SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

SAN BERNARDINO COUNTY PUBLIC WORKS

TRANSPORTATION

PLANS FOR CONSTRUCTION ON

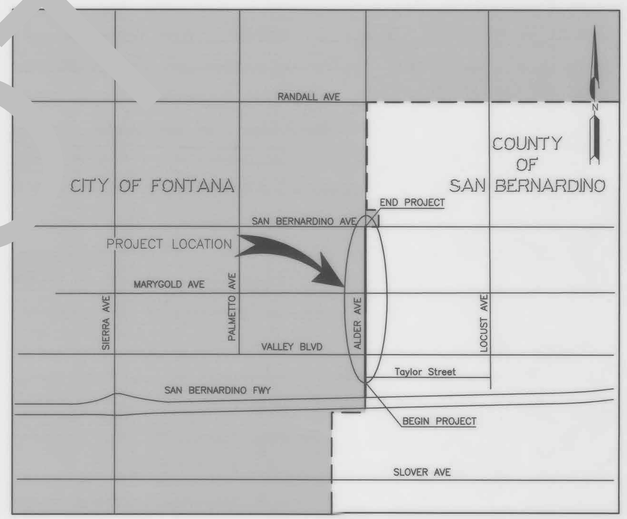
ALDER AVENUE

0.08 MI S. OF TAYLOR STREET TO SOUTH VALLEY BLVD
NORTH OF VALLEY BLVD N. TO SAN BERNARDINO AVENUE
FONTANA AREA

WORK ORDER NO. H14978 ROAD NO. 110650 040-050

LENGTH = 0.68 MILES

NOT FOR BID



LOCATION MAP

NOT TO SCALE

SAN BERNARDINO COUNTY

APPROVED BY: BRENDON P. BIGGS, M.S., P.E., DIRECTOR OF PUBLIC WORKS R.C.E. 57127 — DATE 11-8-21

APPROVED BY: DAVID R. DOUBLET, M.S., P.E., ASSISTANT DIRECTOR OF PUBLIC WORKS R.C.E. 61291 — DATE 11/8/21

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 11-8-21 — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
	FIELD CHANGES	SHT. NO. 1	TOT. SHT'S. 13

MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

FILE NO. 110650 040-050

W:\Design Team - A\Alder Avenue - (TX1782)\H14978 ALDER AVE.dwg - MODIFIED 11/5/2021 10:30:55 AM - PLOTTED 11/5/2021 3:39:04 PM

NOT FOR BID

INDEX OF SHEETS

1	TITLE SHEET
2	NOTES, INDEX MAP & LEGENDS
3	TYPICAL CROSS SECTIONS
4–7	PLAN & PROFILE SHEETS
8–9	CURB RETURN DETAILS
10–11	SIGNING AND STRIPING
12–13	TRAFFIC SIGNAL PLAN
1–12	CROSS SECTIONS

THE FOLLOWING SPECIAL DRAWINGS AND COUNTY STANDARDS ARE ATTACHED TO THE SPECIAL PROVISIONS:

109 115 117 119 MOD 135A 210A 204 206a
303 303A 303B 312 SPEC DWG 136

TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS STANDARD PLANS 2018.

A20A, A20B, A20C, A20D A24A, A24C, A24D, A24E, A24F, A87A
A88A, A88B, RSP ES–1A, RSP ES–1B, RSP ES–1C, ES–3B,
RSP ES–4E, ES–5C, RSP ES–7A, ES–7R, RSP ES–8A, RSP ES–8B

TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS STANDARD PLANS 2015.

RSP T9, RSP T10, T11, T13

TO BE SUPPLEMENTED BY THE FOLLOWING CITY OF FONTANA STANDARD PLANS

1000 1003 1006 1007
2000 2001

TO BE SUPPLEMENTED BY THE FOLLOWING CALIFORNIA MUTCD 2014, REVISION 6

FIG. 2A–2(CA), FIG 2C–13(CA), FIG 3B–102(CA), FIG 6H–28,
FIG 6H–29, SEC. 6D.01, SEC. 6D.02

TO BE SUPPLEMENTED BY THE FOLLOWING STANDARD PLANS FOR PUBLIC WORKS

606–3

THIS PROJECT REQUIRES A CONTRACTOR'S LICENSE CLASS "A" or "C 12"

GENERAL NOTES

U. THE FACT THAT ANY UTILITY FACILITY IS SHOWN OR NOT SHOWN UPON THE PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER SECTION 5–1.36D "NON HIGHWAY FACILITIES," OF THE CALTRANS STANDARD SPECIFICATIONS AND THE SPECIAL PREVISIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PURSUANT THERETO, TO ASCERTAIN THE LOCATION OF ANY UTILITY FACILITY WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF THE CONTRACTOR'S OPERATIONS.

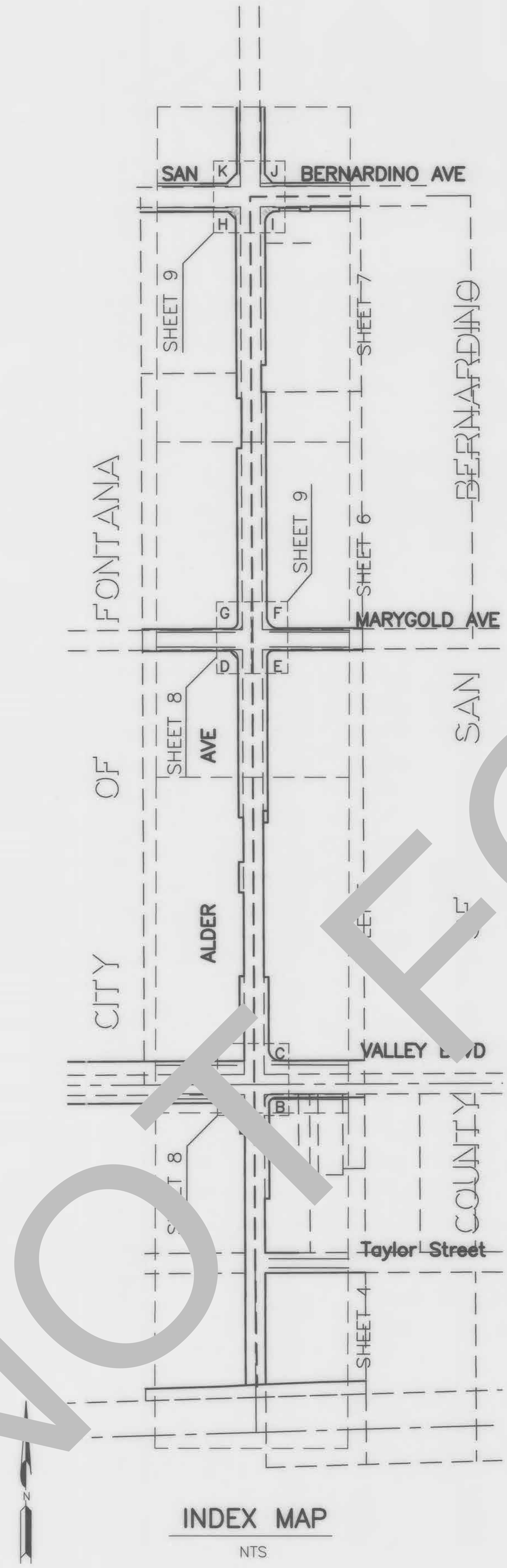
1. ALL STATIONING NOTES ON PLAN REFER TO THE C.L. SUR. ALDER AVENUE OR SIDE STREET.
2. DIMENSIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE CALTRANS STANDARD SPECIFICATIONS.
3. ALL PAVEMENT WIDTH DIMENSIONS SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT OR TO THE TOP OF CURB, UNLESS OTHERWISE NOTED.
4. TRANSITIONS AND WARPING SHALL BE AS SHOWN AND AS DETERMINED BY THE ENGINEER.
5. ASPHALT CONCRETE OVERLAYS SHALL BE FEATHERED TO MEET EXISTING AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
6. ALL TREES & VEGETATION OUTSIDE THE LIMITS OF EXCAVATION AND EMBANKMENT SLOPE LINES, SHALL BE PROTECTED IN PLACE.

BASIS OF BEARINGS:

THE CENTERLINE OF ALDER AVE BETWEEN VALLEY BLVD AND Taylor Street PER RS 159/56 BEING N00°20'39"W

BENCH MARK:

FOUND S.B. CO. L&T (RP) IN TOP OF CURB NW COR ALDER AVE & SAN BERNARDINO AVE AT WEST END ECR BY FH PER CSFB 4016/2390 NAVD–29 ELEVATION = 1150.76'



INDEX MAP

NTS

ABBREVIATIONS LEGEND:

AC	=	ASPHALT CONCRETE	LT	=	LEFT
AB	=	AGGREGATE BASE	LOT	=	LENGTH OF TAPER
BC	=	BEGIN CURVE	MB	=	MAIL BOX
BOC	=	BOTTOM OF CURB	MH	=	MANHOLE
BCR	=	BEGIN CURB RETURN	N	=	NORTHING
BDR	=	BEGIN DIKE RETURN	N/A	=	NOT APPLICABLE
BEG	=	BEGIN	NTS	=	NOT TO SCALE
BLVD	=	BOULEVARD	OG	=	ORIGINAL GROUND
C&G	=	CURB AND GUTTER	PCC	=	POINT OF COMPOUND CURVE
CB	=	CATCH BASIN	PG	=	PROFILE GRADE
CL	=	CENTER LINE	PT	=	POINT
CF	=	CURB FACE	RT	=	RIGHT
CONC	=	CONCRETE	R/W	=	RIGHT OF WAY
DM	=	DEADMAN	S	=	SPACING
DWS	=	DETECTABLE WARNING SURFACE	SBCO	=	SAN BERNAR[illegible]
DYS	=	DOUBLE YELLOW STRIPE	SUR	=	SURVEY
DWG	=	DRAWING	SHT	=	SHEET
E	=	EASTING	SSGN	=	STR[illegible] SIGN
EC	=	END CURVE	STD	=	STA[illegible]
ECR	=	END CURB RETURN	SPPWC	=	STAND[illegible]AN FOR PUBLIC WORK[illegible]ONSTRUCTION
EDR	=	END DIKE RETURN	STA	=	STATION
EL	=	ELEVATION	STMDR	=	STORM DRAI[illegible]
EP	=	EDGE OF PAVEMENT	SW	=	[illegible]EWALK
EXIST	=	EXISTING	TC	=	[illegible]F CURB
FS	=	FINISHED SURFACE	[illegible]	=	TO[illegible] DIKE
FH	=	FIRE HYDRANT	[illegible]	=	TOP C[illegible]TE
FL	=	FLOW LINE	THK	[illegible]	THICKNES[illegible]
GB	=	GRADE BREAK	TRANS	[illegible]	TRANSITION
GRD	=	GROUND	TYP	[illegible]	[illegible]CAL
IMP	=	IMPROVEMENT	WS[illegible]	=	W[illegible] STRIPE
L	=	LENGTH			

CONSTRUCTION & UNDERGROUND UTILITY LEGEND

- COLD PLANE AND ASPHALT CONCRETE OVERLAY
- ASPHALT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE (SECTION)
- PORTLAND CEMENT CONCRETE (PLAN)
- DETECTABLE WARNING SURFACE
- COBBLE STONE
- AGGREGATE BASE
- ORIGINAL GROUND
- —G— GAS LINE
- —S— SEWER MAIN
- —W— WATER LINE
- —E— ELECTRIC LINE
- —T— TELEPHONE LINE
- FLOW LINE
- COUNTY/CITY BOUNDARY

C[illegible]RUCTION N[illegible]S:

◯	
U	UTILITIE[illegible] BE [illegible] BY OTHERS. (SEE NOTE[illegible] GENERAL NOTES ON THIS SHEET).
1	SAWCUT AND [illegible]EMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.
2	SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).
3	PULVERIZE IN PLACE THE EXIST. ASPHALT CONCRETE AND NATIVE MATERIAL FOR A DEPTH OF 0.80' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.45' OF PULVERIZED MATERIAL. ADD 2% CEMENT TO REMAINING 0.35' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.25' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70–10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT.
4	PULVERIZE IN PLACE THE EXIST. AC, AB AND NATIVE MATERIAL FOR A DEPTH OF 1.0' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.60' OF PULVERIZED MATERIAL ADD 2% CEMENT TO REMAINING 0.40' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.40' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70–10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT.
5	PLACE 8" AC DIKE PER COUNTY STD 117.
6	PROTECT IN PLACE.
7	CONSTRUCT 8" CONCRETE CURB AND GUTTER PER CITY OF FONTANA STD 1000.
8	CONSTRUCT COMMERCIAL DRIVEWAY PER SPECIAL DWG 136.
9	CONSTRUCT RAMP PER CALTRANS STD RSP A88A OR A88B, CASE PER PLAN.
10	REMOVE EXISTING CONCRETE CURB.
11	CONSTRUCT CONCRETE SIDEWALK PER CITY OF FONTANA STD 1006 STANDARDS.
12	CONSTRUCT SPANDREL/CROSS GUTTER PER COUNTY STD 119 (MODIFIED).
13	INSTALL METAL HAND RAILINGS PER COUNTY SPPWC 606–3, TYP A.
14	PLACE ROCK TREATMENT PER DETAIL A ON SHEET 8.
15	CONSTRUCT 2' WIDE X 6" THK DEPTH CONCRETE PAD PLUS 6" BASE TO GRATE INLET.
16	CONSTRUCT CONCRETE SIDEWALK PER COUNTY STANDARD 109.
17	RESET ROAD SIGN PER AS SHOWN ON SIGNING AND STRIPING PLANS.
18	CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115.
19	ADJUST MANHOLE TO GRADE PER CITY OF FONTANA STD 2000 AND 2001.
20	PLACE DETECTABLE WARNING SURFACE PER CALTRANS STANDARD PLAN RSP A88A.
21	PLACE ASPHALT CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY SPEC DWG 135a.
22	REMOVE AND DISPOSE OF EXISTING PALM TREE AND STUMP.
23	COLD PLANE (0.15' AND UP TO 0.20') OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.15' AND UP TO 0.20') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
24	SAWCUT AND REMOVE EXISTING BROKEN CURB AND REPLACE IT WITH DOWEL CURB PER CALTRANS STD A87A TYPE A3 CURB, MIN 2 DOWELS.
25	COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
26	PLACE (0.25' THK) OF ASPHALT CONCRETE TYPE "A" 3/4" AGGREGATE GRADATION PG 70–10.
27	PLACE 8" AC DIKE PER CITY OF FONTANA STD 1007.
28	EXISTING SIGN TO BE RESET PER SIGNING AND STRIPING PLANS.
29	REPLACE PULL BOX PER SIGNAL MODIFICATION PLAN.
30	RELOCATE (BY OTHERS).
31	SAW CUT AND REMOVE BROKEN CURB AS NECESSARY OVER DRAINAGE STRUCTURE TO CONSTRUCT 8" DOWEL CURB PER CALTRANS STD. A87A, TYPE B3.
32	SAWCUT AND REMOVE 2' MIN ASPHALT CONCRETE SURFACING. PLACE 1' THICK TYPE "A" ASPHALT 1/2" AGGREGATE GRADATION, PG 70–10 HOT MIX ASPHALT OVER COMPACTED NATIVE SOIL.
33	CONSTRUCT RAMP PER CITY OF FONTANA STD PLAN 1003 WITH DETECTABLE WARNING SURFACE.
34	REMOVE AND DISPOSE OF EXISTING TOP OF DRAINAGE OUTLET STRUCTURE. DOWEL AND BOND #4 BAR INTO EXISTING STRUCTURE WALLS @ 18" OC, 9" DEEP THEN PLACE BARS AS SHOWN ON COUNTY STD 210A. RECONSTRUCT PER COUNTY STANDARD 210A, 204 AND 206A AND RAMP B ELEVATIONS SHOWN ON SHEET 8.

