

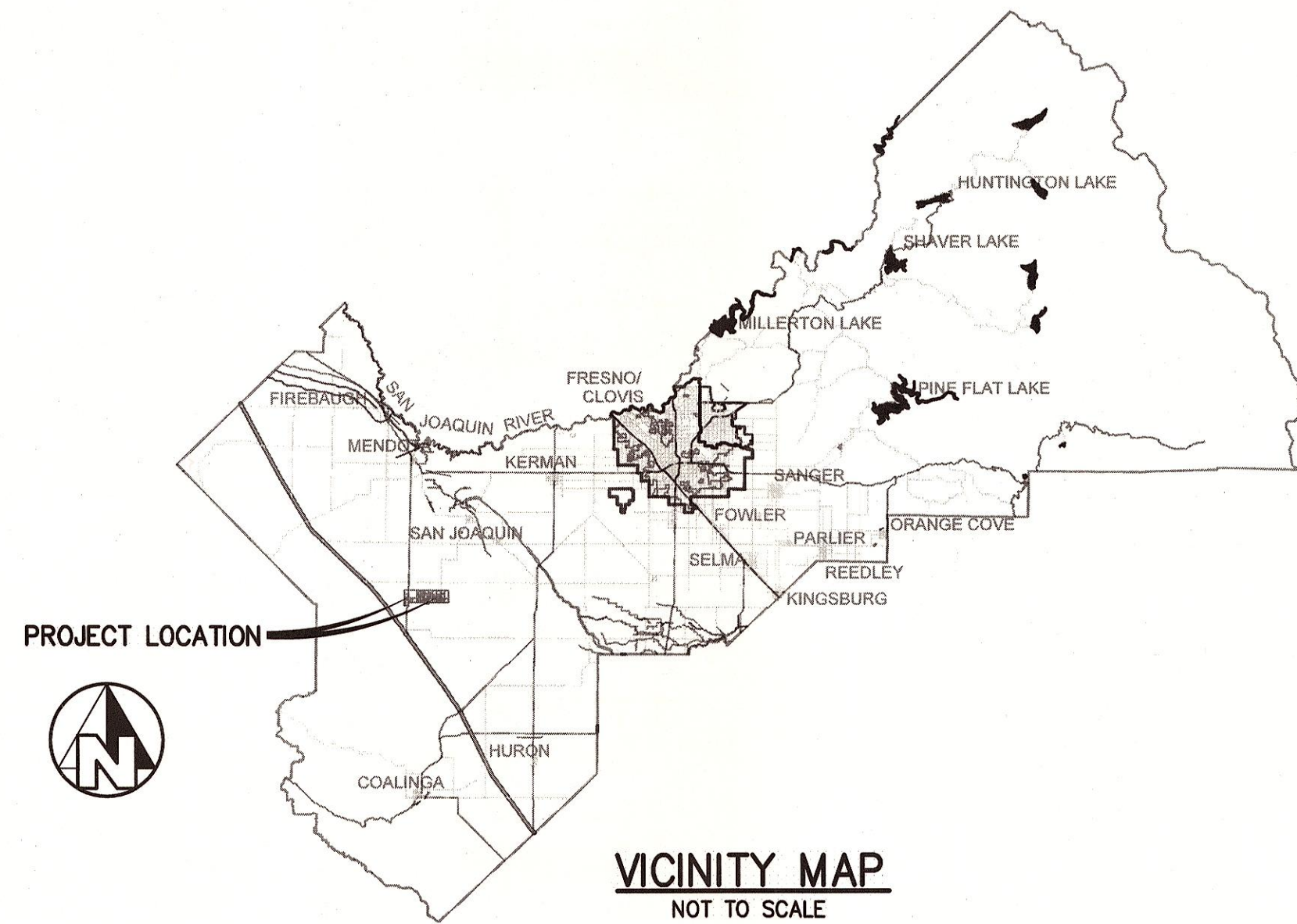
PLANS FOR CONSTRUCTION

COUNTY SERVICE AREAS 30 & 32

EL PORVENIR & CANTUA CREEK

STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

WATER SYSTEM IMPROVEMENTS



UTILITY/AGENCY CONTACT LIST

PG&E	CALL CENTER	800-743-5000
WESTLANDS WATER DISTRICT	ALEX YOUNG	559-884-2523
FRESNO COUNTY	MITCH WRIGHT	559-994-4744
CALTRANS	JOE ESPINOSA	559-349-0450

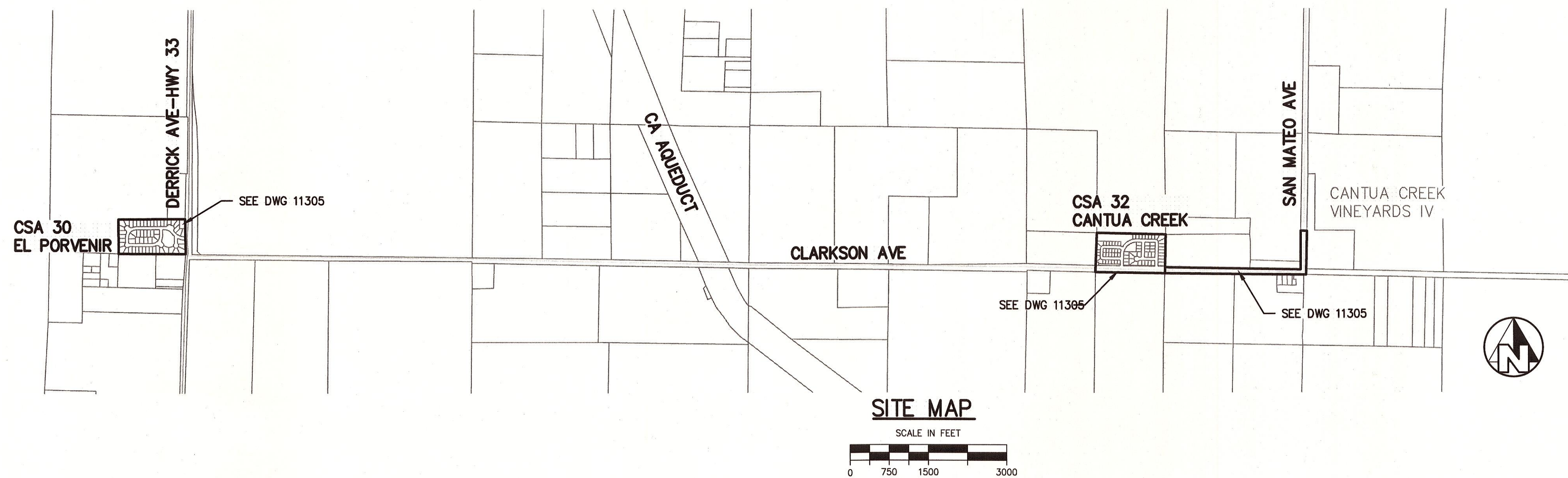
County of Fresno Board of Supervisors

Ernest Buddy Mendes	Chairman	4th District
Steve Brandau	Vice Chairman	2nd District
Brian Pacheco		1st District
Sal Quintero		3rd District
Nathan Magsig		5th District

Jean M. Rousseau
County Administrative Officer

APPROVED _____

Steven E. White, Director
Department of Public Works and Planning

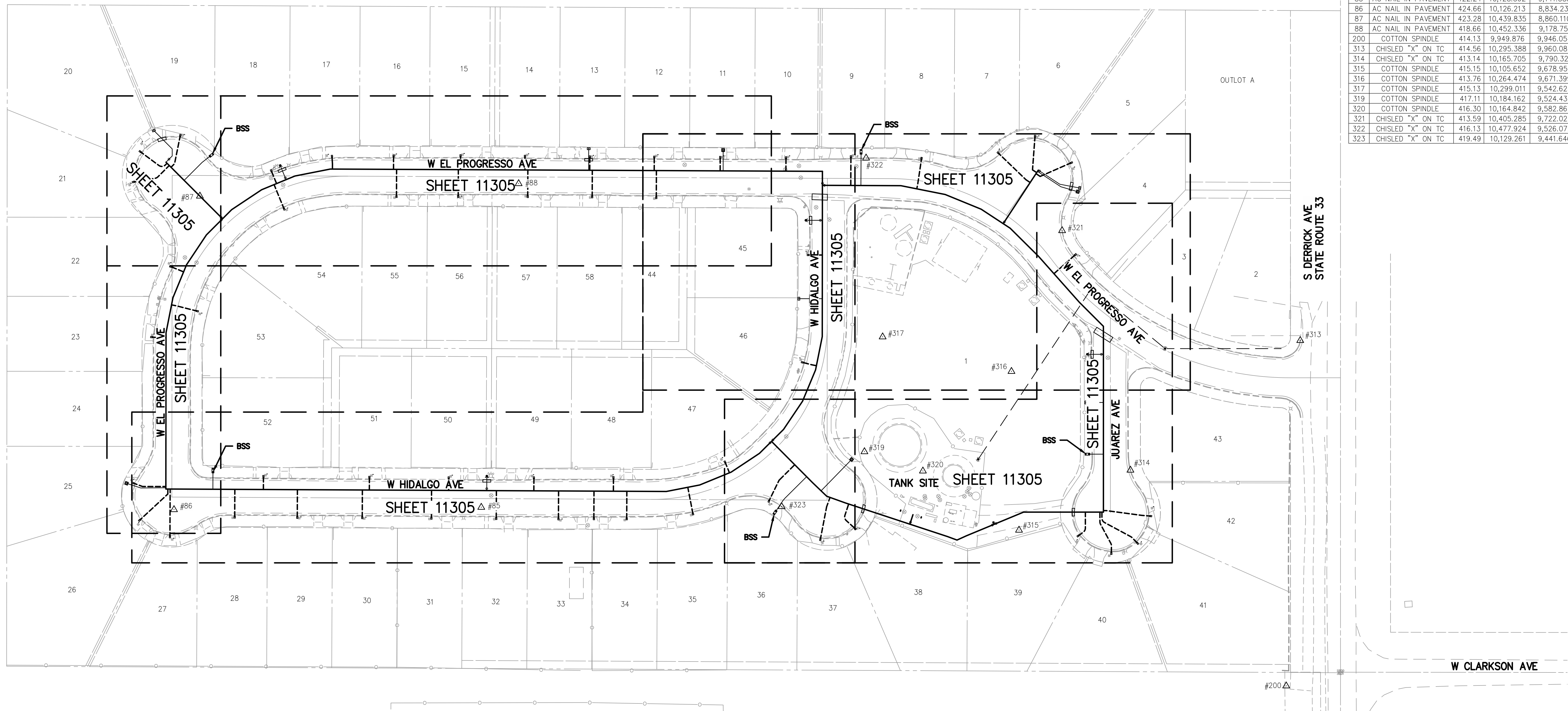


CALIFORNIA CONTRACTOR'S LICENSES REQUIRED FOR THIS PROJECT					
CLASS A, GENERAL ENGINEERING; CLASS C34, PIPELINE					
DRAWING NO.	ROAD NO.	BRIDGE NO.	FISCAL YR.	SHEET NO.	TOTAL
11305		N/A		G1	33
CONTRACT NO. 20-10-C					

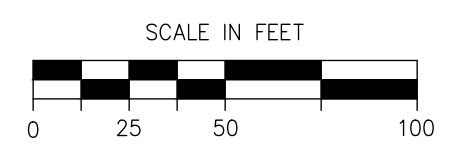
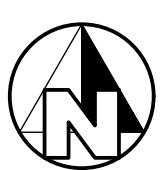
RECORD DRAWING		
NAME		
ADDRESS		
CITY	STATE	ZIP
PHONE		
DATE AWARDED		
DATE STARTED		
DATE COMPLETED		
RESIDENT ENGINEER		
NAME	SIGNATURE	
NAME	SIGNATURE	



