



SECTION G

CONTRACT DRAWINGS

**HESPERIA WATERLINE
IMPROVEMENT PROJECT**

FOR

**COUNTY SERVICE AREA (CSA) 70 J OAK HILLS
HESPERIA, CALIFORNIA**

PROJECT NO.: 30.30.0173



SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS SPECIAL DISTRICTS CSA 70J - RODEO ROAD AND PITZER AVENUE WATERLINE IMPROVEMENT PROJECT

DECLARATION OF ENGINEER OF RECORD
I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES, AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS - SPECIAL DISTRICTS (SDD) IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THE PLANS COMPLY WITH SDD PROCEDURES, APPLICABLE POLICES AND ORDINANCES, THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT, THEREFORE, RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS, AS ENGINEER OF RECORD, I AGREE TO INDEMNIFY AND HOLD SDD, ITS OFFICERS, AGENTS, AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENCE, ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD. I HAVE READ AND INFORMED THE PROJECT APPLICANT/DEVELOPER THAT APPROVAL OF THESE PLANS DO NOT RELIEVE THEM FROM THE REQUIREMENTS OF THE DESIGN CONDITIONS.

BY: David Doublet 90073 06/21/2024
NAME RCE NO. DATE

ENGINEER'S CERTIFICATION
I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE SAN BERNARDINO COUNTY FIRE DEPARTMENT.

BY: David Doublet 90073 06/21/2024
NAME RCE NO. DATE

NOTIFICATIONS
AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:
1. SPECIAL DISTRICTS - WATER AND SANITATION DIVISION: DEVELOPMENT SERVICES - (760) 955-9885
2. PERMIT AGENCY: CITY OF HESPERIA - (760) 947-1711
3. UNDERGROUND SERVICE ALERT (USA): 811
4. ALL OTHER AFFECTED AGENCIES THAT ARE NOT MEMBERS OF USA ALERT

TIME LIMITATION
THE TIME LIMIT ON DRAWING(S) APPROVAL SHALL BE TWELVE (12) MONTHS FROM THE DATE ON THE APPROVAL. IF CONSTRUCTION HAS NOT COMMENCED WITHIN STATED TIME, SPECIAL DISTRICTS REQUIRES DRAWING(S) TO BE REVIEWED BY THE DEVELOPER/DESIGN ENGINEER AND RESUBMITTED TO SPECIAL DISTRICTS FOR POSSIBLE CHANGES IN SPECIFICATIONS AND STANDARDS.

GENERAL WATER NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND TO THE LATEST SPECIAL DISTRICTS "STANDARDS FOR DOMESTIC WATER SYSTEMS" AS POSTED ON SPECIAL DISTRICTS WEBSITE AT: <http://www.specialdistricts.org/index.aspx?page=586>
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CURRENT AND APPROVED SET OF SPECIAL DISTRICTS STANDARD SPECIFICATIONS ON THE JOB SITE AT ALL TIMES. STANDARD SPECIFICATIONS CAN BE PURCHASED AT THE SAN BERNARDINO COUNTY SPECIAL DISTRICTS OFFICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ARRANGEMENTS FOR CONSTRUCTION INSPECTION AT LEAST 48 HOURS PRIOR TO BEGINNING WORK BY CALLING DEVELOPMENT SERVICES AT (760) 955-9885 OR BY EMAIL AT DEVSERVICES@SDD.SBCOUNTY.GOV
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE ITSELF WITH THE JOB SITE AND THE LOCATION OF ALL UNDERGROUND FACILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIG ALERT REQUESTS AND EXPLORATORY EFFORTS NECESSARY TO VERIFY ANY UNDERGROUND OBSTRUCTIONS. THE CONTRACTOR WILL BE UNILATERALLY RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITIES THAT ARE SHOWN OR NOT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO PIPE INCURRED WHILE BACK FILLING AND COMPACTING.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE, COUNTY OR LOCAL PERMITS.
- CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT AND ENCROACHMENT PERMIT OR OTHER REQUIRED PERMITS FROM THE SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS TRANSPORTATION, AND CITY OF HESPERIA PRIOR TO ANY GRADING OR PIPELINE EXCAVATION WITHIN THE COUNTY AND CITY RIGHT OF WAY BY CALLING (909) 387-7910.
- THRUST BLOCKS SHALL BE INSTALLED PER SPECIAL DISTRICTS "STANDARDS FOR DOMESTIC WATER SYSTEMS" PER STANDARD DRAWING H-3.
- THE CONTRACTOR SHALL NOTIFY ALL SERVING UTILITY COMPANIES 48 HOURS PRIOR TO BEGINNING ANY DITCH EXCAVATION WHEN WORK IS TO BE PERFORMED NEAR THEIR FACILITIES BY CALLING 811.
- ALL PIPE SHALL BE CLASS 235 AND INSTALLED WITH LOCATION TAPE 18" BELOW FINISHED GRADE AND 14 GA INSULATED WIRE TAPED TO PIPE AND BROUGHT TO SURFACE AT HYDRANTS, METER SERVICES, AIR VAC & BLOW OFFS.
- THE CONTRACTOR SHALL COORDINATE ALL TIE-INS OF NEW WATER MAINS IN COUNTY SERVICE AREAS WITH THE WATER AND SANITATION SUPERVISOR, 222 W. HOSPITALITY LANE, 2ND FLOOR, SAN BERNARDINO, CA 92415-0450; PHONE: (760) 955-9885 TO KEEP INTERRUPTIONS TO A MINIMUM. NO INTERRUPTIONS TO EXISTING SERVICES SHALL BE MADE UNLESS THE DISTRICT GRANTS PRIOR APPROVAL.
- CONTRACTOR SHALL ENSURE THAT UTILITY EASEMENTS HAVE BEEN RECORDED PRIOR TO START OF WORK.
- WATER MAIN SHALL HAVE A MINIMUM OF 48" OF COVER FROM TOP OF PIPE TO FINAL GRADE.
- HYDRO TEST AT 200 PSI MINIMUM FOR A 2 HOUR DURATION AT LOWEST POINT IN THE WATER LINE.
- 1" SERVICE LINES ARE TO BE INSTALLED PER STANDARD DRAWING H-4A AND H-4.
- ALL VALVES INSTALLED BY THE CONTRACTOR SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE CAN TO GRADE DIRECTLY FOLLOWING CONNECTION TO EXISTING WATER SYSTEM. SEE STANDARD DRAWING H-11.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNDERSIGNED ENGINEER AND THE COUNTY OF SAN BERNARDINO SPECIAL DISTRICTS.
- THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- ALL STATIONING IS BASED ON THE CENTER LINE OF THE PIPE.
- ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY AND ROADS OPEN TO VEHICULAR TRAFFIC UNLESS OTHERWISE APPROVED BY THE SPECIAL DISTRICTS ENGINEER.
- ALL PIPE DISTANCES SHOWN ARE HORIZONTAL.
- ALL WORK SHALL BE CONSTRUCTED ACCORDING TO THE VERTICAL AND HORIZONTAL MEASUREMENTS OF THESE PLANS AND EXISTING DESIGN STANDARDS. ADEQUATE STAKES SHALL BE SET UNDER THE DIRECTION OF A LICENSED SURVEYOR/ENGINEER FOR THE CONTRACTOR. ALL CONSTRUCTION SURVEYING SHALL BE PERFORMED IN ACCORDANCE TO THE SURVEYING PROCEDURES OF THE SURVEYOR/ENGINEER OF RECORD. IF THIRD PARTY SUBCONTRACTORS PERFORM THE CONSTRUCTION LAYOUT AND SURVEYING FOR THIS PROJECT WITHOUT THE COORDINATION OF THE SURVEYOR/ENGINEER OF RECORD, THEY HAVE ASSUMED THE POSITION OF SURVEYOR/ENGINEER OF RECORD. THE FINAL CHECK OF THIS DESIGN IS TO BE THE CONSTRUCTION STAKING AS THE DESIGN MEETS THE EXISTING CONTROL AND ELEVATIONS. ALL EXISTING DISCREPANCIES TO THE STANDARD DESIGN CRITERIA SHALL BE BROUGHT TO THE SURVEYOR/ENGINEER OF RECORD'S ATTENTION PRIOR TO PROCEEDING WITH CONSTRUCTION. IF CONSTRUCTION CONTINUES WITHOUT VERIFICATION THE CONSTRUCTOR ASSUMES THE RESPONSIBILITY OF THE CORRECTNESS OF THE INTENDED DESIGN.
- THE METHOD AND LOCATION OF CONNECTION TO THE PUBLIC WATER SUPPLY AND REQUIREMENTS FOR BACKFLOW PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL WATER SUPPLIES REQUIREMENTS.
- CONTRACTOR TO COORDINATE WITH OTHER UTILITIES, TRADES, AND ARCHITECTURAL PLANS TO AVOID CONFLICTS AND VERIFY TIE-IN LOCATIONS.
- CONTRACTOR SHALL DISINFECT THE WATER LINE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C651, AND SAN BERNARDINO COUNTY SPECIAL DISTRICTS STANDARDS FOR DOMESTIC WATER SYSTEMS PRIOR TO PLACING LINE IN SERVICE.
- DO NOT BEGIN ABANDONMENT OPERATIONS UNTIL REPLACEMENT WATER MAIN HAS BEEN CONSTRUCTED AND TESTED, ALL SERVICE CONNECTIONS HAVE BEEN INSTALLED, AND REPLACEMENT MAIN IS APPROVED FOR USE.

NOTE TO CONTRACTOR - EXISTING UTILITIES:

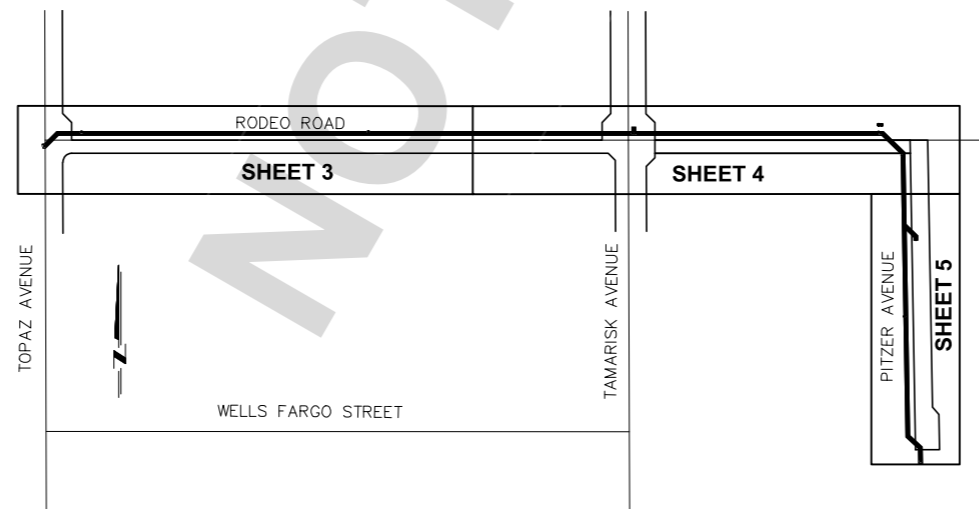
THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. WHILE DUE CARE WAS TAKEN IN PREPARATION OF THIS INFORMATION DUDEK CANNOT AND DOES NOT GUARANTEE THE ACCURACY NOR THE COMPLETENESS OF THE INFORMATION. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULTS FROM HIS FAILURE TO LOCATE EXACTLY AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL VERIFY THEIR HORIZONTAL AND VERTICAL LOCATIONS. IN THE EVENT, DURING CONSTRUCTION, THAT UNKNOWN UTILITIES OR UNKNOWN STRUCTURES ARE FOUND AT UNEXPECTED ELEVATIONS OR LOCATIONS, DUDEK IS TO BE NOTIFIED OF SUCH CONDITION AT ONCE. DUDEK WILL MAKE REQUIRED DESIGN CHANGES AND THE CONTRACTOR AGREES TO COMPLETE ALL WORK, INCLUDING REPAIRS REQUIRED IN AN EXPEDITIOUS MANNER. THE CONTRACTOR FURTHER AGREES TO PURSUE DILIGENTLY THE COMPLETION OF SAID WORK. ANY DISCREPANCY BETWEEN THE PLANS AND THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF DUDEK. THE CONTRACTOR SHALL NOTIFY DUDEK PRIOR TO POT-HOLING. IF NECESSARY DUDEK SHALL REVISE THE PLANS, THE CONTRACTOR SHALL BEGIN CONSTRUCTION AFTER REVISIONS ARE APPROVED.

