,285.58	
		For Class 56 Rating, Add		1,704.48	
40 05 19 00-2236	EA	12" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,832.90	598.11
		For Class 52 Rating, Deduct		-651.93	
		For Class 54 Rating, Add		899.88	
		For Class 55 Rating, Add		1,343.40	
		For Class 56 Rating, Add		1,780.99	
40 05 19 00-2237	EA	12" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,097.45	602.00
		For Class 52 Rating, Deduct		-680.39	
		For Class 54 Rating, Add		938.75	
		For Class 55 Rating, Add		1,401.22	
		For Class 56 Rating, Add		1,857.51	
40 05 19 00-2238	EA	12" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,361.99	605.88
		For Class 52 Rating, Deduct		-708.84	
		For Class 54 Rating, Add		977.62	
		For Class 55 Rating, Add		1,459.04	
		For Class 56 Rating, Add		1,934.03	
40 05 19 00-2239	EA	12" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,626.54	609.76
		For Class 52 Rating, Deduct		-737.29	
		For Class 54 Rating, Add		1,016.49	
		For Class 55 Rating, Add		1,516.87	
		For Class 56 Rating, Add		2,010.54	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2240	EA	12" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,891.08	613.64
		For Class 52 Rating, Deduct		-765.75	
		For Class 54 Rating, Add		1,055.36	
		For Class 55 Rating, Add		1,574.69	
		For Class 56 Rating, Add		2,087.06	
40 05 19 00-2241	EA	12" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,155.63	617.53
		For Class 52 Rating, Deduct		-794.20	
		For Class 54 Rating, Add		1,094.22	
		For Class 55 Rating, Add		1,632.51	
		For Class 56 Rating, Add		2,163.58	
40 05 19 00-2242	EA	12" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,420.17	621.41
		For Class 52 Rating, Deduct		-822.65	
		For Class 54 Rating, Add		1,133.09	
		For Class 55 Rating, Add		1,690.33	
		For Class 56 Rating, Add		2,240.09	
40 05 19 00-2243	EA	12" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,684.72	625.30
		For Class 52 Rating, Deduct		-851.10	
		For Class 54 Rating, Add		1,171.96	
		For Class 55 Rating, Add		1,748.16	
		For Class 56 Rating, Add		2,316.61	
40 05 19 00-2244	EA	12" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,949.26	629.18
		For Class 52 Rating, Deduct		-879.56	
		For Class 54 Rating, Add		1,210.83	
		For Class 55 Rating, Add		1,805.98	
		For Class 56 Rating, Add		2,393.13	
40 05 19 00-2245	EA	12" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,213.80	633.07
		For Class 52 Rating, Deduct		-908.01	
		For Class 54 Rating, Add		1,249.70	
		For Class 55 Rating, Add		1,863.80	
		For Class 56 Rating, Add		2,469.64	
40 05 19 00-2246	EA	12" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,475.54	636.95
		For Class 52 Rating, Deduct		-936.15	
		For Class 54 Rating, Add		1,288.15	
		For Class 55 Rating, Add		1,921.00	
		For Class 56 Rating, Add		2,545.33	
40 05 19 00-2247	EA	12" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,742.89	640.83
		For Class 52 Rating, Deduct		-964.91	
		For Class 54 Rating, Add		1,327.44	
		For Class 55 Rating, Add		1,979.45	
		For Class 56 Rating, Add		2,622.68	
40 05 19 00-2248	EA	12" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,007.44	644.71
		For Class 52 Rating, Deduct		-993.37	
		For Class 54 Rating, Add		1,366.31	
		For Class 55 Rating, Add		2,037.27	
		For Class 56 Rating, Add		2,699.19	
40 05 19 00-2249	EA	12" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,271.98	648.60
		For Class 52 Rating, Deduct		-1,021.82	
		For Class 54 Rating, Add		1,405.18	
		For Class 55 Rating, Add		2,095.09	
		For Class 56 Rating, Add		2,775.71	
40 05 19 00-2250	EA	12" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,536.53	652.48
		For Class 52 Rating, Deduct		-1,050.27	
		For Class 54 Rating, Add		1,444.05	
		For Class 55 Rating, Add		2,152.91	
		For Class 56 Rating, Add		2,852.23	
40 05 19 00-2251	EA	12" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,801.07	656.37
		For Class 52 Rating, Deduct		-1,078.72	
		For Class 54 Rating, Add		1,482.92	
		For Class 55 Rating, Add		2,210.74	
		For Class 56 Rating, Add		2,928.74	
40 05 19 00-2252	EA	12" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,065.62	660.25
		For Class 52 Rating, Deduct		-1,107.18	
		For Class 54 Rating, Add		1,521.79	
		For Class 55 Rating, Add		2,268.56	
		For Class 56 Rating, Add		3,005.26	
40 05 19 00-2253	EA	12" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,330.16	664.14
		For Class 52 Rating, Deduct		-1,135.63	
		For Class 54 Rating, Add		1,560.66	
		For Class 55 Rating, Add		2,326.38	
		For Class 56 Rating, Add		3,081.78	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2254	EA	12" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,594.71	668.02
		For Class 52 Rating, Deduct	-1,164.08	
		For Class 54 Rating, Add	1,599.53	
		For Class 55 Rating, Add	2,384.20	
		For Class 56 Rating, Add	3,158.29	
40 05 19 00-2255	EA	12" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,859.25	671.90
		For Class 52 Rating, Deduct	-1,192.53	
		For Class 54 Rating, Add	1,638.40	
		For Class 55 Rating, Add	2,442.02	
		For Class 56 Rating, Add	3,234.81	
40 05 19 00-2256	EA	12" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,123.79	675.78
		For Class 52 Rating, Deduct	-1,220.99	
		For Class 54 Rating, Add	1,677.27	
		For Class 55 Rating, Add	2,499.85	
		For Class 56 Rating, Add	3,311.33	
40 05 19 00-2257	EA	12" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,388.34	679.67
		For Class 52 Rating, Deduct	-1,249.44	
		For Class 54 Rating, Add	1,716.14	
		For Class 55 Rating, Add	2,557.67	
		For Class 56 Rating, Add	3,387.84	
40 05 19 00-2258	EA	12" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,652.88	683.55
		For Class 52 Rating, Deduct	-1,277.89	
		For Class 54 Rating, Add	1,755.01	
		For Class 55 Rating, Add	2,615.49	
		For Class 56 Rating, Add	3,464.36	
40 05 19 00-2259	EA	12" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,917.43	687.44
		For Class 52 Rating, Deduct	-1,306.34	
		For Class 54 Rating, Add	1,793.88	
		For Class 55 Rating, Add	2,673.31	
		For Class 56 Rating, Add	3,540.88	
40 05 19 00-2260	EA	12" Flanged (FxF), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,181.97	691.32
		For Class 52 Rating, Deduct	-1,334.60	
		For Class 54 Rating, Add	1,832.75	
		For Class 55 Rating, Add	2,731.14	
		For Class 56 Rating, Add	3,617.39	
40 05 19 00-2261		14" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)		
40 05 19 00-2262	EA	14" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,196.55	652.48
		For Class 52 Rating, Deduct	-352.87	
		For Class 54 Rating, Add	493.05	
		For Class 55 Rating, Add	739.10	
		For Class 56 Rating, Add	981.93	
40 05 19 00-2263	EA	14" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,517.32	656.37
		For Class 52 Rating, Deduct	-387.51	
		For Class 54 Rating, Add	540.36	
		For Class 55 Rating, Add	809.46	
		For Class 56 Rating, Add	1,075.04	
40 05 19 00-2264	EA	14" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,838.10	660.25
		For Class 52 Rating, Deduct	-422.15	
		For Class 54 Rating, Add	587.66	
		For Class 55 Rating, Add	879.82	
		For Class 56 Rating, Add	1,168.14	
40 05 19 00-2265	EA	14" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,158.88	664.14
		For Class 52 Rating, Deduct	-456.79	
		For Class 54 Rating, Add	634.97	
		For Class 55 Rating, Add	950.18	
		For Class 56 Rating, Add	1,261.25	
40 05 19 00-2266	EA	14" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,479.66	668.02
		For Class 52 Rating, Deduct	-491.43	
		For Class 54 Rating, Add	682.27	
		For Class 55 Rating, Add	1,020.55	
		For Class 56 Rating, Add	1,354.35	
40 05 19 00-2267	EA	14" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,800.43	671.90
		For Class 52 Rating, Deduct	-526.06	
		For Class 54 Rating, Add	729.58	
		For Class 55 Rating, Add	1,090.91	
		For Class 56 Rating, Add	1,447.46	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2268	EA	14" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,121.20	675.78
		For Class 52 Rating, Deduct		-560.70	
		For Class 54 Rating, Add		776.88	
		For Class 55 Rating, Add		1,161.27	
		For Class 56 Rating, Add		1,540.56	
40 05 19 00-2269	EA	14" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,441.98	679.67
		For Class 52 Rating, Deduct		-595.34	
		For Class 54 Rating, Add		824.18	
		For Class 55 Rating, Add		1,231.63	
		For Class 56 Rating, Add		1,633.67	
40 05 19 00-2270	EA	14" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		6,762.75	683.55
		For Class 52 Rating, Deduct		-629.98	
		For Class 54 Rating, Add		871.49	
		For Class 55 Rating, Add		1,301.99	
		For Class 56 Rating, Add		1,726.77	
40 05 19 00-2271	EA	14" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,083.53	687.44
		For Class 52 Rating, Deduct		-664.62	
		For Class 54 Rating, Add		918.79	
		For Class 55 Rating, Add		1,372.35	
		For Class 56 Rating, Add		1,819.87	
40 05 19 00-2272	EA	14" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,404.30	691.32
		For Class 52 Rating, Deduct		-699.25	
		For Class 54 Rating, Add		966.10	
		For Class 55 Rating, Add		1,442.72	
		For Class 56 Rating, Add		1,912.98	
40 05 19 00-2273	EA	14" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,725.08	695.21
		For Class 52 Rating, Deduct		-733.89	
		For Class 54 Rating, Add		1,013.40	
		For Class 55 Rating, Add		1,513.08	
		For Class 56 Rating, Add		2,006.08	
40 05 19 00-2274	EA	14" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,045.85	699.09
		For Class 52 Rating, Deduct		-768.53	
		For Class 54 Rating, Add		1,060.71	
		For Class 55 Rating, Add		1,583.44	
		For Class 56 Rating, Add		2,099.19	
40 05 19 00-2275	EA	14" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,366.63	702.98
		For Class 52 Rating, Deduct		-803.17	
		For Class 54 Rating, Add		1,108.01	
		For Class 55 Rating, Add		1,653.80	
		For Class 56 Rating, Add		2,192.29	
40 05 19 00-2276	EA	14" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,687.40	706.85
		For Class 52 Rating, Deduct		-837.81	
		For Class 54 Rating, Add		1,155.31	
		For Class 55 Rating, Add		1,724.16	
		For Class 56 Rating, Add		2,285.40	
40 05 19 00-2277	EA	14" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,008.18	710.74
		For Class 52 Rating, Deduct		-872.44	
		For Class 54 Rating, Add		1,202.62	
		For Class 55 Rating, Add		1,794.53	
		For Class 56 Rating, Add		2,378.50	
40 05 19 00-2278	EA	14" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,328.95	714.62
		For Class 52 Rating, Deduct		-907.08	
		For Class 54 Rating, Add		1,249.92	
		For Class 55 Rating, Add		1,864.89	
		For Class 56 Rating, Add		2,471.61	
40 05 19 00-2279	EA	14" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,649.73	718.51
		For Class 52 Rating, Deduct		-941.72	
		For Class 54 Rating, Add		1,297.23	
		For Class 55 Rating, Add		1,935.25	
		For Class 56 Rating, Add		2,564.71	
40 05 19 00-2280	EA	14" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,970.50	722.39
		For Class 52 Rating, Deduct		-976.36	
		For Class 54 Rating, Add		1,344.53	
		For Class 55 Rating, Add		2,005.61	
		For Class 56 Rating, Add		2,657.81	
40 05 19 00-2281	EA	14" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,291.27	726.28
		For Class 52 Rating, Deduct		-1,010.99	
		For Class 54 Rating, Add		1,391.83	
		For Class 55 Rating, Add		2,075.97	
		For Class 56 Rating, Add		2,750.92	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2282	EA	14" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,612.05	730.16
		For Class 52 Rating, Deduct	-1,045.63	
		For Class 54 Rating, Add	1,439.14	
		For Class 55 Rating, Add	2,146.33	
		For Class 56 Rating, Add	2,844.02	
40 05 19 00-2283	EA	14" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,932.82	734.05
		For Class 52 Rating, Deduct	-1,080.27	
		For Class 54 Rating, Add	1,486.44	
		For Class 55 Rating, Add	2,216.70	
		For Class 56 Rating, Add	2,937.13	
40 05 19 00-2284	EA	14" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,253.60	737.92
		For Class 52 Rating, Deduct	-1,114.91	
		For Class 54 Rating, Add	1,533.75	
		For Class 55 Rating, Add	2,287.06	
		For Class 56 Rating, Add	3,030.23	
40 05 19 00-2285	EA	14" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,574.37	741.81
		For Class 52 Rating, Deduct	-1,149.55	
		For Class 54 Rating, Add	1,581.05	
		For Class 55 Rating, Add	2,357.42	
		For Class 56 Rating, Add	3,123.34	
40 05 19 00-2286	EA	14" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,895.15	745.69
		For Class 52 Rating, Deduct	-1,184.18	
		For Class 54 Rating, Add	1,628.35	
		For Class 55 Rating, Add	2,427.78	
		For Class 56 Rating, Add	3,216.44	
40 05 19 00-2287	EA	14" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,215.92	749.58
		For Class 52 Rating, Deduct	-1,218.62	
		For Class 54 Rating, Add	1,675.66	
		For Class 55 Rating, Add	2,498.14	
		For Class 56 Rating, Add	3,309.54	
40 05 19 00-2288	EA	14" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,536.70	753.46
		For Class 52 Rating, Deduct	-1,253.46	
		For Class 54 Rating, Add	1,722.96	
		For Class 55 Rating, Add	2,568.50	
		For Class 56 Rating, Add	3,402.65	
40 05 19 00-2289	EA	14" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,857.47	757.35
		For Class 52 Rating, Deduct	-1,288.10	
		For Class 54 Rating, Add	1,770.27	
		For Class 55 Rating, Add	2,638.87	
		For Class 56 Rating, Add	3,495.75	
40 05 19 00-2290	EA	14" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,178.25	761.23
		For Class 52 Rating, Deduct	-1,322.74	
		For Class 54 Rating, Add	1,817.57	
		For Class 55 Rating, Add	2,709.23	
		For Class 56 Rating, Add	3,588.86	
40 05 19 00-2291	EA	14" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,499.02	765.12
		For Class 52 Rating, Deduct	-1,357.37	
		For Class 54 Rating, Add	1,864.88	
		For Class 55 Rating, Add	2,779.59	
		For Class 56 Rating, Add	3,681.96	
40 05 19 00-2292	EA	14" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,819.79	769.00
		For Class 52 Rating, Deduct	-1,392.01	
		For Class 54 Rating, Add	1,912.18	
		For Class 55 Rating, Add	2,849.95	
		For Class 56 Rating, Add	3,775.07	
40 05 19 00-2293	EA	14" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,140.57	772.88
		For Class 52 Rating, Deduct	-1,426.65	
		For Class 54 Rating, Add	1,959.48	
		For Class 55 Rating, Add	2,920.31	
		For Class 56 Rating, Add	3,868.17	
40 05 19 00-2294	EA	14" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,461.34	776.76
		For Class 52 Rating, Deduct	-1,461.29	
		For Class 54 Rating, Add	2,006.79	
		For Class 55 Rating, Add	2,990.67	
		For Class 56 Rating, Add	3,961.28	
40 05 19 00-2295	EA	14" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,782.12	780.65
		For Class 52 Rating, Deduct	-1,495.93	
		For Class 54 Rating, Add	2,054.09	
		For Class 55 Rating, Add	3,061.04	
		For Class 56 Rating, Add	4,054.38	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2296	EA		14" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,102.89	784.53
			For Class 52 Rating, Deduct	-1,530.56	
			For Class 54 Rating, Add	2,101.40	
			For Class 55 Rating, Add	3,131.40	
			For Class 56 Rating, Add	4,147.48	
40 05 19 00-2297	EA		14" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,423.67	788.42
			For Class 52 Rating, Deduct	-1,565.20	
			For Class 54 Rating, Add	2,148.70	
			For Class 55 Rating, Add	3,201.76	
			For Class 56 Rating, Add	4,240.59	
40 05 19 00-2298	EA		14" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,744.44	792.30
			For Class 52 Rating, Deduct	-1,599.84	
			For Class 54 Rating, Add	2,196.00	
			For Class 55 Rating, Add	3,272.12	
			For Class 56 Rating, Add	4,333.69	
40 05 19 00-2299	EA		14" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,065.22	796.19
			For Class 52 Rating, Deduct	-1,634.48	
			For Class 54 Rating, Add	2,243.31	
			For Class 55 Rating, Add	3,342.48	
			For Class 56 Rating, Add	4,426.80	
40 05 19 00-2300			16" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)		
40 05 19 00-2301	EA		16" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,925.39	745.69
			For Class 52 Rating, Deduct	-417.51	
			For Class 54 Rating, Add	582.89	
			For Class 55 Rating, Add	873.52	
			For Class 56 Rating, Add	1,160.36	
40 05 19 00-2302	EA		16" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,296.77	749.58
			For Class 52 Rating, Deduct	-457.72	
			For Class 54 Rating, Add	637.79	
			For Class 55 Rating, Add	955.17	
			For Class 56 Rating, Add	1,268.40	
40 05 19 00-2303	EA		16" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,668.16	753.46
			For Class 52 Rating, Deduct	-497.92	
			For Class 54 Rating, Add	692.68	
			For Class 55 Rating, Add	1,036.82	
			For Class 56 Rating, Add	1,376.43	
40 05 19 00-2304	EA		16" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,039.53	757.35
			For Class 52 Rating, Deduct	-538.12	
			For Class 54 Rating, Add	747.58	
			For Class 55 Rating, Add	1,118.46	
			For Class 56 Rating, Add	1,484.46	
40 05 19 00-2305	EA		16" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,410.92	761.23
			For Class 52 Rating, Deduct	-578.33	
			For Class 54 Rating, Add	802.47	
			For Class 55 Rating, Add	1,200.11	
			For Class 56 Rating, Add	1,592.50	
40 05 19 00-2306	EA		16" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,782.30	765.12
			For Class 52 Rating, Deduct	-618.53	
			For Class 54 Rating, Add	857.37	
			For Class 55 Rating, Add	1,281.76	
			For Class 56 Rating, Add	1,700.53	
40 05 19 00-2307	EA		16" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,153.68	769.00
			For Class 52 Rating, Deduct	-658.74	
			For Class 54 Rating, Add	912.26	
			For Class 55 Rating, Add	1,363.41	
			For Class 56 Rating, Add	1,808.56	
40 05 19 00-2308	EA		16" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,525.07	772.88
			For Class 52 Rating, Deduct	-698.94	
			For Class 54 Rating, Add	967.16	
			For Class 55 Rating, Add	1,445.06	
			For Class 56 Rating, Add	1,916.60	
40 05 19 00-2309	EA		16" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,896.44	776.76
			For Class 52 Rating, Deduct	-739.15	
			For Class 54 Rating, Add	1,022.05	
			For Class 55 Rating, Add	1,526.70	
			For Class 56 Rating, Add	2,024.63	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2310	EA	16" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,267.83	780.65
		For Class 52 Rating, Deduct	-779.35	
		For Class 54 Rating, Add	1,076.95	
		For Class 55 Rating, Add	1,608.35	
		For Class 56 Rating, Add	2,132.66	
40 05 19 00-2311	EA	16" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,639.21	784.53
		For Class 52 Rating, Deduct	-819.56	
		For Class 54 Rating, Add	1,131.84	
		For Class 55 Rating, Add	1,690.00	
		For Class 56 Rating, Add	2,240.70	
40 05 19 00-2312	EA	16" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,010.60	788.42
		For Class 52 Rating, Deduct	-859.76	
		For Class 54 Rating, Add	1,186.74	
		For Class 55 Rating, Add	1,771.64	
		For Class 56 Rating, Add	2,348.73	
40 05 19 00-2313	EA	16" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,381.97	792.30
		For Class 52 Rating, Deduct	-899.97	
		For Class 54 Rating, Add	1,241.63	
		For Class 55 Rating, Add	1,853.29	
		For Class 56 Rating, Add	2,456.76	
40 05 19 00-2314	EA	16" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,753.36	796.19
		For Class 52 Rating, Deduct	-940.17	
		For Class 54 Rating, Add	1,296.53	
		For Class 55 Rating, Add	1,934.94	
		For Class 56 Rating, Add	2,564.80	
40 05 19 00-2315	EA	16" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,124.74	800.07
		For Class 52 Rating, Deduct	-980.38	
		For Class 54 Rating, Add	1,351.42	
		For Class 55 Rating, Add	2,016.59	
		For Class 56 Rating, Add	2,672.83	
40 05 19 00-2316	EA	16" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,496.13	803.95
		For Class 52 Rating, Deduct	-1,020.58	
		For Class 54 Rating, Add	1,406.32	
		For Class 55 Rating, Add	2,098.23	
		For Class 56 Rating, Add	2,780.87	
40 05 19 00-2317	EA	16" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,867.50	807.83
		For Class 52 Rating, Deduct	-1,060.79	
		For Class 54 Rating, Add	1,461.21	
		For Class 55 Rating, Add	2,179.88	
		For Class 56 Rating, Add	2,888.90	
40 05 19 00-2318	EA	16" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,238.88	811.72
		For Class 52 Rating, Deduct	-1,100.99	
		For Class 54 Rating, Add	1,516.11	
		For Class 55 Rating, Add	2,261.53	
		For Class 56 Rating, Add	2,996.93	
40 05 19 00-2319	EA	16" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,610.27	815.60
		For Class 52 Rating, Deduct	-1,141.20	
		For Class 54 Rating, Add	1,571.01	
		For Class 55 Rating, Add	2,343.17	
		For Class 56 Rating, Add	3,104.97	
40 05 19 00-2320	EA	16" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,981.65	819.49
		For Class 52 Rating, Deduct	-1,181.40	
		For Class 54 Rating, Add	1,625.90	
		For Class 55 Rating, Add	2,424.82	
		For Class 56 Rating, Add	3,213.00	
40 05 19 00-2321	EA	16" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,353.03	823.37
		For Class 52 Rating, Deduct	-1,221.61	
		For Class 54 Rating, Add	1,680.80	
		For Class 55 Rating, Add	2,506.47	
		For Class 56 Rating, Add	3,321.03	
40 05 19 00-2322	EA	16" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,724.41	827.26
		For Class 52 Rating, Deduct	-1,261.81	
		For Class 54 Rating, Add	1,735.69	
		For Class 55 Rating, Add	2,588.11	
		For Class 56 Rating, Add	3,429.07	
40 05 19 00-2323	EA	16" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,095.80	831.14
		For Class 52 Rating, Deduct	-1,302.02	
		For Class 54 Rating, Add	1,790.59	
		For Class 55 Rating, Add	2,669.76	
		For Class 56 Rating, Add	3,537.10	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2324	EA		16" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,467.18	835.03
			For Class 52 Rating, Deduct	-1,342.22	
			For Class 54 Rating, Add	1,845.48	
			For Class 55 Rating, Add	2,751.41	
			For Class 56 Rating, Add	3,645.14	
40 05 19 00-2325	EA		16" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,838.56	838.90
			For Class 52 Rating, Deduct	-1,382.42	
			For Class 54 Rating, Add	1,900.38	
			For Class 55 Rating, Add	2,833.06	
			For Class 56 Rating, Add	3,753.17	
40 05 19 00-2326	EA		16" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,209.94	842.79
			For Class 52 Rating, Deduct	-1,422.63	
			For Class 54 Rating, Add	1,955.27	
			For Class 55 Rating, Add	2,914.70	
			For Class 56 Rating, Add	3,861.20	
40 05 19 00-2327	EA		16" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,581.33	846.67
			For Class 52 Rating, Deduct	-1,462.83	
			For Class 54 Rating, Add	2,010.17	
			For Class 55 Rating, Add	2,996.35	
			For Class 56 Rating, Add	3,969.24	
40 05 19 00-2328	EA		16" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,952.71	850.56
			For Class 52 Rating, Deduct	-1,503.04	
			For Class 54 Rating, Add	2,065.06	
			For Class 55 Rating, Add	3,078.00	
			For Class 56 Rating, Add	4,077.27	
40 05 19 00-2329	EA		16" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,324.08	854.44
			For Class 52 Rating, Deduct	-1,543.24	
			For Class 54 Rating, Add	2,119.96	
			For Class 55 Rating, Add	3,159.64	
			For Class 56 Rating, Add	4,185.30	
40 05 19 00-2330	EA		16" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,695.47	858.33
			For Class 52 Rating, Deduct	-1,583.45	
			For Class 54 Rating, Add	2,174.85	
			For Class 55 Rating, Add	3,241.29	
			For Class 56 Rating, Add	4,293.34	
40 05 19 00-2331	EA		16" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,066.85	862.21
			For Class 52 Rating, Deduct	-1,623.65	
			For Class 54 Rating, Add	2,229.75	
			For Class 55 Rating, Add	3,322.94	
			For Class 56 Rating, Add	4,401.37	
40 05 19 00-2332	EA		16" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,438.24	866.10
			For Class 52 Rating, Deduct	-1,663.86	
			For Class 54 Rating, Add	2,284.64	
			For Class 55 Rating, Add	3,404.59	
			For Class 56 Rating, Add	4,509.41	
40 05 19 00-2333	EA		16" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,809.62	869.97
			For Class 52 Rating, Deduct	-1,704.06	
			For Class 54 Rating, Add	2,339.54	
			For Class 55 Rating, Add	3,486.24	
			For Class 56 Rating, Add	4,617.44	
40 05 19 00-2334	EA		16" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,181.00	873.86
			For Class 52 Rating, Deduct	-1,744.27	
			For Class 54 Rating, Add	2,394.43	
			For Class 55 Rating, Add	3,567.88	
			For Class 56 Rating, Add	4,725.47	
40 05 19 00-2335	EA		16" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,552.38	877.74
			For Class 52 Rating, Deduct	-1,784.47	
			For Class 54 Rating, Add	2,449.33	
			For Class 55 Rating, Add	3,649.53	
			For Class 56 Rating, Add	4,833.51	
40 05 19 00-2336	EA		16" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,923.77	881.63
			For Class 52 Rating, Deduct	-1,824.68	
			For Class 54 Rating, Add	2,504.23	
			For Class 55 Rating, Add	3,731.18	
			For Class 56 Rating, Add	4,941.54	
40 05 19 00-2337	EA		16" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,295.15	885.51
			For Class 52 Rating, Deduct	-1,864.88	
			For Class 54 Rating, Add	2,559.12	
			For Class 55 Rating, Add	3,812.82	
			For Class 56 Rating, Add	5,049.57	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2338	EA		16" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,666.53	889.40
			For Class 52 Rating, Deduct	-1,905.09	
			For Class 54 Rating, Add	2,614.01	
			For Class 55 Rating, Add	3,894.47	
			For Class 56 Rating, Add	5,157.61	
40 05 19 00-2339			18" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		
40 05 19 00-2340	EA		18" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,743.74	840.46
			For Class 52 Rating, Deduct	-491.74	
			For Class 54 Rating, Add	685.83	
			For Class 55 Rating, Add	1,027.44	
			For Class 56 Rating, Add	1,364.59	
40 05 19 00-2341	EA		18" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,171.34	844.34
			For Class 52 Rating, Deduct	-538.12	
			For Class 54 Rating, Add	749.16	
			For Class 55 Rating, Add	1,121.63	
			For Class 56 Rating, Add	1,489.21	
40 05 19 00-2342	EA		18" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,598.96	848.23
			For Class 52 Rating, Deduct	-584.51	
			For Class 54 Rating, Add	812.49	
			For Class 55 Rating, Add	1,215.82	
			For Class 56 Rating, Add	1,613.83	
40 05 19 00-2343	EA		18" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,026.57	852.11
			For Class 52 Rating, Deduct	-630.91	
			For Class 54 Rating, Add	875.82	
			For Class 55 Rating, Add	1,310.00	
			For Class 56 Rating, Add	1,738.45	
40 05 19 00-2344	EA		18" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,454.19	856.00
			For Class 52 Rating, Deduct	-677.30	
			For Class 54 Rating, Add	939.15	
			For Class 55 Rating, Add	1,404.19	
			For Class 56 Rating, Add	1,863.07	
40 05 19 00-2345	EA		18" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,881.80	859.88
			For Class 52 Rating, Deduct	-723.69	
			For Class 54 Rating, Add	1,002.48	
			For Class 55 Rating, Add	1,498.38	
			For Class 56 Rating, Add	1,987.70	
40 05 19 00-2346	EA		18" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,309.41	863.76
			For Class 52 Rating, Deduct	-770.07	
			For Class 54 Rating, Add	1,065.81	
			For Class 55 Rating, Add	1,592.56	
			For Class 56 Rating, Add	2,112.31	
40 05 19 00-2347	EA		18" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,737.02	867.64
			For Class 52 Rating, Deduct	-816.47	
			For Class 54 Rating, Add	1,129.14	
			For Class 55 Rating, Add	1,686.75	
			For Class 56 Rating, Add	2,236.94	
40 05 19 00-2348	EA		18" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,164.64	871.53
			For Class 52 Rating, Deduct	-862.86	
			For Class 54 Rating, Add	1,192.47	
			For Class 55 Rating, Add	1,780.94	
			For Class 56 Rating, Add	2,361.56	
40 05 19 00-2349	EA		18" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,592.25	875.41
			For Class 52 Rating, Deduct	-909.25	
			For Class 54 Rating, Add	1,255.80	
			For Class 55 Rating, Add	1,875.12	
			For Class 56 Rating, Add	2,486.18	
40 05 19 00-2350	EA		18" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,019.87	879.30
			For Class 52 Rating, Deduct	-955.64	
			For Class 54 Rating, Add	1,319.13	
			For Class 55 Rating, Add	1,969.31	
			For Class 56 Rating, Add	2,610.80	
40 05 19 00-2351	EA		18" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,447.47	883.18
			For Class 52 Rating, Deduct	-1,002.03	
			For Class 54 Rating, Add	1,382.46	
			For Class 55 Rating, Add	2,063.49	
			For Class 56 Rating, Add	2,735.42	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2352	EA	18" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,875.09	887.07
		For Class 52 Rating, Deduct		-1,048.42	
		For Class 54 Rating, Add		1,445.79	
		For Class 55 Rating, Add		2,157.68	
		For Class 56 Rating, Add		2,860.05	
40 05 19 00-2353	EA	18" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,302.70	890.95
		For Class 52 Rating, Deduct		-1,094.81	
		For Class 54 Rating, Add		1,509.12	
		For Class 55 Rating, Add		2,251.87	
		For Class 56 Rating, Add		2,984.67	
40 05 19 00-2354	EA	18" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,730.31	894.83
		For Class 52 Rating, Deduct		-1,141.20	
		For Class 54 Rating, Add		1,572.45	
		For Class 55 Rating, Add		2,346.05	
		For Class 56 Rating, Add		3,109.29	
40 05 19 00-2355	EA	18" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		12,157.93	898.71
		For Class 52 Rating, Deduct		-1,187.59	
		For Class 54 Rating, Add		1,635.78	
		For Class 55 Rating, Add		2,440.24	
		For Class 56 Rating, Add		3,233.91	
40 05 19 00-2356	EA	18" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		12,585.53	902.60
		For Class 52 Rating, Deduct		-1,233.98	
		For Class 54 Rating, Add		1,699.10	
		For Class 55 Rating, Add		2,534.43	
		For Class 56 Rating, Add		3,358.53	
40 05 19 00-2357	EA	18" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,013.15	906.48
		For Class 52 Rating, Deduct		-1,280.37	
		For Class 54 Rating, Add		1,762.44	
		For Class 55 Rating, Add		2,628.61	
		For Class 56 Rating, Add		3,483.15	
40 05 19 00-2358	EA	18" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,440.76	910.37
		For Class 52 Rating, Deduct		-1,326.76	
		For Class 54 Rating, Add		1,825.77	
		For Class 55 Rating, Add		2,722.80	
		For Class 56 Rating, Add		3,607.78	
40 05 19 00-2359	EA	18" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,868.38	914.25
		For Class 52 Rating, Deduct		-1,373.15	
		For Class 54 Rating, Add		1,889.10	
		For Class 55 Rating, Add		2,816.99	
		For Class 56 Rating, Add		3,732.40	
40 05 19 00-2360	EA	18" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		14,295.99	918.14
		For Class 52 Rating, Deduct		-1,419.54	
		For Class 54 Rating, Add		1,952.43	
		For Class 55 Rating, Add		2,911.17	
		For Class 56 Rating, Add		3,857.02	
40 05 19 00-2361	EA	18" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		14,723.60	922.02
		For Class 52 Rating, Deduct		-1,465.93	
		For Class 54 Rating, Add		2,015.75	
		For Class 55 Rating, Add		3,005.36	
		For Class 56 Rating, Add		3,981.64	
40 05 19 00-2362	EA	18" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		15,151.21	925.91
		For Class 52 Rating, Deduct		-1,512.32	
		For Class 54 Rating, Add		2,079.08	
		For Class 55 Rating, Add		3,099.55	
		For Class 56 Rating, Add		4,106.26	
40 05 19 00-2363	EA	18" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		15,578.83	929.78
		For Class 52 Rating, Deduct		-1,558.71	
		For Class 54 Rating, Add		2,142.41	
		For Class 55 Rating, Add		3,193.73	
		For Class 56 Rating, Add		4,230.88	
40 05 19 00-2364	EA	18" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		16,006.44	933.67
		For Class 52 Rating, Deduct		-1,605.10	
		For Class 54 Rating, Add		2,205.74	
		For Class 55 Rating, Add		3,287.92	
		For Class 56 Rating, Add		4,355.51	
40 05 19 00-2365	EA	18" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		16,434.05	937.55
		For Class 52 Rating, Deduct		-1,651.49	
		For Class 54 Rating, Add		2,269.07	
		For Class 55 Rating, Add		3,382.11	
		For Class 56 Rating, Add		4,480.13	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2366	EA	18" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,861.66	941.44
		For Class 52 Rating, Deduct	-1,697.88	
		For Class 54 Rating, Add	2,332.40	
		For Class 55 Rating, Add	3,476.29	
		For Class 56 Rating, Add	4,604.75	
40 05 19 00-2367	EA	18" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,289.27	945.32
		For Class 52 Rating, Deduct	-1,744.27	
		For Class 54 Rating, Add	2,395.73	
		For Class 55 Rating, Add	3,570.48	
		For Class 56 Rating, Add	4,729.37	
40 05 19 00-2368	EA	18" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,716.89	949.21
		For Class 52 Rating, Deduct	-1,790.66	
		For Class 54 Rating, Add	2,459.06	
		For Class 55 Rating, Add	3,664.67	
		For Class 56 Rating, Add	4,853.99	
40 05 19 00-2369	EA	18" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,144.50	953.09
		For Class 52 Rating, Deduct	-1,837.05	
		For Class 54 Rating, Add	2,522.39	
		For Class 55 Rating, Add	3,758.85	
		For Class 56 Rating, Add	4,978.61	
40 05 19 00-2370	EA	18" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,572.12	956.98
		For Class 52 Rating, Deduct	-1,883.44	
		For Class 54 Rating, Add	2,585.72	
		For Class 55 Rating, Add	3,853.04	
		For Class 56 Rating, Add	5,103.24	
40 05 19 00-2371	EA	18" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,999.72	960.85
		For Class 52 Rating, Deduct	-1,929.83	
		For Class 54 Rating, Add	2,649.05	
		For Class 55 Rating, Add	3,947.23	
		For Class 56 Rating, Add	5,227.85	
40 05 19 00-2372	EA	18" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,427.34	964.74
		For Class 52 Rating, Deduct	-1,976.22	
		For Class 54 Rating, Add	2,712.38	
		For Class 55 Rating, Add	4,041.41	
		For Class 56 Rating, Add	5,352.48	
40 05 19 00-2373	EA	18" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,854.95	968.62
		For Class 52 Rating, Deduct	-2,022.61	
		For Class 54 Rating, Add	2,775.71	
		For Class 55 Rating, Add	4,135.60	
		For Class 56 Rating, Add	5,477.10	
40 05 19 00-2374	EA	18" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,282.57	972.51
		For Class 52 Rating, Deduct	-2,069.00	
		For Class 54 Rating, Add	2,839.04	
		For Class 55 Rating, Add	4,229.79	
		For Class 56 Rating, Add	5,601.72	
40 05 19 00-2375	EA	18" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,710.18	976.39
		For Class 52 Rating, Deduct	-2,115.39	
		For Class 54 Rating, Add	2,902.37	
		For Class 55 Rating, Add	4,323.97	
		For Class 56 Rating, Add	5,726.34	
40 05 19 00-2376	EA	18" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,137.78	980.28
		For Class 52 Rating, Deduct	-2,161.78	
		For Class 54 Rating, Add	2,965.70	
		For Class 55 Rating, Add	4,418.16	
		For Class 56 Rating, Add	5,850.96	
40 05 19 00-2377	EA	18" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,565.40	984.16
		For Class 52 Rating, Deduct	-2,208.17	
		For Class 54 Rating, Add	3,029.03	
		For Class 55 Rating, Add	4,512.35	
		For Class 56 Rating, Add	5,975.59	
40 05 19 00-2378		20" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		
		(40 05 19 00-2060)		
40 05 19 00-2379	EA	20" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,725.09	959.31
		For Class 52 Rating, Deduct	-579.88	
		For Class 54 Rating, Add	808.18	
		For Class 55 Rating, Add	1,210.45	
		For Class 56 Rating, Add	1,607.45	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 19 00-2380	EA	20" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,211.74	963.19
		For Class 52 Rating, Deduct		-632.76	
		For Class 54 Rating, Add		880.37	
		For Class 55 Rating, Add		1,317.80	
		For Class 56 Rating, Add		1,749.49	
40 05 19 00-2381	EA	20" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		7,698.40	967.07
		For Class 52 Rating, Deduct		-685.65	
		For Class 54 Rating, Add		952.55	
		For Class 55 Rating, Add		1,425.16	
		For Class 56 Rating, Add		1,891.53	
40 05 19 00-2382	EA	20" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,185.05	970.95
		For Class 52 Rating, Deduct		-738.53	
		For Class 54 Rating, Add		1,024.74	
		For Class 55 Rating, Add		1,532.51	
		For Class 56 Rating, Add		2,033.56	
40 05 19 00-2383	EA	20" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,671.71	974.84
		For Class 52 Rating, Deduct		-791.41	
		For Class 54 Rating, Add		1,096.93	
		For Class 55 Rating, Add		1,639.86	
		For Class 56 Rating, Add		2,175.60	
40 05 19 00-2384	EA	20" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,158.36	978.72
		For Class 52 Rating, Deduct		-844.30	
		For Class 54 Rating, Add		1,169.11	
		For Class 55 Rating, Add		1,747.22	
		For Class 56 Rating, Add		2,317.64	
40 05 19 00-2385	EA	20" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,645.02	982.61
		For Class 52 Rating, Deduct		-897.18	
		For Class 54 Rating, Add		1,241.30	
		For Class 55 Rating, Add		1,854.57	
		For Class 56 Rating, Add		2,459.68	
40 05 19 00-2386	EA	20" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,131.67	986.49
		For Class 52 Rating, Deduct		-950.07	
		For Class 54 Rating, Add		1,313.48	
		For Class 55 Rating, Add		1,961.92	
		For Class 56 Rating, Add		2,601.72	
40 05 19 00-2387	EA	20" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,618.32	990.38
		For Class 52 Rating, Deduct		-1,002.95	
		For Class 54 Rating, Add		1,385.67	
		For Class 55 Rating, Add		2,069.27	
		For Class 56 Rating, Add		2,743.76	
40 05 19 00-2388	EA	20" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,104.98	994.26
		For Class 52 Rating, Deduct		-1,055.84	
		For Class 54 Rating, Add		1,457.86	
		For Class 55 Rating, Add		2,176.63	
		For Class 56 Rating, Add		2,885.80	
40 05 19 00-2389	EA	20" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		11,591.63	998.15
		For Class 52 Rating, Deduct		-1,108.72	
		For Class 54 Rating, Add		1,530.04	
		For Class 55 Rating, Add		2,283.98	
		For Class 56 Rating, Add		3,027.84	
40 05 19 00-2390	EA	20" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		12,078.29	1,002.02
		For Class 52 Rating, Deduct		-1,161.61	
		For Class 54 Rating, Add		1,602.23	
		For Class 55 Rating, Add		2,391.33	
		For Class 56 Rating, Add		3,169.88	
40 05 19 00-2391	EA	20" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		12,564.94	1,005.91
		For Class 52 Rating, Deduct		-1,214.49	
		For Class 54 Rating, Add		1,674.42	
		For Class 55 Rating, Add		2,498.69	
		For Class 56 Rating, Add		3,311.92	
40 05 19 00-2392	EA	20" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,051.60	1,009.79
		For Class 52 Rating, Deduct		-1,267.38	
		For Class 54 Rating, Add		1,746.60	
		For Class 55 Rating, Add		2,606.04	
		For Class 56 Rating, Add		3,453.95	
40 05 19 00-2393	EA	20" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,538.25	1,013.68
		For Class 52 Rating, Deduct		-1,320.26	
		For Class 54 Rating, Add		1,818.79	
		For Class 55 Rating, Add		2,713.39	
		For Class 56 Rating, Add		3,595.99	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2394	EA	20" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,024.91	1,017.56
		For Class 52 Rating, Deduct	-1,373.15	
		For Class 54 Rating, Add	1,890.97	
		For Class 55 Rating, Add	2,820.74	
		For Class 56 Rating, Add	3,738.03	
40 05 19 00-2395	EA	20" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,511.56	1,021.45
		For Class 52 Rating, Deduct	-1,426.03	
		For Class 54 Rating, Add	1,963.16	
		For Class 55 Rating, Add	2,928.10	
		For Class 56 Rating, Add	3,880.07	
40 05 19 00-2396	EA	20" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,998.22	1,025.33
		For Class 52 Rating, Deduct	-1,478.92	
		For Class 54 Rating, Add	2,035.35	
		For Class 55 Rating, Add	3,035.45	
		For Class 56 Rating, Add	4,022.11	
40 05 19 00-2397	EA	20" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,484.87	1,029.22
		For Class 52 Rating, Deduct	-1,531.80	
		For Class 54 Rating, Add	2,107.53	
		For Class 55 Rating, Add	3,142.80	
		For Class 56 Rating, Add	4,164.15	
40 05 19 00-2398	EA	20" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,971.52	1,033.09
		For Class 52 Rating, Deduct	-1,584.69	
		For Class 54 Rating, Add	2,179.72	
		For Class 55 Rating, Add	3,250.16	
		For Class 56 Rating, Add	4,306.19	
40 05 19 00-2399	EA	20" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,458.18	1,036.98
		For Class 52 Rating, Deduct	-1,637.57	
		For Class 54 Rating, Add	2,251.90	
		For Class 55 Rating, Add	3,357.51	
		For Class 56 Rating, Add	4,448.23	
40 05 19 00-2400	EA	20" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,944.83	1,040.86
		For Class 52 Rating, Deduct	-1,690.45	
		For Class 54 Rating, Add	2,324.09	
		For Class 55 Rating, Add	3,464.86	
		For Class 56 Rating, Add	4,590.27	
40 05 19 00-2401	EA	20" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,431.49	1,044.75
		For Class 52 Rating, Deduct	-1,743.34	
		For Class 54 Rating, Add	2,396.28	
		For Class 55 Rating, Add	3,572.22	
		For Class 56 Rating, Add	4,732.31	
40 05 19 00-2402	EA	20" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,918.14	1,048.63
		For Class 52 Rating, Deduct	-1,796.22	
		For Class 54 Rating, Add	2,468.46	
		For Class 55 Rating, Add	3,679.57	
		For Class 56 Rating, Add	4,874.34	
40 05 19 00-2403	EA	20" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,404.80	1,052.52
		For Class 52 Rating, Deduct	-1,849.11	
		For Class 54 Rating, Add	2,540.65	
		For Class 55 Rating, Add	3,786.92	
		For Class 56 Rating, Add	5,016.38	
40 05 19 00-2404	EA	20" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,891.45	1,056.40
		For Class 52 Rating, Deduct	-1,901.99	
		For Class 54 Rating, Add	2,612.83	
		For Class 55 Rating, Add	3,894.27	
		For Class 56 Rating, Add	5,158.42	
40 05 19 00-2405	EA	20" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,378.11	1,060.29
		For Class 52 Rating, Deduct	-1,954.88	
		For Class 54 Rating, Add	2,685.02	
		For Class 55 Rating, Add	4,001.63	
		For Class 56 Rating, Add	5,300.46	
40 05 19 00-2406	EA	20" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,864.76	1,064.17
		For Class 52 Rating, Deduct	-2,007.76	
		For Class 54 Rating, Add	2,757.21	
		For Class 55 Rating, Add	4,108.98	
		For Class 56 Rating, Add	5,442.50	
40 05 19 00-2407	EA	20" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,351.42	1,068.05
		For Class 52 Rating, Deduct	-2,060.65	
		For Class 54 Rating, Add	2,829.39	
		For Class 55 Rating, Add	4,216.33	
		For Class 56 Rating, Add	5,584.54	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2408	EA	20" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		20,838.07	1,071.93
		For Class 52 Rating, Deduct		-2,113.53	
		For Class 54 Rating, Add		2,901.58	
		For Class 55 Rating, Add		4,323.69	
		For Class 56 Rating, Add		5,726.58	
40 05 19 00-2409	EA	20" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		21,324.73	1,075.82
		For Class 52 Rating, Deduct		-2,166.42	
		For Class 54 Rating, Add		2,973.77	
		For Class 55 Rating, Add		4,431.04	
		For Class 56 Rating, Add		5,868.62	
40 05 19 00-2410	EA	20" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		21,811.38	1,079.70
		For Class 52 Rating, Deduct		-2,219.30	
		For Class 54 Rating, Add		3,045.95	
		For Class 55 Rating, Add		4,538.39	
		For Class 56 Rating, Add		6,010.66	
40 05 19 00-2411	EA	20" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		22,298.03	1,083.59
		For Class 52 Rating, Deduct		-2,272.19	
		For Class 54 Rating, Add		3,118.14	
		For Class 55 Rating, Add		4,645.74	
		For Class 56 Rating, Add		6,152.70	
40 05 19 00-2412	EA	20" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		22,784.69	1,087.47
		For Class 52 Rating, Deduct		-2,325.07	
		For Class 54 Rating, Add		3,190.32	
		For Class 55 Rating, Add		4,753.10	
		For Class 56 Rating, Add		6,294.73	
40 05 19 00-2413	EA	20" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		23,271.34	1,091.36
		For Class 52 Rating, Deduct		-2,377.96	
		For Class 54 Rating, Add		3,262.51	
		For Class 55 Rating, Add		4,860.45	
		For Class 56 Rating, Add		6,436.77	
40 05 19 00-2414	EA	20" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		23,758.00	1,095.24
		For Class 52 Rating, Deduct		-2,430.84	
		For Class 54 Rating, Add		3,334.70	
		For Class 55 Rating, Add		4,967.80	
		For Class 56 Rating, Add		6,578.81	
40 05 19 00-2415	EA	20" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		24,244.65	1,099.12
		For Class 52 Rating, Deduct		-2,483.73	
		For Class 54 Rating, Add		3,406.88	
		For Class 55 Rating, Add		5,075.16	
		For Class 56 Rating, Add		6,720.85	
40 05 19 00-2416	EA	20" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		24,731.31	1,103.00
		For Class 52 Rating, Deduct		-2,536.61	
		For Class 54 Rating, Add		3,479.07	
		For Class 55 Rating, Add		5,182.51	
		For Class 56 Rating, Add		6,862.89	
40 05 19 00-2417		24" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)			
40 05 19 00-2418	EA	24" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,297.25	1,134.07
		For Class 52 Rating, Deduct		-723.69	
		For Class 54 Rating, Add		1,007.46	
		For Class 55 Rating, Add		1,508.35	
		For Class 56 Rating, Add		2,002.65	
40 05 19 00-2419	EA	24" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		8,899.18	1,137.96
		For Class 52 Rating, Deduct		-789.25	
		For Class 54 Rating, Add		1,096.94	
		For Class 55 Rating, Add		1,641.41	
		For Class 56 Rating, Add		2,178.70	
40 05 19 00-2420	EA	24" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		9,501.10	1,141.84
		For Class 52 Rating, Deduct		-854.81	
		For Class 54 Rating, Add		1,186.42	
		For Class 55 Rating, Add		1,774.46	
		For Class 56 Rating, Add		2,354.74	
40 05 19 00-2421	EA	24" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		10,103.03	1,145.73
		For Class 52 Rating, Deduct		-920.38	
		For Class 54 Rating, Add		1,275.89	
		For Class 55 Rating, Add		1,907.52	
		For Class 56 Rating, Add		2,530.78	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2422	EA	24" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,704.96	1,149.61
		For Class 52 Rating, Deduct	-985.94	
		For Class 54 Rating, Add	1,365.37	
		For Class 55 Rating, Add	2,040.58	
		For Class 56 Rating, Add	2,706.83	
40 05 19 00-2423	EA	24" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,306.89	1,153.50
		For Class 52 Rating, Deduct	-1,051.57	
		For Class 54 Rating, Add	1,454.85	
		For Class 55 Rating, Add	2,173.64	
		For Class 56 Rating, Add	2,882.87	
40 05 19 00-2424	EA	24" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,908.81	1,157.38
		For Class 52 Rating, Deduct	-1,117.07	
		For Class 54 Rating, Add	1,544.32	
		For Class 55 Rating, Add	2,306.70	
		For Class 56 Rating, Add	3,058.92	
40 05 19 00-2425	EA	24" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,510.74	1,161.27
		For Class 52 Rating, Deduct	-1,182.64	
		For Class 54 Rating, Add	1,633.80	
		For Class 55 Rating, Add	2,439.76	
		For Class 56 Rating, Add	3,234.96	
40 05 19 00-2426	EA	24" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,112.66	1,165.14
		For Class 52 Rating, Deduct	-1,248.20	
		For Class 54 Rating, Add	1,723.28	
		For Class 55 Rating, Add	2,572.81	
		For Class 56 Rating, Add	3,411.00	
40 05 19 00-2427	EA	24" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,714.59	1,169.03
		For Class 52 Rating, Deduct	-1,313.77	
		For Class 54 Rating, Add	1,812.76	
		For Class 55 Rating, Add	2,705.87	
		For Class 56 Rating, Add	3,587.05	
40 05 19 00-2428	EA	24" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,316.52	1,172.91
		For Class 52 Rating, Deduct	-1,379.33	
		For Class 54 Rating, Add	1,902.23	
		For Class 55 Rating, Add	2,838.93	
		For Class 56 Rating, Add	3,763.09	
40 05 19 00-2429	EA	24" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,918.44	1,176.80
		For Class 52 Rating, Deduct	-1,444.90	
		For Class 54 Rating, Add	1,991.71	
		For Class 55 Rating, Add	2,971.99	
		For Class 56 Rating, Add	3,939.14	
40 05 19 00-2430	EA	24" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,520.37	1,180.68
		For Class 52 Rating, Deduct	-1,510.46	
		For Class 54 Rating, Add	2,081.19	
		For Class 55 Rating, Add	3,105.05	
		For Class 56 Rating, Add	4,115.18	
40 05 19 00-2431	EA	24" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,122.30	1,184.57
		For Class 52 Rating, Deduct	-1,576.03	
		For Class 54 Rating, Add	2,170.66	
		For Class 55 Rating, Add	3,238.11	
		For Class 56 Rating, Add	4,291.23	
40 05 19 00-2432	EA	24" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,724.23	1,188.45
		For Class 52 Rating, Deduct	-1,641.59	
		For Class 54 Rating, Add	2,260.14	
		For Class 55 Rating, Add	3,371.17	
		For Class 56 Rating, Add	4,467.27	
40 05 19 00-2433	EA	24" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,326.15	1,192.34
		For Class 52 Rating, Deduct	-1,707.15	
		For Class 54 Rating, Add	2,349.62	
		For Class 55 Rating, Add	3,504.23	
		For Class 56 Rating, Add	4,643.32	
40 05 19 00-2434	EA	24" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,928.08	1,196.21
		For Class 52 Rating, Deduct	-1,772.72	
		For Class 54 Rating, Add	2,439.09	
		For Class 55 Rating, Add	3,637.28	
		For Class 56 Rating, Add	4,819.36	
40 05 19 00-2435	EA	24" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,530.00	1,200.10
		For Class 52 Rating, Deduct	-1,838.28	
		For Class 54 Rating, Add	2,528.57	
		For Class 55 Rating, Add	3,770.34	
		For Class 56 Rating, Add	4,995.40	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2436	EA	24" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,131.94	1,203.98	
		For Class 52 Rating, Deduct	-1,903.85		
		For Class 54 Rating, Add	2,618.05		
		For Class 55 Rating, Add	3,903.40		
		For Class 56 Rating, Add	5,171.45		
40 05 19 00-2437	EA	24" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,733.86	1,207.87	
		For Class 52 Rating, Deduct	-1,969.41		
		For Class 54 Rating, Add	2,707.53		
		For Class 55 Rating, Add	4,036.46		
		For Class 56 Rating, Add	5,347.49		
40 05 19 00-2438	EA	24" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,335.78	1,211.75	
		For Class 52 Rating, Deduct	-2,034.98		
		For Class 54 Rating, Add	2,797.00		
		For Class 55 Rating, Add	4,169.52		
		For Class 56 Rating, Add	5,523.54		
40 05 19 00-2439	EA	24" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,937.71	1,215.64	
		For Class 52 Rating, Deduct	-2,100.54		
		For Class 54 Rating, Add	2,886.48		
		For Class 55 Rating, Add	4,302.58		
		For Class 56 Rating, Add	5,699.58		
40 05 19 00-2440	EA	24" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,539.64	1,219.52	
		For Class 52 Rating, Deduct	-2,166.11		
		For Class 54 Rating, Add	2,975.96		
		For Class 55 Rating, Add	4,435.64		
		For Class 56 Rating, Add	5,875.63		
40 05 19 00-2441	EA	24" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,141.57	1,223.41	
		For Class 52 Rating, Deduct	-2,231.67		
		For Class 54 Rating, Add	3,065.43		
		For Class 55 Rating, Add	4,568.70		
		For Class 56 Rating, Add	6,051.67		
40 05 19 00-2442	EA	24" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,743.49	1,227.29	
		For Class 52 Rating, Deduct	-2,297.24		
		For Class 54 Rating, Add	3,154.91		
		For Class 55 Rating, Add	4,701.75		
		For Class 56 Rating, Add	6,227.71		
40 05 19 00-2443	EA	24" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,345.42	1,231.17	
		For Class 52 Rating, Deduct	-2,362.80		
		For Class 54 Rating, Add	3,244.39		
		For Class 55 Rating, Add	4,834.81		
		For Class 56 Rating, Add	6,403.76		
40 05 19 00-2444	EA	24" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,947.35	1,235.05	
		For Class 52 Rating, Deduct	-2,428.37		
		For Class 54 Rating, Add	3,333.86		
		For Class 55 Rating, Add	4,967.87		
		For Class 56 Rating, Add	6,579.80		
40 05 19 00-2445	EA	24" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,549.28	1,238.94	
		For Class 52 Rating, Deduct	-2,493.93		
		For Class 54 Rating, Add	3,423.34		
		For Class 55 Rating, Add	5,100.93		
		For Class 56 Rating, Add	6,755.85		
40 05 19 00-2446	EA	24" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,151.20	1,242.82	
		For Class 52 Rating, Deduct	-2,559.50		
		For Class 54 Rating, Add	3,512.82		
		For Class 55 Rating, Add	5,233.99		
		For Class 56 Rating, Add	6,931.89		
40 05 19 00-2447	EA	24" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,853.16	1,312.73	
		For Class 52 Rating, Deduct	-2,625.06		
		For Class 54 Rating, Add	3,603.49		
		For Class 55 Rating, Add	5,369.45		
		For Class 56 Rating, Add	7,111.54		
40 05 19 00-2448	EA	24" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	26,455.09	1,316.62	
		For Class 52 Rating, Deduct	-2,690.62		
		For Class 54 Rating, Add	3,692.97		
		For Class 55 Rating, Add	5,502.51		
		For Class 56 Rating, Add	7,287.58		
40 05 19 00-2449	EA	24" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,057.02	1,320.50	
		For Class 52 Rating, Deduct	-2,756.19		
		For Class 54 Rating, Add	3,782.45		
		For Class 55 Rating, Add	5,635.57		
		For Class 56 Rating, Add	7,463.63		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2450	EA	24" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,658.95	1,324.39
		For Class 52 Rating, Deduct	-2,821.75	
		For Class 54 Rating, Add	3,871.93	
		For Class 55 Rating, Add	5,768.62	
		For Class 56 Rating, Add	7,639.67	
40 05 19 00-2451	EA	24" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,260.87	1,328.26
		For Class 52 Rating, Deduct	-2,887.32	
		For Class 54 Rating, Add	3,961.40	
		For Class 55 Rating, Add	5,901.68	
		For Class 56 Rating, Add	7,815.71	
40 05 19 00-2452	EA	24" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,862.80	1,332.15
		For Class 52 Rating, Deduct	-2,952.88	
		For Class 54 Rating, Add	4,050.88	
		For Class 55 Rating, Add	6,034.74	
		For Class 56 Rating, Add	7,991.76	
40 05 19 00-2453	EA	24" Flanged (FxF), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,464.73	1,336.03
		For Class 52 Rating, Deduct	-3,018.45	
		For Class 54 Rating, Add	4,140.36	
		For Class 55 Rating, Add	6,167.80	
		For Class 56 Rating, Add	8,167.80	
40 05 19 00-2454	EA	24" Flanged (FxF), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,066.66	1,339.92
		For Class 52 Rating, Deduct	-3,084.01	
		For Class 54 Rating, Add	4,229.83	
		For Class 55 Rating, Add	6,300.86	
		For Class 56 Rating, Add	8,343.85	
40 05 19 00-2455	EA	24" Flanged (FxF), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,668.58	1,343.80
		For Class 52 Rating, Deduct	-3,149.58	
		For Class 54 Rating, Add	4,319.31	
		For Class 55 Rating, Add	6,433.92	
		For Class 56 Rating, Add	8,519.89	
40 05 19 00-2456		30" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		
40 05 19 00-2457	EA	30" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,838.31	1,600.13
		For Class 52 Rating, Deduct	-1,145.53	
		For Class 54 Rating, Add	1,591.17	
		For Class 55 Rating, Add	2,380.48	
		For Class 56 Rating, Add	3,159.37	
40 05 19 00-2458	EA	30" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,698.90	1,604.02
		For Class 52 Rating, Deduct	-1,239.54	
		For Class 54 Rating, Add	1,719.45	
		For Class 55 Rating, Add	2,571.22	
		For Class 56 Rating, Add	3,411.72	
40 05 19 00-2459	EA	30" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,559.48	1,607.90
		For Class 52 Rating, Deduct	-1,333.56	
		For Class 54 Rating, Add	1,847.73	
		For Class 55 Rating, Add	2,761.96	
		For Class 56 Rating, Add	3,664.07	
40 05 19 00-2460	EA	30" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,420.08	1,611.79
		For Class 52 Rating, Deduct	-1,427.58	
		For Class 54 Rating, Add	1,976.00	
		For Class 55 Rating, Add	2,952.70	
		For Class 56 Rating, Add	3,916.42	
40 05 19 00-2461	EA	30" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,280.66	1,615.67
		For Class 52 Rating, Deduct	-1,521.59	
		For Class 54 Rating, Add	2,104.28	
		For Class 55 Rating, Add	3,143.44	
		For Class 56 Rating, Add	4,168.77	
40 05 19 00-2462	EA	30" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,141.24	1,619.56
		For Class 52 Rating, Deduct	-1,615.61	
		For Class 54 Rating, Add	2,232.55	
		For Class 55 Rating, Add	3,334.18	
		For Class 56 Rating, Add	4,421.12	
40 05 19 00-2463	EA	30" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,001.83	1,623.43
		For Class 52 Rating, Deduct	-1,709.63	
		For Class 54 Rating, Add	2,360.83	
		For Class 55 Rating, Add	3,524.92	
		For Class 56 Rating, Add	4,673.46	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2464	EA	30" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		18,862.41	1,627.32
		For Class 52 Rating, Deduct		-1,803.65	
		For Class 54 Rating, Add		2,489.10	
		For Class 55 Rating, Add		3,715.66	
		For Class 56 Rating, Add		4,925.81	
40 05 19 00-2465	EA	30" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		19,723.01	1,631.20
		For Class 52 Rating, Deduct		-1,897.66	
		For Class 54 Rating, Add		2,617.38	
		For Class 55 Rating, Add		3,906.40	
		For Class 56 Rating, Add		5,178.16	
40 05 19 00-2466	EA	30" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		20,583.59	1,635.09
		For Class 52 Rating, Deduct		-1,991.68	
		For Class 54 Rating, Add		2,745.66	
		For Class 55 Rating, Add		4,097.14	
		For Class 56 Rating, Add		5,430.51	
40 05 19 00-2467	EA	30" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		21,444.18	1,638.97
		For Class 52 Rating, Deduct		-2,085.70	
		For Class 54 Rating, Add		2,873.93	
		For Class 55 Rating, Add		4,287.88	
		For Class 56 Rating, Add		5,682.86	
40 05 19 00-2468	EA	30" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		22,304.76	1,642.86
		For Class 52 Rating, Deduct		-2,179.71	
		For Class 54 Rating, Add		3,002.21	
		For Class 55 Rating, Add		4,478.62	
		For Class 56 Rating, Add		5,935.21	
40 05 19 00-2469	EA	30" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		23,165.36	1,646.74
		For Class 52 Rating, Deduct		-2,273.73	
		For Class 54 Rating, Add		3,130.49	
		For Class 55 Rating, Add		4,669.36	
		For Class 56 Rating, Add		6,187.56	
40 05 19 00-2470	EA	30" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		24,025.94	1,650.63
		For Class 52 Rating, Deduct		-2,367.75	
		For Class 54 Rating, Add		3,258.76	
		For Class 55 Rating, Add		4,860.10	
		For Class 56 Rating, Add		6,439.91	
40 05 19 00-2471	EA	30" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		24,886.53	1,654.51
		For Class 52 Rating, Deduct		-2,461.77	
		For Class 54 Rating, Add		3,387.04	
		For Class 55 Rating, Add		5,050.84	
		For Class 56 Rating, Add		6,692.26	
40 05 19 00-2472	EA	30" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		25,747.11	1,658.39
		For Class 52 Rating, Deduct		-2,555.78	
		For Class 54 Rating, Add		3,515.31	
		For Class 55 Rating, Add		5,241.58	
		For Class 56 Rating, Add		6,944.61	
40 05 19 00-2473	EA	30" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		26,607.69	1,662.27
		For Class 52 Rating, Deduct		-2,649.80	
		For Class 54 Rating, Add		3,643.59	
		For Class 55 Rating, Add		5,432.32	
		For Class 56 Rating, Add		7,196.95	
40 05 19 00-2474	EA	30" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		27,468.29	1,666.16
		For Class 52 Rating, Deduct		-2,743.82	
		For Class 54 Rating, Add		3,771.87	
		For Class 55 Rating, Add		5,623.06	
		For Class 56 Rating, Add		7,449.31	
40 05 19 00-2475	EA	30" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		28,328.87	1,670.04
		For Class 52 Rating, Deduct		-2,837.84	
		For Class 54 Rating, Add		3,900.14	
		For Class 55 Rating, Add		5,813.80	
		For Class 56 Rating, Add		7,701.65	
40 05 19 00-2476	EA	30" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		29,189.46	1,673.93
		For Class 52 Rating, Deduct		-2,931.85	
		For Class 54 Rating, Add		4,028.42	
		For Class 55 Rating, Add		6,004.54	
		For Class 56 Rating, Add		7,954.00	
40 05 19 00-2477	EA	30" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		30,050.04	1,677.81
		For Class 52 Rating, Deduct		-3,025.87	
		For Class 54 Rating, Add		4,156.69	
		For Class 55 Rating, Add		6,195.28	
		For Class 56 Rating, Add		8,206.35	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2478	EA	30" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,910.63	1,681.70
		For Class 52 Rating, Deduct	-3,119.89	
		For Class 54 Rating, Add	4,284.97	
		For Class 55 Rating, Add	6,386.01	
		For Class 56 Rating, Add	8,458.70	
40 05 19 00-2479	EA	30" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	31,771.22	1,685.58
		For Class 52 Rating, Deduct	-3,213.97	
		For Class 54 Rating, Add	4,413.24	
		For Class 55 Rating, Add	6,576.76	
		For Class 56 Rating, Add	8,711.05	
40 05 19 00-2480	EA	30" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,631.81	1,689.46
		For Class 52 Rating, Deduct	-3,307.92	
		For Class 54 Rating, Add	4,541.52	
		For Class 55 Rating, Add	6,767.50	
		For Class 56 Rating, Add	8,963.40	
40 05 19 00-2481	EA	30" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	33,492.39	1,693.34
		For Class 52 Rating, Deduct	-3,401.94	
		For Class 54 Rating, Add	4,669.80	
		For Class 55 Rating, Add	6,958.23	
		For Class 56 Rating, Add	9,215.75	
40 05 19 00-2482	EA	30" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	34,352.98	1,697.23
		For Class 52 Rating, Deduct	-3,495.96	
		For Class 54 Rating, Add	4,798.07	
		For Class 55 Rating, Add	7,148.97	
		For Class 56 Rating, Add	9,468.10	
40 05 19 00-2483	EA	30" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	35,213.56	1,701.11
		For Class 52 Rating, Deduct	-3,589.97	
		For Class 54 Rating, Add	4,926.35	
		For Class 55 Rating, Add	7,339.71	
		For Class 56 Rating, Add	9,720.44	
40 05 19 00-2484	EA	30" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,074.16	1,705.00
		For Class 52 Rating, Deduct	-3,683.99	
		For Class 54 Rating, Add	5,054.62	
		For Class 55 Rating, Add	7,530.46	
		For Class 56 Rating, Add	9,972.79	
40 05 19 00-2485	EA	30" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,934.74	1,708.88
		For Class 52 Rating, Deduct	-3,778.01	
		For Class 54 Rating, Add	5,182.90	
		For Class 55 Rating, Add	7,721.19	
		For Class 56 Rating, Add	10,225.14	
40 05 19 00-2486	EA	30" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	37,795.32	1,712.77
		For Class 52 Rating, Deduct	-3,872.03	
		For Class 54 Rating, Add	5,311.18	
		For Class 55 Rating, Add	7,911.93	
		For Class 56 Rating, Add	10,477.49	
40 05 19 00-2487	EA	30" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	38,655.91	1,716.65
		For Class 52 Rating, Deduct	-3,966.04	
		For Class 54 Rating, Add	5,439.45	
		For Class 55 Rating, Add	8,102.67	
		For Class 56 Rating, Add	10,729.84	
40 05 19 00-2488	EA	30" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	39,516.49	1,720.53
		For Class 52 Rating, Deduct	-4,060.06	
		For Class 54 Rating, Add	5,567.73	
		For Class 55 Rating, Add	8,293.41	
		For Class 56 Rating, Add	10,982.19	
40 05 19 00-2489	EA	30" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	40,377.09	1,724.41
		For Class 52 Rating, Deduct	-4,154.08	
		For Class 54 Rating, Add	5,696.00	
		For Class 55 Rating, Add	8,484.15	
		For Class 56 Rating, Add	11,234.54	
40 05 19 00-2490	EA	30" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	41,237.67	1,728.30
		For Class 52 Rating, Deduct	-4,248.09	
		For Class 54 Rating, Add	5,824.28	
		For Class 55 Rating, Add	8,674.89	
		For Class 56 Rating, Add	11,486.89	
40 05 19 00-2491	EA	30" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	42,098.26	1,732.18
		For Class 52 Rating, Deduct	-4,342.11	
		For Class 54 Rating, Add	5,952.56	
		For Class 55 Rating, Add	8,865.63	
		For Class 56 Rating, Add	11,739.24	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-2492	EA	36" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2080)		
40 05 19 00-2493	EA	36" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,919.39	2,027.35
		For Class 52 Rating, Deduct	-1,633.24	
		For Class 54 Rating, Add	2,264.01	
		For Class 55 Rating, Add	3,384.75	
		For Class 56 Rating, Add	4,490.64	
40 05 19 00-2494	EA	36" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,072.38	2,031.24
		For Class 52 Rating, Deduct	-1,759.42	
		For Class 54 Rating, Add	2,436.14	
		For Class 55 Rating, Add	3,640.69	
		For Class 56 Rating, Add	4,829.24	
40 05 19 00-2495	EA	36" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,225.36	2,035.12
		For Class 52 Rating, Deduct	-1,885.60	
		For Class 54 Rating, Add	2,608.28	
		For Class 55 Rating, Add	3,896.63	
		For Class 56 Rating, Add	5,167.85	
40 05 19 00-2496	EA	36" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,378.35	2,039.01
		For Class 52 Rating, Deduct	-2,011.78	
		For Class 54 Rating, Add	2,780.41	
		For Class 55 Rating, Add	4,152.58	
		For Class 56 Rating, Add	5,506.46	
40 05 19 00-2497	EA	36" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,531.33	2,042.89
		For Class 52 Rating, Deduct	-2,137.96	
		For Class 54 Rating, Add	2,952.55	
		For Class 55 Rating, Add	4,408.52	
		For Class 56 Rating, Add	5,845.06	
40 05 19 00-2498	EA	36" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,684.32	2,046.78
		For Class 52 Rating, Deduct	-2,264.15	
		For Class 54 Rating, Add	3,124.69	
		For Class 55 Rating, Add	4,664.47	
		For Class 56 Rating, Add	6,183.67	
40 05 19 00-2499	EA	36" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,837.30	2,050.65
		For Class 52 Rating, Deduct	-2,390.33	
		For Class 54 Rating, Add	3,296.82	
		For Class 55 Rating, Add	4,920.41	
		For Class 56 Rating, Add	6,522.27	
40 05 19 00-2500	EA	36" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,990.29	2,054.54
		For Class 52 Rating, Deduct	-2,516.51	
		For Class 54 Rating, Add	3,468.96	
		For Class 55 Rating, Add	5,176.36	
		For Class 56 Rating, Add	6,860.88	
40 05 19 00-2501	EA	36" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,143.27	2,058.42
		For Class 52 Rating, Deduct	-2,642.69	
		For Class 54 Rating, Add	3,641.09	
		For Class 55 Rating, Add	5,432.30	
		For Class 56 Rating, Add	7,199.49	
40 05 19 00-2502	EA	36" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,296.26	2,062.31
		For Class 52 Rating, Deduct	-2,768.87	
		For Class 54 Rating, Add	3,813.23	
		For Class 55 Rating, Add	5,688.25	
		For Class 56 Rating, Add	7,538.09	
40 05 19 00-2503	EA	36" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,449.24	2,066.19
		For Class 52 Rating, Deduct	-2,895.05	
		For Class 54 Rating, Add	3,985.36	
		For Class 55 Rating, Add	5,944.19	
		For Class 56 Rating, Add	7,876.70	
40 05 19 00-2504	EA	36" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,602.22	2,070.08
		For Class 52 Rating, Deduct	-3,021.23	
		For Class 54 Rating, Add	4,157.50	
		For Class 55 Rating, Add	6,200.14	
		For Class 56 Rating, Add	8,215.31	
40 05 19 00-2505	EA	36" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	31,755.21	2,073.96
		For Class 52 Rating, Deduct	-3,147.41	
		For Class 54 Rating, Add	4,329.63	
		For Class 55 Rating, Add	6,456.08	
		For Class 56 Rating, Add	8,553.91	
40 05 19 00-2506	EA	36" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,908.19	2,077.85
		For Class 52 Rating, Deduct	-3,273.59	
		For Class 54 Rating, Add	4,501.77	
		For Class 55 Rating, Add	6,712.02	
		For Class 56 Rating, Add	8,892.52	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2507	EA	36" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	34,061.18	2,081.72
		For Class 52 Rating, Deduct	-3,399.77	
		For Class 54 Rating, Add	4,673.91	
		For Class 55 Rating, Add	6,967.97	
		For Class 56 Rating, Add	9,231.13	
40 05 19 00-2508	EA	36" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	35,214.16	2,085.61
		For Class 52 Rating, Deduct	-3,525.96	
		For Class 54 Rating, Add	4,846.04	
		For Class 55 Rating, Add	7,223.91	
		For Class 56 Rating, Add	9,569.73	
40 05 19 00-2509	EA	36" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,367.15	2,089.49
		For Class 52 Rating, Deduct	-3,652.14	
		For Class 54 Rating, Add	5,018.18	
		For Class 55 Rating, Add	7,479.86	
		For Class 56 Rating, Add	9,908.34	
40 05 19 00-2510	EA	36" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	37,520.13	2,093.38
		For Class 52 Rating, Deduct	-3,778.32	
		For Class 54 Rating, Add	5,190.31	
		For Class 55 Rating, Add	7,735.80	
		For Class 56 Rating, Add	10,246.94	
40 05 19 00-2511	EA	36" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	38,673.12	2,097.26
		For Class 52 Rating, Deduct	-3,904.50	
		For Class 54 Rating, Add	5,362.45	
		For Class 55 Rating, Add	7,991.75	
		For Class 56 Rating, Add	10,585.55	
40 05 19 00-2512	EA	36" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	39,826.10	2,101.15
		For Class 52 Rating, Deduct	-4,030.68	
		For Class 54 Rating, Add	5,534.58	
		For Class 55 Rating, Add	8,247.69	
		For Class 56 Rating, Add	10,924.16	
40 05 19 00-2513	EA	36" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	40,979.09	2,105.03
		For Class 52 Rating, Deduct	-4,156.86	
		For Class 54 Rating, Add	5,706.72	
		For Class 55 Rating, Add	8,503.64	
		For Class 56 Rating, Add	11,262.76	
40 05 19 00-2514	EA	36" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	42,132.07	2,108.92
		For Class 52 Rating, Deduct	-4,283.04	
		For Class 54 Rating, Add	5,878.85	
		For Class 55 Rating, Add	8,759.58	
		For Class 56 Rating, Add	11,601.37	
40 05 19 00-2515	EA	36" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	43,285.05	2,112.80
		For Class 52 Rating, Deduct	-4,409.22	
		For Class 54 Rating, Add	6,050.99	
		For Class 55 Rating, Add	9,015.53	
		For Class 56 Rating, Add	11,939.98	
40 05 19 00-2516	EA	36" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	44,438.04	2,116.68
		For Class 52 Rating, Deduct	-4,535.40	
		For Class 54 Rating, Add	6,223.13	
		For Class 55 Rating, Add	9,271.47	
		For Class 56 Rating, Add	12,278.58	
40 05 19 00-2517	EA	36" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	45,591.02	2,120.56
		For Class 52 Rating, Deduct	-4,661.58	
		For Class 54 Rating, Add	6,395.26	
		For Class 55 Rating, Add	9,527.41	
		For Class 56 Rating, Add	12,617.19	
40 05 19 00-2518	EA	36" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	46,744.01	2,124.45
		For Class 52 Rating, Deduct	-4,787.77	
		For Class 54 Rating, Add	6,567.40	
		For Class 55 Rating, Add	9,783.36	
		For Class 56 Rating, Add	12,955.80	
40 05 19 00-2519	EA	36" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	47,896.99	2,128.33
		For Class 52 Rating, Deduct	-4,913.95	
		For Class 54 Rating, Add	6,739.53	
		For Class 55 Rating, Add	10,039.30	
		For Class 56 Rating, Add	13,294.40	
40 05 19 00-2520	EA	36" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	49,049.98	2,132.22
		For Class 52 Rating, Deduct	-5,040.13	
		For Class 54 Rating, Add	6,911.67	
		For Class 55 Rating, Add	10,295.25	
		For Class 56 Rating, Add	13,633.01	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2521	EA		36" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	50,202.96	2,136.10
			For Class 52 Rating, Deduct	-5,166.31	
			For Class 54 Rating, Add	7,083.80	
			For Class 55 Rating, Add	10,551.19	
			For Class 56 Rating, Add	13,971.61	
40 05 19 00-2522	EA		36" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	51,355.95	2,139.99
			For Class 52 Rating, Deduct	-5,292.49	
			For Class 54 Rating, Add	7,255.94	
			For Class 55 Rating, Add	10,807.14	
			For Class 56 Rating, Add	14,310.22	
40 05 19 00-2523	EA		36" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	52,508.93	2,143.87
			For Class 52 Rating, Deduct	-5,418.67	
			For Class 54 Rating, Add	7,428.08	
			For Class 55 Rating, Add	11,063.08	
			For Class 56 Rating, Add	14,648.83	
40 05 19 00-2524	EA		36" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	53,661.92	2,147.75
			For Class 52 Rating, Deduct	-5,544.85	
			For Class 54 Rating, Add	7,600.21	
			For Class 55 Rating, Add	11,319.03	
			For Class 56 Rating, Add	14,987.43	
40 05 19 00-2525	EA		36" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	54,814.90	2,151.63
			For Class 52 Rating, Deduct	-5,671.03	
			For Class 54 Rating, Add	7,772.35	
			For Class 55 Rating, Add	11,574.97	
			For Class 56 Rating, Add	15,326.04	
40 05 19 00-2526	EA		36" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	55,967.88	2,155.52
			For Class 52 Rating, Deduct	-5,797.21	
			For Class 54 Rating, Add	7,944.48	
			For Class 55 Rating, Add	11,830.92	
			For Class 56 Rating, Add	15,664.65	
40 05 19 00-2527	EA		36" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	57,120.87	2,159.40
			For Class 52 Rating, Deduct	-5,923.39	
			For Class 54 Rating, Add	8,116.62	
			For Class 55 Rating, Add	12,086.86	
			For Class 56 Rating, Add	16,003.25	
40 05 19 00-2528			42" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2060)		
40 05 19 00-2529	EA		42" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,679.22	2,555.55
			For Class 52 Rating, Deduct	-2,178.79	
			For Class 54 Rating, Add	3,017.54	
			For Class 55 Rating, Add	4,509.93	
			For Class 56 Rating, Add	5,982.51	
40 05 19 00-2530	EA		42" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,372.01	2,559.44
			For Class 52 Rating, Deduct	-2,364.35	
			For Class 54 Rating, Add	3,270.65	
			For Class 55 Rating, Add	4,886.25	
			For Class 56 Rating, Add	6,480.36	
40 05 19 00-2531	EA		42" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,050.74	2,563.32
			For Class 52 Rating, Deduct	-2,548.36	
			For Class 54 Rating, Add	3,521.64	
			For Class 55 Rating, Add	5,259.43	
			For Class 56 Rating, Add	6,974.06	
40 05 19 00-2532	EA		42" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,746.36	2,567.21
			For Class 52 Rating, Deduct	-2,734.23	
			For Class 54 Rating, Add	3,775.17	
			For Class 55 Rating, Add	5,636.39	
			For Class 56 Rating, Add	7,472.74	
40 05 19 00-2533	EA		42" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,430.72	2,571.09
			For Class 52 Rating, Deduct	-2,918.86	
			For Class 54 Rating, Add	4,027.02	
			For Class 55 Rating, Add	6,010.83	
			For Class 56 Rating, Add	7,968.10	
40 05 19 00-2534	EA		42" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,131.95	2,574.97
			For Class 52 Rating, Deduct	-3,105.35	
			For Class 54 Rating, Add	4,281.39	
			For Class 55 Rating, Add	6,389.03	
			For Class 56 Rating, Add	8,468.44	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2535	EA	42" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	33,816.31	2,578.85
		For Class 52 Rating, Deduct	-3,289.98	
		For Class 54 Rating, Add	4,533.23	
		For Class 55 Rating, Add	6,763.47	
		For Class 56 Rating, Add	8,963.81	
40 05 19 00-2536	EA	42" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	35,520.36	2,582.74
		For Class 52 Rating, Deduct	-3,476.78	
		For Class 54 Rating, Add	4,788.03	
		For Class 55 Rating, Add	7,142.30	
		For Class 56 Rating, Add	9,464.97	
40 05 19 00-2537	EA	42" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	37,210.34	2,586.62
		For Class 52 Rating, Deduct	-3,662.03	
		For Class 54 Rating, Add	5,040.71	
		For Class 55 Rating, Add	7,518.00	
		For Class 56 Rating, Add	9,962.00	
40 05 19 00-2538	EA	42" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	38,914.39	2,590.51
		For Class 52 Rating, Deduct	-3,848.83	
		For Class 54 Rating, Add	5,295.51	
		For Class 55 Rating, Add	7,896.83	
		For Class 56 Rating, Add	10,463.16	
40 05 19 00-2539	EA	42" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	40,604.37	2,594.39
		For Class 52 Rating, Deduct	-4,034.08	
		For Class 54 Rating, Add	5,548.19	
		For Class 55 Rating, Add	8,272.53	
		For Class 56 Rating, Add	10,960.19	
40 05 19 00-2540	EA	42" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	42,311.23	2,598.28
		For Class 52 Rating, Deduct	-4,221.19	
		For Class 54 Rating, Add	5,803.41	
		For Class 55 Rating, Add	8,651.98	
		For Class 56 Rating, Add	11,462.18	
40 05 19 00-2541	EA	42" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	44,001.21	2,602.16
		For Class 52 Rating, Deduct	-4,406.44	
		For Class 54 Rating, Add	6,056.09	
		For Class 55 Rating, Add	9,027.68	
		For Class 56 Rating, Add	11,959.21	
40 05 19 00-2542	EA	42" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	45,696.81	2,606.04
		For Class 52 Rating, Deduct	-4,592.31	
		For Class 54 Rating, Add	6,309.62	
		For Class 55 Rating, Add	9,404.63	
		For Class 56 Rating, Add	12,457.88	
40 05 19 00-2543	EA	42" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	47,400.86	2,609.92
		For Class 52 Rating, Deduct	-4,779.11	
		For Class 54 Rating, Add	6,564.42	
		For Class 55 Rating, Add	9,783.46	
		For Class 56 Rating, Add	12,959.05	
40 05 19 00-2544	EA	42" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	49,093.65	2,613.81
		For Class 52 Rating, Deduct	-4,964.67	
		For Class 54 Rating, Add	6,817.52	
		For Class 55 Rating, Add	10,159.78	
		For Class 56 Rating, Add	13,456.90	
40 05 19 00-2545	EA	42" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	50,806.13	2,617.69
		For Class 52 Rating, Deduct	-5,152.39	
		For Class 54 Rating, Add	7,073.58	
		For Class 55 Rating, Add	10,540.49	
		For Class 56 Rating, Add	13,960.56	
40 05 19 00-2546	EA	42" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	52,501.74	2,621.58
		For Class 52 Rating, Deduct	-5,338.26	
		For Class 54 Rating, Add	7,327.11	
		For Class 55 Rating, Add	10,917.44	
		For Class 56 Rating, Add	14,459.24	
40 05 19 00-2547	EA	42" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	54,211.41	2,625.46
		For Class 52 Rating, Deduct	-5,525.68	
		For Class 54 Rating, Add	7,582.75	
		For Class 55 Rating, Add	11,297.53	
		For Class 56 Rating, Add	14,962.07	
40 05 19 00-2548	EA	42" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	55,904.20	2,629.35
		For Class 52 Rating, Deduct	-5,711.24	
		For Class 54 Rating, Add	7,835.86	
		For Class 55 Rating, Add	11,673.85	
		For Class 56 Rating, Add	15,459.92	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2549	EA		42" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	57,619.49	2,633.23
			For Class 52 Rating, Deduct	-5,899.27	
			For Class 54 Rating, Add	8,092.34	
			For Class 55 Rating, Add	12,055.19	
			For Class 56 Rating, Add	15,964.40	
40 05 19 00-2550	EA		42" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	59,315.10	2,637.12
			For Class 52 Rating, Deduct	-6,085.14	
			For Class 54 Rating, Add	8,345.87	
			For Class 55 Rating, Add	12,432.14	
			For Class 56 Rating, Add	16,463.09	
40 05 19 00-2551	EA		42" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	61,024.77	2,640.99
			For Class 52 Rating, Deduct	-6,272.56	
			For Class 54 Rating, Add	8,601.51	
			For Class 55 Rating, Add	12,812.22	
			For Class 56 Rating, Add	16,965.91	
40 05 19 00-2552	EA		42" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	62,720.37	2,644.88
			For Class 52 Rating, Deduct	-6,458.43	
			For Class 54 Rating, Add	8,855.03	
			For Class 55 Rating, Add	13,189.17	
			For Class 56 Rating, Add	17,464.59	
40 05 19 00-2553	EA		42" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	64,435.66	2,648.76
			For Class 52 Rating, Deduct	-6,646.46	
			For Class 54 Rating, Add	9,111.52	
			For Class 55 Rating, Add	13,570.51	
			For Class 56 Rating, Add	17,969.08	
40 05 19 00-2554	EA		42" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	66,131.27	2,652.65
			For Class 52 Rating, Deduct	-6,832.33	
			For Class 54 Rating, Add	9,365.05	
			For Class 55 Rating, Add	13,947.46	
			For Class 56 Rating, Add	18,467.76	
40 05 19 00-2555	EA		42" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	67,840.93	2,656.53
			For Class 52 Rating, Deduct	-7,019.75	
			For Class 54 Rating, Add	9,620.68	
			For Class 55 Rating, Add	14,327.54	
			For Class 56 Rating, Add	18,970.59	
40 05 19 00-2556	EA		42" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	69,539.36	2,660.42
			For Class 52 Rating, Deduct	-7,205.93	
			For Class 54 Rating, Add	9,874.63	
			For Class 55 Rating, Add	14,705.12	
			For Class 56 Rating, Add	19,470.10	
40 05 19 00-2557	EA		42" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	70,914.45	2,664.30
			For Class 52 Rating, Deduct	-7,356.54	
			For Class 54 Rating, Add	10,080.09	
			For Class 55 Rating, Add	15,010.60	
			For Class 56 Rating, Add	19,874.23	
40 05 19 00-2558	EA		42" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	72,950.25	2,668.19
			For Class 52 Rating, Deduct	-7,579.83	
			For Class 54 Rating, Add	10,384.64	
			For Class 55 Rating, Add	15,463.41	
			For Class 56 Rating, Add	20,473.26	
40 05 19 00-2559	EA		42" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	74,645.86	2,672.06
			For Class 52 Rating, Deduct	-7,765.70	
			For Class 54 Rating, Add	10,638.17	
			For Class 55 Rating, Add	15,840.36	
			For Class 56 Rating, Add	20,971.94	
40 05 19 00-2560	EA		42" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	76,358.34	2,675.95
			For Class 52 Rating, Deduct	-7,953.42	
			For Class 54 Rating, Add	10,894.23	
			For Class 55 Rating, Add	16,221.07	
			For Class 56 Rating, Add	21,475.60	
40 05 19 00-2561	EA		42" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	78,056.75	2,679.83
			For Class 52 Rating, Deduct	-8,139.60	
			For Class 54 Rating, Add	11,148.18	
			For Class 55 Rating, Add	16,598.64	
			For Class 56 Rating, Add	21,975.11	
40 05 19 00-2562	EA		42" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	79,772.05	2,683.72
			For Class 52 Rating, Deduct	-8,327.64	
			For Class 54 Rating, Add	11,404.67	
			For Class 55 Rating, Add	16,979.98	
			For Class 56 Rating, Add	22,479.60	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2563	EA		42" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	81,464.84	2,687.60
			For Class 52 Rating, Deduct	-8,573.20	
			For Class 54 Rating, Add	11,657.77	
			For Class 55 Rating, Add	17,356.31	
			For Class 56 Rating, Add	22,977.45	
40 05 19 00-2564			48" Flanged End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		
40 05 19 00-2565	EA		48" Flanged (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,700.71	3,211.92
			For Class 52 Rating, Deduct	-2,731.76	
			For Class 54 Rating, Add	3,783.52	
			For Class 55 Rating, Add	5,654.81	
			For Class 56 Rating, Add	7,501.27	
40 05 19 00-2566	EA		48" Flanged (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,118.87	3,215.81
			For Class 52 Rating, Deduct	-2,997.11	
			For Class 54 Rating, Add	4,145.44	
			For Class 55 Rating, Add	6,192.89	
			For Class 56 Rating, Add	8,213.11	
40 05 19 00-2567	EA		48" Flanged (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	34,542.67	3,219.69
			For Class 52 Rating, Deduct	-3,263.08	
			For Class 54 Rating, Add	4,508.19	
			For Class 55 Rating, Add	6,732.23	
			For Class 56 Rating, Add	8,926.60	
40 05 19 00-2568	EA		48" Flanged (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,994.57	3,223.58
			For Class 52 Rating, Deduct	-3,532.14	
			For Class 54 Rating, Add	4,875.17	
			For Class 55 Rating, Add	7,277.83	
			For Class 56 Rating, Add	9,648.39	
40 05 19 00-2569	EA		48" Flanged (FxF), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	39,438.05	3,227.45
			For Class 52 Rating, Deduct	-3,800.28	
			For Class 54 Rating, Add	5,240.88	
			For Class 55 Rating, Add	7,821.56	
			For Class 56 Rating, Add	10,367.69	
40 05 19 00-2570	EA		48" Flanged (FxF), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	41,887.14	3,231.34
			For Class 52 Rating, Deduct	-4,069.03	
			For Class 54 Rating, Add	5,607.43	
			For Class 55 Rating, Add	8,366.53	
			For Class 56 Rating, Add	11,088.65	
40 05 19 00-2571	EA		48" Flanged (FxF), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	44,353.10	3,235.22
			For Class 52 Rating, Deduct	-4,339.64	
			For Class 54 Rating, Add	5,976.51	
			For Class 55 Rating, Add	8,915.27	
			For Class 56 Rating, Add	11,814.59	
40 05 19 00-2572	EA		48" Flanged (FxF), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	46,813.45	3,239.11
			For Class 52 Rating, Deduct	-4,609.63	
			For Class 54 Rating, Add	6,344.75	
			For Class 55 Rating, Add	9,462.76	
			For Class 56 Rating, Add	12,538.86	
40 05 19 00-2573	EA		48" Flanged (FxF), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	49,270.97	3,242.99
			For Class 52 Rating, Deduct	-4,879.31	
			For Class 54 Rating, Add	6,712.57	
			For Class 55 Rating, Add	10,009.62	
			For Class 56 Rating, Add	13,262.31	
40 05 19 00-2574	EA		48" Flanged (FxF), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	51,753.81	3,246.88
			For Class 52 Rating, Deduct	-5,151.77	
			For Class 54 Rating, Add	7,084.18	
			For Class 55 Rating, Add	10,562.12	
			For Class 56 Rating, Add	13,993.22	
40 05 19 00-2575	EA		48" Flanged (FxF), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	54,219.77	3,250.76
			For Class 52 Rating, Deduct	-5,422.38	
			For Class 54 Rating, Add	7,453.26	
			For Class 55 Rating, Add	11,110.86	
			For Class 56 Rating, Add	14,719.16	
40 05 19 00-2576	EA		48" Flanged (FxF), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	56,705.42	3,254.65
			For Class 52 Rating, Deduct	-5,695.16	
			For Class 54 Rating, Add	7,825.30	
			For Class 55 Rating, Add	11,663.98	
			For Class 56 Rating, Add	15,450.90	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2577	EA		48" Flanged (FxF), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	59,177.00	3,258.53
			For Class 52 Rating, Deduct	-5,966.38	
			For Class 54 Rating, Add	8,195.22	
			For Class 55 Rating, Add	12,213.98	
			For Class 56 Rating, Add	16,178.49	
40 05 19 00-2578	EA		48" Flanged (FxF), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	61,651.41	3,262.41
			For Class 52 Rating, Deduct	-6,237.92	
			For Class 54 Rating, Add	8,565.57	
			For Class 55 Rating, Add	12,764.60	
			For Class 56 Rating, Add	16,906.92	
40 05 19 00-2579	EA		48" Flanged (FxF), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	64,142.67	3,266.29
			For Class 52 Rating, Deduct	-6,511.31	
			For Class 54 Rating, Add	8,938.45	
			For Class 55 Rating, Add	13,318.98	
			For Class 56 Rating, Add	17,640.31	
40 05 19 00-2580	EA		48" Flanged (FxF), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	66,622.70	3,270.18
			For Class 52 Rating, Deduct	-6,783.47	
			For Class 54 Rating, Add	9,309.64	
			For Class 55 Rating, Add	13,870.85	
			For Class 56 Rating, Add	18,370.40	
40 05 19 00-2581	EA		48" Flanged (FxF), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	69,099.91	3,274.06
			For Class 52 Rating, Deduct	-7,055.31	
			For Class 54 Rating, Add	9,680.41	
			For Class 55 Rating, Add	14,422.10	
			For Class 56 Rating, Add	19,099.65	
40 05 19 00-2582	EA		48" Flanged (FxF), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	71,596.79	3,277.95
			For Class 52 Rating, Deduct	-7,329.32	
			For Class 54 Rating, Add	10,054.13	
			For Class 55 Rating, Add	14,977.73	
			For Class 56 Rating, Add	19,834.71	
40 05 19 00-2583	EA		48" Flanged (FxF), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	74,079.63	3,281.83
			For Class 52 Rating, Deduct	-7,601.79	
			For Class 54 Rating, Add	10,425.74	
			For Class 55 Rating, Add	15,530.24	
			For Class 56 Rating, Add	20,565.62	
40 05 19 00-2584	EA		48" Flanged (FxF), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	76,559.65	3,285.72
			For Class 52 Rating, Deduct	-7,873.94	
			For Class 54 Rating, Add	10,796.94	
			For Class 55 Rating, Add	16,082.11	
			For Class 56 Rating, Add	21,295.70	
40 05 19 00-2585	EA		48" Flanged (FxF), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	79,059.36	3,289.60
			For Class 52 Rating, Deduct	-8,148.26	
			For Class 54 Rating, Add	11,171.08	
			For Class 55 Rating, Add	16,638.37	
			For Class 56 Rating, Add	22,031.59	
40 05 19 00-2586	EA		48" Flanged (FxF), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	81,547.81	3,293.48
			For Class 52 Rating, Deduct	-8,421.35	
			For Class 54 Rating, Add	11,543.53	
			For Class 55 Rating, Add	17,192.13	
			For Class 56 Rating, Add	22,764.16	
40 05 19 00-2587	EA		48" Flanged (FxF), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	84,030.65	3,297.36
			For Class 52 Rating, Deduct	-8,693.81	
			For Class 54 Rating, Add	11,915.15	
			For Class 55 Rating, Add	17,744.63	
			For Class 56 Rating, Add	23,495.08	
40 05 19 00-2588	EA		48" Flanged (FxF), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	86,533.16	3,301.25
			For Class 52 Rating, Deduct	-8,968.44	
			For Class 54 Rating, Add	12,289.71	
			For Class 55 Rating, Add	18,301.52	
			For Class 56 Rating, Add	24,231.79	
40 05 19 00-2589	EA		48" Flanged (FxF), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	89,021.62	3,305.13
			For Class 52 Rating, Deduct	-9,241.52	
			For Class 54 Rating, Add	12,662.17	
			For Class 55 Rating, Add	18,855.27	
			For Class 56 Rating, Add	24,964.36	
40 05 19 00-2590	EA		48" Flanged (FxF), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	91,507.26	3,309.02
			For Class 52 Rating, Deduct	-9,514.30	
			For Class 54 Rating, Add	13,034.20	
			For Class 55 Rating, Add	19,408.40	
			For Class 56 Rating, Add	25,696.10	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2591	EA		48" Flanged (FxF), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	94,012.59	3,312.90
			For Class 52 Rating, Deduct	-9,789.23	
			For Class 54 Rating, Add	13,409.19	
			For Class 55 Rating, Add	19,965.92	
			For Class 56 Rating, Add	26,433.65	
40 05 19 00-2592	EA		48" Flanged (FxF), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	96,503.86	3,316.79
			For Class 52 Rating, Deduct	-10,062.63	
			For Class 54 Rating, Add	13,782.07	
			For Class 55 Rating, Add	20,520.30	
			For Class 56 Rating, Add	27,167.05	
40 05 19 00-2593	EA		48" Flanged (FxF), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	98,702.73	3,320.67
			For Class 52 Rating, Deduct	-10,303.86	
			For Class 54 Rating, Add	14,111.09	
			For Class 55 Rating, Add	21,009.48	
			For Class 56 Rating, Add	27,814.19	
40 05 19 00-2594	EA		48" Flanged (FxF), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	101,500.45	3,324.56
			For Class 52 Rating, Deduct	-10,610.96	
			For Class 54 Rating, Add	14,529.93	
			For Class 55 Rating, Add	21,632.20	
			For Class 56 Rating, Add	28,638.00	
40 05 19 00-2595	EA		48" Flanged (FxF), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	103,988.90	3,328.43
			For Class 52 Rating, Deduct	-10,884.04	
			For Class 54 Rating, Add	14,902.39	
			For Class 55 Rating, Add	22,185.95	
			For Class 56 Rating, Add	29,370.57	
40 05 19 00-2596	EA		48" Flanged (FxF), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	106,499.86	3,332.32
			For Class 52 Rating, Deduct	-11,159.60	
			For Class 54 Rating, Add	15,278.22	
			For Class 55 Rating, Add	22,744.72	
			For Class 56 Rating, Add	30,109.78	
40 05 19 00-2597	EA		48" Flanged (FxF), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	108,988.31	3,336.20
			For Class 52 Rating, Deduct	-11,432.68	
			For Class 54 Rating, Add	15,650.68	
			For Class 55 Rating, Add	23,298.48	
			For Class 56 Rating, Add	30,842.35	
40 05 19 00-2598	EA		48" Flanged (FxF), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	111,476.77	3,340.09
			For Class 52 Rating, Deduct	-11,705.76	
			For Class 54 Rating, Add	16,023.13	
			For Class 55 Rating, Add	23,852.23	
			For Class 56 Rating, Add	31,574.92	
40 05 19 00-2599	EA		48" Flanged (FxF), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	113,990.53	3,343.97
			For Class 52 Rating, Deduct	-11,981.63	
			For Class 54 Rating, Add	16,399.39	
			For Class 55 Rating, Add	24,411.63	
			For Class 56 Rating, Add	32,314.95	
40 05 19 00-2600			Flanged End x Grooved End (FxF), Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2059)		
40 05 19 00-2601			4" Flanged End x Grooved End (FxF), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		
40 05 19 00-2602	EA		4" Flanged x Grooved (FxF), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	772.54	177.73
			For Class 52 Rating, Deduct	-55.36	
			For Class 54 Rating, Add	78.72	