DEPARTMENT OF PUBLIC WORKS AND PLANNING

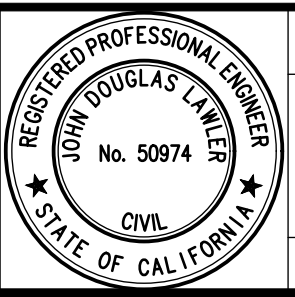


SURVEY CONTROL POINTS				
PT #	DESCRIPTION	ELEV	NORTHING	EASTING
85	AC NAIL IN PAVEMENT	422.24	10,128.562	9,141.388
86	AC NAIL IN PAVEMENT	424.66	10,126.213	8,834.231
87	AC NAIL IN PAVEMENT	423.28	10,439.835	8,860.110
88	AC NAIL IN PAVEMENT	418.66	10,452.336	9,178.751
200	COTTON SPINDLE	414.13	9,949.876	9,946.054
313	CHISLED "X" ON TC	414.56	10,295.388	9,960.082
314	CHISLED "X" ON TC	413.14	10,165.705	9,790.321
315	COTTON SPINDLE	415.15	10,105.652	9,678.956
316	COTTON SPINDLE	413.76	10,264.474	9,671.399
317	COTTON SPINDLE	415.13	10,299.011	9,542.625
319	COTTON SPINDLE	417.11	10,184.162	9,524.433
320	COTTON SPINDLE	416.30	10,164.842	9,582.865
321	CHISLED "X" ON TC	413.59	10,405.285	9,722.022
322	CHISLED "X" ON TC	416.13	10,477.924	9,526.072
323	CHISLED "X" ON TC	419.49	10,129.261	9,441.646



John D. Lawler

06/30/2020

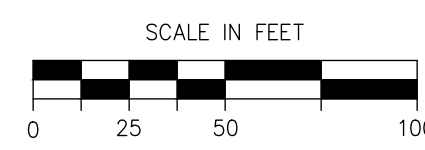
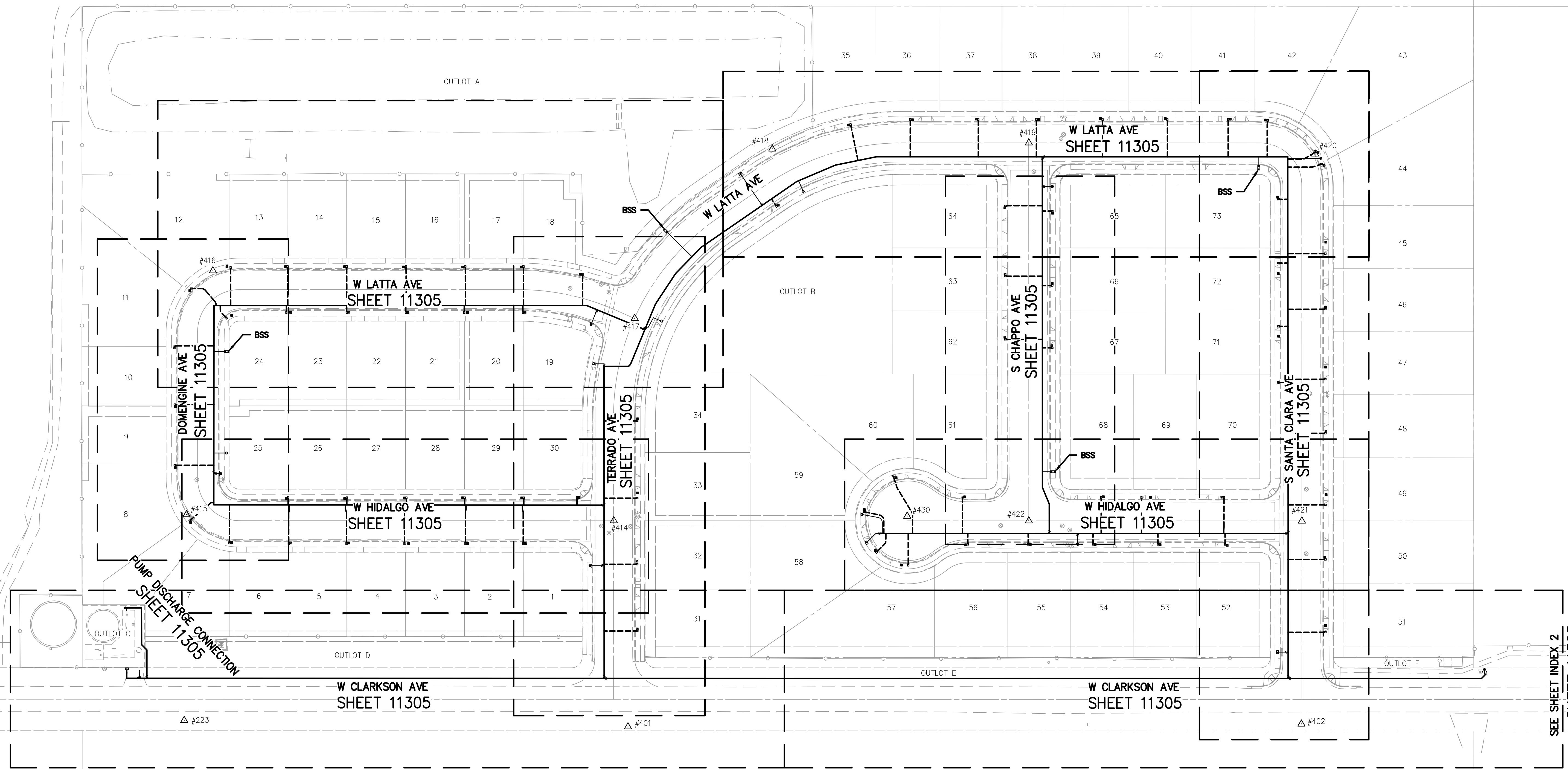


PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO
 BRIDGE NO. N/A



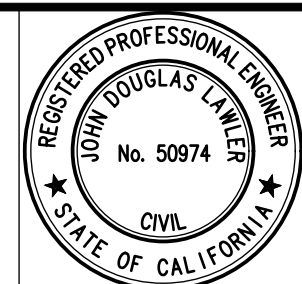
DEPARTMENT OF PUBLIC WORKS AND PLANNING
 EL PORVENIR INDEX SHEET
 GENERAL
 DRAWING NO. 11305 SHEET NO. G4 TOTAL 33

△ SEE SHEET G6 FOR SURVEY CONTROL POINT DATA



John Paul

06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO

BRIDGE NO. N/A

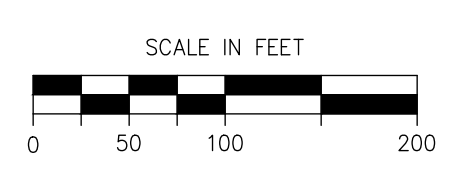
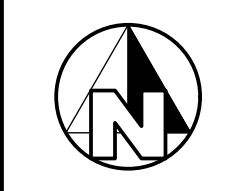
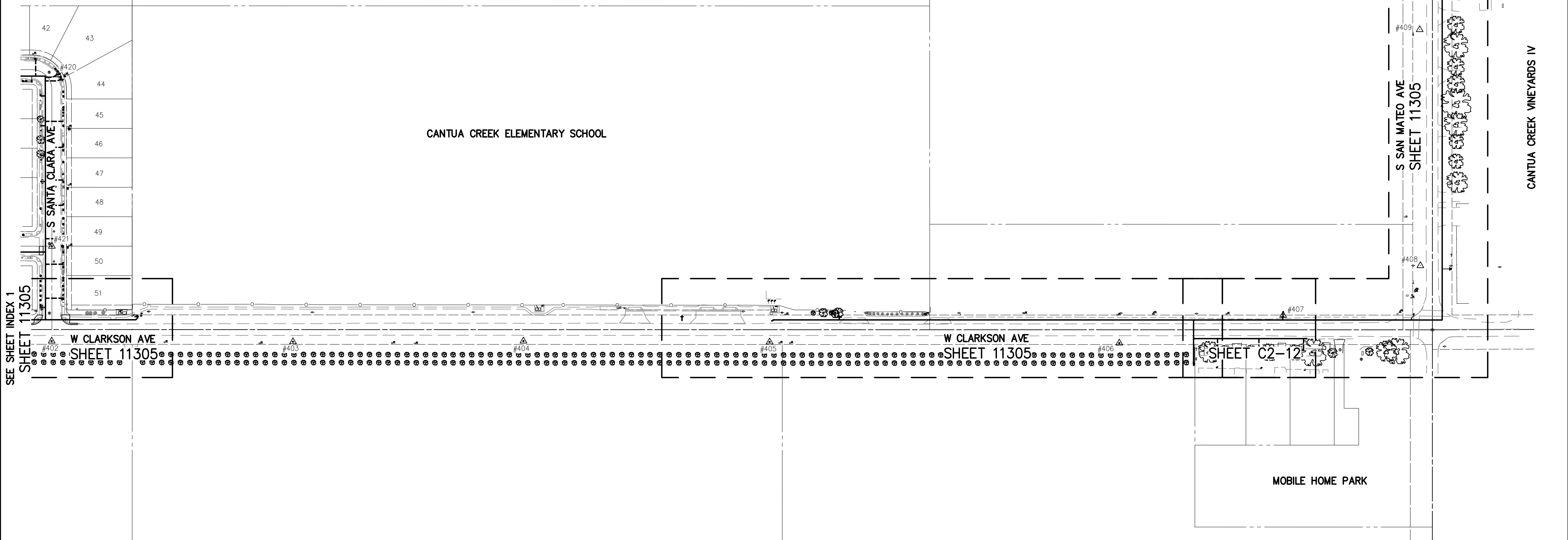


DEPARTMENT OF PUBLIC WORKS AND PLANNING
 CANTUA CREEK INDEX SHEET 1
 GENERAL

DRAWING NO. 11305 SHEET NO. G5 TOTAL 33

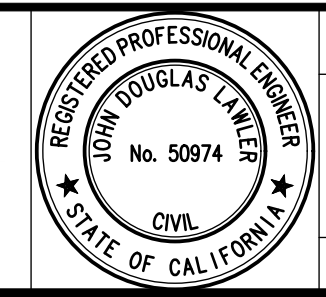
SEE SHEET INDEX 2
 SHEET 11305

SURVEY CONTROL POINTS				
PT #	DESCRIPTION	ELEV	NORTHING	EASTING
223	REBAR WITH CAP	300.29	9,918.325	27,529.225
401	REBAR WITH CAP	298.47	9,912.254	27,951.762
402	REBAR WITH CAP	297.45	9,914.942	28,592.982
403	REBAR WITH CAP	296.01	9,913.535	29,084.755
404	REBAR WITH CAP	295.33	9,914.904	29,554.457
405	REBAR WITH CAP	294.48	9,913.071	30,056.224
406	REBAR WITH CAP	293.38	9,910.884	30,768.968
407	REBAR WITH CAP	292.45	9,967.180	31,102.859
408	REBAR WITH CAP	290.69	10,068.539	31,382.593
409	REBAR WITH CAP	289.64	10,549.608	31,381.252
410	REBAR WITH CAP	288.52	11,133.741	31,383.175
414	BRASS CAP C MON.	299.85	10,108.457	27,938.291
415	CHISLED "X" ON TC	300.35	10,114.307	27,531.474
416	CHISLED "X" ON TC	299.69	10,346.372	27,556.561
417	BRASS CAP C MON.	299.00	10,301.131	27,958.187
418	CHISLED "X" ON TC	298.09	10,462.364	28,089.211
419	BRASS CAP C MON.	298.22	10,468.153	28,333.454
420	CHISLED "X" ON TC	298.66	10,457.639	28,606.017
421	BRASS CAP C MON.	298.84	10,108.184	28,593.435
422	BRASS CAP C MON.	299.21	10,108.322	28,333.433
430	CHISLED "X" ON MH RIM	299.37	10,112.792	28,217.618



John L. L...