UTILITY CONTACTS:

SAN BERNARDINO COUNTY SPECIAL DISTRICTS (760) 955-9885
SOUTHERN CALIFORNIA GAS (800) 427-2200, (213) 231-7876
SOUTHERN CALIFORNIA GAS TRANSMISSION (800) 427-2200, (600) 858-5601
SOUTH WEST GAS (877) 860-6020
SOUTHERN CALIFORNIA EDISON (800) 611-1911
ATT (510) 645-2929
FRONTIER (323) 342-5552
MCI (VERIZON BUSINESS) (800) 332-2344, (888) 624-5622
SPECTRUM (CHARTER) (951) 406-1690
HESPERIA WATER DISTRICT (760) 947-1407, (760) 947-1488

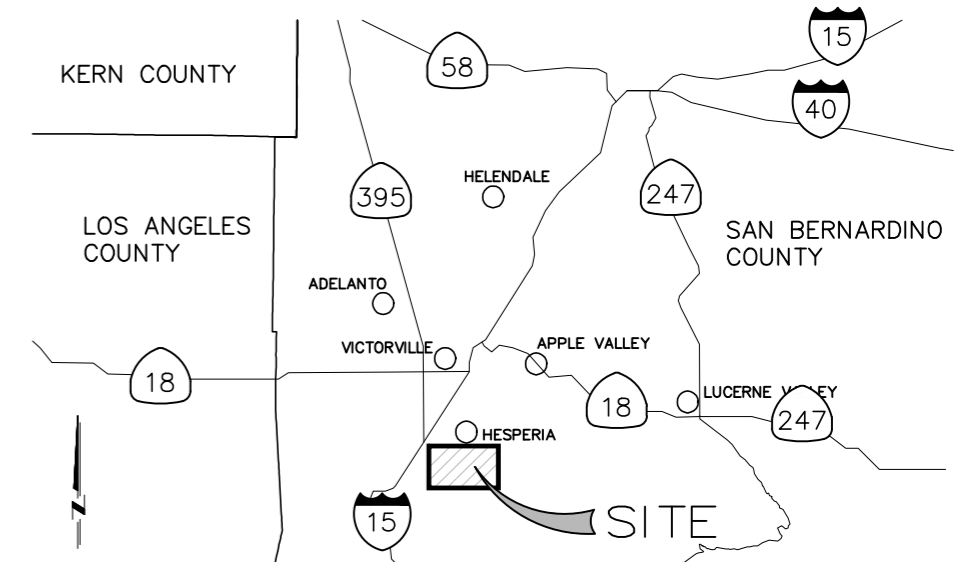
SHEET INDEX

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7	CIVIL DETAILS - 2	CD-2
8	CIVIL DETAILS - 3	CD-3



INDEX MAPS

SCALE: 1" = 200'



VICINITY MAP

N T S

File name: P:\101.Engineering\San Bernardino_County\14724.02 - CSA 70J Hesperia Waterline Improvement\14724.02 - CSA 70J Hesperia Waterline Improvement\14724.02 - CSA 70J Hesperia Waterline Improvement.dwg
Plot date: 6/28/2024 9:05 AM

UNDERGROUND SERVICE ALERT
Call: TOLL FREE
1-800-227-2600
OR
811
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK:
ELEVATION DETERMINED FROM CORS CONTROL SITES, POINT #1 TRAVPT-SET 1X2 W/TACK FLUSH. NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:
CCS83 Zone 5, NAD83(2011), EPOCH 2010.0

PLANS PREPARED BY:
DUDEK
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164
PREPARED UNDER THE SUPERVISION OF:
David Doublet 90073 06/21/2024
PROFESSIONAL ENGINEER R.C.E. No. DATE

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:
SAN BERNARDINO COUNTY - PUBLIC WORKS
SPECIAL DISTRICTS
David Doublet
ASSISTANT DIRECTOR
Digitally signed by David Doublet
Date: 2024.07.11 12:03:25 -0700

APPROVALS	INITIAL	DATE
PROJECT MANAGER	Deanna Lestina	06/21/2024
WAS. DIVISION MANAGER	Greg Snyder	06/21/2024
PM, DIVISION MANAGER	Noel Mondragon	06/21/2024

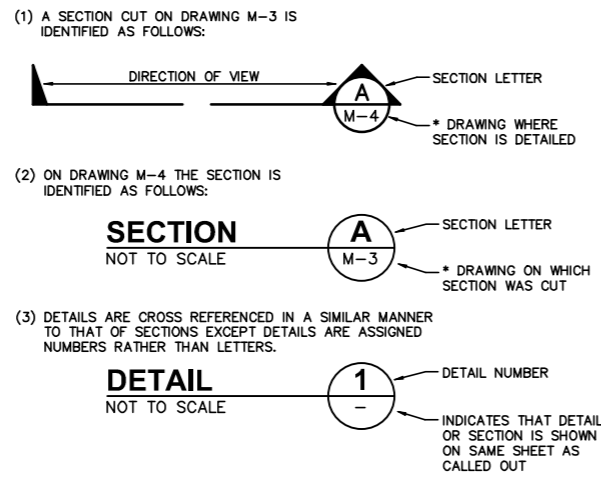
WATER IMPROVEMENT PLANS
CSA 70J - RODEO ROAD AND PITZER AVENUE
WATERLINE IMPROVEMENT
PROJECT NO. 30.30.0173
TITLE SHEET

DWG NO.
G-1
FILE NO.
SDD-XXX
SHEET 1 OF 8

LEGEND

	EXISTING VEGETATION
	EXISTING SPOT ELEVATION
	EXISTING UTILITY POLE
	EXISTING SIGN
	EXISTING CONTOUR
	EXISTING FENCE
	EXISTING STREET LIGHT
	EXISTING BENCHMARK
	EXISTING EASEMENT
	EXISTING PROPERTY LINE
	EXISTING CENTER LINE
	EXISTING IRRIGATION
	EXISTING SEWER
	EXISTING ELECTRIC
	EXISTING WATER
	EXISTING GAS
	EXISTING RIGHT-OF-WAY
	EXISTING SEWER MANHOLE
	EXISTING TELEPHONE
	EXISTING TELEPHONE MANHOLE
	EXISTING OVERHEAD ELECTRIC
	EXISTING FIRE HYDRANT
	EXISTING WATER VALVE
	EXISTING WATER METER
	EXISTING BLOWOFF
	EXISTING ELECTRICAL PULL BOX
	EXISTING TELEPHONE RISER
	NEW WATER VALVE
	NEW FIRE HYDRANT
	NEW BLOW OFF VALVE
	NEW AIR VACUUM RELIEF VALVE
	NEW WATER PIPELINE
	NEW WATER SERVICE
	PROPOSED RIGHT OF WAY
	PROPOSED CENTERLINE

CROSS REFERENCING SYSTEM



* LETTER INDICATES SHEET

G - GENERAL
C - CIVIL
CD - CIVIL DETAIL

SYMBOLS & ABBREVIATIONS:

ACP	ASBESTOS CEMENT PIPE	G	GAS	SBC	SAN BERNARDINO COUNTY
ADD	ADDITIONAL	GB	GRADE BREAK	SD	STORM DRAIN
APN	ACCESSOR'S PARCEL NUMBER	GV	GATE VALVE	SE	SAND EQUIVALENT
APPROX	APPROXIMATELY	HORIZ	HORIZONTAL	SF	SQUARE FEET
AV	AIR VALVE	HP	HIGH PRESSURE	SHT	SHEET
AVE	AVENUE	IE	INVERT ELEVATION	ST	STREET
BLVD	BOULEVARD	LF	LINEAR FEET	STA	STATION
BO	BLOW-OFF	LN	LANE	STD	STANDARD
C&G	CURB AND GUTTER	MAX	MAXIMUM	STL	STEEL
CLR	CLEAR	MH	MANHOLE	S, SS	SEWER
CMC	CEMENT MORTAR COATING	MIN	MINIMUM	TEL	TELEPHONE
CML	CEMENT MORTAR LINING	MJ	MECHANICAL JOINT	TF	TRANSFORMER
COH	CITY OF HESPERIA	NTS	NOT TO SCALE	TOP	TOP OF PIPE
CP	CATHODIC PROTECTION	OE	OVERHEAD	TYP	TYPICAL
DI, DIP	DUCTILE IRON PIPE	OC	ON CENTER	UNK'N	UNKNOWN
DRWY	DRIVEWAY	PB	PULL BOX	VCP	VITRIFIED CLAY PIPE
DTL	DETAIL	PL	PROPERTY LINE	VERT	VERTICAL
DWG	DRAWING	PO	PUSH-ON	W	WATER
E, ELEC	ELECTRIC	PROP	PROPOSED	WM	WATER METER
EA	EACH	PVC	POLYVINYL CHLORIDE	WS	WATER SERVICE
EG	EXISTING GRADE	R/W	RIGHT OF WAY		
EL, ELEV	ELEVATION	RCP	REINFORCED CONCRETE PIPE		
EX, EXIST	EXISTING	RD	ROAD		
FG	FINISHED GRADE	RWGV	RESILIENT WEDGE GATE VALVE		
FH	FIRE HYDRANT				
FLG	FLANGED				
FM	FORCE MAIN				
FO	FIBER OPTIC				

CONSTRUCTION NOTES:

- 1 INSTALL 12" PVC CLASS 235, C-900 DR-18 WATERLINE. 2700 LF
- 2 PROTECT IN PLACE EX FH ASSEMBLY. 1 EA
- 3 INSTALL 12" MJ 45° ELBOW AND THRUST BLOCK PER SBC STD H-3B. 8 EA
- 4 INSTALL 12" MJ 22.5° ELBOW AND THRUST BLOCK PER SBC STD H-3B. 4 EA
- 5 INSTALL 12" MJ 11.25° ELBOW AND THRUST BLOCK PER SBC STD H-3B. 2 EA
- 6 INSTALL 12"x8" MJ TEE, VALVE CLUSTER, AND THRUST BLOCK PER SBC STD H-3A. 1 EA
- 7 RECONNECT EXISTING 1" WATER SERVICE PER SBC STD H-9. 6 EA
- 8 REMOVE AND PROPERLY DISPOSE OF EXISTING FIRE HYDRANT ASSEMBLY. 4 EA
- 9 INSTALL FIRE HYDRANT ASSEMBLY PER SBC STD H-2A. 4 EA
- 10 INSTALL 24" STEEL CASING PER DTL 1 ON DWG CD-3 (ADD. NO. 2). 40 LF
- 11 INSTALL 12" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11. 5 EA
- 12 INSTALL 8" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11. 1 EA
- 13 CONNECT TO EXISTING 12" ACP WATERLINE. SEE NOTE 5. 2 EA
- 14 CONNECT TO EXISTING 8" ACP WATERLINE. SEE NOTE 5. 1 EA
- 15 REMOVE AND REPLACE 20 LF OF EXISTING 8" ACP WATER LINE WITH NEW 8" PVC CLASS 235, C-900 DR-18 WATERLINE WITH TWO VERTICAL 45° ELBOWS AND THRUST BLOCKS PER SBC STD H-3B TO JOIN PROPOSED 12" SBC WATER LINE AT THE DEPTH SHOWN. 2 EA
- 16 CENTER 20' STICK OF PIPE BELOW STORM DRAIN CROSSINGS, NO JOINTS ARE PERMITTED WITHIN 10' OF STORM DRAIN CROSSING. 2 EA
- 17 ABANDON EX VALVES BY REMOVING OPERATOR AND VALVE CAN, BACKFILL AND REPAIR PAVING IN ACCORDANCE WITH NOTE 4. 1 EA
- 18 INSTALL BLOW OFF ASSEMBLY PER SBC STD H-4. 1 EA
- 19 INSTALL AV ASSEMBLY PER SBC STD H-6.