			For Class 55 Rating, Add	118.69	
			For Class 56 Rating, Add	158.16	
40 05 19 00-2603	EA		4" Flanged x Grooved (FxF), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	884.09	180.83
			For Class 52 Rating, Deduct	-67.11	
			For Class 54 Rating, Add	94.80	
			For Class 55 Rating, Add	142.63	
			For Class 56 Rating, Add	189.84	
40 05 19 00-2604	EA		4" Flanged x Grooved (FxF), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	995.63	183.94
			For Class 52 Rating, Deduct	-78.86	
			For Class 54 Rating, Add	110.89	
			For Class 55 Rating, Add	166.57	
			For Class 56 Rating, Add	221.53	
40 05 19 00-2605	EA		4" Flanged x Grooved (FxF), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,107.18	187.05
			For Class 52 Rating, Deduct	-90.62	
			For Class 54 Rating, Add	126.97	
			For Class 55 Rating, Add	190.50	
			For Class 56 Rating, Add	253.22	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2606	EA		4" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,218.72	190.16
			For Class 52 Rating, Deduct	-102.37	
			For Class 54 Rating, Add	143.05	
			For Class 55 Rating, Add	214.44	
			For Class 56 Rating, Add	284.90	
40 05 19 00-2607	EA		4" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,330.27	193.26
			For Class 52 Rating, Deduct	-114.12	
			For Class 54 Rating, Add	159.13	
			For Class 55 Rating, Add	238.38	
			For Class 56 Rating, Add	316.59	
40 05 19 00-2608	EA		4" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,441.81	196.37
			For Class 52 Rating, Deduct	-125.87	
			For Class 54 Rating, Add	175.21	
			For Class 55 Rating, Add	262.32	
			For Class 56 Rating, Add	348.28	
40 05 19 00-2609	EA		4" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,553.36	199.47
			For Class 52 Rating, Deduct	-137.62	
			For Class 54 Rating, Add	191.30	
			For Class 55 Rating, Add	286.26	
			For Class 56 Rating, Add	379.96	
40 05 19 00-2610	EA		4" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,664.90	202.59
			For Class 52 Rating, Deduct	-149.38	
			For Class 54 Rating, Add	207.38	
			For Class 55 Rating, Add	310.19	
			For Class 56 Rating, Add	411.65	
40 05 19 00-2611	EA		4" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,776.45	205.69
			For Class 52 Rating, Deduct	-161.13	
			For Class 54 Rating, Add	223.46	
			For Class 55 Rating, Add	334.13	
			For Class 56 Rating, Add	443.34	
40 05 19 00-2612	EA		4" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,887.99	208.80
			For Class 52 Rating, Deduct	-172.88	
			For Class 54 Rating, Add	239.54	
			For Class 55 Rating, Add	358.07	
			For Class 56 Rating, Add	475.02	
40 05 19 00-2613	EA		4" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,999.54	211.90
			For Class 52 Rating, Deduct	-184.63	
			For Class 54 Rating, Add	255.62	
			For Class 55 Rating, Add	382.01	
			For Class 56 Rating, Add	506.71	
40 05 19 00-2614	EA		4" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,111.09	215.01
			For Class 52 Rating, Deduct	-196.39	
			For Class 54 Rating, Add	271.71	
			For Class 55 Rating, Add	405.94	
			For Class 56 Rating, Add	538.40	
40 05 19 00-2615	EA		4" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,222.63	218.12
			For Class 52 Rating, Deduct	-208.14	
			For Class 54 Rating, Add	287.79	
			For Class 55 Rating, Add	429.88	
			For Class 56 Rating, Add	570.08	
40 05 19 00-2616	EA		4" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,334.17	221.23
			For Class 52 Rating, Deduct	-219.89	
			For Class 54 Rating, Add	303.87	
			For Class 55 Rating, Add	453.82	
			For Class 56 Rating, Add	601.77	
40 05 19 00-2617	EA		4" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,445.72	224.33
			For Class 52 Rating, Deduct	-231.64	
			For Class 54 Rating, Add	319.95	
			For Class 55 Rating, Add	477.76	
			For Class 56 Rating, Add	633.46	
40 05 19 00-2618	EA		4" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,557.27	227.44
			For Class 52 Rating, Deduct	-243.39	
			For Class 54 Rating, Add	336.04	
			For Class 55 Rating, Add	501.70	
			For Class 56 Rating, Add	665.14	
40 05 19 00-2619	EA		4" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,668.81	230.54
			For Class 52 Rating, Deduct	-255.15	
			For Class 54 Rating, Add	352.12	
			For Class 55 Rating, Add	525.63	
			For Class 56 Rating, Add	696.83	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2620	EA	4" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,780.36	233.66
		For Class 52 Rating, Deduct	-266.90	
		For Class 54 Rating, Add	368.20	
		For Class 55 Rating, Add	549.57	
		For Class 56 Rating, Add	728.52	
40 05 19 00-2621	EA	4" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,891.90	236.76
		For Class 52 Rating, Deduct	-278.65	
		For Class 54 Rating, Add	384.28	
		For Class 55 Rating, Add	573.51	
		For Class 56 Rating, Add	760.20	
40 05 19 00-2622	EA	4" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,003.45	239.87
		For Class 52 Rating, Deduct	-290.40	
		For Class 54 Rating, Add	400.36	
		For Class 55 Rating, Add	597.45	
		For Class 56 Rating, Add	791.89	
40 05 19 00-2623	EA	4" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,115.00	242.97
		For Class 52 Rating, Deduct	-302.15	
		For Class 54 Rating, Add	416.45	
		For Class 55 Rating, Add	621.39	
		For Class 56 Rating, Add	823.58	
40 05 19 00-2624	EA	4" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,226.54	246.08
		For Class 52 Rating, Deduct	-313.91	
		For Class 54 Rating, Add	432.53	
		For Class 55 Rating, Add	645.32	
		For Class 56 Rating, Add	855.26	
40 05 19 00-2625	EA	4" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,338.08	249.19
		For Class 52 Rating, Deduct	-325.66	
		For Class 54 Rating, Add	448.61	
		For Class 55 Rating, Add	669.26	
		For Class 56 Rating, Add	886.95	
40 05 19 00-2626	EA	4" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,449.63	252.30
		For Class 52 Rating, Deduct	-337.41	
		For Class 54 Rating, Add	464.69	
		For Class 55 Rating, Add	693.20	
		For Class 56 Rating, Add	918.64	
40 05 19 00-2627	EA	4" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,561.18	255.40
		For Class 52 Rating, Deduct	-349.16	
		For Class 54 Rating, Add	480.78	
		For Class 55 Rating, Add	717.14	
		For Class 56 Rating, Add	950.32	
40 05 19 00-2628	EA	4" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,672.72	258.51
		For Class 52 Rating, Deduct	-360.91	
		For Class 54 Rating, Add	496.86	
		For Class 55 Rating, Add	741.07	
		For Class 56 Rating, Add	982.01	
40 05 19 00-2629	EA	4" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,784.26	261.61
		For Class 52 Rating, Deduct	-372.67	
		For Class 54 Rating, Add	512.94	
		For Class 55 Rating, Add	765.01	
		For Class 56 Rating, Add	1,013.69	
40 05 19 00-2630	EA	4" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,895.81	264.73
		For Class 52 Rating, Deduct	-384.42	
		For Class 54 Rating, Add	529.02	
		For Class 55 Rating, Add	788.95	
		For Class 56 Rating, Add	1,045.38	
40 05 19 00-2631	EA	4" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,007.36	267.83
		For Class 52 Rating, Deduct	-396.17	
		For Class 54 Rating, Add	545.10	
		For Class 55 Rating, Add	812.89	
		For Class 56 Rating, Add	1,077.07	
40 05 19 00-2632	EA	4" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,118.90	270.94
		For Class 52 Rating, Deduct	-407.92	
		For Class 54 Rating, Add	561.18	
		For Class 55 Rating, Add	836.82	
		For Class 56 Rating, Add	1,108.75	
40 05 19 00-2633	EA	4" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,230.45	274.04
		For Class 52 Rating, Deduct	-419.68	
		For Class 54 Rating, Add	577.27	
		For Class 55 Rating, Add	860.76	
		For Class 56 Rating, Add	1,140.44	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION				UNIT COST	UNIT COST
40 05 19 00-2634	EA	4" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,341.99	277.15
		For Class 52 Rating, Deduct	.....	-431.43	
		For Class 54 Rating, Add	.....	593.35	
		For Class 55 Rating, Add	.....	884.70	
		For Class 56 Rating, Add	.....	1,172.13	
40 05 19 00-2635	EA	4" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,453.54	280.26
		For Class 52 Rating, Deduct	.....	-443.18	
		For Class 54 Rating, Add	.....	609.43	
		For Class 55 Rating, Add	.....	908.64	
		For Class 56 Rating, Add	.....	1,203.82	
40 05 19 00-2636	EA	4" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,565.09	283.37
		For Class 52 Rating, Deduct	.....	-454.93	
		For Class 54 Rating, Add	.....	625.51	
		For Class 55 Rating, Add	.....	932.58	
		For Class 56 Rating, Add	.....	1,235.50	
40 05 19 00-2637	EA	4" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,676.63	286.47
		For Class 52 Rating, Deduct	.....	-466.68	
		For Class 54 Rating, Add	.....	641.60	
		For Class 55 Rating, Add	.....	956.51	
		For Class 56 Rating, Add	.....	1,267.19	
40 05 19 00-2638	EA	4" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,788.17	289.58
		For Class 52 Rating, Deduct	.....	-478.44	
		For Class 54 Rating, Add	.....	657.68	
		For Class 55 Rating, Add	.....	980.45	
		For Class 56 Rating, Add	.....	1,298.87	
40 05 19 00-2639	EA	4" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	4,871.60	292.68
		For Class 52 Rating, Deduct	.....	-487.10	
		For Class 54 Rating, Add	.....	669.54	
		For Class 55 Rating, Add	.....	998.12	
		For Class 56 Rating, Add	.....	1,322.27	
40 05 19 00-2640	EA	4" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	5,011.27	295.80
		For Class 52 Rating, Deduct	.....	-501.94	
		For Class 54 Rating, Add	.....	689.84	
		For Class 55 Rating, Add	.....	1,028.33	
		For Class 56 Rating, Add	.....	1,362.25	
40 05 19 00-2641		6" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe			
		(40 05 19 00-2600)			
40 05 19 00-2642	EA	6" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	999.66	223.70
		For Class 52 Rating, Deduct	.....	-72.68	
		For Class 54 Rating, Add	.....	103.17	
		For Class 55 Rating, Add	.....	155.47	
		For Class 56 Rating, Add	.....	207.11	
40 05 19 00-2643	EA	6" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	1,128.07	226.82
		For Class 52 Rating, Deduct	.....	-86.29	
		For Class 54 Rating, Add	.....	121.79	
		For Class 55 Rating, Add	.....	183.17	
		For Class 56 Rating, Add	.....	243.77	
40 05 19 00-2644	EA	6" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	1,256.49	229.92
		For Class 52 Rating, Deduct	.....	-99.89	
		For Class 54 Rating, Add	.....	140.40	
		For Class 55 Rating, Add	.....	210.87	
		For Class 56 Rating, Add	.....	280.44	
40 05 19 00-2645	EA	6" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	1,384.90	233.03
		For Class 52 Rating, Deduct	.....	-113.50	
		For Class 54 Rating, Add	.....	159.01	
		For Class 55 Rating, Add	.....	238.57	
		For Class 56 Rating, Add	.....	317.10	
40 05 19 00-2646	EA	6" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	1,513.31	236.13
		For Class 52 Rating, Deduct	.....	-127.11	
		For Class 54 Rating, Add	.....	177.62	
		For Class 55 Rating, Add	.....	266.27	
		For Class 56 Rating, Add	.....	353.76	
40 05 19 00-2647	EA	6" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	.....	1,641.73	239.24
		For Class 52 Rating, Deduct	.....	-140.72	
		For Class 54 Rating, Add	.....	196.24	
		For Class 55 Rating, Add	.....	293.97	
		For Class 56 Rating, Add	.....	390.43	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2648	EA	6" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,770.15	242.35
		For Class 52 Rating, Deduct	-154.32	
		For Class 54 Rating, Add	214.85	
		For Class 55 Rating, Add	321.67	
		For Class 56 Rating, Add	427.09	
40 05 19 00-2649	EA	6" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,898.56	245.46
		For Class 52 Rating, Deduct	-167.93	
		For Class 54 Rating, Add	233.46	
		For Class 55 Rating, Add	349.37	
		For Class 56 Rating, Add	463.75	
40 05 19 00-2650	EA	6" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,026.97	248.56
		For Class 52 Rating, Deduct	-181.54	
		For Class 54 Rating, Add	252.07	
		For Class 55 Rating, Add	377.07	
		For Class 56 Rating, Add	500.41	
40 05 19 00-2651	EA	6" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,155.39	251.67
		For Class 52 Rating, Deduct	-195.15	
		For Class 54 Rating, Add	270.69	
		For Class 55 Rating, Add	404.77	
		For Class 56 Rating, Add	537.08	
40 05 19 00-2652	EA	6" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,283.81	254.77
		For Class 52 Rating, Deduct	-208.76	
		For Class 54 Rating, Add	289.30	
		For Class 55 Rating, Add	432.47	
		For Class 56 Rating, Add	573.74	
40 05 19 00-2653	EA	6" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,412.22	257.89
		For Class 52 Rating, Deduct	-222.36	
		For Class 54 Rating, Add	307.91	
		For Class 55 Rating, Add	460.17	
		For Class 56 Rating, Add	610.40	
40 05 19 00-2654	EA	6" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,540.63	260.99
		For Class 52 Rating, Deduct	-235.97	
		For Class 54 Rating, Add	326.52	
		For Class 55 Rating, Add	487.87	
		For Class 56 Rating, Add	647.07	
40 05 19 00-2655	EA	6" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,669.05	264.10
		For Class 52 Rating, Deduct	-249.58	
		For Class 54 Rating, Add	345.14	
		For Class 55 Rating, Add	515.57	
		For Class 56 Rating, Add	683.73	
40 05 19 00-2656	EA	6" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,797.46	267.20
		For Class 52 Rating, Deduct	-263.19	
		For Class 54 Rating, Add	363.75	
		For Class 55 Rating, Add	543.27	
		For Class 56 Rating, Add	720.39	
40 05 19 00-2657	EA	6" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,925.88	270.31
		For Class 52 Rating, Deduct	-276.79	
		For Class 54 Rating, Add	382.36	
		For Class 55 Rating, Add	570.97	
		For Class 56 Rating, Add	757.06	
40 05 19 00-2658	EA	6" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,054.29	273.42
		For Class 52 Rating, Deduct	-290.40	
		For Class 54 Rating, Add	400.97	
		For Class 55 Rating, Add	598.67	
		For Class 56 Rating, Add	793.72	
40 05 19 00-2659	EA	6" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,182.70	276.53
		For Class 52 Rating, Deduct	-304.01	
		For Class 54 Rating, Add	419.59	
		For Class 55 Rating, Add	626.37	
		For Class 56 Rating, Add	830.38	
40 05 19 00-2660	EA	6" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,311.12	279.63
		For Class 52 Rating, Deduct	-317.62	
		For Class 54 Rating, Add	438.20	
		For Class 55 Rating, Add	654.07	
		For Class 56 Rating, Add	867.04	
40 05 19 00-2661	EA	6" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,439.54	282.74
		For Class 52 Rating, Deduct	-331.23	
		For Class 54 Rating, Add	456.81	
		For Class 55 Rating, Add	681.77	
		For Class 56 Rating, Add	903.71	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2662	EA		6" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,567.94	285.84
			For Class 52 Rating, Deduct	-344.83	
			For Class 54 Rating, Add	475.42	
			For Class 55 Rating, Add	709.46	
			For Class 56 Rating, Add	940.37	
40 05 19 00-2663	EA		6" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,696.36	288.96
			For Class 52 Rating, Deduct	-358.44	
			For Class 54 Rating, Add	494.04	
			For Class 55 Rating, Add	737.16	
			For Class 56 Rating, Add	977.03	
40 05 19 00-2664	EA		6" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,824.78	292.06
			For Class 52 Rating, Deduct	-372.05	
			For Class 54 Rating, Add	512.65	
			For Class 55 Rating, Add	764.86	
			For Class 56 Rating, Add	1,013.70	
40 05 19 00-2665	EA		6" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,953.20	295.17
			For Class 52 Rating, Deduct	-385.66	
			For Class 54 Rating, Add	531.26	
			For Class 55 Rating, Add	792.56	
			For Class 56 Rating, Add	1,050.36	
40 05 19 00-2666	EA		6" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,081.60	298.27
			For Class 52 Rating, Deduct	-399.26	
			For Class 54 Rating, Add	549.87	
			For Class 55 Rating, Add	820.26	
			For Class 56 Rating, Add	1,087.02	
40 05 19 00-2667	EA		6" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,210.02	301.38
			For Class 52 Rating, Deduct	-412.87	
			For Class 54 Rating, Add	568.49	
			For Class 55 Rating, Add	847.96	
			For Class 56 Rating, Add	1,123.69	
40 05 19 00-2668	EA		6" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,338.44	304.50
			For Class 52 Rating, Deduct	-426.48	
			For Class 54 Rating, Add	587.10	
			For Class 55 Rating, Add	875.66	
			For Class 56 Rating, Add	1,160.35	
40 05 19 00-2669	EA		6" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,466.85	307.60
			For Class 52 Rating, Deduct	-440.09	
			For Class 54 Rating, Add	605.71	
			For Class 55 Rating, Add	903.36	
			For Class 56 Rating, Add	1,197.01	
40 05 19 00-2670	EA		6" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,595.27	310.71
			For Class 52 Rating, Deduct	-453.70	
			For Class 54 Rating, Add	624.32	
			For Class 55 Rating, Add	931.06	
			For Class 56 Rating, Add	1,233.68	
40 05 19 00-2671	EA		6" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,723.68	313.81
			For Class 52 Rating, Deduct	-467.30	
			For Class 54 Rating, Add	642.94	
			For Class 55 Rating, Add	958.76	
			For Class 56 Rating, Add	1,270.34	
40 05 19 00-2672	EA		6" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,852.09	316.92
			For Class 52 Rating, Deduct	-480.91	
			For Class 54 Rating, Add	661.55	
			For Class 55 Rating, Add	986.46	
			For Class 56 Rating, Add	1,307.00	
40 05 19 00-2673	EA		6" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,980.51	320.03
			For Class 52 Rating, Deduct	-494.52	
			For Class 54 Rating, Add	680.16	
			For Class 55 Rating, Add	1,014.16	
			For Class 56 Rating, Add	1,343.66	
40 05 19 00-2674	EA		6" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,108.93	323.14
			For Class 52 Rating, Deduct	-508.13	
			For Class 54 Rating, Add	698.77	
			For Class 55 Rating, Add	1,041.86	
			For Class 56 Rating, Add	1,380.33	
40 05 19 00-2675	EA		6" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,237.33	326.24
			For Class 52 Rating, Deduct	-521.73	
			For Class 54 Rating, Add	717.39	
			For Class 55 Rating, Add	1,069.56	
			For Class 56 Rating, Add	1,416.99	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2676	EA		6" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,365.75	329.35
			For Class 52 Rating, Deduct	-535.34	
			For Class 54 Rating, Add	736.00	
			For Class 55 Rating, Add	1,097.26	
			For Class 56 Rating, Add	1,453.65	
40 05 19 00-2677	EA		6" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,494.17	332.45
			For Class 52 Rating, Deduct	-548.95	
			For Class 54 Rating, Add	754.61	
			For Class 55 Rating, Add	1,124.96	
			For Class 56 Rating, Add	1,490.32	
40 05 19 00-2678	EA		6" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,622.58	335.57
			For Class 52 Rating, Deduct	-562.56	
			For Class 54 Rating, Add	773.22	
			For Class 55 Rating, Add	1,152.66	
			For Class 56 Rating, Add	1,526.98	
40 05 19 00-2679	EA		6" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,750.99	338.67
			For Class 52 Rating, Deduct	-576.16	
			For Class 54 Rating, Add	791.84	
			For Class 55 Rating, Add	1,180.36	
			For Class 56 Rating, Add	1,563.64	
40 05 19 00-2680	EA		6" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,879.41	341.78
			For Class 52 Rating, Deduct	-589.77	
			For Class 54 Rating, Add	810.45	
			For Class 55 Rating, Add	1,208.06	
			For Class 56 Rating, Add	1,600.31	
40 05 19 00-2681			8" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		
40 05 19 00-2682	EA		8" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,372.15	285.84
			For Class 52 Rating, Deduct	-103.30	
			For Class 54 Rating, Add	146.05	
			For Class 55 Rating, Add	219.80	
			For Class 56 Rating, Add	292.61	
40 05 19 00-2683	EA		8" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,537.11	288.96
			For Class 52 Rating, Deduct	-120.92	
			For Class 54 Rating, Add	170.15	
			For Class 55 Rating, Add	255.65	
			For Class 56 Rating, Add	340.05	
40 05 19 00-2684	EA		8" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,702.08	292.06
			For Class 52 Rating, Deduct	-138.55	
			For Class 54 Rating, Add	194.24	
			For Class 55 Rating, Add	291.50	
			For Class 56 Rating, Add	387.50	
40 05 19 00-2685	EA		8" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,867.05	295.17
			For Class 52 Rating, Deduct	-156.18	
			For Class 54 Rating, Add	218.34	
			For Class 55 Rating, Add	327.35	
			For Class 56 Rating, Add	434.95	
40 05 19 00-2686	EA		8" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,032.00	298.27
			For Class 52 Rating, Deduct	-173.81	
			For Class 54 Rating, Add	242.43	
			For Class 55 Rating, Add	363.20	
			For Class 56 Rating, Add	482.39	
40 05 19 00-2687	EA		8" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,196.97	301.38
			For Class 52 Rating, Deduct	-191.44	
			For Class 54 Rating, Add	266.53	
			For Class 55 Rating, Add	399.05	
			For Class 56 Rating, Add	529.84	
40 05 19 00-2688	EA		8" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,361.94	304.50
			For Class 52 Rating, Deduct	-209.06	
			For Class 54 Rating, Add	290.62	
			For Class 55 Rating, Add	434.90	
			For Class 56 Rating, Add	577.28	
40 05 19 00-2689	EA		8" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,526.90	307.60
			For Class 52 Rating, Deduct	-226.69	
			For Class 54 Rating, Add	314.72	
			For Class 55 Rating, Add	470.75	
			For Class 56 Rating, Add	624.73	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2690	EA		8" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,691.87	310.71
			For Class 52 Rating, Deduct	-244.32	
			For Class 54 Rating, Add	338.81	
			For Class 55 Rating, Add	506.60	
			For Class 56 Rating, Add	672.17	
40 05 19 00-2691	EA		8" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,856.83	313.81
			For Class 52 Rating, Deduct	-261.95	
			For Class 54 Rating, Add	362.91	
			For Class 55 Rating, Add	542.45	
			For Class 56 Rating, Add	719.62	
40 05 19 00-2692	EA		8" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,021.79	316.92
			For Class 52 Rating, Deduct	-279.58	
			For Class 54 Rating, Add	387.00	
			For Class 55 Rating, Add	578.30	
			For Class 56 Rating, Add	767.06	
40 05 19 00-2693	EA		8" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,186.76	320.03
			For Class 52 Rating, Deduct	-297.21	
			For Class 54 Rating, Add	411.10	
			For Class 55 Rating, Add	614.15	
			For Class 56 Rating, Add	814.51	
40 05 19 00-2694	EA		8" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,351.73	323.14
			For Class 52 Rating, Deduct	-314.83	
			For Class 54 Rating, Add	435.19	
			For Class 55 Rating, Add	650.01	
			For Class 56 Rating, Add	861.95	
40 05 19 00-2695	EA		8" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,516.68	326.24
			For Class 52 Rating, Deduct	-332.46	
			For Class 54 Rating, Add	459.29	
			For Class 55 Rating, Add	685.85	
			For Class 56 Rating, Add	909.40	
40 05 19 00-2696	EA		8" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,681.65	329.35
			For Class 52 Rating, Deduct	-350.09	
			For Class 54 Rating, Add	483.38	
			For Class 55 Rating, Add	721.70	
			For Class 56 Rating, Add	956.84	
40 05 19 00-2697	EA		8" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,846.62	332.45
			For Class 52 Rating, Deduct	-367.72	
			For Class 54 Rating, Add	507.48	
			For Class 55 Rating, Add	757.56	
			For Class 56 Rating, Add	1,004.29	
40 05 19 00-2698	EA		8" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,011.58	335.57
			For Class 52 Rating, Deduct	-385.35	
			For Class 54 Rating, Add	531.57	
			For Class 55 Rating, Add	793.40	
			For Class 56 Rating, Add	1,051.73	
40 05 19 00-2699	EA		8" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,176.54	338.67
			For Class 52 Rating, Deduct	-402.98	
			For Class 54 Rating, Add	555.67	
			For Class 55 Rating, Add	829.26	
			For Class 56 Rating, Add	1,099.18	
40 05 19 00-2700	EA		8" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,341.51	341.78
			For Class 52 Rating, Deduct	-420.60	
			For Class 54 Rating, Add	579.76	
			For Class 55 Rating, Add	865.11	
			For Class 56 Rating, Add	1,146.62	
40 05 19 00-2701	EA		8" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,506.47	344.88
			For Class 52 Rating, Deduct	-438.23	
			For Class 54 Rating, Add	603.86	
			For Class 55 Rating, Add	900.96	
			For Class 56 Rating, Add	1,194.07	
40 05 19 00-2702	EA		8" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,671.44	347.99
			For Class 52 Rating, Deduct	-455.86	
			For Class 54 Rating, Add	627.95	
			For Class 55 Rating, Add	936.81	
			For Class 56 Rating, Add	1,241.51	
40 05 19 00-2703	EA		8" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,836.40	351.10
			For Class 52 Rating, Deduct	-473.49	
			For Class 54 Rating, Add	652.05	
			For Class 55 Rating, Add	972.66	
			For Class 56 Rating, Add	1,288.96	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2704	EA	8" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,001.36	354.21
		For Class 52 Rating, Deduct	-491.12	
		For Class 54 Rating, Add	676.14	
		For Class 55 Rating, Add	1,008.51	
		For Class 56 Rating, Add	1,336.40	
40 05 19 00-2705	EA	8" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,166.33	357.31
		For Class 52 Rating, Deduct	-508.74	
		For Class 54 Rating, Add	700.24	
		For Class 55 Rating, Add	1,044.36	
		For Class 56 Rating, Add	1,383.85	
40 05 19 00-2706	EA	8" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,331.30	360.42
		For Class 52 Rating, Deduct	-526.37	
		For Class 54 Rating, Add	724.33	
		For Class 55 Rating, Add	1,080.21	
		For Class 56 Rating, Add	1,431.30	
40 05 19 00-2707	EA	8" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,496.26	363.52
		For Class 52 Rating, Deduct	-544.00	
		For Class 54 Rating, Add	748.43	
		For Class 55 Rating, Add	1,116.06	
		For Class 56 Rating, Add	1,478.74	
40 05 19 00-2708	EA	8" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,661.22	366.64
		For Class 52 Rating, Deduct	-561.63	
		For Class 54 Rating, Add	772.52	
		For Class 55 Rating, Add	1,151.91	
		For Class 56 Rating, Add	1,526.19	
40 05 19 00-2709	EA	8" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,826.19	369.74
		For Class 52 Rating, Deduct	-579.26	
		For Class 54 Rating, Add	796.62	
		For Class 55 Rating, Add	1,187.76	
		For Class 56 Rating, Add	1,573.63	
40 05 19 00-2710	EA	8" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,991.15	372.85
		For Class 52 Rating, Deduct	-596.89	
		For Class 54 Rating, Add	820.71	
		For Class 55 Rating, Add	1,223.61	
		For Class 56 Rating, Add	1,621.07	
40 05 19 00-2711	EA	8" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,156.12	375.95
		For Class 52 Rating, Deduct	-614.51	
		For Class 54 Rating, Add	844.81	
		For Class 55 Rating, Add	1,259.46	
		For Class 56 Rating, Add	1,668.52	
40 05 19 00-2712	EA	8" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,321.08	379.06
		For Class 52 Rating, Deduct	-632.14	
		For Class 54 Rating, Add	868.90	
		For Class 55 Rating, Add	1,295.31	
		For Class 56 Rating, Add	1,715.97	
40 05 19 00-2713	EA	8" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,486.04	382.17
		For Class 52 Rating, Deduct	-649.77	
		For Class 54 Rating, Add	893.00	
		For Class 55 Rating, Add	1,331.16	
		For Class 56 Rating, Add	1,763.41	
40 05 19 00-2714	EA	8" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,651.01	385.28
		For Class 52 Rating, Deduct	-667.40	
		For Class 54 Rating, Add	917.09	
		For Class 55 Rating, Add	1,367.01	
		For Class 56 Rating, Add	1,810.86	
40 05 19 00-2715	EA	8" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,815.98	388.38
		For Class 52 Rating, Deduct	-685.03	
		For Class 54 Rating, Add	941.19	
		For Class 55 Rating, Add	1,402.86	
		For Class 56 Rating, Add	1,858.30	
40 05 19 00-2716	EA	8" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,980.93	391.49
		For Class 52 Rating, Deduct	-702.65	
		For Class 54 Rating, Add	965.28	
		For Class 55 Rating, Add	1,438.71	
		For Class 56 Rating, Add	1,905.75	
40 05 19 00-2717	EA	8" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,145.90	394.59
		For Class 52 Rating, Deduct	-720.28	
		For Class 54 Rating, Add	989.38	
		For Class 55 Rating, Add	1,474.56	
		For Class 56 Rating, Add	1,953.19	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2718	EA		8" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,310.87	397.71
			For Class 52 Rating, Deduct	-737.91	
			For Class 54 Rating, Add	1,013.47	
			For Class 55 Rating, Add	1,510.41	
			For Class 56 Rating, Add	2,000.64	
40 05 19 00-2719	EA		8" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,475.83	400.81
			For Class 52 Rating, Deduct	-755.54	
			For Class 54 Rating, Add	1,037.57	
			For Class 55 Rating, Add	1,546.26	
			For Class 56 Rating, Add	2,048.08	
40 05 19 00-2720	EA		8" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,640.80	403.92
			For Class 52 Rating, Deduct	-773.17	
			For Class 54 Rating, Add	1,061.66	
			For Class 55 Rating, Add	1,582.11	
			For Class 56 Rating, Add	2,095.53	
40 05 19 00-2721 10" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)					
40 05 19 00-2722	EA		10" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,724.97	347.99
			For Class 52 Rating, Deduct	-131.75	
			For Class 54 Rating, Add	185.98	
			For Class 55 Rating, Add	279.74	
			For Class 56 Rating, Add	372.31	
40 05 19 00-2723	EA		10" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,937.72	351.10
			For Class 52 Rating, Deduct	-154.63	
			For Class 54 Rating, Add	217.25	
			For Class 55 Rating, Add	326.25	
			For Class 56 Rating, Add	433.85	
40 05 19 00-2724	EA		10" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,150.48	354.21
			For Class 52 Rating, Deduct	-177.52	
			For Class 54 Rating, Add	248.51	
			For Class 55 Rating, Add	372.76	
			For Class 56 Rating, Add	495.39	
40 05 19 00-2725	EA		10" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,363.24	357.31
			For Class 52 Rating, Deduct	-200.40	
			For Class 54 Rating, Add	279.78	
			For Class 55 Rating, Add	419.27	
			For Class 56 Rating, Add	556.94	
40 05 19 00-2726	EA		10" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,576.01	360.42
			For Class 52 Rating, Deduct	-223.29	
			For Class 54 Rating, Add	311.04	
			For Class 55 Rating, Add	465.78	
			For Class 56 Rating, Add	618.49	
40 05 19 00-2727	EA		10" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,788.77	363.52
			For Class 52 Rating, Deduct	-246.18	
			For Class 54 Rating, Add	342.31	
			For Class 55 Rating, Add	512.29	
			For Class 56 Rating, Add	680.03	
40 05 19 00-2728	EA		10" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,001.52	366.64
			For Class 52 Rating, Deduct	-269.06	
			For Class 54 Rating, Add	373.57	
			For Class 55 Rating, Add	558.79	
			For Class 56 Rating, Add	741.57	
40 05 19 00-2729	EA		10" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,214.28	369.74
			For Class 52 Rating, Deduct	-291.95	
			For Class 54 Rating, Add	404.83	
			For Class 55 Rating, Add	605.30	
			For Class 56 Rating, Add	803.12	
40 05 19 00-2730	EA		10" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,427.05	372.85
			For Class 52 Rating, Deduct	-314.83	
			For Class 54 Rating, Add	436.10	
			For Class 55 Rating, Add	651.81	
			For Class 56 Rating, Add	864.67	
40 05 19 00-2731	EA		10" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,639.81	375.95
			For Class 52 Rating, Deduct	-337.72	
			For Class 54 Rating, Add	467.36	
			For Class 55 Rating, Add	698.32	
			For Class 56 Rating, Add	926.21	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2732	EA	10" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,852.56	379.06
		For Class 52 Rating, Deduct	-360.61	
		For Class 54 Rating, Add	498.63	
		For Class 55 Rating, Add	744.83	
		For Class 56 Rating, Add	987.75	
40 05 19 00-2733	EA	10" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,065.32	382.17
		For Class 52 Rating, Deduct	-383.49	
		For Class 54 Rating, Add	529.89	
		For Class 55 Rating, Add	791.34	
		For Class 56 Rating, Add	1,049.30	
40 05 19 00-2734	EA	10" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,278.09	385.28
		For Class 52 Rating, Deduct	-406.38	
		For Class 54 Rating, Add	561.16	
		For Class 55 Rating, Add	837.85	
		For Class 56 Rating, Add	1,110.85	
40 05 19 00-2735	EA	10" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,490.85	388.38
		For Class 52 Rating, Deduct	-429.26	
		For Class 54 Rating, Add	592.42	
		For Class 55 Rating, Add	884.36	
		For Class 56 Rating, Add	1,172.39	
40 05 19 00-2736	EA	10" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,703.60	391.49
		For Class 52 Rating, Deduct	-452.15	
		For Class 54 Rating, Add	623.68	
		For Class 55 Rating, Add	930.86	
		For Class 56 Rating, Add	1,233.93	
40 05 19 00-2737	EA	10" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,916.36	394.59
		For Class 52 Rating, Deduct	-475.03	
		For Class 54 Rating, Add	654.95	
		For Class 55 Rating, Add	977.37	
		For Class 56 Rating, Add	1,295.48	
40 05 19 00-2738	EA	10" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,129.13	397.71
		For Class 52 Rating, Deduct	-497.92	
		For Class 54 Rating, Add	686.21	
		For Class 55 Rating, Add	1,023.88	
		For Class 56 Rating, Add	1,357.03	
40 05 19 00-2739	EA	10" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,341.89	400.81
		For Class 52 Rating, Deduct	-520.81	
		For Class 54 Rating, Add	717.48	
		For Class 55 Rating, Add	1,070.39	
		For Class 56 Rating, Add	1,418.57	
40 05 19 00-2740	EA	10" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,554.65	403.92
		For Class 52 Rating, Deduct	-543.69	
		For Class 54 Rating, Add	748.74	
		For Class 55 Rating, Add	1,116.90	
		For Class 56 Rating, Add	1,480.11	
40 05 19 00-2741	EA	10" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,767.40	407.02
		For Class 52 Rating, Deduct	-566.58	
		For Class 54 Rating, Add	780.01	
		For Class 55 Rating, Add	1,163.41	
		For Class 56 Rating, Add	1,541.66	
40 05 19 00-2742	EA	10" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,980.17	410.13
		For Class 52 Rating, Deduct	-589.46	
		For Class 54 Rating, Add	811.27	
		For Class 55 Rating, Add	1,209.92	
		For Class 56 Rating, Add	1,603.20	
40 05 19 00-2743	EA	10" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,192.93	413.24
		For Class 52 Rating, Deduct	-612.35	
		For Class 54 Rating, Add	842.53	
		For Class 55 Rating, Add	1,256.43	
		For Class 56 Rating, Add	1,664.75	
40 05 19 00-2744	EA	10" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,405.69	416.35
		For Class 52 Rating, Deduct	-635.23	
		For Class 54 Rating, Add	873.80	
		For Class 55 Rating, Add	1,302.93	
		For Class 56 Rating, Add	1,726.29	
40 05 19 00-2745	EA	10" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,618.44	419.45
		For Class 52 Rating, Deduct	-658.12	
		For Class 54 Rating, Add	905.06	
		For Class 55 Rating, Add	1,349.44	
		For Class 56 Rating, Add	1,787.84	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2746	EA		10" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,831.21	422.56
			For Class 52 Rating, Deduct.....	-681.01	
			For Class 54 Rating, Add.....	936.33	
			For Class 55 Rating, Add.....	1,395.95	
			For Class 56 Rating, Add.....	1,849.38	
40 05 19 00-2747	EA		10" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,043.97	425.66
			For Class 52 Rating, Deduct.....	-703.89	
			For Class 54 Rating, Add.....	967.59	
			For Class 55 Rating, Add.....	1,442.46	
			For Class 56 Rating, Add.....	1,910.93	
40 05 19 00-2748	EA		10" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,256.73	428.78
			For Class 52 Rating, Deduct.....	-726.78	
			For Class 54 Rating, Add.....	998.86	
			For Class 55 Rating, Add.....	1,488.97	
			For Class 56 Rating, Add.....	1,972.47	
40 05 19 00-2749	EA		10" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,469.48	431.88
			For Class 52 Rating, Deduct.....	-749.66	
			For Class 54 Rating, Add.....	1,030.12	
			For Class 55 Rating, Add.....	1,535.48	
			For Class 56 Rating, Add.....	2,034.02	
40 05 19 00-2750	EA		10" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,682.25	434.99
			For Class 52 Rating, Deduct.....	-772.55	
			For Class 54 Rating, Add.....	1,061.39	
			For Class 55 Rating, Add.....	1,581.99	
			For Class 56 Rating, Add.....	2,095.56	
40 05 19 00-2751	EA		10" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,895.01	438.09
			For Class 52 Rating, Deduct.....	-795.44	
			For Class 54 Rating, Add.....	1,092.65	
			For Class 55 Rating, Add.....	1,628.50	
			For Class 56 Rating, Add.....	2,157.11	
40 05 19 00-2752	EA		10" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,107.77	441.20
			For Class 52 Rating, Deduct.....	-818.32	
			For Class 54 Rating, Add.....	1,123.91	
			For Class 55 Rating, Add.....	1,675.00	
			For Class 56 Rating, Add.....	2,218.65	
40 05 19 00-2753	EA		10" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,320.52	444.31
			For Class 52 Rating, Deduct.....	-841.21	
			For Class 54 Rating, Add.....	1,155.18	
			For Class 55 Rating, Add.....	1,721.51	
			For Class 56 Rating, Add.....	2,280.20	
40 05 19 00-2754	EA		10" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,533.29	447.42
			For Class 52 Rating, Deduct.....	-864.09	
			For Class 54 Rating, Add.....	1,186.44	
			For Class 55 Rating, Add.....	1,768.02	
			For Class 56 Rating, Add.....	2,341.74	
40 05 19 00-2755	EA		10" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,746.05	450.52
			For Class 52 Rating, Deduct.....	-886.98	
			For Class 54 Rating, Add.....	1,217.71	
			For Class 55 Rating, Add.....	1,814.53	
			For Class 56 Rating, Add.....	2,403.29	
40 05 19 00-2756	EA		10" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,958.81	453.63
			For Class 52 Rating, Deduct.....	-909.86	
			For Class 54 Rating, Add.....	1,248.97	
			For Class 55 Rating, Add.....	1,861.04	
			For Class 56 Rating, Add.....	2,464.83	
40 05 19 00-2757	EA		10" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,171.57	456.73
			For Class 52 Rating, Deduct.....	-932.75	
			For Class 54 Rating, Add.....	1,280.24	
			For Class 55 Rating, Add.....	1,907.55	
			For Class 56 Rating, Add.....	2,526.38	
40 05 19 00-2758	EA		10" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,384.33	459.85
			For Class 52 Rating, Deduct.....	-955.64	
			For Class 54 Rating, Add.....	1,311.50	
			For Class 55 Rating, Add.....	1,954.06	
			For Class 56 Rating, Add.....	2,587.92	
40 05 19 00-2759	EA		10" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,597.09	462.95
			For Class 52 Rating, Deduct.....	-978.52	
			For Class 54 Rating, Add.....	1,342.76	
			For Class 55 Rating, Add.....	2,000.56	
			For Class 56 Rating, Add.....	2,649.47	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2760	EA		10" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,809.85	466.06
			For Class 52 Rating, Deduct.....	-1,001.41	
			For Class 54 Rating, Add.....	1,374.03	
			For Class 55 Rating, Add.....	2,047.07	
			For Class 56 Rating, Add.....	2,711.01	
40 05 19 00-2761			12" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....		
40 05 19 00-2762	EA		12" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,233.52	434.99
			For Class 52 Rating, Deduct.....	-173.19	
			For Class 54 Rating, Add.....	244.08	
			For Class 55 Rating, Add.....	366.92	
			For Class 56 Rating, Add.....	488.19	
40 05 19 00-2763	EA		12" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,496.89	438.09
			For Class 52 Rating, Deduct.....	-201.64	
			For Class 54 Rating, Add.....	282.93	
			For Class 55 Rating, Add.....	424.71	
			For Class 56 Rating, Add.....	564.66	
40 05 19 00-2764	EA		12" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,760.26	441.20
			For Class 52 Rating, Deduct.....	-230.09	
			For Class 54 Rating, Add.....	321.79	
			For Class 55 Rating, Add.....	482.51	
			For Class 56 Rating, Add.....	641.14	
40 05 19 00-2765	EA		12" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,023.62	444.31
			For Class 52 Rating, Deduct.....	-258.55	
			For Class 54 Rating, Add.....	360.64	
			For Class 55 Rating, Add.....	540.30	
			For Class 56 Rating, Add.....	717.61	
40 05 19 00-2766	EA		12" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,286.99	447.42
			For Class 52 Rating, Deduct.....	-287.00	
			For Class 54 Rating, Add.....	399.50	
			For Class 55 Rating, Add.....	598.10	
			For Class 56 Rating, Add.....	794.09	
40 05 19 00-2767	EA		12" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,550.36	450.52
			For Class 52 Rating, Deduct.....	-315.45	
			For Class 54 Rating, Add.....	438.35	
			For Class 55 Rating, Add.....	655.89	
			For Class 56 Rating, Add.....	870.56	
40 05 19 00-2768	EA		12" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,813.73	453.63
			For Class 52 Rating, Deduct.....	-343.91	
			For Class 54 Rating, Add.....	477.21	
			For Class 55 Rating, Add.....	713.69	
			For Class 56 Rating, Add.....	947.03	
40 05 19 00-2769	EA		12" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,077.10	456.73
			For Class 52 Rating, Deduct.....	-372.36	
			For Class 54 Rating, Add.....	516.06	
			For Class 55 Rating, Add.....	771.48	
			For Class 56 Rating, Add.....	1,023.51	
40 05 19 00-2770	EA		12" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,340.46	459.85
			For Class 52 Rating, Deduct.....	-400.81	
			For Class 54 Rating, Add.....	554.92	
			For Class 55 Rating, Add.....	829.27	
			For Class 56 Rating, Add.....	1,099.98	
40 05 19 00-2771	EA		12" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,603.83	462.95
			For Class 52 Rating, Deduct.....	-429.26	
			For Class 54 Rating, Add.....	593.78	
			For Class 55 Rating, Add.....	887.07	
			For Class 56 Rating, Add.....	1,176.46	
40 05 19 00-2772	EA		12" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,867.20	466.06
			For Class 52 Rating, Deduct.....	-457.72	
			For Class 54 Rating, Add.....	632.63	
			For Class 55 Rating, Add.....	944.86	
			For Class 56 Rating, Add.....	1,252.93	
40 05 19 00-2773	EA		12" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,130.57	469.16
			For Class 52 Rating, Deduct.....	-486.17	
			For Class 54 Rating, Add.....	671.49	
			For Class 55 Rating, Add.....	1,002.66	
			For Class 56 Rating, Add.....	1,329.41	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 19 00-2774	EA	12" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,393.93		472.27
		For Class 52 Rating, Deduct	-514.62		
		For Class 54 Rating, Add	710.34		
		For Class 55 Rating, Add	1,060.45		
		For Class 56 Rating, Add	1,405.88		
40 05 19 00-2775	EA	12" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,657.30		475.38
		For Class 52 Rating, Deduct	-543.07		
		For Class 54 Rating, Add	749.20		
		For Class 55 Rating, Add	1,118.24		
		For Class 56 Rating, Add	1,482.35		
40 05 19 00-2776	EA	12" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,920.67		478.49
		For Class 52 Rating, Deduct	-571.53		
		For Class 54 Rating, Add	788.05		
		For Class 55 Rating, Add	1,176.04		
		For Class 56 Rating, Add	1,558.83		
40 05 19 00-2777	EA	12" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,184.04		481.59
		For Class 52 Rating, Deduct	-599.98		
		For Class 54 Rating, Add	826.91		
		For Class 55 Rating, Add	1,233.83		
		For Class 56 Rating, Add	1,635.30		
40 05 19 00-2778	EA	12" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,447.40		484.70
		For Class 52 Rating, Deduct	-628.43		
		For Class 54 Rating, Add	865.76		
		For Class 55 Rating, Add	1,291.63		
		For Class 56 Rating, Add	1,711.78		
40 05 19 00-2779	EA	12" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,710.77		487.80
		For Class 52 Rating, Deduct	-656.88		
		For Class 54 Rating, Add	904.62		
		For Class 55 Rating, Add	1,349.42		
		For Class 56 Rating, Add	1,788.25		
40 05 19 00-2780	EA	12" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,974.14		490.92
		For Class 52 Rating, Deduct	-685.34		
		For Class 54 Rating, Add	943.48		
		For Class 55 Rating, Add	1,407.22		
		For Class 56 Rating, Add	1,864.72		
40 05 19 00-2781	EA	12" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,237.51		494.02
		For Class 52 Rating, Deduct	-713.79		
		For Class 54 Rating, Add	982.33		
		For Class 55 Rating, Add	1,465.01		
		For Class 56 Rating, Add	1,941.20		
40 05 19 00-2782	EA	12" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,500.87		497.13
		For Class 52 Rating, Deduct	-742.24		
		For Class 54 Rating, Add	1,021.19		
		For Class 55 Rating, Add	1,522.80		
		For Class 56 Rating, Add	2,017.67		
40 05 19 00-2783	EA	12" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,764.24		500.23
		For Class 52 Rating, Deduct	-770.69		
		For Class 54 Rating, Add	1,060.04		
		For Class 55 Rating, Add	1,580.60		
		For Class 56 Rating, Add	2,094.15		
40 05 19 00-2784	EA	12" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,027.61		503.34
		For Class 52 Rating, Deduct	-799.15		
		For Class 54 Rating, Add	1,098.90		
		For Class 55 Rating, Add	1,638.39		
		For Class 56 Rating, Add	2,170.62		
40 05 19 00-2785	EA	12" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,290.98		506.45
		For Class 52 Rating, Deduct	-827.60		
		For Class 54 Rating, Add	1,137.75		
		For Class 55 Rating, Add	1,696.19		
		For Class 56 Rating, Add	2,247.10		
40 05 19 00-2786	EA	12" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,554.35		509.56
		For Class 52 Rating, Deduct	-856.05		
		For Class 54 Rating, Add	1,176.61		
		For Class 55 Rating, Add	1,753.98		
		For Class 56 Rating, Add	2,323.57		
40 05 19 00-2787	EA	12" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,817.71		512.66
		For Class 52 Rating, Deduct	-884.50		
		For Class 54 Rating, Add	1,215.46		
		For Class 55 Rating, Add	1,811.77		
		For Class 56 Rating, Add	2,400.04		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2788	EA	12" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,081.08	515.77
		For Class 52 Rating, Deduct	-912.96	
		For Class 54 Rating, Add	1,254.32	
		For Class 55 Rating, Add	1,869.57	
		For Class 56 Rating, Add	2,476.52	
40 05 19 00-2789	EA	12" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,344.45	518.87
		For Class 52 Rating, Deduct	-941.41	
		For Class 54 Rating, Add	1,293.17	
		For Class 55 Rating, Add	1,927.36	
		For Class 56 Rating, Add	2,552.99	
40 05 19 00-2790	EA	12" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,607.82	521.99
		For Class 52 Rating, Deduct	-969.86	
		For Class 54 Rating, Add	1,332.03	
		For Class 55 Rating, Add	1,985.16	
		For Class 56 Rating, Add	2,629.47	
40 05 19 00-2791	EA	12" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,871.18	525.09
		For Class 52 Rating, Deduct	-998.31	
		For Class 54 Rating, Add	1,370.89	
		For Class 55 Rating, Add	2,042.95	
		For Class 56 Rating, Add	2,705.94	
40 05 19 00-2792	EA	12" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,134.55	528.20
		For Class 52 Rating, Deduct	-1,026.77	
		For Class 54 Rating, Add	1,409.74	
		For Class 55 Rating, Add	2,100.74	
		For Class 56 Rating, Add	2,782.41	
40 05 19 00-2793	EA	12" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,397.92	531.30
		For Class 52 Rating, Deduct	-1,055.22	
		For Class 54 Rating, Add	1,448.60	
		For Class 55 Rating, Add	2,158.54	
		For Class 56 Rating, Add	2,858.89	
40 05 19 00-2794	EA	12" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,661.29	534.41
		For Class 52 Rating, Deduct	-1,083.67	
		For Class 54 Rating, Add	1,487.45	
		For Class 55 Rating, Add	2,216.33	
		For Class 56 Rating, Add	2,935.36	
40 05 19 00-2795	EA	12" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,924.65	537.52
		For Class 52 Rating, Deduct	-1,112.13	
		For Class 54 Rating, Add	1,526.31	
		For Class 55 Rating, Add	2,274.13	
		For Class 56 Rating, Add	3,011.84	
40 05 19 00-2796	EA	12" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,188.02	540.63
		For Class 52 Rating, Deduct	-1,140.58	
		For Class 54 Rating, Add	1,565.16	
		For Class 55 Rating, Add	2,331.92	
		For Class 56 Rating, Add	3,088.31	
40 05 19 00-2797	EA	12" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,451.39	543.73
		For Class 52 Rating, Deduct	-1,169.03	
		For Class 54 Rating, Add	1,604.02	
		For Class 55 Rating, Add	2,389.72	
		For Class 56 Rating, Add	3,164.79	
40 05 19 00-2798	EA	12" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,714.76	546.84
		For Class 52 Rating, Deduct	-1,197.48	
		For Class 54 Rating, Add	1,642.87	
		For Class 55 Rating, Add	2,447.51	
		For Class 56 Rating, Add	3,241.26	
40 05 19 00-2799	EA	12" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,978.12	549.94
		For Class 52 Rating, Deduct	-1,225.94	
		For Class 54 Rating, Add	1,681.73	
		For Class 55 Rating, Add	2,505.30	
		For Class 56 Rating, Add	3,317.73	
40 05 19 00-2800	EA	12" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,241.49	553.06
		For Class 52 Rating, Deduct	-1,254.39	
		For Class 54 Rating, Add	1,720.59	
		For Class 55 Rating, Add	2,563.10	
		For Class 56 Rating, Add	3,394.21	
40 05 19 00-2801		14" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2802	EA		14" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,113.21	521.99
			For Class 52 Rating, Deduct	-255.46	
			For Class 54 Rating, Add	357.84	
			For Class 55 Rating, Add	536.86	
			For Class 56 Rating, Add	713.56	
40 05 19 00-2803	EA		14" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,432.80	525.09
			For Class 52 Rating, Deduct	-290.09	
			For Class 54 Rating, Add	405.13	
			For Class 55 Rating, Add	607.19	
			For Class 56 Rating, Add	806.62	
40 05 19 00-2804	EA		14" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,752.40	528.20
			For Class 52 Rating, Deduct	-324.73	
			For Class 54 Rating, Add	452.42	
			For Class 55 Rating, Add	677.53	
			For Class 56 Rating, Add	899.68	
40 05 19 00-2805	EA		14" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,072.00	531.30
			For Class 52 Rating, Deduct	-359.37	
			For Class 54 Rating, Add	499.71	
			For Class 55 Rating, Add	747.86	
			For Class 56 Rating, Add	992.74	
40 05 19 00-2806	EA		14" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,391.60	534.41
			For Class 52 Rating, Deduct	-394.01	
			For Class 54 Rating, Add	547.00	
			For Class 55 Rating, Add	818.19	
			For Class 56 Rating, Add	1,085.80	
40 05 19 00-2807	EA		14" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,711.19	537.52
			For Class 52 Rating, Deduct	-428.64	
			For Class 54 Rating, Add	594.29	
			For Class 55 Rating, Add	888.53	
			For Class 56 Rating, Add	1,178.87	
40 05 19 00-2808	EA		14" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,030.79	540.63
			For Class 52 Rating, Deduct	-463.28	
			For Class 54 Rating, Add	641.58	
			For Class 55 Rating, Add	958.86	
			For Class 56 Rating, Add	1,271.93	
40 05 19 00-2809	EA		14" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,350.39	543.73
			For Class 52 Rating, Deduct	-497.92	
			For Class 54 Rating, Add	688.87	
			For Class 55 Rating, Add	1,029.19	
			For Class 56 Rating, Add	1,364.99	
40 05 19 00-2810	EA		14" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,669.99	546.84
			For Class 52 Rating, Deduct	-532.56	
			For Class 54 Rating, Add	736.16	
			For Class 55 Rating, Add	1,099.53	
			For Class 56 Rating, Add	1,458.05	
40 05 19 00-2811	EA		14" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,989.58	549.94
			For Class 52 Rating, Deduct	-567.20	
			For Class 54 Rating, Add	783.45	
			For Class 55 Rating, Add	1,169.86	
			For Class 56 Rating, Add	1,551.11	
40 05 19 00-2812	EA		14" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,309.18	553.06
			For Class 52 Rating, Deduct	-601.83	
			For Class 54 Rating, Add	830.74	
			For Class 55 Rating, Add	1,240.19	
			For Class 56 Rating, Add	1,644.18	
40 05 19 00-2813	EA		14" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,628.78	556.16
			For Class 52 Rating, Deduct	-636.47	
			For Class 54 Rating, Add	878.03	
			For Class 55 Rating, Add	1,310.53	
			For Class 56 Rating, Add	1,737.24	
40 05 19 00-2814	EA		14" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,948.38	559.27
			For Class 52 Rating, Deduct	-671.11	
			For Class 54 Rating, Add	925.32	
			For Class 55 Rating, Add	1,380.86	
			For Class 56 Rating, Add	1,830.30	
40 05 19 00-2815	EA		14" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,267.98	562.37
			For Class 52 Rating, Deduct	-705.75	
			For Class 54 Rating, Add	972.61	
			For Class 55 Rating, Add	1,451.19	
			For Class 56 Rating, Add	1,923.36	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2816	EA	14" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,587.57	565.48
		For Class 52 Rating, Deduct	-740.39	
		For Class 54 Rating, Add	1,019.90	
		For Class 55 Rating, Add	1,521.53	
		For Class 56 Rating, Add	2,016.42	
40 05 19 00-2817	EA	14" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,907.17	568.59
		For Class 52 Rating, Deduct	-775.02	
		For Class 54 Rating, Add	1,067.19	
		For Class 55 Rating, Add	1,591.86	
		For Class 56 Rating, Add	2,109.49	
40 05 19 00-2818	EA	14" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,226.77	571.70
		For Class 52 Rating, Deduct	-809.66	
		For Class 54 Rating, Add	1,114.48	
		For Class 55 Rating, Add	1,662.19	
		For Class 56 Rating, Add	2,202.55	
40 05 19 00-2819	EA	14" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,546.37	574.80
		For Class 52 Rating, Deduct	-844.30	
		For Class 54 Rating, Add	1,161.77	
		For Class 55 Rating, Add	1,732.53	
		For Class 56 Rating, Add	2,295.61	
40 05 19 00-2820	EA	14" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,865.96	577.91
		For Class 52 Rating, Deduct	-878.94	
		For Class 54 Rating, Add	1,209.06	
		For Class 55 Rating, Add	1,802.86	
		For Class 56 Rating, Add	2,388.67	
40 05 19 00-2821	EA	14" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,185.56	581.01
		For Class 52 Rating, Deduct	-913.58	
		For Class 54 Rating, Add	1,256.35	
		For Class 55 Rating, Add	1,873.19	
		For Class 56 Rating, Add	2,481.73	
40 05 19 00-2822	EA	14" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,505.16	584.13
		For Class 52 Rating, Deduct	-948.21	
		For Class 54 Rating, Add	1,303.64	
		For Class 55 Rating, Add	1,943.53	
		For Class 56 Rating, Add	2,574.80	
40 05 19 00-2823	EA	14" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,824.76	587.23
		For Class 52 Rating, Deduct	-982.85	
		For Class 54 Rating, Add	1,350.93	
		For Class 55 Rating, Add	2,013.86	
		For Class 56 Rating, Add	2,667.86	
40 05 19 00-2824	EA	14" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,144.35	590.34
		For Class 52 Rating, Deduct	-1,017.49	
		For Class 54 Rating, Add	1,398.22	
		For Class 55 Rating, Add	2,084.19	
		For Class 56 Rating, Add	2,760.92	
40 05 19 00-2825	EA	14" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,463.95	593.44
		For Class 52 Rating, Deduct	-1,052.13	
		For Class 54 Rating, Add	1,445.51	
		For Class 55 Rating, Add	2,154.53	
		For Class 56 Rating, Add	2,853.98	
40 05 19 00-2826	EA	14" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,783.55	596.55
		For Class 52 Rating, Deduct	-1,086.76	
		For Class 54 Rating, Add	1,492.80	
		For Class 55 Rating, Add	2,224.86	
		For Class 56 Rating, Add	2,947.04	
40 05 19 00-2827	EA	14" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,103.15	599.66
		For Class 52 Rating, Deduct	-1,121.40	
		For Class 54 Rating, Add	1,540.09	
		For Class 55 Rating, Add	2,295.20	
		For Class 56 Rating, Add	3,040.11	
40 05 19 00-2828	EA	14" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,422.74	602.77
		For Class 52 Rating, Deduct	-1,156.04	
		For Class 54 Rating, Add	1,587.38	
		For Class 55 Rating, Add	2,365.53	
		For Class 56 Rating, Add	3,133.17	
40 05 19 00-2829	EA	14" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,742.34	605.88
		For Class 52 Rating, Deduct	-1,190.68	
		For Class 54 Rating, Add	1,634.67	
		For Class 55 Rating, Add	2,435.86	
		For Class 56 Rating, Add	3,226.23	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2830	EA		14" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,061.94	608.98
			For Class 52 Rating, Deduct.....	-1,225.32	
			For Class 54 Rating, Add.....	1,681.96	
			For Class 55 Rating, Add.....	2,506.20	
			For Class 56 Rating, Add.....	3,319.29	
40 05 19 00-2831	EA		14" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,381.54	612.10
			For Class 52 Rating, Deduct.....	-1,259.95	
			For Class 54 Rating, Add.....	1,729.25	
			For Class 55 Rating, Add.....	2,576.53	
			For Class 56 Rating, Add.....	3,412.36	
40 05 19 00-2832	EA		14" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,701.14	615.20
			For Class 52 Rating, Deduct.....	-1,294.59	
			For Class 54 Rating, Add.....	1,776.54	
			For Class 55 Rating, Add.....	2,646.86	
			For Class 56 Rating, Add.....	3,505.42	
40 05 19 00-2833	EA		14" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,020.73	618.31
			For Class 52 Rating, Deduct.....	-1,329.23	
			For Class 54 Rating, Add.....	1,823.83	
			For Class 55 Rating, Add.....	2,717.20	
			For Class 56 Rating, Add.....	3,598.48	
40 05 19 00-2834	EA		14" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,340.33	621.41
			For Class 52 Rating, Deduct.....	-1,363.87	
			For Class 54 Rating, Add.....	1,871.12	
			For Class 55 Rating, Add.....	2,787.53	
			For Class 56 Rating, Add.....	3,691.54	
40 05 19 00-2835	EA		14" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,659.93	624.52
			For Class 52 Rating, Deduct.....	-1,398.51	
			For Class 54 Rating, Add.....	1,918.41	
			For Class 55 Rating, Add.....	2,857.86	
			For Class 56 Rating, Add.....	3,784.60	
40 05 19 00-2836	EA		14" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,979.53	627.63
			For Class 52 Rating, Deduct.....	-1,433.14	
			For Class 54 Rating, Add.....	1,965.70	
			For Class 55 Rating, Add.....	2,928.20	
			For Class 56 Rating, Add.....	3,877.67	
40 05 19 00-2837	EA		14" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,299.12	630.74
			For Class 52 Rating, Deduct.....	-1,467.78	
			For Class 54 Rating, Add.....	2,012.99	
			For Class 55 Rating, Add.....	2,998.53	
			For Class 56 Rating, Add.....	3,970.73	
40 05 19 00-2838	EA		14" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,618.72	633.84
			For Class 52 Rating, Deduct.....	-1,502.42	
			For Class 54 Rating, Add.....	2,060.28	
			For Class 55 Rating, Add.....	3,068.86	
			For Class 56 Rating, Add.....	4,063.79	
40 05 19 00-2839	EA		14" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,938.32	636.95
			For Class 52 Rating, Deduct.....	-1,537.06	
			For Class 54 Rating, Add.....	2,107.57	
			For Class 55 Rating, Add.....	3,139.20	
			For Class 56 Rating, Add.....	4,156.85	
40 05 19 00-2840			16" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2800)		
40 05 19 00-2841	EA		16" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,645.10	596.55
			For Class 52 Rating, Deduct.....	-301.54	
			For Class 54 Rating, Add.....	422.03	
			For Class 55 Rating, Add.....	632.99	
			For Class 56 Rating, Add.....	841.20	
40 05 19 00-2842	EA		16" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,015.31	599.66
			For Class 52 Rating, Deduct.....	-341.74	
			For Class 54 Rating, Add.....	476.91	
			For Class 55 Rating, Add.....	714.61	
			For Class 56 Rating, Add.....	949.19	
40 05 19 00-2843	EA		16" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,385.51	602.77
			For Class 52 Rating, Deduct.....	-381.95	
			For Class 54 Rating, Add.....	531.79	
			For Class 55 Rating, Add.....	796.23	
			For Class 56 Rating, Add.....	1,057.19	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2844	EA	16" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,755.71	605.88
		For Class 52 Rating, Deduct	-422.15	
		For Class 54 Rating, Add	586.67	
		For Class 55 Rating, Add	877.84	
		For Class 56 Rating, Add	1,165.18	
40 05 19 00-2845	EA	16" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,125.92	608.98
		For Class 52 Rating, Deduct	-462.35	
		For Class 54 Rating, Add	641.56	
		For Class 55 Rating, Add	959.46	
		For Class 56 Rating, Add	1,273.17	
40 05 19 00-2846	EA	16" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,496.13	612.10
		For Class 52 Rating, Deduct	-502.56	
		For Class 54 Rating, Add	696.44	
		For Class 55 Rating, Add	1,041.08	
		For Class 56 Rating, Add	1,381.16	
40 05 19 00-2847	EA	16" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,866.34	615.20
		For Class 52 Rating, Deduct	-542.76	
		For Class 54 Rating, Add	751.32	
		For Class 55 Rating, Add	1,122.70	
		For Class 56 Rating, Add	1,489.15	
40 05 19 00-2848	EA	16" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,236.54	618.31
		For Class 52 Rating, Deduct	-582.97	
		For Class 54 Rating, Add	806.20	
		For Class 55 Rating, Add	1,204.32	
		For Class 56 Rating, Add	1,597.14	
40 05 19 00-2849	EA	16" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,606.74	621.41
		For Class 52 Rating, Deduct	-623.17	
		For Class 54 Rating, Add	861.08	
		For Class 55 Rating, Add	1,285.94	
		For Class 56 Rating, Add	1,705.13	
40 05 19 00-2850	EA	16" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,976.95	624.52
		For Class 52 Rating, Deduct	-663.38	
		For Class 54 Rating, Add	915.96	
		For Class 55 Rating, Add	1,367.56	
		For Class 56 Rating, Add	1,813.12	
40 05 19 00-2851	EA	16" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,347.16	627.63
		For Class 52 Rating, Deduct	-703.58	
		For Class 54 Rating, Add	970.84	
		For Class 55 Rating, Add	1,449.18	
		For Class 56 Rating, Add	1,921.12	
40 05 19 00-2852	EA	16" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,717.36	630.74
		For Class 52 Rating, Deduct	-743.79	
		For Class 54 Rating, Add	1,025.72	
		For Class 55 Rating, Add	1,530.80	
		For Class 56 Rating, Add	2,029.11	
40 05 19 00-2853	EA	16" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,087.56	633.84
		For Class 52 Rating, Deduct	-783.99	
		For Class 54 Rating, Add	1,080.60	
		For Class 55 Rating, Add	1,612.41	
		For Class 56 Rating, Add	2,137.10	
40 05 19 00-2854	EA	16" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,457.77	636.95
		For Class 52 Rating, Deduct	-824.20	
		For Class 54 Rating, Add	1,135.49	
		For Class 55 Rating, Add	1,694.03	
		For Class 56 Rating, Add	2,245.09	
40 05 19 00-2855	EA	16" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,827.98	640.05
		For Class 52 Rating, Deduct	-864.40	
		For Class 54 Rating, Add	1,190.37	
		For Class 55 Rating, Add	1,775.65	
		For Class 56 Rating, Add	2,353.08	
40 05 19 00-2856	EA	16" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,198.18	643.17
		For Class 52 Rating, Deduct	-904.61	
		For Class 54 Rating, Add	1,245.25	
		For Class 55 Rating, Add	1,857.27	
		For Class 56 Rating, Add	2,461.07	
40 05 19 00-2857	EA	16" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,568.38	646.27
		For Class 52 Rating, Deduct	-944.81	
		For Class 54 Rating, Add	1,300.13	
		For Class 55 Rating, Add	1,938.89	
		For Class 56 Rating, Add	2,569.06	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2858	EA		16" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,938.59	649.38
			For Class 52 Rating, Deduct.....	-985.02	
			For Class 54 Rating, Add.....	1,355.01	
			For Class 55 Rating, Add.....	2,020.51	
			For Class 56 Rating, Add.....	2,677.05	
40 05 19 00-2859	EA		16" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	10,308.80	652.48
			For Class 52 Rating, Deduct.....	-1,025.22	
			For Class 54 Rating, Add.....	1,409.89	
			For Class 55 Rating, Add.....	2,102.13	
			For Class 56 Rating, Add.....	2,785.05	
40 05 19 00-2860	EA		16" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	10,679.01	655.59
			For Class 52 Rating, Deduct.....	-1,065.43	
			For Class 54 Rating, Add.....	1,464.77	
			For Class 55 Rating, Add.....	2,183.75	
			For Class 56 Rating, Add.....	2,893.04	
40 05 19 00-2861	EA		16" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	11,049.20	658.70
			For Class 52 Rating, Deduct.....	-1,105.63	
			For Class 54 Rating, Add.....	1,519.65	
			For Class 55 Rating, Add.....	2,265.37	
			For Class 56 Rating, Add.....	3,001.03	
40 05 19 00-2862	EA		16" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	11,419.41	661.81
			For Class 52 Rating, Deduct.....	-1,145.83	
			For Class 54 Rating, Add.....	1,574.53	
			For Class 55 Rating, Add.....	2,346.99	
			For Class 56 Rating, Add.....	3,109.02	
40 05 19 00-2863	EA		16" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	11,789.62	664.91
			For Class 52 Rating, Deduct.....	-1,186.04	
			For Class 54 Rating, Add.....	1,629.42	
			For Class 55 Rating, Add.....	2,428.60	
			For Class 56 Rating, Add.....	3,217.01	
40 05 19 00-2864	EA		16" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,159.83	668.02
			For Class 52 Rating, Deduct.....	-1,226.24	
			For Class 54 Rating, Add.....	1,684.30	
			For Class 55 Rating, Add.....	2,510.22	
			For Class 56 Rating, Add.....	3,325.00	
40 05 19 00-2865	EA		16" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,530.02	671.12
			For Class 52 Rating, Deduct.....	-1,266.45	
			For Class 54 Rating, Add.....	1,739.18	
			For Class 55 Rating, Add.....	2,591.84	
			For Class 56 Rating, Add.....	3,432.99	
40 05 19 00-2866	EA		16" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,900.23	674.24
			For Class 52 Rating, Deduct.....	-1,306.65	
			For Class 54 Rating, Add.....	1,794.06	
			For Class 55 Rating, Add.....	2,673.46	
			For Class 56 Rating, Add.....	3,540.98	
40 05 19 00-2867	EA		16" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,270.44	677.34
			For Class 52 Rating, Deduct.....	-1,346.86	
			For Class 54 Rating, Add.....	1,848.94	
			For Class 55 Rating, Add.....	2,755.08	
			For Class 56 Rating, Add.....	3,648.98	
40 05 19 00-2868	EA		16" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,640.65	680.45
			For Class 52 Rating, Deduct.....	-1,387.06	
			For Class 54 Rating, Add.....	1,903.82	
			For Class 55 Rating, Add.....	2,836.70	
			For Class 56 Rating, Add.....	3,756.97	
40 05 19 00-2869	EA		16" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,010.84	683.55
			For Class 52 Rating, Deduct.....	-1,427.27	
			For Class 54 Rating, Add.....	1,958.70	
			For Class 55 Rating, Add.....	2,918.32	
			For Class 56 Rating, Add.....	3,864.96	
40 05 19 00-2870	EA		16" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,381.05	686.66
			For Class 52 Rating, Deduct.....	-1,467.47	
			For Class 54 Rating, Add.....	2,013.58	
			For Class 55 Rating, Add.....	2,999.94	
			For Class 56 Rating, Add.....	3,972.95	
40 05 19 00-2871	EA		16" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,751.26	689.77
			For Class 52 Rating, Deduct.....	-1,507.68	
			For Class 54 Rating, Add.....	2,068.47	
			For Class 55 Rating, Add.....	3,081.56	
			For Class 56 Rating, Add.....	4,080.94	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2872	EA		16" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,121.47	692.88
			For Class 52 Rating, Deduct	-1,547.88	
			For Class 54 Rating, Add	2,123.35	
			For Class 55 Rating, Add	3,163.18	
			For Class 56 Rating, Add	4,188.93	
40 05 19 00-2873	EA		16" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,491.67	695.98
			For Class 52 Rating, Deduct	-1,588.09	
			For Class 54 Rating, Add	2,178.23	
			For Class 55 Rating, Add	3,244.79	
			For Class 56 Rating, Add	4,296.92	
40 05 19 00-2874	EA		16" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,861.87	699.09
			For Class 52 Rating, Deduct	-1,628.29	
			For Class 54 Rating, Add	2,233.11	
			For Class 55 Rating, Add	3,326.41	
			For Class 56 Rating, Add	4,404.91	
40 05 19 00-2875	EA		16" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,232.08	702.19
			For Class 52 Rating, Deduct	-1,668.50	
			For Class 54 Rating, Add	2,287.99	
			For Class 55 Rating, Add	3,408.03	
			For Class 56 Rating, Add	4,512.91	
40 05 19 00-2876	EA		16" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,602.29	705.31
			For Class 52 Rating, Deduct	-1,708.70	
			For Class 54 Rating, Add	2,342.87	
			For Class 55 Rating, Add	3,489.65	
			For Class 56 Rating, Add	4,620.90	
40 05 19 00-2877	EA		16" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,972.50	708.41
			For Class 52 Rating, Deduct	-1,748.91	
			For Class 54 Rating, Add	2,397.75	
			For Class 55 Rating, Add	3,571.27	
			For Class 56 Rating, Add	4,728.89	
40 05 19 00-2878	EA		16" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,342.69	711.52
			For Class 52 Rating, Deduct	-1,789.11	
			For Class 54 Rating, Add	2,452.63	
			For Class 55 Rating, Add	3,652.89	
			For Class 56 Rating, Add	4,836.88	
40 05 19 00-2879			18" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		
40 05 19 00-2880	EA		18" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,266.05	672.38
			For Class 52 Rating, Deduct	-357.20	
			For Class 54 Rating, Add	499.32	
			For Class 55 Rating, Add	748.60	
			For Class 56 Rating, Add	994.63	
40 05 19 00-2881	EA		18" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,692.47	675.48
			For Class 52 Rating, Deduct	-403.59	
			For Class 54 Rating, Add	562.64	
			For Class 55 Rating, Add	842.76	
			For Class 56 Rating, Add	1,119.21	
40 05 19 00-2882	EA		18" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,118.91	678.59
			For Class 52 Rating, Deduct	-449.98	
			For Class 54 Rating, Add	625.95	
			For Class 55 Rating, Add	936.92	
			For Class 56 Rating, Add	1,243.79	
40 05 19 00-2883	EA		18" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,545.35	681.69
			For Class 52 Rating, Deduct	-496.37	
			For Class 54 Rating, Add	689.27	
			For Class 55 Rating, Add	1,031.07	
			For Class 56 Rating, Add	1,368.37	
40 05 19 00-2884	EA		18" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,971.79	684.80
			For Class 52 Rating, Deduct	-542.76	
			For Class 54 Rating, Add	752.58	
			For Class 55 Rating, Add	1,125.23	
			For Class 56 Rating, Add	1,492.95	
40 05 19 00-2885	EA		18" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,398.22	687.91
			For Class 52 Rating, Deduct	-589.15	
			For Class 54 Rating, Add	815.90	
			For Class 55 Rating, Add	1,219.39	
			For Class 56 Rating, Add	1,617.53	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-2886	EA	18" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,824.65	691.02
		For Class 52 Rating, Deduct	-635.54	
		For Class 54 Rating, Add	879.21	
		For Class 55 Rating, Add	1,313.55	
		For Class 56 Rating, Add	1,742.10	
40 05 19 00-2887	EA	18" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,251.09	694.12
		For Class 52 Rating, Deduct	-681.93	
		For Class 54 Rating, Add	942.53	
		For Class 55 Rating, Add	1,407.71	
		For Class 56 Rating, Add	1,866.68	
40 05 19 00-2888	EA	18" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,677.53	697.23
		For Class 52 Rating, Deduct	-728.32	
		For Class 54 Rating, Add	1,005.85	
		For Class 55 Rating, Add	1,501.87	
		For Class 56 Rating, Add	1,991.26	
40 05 19 00-2889	EA	18" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,103.97	700.33
		For Class 52 Rating, Deduct	-774.71	
		For Class 54 Rating, Add	1,069.16	
		For Class 55 Rating, Add	1,596.02	
		For Class 56 Rating, Add	2,115.84	
40 05 19 00-2890	EA	18" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,530.40	703.45
		For Class 52 Rating, Deduct	-821.10	
		For Class 54 Rating, Add	1,132.48	
		For Class 55 Rating, Add	1,690.18	
		For Class 56 Rating, Add	2,240.42	
40 05 19 00-2891	EA	18" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,956.83	706.55
		For Class 52 Rating, Deduct	-867.49	
		For Class 54 Rating, Add	1,195.79	
		For Class 55 Rating, Add	1,784.34	
		For Class 56 Rating, Add	2,365.00	
40 05 19 00-2892	EA	18" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,383.27	709.66
		For Class 52 Rating, Deduct	-913.88	
		For Class 54 Rating, Add	1,259.11	
		For Class 55 Rating, Add	1,878.50	
		For Class 56 Rating, Add	2,489.58	
40 05 19 00-2893	EA	18" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,809.71	712.76
		For Class 52 Rating, Deduct	-960.27	
		For Class 54 Rating, Add	1,322.42	
		For Class 55 Rating, Add	1,972.66	
		For Class 56 Rating, Add	2,614.16	
40 05 19 00-2894	EA	18" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,236.14	715.87
		For Class 52 Rating, Deduct	-1,006.67	
		For Class 54 Rating, Add	1,385.74	
		For Class 55 Rating, Add	2,066.82	
		For Class 56 Rating, Add	2,738.74	
40 05 19 00-2895	EA	18" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,662.58	718.98
		For Class 52 Rating, Deduct	-1,053.06	
		For Class 54 Rating, Add	1,449.06	
		For Class 55 Rating, Add	2,160.97	
		For Class 56 Rating, Add	2,863.32	
40 05 19 00-2896	EA	18" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,089.01	722.09
		For Class 52 Rating, Deduct	-1,099.44	
		For Class 54 Rating, Add	1,512.37	
		For Class 55 Rating, Add	2,255.13	
		For Class 56 Rating, Add	2,987.90	
40 05 19 00-2897	EA	18" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,515.45	725.19
		For Class 52 Rating, Deduct	-1,145.83	
		For Class 54 Rating, Add	1,575.69	
		For Class 55 Rating, Add	2,349.29	
		For Class 56 Rating, Add	3,112.48	
40 05 19 00-2898	EA	18" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,941.88	728.30
		For Class 52 Rating, Deduct	-1,192.23	
		For Class 54 Rating, Add	1,639.00	
		For Class 55 Rating, Add	2,443.45	
		For Class 56 Rating, Add	3,237.06	
40 05 19 00-2899	EA	18" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,368.32	731.40
		For Class 52 Rating, Deduct	-1,238.62	
		For Class 54 Rating, Add	1,702.32	
		For Class 55 Rating, Add	2,537.61	
		For Class 56 Rating, Add	3,361.64	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2900	EA	18" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,794.76	734.52
		For Class 52 Rating, Deduct	-1,285.01	
		For Class 54 Rating, Add	1,765.64	
		For Class 55 Rating, Add	2,631.77	
		For Class 56 Rating, Add	3,486.22	
40 05 19 00-2901	EA	18" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,221.19	737.62
		For Class 52 Rating, Deduct	-1,331.39	
		For Class 54 Rating, Add	1,828.95	
		For Class 55 Rating, Add	2,725.92	
		For Class 56 Rating, Add	3,610.79	
40 05 19 00-2902	EA	18" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,647.62	740.73
		For Class 52 Rating, Deduct	-1,377.79	
		For Class 54 Rating, Add	1,892.27	
		For Class 55 Rating, Add	2,820.08	
		For Class 56 Rating, Add	3,735.37	
40 05 19 00-2903	EA	18" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,074.06	743.83
		For Class 52 Rating, Deduct	-1,424.18	
		For Class 54 Rating, Add	1,955.58	
		For Class 55 Rating, Add	2,914.24	
		For Class 56 Rating, Add	3,859.95	
40 05 19 00-2904	EA	18" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,500.50	746.94
		For Class 52 Rating, Deduct	-1,470.57	
		For Class 54 Rating, Add	2,018.90	
		For Class 55 Rating, Add	3,008.40	
		For Class 56 Rating, Add	3,984.53	
40 05 19 00-2905	EA	18" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,926.94	750.05
		For Class 52 Rating, Deduct	-1,516.96	
		For Class 54 Rating, Add	2,082.21	
		For Class 55 Rating, Add	3,102.56	
		For Class 56 Rating, Add	4,109.11	
40 05 19 00-2906	EA	18" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,353.37	753.16
		For Class 52 Rating, Deduct	-1,563.35	
		For Class 54 Rating, Add	2,145.53	
		For Class 55 Rating, Add	3,196.71	
		For Class 56 Rating, Add	4,233.69	
40 05 19 00-2907	EA	18" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,779.80	756.26
		For Class 52 Rating, Deduct	-1,609.74	
		For Class 54 Rating, Add	2,208.84	
		For Class 55 Rating, Add	3,290.87	
		For Class 56 Rating, Add	4,358.27	
40 05 19 00-2908	EA	18" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,206.24	759.37
		For Class 52 Rating, Deduct	-1,656.13	
		For Class 54 Rating, Add	2,272.16	
		For Class 55 Rating, Add	3,385.03	
		For Class 56 Rating, Add	4,482.85	
40 05 19 00-2909	EA	18" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,632.68	762.47
		For Class 52 Rating, Deduct	-1,702.52	
		For Class 54 Rating, Add	2,335.48	
		For Class 55 Rating, Add	3,479.19	
		For Class 56 Rating, Add	4,607.43	
40 05 19 00-2910	EA	18" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,059.12	765.59
		For Class 52 Rating, Deduct	-1,748.91	
		For Class 54 Rating, Add	2,398.79	
		For Class 55 Rating, Add	3,573.35	
		For Class 56 Rating, Add	4,732.01	
40 05 19 00-2911	EA	18" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,485.54	768.69
		For Class 52 Rating, Deduct	-1,795.30	
		For Class 54 Rating, Add	2,462.11	
		For Class 55 Rating, Add	3,667.51	
		For Class 56 Rating, Add	4,856.58	
40 05 19 00-2912	EA	18" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,911.98	771.80
		For Class 52 Rating, Deduct	-1,841.69	
		For Class 54 Rating, Add	2,525.42	
		For Class 55 Rating, Add	3,761.66	
		For Class 56 Rating, Add	4,981.16	
40 05 19 00-2913	EA	18" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,338.42	774.90
		For Class 52 Rating, Deduct	-1,888.08	
		For Class 54 Rating, Add	2,588.74	
		For Class 55 Rating, Add	3,855.82	
		For Class 56 Rating, Add	5,105.74	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2914	EA		18" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	18,764.86	778.01
			For Class 52 Rating, Deduct.....	-1,934.47	
			For Class 54 Rating, Add.....	2,652.05	
			For Class 55 Rating, Add.....	3,949.98	
			For Class 56 Rating, Add.....	5,230.32	
40 05 19 00-2915	EA		18" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	19,191.29	781.12
			For Class 52 Rating, Deduct.....	-1,980.86	
			For Class 54 Rating, Add.....	2,715.37	
			For Class 55 Rating, Add.....	4,044.14	
			For Class 56 Rating, Add.....	5,354.90	
40 05 19 00-2916	EA		18" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	19,617.72	784.23
			For Class 52 Rating, Deduct.....	-2,027.25	
			For Class 54 Rating, Add.....	2,778.69	
			For Class 55 Rating, Add.....	4,138.30	
			For Class 56 Rating, Add.....	5,479.48	
40 05 19 00-2917	EA		18" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	20,044.16	787.33
			For Class 52 Rating, Deduct.....	-2,073.64	
			For Class 54 Rating, Add.....	2,842.00	
			For Class 55 Rating, Add.....	4,232.46	
			For Class 56 Rating, Add.....	5,604.06	
40 05 19 00-2918			20" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		
40 05 19 00-2919	EA		20" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,944.28	767.45
			For Class 52 Rating, Deduct.....	-415.96	
			For Class 54 Rating, Add.....	581.18	
			For Class 55 Rating, Add.....	871.18	
			For Class 56 Rating, Add.....	1,157.40	
40 05 19 00-2920	EA		20" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,429.76	770.55
			For Class 52 Rating, Deduct.....	-468.85	
			For Class 54 Rating, Add.....	653.35	
			For Class 55 Rating, Add.....	978.50	
			For Class 56 Rating, Add.....	1,299.40	
40 05 19 00-2921	EA		20" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,915.24	773.66
			For Class 52 Rating, Deduct.....	-521.73	
			For Class 54 Rating, Add.....	725.52	
			For Class 55 Rating, Add.....	1,085.83	
			For Class 56 Rating, Add.....	1,441.39	
40 05 19 00-2922	EA		20" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,400.71	776.76
			For Class 52 Rating, Deduct.....	-574.62	
			For Class 54 Rating, Add.....	797.69	
			For Class 55 Rating, Add.....	1,193.15	
			For Class 56 Rating, Add.....	1,583.39	
40 05 19 00-2923	EA		20" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,886.19	779.87
			For Class 52 Rating, Deduct.....	-627.50	
			For Class 54 Rating, Add.....	869.86	
			For Class 55 Rating, Add.....	1,300.48	
			For Class 56 Rating, Add.....	1,725.39	
40 05 19 00-2924	EA		20" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,371.67	782.98
			For Class 52 Rating, Deduct.....	-680.39	
			For Class 54 Rating, Add.....	942.04	
			For Class 55 Rating, Add.....	1,407.80	
			For Class 56 Rating, Add.....	1,867.38	
40 05 19 00-2925	EA		20" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,857.15	786.09
			For Class 52 Rating, Deduct.....	-733.27	
			For Class 54 Rating, Add.....	1,014.21	
			For Class 55 Rating, Add.....	1,515.13	
			For Class 56 Rating, Add.....	2,009.38	
40 05 19 00-2926	EA		20" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,342.62	789.19
			For Class 52 Rating, Deduct.....	-786.16	
			For Class 54 Rating, Add.....	1,086.38	
			For Class 55 Rating, Add.....	1,622.45	
			For Class 56 Rating, Add.....	2,151.38	
40 05 19 00-2927	EA		20" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,828.10	792.30
			For Class 52 Rating, Deduct.....	-839.04	
			For Class 54 Rating, Add.....	1,158.55	
			For Class 55 Rating, Add.....	1,729.78	
			For Class 56 Rating, Add.....	2,293.37	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-2928	EA	20" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,313.58	795.40
		For Class 52 Rating, Deduct	-891.93	
		For Class 54 Rating, Add	1,230.72	
		For Class 55 Rating, Add	1,837.10	
		For Class 56 Rating, Add	2,435.37	
40 05 19 00-2929	EA	20" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,799.06	798.52
		For Class 52 Rating, Deduct	-944.61	
		For Class 54 Rating, Add	1,302.90	
		For Class 55 Rating, Add	1,944.43	
		For Class 56 Rating, Add	2,577.37	
40 05 19 00-2930	EA	20" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,284.53	801.62
		For Class 52 Rating, Deduct	-997.70	
		For Class 54 Rating, Add	1,375.07	
		For Class 55 Rating, Add	2,051.75	
		For Class 56 Rating, Add	2,719.36	
40 05 19 00-2931	EA	20" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,770.01	804.73
		For Class 52 Rating, Deduct	-1,050.58	
		For Class 54 Rating, Add	1,447.24	
		For Class 55 Rating, Add	2,159.08	
		For Class 56 Rating, Add	2,861.36	
40 05 19 00-2932	EA	20" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,255.49	807.83
		For Class 52 Rating, Deduct	-1,103.47	
		For Class 54 Rating, Add	1,519.41	
		For Class 55 Rating, Add	2,266.40	
		For Class 56 Rating, Add	3,003.36	
40 05 19 00-2933	EA	20" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,740.97	810.94
		For Class 52 Rating, Deduct	-1,156.35	
		For Class 54 Rating, Add	1,591.58	
		For Class 55 Rating, Add	2,373.73	
		For Class 56 Rating, Add	3,145.35	
40 05 19 00-2934	EA	20" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,226.45	814.05
		For Class 52 Rating, Deduct	-1,209.23	
		For Class 54 Rating, Add	1,663.76	
		For Class 55 Rating, Add	2,481.05	
		For Class 56 Rating, Add	3,287.35	
40 05 19 00-2935	EA	20" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,711.92	817.16
		For Class 52 Rating, Deduct	-1,262.12	
		For Class 54 Rating, Add	1,735.93	
		For Class 55 Rating, Add	2,588.37	
		For Class 56 Rating, Add	3,429.35	
40 05 19 00-2936	EA	20" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,197.40	820.26
		For Class 52 Rating, Deduct	-1,315.00	
		For Class 54 Rating, Add	1,808.10	
		For Class 55 Rating, Add	2,695.70	
		For Class 56 Rating, Add	3,571.34	
40 05 19 00-2937	EA	20" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,682.88	823.37
		For Class 52 Rating, Deduct	-1,367.89	
		For Class 54 Rating, Add	1,880.27	
		For Class 55 Rating, Add	2,803.02	
		For Class 56 Rating, Add	3,713.34	
40 05 19 00-2938	EA	20" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,168.36	826.47
		For Class 52 Rating, Deduct	-1,420.77	
		For Class 54 Rating, Add	1,952.44	
		For Class 55 Rating, Add	2,910.35	
		For Class 56 Rating, Add	3,855.34	
40 05 19 00-2939	EA	20" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,653.83	829.59
		For Class 52 Rating, Deduct	-1,473.66	
		For Class 54 Rating, Add	2,024.62	
		For Class 55 Rating, Add	3,017.67	
		For Class 56 Rating, Add	3,997.33	
40 05 19 00-2940	EA	20" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,139.31	832.69
		For Class 52 Rating, Deduct	-1,526.54	
		For Class 54 Rating, Add	2,096.79	
		For Class 55 Rating, Add	3,125.00	
		For Class 56 Rating, Add	4,139.33	
40 05 19 00-2941	EA	20" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,624.79	835.80
		For Class 52 Rating, Deduct	-1,579.43	
		For Class 54 Rating, Add	2,168.96	
		For Class 55 Rating, Add	3,232.32	
		For Class 56 Rating, Add	4,281.33	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2942	EA		20" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	16,110.27	838.90
			For Class 52 Rating, Deduct.....	-1,632.31	
			For Class 54 Rating, Add.....	2,241.13	
			For Class 55 Rating, Add.....	3,339.65	
			For Class 56 Rating, Add.....	4,423.32	
40 05 19 00-2943	EA		20" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	16,595.74	842.01
			For Class 52 Rating, Deduct.....	-1,685.20	
			For Class 54 Rating, Add.....	2,313.30	
			For Class 55 Rating, Add.....	3,446.97	
			For Class 56 Rating, Add.....	4,565.32	
40 05 19 00-2944	EA		20" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	17,081.22	845.12
			For Class 52 Rating, Deduct.....	-1,738.08	
			For Class 54 Rating, Add.....	2,385.48	
			For Class 55 Rating, Add.....	3,554.30	
			For Class 56 Rating, Add.....	4,707.32	
40 05 19 00-2945	EA		20" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	17,566.70	848.23
			For Class 52 Rating, Deduct.....	-1,790.97	
			For Class 54 Rating, Add.....	2,457.65	
			For Class 55 Rating, Add.....	3,661.62	
			For Class 56 Rating, Add.....	4,849.31	
40 05 19 00-2946	EA		20" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,052.18	851.33
			For Class 52 Rating, Deduct.....	-1,843.85	
			For Class 54 Rating, Add.....	2,629.82	
			For Class 55 Rating, Add.....	3,768.95	
			For Class 56 Rating, Add.....	4,991.31	
40 05 19 00-2947	EA		20" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,537.65	854.44
			For Class 52 Rating, Deduct.....	-1,896.74	
			For Class 54 Rating, Add.....	2,601.99	
			For Class 55 Rating, Add.....	3,876.27	
			For Class 56 Rating, Add.....	5,133.31	
40 05 19 00-2948	EA		20" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	19,023.13	857.54
			For Class 52 Rating, Deduct.....	-1,949.62	
			For Class 54 Rating, Add.....	2,674.16	
			For Class 55 Rating, Add.....	3,983.60	
			For Class 56 Rating, Add.....	5,275.30	
40 05 19 00-2949	EA		20" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	19,508.61	860.66
			For Class 52 Rating, Deduct.....	-2,002.50	
			For Class 54 Rating, Add.....	2,746.34	
			For Class 55 Rating, Add.....	4,090.92	
			For Class 56 Rating, Add.....	5,417.30	
40 05 19 00-2950	EA		20" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	19,994.09	863.76
			For Class 52 Rating, Deduct.....	-2,055.39	
			For Class 54 Rating, Add.....	2,818.51	
			For Class 55 Rating, Add.....	4,198.24	
			For Class 56 Rating, Add.....	5,559.30	
40 05 19 00-2951	EA		20" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	20,479.57	866.87
			For Class 52 Rating, Deduct.....	-2,108.27	
			For Class 54 Rating, Add.....	2,890.68	
			For Class 55 Rating, Add.....	4,305.57	
			For Class 56 Rating, Add.....	5,701.29	
40 05 19 00-2952	EA		20" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	20,965.04	869.97
			For Class 52 Rating, Deduct.....	-2,161.16	
			For Class 54 Rating, Add.....	2,962.85	
			For Class 55 Rating, Add.....	4,412.89	
			For Class 56 Rating, Add.....	5,843.29	
40 05 19 00-2953	EA		20" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	21,450.52	873.08
			For Class 52 Rating, Deduct.....	-2,214.04	
			For Class 54 Rating, Add.....	3,035.02	
			For Class 55 Rating, Add.....	4,520.22	
			For Class 56 Rating, Add.....	5,985.29	
40 05 19 00-2954	EA		20" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	21,936.00	876.19
			For Class 52 Rating, Deduct.....	-2,266.93	
			For Class 54 Rating, Add.....	3,107.20	
			For Class 55 Rating, Add.....	4,627.54	
			For Class 56 Rating, Add.....	6,127.28	
40 05 19 00-2955	EA		20" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	22,421.48	879.30
			For Class 52 Rating, Deduct.....	-2,319.81	
			For Class 54 Rating, Add.....	3,179.37	
			For Class 55 Rating, Add.....	4,734.87	
			For Class 56 Rating, Add.....	6,269.28	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2956	EA		20" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	22,906.95	882.40
			For Class 52 Rating, Deduct.....	-2,372.70	
			For Class 54 Rating, Add.....	3,251.54	
			For Class 55 Rating, Add.....	4,842.19	
			For Class 56 Rating, Add.....	6,411.28	
40 05 19 00-2957			24" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....		
40 05 19 00-2958	EA		24" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,148.59	907.27
			For Class 52 Rating, Deduct.....	-525.14	
			For Class 54 Rating, Add.....	732.59	
			For Class 55 Rating, Add.....	1,097.58	
			For Class 56 Rating, Add.....	1,457.80	
40 05 19 00-2959	EA		24" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,749.34	910.37
			For Class 52 Rating, Deduct.....	-590.70	
			For Class 54 Rating, Add.....	822.05	
			For Class 55 Rating, Add.....	1,230.61	
			For Class 56 Rating, Add.....	1,633.81	
40 05 19 00-2960	EA		24" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,350.10	913.48
			For Class 52 Rating, Deduct.....	-656.27	
			For Class 54 Rating, Add.....	911.52	
			For Class 55 Rating, Add.....	1,363.65	
			For Class 56 Rating, Add.....	1,809.81	
40 05 19 00-2961	EA		24" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,950.85	916.58
			For Class 52 Rating, Deduct.....	-721.83	
			For Class 54 Rating, Add.....	1,000.98	
			For Class 55 Rating, Add.....	1,496.68	
			For Class 56 Rating, Add.....	1,985.81	
40 05 19 00-2962	EA		24" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,551.60	919.69
			For Class 52 Rating, Deduct.....	-787.39	
			For Class 54 Rating, Add.....	1,090.44	
			For Class 55 Rating, Add.....	1,629.71	
			For Class 56 Rating, Add.....	2,161.81	
40 05 19 00-2963	EA		24" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,152.34	922.80
			For Class 52 Rating, Deduct.....	-852.96	
			For Class 54 Rating, Add.....	1,179.90	
			For Class 55 Rating, Add.....	1,762.74	
			For Class 56 Rating, Add.....	2,337.81	
40 05 19 00-2964	EA		24" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,753.09	925.91
			For Class 52 Rating, Deduct.....	-918.52	
			For Class 54 Rating, Add.....	1,269.37	
			For Class 55 Rating, Add.....	1,895.77	
			For Class 56 Rating, Add.....	2,513.82	
40 05 19 00-2965	EA		24" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	10,353.85	929.01
			For Class 52 Rating, Deduct.....	-984.09	
			For Class 54 Rating, Add.....	1,358.83	
			For Class 55 Rating, Add.....	2,028.80	
			For Class 56 Rating, Add.....	2,689.82	
40 05 19 00-2966	EA		24" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	10,954.60	932.12
			For Class 52 Rating, Deduct.....	-1,049.65	
			For Class 54 Rating, Add.....	1,448.29	
			For Class 55 Rating, Add.....	2,161.83	
			For Class 56 Rating, Add.....	2,865.82	
40 05 19 00-2967	EA		24" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	11,555.34	935.22
			For Class 52 Rating, Deduct.....	-1,115.22	
			For Class 54 Rating, Add.....	1,537.76	
			For Class 55 Rating, Add.....	2,294.86	
			For Class 56 Rating, Add.....	3,041.82	
40 05 19 00-2968	EA		24" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,156.09	938.34
			For Class 52 Rating, Deduct.....	-1,180.78	
			For Class 54 Rating, Add.....	1,627.22	
			For Class 55 Rating, Add.....	2,427.89	
			For Class 56 Rating, Add.....	3,217.82	
40 05 19 00-2969	EA		24" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,756.85	941.44
			For Class 52 Rating, Deduct.....	-1,246.35	
			For Class 54 Rating, Add.....	1,716.68	
			For Class 55 Rating, Add.....	2,560.92	
			For Class 56 Rating, Add.....	3,393.83	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