06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO
 BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
 CANTUA CREEK INDEX SHEET 2
 GENERAL
 DRAWING NO. 11305 SHEET NO. G6 TOTAL 33

CSA 30 - El Porvenir Subdivision
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
El Progreso Avenue (West)			
10+00.00	6" 90' Bend (Hidalgo)	10,146.86	8,826.09
N 00' 03' 46" E 156.28'			
11+56.28	6" 11¼" Bend	10,303.14	8,826.26
N 11' 09' 17" E 35.75'			
11+92.03	6" 11¼" Bend	10,338.21	8,833.18
N 22' 24' 17" E 35.75'			
12+27.78	6" 11¼" Bend	10,371.26	8,846.80
N 33' 39' 17" E 35.75'			
12+63.53	6" 11¼" Bend	10,401.02	8,866.62
N 45' 00' 19" E 22.85'			
12+86.38	6"x4" Tee (West Knuckle)	10,417.18	8,882.77
N 45' 00' 19" E 12.90'			
12+99.28	6" 11¼" Bend	10,426.30	8,891.90
N 56' 21' 18" E 35.96'			
13+35.24	6" 11¼" Bend	10,446.22	8,921.83
N 67' 36' 21" E 36.00'			
13+71.24	6" 11¼" Bend	10,459.94	8,955.12
N 78' 51' 21" E 36.00'			
14+07.24	6" 11¼" Bend	10,466.89	8,990.44
S 89' 44' 19" E 492.00'			
18+99.24	6" 90' Bend (Hidalgo)	10,464.64	9,482.44
Westerly Knuckle			
1+00.00	6"x6"x4" Tee (El Progreso)	10,417.18	8,882.77
N 44' 59' 41" W 80.00'			
1+80.00	End (B.O.)	10,473.75	8,826.21

El Progreso Avenue (East)

20+00.00	6"x6"x6" Tee (Hidalgo)	10,450.64	9,482.42
S 89' 44' 14" E 78.50'			
20+78.50	6" 11¼" Bend	10,450.28	9,560.92
S 78' 44' 14" E 45.10'			
21+23.60	6" 11¼" Bend	10,441.47	9,605.15
S 67' 44' 14" E 38.90'			
21+62.50	6" 11¼" Bend	10,426.73	9,641.15
S 56' 44' 14" E 26.30'			
21+88.80	6"x4" Tee (East Knuckle)	10,412.31	9,663.14
S 56' 44' 14" E 8.30'			
21+97.10	6" 11¼" Bend	10,407.76	9,670.08
S 45' 14' 14" E 40.00'			
22+37.10	Angle Point	10,379.59	9,698.48
S 41' 36' 18" E 61.43'			
22+98.53	Angle Point	10,333.66	9,739.27
S 45' 00' 14" E 34.00'			
23+32.53	6" 45' Bend (Juarez)	10,309.62	9,763.32

Easterly Knuckle

2+00.00	6"x6"x4" Tee (El Progreso)	10,412.31	9,663.14
N 33' 15' 46" E 64.00'			
2+64.00	End (B.O.)	10,465.82	9,698.25

CSA 30 - El Porvenir Subdivision
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Hidalgo Avenue			
30+00.00	6" 90' Bend (El Progreso)	10,146.86	8,826.09
S 89' 43' 14" E 500.30'			
35+00.30	6" 11¼" Bend	10,144.42	9,326.38
N 79' 00' 08" E 34.00'			
35+34.30	6" 11¼" Bend	10,150.90	9,359.76
N 67' 43' 31" E 34.00'			
35+68.30	6" 11¼" Bend	10,163.79	9,391.22
N 56' 26' 53" E 33.90'			
36+02.20	6" 11¼" Bend	10,182.53	9,419.47
N 45' 10' 16" E 17.00'			
36+19.20	6"x6" Tee (to Tank Site)	10,194.51	9,431.53
N 45' 10' 16" E 17.00'			
36+36.20	6" 11¼" Bend	10,206.50	9,443.59
N 33' 56' 40" E 33.95'			
36+70.15	6" 11¼" Bend	10,234.66	9,462.54
N 22' 33' 49" E 33.95'			
37+04.10	6" 11¼" Bend	10,266.01	9,475.57
N 11' 20' 23" E 33.99'			
37+38.09	6" 11¼" Bend	10,299.34	9,482.26
N 00' 03' 46" E 151.30'			
38+89.39	6"x6" Tee (El Progreso)	10,450.64	9,482.42
N 00' 03' 46" E 14.00'			
39+03.39	6" 90' Bend (El Progreso)	10,464.64	9,482.44

CSA 30 - El Porvenir Subdivision
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Hidalgo Avenue Knuckle to Juarez Avenue Cul-de-Sac			
40+00.00	6"x6" Tee (Hidalgo)	10,194.51	9,431.53
S 44' 49' 44" E 58.00'			
40+58.00	Angle Point	10,153.38	9,472.42
S 46' 10' 59" E 19.85'			
40+77.85	6" 22½" Bend	10,139.63	9,486.74
S 70' 14' 28" E 19.85'			
40+97.70	Angle Point	10,132.92	9,505.42
S 71' 45' 55" E 67.80'			
41+65.50	6"x6" Tee (Tank Con.)	10,111.71	9,569.82
S 71' 45' 55" E 39.59'			
42+05.09	Angle Point	10,099.32	9,607.42
S 69' 48' 17" E 10.16'			
42+15.25	6" 45' Bend	10,095.81	9,616.96
N 65' 33' 12" E 10.26'			
42+25.51	Angle Point	10,100.06	9,626.30
N 67' 30' 00" E 30.15'			
42+55.66	6"x6" Tee (Future Con.)	10,111.60	9,654.15
N 67' 30' 00" E 31.77'			
42+87.43	6" 22½" Bend	10,123.75	9,683.50
N 90' 00' 00" E 79.83'			
43+67.26	6" 90' Bend (Juarez)	10,123.75	9,763.33

CSA 30 - El Porvenir Subdivision
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Juarez Avenue			
49+90.02	6" 90' Bend (to Tank Site)	10,123.75	9,763.33
N 00' 00' 14" W 185.86'			
51+75.88	6" 45' Bend (El Progreso)	10,309.62	9,763.32

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Latta Avenue (West)			
60+00.00	6" 90' Bend (Domengine)	10,313.34	27,557.56
N 89' 59' 19" E 354.81'			
63+54.81	6" 22½" Bend	10,313.41	27,912.37
S 67' 29' 25" E 60.06'			
64+14.87	6"x6" Tee (Terrado)	10,290.41	27,967.86

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Latta Avenue (East)			
64+88.05	6"x6" Tee (Terrado)	10,290.41	27,967.86
N 22' 29' 19" E 26.35'			
65+14.40	6" 11¼" Bend	10,314.77	27,977.94
N 33' 29' 00" E 35.00'			
65+49.40	6" 11¼" Bend	10,343.96	27,997.25
N 44' 27' 57" E 35.00'			
65+84.40	6" 11¼" Bend	10,368.94	28,021.77
N 55' 27' 57" E 110.08'			
66+94.48	6" 11¼" Bend	10,431.34	28,112.45
N 66' 57' 57" E 40.00'			
67+34.48	6" 11¼" Bend	10,446.99	28,149.26
N 78' 30' 18" E 40.00'			
67+74.48	6" 11¼" Bend	10,454.96	28,188.46
S 89' 59' 42" E 157.84'			
69+32.32	6"x6" Tee (Chappo)	10,454.95	28,346.30
S 89' 59' 42" E 233.66'			
71+65.98	6" 90' Bend (Santa Clara)	10,454.92	28,579.96

CSA 302 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Hidalgo Avenue (West)			
73+00.00	6" 90' Bend (Domengine)	10,123.65	27,557.41
S 89' 56' 40" E 371.63'			
76+71.63	8"x6" Tee (Terrado)	10,123.29	27,929.04

Hidalgo Avenue (East)

78+00.00	End (B.O.)	10,096.42	28,192.86
S 89' 59' 26" E 160.05'			
79+60.05	6"x6" Tee (Chappo)	10,096.40	28,352.91
S 89' 59' 26" E 227.45'			
81+87.50	8"x6" Tee (Santa Clara)	10,096.36	28,580.38

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Domengine Avenue			
83+00.00	6" 90' Bend (Hidalgo)	10,123.65	27,557.41
N 00' 02' 46" W 189.69'			
84+89.69	6" 90' Bend (Latta)	10,313.34	27,557.56

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Terrado Avenue			
86+00.00	8"x8" Tee (Clarkson)	9,958.47	27,929.09
N 00' 01' 00" W 164.82'			
87+64.82	8"x6" Tee (Hidalgo)	10,123.29	27,929.04
N 00' 01' 00" W 132.10'			
88+96.92	6"x6" Tee (B.O.)	10,255.39	27,929.00
N 89' 59' 00" E 23.28'			
89+20.20	6" 45' Bend	10,255.39	27,952.29
N 44' 59' 00" E 2.62'			
89+22.82	6" 22½" Bend	10,257.25	27,954.14
N 22' 28' 46" E 35.90'			
89+58.72	6"x6" Tee (Latta)	10,290.41	27,967.86

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Chappo Avenue			
90+00.00	6"x6" Tee (Hidalgo)	10,096.40	28,352.91
N 00' 01' 00" W 28.00'			
90+28.00	6" 22½" Bend	10,124.40	28,352.90
N 22' 31' 00" W 17.00'			
90+45.00	6" 22½" Bend	10,140.10	28,346.39
N 00' 01' 00" W 314.84'			
93+59.84	6"x6" Tee (Latta)	10,454.95	28,346.30

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
Santa Clara Avenue			
94+00.00	8"x8" Tee (Clarkson)	9,958.36	28,580.34
N 00' 00' 33" E 138.00'			
95+38.00	8"x6" Tee (Hidalgo)	10,096.36	28,580.36
N 00' 00' 33" E 17.11'			
95+55.11	Angle Point	10,113.47	28,580.36
N 00' 04' 06" W 341.45'			
98+96.56	6" 90' Bend (Latta)	10,454.92	28,579.96

