

SAN LORENZO VALLEY WATER DISTRICT

LYON & BIG STEEL ZONE PIPELINE IMPROVEMENTS

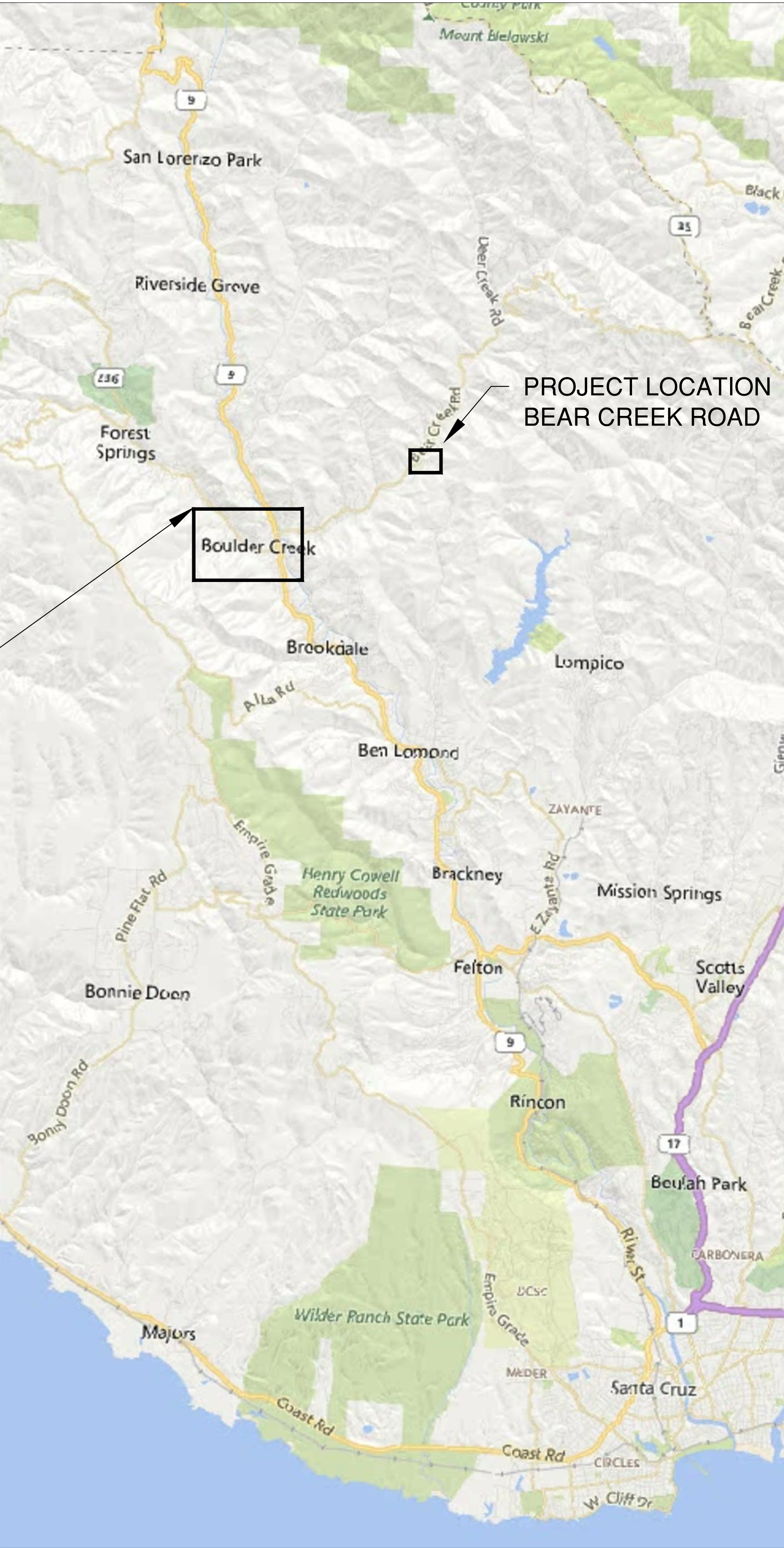
OWNER:
SAN LORENZO VALLEY WATER DISTRICT (SLVWD)
(831) 338-2153
13060 HIGHWAY 9
BOULDER CREEK, CA 95006

CIVIL ENGINEER:
SCHAAF & WHEELER
(831) 883-4848
3 QUAIL RUN CIRCLE, SUITE 101
SALINAS, CA 93907

GEOTECH ENGINEER:
CAL ENGINEERING & GEOLOGY
(925) 935-9771
785 YGNACIO VALLEY ROAD
WALNUT CREEK, CA 94596

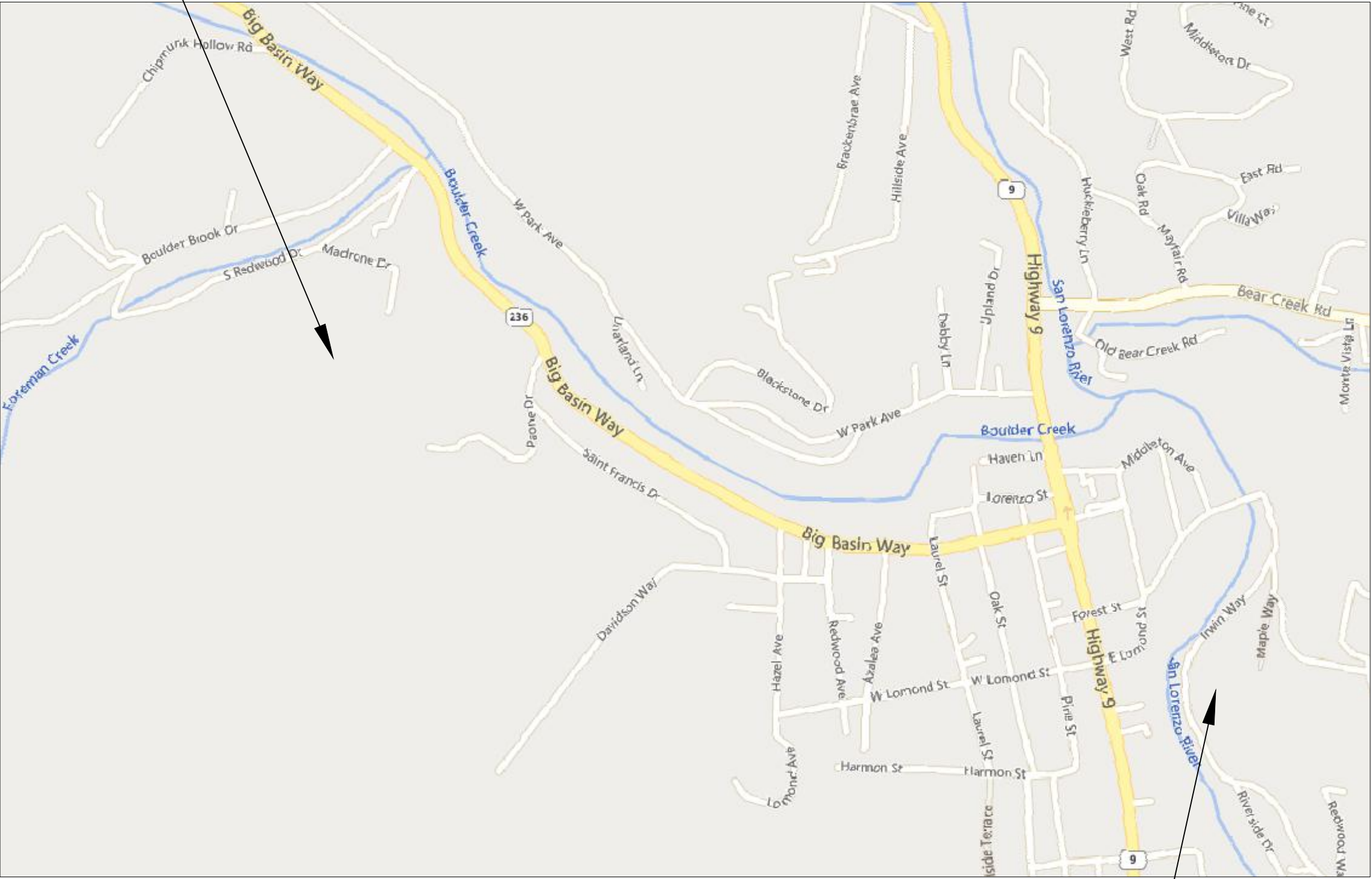
SURVEYOR
KIER & WRIGHT
(408)727-6665
3350 SCOTT BLVD., BUILDING 22
SANTA CLARA, CA 95064

PROJECT LOCATION
LYON ZONE



VICINITY MAP

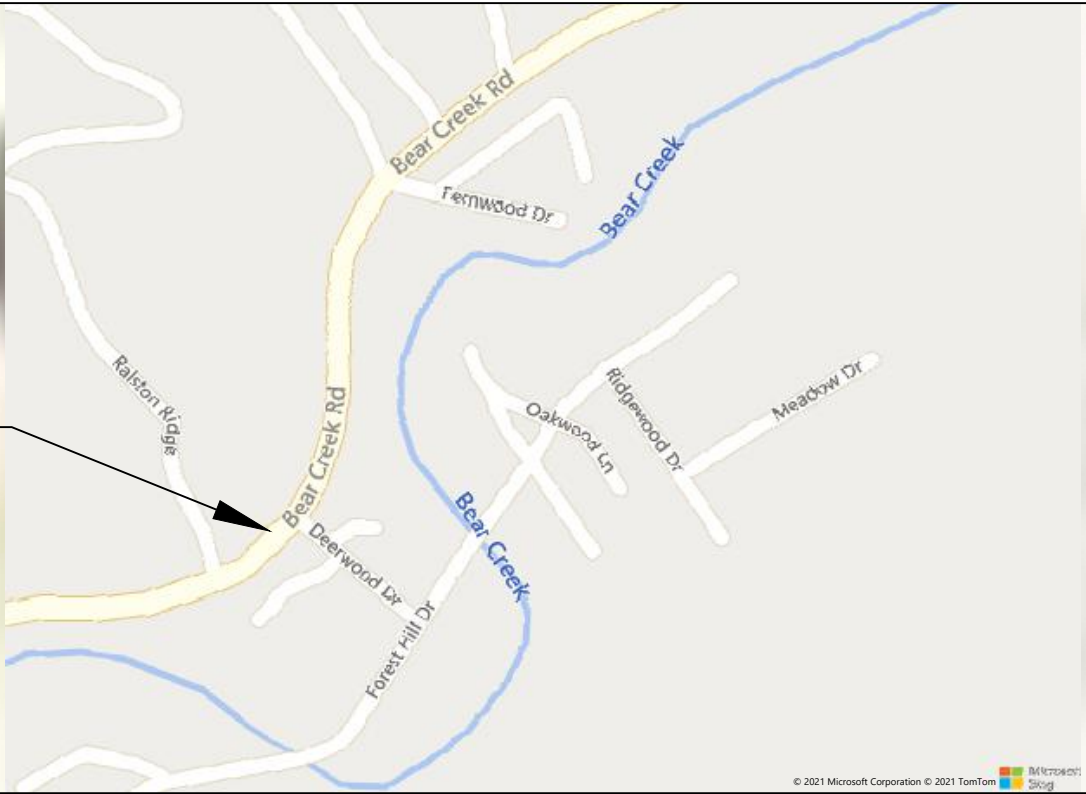
START OF PROJECT



LYON ZONE SITE

END OF PROJECT

PROJECT SITE



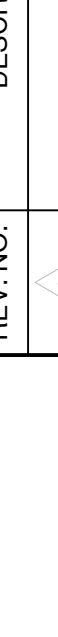
BEAR CREEK ROAD SITE

												Schaaf & Wheeler CONSULTING CIVIL ENGINEERS 3 Quail Run Circle, Suite 101 Salinas, CA 93907-2348 (831) 883-4848			
DESIGNED BY:	JCT	DATE:	9/20/2022	BY:	DATE:			REV. NO.	DESCRIPTION	BY:	DATE:				
DRAWN BY:	JCT	DATE:	9/20/2022					1							
QC CHECKED BY:	AAS	DATE:	9/20/2022					2							
PROJECT NO.:								3							
SCALE:	NO SCALE							4							
SUBMITTAL:	100% SUBMITTAL							5							
G1.0 SHEET 1 OF 27															

AB	AGGREGATE BASE	LOC	LOCATION
AC	ASPHALT CONCRETE	MB	MAILBOX
APPROX	APPROXIMATE	MSB	MAIN SWITCHBOARD
AWWA	AMERICAN WATERWORKS ASSOC	MH	MANHOLE
BLDG	BUILDINGS	MAX	MAXIMUM
BLRDS	BOLLARDS	MJ	MECHANICAL JOINT
BTFLY	BUTTERFLY	MIN	MINIMUM
BTW	BETWEEN	MIP	MALE IRON PIPE
CL	CENTERLINE	MCC	MOTOR CONTROL CENTER
COM	COMMUNICATION	N	NORTH
CP	CONTROL POINT	(N)	NEW
CV	CHECK VALVE	N.I.C	NOT IN CONTRACT
CVR	COVER	NPT	NATIONAL PIPE THREAD
CLR	CLEAR	NSHT	NATIONAL STANDARD HOSE THREAD
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE
CONC	CONCRETE	O.C.	ON CENTER
CPT	CONTROL POINT	OD	OUTSIDE DIAMETER
CFS	CUBIC FEET PER SECOND	OH	OVERHEAD
CYC	CYCLONE	PNL	PANEL
DL	DAYLIGHT	PE	PLAIN END, POLYETHYLENE
DET	DETAIL	PVC	POLY-VINYL CHLORIDE
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
DBL	DOUBLE	PP	POWER POLE
DWGS	DRAWINGS	(P)	PROPOSED
DWY	DRIVEWAY	RED	REDUCER
DI	DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	R/W	RIGHT-OF-WAY
EA	EACH	RSR	RISER
EP	EDGE OF PAVEMENT	RD	ROAD
ESMT	EASEMENT	SCH	SCHEDULE
E	EAST	SPECS	SPECIFICATIONS
EP	EDGE OF PAVEMENT	SS	SANITARY SEWER
LEC, ELECT	ELECTRICAL	SSCO	SANITARY SEWER CLEANOUT
EL,ELEV	ELEVATION	SSFM	SANITARY SEWER FORCE MAIN
ELL	ELBOW	SSMH	SANITARY SEWER MANHOLE
EQUIP	EQUIPMENT	SRVP	SERVICE POLE
(E)	EXISTING	SP	STATIC PRESSURE
(F)	FUTURE	STA	STATION
FIPT	FEMALE IRON PIPE THREAD	STD	STANDARD
FNPT	FEMALE NATIONAL PIPE THREAD	STL	STEEL
FEN	FENCE	SD	STORM DRAIN
FF	FINISH FLOOR	SL	STREET LIGHT
FLG, FL	FLANGE	STS	STREET NAME SIGN
FL, FLR	FLOW LINE	TCE	TEMPORARY CONSTRUCTION EASEMENT
GAL	GALLON(S)	TOD	TOP OF DITCH
GPM	GALLONS PER MINUTE	TOS	TOP OF SLOPE
GALV	GALVANIZED	TS	TRAFFIC SIGN
GV	GATE VALVE	TYP	TYPICAL
GB	GRADE BREAK	VLTS	VAULTS
GS	GALVANIZED STEEL	W	WATER
HW	HEADWALL	WM	WATER MAIN
HP	HORSEPOWER	W/	WITH
HDPE	HIGH-DENSITY POLYETHYLENE	WH	WHARF HYDRANT
ID	INSIDE DIAMETER	WSP	WELDED STEEL PIPE
INV	INVERT	WD	WOOD
IW	INDUSTRIAL WASTE	WDFE	WOOD FENCE
IPS	IRON PIPE SIZE		

EXISTING	DESCRIPTION	PROPOSED
	EASEMENT	
	TEMPORARY CONSTRUCTION EASEMENT	TCE
	PROPERTY LINE - R/W	
	LIMIT OF WORK	
	CYCLONE FENCE	X X
	WOOD FENCE	
	WATER LINE	W W
	OVERHEAD ELECTRIC	
181.44	SPOT ELEVATION	181.44
	DRAIN PIPE	
	ABANDON PIPE	X X X X X X X X X X X X X X
	EDGE OF (E) PAVEMENT	
	MAJOR CONTOUR LINE (TOPO)	
	MINOR CONTOUR LINE (TOPO)	
	LIMIT OF GRADING	
	BURIED ELECTRIC	
	TELEPHONE	
	OVERHEAD COMMUNICATION	
	VEGETATION	
	STORM DRAIN PIPE	SD
	WATER VALVE	
	MANHOLE	
	CONTROL POINT	
	FOUND MONUMENT AS NOTED	
	EXISTING TREE & TYPE	
	TREE CLUSTER WITH SIZE	
	CYPRESS	
	OAK	
	PINE	
	REDWOOD	
	TREE (MISC)	
	WATER METER	

1	G1.0	TITLE SHEET
2	G1.1	LEGEND, ABBREVIATIONS, & SHEET INDEX
3	G1.2	GENERAL NOTES
4	G1.3	TIE-IN CONNECTIONS & SERVICES
5	C4.0	KEY MAP
6	C4.1	LYON PIPE STA 200+00 TO 207+00
7	C4.2	LYON PIPE STA 207+00 TO 215+00
8	C4.3	BIG STEEL PIPE STA 200+00 TO 207+00
9	C4.4	BIG STEEL PIPE STA 207+00 TO 215+00
10	C4.5	HWY 236 STA 100+00 TO 110+00
11	C4.6	HWY 236 STA 110+00 TO 120+00
12	C4.7	HWY 236 STA 120+00 TO 130+00
13	C4.8	HWY 236 STA 130+00 TO 140+00
14	C4.9	HWY 236 STA 140+00 TO 146+00
15	C4.10	PINE STREET STA 300+00 TO 309+00
16	C4.11	EAST LOMOND STREET STA 500+00 TO 511+00
17	C4.12	IRWIN WAY STA 511+00 TO 522+00
18	C4.13	BEAR CREEK & READER ZONE INTERTIE
19	C4.14	WEST PARK AVENUE TIE-IN
20	C5.1	TIE-IN DETAILS
21	C5.2	PINE STREET PRV DETAILS
22	C5.3	LORENZO STREET PRV DETAILS
23	C6.1	STANDARD DETAILS I
24	C6.2	STANDARD DETAILS II
25	C6.3	STANDARD DETAILS III
26	C6.4	BRIDGE CROSSING I
27	C6.5	BRIDGE CROSSING II

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	SUBMITTAL:	100% SUBMITTAL		
G1.1 SHEET 2 OF 27				
LYON & BIG STEEL ZONE PIPELINE IMPROVEMENTS LEGEND, ABBREVIATIONS & SHEET INDEX				
				
Schaaf & Wheeler CONSULTING CIVIL ENGINEERS 3 Quail Run Circle, Suite 101 Salinas, CA 93907-2348 (831) 883-4848				
REV. NO.	DESCRIPTION	BY	DATE	
1				
2				
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C:\USERS\JTABLER\DESKTOP\WORKS\L\W\LYON\DRAWINGS\G1.1 NOTES.DWG 9/19/2022 BY JTABLER

WATER SERVICE CONNECTIONS

NUMBER	STATION	ADDRESS	LATITUDE	LONGITUDE	METER SIZE	PRESSURE ZONE
1	121+34	13676 Big Basin Way	37.12631985	-122.1300197	1-INCH	BIG STEEL
2	140+53	13300 Big Basin Way	37.12514573	-122.1239799	2-INCH	BIG STEEL
3	139+92	13301 Big Basin Way	37.12491329	-122.1240939	1-INCH	BIG STEEL
4	140+98	13350 Big Basin Way	37.12513102	-122.1238089	1-INCH	BIG STEEL
5	138+42	13350 Big Basin Way	37.12509369	-122.124677	2-INCH	BIG STEEL
6	137+79	13352 Big Basin Way	37.12511539	-122.1248326	1-INCH	BIG STEEL
7	135+78	13382 Big Basin Way	37.12494678	-122.1255271	1-INCH	BIG STEEL
8	134+36	13420 Big Basin Way	37.12507721	-122.1260404	2-INCH	BIG STEEL
9	132+18	13444 Big Basin Way	37.12522472	-122.1266712	2-INCH	BIG STEEL
10	126+93	13550 Big Basin Way	37.12559442	-122.1284169	1-INCH	BIG STEEL
11	126+04	13592 Big Basin Way	37.1258296	-122.1285902	1-INCH	BIG STEEL
12	125+48	13594 Big Basin Way	37.12588741	-122.128744	1-INCH	BIG STEEL
13	124+16	13616 Big Basin Way	37.12603785	-122.1291562	1-INCH	BIG STEEL
14	123+46	13640 Big Basin Way	37.12613248	-122.1293643	1-INCH	BIG STEEL
15	122+80	13652 Big Basin Way	37.12620886	-122.1295818	1-INCH	BIG STEEL
16	121+03	13680 Big Basin Way	37.12630255	-122.1301634	1-INCH	BIG STEEL
17	116+59	13760 Big Basin Way	37.12705965	-122.1313887	1-INCH	BIG STEEL
18	115+64	13816 Big Basin Way	37.12727767	-122.1315321	1-INCH	BIG STEEL
19	114+06	13840 Big Basin Way	37.12764795	-122.1317811	1-INCH	BIG STEEL
20	113+07	13850 Big Basin Way	37.12784738	-122.1318983	1-INCH	BIG STEEL
21	108+08	14000 Big Basin Way	37.12876867	-122.1332651	1-INCH	BIG STEEL
22	100+97	14105 Big Basin Way	37.13023811	-122.134997	1-INCH	LYON
23	207+37	825 Boulder Brook dr.	37.12889789	-122.1361353	1-INCH	LYON
24	303+04	13211 Central Ave.	37.12507397	-122.1223364	1-INCH	BIG STEEL
25	213+71	4 Redwood Dr.	37.13022938	-122.1350068	1-INCH	LYON
26	801+15	125 Forest St.	37.12388173	-122.1221878	1-INCH	BIG STEEL
27	116+42	165 st. Francis Dr.	37.12697514	-122.1315509	1-INCH	BIG STEEL
28	116+53	170 st. Francis Dr.	37.12693409	-122.1315271	1-INCH	BIG STEEL
29	117+32	195 st. Francis Dr.	37.12678423	-122.1312047	1-INCH	BIG STEEL
30	136+84	13366 Big Basin Hwy	37.12494248	-122.1251852	1-INCH	BIG STEEL
31	305+27	13141 Hwy 9	37.12438837	-122.122676	1-INCH	BIG STEEL
32	306+32	13117 Hwy 9	37.12411602	-122.1225663	1-INCH	BIG STEEL
33	306+10	13125 Hwy 9	37.12416678	-122.1225983	1-INCH	BIG STEEL
34	305+68	13127 Hwy 9	37.12427537	-122.1226442	1-INCH	BIG STEEL
35	305+10	13141 Hwy 9	37.12446349	-122.1224655	1-INCH	BIG STEEL
36	304+45	13151 Hwy 9	37.12460374	-122.1227427	1-INCH	BIG STEEL
37	304+12	13159 Hwy 9	37.1246935	-122.1227745	1-INCH	BIG STEEL
38	701+73	13255 Hwy 9	37.12566063	-122.1226106	1-INCH	BIG STEEL
39	522+17	13100 Irwin Way	37.12332821	-122.1201184	1-INCH	BIG STEEL
40	521+88	13110 Irwin Way	37.12338478	-122.1199867	1-INCH	BIG STEEL
41	520+73	13140 Irwin Way	37.12363829	-122.1197567	1-INCH	BIG STEEL
42	519+35	13160 Irwin Way	37.12393283	-122.1195184	1-INCH	BIG STEEL
43	518+15	13190 Irwin Way	37.1241623	-122.119193	1-INCH	BIG STEEL
44	511+31	13330 Irwin Way	37.12583076	-122.1189073	1-INCH	BIG STEEL
45	500+38	150 Lomond St.	37.12356414	-122.1208421	1-INCH	BIG STEEL
46	503+64	200 Lomond St.	37.12440268	-122.1206503	1-INCH	BIG STEEL
47	504+86	220 Lomond St.	37.12472081	-122.1203237	1-INCH	BIG STEEL
48	506+29	250 Lomond St.	37.12507722	-122.1202501	1-INCH	BIG STEEL
49	506+39	255 Lomond St.	37.12511608	-122.1203119	1-INCH	BIG STEEL
50	508+83	288 Lomond St.	37.12553175	-122.1196793	1-INCH	BIG STEEL
51	141+27	200 Lorenzo St.	37.12568668	-122.1238718	1-INCH	PROTECT IN PLACE
52	208+59	265 Madrone Dr.	37.12911951	-122.1354754	1-INCH	LYON
53	202+35	313 Madrone Dr.	37.12842984	-122.1353235	1-INCH	LYON
54	202+34	350 Madrone Dr.	37.12842674	-122.1353087	1-INCH	LYON
55	115+43	121 Paone Dr.	37.12718799	-122.1316955	1-INCH	BIG STEEL
56	305+84	13120 Pine St.	37.12423543	-122.1226269	1-INCH	BIG STEEL
57	800+73	13090 Pine St.	37.12385102	-122.1223278	1-INCH	BIG STEEL
58	306+72	13111 Pine St.	37.12396515	-122.1227071	1-INCH	BIG STEEL
59	305+83	13121 Pine St.	37.12418778	-122.1227901	1-INCH	BIG STEEL
60	305+06	13145 Pine St.	37.1244066	-122.1228569	1-INCH	BIG STEEL
61	304+39	13153 Pine St.	37.12458841	-122.1229072	1-INCH	BIG STEEL
62	304+19	13155 Pine St.	37.12464828	-122.1229276	1-INCH	BIG STEEL
63	303+58	13165 Pine st.	37.12480387	-122.1229818	1-INCH	BIG STEEL
64	302+50	13185 Pine St.	37.12508685	-122.1230716	1-INCH	BIG STEEL
65	200+71	151 Redwood Dr.	37.12793382	-122.1350339	1-INCH	BIG STEEL
66	210+01	175 Redwood Dr.	37.12929417	-122.1350564	1-INCH	LYON
67	209+99	191 Redwood Dr.	37.12928004	-122.1350869	1-INCH	LYON
68	135+44	13400 Big Basin Way	37.1253014	-122.1256412	1-INCH	BIG STEEL
69	108+08	13915 West Park ave.	37.12876867	-122.1332651	1-INCH	BIG STEEL
70	140+99	13350 Big Basin Way	37.12513102	-122.138	1-INCH	BIG STEEL
71	141+52	13270 Big Basin Way	37.1252	-122.1236	2-INCH	BIG STEEL
72	305+16	13145 Pine St.	37.1244066	-122.1228569	1-INCH	BIG STEEL
73	305+87	13121 Pine St.	37.12418778	-122.1227901	1-INCH	BIG STEEL
74	800+98	Forest Ave	37.123999	-122.1223	1-INCH	BIG STEEL
75	307+85	Pine St.	37.12369	-122.1224	1-INCH	BIG STEEL
76	308+77	Pine St.	37.12342	-122.1225	1-INCH	BIG STEEL
77	143+93	13210 Big Basin Way	37.12534	-122.1228	2-INCH	BIG STEEL

TIE-IN CONNECTIONS			
STATION	ZONE	DESCRIPTION	DETAIL
0+00	LYON	CONNECT TO (E) 12" GV AT BIG STEEL TANK	C4.1
200+36	BIG STEEL	CONNECT TO (E) 8" AT BIG STEEL TANK	H/C5.1
207+25	LYON	BOULDER BROOK DR - TIE TO (E) 6"	J/C5.1
100+93	LYON	BOULDER BROOK DR - TIE TO (E) 4"	A/C5.1
107+76	BIG STEEL	CONNECT TO (E) 8" BIG STEEL PIPE	B/C5.1
114+51	LYON	PAONE DRIVE 12" X 6" TEE	C/C5.1
123+41	LYON	CONNECT TO (E) 2" W TO LYON PIPE W/ 2" PRV	E/C5.1
130+10	LYON	HAZEL AVE LATERAL, TIE TO (E) 2"	D/C5.1
138+47	BIG STEEL	PROVIDE NEW 8" STUBOUT FROM (E) 8" BIG STEEL TO (E) 2" IN LAUREL ST	F/C5.1
140+84	BIG STEEL	PROVIDE NEW 8" STUBOUT FROM (E) 8" BIG STEEL TO (E) 2" IN OAK ST	F/C5.1
143+40/ 301+95	BIG STEEL	PINE ST & HWY 236 INTERSECTION	G/C5.1
500+06	BIG STEEL	LOMOND ST. TO EAST LOMOND ST. CONNECTION	I/C5.1
502+73	BIG STEEL	RAILROAD AVE.	D/C5.1
506+74	BIG STEEL	JUNCTION AVE.	D/C5.1
508+65	BIG STEEL	MIDDLETON AVE	J/C5.1
514+32	BIG STEEL	FAIRVIEW AVE	J/C5.1
521+72	BIG STEEL	CONNECT TO (E) 12" DIP IN IRMIN WAY	K/C5.1
702+02	LYON	LORENZO ST. AT HWY 9	M/C4.9
801+94	BIG STEEL	FOREST AVE. AT HWY 9	L/C4.10

SLVWD PRESSURE ZONES	
ZONE	HGL ELEVATION(FT)
LYON	884
BIG STEEL	773
READER	780
BLACKSTONE	802
BEAR CREEK	808
RALSTON	1021

DATE

BY

DESCRIPTION

REV. NO.