40 05 19 00-2970	EA	24" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,357.60	944.55
		For Class 52 Rating, Deduct	-1,311.91	
		For Class 54 Rating, Add	1,806.14	
		For Class 55 Rating, Add	2,693.95	
		For Class 56 Rating, Add	3,569.83	
40 05 19 00-2971	EA	24" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,958.34	947.65
		For Class 52 Rating, Deduct	-1,377.48	
		For Class 54 Rating, Add	1,895.61	
		For Class 55 Rating, Add	2,826.98	
		For Class 56 Rating, Add	3,745.83	
40 05 19 00-2972	EA	24" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,559.09	950.76
		For Class 52 Rating, Deduct	-1,443.04	
		For Class 54 Rating, Add	1,985.07	
		For Class 55 Rating, Add	2,960.01	
		For Class 56 Rating, Add	3,921.83	
40 05 19 00-2973	EA	24" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,159.84	953.87
		For Class 52 Rating, Deduct	-1,508.60	
		For Class 54 Rating, Add	2,074.53	
		For Class 55 Rating, Add	3,093.04	
		For Class 56 Rating, Add	4,097.83	
40 05 19 00-2974	EA	24" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,760.60	956.98
		For Class 52 Rating, Deduct	-1,574.17	
		For Class 54 Rating, Add	2,164.00	
		For Class 55 Rating, Add	3,226.07	
		For Class 56 Rating, Add	4,273.84	
40 05 19 00-2975	EA	24" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,361.34	960.08
		For Class 52 Rating, Deduct	-1,639.73	
		For Class 54 Rating, Add	2,253.46	
		For Class 55 Rating, Add	3,359.10	
		For Class 56 Rating, Add	4,449.84	
40 05 19 00-2976	EA	24" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,962.09	963.19
		For Class 52 Rating, Deduct	-1,705.30	
		For Class 54 Rating, Add	2,342.92	
		For Class 55 Rating, Add	3,492.13	
		For Class 56 Rating, Add	4,625.84	
40 05 19 00-2977	EA	24" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,562.84	966.29
		For Class 52 Rating, Deduct	-1,770.86	
		For Class 54 Rating, Add	2,432.38	
		For Class 55 Rating, Add	3,625.16	
		For Class 56 Rating, Add	4,801.84	
40 05 19 00-2978	EA	24" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,163.60	969.41
		For Class 52 Rating, Deduct	-1,836.43	
		For Class 54 Rating, Add	2,521.85	
		For Class 55 Rating, Add	3,758.19	
		For Class 56 Rating, Add	4,977.85	
40 05 19 00-2979	EA	24" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,764.35	972.51
		For Class 52 Rating, Deduct	-1,901.99	
		For Class 54 Rating, Add	2,611.31	
		For Class 55 Rating, Add	3,891.22	
		For Class 56 Rating, Add	5,153.85	
40 05 19 00-2980	EA	24" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,365.09	975.62
		For Class 52 Rating, Deduct	-1,967.56	
		For Class 54 Rating, Add	2,700.77	
		For Class 55 Rating, Add	4,024.25	
		For Class 56 Rating, Add	5,329.85	
40 05 19 00-2981	EA	24" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,965.84	978.72
		For Class 52 Rating, Deduct	-2,033.12	
		For Class 54 Rating, Add	2,790.23	
		For Class 55 Rating, Add	4,157.28	
		For Class 56 Rating, Add	5,505.85	
40 05 19 00-2982	EA	24" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,566.59	981.83
		For Class 52 Rating, Deduct	-2,098.69	
		For Class 54 Rating, Add	2,879.70	
		For Class 55 Rating, Add	4,290.31	
		For Class 56 Rating, Add	5,681.85	
40 05 19 00-2983	EA	24" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,167.35	984.94
		For Class 52 Rating, Deduct	-2,164.25	
		For Class 54 Rating, Add	2,969.16	
		For Class 55 Rating, Add	4,423.35	
		For Class 56 Rating, Add	5,857.85	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2984	EA		24" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,768.09	988.05
			For Class 52 Rating, Deduct	-2,229.62	
			For Class 54 Rating, Add	3,058.62	
			For Class 55 Rating, Add	4,556.38	
			For Class 56 Rating, Add	6,033.86	
40 05 19 00-2985	EA		24" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,368.84	991.15
			For Class 52 Rating, Deduct	-2,295.38	
			For Class 54 Rating, Add	3,148.09	
			For Class 55 Rating, Add	4,689.41	
			For Class 56 Rating, Add	6,209.86	
40 05 19 00-2986	EA		24" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,969.59	994.26
			For Class 52 Rating, Deduct	-2,360.95	
			For Class 54 Rating, Add	3,237.55	
			For Class 55 Rating, Add	4,822.44	
			For Class 56 Rating, Add	6,385.86	
40 05 19 00-2987	EA		24" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,650.38	1,050.19
			For Class 52 Rating, Deduct	-2,426.51	
			For Class 54 Rating, Add	3,327.97	
			For Class 55 Rating, Add	4,957.39	
			For Class 56 Rating, Add	6,564.74	
40 05 19 00-2988	EA		24" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,251.12	1,053.29
			For Class 52 Rating, Deduct	-2,492.08	
			For Class 54 Rating, Add	3,417.44	
			For Class 55 Rating, Add	5,090.42	
			For Class 56 Rating, Add	6,740.74	
40 05 19 00-2989	EA		24" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,851.87	1,056.40
			For Class 52 Rating, Deduct	-2,557.64	
			For Class 54 Rating, Add	3,506.90	
			For Class 55 Rating, Add	5,223.45	
			For Class 56 Rating, Add	6,916.75	
40 05 19 00-2990	EA		24" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,452.62	1,059.50
			For Class 52 Rating, Deduct	-2,623.20	
			For Class 54 Rating, Add	3,596.36	
			For Class 55 Rating, Add	5,356.48	
			For Class 56 Rating, Add	7,092.75	
40 05 19 00-2991	EA		24" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	26,053.37	1,062.62
			For Class 52 Rating, Deduct	-2,688.77	
			For Class 54 Rating, Add	3,685.82	
			For Class 55 Rating, Add	5,489.51	
			For Class 56 Rating, Add	7,268.75	
40 05 19 00-2992	EA		24" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	26,651.32	1,065.72
			For Class 52 Rating, Deduct	-2,754.02	
			For Class 54 Rating, Add	3,774.87	
			For Class 55 Rating, Add	5,621.91	
			For Class 56 Rating, Add	7,443.92	
40 05 19 00-2993	EA		24" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,254.87	1,068.83
			For Class 52 Rating, Deduct	-2,819.90	
			For Class 54 Rating, Add	3,864.75	
			For Class 55 Rating, Add	5,755.57	
			For Class 56 Rating, Add	7,620.75	
40 05 19 00-2994	EA		24" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,855.62	1,071.93
			For Class 52 Rating, Deduct	-2,885.46	
			For Class 54 Rating, Add	3,954.21	
			For Class 55 Rating, Add	5,888.60	
			For Class 56 Rating, Add	7,796.76	
40 05 19 00-2995	EA		24" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,456.37	1,075.04
			For Class 52 Rating, Deduct	-2,951.03	
			For Class 54 Rating, Add	4,043.67	
			For Class 55 Rating, Add	6,021.63	
			For Class 56 Rating, Add	7,972.76	
40 05 19 00-2996			30" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2600)		
40 05 19 00-2997	EA		30" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,457.55	1,280.11
			For Class 52 Rating, Deduct	-826.98	
			For Class 54 Rating, Add	1,150.97	
			For Class 55 Rating, Add	1,723.06	
			For Class 56 Rating, Add	2,287.63	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2998	EA		30" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,316.97	1,283.22
			For Class 52 Rating, Deduct	-921.00	
			For Class 54 Rating, Add	1,279.24	
			For Class 55 Rating, Add	1,913.78	
			For Class 56 Rating, Add	2,539.94	
40 05 19 00-2999	EA		30" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,176.38	1,286.32
			For Class 52 Rating, Deduct	-1,015.02	
			For Class 54 Rating, Add	1,407.50	
			For Class 55 Rating, Add	2,104.49	
			For Class 56 Rating, Add	2,792.25	
40 05 19 00-3000	EA		30" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,035.79	1,289.43
			For Class 52 Rating, Deduct	-1,109.03	
			For Class 54 Rating, Add	1,535.76	
			For Class 55 Rating, Add	2,295.20	
			For Class 56 Rating, Add	3,044.55	
40 05 19 00-3001	EA		30" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	12,895.19	1,292.53
			For Class 52 Rating, Deduct	-1,203.05	
			For Class 54 Rating, Add	1,664.02	
			For Class 55 Rating, Add	2,485.91	
			For Class 56 Rating, Add	3,296.86	
40 05 19 00-3002	EA		30" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	13,754.60	1,295.65
			For Class 52 Rating, Deduct	-1,297.07	
			For Class 54 Rating, Add	1,792.28	
			For Class 55 Rating, Add	2,676.62	
			For Class 56 Rating, Add	3,549.17	
40 05 19 00-3003	EA		30" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	14,614.02	1,298.75
			For Class 52 Rating, Deduct	-1,391.08	
			For Class 54 Rating, Add	1,920.55	
			For Class 55 Rating, Add	2,867.33	
			For Class 56 Rating, Add	3,801.48	
40 05 19 00-3004	EA		30" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,473.43	1,301.86
			For Class 52 Rating, Deduct	-1,485.10	
			For Class 54 Rating, Add	2,048.81	
			For Class 55 Rating, Add	3,058.05	
			For Class 56 Rating, Add	4,053.78	
40 05 19 00-3005	EA		30" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,332.83	1,304.96
			For Class 52 Rating, Deduct	-1,579.12	
			For Class 54 Rating, Add	2,177.07	
			For Class 55 Rating, Add	3,248.76	
			For Class 56 Rating, Add	4,306.09	
40 05 19 00-3006	EA		30" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,192.24	1,308.07
			For Class 52 Rating, Deduct	-1,673.14	
			For Class 54 Rating, Add	2,305.33	
			For Class 55 Rating, Add	3,439.47	
			For Class 56 Rating, Add	4,558.39	
40 05 19 00-3007	EA		30" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,051.66	1,311.18
			For Class 52 Rating, Deduct	-1,767.15	
			For Class 54 Rating, Add	2,433.59	
			For Class 55 Rating, Add	3,630.18	
			For Class 56 Rating, Add	4,810.70	
40 05 19 00-3008	EA		30" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,911.07	1,314.29
			For Class 52 Rating, Deduct	-1,861.17	
			For Class 54 Rating, Add	2,561.86	
			For Class 55 Rating, Add	3,820.89	
			For Class 56 Rating, Add	5,063.01	
40 05 19 00-3009	EA		30" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,770.48	1,317.39
			For Class 52 Rating, Deduct	-1,955.19	
			For Class 54 Rating, Add	2,690.12	
			For Class 55 Rating, Add	4,011.60	
			For Class 56 Rating, Add	5,315.31	
40 05 19 00-3010	EA		30" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	20,629.88	1,320.50
			For Class 52 Rating, Deduct	-2,049.20	
			For Class 54 Rating, Add	2,818.38	
			For Class 55 Rating, Add	4,202.31	
			For Class 56 Rating, Add	5,567.62	
40 05 19 00-3011	EA		30" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,489.29	1,323.60
			For Class 52 Rating, Deduct	-2,143.22	
			For Class 54 Rating, Add	2,946.64	
			For Class 55 Rating, Add	4,393.03	
			For Class 56 Rating, Add	5,819.93	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3012	EA	30" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,348.71	1,326.72
		For Class 52 Rating, Deduct	-2,237.24	
		For Class 54 Rating, Add	3,074.90	
		For Class 55 Rating, Add	4,583.74	
		For Class 56 Rating, Add	6,072.24	
40 05 19 00-3013	EA	30" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,208.12	1,329.82
		For Class 52 Rating, Deduct	-2,331.26	
		For Class 54 Rating, Add	3,203.16	
		For Class 55 Rating, Add	4,774.45	
		For Class 56 Rating, Add	6,324.54	
40 05 19 00-3014	EA	30" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,067.52	1,332.93
		For Class 52 Rating, Deduct	-2,425.27	
		For Class 54 Rating, Add	3,331.43	
		For Class 55 Rating, Add	4,965.16	
		For Class 56 Rating, Add	6,576.85	
40 05 19 00-3015	EA	30" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,926.93	1,336.03
		For Class 52 Rating, Deduct	-2,519.29	
		For Class 54 Rating, Add	3,459.69	
		For Class 55 Rating, Add	5,155.87	
		For Class 56 Rating, Add	6,829.15	
40 05 19 00-3016	EA	30" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,786.34	1,339.14
		For Class 52 Rating, Deduct	-2,613.31	
		For Class 54 Rating, Add	3,587.95	
		For Class 55 Rating, Add	5,346.58	
		For Class 56 Rating, Add	7,081.46	
40 05 19 00-3017	EA	30" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	26,645.76	1,342.25
		For Class 52 Rating, Deduct	-2,707.33	
		For Class 54 Rating, Add	3,716.21	
		For Class 55 Rating, Add	5,537.30	
		For Class 56 Rating, Add	7,333.77	
40 05 19 00-3018	EA	30" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	27,505.16	1,345.36
		For Class 52 Rating, Deduct	-2,801.34	
		For Class 54 Rating, Add	3,844.47	
		For Class 55 Rating, Add	5,728.01	
		For Class 56 Rating, Add	7,586.07	
40 05 19 00-3019	EA	30" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,364.57	1,348.46
		For Class 52 Rating, Deduct	-2,895.36	
		For Class 54 Rating, Add	3,972.73	
		For Class 55 Rating, Add	5,918.72	
		For Class 56 Rating, Add	7,838.38	
40 05 19 00-3020	EA	30" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,223.98	1,351.57
		For Class 52 Rating, Deduct	-2,989.38	
		For Class 54 Rating, Add	4,101.00	
		For Class 55 Rating, Add	6,109.43	
		For Class 56 Rating, Add	8,090.69	
40 05 19 00-3021	EA	30" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,083.39	1,354.67
		For Class 52 Rating, Deduct	-3,083.39	
		For Class 54 Rating, Add	4,229.26	
		For Class 55 Rating, Add	6,300.14	
		For Class 56 Rating, Add	8,342.99	
40 05 19 00-3022	EA	30" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,942.80	1,357.79
		For Class 52 Rating, Deduct	-3,177.41	
		For Class 54 Rating, Add	4,357.52	
		For Class 55 Rating, Add	6,490.85	
		For Class 56 Rating, Add	8,595.30	
40 05 19 00-3023	EA	30" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	31,802.21	1,360.89
		For Class 52 Rating, Deduct	-3,271.43	
		For Class 54 Rating, Add	4,485.78	
		For Class 55 Rating, Add	6,681.56	
		For Class 56 Rating, Add	8,847.61	
40 05 19 00-3024	EA	30" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,661.62	1,364.00
		For Class 52 Rating, Deduct	-3,365.45	
		For Class 54 Rating, Add	4,614.04	
		For Class 55 Rating, Add	6,872.28	
		For Class 56 Rating, Add	9,099.91	
40 05 19 00-3025	EA	30" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	33,521.03	1,367.10
		For Class 52 Rating, Deduct	-3,459.46	
		For Class 54 Rating, Add	4,742.31	
		For Class 55 Rating, Add	7,062.99	
		For Class 56 Rating, Add	9,352.22	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3026	EA	30" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		34,380.44	1,370.21
		For Class 52 Rating, Deduct		-3,553.48	
		For Class 54 Rating, Add		4,870.57	
		For Class 55 Rating, Add		7,253.70	
		For Class 56 Rating, Add		9,604.53	
40 05 19 00-3027	EA	30" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		35,239.85	1,373.32
		For Class 52 Rating, Deduct		-3,647.50	
		For Class 54 Rating, Add		4,998.83	
		For Class 55 Rating, Add		7,444.41	
		For Class 56 Rating, Add		9,856.83	
40 05 19 00-3028	EA	30" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		36,099.26	1,376.43
		For Class 52 Rating, Deduct		-3,741.51	
		For Class 54 Rating, Add		5,127.09	
		For Class 55 Rating, Add		7,635.12	
		For Class 56 Rating, Add		10,109.14	
40 05 19 00-3029	EA	30" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		36,958.67	1,379.53
		For Class 52 Rating, Deduct		-3,835.53	
		For Class 54 Rating, Add		5,255.35	
		For Class 55 Rating, Add		7,825.83	
		For Class 56 Rating, Add		10,361.45	
40 05 19 00-3030	EA	30" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		37,818.08	1,382.64
		For Class 52 Rating, Deduct		-3,929.55	
		For Class 54 Rating, Add		5,383.61	
		For Class 55 Rating, Add		8,016.54	
		For Class 56 Rating, Add		10,613.75	
40 05 19 00-3031	EA	30" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		38,677.49	1,385.74
		For Class 52 Rating, Deduct		-4,023.57	
		For Class 54 Rating, Add		5,511.88	
		For Class 55 Rating, Add		8,207.26	
		For Class 56 Rating, Add		10,866.06	
40 05 19 00-3032		36" Flanged End x Grooved End (FxG), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3030)			
40 05 19 00-3033	EA	36" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		13,087.76	1,621.89
		For Class 52 Rating, Deduct		-1,169.34	
		For Class 54 Rating, Add		1,624.04	
		For Class 55 Rating, Add		2,429.55	
		For Class 56 Rating, Add		3,224.42	
40 05 19 00-3034	EA	36" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		14,239.56	1,624.99
		For Class 52 Rating, Deduct		-1,295.52	
		For Class 54 Rating, Add		1,796.16	
		For Class 55 Rating, Add		2,685.46	
		For Class 56 Rating, Add		3,562.99	
40 05 19 00-3035	EA	36" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		15,391.37	1,628.10
		For Class 52 Rating, Deduct		-1,421.70	
		For Class 54 Rating, Add		1,968.29	
		For Class 55 Rating, Add		2,941.38	
		For Class 56 Rating, Add		3,901.55	
40 05 19 00-3036	EA	36" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		16,543.18	1,631.20
		For Class 52 Rating, Deduct		-1,547.88	
		For Class 54 Rating, Add		2,140.41	
		For Class 55 Rating, Add		3,197.30	
		For Class 56 Rating, Add		4,240.11	
40 05 19 00-3037	EA	36" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		17,694.99	1,634.31
		For Class 52 Rating, Deduct		-1,674.06	
		For Class 54 Rating, Add		2,312.53	
		For Class 55 Rating, Add		3,453.21	
		For Class 56 Rating, Add		4,578.68	
40 05 19 00-3038	EA	36" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		18,846.79	1,637.42
		For Class 52 Rating, Deduct		-1,800.24	
		For Class 54 Rating, Add		2,484.65	
		For Class 55 Rating, Add		3,709.13	
		For Class 56 Rating, Add		4,917.24	
40 05 19 00-3039	EA	36" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		19,998.60	1,640.53
		For Class 52 Rating, Deduct		-1,926.43	
		For Class 54 Rating, Add		2,656.77	
		For Class 55 Rating, Add		3,965.05	
		For Class 56 Rating, Add		5,255.81	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3040	EA	36" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	21,150.41	1,643.63
		For Class 52 Rating, Deduct	-2,052.61	
		For Class 54 Rating, Add	2,828.89	
		For Class 55 Rating, Add	4,220.96	
		For Class 56 Rating, Add	5,594.37	
40 05 19 00-3041	EA	36" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	22,302.22	1,646.74
		For Class 52 Rating, Deduct	-2,178.79	
		For Class 54 Rating, Add	3,001.01	
		For Class 55 Rating, Add	4,476.88	
		For Class 56 Rating, Add	5,932.93	
40 05 19 00-3042	EA	36" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	23,454.02	1,649.84
		For Class 52 Rating, Deduct	-2,304.97	
		For Class 54 Rating, Add	3,173.14	
		For Class 55 Rating, Add	4,732.79	
		For Class 56 Rating, Add	6,271.50	
40 05 19 00-3043	EA	36" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	24,605.83	1,652.96
		For Class 52 Rating, Deduct	-2,431.15	
		For Class 54 Rating, Add	3,345.26	
		For Class 55 Rating, Add	4,988.71	
		For Class 56 Rating, Add	6,610.06	
40 05 19 00-3044	EA	36" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	25,757.64	1,656.06
		For Class 52 Rating, Deduct	-2,557.33	
		For Class 54 Rating, Add	3,517.38	
		For Class 55 Rating, Add	5,244.63	
		For Class 56 Rating, Add	6,948.63	
40 05 19 00-3045	EA	36" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	26,909.45	1,659.17
		For Class 52 Rating, Deduct	-2,683.51	
		For Class 54 Rating, Add	3,689.50	
		For Class 55 Rating, Add	5,500.54	
		For Class 56 Rating, Add	7,287.19	
40 05 19 00-3046	EA	36" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	28,061.25	1,662.27
		For Class 52 Rating, Deduct	-2,809.69	
		For Class 54 Rating, Add	3,861.62	
		For Class 55 Rating, Add	5,756.46	
		For Class 56 Rating, Add	7,625.75	
40 05 19 00-3047	EA	36" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,213.06	1,665.38
		For Class 52 Rating, Deduct	-2,935.87	
		For Class 54 Rating, Add	4,033.74	
		For Class 55 Rating, Add	6,012.38	
		For Class 56 Rating, Add	7,964.32	
40 05 19 00-3048	EA	36" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,364.87	1,668.49
		For Class 52 Rating, Deduct	-3,062.05	
		For Class 54 Rating, Add	4,205.87	
		For Class 55 Rating, Add	6,268.29	
		For Class 56 Rating, Add	8,302.88	
40 05 19 00-3049	EA	36" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	31,516.68	1,671.60
		For Class 52 Rating, Deduct	-3,188.24	
		For Class 54 Rating, Add	4,377.99	
		For Class 55 Rating, Add	6,524.21	
		For Class 56 Rating, Add	8,641.45	
40 05 19 00-3050	EA	36" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,668.49	1,674.70
		For Class 52 Rating, Deduct	-3,314.42	
		For Class 54 Rating, Add	4,550.11	
		For Class 55 Rating, Add	6,780.12	
		For Class 56 Rating, Add	8,980.01	
40 05 19 00-3051	EA	36" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	33,820.29	1,677.81
		For Class 52 Rating, Deduct	-3,440.60	
		For Class 54 Rating, Add	4,722.23	
		For Class 55 Rating, Add	7,036.04	
		For Class 56 Rating, Add	9,318.57	
40 05 19 00-3052	EA	36" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	34,972.10	1,680.91
		For Class 52 Rating, Deduct	-3,566.78	
		For Class 54 Rating, Add	4,894.35	
		For Class 55 Rating, Add	7,291.96	
		For Class 56 Rating, Add	9,657.14	
40 05 19 00-3053	EA	36" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,123.91	1,684.03
		For Class 52 Rating, Deduct	-3,692.96	
		For Class 54 Rating, Add	5,066.47	
		For Class 55 Rating, Add	7,547.87	
		For Class 56 Rating, Add	9,995.70	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3054	EA		36" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	37,275.72	1,687.13
			For Class 52 Rating, Deduct.....	-3,819.14	
			For Class 54 Rating, Add.....	5,238.59	
			For Class 55 Rating, Add.....	7,803.79	
			For Class 56 Rating, Add.....	10,334.27	
40 05 19 00-3055	EA		36" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	38,427.52	1,690.24
			For Class 52 Rating, Deduct.....	-3,945.32	
			For Class 54 Rating, Add.....	5,410.72	
			For Class 55 Rating, Add.....	8,059.71	
			For Class 56 Rating, Add.....	10,672.83	
40 05 19 00-3056	EA		36" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	39,579.33	1,693.34
			For Class 52 Rating, Deduct.....	-4,071.50	
			For Class 54 Rating, Add.....	5,582.84	
			For Class 55 Rating, Add.....	8,315.62	
			For Class 56 Rating, Add.....	11,011.39	
40 05 19 00-3057	EA		36" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	40,731.14	1,696.45
			For Class 52 Rating, Deduct.....	-4,197.68	
			For Class 54 Rating, Add.....	5,754.96	
			For Class 55 Rating, Add.....	8,571.54	
			For Class 56 Rating, Add.....	11,349.96	
40 05 19 00-3058	EA		36" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	41,882.95	1,699.56
			For Class 52 Rating, Deduct.....	-4,323.86	
			For Class 54 Rating, Add.....	5,927.08	
			For Class 55 Rating, Add.....	8,827.45	
			For Class 56 Rating, Add.....	11,688.52	
40 05 19 00-3059	EA		36" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	43,034.75	1,702.67
			For Class 52 Rating, Deduct.....	-4,450.05	
			For Class 54 Rating, Add.....	6,099.20	
			For Class 55 Rating, Add.....	9,083.37	
			For Class 56 Rating, Add.....	12,027.09	
40 05 19 00-3060	EA		36" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	44,186.56	1,705.77
			For Class 52 Rating, Deduct.....	-4,576.23	
			For Class 54 Rating, Add.....	6,271.32	
			For Class 55 Rating, Add.....	9,339.29	
			For Class 56 Rating, Add.....	12,365.65	
40 05 19 00-3061	EA		36" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	45,338.37	1,708.88
			For Class 52 Rating, Deduct.....	-4,702.41	
			For Class 54 Rating, Add.....	6,443.44	
			For Class 55 Rating, Add.....	9,595.20	
			For Class 56 Rating, Add.....	12,704.21	
40 05 19 00-3062	EA		36" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	46,490.18	1,711.99
			For Class 52 Rating, Deduct.....	-4,828.59	
			For Class 54 Rating, Add.....	6,615.57	
			For Class 55 Rating, Add.....	9,851.12	
			For Class 56 Rating, Add.....	13,042.78	
40 05 19 00-3063	EA		36" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	47,641.98	1,715.10
			For Class 52 Rating, Deduct.....	-4,954.77	
			For Class 54 Rating, Add.....	6,787.69	
			For Class 55 Rating, Add.....	10,107.04	
			For Class 56 Rating, Add.....	13,381.34	
40 05 19 00-3064	EA		36" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	48,793.79	1,718.20
			For Class 52 Rating, Deduct.....	-5,080.95	
			For Class 54 Rating, Add.....	6,959.81	
			For Class 55 Rating, Add.....	10,362.95	
			For Class 56 Rating, Add.....	13,719.91	
40 05 19 00-3065	EA		36" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	49,945.60	1,721.31
			For Class 52 Rating, Deduct.....	-5,207.13	
			For Class 54 Rating, Add.....	7,131.93	
			For Class 55 Rating, Add.....	10,618.87	
			For Class 56 Rating, Add.....	14,058.47	
40 05 19 00-3066	EA		36" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	51,097.41	1,724.41
			For Class 52 Rating, Deduct.....	-5,333.31	
			For Class 54 Rating, Add.....	7,304.05	
			For Class 55 Rating, Add.....	10,874.79	
			For Class 56 Rating, Add.....	14,397.03	
40 05 19 00-3067	EA		36" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	52,249.22	1,727.53
			For Class 52 Rating, Deduct.....	-5,459.49	
			For Class 54 Rating, Add.....	7,476.17	
			For Class 55 Rating, Add.....	11,130.70	
			For Class 56 Rating, Add.....	14,735.60	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3068		Flanged End x Plain End (FxPE), Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-2059)		
40 05 19 00-3069		4" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3070	EA	4" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	705.38	151.96
		For Class 52 Rating, Deduct	-52.27	
		For Class 54 Rating, Add	74.04	
		For Class 55 Rating, Add	111.48	
		For Class 56 Rating, Add	148.46	
40 05 19 00-3071	EA	4" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	816.23	154.61
		For Class 52 Rating, Deduct	-64.02	
		For Class 54 Rating, Add	90.11	
		For Class 55 Rating, Add	135.40	
		For Class 56 Rating, Add	180.12	
40 05 19 00-3072	EA	4" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	927.09	157.27
		For Class 52 Rating, Deduct	-75.77	
		For Class 54 Rating, Add	106.18	
		For Class 55 Rating, Add	159.33	
		For Class 56 Rating, Add	211.78	
40 05 19 00-3073	EA	4" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,037.96	159.91
		For Class 52 Rating, Deduct	-87.52	
		For Class 54 Rating, Add	122.26	
		For Class 55 Rating, Add	183.25	
		For Class 56 Rating, Add	243.44	
40 05 19 00-3074	EA	4" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,148.83	162.58
		For Class 52 Rating, Deduct	-99.28	
		For Class 54 Rating, Add	138.33	
		For Class 55 Rating, Add	207.17	
		For Class 56 Rating, Add	275.11	
40 05 19 00-3075	EA	4" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,259.70	165.24
		For Class 52 Rating, Deduct	-111.03	
		For Class 54 Rating, Add	154.41	
		For Class 55 Rating, Add	231.09	
		For Class 56 Rating, Add	306.77	
40 05 19 00-3076	EA	4" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,370.55	167.90
		For Class 52 Rating, Deduct	-122.78	
		For Class 54 Rating, Add	170.48	
		For Class 55 Rating, Add	255.01	
		For Class 56 Rating, Add	338.43	
40 05 19 00-3077	EA	4" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,481.42	170.55
		For Class 52 Rating, Deduct	-134.53	
		For Class 54 Rating, Add	186.55	
		For Class 55 Rating, Add	278.93	
		For Class 56 Rating, Add	370.09	
40 05 19 00-3078	EA	4" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,592.28	173.21
		For Class 52 Rating, Deduct	-146.28	
		For Class 54 Rating, Add	202.63	
		For Class 55 Rating, Add	302.85	
		For Class 56 Rating, Add	401.75	
40 05 19 00-3079	EA	4" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,703.14	175.86
		For Class 52 Rating, Deduct	-158.04	
		For Class 54 Rating, Add	218.70	
		For Class 55 Rating, Add	326.78	
		For Class 56 Rating, Add	433.42	
40 05 19 00-3080	EA	4" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,814.00	178.51
		For Class 52 Rating, Deduct	-169.79	
		For Class 54 Rating, Add	234.77	
		For Class 55 Rating, Add	350.70	
		For Class 56 Rating, Add	465.08	
40 05 19 00-3081	EA	4" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,924.86	181.18
		For Class 52 Rating, Deduct	-181.54	
		For Class 54 Rating, Add	250.85	
		For Class 55 Rating, Add	374.62	
		For Class 56 Rating, Add	496.74	
40 05 19 00-3082	EA	4" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,035.73	183.83
		For Class 52 Rating, Deduct	-193.29	
		For Class 54 Rating, Add	266.92	
		For Class 55 Rating, Add	398.54	
		For Class 56 Rating, Add	528.40	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3083	EA		4" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,146.59	186.49
			For Class 52 Rating, Deduct.....	-205.04	
			For Class 54 Rating, Add.....	283.00	
			For Class 55 Rating, Add.....	422.46	
			For Class 56 Rating, Add.....	560.06	
40 05 19 00-3084	EA		4" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,257.46	189.15
			For Class 52 Rating, Deduct.....	-216.80	
			For Class 54 Rating, Add.....	299.07	
			For Class 55 Rating, Add.....	446.38	
			For Class 56 Rating, Add.....	591.73	
40 05 19 00-3085	EA		4" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,368.32	191.80
			For Class 52 Rating, Deduct.....	-228.55	
			For Class 54 Rating, Add.....	315.14	
			For Class 55 Rating, Add.....	470.30	
			For Class 56 Rating, Add.....	623.39	
40 05 19 00-3086	EA		4" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,479.18	194.46
			For Class 52 Rating, Deduct.....	-240.30	
			For Class 54 Rating, Add.....	331.22	
			For Class 55 Rating, Add.....	494.23	
			For Class 56 Rating, Add.....	655.05	
40 05 19 00-3087	EA		4" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,590.05	197.11
			For Class 52 Rating, Deduct.....	-252.05	
			For Class 54 Rating, Add.....	347.29	
			For Class 55 Rating, Add.....	518.15	
			For Class 56 Rating, Add.....	686.71	
40 05 19 00-3088	EA		4" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,700.91	199.77
			For Class 52 Rating, Deduct.....	-263.81	
			For Class 54 Rating, Add.....	363.37	
			For Class 55 Rating, Add.....	542.07	
			For Class 56 Rating, Add.....	718.37	
40 05 19 00-3089	EA		4" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,811.76	202.43
			For Class 52 Rating, Deduct.....	-275.56	
			For Class 54 Rating, Add.....	379.44	
			For Class 55 Rating, Add.....	565.99	
			For Class 56 Rating, Add.....	750.03	
40 05 19 00-3090	EA		4" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,922.63	205.09
			For Class 52 Rating, Deduct.....	-287.31	
			For Class 54 Rating, Add.....	395.51	
			For Class 55 Rating, Add.....	589.91	
			For Class 56 Rating, Add.....	781.70	
40 05 19 00-3091	EA		4" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,033.49	207.74
			For Class 52 Rating, Deduct.....	-299.06	
			For Class 54 Rating, Add.....	411.59	
			For Class 55 Rating, Add.....	613.83	
			For Class 56 Rating, Add.....	813.36	
40 05 19 00-3092	EA		4" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,144.36	210.40
			For Class 52 Rating, Deduct.....	-310.81	
			For Class 54 Rating, Add.....	427.66	
			For Class 55 Rating, Add.....	637.76	
			For Class 56 Rating, Add.....	845.02	
40 05 19 00-3093	EA		4" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,255.22	213.06
			For Class 52 Rating, Deduct.....	-322.57	
			For Class 54 Rating, Add.....	443.74	
			For Class 55 Rating, Add.....	661.68	
			For Class 56 Rating, Add.....	876.68	
40 05 19 00-3094	EA		4" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,641.61	215.70
			For Class 52 Rating, Deduct.....	-364.63	
			For Class 54 Rating, Add.....	501.14	
			For Class 55 Rating, Add.....	747.04	
			For Class 56 Rating, Add.....	989.63	
40 05 19 00-3095	EA		4" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,752.48	218.37
			For Class 52 Rating, Deduct.....	-376.38	
			For Class 54 Rating, Add.....	517.21	
			For Class 55 Rating, Add.....	770.96	
			For Class 56 Rating, Add.....	1,021.29	
40 05 19 00-3096	EA		4" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,863.34	221.02
			For Class 52 Rating, Deduct.....	-388.13	
			For Class 54 Rating, Add.....	533.29	
			For Class 55 Rating, Add.....	794.88	
			For Class 56 Rating, Add.....	1,052.95	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3097	EA	4" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,974.21	223.68
		For Class 52 Rating, Deduct	-399.88	
		For Class 54 Rating, Add	549.36	
		For Class 55 Rating, Add	818.81	
		For Class 56 Rating, Add	1,084.61	
40 05 19 00-3098	EA	4" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,085.06	226.34
		For Class 52 Rating, Deduct	-471.63	
		For Class 54 Rating, Add	565.43	
		For Class 55 Rating, Add	842.73	
		For Class 56 Rating, Add	1,116.27	
40 05 19 00-3099	EA	4" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,195.92	228.99
		For Class 52 Rating, Deduct	-423.39	
		For Class 54 Rating, Add	581.51	
		For Class 55 Rating, Add	866.65	
		For Class 56 Rating, Add	1,147.94	
40 05 19 00-3100	EA	4" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,306.79	231.65
		For Class 52 Rating, Deduct	-435.14	
		For Class 54 Rating, Add	597.58	
		For Class 55 Rating, Add	890.57	
		For Class 56 Rating, Add	1,179.60	
40 05 19 00-3101	EA	4" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,417.65	234.31
		For Class 52 Rating, Deduct	-446.89	
		For Class 54 Rating, Add	613.66	
		For Class 55 Rating, Add	914.49	
		For Class 56 Rating, Add	1,211.26	
40 05 19 00-3102	EA	4" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,528.51	236.96
		For Class 52 Rating, Deduct	-458.64	
		For Class 54 Rating, Add	629.73	
		For Class 55 Rating, Add	938.41	
		For Class 56 Rating, Add	1,242.92	
40 05 19 00-3103	EA	4" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,639.37	239.62
		For Class 52 Rating, Deduct	-470.40	
		For Class 54 Rating, Add	645.80	
		For Class 55 Rating, Add	962.33	
		For Class 56 Rating, Add	1,274.58	
40 05 19 00-3104	EA	4" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,750.24	242.28
		For Class 52 Rating, Deduct	-482.15	
		For Class 54 Rating, Add	661.88	
		For Class 55 Rating, Add	986.25	
		For Class 56 Rating, Add	1,306.25	
40 05 19 00-3105	EA	4" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,861.11	244.93
		For Class 52 Rating, Deduct	-493.90	
		For Class 54 Rating, Add	677.95	
		For Class 55 Rating, Add	1,010.18	
		For Class 56 Rating, Add	1,337.91	
40 05 19 00-3106	EA	4" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,971.97	247.59
		For Class 52 Rating, Deduct	-505.65	
		For Class 54 Rating, Add	694.03	
		For Class 55 Rating, Add	1,034.10	
		For Class 56 Rating, Add	1,369.57	
40 05 19 00-3107	EA	4" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,082.83	250.25
		For Class 52 Rating, Deduct	-517.40	
		For Class 54 Rating, Add	710.10	
		For Class 55 Rating, Add	1,058.02	
		For Class 56 Rating, Add	1,401.23	
40 05 19 00-3108	EA	4" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,193.69	252.90
		For Class 52 Rating, Deduct	-529.16	
		For Class 54 Rating, Add	726.17	
		For Class 55 Rating, Add	1,081.94	
		For Class 56 Rating, Add	1,432.89	
40 05 19 00-3109		6" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3110	EA	6" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	866.16	191.28
		For Class 52 Rating, Deduct	-63.40	
		For Class 54 Rating, Add	89.93	
		For Class 55 Rating, Add	135.48	
		For Class 56 Rating, Add	180.46	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3111	EA		6" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	993.90	193.93
			For Class 52 Rating, Deduct.....	-77.01	
			For Class 54 Rating, Add.....	108.54	
			For Class 55 Rating, Add.....	163.17	
			For Class 56 Rating, Add.....	217.10	
40 05 19 00-3112	EA		6" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,121.63	196.58
			For Class 52 Rating, Deduct.....	-90.62	
			For Class 54 Rating, Add.....	127.14	
			For Class 55 Rating, Add.....	190.85	
			For Class 56 Rating, Add.....	253.74	
40 05 19 00-3113	EA		6" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,249.36	199.24
			For Class 52 Rating, Deduct.....	-104.22	
			For Class 54 Rating, Add.....	145.74	
			For Class 55 Rating, Add.....	218.53	
			For Class 56 Rating, Add.....	290.37	
40 05 19 00-3114	EA		6" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,377.10	201.90
			For Class 52 Rating, Deduct.....	-117.83	
			For Class 54 Rating, Add.....	164.35	
			For Class 55 Rating, Add.....	246.22	
			For Class 56 Rating, Add.....	327.01	
40 05 19 00-3115	EA		6" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,504.83	204.55
			For Class 52 Rating, Deduct.....	-131.44	
			For Class 54 Rating, Add.....	182.95	
			For Class 55 Rating, Add.....	273.90	
			For Class 56 Rating, Add.....	363.65	
40 05 19 00-3116	EA		6" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,632.56	207.20
			For Class 52 Rating, Deduct.....	-145.05	
			For Class 54 Rating, Add.....	201.56	
			For Class 55 Rating, Add.....	301.58	
			For Class 56 Rating, Add.....	400.29	
40 05 19 00-3117	EA		6" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,760.29	209.87
			For Class 52 Rating, Deduct.....	-158.65	
			For Class 54 Rating, Add.....	220.16	
			For Class 55 Rating, Add.....	329.27	
			For Class 56 Rating, Add.....	436.93	
40 05 19 00-3118	EA		6" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	1,888.02	212.53
			For Class 52 Rating, Deduct.....	-172.26	
			For Class 54 Rating, Add.....	238.77	
			For Class 55 Rating, Add.....	356.95	
			For Class 56 Rating, Add.....	473.57	
40 05 19 00-3119	EA		6" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,015.75	215.17
			For Class 52 Rating, Deduct.....	-185.87	
			For Class 54 Rating, Add.....	257.37	
			For Class 55 Rating, Add.....	384.63	
			For Class 56 Rating, Add.....	510.20	
40 05 19 00-3120	EA		6" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,143.48	217.83
			For Class 52 Rating, Deduct.....	-199.48	
			For Class 54 Rating, Add.....	275.98	
			For Class 55 Rating, Add.....	412.32	
			For Class 56 Rating, Add.....	546.84	
40 05 19 00-3121	EA		6" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,271.22	220.50
			For Class 52 Rating, Deduct.....	-213.09	
			For Class 54 Rating, Add.....	294.58	
			For Class 55 Rating, Add.....	440.00	
			For Class 56 Rating, Add.....	583.48	
40 05 19 00-3122	EA		6" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,398.94	223.14
			For Class 52 Rating, Deduct.....	-226.69	
			For Class 54 Rating, Add.....	313.18	
			For Class 55 Rating, Add.....	467.68	
			For Class 56 Rating, Add.....	620.12	
40 05 19 00-3123	EA		6" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,526.68	225.80
			For Class 52 Rating, Deduct.....	-240.30	
			For Class 54 Rating, Add.....	331.79	
			For Class 55 Rating, Add.....	495.37	
			For Class 56 Rating, Add.....	656.76	
40 05 19 00-3124	EA		6" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,654.42	228.47
			For Class 52 Rating, Deduct.....	-253.91	
			For Class 54 Rating, Add.....	350.39	
			For Class 55 Rating, Add.....	523.05	
			For Class 56 Rating, Add.....	693.40	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3125	EA	6" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,792.14	231.12
		For Class 52 Rating, Deduct	-267.52	
		For Class 54 Rating, Add	369.00	
		For Class 55 Rating, Add	550.73	
		For Class 56 Rating, Add	730.03	
40 05 19 00-3126	EA	6" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,909.88	233.77
		For Class 52 Rating, Deduct	-284.12	
		For Class 54 Rating, Add	387.60	
		For Class 55 Rating, Add	578.42	
		For Class 56 Rating, Add	766.67	
40 05 19 00-3127	EA	6" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,037.61	236.43
		For Class 52 Rating, Deduct	-294.73	
		For Class 54 Rating, Add	406.21	
		For Class 55 Rating, Add	606.10	
		For Class 56 Rating, Add	803.31	
40 05 19 00-3128	EA	6" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,165.34	239.09
		For Class 52 Rating, Deduct	-308.34	
		For Class 54 Rating, Add	424.81	
		For Class 55 Rating, Add	633.78	
		For Class 56 Rating, Add	839.95	
40 05 19 00-3129	EA	6" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,293.07	241.75
		For Class 52 Rating, Deduct	-321.95	
		For Class 54 Rating, Add	443.41	
		For Class 55 Rating, Add	661.46	
		For Class 56 Rating, Add	876.59	
40 05 19 00-3130	EA	6" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,420.80	244.39
		For Class 52 Rating, Deduct	-335.56	
		For Class 54 Rating, Add	462.02	
		For Class 55 Rating, Add	689.15	
		For Class 56 Rating, Add	913.23	
40 05 19 00-3131	EA	6" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,548.54	247.06
		For Class 52 Rating, Deduct	-349.16	
		For Class 54 Rating, Add	480.62	
		For Class 55 Rating, Add	716.83	
		For Class 56 Rating, Add	949.87	
40 05 19 00-3132	EA	6" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,676.26	249.72
		For Class 52 Rating, Deduct	-362.77	
		For Class 54 Rating, Add	499.23	
		For Class 55 Rating, Add	744.51	
		For Class 56 Rating, Add	986.50	
40 05 19 00-3133	EA	6" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,804.00	252.36
		For Class 52 Rating, Deduct	-376.38	
		For Class 54 Rating, Add	517.83	
		For Class 55 Rating, Add	772.20	
		For Class 56 Rating, Add	1,023.14	
40 05 19 00-3134	EA	6" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,931.74	255.02
		For Class 52 Rating, Deduct	-389.99	
		For Class 54 Rating, Add	536.44	
		For Class 55 Rating, Add	799.88	
		For Class 56 Rating, Add	1,059.78	
40 05 19 00-3135	EA	6" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,059.46	257.69
		For Class 52 Rating, Deduct	-403.59	
		For Class 54 Rating, Add	555.04	
		For Class 55 Rating, Add	827.56	
		For Class 56 Rating, Add	1,096.42	
40 05 19 00-3136	EA	6" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,187.20	260.34
		For Class 52 Rating, Deduct	-417.20	
		For Class 54 Rating, Add	573.64	
		For Class 55 Rating, Add	855.25	
		For Class 56 Rating, Add	1,133.06	
40 05 19 00-3137	EA	6" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,314.93	262.99
		For Class 52 Rating, Deduct	-430.81	
		For Class 54 Rating, Add	592.25	
		For Class 55 Rating, Add	882.93	
		For Class 56 Rating, Add	1,169.70	
40 05 19 00-3138	EA	6" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,442.65	265.66
		For Class 52 Rating, Deduct	-444.42	
		For Class 54 Rating, Add	610.85	
		For Class 55 Rating, Add	910.61	
		For Class 56 Rating, Add	1,206.33	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3139	EA		6" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,570.39	268.31
			For Class 52 Rating, Deduct.....	-458.02	
			For Class 54 Rating, Add.....	629.46	
			For Class 55 Rating, Add.....	938.30	
			For Class 56 Rating, Add.....	1,242.97	
40 05 19 00-3140	EA		6" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,698.12	270.96
			For Class 52 Rating, Deduct.....	-471.63	
			For Class 54 Rating, Add.....	648.06	
			For Class 55 Rating, Add.....	965.98	
			For Class 56 Rating, Add.....	1,279.61	
40 05 19 00-3141	EA		6" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,825.85	273.63
			For Class 52 Rating, Deduct.....	-485.24	
			For Class 54 Rating, Add.....	666.67	
			For Class 55 Rating, Add.....	993.66	
			For Class 56 Rating, Add.....	1,316.25	
40 05 19 00-3142	EA		6" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,953.58	276.28
			For Class 52 Rating, Deduct.....	-498.85	
			For Class 54 Rating, Add.....	685.27	
			For Class 55 Rating, Add.....	1,021.35	
			For Class 56 Rating, Add.....	1,352.89	
40 05 19 00-3143	EA		6" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,081.32	278.94
			For Class 52 Rating, Deduct.....	-512.46	
			For Class 54 Rating, Add.....	703.88	
			For Class 55 Rating, Add.....	1,049.03	
			For Class 56 Rating, Add.....	1,389.53	
40 05 19 00-3144	EA		6" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,209.06	281.59
			For Class 52 Rating, Deduct.....	-526.06	
			For Class 54 Rating, Add.....	722.48	
			For Class 55 Rating, Add.....	1,076.72	
			For Class 56 Rating, Add.....	1,426.17	
40 05 19 00-3145	EA		6" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,336.78	284.25
			For Class 52 Rating, Deduct.....	-539.67	
			For Class 54 Rating, Add.....	741.08	
			For Class 55 Rating, Add.....	1,104.40	
			For Class 56 Rating, Add.....	1,462.80	
40 05 19 00-3146	EA		6" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,464.52	286.91
			For Class 52 Rating, Deduct.....	-553.28	
			For Class 54 Rating, Add.....	759.69	
			For Class 55 Rating, Add.....	1,132.08	
			For Class 56 Rating, Add.....	1,499.44	
40 05 19 00-3147	EA		6" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,592.25	289.55
			For Class 52 Rating, Deduct.....	-566.89	
			For Class 54 Rating, Add.....	778.29	
			For Class 55 Rating, Add.....	1,159.76	
			For Class 56 Rating, Add.....	1,536.08	
40 05 19 00-3148	EA		6" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,719.97	292.21
			For Class 52 Rating, Deduct.....	-580.49	
			For Class 54 Rating, Add.....	796.90	
			For Class 55 Rating, Add.....	1,187.45	
			For Class 56 Rating, Add.....	1,572.72	
40 05 19 00-3149			8" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3150	EA		8" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,182.83	244.39
			For Class 52 Rating, Deduct.....	-89.38	
			For Class 54 Rating, Add.....	126.32	
			For Class 55 Rating, Add.....	190.08	
			For Class 56 Rating, Add.....	253.03	
40 05 19 00-3151	EA		8" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,347.12	247.06
			For Class 52 Rating, Deduct.....	-107.01	
			For Class 54 Rating, Add.....	150.41	
			For Class 55 Rating, Add.....	225.92	
			For Class 56 Rating, Add.....	300.45	
40 05 19 00-3152	EA		8" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,511.39	249.72
			For Class 52 Rating, Deduct.....	-124.63	
			For Class 54 Rating, Add.....	174.50	
			For Class 55 Rating, Add.....	261.75	
			For Class 56 Rating, Add.....	347.87	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3153	EA	8" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	1,675.68	252.36
		For Class 52 Rating, Deduct	-142.26	
		For Class 54 Rating, Add	198.58	
		For Class 55 Rating, Add	297.58	
		For Class 56 Rating, Add	395.29	
40 05 19 00-3154	EA	8" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	1,839.97	255.02
		For Class 52 Rating, Deduct	-159.89	
		For Class 54 Rating, Add	222.67	
		For Class 55 Rating, Add	333.42	
		For Class 56 Rating, Add	442.71	
40 05 19 00-3155	EA	8" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,004.24	257.69
		For Class 52 Rating, Deduct	-177.52	
		For Class 54 Rating, Add	246.76	
		For Class 55 Rating, Add	369.25	
		For Class 56 Rating, Add	490.13	
40 05 19 00-3156	EA	8" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,168.53	260.34
		For Class 52 Rating, Deduct	-195.15	
		For Class 54 Rating, Add	270.84	
		For Class 55 Rating, Add	405.08	
		For Class 56 Rating, Add	537.55	
40 05 19 00-3157	EA	8" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,332.81	262.99
		For Class 52 Rating, Deduct	-212.78	
		For Class 54 Rating, Add	294.93	
		For Class 55 Rating, Add	440.92	
		For Class 56 Rating, Add	584.97	
40 05 19 00-3158	EA	8" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,497.08	265.66
		For Class 52 Rating, Deduct	-230.40	
		For Class 54 Rating, Add	319.02	
		For Class 55 Rating, Add	476.75	
		For Class 56 Rating, Add	632.39	
40 05 19 00-3159	EA	8" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,661.37	268.31
		For Class 52 Rating, Deduct	-248.03	
		For Class 54 Rating, Add	343.10	
		For Class 55 Rating, Add	512.59	
		For Class 56 Rating, Add	679.81	
40 05 19 00-3160	EA	8" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,825.65	270.96
		For Class 52 Rating, Deduct	-265.66	
		For Class 54 Rating, Add	367.19	
		For Class 55 Rating, Add	548.42	
		For Class 56 Rating, Add	727.23	
40 05 19 00-3161	EA	8" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	2,989.93	273.63
		For Class 52 Rating, Deduct	-283.29	
		For Class 54 Rating, Add	391.28	
		For Class 55 Rating, Add	584.25	
		For Class 56 Rating, Add	774.65	
40 05 19 00-3162	EA	8" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,154.21	276.28
		For Class 52 Rating, Deduct	-300.92	
		For Class 54 Rating, Add	415.36	
		For Class 55 Rating, Add	620.09	
		For Class 56 Rating, Add	822.07	
40 05 19 00-3163	EA	8" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,318.50	278.94
		For Class 52 Rating, Deduct	-318.55	
		For Class 54 Rating, Add	439.45	
		For Class 55 Rating, Add	655.92	
		For Class 56 Rating, Add	869.50	
40 05 19 00-3164	EA	8" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,482.78	281.59
		For Class 52 Rating, Deduct	-336.17	
		For Class 54 Rating, Add	463.54	
		For Class 55 Rating, Add	691.75	
		For Class 56 Rating, Add	916.92	
40 05 19 00-3165	EA	8" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,647.06	284.25
		For Class 52 Rating, Deduct	-353.80	
		For Class 54 Rating, Add	487.63	
		For Class 55 Rating, Add	727.59	
		For Class 56 Rating, Add	964.34	
40 05 19 00-3166	EA	8" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,811.35	286.91
		For Class 52 Rating, Deduct	-371.43	
		For Class 54 Rating, Add	511.71	
		For Class 55 Rating, Add	763.42	
		For Class 56 Rating, Add	1,011.76	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
40 05 19 00-3167	EA 8" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	3,975.62		289.55
	For Class 52 Rating, Deduct.....	-389.06		
	For Class 54 Rating, Add.....	535.80		
	For Class 55 Rating, Add.....	799.26		
	For Class 56 Rating, Add.....	1,059.18		
40 05 19 00-3168	EA 8" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,139.90		292.21
	For Class 52 Rating, Deduct.....	-406.69		
	For Class 54 Rating, Add.....	559.89		
	For Class 55 Rating, Add.....	835.09		
	For Class 56 Rating, Add.....	1,106.60		
40 05 19 00-3169	EA 8" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,304.19		294.88
	For Class 52 Rating, Deduct.....	-424.32		
	For Class 54 Rating, Add.....	583.97		
	For Class 55 Rating, Add.....	870.93		
	For Class 56 Rating, Add.....	1,154.02		
40 05 19 00-3170	EA 8" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,468.46		297.53
	For Class 52 Rating, Deduct.....	-441.94		
	For Class 54 Rating, Add.....	608.06		
	For Class 55 Rating, Add.....	906.76		
	For Class 56 Rating, Add.....	1,201.44		
40 05 19 00-3171	EA 8" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,632.75		300.18
	For Class 52 Rating, Deduct.....	-459.57		
	For Class 54 Rating, Add.....	632.15		
	For Class 55 Rating, Add.....	942.59		
	For Class 56 Rating, Add.....	1,248.86		
40 05 19 00-3172	EA 8" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,797.03		302.85
	For Class 52 Rating, Deduct.....	-477.20		
	For Class 54 Rating, Add.....	656.23		
	For Class 55 Rating, Add.....	978.43		
	For Class 56 Rating, Add.....	1,296.28		
40 05 19 00-3173	EA 8" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	4,961.32		305.50
	For Class 52 Rating, Deduct.....	-494.83		
	For Class 54 Rating, Add.....	680.32		
	For Class 55 Rating, Add.....	1,014.26		
	For Class 56 Rating, Add.....	1,343.70		
40 05 19 00-3174	EA 8" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,125.60		308.16
	For Class 52 Rating, Deduct.....	-512.46		
	For Class 54 Rating, Add.....	704.41		
	For Class 55 Rating, Add.....	1,050.09		
	For Class 56 Rating, Add.....	1,391.12		
40 05 19 00-3175	EA 8" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,289.88		310.82
	For Class 52 Rating, Deduct.....	-530.08		
	For Class 54 Rating, Add.....	728.49		
	For Class 55 Rating, Add.....	1,085.93		
	For Class 56 Rating, Add.....	1,438.54		
40 05 19 00-3176	EA 8" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,454.16		313.47
	For Class 52 Rating, Deduct.....	-547.71		
	For Class 54 Rating, Add.....	752.58		
	For Class 55 Rating, Add.....	1,121.76		
	For Class 56 Rating, Add.....	1,485.96		
40 05 19 00-3177	EA 8" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,618.44		316.13
	For Class 52 Rating, Deduct.....	-565.34		
	For Class 54 Rating, Add.....	776.67		
	For Class 55 Rating, Add.....	1,157.60		
	For Class 56 Rating, Add.....	1,533.38		
40 05 19 00-3178	EA 8" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,782.73		318.78
	For Class 52 Rating, Deduct.....	-582.97		
	For Class 54 Rating, Add.....	800.75		
	For Class 55 Rating, Add.....	1,193.43		
	For Class 56 Rating, Add.....	1,580.81		
40 05 19 00-3179	EA 8" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	5,947.00		321.44
	For Class 52 Rating, Deduct.....	-600.60		
	For Class 54 Rating, Add.....	824.84		
	For Class 55 Rating, Add.....	1,229.26		
	For Class 56 Rating, Add.....	1,628.22		
40 05 19 00-3180	EA 8" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	6,111.28		324.10
	For Class 52 Rating, Deduct.....	-618.23		
	For Class 54 Rating, Add.....	848.93		
	For Class 55 Rating, Add.....	1,265.10		
	For Class 56 Rating, Add.....	1,675.65		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3181	EA	8" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,275.57	326.76
		For Class 52 Rating, Deduct	-635.85	
		For Class 54 Rating, Add	873.01	
		For Class 55 Rating, Add	1,300.93	
		For Class 56 Rating, Add	1,723.07	
40 05 19 00-3182	EA	8" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,439.84	329.41
		For Class 52 Rating, Deduct	-653.48	
		For Class 54 Rating, Add	897.10	
		For Class 55 Rating, Add	1,336.76	
		For Class 56 Rating, Add	1,770.49	
40 05 19 00-3183	EA	8" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,604.14	332.07
		For Class 52 Rating, Deduct	-671.11	
		For Class 54 Rating, Add	921.19	
		For Class 55 Rating, Add	1,372.60	
		For Class 56 Rating, Add	1,817.91	
40 05 19 00-3184	EA	8" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,768.42	334.73
		For Class 52 Rating, Deduct	-688.74	
		For Class 54 Rating, Add	945.27	
		For Class 55 Rating, Add	1,408.43	
		For Class 56 Rating, Add	1,865.33	
40 05 19 00-3185	EA	8" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,932.69	337.37
		For Class 52 Rating, Deduct	-706.37	
		For Class 54 Rating, Add	969.36	
		For Class 55 Rating, Add	1,444.27	
		For Class 56 Rating, Add	1,912.75	
40 05 19 00-3186	EA	8" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,096.98	340.04
		For Class 52 Rating, Deduct	-723.99	
		For Class 54 Rating, Add	993.45	
		For Class 55 Rating, Add	1,480.10	
		For Class 56 Rating, Add	1,960.17	
40 05 19 00-3187	EA	8" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,261.25	342.69
		For Class 52 Rating, Deduct	-741.62	
		For Class 54 Rating, Add	1,017.53	
		For Class 55 Rating, Add	1,515.93	
		For Class 56 Rating, Add	2,007.59	
40 05 19 00-3188	EA	8" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,425.54	345.35
		For Class 52 Rating, Deduct	-759.25	
		For Class 54 Rating, Add	1,041.62	
		For Class 55 Rating, Add	1,551.77	
		For Class 56 Rating, Add	2,055.01	
40 05 19 00-3189		10" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3190	EA	10" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,493.87	297.53
		For Class 52 Rating, Deduct	-114.74	
		For Class 54 Rating, Add	161.87	
		For Class 55 Rating, Add	243.42	
		For Class 56 Rating, Add	323.93	
40 05 19 00-3191	EA	10" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,705.96	300.18
		For Class 52 Rating, Deduct	-137.62	
		For Class 54 Rating, Add	193.13	
		For Class 55 Rating, Add	289.92	
		For Class 56 Rating, Add	385.46	
40 05 19 00-3192	EA	10" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	1,918.03	302.85
		For Class 52 Rating, Deduct	-160.51	
		For Class 54 Rating, Add	224.38	
		For Class 55 Rating, Add	336.41	
		For Class 56 Rating, Add	446.98	
40 05 19 00-3193	EA	10" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,130.12	305.50
		For Class 52 Rating, Deduct	-183.40	
		For Class 54 Rating, Add	255.64	
		For Class 55 Rating, Add	382.90	
		For Class 56 Rating, Add	508.50	
40 05 19 00-3194	EA	10" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,342.19	308.16
		For Class 52 Rating, Deduct	-206.28	
		For Class 54 Rating, Add	286.89	
		For Class 55 Rating, Add	429.39	
		For Class 56 Rating, Add	570.02	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3195	EA		10" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,554.27	310.82
			For Class 52 Rating, Deduct.....	-229.17	
			For Class 54 Rating, Add.....	318.15	
			For Class 55 Rating, Add.....	475.89	
			For Class 56 Rating, Add.....	631.54	
40 05 19 00-3196	EA		10" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,766.35	313.47
			For Class 52 Rating, Deduct.....	-252.05	
			For Class 54 Rating, Add.....	349.41	
			For Class 55 Rating, Add.....	522.38	
			For Class 56 Rating, Add.....	693.06	
40 05 19 00-3197	EA		10" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	2,978.42	316.13
			For Class 52 Rating, Deduct.....	-274.94	
			For Class 54 Rating, Add.....	380.66	
			For Class 55 Rating, Add.....	568.87	
			For Class 56 Rating, Add.....	754.58	
40 05 19 00-3198	EA		10" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,190.50	318.78
			For Class 52 Rating, Deduct.....	-297.82	
			For Class 54 Rating, Add.....	411.92	
			For Class 55 Rating, Add.....	615.36	
			For Class 56 Rating, Add.....	816.10	
40 05 19 00-3199	EA		10" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,402.58	321.44
			For Class 52 Rating, Deduct.....	-320.71	
			For Class 54 Rating, Add.....	443.18	
			For Class 55 Rating, Add.....	661.86	
			For Class 56 Rating, Add.....	877.62	
40 05 19 00-3200	EA		10" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,614.65	324.10
			For Class 52 Rating, Deduct.....	-343.60	
			For Class 54 Rating, Add.....	474.43	
			For Class 55 Rating, Add.....	708.35	
			For Class 56 Rating, Add.....	939.14	
40 05 19 00-3201	EA		10" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	3,826.73	326.76
			For Class 52 Rating, Deduct.....	-366.48	
			For Class 54 Rating, Add.....	505.69	
			For Class 55 Rating, Add.....	754.84	
			For Class 56 Rating, Add.....	1,000.66	
40 05 19 00-3202	EA		10" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	4,038.80	329.41
			For Class 52 Rating, Deduct.....	-389.37	
			For Class 54 Rating, Add.....	536.94	
			For Class 55 Rating, Add.....	801.33	
			For Class 56 Rating, Add.....	1,062.18	
40 05 19 00-3203	EA		10" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	4,250.90	332.07
			For Class 52 Rating, Deduct.....	-412.25	
			For Class 54 Rating, Add.....	568.20	
			For Class 55 Rating, Add.....	847.83	
			For Class 56 Rating, Add.....	1,123.70	
40 05 19 00-3204	EA		10" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	4,462.97	334.73
			For Class 52 Rating, Deduct.....	-435.14	
			For Class 54 Rating, Add.....	599.46	
			For Class 55 Rating, Add.....	894.32	
			For Class 56 Rating, Add.....	1,185.22	
40 05 19 00-3205	EA		10" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	4,675.04	337.37
			For Class 52 Rating, Deduct.....	-458.02	
			For Class 54 Rating, Add.....	630.71	
			For Class 55 Rating, Add.....	940.81	
			For Class 56 Rating, Add.....	1,246.74	
40 05 19 00-3206	EA		10" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	4,887.12	340.04
			For Class 52 Rating, Deduct.....	-480.91	
			For Class 54 Rating, Add.....	661.97	
			For Class 55 Rating, Add.....	987.30	
			For Class 56 Rating, Add.....	1,308.26	
40 05 19 00-3207	EA		10" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	5,099.20	342.69
			For Class 52 Rating, Deduct.....	-503.80	
			For Class 54 Rating, Add.....	693.23	
			For Class 55 Rating, Add.....	1,033.79	
			For Class 56 Rating, Add.....	1,369.78	
40 05 19 00-3208	EA		10" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	5,311.28	345.35
			For Class 52 Rating, Deduct.....	-526.68	
			For Class 54 Rating, Add.....	724.48	
			For Class 55 Rating, Add.....	1,080.29	
			For Class 56 Rating, Add.....	1,431.30	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3209	EA	10" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,523.35	348.01
		For Class 52 Rating, Deduct	-549.57	
		For Class 54 Rating, Add	755.74	
		For Class 55 Rating, Add	1,126.78	
		For Class 56 Rating, Add	1,492.82	
40 05 19 00-3210	EA	10" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,735.42	350.66
		For Class 52 Rating, Deduct	-572.45	
		For Class 54 Rating, Add	786.99	
		For Class 55 Rating, Add	1,173.27	
		For Class 56 Rating, Add	1,554.34	
40 05 19 00-3211	EA	10" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,947.51	353.32
		For Class 52 Rating, Deduct	-595.34	
		For Class 54 Rating, Add	818.25	
		For Class 55 Rating, Add	1,219.76	
		For Class 56 Rating, Add	1,615.86	
40 05 19 00-3212	EA	10" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,159.58	355.97
		For Class 52 Rating, Deduct	-618.23	
		For Class 54 Rating, Add	849.51	
		For Class 55 Rating, Add	1,266.26	
		For Class 56 Rating, Add	1,677.38	
40 05 19 00-3213	EA	10" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,371.67	358.63
		For Class 52 Rating, Deduct	-641.11	
		For Class 54 Rating, Add	880.76	
		For Class 55 Rating, Add	1,312.75	
		For Class 56 Rating, Add	1,738.90	
40 05 19 00-3214	EA	10" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,583.74	361.29
		For Class 52 Rating, Deduct	-664.00	
		For Class 54 Rating, Add	912.02	
		For Class 55 Rating, Add	1,359.24	
		For Class 56 Rating, Add	1,800.42	
40 05 19 00-3215	EA	10" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,795.82	363.95
		For Class 52 Rating, Deduct	-686.88	
		For Class 54 Rating, Add	943.28	
		For Class 55 Rating, Add	1,405.73	
		For Class 56 Rating, Add	1,861.95	
40 05 19 00-3216	EA	10" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,007.90	366.60
		For Class 52 Rating, Deduct	-709.77	
		For Class 54 Rating, Add	974.53	
		For Class 55 Rating, Add	1,452.23	
		For Class 56 Rating, Add	1,923.47	
40 05 19 00-3217	EA	10" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,219.97	369.26
		For Class 52 Rating, Deduct	-732.65	
		For Class 54 Rating, Add	1,005.79	
		For Class 55 Rating, Add	1,498.72	
		For Class 56 Rating, Add	1,984.99	
40 05 19 00-3218	EA	10" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,432.05	371.92
		For Class 52 Rating, Deduct	-755.54	
		For Class 54 Rating, Add	1,037.04	
		For Class 55 Rating, Add	1,545.21	
		For Class 56 Rating, Add	2,046.51	
40 05 19 00-3219	EA	10" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,644.13	374.57
		For Class 52 Rating, Deduct	-778.43	
		For Class 54 Rating, Add	1,068.30	
		For Class 55 Rating, Add	1,591.70	
		For Class 56 Rating, Add	2,108.03	
40 05 19 00-3220	EA	10" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,856.20	377.23
		For Class 52 Rating, Deduct	-801.31	
		For Class 54 Rating, Add	1,099.56	
		For Class 55 Rating, Add	1,638.19	
		For Class 56 Rating, Add	2,169.55	
40 05 19 00-3221	EA	10" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	8,068.28	379.89
		For Class 52 Rating, Deduct	-824.20	
		For Class 54 Rating, Add	1,130.81	
		For Class 55 Rating, Add	1,684.69	
		For Class 56 Rating, Add	2,231.07	
40 05 19 00-3222	EA	10" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	8,280.35	382.54
		For Class 52 Rating, Deduct	-847.08	
		For Class 54 Rating, Add	1,162.07	
		For Class 55 Rating, Add	1,731.18	
		For Class 56 Rating, Add	2,292.59	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI UOM DESCRIPTION				TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3223	EA	10" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,492.45	385.20	
		For Class 52 Rating, Deduct.....	-869.97		
		For Class 54 Rating, Add.....	1,193.33		
		For Class 55 Rating, Add.....	1,777.67		
		For Class 56 Rating, Add.....	2,354.11		
40 05 19 00-3224	EA	10" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,704.52	387.85	
		For Class 52 Rating, Deduct.....	-892.85		
		For Class 54 Rating, Add.....	1,224.58		
		For Class 55 Rating, Add.....	1,824.16		
		For Class 56 Rating, Add.....	2,415.63		
40 05 19 00-3225	EA	10" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,916.59	390.51	
		For Class 52 Rating, Deduct.....	-915.74		
		For Class 54 Rating, Add.....	1,255.84		
		For Class 55 Rating, Add.....	1,870.66		
		For Class 56 Rating, Add.....	2,477.15		
40 05 19 00-3226	EA	10" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,128.67	393.17	
		For Class 52 Rating, Deduct.....	-938.63		
		For Class 54 Rating, Add.....	1,287.09		
		For Class 55 Rating, Add.....	1,917.15		
		For Class 56 Rating, Add.....	2,538.67		
40 05 19 00-3227	EA	10" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,340.75	395.82	
		For Class 52 Rating, Deduct.....	-961.51		
		For Class 54 Rating, Add.....	1,318.35		
		For Class 55 Rating, Add.....	1,963.64		
		For Class 56 Rating, Add.....	2,600.19		
40 05 19 00-3228	EA	10" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,552.83	398.48	
		For Class 52 Rating, Deduct.....	-984.40		
		For Class 54 Rating, Add.....	1,349.61		
		For Class 55 Rating, Add.....	2,010.13		
		For Class 56 Rating, Add.....	2,661.71		
40 05 19 00-3229		12" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)			
40 05 19 00-3230	EA	12" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	1,941.15	371.92	
		For Class 52 Rating, Deduct.....	-151.54		
		For Class 54 Rating, Add.....	213.41		
		For Class 55 Rating, Add.....	320.74		
		For Class 56 Rating, Add.....	426.69		
40 05 19 00-3231	EA	12" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,203.83	374.57	
		For Class 52 Rating, Deduct.....	-179.99		
		For Class 54 Rating, Add.....	252.26		
		For Class 55 Rating, Add.....	378.52		
		For Class 56 Rating, Add.....	503.14		
40 05 19 00-3232	EA	12" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,466.51	377.23	
		For Class 52 Rating, Deduct.....	-208.45		
		For Class 54 Rating, Add.....	291.10		
		For Class 55 Rating, Add.....	436.29		
		For Class 56 Rating, Add.....	579.59		
40 05 19 00-3233	EA	12" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,729.20	379.89	
		For Class 52 Rating, Deduct.....	-236.90		
		For Class 54 Rating, Add.....	329.95		
		For Class 55 Rating, Add.....	494.07		
		For Class 56 Rating, Add.....	656.04		
40 05 19 00-3234	EA	12" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	2,991.88	382.54	
		For Class 52 Rating, Deduct.....	-265.35		
		For Class 54 Rating, Add.....	368.80		
		For Class 55 Rating, Add.....	551.85		
		For Class 56 Rating, Add.....	732.49		
40 05 19 00-3235	EA	12" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,254.58	385.20	
		For Class 52 Rating, Deduct.....	-293.80		
		For Class 54 Rating, Add.....	407.64		
		For Class 55 Rating, Add.....	609.63		
		For Class 56 Rating, Add.....	808.94		
40 05 19 00-3236	EA	12" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,517.26	387.85	
		For Class 52 Rating, Deduct.....	-322.26		
		For Class 54 Rating, Add.....	446.49		
		For Class 55 Rating, Add.....	667.40		
		For Class 56 Rating, Add.....	885.39		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3237	EA	12" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	3,779.94	390.51
		For Class 52 Rating, Deduct	-350.71	
		For Class 54 Rating, Add	485.34	
		For Class 55 Rating, Add	725.18	
		For Class 56 Rating, Add	961.84	
40 05 19 00-3238	EA	12" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,042.63	393.17
		For Class 52 Rating, Deduct	-379.16	
		For Class 54 Rating, Add	524.19	
		For Class 55 Rating, Add	782.96	
		For Class 56 Rating, Add	1,038.29	
40 05 19 00-3239	EA	12" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,305.31	395.82
		For Class 52 Rating, Deduct	-407.61	
		For Class 54 Rating, Add	563.03	
		For Class 55 Rating, Add	840.74	
		For Class 56 Rating, Add	1,114.74	
40 05 19 00-3240	EA	12" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,568.00	398.48
		For Class 52 Rating, Deduct	-436.07	
		For Class 54 Rating, Add	601.88	
		For Class 55 Rating, Add	898.52	
		For Class 56 Rating, Add	1,191.19	
40 05 19 00-3241	EA	12" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	4,830.68	401.14
		For Class 52 Rating, Deduct	-464.52	
		For Class 54 Rating, Add	640.73	
		For Class 55 Rating, Add	956.29	
		For Class 56 Rating, Add	1,267.64	
40 05 19 00-3242	EA	12" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,093.36	403.79
		For Class 52 Rating, Deduct	-492.97	
		For Class 54 Rating, Add	679.58	
		For Class 55 Rating, Add	1,014.07	
		For Class 56 Rating, Add	1,344.09	
40 05 19 00-3243	EA	12" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,356.05	406.45
		For Class 52 Rating, Deduct	-521.42	
		For Class 54 Rating, Add	718.42	
		For Class 55 Rating, Add	1,071.85	
		For Class 56 Rating, Add	1,420.53	
40 05 19 00-3244	EA	12" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,618.74	409.11
		For Class 52 Rating, Deduct	-549.88	
		For Class 54 Rating, Add	757.27	
		For Class 55 Rating, Add	1,129.63	
		For Class 56 Rating, Add	1,496.98	
40 05 19 00-3245	EA	12" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	5,881.43	411.76
		For Class 52 Rating, Deduct	-578.33	
		For Class 54 Rating, Add	796.12	
		For Class 55 Rating, Add	1,187.40	
		For Class 56 Rating, Add	1,573.43	
40 05 19 00-3246	EA	12" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,144.11	414.42
		For Class 52 Rating, Deduct	-606.78	
		For Class 54 Rating, Add	834.96	
		For Class 55 Rating, Add	1,245.18	
		For Class 56 Rating, Add	1,649.88	
40 05 19 00-3247	EA	12" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,406.79	417.08
		For Class 52 Rating, Deduct	-635.23	
		For Class 54 Rating, Add	873.81	
		For Class 55 Rating, Add	1,302.96	
		For Class 56 Rating, Add	1,726.33	
40 05 19 00-3248	EA	12" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,669.48	419.73
		For Class 52 Rating, Deduct	-663.69	
		For Class 54 Rating, Add	912.66	
		For Class 55 Rating, Add	1,360.74	
		For Class 56 Rating, Add	1,802.78	
40 05 19 00-3249	EA	12" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	6,932.16	422.39
		For Class 52 Rating, Deduct	-692.14	
		For Class 54 Rating, Add	951.51	
		For Class 55 Rating, Add	1,418.52	
		For Class 56 Rating, Add	1,879.23	
40 05 19 00-3250	EA	12" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,194.85	425.04
		For Class 52 Rating, Deduct	-720.59	
		For Class 54 Rating, Add	990.35	
		For Class 55 Rating, Add	1,476.29	
		For Class 56 Rating, Add	1,955.68	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-3251	EA	12" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,457.53	427.70
		For Class 52 Rating, Deduct.....	-749.05	
		For Class 54 Rating, Add.....	1,029.20	
		For Class 55 Rating, Add.....	1,534.07	
		For Class 56 Rating, Add.....	2,032.13	
40 05 19 00-3252	EA	12" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,720.22	430.36
		For Class 52 Rating, Deduct.....	-777.50	
		For Class 54 Rating, Add.....	1,068.05	
		For Class 55 Rating, Add.....	1,591.85	
		For Class 56 Rating, Add.....	2,108.58	
40 05 19 00-3253	EA	12" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,982.90	433.01
		For Class 52 Rating, Deduct.....	-805.95	
		For Class 54 Rating, Add.....	1,106.90	
		For Class 55 Rating, Add.....	1,649.63	
		For Class 56 Rating, Add.....	2,185.03	
40 05 19 00-3254	EA	12" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,245.59	435.67
		For Class 52 Rating, Deduct.....	-834.40	
		For Class 54 Rating, Add.....	1,145.74	
		For Class 55 Rating, Add.....	1,707.40	
		For Class 56 Rating, Add.....	2,261.48	
40 05 19 00-3255	EA	12" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,508.28	438.33
		For Class 52 Rating, Deduct.....	-862.86	
		For Class 54 Rating, Add.....	1,184.59	
		For Class 55 Rating, Add.....	1,765.18	
		For Class 56 Rating, Add.....	2,337.93	
40 05 19 00-3256	EA	12" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,770.96	440.99
		For Class 52 Rating, Deduct.....	-891.31	
		For Class 54 Rating, Add.....	1,223.44	
		For Class 55 Rating, Add.....	1,822.96	
		For Class 56 Rating, Add.....	2,414.38	
40 05 19 00-3257	EA	12" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,033.65	443.64
		For Class 52 Rating, Deduct.....	-919.76	
		For Class 54 Rating, Add.....	1,262.29	
		For Class 55 Rating, Add.....	1,880.74	
		For Class 56 Rating, Add.....	2,490.83	
40 05 19 00-3258	EA	12" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,296.33	446.30
		For Class 52 Rating, Deduct.....	-948.21	
		For Class 54 Rating, Add.....	1,301.13	
		For Class 55 Rating, Add.....	1,938.52	
		For Class 56 Rating, Add.....	2,567.28	
40 05 19 00-3259	EA	12" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,559.01	448.95
		For Class 52 Rating, Deduct.....	-976.67	
		For Class 54 Rating, Add.....	1,339.98	
		For Class 55 Rating, Add.....	1,996.29	
		For Class 56 Rating, Add.....	2,643.73	
40 05 19 00-3260	EA	12" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,821.70	451.61
		For Class 52 Rating, Deduct.....	-1,005.12	
		For Class 54 Rating, Add.....	1,378.83	
		For Class 55 Rating, Add.....	2,054.07	
		For Class 56 Rating, Add.....	2,720.18	
40 05 19 00-3261	EA	12" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,084.38	454.27
		For Class 52 Rating, Deduct.....	-1,033.57	
		For Class 54 Rating, Add.....	1,417.67	
		For Class 55 Rating, Add.....	2,111.85	
		For Class 56 Rating, Add.....	2,796.63	
40 05 19 00-3262	EA	12" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,347.07	456.92
		For Class 52 Rating, Deduct.....	-1,062.02	
		For Class 54 Rating, Add.....	1,456.52	
		For Class 55 Rating, Add.....	2,169.63	
		For Class 56 Rating, Add.....	2,873.08	
40 05 19 00-3263	EA	12" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,609.75	459.59
		For Class 52 Rating, Deduct.....	-1,090.48	
		For Class 54 Rating, Add.....	1,495.37	
		For Class 55 Rating, Add.....	2,227.40	
		For Class 56 Rating, Add.....	2,949.53	
40 05 19 00-3264	EA	12" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,872.44	462.24
		For Class 52 Rating, Deduct.....	-1,118.93	
		For Class 54 Rating, Add.....	1,534.22	
		For Class 55 Rating, Add.....	2,285.18	
		For Class 56 Rating, Add.....	3,025.98	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3265	EA	12"	Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,135.13	464.89
			For Class 52 Rating, Deduct	-1,147.38	
			For Class 54 Rating, Add	1,573.06	
			For Class 55 Rating, Add	2,342.96	
			For Class 56 Rating, Add	3,102.43	
40 05 19 00-3266	EA	12"	Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,397.81	467.55
			For Class 52 Rating, Deduct	-1,175.83	
			For Class 54 Rating, Add	1,611.91	
			For Class 55 Rating, Add	2,400.74	
			For Class 56 Rating, Add	3,178.88	
40 05 19 00-3267	EA	12"	Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,660.50	470.20
			For Class 52 Rating, Deduct	-1,204.29	
			For Class 54 Rating, Add	1,650.76	
			For Class 55 Rating, Add	2,458.52	
			For Class 56 Rating, Add	3,255.33	
40 05 19 00-3268	EA	12"	Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,923.18	472.86
			For Class 52 Rating, Deduct	-1,232.74	
			For Class 54 Rating, Add	1,689.61	
			For Class 55 Rating, Add	2,516.29	
			For Class 56 Rating, Add	3,331.77	
40 05 19 00-3269			14" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe		
40 05 19 00-3270	EA	14"	Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,618.97	446.30
			For Class 52 Rating, Deduct	-213.70	
			For Class 54 Rating, Add	299.53	
			For Class 55 Rating, Add	449.46	
			For Class 56 Rating, Add	597.46	
40 05 19 00-3271	EA	14"	Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	2,937.88	448.95
			For Class 52 Rating, Deduct	-248.34	
			For Class 54 Rating, Add	346.81	
			For Class 55 Rating, Add	519.78	
			For Class 56 Rating, Add	690.50	
40 05 19 00-3272	EA	14"	Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,256.80	451.61
			For Class 52 Rating, Deduct	-282.98	
			For Class 54 Rating, Add	394.09	
			For Class 55 Rating, Add	590.10	
			For Class 56 Rating, Add	783.53	
40 05 19 00-3273	EA	14"	Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,575.71	454.27
			For Class 52 Rating, Deduct	-317.62	
			For Class 54 Rating, Add	441.37	
			For Class 55 Rating, Add	660.42	
			For Class 56 Rating, Add	876.57	
40 05 19 00-3274	EA	14"	Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,894.63	456.92
			For Class 52 Rating, Deduct	-352.26	
			For Class 54 Rating, Add	488.66	
			For Class 55 Rating, Add	730.73	
			For Class 56 Rating, Add	969.61	
40 05 19 00-3275	EA	14"	Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,213.54	459.59
			For Class 52 Rating, Deduct	-386.89	
			For Class 54 Rating, Add	535.94	
			For Class 55 Rating, Add	801.05	
			For Class 56 Rating, Add	1,062.64	
40 05 19 00-3276	EA	14"	Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,532.46	462.24
			For Class 52 Rating, Deduct	-421.53	
			For Class 54 Rating, Add	583.22	
			For Class 55 Rating, Add	871.37	
			For Class 56 Rating, Add	1,155.68	
40 05 19 00-3277	EA	14"	Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,851.38	464.89
			For Class 52 Rating, Deduct	-456.17	
			For Class 54 Rating, Add	630.50	
			For Class 55 Rating, Add	941.68	
			For Class 56 Rating, Add	1,248.72	
40 05 19 00-3278	EA	14"	Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,170.29	467.55
			For Class 52 Rating, Deduct	-490.81	
			For Class 54 Rating, Add	677.78	
			For Class 55 Rating, Add	1,012.00	
			For Class 56 Rating, Add	1,341.76	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-3279	EA	14" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	5,489.21	470.20
		For Class 52 Rating, Deduct.....	-525.44	
		For Class 54 Rating, Add.....	725.06	
		For Class 55 Rating, Add.....	1,082.32	
		For Class 56 Rating, Add.....	1,434.79	
40 05 19 00-3280	EA	14" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	5,808.12	472.86
		For Class 52 Rating, Deduct.....	-560.08	
		For Class 54 Rating, Add.....	772.35	
		For Class 55 Rating, Add.....	1,152.64	
		For Class 56 Rating, Add.....	1,527.83	
40 05 19 00-3281	EA	14" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	6,127.03	475.52
		For Class 52 Rating, Deduct.....	-594.72	
		For Class 54 Rating, Add.....	819.63	
		For Class 55 Rating, Add.....	1,222.95	
		For Class 56 Rating, Add.....	1,620.87	
40 05 19 00-3282	EA	14" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	6,445.95	478.18
		For Class 52 Rating, Deduct.....	-629.36	
		For Class 54 Rating, Add.....	866.91	
		For Class 55 Rating, Add.....	1,293.27	
		For Class 56 Rating, Add.....	1,713.91	
40 05 19 00-3283	EA	14" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	6,764.86	480.83
		For Class 52 Rating, Deduct.....	-664.00	
		For Class 54 Rating, Add.....	914.19	
		For Class 55 Rating, Add.....	1,363.59	
		For Class 56 Rating, Add.....	1,806.94	
40 05 19 00-3284	EA	14" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,083.78	483.49
		For Class 52 Rating, Deduct.....	-698.63	
		For Class 54 Rating, Add.....	961.47	
		For Class 55 Rating, Add.....	1,433.90	
		For Class 56 Rating, Add.....	1,899.98	
40 05 19 00-3285	EA	14" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,402.69	486.14
		For Class 52 Rating, Deduct.....	-733.27	
		For Class 54 Rating, Add.....	1,008.76	
		For Class 55 Rating, Add.....	1,504.22	
		For Class 56 Rating, Add.....	1,993.02	
40 05 19 00-3286	EA	14" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	7,721.61	488.80
		For Class 52 Rating, Deduct.....	-767.91	
		For Class 54 Rating, Add.....	1,056.04	
		For Class 55 Rating, Add.....	1,574.54	
		For Class 56 Rating, Add.....	2,086.06	
40 05 19 00-3287	EA	14" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,040.53	491.46
		For Class 52 Rating, Deduct.....	-802.55	
		For Class 54 Rating, Add.....	1,103.32	
		For Class 55 Rating, Add.....	1,644.85	
		For Class 56 Rating, Add.....	2,179.09	
40 05 19 00-3288	EA	14" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,359.44	494.11
		For Class 52 Rating, Deduct.....	-837.19	
		For Class 54 Rating, Add.....	1,150.60	
		For Class 55 Rating, Add.....	1,715.17	
		For Class 56 Rating, Add.....	2,272.13	
40 05 19 00-3289	EA	14" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,678.36	496.78
		For Class 52 Rating, Deduct.....	-871.82	
		For Class 54 Rating, Add.....	1,197.88	
		For Class 55 Rating, Add.....	1,785.49	
		For Class 56 Rating, Add.....	2,365.17	
40 05 19 00-3290	EA	14" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	8,997.28	499.43
		For Class 52 Rating, Deduct.....	-906.46	
		For Class 54 Rating, Add.....	1,245.17	
		For Class 55 Rating, Add.....	1,855.81	
		For Class 56 Rating, Add.....	2,458.21	
40 05 19 00-3291	EA	14" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,316.19	502.08
		For Class 52 Rating, Deduct.....	-941.10	
		For Class 54 Rating, Add.....	1,292.45	
		For Class 55 Rating, Add.....	1,926.13	
		For Class 56 Rating, Add.....	2,551.25	
40 05 19 00-3292	EA	14" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,635.11	504.74
		For Class 52 Rating, Deduct.....	-975.74	
		For Class 54 Rating, Add.....	1,339.73	
		For Class 55 Rating, Add.....	1,996.44	
		For Class 56 Rating, Add.....	2,644.28	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3293	EA	14" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	9,954.02 -1,010.38 1,387.01 2,066.76 2,737.32	507.41
40 05 19 00-3294	EA	14" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	10,272.94 -1,045.01 1,434.29 2,137.08 2,830.36	510.05
40 05 19 00-3295	EA	14" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	10,591.85 -1,079.65 1,481.57 2,207.39 2,923.40	512.71
40 05 19 00-3296	EA	14" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	10,910.77 -1,114.29 1,528.86 2,277.71 3,016.43	515.38
40 05 19 00-3297	EA	14" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	11,229.69 -1,148.93 1,576.14 2,348.03 3,109.47	518.02
40 05 19 00-3298	EA	14" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	11,548.60 -1,183.57 1,623.42 2,418.34 3,202.51	520.68
40 05 19 00-3299	EA	14" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	11,867.52 -1,218.20 1,670.70 2,488.66 3,295.55	523.33
40 05 19 00-3300	EA	14" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	12,186.43 -1,252.64 1,717.98 2,558.98 3,388.58	526.00
40 05 19 00-3301	EA	14" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	12,505.34 -1,287.48 1,765.27 2,629.30 3,481.62	528.65
40 05 19 00-3302	EA	14" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	12,824.26 -1,322.12 1,812.55 2,699.61 3,574.66	531.30
40 05 19 00-3303	EA	14" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	13,143.17 -1,356.76 1,859.83 2,769.93 3,667.70	533.97
40 05 19 00-3304	EA	14" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	13,462.09 -1,391.39 1,907.11 2,840.25 3,760.73	536.62
40 05 19 00-3305	EA	14" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	13,781.00 -1,426.03 1,954.39 2,910.56 3,853.77	539.27
40 05 19 00-3306	EA	14" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe For Class 52 Rating, Deduct For Class 54 Rating, Add For Class 55 Rating, Add For Class 56 Rating, Add	14,099.92 -1,460.67 2,001.67 2,980.88 3,946.81	541.93