CSA 32 - Cantua Creek
Water Distribution System

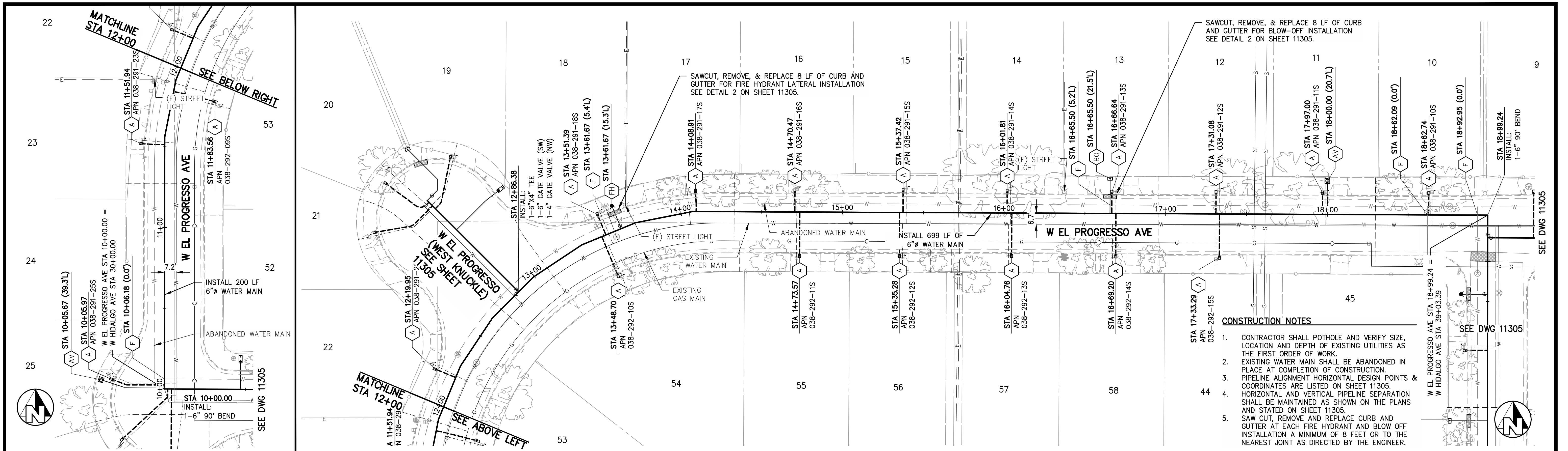
Pipeline Station	Description	Coordinates	
		North	East
Clarkson Avenue			
100+00.00	8"x8" Tee (Tank Site)	9,958.54	27,486.69
S 89' 59' 26" E 7.00'			
100+07.00	8"x8" Tee (Pump Connect)	9,958.54	27,493.69
S 89' 59' 26" E 435.40'			
104+42.40	8"x8" Tee (Terrado)	9,958.47	27,929.09
S 89' 59' 26" E 651.25'			
110+93.65	8"x8" Tee (Santa Clara)	9,958.36	28,580.34
S 89' 59' 26" E 184.11'			
112+77.76	8" 45' Bend	9,958.33	28,764.45
N 45' 00' 29" E 6.00'			
112+83.76	Connect to (E) 8" Water	9,962.57	28,768.69
123+98.79	(E) 8"x6" Tee - Install FH	9,956.13	29,877.66
125+80.41	Connect to (E) 8" Water	9,956.10	30,060.47
S 89' 59' 23" E 1.75'			
125+82.16	8" 45' Bend	9,956.10	30,062.22
N 45' 00' 37" E 2.83'			
125+84.99	8" 45' Bend	9,958.10	30,064.22
S 89' 59' 23" E 856.11'			
134+41.10	8"x4" Tee (Clarkson-South)	9,957.94	30,920.33
S 89' 59' 23" E 506.77'			
139+47.87	8" 90' Bend (San Mateo)	9,957.85	31,427.10
Clarkson Avenue (South)			
234+03.10	8"x4" Tee (Clarkson)	9,957.94	30,920.33
S 00' 00' 37" W 38.00'			
234+41.10	4"x4" Tee	9,919.94	30,920.33
S 89' 59' 23" E 230.00'			
236+71.10	End (B.O.)	9,919.90	31,150.33

CSA 32 - Cantua Creek
Water Distribution System

Pipeline Station	Description	Coordinates	
		North	East
San Mateo Avenue			
139+47.87	8" 90' Bend (Clarkson)	9,957.85	31,427.10
N 00' 00' 03" E 687.88'			
146+35.75	End (Blind Flange)	10,645.73	31,427.11

CSA 32 - Cantua Creek
Water Distribution System

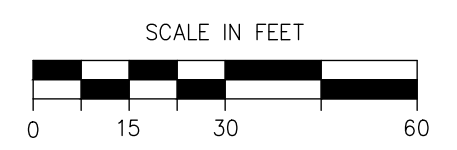
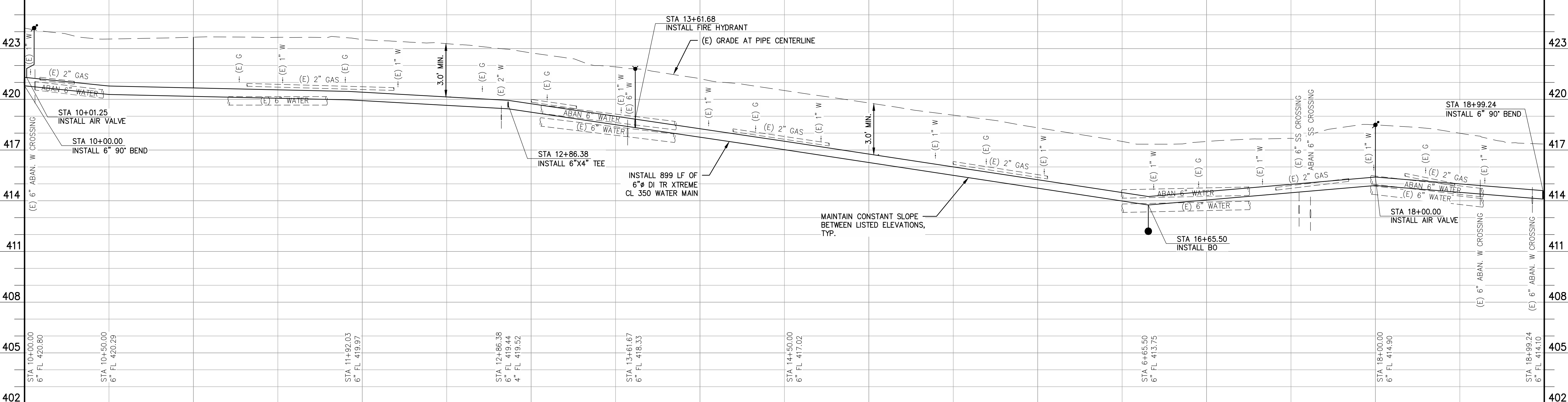
Pipeline Station	Description	Coordinates	
		North	East
Pump Discharge Connection			
4+14.98	End (Blind Flange)		



- CONSTRUCTION NOTES**
1. CONTRACTOR SHALL POTHOLE AND VERIFY SIZE, LOCATION AND DEPTH OF EXISTING UTILITIES AS THE FIRST ORDER OF WORK.
 2. EXISTING WATER MAIN SHALL BE ABANDONED IN PLACE AT COMPLETION OF CONSTRUCTION.
 3. PIPELINE ALIGNMENT HORIZONTAL DESIGN POINTS & COORDINATES ARE LISTED ON SHEET 11305.
 4. HORIZONTAL AND VERTICAL PIPELINE SEPARATION SHALL BE MAINTAINED AS SHOWN ON THE PLANS AND STATED ON SHEET 11305.
 5. SAW CUT, REMOVE AND REPLACE CURB AND GUTTER AT EACH FIRE HYDRANT AND BLOW OFF INSTALLATION A MINIMUM OF 8 FEET OR TO THE NEAREST JOINT AS DIRECTED BY THE ENGINEER.

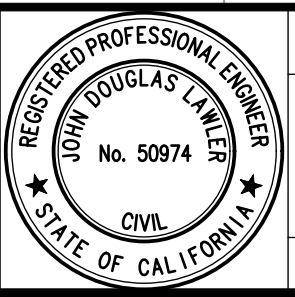
W EL PROGRESSO AVE

SCALE: HORZ: 1"=30' VERT: 1"=3'



John D. Lander

06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO



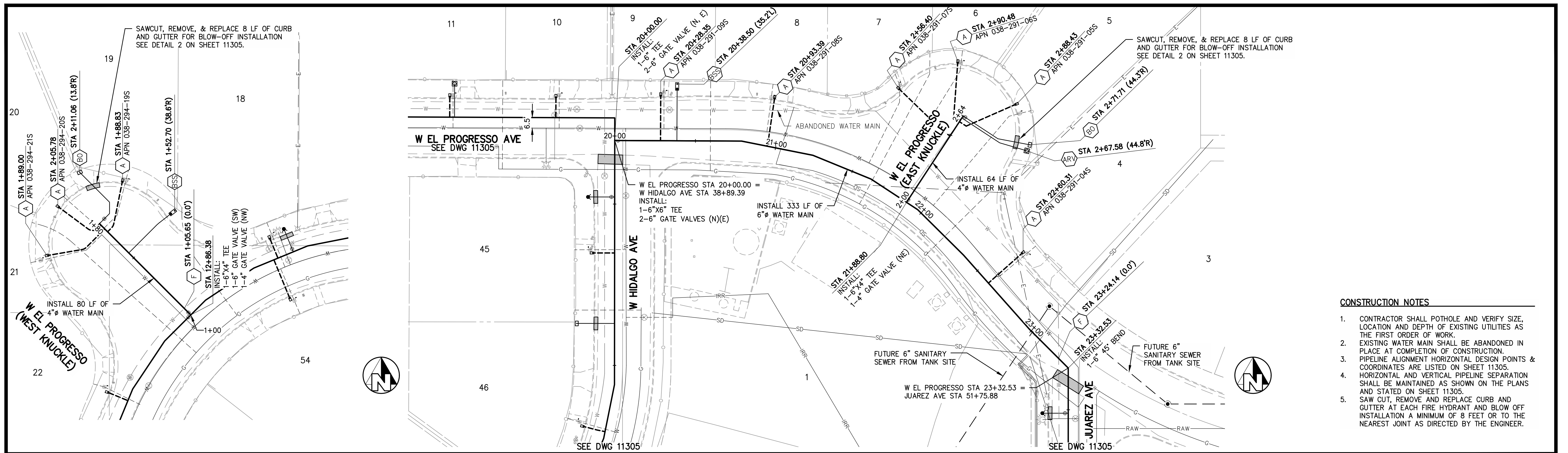
DEPARTMENT OF PUBLIC WORKS AND PLANNING
 W EL PROGRESSO AVE STA 10+00 TO 18+99
 CSA 30 EL PORVENIR