FILE NO. 110650 040–050

MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040–050

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: [signature] DATE 11.8.21
CITY ENGINEER R.C.E. 51152

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERVAT NESSIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	[signature] 11/8/21 DATE — MERVAT N. MIKHAIL, P.E. ENGINEERING MANAGER

[signature] 11/5/21 DATE — THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER

APPROVED BY: [signature] 11/8/21 DATE — NOEL CASTILLO, P.E. DEPUTY DIRECTOR

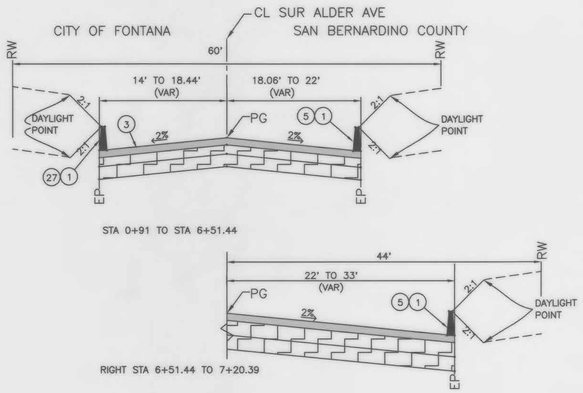
ALDER AVENUE

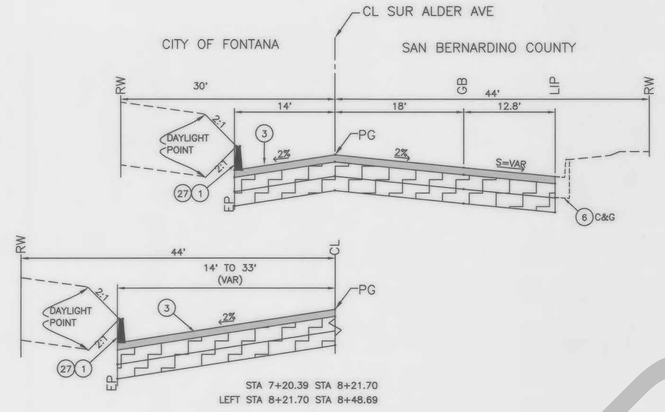
NOTES, INDEX MAP & LEGENDS

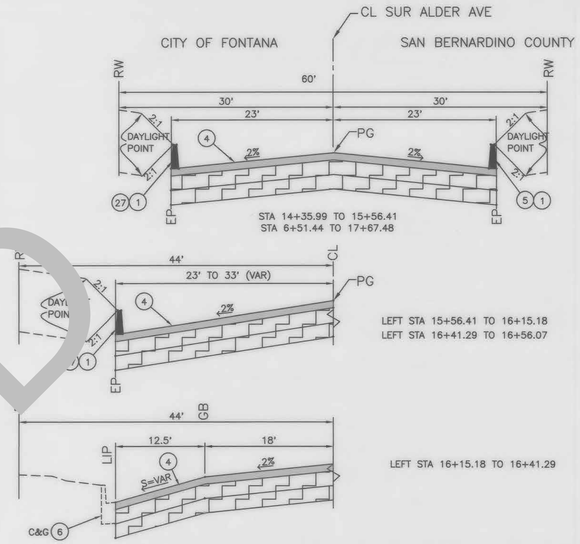
FONTANA AREA

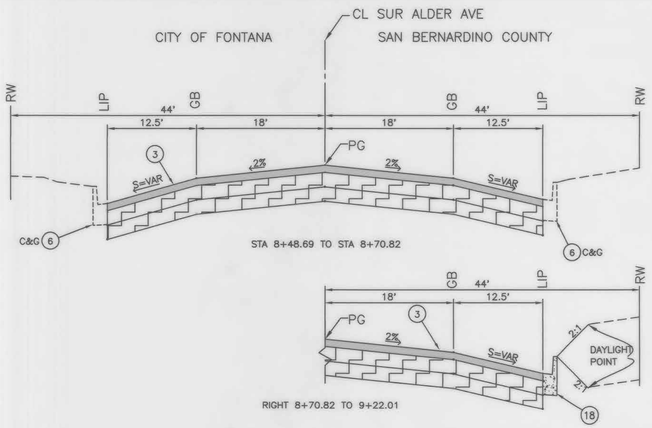
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	N/A	2	13

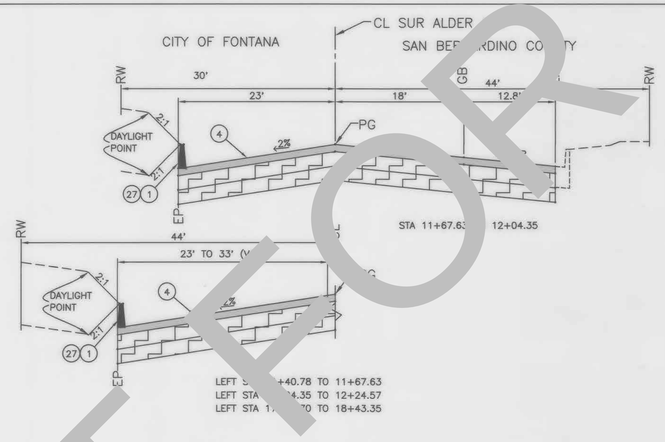
W:\Design Team – A\Alder Avenue – (TX1787)H14978\Civil 3D\WORKING FILES\H14978 ALDER AVE.dwg – MODIFIED 11/5/2021 10:30:55 AM – PLOTTED 11/5/2021 3:41:26 PM

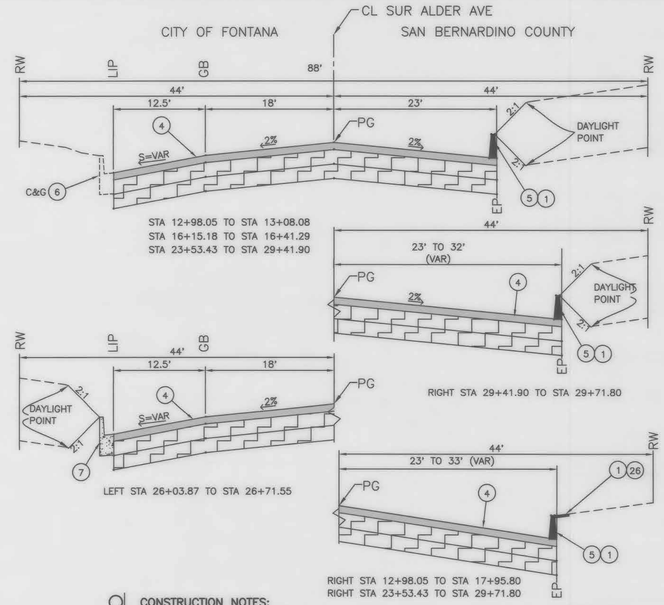


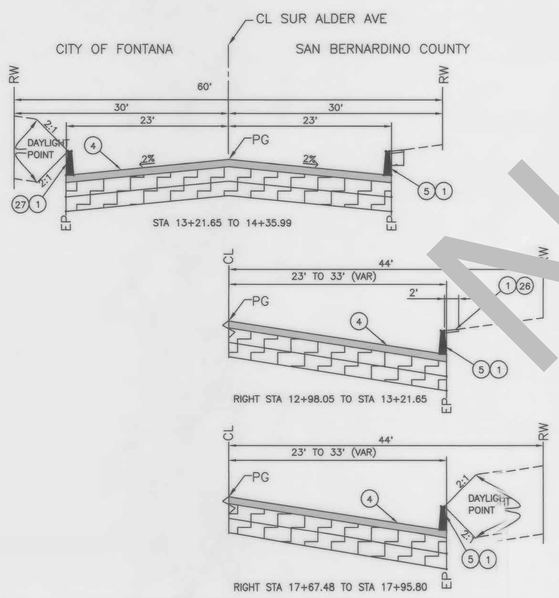


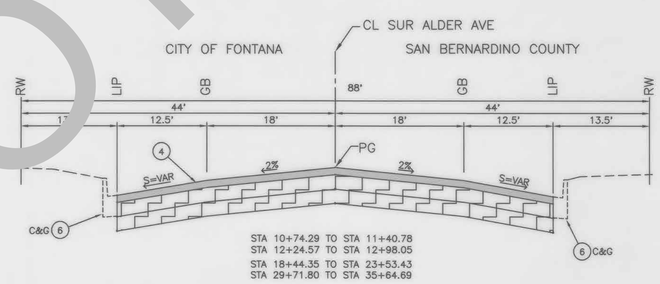












CONSTRUCTION NOTES:

1 SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.

3 PULVERIZE IN PLACE THE EXIST. ASPHALT CONCRETE AND NATIVE MATERIAL FOR A DEPTH OF 0.80' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.45' OF PULVERIZED MATERIAL. ADD 2% CEMENT TO REMAINING 0.35' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.25' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT.

4 PULVERIZE IN PLACE THE EXIST. AC, AB AND NATIVE MATERIAL FOR A DEPTH OF 1.0' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.60' OF PULVERIZED MATERIAL ADD 2% CEMENT TO REMAINING 0.40' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED BASE. PLACE 0.40' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT.

5 PLACE 8" AC DIKE PER COUNTY STD 117.

6 PROTECT IN PLACE.

7 CONSTRUCT 8" CONCRETE CURB AND GUTTER PER CITY OF FONTANA STD 1000.

18 CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115.

26 PLACE (0.25' THK) OF ASPHALT CONCRETE TYPE "A" 3/4" AGGREGATE GRADATION PG 70-10.

27 PLACE 8" AC DIKE PER CITY OF FONTANA STD 1007.

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: 11-8-21
CITY ENGINEER DATE
R.C.E. 51152

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERWAT NESSIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	MERWAT N. MIKHAIL, P.E. ENGINEERING MANAGER — DATE 11/8/21

APPROVED BY:
THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER — DATE 11/5/21
NOEL CASTILLO, P.E. DEPUTY DIRECTOR — DATE 11/8/21

ALDER AVENUE

TYPICAL CROSS SECTIONS

FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=40'	3	13

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

NOT FOR BID

W:\Design Team - Alder Avenue - (R17875)14978\Civil 3D\Versions\R23\14978 ALDER Alt2.dwg - MODIFIED 11/5/2021 10:30:05 AM - PLOTTED 11/5/2021 3:42:58 PM

CONSTRUCTION NOTES:

U	UTILITIES TO BE RESET BY OTHERS (SEE NOTE U. OF GENERAL NOTES ON SHEET 2).
1	SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.
2	SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).
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5	PLACE 8" AC DIKE PER COUNTY STD 117.
6	PROTECT IN PLACE.
8	CONSTRUCT COMMERCIAL DRIVEWAY PER SPECIAL DWG 136.
16	CONSTRUCT CONCRETE SIDEWALK PER COUNTY STANDARD 109.
17	RESET ROAD SIGN PER AS SHOWN ON SIGNING AND STRIPING PLANS.
18	CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115.
21	PLACE ASPHALT CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY SPEC DWG 135a.
25	COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
27	PLACE 8" AC DIKE PER CITY OF FONTANA STD 1007.

TC OR AC CURB RETURN DATA

Curve #	Δ	R	L	T
C12	090°35'53"	20'	31.62'	20.21'
C13	090°01'48"	20'	31.43'	20.01'
C14	057°26'18"	40'	40.10'	21.92'

NOT FOR BID

MARK	REVISIONS	APPR.	DATE

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CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: 11-8-21 DATE
CITY ENGINEER R.C.E. 51152

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERVAT NESSIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: DJ | DRAWN BY: DJ | CHECKED BY: ESR

RECOMMENDED BY: MERVAT N. MIKHAIL, P.E. ENGINEERING MANAGER 11/8/21 DATE

THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER 11/5/21 DATE

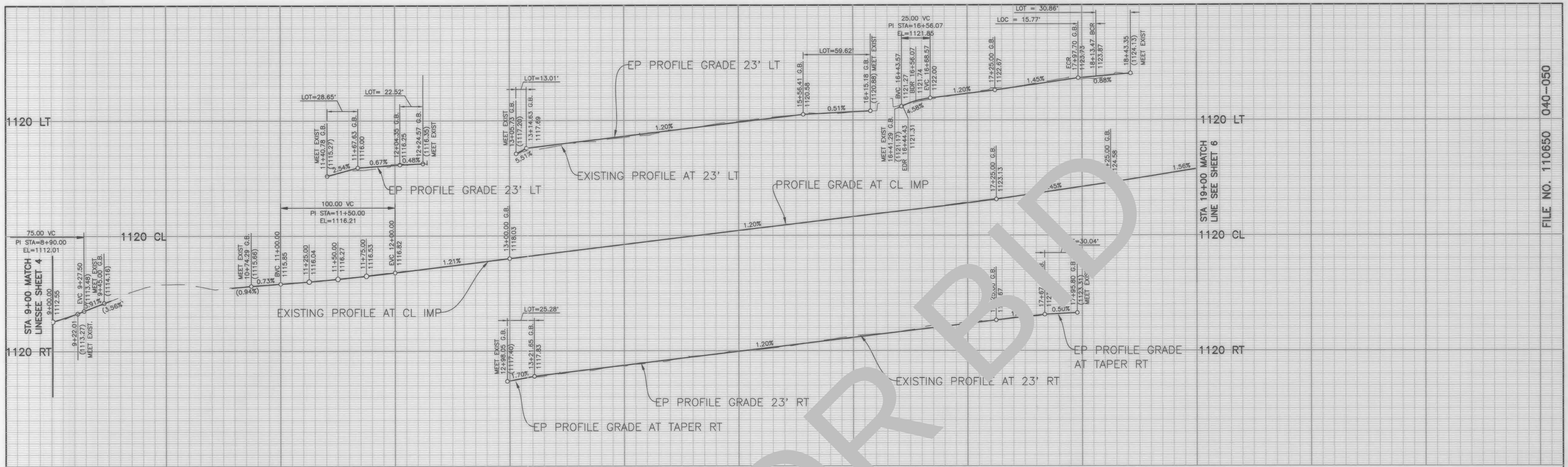
APPROVED BY: NOEL CASTILLO, P.E. DEPUTY DIRECTOR 11/8/21 DATE

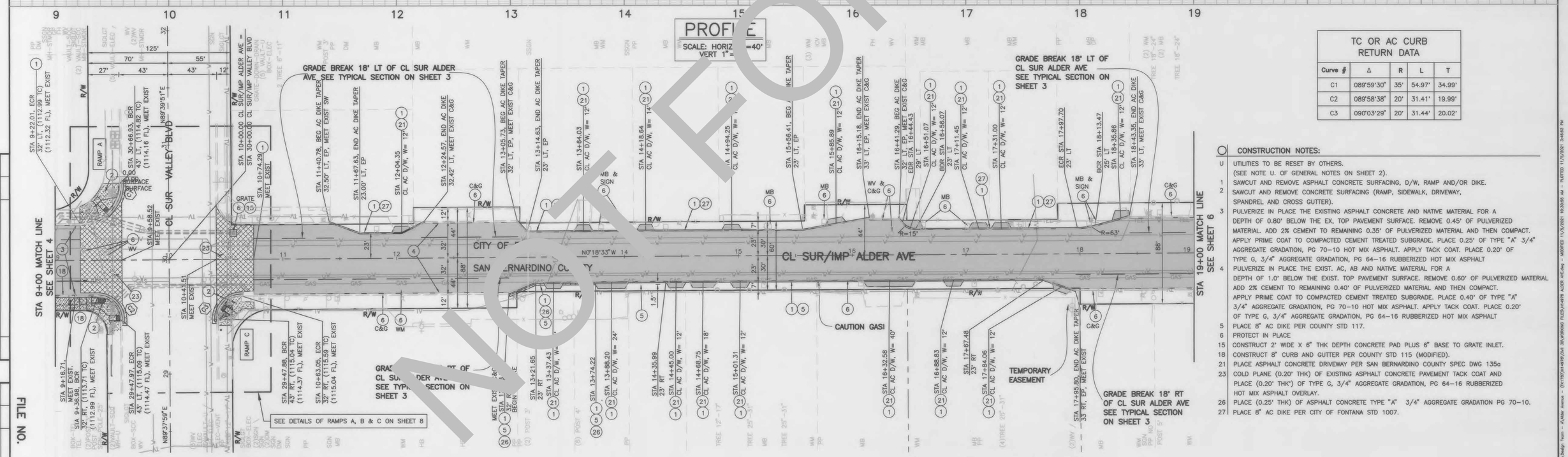
ALDER AVENUE

PLAN AND PROFILE
FROM STA 0+90.72 TO STA 9+00

FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=40'	4	13





TC OR AC CURB RETURN DATA

Curve #	Δ	R	L	T
C1	089°59'30"	35'	54.97'	34.99'
C2	089°58'38"	20'	31.41'	19.99'
C3	090°03'29"	20'	31.44'	20.02'

CONSTRUCTION NOTES:

U UTILITIES TO BE RESET BY OTHERS.
(SEE NOTE U. OF GENERAL NOTES ON SHEET 2).