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-3307	EA	14" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,418.84	544.60
		<i>For Class 52 Rating, Deduct</i>	-1,495.31	
		<i>For Class 54 Rating, Add</i>	2,048.96	
		<i>For Class 55 Rating, Add</i>	3,051.20	
		<i>For Class 56 Rating, Add</i>	4,039.85	

40 05 19 00-3308 16" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)

40 05 19 00-3309	EA	16" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,064.20	510.05
		<i>For Class 52 Rating, Deduct</i>	-252.05	
		<i>For Class 54 Rating, Add</i>	352.98	
		<i>For Class 55 Rating, Add</i>	529.53	
		<i>For Class 56 Rating, Add</i>	703.78	
40 05 19 00-3310	EA	16" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,433.72	512.71
		<i>For Class 52 Rating, Deduct</i>	-292.26	
		<i>For Class 54 Rating, Add</i>	407.86	
		<i>For Class 55 Rating, Add</i>	611.13	
		<i>For Class 56 Rating, Add</i>	811.75	
40 05 19 00-3311	EA	16" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,803.24	515.38
		<i>For Class 52 Rating, Deduct</i>	-332.46	
		<i>For Class 54 Rating, Add</i>	462.73	
		<i>For Class 55 Rating, Add</i>	692.73	
		<i>For Class 56 Rating, Add</i>	919.71	
40 05 19 00-3312	EA	16" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,172.77	518.02
		<i>For Class 52 Rating, Deduct</i>	-372.67	
		<i>For Class 54 Rating, Add</i>	517.60	
		<i>For Class 55 Rating, Add</i>	774.33	
		<i>For Class 56 Rating, Add</i>	1,027.68	
40 05 19 00-3313	EA	16" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,542.29	520.68
		<i>For Class 52 Rating, Deduct</i>	-412.87	
		<i>For Class 54 Rating, Add</i>	572.47	
		<i>For Class 55 Rating, Add</i>	855.94	
		<i>For Class 56 Rating, Add</i>	1,135.65	
40 05 19 00-3314	EA	16" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	4,911.82	523.33
		<i>For Class 52 Rating, Deduct</i>	-453.08	
		<i>For Class 54 Rating, Add</i>	627.35	
		<i>For Class 55 Rating, Add</i>	937.54	
		<i>For Class 56 Rating, Add</i>	1,243.62	
40 05 19 00-3315	EA	16" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,281.33	526.00
		<i>For Class 52 Rating, Deduct</i>	-493.28	
		<i>For Class 54 Rating, Add</i>	682.22	
		<i>For Class 55 Rating, Add</i>	1,019.14	
		<i>For Class 56 Rating, Add</i>	1,351.58	
40 05 19 00-3316	EA	16" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,650.85	528.65
		<i>For Class 52 Rating, Deduct</i>	-533.49	
		<i>For Class 54 Rating, Add</i>	737.09	
		<i>For Class 55 Rating, Add</i>	1,100.74	
		<i>For Class 56 Rating, Add</i>	1,459.55	
40 05 19 00-3317	EA	16" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,020.38	531.30
		<i>For Class 52 Rating, Deduct</i>	-573.69	
		<i>For Class 54 Rating, Add</i>	791.97	
		<i>For Class 55 Rating, Add</i>	1,182.35	
		<i>For Class 56 Rating, Add</i>	1,567.51	
40 05 19 00-3318	EA	16" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,389.90	533.97
		<i>For Class 52 Rating, Deduct</i>	-613.90	
		<i>For Class 54 Rating, Add</i>	846.84	
		<i>For Class 55 Rating, Add</i>	1,263.95	
		<i>For Class 56 Rating, Add</i>	1,675.48	
40 05 19 00-3319	EA	16" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,759.42	536.62
		<i>For Class 52 Rating, Deduct</i>	-654.10	
		<i>For Class 54 Rating, Add</i>	901.71	
		<i>For Class 55 Rating, Add</i>	1,345.55	
		<i>For Class 56 Rating, Add</i>	1,783.45	
40 05 19 00-3320	EA	16" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,128.94	539.27
		<i>For Class 52 Rating, Deduct</i>	-694.30	
		<i>For Class 54 Rating, Add</i>	956.58	
		<i>For Class 55 Rating, Add</i>	1,427.15	
		<i>For Class 56 Rating, Add</i>	1,891.41	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3321	EA	16" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,498.47	541.93
		For Class 52 Rating, Deduct	-734.51	
		For Class 54 Rating, Add	1,011.46	
		For Class 55 Rating, Add	1,508.76	
		For Class 56 Rating, Add	1,999.38	
40 05 19 00-3322	EA	16" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	7,868.00	544.60
		For Class 52 Rating, Deduct	-774.71	
		For Class 54 Rating, Add	1,066.33	
		For Class 55 Rating, Add	1,590.36	
		For Class 56 Rating, Add	2,107.35	
40 05 19 00-3323	EA	16" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	8,237.52	547.24
		For Class 52 Rating, Deduct	-814.92	
		For Class 54 Rating, Add	1,121.20	
		For Class 55 Rating, Add	1,671.96	
		For Class 56 Rating, Add	2,215.32	
40 05 19 00-3324	EA	16" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	8,607.04	549.90
		For Class 52 Rating, Deduct	-855.12	
		For Class 54 Rating, Add	1,176.08	
		For Class 55 Rating, Add	1,753.57	
		For Class 56 Rating, Add	2,323.28	
40 05 19 00-3325	EA	16" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	8,976.56	552.57
		For Class 52 Rating, Deduct	-895.33	
		For Class 54 Rating, Add	1,230.95	
		For Class 55 Rating, Add	1,835.17	
		For Class 56 Rating, Add	2,431.25	
40 05 19 00-3326	EA	16" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	9,346.09	555.21
		For Class 52 Rating, Deduct	-935.53	
		For Class 54 Rating, Add	1,285.82	
		For Class 55 Rating, Add	1,916.77	
		For Class 56 Rating, Add	2,539.22	
40 05 19 00-3327	EA	16" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	9,715.61	557.87
		For Class 52 Rating, Deduct	-975.74	
		For Class 54 Rating, Add	1,340.70	
		For Class 55 Rating, Add	1,998.37	
		For Class 56 Rating, Add	2,647.18	
40 05 19 00-3328	EA	16" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	10,085.12	560.53
		For Class 52 Rating, Deduct	-1,015.94	
		For Class 54 Rating, Add	1,395.57	
		For Class 55 Rating, Add	2,079.98	
		For Class 56 Rating, Add	2,755.15	
40 05 19 00-3329	EA	16" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	10,454.65	563.19
		For Class 52 Rating, Deduct	-1,056.15	
		For Class 54 Rating, Add	1,450.44	
		For Class 55 Rating, Add	2,161.58	
		For Class 56 Rating, Add	2,863.11	
40 05 19 00-3330	EA	16" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	10,824.17	565.84
		For Class 52 Rating, Deduct	-1,096.35	
		For Class 54 Rating, Add	1,505.31	
		For Class 55 Rating, Add	2,243.18	
		For Class 56 Rating, Add	2,971.08	
40 05 19 00-3331	EA	16" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	11,193.71	568.49
		For Class 52 Rating, Deduct	-1,136.56	
		For Class 54 Rating, Add	1,560.19	
		For Class 55 Rating, Add	2,324.78	
		For Class 56 Rating, Add	3,079.05	
40 05 19 00-3332	EA	16" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	11,563.22	571.16
		For Class 52 Rating, Deduct	-1,176.76	
		For Class 54 Rating, Add	1,615.06	
		For Class 55 Rating, Add	2,406.39	
		For Class 56 Rating, Add	3,187.01	
40 05 19 00-3333	EA	16" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	11,932.74	573.82
		For Class 52 Rating, Deduct	-1,216.97	
		For Class 54 Rating, Add	1,669.93	
		For Class 55 Rating, Add	2,487.99	
		For Class 56 Rating, Add	3,294.98	
40 05 19 00-3334	EA	16" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	12,302.27	576.46
		For Class 52 Rating, Deduct	-1,257.17	
		For Class 54 Rating, Add	1,724.81	
		For Class 55 Rating, Add	2,569.59	
		For Class 56 Rating, Add	3,402.95	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-3335	EA	16" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,671.79	579.12
		For Class 52 Rating, Deduct	-1,297.38	
		For Class 54 Rating, Add	1,779.68	
		For Class 55 Rating, Add	2,651.19	
		For Class 56 Rating, Add	3,510.92	
40 05 19 00-3336	EA	16" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,041.31	581.79
		For Class 52 Rating, Deduct	-1,337.58	
		For Class 54 Rating, Add	1,834.55	
		For Class 55 Rating, Add	2,732.80	
		For Class 56 Rating, Add	3,618.88	
40 05 19 00-3337	EA	16" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,410.83	584.43
		For Class 52 Rating, Deduct	-1,377.79	
		For Class 54 Rating, Add	1,889.42	
		For Class 55 Rating, Add	2,814.40	
		For Class 56 Rating, Add	3,726.85	
40 05 19 00-3338	EA	16" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,780.35	587.09
		For Class 52 Rating, Deduct	-1,417.99	
		For Class 54 Rating, Add	1,944.30	
		For Class 55 Rating, Add	2,896.00	
		For Class 56 Rating, Add	3,834.81	
40 05 19 00-3339	EA	16" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,149.88	589.76
		For Class 52 Rating, Deduct	-1,458.20	
		For Class 54 Rating, Add	1,999.17	
		For Class 55 Rating, Add	2,977.60	
		For Class 56 Rating, Add	3,942.78	
40 05 19 00-3340	EA	16" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,519.39	592.41
		For Class 52 Rating, Deduct	-1,498.40	
		For Class 54 Rating, Add	2,054.04	
		For Class 55 Rating, Add	3,059.21	
		For Class 56 Rating, Add	4,050.75	
40 05 19 00-3341	EA	16" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,888.93	595.06
		For Class 52 Rating, Deduct	-1,538.60	
		For Class 54 Rating, Add	2,108.92	
		For Class 55 Rating, Add	3,140.81	
		For Class 56 Rating, Add	4,158.71	
40 05 19 00-3342	EA	16" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	15,258.45	597.72
		For Class 52 Rating, Deduct	-1,578.81	
		For Class 54 Rating, Add	2,163.79	
		For Class 55 Rating, Add	3,222.41	
		For Class 56 Rating, Add	4,266.68	
40 05 19 00-3343	EA	16" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	15,627.97	600.38
		For Class 52 Rating, Deduct	-1,619.01	
		For Class 54 Rating, Add	2,218.66	
		For Class 55 Rating, Add	3,304.01	
		For Class 56 Rating, Add	4,374.65	
40 05 19 00-3344	EA	16" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	15,997.49	603.03
		For Class 52 Rating, Deduct	-1,659.22	
		For Class 54 Rating, Add	2,273.53	
		For Class 55 Rating, Add	3,385.62	
		For Class 56 Rating, Add	4,482.61	
40 05 19 00-3345	EA	16" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	16,367.01	605.68
		For Class 52 Rating, Deduct	-1,699.42	
		For Class 54 Rating, Add	2,328.41	
		For Class 55 Rating, Add	3,467.22	
		For Class 56 Rating, Add	4,590.58	
40 05 19 00-3346	EA	16" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	16,736.54	608.35
		For Class 52 Rating, Deduct	-1,739.63	
		For Class 54 Rating, Add	2,383.28	
		For Class 55 Rating, Add	3,548.82	
		For Class 56 Rating, Add	4,698.55	
40 05 19 00-3347		18" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....		
		(40 05 19 00-3068)		
40 05 19 00-3348	EA	18" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	3,556.03	574.87
		For Class 52 Rating, Deduct	-295.35	
		For Class 54 Rating, Add	413.20	
		For Class 55 Rating, Add	619.66	
		For Class 56 Rating, Add	823.43	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3349	EA	18" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	3,981.78	577.54
		For Class 52 Rating, Deduct	-341.74	
		For Class 54 Rating, Add	476.51	
		For Class 55 Rating, Add	713.80	
		For Class 56 Rating, Add	947.99	
40 05 19 00-3350	EA	18" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,407.54	580.18
		For Class 52 Rating, Deduct	-388.13	
		For Class 54 Rating, Add	539.82	
		For Class 55 Rating, Add	807.94	
		For Class 56 Rating, Add	1,072.54	
40 05 19 00-3351	EA	18" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,833.29	582.84
		For Class 52 Rating, Deduct	-434.52	
		For Class 54 Rating, Add	603.13	
		For Class 55 Rating, Add	902.09	
		For Class 56 Rating, Add	1,197.10	
40 05 19 00-3352	EA	18" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,259.03	585.51
		For Class 52 Rating, Deduct	-480.91	
		For Class 54 Rating, Add	666.43	
		For Class 55 Rating, Add	996.23	
		For Class 56 Rating, Add	1,321.65	
40 05 19 00-3353	EA	18" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,684.79	588.15
		For Class 52 Rating, Deduct	-527.30	
		For Class 54 Rating, Add	729.74	
		For Class 55 Rating, Add	1,090.37	
		For Class 56 Rating, Add	1,446.21	
40 05 19 00-3354	EA	18" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,110.54	590.81
		For Class 52 Rating, Deduct	-573.69	
		For Class 54 Rating, Add	793.05	
		For Class 55 Rating, Add	1,184.51	
		For Class 56 Rating, Add	1,570.76	
40 05 19 00-3355	EA	18" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,536.30	593.47
		For Class 52 Rating, Deduct	-620.08	
		For Class 54 Rating, Add	856.36	
		For Class 55 Rating, Add	1,278.65	
		For Class 56 Rating, Add	1,695.32	
40 05 19 00-3356	EA	18" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	6,962.05	596.13
		For Class 52 Rating, Deduct	-666.47	
		For Class 54 Rating, Add	919.66	
		For Class 55 Rating, Add	1,372.80	
		For Class 56 Rating, Add	1,819.87	
40 05 19 00-3357	EA	18" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,387.80	598.78
		For Class 52 Rating, Deduct	-712.86	
		For Class 54 Rating, Add	982.97	
		For Class 55 Rating, Add	1,466.94	
		For Class 56 Rating, Add	1,944.42	
40 05 19 00-3358	EA	18" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	7,813.56	601.44
		For Class 52 Rating, Deduct	-759.25	
		For Class 54 Rating, Add	1,046.28	
		For Class 55 Rating, Add	1,561.08	
		For Class 56 Rating, Add	2,068.98	
40 05 19 00-3359	EA	18" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,239.31	604.10
		For Class 52 Rating, Deduct	-805.64	
		For Class 54 Rating, Add	1,109.59	
		For Class 55 Rating, Add	1,655.22	
		For Class 56 Rating, Add	2,193.53	
40 05 19 00-3360	EA	18" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	8,665.07	606.75
		For Class 52 Rating, Deduct	-852.03	
		For Class 54 Rating, Add	1,172.89	
		For Class 55 Rating, Add	1,749.36	
		For Class 56 Rating, Add	2,318.09	
40 05 19 00-3361	EA	18" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,090.82	609.41
		For Class 52 Rating, Deduct	-898.42	
		For Class 54 Rating, Add	1,236.20	
		For Class 55 Rating, Add	1,843.51	
		For Class 56 Rating, Add	2,442.64	
40 05 19 00-3362	EA	18" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	9,516.56	612.06
		For Class 52 Rating, Deduct	-944.81	
		For Class 54 Rating, Add	1,299.51	
		For Class 55 Rating, Add	1,937.65	
		For Class 56 Rating, Add	2,567.20	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-3363	EA	18" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	9,942.32	614.73
		For Class 52 Rating, Deduct.....	-991.20	
		For Class 54 Rating, Add.....	1,362.81	
		For Class 55 Rating, Add.....	2,031.79	
		For Class 56 Rating, Add.....	2,691.75	
40 05 19 00-3364	EA	18" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,368.07	617.38
		For Class 52 Rating, Deduct.....	-1,037.59	
		For Class 54 Rating, Add.....	1,426.12	
		For Class 55 Rating, Add.....	2,125.93	
		For Class 56 Rating, Add.....	2,816.31	
40 05 19 00-3365	EA	18" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	10,793.83	620.03
		For Class 52 Rating, Deduct.....	-1,083.98	
		For Class 54 Rating, Add.....	1,489.43	
		For Class 55 Rating, Add.....	2,220.07	
		For Class 56 Rating, Add.....	2,940.86	
40 05 19 00-3366	EA	18" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	11,219.58	622.70
		For Class 52 Rating, Deduct.....	-1,130.37	
		For Class 54 Rating, Add.....	1,552.74	
		For Class 55 Rating, Add.....	2,314.22	
		For Class 56 Rating, Add.....	3,065.42	
40 05 19 00-3367	EA	18" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	11,645.33	625.34
		For Class 52 Rating, Deduct.....	-1,176.76	
		For Class 54 Rating, Add.....	1,616.04	
		For Class 55 Rating, Add.....	2,408.36	
		For Class 56 Rating, Add.....	3,189.97	
40 05 19 00-3368	EA	18" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	12,071.09	628.00
		For Class 52 Rating, Deduct.....	-1,223.15	
		For Class 54 Rating, Add.....	1,679.35	
		For Class 55 Rating, Add.....	2,502.50	
		For Class 56 Rating, Add.....	3,314.53	
40 05 19 00-3369	EA	18" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	12,496.84	630.66
		For Class 52 Rating, Deduct.....	-1,269.54	
		For Class 54 Rating, Add.....	1,742.66	
		For Class 55 Rating, Add.....	2,596.64	
		For Class 56 Rating, Add.....	3,439.08	
40 05 19 00-3370	EA	18" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	12,922.60	633.32
		For Class 52 Rating, Deduct.....	-1,315.93	
		For Class 54 Rating, Add.....	1,805.97	
		For Class 55 Rating, Add.....	2,690.78	
		For Class 56 Rating, Add.....	3,563.64	
40 05 19 00-3371	EA	18" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	13,348.35	635.97
		For Class 52 Rating, Deduct.....	-1,362.32	
		For Class 54 Rating, Add.....	1,869.28	
		For Class 55 Rating, Add.....	2,784.93	
		For Class 56 Rating, Add.....	3,688.19	
40 05 19 00-3372	EA	18" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	13,774.09	638.63
		For Class 52 Rating, Deduct.....	-1,408.71	
		For Class 54 Rating, Add.....	1,932.58	
		For Class 55 Rating, Add.....	2,879.07	
		For Class 56 Rating, Add.....	3,812.74	
40 05 19 00-3373	EA	18" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	14,199.85	641.29
		For Class 52 Rating, Deduct.....	-1,455.10	
		For Class 54 Rating, Add.....	1,995.89	
		For Class 55 Rating, Add.....	2,973.21	
		For Class 56 Rating, Add.....	3,937.30	
40 05 19 00-3374	EA	18" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	14,625.60	643.95
		For Class 52 Rating, Deduct.....	-1,501.49	
		For Class 54 Rating, Add.....	2,059.20	
		For Class 55 Rating, Add.....	3,067.35	
		For Class 56 Rating, Add.....	4,061.85	
40 05 19 00-3375	EA	18" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	15,051.36	646.60
		For Class 52 Rating, Deduct.....	-1,547.88	
		For Class 54 Rating, Add.....	2,122.51	
		For Class 55 Rating, Add.....	3,161.49	
		For Class 56 Rating, Add.....	4,186.41	
40 05 19 00-3376	EA	18" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe.....	15,477.11	649.25
		For Class 52 Rating, Deduct.....	-1,594.27	
		For Class 54 Rating, Add.....	2,185.81	
		For Class 55 Rating, Add.....	3,255.64	
		For Class 56 Rating, Add.....	4,310.96	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3377	EA	18"	Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	15,902.86	651.92
			For Class 52 Rating, Deduct	-1,640.66	
			For Class 54 Rating, Add	2,249.12	
			For Class 55 Rating, Add	3,349.78	
			For Class 56 Rating, Add	4,435.52	
40 05 19 00-3378	EA	18"	Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,328.62	654.57
			For Class 52 Rating, Deduct	-1,687.05	
			For Class 54 Rating, Add	2,312.43	
			For Class 55 Rating, Add	3,443.92	
			For Class 56 Rating, Add	4,560.07	
40 05 19 00-3379	EA	18"	Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	16,754.37	657.22
			For Class 52 Rating, Deduct	-1,733.44	
			For Class 54 Rating, Add	2,375.74	
			For Class 55 Rating, Add	3,538.06	
			For Class 56 Rating, Add	4,684.63	
40 05 19 00-3380	EA	18"	Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,180.13	659.89
			For Class 52 Rating, Deduct	-1,779.83	
			For Class 54 Rating, Add	2,439.04	
			For Class 55 Rating, Add	3,632.20	
			For Class 56 Rating, Add	4,809.18	
40 05 19 00-3381	EA	18"	Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	17,605.88	662.55
			For Class 52 Rating, Deduct	-1,826.22	
			For Class 54 Rating, Add	2,502.35	
			For Class 55 Rating, Add	3,726.35	
			For Class 56 Rating, Add	4,933.74	
40 05 19 00-3382	EA	18"	Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,031.62	665.19
			For Class 52 Rating, Deduct	-1,872.61	
			For Class 54 Rating, Add	2,565.66	
			For Class 55 Rating, Add	3,820.49	
			For Class 56 Rating, Add	5,058.29	
40 05 19 00-3383	EA	18"	Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,457.38	667.85
			For Class 52 Rating, Deduct	-1,919.00	
			For Class 54 Rating, Add	2,628.96	
			For Class 55 Rating, Add	3,914.63	
			For Class 56 Rating, Add	5,182.85	
40 05 19 00-3384	EA	18"	Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	18,883.13	670.52
			For Class 52 Rating, Deduct	-1,965.39	
			For Class 54 Rating, Add	2,692.27	
			For Class 55 Rating, Add	4,008.77	
			For Class 56 Rating, Add	5,307.40	
40 05 19 00-3385	EA	18"	Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	19,308.89	673.16
			For Class 52 Rating, Deduct	-2,011.78	
			For Class 54 Rating, Add	2,755.58	
			For Class 55 Rating, Add	4,102.91	
			For Class 56 Rating, Add	5,431.96	
40 05 19 00-3386			20" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3387	EA	20"	Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,143.09	656.17
			For Class 52 Rating, Deduct	-346.38	
			For Class 54 Rating, Add	484.27	
			For Class 55 Rating, Add	726.07	
			For Class 56 Rating, Add	964.72	
40 05 19 00-3388	EA	20"	Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	4,627.88	658.82
			For Class 52 Rating, Deduct	-399.26	
			For Class 54 Rating, Add	556.43	
			For Class 55 Rating, Add	833.37	
			For Class 56 Rating, Add	1,106.69	
40 05 19 00-3389	EA	20"	Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,112.68	661.47
			For Class 52 Rating, Deduct	-452.15	
			For Class 54 Rating, Add	628.59	
			For Class 55 Rating, Add	940.68	
			For Class 56 Rating, Add	1,248.66	
40 05 19 00-3390	EA	20"	Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	5,597.47	664.14
			For Class 52 Rating, Deduct	-505.03	
			For Class 54 Rating, Add	700.76	
			For Class 55 Rating, Add	1,047.99	
			For Class 56 Rating, Add	1,390.63	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION	
CSI	UOM DESCRIPTION	UNIT COST		UNIT COST	
40 05 19 00-3391	EA 20" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	6,082.27		666.79	
	For Class 52 Rating, Deduct	-557.92			
	For Class 54 Rating, Add	772.92			
	For Class 55 Rating, Add	1,155.30			
	For Class 56 Rating, Add	1,532.60			
40 05 19 00-3392	EA 20" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	6,567.06		669.44	
	For Class 52 Rating, Deduct	-610.80			
	For Class 54 Rating, Add	845.08			
	For Class 55 Rating, Add	1,262.61			
	For Class 56 Rating, Add	1,674.58			
40 05 19 00-3393	EA 20" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	7,051.85		672.10	
	For Class 52 Rating, Deduct	-663.69			
	For Class 54 Rating, Add	917.25			
	For Class 55 Rating, Add	1,369.91			
	For Class 56 Rating, Add	1,816.55			
40 05 19 00-3394	EA 20" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	7,536.66		674.76	
	For Class 52 Rating, Deduct	-716.57			
	For Class 54 Rating, Add	989.41			
	For Class 55 Rating, Add	1,477.22			
	For Class 56 Rating, Add	1,958.52			
40 05 19 00-3395	EA 20" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	8,021.45		677.42	
	For Class 52 Rating, Deduct	-769.46			
	For Class 54 Rating, Add	1,061.58			
	For Class 55 Rating, Add	1,584.53			
	For Class 56 Rating, Add	2,100.49			
40 05 19 00-3396	EA 20" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	8,506.25		680.07	
	For Class 52 Rating, Deduct	-822.34			
	For Class 54 Rating, Add	1,133.74			
	For Class 55 Rating, Add	1,691.84			
	For Class 56 Rating, Add	2,242.46			
40 05 19 00-3397	EA 20" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	8,991.04		682.73	
	For Class 52 Rating, Deduct	-875.23			
	For Class 54 Rating, Add	1,205.90			
	For Class 55 Rating, Add	1,799.15			
	For Class 56 Rating, Add	2,384.44			
40 05 19 00-3398	EA 20" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	9,475.83		685.39	
	For Class 52 Rating, Deduct	-928.11			
	For Class 54 Rating, Add	1,278.07			
	For Class 55 Rating, Add	1,906.46			
	For Class 56 Rating, Add	2,526.41			
40 05 19 00-3399	EA 20" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	9,960.63		688.03	
	For Class 52 Rating, Deduct	-981.00			
	For Class 54 Rating, Add	1,350.23			
	For Class 55 Rating, Add	2,013.76			
	For Class 56 Rating, Add	2,668.38			
40 05 19 00-3400	EA 20" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	10,445.42		690.69	
	For Class 52 Rating, Deduct	-1,033.88			
	For Class 54 Rating, Add	1,422.39			
	For Class 55 Rating, Add	2,121.07			
	For Class 56 Rating, Add	2,810.35			
40 05 19 00-3401	EA 20" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	10,930.22		693.36	
	For Class 52 Rating, Deduct	-1,086.76			
	For Class 54 Rating, Add	1,494.56			
	For Class 55 Rating, Add	2,228.38			
	For Class 56 Rating, Add	2,952.33			
40 05 19 00-3402	EA 20" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	11,415.01		696.02	
	For Class 52 Rating, Deduct	-1,139.65			
	For Class 54 Rating, Add	1,566.72			
	For Class 55 Rating, Add	2,335.69			
	For Class 56 Rating, Add	3,094.30			
40 05 19 00-3403	EA 20" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	11,899.80		698.66	
	For Class 52 Rating, Deduct	-1,192.53			
	For Class 54 Rating, Add	1,638.89			
	For Class 55 Rating, Add	2,443.00			
	For Class 56 Rating, Add	3,236.27			
40 05 19 00-3404	EA 20" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal				
	Coat, Ductile Iron Pipe.....	12,384.61		701.33	
	For Class 52 Rating, Deduct	-1,245.42			
	For Class 54 Rating, Add	1,711.05			
	For Class 55 Rating, Add	2,550.31			
	For Class 56 Rating, Add	3,378.24			