1

2

3

4

5

Schaaf & Wheeler

CONSULTING CIVIL ENGINEERS

3 Quail Run Circle, Suite 101

Salinas, CA 93907-2348

(831) 883-4848

REGISTERED PROFESSIONAL ENGINEER

A STATE OF CALIFORNIA

NO. 69703

CIVIL

LYON & BIG STEEL ZONE

PIPELINE IMPROVEMENTS

TIE-INS & SERVICES

San Lorenzo Valley

WATER DISTRICT

DESIGNED BY: JCT

DATE: 9/20/2022

DRAWN BY: JCT

DATE: 9/20/2022

QC CHECKED BY: JCT

DATE: 9/20/2022

PROJECT NO.:

SCALE: NO SCALE

SUBMITTAL: 100% SUBMITTAL

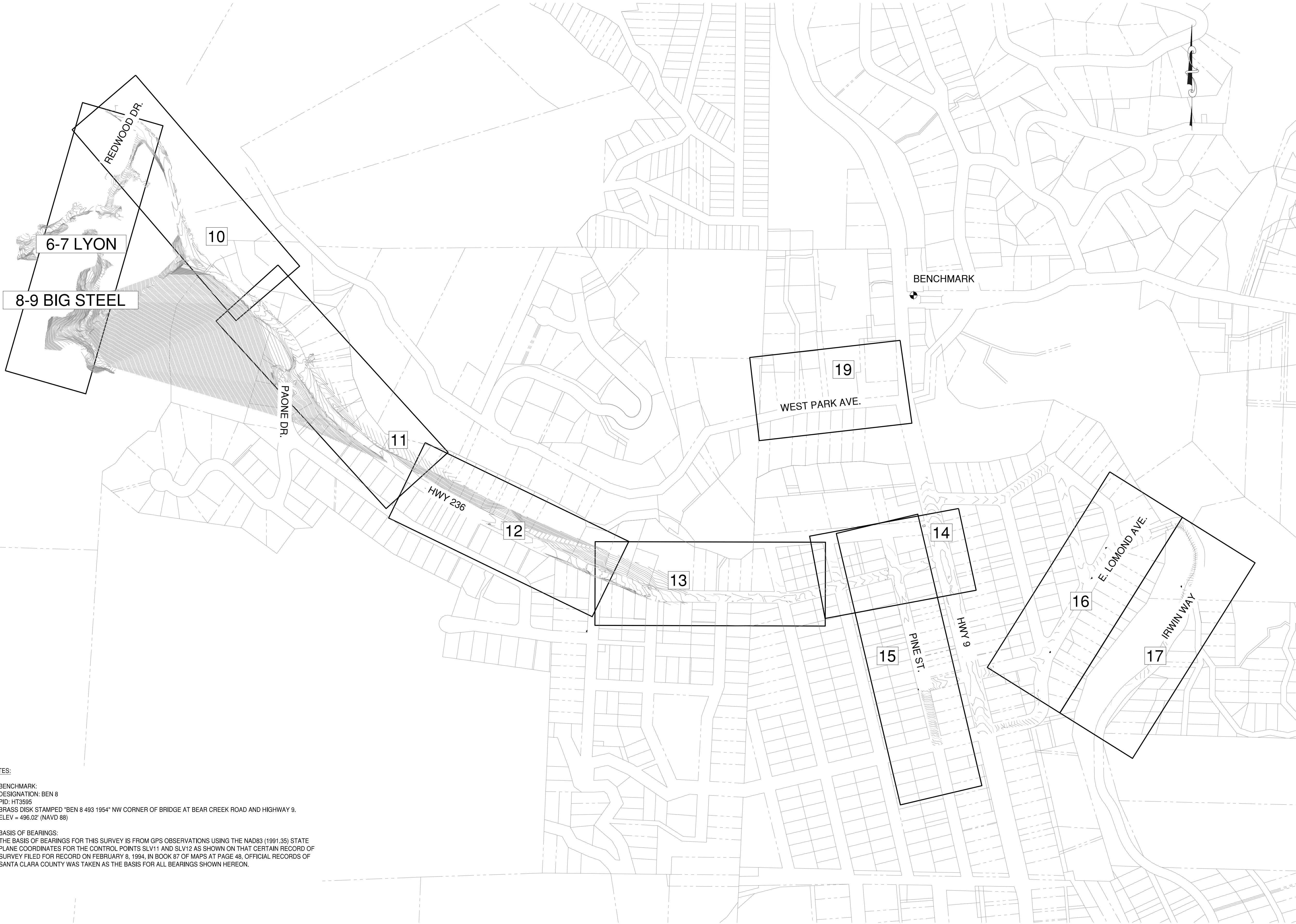
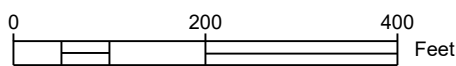
G1.3

SHEET 4 OF 27

C:\USERS\JTABLE\Desktop\WORKS\L\LYONDRAWINGS\C4.0 PLAN PROFILE SHEETS.DWG 9/19/2022 BY JTABUE

NOTES:

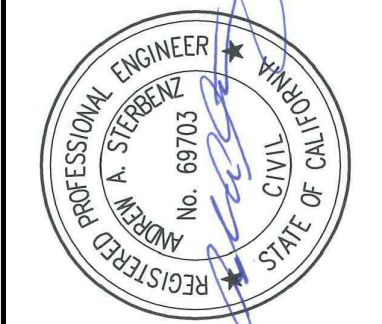
1. BENCHMARK:
DESIGNATION: BEN 8
PID: HT3595
BRASS DISK STAMPED "BEN 8 493 1954" NW CORNER OF BRIDGE AT BEAR CREEK ROAD AND HIGHWAY 9.
ELEV = 496.02' (NAVD 88)
2. BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS FROM GPS OBSERVATIONS USING THE NAD83 (1991.35) STATE PLANE COORDINATES FOR THE CONTROL POINTS SLV11 AND SLV12 AS SHOWN ON THAT CERTAIN RECORD OF SURVEY FILED FOR RECORD ON FEBRUARY 8, 1994, IN BOOK 87 OF MAPS AT PAGE 48, OFFICIAL RECORDS OF SANTA CLARA COUNTY WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.



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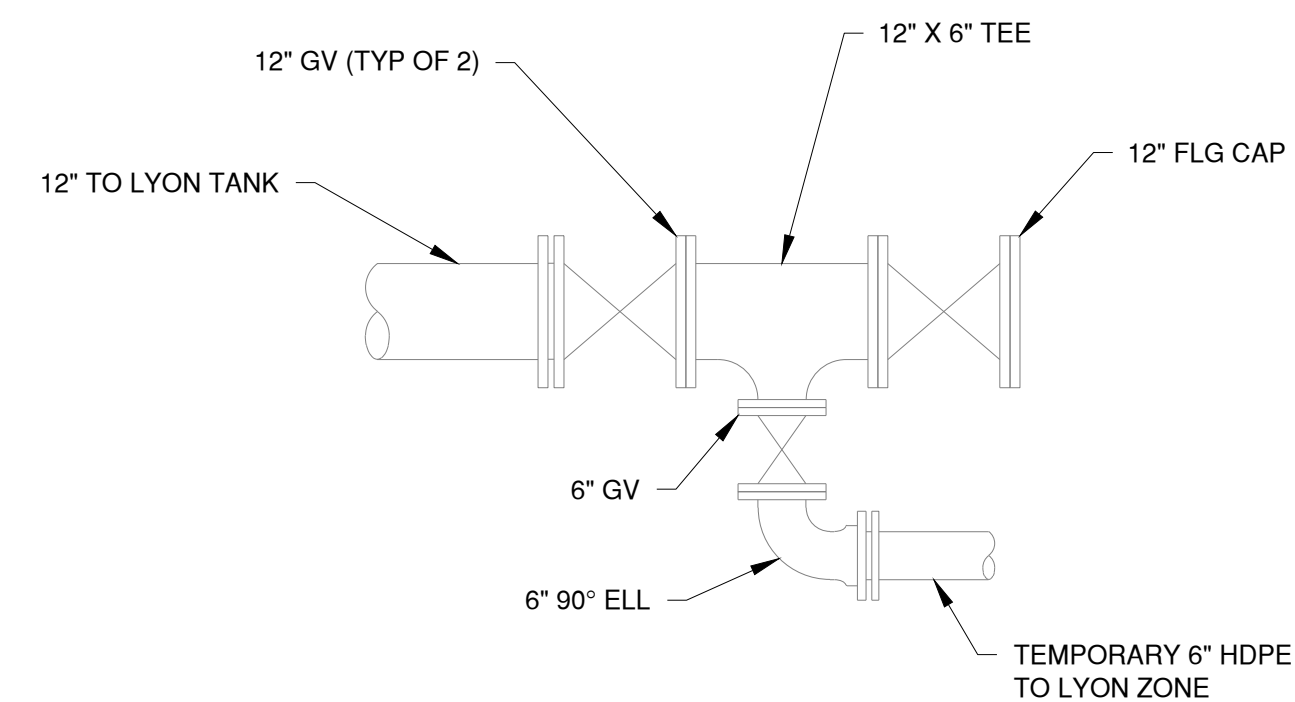
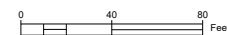


LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
KEY SHEET

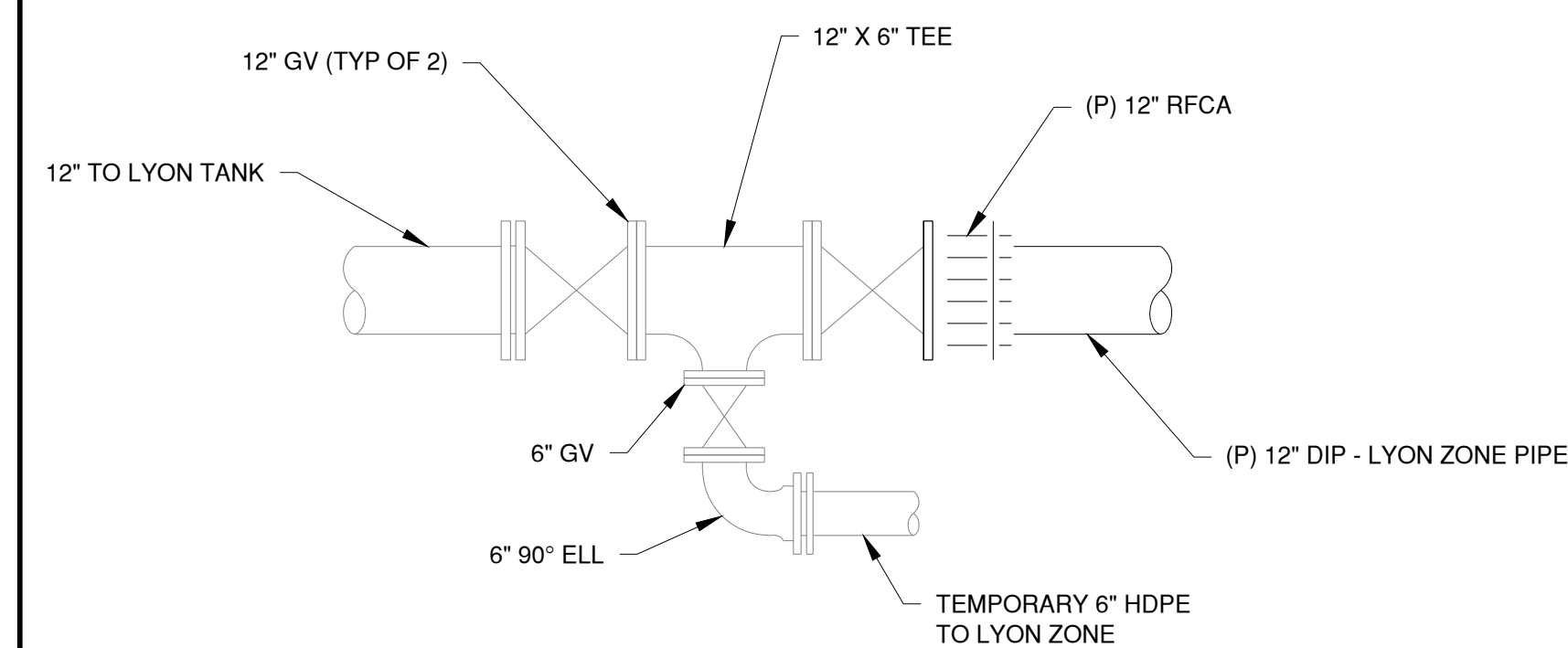


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REV. NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			



EXISTING



PROPOSED

12" LYON ZONE TIE-IN A
NTS C4.1

SHEET C4.1 OF 27	DESIGNED BY:	JCT	DATE:	9/20/2022
	DRAWN BY:	JCT	DATE:	9/20/2022
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	SCALE:	1"=40'		
	SUBMITTAL:	100% SUBMITTAL		



San Lorenzo Valley
WATER DISTRICT

LYON & BIG STEEL ZONE
 PIPELINE IMPROVEMENTS
 LYON PIPE 200+00 TO 207+00



Schaaf & Wheeler
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 3 Quail Run Circle, Suite 101
 Salinas, CA 95007-2348
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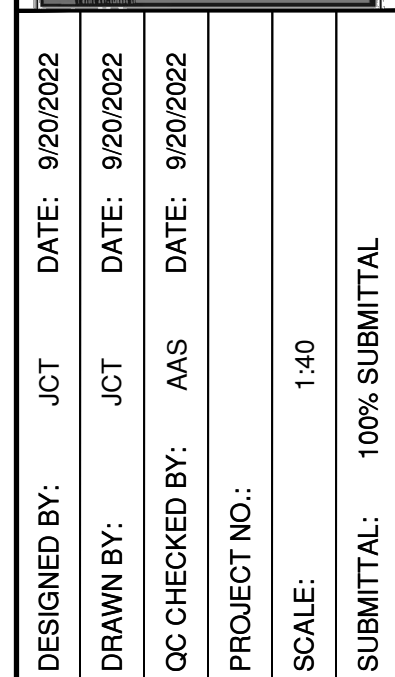


NOTE: BOTH (N) PIPELINES ARE SHOWN. LABEL
CALLOUTS ARE FOR LYON ZONE PIPE ONLY.



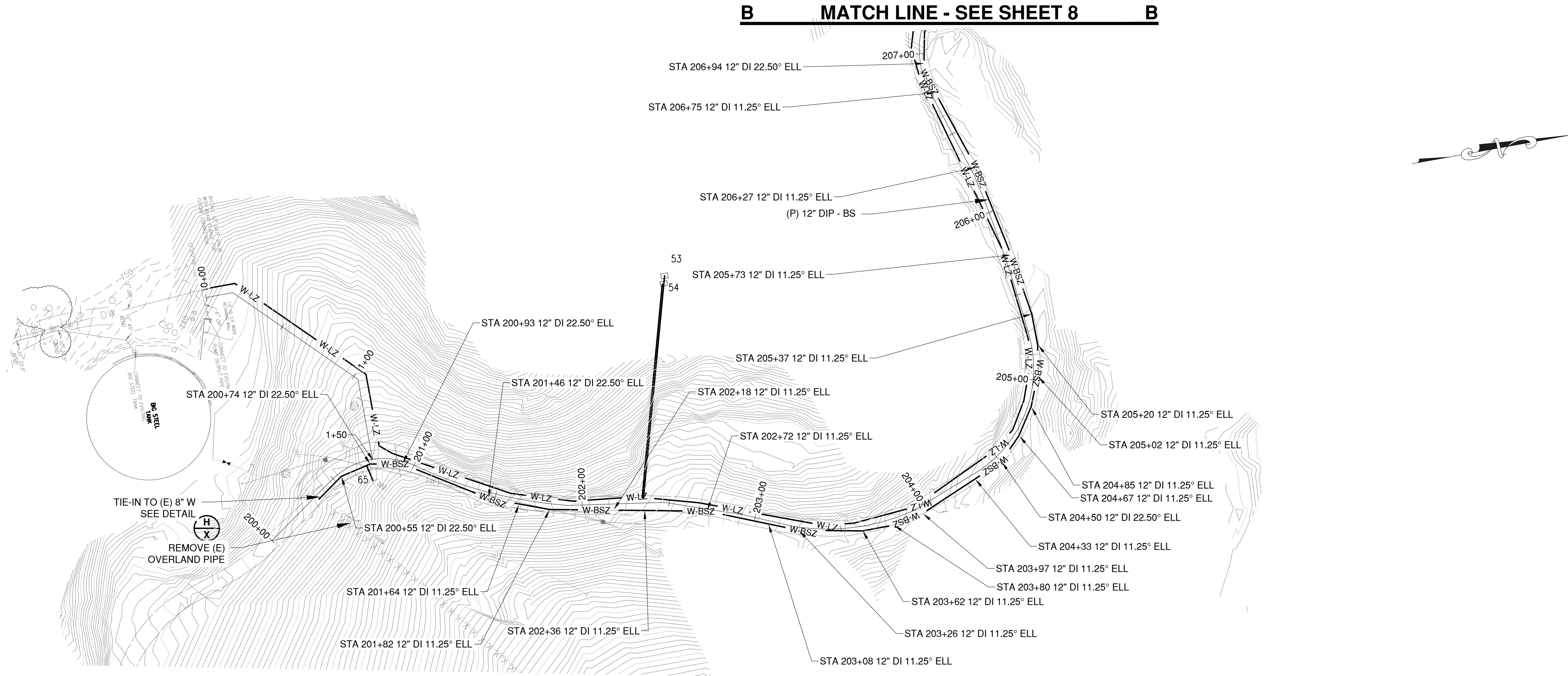
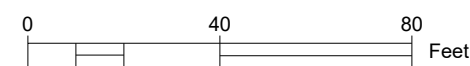
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'

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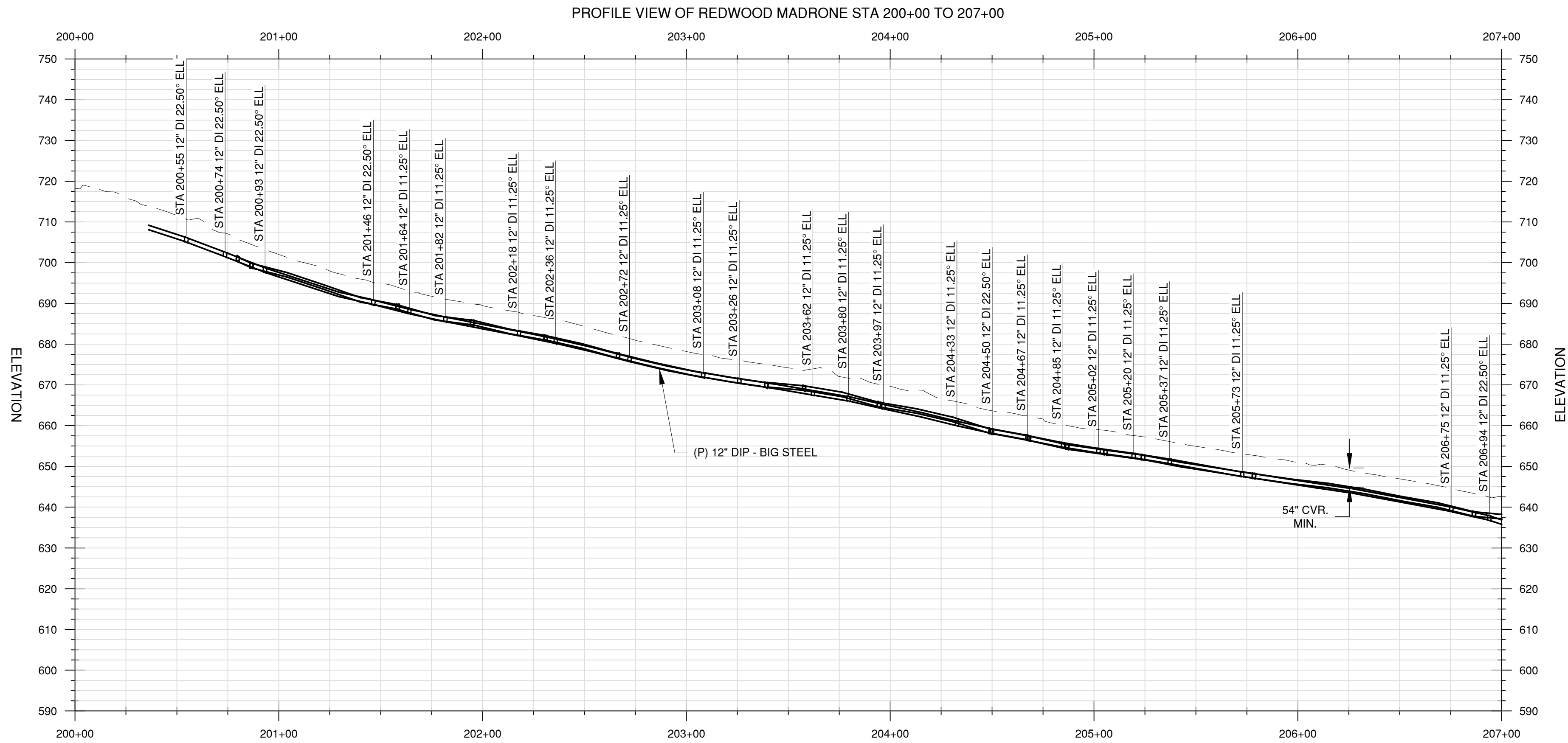
C4.2
SHEET 7 OF 27

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PLAN
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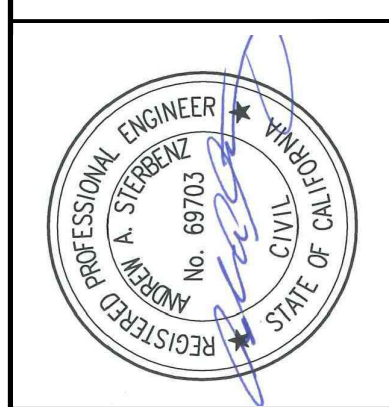
NOTE: BOTH (N) PIPELINES ARE SHOWN. LABEL
CALLOUTS ARE FOR BIG STEEL ZONE PIPE ONLY.



PROFILE
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'

REV. NO.	DESCRIPTION	BY	DATE
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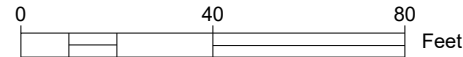
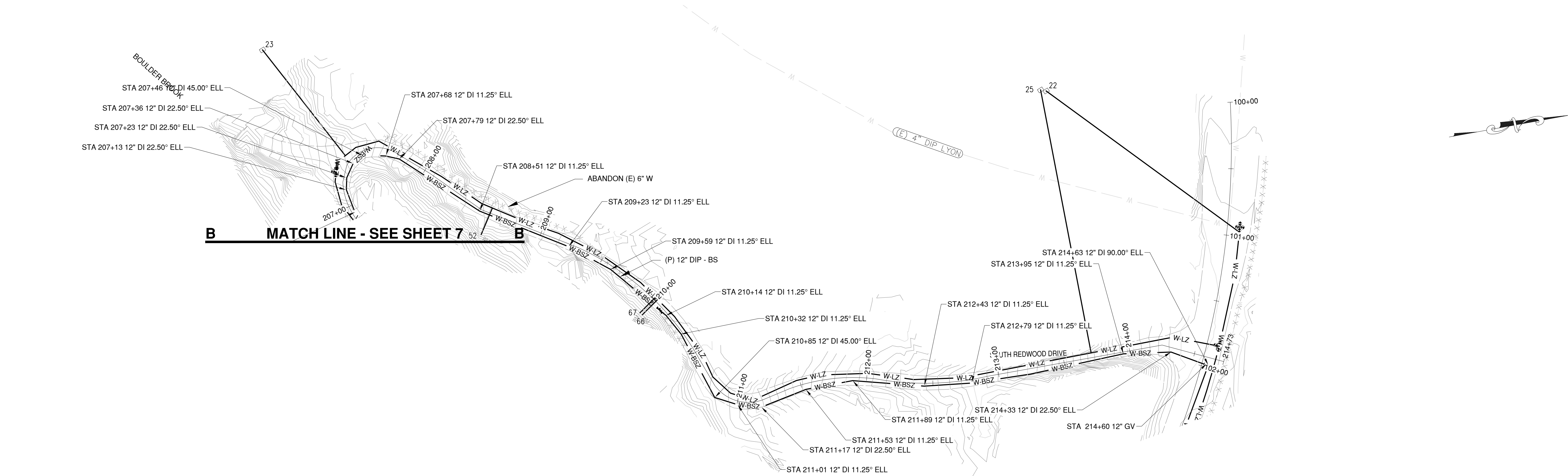


**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS**
BIG STEEL 200+00 TO 207+00



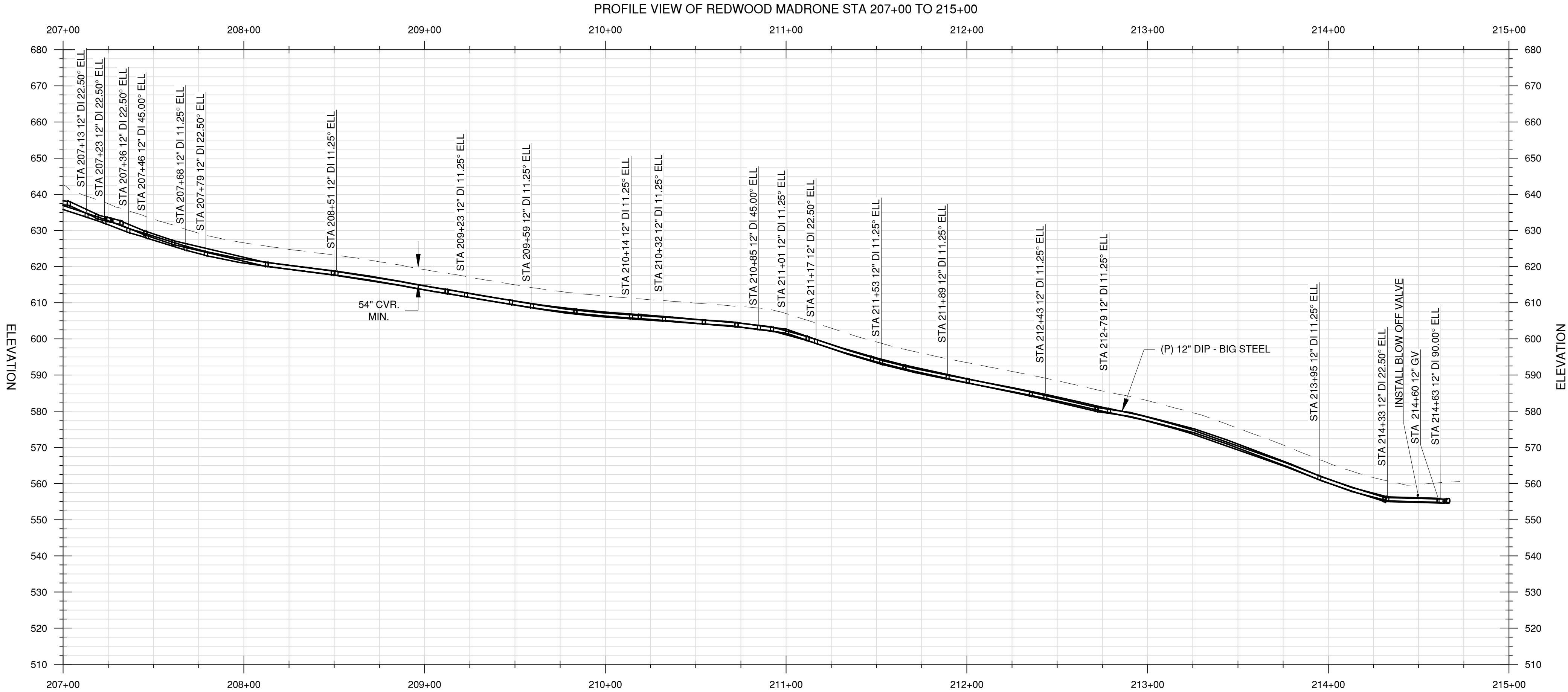
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DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		

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NOTE: BOTH (N) PIPELINES ARE SHOWN. LABEL
CALLOUTS ARE FOR BIG STEEL ZONE PIPE ONLY.