QUANTITIES:

File name: P:\101.Engineering\San Bernardino_County o\14724.02 - CSA 70J Hesperia Waterline Improvement\6 - CAD\Hesperia G-2.dwg
Plot date: 7/1/2024 10:48 AM

UNDERGROUND SERVICE ALERT

Call: TOLL FREE
1-800-227-2600
OR
811

TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK:

ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVPT-SET 1X2 W/TACK FLUSH. NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:

CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0

PLANS PREPARED BY:

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760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:

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REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:

SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS

David Doublet
ASSISTANT DIRECTOR

APPROVALS:

PROJECT MANAGER	INITIAL	DATE
WAS. DIVISION MANAGER	Deanna Lestina	6/20/24
PM, DIVISION MANAGER	Greg Snyder	6/20/24
	Neil Mandrago	

WATER IMPROVEMENT PLANS

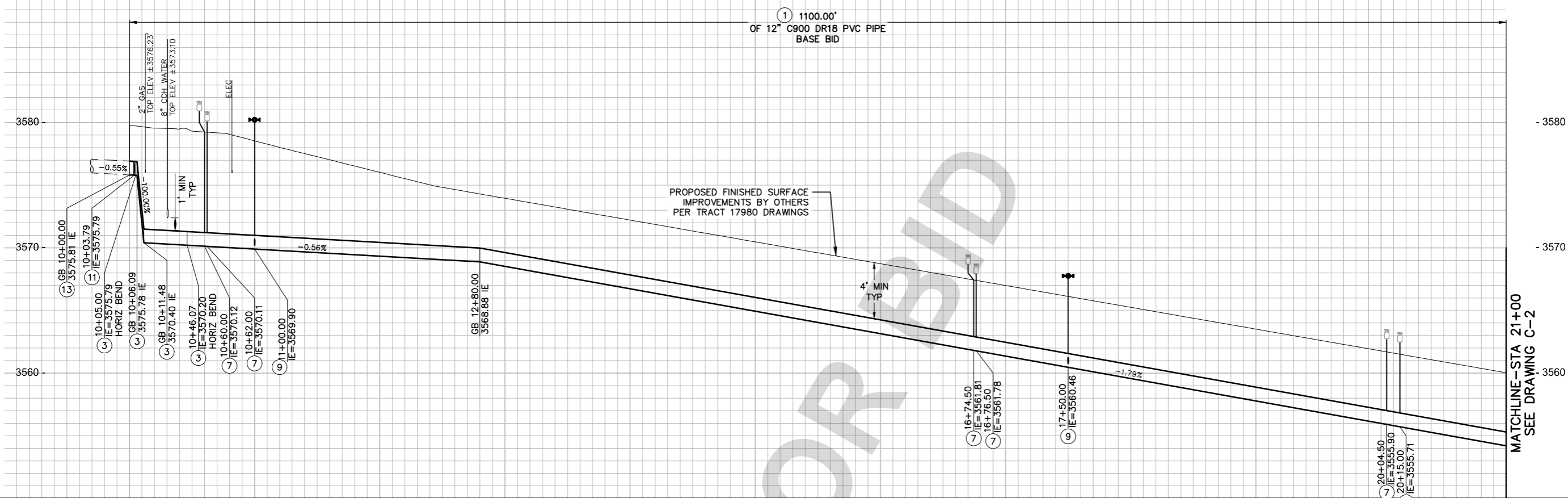
CSA 70J - RODEO ROAD AND PITZER AVENUE
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PROJECT NO. 30.30.0173

LEGEND, SYMBOLS AND ABBREVIATIONS

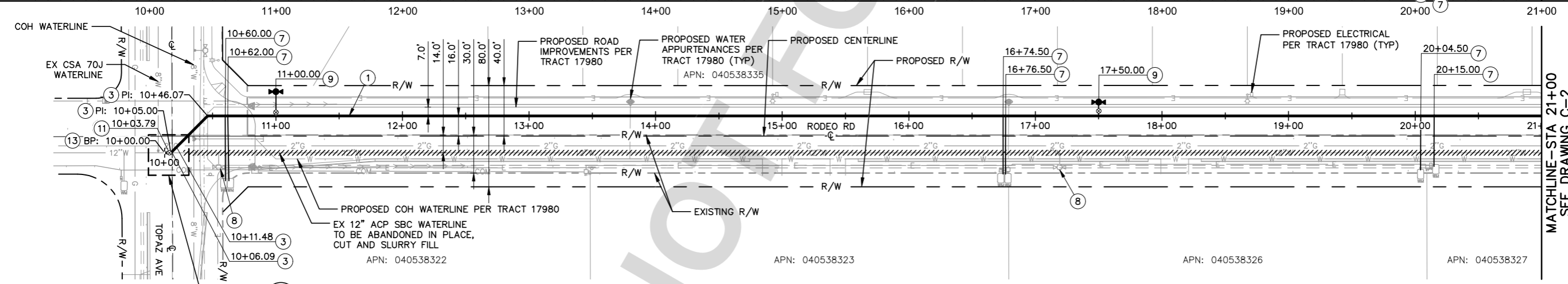
DWG NO. **G-2**

FILE NO. **SDD-XXX**

SHEET 2 OF 8



PROFILE SCALE
 HORIZ. 1"=40'
 VERT. 1"=4'



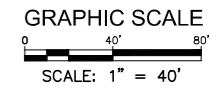
PLAN
 SCALE: 1"=40'

CONSTRUCTION NOTES:

- 1 INSTALL 12" PVC CLASS 235, C-900 DR-18 WATERLINE.
- 2 PROTECT IN PLACE EX FH ASSEMBLY.
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- 6 INSTALL 12"x8" MJ TEE, VALVE CLUSTER, AND THRUST BLOCK PER SBC STD H-3A.
- 7 RECONNECT EXISTING 1" WATER SERVICE PER SBC STD H-9.
- 8 REMOVE AND PROPERLY DISPOSE OF EXISTING FIRE HYDRANT ASSEMBLY.
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- 12 INSTALL 8" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11.
- 13 CONNECT TO EXISTING 12" ACP WATERLINE. SEE NOTE 5.
- 14 CONNECT TO EXISTING 8" ACP WATERLINE. SEE NOTE 5.

NOTES:

- 1. CONTRACTOR TO COORDINATE WITH UTILITY AGENCIES FOR LOCATION AND PROTECTION OF ALL UTILITIES.
- 2. ALL JOINTS SHALL HAVE RESTRAINED JOINTS AND THRUST BLOCKS PER SBC STD H-3A, H-3B, H-3C AND H-3D.
- 3. CONTRACTOR TO LOCATE EXISTING SERVICE CONNECTIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO ABANDON EXISTING SERVICE LINE CONNECTION AND RE-ESTABLISH NEW SERVICE CONNECTION.
- 4. TRENCH, BACKFILL, AND RESTORATION PER SBC STD H-16 AND COH STD DWG ST-6. PIPE ZONE SHALL BE PER SBC STANDARDS. TRENCH BACKFILL AND SURFACE RESTORATION SHALL BE PER COH STANDARDS.
- 5. CONTRACTOR TO POTHOLE AND VERIFY LOCATION, DEPTH, MATERIAL, AND DIAMETER PRIOR TO CONSTRUCTION.
- 6. ALL EXISTING FACILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
- 7. WHEN NEW WATERLINE CROSSES AN EXISTING UTILITY NOT SHOWN ON THESE PLANS AND REQUIRE A CHANGE IN VERTICAL PROFILE OF THE NEW WATERLINE, INSTALL PER SBC STD H-17. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION.
- 8. ADDITIVE BID ITEMS WILL BE AUTHORIZED AT THE DISCRETION OF SBC. SEE NOTES ON DETAIL 3 ON DWG CD-1



UNDERGROUND SERVICE ALERT

Call: TOLL FREE
 1-800-227-2600
 OR
 811

TWO WORKING DAYS BEFORE YOU DIG

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ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVP-SET 1X2 W/TACK FLUSH. NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:

CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0

PLANS PREPARED BY:

DUDEK
 605 Third Street Encinitas, CA 92024
 760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:

[Signature] 90073 06/21/2024
 PROFESSIONAL ENGINEER R.C.E. No. DATE

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:

SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS

David Doublet
 ASSISTANT DIRECTOR

Digitally signed by David Doublet
 Date: 2024.07.11 12:07:04 -07'00'

PROJECT MANAGER	INITIAL	DATE
Deanna Lestina	DL	06/21/2024
Greg Snyder	GS	06/21/2024
Noel Mondragon	NM	06/21/2024