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3405	EA	20" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	12,869.40	703.98
		For Class 52 Rating, Deduct	-1,298.30	
		For Class 54 Rating, Add	1,783.21	
		For Class 55 Rating, Add	2,657.61	
		For Class 56 Rating, Add	3,520.21	
40 05 19 00-3406	EA	20" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	13,354.20	706.64
		For Class 52 Rating, Deduct	-1,351.19	
		For Class 54 Rating, Add	1,855.38	
		For Class 55 Rating, Add	2,764.92	
		For Class 56 Rating, Add	3,662.19	
40 05 19 00-3407	EA	20" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	13,838.99	709.29
		For Class 52 Rating, Deduct	-1,404.07	
		For Class 54 Rating, Add	1,927.54	
		For Class 55 Rating, Add	2,872.23	
		For Class 56 Rating, Add	3,804.16	
40 05 19 00-3408	EA	20" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	14,323.78	711.95
		For Class 52 Rating, Deduct	-1,456.96	
		For Class 54 Rating, Add	1,999.71	
		For Class 55 Rating, Add	2,979.54	
		For Class 56 Rating, Add	3,946.13	
40 05 19 00-3409	EA	20" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	14,808.58	714.61
		For Class 52 Rating, Deduct	-1,509.84	
		For Class 54 Rating, Add	2,071.87	
		For Class 55 Rating, Add	3,086.85	
		For Class 56 Rating, Add	4,088.10	
40 05 19 00-3410	EA	20" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	15,293.37	717.26
		For Class 52 Rating, Deduct	-1,562.73	
		For Class 54 Rating, Add	2,144.03	
		For Class 55 Rating, Add	3,194.16	
		For Class 56 Rating, Add	4,230.07	
40 05 19 00-3411	EA	20" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	15,778.17	719.92
		For Class 52 Rating, Deduct	-1,615.61	
		For Class 54 Rating, Add	2,216.20	
		For Class 55 Rating, Add	3,301.46	
		For Class 56 Rating, Add	4,372.05	
40 05 19 00-3412	EA	20" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	16,262.96	722.58
		For Class 52 Rating, Deduct	-1,668.50	
		For Class 54 Rating, Add	2,288.36	
		For Class 55 Rating, Add	3,408.77	
		For Class 56 Rating, Add	4,514.02	
40 05 19 00-3413	EA	20" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	16,747.75	725.24
		For Class 52 Rating, Deduct	-1,721.38	
		For Class 54 Rating, Add	2,360.52	
		For Class 55 Rating, Add	3,516.08	
		For Class 56 Rating, Add	4,655.99	
40 05 19 00-3414	EA	20" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	17,232.56	727.88
		For Class 52 Rating, Deduct	-1,774.27	
		For Class 54 Rating, Add	2,432.69	
		For Class 55 Rating, Add	3,623.39	
		For Class 56 Rating, Add	4,797.96	
40 05 19 00-3415	EA	20" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	17,717.35	730.55
		For Class 52 Rating, Deduct	-1,827.15	
		For Class 54 Rating, Add	2,504.85	
		For Class 55 Rating, Add	3,730.70	
		For Class 56 Rating, Add	4,939.93	
40 05 19 00-3416	EA	20" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	18,202.15	733.21
		For Class 52 Rating, Deduct	-1,880.04	
		For Class 54 Rating, Add	2,577.02	
		For Class 55 Rating, Add	3,838.01	
		For Class 56 Rating, Add	5,081.91	
40 05 19 00-3417	EA	20" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	18,686.94	735.85
		For Class 52 Rating, Deduct	-1,932.92	
		For Class 54 Rating, Add	2,649.18	
		For Class 55 Rating, Add	3,945.31	
		For Class 56 Rating, Add	5,223.88	
40 05 19 00-3418	EA	20" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	19,171.73	738.52
		For Class 52 Rating, Deduct	-1,985.80	
		For Class 54 Rating, Add	2,721.34	
		For Class 55 Rating, Add	4,052.62	
		For Class 56 Rating, Add	5,365.85	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3419	EA		20" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	19,656.53	741.17
			For Class 52 Rating, Deduct.....	-2,038.69	
			For Class 54 Rating, Add.....	2,793.51	
			For Class 55 Rating, Add.....	4,159.93	
			For Class 56 Rating, Add.....	5,507.82	
40 05 19 00-3420	EA		20" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	20,141.32	743.83
			For Class 52 Rating, Deduct.....	-2,091.57	
			For Class 54 Rating, Add.....	2,865.67	
			For Class 55 Rating, Add.....	4,267.24	
			For Class 56 Rating, Add.....	5,649.79	
40 05 19 00-3421	EA		20" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	20,626.12	746.48
			For Class 52 Rating, Deduct.....	-2,144.46	
			For Class 54 Rating, Add.....	2,937.83	
			For Class 55 Rating, Add.....	4,374.55	
			For Class 56 Rating, Add.....	5,791.77	
40 05 19 00-3422	EA		20" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	21,110.91	749.14
			For Class 52 Rating, Deduct.....	-2,197.34	
			For Class 54 Rating, Add.....	3,010.00	
			For Class 55 Rating, Add.....	4,481.86	
			For Class 56 Rating, Add.....	5,933.74	
40 05 19 00-3423	EA		20" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	21,595.71	751.80
			For Class 52 Rating, Deduct.....	-2,250.23	
			For Class 54 Rating, Add.....	3,082.16	
			For Class 55 Rating, Add.....	4,589.16	
			For Class 56 Rating, Add.....	6,075.71	
40 05 19 00-3424	EA		20" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	22,080.51	754.45
			For Class 52 Rating, Deduct.....	-2,303.11	
			For Class 54 Rating, Add.....	3,154.33	
			For Class 55 Rating, Add.....	4,696.47	
			For Class 56 Rating, Add.....	6,217.68	
40 05 19 00-3425			24" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3426	EA		24" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,105.81	775.71
			For Class 52 Rating, Deduct.....	-432.36	
			For Class 54 Rating, Add.....	603.68	
			For Class 55 Rating, Add.....	904.71	
			For Class 56 Rating, Add.....	1,201.81	
40 05 19 00-3427	EA		24" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	5,705.88	778.37
			For Class 52 Rating, Deduct.....	-497.92	
			For Class 54 Rating, Add.....	693.13	
			For Class 55 Rating, Add.....	1,037.72	
			For Class 56 Rating, Add.....	1,377.79	
40 05 19 00-3428	EA		24" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,305.96	781.02
			For Class 52 Rating, Deduct.....	-563.48	
			For Class 54 Rating, Add.....	782.59	
			For Class 55 Rating, Add.....	1,170.74	
			For Class 56 Rating, Add.....	1,553.77	
40 05 19 00-3429	EA		24" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	6,906.02	783.67
			For Class 52 Rating, Deduct.....	-629.05	
			For Class 54 Rating, Add.....	872.04	
			For Class 55 Rating, Add.....	1,303.75	
			For Class 56 Rating, Add.....	1,729.74	
40 05 19 00-3430	EA		24" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	7,506.09	786.33
			For Class 52 Rating, Deduct.....	-694.61	
			For Class 54 Rating, Add.....	961.50	
			For Class 55 Rating, Add.....	1,436.77	
			For Class 56 Rating, Add.....	1,905.72	
40 05 19 00-3431	EA		24" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,106.16	788.99
			For Class 52 Rating, Deduct.....	-760.18	
			For Class 54 Rating, Add.....	1,050.95	
			For Class 55 Rating, Add.....	1,569.78	
			For Class 56 Rating, Add.....	2,081.70	
40 05 19 00-3432	EA		24" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,706.23	791.65
			For Class 52 Rating, Deduct.....	-825.74	
			For Class 54 Rating, Add.....	1,140.41	
			For Class 55 Rating, Add.....	1,702.79	
			For Class 56 Rating, Add.....	2,257.68	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3433	EA	24" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	9,306.29	794.30
		For Class 52 Rating, Deduct	-897.31	
		For Class 54 Rating, Add	1,229.86	
		For Class 55 Rating, Add	1,835.81	
		For Class 56 Rating, Add	2,433.65	
40 05 19 00-3434	EA	24" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	9,906.35	796.96
		For Class 52 Rating, Deduct	-956.87	
		For Class 54 Rating, Add	1,319.32	
		For Class 55 Rating, Add	1,968.82	
		For Class 56 Rating, Add	2,609.63	
40 05 19 00-3435	EA	24" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	10,506.43	799.62
		For Class 52 Rating, Deduct	-1,022.44	
		For Class 54 Rating, Add	1,408.77	
		For Class 55 Rating, Add	2,101.84	
		For Class 56 Rating, Add	2,785.61	
40 05 19 00-3436	EA	24" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	11,106.49	802.26
		For Class 52 Rating, Deduct	-1,088.00	
		For Class 54 Rating, Add	1,498.23	
		For Class 55 Rating, Add	2,234.85	
		For Class 56 Rating, Add	2,961.58	
40 05 19 00-3437	EA	24" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	11,706.57	804.93
		For Class 52 Rating, Deduct	-1,153.57	
		For Class 54 Rating, Add	1,587.68	
		For Class 55 Rating, Add	2,367.86	
		For Class 56 Rating, Add	3,137.56	
40 05 19 00-3438	EA	24" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	12,306.63	807.59
		For Class 52 Rating, Deduct	-1,219.13	
		For Class 54 Rating, Add	1,677.13	
		For Class 55 Rating, Add	2,500.88	
		For Class 56 Rating, Add	3,313.54	
40 05 19 00-3439	EA	24" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	12,906.69	810.24
		For Class 52 Rating, Deduct	-1,284.70	
		For Class 54 Rating, Add	1,766.59	
		For Class 55 Rating, Add	2,633.89	
		For Class 56 Rating, Add	3,489.51	
40 05 19 00-3440	EA	24" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	13,506.77	812.90
		For Class 52 Rating, Deduct	-1,350.26	
		For Class 54 Rating, Add	1,856.05	
		For Class 55 Rating, Add	2,766.91	
		For Class 56 Rating, Add	3,665.49	
40 05 19 00-3441	EA	24" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	14,106.83	815.56
		For Class 52 Rating, Deduct	-1,415.83	
		For Class 54 Rating, Add	1,945.50	
		For Class 55 Rating, Add	2,899.92	
		For Class 56 Rating, Add	3,841.47	
40 05 19 00-3442	EA	24" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	14,706.90	818.21
		For Class 52 Rating, Deduct	-1,481.39	
		For Class 54 Rating, Add	2,034.95	
		For Class 55 Rating, Add	3,032.93	
		For Class 56 Rating, Add	4,017.45	
40 05 19 00-3443	EA	24" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	15,306.96	820.86
		For Class 52 Rating, Deduct	-1,546.95	
		For Class 54 Rating, Add	2,124.41	
		For Class 55 Rating, Add	3,165.95	
		For Class 56 Rating, Add	4,193.42	
40 05 19 00-3444	EA	24" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	15,907.03	823.53
		For Class 52 Rating, Deduct	-1,612.52	
		For Class 54 Rating, Add	2,213.86	
		For Class 55 Rating, Add	3,298.96	
		For Class 56 Rating, Add	4,369.40	
40 05 19 00-3445	EA	24" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	16,507.10	826.18
		For Class 52 Rating, Deduct	-1,678.08	
		For Class 54 Rating, Add	2,303.32	
		For Class 55 Rating, Add	3,431.98	
		For Class 56 Rating, Add	4,545.38	
40 05 19 00-3446	EA	24" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	17,107.16	828.84
		For Class 52 Rating, Deduct	-1,743.65	
		For Class 54 Rating, Add	2,392.77	
		For Class 55 Rating, Add	3,564.99	
		For Class 56 Rating, Add	4,721.36	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3447	EA		24" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	17,707.24	831.49
			For Class 52 Rating, Deduct.....	-1,809.21	
			For Class 54 Rating, Add.....	2,482.23	
			For Class 55 Rating, Add.....	3,698.00	
			For Class 56 Rating, Add.....	4,897.33	
40 05 19 00-3448	EA		24" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,307.30	834.15
			For Class 52 Rating, Deduct.....	-1,874.78	
			For Class 54 Rating, Add.....	2,571.68	
			For Class 55 Rating, Add.....	3,831.02	
			For Class 56 Rating, Add.....	5,073.31	
40 05 19 00-3449	EA		24" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,907.37	836.81
			For Class 52 Rating, Deduct.....	-1,940.34	
			For Class 54 Rating, Add.....	2,661.14	
			For Class 55 Rating, Add.....	3,964.03	
			For Class 56 Rating, Add.....	5,249.29	
40 05 19 00-3450	EA		24" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	19,507.44	839.47
			For Class 52 Rating, Deduct.....	-2,005.91	
			For Class 54 Rating, Add.....	2,750.59	
			For Class 55 Rating, Add.....	4,097.05	
			For Class 56 Rating, Add.....	5,425.27	
40 05 19 00-3451	EA		24" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	20,107.50	842.12
			For Class 52 Rating, Deduct.....	-2,071.47	
			For Class 54 Rating, Add.....	2,840.05	
			For Class 55 Rating, Add.....	4,230.06	
			For Class 56 Rating, Add.....	5,601.24	
40 05 19 00-3452	EA		24" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	20,707.57	844.78
			For Class 52 Rating, Deduct.....	-2,137.04	
			For Class 54 Rating, Add.....	2,929.50	
			For Class 55 Rating, Add.....	4,363.07	
			For Class 56 Rating, Add.....	5,777.22	
40 05 19 00-3453	EA		24" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	21,307.64	847.43
			For Class 52 Rating, Deduct.....	-2,202.60	
			For Class 54 Rating, Add.....	3,018.96	
			For Class 55 Rating, Add.....	4,496.09	
			For Class 56 Rating, Add.....	5,953.20	
40 05 19 00-3454	EA		24" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	21,907.70	850.09
			For Class 52 Rating, Deduct.....	-2,268.17	
			For Class 54 Rating, Add.....	3,108.41	
			For Class 55 Rating, Add.....	4,629.10	
			For Class 56 Rating, Add.....	6,129.18	
40 05 19 00-3455	EA		24" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	22,576.20	897.91
			For Class 52 Rating, Deduct.....	-2,333.73	
			For Class 54 Rating, Add.....	3,198.69	
			For Class 55 Rating, Add.....	4,763.76	
			For Class 56 Rating, Add.....	6,307.62	
40 05 19 00-3456	EA		24" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	23,176.26	900.56
			For Class 52 Rating, Deduct.....	-2,399.29	
			For Class 54 Rating, Add.....	3,288.14	
			For Class 55 Rating, Add.....	4,896.77	
			For Class 56 Rating, Add.....	6,483.59	
40 05 19 00-3457	EA		24" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	23,776.33	903.22
			For Class 52 Rating, Deduct.....	-2,464.86	
			For Class 54 Rating, Add.....	3,377.59	
			For Class 55 Rating, Add.....	5,029.79	
			For Class 56 Rating, Add.....	6,659.57	
40 05 19 00-3458	EA		24" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	24,376.40	905.89
			For Class 52 Rating, Deduct.....	-2,530.42	
			For Class 54 Rating, Add.....	3,467.05	
			For Class 55 Rating, Add.....	5,162.80	
			For Class 56 Rating, Add.....	6,835.55	
40 05 19 00-3459	EA		24" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	24,976.46	908.53
			For Class 52 Rating, Deduct.....	-2,595.99	
			For Class 54 Rating, Add.....	3,556.50	
			For Class 55 Rating, Add.....	5,295.82	
			For Class 56 Rating, Add.....	7,011.53	
40 05 19 00-3460	EA		24" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	28,388.06	911.19
			For Class 52 Rating, Deduct.....	-2,970.82	
			For Class 54 Rating, Add.....	4,067.69	
			For Class 55 Rating, Add.....	6,055.80	
			For Class 56 Rating, Add.....	8,016.90	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3461	EA		24" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	26,176.60	913.86
			For Class 52 Rating, Deduct.....	-2,727.12	
			For Class 54 Rating, Add.....	3,735.41	
			For Class 55 Rating, Add.....	5,561.84	
			For Class 56 Rating, Add.....	7,363.48	
40 05 19 00-3462	EA		24" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	26,776.68	916.50
			For Class 52 Rating, Deduct.....	-2,792.68	
			For Class 54 Rating, Add.....	3,824.67	
			For Class 55 Rating, Add.....	5,694.86	
			For Class 56 Rating, Add.....	7,539.46	
40 05 19 00-3463	EA		24" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	27,376.74	919.16
			For Class 52 Rating, Deduct.....	-2,858.25	
			For Class 54 Rating, Add.....	3,914.32	
			For Class 55 Rating, Add.....	5,827.87	
			For Class 56 Rating, Add.....	7,715.44	
40 05 19 00-3464			30" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe..... (40 05 19 00-3068)		
40 05 19 00-3465	EA		30" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	8,670.25	1,094.50
			For Class 52 Rating, Deduct.....	-771.31	
			For Class 54 Rating, Add.....	1,071.69	
			For Class 55 Rating, Add.....	1,603.46	
			For Class 56 Rating, Add.....	2,128.22	
40 05 19 00-3466	EA		30" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	9,528.98	1,097.14
			For Class 52 Rating, Deduct.....	-865.33	
			For Class 54 Rating, Add.....	1,199.94	
			For Class 55 Rating, Add.....	1,794.15	
			For Class 56 Rating, Add.....	2,380.50	
40 05 19 00-3467	EA		30" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	10,387.71	1,099.81
			For Class 52 Rating, Deduct.....	-959.35	
			For Class 54 Rating, Add.....	1,328.20	
			For Class 55 Rating, Add.....	1,984.85	
			For Class 56 Rating, Add.....	2,632.78	
40 05 19 00-3468	EA		30" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	11,246.44	1,102.46
			For Class 52 Rating, Deduct.....	-1,053.36	
			For Class 54 Rating, Add.....	1,456.45	
			For Class 55 Rating, Add.....	2,175.55	
			For Class 56 Rating, Add.....	2,885.07	
40 05 19 00-3469	EA		30" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,105.16	1,105.12
			For Class 52 Rating, Deduct.....	-1,147.38	
			For Class 54 Rating, Add.....	1,584.70	
			For Class 55 Rating, Add.....	2,366.24	
			For Class 56 Rating, Add.....	3,137.35	
40 05 19 00-3470	EA		30" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	12,963.89	1,107.77
			For Class 52 Rating, Deduct.....	-1,241.40	
			For Class 54 Rating, Add.....	1,712.96	
			For Class 55 Rating, Add.....	2,556.94	
			For Class 56 Rating, Add.....	3,389.63	
40 05 19 00-3471	EA		30" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	13,822.61	1,110.43
			For Class 52 Rating, Deduct.....	-1,335.42	
			For Class 54 Rating, Add.....	1,841.21	
			For Class 55 Rating, Add.....	2,747.63	
			For Class 56 Rating, Add.....	3,641.91	
40 05 19 00-3472	EA		30" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,681.34	1,113.09
			For Class 52 Rating, Deduct.....	-1,429.43	
			For Class 54 Rating, Add.....	1,969.47	
			For Class 55 Rating, Add.....	2,938.33	
			For Class 56 Rating, Add.....	3,894.19	
40 05 19 00-3473	EA		30" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	15,540.07	1,115.74
			For Class 52 Rating, Deduct.....	-1,523.45	
			For Class 54 Rating, Add.....	2,097.72	
			For Class 55 Rating, Add.....	3,129.02	
			For Class 56 Rating, Add.....	4,146.48	
40 05 19 00-3474	EA		30" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	16,398.79	1,118.40
			For Class 52 Rating, Deduct.....	-1,617.47	
			For Class 54 Rating, Add.....	2,225.97	
			For Class 55 Rating, Add.....	3,319.72	
			For Class 56 Rating, Add.....	4,398.76	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3475	EA		30" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	17,257.52	1,121.06
			For Class 52 Rating, Deduct.....	-1,711.48	
			For Class 54 Rating, Add.....	2,354.23	
			For Class 55 Rating, Add.....	3,510.41	
			For Class 56 Rating, Add.....	4,651.04	
40 05 19 00-3476	EA		30" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,116.25	1,123.72
			For Class 52 Rating, Deduct.....	-1,805.50	
			For Class 54 Rating, Add.....	2,482.48	
			For Class 55 Rating, Add.....	3,701.11	
			For Class 56 Rating, Add.....	4,903.32	
40 05 19 00-3477	EA		30" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	18,974.98	1,126.36
			For Class 52 Rating, Deduct.....	-1,899.52	
			For Class 54 Rating, Add.....	2,610.73	
			For Class 55 Rating, Add.....	3,891.80	
			For Class 56 Rating, Add.....	5,155.60	
40 05 19 00-3478	EA		30" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	19,833.71	1,129.03
			For Class 52 Rating, Deduct.....	-1,993.54	
			For Class 54 Rating, Add.....	2,738.99	
			For Class 55 Rating, Add.....	4,082.50	
			For Class 56 Rating, Add.....	5,407.89	
40 05 19 00-3479	EA		30" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	20,692.43	1,131.69
			For Class 52 Rating, Deduct.....	-2,087.55	
			For Class 54 Rating, Add.....	2,867.24	
			For Class 55 Rating, Add.....	4,273.19	
			For Class 56 Rating, Add.....	5,660.17	
40 05 19 00-3480	EA		30" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	21,551.16	1,134.33
			For Class 52 Rating, Deduct.....	-2,181.57	
			For Class 54 Rating, Add.....	2,995.49	
			For Class 55 Rating, Add.....	4,463.89	
			For Class 56 Rating, Add.....	5,912.45	
40 05 19 00-3481	EA		30" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	22,409.88	1,137.00
			For Class 52 Rating, Deduct.....	-2,275.59	
			For Class 54 Rating, Add.....	3,123.75	
			For Class 55 Rating, Add.....	4,654.58	
			For Class 56 Rating, Add.....	6,164.73	
40 05 19 00-3482	EA		30" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	23,268.61	1,139.66
			For Class 52 Rating, Deduct.....	-2,369.61	
			For Class 54 Rating, Add.....	3,252.00	
			For Class 55 Rating, Add.....	4,845.28	
			For Class 56 Rating, Add.....	6,417.01	
40 05 19 00-3483	EA		30" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	24,127.34	1,142.31
			For Class 52 Rating, Deduct.....	-2,463.62	
			For Class 54 Rating, Add.....	3,380.25	
			For Class 55 Rating, Add.....	5,035.97	
			For Class 56 Rating, Add.....	6,669.30	
40 05 19 00-3484	EA		30" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	24,986.06	1,144.96
			For Class 52 Rating, Deduct.....	-2,557.64	
			For Class 54 Rating, Add.....	3,508.51	
			For Class 55 Rating, Add.....	5,226.67	
			For Class 56 Rating, Add.....	6,921.58	
40 05 19 00-3485	EA		30" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	25,844.80	1,147.62
			For Class 52 Rating, Deduct.....	-2,651.66	
			For Class 54 Rating, Add.....	3,636.76	
			For Class 55 Rating, Add.....	5,417.36	
			For Class 56 Rating, Add.....	7,173.86	
40 05 19 00-3486	EA		30" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	26,703.52	1,150.28
			For Class 52 Rating, Deduct.....	-2,745.67	
			For Class 54 Rating, Add.....	3,765.01	
			For Class 55 Rating, Add.....	5,608.06	
			For Class 56 Rating, Add.....	7,426.14	
40 05 19 00-3487	EA		30" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	27,562.26	1,152.93
			For Class 52 Rating, Deduct.....	-2,839.69	
			For Class 54 Rating, Add.....	3,893.27	
			For Class 55 Rating, Add.....	5,798.75	
			For Class 56 Rating, Add.....	7,678.42	
40 05 19 00-3488	EA		30" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	28,420.98	1,155.59
			For Class 52 Rating, Deduct.....	-2,933.71	
			For Class 54 Rating, Add.....	4,021.52	
			For Class 55 Rating, Add.....	5,989.45	
			For Class 56 Rating, Add.....	7,930.71	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3489	EA	30"	Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	29,279.70	1,158.25
			For Class 52 Rating, Deduct	-3,027.73	
			For Class 54 Rating, Add	4,149.78	
			For Class 55 Rating, Add	6,180.14	
			For Class 56 Rating, Add	8,182.99	
40 05 19 00-3490	EA	30"	Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,138.43	1,160.91
			For Class 52 Rating, Deduct	-3,121.74	
			For Class 54 Rating, Add	4,278.03	
			For Class 55 Rating, Add	6,370.84	
			For Class 56 Rating, Add	8,435.27	
40 05 19 00-3491	EA	30"	Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	30,997.15	1,163.55
			For Class 52 Rating, Deduct	-3,215.76	
			For Class 54 Rating, Add	4,406.28	
			For Class 55 Rating, Add	6,561.53	
			For Class 56 Rating, Add	8,687.55	
40 05 19 00-3492	EA	30"	Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	31,855.89	1,166.22
			For Class 52 Rating, Deduct	-3,309.78	
			For Class 54 Rating, Add	4,534.54	
			For Class 55 Rating, Add	6,752.23	
			For Class 56 Rating, Add	8,939.83	
40 05 19 00-3493	EA	30"	Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	32,714.61	1,168.88
			For Class 52 Rating, Deduct	-3,403.79	
			For Class 54 Rating, Add	4,662.79	
			For Class 55 Rating, Add	6,942.93	
			For Class 56 Rating, Add	9,192.12	
40 05 19 00-3494	EA	30"	Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	33,573.33	1,171.53
			For Class 52 Rating, Deduct	-3,497.81	
			For Class 54 Rating, Add	4,791.04	
			For Class 55 Rating, Add	7,133.62	
			For Class 56 Rating, Add	9,444.40	
40 05 19 00-3495	EA	30"	Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	34,432.07	1,174.19
			For Class 52 Rating, Deduct	-3,591.83	
			For Class 54 Rating, Add	4,919.30	
			For Class 55 Rating, Add	7,324.31	
			For Class 56 Rating, Add	9,696.68	
40 05 19 00-3496	EA	30"	Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	35,290.80	1,176.85
			For Class 52 Rating, Deduct	-3,685.85	
			For Class 54 Rating, Add	5,047.55	
			For Class 55 Rating, Add	7,515.01	
			For Class 56 Rating, Add	9,948.96	
40 05 19 00-3497	EA	30"	Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	36,149.53	1,179.50
			For Class 52 Rating, Deduct	-3,779.86	
			For Class 54 Rating, Add	5,175.81	
			For Class 55 Rating, Add	7,705.71	
			For Class 56 Rating, Add	10,201.24	
40 05 19 00-3498	EA	30"	Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	37,008.25	1,182.15
			For Class 52 Rating, Deduct	-3,873.88	
			For Class 54 Rating, Add	5,304.06	
			For Class 55 Rating, Add	7,896.40	
			For Class 56 Rating, Add	10,453.53	
40 05 19 00-3499	EA	30"	Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	37,866.97	1,184.82
			For Class 52 Rating, Deduct	-3,967.90	
			For Class 54 Rating, Add	5,432.31	
			For Class 55 Rating, Add	8,087.10	
			For Class 56 Rating, Add	10,705.81	
40 05 19 00-3500			36" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)		
40 05 19 00-3501	EA	36"	Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	10,833.66	1,386.72
			For Class 52 Rating, Deduct	-960.58	
			For Class 54 Rating, Add	1,335.10	
			For Class 55 Rating, Add	1,997.79	
			For Class 56 Rating, Add	2,651.75	
40 05 19 00-3502	EA	36"	Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe	11,984.78	1,389.37
			For Class 52 Rating, Deduct	-1,086.76	
			For Class 54 Rating, Add	1,507.21	
			For Class 55 Rating, Add	2,253.69	
			For Class 56 Rating, Add	2,990.29	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR		TOTAL DIRECT		DEMOLITION
CSI	UOM DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
40 05 19 00-3503	EA 36" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	13,135.91		1,392.02
	For Class 52 Rating, Deduct	-1,212.95		
	For Class 54 Rating, Add	1,679.33		
	For Class 55 Rating, Add	2,509.59		
	For Class 56 Rating, Add	3,328.83		
40 05 19 00-3504	EA 36" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	14,287.03		1,394.68
	For Class 52 Rating, Deduct	-1,339.13		
	For Class 54 Rating, Add	1,851.44		
	For Class 55 Rating, Add	2,765.49		
	For Class 56 Rating, Add	3,667.37		
40 05 19 00-3505	EA 36" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	15,438.16		1,397.34
	For Class 52 Rating, Deduct	-1,465.31		
	For Class 54 Rating, Add	2,023.55		
	For Class 55 Rating, Add	3,021.39		
	For Class 56 Rating, Add	4,005.91		
40 05 19 00-3506	EA 36" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	16,589.28		1,399.99
	For Class 52 Rating, Deduct	-1,591.49		
	For Class 54 Rating, Add	2,195.67		
	For Class 55 Rating, Add	3,277.29		
	For Class 56 Rating, Add	4,344.45		
40 05 19 00-3507	EA 36" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	17,740.41		1,402.65
	For Class 52 Rating, Deduct	-1,717.67		
	For Class 54 Rating, Add	2,367.78		
	For Class 55 Rating, Add	3,533.19		
	For Class 56 Rating, Add	4,682.99		
40 05 19 00-3508	EA 36" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	18,891.53		1,405.31
	For Class 52 Rating, Deduct	-1,843.85		
	For Class 54 Rating, Add	2,539.89		
	For Class 55 Rating, Add	3,789.09		
	For Class 56 Rating, Add	5,021.53		
40 05 19 00-3509	EA 36" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	20,042.65		1,407.97
	For Class 52 Rating, Deduct	-1,970.03		
	For Class 54 Rating, Add	2,712.01		
	For Class 55 Rating, Add	4,044.99		
	For Class 56 Rating, Add	5,360.06		
40 05 19 00-3510	EA 36" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	21,193.78		1,410.61
	For Class 52 Rating, Deduct	-2,096.21		
	For Class 54 Rating, Add	2,884.12		
	For Class 55 Rating, Add	4,300.89		
	For Class 56 Rating, Add	5,698.60		
40 05 19 00-3511	EA 36" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	22,344.91		1,413.27
	For Class 52 Rating, Deduct	-2,222.39		
	For Class 54 Rating, Add	3,056.23		
	For Class 55 Rating, Add	4,556.79		
	For Class 56 Rating, Add	6,037.14		
40 05 19 00-3512	EA 36" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	23,496.04		1,415.94
	For Class 52 Rating, Deduct	-2,348.57		
	For Class 54 Rating, Add	3,228.35		
	For Class 55 Rating, Add	4,812.69		
	For Class 56 Rating, Add	6,375.68		
40 05 19 00-3513	EA 36" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	24,647.16		1,418.58
	For Class 52 Rating, Deduct	-2,474.76		
	For Class 54 Rating, Add	3,400.46		
	For Class 55 Rating, Add	5,068.59		
	For Class 56 Rating, Add	6,714.22		
40 05 19 00-3514	EA 36" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	25,798.28		1,421.24
	For Class 52 Rating, Deduct	-2,600.94		
	For Class 54 Rating, Add	3,572.57		
	For Class 55 Rating, Add	5,324.49		
	For Class 56 Rating, Add	7,052.76		
40 05 19 00-3515	EA 36" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	26,949.41		1,423.91
	For Class 52 Rating, Deduct	-2,727.12		
	For Class 54 Rating, Add	3,744.69		
	For Class 55 Rating, Add	5,580.39		
	For Class 56 Rating, Add	7,391.30		
40 05 19 00-3516	EA 36" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal			
	Coat, Ductile Iron Pipe.....	28,100.53		1,426.56
	For Class 52 Rating, Deduct	-2,853.30		
	For Class 54 Rating, Add	3,916.80		
	For Class 55 Rating, Add	5,836.29		
	For Class 56 Rating, Add	7,729.84		



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3517	EA	36" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	29,251.66	1,429.21
		For Class 52 Rating, Deduct	-2,979.48	
		For Class 54 Rating, Add	4,088.91	
		For Class 55 Rating, Add	6,092.19	
		For Class 56 Rating, Add	8,068.38	
40 05 19 00-3518	EA	36" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	30,402.78	1,431.87
		For Class 52 Rating, Deduct	-3,105.66	
		For Class 54 Rating, Add	4,261.03	
		For Class 55 Rating, Add	6,348.09	
		For Class 56 Rating, Add	8,406.92	
40 05 19 00-3519	EA	36" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	31,553.90	1,434.53
		For Class 52 Rating, Deduct	-3,231.84	
		For Class 54 Rating, Add	4,433.14	
		For Class 55 Rating, Add	6,603.99	
		For Class 56 Rating, Add	8,745.46	
40 05 19 00-3520	EA	36" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	32,705.03	1,437.19
		For Class 52 Rating, Deduct	-3,358.02	
		For Class 54 Rating, Add	4,605.25	
		For Class 55 Rating, Add	6,859.89	
		For Class 56 Rating, Add	9,084.00	
40 05 19 00-3521	EA	36" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	33,856.16	1,439.84
		For Class 52 Rating, Deduct	-3,484.20	
		For Class 54 Rating, Add	4,777.37	
		For Class 55 Rating, Add	7,115.79	
		For Class 56 Rating, Add	9,422.54	
40 05 19 00-3522	EA	36" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	35,007.29	1,442.50
		For Class 52 Rating, Deduct	-3,610.38	
		For Class 54 Rating, Add	4,949.48	
		For Class 55 Rating, Add	7,371.69	
		For Class 56 Rating, Add	9,761.08	
40 05 19 00-3523	EA	36" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	36,158.41	1,445.16
		For Class 52 Rating, Deduct	-3,736.57	
		For Class 54 Rating, Add	5,121.59	
		For Class 55 Rating, Add	7,627.59	
		For Class 56 Rating, Add	10,099.62	
40 05 19 00-3524	EA	36" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	37,309.53	1,447.81
		For Class 52 Rating, Deduct	-3,862.75	
		For Class 54 Rating, Add	5,293.71	
		For Class 55 Rating, Add	7,883.49	
		For Class 56 Rating, Add	10,438.16	
40 05 19 00-3525	EA	36" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	38,460.66	1,450.46
		For Class 52 Rating, Deduct	-3,988.93	
		For Class 54 Rating, Add	5,465.82	
		For Class 55 Rating, Add	8,139.39	
		For Class 56 Rating, Add	10,776.70	
40 05 19 00-3526	EA	36" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	39,611.79	1,453.13
		For Class 52 Rating, Deduct	-4,115.11	
		For Class 54 Rating, Add	5,637.93	
		For Class 55 Rating, Add	8,395.29	
		For Class 56 Rating, Add	11,115.24	
40 05 19 00-3527	EA	36" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	40,762.92	1,455.79
		For Class 52 Rating, Deduct	-4,241.29	
		For Class 54 Rating, Add	5,810.05	
		For Class 55 Rating, Add	8,651.19	
		For Class 56 Rating, Add	11,453.78	
40 05 19 00-3528	EA	36" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	41,914.04	1,458.43
		For Class 52 Rating, Deduct	-4,367.47	
		For Class 54 Rating, Add	5,982.16	
		For Class 55 Rating, Add	8,907.09	
		For Class 56 Rating, Add	11,792.32	
40 05 19 00-3529	EA	36" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	43,065.16	1,461.10
		For Class 52 Rating, Deduct	-4,493.65	
		For Class 54 Rating, Add	6,154.27	
		For Class 55 Rating, Add	9,162.99	
		For Class 56 Rating, Add	12,130.86	
40 05 19 00-3530	EA	36" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	44,216.29	1,463.75
		For Class 52 Rating, Deduct	-4,619.83	
		For Class 54 Rating, Add	6,326.39	
		For Class 55 Rating, Add	9,418.89	
		For Class 56 Rating, Add	12,469.40	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3531	EA		36" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	45,367.42	1,466.40
			For Class 52 Rating, Deduct.....	-4,746.01	
			For Class 54 Rating, Add.....	6,498.50	
			For Class 55 Rating, Add.....	9,674.79	
			For Class 56 Rating, Add.....	12,807.93	
40 05 19 00-3532	EA		36" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	46,518.55	1,469.06
			For Class 52 Rating, Deduct.....	-4,872.20	
			For Class 54 Rating, Add.....	6,670.61	
			For Class 55 Rating, Add.....	9,930.69	
			For Class 56 Rating, Add.....	13,146.47	
40 05 19 00-3533	EA		36" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	47,669.67	1,471.72
			For Class 52 Rating, Deduct.....	-4,998.38	
			For Class 54 Rating, Add.....	6,842.73	
			For Class 55 Rating, Add.....	10,186.59	
			For Class 56 Rating, Add.....	13,485.01	
40 05 19 00-3534	EA		36" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	48,820.79	1,474.38
			For Class 52 Rating, Deduct.....	-5,124.56	
			For Class 54 Rating, Add.....	7,014.84	
			For Class 55 Rating, Add.....	10,442.49	
			For Class 56 Rating, Add.....	13,823.55	
40 05 19 00-3535	EA		36" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	49,971.92	1,477.03
			For Class 52 Rating, Deduct.....	-5,250.74	
			For Class 54 Rating, Add.....	7,186.95	
			For Class 55 Rating, Add.....	10,698.39	
			For Class 56 Rating, Add.....	14,162.09	
40 05 19 00-3536			42" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3056)		
40 05 19 00-3537	EA		42" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	14,355.65	1,748.00
			For Class 52 Rating, Deduct.....	-1,287.79	
			For Class 54 Rating, Add.....	1,787.86	
			For Class 55 Rating, Add.....	2,674.26	
			For Class 56 Rating, Add.....	3,548.96	
40 05 19 00-3538	EA		42" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	16,052.21	1,750.65
			For Class 52 Rating, Deduct.....	-1,473.97	
			For Class 54 Rating, Add.....	2,041.79	
			For Class 55 Rating, Add.....	3,051.79	
			For Class 56 Rating, Add.....	4,048.40	
40 05 19 00-3539	EA		42" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	17,734.71	1,753.31
			For Class 52 Rating, Deduct.....	-1,658.60	
			For Class 54 Rating, Add.....	2,293.61	
			For Class 55 Rating, Add.....	3,426.19	
			For Class 56 Rating, Add.....	4,543.70	
40 05 19 00-3540	EA		42" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	19,434.09	1,755.97
			For Class 52 Rating, Deduct.....	-1,845.09	
			For Class 54 Rating, Add.....	2,547.96	
			For Class 55 Rating, Add.....	3,804.35	
			For Class 56 Rating, Add.....	5,043.97	
40 05 19 00-3541	EA		42" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	21,122.22	1,758.63
			For Class 52 Rating, Deduct.....	-2,030.34	
			For Class 54 Rating, Add.....	2,800.62	
			For Class 55 Rating, Add.....	4,180.00	
			For Class 56 Rating, Add.....	5,540.93	
40 05 19 00-3542	EA		42" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	22,827.21	1,761.28
			For Class 52 Rating, Deduct.....	-2,217.45	
			For Class 54 Rating, Add.....	3,055.81	
			For Class 55 Rating, Add.....	4,559.41	
			For Class 56 Rating, Add.....	6,042.86	
40 05 19 00-3543	EA		42" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	24,515.34	1,763.94
			For Class 52 Rating, Deduct.....	-2,402.70	
			For Class 54 Rating, Add.....	3,308.48	
			For Class 55 Rating, Add.....	4,935.07	
			For Class 56 Rating, Add.....	6,539.81	
40 05 19 00-3544	EA		42" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	26,223.14	1,766.60
			For Class 52 Rating, Deduct.....	-2,590.11	
			For Class 54 Rating, Add.....	3,564.09	
			For Class 55 Rating, Add.....	5,315.10	
			For Class 56 Rating, Add.....	7,042.57	



MINOR			TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION			UNIT COST	UNIT COST
40 05 19 00-3545	EA	42" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	27,914.07	1,769.26
		For Class 52 Rating, Deduct	-2,775.67	
		For Class 54 Rating, Add	3,817.18	
		For Class 55 Rating, Add	5,691.38	
		For Class 56 Rating, Add	7,540.35	
40 05 19 00-3546	EA	42" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	29,624.69	1,771.90
		For Class 52 Rating, Deduct	-2,963.40	
		For Class 54 Rating, Add	4,073.21	
		For Class 55 Rating, Add	6,072.05	
		For Class 56 Rating, Add	8,043.94	
40 05 19 00-3547	EA	42" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	31,315.63	1,774.56
		For Class 52 Rating, Deduct	-3,148.96	
		For Class 54 Rating, Add	4,326.30	
		For Class 55 Rating, Add	6,448.33	
		For Class 56 Rating, Add	8,541.73	
40 05 19 00-3548	EA	42" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	33,026.25	1,777.23
		For Class 52 Rating, Deduct	-3,336.68	
		For Class 54 Rating, Add	4,582.34	
		For Class 55 Rating, Add	6,828.99	
		For Class 56 Rating, Add	9,045.32	
40 05 19 00-3549	EA	42" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	34,719.99	1,779.87
		For Class 52 Rating, Deduct	-3,522.55	
		For Class 54 Rating, Add	4,835.84	
		For Class 55 Rating, Add	7,205.90	
		For Class 56 Rating, Add	9,543.93	
40 05 19 00-3550	EA	42" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	36,416.56	1,782.53
		For Class 52 Rating, Deduct	-3,708.73	
		For Class 54 Rating, Add	5,089.77	
		For Class 55 Rating, Add	7,583.43	
		For Class 56 Rating, Add	10,043.38	
40 05 19 00-3551	EA	42" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	38,124.37	1,785.20
		For Class 52 Rating, Deduct	-3,896.15	
		For Class 54 Rating, Add	5,345.39	
		For Class 55 Rating, Add	7,963.47	
		For Class 56 Rating, Add	10,546.14	
40 05 19 00-3552	EA	42" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	39,818.11	1,787.85
		For Class 52 Rating, Deduct	-4,082.02	
		For Class 54 Rating, Add	5,598.89	
		For Class 55 Rating, Add	8,340.38	
		For Class 56 Rating, Add	11,044.75	
40 05 19 00-3553	EA	42" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	41,531.55	1,790.50
		For Class 52 Rating, Deduct	-4,270.05	
		For Class 54 Rating, Add	5,855.35	
		For Class 55 Rating, Add	8,721.67	
		For Class 56 Rating, Add	11,549.17	
40 05 19 00-3554	EA	42" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	43,228.10	1,793.16
		For Class 52 Rating, Deduct	-4,456.23	
		For Class 54 Rating, Add	6,109.28	
		For Class 55 Rating, Add	9,099.20	
		For Class 56 Rating, Add	12,048.61	
40 05 19 00-3555	EA	42" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	44,938.71	1,795.82
		For Class 52 Rating, Deduct	-4,643.96	
		For Class 54 Rating, Add	6,365.32	
		For Class 55 Rating, Add	9,479.87	
		For Class 56 Rating, Add	12,552.20	
40 05 19 00-3556	EA	42" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	46,635.28	1,798.47
		For Class 52 Rating, Deduct	-4,830.14	
		For Class 54 Rating, Add	6,619.25	
		For Class 55 Rating, Add	9,857.40	
		For Class 56 Rating, Add	13,051.64	
40 05 19 00-3557	EA	42" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	48,348.70	1,801.13
		For Class 52 Rating, Deduct	-5,018.17	
		For Class 54 Rating, Add	6,875.71	
		For Class 55 Rating, Add	10,238.69	
		For Class 56 Rating, Add	13,556.06	
40 05 19 00-3558	EA	42" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
		Coat, Ductile Iron Pipe	50,045.27	1,803.79
		For Class 52 Rating, Deduct	-5,204.35	
		For Class 54 Rating, Add	7,129.64	
		For Class 55 Rating, Add	10,616.23	
		For Class 56 Rating, Add	14,055.51	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3559	EA		42" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	51,758.69	1,806.45
			For Class 52 Rating, Deduct.....	-5,392.38	
			For Class 54 Rating, Add.....	7,386.09	
			For Class 55 Rating, Add.....	10,997.52	
			For Class 56 Rating, Add.....	14,559.92	
40 05 19 00-3560	EA		42" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	53,452.45	1,809.09
			For Class 52 Rating, Deduct.....	-5,578.25	
			For Class 54 Rating, Add.....	7,639.60	
			For Class 55 Rating, Add.....	11,374.43	
			For Class 56 Rating, Add.....	15,058.54	
40 05 19 00-3561	EA		42" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	55,168.69	1,811.75
			For Class 52 Rating, Deduct.....	-5,766.60	
			For Class 54 Rating, Add.....	7,896.48	
			For Class 55 Rating, Add.....	11,756.34	
			For Class 56 Rating, Add.....	15,563.79	
40 05 19 00-3562	EA		42" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	56,865.25	1,814.42
			For Class 52 Rating, Deduct.....	-5,952.78	
			For Class 54 Rating, Add.....	8,150.41	
			For Class 55 Rating, Add.....	12,133.88	
			For Class 56 Rating, Add.....	16,063.23	
40 05 19 00-3563	EA		42" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	58,575.87	1,817.06
			For Class 52 Rating, Deduct.....	-6,140.50	
			For Class 54 Rating, Add.....	8,406.45	
			For Class 55 Rating, Add.....	12,514.54	
			For Class 56 Rating, Add.....	16,566.82	
40 05 19 00-3564	EA		42" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	60,275.24	1,819.72
			For Class 52 Rating, Deduct.....	-6,326.99	
			For Class 54 Rating, Add.....	8,660.80	
			For Class 55 Rating, Add.....	12,892.70	
			For Class 56 Rating, Add.....	17,067.09	
40 05 19 00-3565	EA		42" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	61,640.03	1,822.39
			For Class 52 Rating, Deduct.....	-6,476.67	
			For Class 54 Rating, Add.....	8,864.96	
			For Class 55 Rating, Add.....	13,196.25	
			For Class 56 Rating, Add.....	17,468.66	
40 05 19 00-3566	EA		42" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	63,685.23	1,825.04
			For Class 52 Rating, Deduct.....	-6,701.20	
			For Class 54 Rating, Add.....	9,171.19	
			For Class 55 Rating, Add.....	13,651.53	
			For Class 56 Rating, Add.....	18,070.95	
40 05 19 00-3567	EA		42" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	65,378.97	1,827.69
			For Class 52 Rating, Deduct.....	-6,887.07	
			For Class 54 Rating, Add.....	9,424.69	
			For Class 55 Rating, Add.....	14,028.43	
			For Class 56 Rating, Add.....	18,569.57	
40 05 19 00-3568	EA		42" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	67,092.40	1,830.35
			For Class 52 Rating, Deduct.....	-7,075.11	
			For Class 54 Rating, Add.....	9,681.15	
			For Class 55 Rating, Add.....	14,409.73	
			For Class 56 Rating, Add.....	19,073.98	
40 05 19 00-3569	EA		42" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	68,788.96	1,833.01
			For Class 52 Rating, Deduct.....	-7,261.28	
			For Class 54 Rating, Add.....	9,935.08	
			For Class 55 Rating, Add.....	14,787.26	
			For Class 56 Rating, Add.....	19,573.43	
40 05 19 00-3570	EA		42" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	70,505.20	1,835.67
			For Class 52 Rating, Deduct.....	-7,449.63	
			For Class 54 Rating, Add.....	10,191.96	
			For Class 55 Rating, Add.....	15,169.18	
			For Class 56 Rating, Add.....	20,078.67	
40 05 19 00-3571	EA		42" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	72,198.96	1,838.32
			For Class 52 Rating, Deduct.....	-7,635.50	
			For Class 54 Rating, Add.....	10,445.47	
			For Class 55 Rating, Add.....	15,546.09	
			For Class 56 Rating, Add.....	20,577.29	

40 05 19 00-3572 48" Flanged End x Plain End (FxPE), Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-3068)



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3573	EA	48" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	18,553.09	2,196.95
		For Class 52 Rating, Deduct	-1,674.68	
		For Class 54 Rating, Add	2,323.60	
		For Class 55 Rating, Add	3,474.93	
		For Class 56 Rating, Add	4,611.03	
40 05 19 00-3574	EA	48" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	20,991.90	2,199.61
		For Class 52 Rating, Deduct	-1,942.51	
		For Class 54 Rating, Add	2,688.87	
		For Class 55 Rating, Add	4,017.98	
		For Class 56 Rating, Add	5,329.43	
40 05 19 00-3575	EA	48" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	23,439.13	2,202.26
		For Class 52 Rating, Deduct	-2,211.26	
		For Class 54 Rating, Add	3,055.40	
		For Class 55 Rating, Add	4,562.91	
		For Class 56 Rating, Add	6,050.32	
40 05 19 00-3576	EA	48" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	25,911.68	2,204.93
		For Class 52 Rating, Deduct	-2,482.80	
		For Class 54 Rating, Add	3,425.72	
		For Class 55 Rating, Add	5,113.49	
		For Class 56 Rating, Add	6,778.68	
40 05 19 00-3577	EA	48" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	28,378.59	2,207.58
		For Class 52 Rating, Deduct	-2,753.71	
		For Class 54 Rating, Add	3,795.20	
		For Class 55 Rating, Add	5,662.81	
		For Class 56 Rating, Add	7,505.38	
40 05 19 00-3578	EA	48" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	30,848.32	2,210.23
		For Class 52 Rating, Deduct	-3,024.94	
		For Class 54 Rating, Add	4,165.11	
		For Class 55 Rating, Add	6,212.76	
		For Class 56 Rating, Add	8,232.90	
40 05 19 00-3579	EA	48" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	33,334.92	2,212.90
		For Class 52 Rating, Deduct	-3,298.03	
		For Class 54 Rating, Add	4,537.54	
		For Class 55 Rating, Add	6,766.47	
		For Class 56 Rating, Add	8,965.41	
40 05 19 00-3580	EA	48" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	35,815.89	2,215.54
		For Class 52 Rating, Deduct	-3,570.49	
		For Class 54 Rating, Add	4,909.13	
		For Class 55 Rating, Add	7,318.92	
		For Class 56 Rating, Add	9,696.25	
40 05 19 00-3581	EA	48" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	38,291.24	2,218.20
		For Class 52 Rating, Deduct	-3,842.34	
		For Class 54 Rating, Add	5,279.88	
		For Class 55 Rating, Add	7,870.12	
		For Class 56 Rating, Add	10,425.44	
40 05 19 00-3582	EA	48" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	40,789.08	2,220.86
		For Class 52 Rating, Deduct	-4,116.66	
		For Class 54 Rating, Add	5,654.00	
		For Class 55 Rating, Add	8,426.34	
		For Class 56 Rating, Add	11,161.26	
40 05 19 00-3583	EA	48" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	43,275.67	2,223.53
		For Class 52 Rating, Deduct	-4,389.74	
		For Class 54 Rating, Add	6,026.43	
		For Class 55 Rating, Add	8,980.05	
		For Class 56 Rating, Add	11,893.76	
40 05 19 00-3584	EA	48" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	45,776.33	2,226.17
		For Class 52 Rating, Deduct	-4,664.37	
		For Class 54 Rating, Add	6,400.98	
		For Class 55 Rating, Add	9,536.90	
		For Class 56 Rating, Add	12,630.41	
40 05 19 00-3585	EA	48" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	48,260.12	2,228.83
		For Class 52 Rating, Deduct	-4,937.14	
		For Class 54 Rating, Add	6,772.99	
		For Class 55 Rating, Add	10,089.98	
		For Class 56 Rating, Add	13,362.09	
40 05 19 00-3586	EA	48" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	50,749.54	2,231.49
		For Class 52 Rating, Deduct	-5,210.53	
		For Class 54 Rating, Add	7,145.85	
		For Class 55 Rating, Add	10,644.32	
		For Class 56 Rating, Add	14,095.42	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3587	EA		48" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	53,253.00	2,234.15
			For Class 52 Rating, Deduct.....	-5,485.47	
			For Class 54 Rating, Add.....	7,520.81	
			For Class 55 Rating, Add.....	11,201.79	
			For Class 56 Rating, Add.....	14,832.90	
40 05 19 00-3588	EA		48" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	55,742.41	2,236.80
			For Class 52 Rating, Deduct.....	-5,758.86	
			For Class 54 Rating, Add.....	7,893.67	
			For Class 55 Rating, Add.....	11,756.13	
			For Class 56 Rating, Add.....	15,566.23	
40 05 19 00-3589	EA		48" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	58,231.82	2,239.45
			For Class 52 Rating, Deduct.....	-6,032.26	
			For Class 54 Rating, Add.....	8,266.52	
			For Class 55 Rating, Add.....	12,310.46	
			For Class 56 Rating, Add.....	16,299.57	
40 05 19 00-3590	EA		48" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	60,738.09	2,242.12
			For Class 52 Rating, Deduct.....	-6,307.50	
			For Class 54 Rating, Add.....	8,641.91	
			For Class 55 Rating, Add.....	12,868.56	
			For Class 56 Rating, Add.....	17,037.88	
40 05 19 00-3591	EA		48" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	63,230.32	2,244.77
			For Class 52 Rating, Deduct.....	-6,581.21	
			For Class 54 Rating, Add.....	9,015.19	
			For Class 55 Rating, Add.....	13,423.53	
			For Class 56 Rating, Add.....	17,772.04	
40 05 19 00-3592	EA		48" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	65,719.72	2,247.42
			For Class 52 Rating, Deduct.....	-6,854.60	
			For Class 54 Rating, Add.....	9,388.04	
			For Class 55 Rating, Add.....	13,977.86	
			For Class 56 Rating, Add.....	18,505.37	
40 05 19 00-3593	EA		48" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	68,231.63	2,250.09
			For Class 52 Rating, Deduct.....	-7,130.47	
			For Class 54 Rating, Add.....	9,764.27	
			For Class 55 Rating, Add.....	14,537.22	
			For Class 56 Rating, Add.....	19,245.34	
40 05 19 00-3594	EA		48" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	70,726.65	2,252.75
			For Class 52 Rating, Deduct.....	-7,404.48	
			For Class 54 Rating, Add.....	10,137.97	
			For Class 55 Rating, Add.....	15,092.81	
			For Class 56 Rating, Add.....	19,980.33	
40 05 19 00-3595	EA		48" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	73,218.87	2,255.39
			For Class 52 Rating, Deduct.....	-7,678.18	
			For Class 54 Rating, Add.....	10,511.25	
			For Class 55 Rating, Add.....	15,647.77	
			For Class 56 Rating, Add.....	20,714.50	
40 05 19 00-3596	EA		48" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	75,727.97	2,258.05
			For Class 52 Rating, Deduct.....	-7,953.73	
			For Class 54 Rating, Add.....	10,887.06	
			For Class 55 Rating, Add.....	16,206.50	
			For Class 56 Rating, Add.....	21,453.63	
40 05 19 00-3597	EA		48" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	78,223.00	2,260.72
			For Class 52 Rating, Deduct.....	-8,227.74	
			For Class 54 Rating, Add.....	11,260.76	
			For Class 55 Rating, Add.....	16,762.09	
			For Class 56 Rating, Add.....	22,188.63	
40 05 19 00-3598	EA		48" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	80,715.22	2,263.36
			For Class 52 Rating, Deduct.....	-8,501.45	
			For Class 54 Rating, Add.....	11,634.03	
			For Class 55 Rating, Add.....	17,317.05	
			For Class 56 Rating, Add.....	22,922.79	
40 05 19 00-3599	EA		48" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	83,227.12	2,266.02
			For Class 52 Rating, Deduct.....	-8,777.31	
			For Class 54 Rating, Add.....	12,010.26	
			For Class 55 Rating, Add.....	17,876.41	
			For Class 56 Rating, Add.....	23,662.76	
40 05 19 00-3600	EA		48" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal		
			Coat, Ductile Iron Pipe.....	85,722.15	2,268.68
			For Class 52 Rating, Deduct.....	-9,051.32	
			For Class 54 Rating, Add.....	12,383.96	
			For Class 55 Rating, Add.....	18,432.00	
			For Class 56 Rating, Add.....	24,397.75	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3601	EA		48" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	87,921.97	2,271.34
			For Class 52 Rating, Deduct.....	-9,292.66	
			For Class 54 Rating, Add.....	12,713.38	
			For Class 55 Rating, Add.....	18,921.76	
			For Class 56 Rating, Add.....	25,045.65	
40 05 19 00-3602	EA		48" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	90,731.89	2,273.99
			For Class 52 Rating, Deduct.....	-9,601.57	
			For Class 54 Rating, Add.....	13,134.31	
			For Class 55 Rating, Add.....	19,547.57	
			For Class 56 Rating, Add.....	25,873.54	
40 05 19 00-3603	EA		48" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	93,224.12	2,276.64
			For Class 52 Rating, Deduct.....	-9,875.21	
			For Class 54 Rating, Add.....	13,507.59	
			For Class 55 Rating, Add.....	20,102.53	
			For Class 56 Rating, Add.....	26,607.70	
40 05 19 00-3604	EA		48" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	95,741.63	2,279.31
			For Class 52 Rating, Deduct.....	-10,151.70	
			For Class 54 Rating, Add.....	13,884.66	
			For Class 55 Rating, Add.....	20,663.14	
			For Class 56 Rating, Add.....	27,349.33	
40 05 19 00-3605	EA		48" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	98,233.86	2,281.96
			For Class 52 Rating, Deduct.....	-10,425.40	
			For Class 54 Rating, Add.....	14,257.94	
			For Class 55 Rating, Add.....	21,218.10	
			For Class 56 Rating, Add.....	28,083.49	
40 05 19 00-3606	EA		48" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	100,726.08	2,284.61
			For Class 52 Rating, Deduct.....	-10,699.10	
			For Class 54 Rating, Add.....	14,631.22	
			For Class 55 Rating, Add.....	21,773.07	
			For Class 56 Rating, Add.....	28,817.65	
40 05 19 00-3607	EA		48" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Pipe.....	103,243.60	2,287.28
			For Class 52 Rating, Deduct.....	-10,975.58	
			For Class 54 Rating, Add.....	15,008.29	
			For Class 55 Rating, Add.....	22,333.67	
			For Class 56 Rating, Add.....	29,559.28	
40 05 19 00-3608			Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbows (40 05 19 00-2059)		
40 05 19 00-3609	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	780.47	128.17
40 05 19 00-3610	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	1,146.64	163.89
40 05 19 00-3611	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	1,644.34	185.65
40 05 19 00-3612	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	2,353.56	235.36
40 05 19 00-3613	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	2,937.63	260.99
40 05 19 00-3614	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	3,608.95	283.52
40 05 19 00-3615	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	4,431.57	349.54
40 05 19 00-3616	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	5,562.25	419.45
40 05 19 00-3617	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	6,796.12	528.20
40 05 19 00-3618	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	10,142.18	598.11
40 05 19 00-3619	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	15,762.19	792.30
40 05 19 00-3620	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	23,419.55	897.17
40 05 19 00-3621	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	40,052.56	1,025.33
40 05 19 00-3622	EA		48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow.....	53,001.61	1,258.36
40 05 19 00-3623			Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbows (40 05 19 00-2059)		
40 05 19 00-3624	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	742.70	128.17
40 05 19 00-3625	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	1,084.23	163.89
40 05 19 00-3626	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	1,489.97	185.65
40 05 19 00-3627	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	2,133.50	235.36
40 05 19 00-3628	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	2,653.52	260.99
40 05 19 00-3629	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	3,094.93	283.52
40 05 19 00-3630	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	3,804.24	349.54
40 05 19 00-3631	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	4,846.23	419.45
40 05 19 00-3632	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	6,094.88	528.20
40 05 19 00-3633	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	8,018.76	598.11
40 05 19 00-3634	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	15,386.12	792.30
40 05 19 00-3635	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	22,917.02	897.17
40 05 19 00-3636	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	34,702.14	1,025.33
40 05 19 00-3637	EA		48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	46,946.67	1,258.36
40 05 19 00-3638			Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbows (40 05 19 00-2059)		
40 05 19 00-3639	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	741.06	128.17

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-3640	EA	6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,062.88	163.89
40 05 19 00-3641	EA	8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	1,476.83	185.65
40 05 19 00-3642	EA	10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	2,082.59	235.36
40 05 19 00-3643	EA	12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	2,766.83	260.99
40 05 19 00-3644	EA	14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	3,441.44	283.52
40 05 19 00-3645	EA	16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	3,883.06	349.54
40 05 19 00-3646	EA	18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	4,941.48	419.45
40 05 19 00-3647	EA	20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	6,503.80	528.20
40 05 19 00-3648	EA	24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	8,963.05	598.11
40 05 19 00-3649	EA	30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	15,553.63	792.30
40 05 19 00-3650	EA	36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	23,299.67	897.17
40 05 19 00-3651	EA	42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	35,465.79	1,025.33
40 05 19 00-3652	EA	48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow	47,945.16	1,258.36

40 05 19 00-3653 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbows (40 05 19 00-2059)

40 05 19 00-3654	EA	4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	805.10	128.17
40 05 19 00-3655	EA	6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	1,182.76	163.89
40 05 19 00-3656	EA	8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	1,526.10	185.65
40 05 19 00-3657	EA	10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	2,258.31	235.36
40 05 19 00-3658	EA	12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	3,093.64	260.99
40 05 19 00-3659	EA	14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	3,525.19	283.52
40 05 19 00-3660	EA	16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	4,236.15	349.54
40 05 19 00-3661	EA	18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	4,941.48	419.45
40 05 19 00-3662	EA	20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	6,503.80	528.20
40 05 19 00-3663	EA	24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	9,298.07	598.11
40 05 19 00-3664	EA	30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	15,717.85	792.30
40 05 19 00-3665	EA	36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	23,467.17	897.17
40 05 19 00-3666	EA	42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	35,641.51	1,025.33
40 05 19 00-3667	EA	48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow	48,299.88	1,258.36

40 05 19 00-3668 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbows (40 05 19 00-2059)

40 05 19 00-3669	EA	6" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,117.92	146.03
40 05 19 00-3670	EA	8" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,446.43	156.91
40 05 19 00-3671	EA	8" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	1,570.39	174.78
40 05 19 00-3672	EA	10" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,165.62	181.76
40 05 19 00-3673	EA	10" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,204.18	199.63
40 05 19 00-3674	EA	10" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,366.81	210.50
40 05 19 00-3675	EA	12" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,587.12	212.83
40 05 19 00-3676	EA	12" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	2,890.99	223.70
40 05 19 00-3677	EA	12" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,025.54	248.56
40 05 19 00-3678	EA	14" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,015.80	223.70
40 05 19 00-3679	EA	14" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,272.05	234.59
40 05 19 00-3680	EA	14" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,546.19	259.44
40 05 19 00-3681	EA	14" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,855.24	272.64
40 05 19 00-3682	EA	16" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,471.45	256.72
40 05 19 00-3683	EA	16" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	3,680.08	267.60
40 05 19 00-3684	EA	16" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,098.74	292.46
40 05 19 00-3685	EA	16" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,408.83	305.27
40 05 19 00-3686	EA	16" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,662.39	316.53
40 05 19 00-3687	EA	18" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,031.88	291.67
40 05 19 00-3688	EA	18" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,672.40	302.55
40 05 19 00-3689	EA	18" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,754.40	327.41
40 05 19 00-3690	EA	18" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	4,965.96	340.22
40 05 19 00-3691	EA	18" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,318.05	351.48
40 05 19 00-3692	EA	18" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,699.79	384.50
40 05 19 00-3693	EA	20" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,043.76	346.05
40 05 19 00-3694	EA	20" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	5,319.72	356.92
40 05 19 00-3695	EA	20" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,387.06	381.78
40 05 19 00-3696	EA	20" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,580.55	394.59
40 05 19 00-3697	EA	20" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	7,174.05	405.86
40 05 19 00-3698	EA	20" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,987.58	438.88
40 05 19 00-3699	EA	20" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	7,347.64	473.83
40 05 19 00-3700	EA	24" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	6,990.23	381.01
40 05 19 00-3701	EA	24" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	7,261.25	391.88
40 05 19 00-3702	EA	24" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	7,712.76	416.74
40 05 19 00-3703	EA	24" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	8,040.91	429.55
40 05 19 00-3704	EA	24" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	8,675.46	440.82
40 05 19 00-3705	EA	24" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,241.15	473.83
40 05 19 00-3706	EA	24" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,395.92	508.78
40 05 19 00-3707	EA	24" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	9,848.86	503.16
40 05 19 00-3708	EA	30" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	11,896.21	526.64
40 05 19 00-3709	EA	30" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	12,576.74	537.91
40 05 19 00-3710	EA	30" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	14,244.36	570.93
40 05 19 00-3711	EA	30" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	16,043.02	605.88
40 05 19 00-3712	EA	30" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	21,495.54	660.25
40 05 19 00-3713	EA	30" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	22,973.96	695.21



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-3714	EA		36" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	20,760.42	712.68
40 05 19 00-3715	EA		36" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	22,685.54	747.63
40 05 19 00-3716	EA		36" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	23,772.02	844.73
40 05 19 00-3717	EA		42" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	30,824.27	776.76
40 05 19 00-3718	EA		42" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	31,568.61	811.72
40 05 19 00-3719	EA		42" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	31,525.23	908.81
40 05 19 00-3720	EA		42" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	35,039.85	961.25
40 05 19 00-3721	EA		48" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	43,078.19	937.94
40 05 19 00-3722	EA		48" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	46,825.09	1,035.03
40 05 19 00-3723	EA		48" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	48,160.84	1,087.47
40 05 19 00-3724	EA		48" x 42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow	59,776.61	1,151.55
40 05 19 00-3725 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbows (40 05 19 00-2059)					
40 05 19 00-3726	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	920.06	128.17
40 05 19 00-3727	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	1,452.09	163.89
40 05 19 00-3728	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	2,163.29	185.65
40 05 19 00-3729	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	3,023.60	235.36
40 05 19 00-3730	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	4,238.28	260.99
40 05 19 00-3731	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	4,972.01	283.52
40 05 19 00-3732	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	6,338.21	349.54
40 05 19 00-3733	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	7,759.57	419.45
40 05 19 00-3734	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	10,364.71	528.20
40 05 19 00-3735	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	15,137.87	598.11
40 05 19 00-3736	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	26,247.89	792.30
40 05 19 00-3737	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	39,781.19	897.17
40 05 19 00-3738	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow	61,335.99	1,025.33
40 05 19 00-3739 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbows With Base (40 05 19 00-2059)					
40 05 19 00-3740	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	966.04	128.17
40 05 19 00-3741	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	1,361.77	163.89
40 05 19 00-3742	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	2,224.05	185.65
40 05 19 00-3743	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	2,977.62	235.36
40 05 19 00-3744	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	3,987.02	260.99
40 05 19 00-3745	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	4,730.60	283.52
40 05 19 00-3746	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	5,765.07	349.54
40 05 19 00-3747	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	7,142.08	419.45
40 05 19 00-3748	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	9,229.92	528.20
40 05 19 00-3749	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	12,976.68	598.11
40 05 19 00-3750	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	20,954.95	792.30
40 05 19 00-3751	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	29,860.42	897.17
40 05 19 00-3752	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	52,643.62	1,025.33
40 05 19 00-3753	EA		48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base	59,056.55	1,258.36
40 05 19 00-3754 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tees (40 05 19 00-2059)					
40 05 19 00-3755	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	1,180.62	205.85
40 05 19 00-3756	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	1,529.95	253.23
40 05 19 00-3757	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	2,221.73	282.74
40 05 19 00-3758	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	3,146.49	367.41
40 05 19 00-3759	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	4,220.22	400.81
40 05 19 00-3760	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	5,670.23	431.11
40 05 19 00-3761	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	6,118.42	543.73
40 05 19 00-3762	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	7,605.74	621.41
40 05 19 00-3763	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	9,567.39	784.53
40 05 19 00-3764	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	14,136.51	866.10
40 05 19 00-3765	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	23,265.03	1,196.21
40 05 19 00-3766	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	32,934.94	1,370.99
40 05 19 00-3767	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee	70,591.63	1,584.60
40 05 19 00-3768 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tees (40 05 19 00-2059)					
40 05 19 00-3769	EA		6" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	1,578.41	229.92
40 05 19 00-3770	EA		8" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	2,055.15	234.59
40 05 19 00-3771	EA		8" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	2,017.76	264.10
40 05 19 00-3772	EA		10" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	2,744.78	259.44
40 05 19 00-3773	EA		10" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	2,669.61	288.96
40 05 19 00-3774	EA		10" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	2,781.62	307.60
40 05 19 00-3775	EA		12" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	3,512.01	272.64
40 05 19 00-3776	EA		12" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	3,464.76	302.16
40 05 19 00-3777	EA		12" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	3,614.54	320.80
40 05 19 00-3778	EA		12" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	4,166.63	380.61
40 05 19 00-3779	EA		14" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,044.26	283.52
40 05 19 00-3780	EA		14" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	4,918.20	313.04