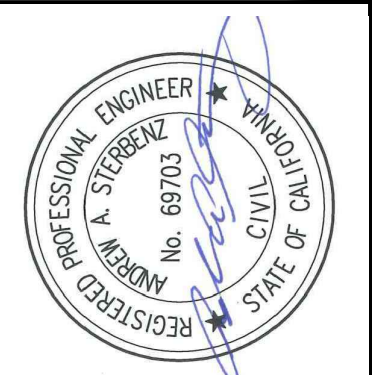
PLAN
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PROFILE
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'

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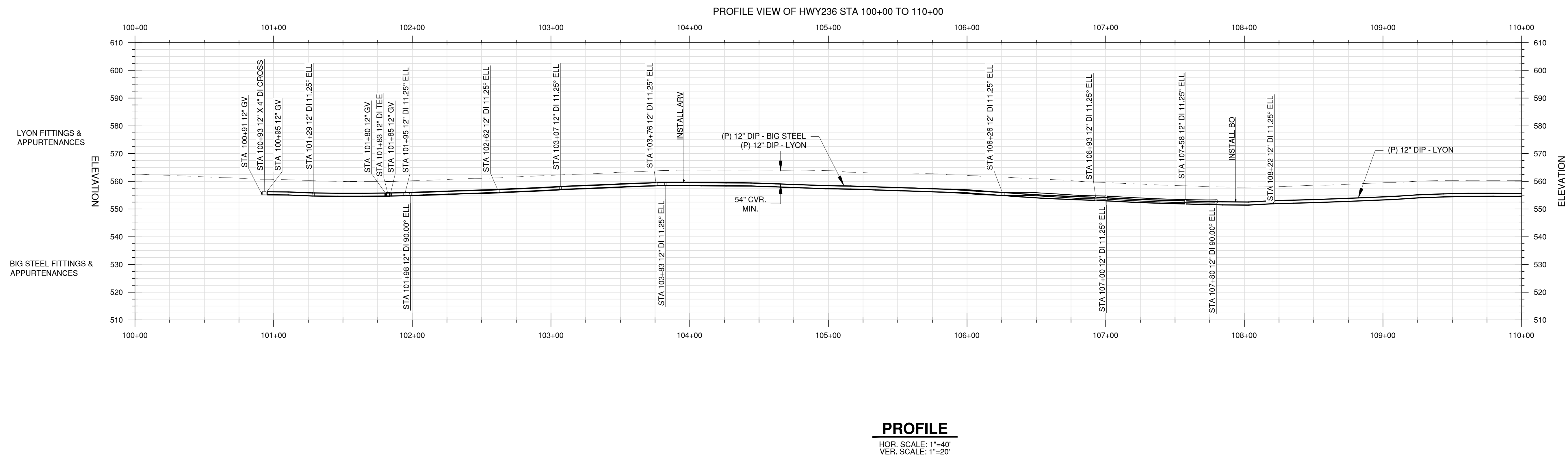
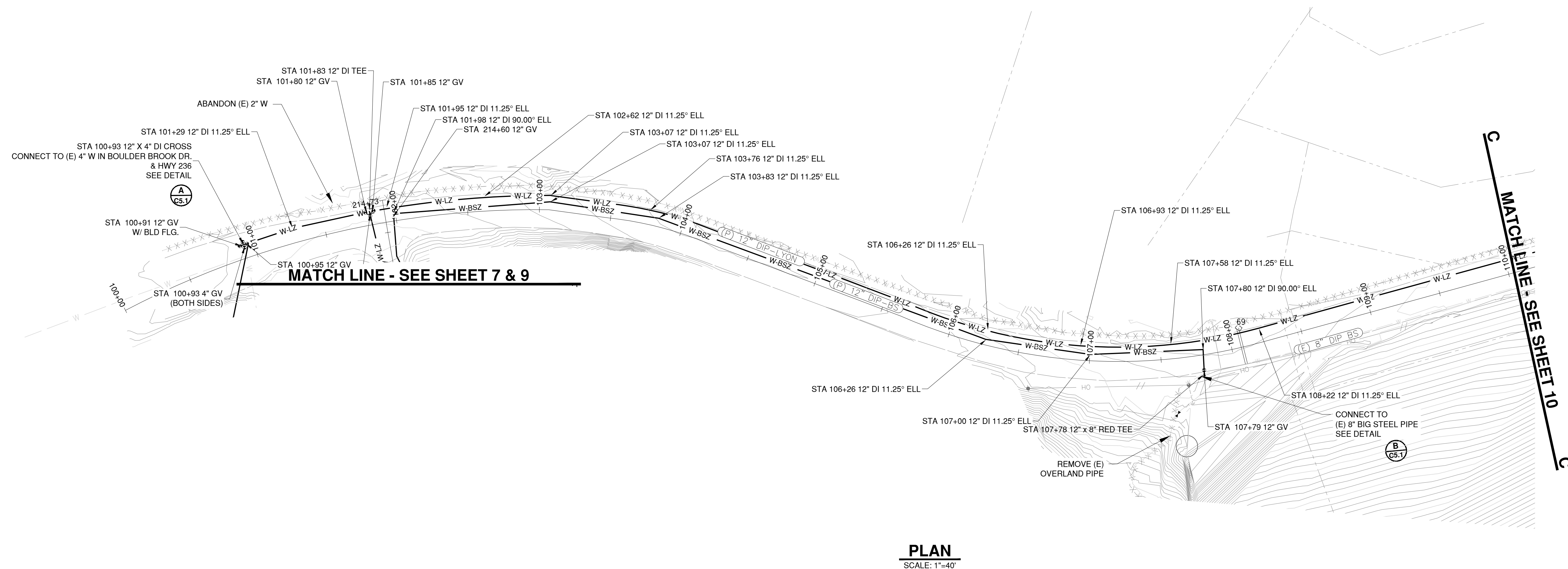
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**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS**
BIG STEEL 207+00 TO 215+00



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QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		

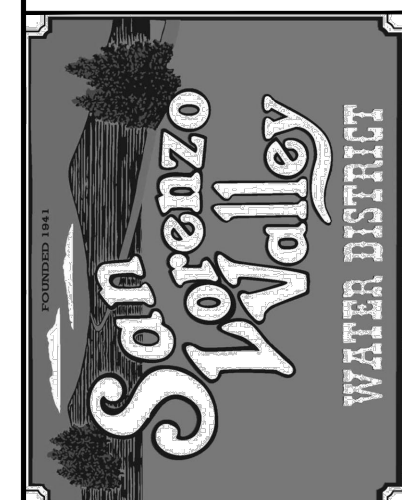


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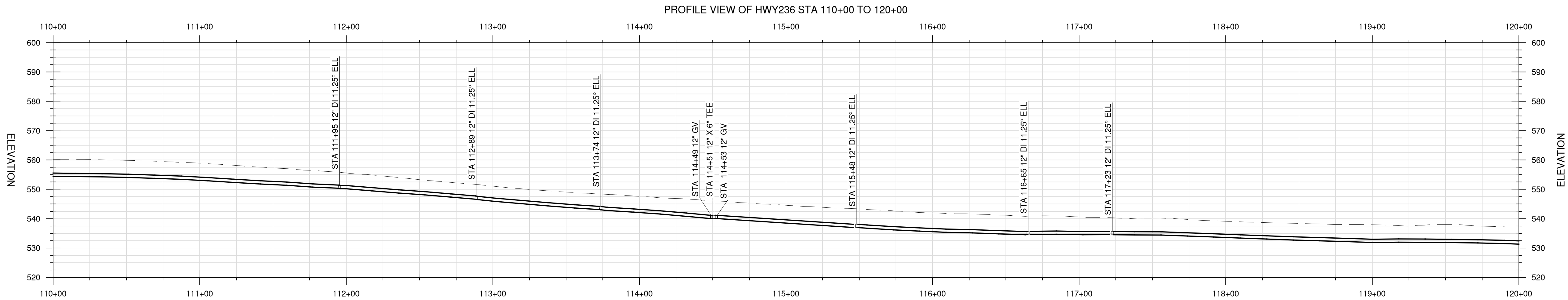


**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
HWY 236 100+00 TO 110+00**

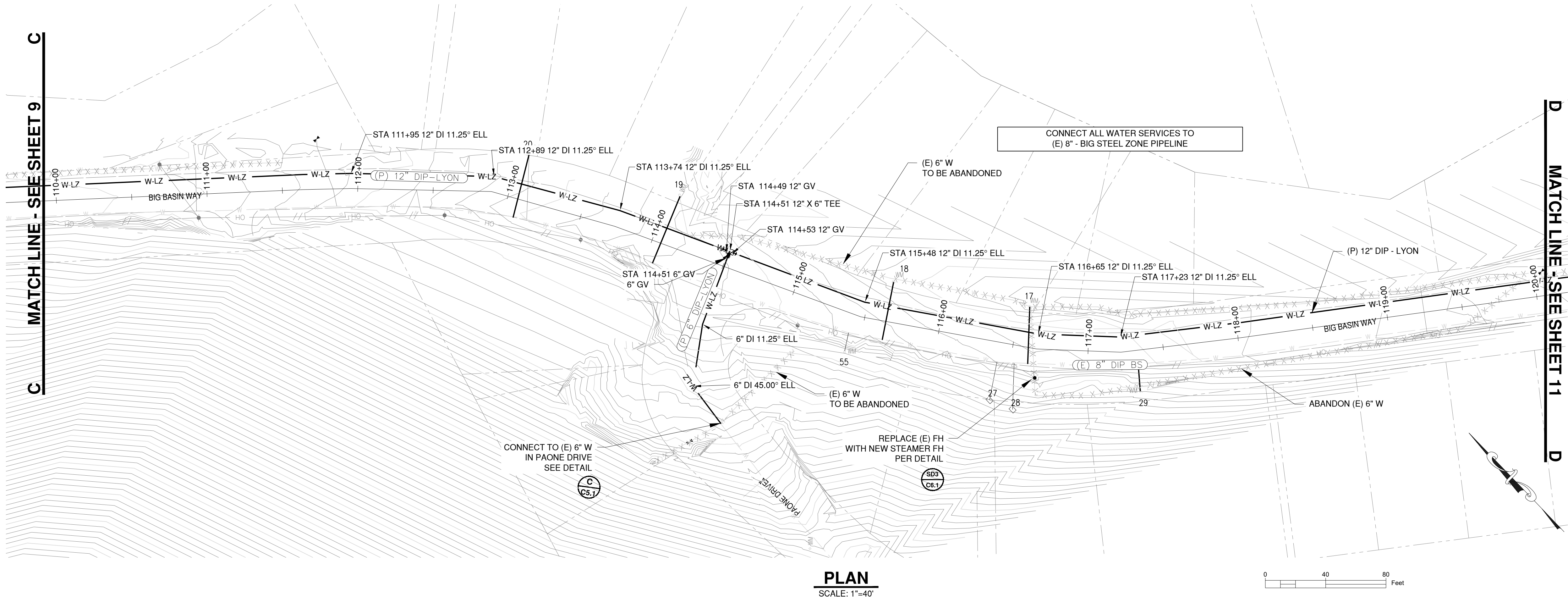


DESIGNED BY:	JCT	DATE: 9/20/2022
DRAWN BY:	JCT	DATE: 9/20/2022
CHECKED BY:	AAS	DATE: 9/20/2022
PROJECT NO.:		
SCALE:		1:40
SUBMITTAL:		100% SUBMITTAL

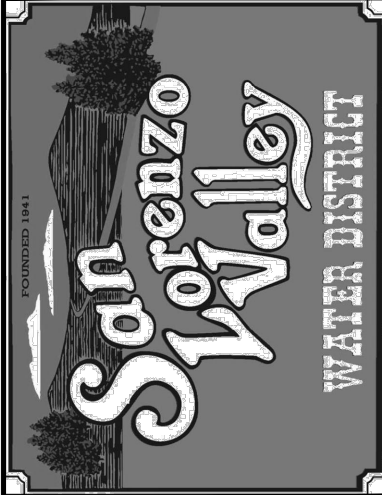
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PROFILE
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'



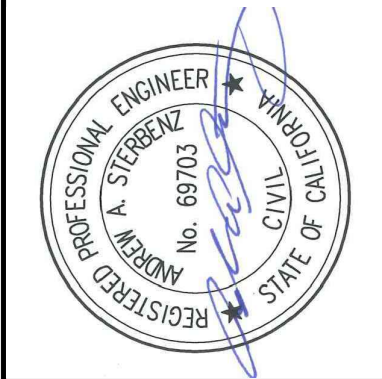
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DESIGNED BY:	JCT	DATE:	9/20/2022
DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	JCT	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		

C4.6
SHEET 11 OF 27

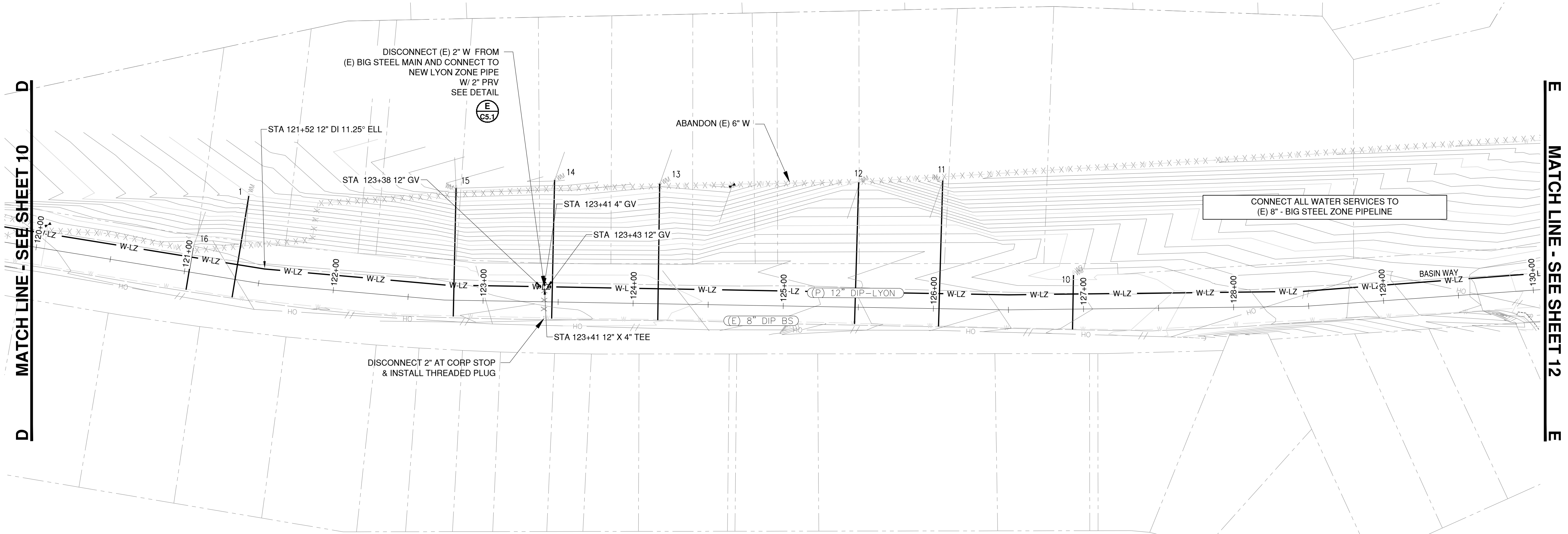
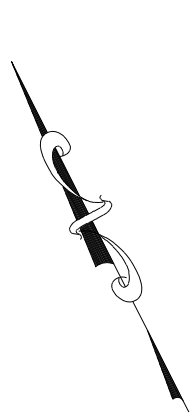
**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS**
HWY 236 110+00 TO 120+00



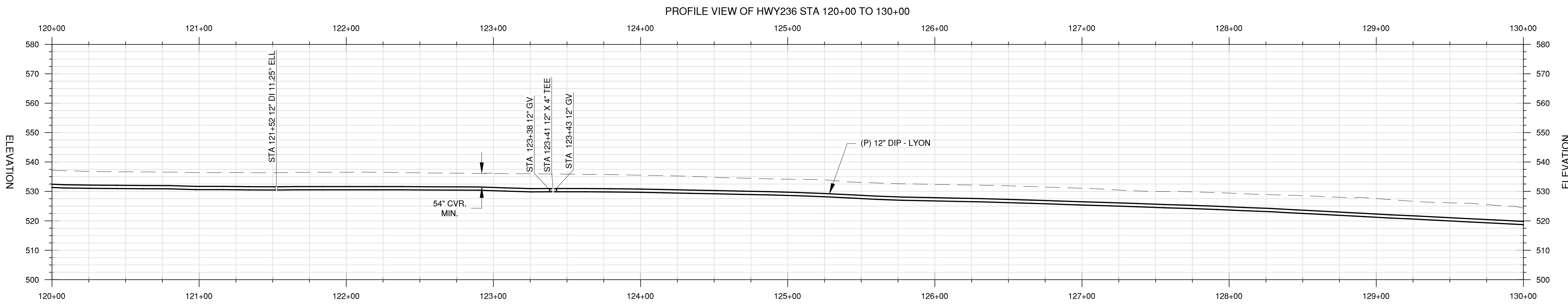
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PLAN
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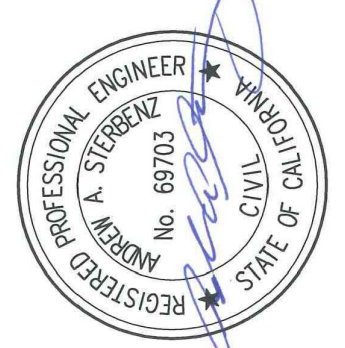


PROFILE
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VER. SCALE: 1"=20'

DESIGNED BY:	JCT	DATE:	9/20/2022
DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	JCT	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		



**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS**
HWY 236 120+00 TO 130+00

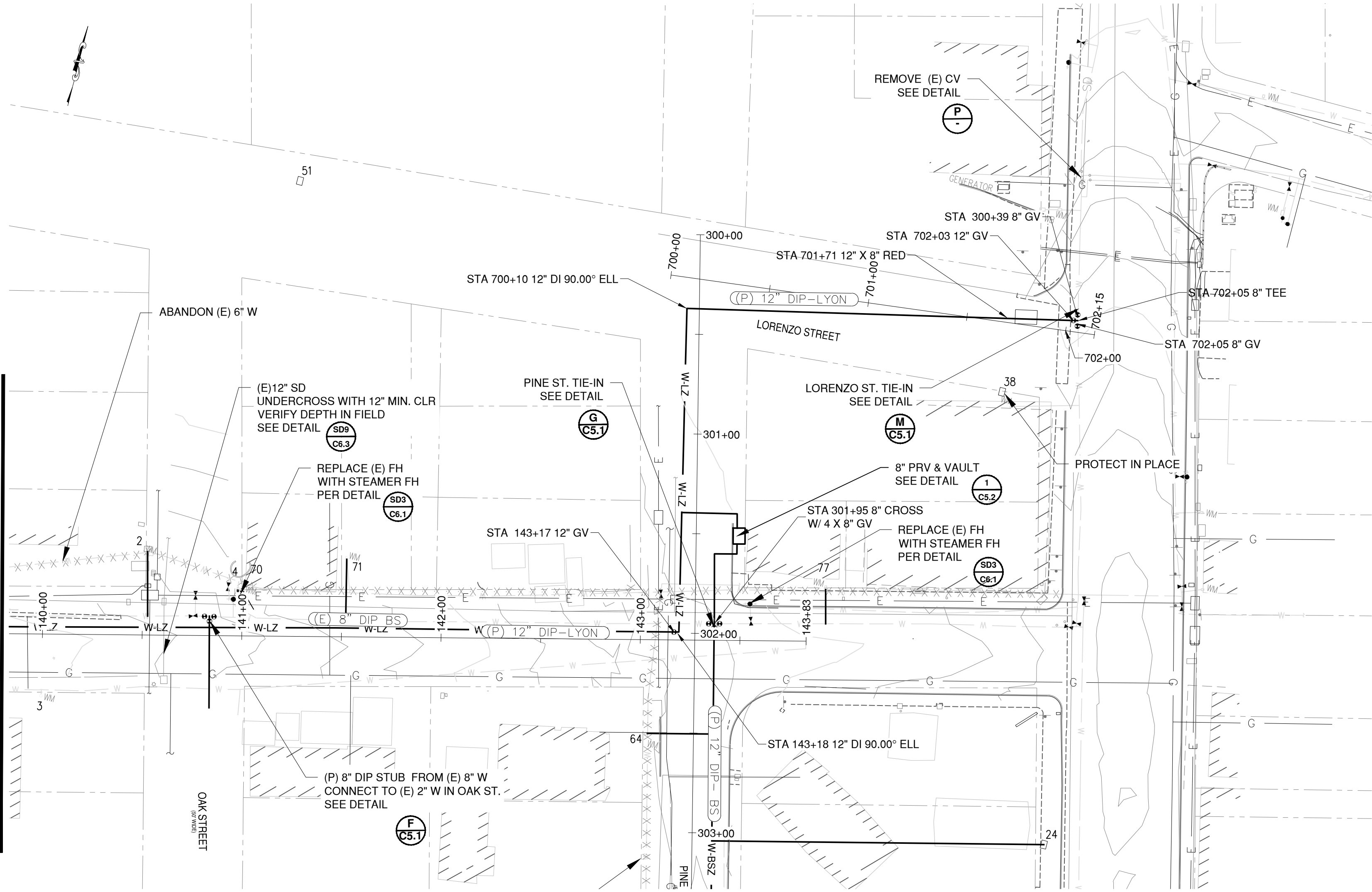


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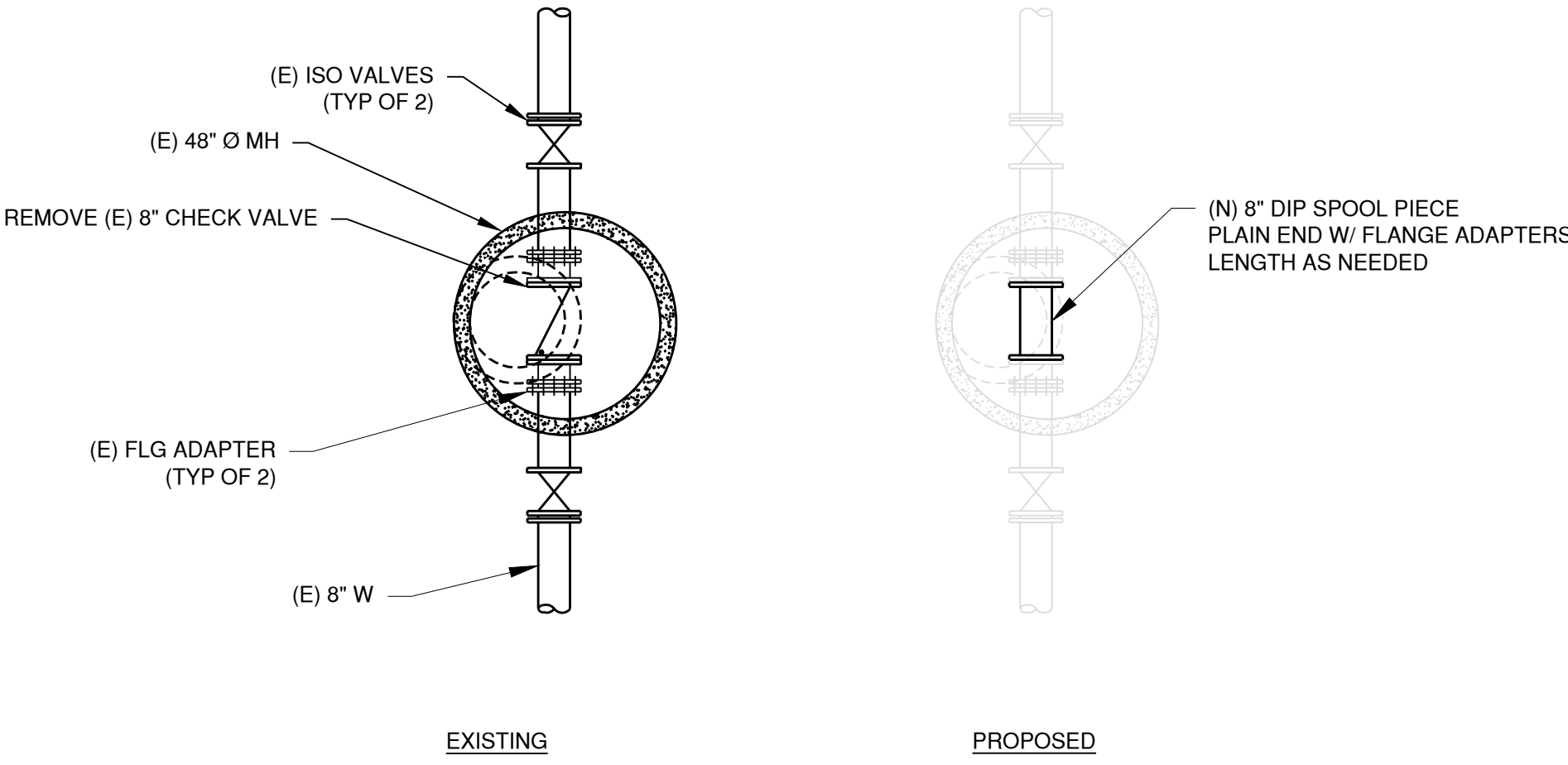
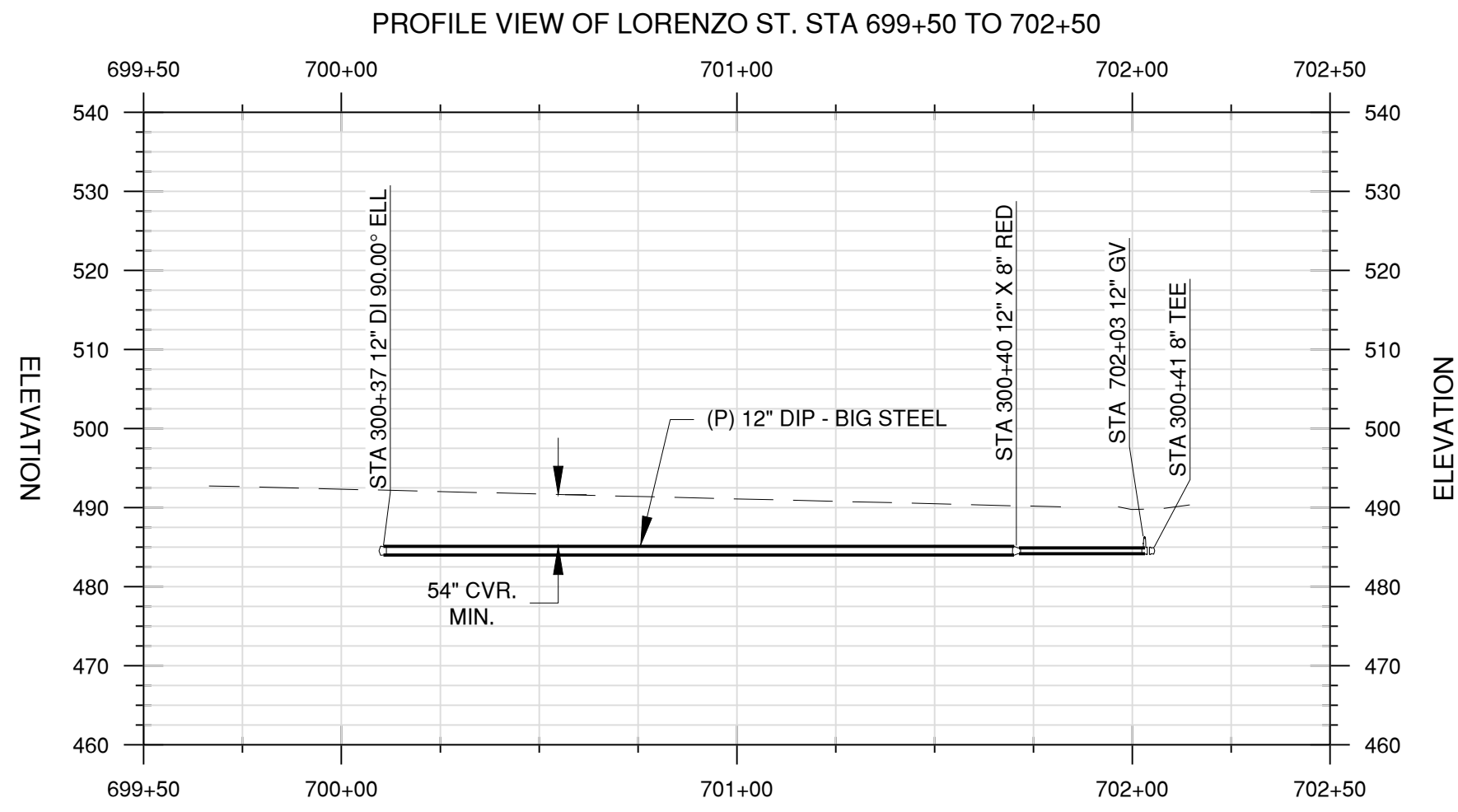
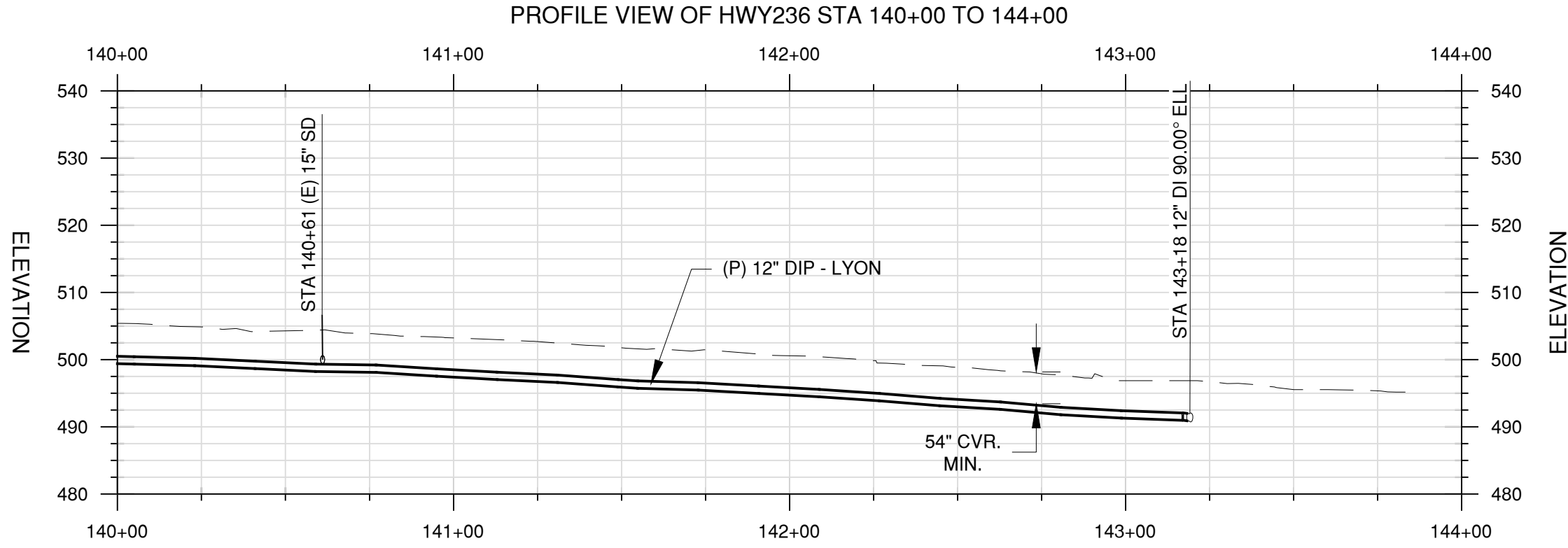
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C4.7
SHEET **12** OF **27**