1 SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.

2 SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).

3 PULVERIZE IN PLACE THE EXISTING ASPHALT CONCRETE AND NATIVE MATERIAL FOR A DEPTH OF 0.80' BELOW THE EX, TOP PAVEMENT SURFACE. REMOVE 0.45' OF PULVERIZED MATERIAL. ADD 2% CEMENT TO REMAINING 0.35' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.25' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT

4 PULVERIZE IN PLACE THE EXIST. AC, AB AND NATIVE MATERIAL FOR A DEPTH OF 1.0' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.60' OF PULVERIZED MATERIAL ADD 2% CEMENT TO REMAINING 0.40' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.40' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT

5 PLACE 8" AC DIKE PER COUNTY STD 117.

6 PROTECT IN PLACE

15 CONSTRUCT 2' WIDE X 6" THK DEPTH CONCRETE PAD PLUS 6" BASE TO GRATE INLET.

18 CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115 (MODIFIED).

21 PLACE ASPHALT CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY SPEC DWG 135a

23 COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT OVERLAY.

26 PLACE (0.25' THK) OF ASPHALT CONCRETE TYPE "A" 3/4" AGGREGATE GRADATION PG 70-10.

27 PLACE 8" AC DIKE PER CITY OF FONTANA STD 1007.

GRAPHIC SCALE 1"=40'
0 40 80 120

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 4-8-21 — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERPAT NESIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	MERPAT N. MIKHAIL, P.E. ENGINEERING MANAGER — DATE 11/8/21

THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER — DATE 11/5/21

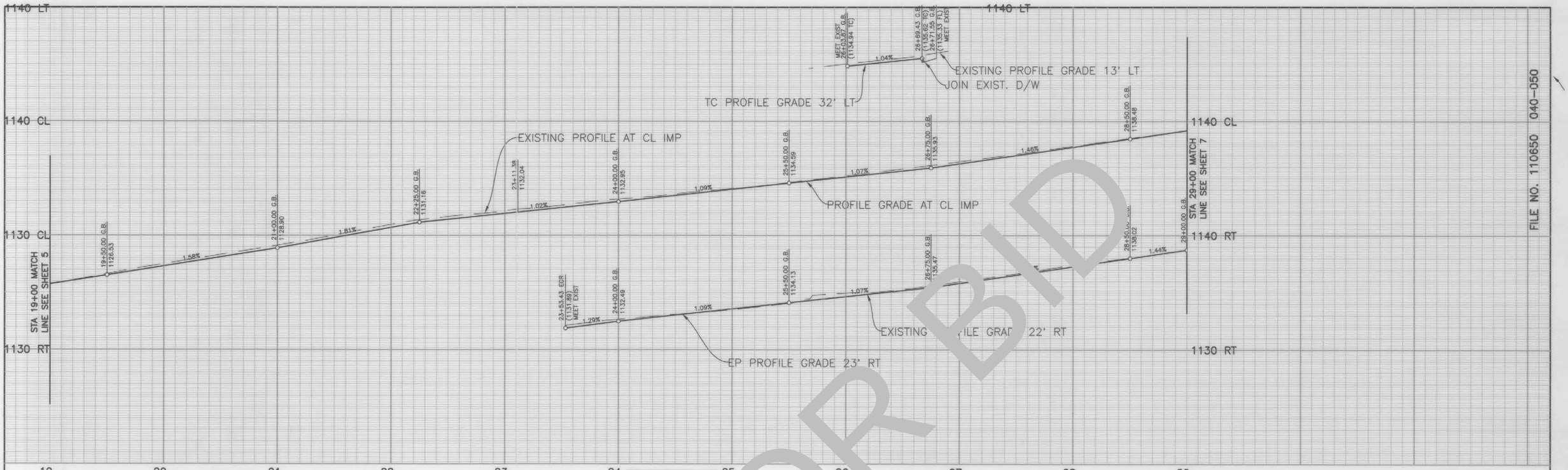
APPROVED BY: NOEL CASTILLO, P.E. DEPUTY DIRECTOR — DATE 11/8/21

ALDER AVENUE
PLAN AND PROFILE
FROM STA 9+00 TO STA 19+00
FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=40'	5	13

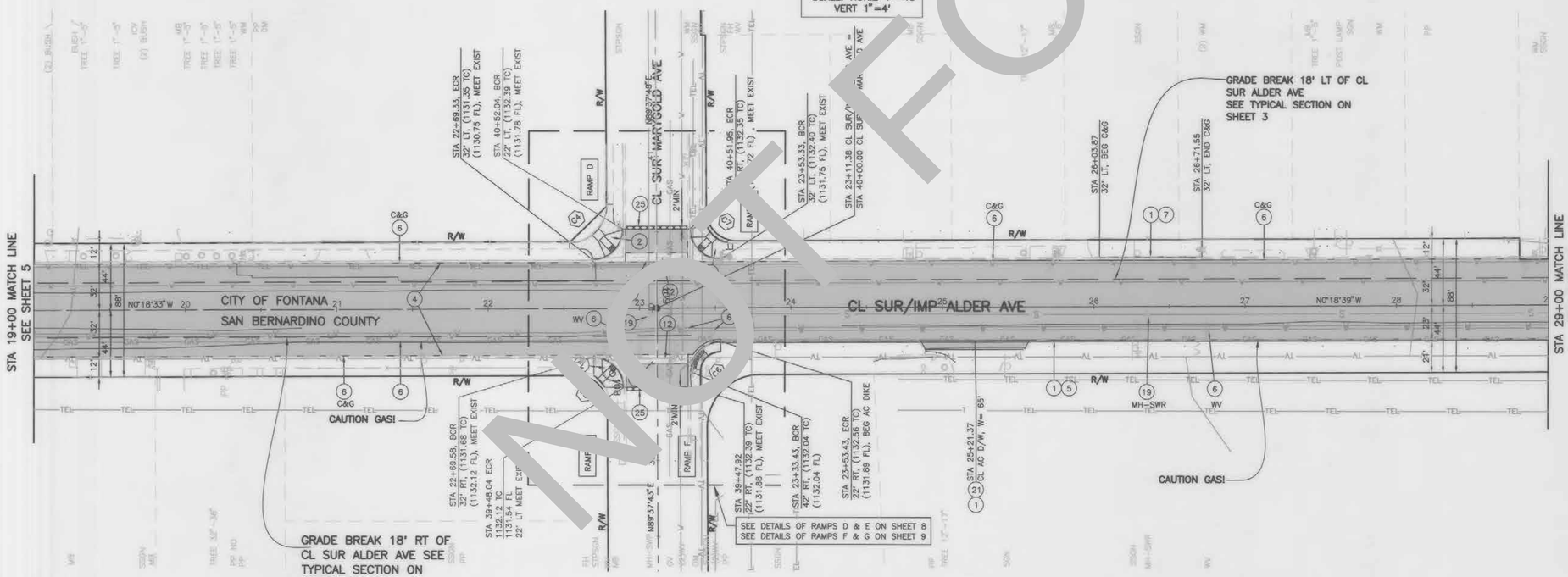
NOT FOR BID

W:\Design Team - Alder Avenue - D1\TRY\H14978_Civil 3D\Working FILES\H14978 ALDER VE.dwg - MODIFIED 11/5/2021 10:35:55 AM - PLOTTED 11/5/2021 3:46:52 PM



PROFILE

SCALE: HORIZ 1"=40'
VERT 1"=4'



GRAPHIC SCALE 1"=40'
0 40 80 120

TC OR AC CURB RETURN DATA				
Curve #	Δ	R	L	T
C4	090°03'39"	20'	31.44'	20.02'
C5	089°56'16"	20'	31.39'	19.98'
C6	090°03'38"	20'	31.44'	20.02'
C7	089°56'27"	20'	31.40'	19.98'

CONSTRUCTION NOTES:

- U UTILITIES TO BE RESET BY OTHERS. (SEE NOTE U. OF GENERAL NOTES ON SHEET 2).
- 1 SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.
- 2 SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).
- 4 PULVERIZE IN PLACE THE EXIST. AC, AB AND NATIVE MATERIAL FOR A DEPTH OF 1.0' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.60' OF PULVERIZED MATERIAL ADD 2% CEMENT TO REMAINING 0.40' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.40' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT.
- 5 PLACE 8" AC DIKE PER COUNTY STD 117.
- 6 PROTECT IN PLACE.
- 7 CONSTRUCT 8" CONCRETE CURB AND GUTTER PER CITY OF FONTANA STD 1000.
- 12 CONSTRUCT SPANDREL/CROSS GUTTER PER COUNTY STD 119.
- 19 ADJUST MANHOLE TO GRADE PER CITY OF FONTANA STD 2000 AND 2001.
- 21 PLACE ASPHALT CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY SPEC DWG 135a.
- 25 COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT OVERLAY.

NOT FOR BID

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: 11-8-21
CITY ENGINEER — DATE — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MEHRAN NESSIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	11/2/21 — CHERVAT N. MIKHAIL, P.E. ENGINEERING MANAGER — DATE
11/5/21 — THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER — DATE			APPROVED BY: 11/8/21 — NOEL CASTILLO, P.E. DEPUTY DIRECTOR — DATE

ALDER AVENUE

PLAN AND PROFILE
FROM STA 19+00 TO STA 29+00

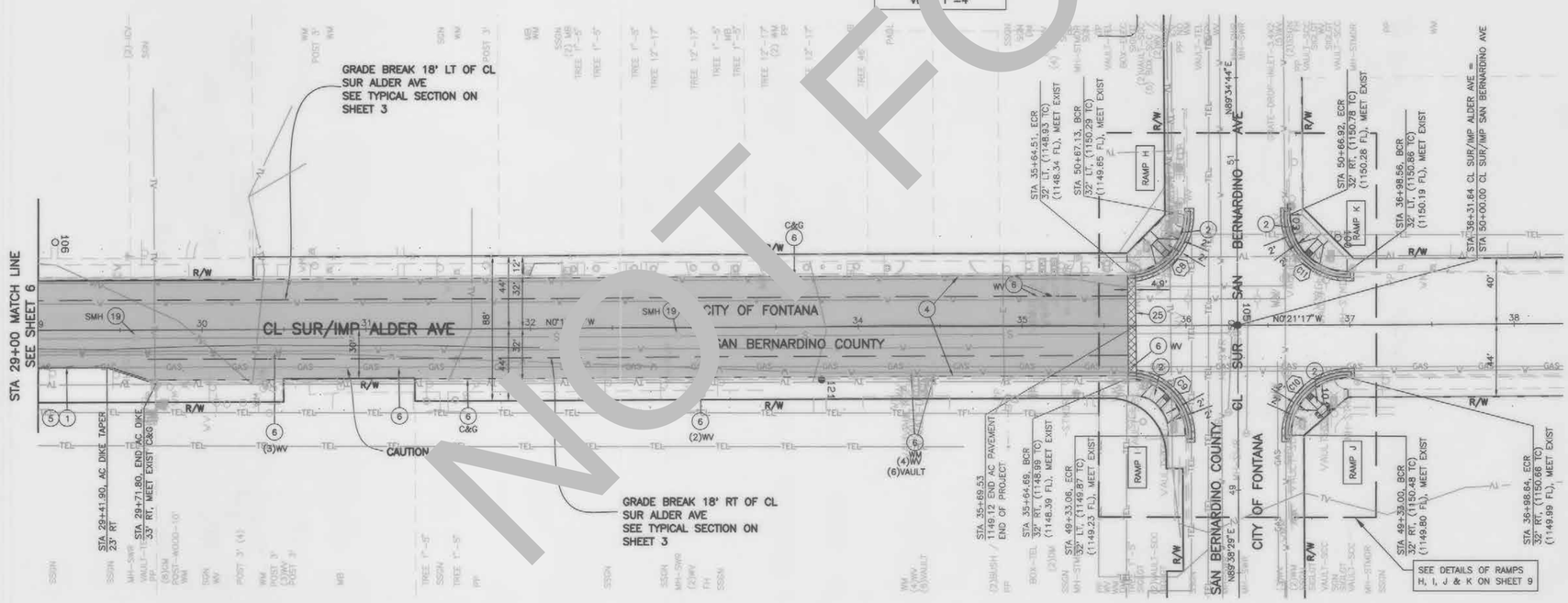
FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=40'	6	13

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

FILE NO. 110650 040-050

TC OR AC CURB RETURN DATA				
Curve #	Δ	R	L	T
C8	090°06'38"	35'	55.05'	35.07'
C9	089°57'08"	35'	54.95'	34.97'
C10	090°00'14"	35'	54.98'	35.00'
C11	089°56'00"	35'	54.94'	34.96'



GRAPHIC SCALE 1"=40'
0 40 80 120

CONSTRUCTION NOTES:

U UTILITIES TO BE RESET BY OTHER.
(SEE NOTE U. OF GENERAL NOTES ON SHEET 2).

1 SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.

2 SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).

4 PULVERIZE IN PLACE THE EXIST. AC, AB AND NATIVE MATERIAL FOR A DEPTH OF 1.0' BELOW THE EXIST. TOP PAVEMENT SURFACE. REMOVE 0.60' OF PULVERIZED MATERIAL ADD 2% CEMENT TO REMAINING 0.40' OF PULVERIZED MATERIAL AND THEN COMPACT. APPLY PRIME COAT TO COMPACTED CEMENT TREATED SUBGRADE. PLACE 0.40' OF TYPE "A" 3/4" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT. APPLY TACK COAT. PLACE 0.20' OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT.