BRIDGE NO. N/A

DRAWING NO. 11305

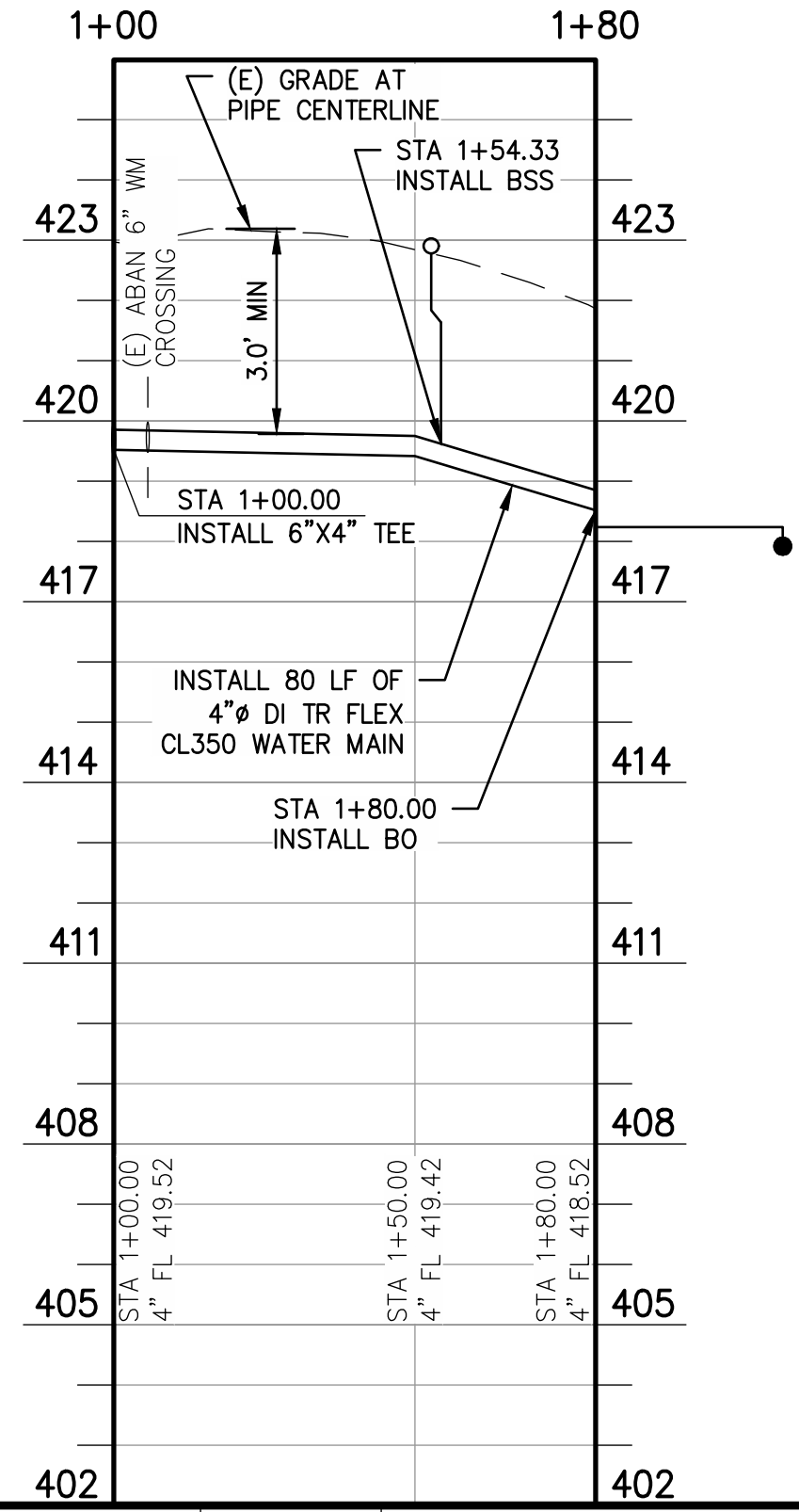
SHEET NO. C1-1

TOTAL 33

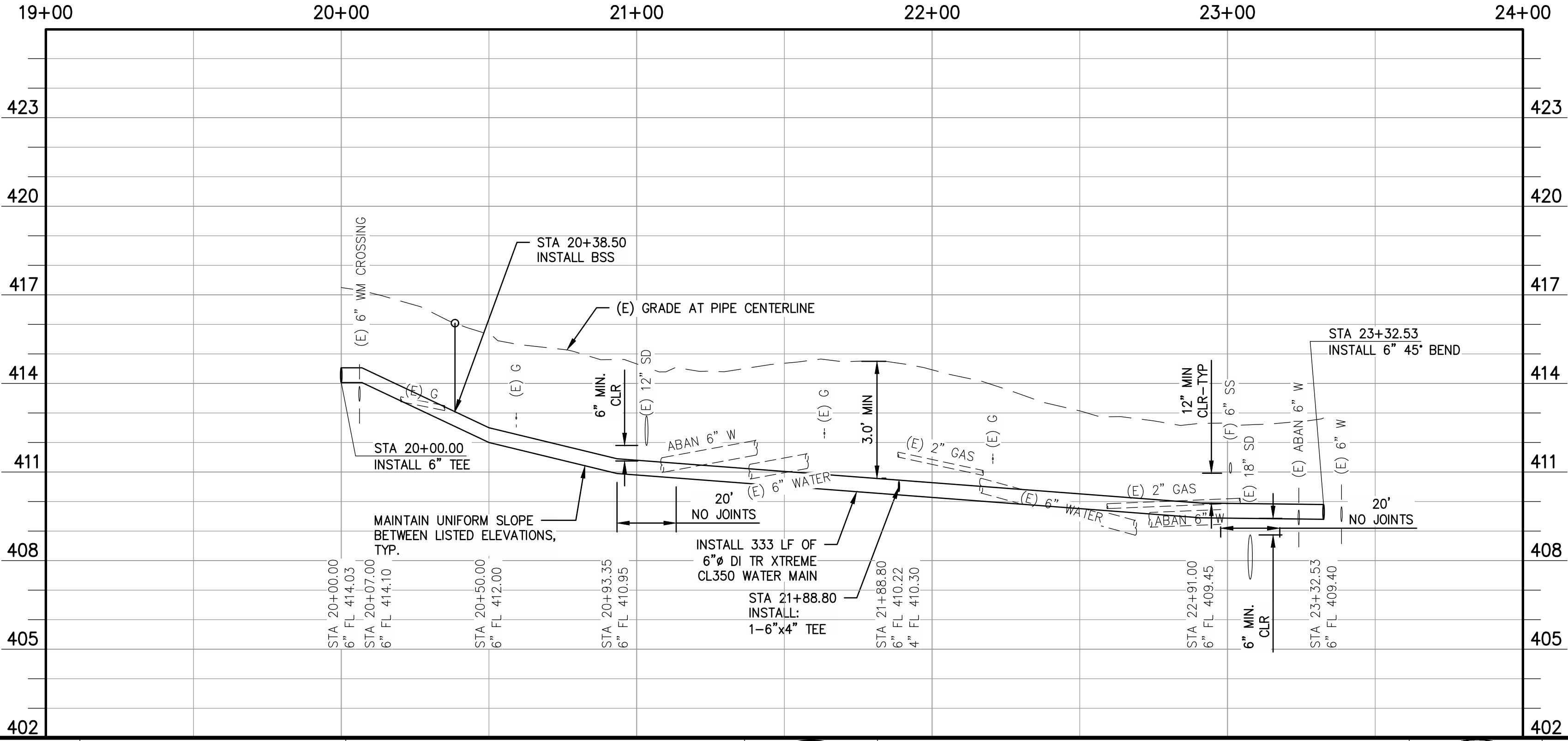


- CONSTRUCTION NOTES**
1. CONTRACTOR SHALL POTHOLE AND VERIFY SIZE, LOCATION AND DEPTH OF EXISTING UTILITIES AS THE FIRST ORDER OF WORK.
 2. EXISTING WATER MAIN SHALL BE ABANDONED IN PLACE AT COMPLETION OF CONSTRUCTION.
 3. PIPELINE ALIGNMENT HORIZONTAL DESIGN POINTS & COORDINATES ARE LISTED ON SHEET 11305.
 4. HORIZONTAL AND VERTICAL PIPELINE SEPARATION SHALL BE MAINTAINED AS SHOWN ON THE PLANS AND STATED ON SHEET 11305.
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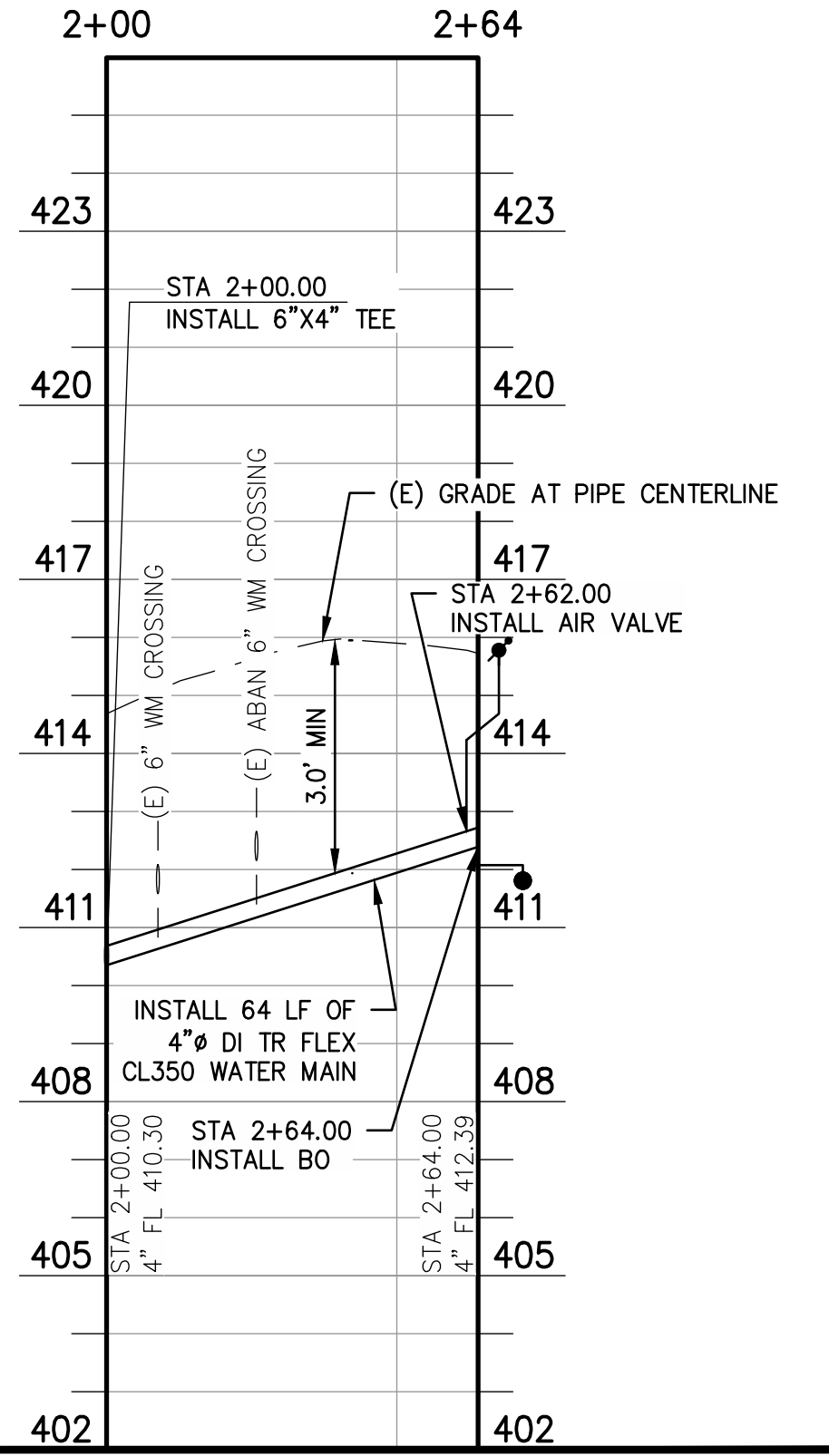
SCALE: HORZ: 1"=30' VERT: 1"=3'
EL PROGRESSO—WEST KNUCKLE