F MATCH LINE - SEE SHEET 12



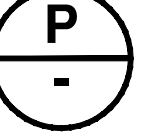
PLAN
SCALE: 1"=40'



- NOTES:
1. INSTALL LORENZO STREET DUAL PRV AND VERIFY OPERATION WITH DISTRICT
 2. DECOMMISSION FIREHOUSE BPS
 3. FIELD LOCATE INLET AND OUTLET PIPES FOR FIREHOUSE BPS AND ABANDON PIPES PER DISTRICT SPECIFICATIONS AT THEIR RESPECTIVE BRANCH VALVES. CLOSE BRANCH VALVES AND INSTALL BLIND FLANGES ON EACH OPEN END.
 4. REMOVE CHECK VALVE AND REPLACE WITH STRAIGHT SPOOL PIECE OF 8-IN DIP

CHECK VALVE REMOVAL DETAIL

NTS



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REGISTERED PROFESSIONAL ENGINEER
A. STERNE
No. 69703
CIVIL
STATE OF CA

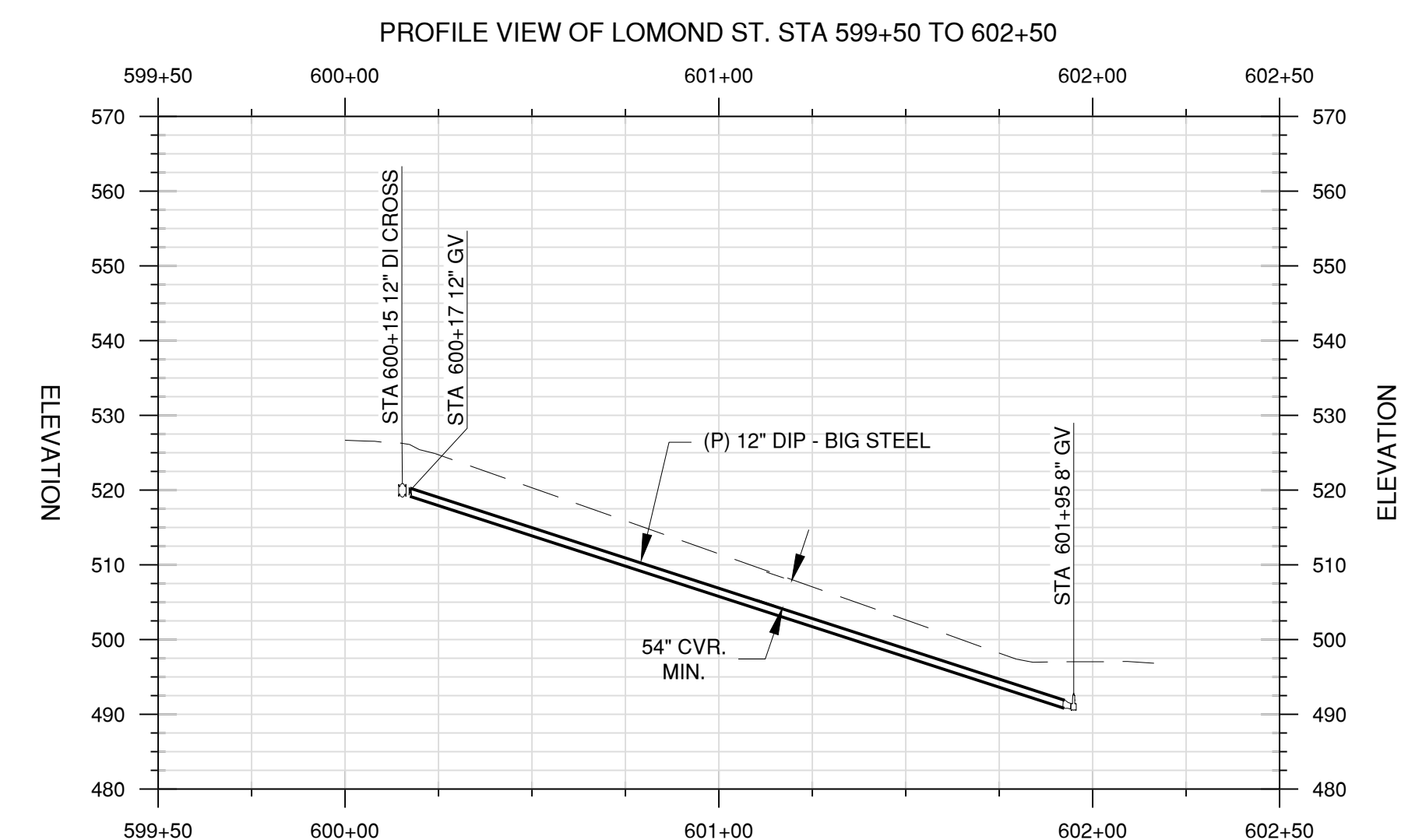
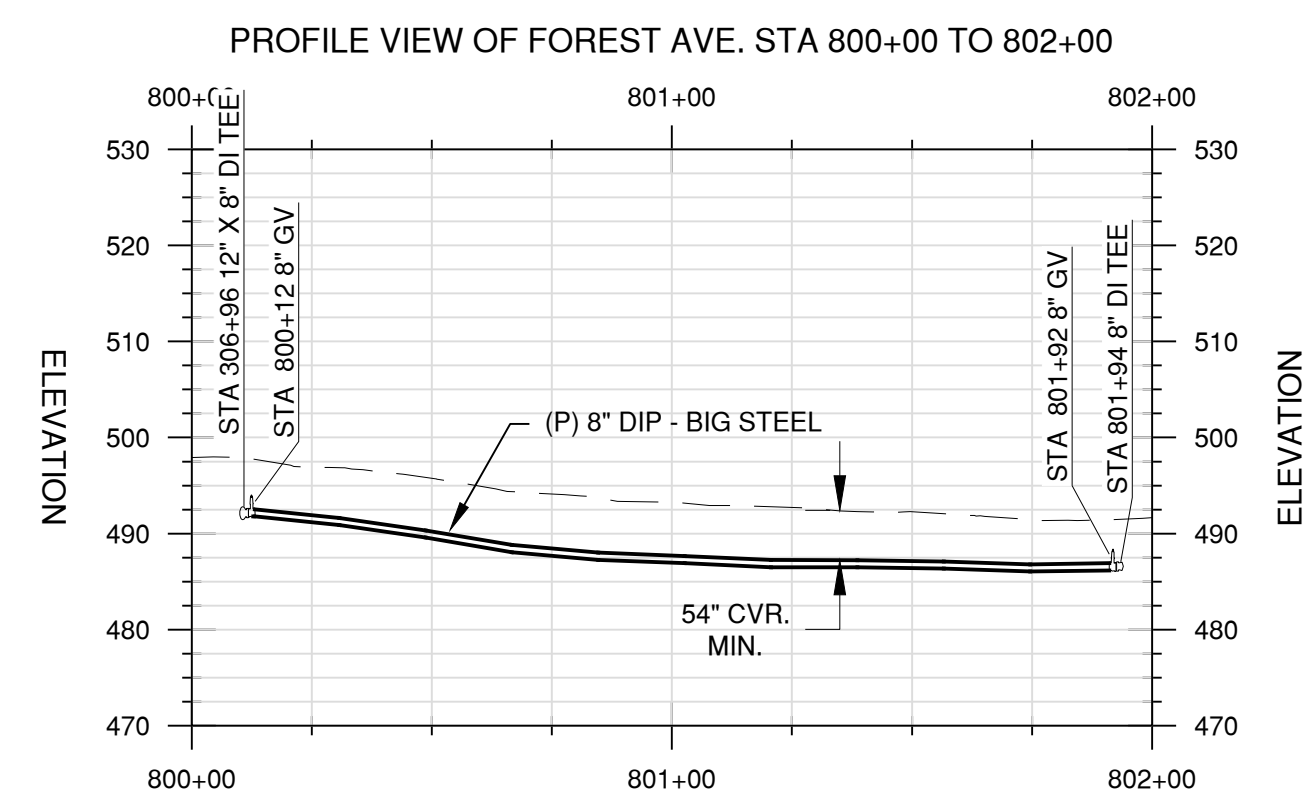
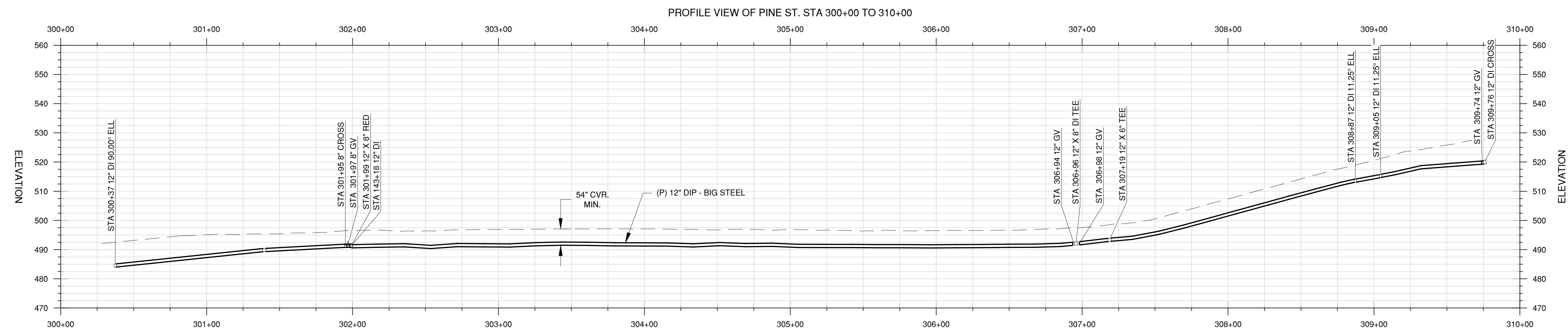
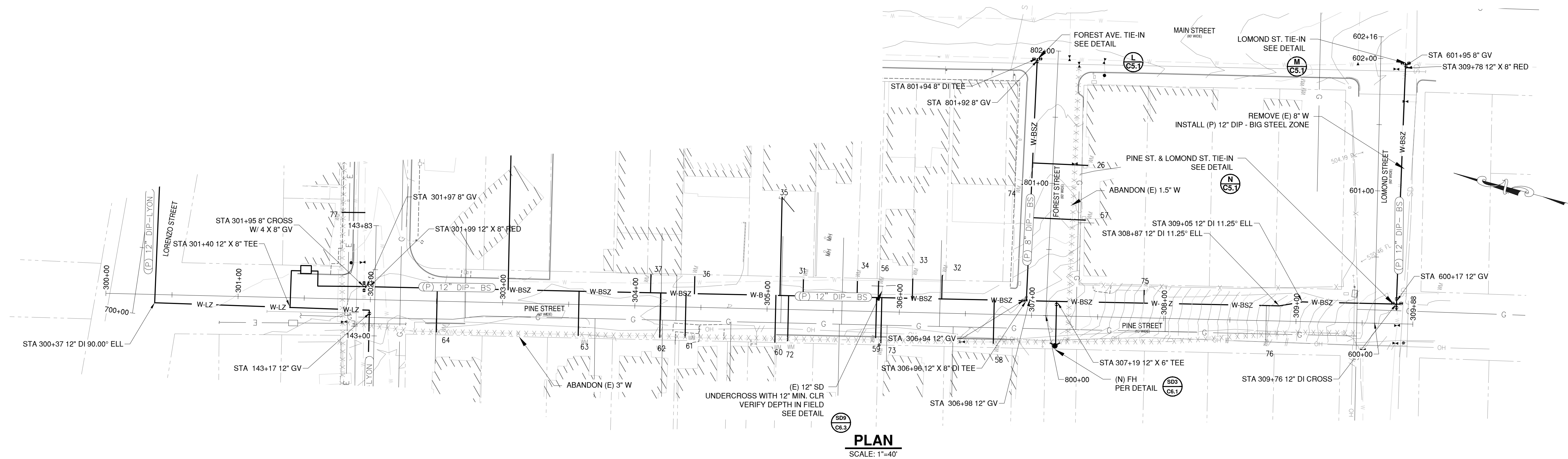
LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
HWY 236 140+00 TO 146+00

San Lorenzo Valley
WATER DISTRICT

DESIGNED BY:	JCT	DATE:	9/20/2022
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QC CHECKED BY:	JCT	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		

C4.9

SHEET 14 OF 27

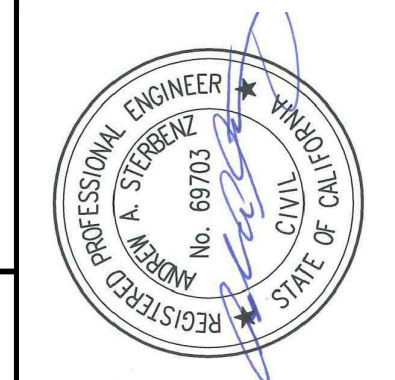


PROFILE

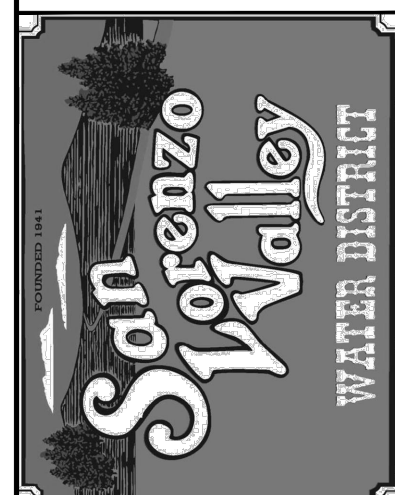
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'

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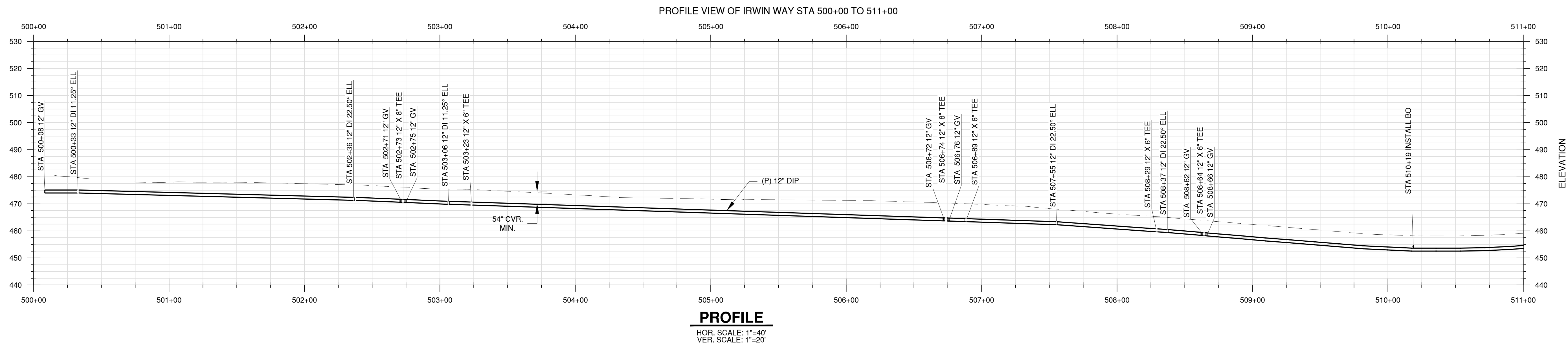
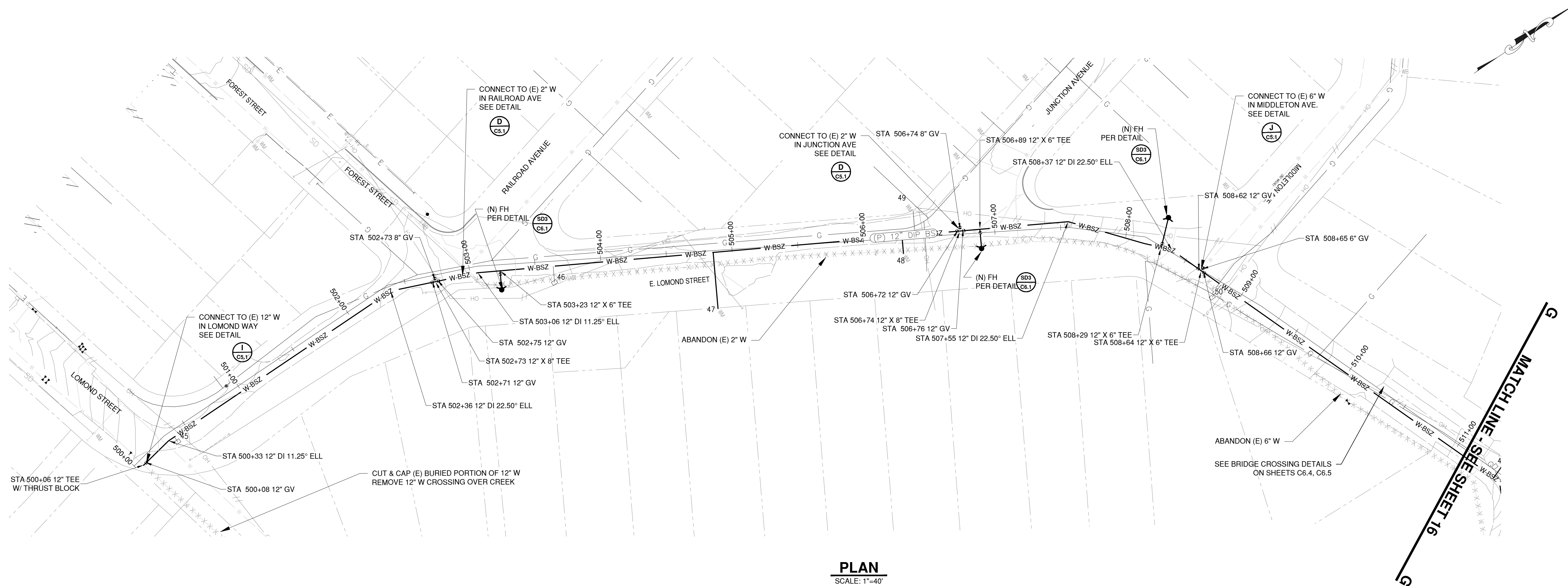
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**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
PINE STREET 300+00 TO 309+00**

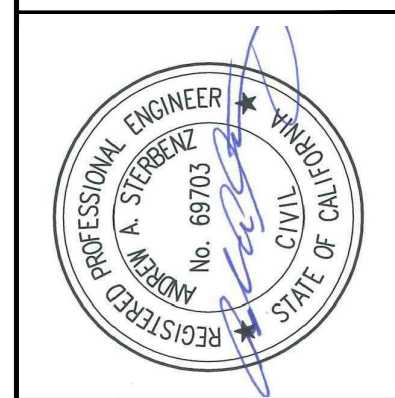


DESIGNED BY:	JCT	DATE: 9/20/2022
DRAWN BY:	JCT	DATE: 9/20/2022
QC CHECKED BY:	JCT	DATE: 9/20/2022
PROJECT NO.:		
SCALE:		1:40
SUBMITTAL:		100% SUBMITTAL

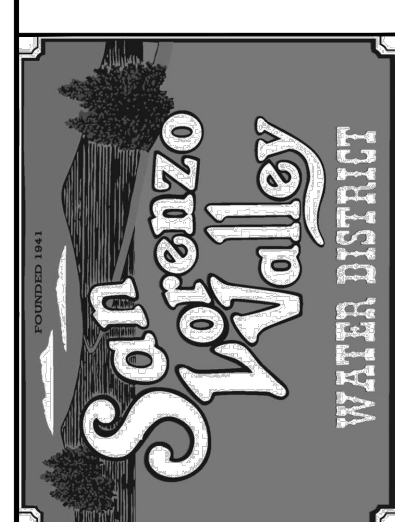


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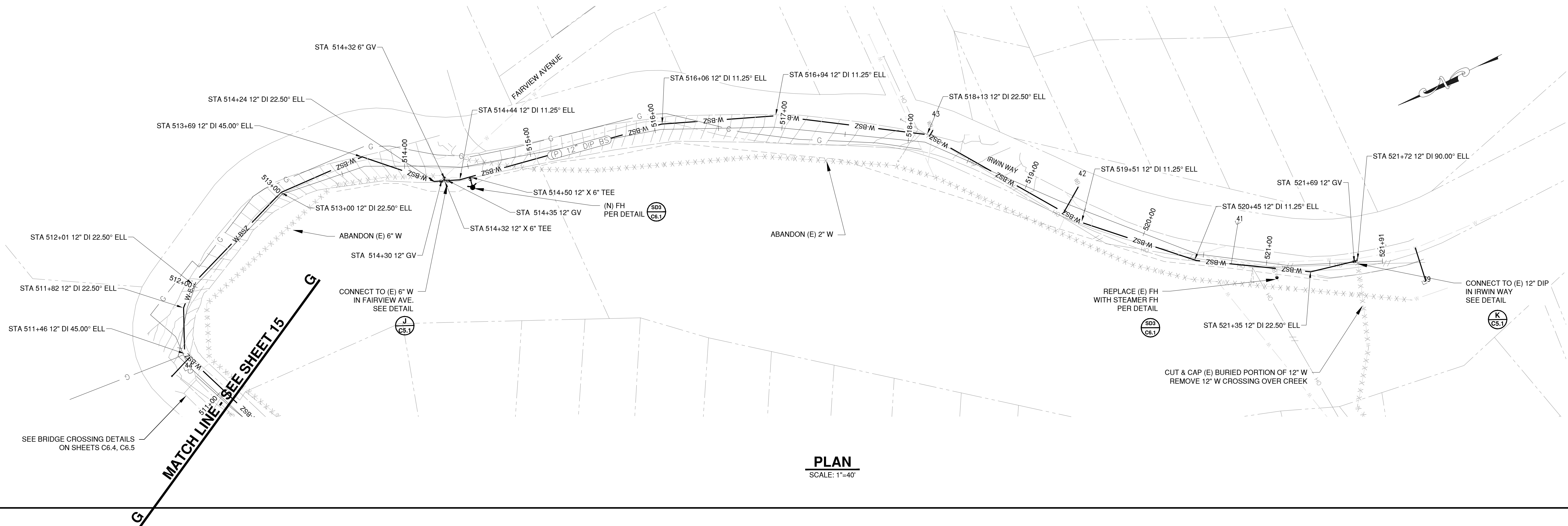


**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
EAST LOMOND 500+00 TO 511+00**

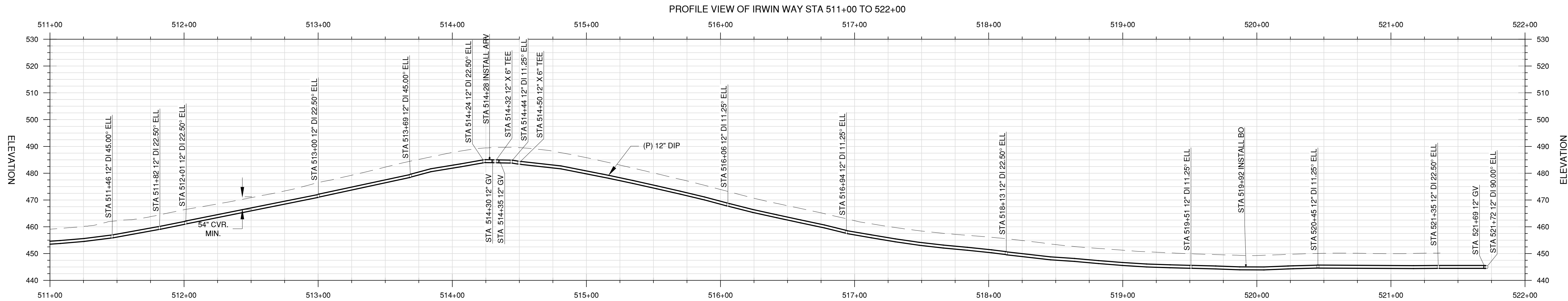


DESIGNED BY:	JCT	DATE: 9/20/2022
DRAWN BY:	JCT	DATE: 9/20/2022
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PROJECT NO.:		
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SUBMITTAL:		100% SUBMITTAL

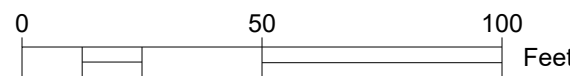
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PLAN
SCALE: 1"=40'



PROFILE
HOR. SCALE: 1"=40'
VER. SCALE: 1"=20'



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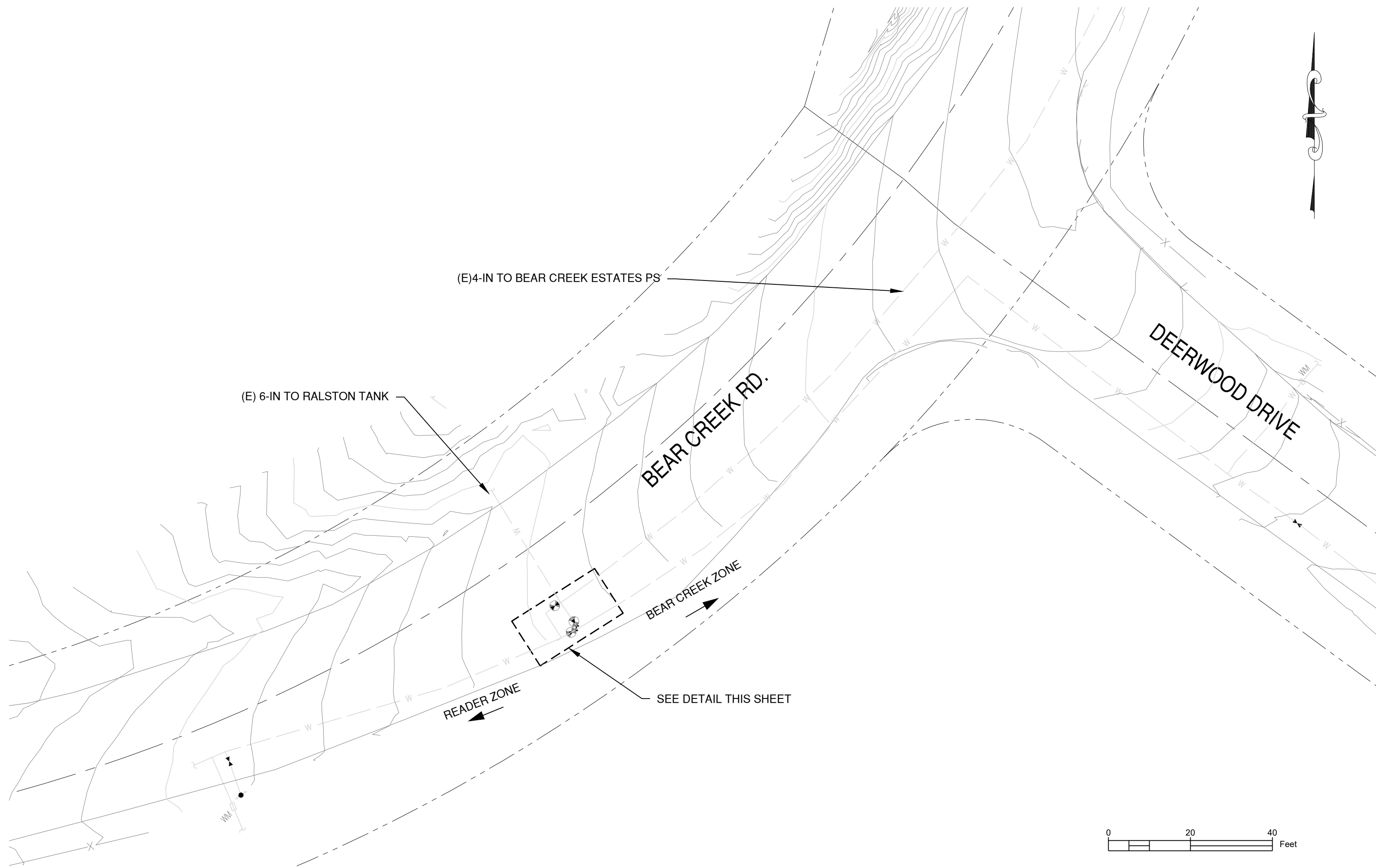