WATER IMPROVEMENT PLANS

CSA 70J - RODEO ROAD AND PITZER AVENUE
 WATERLINE IMPROVEMENT
 PROJECT NO. 30.30.0173
 STA 10+00 TO STA 21+00

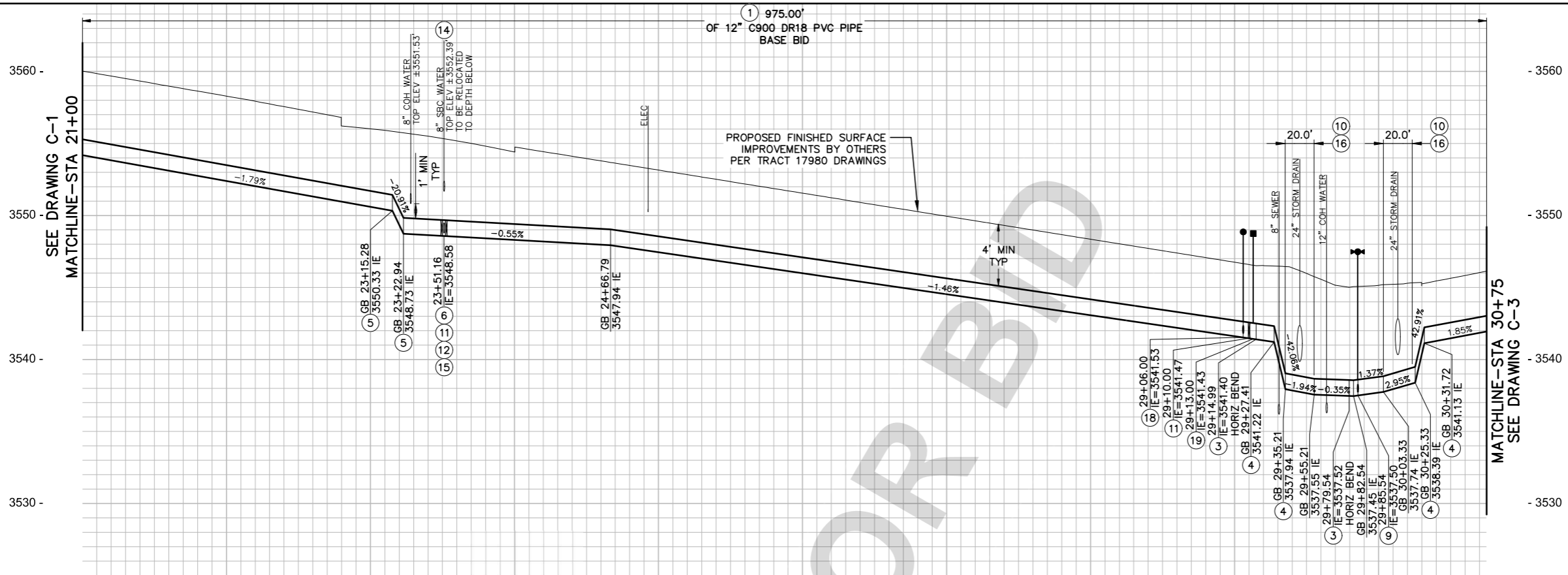
PLAN & PROFILE - 1

DWG NO. **C-1**

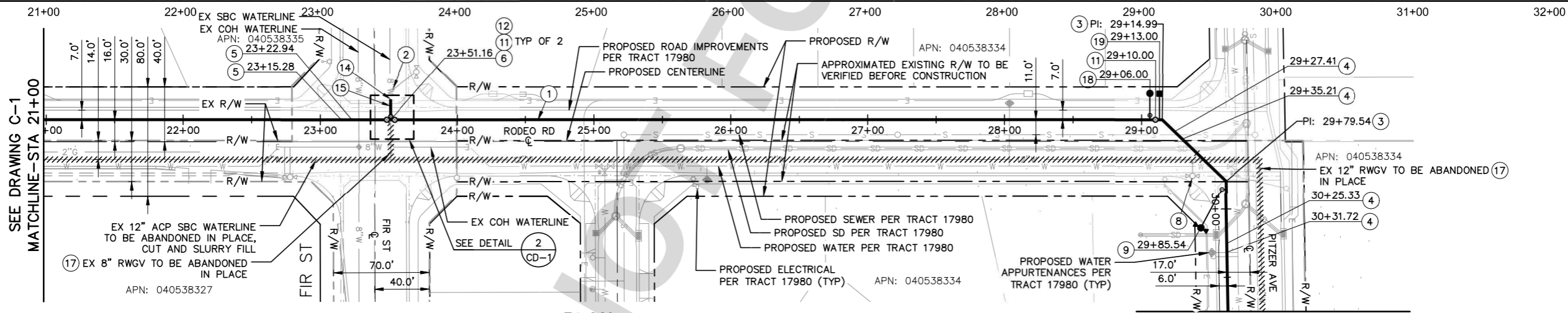
FILE NO. **SDD-XXX**

SHEET 3 OF 8

File name: P:\101\Engineering\San Bernardino\County\14724.02 - CSA 70J Hesperia Waterline Improvement\6 - CAD\Hesperia C-1.dwg
 Plot date: 6/28/2024 9:06 AM



PROFILE SCALE
 HORIZ. 1"=40'
 VERT. 1"=4'



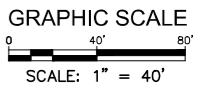
PLAN
 SCALE: 1"=40'

CONSTRUCTION NOTES:

1. INSTALL 12" PVC CLASS 235, C-900 DR-18 WATERLINE.
2. PROTECT IN PLACE EX FH ASSEMBLY.
3. INSTALL 12" MJ 45° ELBOW AND THRUST BLOCK PER SBC STD H-3B.
4. INSTALL 12" MJ 22.5° ELBOW AND THRUST BLOCK PER SBC STD H-3B.
5. INSTALL 12" MJ 11.25° ELBOW AND THRUST BLOCK PER SBC STD H-3B.
6. INSTALL 12"x8" MJ TEE, VALVE CLUSTER, AND THRUST BLOCK PER SBC STD H-3A.
7. RECONNECT EXISTING 1" WATER SERVICE PER SBC STD H-9.
8. REMOVE AND PROPERLY DISPOSE OF EXISTING FIRE HYDRANT ASSEMBLY.
9. INSTALL FIRE HYDRANT ASSEMBLY PER SBC STD H-2A.
10. INSTALL 24" STEEL CASING PER DTL 1 ON DWG CD-3 (ADD. NO. 2)
11. INSTALL 12" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11.
12. INSTALL 8" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11.
13. CONNECT TO EXISTING 12" ACP WATERLINE. SEE NOTE 5.
14. CONNECT TO EXISTING 8" ACP WATERLINE. SEE NOTE 5.
15. REMOVE AND REPLACE 20 LF OF EXISTING 8" ACP WATER LINE WITH NEW 8" PVC CLASS 235, C-900 DR-18 WATERLINE WITH TWO VERTICAL 45° ELBOWS AND THRUST BLOCKS PER SBC STD H-3B TO JOIN PROPOSED 12" SBC WATER LINE AT THE DEPTH SHOWN.
16. CENTER 20' STICK OF PIPE BELOW STORM DRAIN, CROSSINGS, NO JOINTS ARE PERMITTED WITHIN 4' OF STORM DRAIN OD.
17. ABANDON EX VALVES BY REMOVING OPERATOR AND VALVE CAN, BACKFILL AND REPAIR PAVING IN ACCORDANCE WITH NOTE 4.
18. INSTALL BLOW OFF ASSEMBLY PER SBC STD H-4.
19. INSTALL AV ASSEMBLY PER SBC STD H-6.

NOTES:

1. CONTRACTOR TO COORDINATE WITH UTILITY AGENCIES FOR LOCATION AND PROTECTION OF ALL UTILITIES.
2. ALL JOINTS SHALL HAVE RESTRAINED JOINTS AND THRUST BLOCKS PER SBC STD H-3A, H-3B, H-3C AND H-3D.
3. CONTRACTOR TO LOCATE EXISTING SERVICE CONNECTIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO ABANDON EXISTING SERVICE LINE CONNECTION AND RE-ESTABLISH NEW SERVICE CONNECTION.
4. TRENCH, BACKFILL, AND RESTORATION PER SBC STD H-16 AND COH STD DWG ST-6. PIPE ZONE SHALL BE PER SBC STANDARDS. TRENCH BACKFILL AND SURFACE RESTORATION SHALL BE PER COH STANDARDS.
5. CONTRACTOR TO POTHOLE AND VERIFY LOCATION, DEPTH, MATERIAL, AND DIAMETER PRIOR TO CONSTRUCTION.
6. ALL EXISTING FACILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
7. WHEN NEW WATERLINE CROSSES AN EXISTING UTILITY NOT SHOWN ON THESE PLANS AND REQUIRE A CHANGE IN VERTICAL PROFILE OF THE NEW WATERLINE, INSTALL PER SBC STD H-17. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION.
8. ADDITIVE BID ITEMS WILL BE AUTHORIZED AT THE DISCRETION OF SBC. SEE NOTES ON DETAIL 3 ON DWG CD-1



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TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK:

ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVEL-SET 1X2 W/TACK FLUSH. NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:

CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0



PLANS PREPARED BY:

DUDEK
 605 Third Street Encinitas, CA 92024
 760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:
 [Signature] 90073 06/21/2024
 PROFESSIONAL ENGINEER R.C.E. No. DATE

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:
 SAN BERNARDINO COUNTY - PUBLIC WORKS
 SPECIAL DISTRICTS

David Doublet
 ASSISTANT DIRECTOR

Digitally signed by David Doublet
 Date: 2024.07.11 12:07:56 -07'00'

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Deanna Lestina		
	WAS. DIVISION MANAGER Greg Snyder		
	PM. DIVISION MANAGER Noel Mondragon		

WATER IMPROVEMENT PLANS

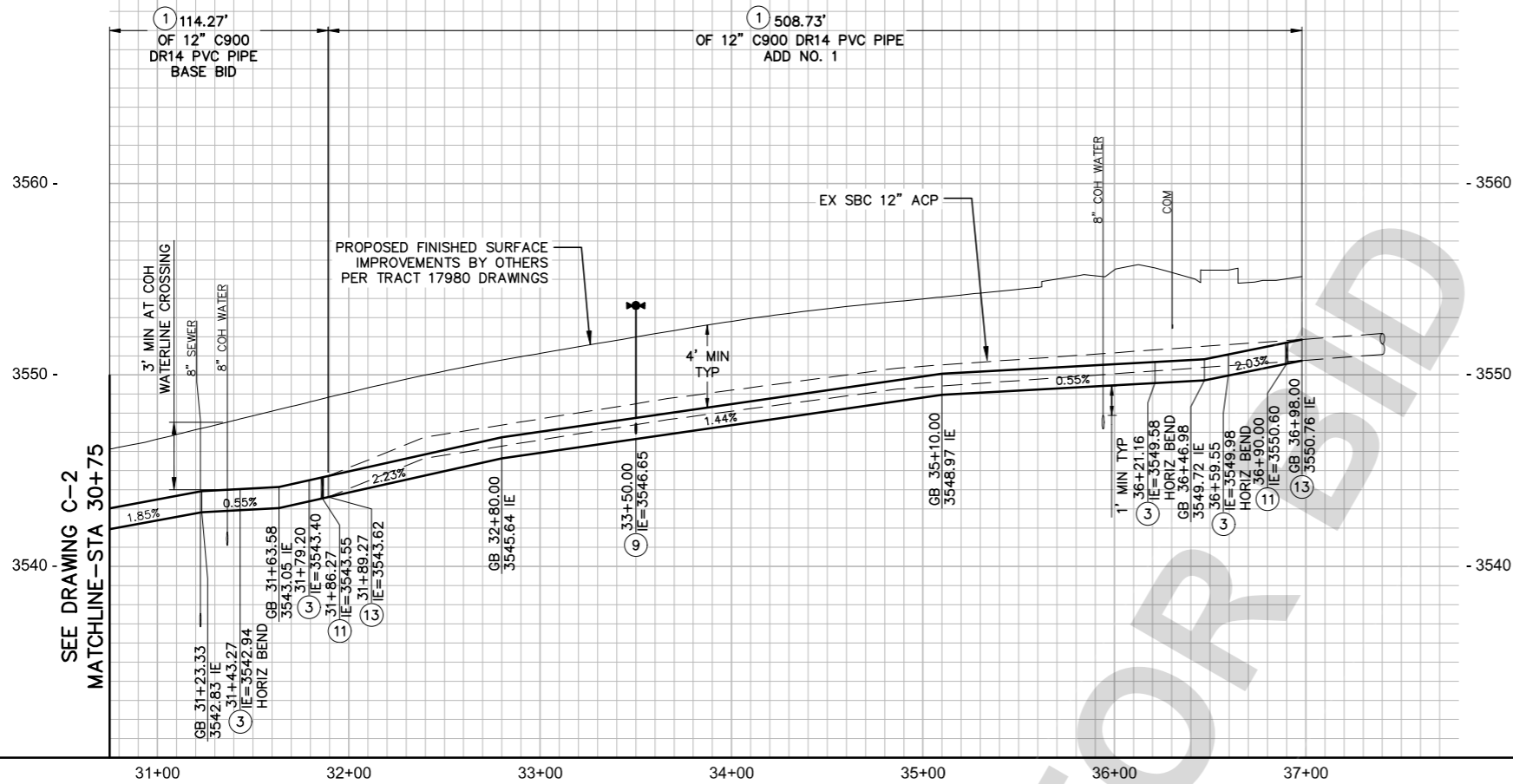
CSA 70J - RODEO ROAD AND PITZER AVENUE
 WATERLINE IMPROVEMENT
 PROJECT NO. 30.30.0173
 STA 21+00 TO STA 30+75
 PLAN & PROFILE - 2