W EL PROGRESSO

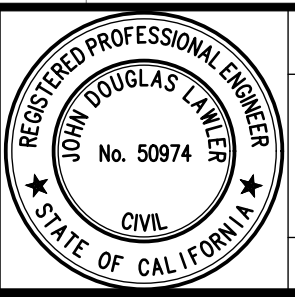


SCALE: HORZ: 1"=30' VERT: 1"=3'
EL PROGRESSO—EAST KNUCKLE



John Paul

06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO



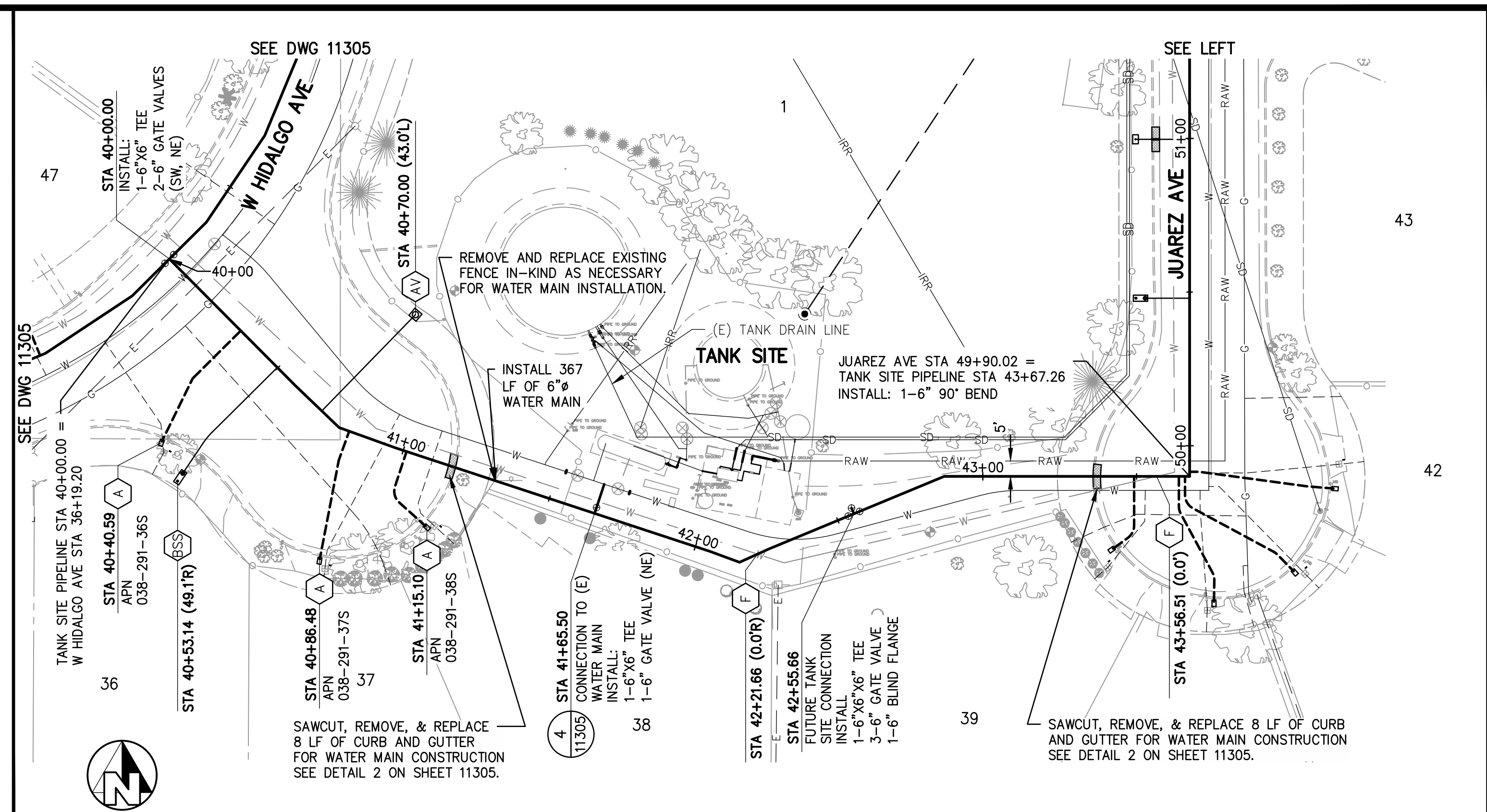
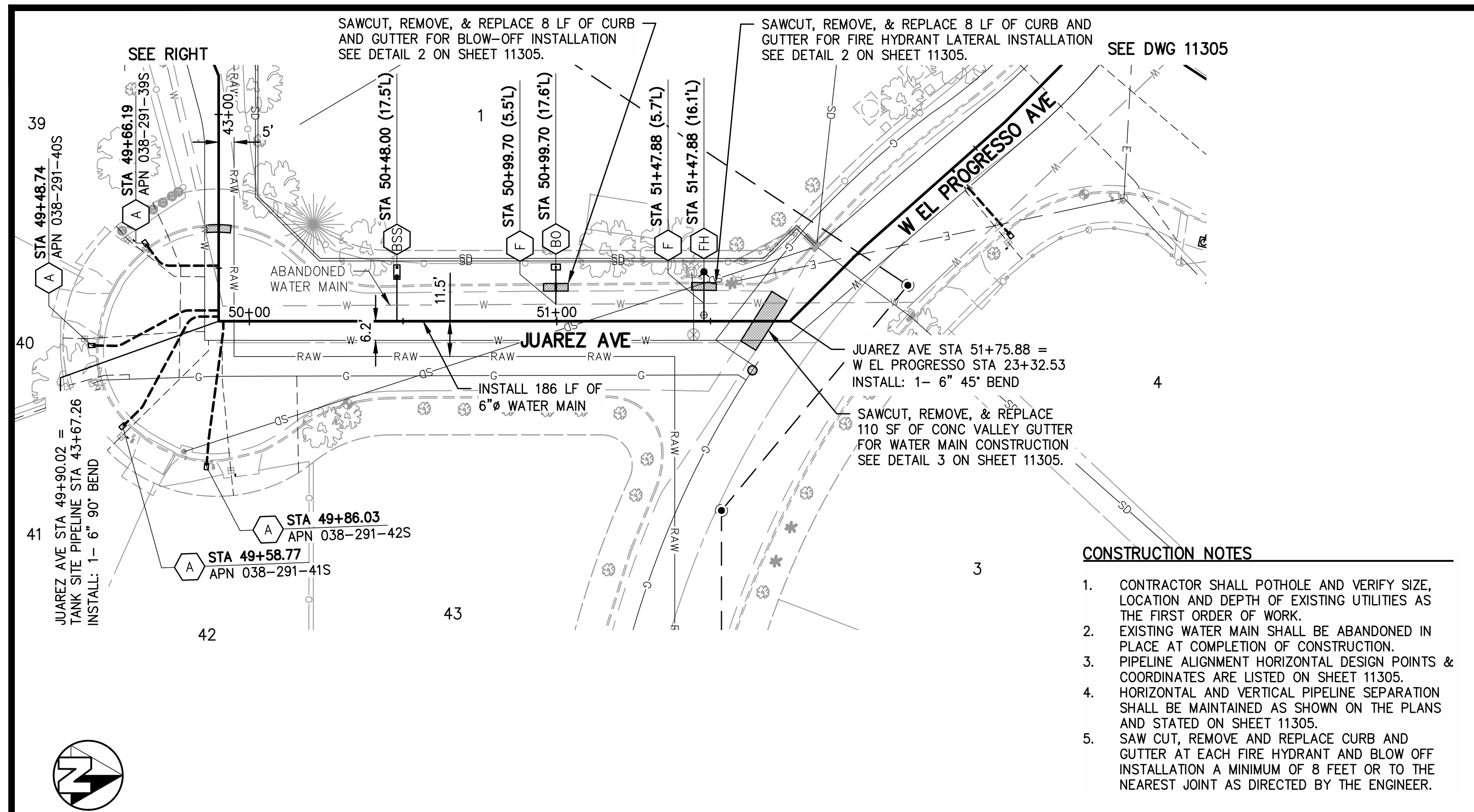
DEPARTMENT OF PUBLIC WORKS AND PLANNING
 W EL PROGRESSO AVE STA 20+00 TO END
 CSA 30 EL PORVENIR