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-3781	EA	14" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,090.96	331.68
40 05 19 00-3782	EA	14" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,276.83	391.49
40 05 19 00-3783	EA	14" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,547.80	412.08
40 05 19 00-3784	EA	16" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,091.13	316.53
40 05 19 00-3785	EA	16" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,112.74	346.05
40 05 19 00-3786	EA	16" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,228.03	364.69
40 05 19 00-3787	EA	16" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,313.84	424.51
40 05 19 00-3788	EA	16" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,642.15	445.09
40 05 19 00-3789	EA	16" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,749.94	464.12
40 05 19 00-3790	EA	18" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	5,710.92	381.01
40 05 19 00-3791	EA	18" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,732.73	399.65
40 05 19 00-3792	EA	18" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,677.19	459.46
40 05 19 00-3793	EA	18" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	6,302.73	480.04
40 05 19 00-3794	EA	18" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	7,784.96	499.07
40 05 19 00-3795	EA	18" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,192.98	578.69
40 05 19 00-3796	EA	20" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,164.71	435.38
40 05 19 00-3797	EA	20" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,294.77	454.02
40 05 19 00-3798	EA	20" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,541.40	513.83
40 05 19 00-3799	EA	20" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,830.42	534.41
40 05 19 00-3800	EA	20" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	8,910.17	553.44
40 05 19 00-3801	EA	20" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	10,523.59	633.07
40 05 19 00-3802	EA	20" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	10,690.13	675.78
40 05 19 00-3803	EA	24" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	9,439.49	470.33
40 05 19 00-3804	EA	24" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	9,806.03	488.97
40 05 19 00-3805	EA	24" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	10,085.51	548.79
40 05 19 00-3806	EA	24" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	11,184.16	569.37
40 05 19 00-3807	EA	24" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	11,418.28	588.40
40 05 19 00-3808	EA	24" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	11,675.21	668.02
40 05 19 00-3809	EA	24" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	15,101.61	710.74
40 05 19 00-3810	EA	24" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	15,540.04	759.49
40 05 19 00-3811	EA	30" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	18,742.09	567.43
40 05 19 00-3812	EA	30" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	18,824.54	586.07
40 05 19 00-3813	EA	30" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	19,246.89	645.88
40 05 19 00-3814	EA	30" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	19,278.07	666.47
40 05 19 00-3815	EA	30" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	19,306.91	685.49
40 05 19 00-3816	EA	30" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	19,427.54	765.12
40 05 19 00-3817	EA	30" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	20,039.13	807.83
40 05 19 00-3818	EA	30" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	21,003.67	916.58
40 05 19 00-3819	EA	30" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	25,623.29	963.19
40 05 19 00-3820	EA	36" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	26,921.67	812.10
40 05 19 00-3821	EA	36" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,164.09	826.87
40 05 19 00-3822	EA	36" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,282.43	869.20
40 05 19 00-3823	EA	36" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,473.59	885.90
40 05 19 00-3824	EA	36" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,552.38	901.04
40 05 19 00-3825	EA	36" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,746.10	957.36
40 05 19 00-3826	EA	36" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	27,862.43	996.20
40 05 19 00-3827	EA	36" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	28,204.41	1,077.76
40 05 19 00-3828	EA	36" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	28,765.44	1,118.54
40 05 19 00-3829	EA	36" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	37,223.45	1,283.60
40 05 19 00-3830	EA	42" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	40,977.81	782.98
40 05 19 00-3831	EA	42" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	41,067.41	802.01
40 05 19 00-3832	EA	42" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	41,302.99	881.63
40 05 19 00-3833	EA	42" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	41,426.85	924.35
40 05 19 00-3834	EA	42" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	41,826.45	1,033.09
40 05 19 00-3835	EA	42" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	42,368.39	1,079.70
40 05 19 00-3836	EA	42" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	53,069.21	1,312.73
40 05 19 00-3837	EA	42" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	67,776.91	1,435.07
40 05 19 00-3838	EA	48" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	55,060.76	909.20
40 05 19 00-3839	EA	48" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	55,089.59	928.24
40 05 19 00-3840	EA	48" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	55,384.31	1,007.85
40 05 19 00-3841	EA	48" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	55,449.04	1,050.57
40 05 19 00-3842	EA	48" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	55,848.65	1,159.32
40 05 19 00-3843	EA	48" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	56,333.11	1,205.92
40 05 19 00-3844	EA	48" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Reducing Tee	57,508.95	1,438.95

40 05 19 00-3845 Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tees With Base (40 05 19 00-2059)

40 05 19 00-3846	EA	4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	1,275.87	205.85
40 05 19 00-3847	EA	6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	1,807.49	253.23
40 05 19 00-3848	EA	8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	2,691.41	282.74
40 05 19 00-3849	EA	10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	4,036.59	367.41
40 05 19 00-3850	EA	12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	5,455.18	400.81
40 05 19 00-3851	EA	14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	6,151.41	431.11
40 05 19 00-3852	EA	16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	7,537.32	543.73
40 05 19 00-3853	EA	18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	9,114.96	621.41
40 05 19 00-3854	EA	20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	11,986.41	784.53
40 05 19 00-3855	EA	24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	17,292.90	866.10
40 05 19 00-3856	EA	30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	28,677.85	1,196.21
40 05 19 00-3857	EA	36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Tee With Base	40,883.38	1,370.99



MINOR		TOTAL DIRECT		DEMOLITION
CSI UOM DESCRIPTION		UNIT COST		UNIT COST
40 05 19 00-3858	Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wyes (40 05 19 00-2059)			
40 05 19 00-3859	EA	4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	1,037.75	205.85
40 05 19 00-3860	EA	6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	1,518.46	253.23
40 05 19 00-3861	EA	8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	2,259.50	282.74
40 05 19 00-3862	EA	10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	2,978.98	367.41
40 05 19 00-3863	EA	12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	4,525.67	400.81
40 05 19 00-3864	EA	14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Wye	6,074.22	431.11
40 05 19 00-3865	Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Crosses (40 05 19 00-2059)			
40 05 19 00-3866	EA	4" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	1,331.16	283.52
40 05 19 00-3867	EA	6" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	1,886.01	307.21
40 05 19 00-3868	EA	6" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	1,955.98	342.55
40 05 19 00-3869	EA	8" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	2,447.09	312.26
40 05 19 00-3870	EA	8" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	2,608.01	353.43
40 05 19 00-3871	EA	8" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	2,662.80	379.84
40 05 19 00-3872	EA	10" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	3,225.40	337.11
40 05 19 00-3873	EA	10" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	3,479.92	378.28
40 05 19 00-3874	EA	10" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	3,759.70	404.69
40 05 19 00-3875	EA	10" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	4,522.42	499.46
40 05 19 00-3876	EA	12" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	4,230.17	349.94
40 05 19 00-3877	EA	12" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	4,387.80	391.10
40 05 19 00-3878	EA	12" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	4,667.58	417.51
40 05 19 00-3879	EA	12" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	5,479.56	512.27
40 05 19 00-3880	EA	12" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	5,131.65	540.63
40 05 19 00-3881	EA	14" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	5,293.31	402.36
40 05 19 00-3882	EA	14" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	5,573.10	428.78
40 05 19 00-3883	EA	14" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,048.41	523.54
40 05 19 00-3884	EA	14" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,524.92	551.89
40 05 19 00-3885	EA	14" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,802.00	578.69
40 05 19 00-3886	EA	16" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,323.76	435.38
40 05 19 00-3887	EA	16" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,649.52	461.79
40 05 19 00-3888	EA	16" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	7,126.47	556.56
40 05 19 00-3889	EA	16" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	7,648.96	584.90
40 05 19 00-3890	EA	16" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	10,512.57	611.70
40 05 19 00-3891	EA	16" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	8,455.60	737.92
40 05 19 00-3892	EA	18" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,644.40	470.33
40 05 19 00-3893	EA	18" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	6,970.16	496.74
40 05 19 00-3894	EA	18" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	7,351.87	591.51
40 05 19 00-3895	EA	18" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	7,874.36	619.86
40 05 19 00-3896	EA	18" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	8,964.36	646.65
40 05 19 00-3897	EA	18" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	9,587.51	772.88
40 05 19 00-3898	EA	18" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	9,948.12	823.37
40 05 19 00-3899	EA	20" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	8,557.88	524.70
40 05 19 00-3900	EA	20" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	8,906.64	551.11
40 05 19 00-3901	EA	20" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	9,255.50	645.88
40 05 19 00-3902	EA	20" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	9,812.47	674.24
40 05 19 00-3903	EA	20" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	9,958.18	701.03
40 05 19 00-3904	EA	20" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	11,898.41	827.26
40 05 19 00-3905	EA	20" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	12,282.01	877.74
40 05 19 00-3906	EA	20" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	13,250.10	1,040.86
40 05 19 00-3907	EA	24" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	11,323.82	559.66
40 05 19 00-3908	EA	24" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	11,572.40	586.07
40 05 19 00-3909	EA	24" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	12,073.99	680.84
40 05 19 00-3910	EA	24" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	12,425.68	709.19
40 05 19 00-3911	EA	24" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	12,620.66	735.99
40 05 19 00-3912	EA	24" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	13,171.55	862.21
40 05 19 00-3913	EA	24" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	16,902.04	912.70
40 05 19 00-3914	EA	24" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	17,725.03	1,015.82
40 05 19 00-3915	EA	24" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	19,344.45	1,134.07
40 05 19 00-3916	EA	30" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	20,315.96	806.29
40 05 19 00-3917	EA	30" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	20,410.76	833.08
40 05 19 00-3918	EA	30" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	20,986.29	959.31
40 05 19 00-3919	EA	30" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	21,176.11	1,009.79
40 05 19 00-3920	EA	30" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	22,027.60	1,172.91
40 05 19 00-3921	EA	30" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	28,454.92	1,231.17
40 05 19 00-3922	EA	30" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	31,823.82	1,600.13
40 05 19 00-3923	EA	36" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	28,454.01	1,025.72
40 05 19 00-3924	EA	36" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	28,488.72	1,048.63
40 05 19 00-3925	EA	36" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	28,979.69	1,151.55
40 05 19 00-3926	EA	36" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	29,158.69	1,198.15
40 05 19 00-3927	EA	36" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	29,860.60	1,334.09
40 05 19 00-3928	EA	36" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	30,821.93	1,386.53
40 05 19 00-3929	EA	36" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	41,142.92	1,687.52
40 05 19 00-3930	EA	36" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	44,910.41	1,844.82
40 05 19 00-3931	EA	42" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	42,416.70	1,075.82

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-3932	EA	42" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	42,553.96	1,126.31
40 05 19 00-3933	EA	42" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	43,362.76	1,289.43
40 05 19 00-3934	EA	42" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	44,387.10	1,347.69
40 05 19 00-3935	EA	42" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	57,167.69	1,716.65
40 05 19 00-3936	EA	42" x 42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	77,842.46	1,908.90
40 05 19 00-3937	EA	48" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	57,770.88	1,415.66
40 05 19 00-3938	EA	48" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	58,795.23	1,473.91
40 05 19 00-3939	EA	48" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Cross	61,039.20	1,842.88

40 05 19 00-3940**Flanged End x Flanged End, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducers**

(40 05 19 00-2059)

40 05 19 00-3941	EA	6" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	955.34	146.03
40 05 19 00-3942	EA	8" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,275.64	156.91
40 05 19 00-3943	EA	8" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,359.26	174.78
40 05 19 00-3944	EA	10" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,704.15	181.76
40 05 19 00-3945	EA	10" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,695.09	199.63
40 05 19 00-3946	EA	10" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	1,905.34	210.50
40 05 19 00-3947	EA	12" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,179.06	194.96
40 05 19 00-3948	EA	12" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,211.05	212.83
40 05 19 00-3949	EA	12" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,367.12	223.70
40 05 19 00-3950	EA	12" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,572.28	248.56
40 05 19 00-3951	EA	14" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,682.43	223.70
40 05 19 00-3952	EA	14" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	2,891.05	234.59
40 05 19 00-3953	EA	14" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,092.93	259.44
40 05 19 00-3954	EA	14" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,001.27	272.64
40 05 19 00-3955	EA	16" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,187.35	256.72
40 05 19 00-3956	EA	16" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,036.32	267.60
40 05 19 00-3957	EA	16" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,279.26	292.46
40 05 19 00-3958	EA	16" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,673.11	305.27
40 05 19 00-3959	EA	16" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,135.23	316.53
40 05 19 00-3960	EA	18" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	3,857.85	302.55
40 05 19 00-3961	EA	18" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,135.27	327.41
40 05 19 00-3962	EA	18" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,093.93	340.22
40 05 19 00-3963	EA	18" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,600.39	351.48
40 05 19 00-3964	EA	18" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,550.22	384.50
40 05 19 00-3965	EA	20" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,702.24	356.92
40 05 19 00-3966	EA	20" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,996.09	381.78
40 05 19 00-3967	EA	20" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	4,874.26	394.59
40 05 19 00-3968	EA	20" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	5,497.32	405.86
40 05 19 00-3969	EA	20" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	5,164.70	438.88
40 05 19 00-3970	EA	20" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,168.51	473.83
40 05 19 00-3971	EA	24" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,822.66	416.74
40 05 19 00-3972	EA	24" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	7,375.80	429.55
40 05 19 00-3973	EA	24" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	7,530.82	440.82
40 05 19 00-3974	EA	24" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	6,726.88	473.83
40 05 19 00-3975	EA	24" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	7,903.13	508.78
40 05 19 00-3976	EA	24" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	8,305.16	503.16
40 05 19 00-3977	EA	30" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	11,303.11	570.93
40 05 19 00-3978	EA	30" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	11,689.44	605.88
40 05 19 00-3979	EA	30" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	12,433.65	660.25
40 05 19 00-3980	EA	30" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	13,586.92	695.21
40 05 19 00-3981	EA	36" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	16,033.38	623.35
40 05 19 00-3982	EA	36" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	16,260.42	658.31
40 05 19 00-3983	EA	36" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	17,265.74	712.68
40 05 19 00-3984	EA	36" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	18,167.74	747.63
40 05 19 00-3985	EA	36" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	20,633.70	844.73
40 05 19 00-3986	EA	42" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	25,204.93	811.72
40 05 19 00-3987	EA	42" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	28,175.06	908.81
40 05 19 00-3988	EA	42" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	31,604.68	961.25
40 05 19 00-3989	EA	48" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	33,400.47	937.94
40 05 19 00-3990	EA	48" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	35,377.03	1,035.03
40 05 19 00-3991	EA	48" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	39,277.97	1,087.47
40 05 19 00-3992	EA	48" x 42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Concentric Reducer	43,727.00	1,151.55

40 05 19 00-3993**Flanged End x Flanged End, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducers**

(40 05 19 00-2059)

40 05 19 00-3994	EA	6" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,022.67	146.03
40 05 19 00-3995	EA	8" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,352.82	156.91
40 05 19 00-3996	EA	8" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,473.50	174.78
40 05 19 00-3997	EA	10" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,704.15	181.76
40 05 19 00-3998	EA	10" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,777.20	199.63
40 05 19 00-3999	EA	10" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	1,984.17	210.50
40 05 19 00-4000	EA	12" x 4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,179.06	194.96
40 05 19 00-4001	EA	12" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,303.01	212.83
40 05 19 00-4002	EA	12" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,462.37	223.70
40 05 19 00-4003	EA	12" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,738.15	248.56
40 05 19 00-4004	EA	14" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,682.43	223.70
40 05 19 00-4005	EA	14" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	2,841.78	234.59



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-4006	EA		14" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,069.94	259.44
40 05 19 00-4007	EA		14" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,424.97	272.64
40 05 19 00-4008	EA		16" x 6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,187.35	256.72
40 05 19 00-4009	EA		16" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,392.68	267.60
40 05 19 00-4010	EA		16" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,671.75	292.46
40 05 19 00-4011	EA		16" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,976.92	305.27
40 05 19 00-4012	EA		16" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,135.23	316.53
40 05 19 00-4013	EA		18" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	3,857.85	302.65
40 05 19 00-4014	EA		18" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,135.27	327.41
40 05 19 00-4015	EA		18" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,438.80	340.22
40 05 19 00-4016	EA		18" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,600.39	351.48
40 05 19 00-4017	EA		18" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,936.15	384.50
40 05 19 00-4018	EA		20" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	4,958.43	356.92
40 05 19 00-4019	EA		20" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	5,176.73	381.78
40 05 19 00-4020	EA		20" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	5,376.79	394.59
40 05 19 00-4021	EA		20" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	5,497.32	405.86
40 05 19 00-4022	EA		20" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	5,905.35	438.88
40 05 19 00-4023	EA		20" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	6,163.59	473.83
40 05 19 00-4024	EA		24" x 8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,011.63	391.88
40 05 19 00-4025	EA		24" x 10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	6,940.91	416.74
40 05 19 00-4026	EA		24" x 12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,063.78	429.55
40 05 19 00-4027	EA		24" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,182.67	440.82
40 05 19 00-4028	EA		24" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,592.34	473.83
40 05 19 00-4029	EA		24" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	7,903.13	508.78
40 05 19 00-4030	EA		24" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	8,305.16	503.16
40 05 19 00-4031	EA		30" x 14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	13,974.29	537.91
40 05 19 00-4032	EA		30" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	13,014.32	570.93
40 05 19 00-4033	EA		30" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	11,743.64	605.88
40 05 19 00-4034	EA		30" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	12,433.65	660.25
40 05 19 00-4035	EA		30" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	13,586.92	695.21
40 05 19 00-4036	EA		36" x 16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	15,074.31	623.35
40 05 19 00-4037	EA		36" x 18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	15,695.49	658.31
40 05 19 00-4038	EA		36" x 20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	16,603.91	712.68
40 05 19 00-4039	EA		36" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	18,110.26	747.63
40 05 19 00-4040	EA		36" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	20,924.37	844.73
40 05 19 00-4041	EA		42" x 24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	25,204.93	811.72
40 05 19 00-4042	EA		42" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	28,175.06	908.81
40 05 19 00-4043	EA		42" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	31,604.68	961.25
40 05 19 00-4044	EA		48" x 30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	35,377.03	1,035.03
40 05 19 00-4045	EA		48" x 36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	39,277.97	1,087.47
40 05 19 00-4046	EA		48" x 42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Eccentric Reducer	43,727.00	1,151.55
40 05 19 00-4047			Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flanges (40 05 19 00-2059)		
40 05 19 00-4048	EA		4" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	475.56	50.49
40 05 19 00-4049	EA		6" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	723.89	74.57
40 05 19 00-4050	EA		8" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	968.43	88.55
40 05 19 00-4051	EA		10" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	1,412.84	103.31
40 05 19 00-4052	EA		12" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	1,875.11	121.18
40 05 19 00-4053	EA		14" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	2,588.85	135.94
40 05 19 00-4054	EA		16" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	3,129.01	155.35
40 05 19 00-4055	EA		18" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	4,210.15	217.49
40 05 19 00-4056	EA		20" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	5,655.59	271.87
40 05 19 00-4057	EA		24" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	8,302.47	330.13
40 05 19 00-4058	EA		30" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	12,050.33	384.50
40 05 19 00-4059	EA		36" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	22,647.44	423.34
40 05 19 00-4060	EA		42" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	32,496.63	466.06
40 05 19 00-4061	EA		48" Flanged, Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Ductile Iron Blind Flange.....	43,338.29	524.32
40 05 19 00-4062			Ductile Iron Bolt Packs (40 05 19)		
			Note: Labor installation is included with pipe fittings or valves.		
40 05 19 00-4063	EA		4" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	44.25	
			Note: Includes eight (8) 5/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	12.39	
			For Hot Dip Galvanized, Add	17.70	
40 05 19 00-4064	EA		6" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	68.28	
			Note: Includes eight (8) 3/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	19.12	
			For Hot Dip Galvanized, Add	27.31	
40 05 19 00-4065	EA		8" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	74.14	
			Note: Includes eight (8) 3/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	20.76	
			For Hot Dip Galvanized, Add	29.66	
40 05 19 00-4066	EA		10" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	166.53	
			Note: Includes twelve (12) 7/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	46.63	
			For Hot Dip Galvanized, Add	66.61	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-4067	EA		12" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	168.00	
			Note: Includes twelve (12) 7/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	47.04	
			For Hot Dip Galvanized, Add	67.20	
40 05 19 00-4068	EA		14" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	188.22	
			Note: Includes twelve (12) 1" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	52.70	
			For Hot Dip Galvanized, Add	75.29	
40 05 19 00-4069	EA		16" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	316.42	
			Note: Includes sixteen (16) 1" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	88.60	
			For Hot Dip Galvanized, Add	126.57	
40 05 19 00-4070	EA		18" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	459.67	
			Note: Includes sixteen (16) 1-1/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	128.71	
			For Hot Dip Galvanized, Add	183.87	
40 05 19 00-4071	EA		20" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	580.39	
			Note: Includes twenty (20) 1-1/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	162.51	
			For Hot Dip Galvanized, Add	232.16	
40 05 19 00-4072	EA		24" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	830.44	
			Note: Includes twenty (20) 1-1/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	232.52	
			For Hot Dip Galvanized, Add	332.18	
40 05 19 00-4073	EA		30" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	1,312.22	
			Note: Includes twenty-eight (28) 1-1/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	367.42	
			For Hot Dip Galvanized, Add	524.89	
40 05 19 00-4074	EA		36" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	1,871.92	
			Note: Includes thirty-two (32) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	524.14	
			For Hot Dip Galvanized, Add	748.77	
40 05 19 00-4075	EA		42" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	2,408.16	
			Note: Includes thirty-six (36) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	674.28	
			For Hot Dip Galvanized, Add	963.26	
40 05 19 00-4076	EA		48" Pipe Diameter, Ductile Iron Flange Bolt Pack.....	2,943.31	
			Note: Includes forty-four (44) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	824.13	
			For Hot Dip Galvanized, Add	1,177.32	
40 05 19 00-4077			Full Face Flange Gaskets, ANSI/AWWA C115/A21.15 (40 05 19)		
			Note: Labor installation is included with pipe fittings or valves.		
40 05 19 00-4078			Full Face Flange Styrene Butadiene (SBR) Gaskets (40 05 19 00-4077)		
40 05 19 00-4079	EA		4" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	8.44	
40 05 19 00-4080	EA		6" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	10.74	
40 05 19 00-4081	EA		8" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	14.57	
40 05 19 00-4082	EA		10" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	16.87	
40 05 19 00-4083	EA		12" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	18.40	
40 05 19 00-4084	EA		14" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	30.67	
40 05 19 00-4085	EA		16" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	37.58	
40 05 19 00-4086	EA		18" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	39.88	
40 05 19 00-4087	EA		20" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	61.35	
40 05 19 00-4088	EA		24" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	65.95	
40 05 19 00-4089	EA		30" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	85.12	
40 05 19 00-4090	EA		36" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	97.39	
40 05 19 00-4091	EA		42" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	104.29	
40 05 19 00-4092	EA		48" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick.....	114.26	
40 05 19 00-4093			Full Face Flange Nitrile Buna-N (NBR) Gaskets (40 05 19 00-4077)		
			Note: (Acrylonitrile Butadiene)		
40 05 19 00-4094	EA		4" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	26.07	
40 05 19 00-4095	EA		6" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	36.81	
40 05 19 00-4096	EA		8" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	56.75	
40 05 19 00-4097	EA		10" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	62.11	
40 05 19 00-4098	EA		12" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	66.72	
40 05 19 00-4099	EA		14" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	125.76	
40 05 19 00-4100	EA		16" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	154.90	
40 05 19 00-4101	EA		18" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	155.67	
40 05 19 00-4102	EA		20" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	161.81	
40 05 19 00-4103	EA		24" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	171.01	
40 05 19 00-4104	EA		30" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	189.41	
40 05 19 00-4105	EA		36" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	208.58	
40 05 19 00-4106	EA		42" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	296.77	
40 05 19 00-4107	EA		48" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick.....	324.38	
40 05 19 00-4108			Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gaskets (40 05 19 00-4077)		
40 05 19 00-4109	EA		4" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	23.01	
40 05 19 00-4110	EA		6" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	29.91	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-4111	EA		8" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	40.64	
40 05 19 00-4112	EA		10" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	47.54	
40 05 19 00-4113	EA		12" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	52.91	
40 05 19 00-4114	EA		14" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	57.42	
40 05 19 00-4115	EA		16" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	105.06	
40 05 19 00-4116	EA		18" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	105.83	
40 05 19 00-4117	EA		20" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	108.13	
40 05 19 00-4118	EA		24" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	125.76	
40 05 19 00-4119	EA		30" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	154.14	
40 05 19 00-4120	EA		36" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	175.61	
40 05 19 00-4121	EA		42" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	251.53	
40 05 19 00-4122	EA		48" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick.....	277.60	

40 05 19 00-4123 Full Face Flange Neoprene Gaskets (40 05 19 00-4077)
Note: (Polychloroprene)

40 05 19 00-4124	EA	4" Full Face Flange Neoprene Gasket, 1/8" Thick.....	26.84	
40 05 19 00-4125	EA	6" Full Face Flange Neoprene Gasket, 1/8" Thick.....	37.58	
40 05 19 00-4126	EA	8" Full Face Flange Neoprene Gasket, 1/8" Thick.....	57.51	
40 05 19 00-4127	EA	10" Full Face Flange Neoprene Gasket, 1/8" Thick.....	62.11	
40 05 19 00-4128	EA	12" Full Face Flange Neoprene Gasket, 1/8" Thick.....	66.72	
40 05 19 00-4129	EA	14" Full Face Flange Neoprene Gasket, 1/8" Thick.....	88.95	
40 05 19 00-4130	EA	16" Full Face Flange Neoprene Gasket, 1/8" Thick.....	156.44	
40 05 19 00-4131	EA	18" Full Face Flange Neoprene Gasket, 1/8" Thick.....	157.20	
40 05 19 00-4132	EA	20" Full Face Flange Neoprene Gasket, 1/8" Thick.....	166.41	
40 05 19 00-4133	EA	24" Full Face Flange Neoprene Gasket, 1/8" Thick.....	168.71	
40 05 19 00-4134	EA	30" Full Face Flange Neoprene Gasket, 1/8" Thick.....	183.28	
40 05 19 00-4135	EA	36" Full Face Flange Neoprene Gasket, 1/8" Thick.....	206.28	
40 05 19 00-4136	EA	42" Full Face Flange Neoprene Gasket, 1/8" Thick.....	299.07	
40 05 19 00-4137	EA	48" Full Face Flange Neoprene Gasket, 1/8" Thick.....	327.44	

40 05 19 00-4138 Full Face Flange FKM Gaskets (40 05 19 00-4077)
Note: (Fluoroelastomer Fluorel Viton®)

40 05 19 00-4139	EA	4" Full Face Flange FKM Gasket, 1/8" Thick.....	126.38	
40 05 19 00-4140	EA	6" Full Face Flange FKM Gasket, 1/8" Thick.....	188.17	
40 05 19 00-4141	EA	8" Full Face Flange FKM Gasket, 1/8" Thick.....	251.36	
40 05 19 00-4142	EA	10" Full Face Flange FKM Gasket, 1/8" Thick.....	303.32	
40 05 19 00-4143	EA	12" Full Face Flange FKM Gasket, 1/8" Thick.....	394.59	
40 05 19 00-4144	EA	14" Full Face Flange FKM Gasket, 1/8" Thick.....	721.78	
40 05 19 00-4145	EA	16" Full Face Flange FKM Gasket, 1/8" Thick.....	827.10	
40 05 19 00-4146	EA	18" Full Face Flange FKM Gasket, 1/8" Thick.....	866.42	
40 05 19 00-4147	EA	20" Full Face Flange FKM Gasket, 1/8" Thick.....	924.00	
40 05 19 00-4148	EA	24" Full Face Flange FKM Gasket, 1/8" Thick.....	1,277.87	
40 05 19 00-4149	EA	30" Full Face Flange FKM Gasket, 1/8" Thick.....	1,532.04	
40 05 19 00-4150	EA	36" Full Face Flange FKM Gasket, 1/8" Thick.....	1,616.29	
40 05 19 00-4151	EA	42" Full Face Flange FKM Gasket, 1/8" Thick.....	2,015.10	
40 05 19 00-4152	EA	48" Full Face Flange FKM Gasket, 1/8" Thick.....	2,111.99	

40 05 19 00-4153 Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100) (40 05 19)

40 05 19 00-4154	EA	4" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	399.69	75.72
40 05 19 00-4155	EA	6" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	554.40	92.44
40 05 19 00-4156	EA	8" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	820.66	112.74
40 05 19 00-4157	EA	10" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	1,127.10	137.54
40 05 19 00-4158	EA	12" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	1,430.90	167.72
40 05 19 00-4159	EA	14" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	2,298.85	204.62
40 05 19 00-4160	EA	16" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	3,615.23	249.72
40 05 19 00-4161	EA	18" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	3,732.88	304.58
40 05 19 00-4162	EA	20" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	4,573.37	371.67
40 05 19 00-4163	EA	24" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	5,095.70	453.34
40 05 19 00-4164	EA	30" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	6,567.25	553.18
40 05 19 00-4165	EA	36" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	9,763.00	674.79
40 05 19 00-4166	EA	42" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	25,450.99	823.33
40 05 19 00-4167	EA	48" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	32,509.02	1,004.39

40 05 23 Stainless Steel Process Pipe and Tubing (40 05)

40 05 23 23 300- and 400-Series Stainless Steel Process Pipe (40 05 23)

40 05 23 23-0001 Schedule 40 Pipe, Type 304, With 150 LB Screwed Fittings Assembly (40 05 23)
Note: Includes hangers and fittings. Fittings are assumed every 10'. Not for use where detail is available.

40 05 23 23-0002	LF	1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	38.60	9.13
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	5.27	
		For Work In Restricted Working Space, Add	5.51	

40 05 23 23-0003	LF	3/4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	43.03	10.47
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	5.52	
		For Work In Restricted Working Space, Add	6.54	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0004	LF	1" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	50.17	11.81
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	6.47	
		For Work In Restricted Working Space, Add	7.59	
40 05 23 23-0005	LF	1-1/4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	58.64	14.26
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	8.16	
		For Work In Restricted Working Space, Add	8.18	
40 05 23 23-0006	LF	1-1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	65.17	14.67
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	9.35	
		For Work In Restricted Working Space, Add	8.76	
40 05 23 23-0007	LF	2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	79.04	19.39
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	11.40	
		For Work In Restricted Working Space, Add	10.56	
40 05 23 23-0008	LF	2-1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	119.00	23.91
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	19.61	
		For Work In Restricted Working Space, Add	13.08	
40 05 23 23-0009	LF	3" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	151.53	27.70
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Type 316, Add	25.53	
		For Work In Restricted Working Space, Add	16.00	
40 05 23 23-0010	LF	4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly	209.08	27.70
		Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
		For Work In Restricted Working Space, Add	20.30	
40 05 23 23-0011		Stainless Steel Tubing And Fittings (40 05 23 23)		
40 05 23 23-0012		Type 304 Tubing (40 05 23 23-0011)		
40 05 23 23-0013		0.035" Wall (40 05 23 23-0012)		
40 05 23 23-0014	LF	1/4", 0.035" Wall, Type 304, Stainless Steel Tubing	8.48	3.01
		For Work In Restricted Working Space, Add	1.79	
40 05 23 23-0015	LF	3/8", 0.035" Wall, Type 304, Stainless Steel Tubing	9.78	3.57
		For Work In Restricted Working Space, Add	2.15	
40 05 23 23-0016	LF	1/2", 0.035" Wall, Type 304, Stainless Steel Tubing	11.72	4.23
		For Work In Restricted Working Space, Add	2.51	
40 05 23 23-0017	LF	5/8", 0.035" Wall, Type 304, Stainless Steel Tubing	19.76	4.80
		For Work In Restricted Working Space, Add	2.87	
40 05 23 23-0018	LF	3/4", 0.035" Wall, Type 304, Stainless Steel Tubing	23.52	5.35
		For Work In Restricted Working Space, Add	3.23	
40 05 23 23-0019	LF	7/8", 0.035" Wall, Type 304, Stainless Steel Tubing	26.03	6.02
		For Work In Restricted Working Space, Add	3.60	
40 05 23 23-0020	LF	1", 0.035" Wall, Type 304, Stainless Steel Tubing	28.92	7.24
		For Work In Restricted Working Space, Add	4.31	
40 05 23 23-0021		0.049" Wall (40 05 23 23-0012)		
40 05 23 23-0022	LF	1/4", 0.049" Wall, Type 304, Stainless Steel Tubing	14.57	3.57
		For Work In Restricted Working Space, Add	2.15	
40 05 23 23-0023	LF	3/8", 0.049" Wall, Type 304, Stainless Steel Tubing	16.18	4.23
		For Work In Restricted Working Space, Add	2.51	
40 05 23 23-0024	LF	1/2", 0.049" Wall, Type 304, Stainless Steel Tubing	19.54	4.80
		For Work In Restricted Working Space, Add	2.87	
40 05 23 23-0025	LF	5/8", 0.049" Wall, Type 304, Stainless Steel Tubing	24.74	6.02
		For Work In Restricted Working Space, Add	3.60	
40 05 23 23-0026	LF	3/4", 0.049" Wall, Type 304, Stainless Steel Tubing	28.19	7.24
		For Work In Restricted Working Space, Add	4.31	
40 05 23 23-0027	LF	7/8", 0.049" Wall, Type 304, Stainless Steel Tubing	31.59	8.36
		For Work In Restricted Working Space, Add	5.03	
40 05 23 23-0028	LF	1", 0.049" Wall, Type 304, Stainless Steel Tubing	36.48	9.47
		For Work In Restricted Working Space, Add	5.72	
40 05 23 23-0029		0.065" Wall (40 05 23 23-0012)		
40 05 23 23-0030	LF	1/4", 0.065" Wall, Type 304, Stainless Steel Tubing	17.01	4.23
		For Work In Restricted Working Space, Add	2.51	
40 05 23 23-0031	LF	3/8", 0.065" Wall, Type 304, Stainless Steel Tubing	19.60	4.80
		For Work In Restricted Working Space, Add	2.87	
40 05 23 23-0032	LF	1/2", 0.065" Wall, Type 304, Stainless Steel Tubing	24.13	6.02
		For Work In Restricted Working Space, Add	3.60	
40 05 23 23-0033	LF	5/8", 0.065" Wall, Type 304, Stainless Steel Tubing	28.30	7.24
		For Work In Restricted Working Space, Add	4.31	
40 05 23 23-0034	LF	3/4", 0.065" Wall, Type 304, Stainless Steel Tubing	33.42	8.36
		For Work In Restricted Working Space, Add	5.03	
40 05 23 23-0035	LF	7/8", 0.065" Wall, Type 304, Stainless Steel Tubing	38.43	9.47
		For Work In Restricted Working Space, Add	5.72	
40 05 23 23-0036	LF	1", 0.065" Wall, Type 304, Stainless Steel Tubing	43.32	10.70
		For Work In Restricted Working Space, Add	6.43	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0037 Type 304 Tube Fittings (40 05 23 23-0011)		
40 05 23 23-0038 90 Degree Elbows (40 05 23 23-0037)		
40 05 23 23-0039 EA 1/4", Type 304, Stainless Steel, 90 Degree Elbow	55.47	12.04
For Work In Restricted Working Space, Add	7.19	
40 05 23 23-0040 EA 3/8", Type 304, Stainless Steel, 90 Degree Elbow	65.94	13.15
For Work In Restricted Working Space, Add	7.87	
40 05 23 23-0041 EA 1/2", Type 304, Stainless Steel, 90 Degree Elbow	100.93	14.82
For Work In Restricted Working Space, Add	8.92	
40 05 23 23-0042 EA 5/8", Type 304, Stainless Steel, 90 Degree Elbow	107.56	16.60
For Work In Restricted Working Space, Add	9.98	
40 05 23 23-0043 EA 3/4", Type 304, Stainless Steel, 90 Degree Elbow	120.52	17.95
For Work In Restricted Working Space, Add	10.79	
40 05 23 23-0044 EA 7/8", Type 304, Stainless Steel, 90 Degree Elbow	166.13	19.95
For Work In Restricted Working Space, Add	11.94	
40 05 23 23-0045 EA 1", Type 304, Stainless Steel, 90 Degree Elbow	212.10	23.74
For Work In Restricted Working Space, Add	14.23	
40 05 23 23-0046 Union Tees (40 05 23 23-0037)		
40 05 23 23-0047 EA 1/4", Type 304, Stainless Steel, Union Tee	88.34	17.95
For Work In Restricted Working Space, Add	10.79	
40 05 23 23-0048 EA 3/8", Type 304, Stainless Steel, Union Tee	107.76	19.95
For Work In Restricted Working Space, Add	11.94	
40 05 23 23-0049 EA 1/2", Type 304, Stainless Steel, Union Tee	148.83	22.30
For Work In Restricted Working Space, Add	13.38	
40 05 23 23-0050 EA 5/8", Type 304, Stainless Steel, Union Tee	159.69	25.30
For Work In Restricted Working Space, Add	15.20	
40 05 23 23-0051 EA 3/4", Type 304, Stainless Steel, Union Tee	205.68	27.19
For Work In Restricted Working Space, Add	16.31	
40 05 23 23-0052 EA 7/8", Type 304, Stainless Steel, Union Tee	331.04	30.10
For Work In Restricted Working Space, Add	18.08	
40 05 23 23-0053 EA 1", Type 304, Stainless Steel, Union Tee	396.79	36.00
For Work In Restricted Working Space, Add	21.57	
40 05 23 23-0054 Unions (40 05 23 23-0037)		
40 05 23 23-0055 EA 1/4", Type 304, Stainless Steel, Union	84.17	17.95
For Work In Restricted Working Space, Add	10.79	
40 05 23 23-0056 EA 3/8", Type 304, Stainless Steel, Union	110.11	19.95
For Work In Restricted Working Space, Add	11.94	
40 05 23 23-0057 EA 1/2", Type 304, Stainless Steel, Union	150.37	22.30
For Work In Restricted Working Space, Add	13.38	
40 05 23 23-0058 EA 5/8", Type 304, Stainless Steel, Union	183.90	25.30
For Work In Restricted Working Space, Add	15.20	
40 05 23 23-0059 EA 3/4", Type 304, Stainless Steel, Union	220.41	27.19
For Work In Restricted Working Space, Add	16.31	
40 05 23 23-0060 EA 7/8", Type 304, Stainless Steel, Union	342.79	30.10
For Work In Restricted Working Space, Add	18.08	
40 05 23 23-0061 EA 1", Type 304, Stainless Steel, Union	363.49	36.00
For Work In Restricted Working Space, Add	21.57	
40 05 23 23-0062 Male Connectors (40 05 23 23-0037)		
40 05 23 23-0063 EA 1/4" x 1/4", Type 304, Stainless Steel, Male Connection	40.55	12.04
For Work In Restricted Working Space, Add	7.19	
40 05 23 23-0064 EA 3/8" x 3/8", Type 304, Stainless Steel, Male Connection	51.27	13.15
For Work In Restricted Working Space, Add	7.87	
40 05 23 23-0065 EA 1/2" x 1/2", Type 304, Stainless Steel, Male Connection	67.19	14.82
For Work In Restricted Working Space, Add	8.92	
40 05 23 23-0066 EA 5/8" x 5/8" Male Connection, Stainless Steel Type 304	75.75	16.60
For Work In Restricted Working Space, Add	9.98	
40 05 23 23-0067 EA 3/4" x 3/4", Type 304, Stainless Steel, Male Connection	92.25	17.95
For Work In Restricted Working Space, Add	10.79	
40 05 23 23-0068 EA 7/8" x 7/8", Type 304, Stainless Steel, Male Connection	141.34	19.95
For Work In Restricted Working Space, Add	11.94	
40 05 23 23-0069 EA 1" x 1", Type 304, Stainless Steel, Male Connection	147.07	23.74
For Work In Restricted Working Space, Add	14.23	
40 05 23 23-0070 Type 304 Valves (40 05 23 23-0011)		
40 05 23 23-0071 Gate Valves (40 05 23 23-0070)		
40 05 23 23-0072 EA 1/4" Gate Valve, Stainless Steel Type 304	229.81	17.95
For Work In Restricted Working Space, Add	9.74	
40 05 23 23-0073 EA 3/8" Gate Valve, Stainless Steel Type 304	390.04	21.07
For Work In Restricted Working Space, Add	10.25	
40 05 23 23-0074 EA 1/2" Gate Valve, Stainless Steel Type 304	403.31	23.74
For Work In Restricted Working Space, Add	14.23	
40 05 23 23-0075 EA 3/4" Gate Valve, Stainless Steel Type 304	446.83	27.19
For Work In Restricted Working Space, Add	16.31	
40 05 23 23-0076 EA 1" Gate Valve, Stainless Steel Type 304	407.19	36.00
For Work In Restricted Working Space, Add	21.57	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 23 23-0077 Globe Valves (40 05 23 23-0070)

40 05 23 23-0078	EA	1/4" Globe Valve, Stainless Steel Type 304	233.04	17.95
		<i>For Work In Restricted Working Space, Add</i>	9.74	
40 05 23 23-0079	EA	3/8" Globe Valve, Stainless Steel Type 304	152.23	21.07
		<i>For Work In Restricted Working Space, Add</i>	10.25	
40 05 23 23-0080	EA	1/2" Globe Valve, Stainless Steel Type 304	275.40	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0081	EA	3/4" Globe Valve, Stainless Steel Type 304	306.35	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0082	EA	1" Globe Valve, Stainless Steel Type 304	447.90	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	

40 05 23 23-0083 Check Valves (40 05 23 23-0070)

40 05 23 23-0084	EA	1/2" Check Valve, Stainless Steel Type 304	328.07	17.95
		<i>For Work In Restricted Working Space, Add</i>	9.74	
40 05 23 23-0085	EA	3/8" Check Valve, Stainless Steel Type 304	329.79	21.07
		<i>For Work In Restricted Working Space, Add</i>	10.25	
40 05 23 23-0086	EA	1/2" Check Valve, Stainless Steel Type 304	212.68	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0087	EA	3/4" Check Valve, Stainless Steel Type 304	222.01	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0088	EA	1" Check Valve, Stainless Steel Type 304	244.34	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	

40 05 23 23-0089 Plug Valves (40 05 23 23-0070)

40 05 23 23-0090	EA	1/2" Plug Valve, Stainless Steel Type 304	507.83	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0091	EA	3/4" Plug Valve, Stainless Steel Type 304	555.68	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0092	EA	1" Plug Valve, Stainless Steel Type 304	627.78	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0093	EA	1-1/2" Plug Valve, Stainless Steel Type 304	874.43	40.69
		<i>For Work In Restricted Working Space, Add</i>	24.41	
40 05 23 23-0094	EA	2" Plug Valve, Stainless Steel Type 304	1,137.94	55.73
		<i>For Work In Restricted Working Space, Add</i>	33.44	

40 05 23 23-0095 Type 316 Tubing (40 05 23 23-0011)**40 05 23 23-0096 0.035" Wall** (40 05 23 23-0095)

40 05 23 23-0097	LF	1/4" Stainless Steel Tubing, Type 316, 0.035" Wall	8.86	3.01
		<i>For Work In Restricted Working Space, Add</i>	1.79	
40 05 23 23-0098	LF	3/8" Stainless Steel Tubing, Type 316, 0.035" Wall	11.64	3.57
		<i>For Work In Restricted Working Space, Add</i>	2.15	
40 05 23 23-0099	LF	1/2" Stainless Steel Tubing, Type 316, 0.035" Wall	12.86	4.23
		<i>For Work In Restricted Working Space, Add</i>	2.51	
40 05 23 23-0100	LF	5/8" Stainless Steel Tubing, Type 316, 0.035" Wall	22.77	4.80
		<i>For Work In Restricted Working Space, Add</i>	2.87	
40 05 23 23-0101	LF	3/4" Stainless Steel Tubing, Type 316, 0.035" Wall	25.86	5.35
		<i>For Work In Restricted Working Space, Add</i>	3.23	
40 05 23 23-0102	LF	7/8" Stainless Steel Tubing, Type 316, 0.035" Wall	33.21	6.02
		<i>For Work In Restricted Working Space, Add</i>	3.60	
40 05 23 23-0103	LF	1" Stainless Steel Tubing, Type 316, 0.035" Wall	34.48	7.24
		<i>For Work In Restricted Working Space, Add</i>	4.31	

40 05 23 23-0104 0.049" Wall (40 05 23 23-0095)

40 05 23 23-0105	LF	1/4" Stainless Steel Tubing, Type 316, 0.049" Wall	16.18	3.57
		<i>For Work In Restricted Working Space, Add</i>	2.15	
40 05 23 23-0106	LF	3/8" Stainless Steel Tubing, Type 316, 0.049" Wall	17.87	4.23
		<i>For Work In Restricted Working Space, Add</i>	2.51	
40 05 23 23-0107	LF	1/2" Stainless Steel Tubing, Type 316, 0.049" Wall	21.12	4.80
		<i>For Work In Restricted Working Space, Add</i>	2.87	
40 05 23 23-0108	LF	5/8" Stainless Steel Tubing, Type 316, 0.049" Wall	27.67	6.02
		<i>For Work In Restricted Working Space, Add</i>	3.60	
40 05 23 23-0109	LF	3/4" Stainless Steel Tubing, Type 316, 0.049" Wall	31.83	7.24
		<i>For Work In Restricted Working Space, Add</i>	4.31	
40 05 23 23-0110	LF	7/8" Stainless Steel Tubing, Type 316, 0.049" Wall	40.94	8.36
		<i>For Work In Restricted Working Space, Add</i>	5.03	
40 05 23 23-0111	LF	1" Stainless Steel Tubing, Type 316, 0.049" Wall	41.39	9.47
		<i>For Work In Restricted Working Space, Add</i>	5.72	

40 05 23 23-0112 0.065" Wall (40 05 23 23-0095)

40 05 23 23-0113	LF	1/4" Stainless Steel Tubing, Type 316, 0.065" Wall	18.93	4.23
		<i>For Work In Restricted Working Space, Add</i>	2.51	
40 05 23 23-0114	LF	3/8" Stainless Steel Tubing, Type 316, 0.065" Wall	21.06	4.80
		<i>For Work In Restricted Working Space, Add</i>	2.87	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0115 LF 1/2" Stainless Steel Tubing, Type 316, 0.065" Wall For Work In Restricted Working Space, Add	26.43 3.60	6.02
40 05 23 23-0116 LF 5/8" Stainless Steel Tubing, Type 316, 0.065" Wall For Work In Restricted Working Space, Add	31.47 4.31	7.24
40 05 23 23-0117 LF 3/4" Stainless Steel Tubing, Type 316, 0.065" Wall For Work In Restricted Working Space, Add	38.28 5.03	8.36
40 05 23 23-0118 LF 7/8" Stainless Steel Tubing, Type 316, 0.065" Wall For Work In Restricted Working Space, Add	42.04 5.72	9.47
40 05 23 23-0119 LF 1" Stainless Steel Tubing, Type 316, 0.065" Wall For Work In Restricted Working Space, Add	49.13 6.43	10.70
40 05 23 23-0120 Type 316 Tube Fittings (40 05 23 23-0011)		
40 05 23 23-0121 90 Degree Elbows (40 05 23 23-0120)		
40 05 23 23-0122 EA 1/4" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	78.20 7.19	12.04
40 05 23 23-0123 EA 3/8" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	94.61 7.87	13.15
40 05 23 23-0124 EA 1/2" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	152.33 8.92	14.82
40 05 23 23-0125 EA 5/8" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	161.19 9.98	16.60
40 05 23 23-0126 EA 3/4" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	181.56 10.79	17.95
40 05 23 23-0127 EA 7/8" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	257.33 11.94	19.95
40 05 23 23-0128 EA 1" 90 Degree Elbow, Stainless Steel Type 316 For Work In Restricted Working Space, Add	330.99 14.23	23.74
40 05 23 23-0129 Union Tees (40 05 23 23-0120)		
40 05 23 23-0130 EA 1/4" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	126.15 10.79	17.95
40 05 23 23-0131 EA 3/8" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	156.82 11.94	19.95
40 05 23 23-0132 EA 1/2" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	224.09 13.38	22.30
40 05 23 23-0133 EA 5/8" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	238.41 15.20	25.30
40 05 23 23-0134 EA 3/4" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	314.93 16.31	27.19
40 05 23 23-0135 EA 7/8" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	526.54 18.08	30.10
40 05 23 23-0136 EA 1" Union Tee, Stainless Steel Type 316 For Work In Restricted Working Space, Add	631.34 21.57	36.00
40 05 23 23-0137 Unions (40 05 23 23-0120)		
40 05 23 23-0138 EA 1/4" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	78.40 10.79	17.95
40 05 23 23-0139 EA 3/8" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	101.71 11.94	19.95
40 05 23 23-0140 EA 1/2" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	137.73 13.38	22.30
40 05 23 23-0141 EA 5/8" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	167.97 15.20	25.30
40 05 23 23-0142 EA 3/4" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	200.56 16.31	27.19
40 05 23 23-0143 EA 7/8" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	309.02 18.08	30.10
40 05 23 23-0144 EA 1" Union, Stainless Steel Type 316 For Work In Restricted Working Space, Add	328.63 21.57	36.00
40 05 23 23-0145 Male Connectors (40 05 23 23-0120)		
40 05 23 23-0146 EA 1/4" x 1/4" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	52.27 7.19	12.04
40 05 23 23-0147 EA 3/8" x 3/8" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	68.97 7.87	13.15
40 05 23 23-0148 EA 1/2" x 1/2" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	93.68 8.92	14.82
40 05 23 23-0149 EA 5/8" x 5/8" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	105.78 9.98	16.60
40 05 23 23-0150 EA 3/4" x 3/4" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	132.05 10.79	17.95
40 05 23 23-0151 EA 7/8" x 7/8" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	213.12 11.94	19.95
40 05 23 23-0152 EA 1" x 1" Male Connector, Stainless Steel Type 316 For Work In Restricted Working Space, Add	217.51 14.23	23.74
40 05 23 23-0153 Type 316 Valves (40 05 23 23-0011)		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0154		Gate Valves (40 05 23 23-0153)		
40 05 23 23-0155	EA	1/4" Gate Valve, Stainless Steel Type 316	293.53	17.95
		<i>For Work In Restricted Working Space, Add</i>	9.74	
40 05 23 23-0156	EA	3/8" Gate Valve, Stainless Steel Type 316	504.94	21.07
		<i>For Work In Restricted Working Space, Add</i>	10.25	
40 05 23 23-0157	EA	1/2" Gate Valve, Stainless Steel Type 316	518.21	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0158	EA	3/4" Gate Valve, Stainless Steel Type 316	573.55	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0159	EA	1" Gate Valve, Stainless Steel Type 316	515.44	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0160	EA	1-1/4" Gate Valve, Stainless Steel Type 316	712.12	37.34
		<i>For Work In Restricted Working Space, Add</i>	22.40	
40 05 23 23-0161	EA	1-1/2" Gate Valve, Stainless Steel Type 316	1,150.58	40.69
		<i>For Work In Restricted Working Space, Add</i>	24.41	
40 05 23 23-0162	EA	2" Gate Valve, Stainless Steel Type 316	1,366.02	55.73
		<i>For Work In Restricted Working Space, Add</i>	33.44	
40 05 23 23-0163	EA	2-1/2" Gate Valve, Stainless Steel Type 316	1,996.27	178.45
		<i>For Work In Restricted Working Space, Add</i>	107.04	
40 05 23 23-0164		Globe Valves (40 05 23 23-0153)		
40 05 23 23-0165	EA	1/4" Globe Valve, Stainless Steel Type 316	297.81	17.95
		<i>For Work In Restricted Working Space, Add</i>	9.74	
40 05 23 23-0166	EA	3/8" Globe Valve, Stainless Steel Type 316	190.36	21.07
		<i>For Work In Restricted Working Space, Add</i>	10.25	
40 05 23 23-0167	EA	1/2" Globe Valve, Stainless Steel Type 316	349.01	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0168	EA	3/4" Globe Valve, Stainless Steel Type 316	387.71	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0169	EA	1" Globe Valve, Stainless Steel Type 316	569.29	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0170	EA	1-1/4" Globe Valve, Stainless Steel Type 316	713.63	37.12
		<i>For Work In Restricted Working Space, Add</i>	22.24	
40 05 23 23-0171	EA	1-1/2" Globe Valve, Stainless Steel Type 316	1,193.35	40.69
		<i>For Work In Restricted Working Space, Add</i>	24.41	
40 05 23 23-0172	EA	2" Globe Valve, Stainless Steel Type 316	1,408.79	55.73
		<i>For Work In Restricted Working Space, Add</i>	33.44	
40 05 23 23-0173	EA	2-1/2" Globe Valve, Stainless Steel Type 316	1,725.40	178.45
		<i>For Work In Restricted Working Space, Add</i>	107.04	
40 05 23 23-0174		Check Valves (40 05 23 23-0153)		
40 05 23 23-0175	EA	1/4" Check Valve, Stainless Steel Type 316	423.51	17.95
		<i>For Work In Restricted Working Space, Add</i>	9.74	
40 05 23 23-0176	EA	3/8" Check Valve, Stainless Steel Type 316	425.23	21.07
		<i>For Work In Restricted Working Space, Add</i>	10.25	
40 05 23 23-0177	EA	1/2" Check Valve, Stainless Steel Type 316	266.04	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0178	EA	3/4" Check Valve, Stainless Steel Type 316	276.13	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0179	EA	1" Check Valve, Stainless Steel Type 316	300.01	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0180	EA	1-1/4" Check Valve, Stainless Steel Type 316	419.40	37.34
		<i>For Work In Restricted Working Space, Add</i>	22.40	
40 05 23 23-0181	EA	1-1/2" Check Valve, Stainless Steel Type 316	950.99	40.69
		<i>For Work In Restricted Working Space, Add</i>	24.41	
40 05 23 23-0182	EA	2" Check Valve, Stainless Steel Type 316	1,152.18	55.73
		<i>For Work In Restricted Working Space, Add</i>	33.44	
40 05 23 23-0183	EA	2-1/2" Check Valve, Stainless Steel Type 316	2,257.63	178.45
		<i>For Work In Restricted Working Space, Add</i>	107.04	
40 05 23 23-0184		Diaphragm Valves, Ethylene Propylene Diene Monomer (EPDM) Lined (40 05 23 23-0153)		
40 05 23 23-0185	EA	1/2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined	452.72	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0186	EA	3/4" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined	529.04	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0187	EA	1" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined	674.27	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0188	EA	1-1/2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined	1,080.67	40.69
		<i>For Work In Restricted Working Space, Add</i>	24.41	
40 05 23 23-0189	EA	2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined	1,510.51	55.73
		<i>For Work In Restricted Working Space, Add</i>	33.44	
40 05 23 23-0190		Diaphragm Valves, Teflon Lined (40 05 23 23-0153)		
40 05 23 23-0191	EA	1/2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined	602.61	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0192	EA	3/4" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined	692.82	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0193	EA		1" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined.....	838.05	36.00
			For Work In Restricted Working Space, Add	21.57	
40 05 23 23-0194	EA		1-1/2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined.....	1,311.06	40.69
			For Work In Restricted Working Space, Add	24.41	
40 05 23 23-0195	EA		2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined.....	1,785.31	55.73
			For Work In Restricted Working Space, Add	33.44	
40 05 23 23-0196			Strainers (40 05 23 23-0153)		
40 05 23 23-0197	EA		1/2" Strainer, Stainless Steel Type 316.....	604.06	23.74
			For Work In Restricted Working Space, Add	14.23	
40 05 23 23-0198	EA		3/4" Strainer, Stainless Steel Type 316.....	723.31	27.31
			For Work In Restricted Working Space, Add	16.39	
40 05 23 23-0199	EA		1" Strainer, Stainless Steel Type 316.....	946.20	36.22
			For Work In Restricted Working Space, Add	21.74	
40 05 23 23-0200	EA		1-1/4" Strainer, Stainless Steel Type 316.....	1,177.84	37.34
			For Work In Restricted Working Space, Add	22.40	
40 05 23 23-0201	EA		1-1/2" Strainer, Stainless Steel Type 316.....	1,480.76	40.69
			For Work In Restricted Working Space, Add	24.41	
40 05 23 23-0202	EA		2" Strainer, Stainless Steel Type 316.....	2,136.59	55.73
			For Work In Restricted Working Space, Add	33.44	
40 05 23 23-0203	EA		2-1/2" Strainer, Stainless Steel Type 316.....	2,937.21	74.13
			For Work In Restricted Working Space, Add	44.48	
40 05 23 23-0204	EA		3" Strainer, Stainless Steel Type 316.....	4,276.03	111.47
			For Work In Restricted Working Space, Add	66.88	
40 05 23 23-0205	EA		4" Strainer, Stainless Steel Type 316.....	5,459.66	178.34
			For Work In Restricted Working Space, Add	107.00	
40 05 23 23-0206			Plug Valves (40 05 23 23-0153)		
40 05 23 23-0207	EA		1/2" Plug Valve, Stainless Steel Type 316.....	644.29	23.74
			For Work In Restricted Working Space, Add	14.23	
40 05 23 23-0208	EA		3/4" Plug Valve, Stainless Steel Type 316.....	704.27	27.19
			For Work In Restricted Working Space, Add	16.31	
40 05 23 23-0209	EA		1" Plug Valve, Stainless Steel Type 316.....	792.55	36.00
			For Work In Restricted Working Space, Add	21.57	
40 05 23 23-0210	EA		1-1/2" Plug Valve, Stainless Steel Type 316.....	1,109.51	40.69
			For Work In Restricted Working Space, Add	24.41	
40 05 23 23-0211	EA		2" Plug Valve, Stainless Steel Type 316.....	1,442.20	55.73
			For Work In Restricted Working Space, Add	33.44	
40 05 23 23-0212			Cut And Prepare Existing Pipe In-Place (40 05 23 23-0011)		
			Note: For use when connecting pipe to an existing in-place system.		
40 05 23 23-0213	EA		Cut And Prepare 1/2" Stainless Steel Pipe.....	22.29	
40 05 23 23-0214	EA		Cut And Prepare 3/4" Stainless Steel Pipe.....	24.07	
40 05 23 23-0215	EA		Cut And Prepare 1" Stainless Steel Pipe.....	27.07	
40 05 23 23-0216	EA		Cut And Prepare 1-1/4" Stainless Steel Pipe.....	28.41	
40 05 23 23-0217	EA		Cut And Prepare 1-1/2" Stainless Steel Pipe.....	30.08	
40 05 23 23-0218	EA		Cut And Prepare 2" Stainless Steel Pipe.....	32.31	
40 05 23 23-0219	EA		Cut And Prepare 2-1/2" Stainless Steel Pipe.....	34.55	
40 05 23 23-0220	EA		Cut And Prepare 3" Stainless Steel Pipe.....	37.88	
40 05 23 23-0221	EA		Cut And Prepare 4" Stainless Steel Pipe.....	41.22	
40 05 23 23-0222	EA		Cut And Prepare 6" Stainless Steel Pipe.....	44.57	
40 05 23 23-0223	EA		Cut And Prepare 8" Stainless Steel Pipe.....	47.91	
40 05 23 23-0224	EA		Cut And Prepare 10" Stainless Steel Pipe.....	52.37	
40 05 23 23-0225	EA		Cut And Prepare 12" Stainless Steel Pipe.....	56.82	
40 05 23 23-0226	EA		Cut And Prepare 14" Stainless Steel Pipe.....	61.28	
40 05 23 23-0227	EA		Cut And Prepare 16" Stainless Steel Pipe.....	65.74	
40 05 23 23-0228	EA		Cut And Prepare 18" Stainless Steel Pipe.....	69.08	
40 05 23 23-0229	EA		Cut And Prepare 20" Stainless Steel Pipe.....	72.42	
40 05 23 23-0230	EA		Cut And Prepare 24" Stainless Steel Pipe.....	76.88	
40 05 23 23-0231			Stainless Steel Pipe And Fittings (40 05 23 23)		
40 05 23 23-0232			Type 304, Schedule 40 Stainless Steel Pipe And 150 LB Threaded Fittings		
			(40 05 23 23-0231)		
40 05 23 23-0233			Type 304, Schedule 40 Stainless Steel Threaded Pipe (40 05 23 23-0232)		
40 05 23 23-0234	LF		1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	19.54	4.80
			For Work In Restricted Working Space, Add	2.87	
40 05 23 23-0235	LF		3/4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	23.97	6.02
			For Work In Restricted Working Space, Add	3.60	
40 05 23 23-0236	LF		1" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	29.60	7.24
			For Work In Restricted Working Space, Add	4.31	
40 05 23 23-0237	LF		1-1/4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	35.79	8.36
			For Work In Restricted Working Space, Add	5.03	
40 05 23 23-0238	LF		1-1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	41.54	9.47
			For Work In Restricted Working Space, Add	5.72	
40 05 23 23-0239	LF		2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	53.23	12.04
			For Work In Restricted Working Space, Add	7.19	
40 05 23 23-0240	LF		2-1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	73.76	14.27
			For Work In Restricted Working Space, Add	8.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0241	LF	3" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting	92.70	17.95
		<i>For Work In Restricted Working Space, Add</i>	10.79	
40 05 23 23-0242	LF	4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting	125.98	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0243 150#, Type 304 Stainless Steel Threaded 90 Degree Elbows (40 05 23 23-0232)				
40 05 23 23-0244	EA	1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	39.29	17.95
		<i>For Work In Restricted Working Space, Add</i>	10.79	
40 05 23 23-0245	EA	3/4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	52.20	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0246	EA	1", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	67.19	30.10
		<i>For Work In Restricted Working Space, Add</i>	18.08	
40 05 23 23-0247	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	94.42	41.24
		<i>For Work In Restricted Working Space, Add</i>	24.77	
40 05 23 23-0248	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	112.71	48.48
		<i>For Work In Restricted Working Space, Add</i>	29.08	
40 05 23 23-0249	EA	2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	137.36	58.63
		<i>For Work In Restricted Working Space, Add</i>	35.20	
40 05 23 23-0250	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	231.40	92.85
		<i>For Work In Restricted Working Space, Add</i>	55.73	
40 05 23 23-0251	EA	3", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	297.82	119.82
		<i>For Work In Restricted Working Space, Add</i>	71.91	
40 05 23 23-0252	EA	4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	410.65	148.59
		<i>For Work In Restricted Working Space, Add</i>	89.17	
40 05 23 23-0253 150#, Type 304 Stainless Steel Threaded 45 Degree Elbows (40 05 23 23-0232)				
40 05 23 23-0254	EA	1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	40.06	17.95
		<i>For Work In Restricted Working Space, Add</i>	10.79	
40 05 23 23-0255	EA	3/4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	53.44	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0256	EA	1", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	67.58	30.10
		<i>For Work In Restricted Working Space, Add</i>	18.08	
40 05 23 23-0257	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	94.27	41.24
		<i>For Work In Restricted Working Space, Add</i>	24.77	
40 05 23 23-0258	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	110.88	48.48
		<i>For Work In Restricted Working Space, Add</i>	29.08	
40 05 23 23-0259	EA	2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	136.94	58.63
		<i>For Work In Restricted Working Space, Add</i>	35.20	
40 05 23 23-0260	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	239.71	92.85
		<i>For Work In Restricted Working Space, Add</i>	55.73	
40 05 23 23-0261	EA	3", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	314.03	119.82
		<i>For Work In Restricted Working Space, Add</i>	71.91	
40 05 23 23-0262	EA	4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	429.53	148.59
		<i>For Work In Restricted Working Space, Add</i>	89.17	
40 05 23 23-0263 150#, Type 304 Stainless Steel Threaded Tees (40 05 23 23-0232)				
40 05 23 23-0264	EA	1/2", 150#, Type 304 Stainless Steel Threaded Tee	58.90	27.19
		<i>For Work In Restricted Working Space, Add</i>	16.31	
40 05 23 23-0265	EA	3/4", 150#, Type 304 Stainless Steel Threaded Tee	79.09	36.00
		<i>For Work In Restricted Working Space, Add</i>	21.57	
40 05 23 23-0266	EA	1", 150#, Type 304 Stainless Steel Threaded Tee	98.31	44.59
		<i>For Work In Restricted Working Space, Add</i>	26.75	
40 05 23 23-0267	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded Tee	142.03	61.98
		<i>For Work In Restricted Working Space, Add</i>	37.16	
40 05 23 23-0268	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded Tee	161.93	69.66
		<i>For Work In Restricted Working Space, Add</i>	41.80	
40 05 23 23-0269	EA	2", 150#, Type 304 Stainless Steel Threaded Tee	214.80	92.85
		<i>For Work In Restricted Working Space, Add</i>	55.73	
40 05 23 23-0270	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded Tee	330.83	134.31
		<i>For Work In Restricted Working Space, Add</i>	80.58	
40 05 23 23-0271	EA	3", 150#, Type 304 Stainless Steel Threaded Tee	449.25	179.79
		<i>For Work In Restricted Working Space, Add</i>	107.87	
40 05 23 23-0272	EA	4", 150#, Type 304 Stainless Steel Threaded Tee	607.85	222.93
		<i>For Work In Restricted Working Space, Add</i>	133.76	
40 05 23 23-0273 150#, Type 304 Stainless Steel Threaded Reducers (40 05 23 23-0232)				
40 05 23 23-0274	EA	3/4", 150#, Type 304 Stainless Steel Threaded Reducer	51.63	23.74
		<i>For Work In Restricted Working Space, Add</i>	14.23	
40 05 23 23-0275	EA	1", 150#, Type 304 Stainless Steel Threaded Reducer	65.97	30.10
		<i>For Work In Restricted Working Space, Add</i>	18.08	
40 05 23 23-0276	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded Reducer	90.94	41.24
		<i>For Work In Restricted Working Space, Add</i>	24.77	
40 05 23 23-0277	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded Reducer	108.98	48.48
		<i>For Work In Restricted Working Space, Add</i>	29.08	
40 05 23 23-0278	EA	2", 150#, Type 304 Stainless Steel Threaded Reducer	137.45	58.63
		<i>For Work In Restricted Working Space, Add</i>	35.20	
40 05 23 23-0279	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded Reducer	228.94	92.85
		<i>For Work In Restricted Working Space, Add</i>	55.73	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0280 EA 3", 150#, Type 304 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	301.18 71.91	119.82
40 05 23 23-0281 EA 4", 150#, Type 304 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	399.05 89.17	148.59
40 05 23 23-0282 150#, Type 304 Stainless Steel Threaded Caps (40 05 23 23-0232)		
40 05 23 23-0283 EA 1/2", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	20.20 5.39	9.03
40 05 23 23-0284 EA 3/4", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	26.75 7.19	12.04
40 05 23 23-0285 EA 1", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	33.88 8.92	14.82
40 05 23 23-0286 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	49.61 12.62	21.07
40 05 23 23-0287 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	57.33 14.23	23.74
40 05 23 23-0288 EA 2", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	72.85 18.08	30.10
40 05 23 23-0289 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	111.92 26.75	44.59
40 05 23 23-0290 EA 3", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	148.77 35.20	58.63
40 05 23 23-0291 EA 4", 150#, Type 304 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	201.82 44.59	74.35
40 05 23 23-0292 150#, Type 304 Stainless Steel Threaded Unions (40 05 23 23-0232)		
40 05 23 23-0293 EA 1/2", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	63.72 16.31	27.19
40 05 23 23-0294 EA 3/4", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	83.76 21.57	36.00
40 05 23 23-0295 EA 1", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	107.07 26.75	44.59
40 05 23 23-0296 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	154.90 37.16	61.98
40 05 23 23-0297 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	174.42 41.80	69.66
40 05 23 23-0298 EA 2", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	227.81 55.73	92.85
40 05 23 23-0299 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	392.51 83.60	139.33
40 05 23 23-0300 EA 3", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	502.94 107.88	179.79
40 05 23 23-0301 EA 4", 150#, Type 304 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	529.97 89.18	148.64
40 05 23 23-0302 150#, Type 304 Stainless Steel Threaded Couplings (40 05 23 23-0232)		
40 05 23 23-0303 EA 1/2", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	38.97 10.79	17.95
40 05 23 23-0304 EA 3/4", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	51.78 14.23	23.74
40 05 23 23-0305 EA 1", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	66.85 18.08	30.10
40 05 23 23-0306 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	93.06 24.77	41.24
40 05 23 23-0307 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	109.38 29.08	48.48
40 05 23 23-0308 EA 2", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	134.89 35.20	58.63
40 05 23 23-0309 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	224.31 55.73	92.85
40 05 23 23-0310 EA 3", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	289.52 71.91	119.82
40 05 23 23-0311 EA 4", 150#, Type 304 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	374.64 89.17	148.59
40 05 23 23-0312 Type 316, Schedule 40 Stainless Steel Pipe And 150 LB Threaded Fittings (40 05 23 23-0312)		
40 05 23 23-0313 Type 316, Schedule 40 Stainless Steel Threaded Pipe (40 05 23 23-0312)		
40 05 23 23-0314 LF 1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting For Work In Restricted Working Space, Add	24.81 2.87	4.80
40 05 23 23-0315 LF 3/4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting For Work In Restricted Working Space, Add	29.17 3.60	6.02
40 05 23 23-0316 LF 1" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting For Work In Restricted Working Space, Add	37.07 4.31	7.24
40 05 23 23-0317 LF 1-1/4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting For Work In Restricted Working Space, Add	45.56 5.03	8.36
40 05 23 23-0318 LF 1-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting For Work In Restricted Working Space, Add	53.11 5.72	9.47

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0319 LF 2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting <i>For Work In Restricted Working Space, Add</i>	68.72 7.19	12.04
40 05 23 23-0320 LF 2-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting <i>For Work In Restricted Working Space, Add</i>	95.40 8.58	14.27
40 05 23 23-0321 LF 3" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting <i>For Work In Restricted Working Space, Add</i>	124.98 10.79	17.95
40 05 23 23-0322 LF 4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting <i>For Work In Restricted Working Space, Add</i>	168.00 14.23	23.74
40 05 23 23-0323 150#, Type 316 Stainless Steel Threaded 90 Degree Elbows (40 05 23 23-0312)		
40 05 23 23-0324 EA 1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	40.30 10.79	17.95
40 05 23 23-0325 EA 3/4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	53.70 14.23	23.74
40 05 23 23-0326 EA 1", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	68.11 18.08	30.10
40 05 23 23-0327 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	96.07 24.77	41.24
40 05 23 23-0328 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	114.91 29.08	48.48
40 05 23 23-0329 EA 2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	140.08 35.20	58.63
40 05 23 23-0330 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	235.74 55.73	92.85
40 05 23 23-0331 EA 3", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	308.44 71.91	119.82
40 05 23 23-0332 EA 4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	423.55 89.17	148.59
40 05 23 23-0333 150#, Type 316 Stainless Steel Threaded 45 Degree Elbows (40 05 23 23-0312)		
40 05 23 23-0334 EA 1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	41.11 10.79	17.95
40 05 23 23-0335 EA 3/4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	54.21 14.23	23.74
40 05 23 23-0336 EA 1", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	68.71 18.08	30.10
40 05 23 23-0337 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	95.90 24.77	41.24
40 05 23 23-0338 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	112.78 29.08	48.48
40 05 23 23-0339 EA 2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	139.48 35.20	58.63
40 05 23 23-0340 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	243.79 55.73	92.85
40 05 23 23-0341 EA 3", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	323.43 71.91	119.82
40 05 23 23-0342 EA 4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	454.88 89.17	148.59
40 05 23 23-0343 150#, Type 316 Stainless Steel Threaded Tees (40 05 23 23-0312)		
40 05 23 23-0344 EA 1/2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	59.97 16.31	27.19
40 05 23 23-0345 EA 3/4", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	80.18 21.57	36.00
40 05 23 23-0346 EA 1", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	99.53 26.75	44.59
40 05 23 23-0347 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Tee <i>For Work In Restricted Working Space, Add</i>	144.50 37.16	61.98
40 05 23 23-0348 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Tee <i>For Work In Restricted Working Space, Add</i>	164.38 41.80	69.66
40 05 23 23-0349 EA 2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	218.03 55.73	92.85
40 05 23 23-0350 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Tee <i>For Work In Restricted Working Space, Add</i>	344.00 80.58	134.31
40 05 23 23-0351 EA 3", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	467.21 107.87	179.79
40 05 23 23-0352 EA 4", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	621.24 133.76	222.93
40 05 23 23-0353 150#, Type 316 Stainless Steel Threaded Reducers (40 05 23 23-0312)		
40 05 23 23-0354 EA 3/4", 150#, Type 316 Stainless Steel Threaded Reducer <i>For Work In Restricted Working Space, Add</i>	52.54 14.23	23.74
40 05 23 23-0355 EA 1", 150#, Type 316 Stainless Steel Threaded Reducer <i>For Work In Restricted Working Space, Add</i>	68.69 18.08	30.10
40 05 23 23-0356 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Reducer <i>For Work In Restricted Working Space, Add</i>	91.45 24.77	41.24
40 05 23 23-0357 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Reducer <i>For Work In Restricted Working Space, Add</i>	111.65 29.08	48.48



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0358 EA 2", 150#, Type 316 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	142.13 35.20	58.63
40 05 23 23-0359 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	239.58 55.73	92.85
40 05 23 23-0360 EA 3", 150#, Type 316 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	312.92 71.91	119.82
40 05 23 23-0361 EA 4", 150#, Type 316 Stainless Steel Threaded Reducer For Work In Restricted Working Space, Add	418.64 89.17	148.59
40 05 23 23-0362 150#, Type 316 Stainless Steel Threaded Caps (40 05 23 23-0312)		
40 05 23 23-0363 EA 1/2", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	20.80 5.39	9.03
40 05 23 23-0364 EA 3/4", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	27.19 7.19	12.04
40 05 23 23-0365 EA 1", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	34.68 8.92	14.82
40 05 23 23-0366 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	51.81 12.62	21.07
40 05 23 23-0367 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	59.93 14.23	23.74
40 05 23 23-0368 EA 2", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	76.25 18.08	30.10
40 05 23 23-0369 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	117.53 26.75	44.59
40 05 23 23-0370 EA 3", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	154.47 35.20	58.63
40 05 23 23-0371 EA 4", 150#, Type 316 Stainless Steel Threaded Cap For Work In Restricted Working Space, Add	213.14 44.59	74.35
40 05 23 23-0372 150#, Type 316 Stainless Steel Threaded Unions (40 05 23 23-0312)		
40 05 23 23-0373 EA 1/2", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	65.01 16.31	27.19
40 05 23 23-0374 EA 3/4", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	88.61 21.57	36.00
40 05 23 23-0375 EA 1", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	109.52 26.75	44.59
40 05 23 23-0376 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	159.07 37.16	61.98
40 05 23 23-0377 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	179.29 41.80	69.66
40 05 23 23-0378 EA 2", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	233.45 55.73	92.85
40 05 23 23-0379 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	401.16 83.60	139.33
40 05 23 23-0380 EA 3", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	529.90 107.88	179.79
40 05 23 23-0381 EA 4", 150#, Type 316 Stainless Steel Threaded Union For Work In Restricted Working Space, Add	587.42 89.18	148.64
40 05 23 23-0382 150#, Type 316 Stainless Steel Threaded Couplings (40 05 23 23-0312)		
40 05 23 23-0383 EA 1/2", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	41.00 10.79	17.95
40 05 23 23-0384 EA 3/4", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	52.72 14.23	23.74
40 05 23 23-0385 EA 1", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	67.75 18.08	30.10
40 05 23 23-0386 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	94.49 24.77	41.24
40 05 23 23-0387 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	111.09 29.08	48.48
40 05 23 23-0388 EA 2", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	137.26 35.20	58.63
40 05 23 23-0389 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	232.60 55.73	92.85
40 05 23 23-0390 EA 3", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	300.19 71.91	119.82
40 05 23 23-0391 EA 4", 150#, Type 316 Stainless Steel Threaded Coupling For Work In Restricted Working Space, Add	390.66 89.17	148.59
40 05 23 23-0392 Type 304, Schedule 10 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0393 Type 304, Schedule 10 Stainless Steel Pipe (40 05 23 23-0392)		
40 05 23 23-0394 LF 1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting For Work In Restricted Working Space, Add	22.28 2.81	4.69
40 05 23 23-0395 LF 3/4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting For Work In Restricted Working Space, Add	26.39 3.44	5.73
40 05 23 23-0396 LF 1" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting For Work In Restricted Working Space, Add	35.68 4.03	6.77