DWG NO.
C-2

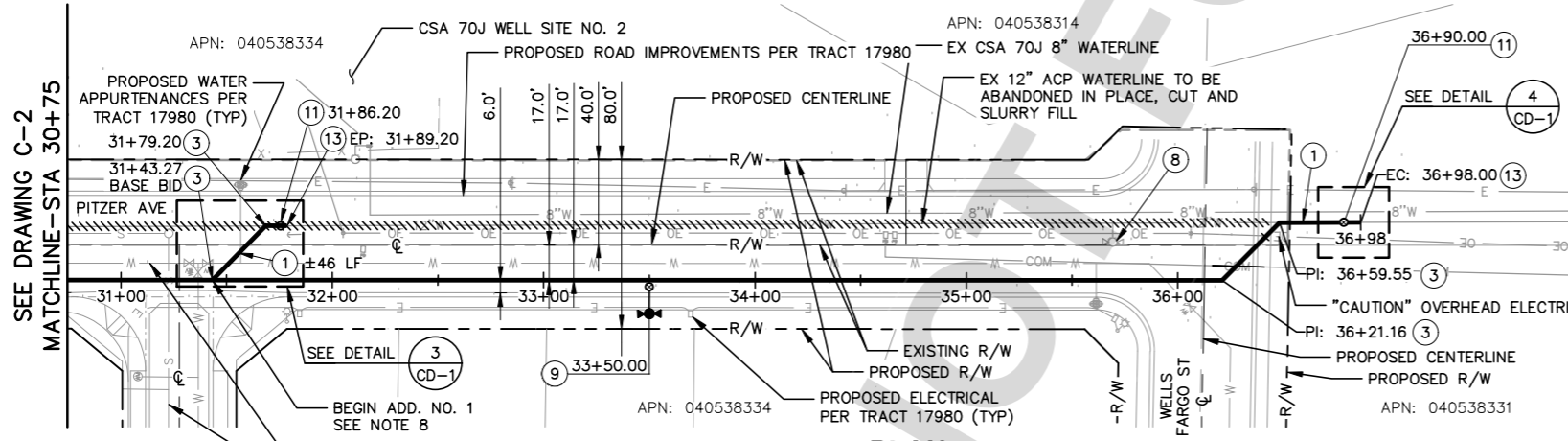
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SHEET 4 OF 8

File name: P:\101.Engineering\San_Bernardino_County_e\14724.02 - CSA 70J Hesperia Waterline Improvement\6 - CAD\Hesperia C-2.dwg
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PROFILE SCALE
 HORIZ. 1"=40'
 VERT. 1"=4'



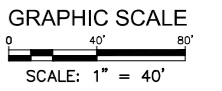
PLAN
 SCALE: 1"=40'

CONSTRUCTION NOTES:

- 1 INSTALL 12" PVC CLASS 235, C-900 DR-18 WATERLINE.
- 2 PROTECT IN PLACE EX FH ASSEMBLY.
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- 4 INSTALL 12" MJ 22.5° ELBOW AND THRUST BLOCK PER SBC STD H-3B.
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- 8 REMOVE AND PROPERLY DISPOSE OF EXISTING FIRE HYDRANT ASSEMBLY.
- 9 INSTALL FIRE HYDRANT ASSEMBLY PER SBC STD H-2A.
- 10 INSTALL 24" STEEL CASING PER DTL 1 ON DWG CD-3 (ADD. NO. 2)
- 11 INSTALL 12" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11.
- 12 INSTALL 8" MJ RWGV WITH VALVE BOX PER SBC STD H-3A AND H-11.
- 13 CONNECT TO EXISTING 12" ACP WATERLINE. SEE NOTE 5.
- 14 CONNECT TO EXISTING 8" ACP WATERLINE. SEE NOTE 5.

NOTES:

- 1. CONTRACTOR TO COORDINATE WITH UTILITY AGENCIES FOR LOCATION AND PROTECTION OF ALL UTILITIES.
- 2. ALL JOINTS SHALL HAVE RESTRAINED JOINTS AND THRUST BLOCKS PER SBC STD H-3A, H-3B, H-3C AND H-3D.
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- 8. ADDITIVE BID ITEMS WILL BE AUTHORIZED AT THE DISCRETION OF SBC. SEE NOTES ON DETAIL 3 ON DWG CD-1



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TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK:

ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVP-SET 1X2 W/TACK FLUSH. NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:

CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0

PLANS PREPARED BY:

DUDEK
 605 Third Street Encinitas, CA 92024
 760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:

Greg Snyder
 90073 06/21/2024
 PROFESSIONAL ENGINEER R.C.E. No. DATE

REVISIONS					
MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:

SAN BERNARDINO COUNTY - PUBLIC WORKS
 SPECIAL DISTRICTS

David Doublet
 ASSISTANT DIRECTOR

Digitally signed by David Doublet
 Date: 2024.07.11 12:09:12 -07'00'

PROJECT MANAGER	INITIAL	DATE
Duanna Lesina	DL	06/20/2024
WAS. DIVISION MANAGER	Greg Snyder	06/21/2024
PM, DIVISION MANAGER	Head Manager	06/21/2024