**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
IRWIN WAY 511+00 TO 522+00**

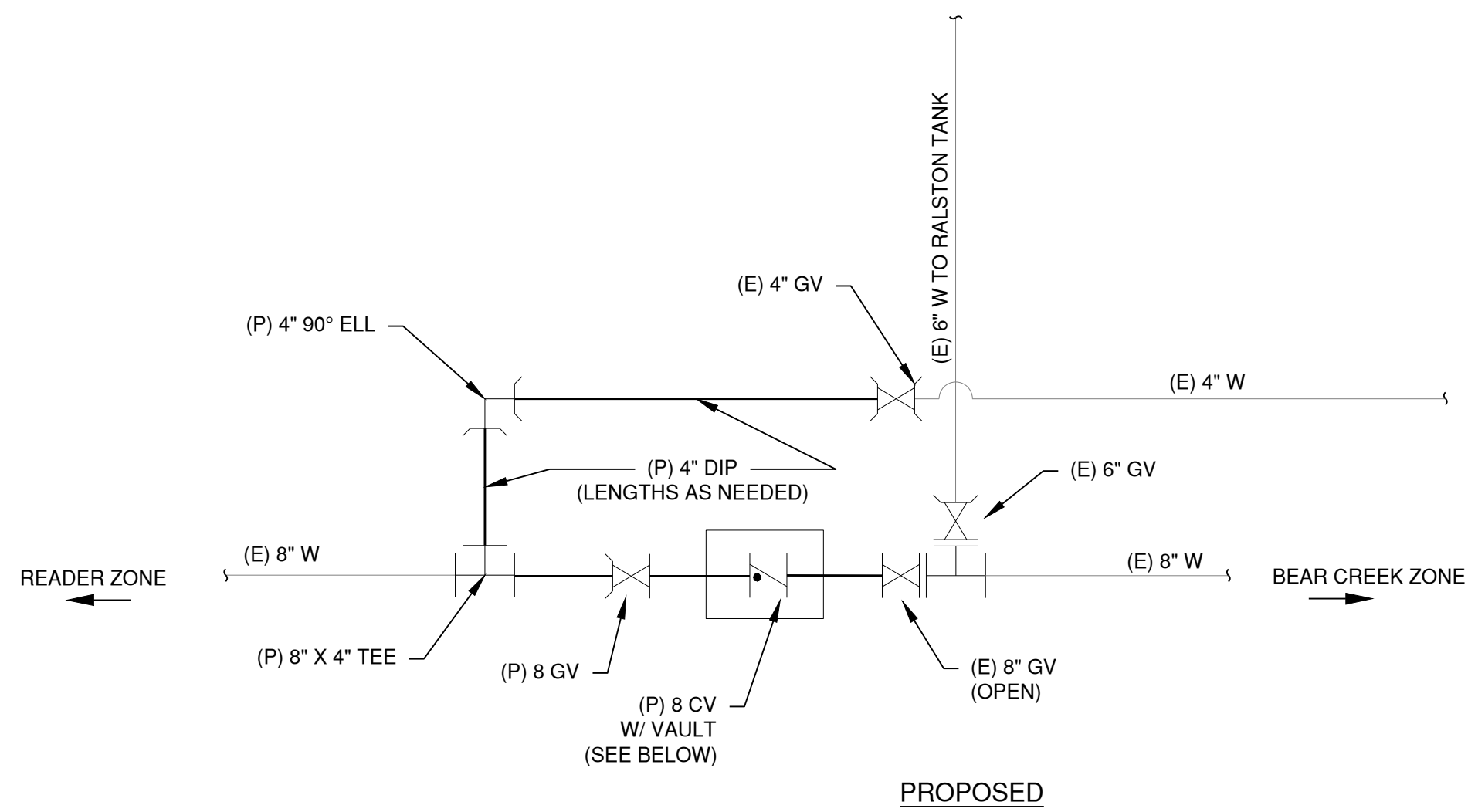
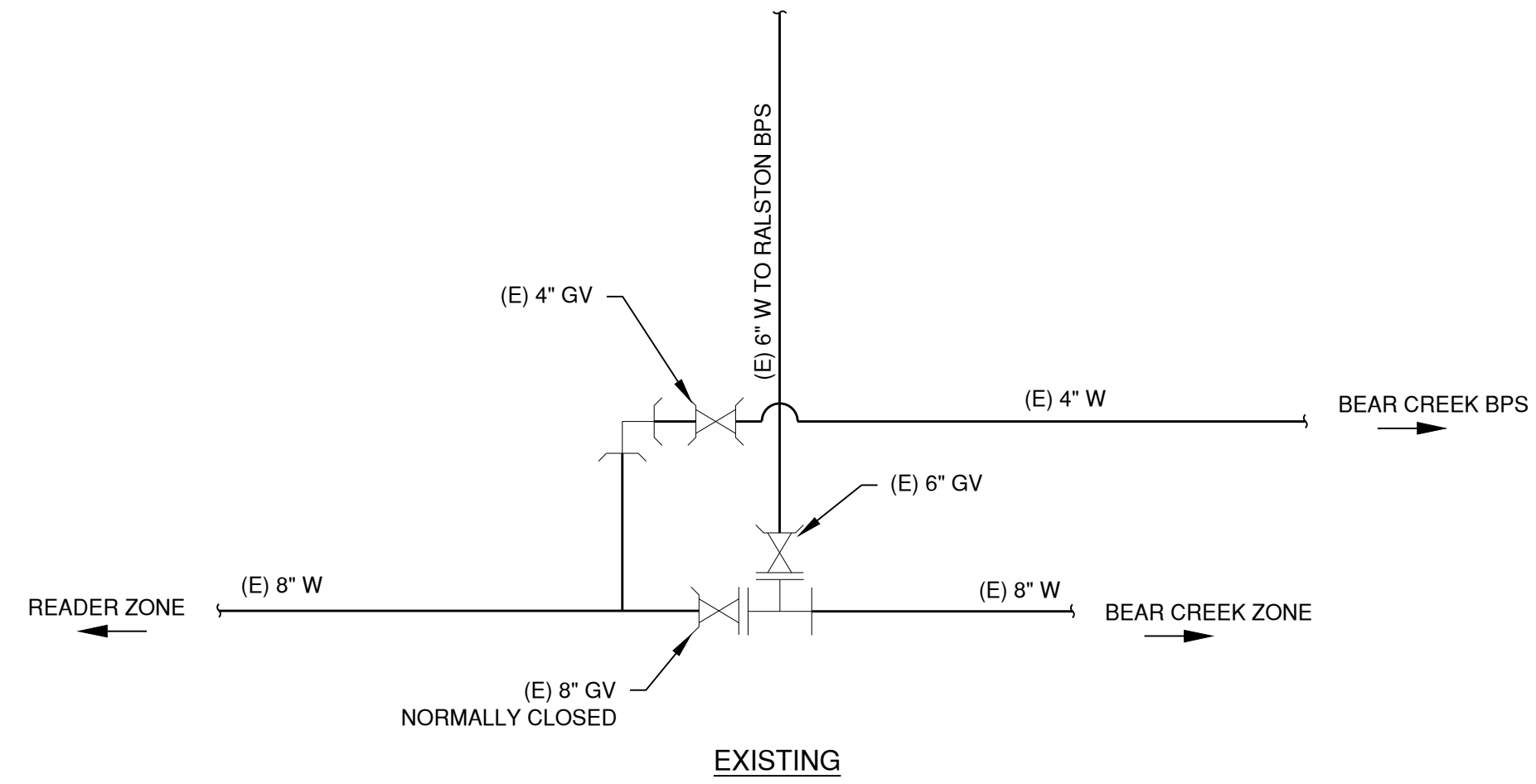


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PROJECT NO.:			
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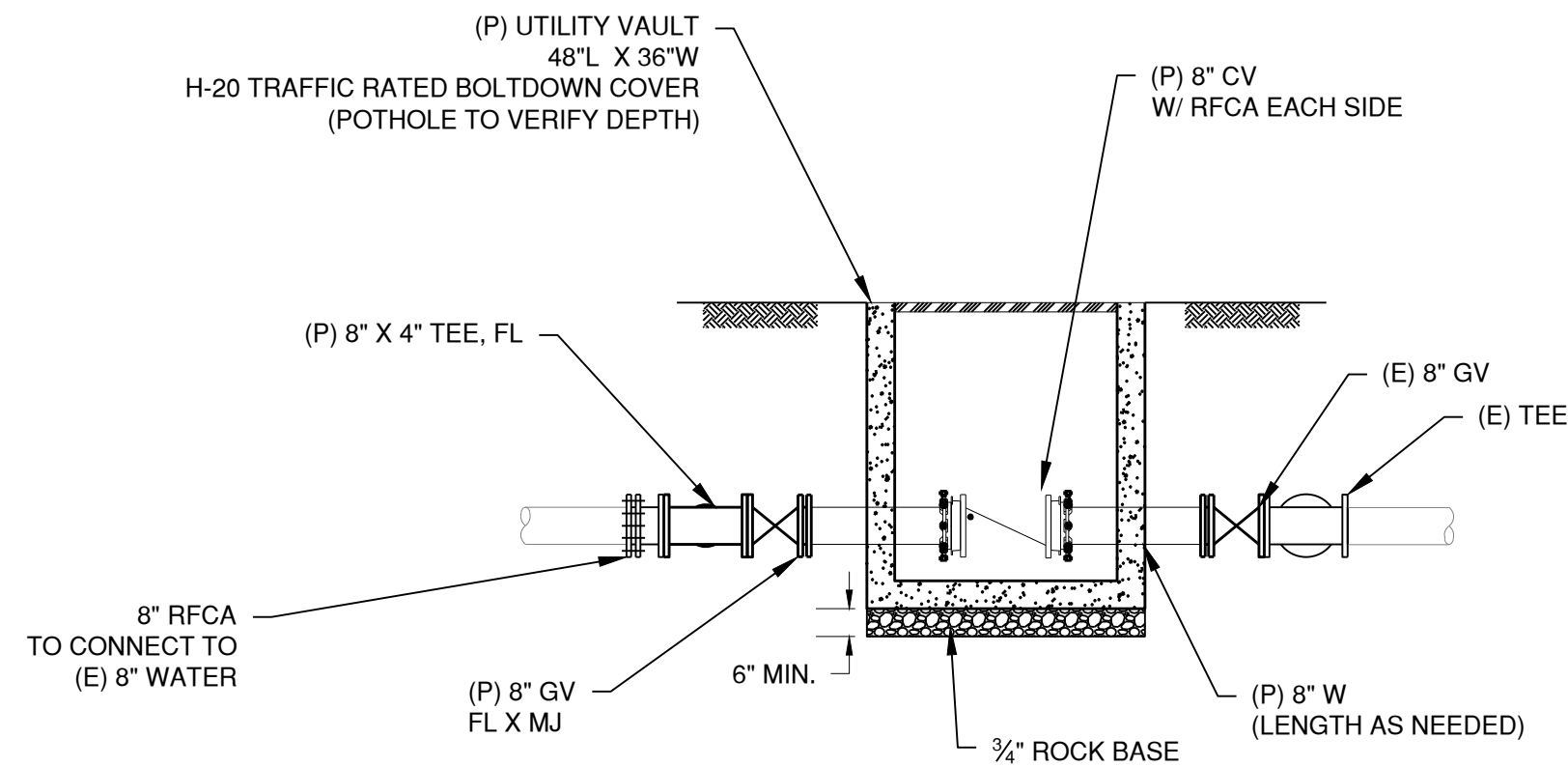
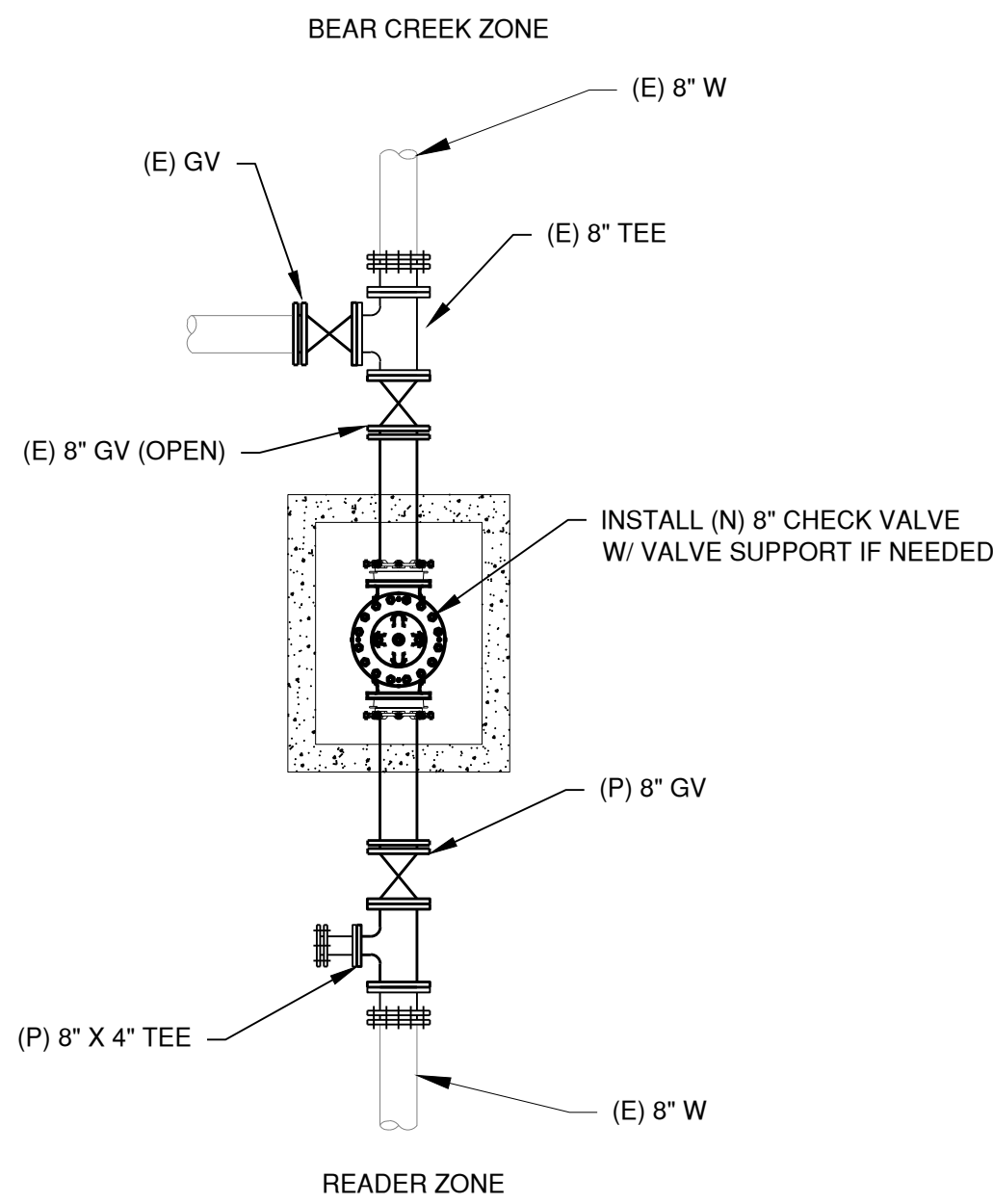
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BEAR CREEK & READER ZONE INTER-TIE - PLAN
SCALE: 1"=20'



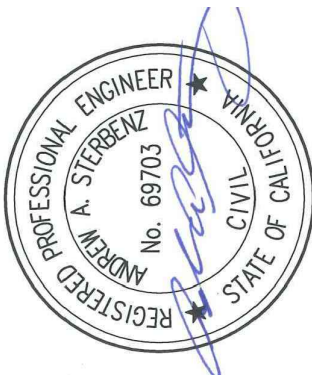
BEAR CREEK & READER ZONE SCHEMATIC PLAN
NTS



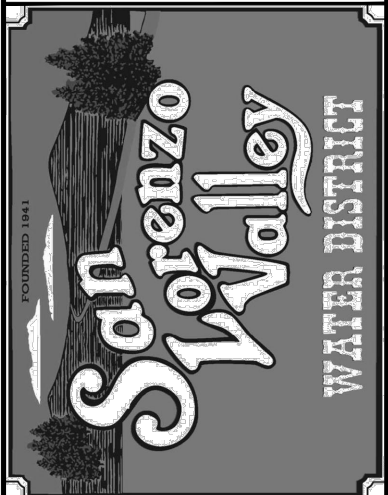
VAULT DETAIL
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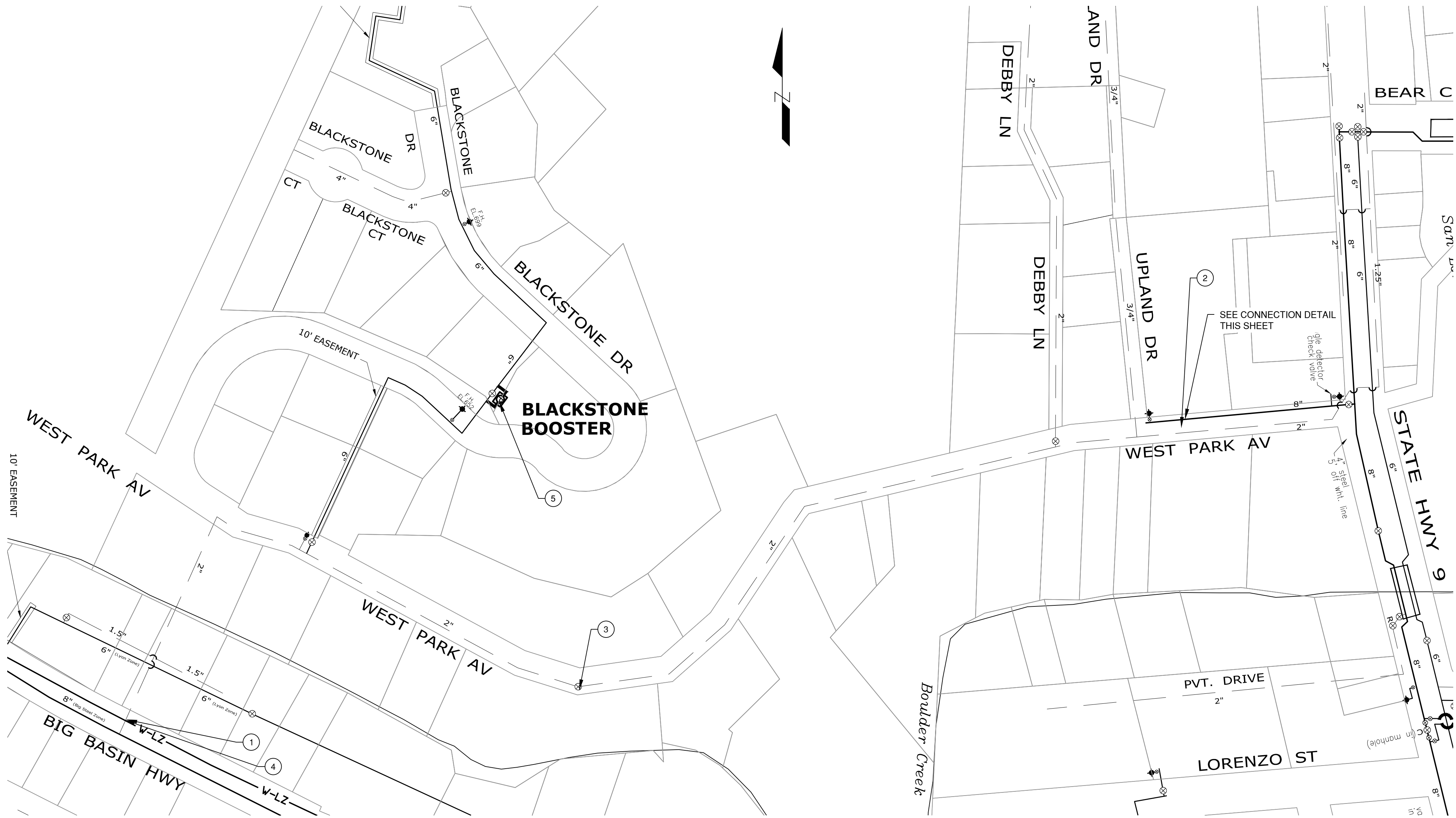


**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
ZONE INTER-TIE**

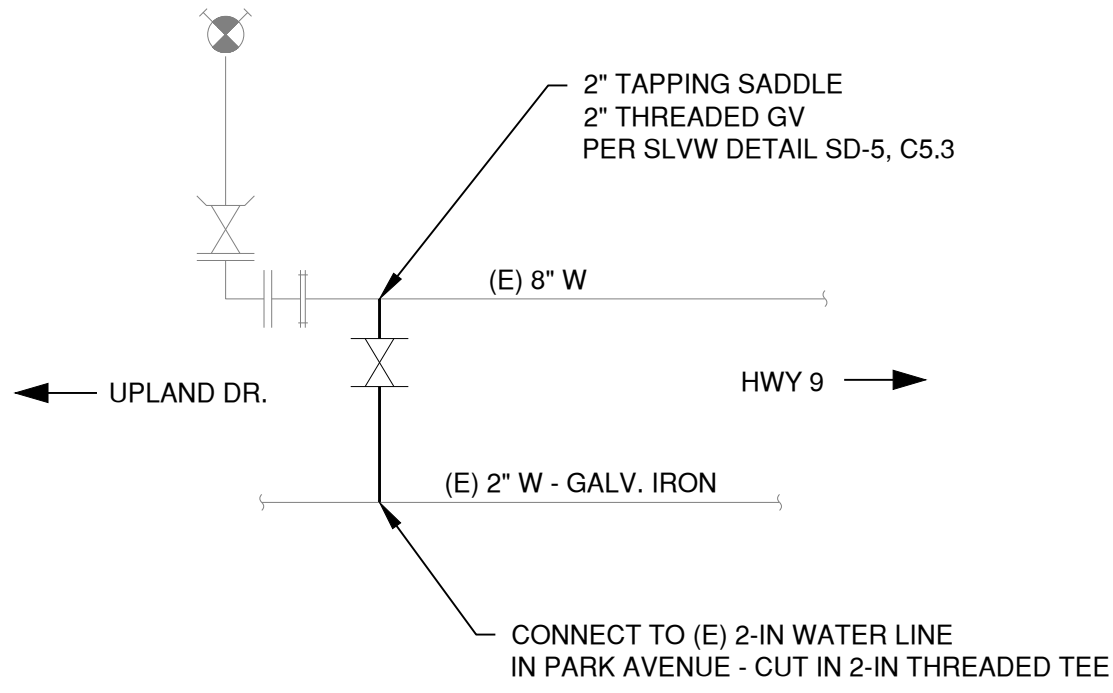


DESIGNED BY:	JCT	DATE:	9/20/2022
DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
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SUBMITTAL:	100% SUBMITTAL		

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WEST PARK AVE. TIE-IN TO READER ZONE
NTS



TIE-IN DETAIL
NTS

- WEST PARK AVENUE TRANSITION
1. INSTALL (N) PRV CONNECTION TO LYON ZONE, STA 123+41. SET PRESSURE TO 107 PSI (READER ZONE).
 2. INSTALL (N) 2" CONNECTION BETWEEN READER ZONE AND BLACKSTONE AT WEST PARK AVE. AND UPLAND AVE.
 3. LOCATE AND CLOSE (E) 2" VALVE.
 4. RESET PRV TO 116 PSI (BLACKSTONE ZONE).
 5. SHUT OFF BLACKSTONE BPS AND OPEN 6" MAIN VALVE. BPS NO LONGER NEEDED.

DESIGNED BY:	JCT	DATE:	9/20/2022
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QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	1:40		
SUBMITTAL:	100% SUBMITTAL		

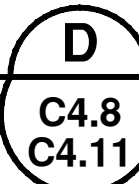
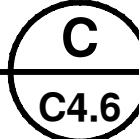
San Lorenzo Valley
WATER DISTRICT

**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
PARK AVENUE TIE-IN**

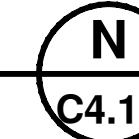
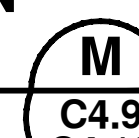
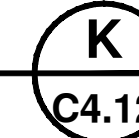
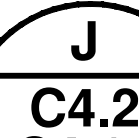
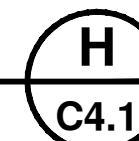
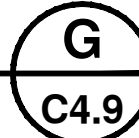
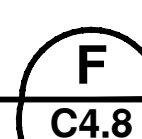
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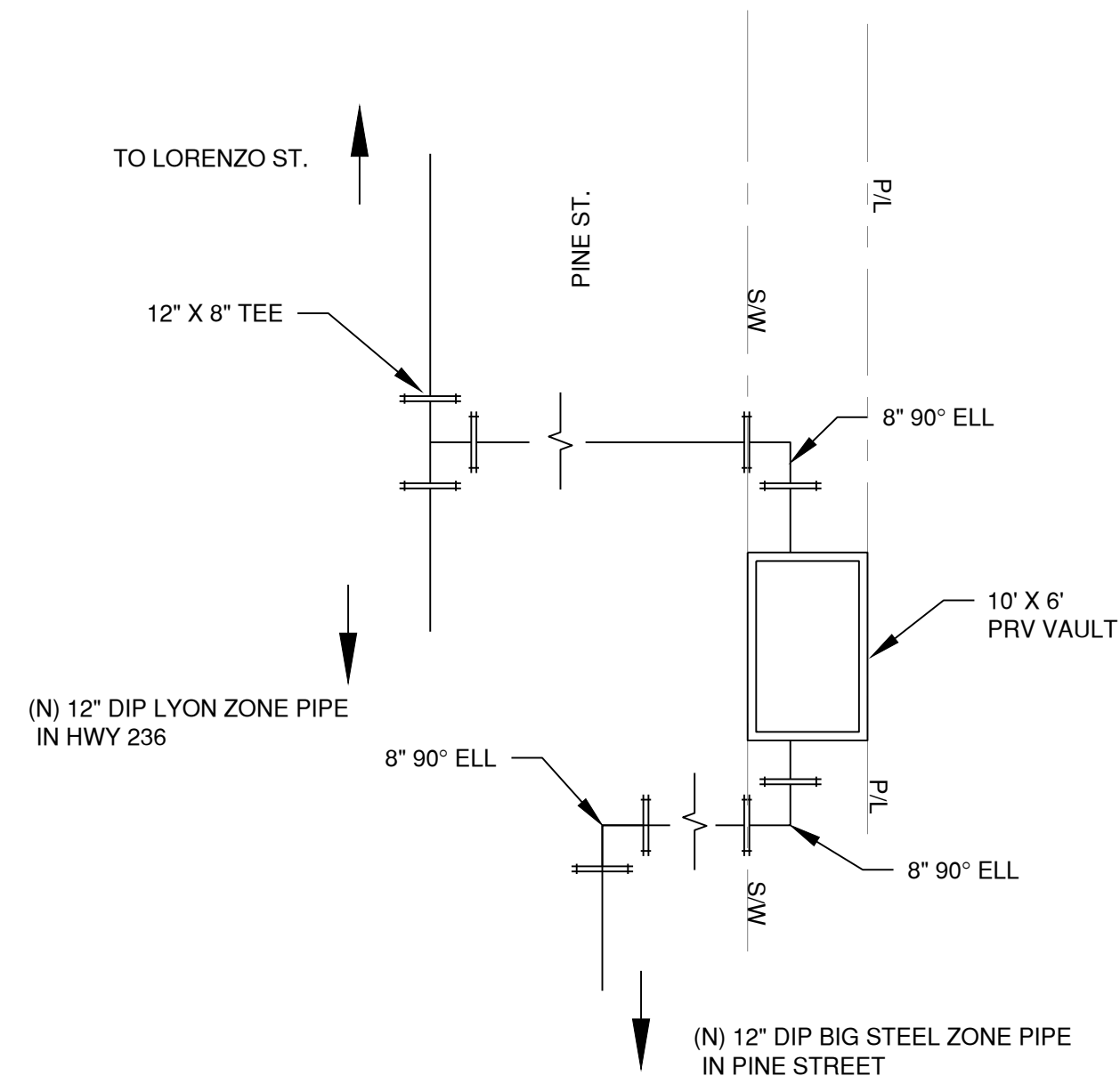
C4.14
SHEET 19 OF 27



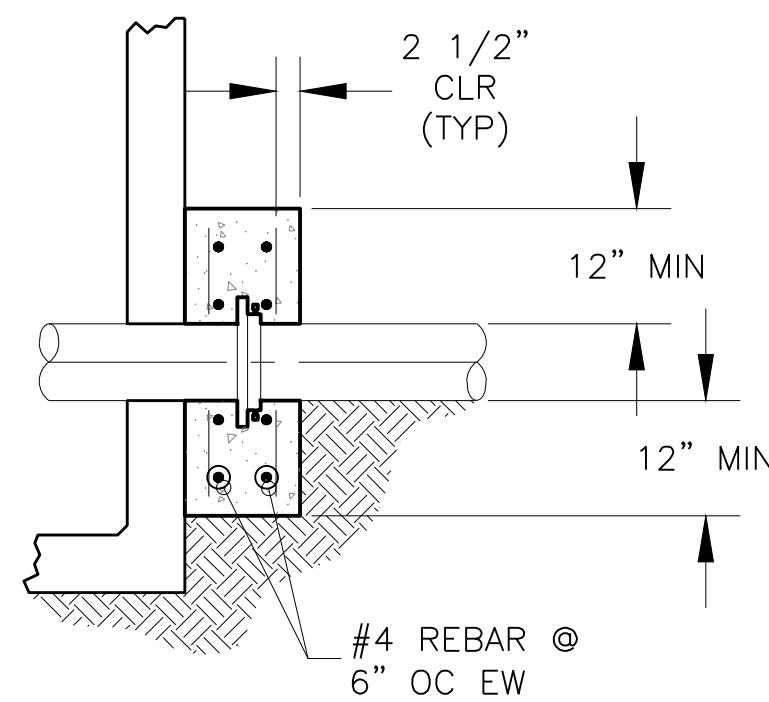
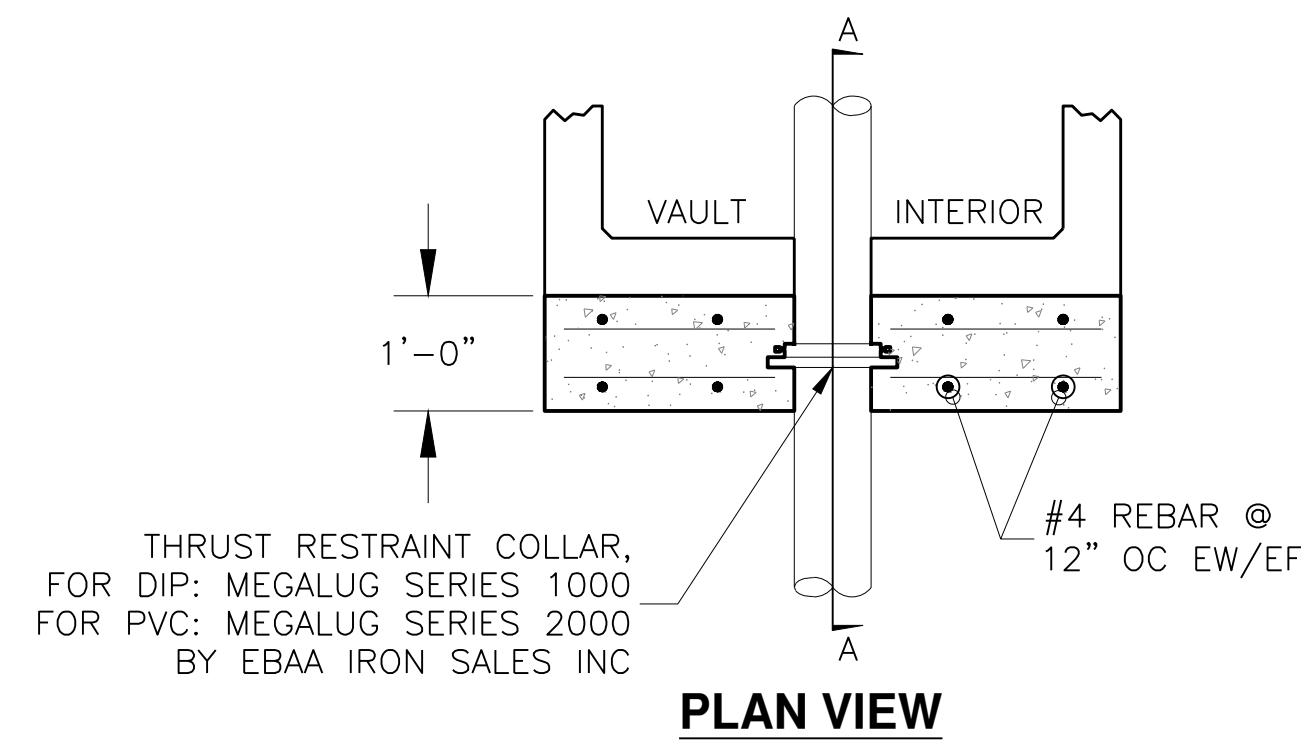
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C5.1
SHEET 20 OF 27