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0397 LF 1-1/4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	43.40 5.04	8.44
40 05 23 23-0398 LF 1-1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	48.17 5.68	9.48
40 05 23 23-0399 LF 2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	59.57 7.04	11.77
40 05 23 23-0400 LF 2-1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	71.73 8.04	13.44
40 05 23 23-0401 LF 3" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	85.24 9.06	15.10
40 05 23 23-0402 LF 4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	107.96 10.72	17.91
40 05 23 23-0403 LF 6" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	159.67 14.08	23.54
40 05 23 23-0404 LF 8" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	265.14 27.75	43.19
40 05 23 23-0405 LF 10" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	344.85 30.52	47.48
40 05 23 23-0406 LF 12" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	416.06 33.92	52.80
40 05 23 23-0407 LF 14" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	516.38 38.15	59.35
40 05 23 23-0408 LF 16" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	566.57 43.61	67.83
40 05 23 23-0409 LF 18" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	632.24 50.87	79.14
40 05 23 23-0410 LF 20" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	889.89 61.05	94.97
40 05 23 23-0411 LF 24" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	1,164.71 76.31	118.70
40 05 23 23-0412 Type 304, Schedule 10 Stainless Steel Butt Weld 90 Degree Elbow (40 05 23 23-0392)		
40 05 23 23-0413 EA 1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	123.92 35.62	53.44
40 05 23 23-0414 EA 3/4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	131.22 37.81	56.71
40 05 23 23-0415 EA 1", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	144.62 41.55	62.33
40 05 23 23-0416 EA 1-1/4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	157.84 45.29	67.93
40 05 23 23-0417 EA 1-1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	174.35 50.01	75.01
40 05 23 23-0418 EA 2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	194.94 55.64	83.46
40 05 23 23-0419 EA 2-1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	253.56 71.21	106.81
40 05 23 23-0420 EA 3", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	297.44 83.46	125.19
40 05 23 23-0421 EA 4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	364.44 99.89	149.84
40 05 23 23-0422 EA 6", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	500.27 124.79	187.19
40 05 23 23-0423 EA 8", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	881.46 218.03	327.05
40 05 23 23-0424 EA 10", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,300.86 290.70	436.05
40 05 23 23-0425 EA 12", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,964.80 436.05	654.08
40 05 23 23-0426 EA 14", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,323.31 508.73	763.09
40 05 23 23-0427 EA 16", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,729.04 580.30	870.45
40 05 23 23-0428 EA 18", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	3,449.13 726.76	1,090.14
40 05 23 23-0429 EA 20", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	4,808.69 1,017.46	1,526.19
40 05 23 23-0430 EA 24", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	6,903.14 1,453.52	2,180.27
40 05 23 23-0431 Type 304, Schedule 10 Stainless Steel Butt Weld 45 Degree Elbow (40 05 23 23-0392)		
40 05 23 23-0432 EA 1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	125.45 35.62	53.44
40 05 23 23-0433 EA 3/4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	132.75 37.81	56.71
40 05 23 23-0434 EA 1", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	146.45 41.55	62.33
40 05 23 23-0435 EA 1-1/4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	160.28 45.29	67.93
40 05 23 23-0436 EA 1-1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	174.65 50.01	75.01



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0437 EA 2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	194.94 55.64	83.46
40 05 23 23-0438 EA 2-1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	252.03 71.21	106.81
40 05 23 23-0439 EA 3", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	294.69 83.46	125.19
40 05 23 23-0440 EA 4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	359.25 99.89	149.84
40 05 23 23-0441 EA 6", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	473.09 124.79	187.19
40 05 23 23-0442 EA 8", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	829.02 218.03	327.05
40 05 23 23-0443 EA 10", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	1,207.51 290.70	436.05
40 05 23 23-0444 EA 12", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	1,817.01 436.05	654.08
40 05 23 23-0445 EA 14", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	2,141.91 508.73	763.09
40 05 23 23-0446 EA 16", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	2,505.16 580.30	870.45
40 05 23 23-0447 EA 18", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	3,155.13 726.76	1,090.14
40 05 23 23-0448 EA 20", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	4,411.98 1,017.46	1,526.19
40 05 23 23-0449 EA 24", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow..... For Work In Restricted Working Space, Add	6,340.39 1,453.52	2,180.27
40 05 23 23-0450 Type 304, Schedule 10 Stainless Steel Butt Weld Tee (40 05 23 23-0392)		
40 05 23 23-0451 EA 1/2", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	167.71 45.27	67.91
40 05 23 23-0452 EA 3/4", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	202.05 55.58	83.37
40 05 23 23-0453 EA 1", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	224.96 62.45	93.67
40 05 23 23-0454 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	256.03 71.21	106.81
40 05 23 23-0455 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	271.59 76.44	114.66
40 05 23 23-0456 EA 2", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	295.93 83.37	125.05
40 05 23 23-0457 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	383.83 99.89	149.84
40 05 23 23-0458 EA 3", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	450.29 125.19	187.79
40 05 23 23-0459 EA 4", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	517.82 140.50	210.75
40 05 23 23-0460 EA 6", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	756.10 187.34	281.00
40 05 23 23-0461 EA 8", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	1,279.42 290.70	436.05
40 05 23 23-0462 EA 10", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	1,964.80 436.05	654.08
40 05 23 23-0463 EA 12", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	2,527.09 545.07	817.60
40 05 23 23-0464 EA 14", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	3,109.40 655.02	982.53
40 05 23 23-0465 EA 16", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	3,766.27 799.05	1,198.58
40 05 23 23-0466 EA 18", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	4,792.39 1,017.46	1,526.19
40 05 23 23-0467 EA 20", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	6,409.81 1,338.77	2,008.15
40 05 23 23-0468 EA 24", Type 304, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	9,607.94 2,034.92	3,052.38
40 05 23 23-0469 Type 304, Schedule 10 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0392)		
40 05 23 23-0470 EA 3/4", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	156.02 37.83	56.73
40 05 23 23-0471 EA 1", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	184.43 46.35	69.53
40 05 23 23-0472 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	228.24 52.08	78.12
40 05 23 23-0473 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	235.48 59.37	89.06
40 05 23 23-0474 EA 2", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	246.56 63.80	95.69
40 05 23 23-0475 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	323.68 69.53	104.29
40 05 23 23-0476 EA 3", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	381.04 83.34	125.00
40 05 23 23-0477 EA 4", Type 304, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	469.36 104.16	156.24

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0478 EA 6", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	622.12 119.01	178.52
40 05 23 23-0479 EA 8", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	1,202.02 181.69	272.54
40 05 23 23-0480 EA 10", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	1,984.15 242.26	363.38
40 05 23 23-0481 EA 12", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	2,834.20 363.38	545.06
40 05 23 23-0482 EA 14", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	3,438.84 436.56	654.84
40 05 23 23-0483 EA 16", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	4,259.35 532.52	798.77
40 05 23 23-0484 EA 18", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	5,500.67 678.31	1,017.46
40 05 23 23-0485 EA 20", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	7,826.49 892.51	1,338.76
40 05 23 23-0486 EA 24", Type 304, Schedule 10 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	12,244.85 1,355.41	2,033.12
40 05 23 23-0487 Type 304, Schedule 10 Stainless Steel Butt Weld Reducers (40 05 23 23-0392)		
40 05 23 23-0488 EA 3/4", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	125.04 34.40	51.60
40 05 23 23-0489 EA 1", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	137.78 37.49	56.22
40 05 23 23-0490 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	152.73 41.55	62.33
40 05 23 23-0491 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	162.25 45.29	67.93
40 05 23 23-0492 EA 2", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	176.79 50.01	75.01
40 05 23 23-0493 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	238.25 62.50	93.74
40 05 23 23-0494 EA 3", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	269.23 71.15	106.72
40 05 23 23-0495 EA 4", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	314.62 83.37	125.05
40 05 23 23-0496 EA 6", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	406.33 106.14	159.21
40 05 23 23-0497 EA 8", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	665.79 174.42	261.63
40 05 23 23-0498 EA 10", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	847.16 218.03	327.05
40 05 23 23-0499 EA 12", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,139.55 290.70	436.05
40 05 23 23-0500 EA 14", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,626.53 381.55	572.32
40 05 23 23-0501 EA 16", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,902.65 434.81	652.21
40 05 23 23-0502 EA 18", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,341.71 545.07	817.60
40 05 23 23-0503 EA 20", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,289.53 726.76	1,090.14
40 05 23 23-0504 EA 24", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	4,740.98 1,090.14	1,635.20
40 05 23 23-0505 EA 3/4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	153.76 34.40	51.60
40 05 23 23-0506 EA 1", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	158.85 37.49	56.22
40 05 23 23-0507 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	167.16 41.55	62.33
40 05 23 23-0508 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	188.52 45.29	67.93
40 05 23 23-0509 EA 2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	195.73 50.01	75.01
40 05 23 23-0510 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	259.02 62.50	93.74
40 05 23 23-0511 EA 3", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	289.69 71.15	106.72
40 05 23 23-0512 EA 4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	330.44 83.37	125.05
40 05 23 23-0513 EA 6", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	463.45 106.14	159.21
40 05 23 23-0514 EA 8", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	788.22 174.42	261.63
40 05 23 23-0515 EA 10", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,085.98 218.03	327.05
40 05 23 23-0516 EA 12", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,360.23 290.70	436.05
40 05 23 23-0517 EA 14", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,135.61 381.55	572.32
40 05 23 23-0518 EA 16", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,485.97 434.81	652.21



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0519	EA		18", Type 304, Schedule 10 Stainless Steel Eccentric Reducer.....	3,053.63	817.60
			For Work In Restricted Working Space, Add	545.07	
40 05 23 23-0520	EA		20", Type 304, Schedule 10 Stainless Steel Eccentric Reducer.....	4,430.35	1,090.14
			For Work In Restricted Working Space, Add	726.76	
40 05 23 23-0521	EA		24", Type 304, Schedule 10 Stainless Steel Eccentric Reducer.....	6,252.91	1,635.20
			For Work In Restricted Working Space, Add	1,090.14	
40 05 23 23-0522			Type 304, Schedule 10 Stainless Steel Butt Weld Caps (40 05 23 23-0392)		
40 05 23 23-0523	EA		1/2", Type 304, Schedule 10 Stainless Steel Cap	68.84	26.72
			For Work In Restricted Working Space, Add	17.81	
40 05 23 23-0524	EA		3/4", Type 304, Schedule 10 Stainless Steel Cap	75.84	28.36
			For Work In Restricted Working Space, Add	18.90	
40 05 23 23-0525	EA		1", Type 304, Schedule 10 Stainless Steel Cap	83.30	31.17
			For Work In Restricted Working Space, Add	20.78	
40 05 23 23-0526	EA		1-1/4", Type 304, Schedule 10 Stainless Steel Cap	91.82	33.96
			For Work In Restricted Working Space, Add	22.64	
40 05 23 23-0527	EA		1-1/2", Type 304, Schedule 10 Stainless Steel Cap	98.33	37.51
			For Work In Restricted Working Space, Add	25.01	
40 05 23 23-0528	EA		2", Type 304, Schedule 10 Stainless Steel Cap	105.86	41.73
			For Work In Restricted Working Space, Add	27.82	
40 05 23 23-0529	EA		2-1/2", Type 304, Schedule 10 Stainless Steel Cap	137.63	53.42
			For Work In Restricted Working Space, Add	35.61	
40 05 23 23-0530	EA		3", Type 304, Schedule 10 Stainless Steel Cap	155.30	62.60
			For Work In Restricted Working Space, Add	41.73	
40 05 23 23-0531	EA		4", Type 304, Schedule 10 Stainless Steel Cap	187.27	74.92
			For Work In Restricted Working Space, Add	49.95	
40 05 23 23-0532	EA		6", Type 304, Schedule 10 Stainless Steel Cap	242.22	93.74
			For Work In Restricted Working Space, Add	62.50	
40 05 23 23-0533	EA		8", Type 304, Schedule 10 Stainless Steel Cap	424.41	163.51
			For Work In Restricted Working Space, Add	109.01	
40 05 23 23-0534	EA		10", Type 304, Schedule 10 Stainless Steel Cap	565.13	218.03
			For Work In Restricted Working Space, Add	145.35	
40 05 23 23-0535	EA		12", Type 304, Schedule 10 Stainless Steel Cap	831.83	327.03
			For Work In Restricted Working Space, Add	218.03	
40 05 23 23-0536	EA		14", Type 304, Schedule 10 Stainless Steel Cap	976.65	381.55
			For Work In Restricted Working Space, Add	254.36	
40 05 23 23-0537	EA		16", Type 304, Schedule 10 Stainless Steel Cap	1,133.25	435.22
			For Work In Restricted Working Space, Add	290.15	
40 05 23 23-0538	EA		18", Type 304, Schedule 10 Stainless Steel Cap	1,431.86	545.06
			For Work In Restricted Working Space, Add	363.38	
40 05 23 23-0539	EA		20", Type 304, Schedule 10 Stainless Steel Cap	1,976.26	763.09
			For Work In Restricted Working Space, Add	508.73	
40 05 23 23-0540	EA		24", Type 304, Schedule 10 Stainless Steel Cap	2,916.75	1,090.13
			For Work In Restricted Working Space, Add	726.76	
40 05 23 23-0541			Type 304, Schedule 40 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0542			Type 304, Schedule 40 Stainless Steel Pipe (40 05 23 23-0541)		
40 05 23 23-0543	LF		1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	25.46	4.69
			For Work In Restricted Working Space, Add	2.81	
40 05 23 23-0544	LF		3/4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	30.88	5.73
			For Work In Restricted Working Space, Add	3.44	
40 05 23 23-0545	LF		1" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	38.10	6.77
			For Work In Restricted Working Space, Add	4.03	
40 05 23 23-0546	LF		1-1/4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	47.63	8.34
			For Work In Restricted Working Space, Add	5.04	
40 05 23 23-0547	LF		1-1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	55.04	9.37
			For Work In Restricted Working Space, Add	5.68	
40 05 23 23-0548	LF		2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	70.89	11.98
			For Work In Restricted Working Space, Add	7.04	
40 05 23 23-0549	LF		2-1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	89.00	13.54
			For Work In Restricted Working Space, Add	8.04	
40 05 23 23-0550	LF		3" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	84.93	15.10
			For Work In Restricted Working Space, Add	9.06	
40 05 23 23-0551	LF		4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	146.45	17.71
			For Work In Restricted Working Space, Add	10.72	
40 05 23 23-0552	LF		6" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	231.90	23.44
			For Work In Restricted Working Space, Add	14.08	
40 05 23 23-0553	LF		8" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	409.60	42.96
			For Work In Restricted Working Space, Add	27.75	
40 05 23 23-0554	LF		10" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	524.54	47.48
			For Work In Restricted Working Space, Add	30.52	
40 05 23 23-0555	LF		12" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting	659.17	52.57
			For Work In Restricted Working Space, Add	33.92	
40 05 23 23-0556			Type 304, Schedule 40 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23-0541)		
40 05 23 23-0557	EA		1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow.....	125.14	53.44
			For Work In Restricted Working Space, Add	35.62	
40 05 23 23-0558	EA		3/4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow.....	132.44	56.71
			For Work In Restricted Working Space, Add	37.81	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0559	EA	1", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	145.53 41.55	62.33
40 05 23 23-0560	EA	1-1/4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	158.50 45.29	67.93
40 05 23 23-0561	EA	1-1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	174.96 50.01	75.01
40 05 23 23-0562	EA	2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	197.08 55.64	83.46
40 05 23 23-0563	EA	2-1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	261.50 71.21	106.81
40 05 23 23-0564	EA	3", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	309.05 83.46	125.19
40 05 23 23-0565	EA	4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	383.99 99.89	149.84
40 05 23 23-0566	EA	6", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	625.19 124.79	187.19
40 05 23 23-0567	EA	8", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,051.68 218.03	327.05
40 05 23 23-0568	EA	10", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,646.23 290.70	436.05
40 05 23 23-0569	EA	12", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,412.75 436.05	654.08
40 05 23 23-0570	EA	14", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,866.74 508.73	763.09
40 05 23 23-0571	EA	16", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,427.15 580.30	870.45
40 05 23 23-0572	EA	18", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,419.14 726.76	1,090.14
40 05 23 23-0573	EA	20", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	6,005.95 1,017.46	1,526.19
40 05 23 23-0574	EA	24", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	8,611.23 1,453.52	2,180.27
40 05 23 23-0575 Type 304, Schedule 40 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23-0541)				
40 05 23 23-0576	EA	1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	127.28 35.62	53.44
40 05 23 23-0577	EA	3/4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	134.58 37.81	56.71
40 05 23 23-0578	EA	1", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	147.06 41.55	62.33
40 05 23 23-0579	EA	1-1/4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	160.06 45.29	67.93
40 05 23 23-0580	EA	1-1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	176.48 50.01	75.01
40 05 23 23-0581	EA	2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	197.40 55.64	83.46
40 05 23 23-0582	EA	2-1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	261.50 71.21	106.81
40 05 23 23-0583	EA	3", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	300.50 83.46	125.19
40 05 23 23-0584	EA	4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	388.57 99.89	149.84
40 05 23 23-0585	EA	6", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	521.04 124.79	187.19
40 05 23 23-0586	EA	8", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	942.49 218.03	327.05
40 05 23 23-0587	EA	10", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,373.44 290.70	436.05
40 05 23 23-0588	EA	12", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,010.33 436.05	654.08
40 05 23 23-0589	EA	14", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,278.24 508.73	763.09
40 05 23 23-0590	EA	16", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,726.47 580.30	870.45
40 05 23 23-0591	EA	18", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,441.62 726.76	1,090.14
40 05 23 23-0592	EA	20", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,686.93 1,017.46	1,526.19
40 05 23 23-0593	EA	24", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	6,807.24 1,453.52	2,180.27
40 05 23 23-0594 Type 304, Schedule 40 Stainless Steel Butt Weld Tees (40 05 23 23-0541)				
40 05 23 23-0595	EA	1/2", Type 304, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	168.93 45.27	67.91
40 05 23 23-0596	EA	3/4", Type 304, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	203.27 55.58	83.37
40 05 23 23-0597	EA	1", Type 304, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	226.18 62.45	93.67
40 05 23 23-0598	EA	1-1/4", Type 304, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	259.14 71.21	106.81



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0599 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	272.81 76.44	114.66
40 05 23 23-0600 EA 2", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	297.46 83.37	125.05
40 05 23 23-0601 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	387.96 99.89	149.84
40 05 23 23-0602 EA 3", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	456.70 125.19	187.79
40 05 23 23-0603 EA 4", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	524.84 140.50	210.75
40 05 23 23-0604 EA 6", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	804.66 187.34	281.00
40 05 23 23-0605 EA 8", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	1,423.57 290.70	436.05
40 05 23 23-0606 EA 10", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	2,407.16 436.05	654.08
40 05 23 23-0607 EA 12", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	2,993.52 545.07	817.60
40 05 23 23-0608 EA 14", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	4,049.27 655.02	982.53
40 05 23 23-0609 EA 16", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	5,138.43 799.05	1,198.58
40 05 23 23-0610 EA 18", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	6,655.44 1,017.46	1,526.19
40 05 23 23-0611 EA 20", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	8,595.12 1,338.77	2,008.15
40 05 23 23-0612 EA 24", Type 304, Schedule 40 Stainless Steel Tee..... For Work In Restricted Working Space, Add	13,157.15 2,034.92	3,052.38
40 05 23 23-0613 Type 304, Schedule 40 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0541)		
40 05 23 23-0614 EA 3/4", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	159.99 37.83	56.73
40 05 23 23-0615 EA 1", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	188.40 46.35	69.53
40 05 23 23-0616 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	247.35 52.08	78.12
40 05 23 23-0617 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	241.28 59.37	89.06
40 05 23 23-0618 EA 2", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	246.56 63.80	95.69
40 05 23 23-0619 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	304.16 69.53	104.29
40 05 23 23-0620 EA 3", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	337.97 83.34	125.00
40 05 23 23-0621 EA 4", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	446.76 104.16	156.24
40 05 23 23-0622 EA 6", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	625.78 119.01	178.52
40 05 23 23-0623 EA 8", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	1,072.38 181.69	272.54
40 05 23 23-0624 EA 10", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	2,024.72 242.26	363.38
40 05 23 23-0625 EA 12", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	2,915.35 363.38	545.06
40 05 23 23-0626 EA 14", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	3,324.98 436.56	654.84
40 05 23 23-0627 EA 16", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	4,116.75 532.52	798.77
40 05 23 23-0628 EA 18", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	5,314.72 678.31	1,017.46
40 05 23 23-0629 EA 20", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	7,548.02 892.51	1,338.76
40 05 23 23-0630 EA 24", Type 304, Schedule 40 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	11,801.34 1,355.41	2,033.12
40 05 23 23-0631 Type 304, Schedule 40 Stainless Steel Butt Weld Reducers (40 05 23 23-0541)		
40 05 23 23-0632 EA 3/4", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	128.10 34.40	51.60
40 05 23 23-0633 EA 1", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	140.83 37.49	56.22
40 05 23 23-0634 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	152.95 41.55	62.33
40 05 23 23-0635 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	165.31 45.29	67.93
40 05 23 23-0636 EA 2", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	178.62 50.01	75.01
40 05 23 23-0637 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	238.25 62.50	93.74
40 05 23 23-0638 EA 3", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	258.23 71.15	106.72
40 05 23 23-0639 EA 4", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	298.98 83.37	125.05

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0640 EA 6", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	408.78 106.14	159.21
40 05 23 23-0641 EA 8", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	717.65 174.42	261.63
40 05 23 23-0642 EA 10", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	936.23 218.03	327.05
40 05 23 23-0643 EA 12", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,219.04 290.70	436.05
40 05 23 23-0644 EA 14", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,804.93 361.55	572.32
40 05 23 23-0645 EA 16", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,126.91 434.81	652.21
40 05 23 23-0646 EA 18", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,795.85 545.07	817.60
40 05 23 23-0647 EA 20", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,825.21 726.76	1,090.14
40 05 23 23-0648 EA 24", Type 304, Schedule 40 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	5,295.73 1,090.14	1,635.20
40 05 23 23-0649 EA 3/4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	155.00 34.40	51.60
40 05 23 23-0650 EA 1", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	165.27 37.49	56.22
40 05 23 23-0651 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	189.16 41.55	62.33
40 05 23 23-0652 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	199.82 45.29	67.93
40 05 23 23-0653 EA 2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	213.14 50.01	75.01
40 05 23 23-0654 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	259.02 62.50	93.74
40 05 23 23-0655 EA 3", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	327.57 71.15	106.72
40 05 23 23-0656 EA 4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	356.10 83.37	125.05
40 05 23 23-0657 EA 6", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	488.80 106.14	159.21
40 05 23 23-0658 EA 8", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	790.88 174.42	261.63
40 05 23 23-0659 EA 10", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,083.67 218.03	327.05
40 05 23 23-0660 EA 12", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,480.30 290.70	436.05
40 05 23 23-0661 EA 14", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,445.30 381.55	572.32
40 05 23 23-0662 EA 16", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,773.21 434.81	652.21
40 05 23 23-0663 EA 18", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,631.97 545.07	817.60
40 05 23 23-0664 EA 20", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	4,715.77 726.76	1,090.14
40 05 23 23-0665 EA 24", Type 304, Schedule 40 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	7,518.00 1,090.14	1,635.20
40 05 23 23-0666 Type 304, Schedule 40 Stainless Steel Butt Weld Caps (40 05 23 23-0541)		
40 05 23 23-0667 EA 1/2", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	69.75 17.81	26.72
40 05 23 23-0668 EA 3/4", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	74.92 18.90	28.36
40 05 23 23-0669 EA 1", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	84.22 20.78	31.17
40 05 23 23-0670 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	95.91 22.64	33.96
40 05 23 23-0671 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	102.30 25.01	37.51
40 05 23 23-0672 EA 2", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	105.56 27.82	41.73
40 05 23 23-0673 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	135.57 35.61	53.42
40 05 23 23-0674 EA 3", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	156.52 41.73	62.60
40 05 23 23-0675 EA 4", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	190.93 49.95	74.92
40 05 23 23-0676 EA 6", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	264.82 62.50	93.74
40 05 23 23-0677 EA 8", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	460.70 109.01	163.51
40 05 23 23-0678 EA 10", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	616.45 145.35	218.03
40 05 23 23-0679 EA 12", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	929.62 218.03	327.03
40 05 23 23-0680 EA 14", Type 304, Schedule 40 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	1,066.23 254.36	381.55



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0681 EA 16", Type 304, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	1,256.48 290.15	435.22
40 05 23 23-0682 EA 18", Type 304, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	1,577.92 363.38	545.06
40 05 23 23-0683 EA 20", Type 304, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	2,171.04 508.73	763.09
40 05 23 23-0684 EA 24", Type 304, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	3,242.41 726.76	1,090.13
40 05 23 23-0685 Type 316, Schedule 10 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0686 Type 316, Schedule 10 Stainless Steel Pipe (40 05 23 23-0685)		
40 05 23 23-0687 LF 1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	26.31 2.81	4.69
40 05 23 23-0688 LF 3/4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	31.05 3.44	5.73
40 05 23 23-0689 LF 1" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	42.63 4.03	6.77
40 05 23 23-0690 LF 1-1/4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	51.71 5.04	8.44
40 05 23 23-0691 LF 1-1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	57.31 5.68	9.48
40 05 23 23-0692 LF 2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	70.85 7.04	11.77
40 05 23 23-0693 LF 2-1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	85.76 8.04	13.44
40 05 23 23-0694 LF 3" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	102.44 9.06	15.10
40 05 23 23-0695 LF 4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	130.52 10.72	17.91
40 05 23 23-0696 LF 6" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	194.88 14.08	23.54
40 05 23 23-0697 LF 8" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	319.06 27.75	43.19
40 05 23 23-0698 LF 10" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	420.77 30.52	47.48
40 05 23 23-0699 LF 12" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	510.69 33.92	52.80
40 05 23 23-0700 LF 14" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	637.92 38.15	59.35
40 05 23 23-0701 LF 16" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	698.11 43.61	67.83
40 05 23 23-0702 LF 18" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	776.73 50.87	79.14
40 05 23 23-0703 LF 20" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	1,104.25 61.05	94.97
40 05 23 23-0704 LF 24" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	1,449.00 76.31	118.70
40 05 23 23-0705 Type 316, Schedule 10 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23-0685)		
40 05 23 23-0706 EA 1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	125.45 35.62	53.44
40 05 23 23-0707 EA 3/4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	132.75 37.81	56.71
40 05 23 23-0708 EA 1", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	146.45 41.55	62.33
40 05 23 23-0709 EA 1-1/4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	160.50 45.29	67.93
40 05 23 23-0710 EA 1-1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	176.18 50.01	75.01
40 05 23 23-0711 EA 2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	197.08 55.64	83.46
40 05 23 23-0712 EA 2-1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	257.53 71.21	106.81
40 05 23 23-0713 EA 3", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	303.25 83.46	125.19
40 05 23 23-0714 EA 4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	373.30 99.89	149.84
40 05 23 23-0715 EA 6", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	523.48 124.79	187.19
40 05 23 23-0716 EA 8", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	924.68 218.03	327.05
40 05 23 23-0717 EA 10", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	1,400.79 290.70	436.05
40 05 23 23-0718 EA 12", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	2,101.04 436.05	654.08
40 05 23 23-0719 EA 14", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	2,451.51 508.73	763.09
40 05 23 23-0720 EA 16", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	2,931.82 580.30	870.45

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0721 EA 18", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,692.29 726.76	1,090.14
40 05 23 23-0722 EA 20", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	5,156.05 1,017.46	1,526.19
40 05 23 23-0723 EA 24", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	7,419.30 1,453.52	2,180.27
40 05 23 23-0724 Type 316, Schedule 10 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23-0685)		
40 05 23 23-0725 EA 1 1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	127.28 35.62	53.44
40 05 23 23-0726 EA 3/4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	134.58 37.81	56.71
40 05 23 23-0727 EA 1", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	148.28 41.55	62.33
40 05 23 23-0728 EA 1-1/4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	162.95 45.29	67.93
40 05 23 23-0729 EA 1-1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	176.18 50.01	75.01
40 05 23 23-0730 EA 2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	197.08 55.64	83.46
40 05 23 23-0731 EA 2-1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	255.70 71.21	106.81
40 05 23 23-0732 EA 3", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	300.50 83.46	125.19
40 05 23 23-0733 EA 4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	366.88 99.89	149.84
40 05 23 23-0734 EA 6", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	485.61 124.79	187.19
40 05 23 23-0735 EA 8", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	856.72 218.03	327.05
40 05 23 23-0736 EA 10", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,373.44 290.70	436.05
40 05 23 23-0737 EA 12", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,010.33 436.05	654.08
40 05 23 23-0738 EA 14", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,366.51 508.73	763.09
40 05 23 23-0739 EA 16", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,775.97 580.30	870.45
40 05 23 23-0740 EA 18", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,508.76 726.76	1,090.14
40 05 23 23-0741 EA 20", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,991.14 1,017.46	1,526.19
40 05 23 23-0742 EA 24", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	7,199.66 1,453.52	2,180.27
40 05 23 23-0743 Type 316, Schedule 10 Stainless Steel Butt Weld Tees (40 05 23 23-0685)		
40 05 23 23-0744 EA 1/2", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	171.68 45.27	67.91
40 05 23 23-0745 EA 3/4", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	206.02 55.58	83.37
40 05 23 23-0746 EA 1", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	228.93 62.45	93.67
40 05 23 23-0747 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	263.36 71.21	106.81
40 05 23 23-0748 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	277.39 76.44	114.66
40 05 23 23-0749 EA 2", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	301.12 83.37	125.05
40 05 23 23-0750 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	367.19 99.89	149.84
40 05 23 23-0751 EA 3", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	460.37 125.19	187.79
40 05 23 23-0752 EA 4", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	531.56 140.50	210.75
40 05 23 23-0753 EA 6", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	795.50 187.34	281.00
40 05 23 23-0754 EA 8", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	1,382.98 290.70	436.05
40 05 23 23-0755 EA 10", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	2,163.71 436.05	654.08
40 05 23 23-0756 EA 12", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	2,790.64 545.07	817.60
40 05 23 23-0757 EA 14", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	3,598.08 655.02	982.53
40 05 23 23-0758 EA 16", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	4,239.53 799.05	1,198.58
40 05 23 23-0759 EA 18", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	5,387.85 1,017.46	1,526.19
40 05 23 23-0760 EA 20", Type 316, Schedule 10 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	7,278.15 1,338.77	2,008.15



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0761 EA 24", Type 316, Schedule 10 Stainless Steel Tee..... For Work In Restricted Working Space, Add	10,369.53 2,034.92	3,052.38
40 05 23 23-0762 Type 316, Schedule 10 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0686)		
40 05 23 23-0763 EA 3/4", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	165.49 37.83	56.73
40 05 23 23-0764 EA 1", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	195.73 46.35	69.63
40 05 23 23-0765 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	242.02 52.08	78.12
40 05 23 23-0766 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	244.95 59.37	89.06
40 05 23 23-0767 EA 2", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	259.70 63.80	95.69
40 05 23 23-0768 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	363.39 69.53	104.29
40 05 23 23-0769 EA 3", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	345.30 83.34	125.00
40 05 23 23-0770 EA 4", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	469.36 104.16	156.24
40 05 23 23-0771 EA 6", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	678.62 119.01	178.52
40 05 23 23-0772 EA 8", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	1,366.30 181.69	272.54
40 05 23 23-0773 EA 10", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	2,532.06 242.26	363.38
40 05 23 23-0774 EA 12", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	3,300.96 363.38	545.06
40 05 23 23-0775 EA 14", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	3,748.08 436.56	654.84
40 05 23 23-0776 EA 16", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	4,646.64 532.52	798.77
40 05 23 23-0777 EA 18", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	6,005.71 678.31	1,017.46
40 05 23 23-0778 EA 20", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	8,582.80 892.51	1,338.76
40 05 23 23-0779 EA 24", Type 316, Schedule 10 Stainless Steel Reducing Tee..... For Work In Restricted Working Space, Add	13,449.43 1,355.41	2,033.12
40 05 23 23-0780 Type 316, Schedule 10 Stainless Steel Butt Weld Reducers (40 05 23 23-0685)		
40 05 23 23-0781 EA 3/4", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	127.79 34.40	51.60
40 05 23 23-0782 EA 1", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	141.14 37.49	56.22
40 05 23 23-0783 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	157.61 41.55	62.33
40 05 23 23-0784 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	164.39 45.29	67.93
40 05 23 23-0785 EA 2", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	178.62 50.01	75.01
40 05 23 23-0786 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	236.97 62.50	93.74
40 05 23 23-0787 EA 3", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	276.56 71.15	106.72
40 05 23 23-0788 EA 4", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	301.16 83.37	125.05
40 05 23 23-0789 EA 6", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	421.30 106.14	159.21
40 05 23 23-0790 EA 8", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	681.44 174.42	261.63
40 05 23 23-0791 EA 10", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	883.79 218.03	327.05
40 05 23 23-0792 EA 12", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	1,182.77 290.70	436.05
40 05 23 23-0793 EA 14", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	1,686.05 381.55	572.32
40 05 23 23-0794 EA 16", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	1,959.01 434.81	652.21
40 05 23 23-0795 EA 18", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	2,424.56 545.07	817.60
40 05 23 23-0796 EA 20", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	3,417.54 726.76	1,090.14
40 05 23 23-0797 EA 24", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... For Work In Restricted Working Space, Add	4,967.94 1,090.14	1,635.20
40 05 23 23-0798 EA 3/4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... For Work In Restricted Working Space, Add	151.53 34.40	51.60
40 05 23 23-0799 EA 1", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... For Work In Restricted Working Space, Add	169.33 37.49	56.22
40 05 23 23-0800 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... For Work In Restricted Working Space, Add	191.04 41.55	62.33
40 05 23 23-0801 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... For Work In Restricted Working Space, Add	203.48 45.29	67.93

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0802 EA 2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	202.75 50.01	75.01
40 05 23 23-0803 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	270.32 62.50	93.74
40 05 23 23-0804 EA 3", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	310.77 71.15	106.72
40 05 23 23-0805 EA 4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	347.55 83.37	125.05
40 05 23 23-0806 EA 6", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	501.02 106.14	159.21
40 05 23 23-0807 EA 8", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	854.20 174.42	261.63
40 05 23 23-0808 EA 10", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,181.32 218.03	327.05
40 05 23 23-0809 EA 12", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,491.51 290.70	436.05
40 05 23 23-0810 EA 14", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,271.53 381.55	572.32
40 05 23 23-0811 EA 16", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,666.65 434.81	652.21
40 05 23 23-0812 EA 18", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	3,303.74 545.07	817.60
40 05 23 23-0813 EA 20", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	4,823.63 726.76	1,090.14
40 05 23 23-0814 EA 24", Type 316, Schedule 10 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	6,637.78 1,090.14	1,635.20
40 05 23 23-0815 Type 316, Schedule 10 Stainless Steel Butt Weld Caps (40 05 23 23-0685)		
40 05 23 23-0816 EA 1/2", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	72.81 17.81	26.72
40 05 23 23-0817 EA 3/4", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	81.03 18.90	28.36
40 05 23 23-0818 EA 1", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	88.80 20.78	31.17
40 05 23 23-0819 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	97.13 22.64	33.96
40 05 23 23-0820 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	104.74 25.01	37.51
40 05 23 23-0821 EA 2", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	109.53 27.82	41.73
40 05 23 23-0822 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	136.46 35.61	53.42
40 05 23 23-0823 EA 3", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	161.71 41.73	62.60
40 05 23 23-0824 EA 4", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	193.68 49.95	74.92
40 05 23 23-0825 EA 6", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	253.52 62.50	93.74
40 05 23 23-0826 EA 8", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	444.53 109.01	163.51
40 05 23 23-0827 EA 10", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	589.57 145.35	218.03
40 05 23 23-0828 EA 12", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	867.56 218.03	327.03
40 05 23 23-0829 EA 14", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,008.87 254.36	381.55
40 05 23 23-0830 EA 16", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,160.48 290.15	435.22
40 05 23 23-0831 EA 18", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,463.07 363.38	545.06
40 05 23 23-0832 EA 20", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	2,026.04 508.73	763.09
40 05 23 23-0833 EA 24", Type 316, Schedule 10 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	3,070.00 726.76	1,090.13
40 05 23 23-0834 Type 316, Schedule 40 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0835 Type 316, Schedule 40 Stainless Steel Pipe (40 05 23 23-0834)		
40 05 23 23-0836 LF 1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	30.83 2.81	4.69
40 05 23 23-0837 LF 3/4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	37.38 3.44	5.73
40 05 23 23-0838 LF 1" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	46.35 4.03	6.77
40 05 23 23-0839 LF 1-1/4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	57.94 5.04	8.34
40 05 23 23-0840 LF 1-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	67.13 5.68	9.37
40 05 23 23-0841 LF 2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	86.76 7.04	11.98
40 05 23 23-0842 LF 2-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	109.80 8.04	13.54



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0843 LF 3" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	103.25 9.06	15.10
40 05 23 23-0844 LF 4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	183.49 10.72	17.71
40 05 23 23-0845 LF 6" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	293.77 14.08	23.44
40 05 23 23-0846 LF 8" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	515.68 27.75	42.96
40 05 23 23-0847 LF 10" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	685.98 30.52	47.48
40 05 23 23-0848 LF 12" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting For Work In Restricted Working Space, Add	841.86 33.92	52.57
40 05 23 23-0849 Type 316, Schedule 40 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23-0834)		
40 05 23 23-0850 EA 1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	126.98 35.62	53.44
40 05 23 23-0851 EA 3/4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	134.28 37.81	56.71
40 05 23 23-0852 EA 1", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	147.98 41.55	62.33
40 05 23 23-0853 EA 1-1/4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	161.17 45.29	67.93
40 05 23 23-0854 EA 1-1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	177.71 50.01	75.01
40 05 23 23-0855 EA 2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	200.74 55.64	83.46
40 05 23 23-0856 EA 2-1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	268.83 71.21	106.81
40 05 23 23-0857 EA 3", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	319.13 83.46	125.19
40 05 23 23-0858 EA 4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	408.12 99.89	149.84
40 05 23 23-0859 EA 6", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	645.65 124.79	187.19
40 05 23 23-0860 EA 8", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	1,158.54 218.03	327.05
40 05 23 23-0861 EA 10", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	1,912.08 290.70	436.05
40 05 23 23-0862 EA 12", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	2,719.54 436.05	654.08
40 05 23 23-0863 EA 14", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	3,035.29 508.73	763.09
40 05 23 23-0864 EA 16", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	3,693.96 580.30	870.45
40 05 23 23-0865 EA 18", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	4,720.17 726.76	1,090.14
40 05 23 23-0866 EA 20", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	6,365.01 1,017.46	1,526.19
40 05 23 23-0867 EA 24", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow For Work In Restricted Working Space, Add	9,244.17 1,453.52	2,180.27
40 05 23 23-0868 Type 316, Schedule 40 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23-0834)		
40 05 23 23-0869 EA 1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	130.03 35.62	53.44
40 05 23 23-0870 EA 3/4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	137.33 37.81	56.71
40 05 23 23-0871 EA 1", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	149.81 41.55	62.33
40 05 23 23-0872 EA 1-1/4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	162.06 45.29	67.93
40 05 23 23-0873 EA 1-1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	179.54 50.01	75.01
40 05 23 23-0874 EA 2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	200.74 55.64	83.46
40 05 23 23-0875 EA 2-1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	268.83 71.21	106.81
40 05 23 23-0876 EA 3", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	307.22 83.46	125.19
40 05 23 23-0877 EA 4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	385.51 99.89	149.84
40 05 23 23-0878 EA 6", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	552.80 124.79	187.19
40 05 23 23-0879 EA 8", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	994.95 218.03	327.05
40 05 23 23-0880 EA 10", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	1,535.07 290.70	436.05
40 05 23 23-0881 EA 12", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	2,214.83 436.05	654.08
40 05 23 23-0882 EA 14", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow For Work In Restricted Working Space, Add	2,512.93 508.73	763.09

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0883	EA	16", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,836.98 580.30	870.45
40 05 23 23-0884	EA	18", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,653.29 726.76	1,090.14
40 05 23 23-0885	EA	20", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,957.68 1,017.46	1,526.19
40 05 23 23-0886	EA	24", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	7,364.73 1,453.52	2,180.27
40 05 23 23-0887 Type 316, Schedule 40 Stainless Steel Butt Weld Tees (40 05 23 23-0834)				
40 05 23 23-0888	EA	1/2", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	173.51 45.27	67.91
40 05 23 23-0889	EA	3/4", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	207.85 55.55	83.37
40 05 23 23-0890	EA	1", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	230.76 62.45	93.67
40 05 23 23-0891	EA	1-1/4", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	266.02 71.21	106.81
40 05 23 23-0892	EA	1-1/2", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	277.39 76.44	114.66
40 05 23 23-0893	EA	2", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	302.34 83.37	125.05
40 05 23 23-0894	EA	2-1/2", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	378.07 99.89	149.84
40 05 23 23-0895	EA	3", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	466.17 125.19	187.79
40 05 23 23-0896	EA	4", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	541.64 140.50	210.75
40 05 23 23-0897	EA	6", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	867.28 187.34	281.00
40 05 23 23-0898	EA	8", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	1,567.39 290.70	436.05
40 05 23 23-0899	EA	10", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	2,650.59 436.05	654.08
40 05 23 23-0900	EA	12", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	3,257.41 545.07	817.60
40 05 23 23-0901	EA	14", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	4,696.10 655.02	982.53
40 05 23 23-0902	EA	16", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	5,821.81 799.05	1,198.58
40 05 23 23-0903	EA	18", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	7,544.77 1,017.46	1,526.19
40 05 23 23-0904	EA	20", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	9,798.12 1,338.77	2,008.15
40 05 23 23-0905	EA	24", Type 316, Schedule 40 Stainless Steel Tee..... <i>For Work In Restricted Working Space, Add</i>	14,009.08 2,034.92	3,052.38
40 05 23 23-0906 Type 316, Schedule 40 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0834)				
40 05 23 23-0907	EA	3/4", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	171.29 37.83	56.73
40 05 23 23-0908	EA	1", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	199.70 46.35	69.53
40 05 23 23-0909	EA	1-1/4", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	266.45 52.08	78.12
40 05 23 23-0910	EA	1-1/2", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	254.41 59.37	89.06
40 05 23 23-0911	EA	2", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	259.70 63.80	95.69
40 05 23 23-0912	EA	2-1/2", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	365.22 69.53	104.29
40 05 23 23-0913	EA	3", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	358.43 83.34	125.00
40 05 23 23-0914	EA	4", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	482.50 104.16	156.24
40 05 23 23-0915	EA	6", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	686.87 119.01	178.52
40 05 23 23-0916	EA	8", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	1,204.01 181.69	272.54
40 05 23 23-0917	EA	10", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	2,572.64 242.26	363.38
40 05 23 23-0918	EA	12", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	3,382.11 363.38	545.06
40 05 23 23-0919	EA	14", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	3,837.12 436.56	654.84
40 05 23 23-0920	EA	16", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	4,758.15 532.52	798.77
40 05 23 23-0921	EA	18", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	6,151.13 678.31	1,017.46
40 05 23 23-0922	EA	20", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	8,800.57 892.51	1,338.76
40 05 23 23-0923	EA	24", Type 316, Schedule 40 Stainless Steel Reducing Tee..... <i>For Work In Restricted Working Space, Add</i>	13,796.26 1,355.41	2,033.12



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0924 Type 316, Schedule 40 Stainless Steel Butt Weld Reducers (40 05 23 23-0834)		
40 05 23 23-0925 EA 3/4", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	132.68 34.40	51.60
40 05 23 23-0926 EA 1", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	146.02 37.49	56.22
40 05 23 23-0927 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	159.83 41.55	62.33
40 05 23 23-0928 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	169.89 45.29	67.93
40 05 23 23-0929 EA 2", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	181.98 50.01	75.01
40 05 23 23-0930 EA 2-1/2", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	247.72 62.50	93.74
40 05 23 23-0931 EA 3", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	264.65 71.15	106.72
40 05 23 23-0932 EA 4", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	305.40 83.37	125.05
40 05 23 23-0933 EA 6", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	423.44 106.14	159.21
40 05 23 23-0934 EA 8", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	745.35 174.42	261.63
40 05 23 23-0935 EA 10", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	1,004.19 218.03	327.05
40 05 23 23-0936 EA 12", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	1,269.19 290.70	436.05
40 05 23 23-0937 EA 14", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	1,850.66 381.55	572.32
40 05 23 23-0938 EA 16", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	2,134.21 434.81	652.21
40 05 23 23-0939 EA 18", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	2,862.17 545.07	817.60
40 05 23 23-0940 EA 20", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	3,885.64 726.76	1,090.14
40 05 23 23-0941 EA 24", Type 316, Schedule 40 Stainless Steel Concentric Reducer For Work In Restricted Working Space, Add	5,559.02 1,090.14	1,635.20
40 05 23 23-0942 EA 3/4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	167.19 34.40	51.60
40 05 23 23-0943 EA 1", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	177.48 37.49	56.22
40 05 23 23-0944 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	206.93 41.55	62.33
40 05 23 23-0945 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	212.95 45.29	67.93
40 05 23 23-0946 EA 2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	227.80 50.01	75.01
40 05 23 23-0947 EA 2-1/2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	270.32 62.50	93.74
40 05 23 23-0948 EA 3", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	352.92 71.15	106.72
40 05 23 23-0949 EA 4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	381.15 83.37	125.05
40 05 23 23-0950 EA 6", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	547.75 106.14	159.21
40 05 23 23-0951 EA 8", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	838.37 174.42	261.63
40 05 23 23-0952 EA 10", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	1,208.69 218.03	327.05
40 05 23 23-0953 EA 12", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	1,678.22 290.70	436.05
40 05 23 23-0954 EA 14", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	2,537.88 381.55	572.32
40 05 23 23-0955 EA 16", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	2,925.34 434.81	652.21
40 05 23 23-0956 EA 18", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	3,943.65 545.07	817.60
40 05 23 23-0957 EA 20", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	5,062.28 726.76	1,090.14
40 05 23 23-0958 EA 24", Type 316, Schedule 40 Stainless Steel Eccentric Reducer For Work In Restricted Working Space, Add	7,589.03 1,090.14	1,635.20
40 05 23 23-0959 Type 316, Schedule 40 Stainless Steel Butt Weld Caps (40 05 23 23-0834)		
40 05 23 23-0960 EA 1/2", Type 316, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	73.42 17.81	26.72
40 05 23 23-0961 EA 3/4", Type 316, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	80.73 18.90	28.36
40 05 23 23-0962 EA 1", Type 316, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	89.41 20.78	31.17
40 05 23 23-0963 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	102.79 22.64	33.96
40 05 23 23-0964 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Cap For Work In Restricted Working Space, Add	100.16 25.01	37.51

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0965	EA	2", Type 316, Schedule 40 Stainless Steel Cap.....	113.80	41.73
		<i>For Work In Restricted Working Space, Add</i>	27.82	
40 05 23 23-0966	EA	2-1/2", Type 316, Schedule 40 Stainless Steel Cap	142.01	53.42
		<i>For Work In Restricted Working Space, Add</i>	35.61	
40 05 23 23-0967	EA	3", Type 316, Schedule 40 Stainless Steel Cap.....	162.63	62.60
		<i>For Work In Restricted Working Space, Add</i>	41.73	
40 05 23 23-0968	EA	4", Type 316, Schedule 40 Stainless Steel Cap.....	200.40	74.92
		<i>For Work In Restricted Working Space, Add</i>	49.95	
40 05 23 23-0969	EA	6", Type 316, Schedule 40 Stainless Steel Cap.....	281.62	93.74
		<i>For Work In Restricted Working Space, Add</i>	62.50	
40 05 23 23-0970	EA	8", Type 316, Schedule 40 Stainless Steel Cap.....	497.31	163.51
		<i>For Work In Restricted Working Space, Add</i>	109.01	
40 05 23 23-0971	EA	10", Type 316, Schedule 40 Stainless Steel Cap.....	667.24	218.03
		<i>For Work In Restricted Working Space, Add</i>	145.35	
40 05 23 23-0972	EA	12", Type 316, Schedule 40 Stainless Steel Cap.....	994.60	327.03
		<i>For Work In Restricted Working Space, Add</i>	218.03	
40 05 23 23-0973	EA	14", Type 316, Schedule 40 Stainless Steel Cap.....	1,131.99	381.55
		<i>For Work In Restricted Working Space, Add</i>	254.36	
40 05 23 23-0974	EA	16", Type 316, Schedule 40 Stainless Steel Cap.....	1,270.75	435.22
		<i>For Work In Restricted Working Space, Add</i>	290.15	
40 05 23 23-0975	EA	18", Type 316, Schedule 40 Stainless Steel Cap.....	1,624.54	545.06
		<i>For Work In Restricted Working Space, Add</i>	363.38	
40 05 23 23-0976	EA	20", Type 316, Schedule 40 Stainless Steel Cap.....	2,229.31	763.09
		<i>For Work In Restricted Working Space, Add</i>	508.73	
40 05 23 23-0977	EA	24", Type 316, Schedule 40 Stainless Steel Cap.....	3,465.86	1,090.13
		<i>For Work In Restricted Working Space, Add</i>	726.76	
40 05 23 23-0978		Valves (40 05 23 23-0231)		
40 05 23 23-0979		Gate Valves, Class 150 (40 05 23 23-0978)		
40 05 23 23-0980	EA	1/2" Gate Valve, Stainless Steel, Flanged	699.75	53.50
		<i>For Work In Restricted Working Space, Add</i>	20.06	
		<i>For Class 200, Deduct</i>	-169.29	
		<i>For Class 300, Add</i>	594.90	
40 05 23 23-0981	EA	3/4" Gate Valve, Stainless Steel, Flanged	759.26	55.73
		<i>For Work In Restricted Working Space, Add</i>	23.41	
		<i>For Class 200, Deduct</i>	-182.23	
		<i>For Class 300, Add</i>	640.36	
40 05 23 23-0982	EA	1" Gate Valve, Stainless Steel, Flanged	934.01	83.60
		<i>For Work In Restricted Working Space, Add</i>	31.55	
		<i>For Class 200, Deduct</i>	-221.72	
		<i>For Class 300, Add</i>	779.13	
40 05 23 23-0983	EA	1-1/4" Gate Valve, Stainless Steel, Flanged	1,179.84	97.53
		<i>For Work In Restricted Working Space, Add</i>	36.35	
		<i>For Class 200, Deduct</i>	-283.20	
		<i>For Class 300, Add</i>	995.16	
40 05 23 23-0984	EA	1-1/2" Gate Valve, Stainless Steel, Flanged	1,327.03	122.77
		<i>For Work In Restricted Working Space, Add</i>	46.04	
		<i>For Class 200, Deduct</i>	-313.93	
		<i>For Class 300, Add</i>	1,103.16	
40 05 23 23-0985	EA	2" Gate Valve, Stainless Steel, Flanged	1,574.61	148.59
		<i>For Work In Restricted Working Space, Add</i>	55.73	
		<i>For Class 200, Deduct</i>	-371.51	
		<i>For Class 300, Add</i>	1,305.50	
40 05 23 23-0986	EA	2-1/2" Gate Valve, Stainless Steel, Flanged	2,274.68	161.63
		<i>For Work In Restricted Working Space, Add</i>	60.80	
		<i>For Class 300, Add</i>	1,947.70	
40 05 23 23-0987	EA	3" Gate Valve, Stainless Steel, Flanged	2,560.26	189.50
		<i>For Work In Restricted Working Space, Add</i>	71.15	
		<i>For Class 300, Add</i>	2,183.71	
40 05 23 23-0988	EA	4" Gate Valve, Stainless Steel, Flanged	3,369.89	317.68
		<i>For Work In Restricted Working Space, Add</i>	119.43	
		<i>For Class 300, Add</i>	2,793.49	
40 05 23 23-0989	EA	6" Gate Valve, Stainless Steel, Flanged	5,669.09	401.28
		<i>For Work In Restricted Working Space, Add</i>	151.02	
		<i>For Class 300, Add</i>	4,855.76	
40 05 23 23-0990	EA	8" Gate Valve, Stainless Steel, Flanged	12,458.10	512.74
		<i>For Work In Restricted Working Space, Add</i>	191.08	
		<i>For Class 300, Add</i>	11,111.89	
40 05 23 23-0991	EA	10" Gate Valve, Stainless Steel, Flanged	17,580.51	624.21
		<i>For Work In Restricted Working Space, Add</i>	234.08	
		<i>For Class 300, Add</i>	15,792.24	
40 05 23 23-0992	EA	12" Gate Valve, Stainless Steel, Flanged	26,513.71	757.96
		<i>For Work In Restricted Working Space, Add</i>	283.73	
		<i>For Class 300, Add</i>	24,033.86	
40 05 23 23-0993		Globe Valves, Class 150 (40 05 23 23-0978)		
40 05 23 23-0994	EA	1/2" Globe Valve, Stainless Steel, Flanged	960.90	53.50
		<i>For Work In Restricted Working Space, Add</i>	20.06	
		<i>For Class 200, Deduct</i>	-239.15	
		<i>For Class 300, Add</i>	840.38	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0995	EA	3/4" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 200, Deduct For Class 300, Add	1,062.74 23.41 -263.41 925.63	55.73
40 05 23 23-0996	EA	1" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 200, Deduct For Class 300, Add	1,323.08 31.55 -325.80 1,144.85	83.60
40 05 23 23-0997	EA	1-1/2" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 200, Deduct For Class 300, Add	1,967.40 46.04 -485.23 1,705.10	122.77
40 05 23 23-0998	EA	2" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 200, Deduct For Class 300, Add	2,401.39 55.73 -592.68 2,082.67	148.59
40 05 23 23-0999	EA	2-1/2" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	4,867.11 60.80 4,384.58	161.63
40 05 23 23-1000	EA	3" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	5,031.18 71.15 4,506.38	189.50
40 05 23 23-1001	EA	4" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	5,969.50 119.43 5,237.13	317.68
40 05 23 23-1002	EA	6" Globe Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	11,063.16 151.02 9,926.18	401.28
40 05 23 23-1003		Check Valves, Class 150 (40 05 23 23-0978)		
40 05 23 23-1004	EA	2-1/2" Check Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	2,175.25 60.80 1,854.23	161.63
40 05 23 23-1005	EA	3" Check Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	2,271.26 71.15 1,912.05	189.50
40 05 23 23-1006	EA	4" Check Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	3,563.75 119.43 2,975.72	317.68
40 05 23 23-1007	EA	6" Check Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	6,161.17 151.02 5,318.31	401.28
40 05 23 23-1008	EA	8" Check Valve, Stainless Steel, Flanged For Work In Restricted Working Space, Add For Class 300, Add	10,874.81 191.08 9,623.60	512.74
40 05 23 23-1009		Stainless Steel Thread-O-Let Fittings (40 05 23 23-0231)		
40 05 23 23-1010	EA	1/2", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	87.45 21.58	32.35
40 05 23 23-1011	EA	3/4", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	115.29 28.76	43.14
40 05 23 23-1012	EA	1", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	142.01 35.67	53.50
40 05 23 23-1013	EA	1-1/4", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	204.11 50.48	75.71
40 05 23 23-1014	EA	1-1/2", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	225.59 56.92	85.38
40 05 23 23-1015	EA	2", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	281.85 72.30	108.46
40 05 23 23-1016	EA	2-1/2", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	508.53 111.47	167.20
40 05 23 23-1017	EA	3", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	683.13 142.30	213.45
40 05 23 23-1018	EA	4", Stainless Steel Thread-o-let Fitting For Work In Restricted Working Space, Add	903.35 178.34	267.51
40 05 23 23-1019		Stainless Steel Flanges (40 05 23 23-0231)		
40 05 23 23-1020		150#, Type 304 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1021	EA	1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	78.36 10.79	17.98
40 05 23 23-1022	EA	3/4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	95.05 14.38	23.98
40 05 23 23-1023	EA	1", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	112.22 17.84	29.72
40 05 23 23-1024	EA	1-1/4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	151.02 25.24	42.07
40 05 23 23-1025	EA	1-1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	161.76 28.46	47.43
40 05 23 23-1026	EA	2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange For Work In Restricted Working Space, Add	208.16 36.15	60.24

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1027	EA	2-1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	308.26 55.73	92.85
40 05 23 23-1028	EA	3", 150#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	365.30 71.15	189.50
40 05 23 23-1029	EA	4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	472.48 89.17	148.59
40 05 23 23-1030 300#, Type 304 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)				
40 05 23 23-1031	EA	1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	102.86 10.79	17.98
40 05 23 23-1032	EA	3/4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	114.84 14.38	23.98
40 05 23 23-1033	EA	1", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	126.35 17.84	29.72
40 05 23 23-1034	EA	1-1/4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	186.85 25.24	42.07
40 05 23 23-1035	EA	1-1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	197.59 28.46	47.43
40 05 23 23-1036	EA	2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	244.89 36.15	60.24
40 05 23 23-1037	EA	2-1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	390.24 55.73	92.85
40 05 23 23-1038	EA	3", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	449.14 71.15	189.50
40 05 23 23-1039	EA	4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange..... <i>For Work In Restricted Working Space, Add</i>	601.57 89.17	148.59
40 05 23 23-1040 150#, Type 304 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)				
40 05 23 23-1041	EA	1/2", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	101.77 17.81	26.71
40 05 23 23-1042	EA	3/4", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	110.12 18.90	28.36
40 05 23 23-1043	EA	1", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	123.88 20.78	31.17
40 05 23 23-1044	EA	1-1/4", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	153.76 22.66	33.99
40 05 23 23-1045	EA	1-1/2", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	161.49 24.98	37.47
40 05 23 23-1046	EA	2", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	179.44 27.83	41.74
40 05 23 23-1047	EA	2-1/2", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	249.60 35.58	53.37
40 05 23 23-1048	EA	3", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	282.08 41.66	62.48
40 05 23 23-1049	EA	4", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	366.13 49.91	74.87
40 05 23 23-1050	EA	6", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	552.71 62.37	93.55
40 05 23 23-1051	EA	8", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	947.49 109.01	163.51
40 05 23 23-1052	EA	10", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	1,346.54 145.35	218.02
40 05 23 23-1053	EA	12", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	2,072.08 218.03	327.03
40 05 23 23-1054	EA	14", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	2,596.14 254.36	381.55
40 05 23 23-1055	EA	16", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	3,248.52 290.15	435.22
40 05 23 23-1056	EA	18", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	3,982.62 363.38	545.06
40 05 23 23-1057	EA	20", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	5,148.47 508.73	763.09
40 05 23 23-1058	EA	24", 150#, Type 304 Stainless Steel Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	7,315.30 726.76	1,090.13
40 05 23 23-1059 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)				
40 05 23 23-1060	EA	1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	130.98 17.81	26.71
40 05 23 23-1061	EA	3/4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	134.62 18.90	28.36
40 05 23 23-1062	EA	1" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	140.87 20.78	31.17
40 05 23 23-1063	EA	1-1/4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	186.69 22.66	33.99
40 05 23 23-1064	EA	1-1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	194.42 24.98	37.47
40 05 23 23-1065	EA	2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	207.71 27.83	41.74
40 05 23 23-1066	EA	2-1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	298.56 35.58	53.37



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1067	EA	3" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	336.70 41.66	62.48
40 05 23 23-1068	EA	4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	494.22 49.91	74.87
40 05 23 23-1069	EA	6" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	697.79 62.37	93.55
40 05 23 23-1070	EA	8" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	1,309.25 109.01	163.51
40 05 23 23-1071	EA	10" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	1,824.21 145.35	218.02
40 05 23 23-1072	EA	12" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	2,678.84 218.03	327.03
40 05 23 23-1073	EA	14" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	3,555.30 254.36	381.55
40 05 23 23-1074	EA	16" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	4,395.56 290.15	435.22
40 05 23 23-1075	EA	18" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	5,615.97 363.98	545.06
40 05 23 23-1076	EA	20" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	7,238.27 508.73	763.09
40 05 23 23-1077	EA	24" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	10,542.89 726.76	1,090.13
40 05 23 23-1078		150#, Type 304 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23 23-1079	EA	1/2", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	156.41 35.62	53.43
40 05 23 23-1080	EA	3/4", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	164.67 37.81	56.70
40 05 23 23-1081	EA	1", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	180.92 41.56	62.33
40 05 23 23-1082	EA	1-1/4", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	208.57 45.33	67.98
40 05 23 23-1083	EA	1-1/2", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	224.01 49.96	74.93
40 05 23 23-1084	EA	2", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	259.98 55.65	83.47
40 05 23 23-1085	EA	2-1/2", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	341.81 71.17	106.74
40 05 23 23-1086	EA	3", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	389.87 83.32	124.97
40 05 23 23-1087	EA	4", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	485.42 99.83	149.75
40 05 23 23-1088	EA	6", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	648.49 124.73	187.09
40 05 23 23-1089	EA	8", 150#, Type 304 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,166.75 218.03	327.03
40 05 23 23-1090	EA	10" 150#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,652.04 290.70	436.05
40 05 23 23-1091	EA	12" 150#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	2,462.53 436.05	654.07
40 05 23 23-1092		300#, Type 304 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23 23-1093	EA	1/2" 300#, Type 304 Stainless Steel Raised Neck Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	175.26 35.62	53.43
40 05 23 23-1094	EA	3/4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	182.56 37.81	56.70
40 05 23 23-1095	EA	1" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	195.05 41.56	62.33
40 05 23 23-1096	EA	1-1/4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	237.78 45.33	67.98
40 05 23 23-1097	EA	1-1/2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	253.22 49.96	74.93
40 05 23 23-1098	EA	2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	279.72 55.65	83.47
40 05 23 23-1099	EA	2-1/2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	415.33 71.17	106.74
40 05 23 23-1100	EA	3" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	463.34 83.32	124.97
40 05 23 23-1101	EA	4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	587.15 99.83	149.75
40 05 23 23-1102	EA	6" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	935.84 124.73	187.09
40 05 23 23-1103	EA	8" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,456.90 218.03	327.03
40 05 23 23-1104	EA	10" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	2,119.34 290.70	436.05
40 05 23 23-1105	EA	12" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	3,063.62 436.05	654.07
40 05 23 23-1106		150#, Type 304 Stainless Steel Blind Flanges (40 05 23 23-1019)		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1107 EA 1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	63.96 7.13	10.68
40 05 23 23-1108 EA 3/4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	66.64 7.56	11.33
40 05 23 23-1109 EA 1", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	72.01 8.31	12.46
40 05 23 23-1110 EA 1-1/4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	93.97 9.25	13.87
40 05 23 23-1111 EA 1-1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	104.80 12.50	18.75
40 05 23 23-1112 EA 2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	124.47 13.88	20.81
40 05 23 23-1113 EA 2-1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	170.62 17.84	26.76
40 05 23 23-1114 EA 3", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	205.81 25.00	37.50
40 05 23 23-1115 EA 4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	310.32 41.65	62.47
40 05 23 23-1116 EA 6", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	429.14 53.56	80.34
40 05 23 23-1117 EA 8", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	684.93 67.83	101.74
40 05 23 23-1118 EA 10", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,068.36 81.40	122.10
40 05 23 23-1119 EA 12", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,417.87 101.75	152.62
40 05 23 23-1120 EA 14", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,803.88 127.18	190.78
40 05 23 23-1121 EA 16", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,340.05 145.08	217.61
40 05 23 23-1122 EA 18", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,759.93 181.69	272.54
40 05 23 23-1123 EA 20", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	3,657.40 254.36	381.55
40 05 23 23-1124 EA 24", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	5,331.22 363.38	545.06
40 05 23 23-1125 300#, Type 304 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23 23-1126 EA 1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	83.13 7.13	10.68
40 05 23 23-1127 EA 3/4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	84.58 7.56	11.33
40 05 23 23-1128 EA 1", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	87.09 8.31	12.46
40 05 23 23-1129 EA 1-1/4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	111.86 9.25	13.87
40 05 23 23-1130 EA 1-1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	122.69 12.50	18.75
40 05 23 23-1131 EA 2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	133.90 13.88	20.81
40 05 23 23-1132 EA 2-1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	236.57 17.84	26.76
40 05 23 23-1133 EA 3", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	267.52 25.00	37.50
40 05 23 23-1134 EA 4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	387.55 41.65	62.47
40 05 23 23-1135 EA 6", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	747.56 53.56	80.34
40 05 23 23-1136 EA 8", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,065.53 67.83	101.74
40 05 23 23-1137 EA 10", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,531.85 81.40	122.10
40 05 23 23-1138 EA 12", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,129.17 101.75	152.62
40 05 23 23-1139 EA 14", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,990.24 127.18	190.78
40 05 23 23-1140 EA 16", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	3,837.89 145.08	217.61
40 05 23 23-1141 EA 18", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	5,014.15 181.69	272.54
40 05 23 23-1142 EA 20", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	6,331.89 254.36	381.55
40 05 23 23-1143 EA 24", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	9,730.11 363.38	545.06
40 05 23 23-1144 150#, Type 316 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1145 EA 1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	95.34 10.79	17.98
40 05 23 23-1146 EA 3/4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	116.74 14.38	23.98
40 05 23 23-1147 EA 1", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	132.92 17.84	29.72



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1148	EA	1-1/4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	182.09	42.07	
		For Work In Restricted Working Space, Add	25.24		
40 05 23 23-1149	EA	1-1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	192.83	47.43	
		For Work In Restricted Working Space, Add	28.46		
40 05 23 23-1150	EA	2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	242.08	60.24	
		For Work In Restricted Working Space, Add	36.15		
40 05 23 23-1151	EA	2-1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	357.26	92.85	
		For Work In Restricted Working Space, Add	55.73		
40 05 23 23-1152	EA	3", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	428.44	189.50	
		For Work In Restricted Working Space, Add	71.15		
40 05 23 23-1153	EA	4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange	561.03	148.59	
		For Work In Restricted Working Space, Add	89.17		
40 05 23 23-1154		300#, Type 316 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)			
40 05 23 23-1155	EA	1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	127.36	17.98	
		For Work In Restricted Working Space, Add	10.79		
40 05 23 23-1156	EA	3/4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	139.34	23.98	
		For Work In Restricted Working Space, Add	14.38		
40 05 23 23-1157	EA	1", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	150.85	29.72	
		For Work In Restricted Working Space, Add	17.84		
40 05 23 23-1158	EA	1-1/4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	233.95	42.07	
		For Work In Restricted Working Space, Add	25.24		
40 05 23 23-1159	EA	1-1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	244.69	47.43	
		For Work In Restricted Working Space, Add	28.46		
40 05 23 23-1160	EA	2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	286.33	60.24	
		For Work In Restricted Working Space, Add	36.15		
40 05 23 23-1161	EA	2-1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	483.50	92.85	
		For Work In Restricted Working Space, Add	55.73		
40 05 23 23-1162	EA	3", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	544.30	189.50	
		For Work In Restricted Working Space, Add	71.15		
40 05 23 23-1163	EA	4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange	753.21	148.59	
		For Work In Restricted Working Space, Add	89.17		
40 05 23 23-1164		150#, Type 316 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)			
40 05 23 23-1165	EA	1/2", 150#, Type 316 Stainless Steel Weld Neck Flange	123.41	26.71	
		For Work In Restricted Working Space, Add	17.81		
40 05 23 23-1166	EA	3/4", 150#, Type 316 Stainless Steel Weld Neck Flange	131.81	28.36	
		For Work In Restricted Working Space, Add	18.90		
40 05 23 23-1167	EA	1", 150#, Type 316 Stainless Steel Weld Neck Flange	148.39	31.17	
		For Work In Restricted Working Space, Add	20.78		
40 05 23 23-1168	EA	1-1/4", 150#, Type 316 Stainless Steel Weld Neck Flange	185.79	33.99	
		For Work In Restricted Working Space, Add	22.66		
40 05 23 23-1169	EA	1-1/2", 150#, Type 316 Stainless Steel Weld Neck Flange	193.52	37.47	
		For Work In Restricted Working Space, Add	24.98		
40 05 23 23-1170	EA	2", 150#, Type 316 Stainless Steel Weld Neck Flange	212.42	41.74	
		For Work In Restricted Working Space, Add	27.83		
40 05 23 23-1171	EA	2-1/2", 150#, Type 316 Stainless Steel Weld Neck Flange	305.13	53.37	
		For Work In Restricted Working Space, Add	35.58		
40 05 23 23-1172	EA	3", 150#, Type 316 Stainless Steel Weld Neck Flange	331.99	62.48	
		For Work In Restricted Working Space, Add	41.66		
40 05 23 23-1173	EA	4", 150#, Type 316 Stainless Steel Weld Neck Flange	450.92	74.87	
		For Work In Restricted Working Space, Add	49.91		
40 05 23 23-1174	EA	6", 150#, Type 316 Stainless Steel Weld Neck Flange	699.69	93.55	
		For Work In Restricted Working Space, Add	62.37		
40 05 23 23-1175	EA	8", 150#, Type 316 Stainless Steel Weld Neck Flange	1,174.55	163.51	
		For Work In Restricted Working Space, Add	109.01		
40 05 23 23-1176	EA	10", 150#, Type 316 Stainless Steel Weld Neck Flange	1,725.29	218.02	
		For Work In Restricted Working Space, Add	145.35		
40 05 23 23-1177	EA	12", 150#, Type 316 Stainless Steel Weld Neck Flange	2,572.40	327.03	
		For Work In Restricted Working Space, Add	218.03		
40 05 23 23-1178	EA	14", 150#, Type 316 Stainless Steel Weld Neck Flange	3,010.50	381.55	
		For Work In Restricted Working Space, Add	254.36		
40 05 23 23-1179	EA	16", 150#, Type 316 Stainless Steel Weld Neck Flange	3,789.24	435.22	
		For Work In Restricted Working Space, Add	290.15		
40 05 23 23-1180	EA	18", 150#, Type 316 Stainless Steel Weld Neck Flange	4,639.48	545.06	
		For Work In Restricted Working Space, Add	363.38		
40 05 23 23-1181	EA	20", 150#, Type 316 Stainless Steel Weld Neck Flange	5,966.81	763.09	
		For Work In Restricted Working Space, Add	508.73		
40 05 23 23-1182	EA	24", 150#, Type 316 Stainless Steel Weld Neck Flange	8,474.97	1,090.13	
		For Work In Restricted Working Space, Add	726.76		
40 05 23 23-1183		300#, Type 316 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)			
40 05 23 23-1184	EA	1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange	159.24	26.71	
		For Work In Restricted Working Space, Add	17.81		
40 05 23 23-1185	EA	3/4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange	162.88	28.36	
		For Work In Restricted Working Space, Add	18.90		
40 05 23 23-1186	EA	1" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange	169.13	31.17	
		For Work In Restricted Working Space, Add	20.78		
40 05 23 23-1187	EA	1-1/4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange	225.37	33.99	
		For Work In Restricted Working Space, Add	22.66		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1188	EA	1-1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	233.10 24.98	37.47
40 05 23 23-1189	EA	2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	254.81 27.83	41.74
40 05 23 23-1190	EA	2-1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	379.60 35.58	53.37
40 05 23 23-1191	EA	3" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	413.03 41.66	62.48
40 05 23 23-1192	EA	4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	635.53 49.91	74.87
40 05 23 23-1193	EA	6" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	1,047.32 62.37	93.55
40 05 23 23-1194	EA	8" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	1,666.35 109.01	163.51
40 05 23 23-1195	EA	10" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	2,402.66 145.35	218.02
40 05 23 23-1196	EA	12" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	3,528.60 218.03	327.03
40 05 23 23-1197	EA	14" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	4,791.24 254.36	381.55
40 05 23 23-1198	EA	16" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	5,960.64 290.15	435.22
40 05 23 23-1199	EA	18" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	7,626.75 363.38	545.06
40 05 23 23-1200	EA	20" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	9,768.46 508.73	763.09
40 05 23 23-1201	EA	24" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange..... <i>For Work In Restricted Working Space, Add</i>	14,249.88 726.76	1,090.13
40 05 23 23-1202 150#, Type 316 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)				
40 05 23 23-1203	EA	1/2", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	167.74 35.62	53.43
40 05 23 23-1204	EA	3/4", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	181.65 37.81	56.70
40 05 23 23-1205	EA	1", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	200.38 41.56	62.33
40 05 23 23-1206	EA	1-1/4", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	279.56 45.33	67.98
40 05 23 23-1207	EA	1-1/2", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	246.61 49.96	74.93
40 05 23 23-1208	EA	2", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	265.59 55.65	83.47
40 05 23 23-1209	EA	2-1/2", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	338.06 71.17	106.74
40 05 23 23-1210	EA	3", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	421.89 83.32	124.97
40 05 23 23-1211	EA	4", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	553.23 99.83	149.75
40 05 23 23-1212	EA	6", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	749.27 124.73	187.09
40 05 23 23-1213	EA	8", 150#, Type 316 Stainless Steel Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,374.92 218.03	327.03
40 05 23 23-1214	EA	10" 150#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,936.58 290.70	436.05
40 05 23 23-1215	EA	12" 150#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	2,843.13 436.05	654.07
40 05 23 23-1216 300#, Type 316 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)				
40 05 23 23-1217	EA	1/2" 300#, Type 316 Stainless Steel Raised Neck Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	194.10 35.62	53.43
40 05 23 23-1218	EA	3/4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	201.40 37.81	56.70
40 05 23 23-1219	EA	1" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	213.89 41.56	62.33
40 05 23 23-1220	EA	1-1/4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	274.52 45.33	67.98
40 05 23 23-1221	EA	1-1/2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	289.96 49.96	74.93
40 05 23 23-1222	EA	2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	314.46 55.65	83.47
40 05 23 23-1223	EA	2-1/2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	497.26 71.17	106.74
40 05 23 23-1224	EA	3" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	547.17 83.32	124.97
40 05 23 23-1225	EA	4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	717.14 99.83	149.75
40 05 23 23-1226	EA	6" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,125.21 124.73	187.09
40 05 23 23-1227	EA	8" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	1,651.94 218.03	327.03
40 05 23 23-1228	EA	10" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange..... <i>For Work In Restricted Working Space, Add</i>	2,754.32 290.70	436.05