WATER IMPROVEMENT PLANS

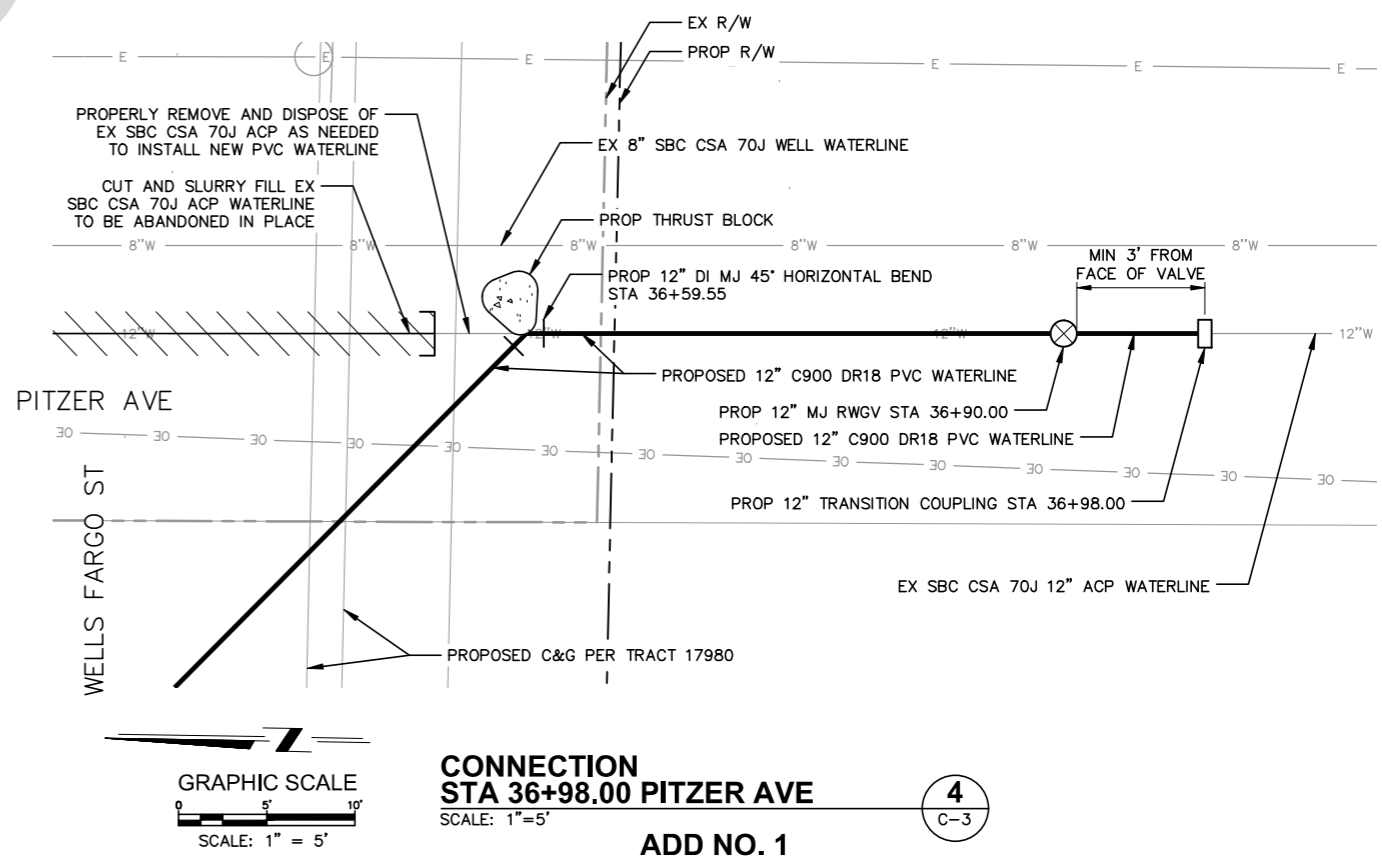
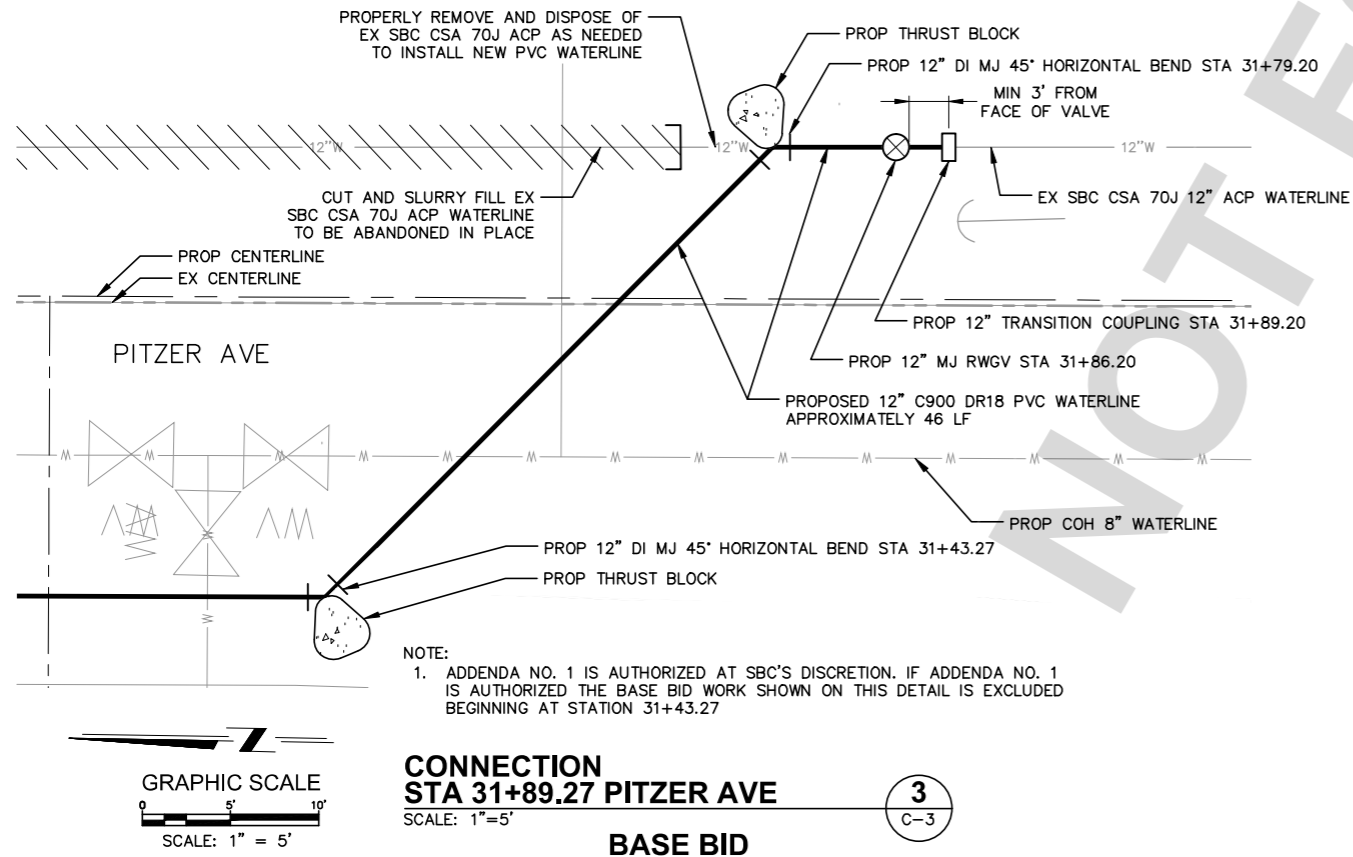
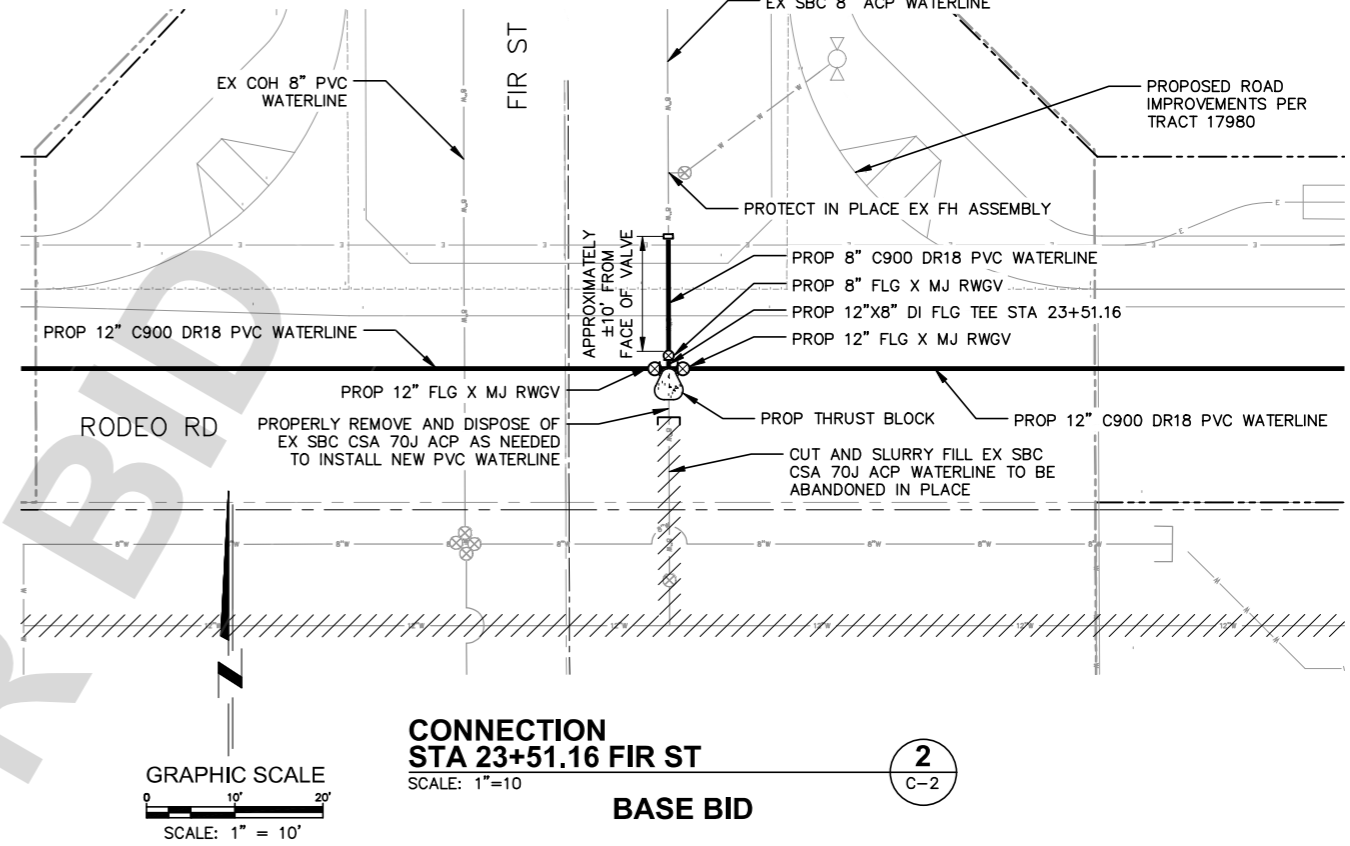
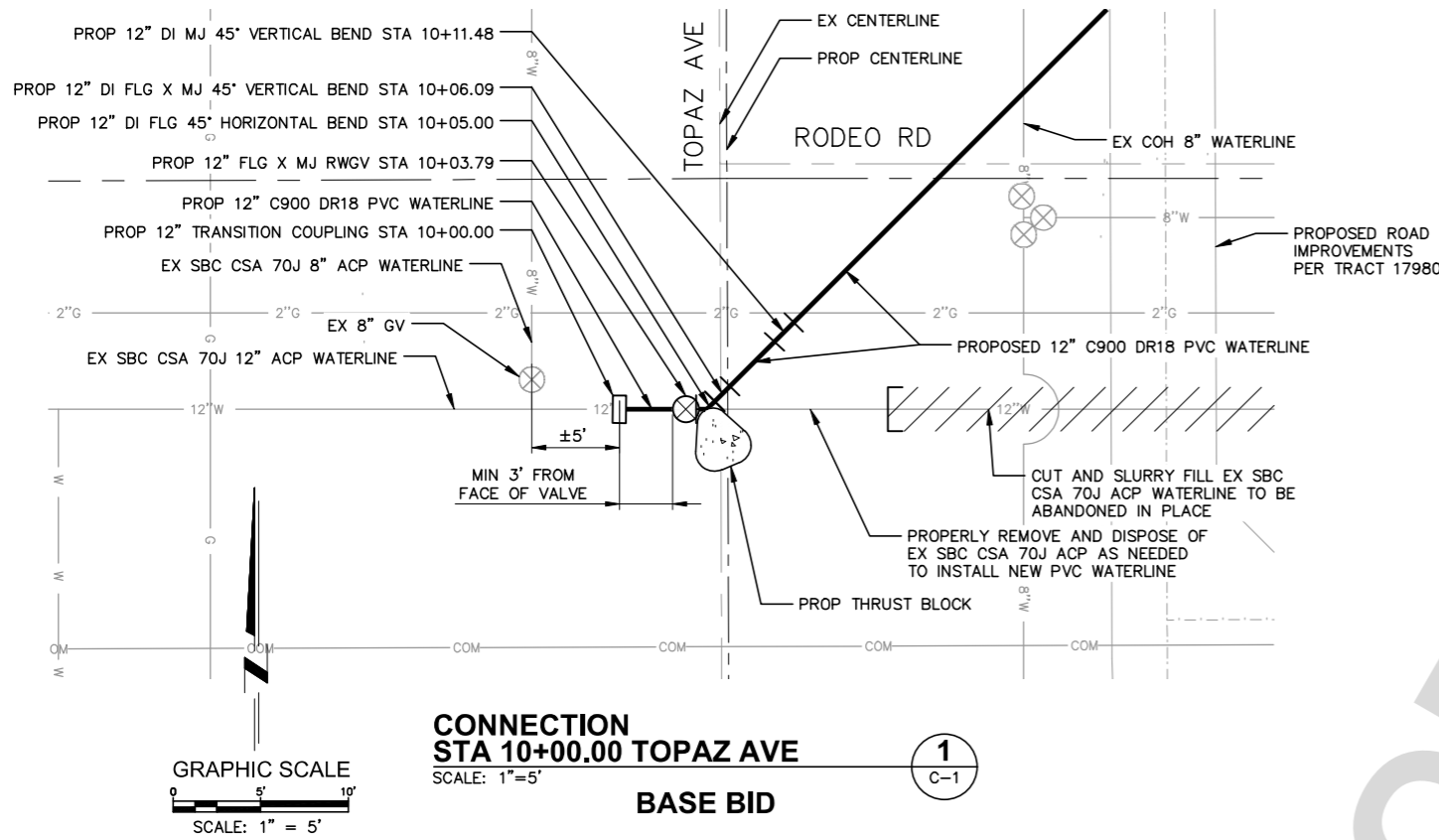
CSA 70J - RODEO ROAD AND PITZER AVENUE
 WATERLINE IMPROVEMENT
 PROJECT NO. 30.30.0173
 STA 30+75 TO STA 36+98
 PLAN & PROFILE - 3

DWG NO.
C-3

FILE NO.
SDD-XXX

SHEET 5 OF 8

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 Plot date: 6/28/2024 9:31 AM

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BENCHMARK:
ELEVATION DETERMINED FROM CORN CONTROL SITES, POINT #1 TRAVPT-SET 1X2 W/TACK FLUSH, NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:
CCS83 ZONE 5, NAD83(2011), EPOCH 2010.0

PLANS PREPARED BY:

DUDEK
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:

[Signature] 90073 06/21/2024
PROFESSIONAL ENGINEER R.C.E. No. DATE

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:
SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS

David Doublet
ASSISTANT DIRECTOR

Digitally signed by David Doublet
Date: 2024.07.11 12:20:54 -0700

APPROVALS	PROJECT MANAGER	INITIAL	DATE
	Deanna Lestina		
	Greg Snyder		
	PM, DIVISION MANAGER	Noel Mondragon	

WATER IMPROVEMENT PLANS

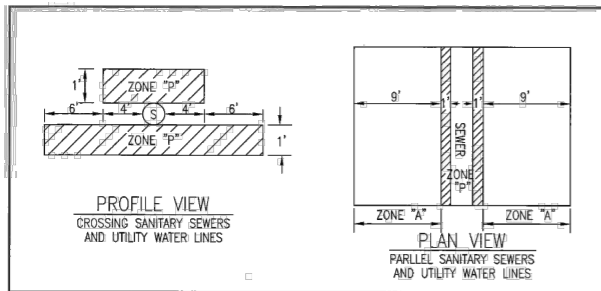
CSA 70J - RODEO ROAD AND PITZER AVENUE
WATERLINE IMPROVEMENT
PROJECT NO. 30.30.0173

CIVIL DETAILS - 1

DWG NO.
CD-1

FILE NO.
SDD-XXX

SHEET 6 OF 8



ZONE "P" WATER MAIN CONSTRUCTION IN THIS ZONE IS PROHIBITED.

ZONE "A" NO WATER MAINS SHALL BE CONSTRUCTED IN THIS ZONE WITHOUT APPROVAL FROM THE HEALTH AGENCY.

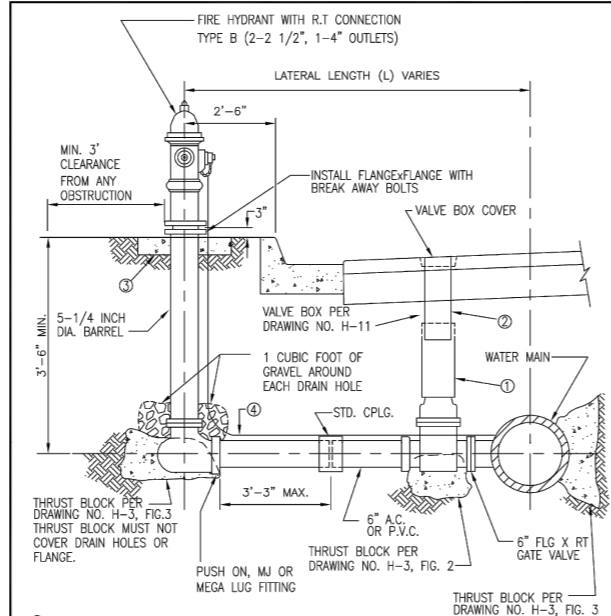
SPECIAL PIPE ALTERNATIVES NEED SWRCB APPROVAL.