5 PLACE 8" AC DIKE PER COUNTY STD 117.

6 PROTECT IN PLACE.

19 ADJUST MANHOLE TO GRADE PER CITY OF FONTAINA STD 2000 AND 2001.

25 COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT OVERLAY.

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: 11-8-21
CITY ENGINEER — DATE — R.C.E. 51152

MARK	CHANGES	
	NO CHANGES	RESIDENT ENGINEER — DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER NERSIK YESSAIN MIKAELIAN No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	NERSIK N. MIKAELIAN, P.E. ENGINEERING MANAGER — DATE 11/8/21

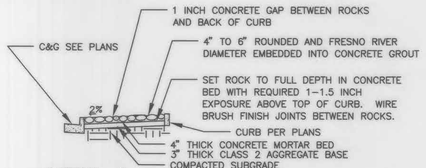
THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER — DATE 11/5/21

APPROVED BY: NOEL CASTILLO, P.E. DEPUTY DIRECTOR — DATE 11/8/21

ALDER AVENUE
PLAN AND PROFILE
FROM STA 29+00 TO STA 38+00
FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
JL 11641	H14978	1"=40'	7	13

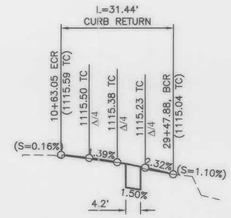
NOT FOR BID



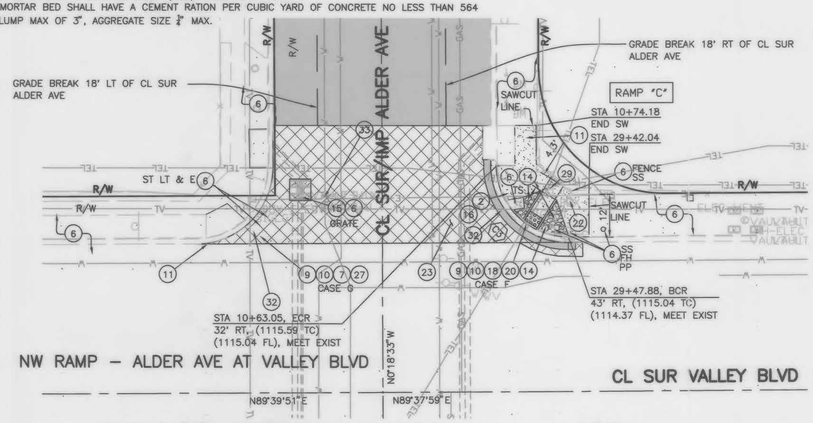
DETAIL A

NTS

1. ROCK SIZES UNLESS OTHERWISE SPECIFIED SHALL BE: COBBLESTONE, MIN 6" TO MAX 8" WITH ONE SIDE FLAT
2. ROCKS SHALL BE SMOOTH, ROUNDED, FREE OF OBJECTIONABLE DISFIGURATIONS AND IRON CONTENT AS APPROVED BY THE COUNTY ENGINEER.
3. CONCRETE SHALL BE CLASS 3, 2 INCH SLUMP CONCRETE
4. WIRE BRUSH ALL JOINTS AFTER THE INSTALLATION OF THE ROCKS.
5. AFTER CONCRETE MORTAR HAS SET, HYDROBLAST AS DIRECTED BY THE COUNTY ENGINEER. BRUSH ROCKS TO REMOVE CEMENT COATING.
6. ROCK SHALL BE SATURATED SURFACE MOIST (SSM) PRIOR TO PLACEMENT
7. CONCRETE MORTAR BED SHALL HAVE A CEMENT RATION PER CUBIC YARD OF CONCRETE NO LESS THAN 564 POUNDS; SLUMP MAX OF 3", AGGREGATE SIZE ¾" MAX.



PROFILE – RAMP "C"



TC OR AC CURB RETURN DATA				
Curve #	Δ	R	L	T
C1	089°59'30"	35'	54.97'	34.99'
C2	089°58'38"	20'	31.41'	19.99'
C3	090°03'29"	20'	31.44'	20.02'
C4	090°03'39"	20'	31.44'	[illegible]
C5	089°56'16"	20'	[illegible]	[illegible]

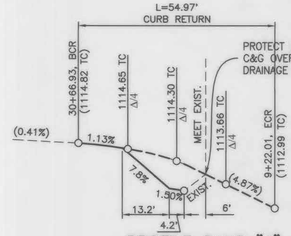
CONSTRUCTION NOTES:

U	UTILITIES TO BE RESET BY OTHERS. (SEE NOTE U. OF GENERAL NOTES ON SHEET 2.)
1	SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.
2	SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).
6	PROTECT IN PLACE.
7	CONSTRUCT 8" CONCRETE CURB AND GUTTER PER CITY OF FONTANA STD 1000.
9	CONSTRUCT RAMP PER CALTRANS STD RSP A88A OR A88B, CASE PER PLAN.
10	REMOVE EXISTING CONCRETE CURB.
11	CONSTRUCT SIDEWALK PER CITY OF FONTANA STD 400.
12	CONSTRUCT SPANDREL/CROSS GUTTER PER COUNTY STD 119 (MODIFIED).
13	INSTALL METAL HAND RAILINGS PER COUNTY SPPWC 606–3, TYP A.
14	PLACE ROCK TREATMENT PER DETAIL A.
15	CONSTRUCT 2' WIDE X 6" THK DEPTH CONCRETE PAD PLUS 6" BASE TO GRATE INLET.
16	CONSTRUCT CONCRETE SIDEWALK PER COUNTY STANDARD 109.
18	CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115.
20	PLACE DETECTABLE WARNING SURFACE PER CALTRANS STANDARD PLAN RSP A88A.
22	REMOVE AND DISPOSE OF EXISTING PALM TREE AND STUMP.
23	COLD PLANE (0.15' AND UP TO 0.20') OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.15' AND UP TO 0.20') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
25	COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64–16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
28	EXISTING SIGN TO BE RESET PER SIGNING AND STRIPING PLANS.
29	REPLACE PULL BOX PER SIGNAL MODIFICATION PLAN
31	SAW CUT AND REMOVE BROKEN CURB AS NECESSARY OVER DRAINAGE STRUCTURE TO CONSTRUCT 8" DOWEL CURB PER CALTRANS STD. A87A, TYPE B3.
32	SAWCUT AND REMOVE 2' MIN ASPHALT CONCRETE SURFACING. PLACE 1' THICK TYPE "A" ASPHALT 1/2" AGGREGATE GRADATION, PG 70–10 HOT MIX ASPHALT OVER COMPACTED NATIVE SOIL.
33	CONSTRUCT RAMP PER CITY OF FONTANA STD PLAN 1003 WITH DETECTABLE WARNING SURFACE.
34	REMOVE AND DISPOSE OF EXISTING TOP OF DRAINAGE OUTLET STRUCTURE. DOWEL AND BOND #4 BAR INTO EXISTING STRUCTURE WALLS @ 18" OC, 9" DEEP THEN PLACE BARS AS SHOWN ON COUNTY STD 210A. RECONSTRUCT PER COUNTY STANDARD 210A, 204 AND 206A AND RAMP B ELEVATIONS SHOWN ON SHEET 8.

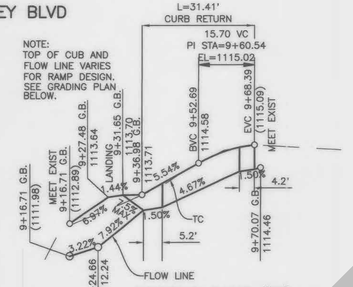
NOTE:

Installation of conduits and pull boxes will require concrete removals and replacement using directional drilling methods. Contractor to consider the possibility that trenching for installation of conduits will be required, at the sole Engineer's discretion, in consideration for limited space, clearance or utility conflicts. Additional concrete areas may need to be removed and replaced to facilitate installation of signal conduits and pull boxes, recommend limits of concrete areas be reviewed based on traffic signal modification plan improvements on sheet 12 and 13 for additional details.

See Traffic and Signal plans for proposed controller cabinets, pull boxes, poles and signal improvements.



PROFILE RAMP "A"



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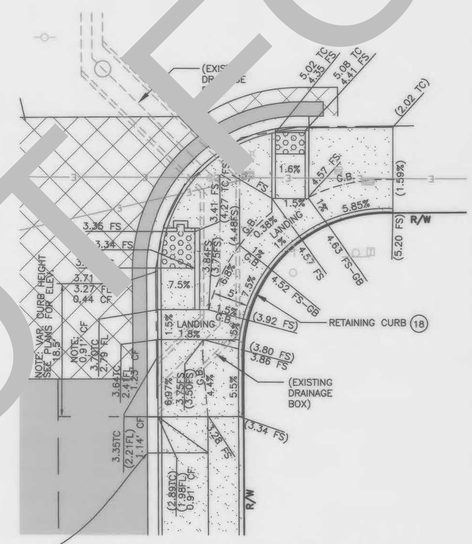
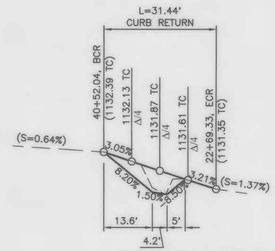


SE RAMP "B"– ALDER AVE AT VALLEY BLVD

SE RAMP "B"–GRADING PLAN



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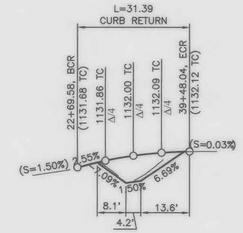
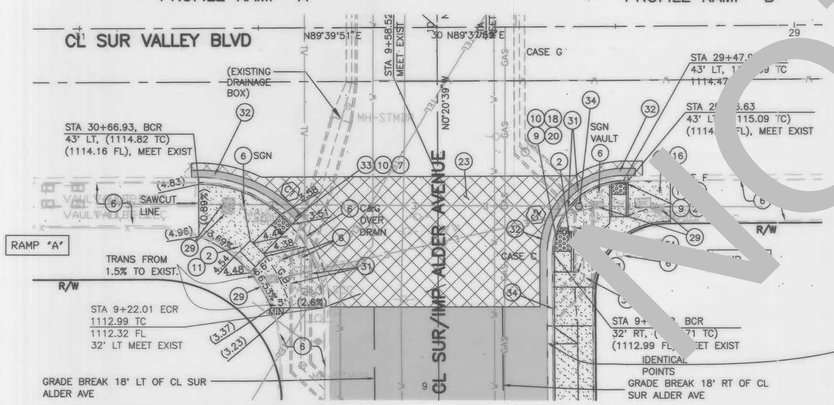
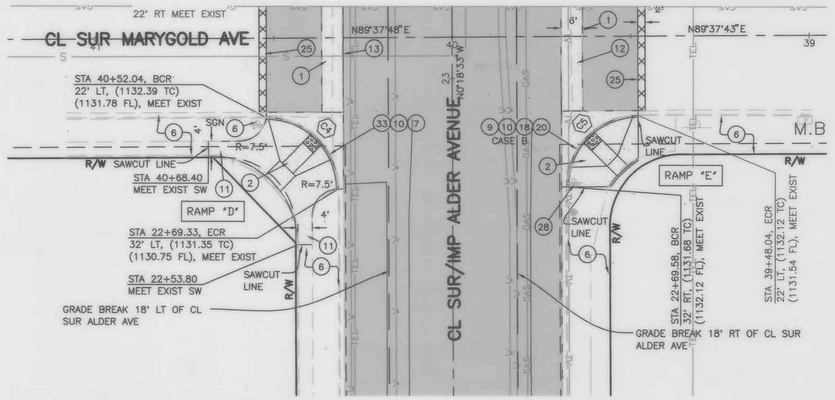


PROFILE – RAMP "E"



SW RAMP "A"– ALDER AVE AT VALLEY BLVD

SE RAMP "B"– ALDER AVE AT VALLEY BLVD



SW RAMP "D"– ALDER AVE AT MARYGOLD AVE

SE RAMP "E"– ALDER AVE AT MARYGOLD AVE

GRAPHIC SCALE 1"=20'

0 20 40 60

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: 11-8-21 DATE
CITY ENGINEER R.C.E. 51152

MARK | CHANGES | RESIDENT ENGINEER | DATE
NO CHANGES

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERVAT NESSIM MIKHAIL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
DJ	DJ	ESR	MERVAT N. MIKHAIL, P.E. ENGINEERING MANAGER 11/8/21 DATE

THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER 11/5/21 DATE

APPROVED BY: NOEL CASTILLO, P.E. DEPUTY DIRECTOR 11/8/21 DATE

ALDER AVENUE

CURB RETURN DETAILS

FONTANA AREA

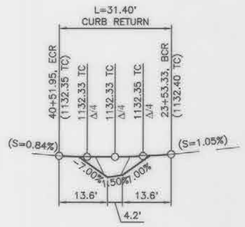
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=20'	8	13

FILE NO. 110650 040–050

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040–050

NOT FOR BID



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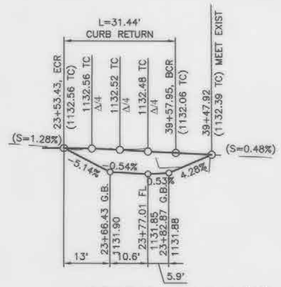

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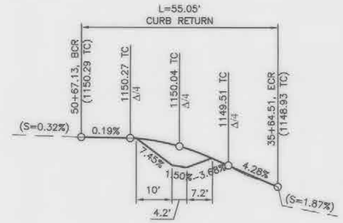
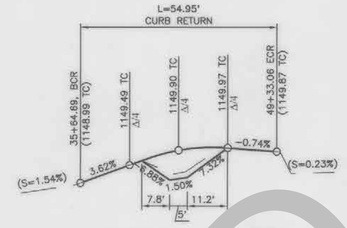
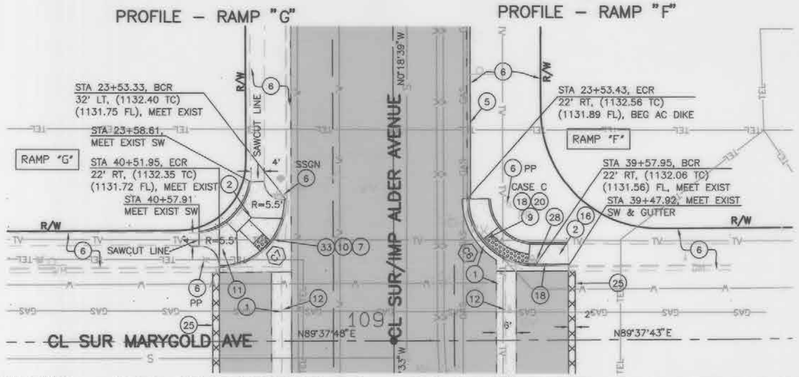


PROFILE – RAMP "H"

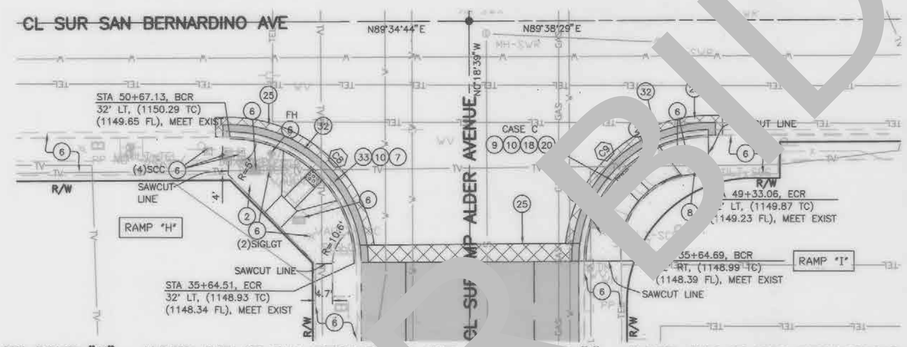


PROFILE – RAMP "I"



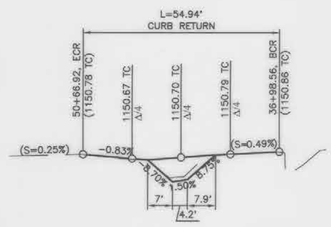
NW RAMP – ALDER AVE AT MARYGOLD AVE

NE RAMP "F" – ALDER AVE AT MARYGOLD AVE

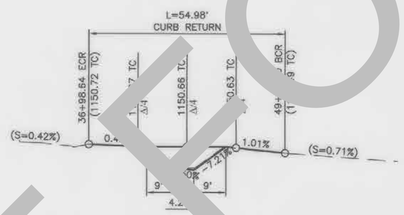


SW RAMP "H" – ALDER AVE AT SAN BERNARDINO AVE

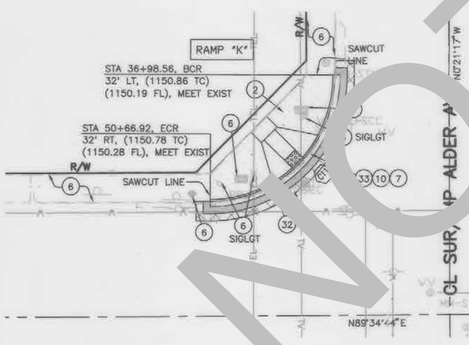
SE RAMP "I" – ALDER AVE AT SAN BERNARDINO AVE