BRIDGE NO. N/A

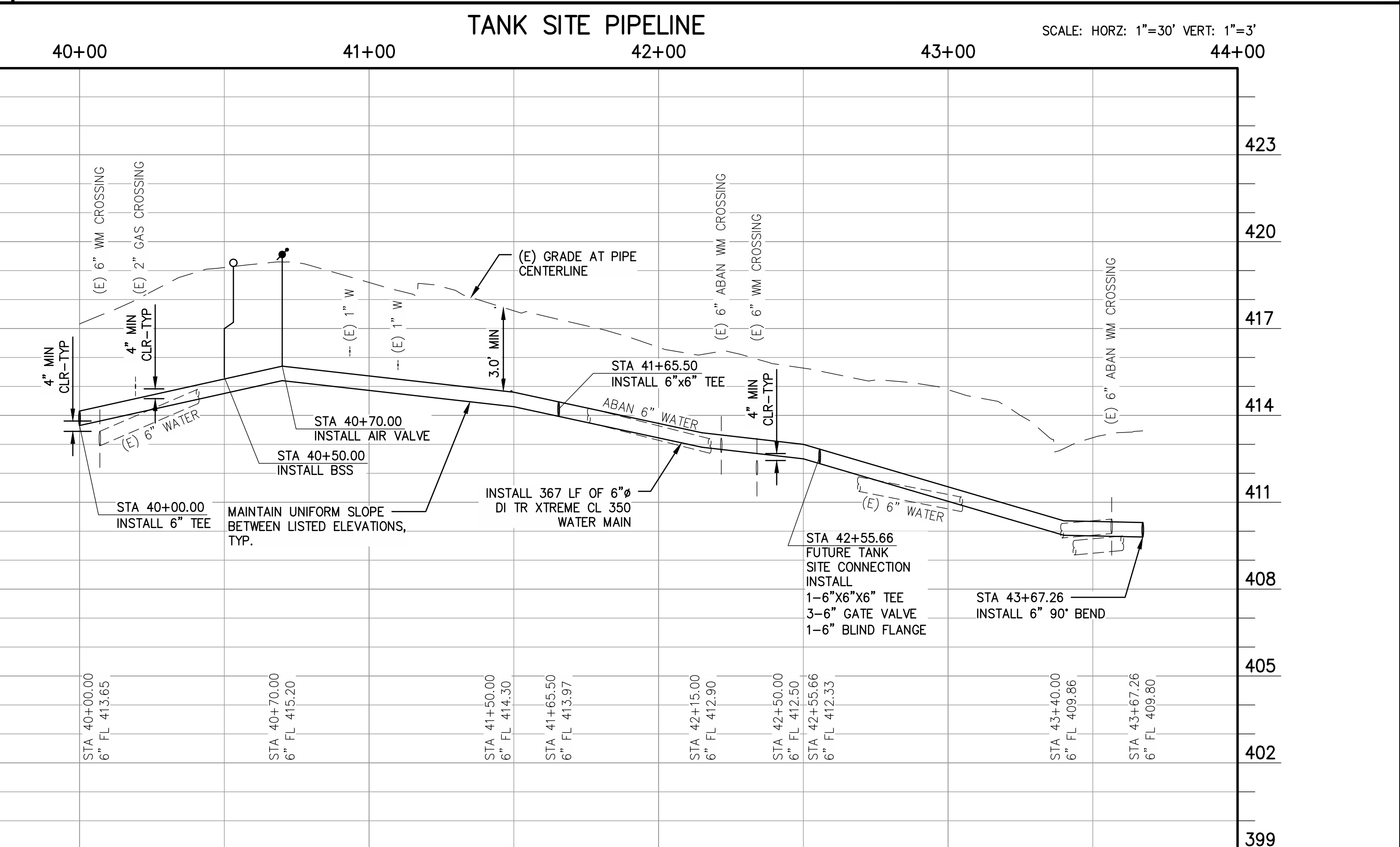
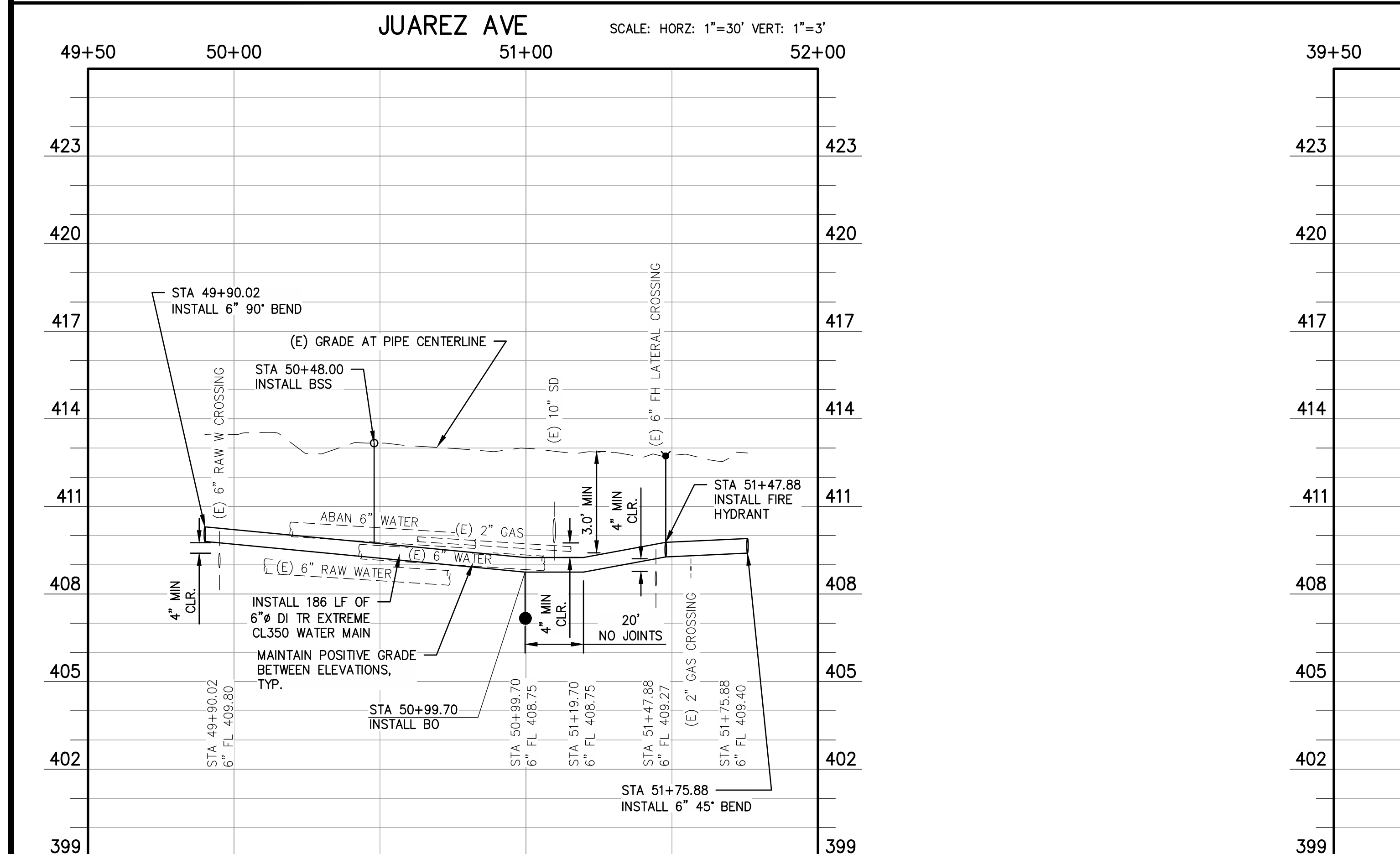
DRAWING NO. 11305

SHEET NO. C1-2

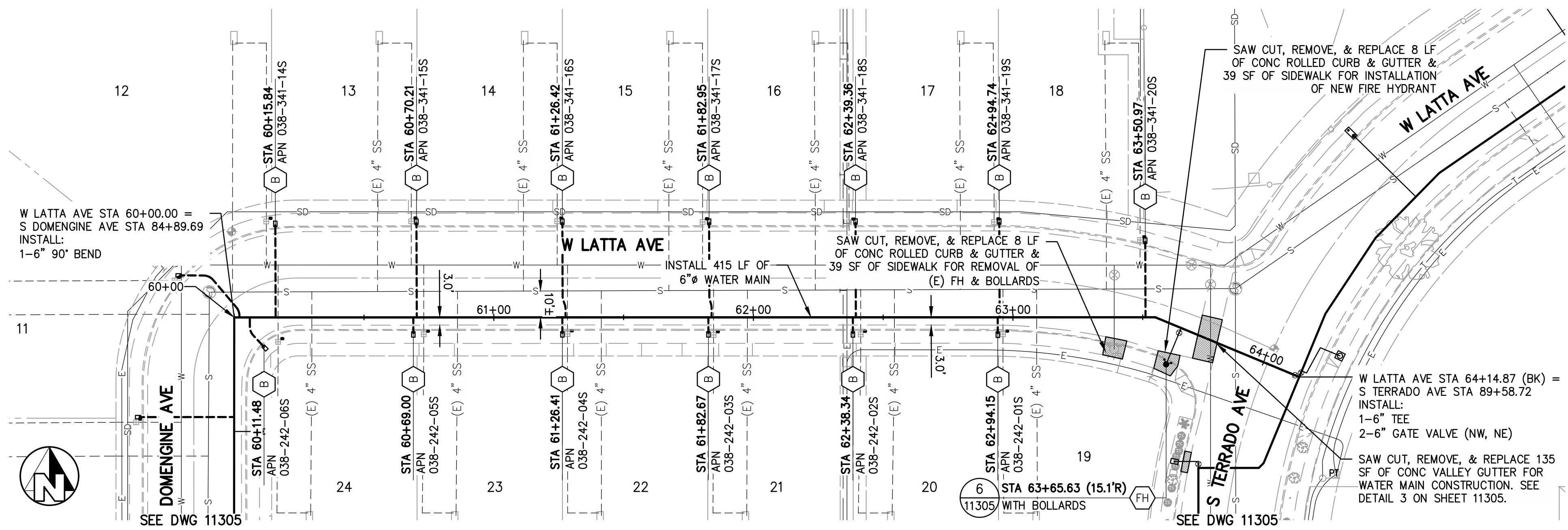
TOTAL 33



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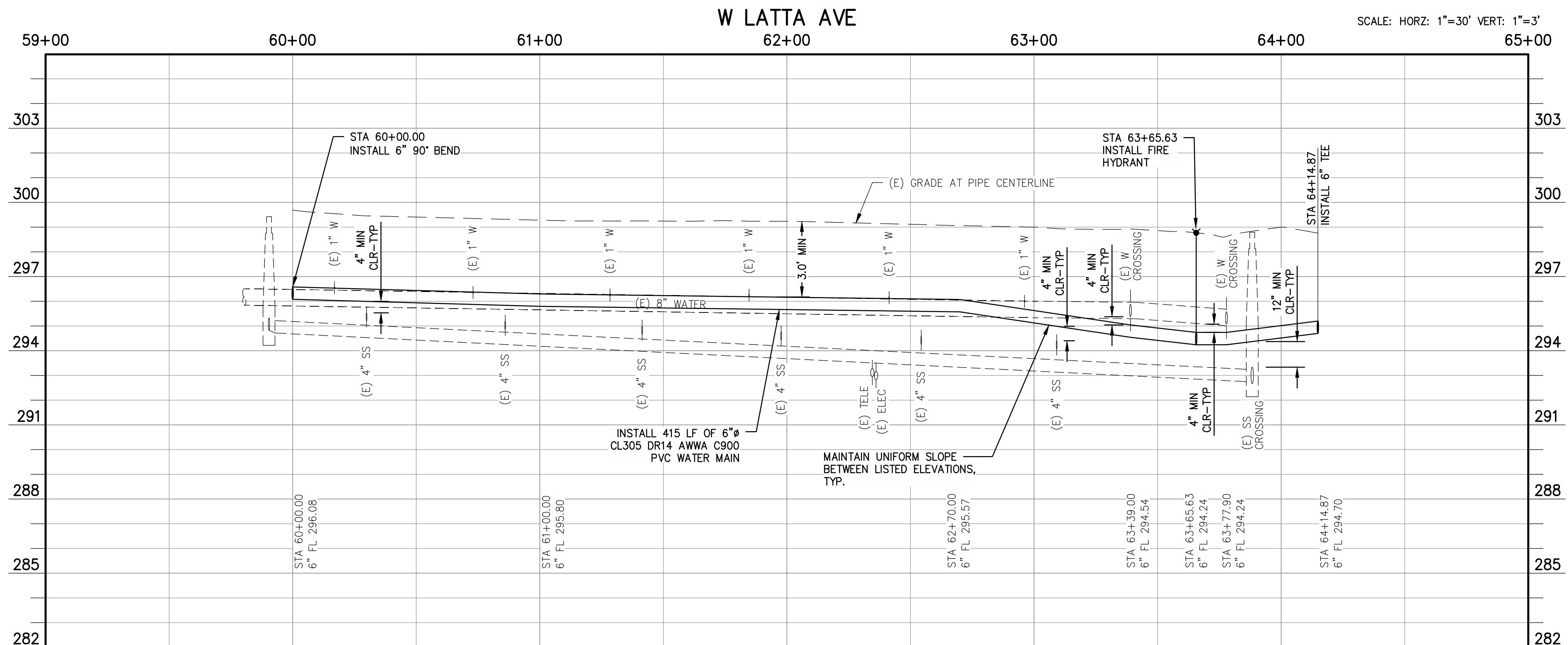


		PROJECT CSA 30 & 32 WATER SYSTEM IMPROVEMENTS COUNTY OF FRESNO BRIDGE NO. N/A		DEPARTMENT OF PUBLIC WORKS AND PLANNING TANK SITE STA 40+00 JUIAREZ AVE STA 50+00 CSA 30 EL PORVENIR DRAWING NO. 11305 SHEET NO. C1-4 TOTAL 33
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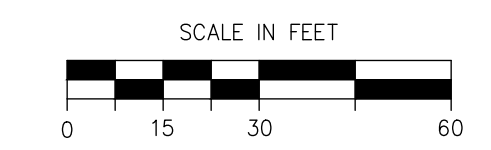


SEE DWG 11305

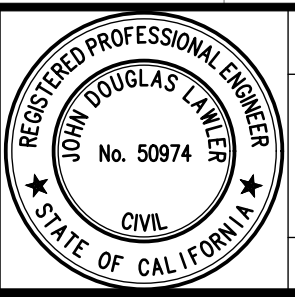
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SCALE: HORZ: 1"=30' VERT: 1"=3'