TECH. SPEC. REFERENCE: CLEARANCE FROM SENIOR LINE SECTION 1.7

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

PROTECTION OF UTILITY WATER LINES FROM SANITARY SEWERS

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 11-7-18, DRAWING NUMBER: H-1

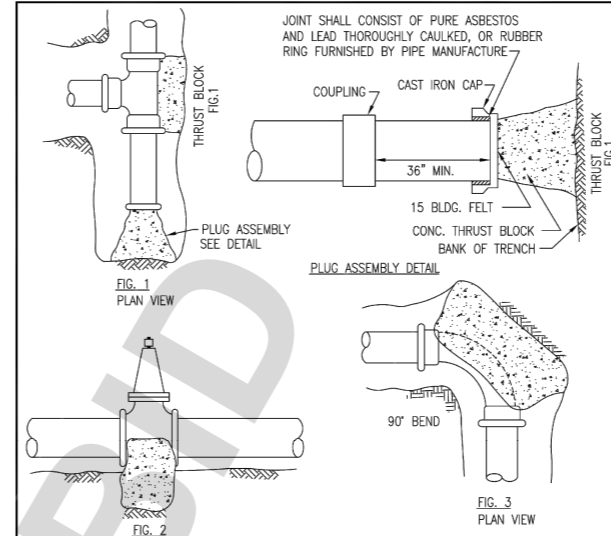


TECH. SPEC. REFERENCE: FIRE HYDRANT ASSEMBLIES - SECTION 4.0

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

**5 1/4" FIRE HYD. ASSY
6" VALVE OPENING
P.V.C. MAIN**

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-8-2012, DRAWING NUMBER: H-2A



TECH. SPEC. & FURTHER NOTES: SPECIAL DESIGN REQUIRED FOR BEARING AREAS FOR CLASS OF PIPE HIGHER THAN 150.

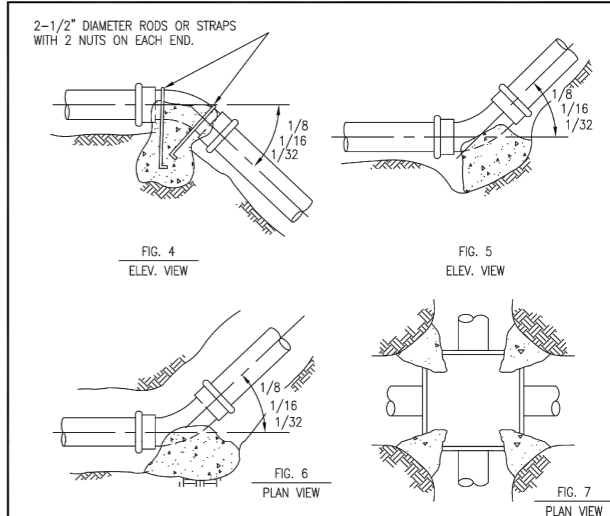
CONCRETE THRUST BLOCKS, COUPLERS, ENDS/ENDS AND BLANKETS - SECTION 10.0

SIZE OF PIPE	BEARING AREA - SQ. FEET CLASS 150		VOL.-CUBIC FEET CLASS 150	
	FIG. 1	FIG. 3	FIG. 2	FIG. 2
4"	3	3	AS DIRECTED BY ENGINEER	
6"	5	6		
8"	8	10		
10"	12	16		
12"	17	22		

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

THRUST BLOCKS

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-8-2012, DRAWING NUMBER: H-3A



TECH. SPEC. REFERENCE: CONCRETE THRUST BLOCKS AND BLANKETS - SECTION 10.0

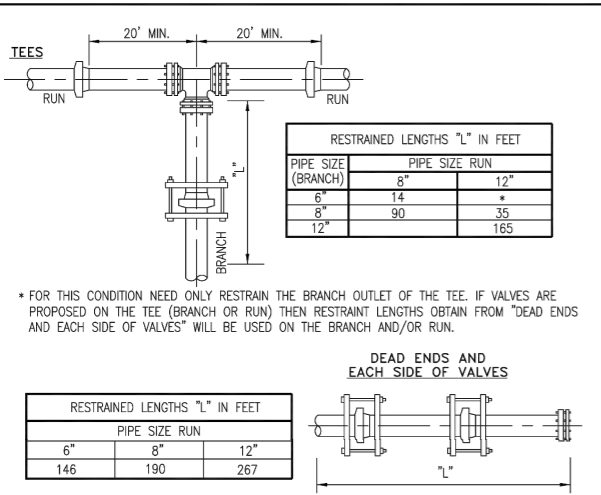
OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

THRUST BLOCKS

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-8-2012, DRAWING NUMBER: H-3B

SIZE OF PIPE	VOLUME - CUBIC FEET CLASS 150			BEARING AREA - SQ. FEET CLASS 150		
	FIG. 4	FIG. 5	FIG. 6	FIG. 5	FIG. 6	FIG. 7
4"	1/8	1/16	1/32	1/8	1/16	1/32
6"	3	3	3	2	1	0
8"	22	5	3	4	2	1
10"	14	3	3	6	3	1
12"	29	3	3	9	5	2

NOTE: SPECIAL DESIGN REQUIRED FOR BEARING AREAS FOR CLASS OF PIPE HIGHER THAN 150.

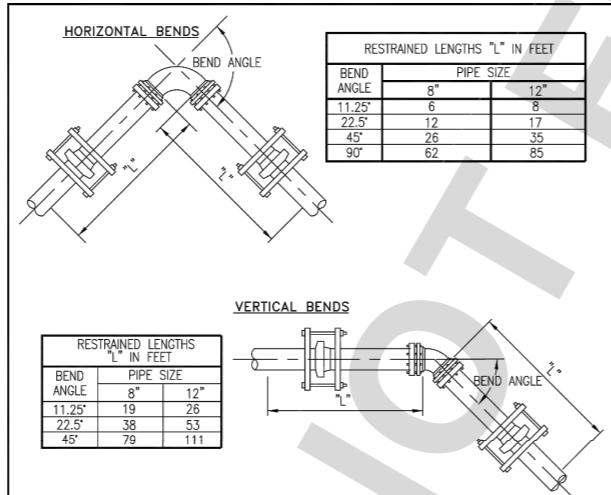


TECH. SPEC. REFERENCE: STANDARD RESTRAINT TEES, DEAD ENDS & BENDS FOR PVC C-900

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

STANDARD RESTRAINT TEES, DEAD ENDS & BENDS FOR PVC C-900

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 8-22-2013, DRAWING NUMBER: H-3C

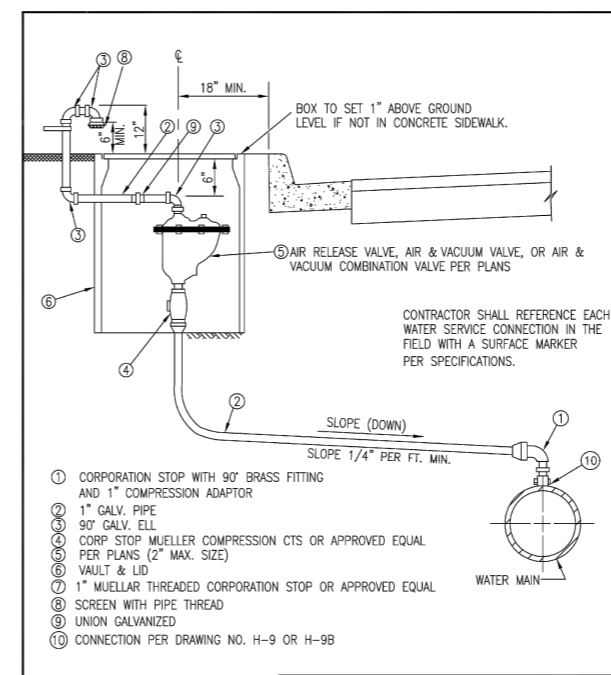


TECH. SPEC. REFERENCE: STANDARD RESTRAINT TEES, DEAD ENDS & BENDS FOR PVC C-900

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

STANDARD RESTRAINT TEES, DEAD ENDS & BENDS FOR PVC C-900

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 8-22-2013, DRAWING NUMBER: H-3D

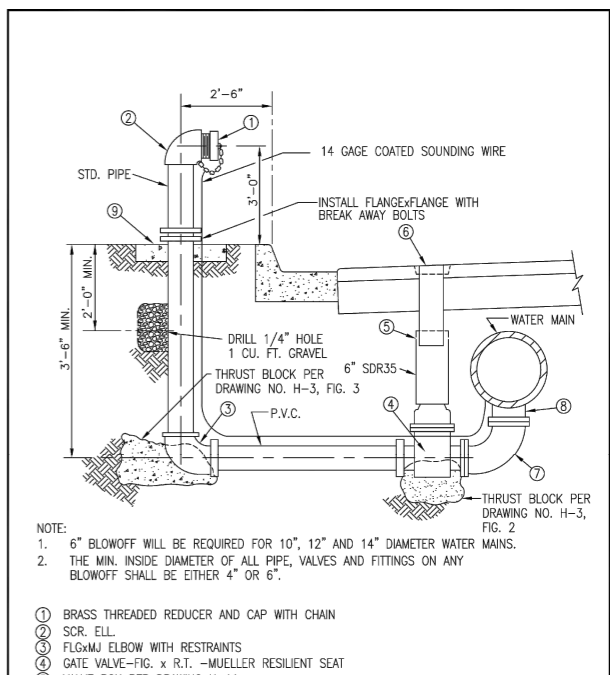


TECH. SPEC. REFERENCE: AIR & VACUUM & AIR RELEASE ASSEMBLIES - SECTION 8.0

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

AIR AND VACUUM VALVE ASSEMBLY

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-8-2012, DRAWING NUMBER: H-6



TECH. SPEC. REFERENCE: FLUSHOUT AND BLOWOFF ASSEMBLIES - SECTION 5.0

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

**4" & 6" BLOWOFF ASSEMBLY
A.C. & P.V.C. MAINS**

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-8-2012, DRAWING NUMBER: H-7A

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OR
811

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BENCHMARK:

ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVEL-SET 1X2 W/ACK FLUSH, NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:

CCS83 Zone 5, NAD83(2011), EPOCH 2010.0

REGISTERED PROFESSIONAL ENGINEER
M. G. GRAND
C 90073
CIVIL
STATE OF CALIFORNIA

PLANS PREPARED BY:

DUDEK
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:

09073 06/21/2024
PROFESSIONAL ENGINEER R.C.E. No. DATE

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:

SAN BERNARDINO COUNTY - PUBLIC WORKS
SPECIAL DISTRICTS

David Doublet
ASSISTANT DIRECTOR

APPROVALS:

PROJECT MANAGER	INITIAL	DATE
Deanna Lestina		
Greg Snyder		
PM, DIVISION MANAGER		

WATER IMPROVEMENT PLANS

CSA 70J - RODEO ROAD AND PITZER AVENUE
WATERLINE IMPROVEMENT
PROJECT NO. 30.30.0173

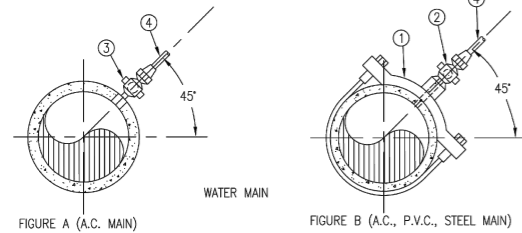
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DWG NO.
CD-2

FILE NO.
SDD-XXX

SHEET 7 OF 8

File name: P:\101.Engineering\San Bernardino_County\4724.02 - CSA 70J Heperia Waterline Improvement\6 - CAD\Heperia CD-2.dwg
Plot date: 6/28/2024 9:31 AM



- 1 SERVICE CLAMP
- 2 CORPORATION STOP, (I.P.T.) INLET
- 3 CORPORATION STOP, C.S.T. INLET
- 4 SERVICE TUBING

CONNECTION REQUIREMENTS

SERVICE OUTLET	SIZE OF A.C. MAIN			
	4"	6"	8"	10" & OVER
1"	FIG. B	FIG. B	FIG. B	FIG. A
1 1/4"	NOT PERMITTED	FIG. B	FIG. B	FIG. B
1 1/2"	NOT PERMITTED	FIG. B	FIG. B	FIG. B
2"	NOT PERMITTED	NOT PERMITTED	FIG. B	FIG. B

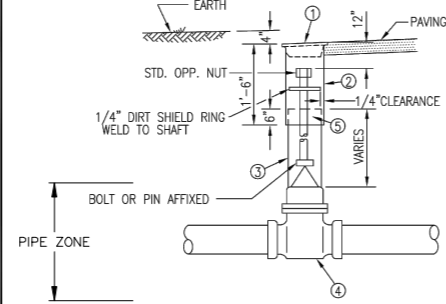
- NOTES:
- IF TWO TAPS ARE MADE, ONE ON EACH SIDE OF THE MAIN, THEY SHALL BE SEPARATED BY A MINIMUM OF TWO (2) FEET (MEASURED ALONG THE PIPE LENGTH). MAKE TAP A MINIMUM OF TWO (2) FEET FROM THE END OF THE PIPE.
 - PIPE THREADS SHALL BE CLEAN AND SHARP AND SEALED WITH AN APPROVED JOINT COMPOUND.