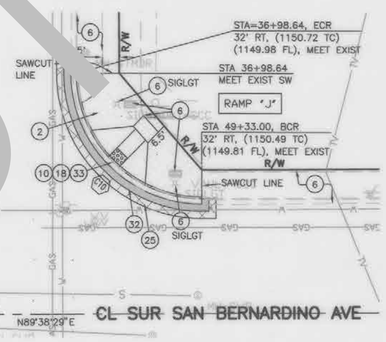
PROFILE – RAMP "K"



PROFILE – RAMP "J"



NW RAMP "K" – ALDER AVE AT SAN BERNARDINO AVE



NE RAMP "J" – ALDER AVE AT SAN BERNARDINO AVE

CONSTRUCTION NOTES:

U	UTILITIES TO BE RESET BY OTHERS. (SEE NOTE U. OF GENERAL NOTES ON SHEET 2.)
1	SAWCUT AND REMOVE ASPHALT CONCRETE SURFACING, D/W, RAMP AND/OR DIKE.
2	SAWCUT AND REMOVE CONCRETE SURFACING (RAMP, SIDEWALK, DRIVEWAY, SPANDREL AND CROSS GUTTER).
5	PLACE 8" AC DIKE PER COUNTY STD 117.
6	PROTECT IN PLACE.
7	CONSTRUCT 8" CONCRETE CURB AND GUTTER PER CITY OF FONTANA STD 1000.
9	CONSTRUCT RAMP PER CALTRANS STD RSP A88A OR A88B, CASE PER PLAN.
10	REMOVE EXISTING CONCRETE CURB.
12	CONSTRUCT SPANDREL/CROSS GUTTER PER COUNTY STD 119 (MODIFIED).
16	CONSTRUCT CONCRETE SIDEWALK PER COUNTY STANDARD 109.
18	CONSTRUCT 8" CURB AND GUTTER PER COUNTY STD 115 (MODIFIED).
20	PLACE DETECTABLE WARNING SURFACE PER CALTRANS STANDARD PLAN RSP A88A.
25	COLD PLANE (0.20' THK) OF EXISTING ASPHALT CONCRETE PAVEMENT TACK COAT AND PLACE (0.20' THK') OF TYPE G, 3/4" AGGREGATE GRADATION, PG 64-16 RUBBERIZED HOT MIX ASPHALT OVERLAY.
28	EXISTING SIGN TO BE RESET PER SIGNING AND STRIPING PLANS.
32	SAWCUT AND REMOVE 2' MIN ASPHALT CONCRETE SURFACING. PLACE 1' THICK TYPE "A" ASPHALT 1/2" AGGREGATE GRADATION, PG 70-10 HOT MIX ASPHALT OVER COMPACTED NATIVE SOIL.
33	CONSTRUCT RAMP PER CITY OF FONTANA STD PLAN 1003 WITH DETECTABLE WARNING SURFACE.

NOTE:

Installation of conduits and pull boxes will require concrete removals and replacement using directional drilling methods. Contractor to consider the possibility that trenching for installation of conduits will be required, at the sole Engineer's discretion, in consideration for limited space, clearance or utility conflicts. Additional concrete areas may need to be removed and replaced to facilitate installation of signal conduits and pull boxes, recommend limits of concrete areas be reviewed based on traffic signal modification plan improvements on sheet 12 and 13 for additional details.

See Traffic and Signal plans for proposed controller cabinets, pull boxes, poles and signal improvements.

TC OR AC CURB RETURN DATA

Curve #	Δ	R	L	T
C6	090°03'38"	20'	31.44'	20.02'
C7	089°56'27"	20'	31.40'	19.98'
C8	090°06'38"	35'	55.05'	35.07'
C9	089°57'08"	35'	54.95'	34.97'
C10	090°00'14"	35'	54.98'	35.00'
C11	089°56'00"	35'	54.94'	34.96'

NOT FOR BID

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

GRAPHIC SCALE 1"=20' 0 20 40 60

CITY OF FONTANA, CALIFORNIA
STREET IMPROVEMENT PLANS
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 11/8/21 — R.C.E. 51152

MARK	CHANGES	DATE
	NO CHANGES	

RESIDENT ENGINEER

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MERVAT NESSIM MIKHAEL No. 72136 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: DJ — DRAWN BY: DJ — CHECKED BY: ESR

RECOMMENDED BY: MERVAT N. NESSIM, P.E., ENGINEERING MANAGER — DATE 11/8/21

APPROVED BY: THOMAS SUBSTAMONTE, P.E., PROJECT ENGINEER — DATE 11/5/21 — NOEL CASTILLO, P.E., DEPUTY DIRECTOR — DATE 11/8/21

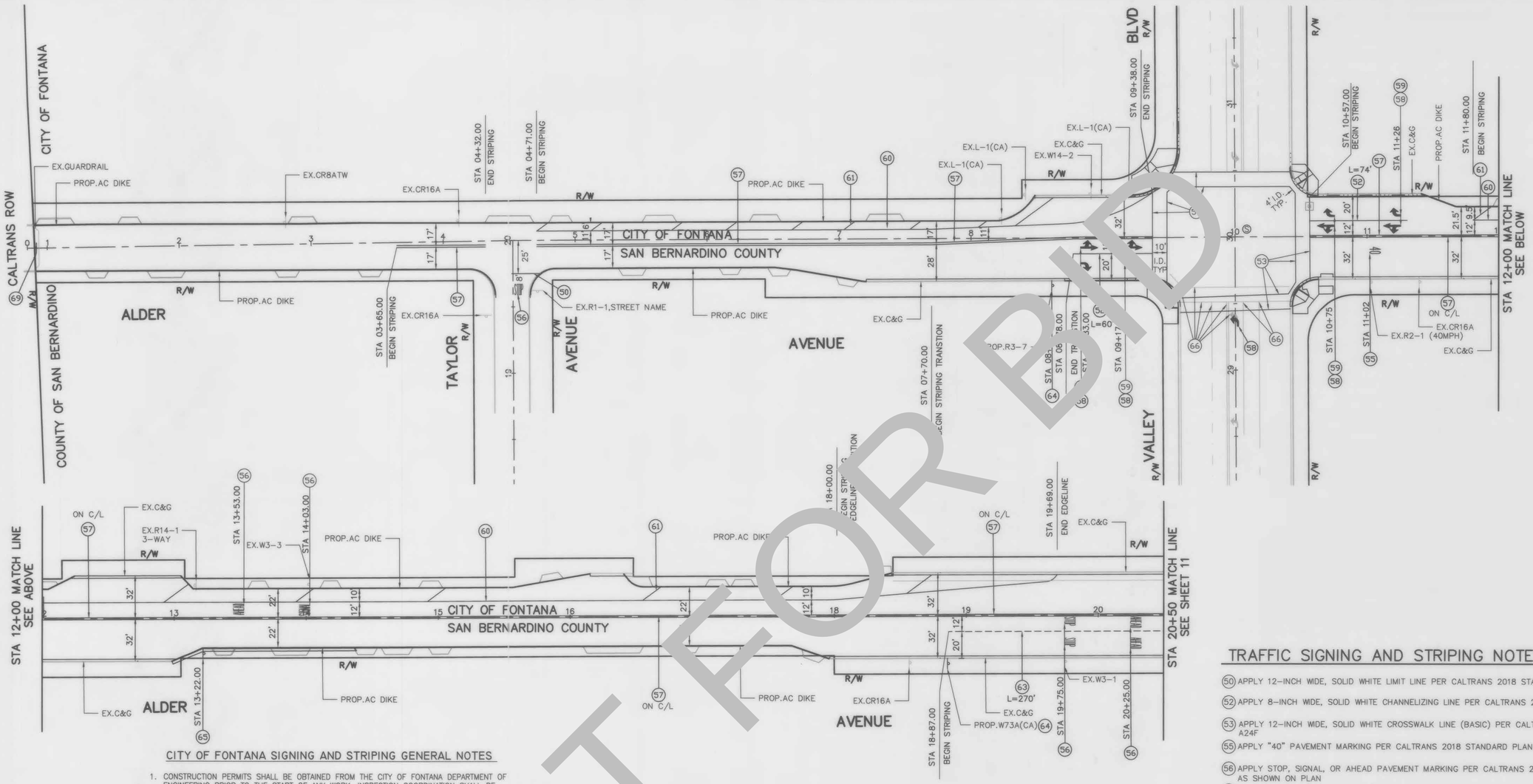
ALDER AVENUE

CURB RETURN DETAILS

FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"=20'	9	13

FILE NO. 110650 040-050



CITY OF FONTANA SIGNING AND STRIPING GENERAL NOTES

1. CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE CITY OF FONTANA DEPARTMENT OF ENGINEERING PRIOR TO THE START OF ANY WORK. INSPECTION COORDINATION SHALL BE REQUESTED AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY WORK WITHIN PUBLIC RIGHT-OF-WAY WITH IN THE CITY LIMITS. CALL (909) 350-7610.

2. ALL WORK, MATERIALS, EQUIPMENT AND TEMPORARY TRAFFIC CONTROL SHALL CONF[illegible] TO THESE PLANS, THE CITY OF FONTANA DESIGN STANDARDS, THE CITY'S SPECIAL PROVISION[illegible] SECTION E, CALTRANS STANDARD PLANS AND SPECIFICATIONS, LATEST EDITIONS, AND THE CAL[illegible]RNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN [illegible]PORARY TR[illegible] CONTROL AT ALL TIMES.

4. ALL SIGNS SHALL BE INSTALLED PER CITY DESIGN STANDARD 4003, UNLES[illegible]ERWISE S[illegible] THE PLANS. SIGNS AND SIGNPOSTS THAT ARE REMOVED SHALL BE SALVAGED [illegible]HE CITY YARD.

5. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE A[illegible] UNLESS O[illegible]WISE NOTED.

6. SUBSTITUTE TYPE "C" RAISED PAVEMENT MARKERS FOR [illegible]E "G" MARKERS ON DETAIL 38 ON ROADWAYS WITH RAISED MEDIANS.

7. SUBSTITUTE DETAIL 12A STRIPING FOR DETAIL 12 STRIPING F[illegible] ROADWAYS WITH RAISED MEDIANS.

8. STRIPING AND PAVEMENT MARKINGS TO BE REMOVED SHALL BE REMOVED BY SANDBLASTING OR OTHER APPROVED METHODS, NONE OF WHICH SHALL DAMAGE THE PAVEMENT. THE 'BLACK OUT' METHOD OF REMOVAL IS NOT PERMITTED. ANY PAVEMENT DAMAGED BY REMOVALS SHALL BE REPAIRED PER APPROVAL OF THE CITY ENGINEER AT NO COST TO THE CITY.

9. CONTROL POINTS OR "CAT TRACKING" SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO APPLICATION OF PAVEMENT STRIPING AND LEGENDS. NOTIFY THE CITY AT LEAST TWO DAYS PRIOR FOR APPROVAL OF "CAT TRACKING."

10. STRIPING AND PAVEMENT MARKINGS SHALL BE APPLIED IN ACCORD[illegible]ANCE WITH MANUFACTURERS SPECIFICATIONS.

11. BLUE RAISED PAVEMENT MARKERS SHALL BE INSTALLED AT ALL FI[illegible]RE HYDRANT LOCATIONS PER CITY DESIGN STANDARD 6001.

12. AS-BUILT DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO [illegible] THE ENGINEER OF RECORD, WHO SHALL PROVIDE RECORD DRAWINGS AND ELECTRONIC AUTOCA[illegible]D FILES TO THE CITY ENGINEER.

SYMBOL LEGEND

RIGHT LANE TURNS RIGHT AHEAD	RIGHT LANE MUST TURN RIGHT	ALL WAY
W73A(CA)	R3-7	R1-3P
36"X36"	30"X30"	18"X6"

GRAPHIC SCALE 1"=40'

0 40 80 120

TRAFFIC SIGNING AND STRIPING NOTES:

(50) APPLY 12-INCH WIDE, SOLID WHITE LIMIT LINE PER CALTRANS 2018 STANDARD PLAN A24E

(52) APPLY 8-INCH WIDE, SOLID WHITE CHANNELIZING LINE PER CALTRANS 2018 STANDARD PLAN A20D, DETAIL 38

(53) APPLY 12-INCH WIDE, SOLID WHITE CROSSWALK LINE (BASIC) PER CALTRANS 2018 STANDARD PLAN A24F

(55) APPLY "40" PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24C

(56) APPLY STOP, SIGNAL, OR AHEAD PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24D AS SHOWN ON PLAN

(57) APPLY DOUBLE 6-INCH WIDE, YELLOW STRIPE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 22

(58) APPLY TYPE IV ARROW PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24A

(59) APPLY TYPE XII ARROW PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24A

(60) APPLY 6-INCH WIDE, WHITE EDGELINE STRIPE PER CALTRANS 2018 STANDARD PLAN A20B, DETAIL 27B

(61) APPLY 8-INCH WIDE, DIAGONAL CROSS HATCHING STRIPE PER CA MUTCD 2014, SECTION 3B.24

(63) APPLY 8-INCH WIDE, WHITE LANE DROP MARKING PER CALTRANS 2018 STANDARD PLAN A20C, DETAIL 37B

(64) INSTALL NEW SIGN(S) AS SHOWN ON PLAN AND PER CA MUTCD 2014, FIGURE 2A-2(CA)

(65) INSTALL OBJECT MARKER TYPE L-1(CA) (OM2-2V) PER CA MUTCD 2014. FIG 2C-13(CA)

(66) REMOVE EXISTING STRIPING AND PAVEMENT MARKINGS CONFLICTING WITH NEW PROP. STRIPING.

(69) RESET OBJECT MARKER TYPE N-2(CA) OM4-3 PER CA MUTCD 2014 FIG 2C-13(CA)

SEE SHEET 11 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES

NOT FOR BID

CITY OF FONTANA, CALIFORNIA
SIGNING AND STRIPING PLAN
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 11-8-21 — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — JEREMY DALE JOHNSON — C91246 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
NA/JHC	NA	JJ/JHC	NOEL CASTILLO, P.E. DEPUTY DIRECTOR TRANSPORTATION — DATE 11/8/21

JEREMY JOHNSON P.E. ENGINEERING MANAGER — DATE 11-5-21

APPROVED BY: DAVID R. DOUBLET, M.S., P.E. ASSISTANT DIRECTOR — DATE 11/3/21

ALDER AVENUE

TRAFFIC SIGNING AND STRIPING PLAN
FROM STA 00+85.02 TO STA 20+50

FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"= 40'	10	13

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

MARK REVISIONS APPR. DATE

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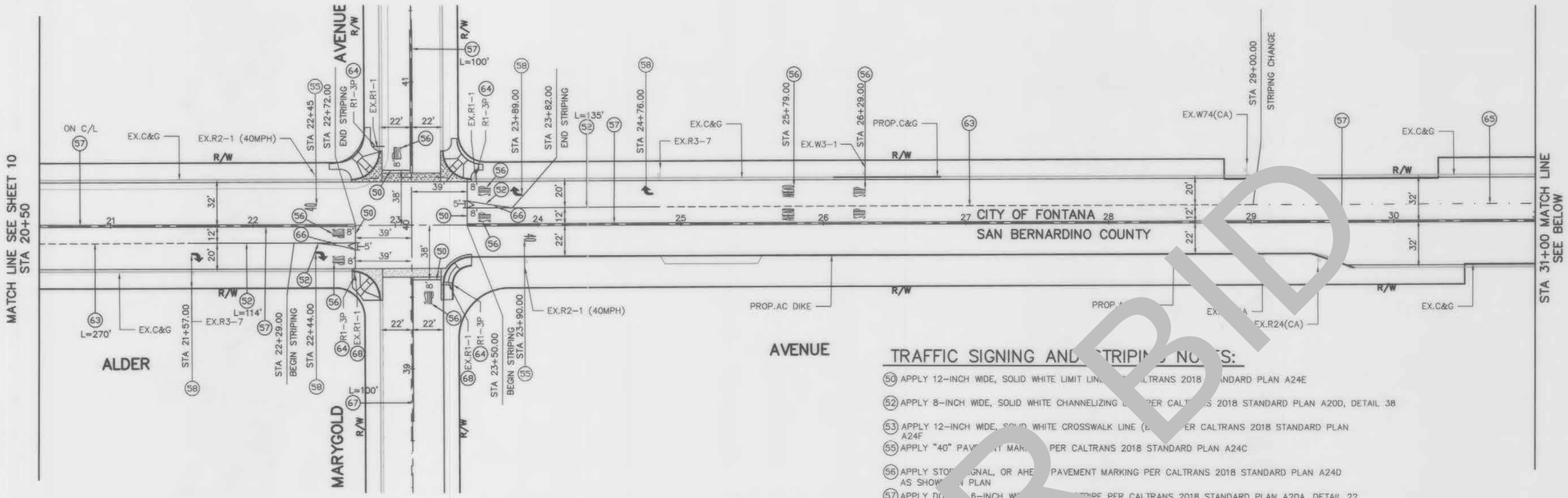