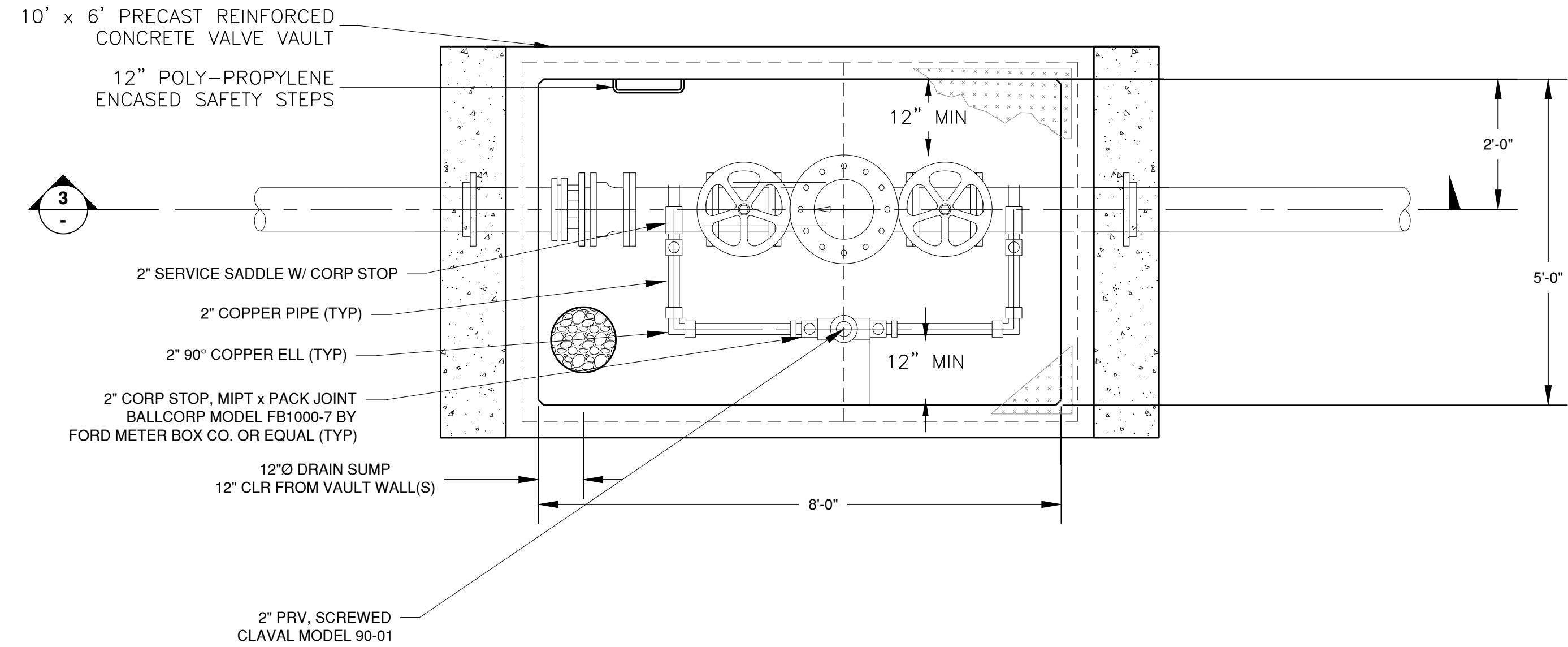


DUAL PRV STATION - PLAN 1
NO SCALE

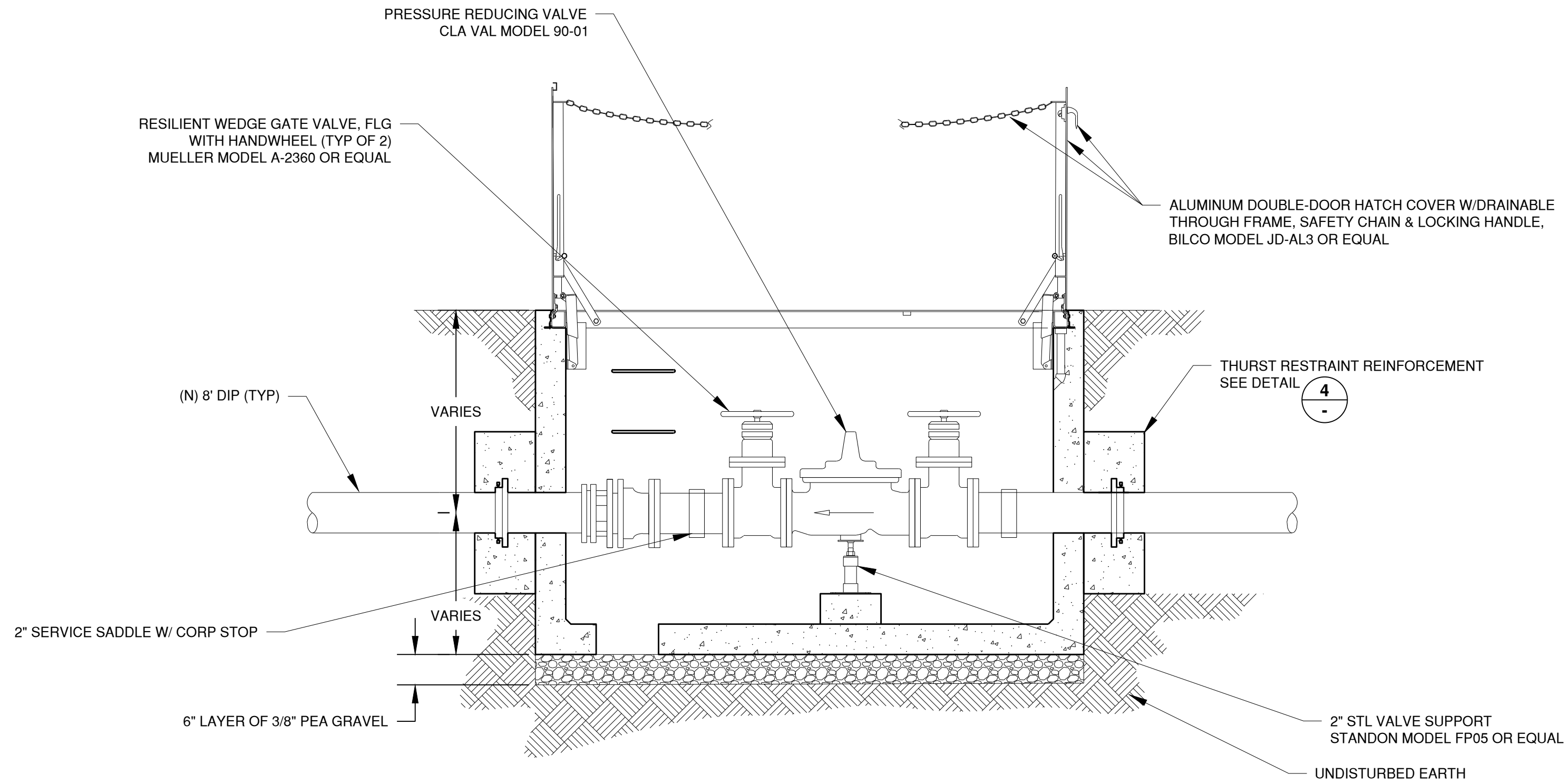


SECTION A-A

THRUST RESTRAIN REINFORCEMENT 4
NO SCALE



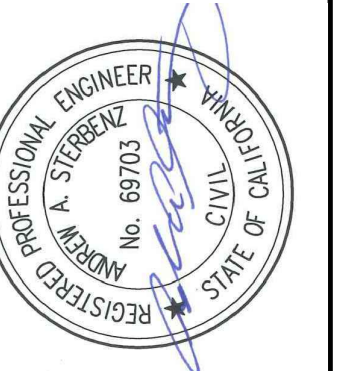
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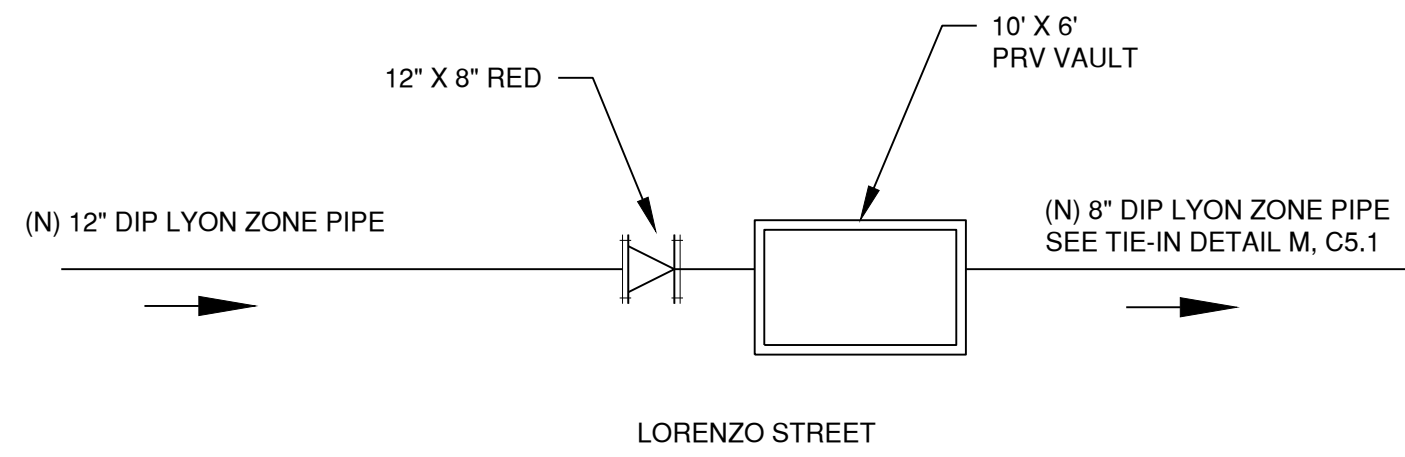
Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 Quail Run Circle, Suite 101
Salt Lake City, UT 84119
(801) 488-4848



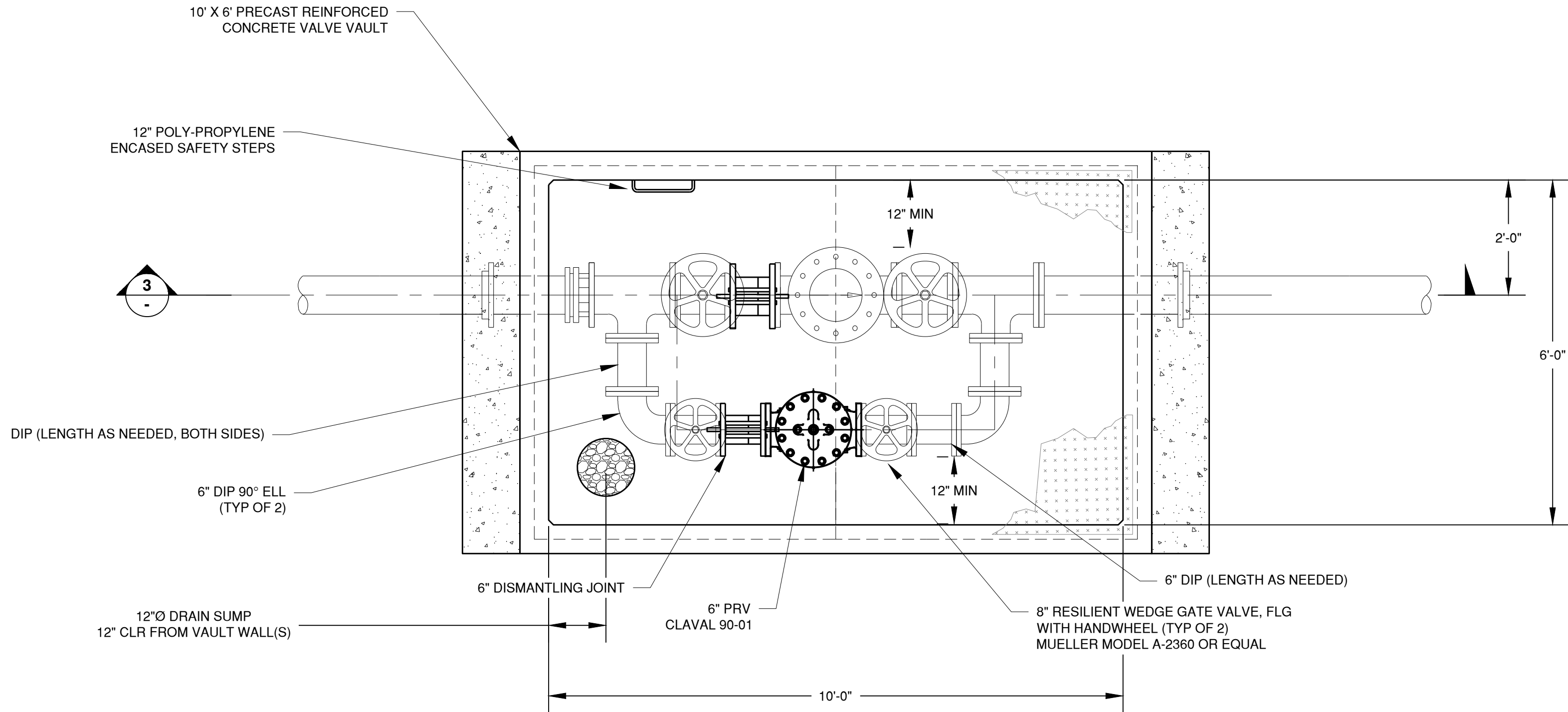
**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
PINE STREET PRV DETAIL**



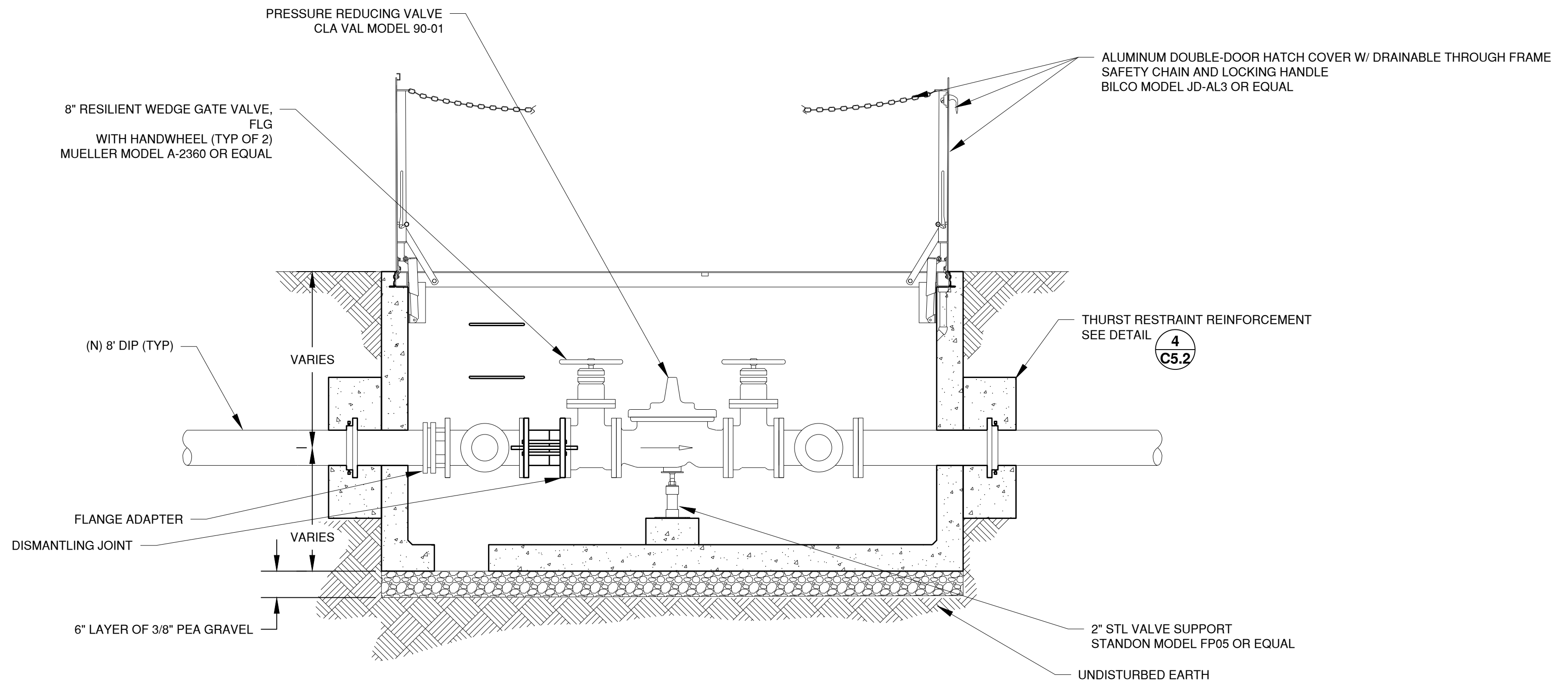
DESIGNED BY:	JCT	DATE:	9/20/2022
DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	JCT	DATE:	9/20/2022
PROJECT NO.:	NTS		
SCALE:	100% SUBMITTAL		



DUAL PRV STATION - PLAN 1
NO SCALE



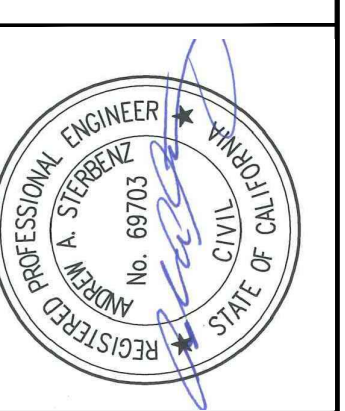
8" / 6" DUAL PRV STATION 2
NO SCALE



8" / 6" DUAL PRV STATION - SECTION 3
NO SCALE

REV. NO.	DESCRIPTION	BY	DATE
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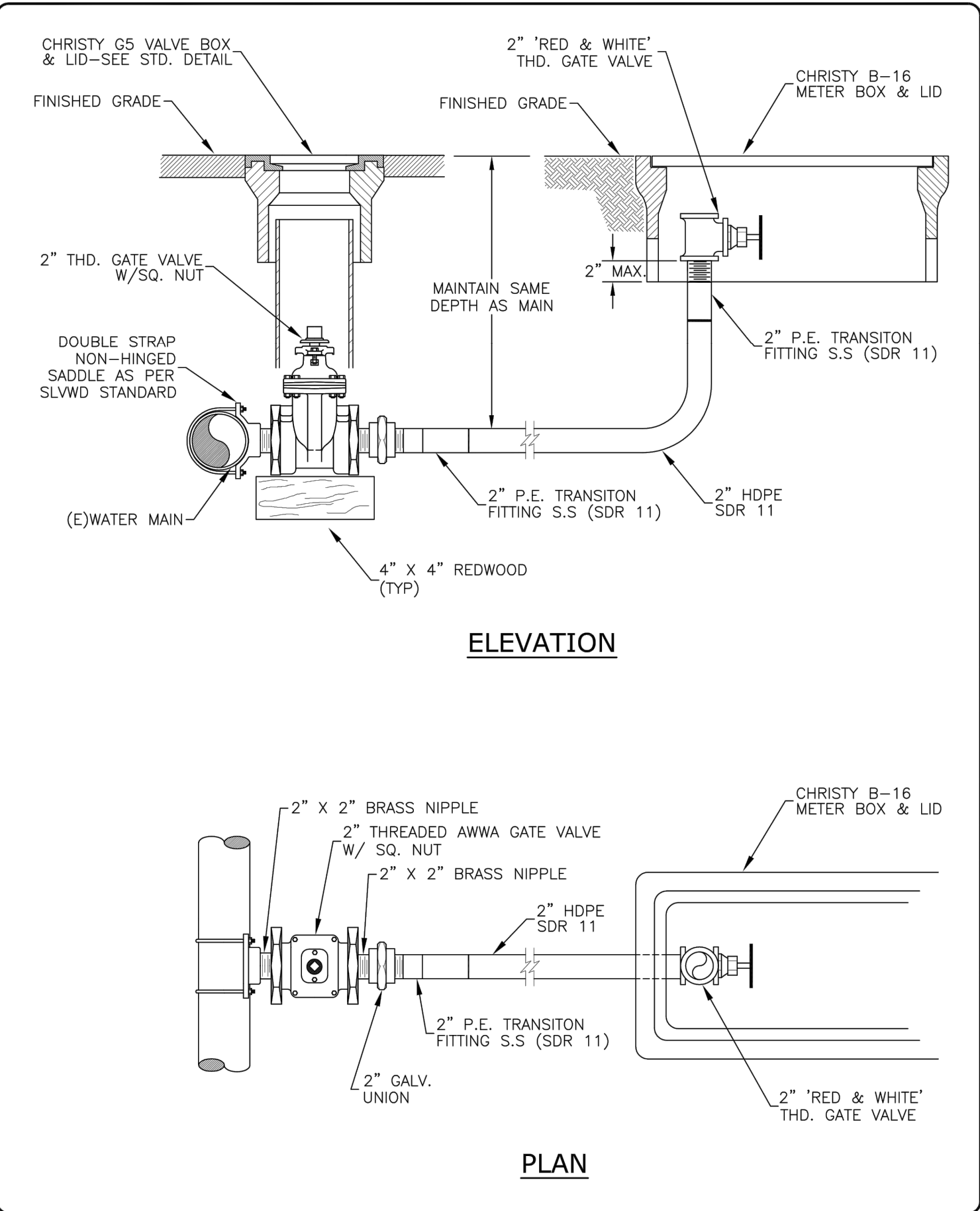
**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
LORENZO STREET PRV DETAIL**



DESIGNED BY:	JCT	DATE:	9/20/2022
DRAWN BY:	JCT	DATE:	9/20/2022
QC CHECKED BY:	JCT	DATE:	9/20/2022
PROJECT NO.:	NTS		
SCALE:	100% SUBMITTAL		

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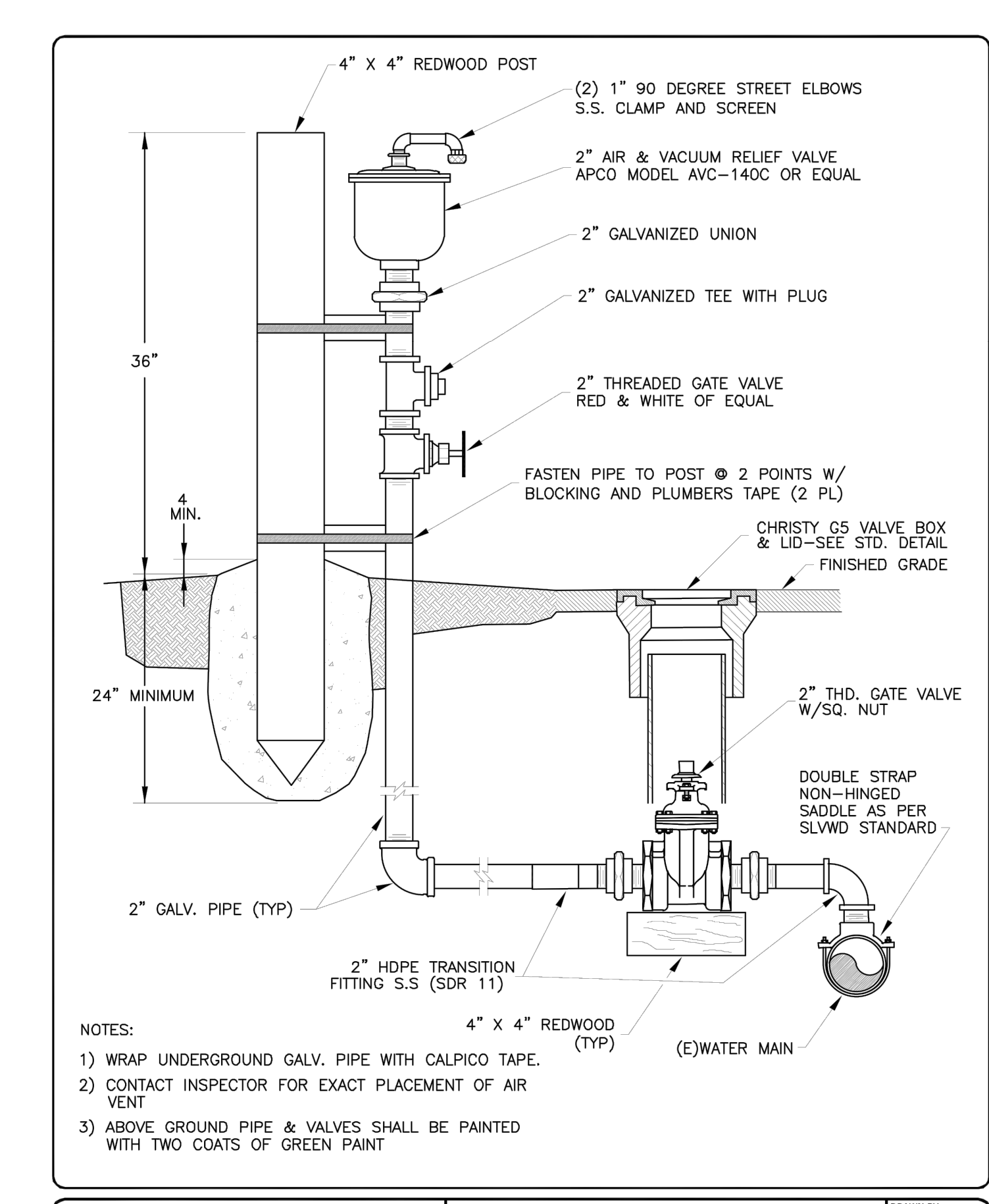




San Lorenzo Valley Water District
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13060 Highway 9
Boulder Creek, California 95006
Phone: (831) 338-2153 Fax: (831) 338-7986
www.slvwd.com