TECH. SPEC. REFERENCE
WATER SERVICES - SECTION 7.9

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

SERVICE CONNECTIONS TO WATER MAINS

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-6-2012, DRAWING NUMBER: H-9



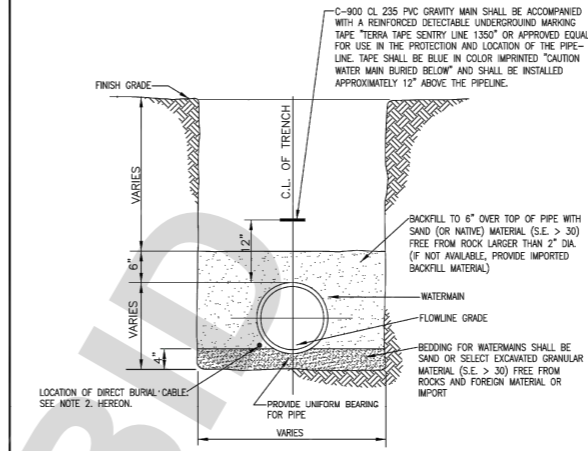
- 1 VALVE BOX COVER
- 2 6 5/8" O.D., 10 GAGE STEEL VALVE BOX TOP. (SLIDER INSTALLS INSIDE SDR 35)
- 3 6" SDR 35 PIPE, CUT TO LENGTH TO MEET FIELD CONDITIONS
- 4 VALVE
- 5 FABRICATED EXTENSION STEM (REQUIRED IF VALVE NUT MORE THAN 36" BELOW SURFACE).

TECH. SPEC. REFERENCE
GATE VALVES, VALVE BOXES AND COVERS-SECTION 6.0

OFFICE OF SPECIAL DISTRICTS
COUNTY OF SAN BERNARDINO

VALVE BOX

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-6-2012, DRAWING NUMBER: H-11

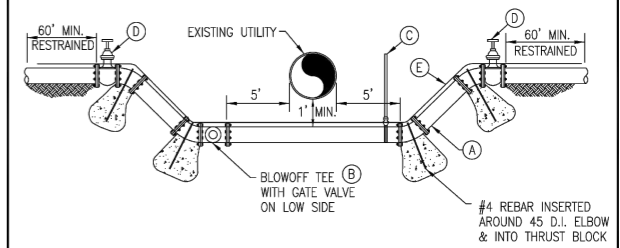


- NOTES:
- WHERE BOTTOM OF EXCAVATION IS IN ROCK WHICH CANNOT BE EXCAVATED TO PROVIDE UNIFORM BEARING FOR THE PIPE, OVEREXCAVATE 6" MINIMUM BELOW DESIGN GRADE, AND REFILL IN 3" THICK COMPACTED LAYERS WITH SELECTED EXCAVATED MATERIAL OR PROVIDE IMPORTED BACKFILL MATERIAL PER SPECIFICATIONS.
 - WHENEVER THE PLANS AND/OR SPECIFICATIONS REQUIRE THAT DIRECT BURIAL CABLE BE INSTALLED, THE CABLE SHALL BE INSTALLED IN THE LOCATION SHOWN ABOVE.
 - PIPE ZONE SHALL BE IN ACCORDANCE WITH COUNTY OF SAN BERNARDINO STANDARDS. REPAIRS ABOVE PIPE ZONE SHALL BE IN ACCORDANCE WITH CITY OF HESPERIA STANDARDS.

SS/2020 SPECIAL DISTRICTS DIVISION
COUNTY OF SAN BERNARDINO

TYPICAL TRENCH DETAIL

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-6-2012, DRAWING NUMBER: H-16

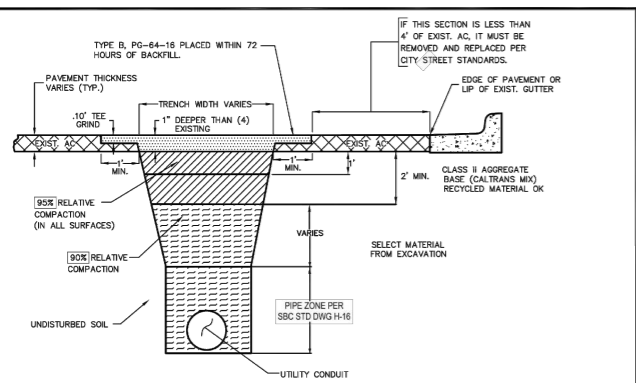


- NOTES:
- (A) THE DROP SHALL BE CLASS 50-55 D.I. PIPE WITH FLG. OR M.J. FITTINGS.
 - (B) BLOWOFF ASSEMBLY TO BE INSTALLED ON LOW SIDE. SEE BLOWOFF DETAIL H-7B.
 - (C) AIR/VAC ASSEMBLY TO BE INSTALLED ON HIGH SIDE. SEE AIR/VAC DETAIL H-6.
 - (D) ISOLATION VALVES TO BE DETERMINED BY DISTRICT BASED ON LOCATION OF OTHER LINE VALVES.
 - (E) 12 GA. LOCATION WIRE.

SPECIAL DISTRICTS DIVISION
COUNTY OF SAN BERNARDINO

WATER MAIN DROP SECTION DETAIL

APPROVAL: GARY MARTIN, DISTRICT ENGINEER, DATE: 3-6-2012, DRAWING NUMBER: H-17

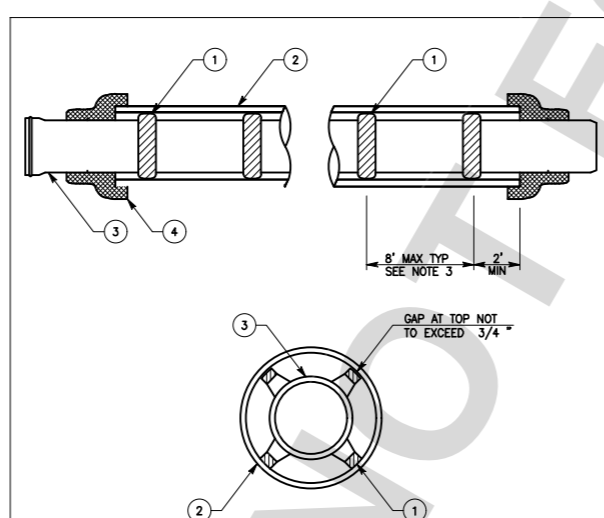


- NOTES:
- ALL TRENCHES SHALL BE BACKFILLED AND CONSOLIDATED IN ACCORDANCE WITH THE ABOVE DETAIL UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.
 - ALL TRENCHES OR BELL HOLES WILL REQUIRE A .10 FT GRIND A MINIMUM OF 1 FT OUTSIDE REPAIR. CITY ARTERIAL ROADS WILL REQUIRE A .10 FT GRIND A MINIMUM OF 8 FT OUTSIDE REPAIR. NO T-CUTS WILL BE ALLOWED FOR TRENCH REPAIRS UNLESS APPROVED BY CITY INSPECTOR.
 - UNLESS OTHERWISE INSTRUCTED BY THE CITY ENGINEER, TRENCH PATH SHALL BE STRAIGHT GRADE ACROSS WIDTH AND SHALL NOT BE CURVED AT CENTER.
 - ASPHALT IN AREA OF TRENCH 1" THICKER THAN EXISTING OR 6" (WHICHEVER IS GREATER).
 - 1-SACK SAND/CEMENT SLURRY MAY BE SUBSTITUTED FOR AGGREGATE BASE.
 - FREQUENCY OF COMPACTION TESTING SHALL BE NO LESS THAN ONE TEST PER 300 LINEAL FEET OF MAIN LINE, ONE TEST MINIMUM FOR EVERY THREE (3) FEET OF VERTICAL FILL. ADDITIONAL TESTING MAY BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER.
 - PAVING MACHINES USED FOR OVERLAY OF TRENCHES SHALL CONFORM TO S.P.P.W.C. STANDARDS.

DRAWN BY: M.W.M. CITY OF HESPERIA
STANDARD TRENCH REPAIR #201

APPROVED BY: [Signature] DATE: 03/21/23

REV. DATE STD. DRWG. NO. ST-6



- NOTES:
- CASINGS SPACERS SHALL BE THE CENTERED RESTRAINED POSITION TYPE
 - THE ANNULAR SPACE BETWEEN THE CARRIER PIPE AND THE CASING SHALL NOT BE FILLED WITH ANY MATERIAL UNLESS OTHERWISE NOTED ON PLANS
 - MINIMUM 3 SPACERS PER PIPE SECTION EQUALLY SPACED

ITEM NO	SIZE AND DESCRIPTION
1	CASING SPACERS PER PDMWD APPROVED MATERIAL LIST
2	PVC OR RCP CASING
3	PVC, C-900 OR C-905 WATER MAIN, CARRIER PIPE
4	CASING END SEAL PER PDMWD APPROVED MATERIAL LIST

DETAIL
NOT TO SCALE

1
C-2

File name: P:\101\Engineering\San Bernardino_County\0\14724.02 - CSA 70J Hesperia Waterline Improvement\6 - CAD\Hesperia CD-3.dwg
Plot date: 6/28/2024 9:32 AM

UNDERGROUND SERVICE ALERT

Call: TOLL FREE
1-800-227-2600
OR
811

TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK:
ELEVATION DETERMINED FROM CORRS CONTROL SITES, POINT #1 TRAVPT-SET 1X2 W/TACK FLUSH, NAVD-88 ELEV = 3555.315'

BASIS OF BEARINGS:
CCS83 Zone 5, NAD83(2011), EPOCH 2010.0



PLANS PREPARED BY:
DUDEK
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

PREPARED UNDER THE SUPERVISION OF:
[Signature]
PROFESSIONAL ENGINEER 90073 R.C.E. No. DATE: 06/21/2024

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

WATER / SEWER PLANS APPROVED BY:
SAN BERNARDINO COUNTY - PUBLIC WORKS SPECIAL DISTRICTS

David Doublet
ASSISTANT DIRECTOR

APPROVALS:

PROJECT MANAGER	INITIAL	DATE
Deanna Leitia		06/20/24
WAS. DIVISION MANAGER	Greg Snyder	06/20/24
PM, DIVISION MANAGER	[Signature]	06/20/24

WATER IMPROVEMENT PLANS

CSA 70J - RODEO ROAD AND PITZER AVENUE
WATERLINE IMPROVEMENT
PROJECT NO. 30.30.0173

CIVIL DETAILS - 3

DWG NO. CD-3
FILE NO. SDD-XXX
SHEET 8 OF 8