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1229 EA 12" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange For Work In Restricted Working Space, Add	3,623.23 436.05	654.07
40 05 23 23-1230 150#, Type 316 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23 23-1231 EA 1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	72.76 7.73	10.68
40 05 23 23-1232 EA 3/4", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	82.68 7.56	11.33
40 05 23 23-1233 EA 1", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	93.66 8.31	12.46
40 05 23 23-1234 EA 1-1/4", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	110.91 9.25	13.87
40 05 23 23-1235 EA 1-1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	121.74 12.50	18.75
40 05 23 23-1236 EA 2", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	152.74 13.88	20.81
40 05 23 23-1237 EA 2-1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	214.92 17.84	26.76
40 05 23 23-1238 EA 3", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	254.81 25.00	37.50
40 05 23 23-1239 EA 4", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	393.21 41.65	62.47
40 05 23 23-1240 EA 6", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	561.99 53.56	80.34
40 05 23 23-1241 EA 8", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	1,002.39 67.83	101.74
40 05 23 23-1242 EA 10", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	1,318.97 81.40	122.10
40 05 23 23-1243 EA 12", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	2,140.49 101.75	152.62
40 05 23 23-1244 EA 14", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	2,543.72 127.18	190.78
40 05 23 23-1245 EA 16", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	3,335.38 145.08	217.61
40 05 23 23-1246 EA 18", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	3,914.93 181.69	272.54
40 05 23 23-1247 EA 20", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	5,163.69 254.36	381.55
40 05 23 23-1248 EA 24", 150#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	7,540.09 363.38	545.06
40 05 23 23-1249 300#, Type 316 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23 23-1250 EA 1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	115.15 7.73	10.68
40 05 23 23-1251 EA 3/4", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	116.60 7.56	11.33
40 05 23 23-1252 EA 1", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	119.11 8.31	12.46
40 05 23 23-1253 EA 1-1/4", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	180.66 9.25	13.87
40 05 23 23-1254 EA 1-1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	191.49 12.50	18.75
40 05 23 23-1255 EA 2", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	212.07 13.88	20.81
40 05 23 23-1256 EA 2-1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	357.19 17.84	26.76
40 05 23 23-1257 EA 3", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	390.47 25.00	37.50
40 05 23 23-1258 EA 4", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	594.81 41.65	62.47
40 05 23 23-1259 EA 6", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	1,100.90 53.56	80.34
40 05 23 23-1260 EA 8", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	1,431.10 67.83	101.74
40 05 23 23-1261 EA 10", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	2,594.59 81.40	122.10
40 05 23 23-1262 EA 12", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	3,162.69 101.75	152.62
40 05 23 23-1263 EA 14", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	4,577.67 127.18	190.78
40 05 23 23-1264 EA 16", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	5,912.74 145.08	217.61
40 05 23 23-1265 EA 18", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	7,741.09 181.69	272.54
40 05 23 23-1266 EA 20", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	9,724.11 254.36	381.55
40 05 23 23-1267 EA 24", 300#, Type 316 Stainless Steel Raised Face Blind Flange For Work In Restricted Working Space, Add	14,999.58 363.38	545.06
40 05 23 23-1268 Type 316 Seamless Annealed Tubing (40 05 23 23) Note: For high pressure air (8000 PSIG working pressure).		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 23 23-1269		Type 316 Seamless Annealed Tubing (40 05 23 23-1268)	
40 05 23 23-1270	LF	3/8" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .065 Wall Thickness	24.92
40 05 23 23-1271	LF	1/2" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .083 Wall Thickness	31.68
40 05 23 23-1272	LF	3/4" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .120 Wall Thickness	38.44
40 05 23 23-1273		Type 316 Seamless Annealed Tubing Fittings (40 05 23 23-1268)	
Note: Pressure rating 5000 PSI minimum. Includes front and back ferrules.			
40 05 23 23-1274	EA	3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Connector With Front And Back Ferrules	78.06
40 05 23 23-1275	EA	3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Elbow With Front And Back Ferrules	93.62
40 05 23 23-1276	EA	3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Tee With Front And Back Ferrules	144.37
40 05 23 23-1277	EA	3/8" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	65.16
40 05 23 23-1278	EA	3/8" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	107.50
40 05 23 23-1279	EA	1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Connector With Front And Back Ferrules	79.46
40 05 23 23-1280	EA	1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Elbow With Front And Back Ferrules	101.37
40 05 23 23-1281	EA	1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Branch Tee With Front And Back Ferrules	156.26
40 05 23 23-1282	EA	1/2" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	99.89
40 05 23 23-1283	EA	1/2" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	153.27
40 05 23 23-1284	EA	3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Connector With Front And Back Ferrules	96.06
40 05 23 23-1285	EA	3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Elbow With Front And Back Ferrules	125.34
40 05 23 23-1286	EA	3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Branch Tee With Front And Back Ferrules	208.94
40 05 23 23-1287	EA	3/4" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	173.38
40 05 23 23-1288	EA	3/4" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	212.74
40 05 23 23-1289		Valves For High Pressure Air (5,000 PSIG) (40 05 23 23-1268)	
40 05 23 23-1290		Needle Valves (40 05 23 23-1289)	
40 05 23 23-1291	EA	3/8" Tube Fitting Outside Diameter Stainless Steel With Needle Valve Cartridge	412.97
40 05 23 23-1292	EA	1/2" Tube Fitting Outside Diameter Stainless Steel With Needle Valve Cartridge	660.44
40 05 23 23-1293		Safety Valve (Code Stamped) Work Pressure, 6,000 PSIG (40 05 23 23-1289)	
40 05 23 23-1294	EA	1/4" NPT Inlet, Safety Valve Spring Loaded 316 Stainless Steel Construction	396.77
40 05 23 23-1295		Other Valves Working Pressure 6,000 PSI (40 05 23 23-1289)	
40 05 23 23-1296	EA	1/4" NPT Pressure Reducing Valve Spring Loaded, Stainless Steel Body, 6,000 PSIG	1,674.07
40 05 23 23-1297	EA	1/4" NPT Pressure Gauge, Liquid Filled, 6,000 PSIG, Blow Out Back	413.08
40 05 23 23-1298	EA	Snubber 316 Stainless Steel Body, Rated For Design Pressure With Sinterec Element	75.81

40 05 31 Thermoplastic Process Pipe (40 05)**40 05 31 43 Polypropylene Process Pipe** (40 05 31)**40 05 31 43-0001 Polypropylene (PP) Lined Piping System** (40 05 31 43)**40 05 31 43-0002 Polypropylene (PP) Lined Pipe And Fittings** (40 05 31 43-0001)**40 05 31 43-0003 Pipe** (40 05 31 43-0002)

40 05 31 43-0004	LF	3/4" Polypropylene (PP) Lined Pipe	156.80	2.16
40 05 31 43-0005	LF	1" Polypropylene (PP) Lined Pipe	157.16	2.36
40 05 31 43-0006	LF	1-1/4" Polypropylene (PP) Lined Pipe	214.16	2.57
40 05 31 43-0007	LF	1-1/2" Polypropylene (PP) Lined Pipe	214.25	2.57
40 05 31 43-0008	LF	2" Polypropylene (PP) Lined Pipe	204.44	3.07
40 05 31 43-0009	LF	2-1/2" Polypropylene (PP) Lined Pipe	301.75	3.70
40 05 31 43-0010	LF	3" Polypropylene (PP) Lined Pipe	360.19	4.41
40 05 31 43-0011	LF	4" Polypropylene (PP) Lined Pipe	530.87	6.67
40 05 31 43-0012	LF	6" Polypropylene (PP) Lined Pipe	920.47	8.83
40 05 31 43-0013	LF	8" Polypropylene (PP) Lined Pipe	1,436.27	10.57

40 05 31 43-0014 90 Degree Elbows (40 05 31 43-0002)

40 05 31 43-0015	EA	3/4" 90 Degree Elbow, Polypropylene (PP) Lined	1,220.81	8.83
40 05 31 43-0016	EA	1" 90 Degree Elbow, Polypropylene (PP) Lined	1,226.10	10.98
40 05 31 43-0017	EA	1-1/4" 90 Degree Elbow, Polypropylene (PP) Lined	1,276.48	15.50
40 05 31 43-0018	EA	1-1/2" 90 Degree Elbow, Polypropylene (PP) Lined	1,281.43	17.44
40 05 31 43-0019	EA	2" 90 Degree Elbow, Polypropylene (PP) Lined	1,471.65	22.16
40 05 31 43-0020	EA	2-1/2" 90 Degree Elbow, Polypropylene (PP) Lined	1,855.10	32.83
40 05 31 43-0021	EA	3" 90 Degree Elbow, Polypropylene (PP) Lined	2,237.86	43.20
40 05 31 43-0022	EA	4" 90 Degree Elbow, Polypropylene (PP) Lined	3,339.77	51.30
40 05 31 43-0023	EA	6" 90 Degree Elbow, Polypropylene (PP) Lined	5,242.62	58.59
40 05 31 43-0024	EA	8" 90 Degree Elbow, Polypropylene (PP) Lined	8,246.90	73.87

40 05 31 43-0025 45 Degree Elbows (40 05 31 43-0002)

40 05 31 43-0026	EA	3/4" 45 Degree Elbow, Polypropylene (PP) Lined	1,076.22	8.83
40 05 31 43-0027	EA	1" 45 Degree Elbow, Polypropylene (PP) Lined	1,081.51	10.98
40 05 31 43-0028	EA	1-1/4" 45 Degree Elbow, Polypropylene (PP) Lined	1,220.99	15.50



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 31 43-0029	EA		1-1/2" 45 Degree Elbow, Polypropylene (PP) Lined	1,225.94	17.44
40 05 31 43-0030	EA		2" 45 Degree Elbow, Polypropylene (PP) Lined	1,406.63	22.16
40 05 31 43-0031	EA		2-1/2" 45 Degree Elbow, Polypropylene (PP) Lined	1,875.88	32.83
40 05 31 43-0032	EA		3" 45 Degree Elbow, Polypropylene (PP) Lined	2,338.60	43.20
40 05 31 43-0033	EA		4" 45 Degree Elbow, Polypropylene (PP) Lined	3,081.04	51.30
40 05 31 43-0034	EA		6" 45 Degree Elbow, Polypropylene (PP) Lined	5,428.96	58.59
40 05 31 43-0035	EA		8" 45 Degree Elbow, Polypropylene (PP) Lined	8,324.63	68.44
40 05 31 43-0036			Tees (40 05 31 43-0002)		
40 05 31 43-0037	EA		3/4" Tee, Polypropylene (PP) Lined	1,644.53	13.24
40 05 31 43-0038	EA		1" Tee, Polypropylene (PP) Lined	1,655.09	17.44
40 05 31 43-0039	EA		1-1/4" Tee, Polypropylene (PP) Lined	1,949.12	22.16
40 05 31 43-0040	EA		1-1/2" Tee, Polypropylene (PP) Lined	1,959.85	26.47
40 05 31 43-0041	EA		2" Tee, Polypropylene (PP) Lined	2,235.21	32.83
40 05 31 43-0042	EA		2-1/2" Tee, Polypropylene (PP) Lined	2,616.19	43.20
40 05 31 43-0043	EA		3" Tee, Polypropylene (PP) Lined	2,991.51	51.30
40 05 31 43-0044	EA		4" Tee, Polypropylene (PP) Lined	3,903.70	68.44
40 05 31 43-0045	EA		6" Tee, Polypropylene (PP) Lined	5,332.53	88.24
40 05 31 43-0046	EA		8" Tee, Polypropylene (PP) Lined	10,251.59	109.37
40 05 31 43-0047			Crosses (40 05 31 43-0002)		
40 05 31 43-0048	EA		3/4" Cross, Polypropylene (PP) Lined	2,351.95	17.64
40 05 31 43-0049	EA		1" Cross, Polypropylene (PP) Lined	2,363.21	22.16
40 05 31 43-0050	EA		1-1/4" Cross, Polypropylene (PP) Lined	2,876.70	31.19
40 05 31 43-0051	EA		1-1/2" Cross, Polypropylene (PP) Lined	2,886.05	34.89
40 05 31 43-0052	EA		2" Cross, Polypropylene (PP) Lined	3,253.76	44.33
40 05 31 43-0053	EA		2-1/2" Cross, Polypropylene (PP) Lined	3,747.47	65.67
40 05 31 43-0054	EA		3" Cross, Polypropylene (PP) Lined	4,968.74	86.19
40 05 31 43-0055	EA		4" Cross, Polypropylene (PP) Lined	5,564.93	102.60
40 05 31 43-0056	EA		6" Cross, Polypropylene (PP) Lined	9,855.03	117.38
40 05 31 43-0057	EA		8" Cross, Polypropylene (PP) Lined	12,496.32	136.98
40 05 31 43-0058			Reducers (40 05 31 43-0002)		
40 05 31 43-0059	EA		1" Reducer, Polypropylene (PP) Lined	2,182.42	10.98
40 05 31 43-0060	EA		1-1/4" Reducer, Polypropylene (PP) Lined	2,193.77	15.50
40 05 31 43-0061	EA		1-1/2" Reducer, Polypropylene (PP) Lined	2,198.72	17.44
40 05 31 43-0062	EA		2" Reducer, Polypropylene (PP) Lined	2,586.57	22.16
40 05 31 43-0063	EA		2-1/2" Reducer, Polypropylene (PP) Lined	2,974.78	32.83
40 05 31 43-0064	EA		3" Reducer, Polypropylene (PP) Lined	3,304.44	43.20
40 05 31 43-0065	EA		4" Reducer, Polypropylene (PP) Lined	4,322.68	51.30
40 05 31 43-0066	EA		6" Reducer, Polypropylene (PP) Lined	5,997.07	58.59
40 05 31 43-0067	EA		8" Reducer, Polypropylene (PP) Lined	9,760.32	68.44
40 05 31 43-0068			Unions (40 05 31 43-0002)		
40 05 31 43-0069	EA		3/4" Union, Polypropylene (PP) Lined	1,792.39	13.24
40 05 31 43-0070	EA		1" Union, Polypropylene (PP) Lined	2,054.25	17.44
40 05 31 43-0071	EA		1-1/4" Union, Polypropylene (PP) Lined	4,040.72	22.16
40 05 31 43-0072	EA		1-1/2" Union, Polypropylene (PP) Lined	4,575.67	26.47
40 05 31 43-0073	EA		2" Union, Polypropylene (PP) Lined	6,192.85	32.83
40 05 31 43-0074	EA		2-1/2" Union, Polypropylene (PP) Lined	9,012.04	43.20
40 05 31 43-0075	EA		3" Union, Polypropylene (PP) Lined	11,509.66	51.30
40 05 31 43-0076	EA		4" Union, Polypropylene (PP) Lined	17,885.71	68.44
40 05 31 43-0077	EA		6" Union, Polypropylene (PP) Lined	23,967.13	88.24
40 05 31 43-0078	EA		8" Union, Polypropylene (PP) Lined	39,451.29	109.37
40 05 31 43-0079			Blind Flanges (40 05 31 43-0002)		
40 05 31 43-0080	EA		3/4" Blind Flanges, Polypropylene (PP) Lined	328.69	13.24
40 05 31 43-0081	EA		1" Blind Flange, Polypropylene (PP) Lined	339.25	17.44
40 05 31 43-0082	EA		1-1/4" Blind Flange, Polypropylene (PP) Lined	378.76	22.16
40 05 31 43-0083	EA		1-1/2" Blind Flange, Polypropylene (PP) Lined	389.49	26.47
40 05 31 43-0084	EA		2" Blind Flange, Polypropylene (PP) Lined	442.33	32.83
40 05 31 43-0085	EA		2-1/2" Blind Flange, Polypropylene (PP) Lined	551.38	43.20
40 05 31 43-0086	EA		3" Blind Flange, Polypropylene (PP) Lined	654.78	51.30
40 05 31 43-0087	EA		4" Blind Flange, Polypropylene (PP) Lined	817.61	68.44
40 05 31 43-0088	EA		6" Blind Flange, Polypropylene (PP) Lined	1,255.12	88.24
40 05 31 43-0089	EA		8" Blind Flange, Polypropylene (PP) Lined	1,908.44	109.37
40 05 31 43-0090			Filler Flanges (40 05 31 43-0002)		
40 05 31 43-0091	EA		1" Filler Flange, Polypropylene (PP) Lined	1,290.67	17.44
40 05 31 43-0092	EA		1-1/4" Filler Flange, Polypropylene (PP) Lined	1,616.54	22.16
40 05 31 43-0093	EA		1-1/2" Filler Flange, Polypropylene (PP) Lined	1,802.77	26.47
40 05 31 43-0094	EA		2" Filler Flange, Polypropylene (PP) Lined	2,058.83	32.83
40 05 31 43-0095	EA		2-1/2" Filler Flange, Polypropylene (PP) Lined	2,371.10	43.20
40 05 31 43-0096	EA		3" Filler Flange, Polypropylene (PP) Lined	2,677.71	51.30

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 31 Thermoplastic Process Pipe**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 31 43-0097 EA 4" Filler Flange, Polypropylene (PP) Lined	3,320.87	68.44
40 05 31 43-0098 EA 6" Filler Flange, Polypropylene (PP) Lined	4,552.78	88.24
40 05 31 43-0099 EA 8" Filler Flange, Polypropylene (PP) Lined	6,416.17	109.37
40 05 31 43-0100 Polypropylene (PP) Lined Gate Valves (40 05 31 43-0001)		
40 05 31 43-0101 EA 1" Flanged Gate Valve, Polypropylene (PP) Lined	1,514.25	86.41
40 05 31 43-0102 EA 1-1/4" Flanged Gate Valve, Polypropylene (PP) Lined	1,708.80	97.21
40 05 31 43-0103 EA 1-1/2" Flanged Gate Valve, Polypropylene (PP) Lined	1,925.16	107.74
40 05 31 43-0104 EA 2" Flanged Gate Valve, Polypropylene (PP) Lined	2,289.06	136.77
40 05 31 43-0105 EA 2-1/2" Flanged Gate Valve, Polypropylene (PP) Lined	3,012.11	155.72
40 05 31 43-0106 EA 3" Flanged Gate Valve, Polypropylene (PP) Lined	3,735.17	174.65
40 05 31 43-0107 EA 4" Flanged Gate Valve, Polypropylene (PP) Lined	4,751.36	293.15
40 05 31 43-0108 EA 6" Flanged Gate Valve, Polypropylene (PP) Lined	7,650.85	370.70
40 05 31 43-0109 EA 8" Flanged Gate Valve, Polypropylene (PP) Lined	15,988.05	469.05
40 05 31 43-0110 Polypropylene (PP) Lined Check Valves (40 05 31 43-0001)		
40 05 31 43-0111 EA 1" Flanged Check Valve, Polypropylene (PP) Lined	1,711.47	86.41
40 05 31 43-0112 EA 1-1/4" Flanged Check Valve, Polypropylene (PP) Lined	1,931.42	97.21
40 05 31 43-0113 EA 1-1/2" Flanged Check Valve, Polypropylene (PP) Lined	2,179.65	107.74
40 05 31 43-0114 EA 2" Flanged Check Valve, Polypropylene (PP) Lined	2,586.12	136.77
40 05 31 43-0115 EA 2-1/2" Flanged Check Valve, Polypropylene (PP) Lined	3,407.26	155.72
40 05 31 43-0116 EA 3" Flanged Check Valve, Polypropylene (PP) Lined	4,228.41	174.65
40 05 31 43-0117 EA 4" Flanged Check Valve, Polypropylene (PP) Lined	5,366.35	293.15
40 05 31 43-0118 EA 6" Flanged Check Valve, Polypropylene (PP) Lined	8,658.90	370.70
40 05 31 43-0119 EA 8" Flanged Check Valve, Polypropylene (PP) Lined	18,148.16	469.05
40 05 31 43-0120 Polypropylene (PP) Lined Plug Valves (40 05 31 43-0001)		
40 05 31 43-0121 EA 1" Flanged Plug Valve, Polypropylene (PP) Lined	1,503.26	86.41
40 05 31 43-0122 EA 1-1/4" Flanged Plug Valve, Polypropylene (PP) Lined	1,697.32	97.21
40 05 31 43-0123 EA 1-1/2" Flanged Plug Valve, Polypropylene (PP) Lined	1,913.28	107.74
40 05 31 43-0124 EA 2" Flanged Plug Valve, Polypropylene (PP) Lined	2,272.11	136.77
40 05 31 43-0125 EA 2-1/2" Flanged Plug Valve, Polypropylene (PP) Lined	2,990.65	155.72
40 05 31 43-0126 EA 3" Flanged Plug Valve, Polypropylene (PP) Lined	3,709.20	174.65
40 05 31 43-0127 EA 4" Flanged Plug Valve, Polypropylene (PP) Lined	4,719.11	293.15
40 05 31 43-0128 EA 6" Flanged Plug Valve, Polypropylene (PP) Lined	7,598.34	370.70
40 05 31 43-0129 EA 8" Flanged Plug Valve, Polypropylene (PP) Lined	15,025.87	469.05
40 05 31 53 PVDF Process Pipe (40 05 31)		
40 05 31 53-0001 Polyvinylidene Fluoride (PVDF) Kynar Lined Piping System (40 05 31 53)		
40 05 31 53-0002 Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe And Fittings (40 05 31 53-0001)		
40 05 31 53-0003 Pipe (40 05 31 53-0002)		
40 05 31 53-0004 LF 3/4" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	148.27	2.16
40 05 31 53-0005 LF 1" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	148.63	2.36
40 05 31 53-0006 LF 1-1/4" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	166.83	2.57
40 05 31 53-0007 LF 1-1/2" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	166.92	2.57
40 05 31 53-0008 LF 2" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	183.27	3.07
40 05 31 53-0009 LF 2-1/2" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	236.13	3.70
40 05 31 53-0010 LF 3" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	286.81	4.41
40 05 31 53-0011 LF 4" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	400.52	6.67
40 05 31 53-0012 LF 6" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	647.24	8.83
40 05 31 53-0013 LF 8" Polyvinylidene Fluoride (PVDF) Kynar Lined Pipe	1,013.28	10.57
40 05 31 53-0014 90 Degree Elbows (40 05 31 53-0002)		
40 05 31 53-0015 EA 3/4" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	840.04	8.83
40 05 31 53-0016 EA 1" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	845.33	10.98
40 05 31 53-0017 EA 1-1/4" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,040.68	15.50
40 05 31 53-0018 EA 1-1/2" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,045.63	17.44
40 05 31 53-0019 EA 2" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,239.66	22.16
40 05 31 53-0020 EA 2-1/2" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,485.16	32.83
40 05 31 53-0021 EA 3" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,715.04	43.20
40 05 31 53-0022 EA 4" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,704.46	51.30
40 05 31 53-0023 EA 6" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,401.65	58.59
40 05 31 53-0024 EA 8" 90 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	7,318.92	73.87
40 05 31 53-0025 45 Degree Elbows (40 05 31 53-0002)		
40 05 31 53-0026 EA 3/4" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,011.26	8.83
40 05 31 53-0027 EA 1" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,016.55	10.98
40 05 31 53-0028 EA 1-1/4" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,117.53	15.50
40 05 31 53-0029 EA 1-1/2" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,122.48	17.44
40 05 31 53-0030 EA 2" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,353.17	22.16
40 05 31 53-0031 EA 2-1/2" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,546.72	32.83
40 05 31 53-0032 EA 3" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,955.06	43.20



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 31 53-0033 EA 4" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,825.14	51.30
40 05 31 53-0034 EA 6" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,728.79	58.59
40 05 31 53-0035 EA 8" 45 Degree Elbow, Polyvinylidene Fluoride (PVDF) Kynar Lined	6,247.20	68.44
40 05 31 53-0036 Tees (40 05 31 53-0002)		
40 05 31 53-0037 EA 3/4" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,352.90	13.24
40 05 31 53-0038 EA 1" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,363.46	17.44
40 05 31 53-0039 EA 1-1/4" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,521.43	22.16
40 05 31 53-0040 EA 1-1/2" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,532.16	26.47
40 05 31 53-0041 EA 2" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,854.35	32.83
40 05 31 53-0042 EA 2-1/2" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,387.21	43.20
40 05 31 53-0043 EA 3" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,456.76	51.30
40 05 31 53-0044 EA 4" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,730.93	68.44
40 05 31 53-0045 EA 6" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	5,745.26	88.24
40 05 31 53-0046 EA 8" Tee, Polyvinylidene Fluoride (PVDF) Kynar Lined	8,697.74	109.37
40 05 31 53-0047 Crosses (40 05 31 53-0002)		
40 05 31 53-0048 EA 3/4" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,892.52	17.64
40 05 31 53-0049 EA 1" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,903.79	22.16
40 05 31 53-0050 EA 1-1/4" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,208.49	31.19
40 05 31 53-0051 EA 1-1/2" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,217.83	34.89
40 05 31 53-0052 EA 2" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,740.68	44.33
40 05 31 53-0053 EA 2-1/2" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,125.77	65.67
40 05 31 53-0054 EA 3" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,734.24	86.19
40 05 31 53-0055 EA 4" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	5,712.33	102.60
40 05 31 53-0056 EA 6" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	8,860.90	117.38
40 05 31 53-0057 EA 8" Cross, Polyvinylidene Fluoride (PVDF) Kynar Lined	11,232.70	136.98
40 05 31 53-0058 Reducers (40 05 31 53-0002)		
40 05 31 53-0059 EA 1" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,306.37	10.98
40 05 31 53-0060 EA 1-1/4" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,317.72	15.50
40 05 31 53-0061 EA 1-1/2" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,322.67	17.44
40 05 31 53-0062 EA 2" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,366.76	22.16
40 05 31 53-0063 EA 2-1/2" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,476.15	32.83
40 05 31 53-0064 EA 3" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,763.44	43.20
40 05 31 53-0065 EA 4" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,259.60	51.30
40 05 31 53-0066 EA 6" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,747.29	58.59
40 05 31 53-0067 EA 8" Reducer, Polyvinylidene Fluoride (PVDF) Kynar Lined	5,685.51	68.44
40 05 31 53-0068 Unions (40 05 31 53-0002)		
40 05 31 53-0069 EA 3/4" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,891.50	13.24
40 05 31 53-0070 EA 1" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,167.52	17.44
40 05 31 53-0071 EA 1-1/4" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,265.24	22.16
40 05 31 53-0072 EA 1-1/2" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,829.73	26.47
40 05 31 53-0073 EA 2" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	6,537.12	32.83
40 05 31 53-0074 EA 2-1/2" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	9,513.68	43.20
40 05 31 53-0075 EA 3" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	12,150.86	51.30
40 05 31 53-0076 EA 4" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	18,883.72	68.44
40 05 31 53-0077 EA 6" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	25,304.86	88.24
40 05 31 53-0078 EA 8" Union, Polyvinylidene Fluoride (PVDF) Kynar Lined	41,658.49	109.37
40 05 31 53-0079 Blind Flanges (40 05 31 53-0002)		
40 05 31 53-0080 EA 3/4" Blind Flanges, Polyvinylidene Fluoride (PVDF) Kynar Lined	254.79	13.24
40 05 31 53-0081 EA 1" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	265.35	17.44
40 05 31 53-0082 EA 1-1/4" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	297.93	22.16
40 05 31 53-0083 EA 1-1/2" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	308.66	26.47
40 05 31 53-0084 EA 2" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	352.27	32.83
40 05 31 53-0085 EA 2-1/2" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	440.54	43.20
40 05 31 53-0086 EA 3" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	523.15	51.30
40 05 31 53-0087 EA 4" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	655.96	68.44
40 05 31 53-0088 EA 6" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	996.48	88.24
40 05 31 53-0089 EA 8" Blind Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,499.70	109.37
40 05 31 53-0090 Filler Flanges (40 05 31 53-0002)		
40 05 31 53-0091 EA 1" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	701.81	17.44
40 05 31 53-0092 EA 1-1/4" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	789.81	22.16
40 05 31 53-0093 EA 1-1/2" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	883.68	26.47
40 05 31 53-0094 EA 2" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,079.69	32.83
40 05 31 53-0095 EA 2-1/2" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,341.16	43.20
40 05 31 53-0096 EA 3" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,603.89	51.30
40 05 31 53-0097 EA 4" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,034.60	68.44
40 05 31 53-0098 EA 6" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,555.25	88.24
40 05 31 53-0099 EA 8" Filler Flange, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,972.94	109.37

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 31 Thermoplastic Process Pipe**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 31 53-0100 Polyvinylidene Fluoride (PVDF) Kynar Lined Gate Valves (40 05 31 53-0001)			
40 05 31 53-0101	EA	1" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,593.47 86.41
40 05 31 53-0102	EA	1-1/4" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,798.22 97.21
40 05 31 53-0103	EA	1-1/2" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,029.18 107.74
40 05 31 53-0104	EA	2" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,408.38 136.81
40 05 31 53-0105	EA	2-1/2" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,170.84 155.72
40 05 31 53-0106	EA	3" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,933.30 174.65
40 05 31 53-0107	EA	4" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,998.40 293.15
40 05 31 53-0108	EA	6" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	8,055.78 370.70
40 05 31 53-0109	EA	8" Flanged Gate Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	16,855.76 469.05
40 05 31 53-0110 Polyvinylidene Fluoride (PVDF) Kynar Lined Check Valves (40 05 31 53-0001)			
40 05 31 53-0111	EA	1" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,801.81 86.41
40 05 31 53-0112	EA	1-1/4" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,033.38 97.21
40 05 31 53-0113	EA	1-1/2" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,294.84 107.74
40 05 31 53-0114	EA	2" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,722.18 136.81
40 05 31 53-0115	EA	2-1/2" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,588.25 155.72
40 05 31 53-0116	EA	3" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,454.33 174.65
40 05 31 53-0117	EA	4" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	5,648.03 293.15
40 05 31 53-0118	EA	6" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	9,120.62 370.70
40 05 31 53-0119	EA	8" Flanged Check Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	19,137.56 469.05
40 05 31 53-0120 Polyvinylidene Fluoride (PVDF) Kynar Lined Plug Valves (40 05 31 53-0001)			
40 05 31 53-0121	EA	1" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,581.87 86.41
40 05 31 53-0122	EA	1-1/4" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	1,786.10 97.21
40 05 31 53-0123	EA	1-1/2" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,013.47 107.74
40 05 31 53-0124	EA	2" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	2,390.48 136.81
40 05 31 53-0125	EA	2-1/2" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,148.17 155.72
40 05 31 53-0126	EA	3" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	3,905.86 174.65
40 05 31 53-0127	EA	4" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	4,964.33 293.15
40 05 31 53-0128	EA	6" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	8,000.31 370.70
40 05 31 53-0129	EA	8" Flanged Plug Valve, Polyvinylidene Fluoride (PVDF) Kynar Lined	15,839.37 469.05
40 05 31 56 Polyvinylidene Chloride (PVDC) Process Pipe (40 05 31)			
40 05 31 56-0001 Polyvinylidene Chloride (PVDC) Saran Lined Piping System (40 05 31 56)			
40 05 31 56-0002 Polyvinylidene Chloride (PVDC) Saran Lined Pipe And Fittings (40 05 31 56-0001)			
40 05 31 56-0003 Pipe (40 05 31 56-0002)			
40 05 31 56-0004	LF	3/4" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	100.68 2.16
40 05 31 56-0005	LF	1" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	101.04 2.36
40 05 31 56-0006	LF	1-1/4" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	113.32 2.57
40 05 31 56-0007	LF	1-1/2" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	113.41 2.57
40 05 31 56-0008	LF	2" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	124.74 3.07
40 05 31 56-0009	LF	2-1/2" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	163.12 3.70
40 05 31 56-0010	LF	3" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	194.89 4.41
40 05 31 56-0011	LF	4" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	272.53 6.67
40 05 31 56-0012	LF	6" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	438.85 8.83
40 05 31 56-0013	LF	8" Polyvinylidene Chloride (PVDC) Saran Lined Pipe	684.29 10.57
40 05 31 56-0014 90 Degree Elbows (40 05 31 56-0002)			
40 05 31 56-0015	EA	3/4" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	733.33 8.83
40 05 31 56-0016	EA	1" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	738.62 10.98
40 05 31 56-0017	EA	1-1/4" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	909.96 15.50
40 05 31 56-0018	EA	1-1/2" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	914.91 17.44
40 05 31 56-0019	EA	2" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,085.22 22.16
40 05 31 56-0020	EA	2-1/2" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,302.12 32.83
40 05 31 56-0021	EA	3" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,505.40 43.20
40 05 31 56-0022	EA	4" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	2,368.45 51.30
40 05 31 56-0023	EA	6" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	3,846.61 58.59
40 05 31 56-0024	EA	8" 90 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	6,388.33 73.87
40 05 31 56-0025 45 Degree Elbows (40 05 31 56-0002)			
40 05 31 56-0026	EA	3/4" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	882.23 8.83
40 05 31 56-0027	EA	1" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	887.52 10.98
40 05 31 56-0028	EA	1-1/4" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	976.83 15.50
40 05 31 56-0029	EA	1-1/2" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	981.78 17.44
40 05 31 56-0030	EA	2" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,183.87 22.16
40 05 31 56-0031	EA	2-1/2" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,355.70 32.83
40 05 31 56-0032	EA	3" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	1,714.08 43.20
40 05 31 56-0033	EA	4" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	2,473.38 51.30
40 05 31 56-0034	EA	6" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	4,131.11 58.59
40 05 31 56-0035	EA	8" 45 Degree Elbow, Polyvinylidene Chloride (PVDC) Saran Lined	5,454.65 68.44



MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 31 56-0036	Tees (40 05 31 56-0002)		
40 05 31 56-0037	EA 3/4" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	1,182.42	13.24
40 05 31 56-0038	EA 1" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	1,191.28	17.44
40 05 31 56-0039	EA 1-1/4" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	1,330.19	22.16
40 05 31 56-0040	EA 1-1/2" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	1,340.92	26.47
40 05 31 56-0041	EA 2" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	1,623.20	32.83
40 05 31 56-0042	EA 2-1/2" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	2,089.92	43.20
40 05 31 56-0043	EA 3" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	2,153.04	51.30
40 05 31 56-0044	EA 4" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	3,266.56	68.44
40 05 31 56-0045	EA 6" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	5,024.61	88.24
40 05 31 56-0046	EA 8" Tee, Polyvinylidene Chloride (PVDC) Saran Lined	7,598.89	109.37
40 05 31 56-0047	Crosses (40 05 31 56-0002)		
40 05 31 56-0048	EA 3/4" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	1,651.39	17.64
40 05 31 56-0049	EA 1" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	1,662.66	22.16
40 05 31 56-0050	EA 1-1/4" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	1,930.56	31.19
40 05 31 56-0051	EA 1-1/2" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	1,939.90	34.89
40 05 31 56-0052	EA 2" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	2,397.65	44.33
40 05 31 56-0053	EA 2-1/2" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	2,739.43	65.67
40 05 31 56-0054	EA 3" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	3,275.27	86.19
40 05 31 56-0055	EA 4" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	5,000.71	102.60
40 05 31 56-0056	EA 6" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	7,743.43	117.38
40 05 31 56-0057	EA 8" Cross, Polyvinylidene Chloride (PVDC) Saran Lined	16,306.62	136.98
40 05 31 56-0058	Reducers (40 05 31 56-0002)		
40 05 31 56-0059	EA 1" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,083.94	10.98
40 05 31 56-0060	EA 1-1/4" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,150.86	15.50
40 05 31 56-0061	EA 1-1/2" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,155.81	17.44
40 05 31 56-0062	EA 2" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,195.69	22.16
40 05 31 56-0063	EA 2-1/2" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,476.15	32.83
40 05 31 56-0064	EA 3" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,547.52	43.20
40 05 31 56-0065	EA 4" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	1,981.60	51.30
40 05 31 56-0066	EA 6" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	3,277.60	58.59
40 05 31 56-0067	EA 8" Reducer, Polyvinylidene Chloride (PVDC) Saran Lined	4,966.19	68.44
40 05 31 56-0068	Unions (40 05 31 56-0002)		
40 05 31 56-0069	EA 3/4" Union, Polyvinylidene Chloride (PVDC) Saran Lined	1,643.71	13.24
40 05 31 56-0070	EA 1" Union, Polyvinylidene Chloride (PVDC) Saran Lined	1,884.34	17.44
40 05 31 56-0071	EA 1-1/4" Union, Polyvinylidene Chloride (PVDC) Saran Lined	3,703.93	22.16
40 05 31 56-0072	EA 1-1/2" Union, Polyvinylidene Chloride (PVDC) Saran Lined	4,194.59	26.47
40 05 31 56-0073	EA 2" Union, Polyvinylidene Chloride (PVDC) Saran Lined	5,676.45	32.83
40 05 31 56-0074	EA 2-1/2" Union, Polyvinylidene Chloride (PVDC) Saran Lined	8,259.59	43.20
40 05 31 56-0075	EA 3" Union, Polyvinylidene Chloride (PVDC) Saran Lined	10,547.85	51.30
40 05 31 56-0076	EA 4" Union, Polyvinylidene Chloride (PVDC) Saran Lined	16,388.70	68.44
40 05 31 56-0077	EA 6" Union, Polyvinylidene Chloride (PVDC) Saran Lined	21,960.29	88.24
40 05 31 56-0078	EA 8" Union, Polyvinylidene Chloride (PVDC) Saran Lined	36,140.49	109.37
40 05 31 56-0079	Blind Flanges (40 05 31 56-0002)		
40 05 31 56-0080	EA 3/4" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	225.23	13.24
40 05 31 56-0081	EA 1" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	235.79	17.44
40 05 31 56-0082	EA 1-1/4" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	265.60	22.16
40 05 31 56-0083	EA 1-1/2" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	276.33	26.47
40 05 31 56-0084	EA 2" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	316.24	32.83
40 05 31 56-0085	EA 2-1/2" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	396.20	43.20
40 05 31 56-0086	EA 3" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	470.50	51.30
40 05 31 56-0087	EA 4" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	591.30	68.44
40 05 31 56-0088	EA 6" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	893.02	88.24
40 05 31 56-0089	EA 8" Blind Flange, Polyvinylidene Chloride (PVDC) Saran Lined	1,336.20	109.37
40 05 31 56-0090	Filler Flanges (40 05 31 56-0002)		
40 05 31 56-0091	EA 1" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	614.05	17.44
40 05 31 56-0092	EA 1-1/4" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	691.90	22.16
40 05 31 56-0093	EA 1-1/2" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	774.68	26.47
40 05 31 56-0094	EA 2" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	946.68	32.83
40 05 31 56-0095	EA 2-1/2" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	1,176.74	43.20
40 05 31 56-0096	EA 3" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	1,407.14	51.30
40 05 31 56-0097	EA 4" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	1,786.12	68.44
40 05 31 56-0098	EA 6" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	2,243.96	88.24
40 05 31 56-0099	EA 8" Filler Flange, Polyvinylidene Chloride (PVDC) Saran Lined	3,479.68	109.37
40 05 31 56-0100	Polyvinylidene Chloride (PVDC) Saran Lined Gate Valves (40 05 31 56-0001)		
40 05 31 56-0101	EA 1" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,395.41	86.41

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 31 Thermoplastic Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 31 56-0102	EA		1-1/4" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,574.66	97.21
40 05 31 56-0103	EA		1-1/2" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,776.63	107.74
40 05 31 56-0104	EA		2" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,110.07	136.81
40 05 31 56-0105	EA		2-1/2" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,774.02	155.72
40 05 31 56-0106	EA		3" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	3,437.97	174.65
40 05 31 56-0107	EA		4" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	4,380.80	293.15
40 05 31 56-0108	EA		6" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	7,043.46	370.70
40 05 31 56-0109	EA		8" Flanged Gate Valve, Polyvinylidene Chloride (PVDC) Saran Lined	14,686.50	469.05
40 05 31 56-0110			Polyvinylidene Chloride (PVDC) Saran Lined Check Valves (40 05 31 56-0001)		
40 05 31 56-0111	EA		1" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,575.97	86.41
40 05 31 56-0112	EA		1-1/4" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,778.47	97.21
40 05 31 56-0113	EA		1-1/2" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,006.86	107.74
40 05 31 56-0114	EA		2" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,382.02	136.81
40 05 31 56-0115	EA		2-1/2" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	3,135.77	155.72
40 05 31 56-0116	EA		3" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	3,889.53	174.65
40 05 31 56-0117	EA		4" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	4,943.82	293.15
40 05 31 56-0118	EA		6" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	7,966.32	370.70
40 05 31 56-0119	EA		8" Flanged Check Valve, Polyvinylidene Chloride (PVDC) Saran Lined	16,664.06	469.05
40 05 31 56-0120			Polyvinylidene Chloride (PVDC) Saran Lined Plug Valves (40 05 31 56-0001)		
40 05 31 56-0121	EA		1" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,385.35	86.41
40 05 31 56-0122	EA		1-1/4" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,564.16	97.21
40 05 31 56-0123	EA		1-1/2" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	1,763.01	107.74
40 05 31 56-0124	EA		2" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,094.55	136.81
40 05 31 56-0125	EA		2-1/2" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	2,754.37	155.72
40 05 31 56-0126	EA		3" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	3,414.19	174.65
40 05 31 56-0127	EA		4" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	4,351.28	293.15
40 05 31 56-0128	EA		6" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	6,995.39	370.70
40 05 31 56-0129	EA		8" Flanged Plug Valve, Polyvinylidene Chloride (PVDC) Saran Lined	13,805.63	469.05
40 05 38 PTFE Process Pipe (40 05)					
40 05 38 00-0001			Polytetrafluoroethylene (PTFE) Lined Piping System (40 05 38)		
40 05 38 00-0002			Polytetrafluoroethylene (PTFE) Lined Pipe And Fittings (40 05 38 00-0001)		
40 05 38 00-0003			Polytetrafluoroethylene (PTFE) Lined Pipe (40 05 38 00-0002)		
40 05 38 00-0004	LF		3/4" Polytetrafluoroethylene (PTFE) Lined Pipe	294.99	2.16
40 05 38 00-0005	LF		1" Polytetrafluoroethylene (PTFE) Lined Pipe	443.15	2.36
40 05 38 00-0006	LF		1-1/4" Polytetrafluoroethylene (PTFE) Lined Pipe	495.15	2.57
40 05 38 00-0007	LF		1-1/2" Polytetrafluoroethylene (PTFE) Lined Pipe	546.78	2.57
40 05 38 00-0008	LF		2" Polytetrafluoroethylene (PTFE) Lined Pipe	597.99	3.07
40 05 38 00-0009	LF		2-1/2" Polytetrafluoroethylene (PTFE) Lined Pipe	790.03	3.70
40 05 38 00-0010	LF		3" Polytetrafluoroethylene (PTFE) Lined Pipe	949.34	4.41
40 05 38 00-0011	LF		4" Polytetrafluoroethylene (PTFE) Lined Pipe	1,367.76	6.67
40 05 38 00-0012	LF		6" Polytetrafluoroethylene (PTFE) Lined Pipe	2,571.52	8.83
40 05 38 00-0013	LF		8" Polytetrafluoroethylene (PTFE) Lined Pipe	4,607.93	10.57
40 05 38 00-0014			90 Degree Elbows (40 05 38 00-0002)		
40 05 38 00-0015	EA		3/4" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,008.05	8.83
40 05 38 00-0016	EA		1" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,013.34	10.98
40 05 38 00-0017	EA		1-1/4" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,089.35	15.50
40 05 38 00-0018	EA		1-1/2" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,094.30	17.44
40 05 38 00-0019	EA		2" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,401.69	22.16
40 05 38 00-0020	EA		2-1/2" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	3,019.49	32.83
40 05 38 00-0021	EA		3" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	3,636.59	43.20
40 05 38 00-0022	EA		4" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	5,448.85	51.30
40 05 38 00-0023	EA		6" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	8,589.33	58.59
40 05 38 00-0024	EA		8" 90 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	13,541.57	73.87
40 05 38 00-0025			45 Degree Elbows (40 05 38 00-0002)		
40 05 38 00-0026	EA		3/4" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	1,693.99	8.83
40 05 38 00-0027	EA		1" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	1,699.28	10.98
40 05 38 00-0028	EA		1-1/4" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	1,913.85	15.50
40 05 38 00-0029	EA		1-1/2" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	1,918.80	17.44
40 05 38 00-0030	EA		2" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,198.48	22.16
40 05 38 00-0031	EA		2-1/2" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	2,927.12	32.83
40 05 38 00-0032	EA		3" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	3,645.82	43.20
40 05 38 00-0033	EA		4" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	4,811.49	51.30
40 05 38 00-0034	EA		6" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	8,524.67	58.59
40 05 38 00-0035	EA		8" 45 Degree Elbow, Polytetrafluoroethylene (PTFE) Lined	13,103.01	68.44
40 05 38 00-0036			Tees (40 05 38 00-0002)		



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 38 00-0037	EA		3/4" Tee, Polytetrafluoroethylene (PTFE) Lined	3,303.05	13.24
40 05 38 00-0038	EA		1" Tee, Polytetrafluoroethylene (PTFE) Lined	3,313.61	17.44
40 05 38 00-0039	EA		1-1/4" Tee, Polytetrafluoroethylene (PTFE) Lined	3,898.11	22.16
40 05 38 00-0040	EA		1-1/2" Tee, Polytetrafluoroethylene (PTFE) Lined	3,908.84	26.47
40 05 38 00-0041	EA		2" Tee, Polytetrafluoroethylene (PTFE) Lined	4,451.25	32.83
40 05 38 00-0042	EA		2-1/2" Tee, Polytetrafluoroethylene (PTFE) Lined	5,197.66	43.20
40 05 38 00-0043	EA		3" Tee, Polytetrafluoroethylene (PTFE) Lined	5,938.42	51.30
40 05 38 00-0044	EA		4" Tee, Polytetrafluoroethylene (PTFE) Lined	7,745.46	68.44
40 05 38 00-0045	EA		6" Tee, Polytetrafluoroethylene (PTFE) Lined	10,593.87	88.24
40 05 38 00-0046	EA		8" Tee, Polytetrafluoroethylene (PTFE) Lined	20,521.28	109.37
40 05 38 00-0047			Crosses (40 05 38 00-0002)		
40 05 38 00-0048	EA		3/4" Cross, Polytetrafluoroethylene (PTFE) Lined	4,690.42	17.64
40 05 38 00-0049	EA		1" Cross, Polytetrafluoroethylene (PTFE) Lined	4,701.68	22.16
40 05 38 00-0050	EA		1-1/4" Cross, Polytetrafluoroethylene (PTFE) Lined	5,712.63	31.19
40 05 38 00-0051	EA		1-1/2" Cross, Polytetrafluoroethylene (PTFE) Lined	5,721.98	34.89
40 05 38 00-0052	EA		2" Cross, Polytetrafluoroethylene (PTFE) Lined	6,438.36	44.33
40 05 38 00-0053	EA		2-1/2" Cross, Polytetrafluoroethylene (PTFE) Lined	7,378.38	65.67
40 05 38 00-0054	EA		3" Cross, Polytetrafluoroethylene (PTFE) Lined	9,785.16	86.19
40 05 38 00-0055	EA		4" Cross, Polytetrafluoroethylene (PTFE) Lined	10,943.88	102.60
40 05 38 00-0056	EA		6" Cross, Polytetrafluoroethylene (PTFE) Lined	19,543.66	117.38
40 05 38 00-0057	EA		8" Cross, Polytetrafluoroethylene (PTFE) Lined	24,811.66	136.98
40 05 38 00-0058			Reducers (40 05 38 00-0002)		
40 05 38 00-0059	EA		1" Reducer, Polytetrafluoroethylene (PTFE) Lined	2,780.03	10.98
40 05 38 00-0060	EA		1-1/4" Reducer, Polytetrafluoroethylene (PTFE) Lined	2,791.38	15.50
40 05 38 00-0061	EA		1-1/2" Reducer, Polytetrafluoroethylene (PTFE) Lined	2,796.33	17.44
40 05 38 00-0062	EA		2" Reducer, Polytetrafluoroethylene (PTFE) Lined	3,288.46	22.16
40 05 38 00-0063	EA		2-1/2" Reducer, Polytetrafluoroethylene (PTFE) Lined	3,776.94	32.83
40 05 38 00-0064	EA		3" Reducer, Polytetrafluoroethylene (PTFE) Lined	4,190.82	43.20
40 05 38 00-0065	EA		4" Reducer, Polytetrafluoroethylene (PTFE) Lined	5,485.80	51.30
40 05 38 00-0066	EA		6" Reducer, Polytetrafluoroethylene (PTFE) Lined	7,619.43	58.59
40 05 38 00-0067	EA		8" Reducer, Polytetrafluoroethylene (PTFE) Lined	12,419.46	68.44
40 05 38 00-0068			Unions (40 05 38 00-0002)		
40 05 38 00-0069	EA		3/4" Union, Polytetrafluoroethylene (PTFE) Lined	2,510.97	13.24
40 05 38 00-0070	EA		1" Union, Polytetrafluoroethylene (PTFE) Lined	2,875.48	17.44
40 05 38 00-0071	EA		1-1/4" Union, Polytetrafluoroethylene (PTFE) Lined	5,668.50	22.16
40 05 38 00-0072	EA		1-1/2" Union, Polytetrafluoroethylene (PTFE) Lined	6,417.57	26.47
40 05 38 00-0073	EA		2" Union, Polytetrafluoroethylene (PTFE) Lined	8,688.80	32.83
40 05 38 00-0074	EA		2-1/2" Union, Polytetrafluoroethylene (PTFE) Lined	12,648.91	43.20
40 05 38 00-0075	EA		3" Union, Polytetrafluoroethylene (PTFE) Lined	16,158.40	51.30
40 05 38 00-0076	EA		4" Union, Polytetrafluoroethylene (PTFE) Lined	25,121.29	68.44
40 05 38 00-0077	EA		6" Union, Polytetrafluoroethylene (PTFE) Lined	33,666.40	88.24
40 05 38 00-0078	EA		8" Union, Polytetrafluoroethylene (PTFE) Lined	55,453.50	109.37
40 05 38 00-0079			Blind Flanges (40 05 38 00-0002)		
40 05 38 00-0080	EA		3/4" Blind Flanges, Polytetrafluoroethylene (PTFE) Lined	328.69	13.24
40 05 38 00-0081	EA		1" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	339.25	17.44
40 05 38 00-0082	EA		1-1/4" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	378.76	22.16
40 05 38 00-0083	EA		1-1/2" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	389.49	26.47
40 05 38 00-0084	EA		2" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	442.33	32.83
40 05 38 00-0085	EA		2-1/2" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	551.38	43.20
40 05 38 00-0086	EA		3" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	654.78	51.30
40 05 38 00-0087	EA		4" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	817.61	68.44
40 05 38 00-0088	EA		6" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	1,255.12	88.24
40 05 38 00-0089	EA		8" Blind Flange, Polytetrafluoroethylene (PTFE) Lined	1,908.44	109.37
40 05 38 00-0090			Filler Flanges (40 05 38 00-0002)		
40 05 38 00-0091	EA		1" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	921.19	17.44
40 05 38 00-0092	EA		1-1/4" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	1,034.60	22.16
40 05 38 00-0093	EA		1-1/2" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	1,156.17	26.47
40 05 38 00-0094	EA		2" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	1,412.23	32.83
40 05 38 00-0095	EA		2-1/2" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	1,752.21	43.20
40 05 38 00-0096	EA		3" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	2,095.77	51.30
40 05 38 00-0097	EA		4" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	2,655.80	68.44
40 05 38 00-0098	EA		6" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	3,333.48	88.24
40 05 38 00-0099	EA		8" Filler Flange, Polytetrafluoroethylene (PTFE) Lined	5,206.10	109.37
40 05 38 00-0100			Polytetrafluoroethylene (PTFE) Lined Gate Valves (40 05 38 00-0001)		
40 05 38 00-0101	EA		1" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined	2,088.63	86.41
40 05 38 00-0102	EA		1-1/4" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined	2,357.13	97.21
40 05 38 00-0103	EA		1-1/2" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined	2,660.57	107.74
40 05 38 00-0104	EA		2" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined	3,154.18	136.81

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 38 PTFE Process Pipe**

MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 38 00-0105	EA	2-1/2" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined.....	4,162.90	155.72
40 05 38 00-0106	EA	3" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined.....	5,171.63	174.65
40 05 38 00-0107	EA	4" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined.....	6,542.38	293.15
40 05 38 00-0108	EA	6" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined.....	10,586.58	370.70
40 05 38 00-0109	EA	8" Flanged Gate Valve, Polytetrafluoroethylene (PTFE) Lined.....	22,278.90	469.05
40 05 38 00-0110 Polytetrafluoroethylene (PTFE) Lined Check Valves (40 05 38 00-0001)				
40 05 38 00-0111	EA	1" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	2,366.41	86.41
40 05 38 00-0112	EA	1-1/4" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	2,670.68	97.21
40 05 38 00-0113	EA	1-1/2" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	3,014.79	107.74
40 05 38 00-0114	EA	2" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	3,572.57	136.81
40 05 38 00-0115	EA	2-1/2" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	4,719.45	155.72
40 05 38 00-0116	EA	3" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	5,866.33	174.65
40 05 38 00-0117	EA	4" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	7,409.56	293.15
40 05 38 00-0118	EA	6" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	12,006.37	370.70
40 05 38 00-0119	EA	8" Flanged Check Valve, Polytetrafluoroethylene (PTFE) Lined.....	25,321.31	469.05
40 05 38 00-0120 Polytetrafluoroethylene (PTFE) Lined Plug Valves (40 05 38 00-0001)				
40 05 38 00-0121	EA	1" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	2,073.15	86.41
40 05 38 00-0122	EA	1-1/4" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	2,340.97	97.21
40 05 38 00-0123	EA	1-1/2" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	2,639.62	107.74
40 05 38 00-0124	EA	2" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	3,130.30	136.81
40 05 38 00-0125	EA	2-1/2" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	4,132.68	155.72
40 05 38 00-0126	EA	3" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	5,135.05	174.65
40 05 38 00-0127	EA	4" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	6,496.96	293.15
40 05 38 00-0128	EA	6" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	10,512.63	370.70
40 05 38 00-0129	EA	8" Flanged Plug Valve, Polytetrafluoroethylene (PTFE) Lined.....	20,923.72	469.05
40 05 41 Glass Process Pipe (40 05)				
40 05 41 00-0001 Glass Pressure Pipe (40 05 41)				
40 05 41 00-0002 Glass Pipe, Beaded Joints (40 05 41 00-0001)				
40 05 41 00-0003	LF	1/2" Glass Pipe, Pressure.....	50.23	15.39
		For Work In Restricted Working Space, Add.....	9.23	
40 05 41 00-0004	LF	3/4" Glass Pipe, Pressure.....	60.28	18.47
		For Work In Restricted Working Space, Add.....	11.08	
40 05 41 00-0005	LF	1" Glass Pipe, Pressure.....	71.39	20.52
		For Work In Restricted Working Space, Add.....	12.31	
40 05 41 00-0006	LF	1-1/2" Glass Pipe, Pressure.....	93.44	27.70
		For Work In Restricted Working Space, Add.....	16.62	
40 05 41 00-0007	LF	2" Glass Pipe, Pressure.....	115.99	32.83
		For Work In Restricted Working Space, Add.....	19.70	
40 05 41 00-0008	LF	3" Glass Pipe, Pressure.....	147.78	37.97
		For Work In Restricted Working Space, Add.....	22.78	
40 05 41 00-0009	LF	4" Glass Pipe, Pressure.....	203.24	51.30
		For Work In Restricted Working Space, Add.....	30.78	
40 05 41 00-0010	LF	6" Glass Pipe, Pressure.....	303.66	61.56
		For Work In Restricted Working Space, Add.....	36.94	
40 05 41 00-0011 Glass 90 Degree Elbows (40 05 41 00-0001)				
40 05 41 00-0012	EA	1/2" 90 Degree Elbow, Glass, Pressure.....	209.61	82.08
		For Work In Restricted Working Space, Add.....	49.25	
40 05 41 00-0013	EA	3/4" 90 Degree Elbow, Glass, Pressure.....	227.97	87.21
		For Work In Restricted Working Space, Add.....	52.33	
40 05 41 00-0014	EA	1" 90 Degree Elbow, Glass, Pressure.....	254.73	92.34
		For Work In Restricted Working Space, Add.....	55.40	
40 05 41 00-0015	EA	1-1/2" 90 Degree Elbow, Glass, Pressure.....	279.91	102.60
		For Work In Restricted Working Space, Add.....	61.56	
40 05 41 00-0016	EA	2" 90 Degree Elbow, Glass, Pressure.....	325.35	112.87
		For Work In Restricted Working Space, Add.....	67.73	
40 05 41 00-0017	EA	3" 90 Degree Elbow, Glass, Pressure.....	425.50	133.38
		For Work In Restricted Working Space, Add.....	80.03	
40 05 41 00-0018	EA	4" 90 Degree Elbow, Glass, Pressure.....	508.24	143.64
		For Work In Restricted Working Space, Add.....	86.17	
40 05 41 00-0019	EA	6" 90 Degree Elbow, Glass, Pressure.....	904.20	164.17
		For Work In Restricted Working Space, Add.....	98.51	
40 05 41 00-0020 Glass 45 Degree Elbows (40 05 41 00-0001)				
40 05 41 00-0021	EA	1/2" 45 Degree Elbow, Glass, Pressure.....	207.80	82.08
		For Work In Restricted Working Space, Add.....	49.25	
40 05 41 00-0022	EA	3/4" 45 Degree Elbow, Glass, Pressure.....	225.84	87.21
		For Work In Restricted Working Space, Add.....	52.33	
40 05 41 00-0023	EA	1" 45 Degree Elbow, Glass, Pressure.....	251.92	92.34
		For Work In Restricted Working Space, Add.....	55.40	
40 05 41 00-0024	EA	1-1/2" 45 Degree Elbow, Glass, Pressure.....	276.93	102.60
		For Work In Restricted Working Space, Add.....	61.56	



MINOR		DESCRIPTION	TOTAL DIRECT	DEMOLITION
CSI	UOM		UNIT COST	UNIT COST
40 05 41 00-0025	EA	2" 45 Degree Elbow, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	321.33 67.71	112.87
40 05 41 00-0026	EA	3" 45 Degree Elbow, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	419.17 80.03	133.38
40 05 41 00-0027	EA	4" 45 Degree Elbow, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	499.40 86.17	143.64
40 05 41 00-0028	EA	6" 45 Degree Elbow, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	881.03 98.47	164.17
40 05 41 00-0029 Glass Tees (40 05 41 00-0001)				
40 05 41 00-0030	EA	1/2" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	324.11 73.89	123.13
40 05 41 00-0031	EA	3/4" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	345.63 80.03	133.38
40 05 41 00-0032	EA	1" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	374.39 86.17	143.64
40 05 41 00-0033	EA	1-1/2" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	435.37 92.33	153.91
40 05 41 00-0034	EA	2" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	488.04 101.59	169.30
40 05 41 00-0035	EA	3" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	594.07 123.13	205.21
40 05 41 00-0036	EA	4" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	738.90 129.23	215.37
40 05 41 00-0037	EA	6" Tee, Glass, Pressure..... <i>For Work In Restricted Working Space, Add</i>	1,030.83 147.71	246.15
40 05 41 00-0038 Glass Couplings, Vitron Liner (40 05 41 00-0001)				
40 05 41 00-0039	EA	1/2" Coupling, Vitron Liner, Glass.....	65.36	
40 05 41 00-0040	EA	3/4" Coupling, Vitron Liner, Glass.....	74.70	
40 05 41 00-0041	EA	1" Coupling, Vitron Liner, Glass.....	87.15	
40 05 41 00-0042	EA	1-1/2" Coupling, Vitron Liner, Glass.....	99.60	
40 05 41 00-0043	EA	2" Coupling, Vitron Liner, Glass.....	119.84	
40 05 41 00-0044	EA	3" Coupling, Vitron Liner, Glass.....	219.44	
40 05 41 00-0045	EA	4" Coupling, Vitron Liner, Glass.....	264.57	
40 05 41 00-0046	EA	6" Coupling, Vitron Liner, Glass.....	529.15	

END OF SECTION 40

40	40	Process Interconnections
	40 05	Common Work Results For Process Interconnections
	40 05 41	Glass Process Pipe



MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST		UNIT COST

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
41 Material Processing and Handling Equipment		
41 01 Operation and Maintenance of Material Processing and Handling Equipment⁽⁴¹⁾		
41 01 20 Operation and Maintenance of Piece Material Handling Equipment^(41 01)		
41 01 20 13 Operation And Maintenance Of Hoists Or Cranes^(41 01 20)		
41 01 20 13-0001 Maintenance ^(41 01 20 13)		
41 01 20 13-0002 EA Regular Inspection.....	409.82	
41 01 20 13-0003 HR Hoist Or Crane Servicing, Labor Only.....	122.16	
41 01 20 13-0004 MO Hoist Or Crane Maintenance Contract.....	987.80	
41 20 Piece Material Handling Equipment⁽⁴¹⁾		
41 22 Cranes and Hoists^(41 20)		
41 22 23 Hoists^(41 22)		
41 22 23 13 Fixed Hoists^(41 22 23)		
41 22 23 13-0001 Air-Powered Chain Hoists^(41 22 23 13)		
Note: Excludes beam.		
41 22 23 13-0002 EA 500 LB Capacity, Air-Powered Chain Hoist.....	6,894.61	373.42
41 22 23 13-0003 EA 1,000 LB Capacity, Air-Powered Chain Hoist.....	6,975.42	373.42
41 22 23 13-0004 EA 2,000 LB Capacity, Air-Powered Chain Hoist.....	8,413.34	373.42
41 22 23 13-0005 EA 4,000 LB Capacity, Air-Powered Chain Hoist.....	10,628.61	497.89
41 22 23 13-0006 EA 6,000 LB Capacity, Air-Powered Chain Hoist.....	13,411.40	622.36
41 22 23 13-0007 EA 8,000 LB Capacity, Air-Powered Chain Hoist.....	15,790.09	914.62
41 22 23 13-0008 EA 10,000 LB Capacity, Air-Powered Chain Hoist.....	18,225.22	1,104.69
41 22 23 13-0009 EA 12,000 LB Capacity, Air-Powered Chain Hoist.....	20,572.40	1,104.69
41 22 23 13-0010 Electric Hoists^(41 22 23 13)		
41 22 23 13-0011 Electric Industrial Chain Hoists^(41 22 23 13-0010)		
Note: Includes 20' of chain. Excludes beams.		
41 22 23 13-0012 EA 500 LB Capacity, Electric Industrial Chain Hoist.....	2,989.07	360.97
For DC Electrical Operated, Add		566.23
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0013 EA 1,000 LB Capacity, Electric Industrial Chain Hoist.....	3,113.41	360.97
For DC Electrical Operated, Add		596.83
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0014 EA 2,000 LB Capacity, Electric Industrial Chain Hoist.....	3,427.93	360.97
For DC Electrical Operated, Add		672.49
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0015 EA 3,000 LB Capacity, Electric Industrial Chain Hoist.....	5,094.95	373.42
For DC Electrical Operated, Add		1,081.36
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0016 EA 4,000 LB Capacity, Electric Industrial Chain Hoist.....	4,415.19	373.42
For DC Electrical Operated, Add		909.20
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0017 EA 5,000 LB Capacity, Electric Industrial Chain Hoist.....	6,250.83	385.86
For DC Electrical Operated, Add		1,358.08
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0018 EA 6,000 LB Capacity, Electric Industrial Chain Hoist.....	5,698.84	423.20
For DC Electrical Operated, Add		1,185.26
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0019 EA 7,500 LB Capacity, Electric Industrial Chain Hoist.....	7,004.98	522.78
For DC Electrical Operated, Add		1,505.70
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0020 EA 10,000 LB Capacity, Electric Industrial Chain Hoist.....	8,263.71	553.66
For DC Electrical Operated, Add		1,826.47
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0021 EA 15,000 LB Capacity, Electric Industrial Chain Hoist.....	13,216.81	577.73
For DC Electrical Operated, Add		3,015.09
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0022 EA 20,000 LB Capacity, Electric Industrial Chain Hoist.....	15,798.08	601.80
For DC Electrical Operated, Add		3,647.90
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0023 EA 25,000 LB Capacity, Electric Industrial Chain Hoist.....	21,774.07	625.87
For DC Electrical Operated, Add		5,129.04
For Each LF Copper Conductor Bar, Add		10.50
41 22 23 13-0024 EA 30,000 LB Capacity, Electric Industrial Chain Hoist.....	27,820.96	686.05
For DC Electrical Operated, Add		6,610.53
For Each LF Copper Conductor Bar, Add		10.50

41 Material Processing and Handling Equipment**41 20 Piece Material Handling Equipment****41 22 Cranes and Hoists**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

41 22 23 13-0025	Hand Chain Hoists (41 22 23 13)		
41 22 23 13-0026	EA 1,000 LB Capacity, Hand Chain Hoist	1,799.61	152.63
41 22 23 13-0027	EA 2,000 LB Capacity, Hand Chain Hoist	2,123.78	154.72
41 22 23 13-0028	EA 3,000 LB Capacity, Hand Chain Hoist	2,857.60	162.04
41 22 23 13-0029	EA 4,000 LB Capacity, Hand Chain Hoist	3,218.91	164.12
41 22 23 13-0030	EA 5,000 LB Capacity, Hand Chain Hoist	3,888.16	172.49
41 22 23 13-0031	EA 6,000 LB Capacity, Hand Chain Hoist	4,353.16	201.76
41 22 23 13-0032	EA 10,000 LB Capacity, Hand Chain Hoist	6,045.73	208.04
41 22 23 13-0033	EA 16,000 LB Capacity, Hand Chain Hoist	7,897.85	250.89
41 22 23 13-0034	EA 20,000 LB Capacity, Hand Chain Hoist	9,653.10	262.40
41 22 23 13-0035	EA 30,000 LB Capacity, Hand Chain Hoist	17,035.42	300.03

41 50 Material Storage (41)**41 53 Storage Equipment and Systems (41 50)****41 53 13 Storage Cabinets (41 53)**

41 53 13 00-0001	Steel Storage Cabinets (41 53 13)		
	Note: Includes powder coated finish and 4 adjustable shelves.		
41 53 13 00-0002	EA 36" Width x 24" Depth x 78" Height, 22 Gauge, Welded Steel Storage Cabinet	1,023.08	16.27
41 53 13 00-0003	EA 36" Width x 24" Depth x 78" Height, 16 Gauge, Welded Steel Storage Cabinet	2,094.20	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	301.00	
41 53 13 00-0004	EA 48" Width x 24" Depth x 78" Height, 16 Gauge, Welded Steel Storage Cabinet	2,185.06	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	301.00	
41 53 13 00-0005	EA 60" Width x 24" Depth x 78" Height, 16 Gauge, Welded Steel Storage Cabinet	2,852.78	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	395.00	
41 53 13 00-0006	EA 36" Width x 24" Depth x 78" Height, 14 Gauge, Welded Steel Storage Cabinet	2,161.82	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	395.00	
41 53 13 00-0007	EA 48" Width x 24" Depth x 78" Height, 14 Gauge, Welded Steel Storage Cabinet	2,256.91	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	395.00	
41 53 13 00-0008	EA 60" Width x 24" Depth x 78" Height, 14 Gauge, Welded Steel Storage Cabinet	2,943.64	16.27
	For 4" High Legs, Add	343.89	
	For Galvanized Finish, Add	395.00	
41 53 13 00-0009	Plastic Storage Cabinets (41 53 13)		
41 53 13 00-0010	EA 36" Width x 22" Depth x 46" Height, Plastic Storage Cabinet	751.24	16.27
	Note: Includes 2 adjustable shelves.		
41 53 13 00-0011	EA 36" Width x 22" Depth x 72" Height, Plastic Storage Cabinet	931.86	16.27
	Note: Includes 4 adjustable shelves.		

END OF SECTION 41



Process Gas and Liquid Handling, Purification, and Storage Equipment	43
Common Work Results for Process Gas and Liquid Handling, Purification, and Storage Equipment	43 05
Common Work Results for Gas Handling Equipment	43 05 10

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

43 Process Gas and Liquid Handling, Purification, and Storage Equipment

43 05 Common Work Results for Process Gas and Liquid Handling, Purification, and Storage Equipment ⁽⁴³⁾

43 05 10 Common Work Results for Gas Handling Equipment ^(43 05)

43 05 10 00-0001	Compressed Natural Gas Monitoring And Detection System ^(43 05 10)	
43 05 10 00-0002	EA ISS Ethersense Controller and Display (Integrated Sensing Solutions 801-000-1340)	50,318.84
43 05 10 00-0003	EA Controller with Timed-Delay Relay Input/Output Box (6 TD, 4 In, 4 Out) (Integrated Sensing Solutions 700-010-0200)	9,565.23
43 05 10 00-0004	EA Gas Monitor transmitter low explosive limit and carbon monoxide (Integrated Sensing Solutions 000-000-0102)	8,655.77
43 05 10 00-0005	EA Gas Monitor transmitter nitrous oxide (Integrated Sensing Solutions 000-000-0300)	7,413.58
43 05 10 00-0006	EA Audio Horn/Visual Alarm, 24 Volt DC, Red Lens (Integrated Sensing Solutions 820-010-0015R)	5,456.67
43 05 10 00-0007	EA Remote Cal Manifold, Single (Integrated Sensing Solutions 740-500-0001)	3,732.67
43 05 10 00-0008	LF Tubing Poly Urethane, 1/8 ID x 1/4 OD Black (Integrated Sensing Solutions 000-400-0500-B)	51.87
43 05 10 00-0009	LF Tubing Poly Urethane, 1/8 ID x 1/4 OD Blue (Integrated Sensing Solutions 000-400-0500-BL)	51.87
43 05 10 00-0010	EA EtherSense RCS controller (auto calibration capabilities not part of this base package) (Integrated Sensing Solutions 840-100-1102)	22,135.05
43 05 10 00-0011	EA Junction Box, Steel, No Cutouts, 15 TB, internal terminals (Integrated Sensing Solutions 700-001-0003)	2,136.48
43 05 10 00-0012	EA Relay for control of roll up doors, EF, gas valve bypass (Veris H932)	2,433.52
43 05 10 00-0013	EA Control Panel, indoor rated (Hoffman A24N24BLP)	2,795.66
43 05 10 00-0014	EA Low Voltage Transformer, multiple circuit capability (Functional Devices PSH100AB10)	2,477.92
43 05 10 00-0015	EA Autocalibration Add-On Package with internal pump controller, upgraded manifold (Integrated Sensing Solutions 700-300-1101)	74,652.14
43 05 10 00-0016	EA RCS, Zero Gas with Manifold Regulator (Integrated Sensing Solutions 700-300-0001)	19,851.50
43 05 10 00-0017	EA RCS, Span Gas with Manifold Regulator (Integrated Sensing Solutions 700-300-0100)	19,851.50
43 05 10 00-0018	EA Position Indicator (Anixter 2507-AL)	1,845.55
43 05 10 00-0019	EA Differential Pressure Switch (Dwyer MS2-D102)	2,045.09

43 05 10 00-0020 Compressed Natural Gas Monitoring And Detection System (Det-Tronics) ^(43 05 10)

43 05 10 00-0021	EA Wall Mount Enclosure with window cutout and print and HOAs (Det-Tronics 000001-848)	28,684.23
43 05 10 00-0022	EA Eagle Quantum System Controller Node 246 (Det-Tronics 007609-063)	36,657.62
43 05 10 00-0023	EA Enhanced Discrete Input/Output (EDIO) Module (Det-Tronics 009174-003)	11,076.58
43 05 10 00-0024	EA EQ2100PSM Power Supply Monitor won board addressing (Det-Tronics 006979-001)	6,871.35
43 05 10 00-0025	EA Wall Mount Enclosure with NEMA 4, IP66 rating (Det-Tronics)	7,089.89
43 05 10 00-0026	EA EQ2110PS Battery Charger/Power Supply, NFPA compliant, 10 Amperes At 24 Volt DC (Det-Tronics 000604-013)	20,358.06
43 05 10 00-0027	EA Wall Mount Bracket to use with EQ2120PS, steel painting (Det-Tronics 000508-024)	4,657.92
43 05 10 00-0028	EA Battery Backup, leadacid, top post, 100Ahr (Det-Tronics 000508-035)	3,053.25
43 05 10 00-0029	EA Battery Enclosure for up to 2 batteries, filtered vents, indoor rated only, latching door (Det-Tronics 000505-046)	5,450.88
43 05 10 00-0030	EA Safety System Software (S3), diagnostic tools, version 60 node, usb key and RS232 cable (Det-Tronics 007800-011)	13,608.47
43 05 10 00-0031	EA Remote Display (English) in Enclosure, multiple 20-character lines, reset function, silence function (Det-Tronics 000506-029)	4,536.16
43 05 10 00-0032	EA Auto Dialer - Voice Message Type (Det-Tronics 000515-179)	902.24
43 05 10 00-0033	EA PIRECLA4D1W2 PointWatch Eclipse IR Gas Detector, hydrophobic filtered, HART port (Det-Tronics 010195-043)	12,518.92
43 05 10 00-0034	EA UD10A5N28W2 UD10 Universal Display, DCU emulator, FM/CSA/ATE.X/CE/IECEX (Det-Tronics 010765-006)	8,416.70
43 05 10 00-0035	EA GTXSN26W5 GTX Toxic Gas Transmitter, FM/CSA/ATEX/CE/IECEX, ex proof, HART (Det-Tronics 009480-003)	2,887.78
43 05 10 00-0036	EA GTSNO220PC Toxic Gas Sensor Module, FM/CSA/ATE.X/CE/IECEX (Det-Tronics 009471-016)	2,887.78
43 05 10 00-0037	EA GTSCO100PWD Toxic Gas Sensor Module, DNV (Det-Tronics 009471-510)	3,334.22
43 05 10 00-0038	EA Horn, 28 tone-selectable, stainless steel bracket, diode polarized (Det-Tronics 000121-381)	4,255.19
43 05 10 00-0039	EA Strobe, xenon type, 15 joule, 60 flashes/min, with wire guard (Det-Tronics 000121-155)	4,133.42

43 05 10 00-0040 Compressed Natural Gas Monitoring Extended Warranty ^(43 05 10)

43 05 10 00-0041	EA 1 Year Extended Warranty; Gas Detection System (Integrated Sensing Solutions 100-100-0001)	10,471.23
43 05 10 00-0042	EA 2 Year Extended Warranty; Gas Detection System (Integrated Sensing Solutions 100-100-0002)	20,126.52
43 05 10 00-0043	EA 3 Year Extended Warranty; Gas Detection System (Integrated Sensing Solutions 100-100-0003)	28,920.54
43 05 10 00-0044	EA 4 Year Extended Warranty; Gas Detection System (Integrated Sensing Solutions 100-100-0004)	36,898.62
43 05 10 00-0045	EA 5 Year Extended Warranty; Gas Detection System (Integrated Sensing Solutions 100-100-0005)	41,884.92
43 05 10 00-0046	EA Mobile Service (Each Trip To LA); Gas Detection System (Integrated Sensing Solutions 18000004 ISS)	4,533.00

43 20 Liquid Handling Equipment ⁽⁴³⁾

43 23 Dry Location Liquid Pumps ^(43 20)

43 23 78 Controlled Volume Horizontal Reciprocating Pumps ^(43 23)

43 23 78 31 Controlled Volume Horizontal Mechanically-Coupled Diaphragm Simplex Reciprocating Pumps ^(43 23 78)

43 23 78 31-0001 Diaphragm Pump ^(43 23 78 31)

43	43	Process Gas and Liquid Handling, Purification, and Storage Equipment
	43 20	Liquid Handling Equipment
	43 23	Dry Location Liquid Pumps



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

43 23 78 31-0002 EA 28 GPH Diaphragm Pump, Adjustable Flow 0-100% 250 PSI.....4,806.39

43 24 Suspended Liquid Pumps (43 20)

43 24 41 Archimedes Screw Pumps (43 24)

43 24 41 23 Positive-Displacement Inclined Closed-casing Archimedes Screw-type Pumps (43 24 41)

43 24 41 23-0001 Positive Displacement Pump (43 24 41 23)

43 24 41 23-0002 EA 25 GPH Positive Displacement Pump, Adjustable Flow 0-100% 200 PSI Neoprene Packing.....3,948.28

43 40 Gas and Liquid Storage (43)

43 42 Pressurized Tanks And Vessels (43 40)

43 42 41 Metallic Specialty Pressure Tanks (43 42)

43 42 41 00-0001 L.P.G. Tanks With Regulator And Safety Controls (43 42 41)

43 42 41 00-0002	EA	250 Gallon Aboveground LP Gas Storage Tank.....	2,144.71	133.25
43 42 41 00-0003	EA	500 Gallon Aboveground LP Gas Storage Tank.....	3,970.06	199.87
43 42 41 00-0004	EA	1,000 Gallon Aboveground LP Gas Storage Tank.....	5,688.80	213.19

END OF SECTION 43



Water And Wastewater Equipment		46
Water and Wastewater Chemical Feed Equipment		46 30
Gas Chemical Feed Equipment		46 31

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST

46 Water And Wastewater Equipment

46 30 Water and Wastewater Chemical Feed Equipment ⁽⁴⁶⁾

46 31 Gas Chemical Feed Equipment ^(46 30)

46 31 11 Chlorine Gas Feed Equipment ^(46 31)

46 31 11 00-0001 ChlorTainer (TGO Technologies, Inc.) ^(46 31 11)

46 31 11 00-0002	EA	1.0 Ton ChlorTainer With 2 Bolt Chain Drive Door	241,727.09
46 31 11 00-0003	EA	1.0 Ton ChlorTainer With 2 Bolt Electronic Closure Door	277,856.69
46 31 11 00-0004	EA	Spare Parts Kit For 1.0 Ton ChlorTainer	15,058.49
46 31 11 00-0005	EA	Pressure Switch For 1.0 Ton ChlorTainer	2,511.24

END OF SECTION 46

46	46	Water And Wastewater Equipment
	46 30	Water and Wastewater Chemical Feed Equipment
	46 31	Gas Chemical Feed Equipment



MINOR			TOTAL DIRECT		DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST		UNIT COST

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