**Standard
2" Service Line Connection**

DRAWN BY:
R. Menzies
DATE DRAWN:
JAN 2014
DWG. NUMBER:
SD-5

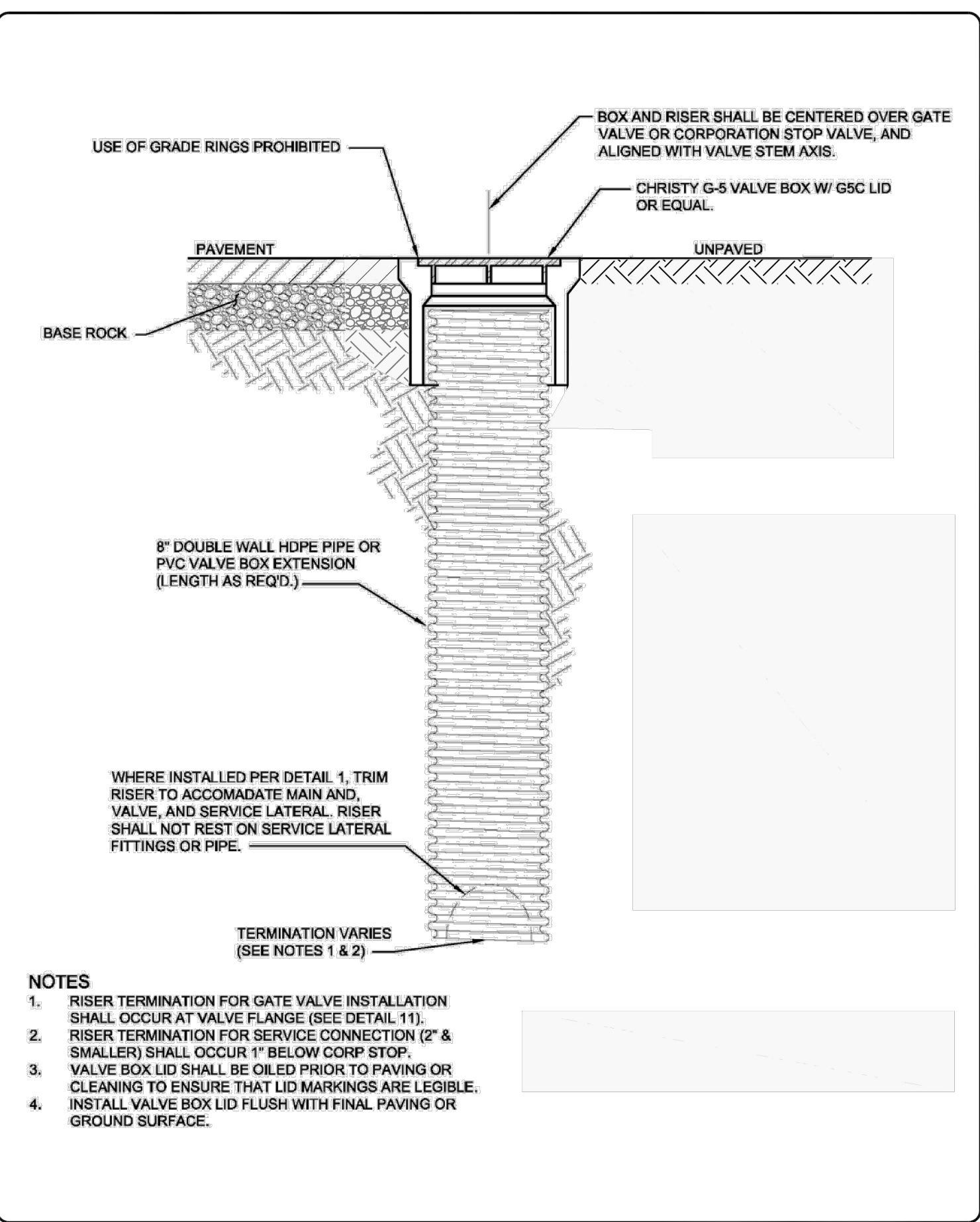




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2" Air/Vac Release with Gate Valve

DRAWN BY:
RM / DM
DATE DRAWN:
MAR 2020
DWG. NUMBER:
SD-7B

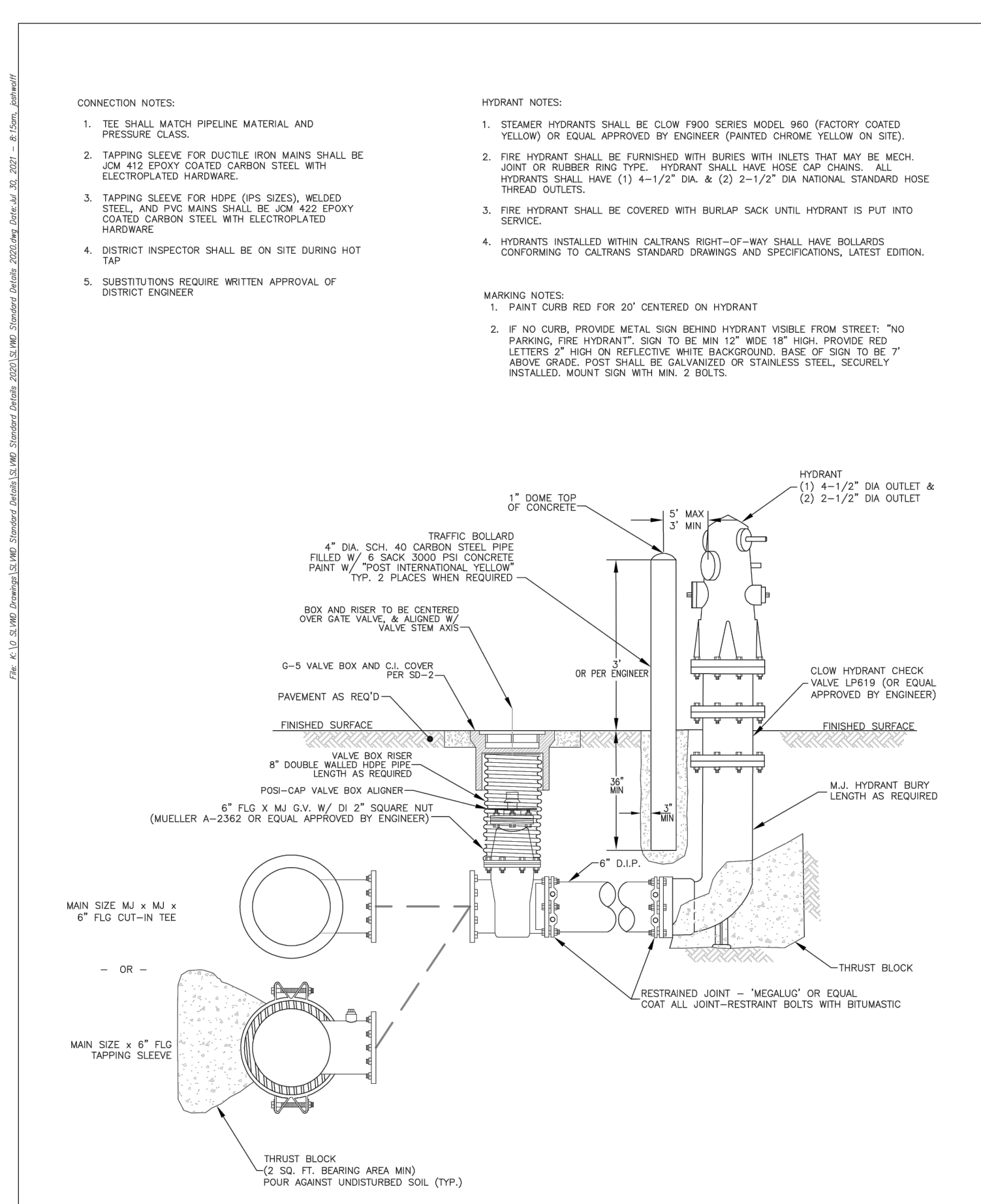




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**Standard
Valve Box Installation**

DRAWN BY:
R. Menzies
DATE DRAWN:
JAN 2014
DWG. NUMBER:
SD-2

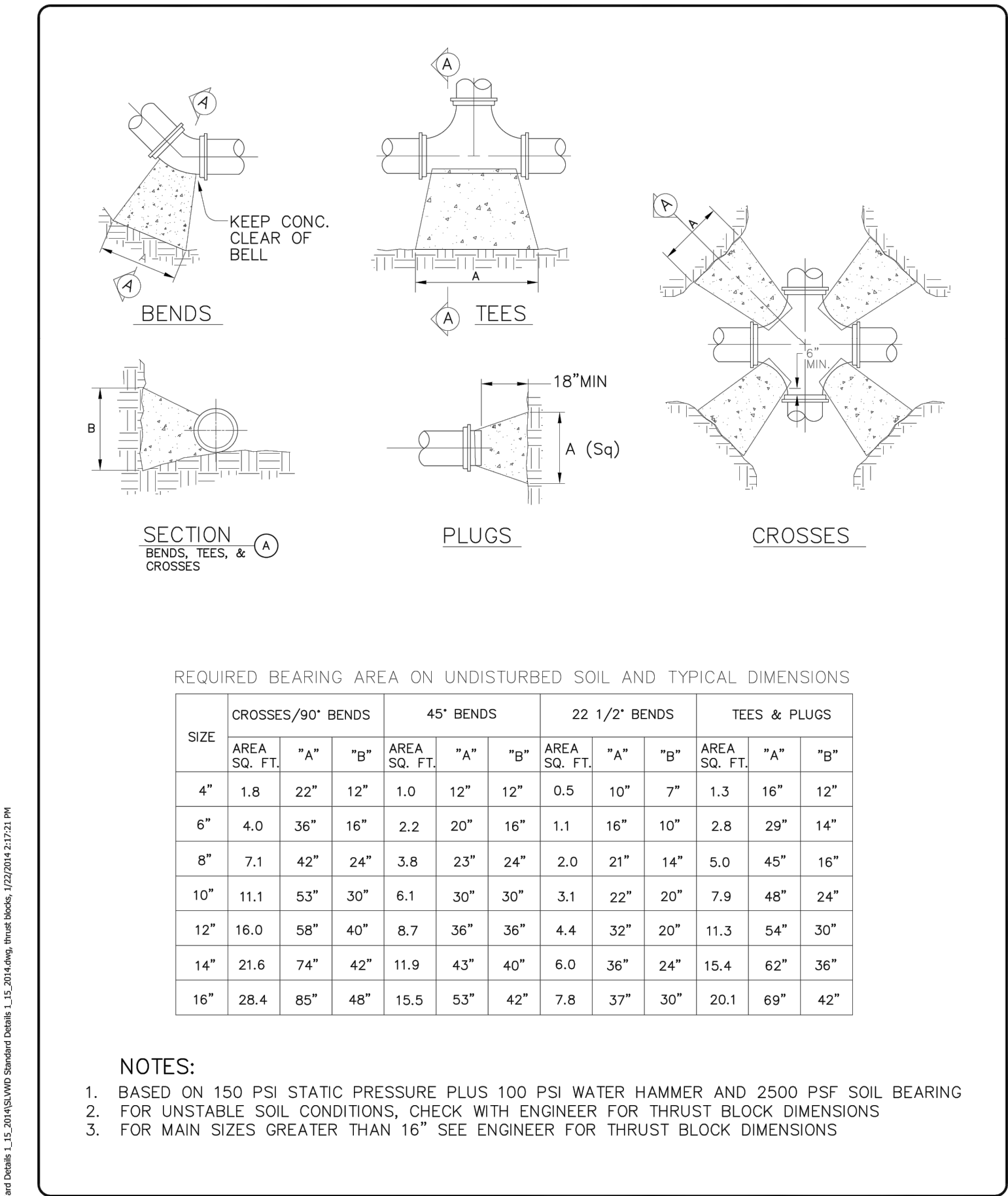




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6" STEAM FIRE HYDRANT

DWG. NUMBER:
SD-3

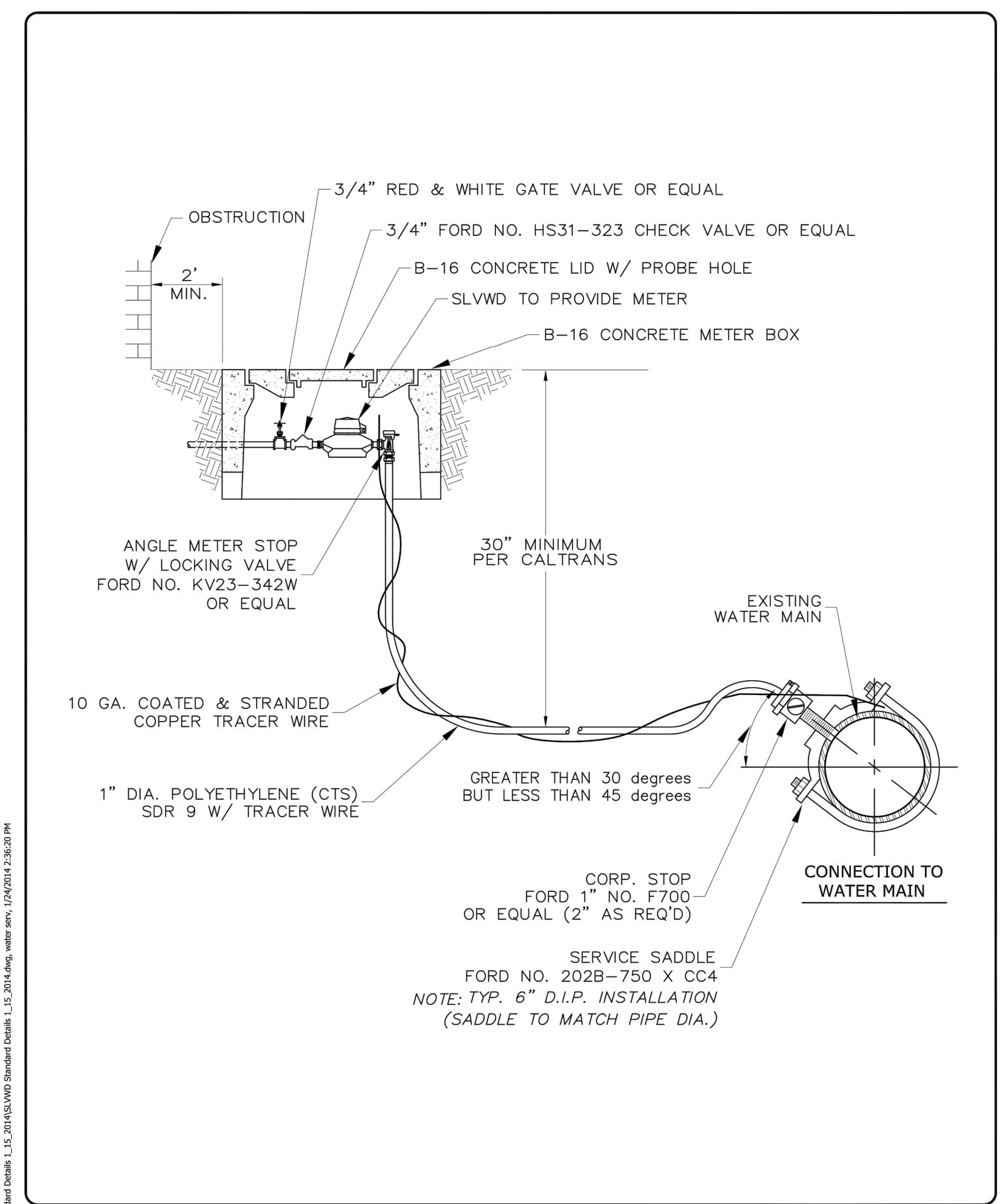




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**Standard
Thrust Block Installation**

DRAWN BY:
R. Menzies
DATE DRAWN:
JAN 2014
DWG. NUMBER:
SD-9





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**Standard
Water Service Installation
5/8", 3/4", and 1" Meters**

DRAWN BY:
R. Menzies
DATE DRAWN:
JAN 2014
DWG. NUMBER:
SD-4

DESIGNED BY:
JCT
DATE:
9/20/2022

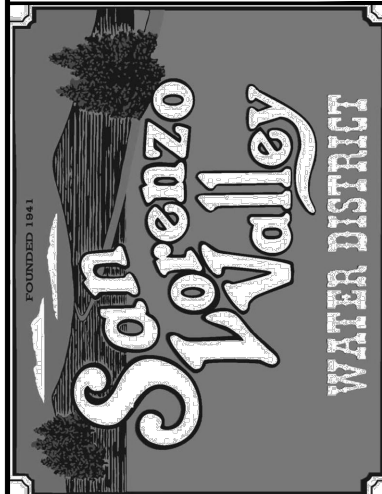
DRAWN BY:
JCT
DATE:
9/20/2022

QC CHECKED BY:
JCT
DATE:
9/20/2022

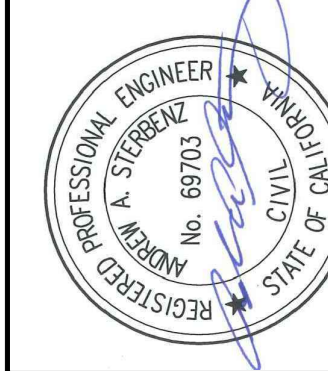
PROJECT NO.:
C6.1

SCALE:
AS SHOWN

SUBMITTAL:
100% SUBMITTAL



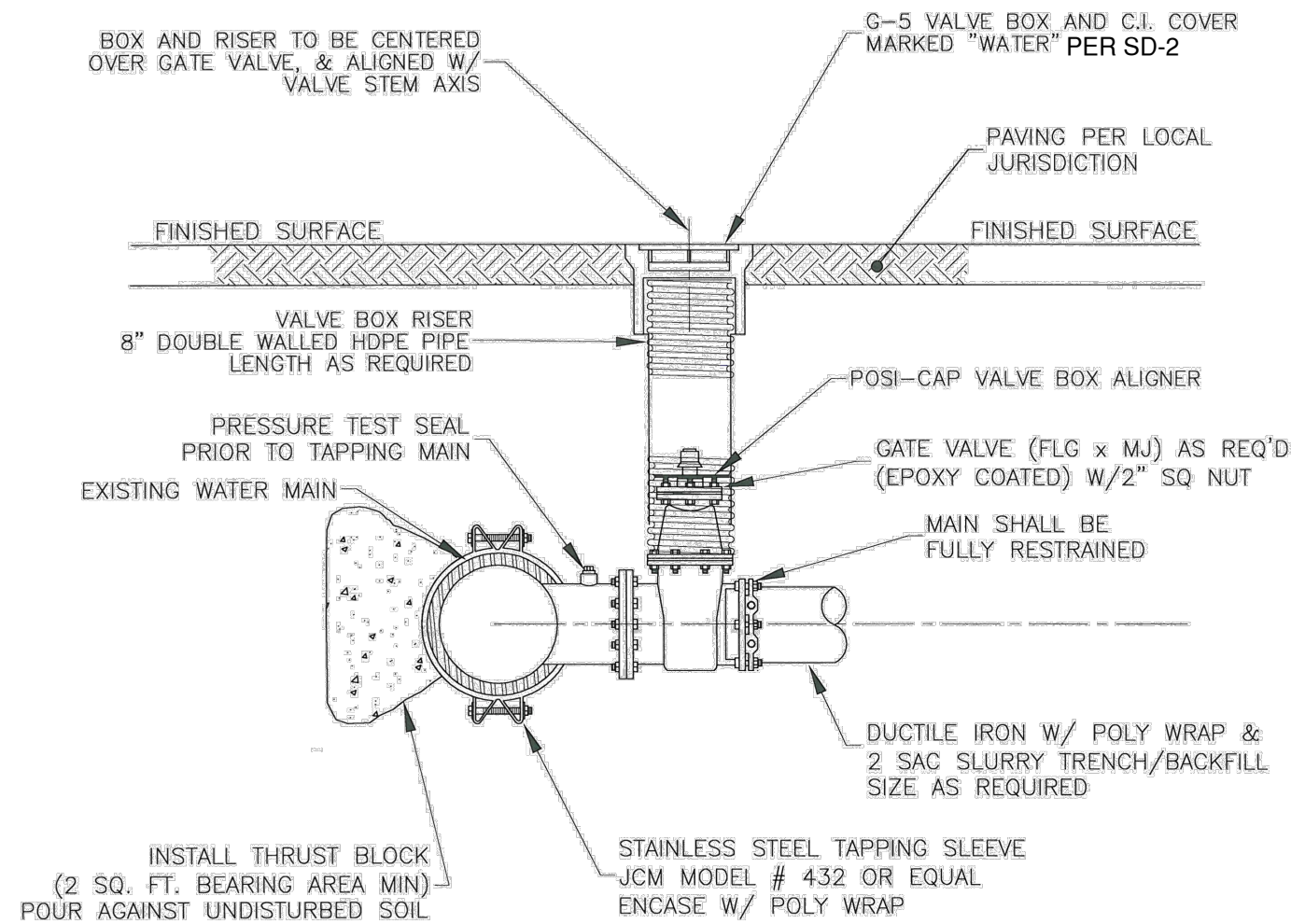
**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
STANDARD DETAILS 1**



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Salinas, CA 93907-2348
(831) 883-4848

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- NOTES:
- 1) DISTRICT INSPECTOR SHALL BE ONSITE DURING HOT TAP.
 - 2) BACKFILL TO BE 2 SACK CONCRETE/SAND SLURRY. (TAGS REQUIRED)
 - 3) FOLLOW ALL JURISDICTIONAL PERMIT REQUIREMENTS. ALL OTHER INFORMATION ON DRAWING OR SPECIFICATIONS ARE SUPERCEDED BY THE CONSTRUCTION PERMIT REQUIREMENTS.

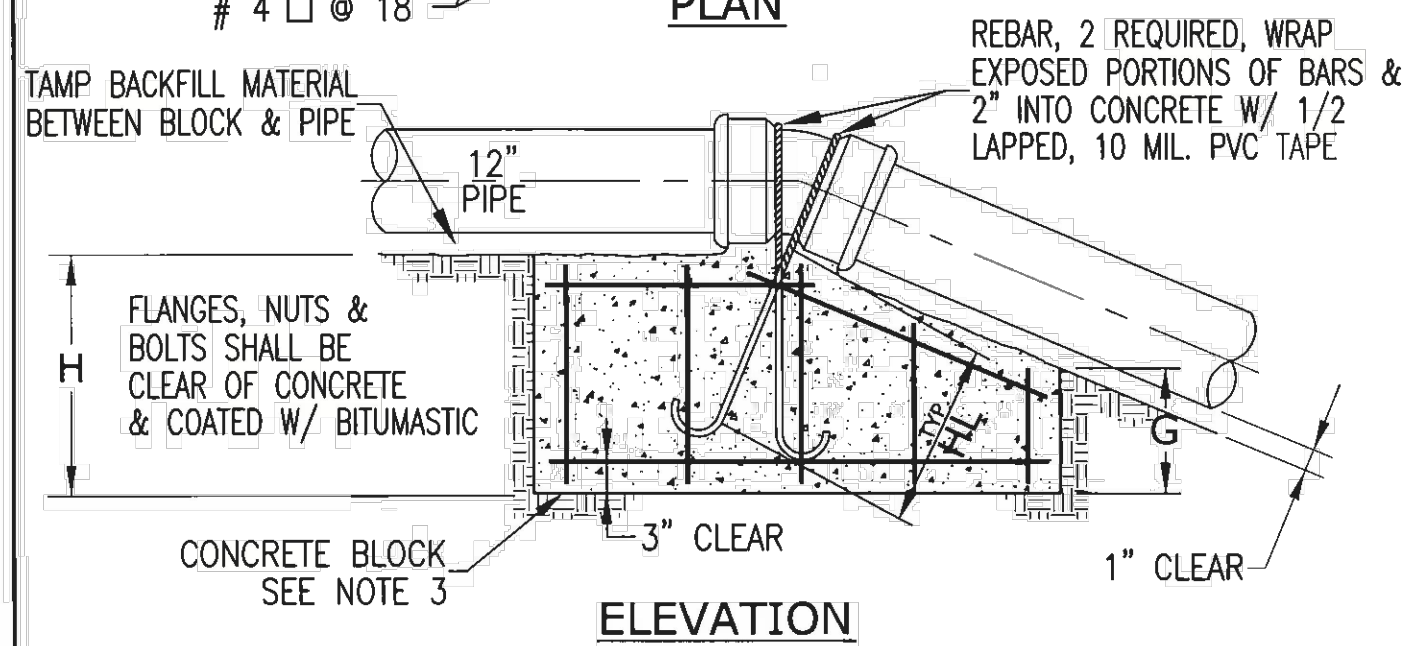




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**Standard
Hot Tap Detail**

DRAWN BY:
R. Menzies
DATE DRAWN:
FEB 2016
DWG. NUMBER:
SD-14



THRUST BLOCK DIMENSIONS - UPWARD THRUST																							
PIPE SIZE	11-1/4° BEND						22-1/2° BEND						45° BEND										
	L	W	H	G	BAR	HL	L	W	H	G	BAR	HL	L	W	H	G	BAR	HL					
6"	3.5	2	2.0	1	4	14	4.5	2	2.7	1	4	14	4.5	4	2.8	1	4	14					
8"	3.5	3	2.3	1	4	14	4.5	4	3.0	1.5	4	14	5.5	5	3.2	1.5	5	18					
10"	4	3.5	2.7	1	4	14	5	4	3.8	1.5	4	14	6	5	4.6	1.5	6	22					
12"	4	3.5	3.9	1	4	14	5	4	5.4	2	5	18	6.5	5	6.2	2.5	7	32					

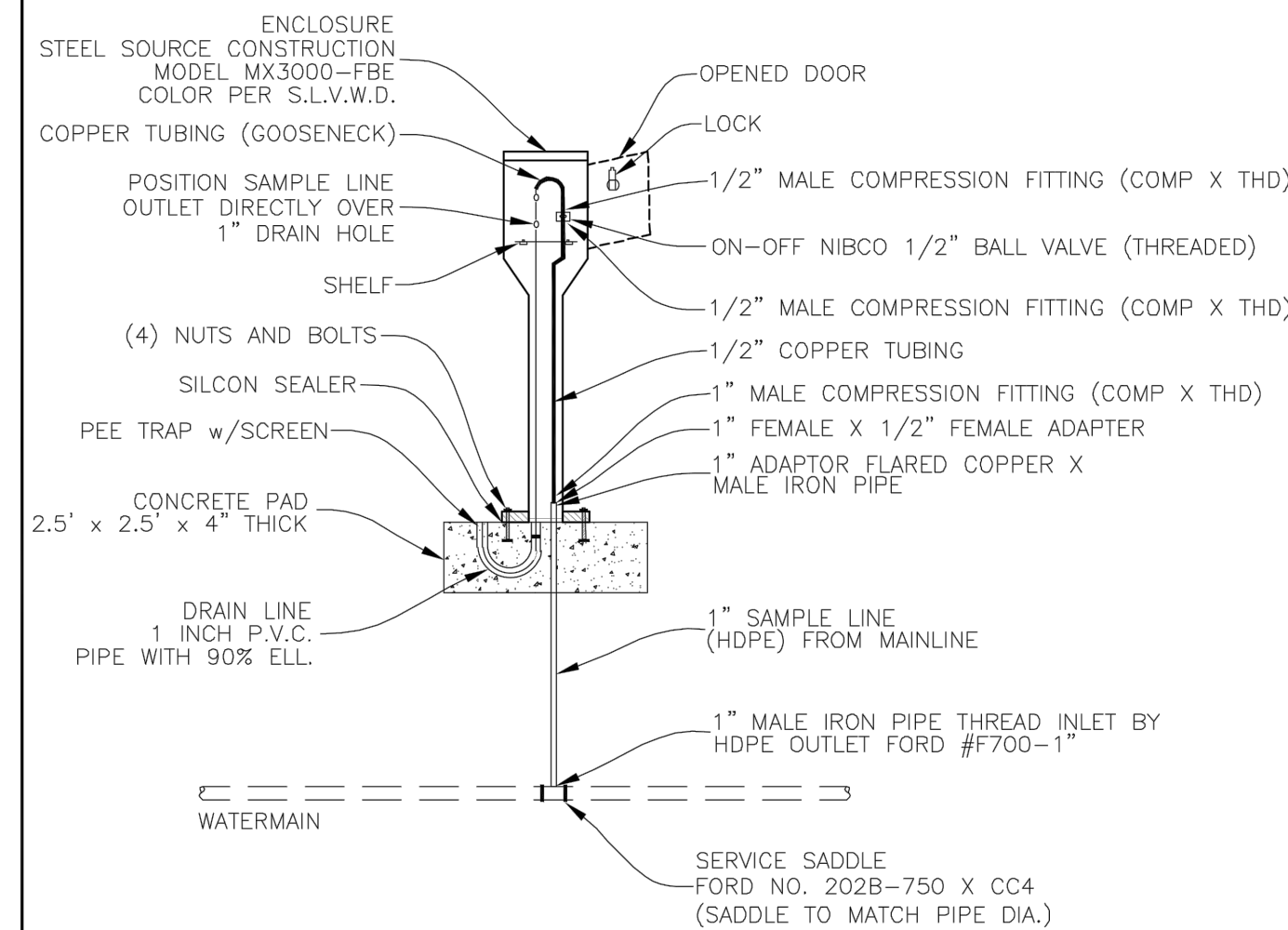
- NOTES:
- 1) ENCASE ALL BURIED METALLIC SURFACES WITH POLYETHYLENE WRAP AS SPECIFIED IN AWWA C105.
 - 2) RESTRAINED JOINT DUCTILE IRON PIPE MAY BE USED IN PLACE OF THRUST BLOCK, CONTACT SLVWD FOR APPROVAL AND DETAILS.
 - 3) DIMENSIONS L, W, H, G ARE IN FEET.
 - 4) THRUST BLOCK DIMENSIONS BASED ON 250 PSI TEST PRESSURE AND CONCRETE SHALL BE 2500 PSI MIN, 28 DAY COMPRESSIVE STRENGTH.