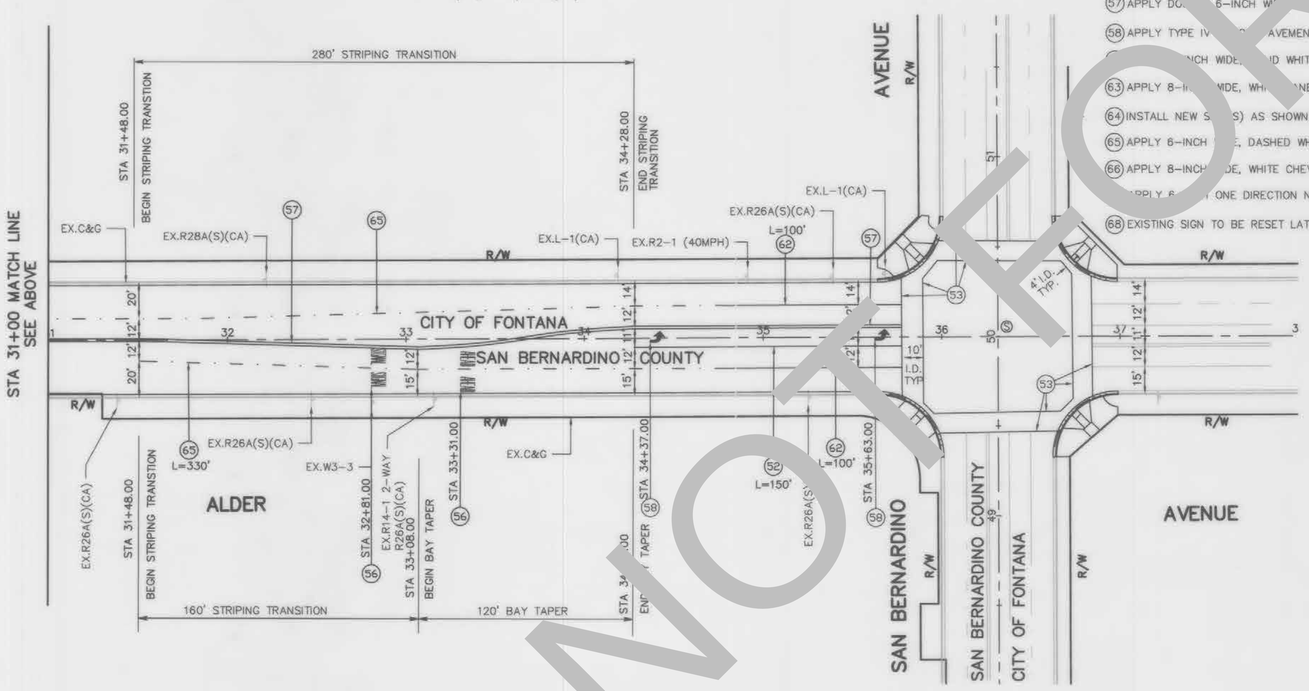

TRAFFIC SIGNING AND STRIPING NOTES:

(50) APPLY 12-INCH WIDE, SOLID WHITE LIMIT LINE PER CALTRANS 2018 STANDARD PLAN A24E

(52) APPLY 8-INCH WIDE, SOLID WHITE CHANNELIZING LINE PER CALTRANS 2018 STANDARD PLAN A20D, DETAIL 3B

(53) APPLY 12-INCH WIDE, SOLID WHITE CROSSWALK LINE (BAR) PER CALTRANS 2018 STANDARD PLAN A24F

(55) APPLY "40" PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24C

(56) APPLY STOP SIGNAL, OR AHEAD PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24D AS SHOWN ON PLAN

(57) APPLY DOUBLE 6-INCH WIDE, YELLOW STRIPE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 22

(58) APPLY TYPE IV PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24A

(62) 6-INCH WIDE, SOLID WHITE LANE LINE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 9

(63) APPLY 8-INCH WIDE, WHITE LANE DROP MARKING PER CALTRANS 2018 STANDARD PLAN A20C, DETAIL 37B

(64) INSTALL NEW SIGN(S) AS SHOWN ON PLAN AND PER CA MUTCD 2014, FIGURE 2A-2(CA)

(65) APPLY 6-INCH WIDE, DASHED WHITE LINE STRIPE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 9

(66) APPLY 8-INCH WIDE, WHITE CHEVRON MARKINGS PER THE CA MUTCD 2014 SECTION 3B.24

(67) APPLY 6-INCH ONE DIRECTION NO PASSING STRIPE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 16

(68) EXISTING SIGN TO BE RESET LATERALLY PER CA MUTCD 2014, FIG 2A-2(CA)

SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES :

1- ALL SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.

2- ALL STRIPING AND PAVEMENT MARKINGS SHALL BE PAINTED IN CONFORMANCE WITH THE 2018 CALTRANS STANDARD PLANS DATED MAY 31, 2018.

3- ALL STRIPING (LONG LINE) AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAINT.

4- ALL SIGNS SHALL BE OF HIGH INTENSITY (FHWA TYPE III/IV) RETRO-REFLECTIVE SHEETING EXCEPT:

A. "STOP" SIGNS SHALL BE DIAMOND GRADE (FHWA TYPE VII IN RURAL SETTINGS AND TYPE IX IN URBAN SETTINGS) RETRO-REFLECTIVE SHEETING.

B. "NO PARKING " SIGNS SHALL BE OF SUPER ENGINEERING GRADE (FHWA TYPE II) RETRO-REFLECTIVE SHEETING.

C. SCHOOL SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT YELLOW-GREEN (FYG) RETRO-REFLECTIVE SHEETING.

D. STREET NAME MARKERS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) RETRO-REFLECTIVE SHEETING AND CONFORM TO COUNTY STANDARD 303.

E. CONSTRUCTION SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT ORANGE RETRO-REFLECTIVE SHEETING.

5- ALL DELINEATORS, CHANNELIZERS, AND OBJECT MARKERS SHALL BE OF (FHWA TYPE VII) RETRO-REFLECTIVE SHEETING.

6- SIGNS SHALL BE MOUNTED ON METAL POSTS SIMILAR TO COUNTY STANDARDS 303(a) AND 303(b).

7- ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS NOT SHOWN ON PLANS SHALL BE REMOVED BY THE CONTRACTOR. REMOVAL SHALL BE ACCOMPLISHED BY SANDBLASTING, GRINDING, OR AS DIRECTED BY COUNTY REPRESENTATIVE.

8- ALL CONFLICTING SIGNS SHALL BE REMOVED, RELOCATED, OR COVERED BY THE CONTRACTOR. RELOCATABLE SIGNS SHALL BE INSTALLED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY COUNTY REPRESENTATIVE.

9- ALL UNPROTECTED LOCATIONS RESULTING IN ISOLATED ABRUPT DEPRESSIONS OR ELEVATED OBJECTS (i.e. CATCH BASINS, HEADWALLS, POWER POLES, END TREATMENT OF ASPHALT DIKES AND CONCRETE CURBS) SHALL BE PROTECTED BY DELINEATORS OR BARRIERS PER THE CALIFORNIA MUTCD LATEST EDITION.

10- ALL EXISTING SIGNING, STRIPING AND PAVEMENT MARKINGS (i.e. CROSS STREET STOP, STOP LIMIT LINE, AND CROSSWALK PAVEMENT MARKINGS) NOT SHOWN ON PLANS, IF REMOVED/OBLITERATED, SHALL BE REPLACED/RESTORED OF SAME KIND, AND IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.

11- THE CONTRACTOR SHALL NOTIFY COUNTY REPRESENTATIVE TO SCHEDULE A FINAL REVIEW (WALK THROUGH) WITH TRAFFIC DIVISION PERSONNEL FOR APPROVAL OF TRAFFIC CONTROL DEVICES PRIOR TO PROJECT ACCEPTANCE.

12- TRAFFIC SIGNS NOT IDENTIFIED TO BE RELOCATED/REMOVED SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE DIRECTED BY THE COUNTY RESIDENT ENGINEER.

SEE SHEET 10 FOR CITY OF FONTANA SIGNING & STRIPING GENERAL NOTES

GRAPHIC SCALE 1"=40'
0 40 80 120

CITY OF FONTANA, CALIFORNIA
SIGNING AND STRIPING PLAN
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 11-8-21 — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER JEREMY DALE JOHNSON C91246 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
NA/JHC	NA	JJ/JHC	NOEL CASTILLO, P.E., DEPUTY DIRECTOR TRANSPORTATION — DATE 11/8/21

JEREMY JOHNSON P.E., ENGINEERING MANAGER — DATE 11-5-21
APPROVED BY: DAVID R. DOUBLET, M.S., P.E., ASSISTANT DIRECTOR — DATE 11/5/21

ALDER AVENUE

TRAFFIC SIGNING AND STRIPING PLAN
FROM STA 20+50 TO STA 38+00

FONTANA AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL 11641	H14978	1"= 40'	11	13

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040-050

MARK	REVISIONS	APPR.	DATE

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NOT FOR BID

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1 – FURNISH AND INSTALL PEDESTRIAN PUSH BUTTON ASSEMBLY POST (5ft–7inch) OR AS NEEDED TO ACCOMODATE THE PROPER PEDESTRIAN PUSH BUTTON ASSEMBLY MOUNTING HEIGHT WITH A (9inchx12inch) SIGN ABOVE PUSH BUTTON. ANY EXCESS POLE HEIGHT ABOVE PEDESTRIAN PUSH BUTTON ASSEMBLY SHALL BE CUT OFF AND CAPPED AS DIRECTED BY THE ENGINEER PER THE CALTRANS STANDARD PLAN RSP ES–7A AND AS SHOWN ON PLAN. PUSH BUTTON POST SHALL BE INSTALLED ON CROSSWALK SIDE OF STANDARD.

2 – FURNISH AND INSTALL TYPE B PEDESTRIAN PUSH BUTTON ASSEMBLY WITH R10–3 SIGN (9inchx12inch) INCLUDING BRACKETS OR HARDWARE FOR 90 DEGREE INSTALLATION OF PEDESTRIAN PUSH BUTTON ASSEMBLIES ON SINGLE POST PER THE CALTRANS STANDARD PLANS ES–5C (DETAIL B) AND RSP ES–7A. PUSH BUTTON SHALL BE INSTALLED ON CROSSWALK SIDE OF STANDARD.

3 – REMOVE EXISTING PEDESTRIAN PUSH BUTTON ASSEMBLY ON THE EXISTING SIGNAL POLE. REMAINING HOLES SHALL BE CAPPED

4 – FURNISH AND INSTALL 3–CONDUCTOR SIGNAL CABLE (3CSC) FROM EACH PEDESTRIAN PUSH BUTTON TO THE CONTROLLER ASSEMBLY.

5 – FURNISH AND INSTALL 2inch SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT FROM PEDESTRIAN PUSH BUTTON POST INTO EXISTING OR NEW PULL BOX AS SHOWN ON PLAN.

6 – FURNISH AND INSTALL NEW #6 TRAFFIC SIGNAL PULL BOX AS SHOWN ON PLAN AND PER THE CALTRANS STANDARD PLAN RSP ES–8A. ABANDON EXISTING IF APPLIED. THE TOP OF PULL BOX SHALL BE FLUSH WITH FINISHED GRADE

7 – THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING TRAFFIC SIGNAL PULL BOXES, EXISTING TRAFFIC SIGNAL CONDUITS, EXISTING TRAFFIC SIGNAL POLES AND EXISTING CONTROLLER AND SERVICE CABINETS TO PROTECT IN PLACE OR REPLACE IF DAMAGED AS DIRECTED BY THE ENGINEER. ALL PROTECT IN PLACE EXISTING PULL BOXES SHALL BE FLUSH TO FINISHED GRADE.

8 – INSTALL COUNTY FURNISHED EMERGENCY VEHICLE PREEMPTION DETECTOR WITH INFRARED DETECTION AT MINIMUM. THE DETECTOR SHALL BE INSTALLED PER THE MANUFACTURE'S SPECIFICATIONS AND CALTRANS 2018 STANDARD PLAN RSP ES–4E.

9 – INSTALL COUNTY FURNISHED AUTOSCOPE VISION VIDEO VEHICLE DETECTION SYSTEM OR AS APPROVED BY THE TRAFFIC DIVISION. THE CAMERA SHALL BE INSTALLED ON THE SIGNAL MAST ARM AS SHOWN ON PLAN AND THE CALTRANS 2018 STANDARD PLAN ES–7R PER THE MANUFACTURER'S SPECIFICATIONS. SEE PROJECT SPECIAL PROVISIONS. THE VIDEO DETECTION DATA PROCESSING SHALL BE WITHIN THE CAMERA TO MAXIMIZE CABINET SPACE.

10 – REMOVE EXISTING VIDEO VEHICLE DETECTION SYSTEM CAMERA ASSEMBLY ON THE EXISTING LUMINAIRE MAST ARM. ANY REMAINING HOLES SHALL BE CAPPED.

11 – REPLACE EXISTING CONDUIT WITH NEW CONDUIT. ALL NEW CONDUIT SHALL BE MINIMUM 4inch SCHEDULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36inch DEPTH INCLUDING A 12inch SAND ZONE COVERING

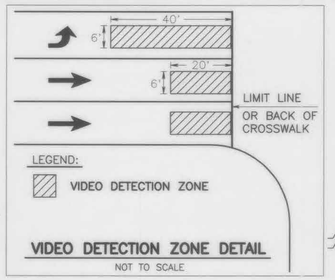
12 – REMOVE EXISTING EQUIPMENT AND EXISTING CONTROLLER CABINET. INSTALL COUNTY FURNISHED TYPE NEMA TS2–1 CONTROLLER ASSEMBLY INCLUDING COBALT CONTROLLER WITH TOUCH SCREEN OPTION, TYPE "R" CABINET WITH 16–CHANNEL MMU, UNINTERRUPTABLE POWER SUPPLY (UPS), NICKEL–ZINC BATTERIES, 1000 WATT MINIMUM BATTERY STORAGE, GPS RECEIVER FOR TIME REFERENCE AND APPURTENANT EQUIPMENT. THE INTERNAL CABINET WILL INCLUDE SLIDE OUT DRAWER AND LED LIGHTING. INSTALL COUNTY FURNISHED EMERGENCY VEHICLE PRE–EMPTION SYSTEM PER SPECIAL PROVISIONS. THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED PER CALTRANS 2018 STANDARD PLAN ES–3B. FURNISH AND INSTALL GROUND ROD (8ft MINIMUM) INTO EARTH EXCLUDING CONCRETE FOUNDATION. CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE THE DESIRED SIGNAL OPERATION AS SHOWN ON THE PLAN. REFER TO SPECIFICATIONS FOR ADDITIONAL EQUIPMENT CRITERIA AND DETAILS.

13 – REMOVE EXISTING VIDEO VEHICLE DETECTION SYSTEM CAMERA ASSEMBLY ON THE EXISTING LUMINAIRE MAST ARM. INSTALL COUNTY FURNISHED AUTOSCOPE VISION VIDEO VEHICLE DETECTION SYSTEM OR AS APPROVED BY THE TRAFFIC DIVISION. THE CAMERA SHALL BE INSTALLED ON THE LUMINAIRE MAST ARM AS SHOWN ON PLAN AND THE CALTRANS 2018 STANDARD PLAN ES–7R PER THE MANUFACTURER'S SPECIFICATIONS. SEE PROJECT SPECIAL PROVISIONS. THE VIDEO DETECTION DATA PROCESSING SHALL BE WITHIN THE CAMERA TO MAXIMIZE CABINET SPACE.

14 – FURNISH AND INSTALL 2inch SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT FROM NEW CONTROLLER CABINET INTO EXISTING PULL BOX AS SHOWN ON PLAN.

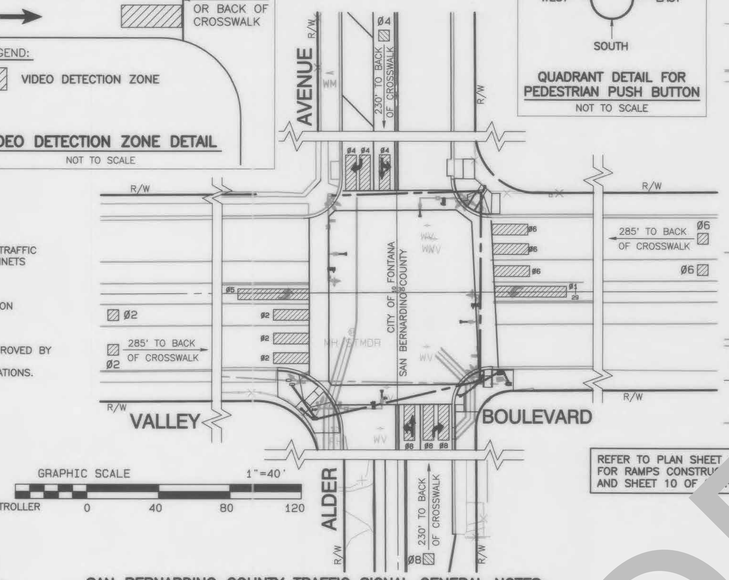
NOTE:

THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF EXISTING SIGNAL CONDUITS TO PROTECT IN PLACE OR REPLACE IF DAMAGED DUE TO CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE THE DESIRED SIGNAL OPERATION.

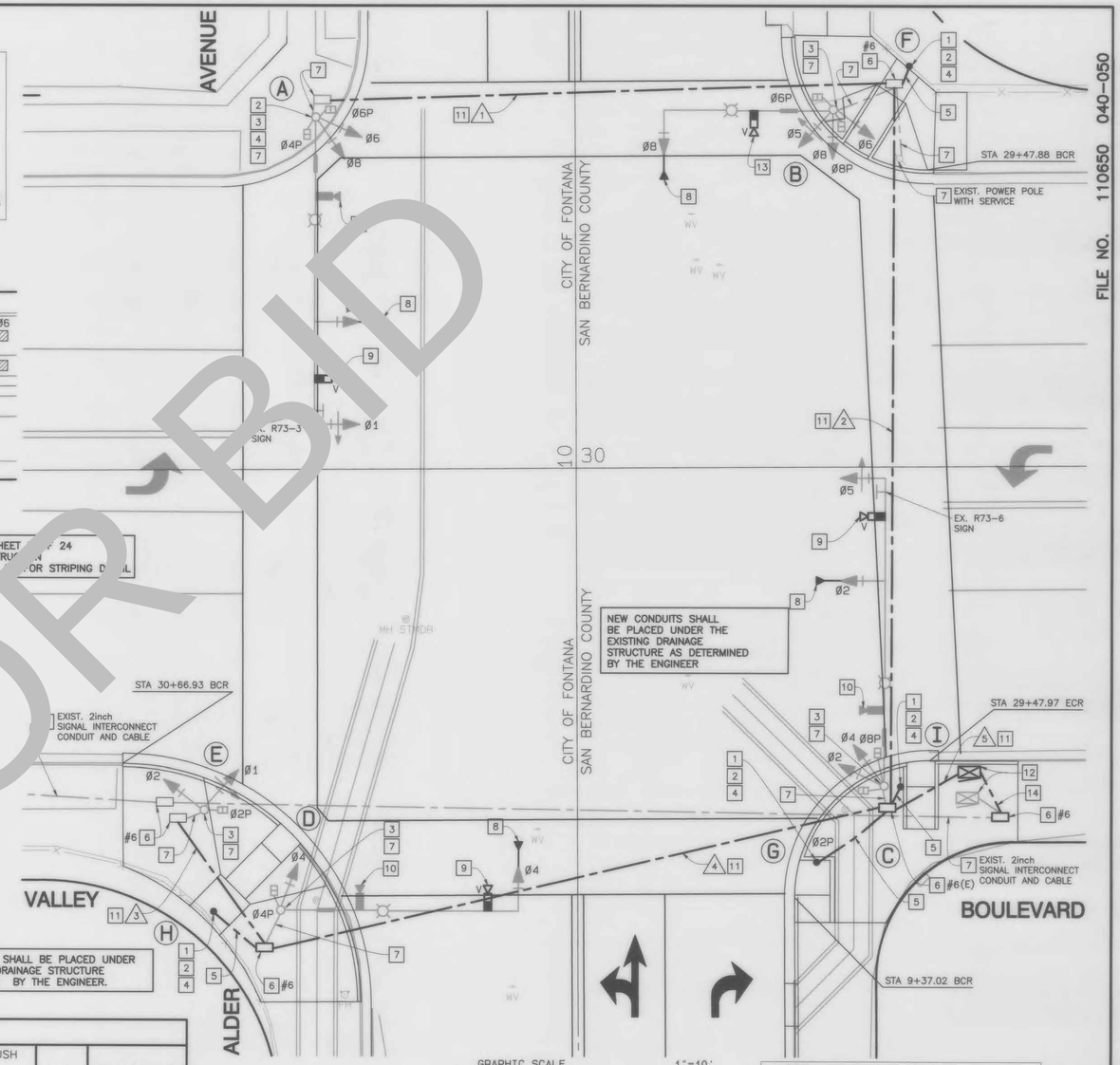


VIDEO DETECTION ZONE DETAIL
NOT TO SCALE

QUADRANT DETAIL FOR PEDESTRIAN PUSH BUTTON
NOT TO SCALE



REFER TO PLAN SHEET [illegible] 24 FOR RAMPS CONSTRU[illegible] AND SHEET 10 OF [illegible] FOR STRIPING D[illegible]



FILE NO. 110650 040–050

SAN BERNARDINO COUNTY TRAFFIC SIGNAL GENERAL NOTES:

1– TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA 2018 STANDARD SPECIFICATIONS (DATED 2018) SECTIONS 86(ELECTRICAL WORK) AND 87(ELECTRICAL SYSTEMS) INCLUDING LATEST 2018 REVISED STANDARD SPECIFICATIONS AND STANDARD PLANS DATED 2018.

2– SIGNAL POLE LOCATIONS ARE APPROXIMATE.

3– ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED. THE TOP OF THE PULL BOXES SHALL BE FLUSH WITH FINISHED GRADE AS S[illegible]N ON THE CALTRANS 2018 STANDARD PLAN RSP ES–8A.

4– PULL BOXES SHALL BE INSTALLED PER THE CALTRANS 2018 STANDARD [illegible]N RSP ES–8A. AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB A[illegible]S RAMP.

5– PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT [illegible] TRAFFIC, SHALL BE TRAFFIC TYPE PER THE CALTRANS 2018 STANDARD PLAN R[illegible]–8B.

6– PEDESTRIAN PUSH BUTTON SHALL BE WITH PLACARD R10–3 SIZE (9inch[illegible]) AND PER THE CALTRANS 2018 STANDARD PLANS RSP ES–7A AND ES–5C ([illegible]

7– ALL SIGNAL AND LIGHTING STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PH[illegible]ED FINISHED GRADE.

8– ALL WIRING AND CABLES SHALL BE NEW UNLESS [illegible]ERWISE NOTED.

9– ALL NEW CONDUIT SHALL BE MINIMUM 4inch S[illegible]DULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36inch DEPTH INCLUDING A 1[illegible] SAND ZONE COVERING.

10– LOCATION OF ALL UNDERGROUND FACILITI[illegible] APPROXIMATE. THE CONTRACTOR SHALL POTHOLE TO DETERMINE THE EXACT LO[illegible]NS A[illegible]RIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR[illegible] ANY OBS[illegible]ONS. PHONE THE UNDERGROUND SERVICE ALERT AT (800) 227–2600, [illegible]WO WORKING D[illegible] BEFORE DIGGING.

11– THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESEN[illegible]E TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO VERIFY THE LO[illegible] OF SIGNAL POLES, CONTROLLER CABINE[illegible]SERVICE CABINET.

CONDUCTOR AND CONDUIT TABLE

	POLE	PHASE: VEHICLE AND PEDESTRIAN	PHASE: PED PUSH BUTTON	CONDUIT RUN 1 CABLE	CONDUIT RUN 1 TYPE	CONDUIT RUN 2 CABLE	CONDUIT RUN 2 TYPE	CONDUIT RUN 3 CABLE	CONDUIT RUN 3 TYPE	CONDUIT RUN 4 CABLE	CONDUIT RUN 4 TYPE	CONDUIT RUN 5 CABLE	CONDUIT RUN 5 TYPE
SIGNAL CABLE	Ⓐ	1,6,8,4P,6P	4P,6P	1	12CSC 9CSC 5CSC 3CSC	2	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC	2	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC
	Ⓑ	5,6,8,6P,8P	–	–	–	1	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC
	Ⓒ	2,4,5,2P,8P	–	–	–	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC
	Ⓓ	4,4P	–	–	–	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC
	Ⓔ	1,2,2P	–	–	–	–	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC	1	12CSC 9CSC 5CSC 3CSC
	Ⓕ	–	6P,8P	–	–	–	12CSC 9CSC 5CSC 3CSC	2	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC
	Ⓖ	–	2P	–	–	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC
	Ⓗ	–	2P,4P	–	–	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	2	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC
	Ⓘ	–	8P	–	–	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC	–	12CSC 9CSC 5CSC 3CSC
	TOTAL			1	– 1 2 1	–	2 4 1	–	– – 1	1	– 2 4	1	3 8

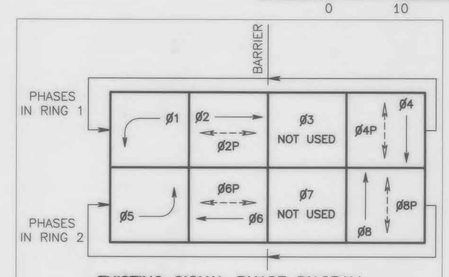
AWG SIZE	CIRCUIT	CONDUIT RUN				
#6	SERVICE	–	2	–	–	2
#10	LUMINAIRE	2	2	–	2	–
#10	STREET NAME SIGN	2	2	–	2	2
#8	SIGNAL COMMON WIRE BARE GROUNDING CONDUCTOR	1	1	1	1	1
VIDEO DETECTION CABLE	LEGEND ▷□■ VIDEO CABLE	1	2	–	1	4
PREEMPTION CABLE	LEGEND ▶— EMERGENCY VEHICLE DETECTOR	1	2	–	1	4
** CONDUIT SIZE (INCHES)		4	4	4	4	2–4
% FILLED		12%	23%	5%	13%	22%

** ALL NEW CON[illegible]NDUIT SHALL BE MINIMUM 4inch SCHEDULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36inch DEPTH INCLUDING A 12inch SAND ZONE COVERING

ALL CABLES AND CONDUCTORS SHALL BE NEW UNLESS SPECIFIED OTHERWISE

[illegible]E AND EQUIPMENT SCHEDULE

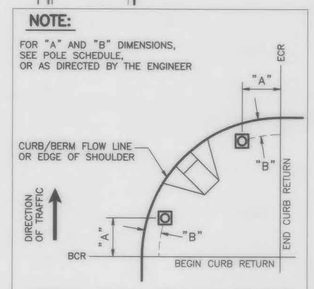
POLE NO.	SIGNAL ST[illegible]DARD: TYPE	HEIGHT	SIG[illegible] MAST	"F" SPACING	LUMINAIRE MAST ARM	[illegible] LOC[illegible]ON "A"	"B"	VEHICLE SIGNAL MOUNTING: MAST ARM	POLE	PEDESTRIAN SIGNAL: PHASE	MOUNTING	PEDESTRIAN PUSH BUTTON: QUADRANT	ARROW	PHASE	L.E.D. LUMINAIRE	INTERNALLY ILLUMINATED STREET NAME SIGN
Ⓐ	26–4–80		45'	15'	15'	F[illegible]TING		2–MAS	SV–2–T	Ø4 Ø6	SP–2–T	WEST NORTH	→ ←	Ø4P Ø6P	250 WATT	Alder Ave
Ⓑ	19–2–80	30'	25'	[illegible]	[illegible]	EXISTING		1–MAS	SV–3–T	Ø6 Ø8	SP–2–T	---	---	---	250 WATT	Valley Blvd
Ⓒ	26–4–80	30'	[illegible]	15'	15'	EXISTING		2–MAS	SV–2–T	Ø2 Ø8	SP–2–T	---	---	---	250 WATT	Alder Ave
Ⓓ	[illegible]–3–80		[illegible]	[illegible]	15'	EXISTING		1–MAS	SV–1–T	Ø4	SP–1–T	---	---	---	250 WATT	Valley Blvd
Ⓔ	[illegible]	10'	---	---	---	EXISTING		---	TV–2–T	Ø2	SP–1–T	---	---	---	---	---
Ⓕ	PEDESTRI[illegible] PUSH BUTTON ASSEMBLY POST	[illegible]–7in	---	---	---	2.7'	14.5'	---	---	---	---	SOUTH WEST	← →	Ø6P Ø8P	---	---
Ⓖ	PEDESTRIAN PUSH BUTTON ASSEMBLY POST	5ft–[illegible]	---	---	---	5.1'	2.5'	---	---	---	---	SOUTH	←	Ø2P	---	---
Ⓗ	PEDESTRIAN PUSH BUTTON ASSEMBLY POST	5ft–7in	---	---	---	13.5'	15.5'	---	---	---	---	NORTH EAST	← →	Ø2P Ø4P	---	---
Ⓘ	PEDESTRIAN PUSH BUTTON ASSEMBLY POST	5ft–7in	---	---	---	4.5'	3'	---	---	---	---	EAST	→	Ø8P	---	---



EXISTING SIGNAL PHASE DIAGRAM

NOTE:

FOR "A" AND "B" DIMENSIONS, SEE POLE SCHEDULE, OR AS DIRECTED BY THE ENGINEER



TYPICAL SIGNAL POLE PLACEMENT
UNLESS OTHERWISE NOTED ON PLAN
NOT TO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

Underground Service Alert

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID FOR YOUR DIG ALERT I.D. NUMBER CALL TWO UNDERGROUND SERVICE ALERT TOLL FREE 1–800–227–2600 WORKING DAYS BEFORE YOU DIG

CITY OF FONTANA, CALIFORNIA
TRAFFIC SIGNAL MODIFICATION
ALDER AVE

APPROVED BY: CITY ENGINEER — DATE 11-8-21 — R.C.E. 51152

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — JEROMY DALE JOHNSON — C91246 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY	DRAWN BY	CHECKED BY	RECOMMENDED BY:
J.H.C.	H.F.	J.J.	NOEL CASTILLO, P.E. DEPUTY DIRECTOR TRANSPORTATION — 11/8/21 DATE

SUBMITTED BY: JEREMY JOHNSON, P.E. ENGINEERING MANAGER — 11-5-21 DATE

APPROVED BY: DAVID R. DOUBLET, M.S., P.E. ASSISTANT DIRECTOR — 11/9/21 DATE

ALDER AVENUE
AT VALLEY BOULEVARD
TRAFFIC SIGNAL MODIFICATION PLAN
FONTANA AREA

J.L. REF.	W.O. NO.	SCALE	SHEET. NO.	TOTAL SHT'S.
JL11641	H14978	AS SHOWN	12	13

NOT FOR BID

TRAFFIC SIGNAL CONSTRUCTION NOTES:

1 – FURNISH AND INSTALL PEDESTRIAN PUSH BUTTON ASSEMBLY POST (5ft–7inch) OR AS NEEDED TO ACCOMODATE THE PROPER PEDESTRIAN PUSH BUTTON ASSEMBLY MOUNTING HEIGHT WITH A (9inchx12inch) SIGN ABOVE PUSH BUTTON. ANY EXCESS POLE HEIGHT ABOVE PEDESTRIAN PUSH BUTTON ASSEMBLY SHALL BE CUT OFF AND CAPPED AS DIRECTED BY THE ENGINEER PER THE CALTRANS STANDARD PLAN RSP ES–7A AND AS SHOWN ON PLAN. PUSH BUTTON POST SHALL BE INSTALLED ON CROSSWALK SIDE OF STANDARD.