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**Standard
Reverse (Upward) Thrust Block**

DRAWN BY:
R. Menzies
DATE DRAWN:
DEC 2014
DWG. NUMBER:
SD-21



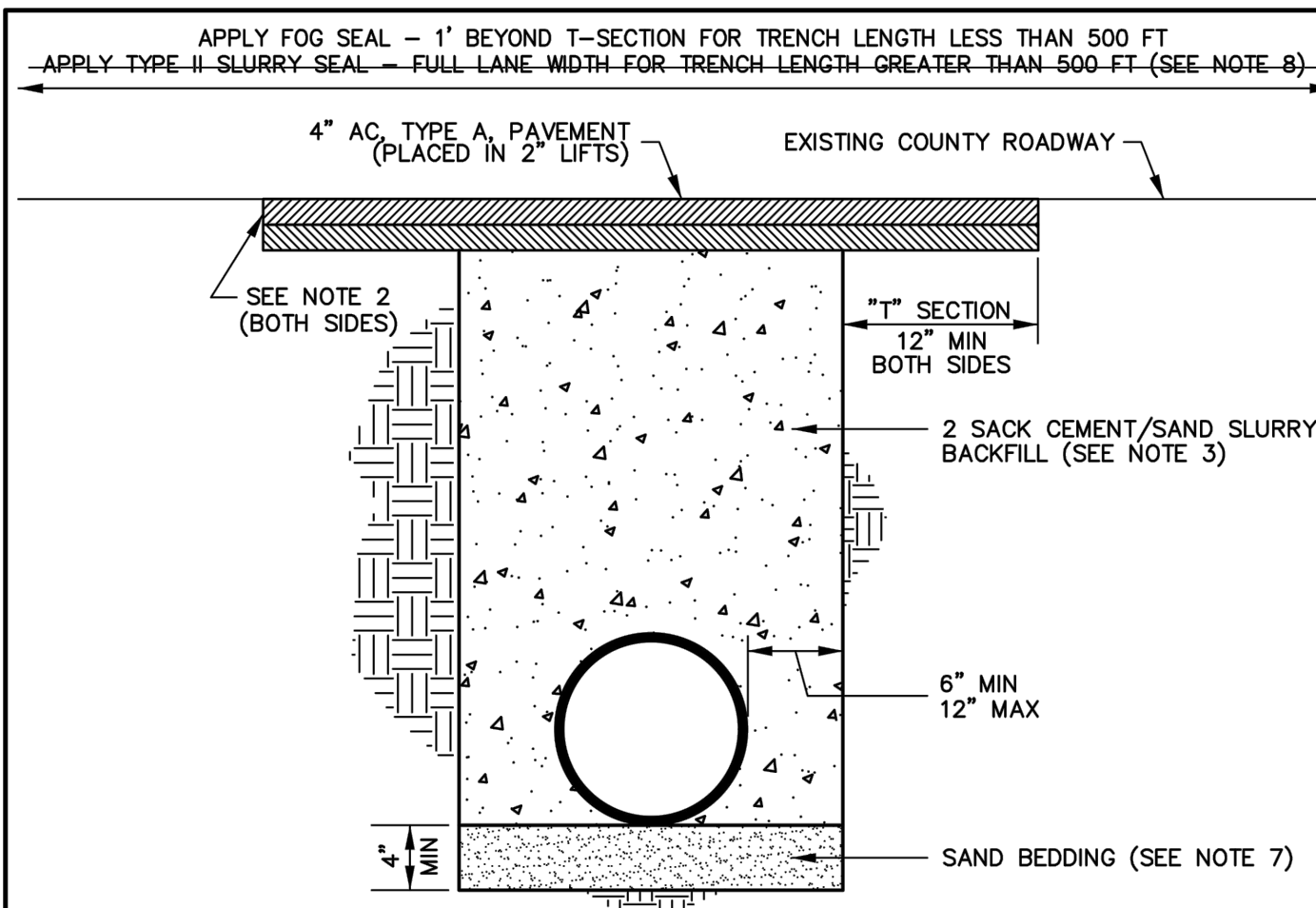
- NOTES:
- 1) WHEN INSTALLING WATER SAMPLER, 1" HDPE WILL BE APPROXIMATELY 6" ABOVE CONCRETE SLAB.
 - 2) INSERT COPPER TUBING INTO GROOVED FOOTING, THE COPPER TUBING MAY NEED TO BE CUT TO FIT INSIDE THE WATER SAMPLER.
 - 3) PLACE WATER SAMPLER CASE OVER BOTH THE COPPER TUBING AND THE 1" DRAIN HOLE.
 - 4) ATTACH THE GOOSENECK COPPER TUBING AND COMPRESSION FITTINGS.
 - 5) A SCREEN WILL BE PLACED MANUALLY IN THE PEE TRAP.



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**STANDARD
Water Sampling Station**

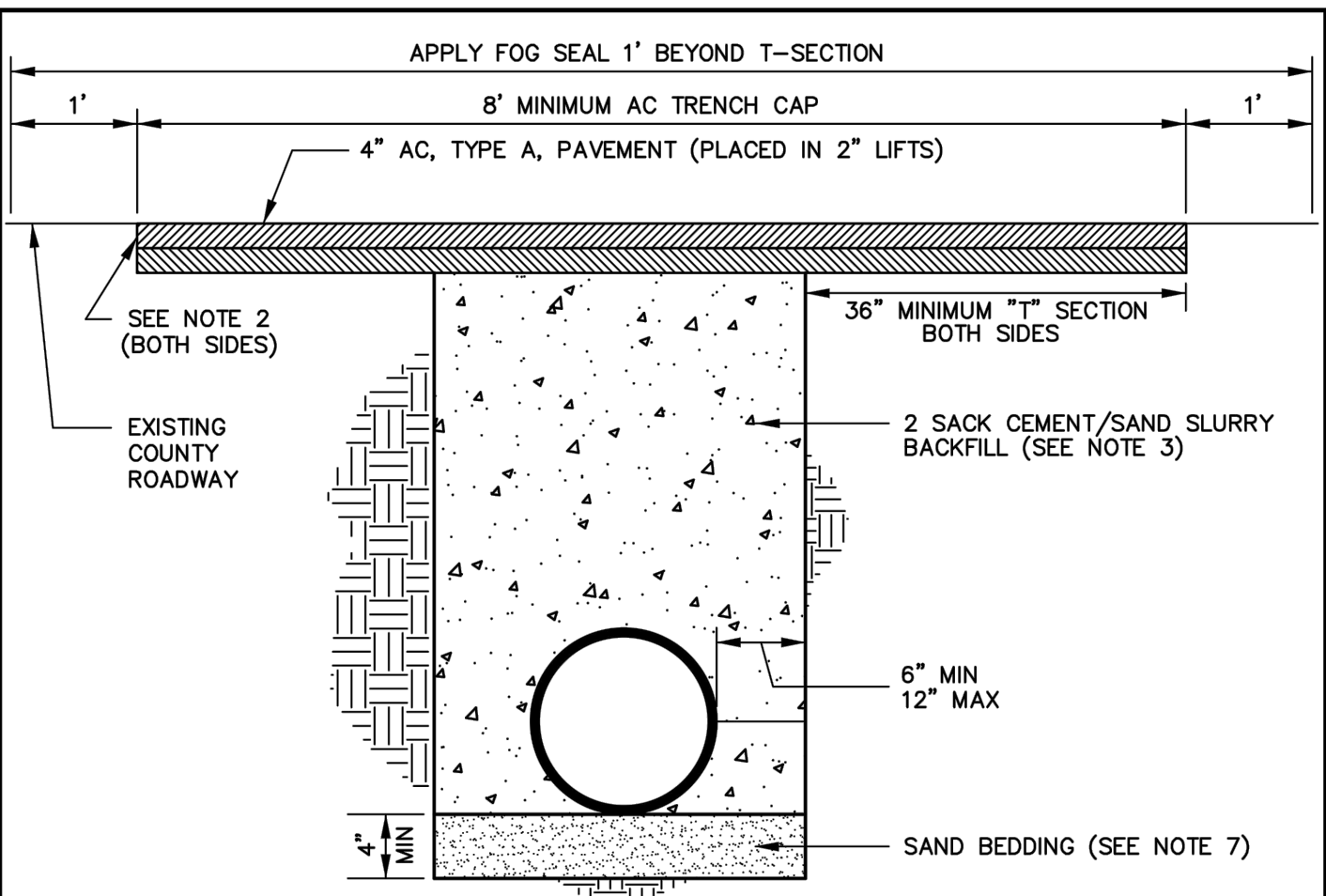
DRAWN BY:
RM & DM
DATE DRAWN:
Mar 2020
DWG. NUMBER:
2074-B



- NOTES:
1. MINIMUM STANDARDS ARE AS FOLLOWS:
 - A. PAVED ROADS - 4" AC, TYPE A, 1/2" MAX, PLACED IN 2" LIFTS
 - B. NON-PAVED ROADS - SINGLE SEAL COAT OVER 6" AB, CLASS 2, IN TRENCH AREA, THEN SINGLE SEAL COAT ENTIRE ROAD SECTION.
 2. CUT EXISTING PAVEMENT TO PRODUCE A STRAIGHT VERTICAL FACE AGAINST WHICH TO BUTT THE TRENCH PAVEMENT.
 3. CEMENT/SAND SLURRY SHALL BE MIXED IN A TRANSIT MIXER (CERTIFICATION TAGS REQUIRED) AND CONSIST OF 188 lbs OF CEMENT FOR EACH CUBIC YARD OF MATERIAL.
 4. TRENCHES OUTSIDE A PAVED AREA OR A ROAD RIGHT-OF-WAY SHALL HAVE BACKFILL COMPACTED TO NOT LESS THAN 90% RELATIVE COMPACTION.
 5. TRENCH CAP AND LAYOUT REQUIREMENTS:
 - A. IF THE EDGE OF THE ASPHALT TRENCH CAP IS WITHIN 2' OF THE EXISTING EDGE OF PAVEMENT, LIP OF GUTTER, OR LANE LINE, THE REMAINING PAVEMENT SHALL BE REMOVED AND THE TRENCH PAVING SHALL BE EXTENDED TO THE EDGE OF PAVEMENT, LIP OF GUTTER, OR LANE LINE.
 - B. IF THERE IS 4' OR LESS BETWEEN TRENCH CAPS, THE REMAINING PAVEMENT BETWEEN TRENCHES SHALL BE REMOVED AND TRENCH PAVING SHALL BE EXTENDED TO CREATE A SINGLE TRENCH CAP.
 6. ANY EXCEPTIONS TO THIS DETAIL MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
 7. CLEAN SAND COMPACTED TO 95% RELATIVE COMPACTION MAY BE USED FOR PIPE BEDDING BELOW BOTTOM OF PIPE. FOR WATER MAIN LINES THE SAND BEDDING MAY EXTEND UP TO 12" ABOVE TOP OF PIPE. CEMENT SAND SLURRY SHALL BE USED ABOVE SAND ZONE.
 8. WHERE NO PAINTED CENTERLINE EXISTS, A FULL ROAD WIDTH TYPE II SLURRY SEAL COAT IS REQUIRED AFTER TRENCH PAVING.

LONGITUDINAL TRENCH DETAIL

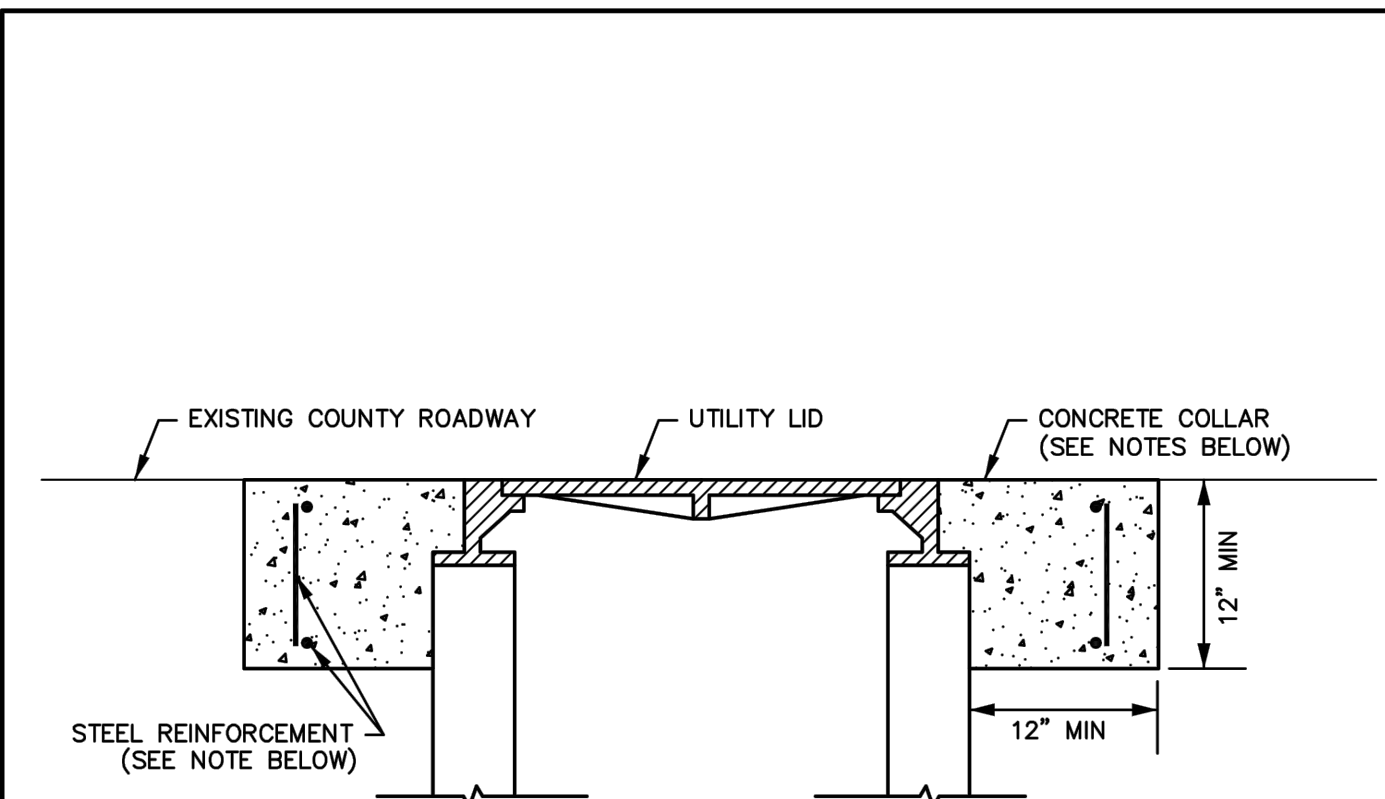
REV 5/19 SANTA CRUZ COUNTY STANDARD DETAIL FIG. EP-1



- NOTES:
1. MINIMUM STANDARDS ARE AS FOLLOWS:
 - A. PAVED ROADS - 4" AC, TYPE A, 1/2" MAX, PLACED IN 2" LIFTS
 - B. NON-PAVED ROADS - SINGLE SEAL COAT OVER 6" AB, CLASS 2, IN TRENCH AREA, THEN SINGLE SEAL COAT ENTIRE ROAD SECTION.
 2. CUT EXISTING PAVEMENT TO PRODUCE A STRAIGHT VERTICAL FACE AGAINST WHICH TO BUTT THE TRENCH PAVEMENT.
 3. CEMENT/SAND SLURRY SHALL BE MIXED IN A TRANSIT MIXER (CERTIFICATION TAGS REQUIRED) AND CONSIST OF 188 lbs OF CEMENT FOR EACH CUBIC YARD OF MATERIAL.
 4. TRENCHES OUTSIDE A PAVED AREA OR A ROAD RIGHT-OF-WAY SHALL HAVE BACKFILL COMPACTED TO NOT LESS THAN 90% RELATIVE COMPACTION.
 5. TRENCH CAP AND LAYOUT REQUIREMENTS:
 - A. IF THE EDGE OF THE ASPHALT TRENCH CAP IS WITHIN 2' OF THE EXISTING EDGE OF PAVEMENT, LIP OF GUTTER, OR LANE LINE, THE REMAINING PAVEMENT SHALL BE REMOVED AND THE TRENCH PAVING SHALL BE EXTENDED TO THE EDGE OF PAVEMENT, LIP OF GUTTER, OR LANE LINE.
 - B. IF THERE IS 4' OR LESS BETWEEN TRENCH CAPS, THE REMAINING PAVEMENT BETWEEN TRENCHES SHALL BE REMOVED AND TRENCH PAVING SHALL BE EXTENDED TO CREATE A SINGLE TRENCH CAP.
 6. ANY EXCEPTIONS TO THIS DETAIL MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
 7. CLEAN SAND COMPACTED TO 95% RELATIVE COMPACTION MAY BE USED FOR PIPE BEDDING BELOW BOTTOM OF PIPE. FOR WATER MAIN LINES THE SAND BEDDING MAY EXTEND UP TO 12" ABOVE TOP OF PIPE. CEMENT SAND SLURRY SHALL BE USED ABOVE SAND ZONE.
 8. WHEN MULTIPLE CROSS TRENCHES ARE INSTALLED OR WHEN A CROSS TRENCH IS INSTALLED IN COMBINATION WITH A LONGITUDINAL TRENCH, A TYPE II SLURRY SEAL COAT MAY BE REQUIRED.

CROSS TRENCH DETAIL

REV 5/19 SANTA CRUZ COUNTY STANDARD DETAIL FIG. EP-2



- NOTES:
1. CONCRETE COLLAR SHALL EXTEND TO BE FLUSH WITH ADJACENT ROADWAY SURFACE, NO ASPHALT SHALL BE PLACED OVER TOP.
 2. CONCRETE SHALL USE TYPE III HIGH-EARLY STRENGTH CEMENT WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5000 PSI.
 3. BROADCAST 1 LB OF LAMPBLACK PIGMENT ON CONCRETE SURFACE DURING CURE TO ACHIEVE DARKENED APPEARANCE.
 4. CONCRETE COLLAR SHALL BE PROTECTED FROM TRAFFIC USING TRENCH PLATES OR OTHER ACCEPTABLE MEANS. CONCRETE SHALL NOT BE REOPENED TO TRAFFIC UNTIL A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI HAS BEEN ACHIEVED.
 5. CONCRETE SHALL BE REINFORCED HORIZONTALLY WITH #4 REBAR HOOP AROUND GRADE RING AT TOP & BOTTOM, AND VERTICALLY WITH #4 REBAR TIES SPACED AT 12". REBAR SHALL BE KEPT A MINIMUM OF 2" CLEAR FROM ALL EDGES.
 6. THIS DETAIL SHALL APPLY TO MANHOLES, VAULTS, VALVE BOXES, MONUMENT WELLS, OR ANY OTHER UTILITY LID STRUCTURE LOCATED WITHIN COUNTY MAINTAINED ROADWAYS. CONCRETE COLLAR SHALL BE ROUND FOR CIRCULAR UTILITY LIDS AND RECTANGULAR FOR RECTANGULAR LIDS.

**UTILITY LID PAVING DETAIL
FOR UTILITY LIDS LOCATED ON COUNTY MAINTAINED ROADWAYS**

REV 5/19 SANTA CRUZ COUNTY STANDARD DETAIL FIG. EP-5

DESIGNED BY: JCT DATE: 9/20/2022

DRAWN BY: JCT DATE: 9/20/2022

QC CHECKED BY: AAS DATE: 9/20/2022

PROJECT NO.: AS SHOWN

SCALE: 100% SUBMITTAL

DATE: 9/20/2022

BY: 9/20/2022

DESCRIPTION: 9/20/2022

REV. NO.: 9/20/2022

9/20/2022

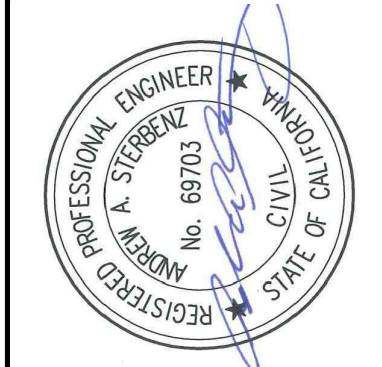
9/20/2022

9/20/2022

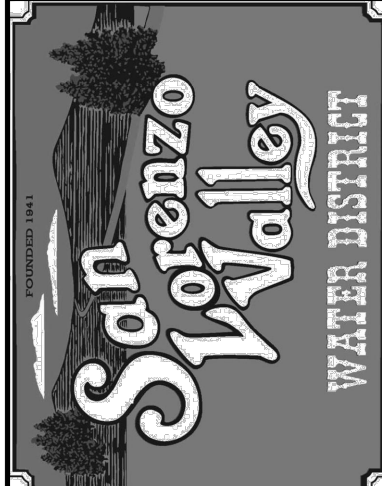
9/20/2022

9/20/2022

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Salinas, CA 93907-2348
(831) 883-4848



**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
STANDARD DETAILS II**



C6.2

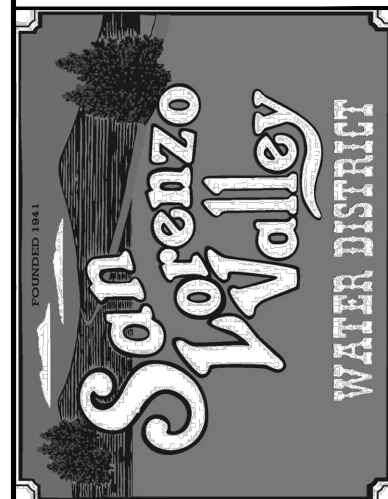
SHEET 24 OF 27



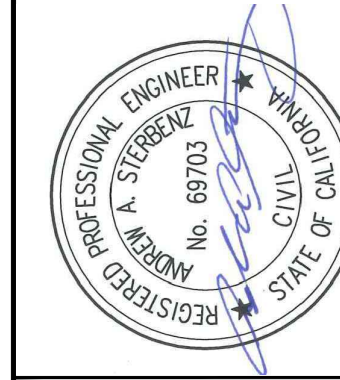
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C6.3
SHEET 25 OF 27

LYON & BIG STEEL ZONE PIPELINE IMPROVEMENTS STANDARD DETAILS III



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(831) 883-4848



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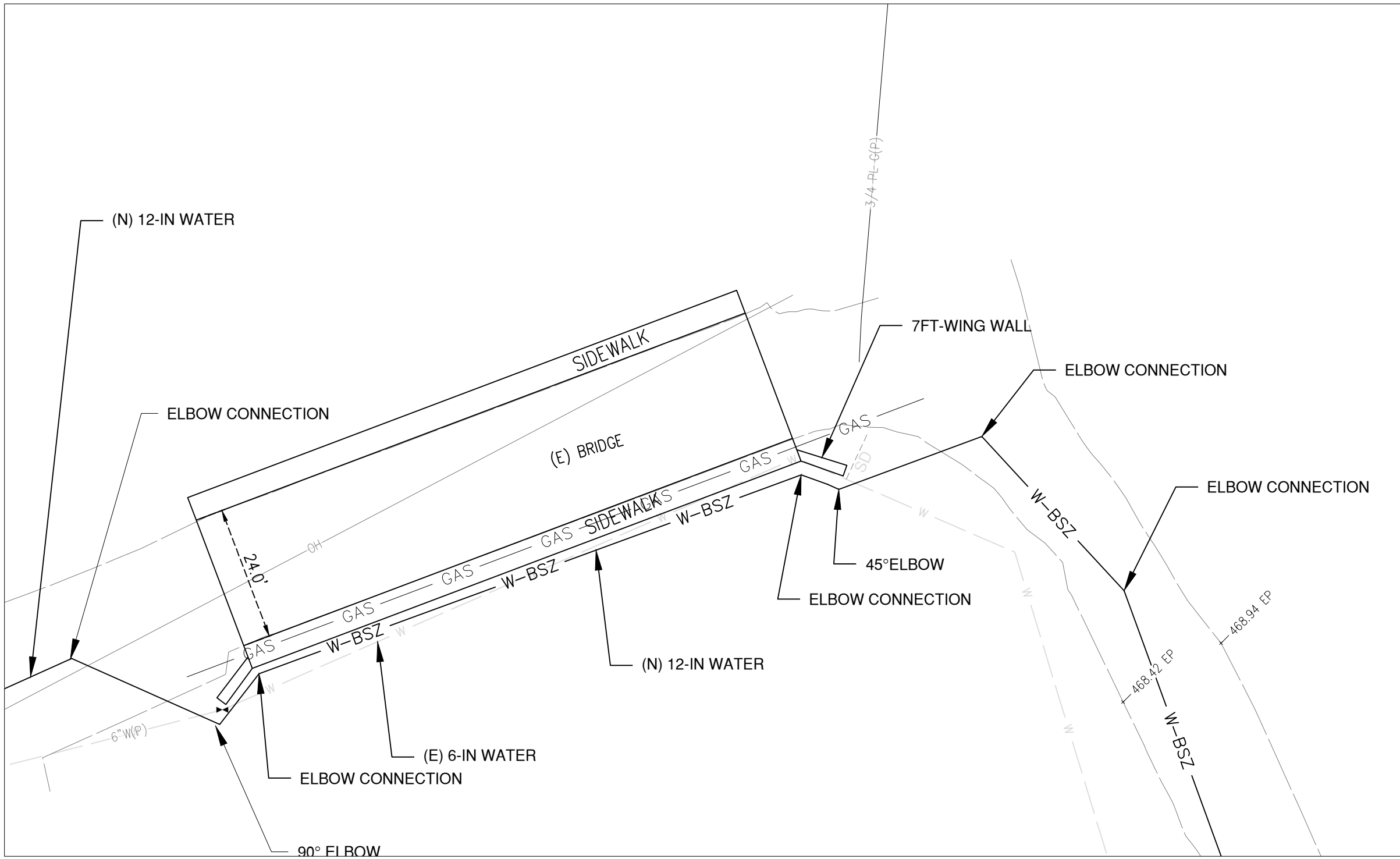
MINIMUM OF 19 STEEL BRACKETS NEEDED



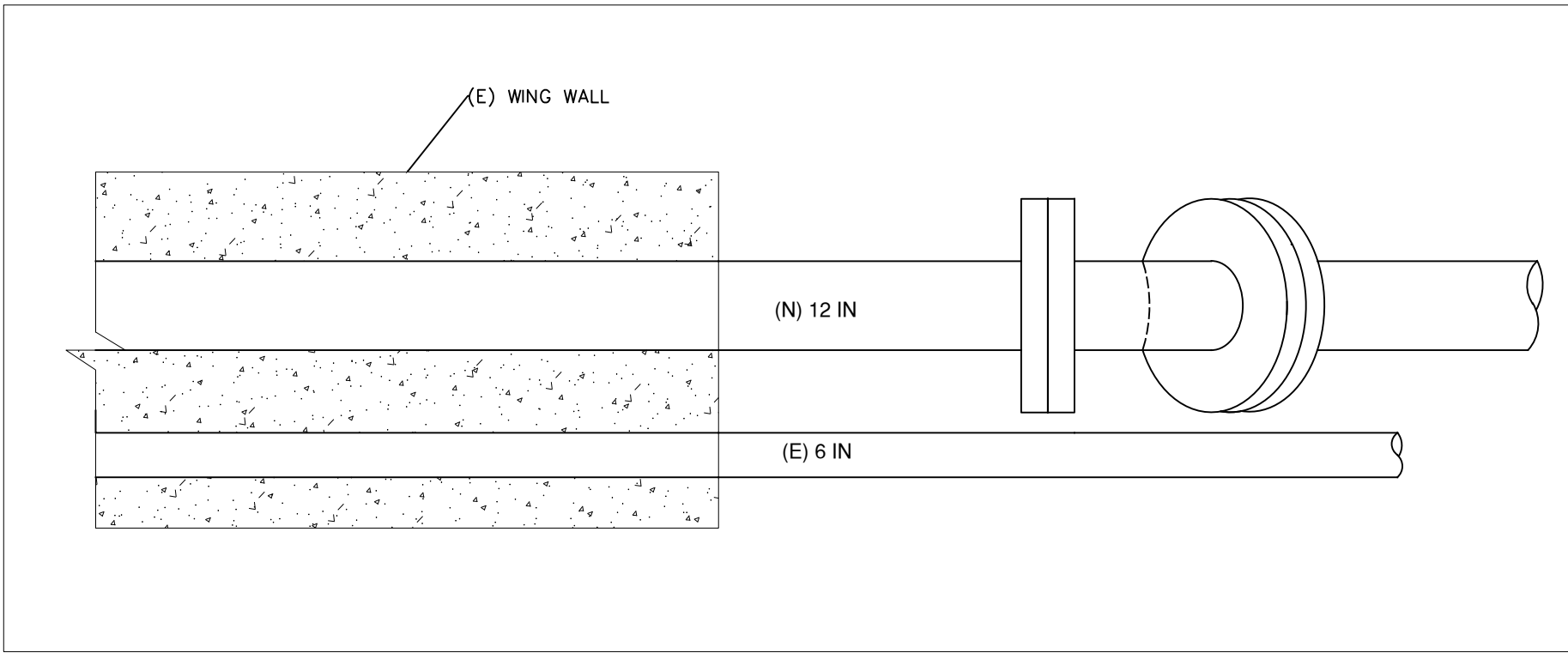
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DRAWN BY:	AJL	DATE:	9/20/2022
QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
SCALE:		AS SHOWN	
SUBMITTAL:		100% SUBMITTAL	

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BRIDGE PIPE PLAN
NTS



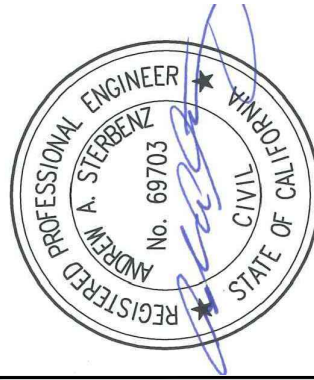
ALTERNATIVE 2 NOTES:
12 IN PIPE ALONG BRIDGE WILL CONNECT ONTO 12 IN MAIN ALONG THE ROAD AS FOLLOW:
1. 12 PIPE WILL CONTINUE ALONG WING WALL AND WILL EXTEND 4 FEET UNTIL CLEAR OF STORM DRAIN, FIELD VERIFY ACTUAL LOCATION.
2. AFTER PASSING EXISTING STORM DRAIN A 45° ELBOW WILL BE USED TO DIRECT PIPE TOWARDS EDGE OF PAVEMENT AND CONNECT TO 12 IN MAIN ALONG THE ROAD.
3. WEST END SIMILAR TO DETAIL SHOWN ABOVE.

END TRANSITION DETAIL
NTS

DESIGNED BY:	ALJ	DATE:	9/20/2022
DRAWN BY:	ALJ	DATE:	9/20/2022
QC CHECKED BY:	AAS	DATE:	9/20/2022
PROJECT NO.:			
SCALE:	AS SHOWN		
SUBMITTAL:	100% SUBMITTAL		



**LYON & BIG STEEL ZONE
PIPELINE IMPROVEMENTS
BRIDGE CROSSING II**



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