2 – FURNISH AND INSTALL (2) TYPE B PEDESTRIAN PUSH BUTTON ASSEMBLIES WITH R10–3 SIGN (9inchx12inch) INCLUDING BRACKETS OR HARDWARE FOR 90 DEGREE INSTALLATION OF PEDESTRIAN PUSH BUTTON ASSEMBLIES ON SINGLE POST PER THE CALTRANS STANDARD PLANS ES–5C (DETAIL B) AND RSP ES–7A. PUSH BUTTON SHALL BE INSTALLED ON CROSSWALK SIDE OF STANDARD.

3 – REMOVE EXISTING PEDESTRIAN PUSH BUTTON ASSEMBLY ON THE EXISTING SIGNAL POLE. REMAINING HOLES SHALL BE FITTED WITH A PLATE WELDED IN PLACE AND PAINTED TO MATCH.

4 – FURNISH AND INSTALL 3–CONDUCTOR SIGNAL CABLE (3CSC) FROM EACH PEDESTRIAN PUSH BUTTON TO THE CONTROLLER ASSEMBLY.

5 – FURNISH AND INSTALL 2inch RIDGID CONDUIT FROM PEDESTRIAN PUSH BUTTON POST INTO EXISTING OR NEW PULL BOX AS SHOWN ON PLAN.

6 – PROTECT EXISTING PULL BOX IN PLACE AND ADJUST PULL BOX TO FINISHED GRADE PER CALTRANS STANDARD PLAN RSP ES–8A OR AS DIRECTED BY THE ENGINEER.

7 – THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING TRAFFIC SIGNAL PULL BOXES, EXISTING TRAFFIC SIGNAL CONDUITS, EXISTING TRAFFIC SIGNAL POLES AND EXISTING CONTROLLER AND SERVICE CABINETS TO PROTECT IN PLACE OR REPLACE IF DAMAGED AS DIRECTED BY THE ENGINEER. ALL PROTECT IN PLACE EXISTING PULL BOXES SHALL BE FLUSH TO FINISHED GRADE.

NOTE:

THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF EXISTING SIGNAL CONDUITS TO PROTECT IN PLACE OR REPLACE IF DAMAGED DUE TO CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE THE DESIRED SIGNAL OPERATION.

SAN BERNARDINO COUNTY TRAFFIC SIGNAL GENERAL NOTES:

1– TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA 2018 STANDARD SPECIFICATIONS (DATED 2018) SECTIONS 86(ELECTRICAL WORK) AND 87(ELECTRICAL SYSTEMS) INCLUDING LATEST 2018 REVISED STANDARD SPECIFICATIONS AND STANDARD PLANS DATED 2018.

2– SIGNAL POLE LOCATIONS ARE APPROXIMATE.

3– ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED. THE TOP OF THE PULL BOXES SHALL BE FLUSH WITH FINISHED GRADE AS SHOWN ON THE CALTRANS 2018 STANDARD PLAN RSP ES–8A.

4– PULL BOXES SHALL BE INSTALLED PER THE CALTRANS 2018 STANDARD PLAN RSP ES–8A. AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB ACCESS RAMP.

5– PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT TO TRAFFIC, SHALL BE TRAFFIC TYPE PER THE CALTRANS 2018 STANDARD PLAN RSP ES–8B.

6– PEDESTRIAN PUSH BUTTON SHALL BE WITH PLACARD R10–3 SIZE (9inchx12inch) AND PER THE CALTRANS 2018 STANDARD PLANS RSP ES–7A AND ES–5C (TYPE B).

7– ALL SIGNAL AND LIGHTING STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE.

8– ALL WIRING AND CABLES SHALL BE NEW UNLESS OTHERWISE NOTED.

9– ALL NEW CONDUIT SHALL BE MINIMUM 4inch SCHEDULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36inch DEPTH INCLUDING A 12inch SAND ZONE COVERING.

10– LOCATION OF ALL UNDERGROUND FACILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL POTHOLE TO DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF ANY OBSTRUCTIONS. PHONE THE UNDERGROUND SERVICE ALERT AT (800) 227–2600, TWO WORKING DAYS BEFORE DIGGING.

11– THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESENTATIVE TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO VERIFY THE LOCATION OF SIGNAL POLES, CONTROLLER CABINET, AND SERVICE CABINET.

CITY OF FONTANA TRAFFIC SIGNAL GENERAL NOTES:

1– TRAFFIC SIGNAL, SIGNING AND STRIPING, AND LIGHTING SHALL CONFORM TO THESE PLANS, THE SPECIAL PROVISIONS, THE CITY OF FONTANA STANDARD DETAILS, THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS SECTION 86 (DATED 2018), STANDARD PLANS (DATED 2018) AND THE CALIFORNIA MUTCD (DATED 2014).

2– LOCATION OF ALL UNDERGROUND FACILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL POTHOLE TO DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF ANY OBSTRUCTIONS. PHONE UNDERGROUND SERVICE ALERT AT (800) 227–2600, TWO (2) WORKING DAYS BEFORE DIGGING.

3– ALL PULL BOXES SHALL BE No. 6 AND CONDUIT SHALL BE 2–inch RIGID STEEL UNLESS OTHERWISE SHOWN.

4– CONTRACTOR SHALL MAKE APPLICATION FOR ELECTRIC SERVICE AND SCHEDULING WITH SOUTHERN CALIFORNIA EDISON COMPANY WELL IN ADVANCE OF NEED.

5– CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR EXACT EQUIPMENT LOCATIONS PRIOR TO FINAL PLACEMENT. SEE ES–4C FOR POLE LOCATION DETAIL.

6– ALL REQUIRED CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE CITY OF FONTANA DEPARTMENT OF ENGINEERING PRIOR TO COMMENCEMENT OF WORK.

7– CONTRACTOR SHALL RELOCATE AND/OR REPLACE LANDSCAPING, SPRINKLERS, AND SIDEWALK AFFECTED BY THE CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.

8– CONTROLLER CABINET SHALL NOT BE SUBJECTED TO WATER FROM SPRINKLERS. MODIFY SPRINKERS SYSTEMS IF NECESSARY.

9– THE ALIGNMENT OF INTERCONNECT DUCTS SHALL BE AS STRAIGHT AS POSSIBLE. HOWEVER, WHEN CHANGES IN ALIGNMENT ARE NECESSARY, SWEEPS SHALL HAVE MINIMUM RADIUS OF 10 FEET.

10– ALL VEHICLE INDICATIONS SHALL BE 12–INCH AND HAVE L.E.D. SIGNAL MODULES. ALL PEDESTRIAN HEADS SHALL HAVE L.E.D. PEDESTRIAN MODULES EQUIPPED WITH COUNTDOWN TIMERS (SEE PROJECT SPECIAL PROVISIONS).

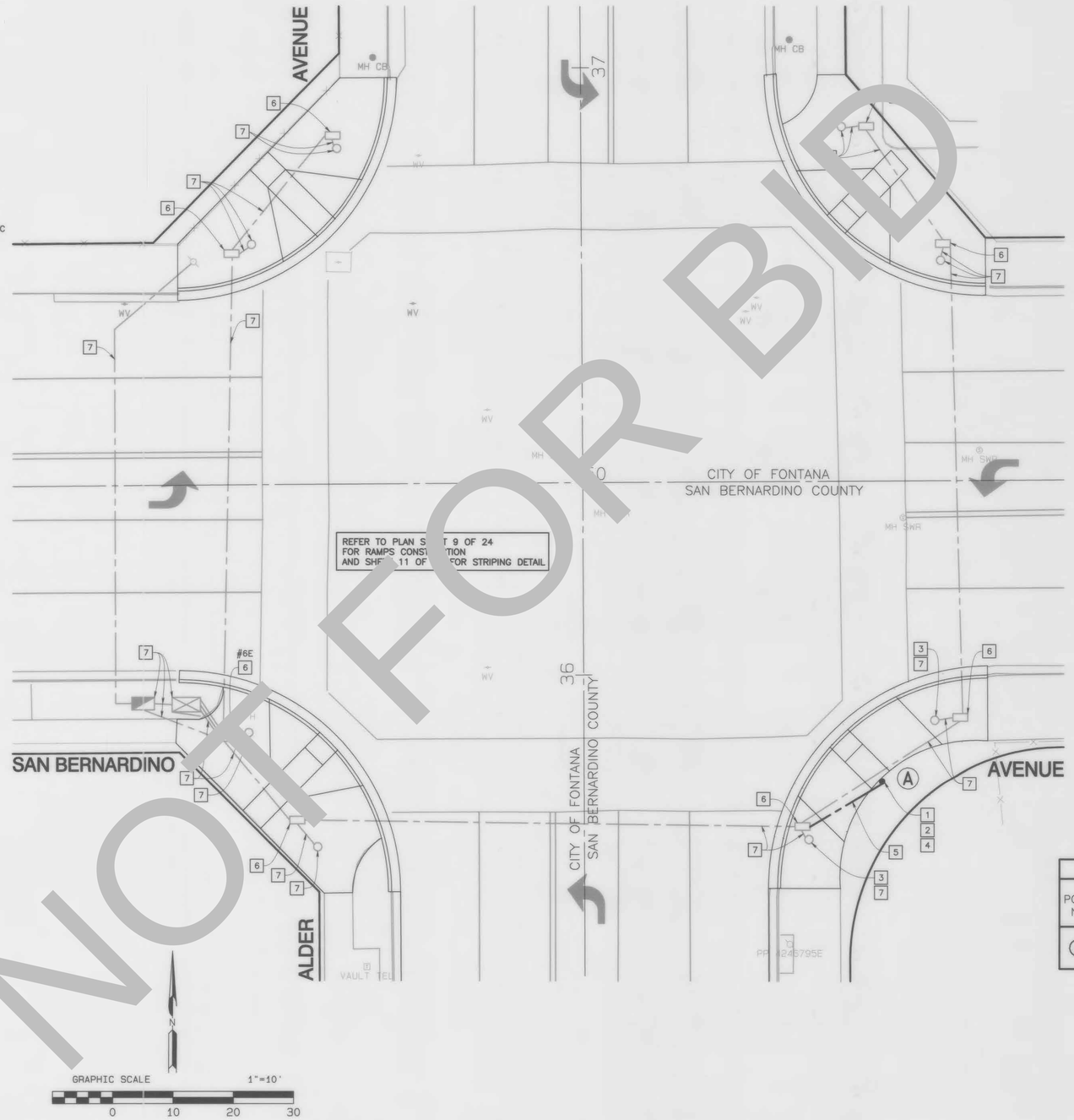
11– ANY EXISTING TRAFFIC SIGNALS AND LIGHTING SHALL REMAIN IN OPERATION UNTIL REPLACED WITH NEW CONSTRUCTION.

12– CONTRACTOR TO FURNISH ALL EQUIPMENT, MATERIALS, AND HARDWARE TO CONSTRUCT THE TRAFFIC SIGNAL AND LIGHTING AS SHOWN ON THE PLAN, EXCEPT AS NOTED CITY FURNISHED OR LISTED AS CITY PROVIDED IN THE PROJECT SPECIAL PROVISIONS.

13– CONTRACTOR SHALL REFER TO THE CITY ENGINEER IN THE EVENT OF A CONFLICT OR POTENTIAL CONFLICT WITH THESE PLANS AND, OR SPECIFICATIONS FOR THIS PROJECT.

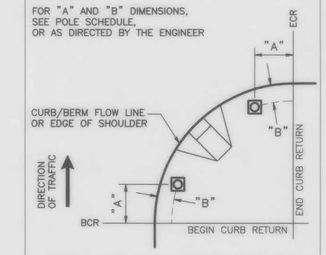
14– WHERE TRAFFIC SIGNAL STREET CROSSING CONDUIT ARE NOT INSTALLED USING THE BORING METHOD, TRENCH REPAIRS SHALL BE PER PROJECT SPECIAL PROVISIONS, SECTION E.

15– TRAFFIC SIGNAL SIGNS DIMENSIONS, COLOR, AND LETTERING SHALL CONFORM TO THE LATEST SIGN SPECIFICATIONS SHEETS. SIGN CODES SHOWN HEREON ARE TO CONTIONAL ROADWAYS UNLESS OTHERWISE SHOWN ON THE PLAN. FOR CONVENTIONAL ROADWAYS UNLESS OTHERWISE SHOWN ON THE PLAN.



NOTE:

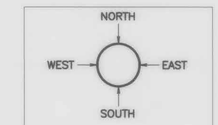
FOR "A" AND "B" DIMENSIONS, SEE POLE SCHEDULE, OR AS DIRECTED BY THE ENGINEER



TYPICAL SIGNAL POLE PLACEMENT

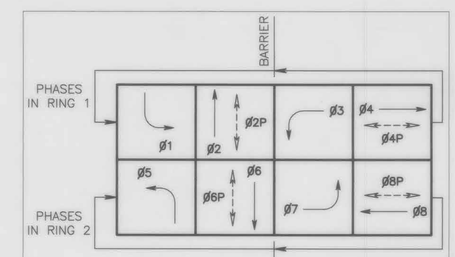
UNLESS OTHERWISE NOTED ON PLAN

NOT TO SCALE



QUADRANT DETAIL FOR PEDESTRIAN PUSH BUTTON

NOT TO SCALE



EXISTING SIGNAL PHASE DIAGRAM

POLE NO.	STANDARD		POLE LOCATION		PEDESTRIAN PUSH BUTTON		
	TYPE	HEIGHT	"A"	"B"	QUADRANT	ARROW	PHASE
A	PEDESTRIAN PUSH BUTTON ASSEMBLY POST (NEW)	5ft–7in	17.5ft	9.5ft	NORTH	→	ø4P
					WEST	←	ø2P

POLE AND EQUIPMENT SCHEDULE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

Underground Service Alert

SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 1–800–227–2600 TWO WORKING DAYS BEFORE YOU DIG

CITY OF FONTANA, CALIFORNIA

TRAFFIC SIGNAL MODIFICATION

ALDER AVE

APPROVED BY: 11-8-21 DATE

CITY ENGINEER R.C.E. 51152

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER JEREMY DALE JOHNSON C91246 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY	DRAWN BY	CHECKED BY
J.H.C.	H.F.	J.J.

RECOMMENDED BY: NOEL CASTILLO, P.E. DEPUTY DIRECTOR TRANSPORTATION — DATE 11/9/21

SUBMITTED BY: JEREMY JOHNSON, P.E. ENGINEERING MANAGER — DATE 11-5-21

APPROVED BY: DAVID R. DOUBLET, M.S., P.E. ASSISTANT DIRECTOR — DATE 11/9/21

ALDER AVENUE

AT SAN BERNARDINO AVENUE

TRAFFIC SIGNAL MODIFICATION PLAN

FONTANA AREA

J.L. REF.	W.O. NO.	SCALE	SHEET. NO.	TOTAL SHT'S.
JL11641	H14978	1" = 10'	13	13

FILE NO. 110650 040–050

MARK	REVISIONS	APPR.	DATE

FILE NO. 110650 040–050

MARK	REVISIONS	APPR.	DATE

NOT FOR BID