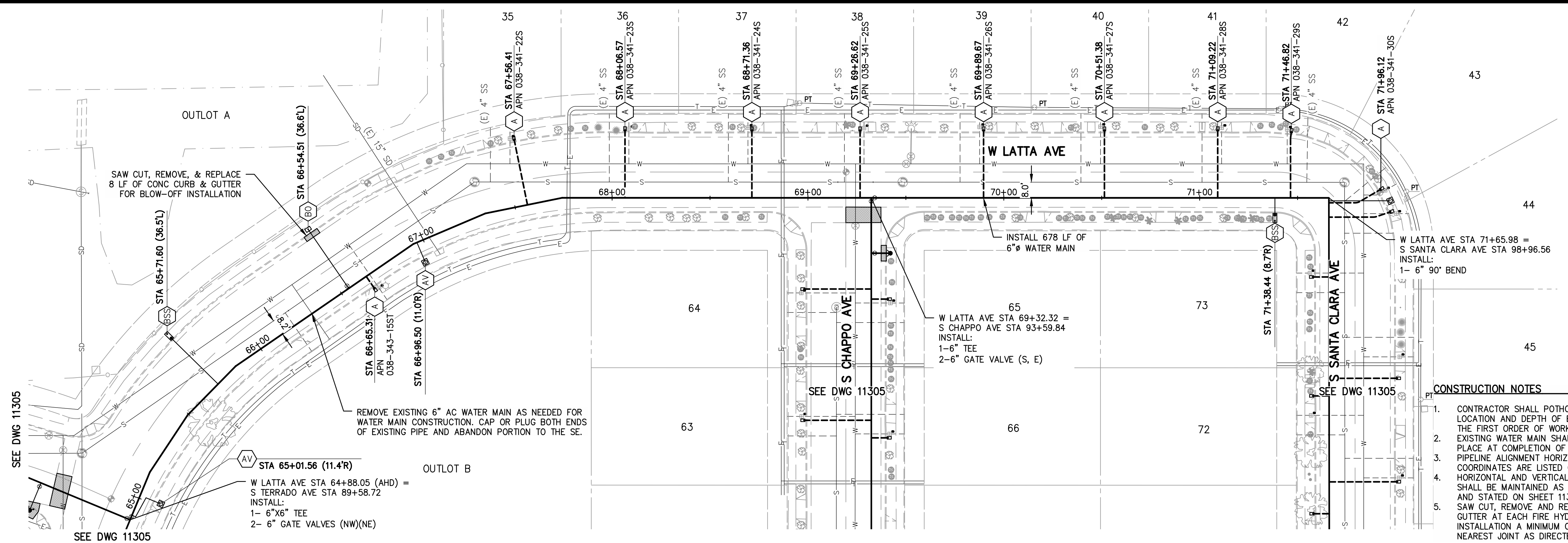
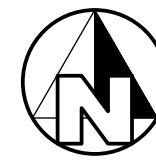
John Paul
06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



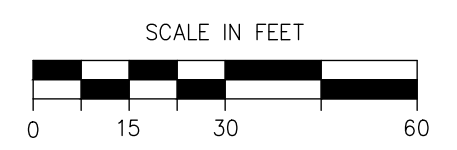
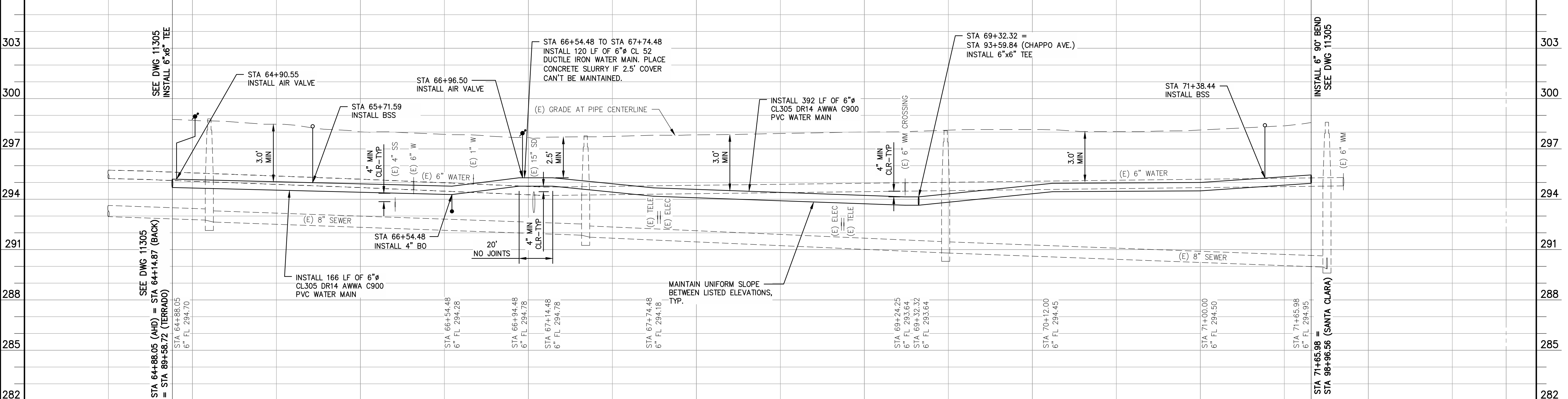
DEPARTMENT OF PUBLIC WORKS AND PLANNING
W LATTA AVE STA 60+00 TO 64+17
CSA 32 CANTUA CREEK



64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00

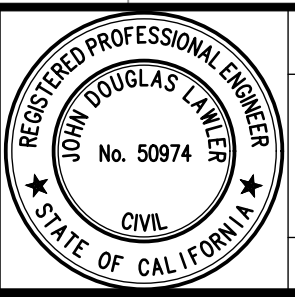
W LATTA AVE

SCALE: HORIZ=1"=30' VERT=3"



John Paul

06/30/2020



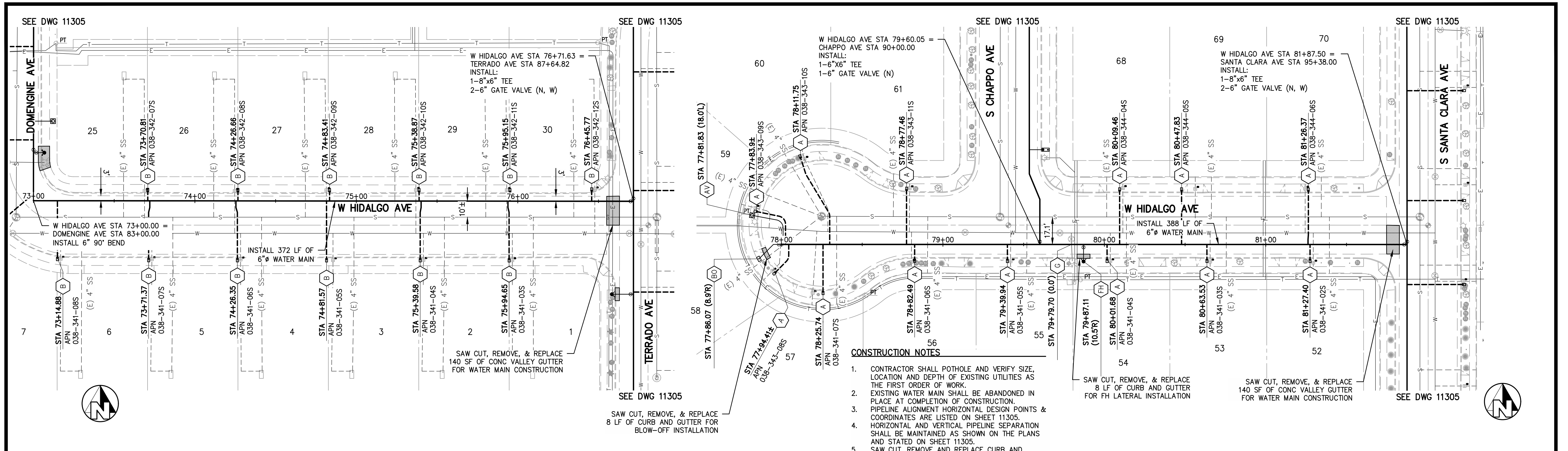
PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO



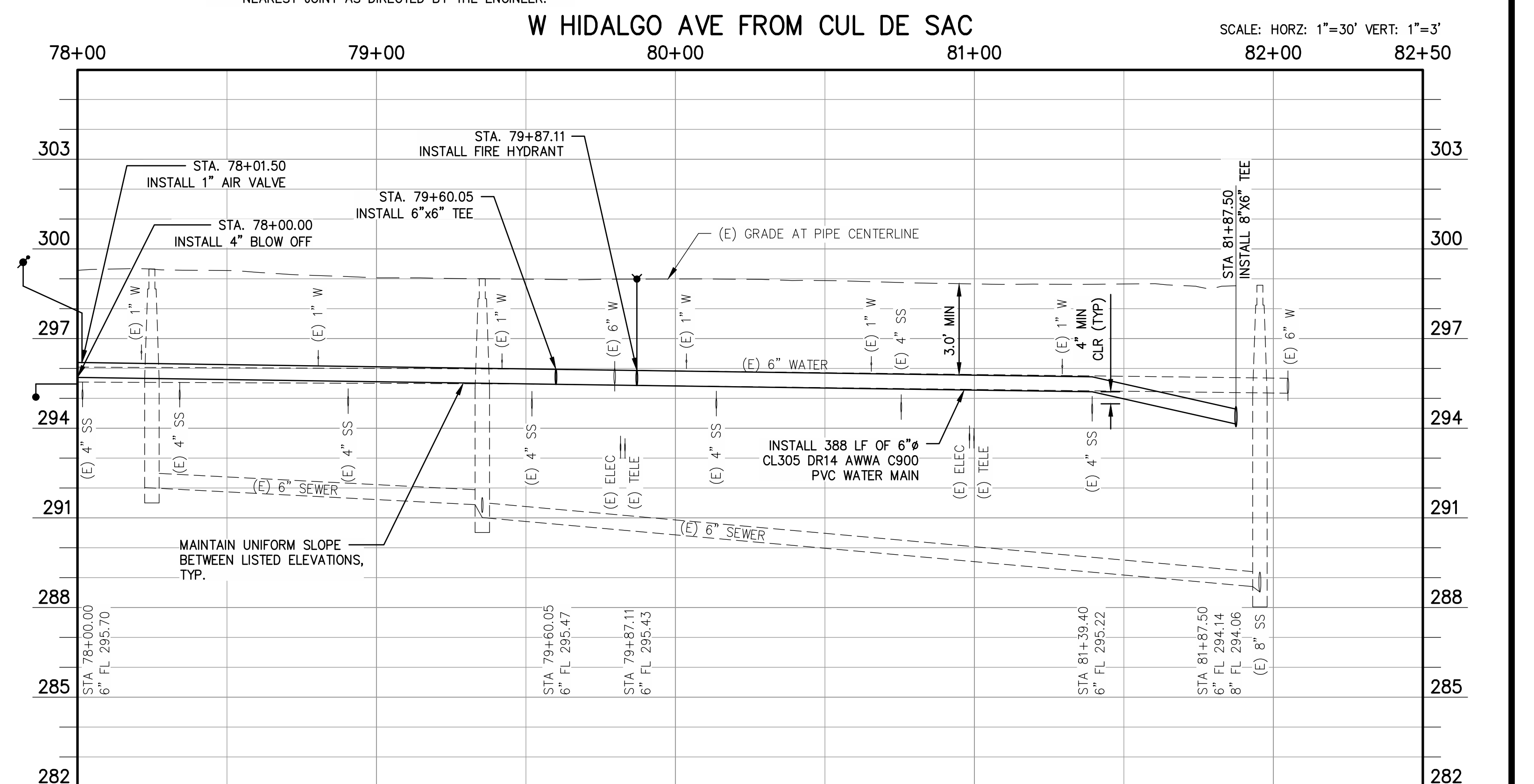
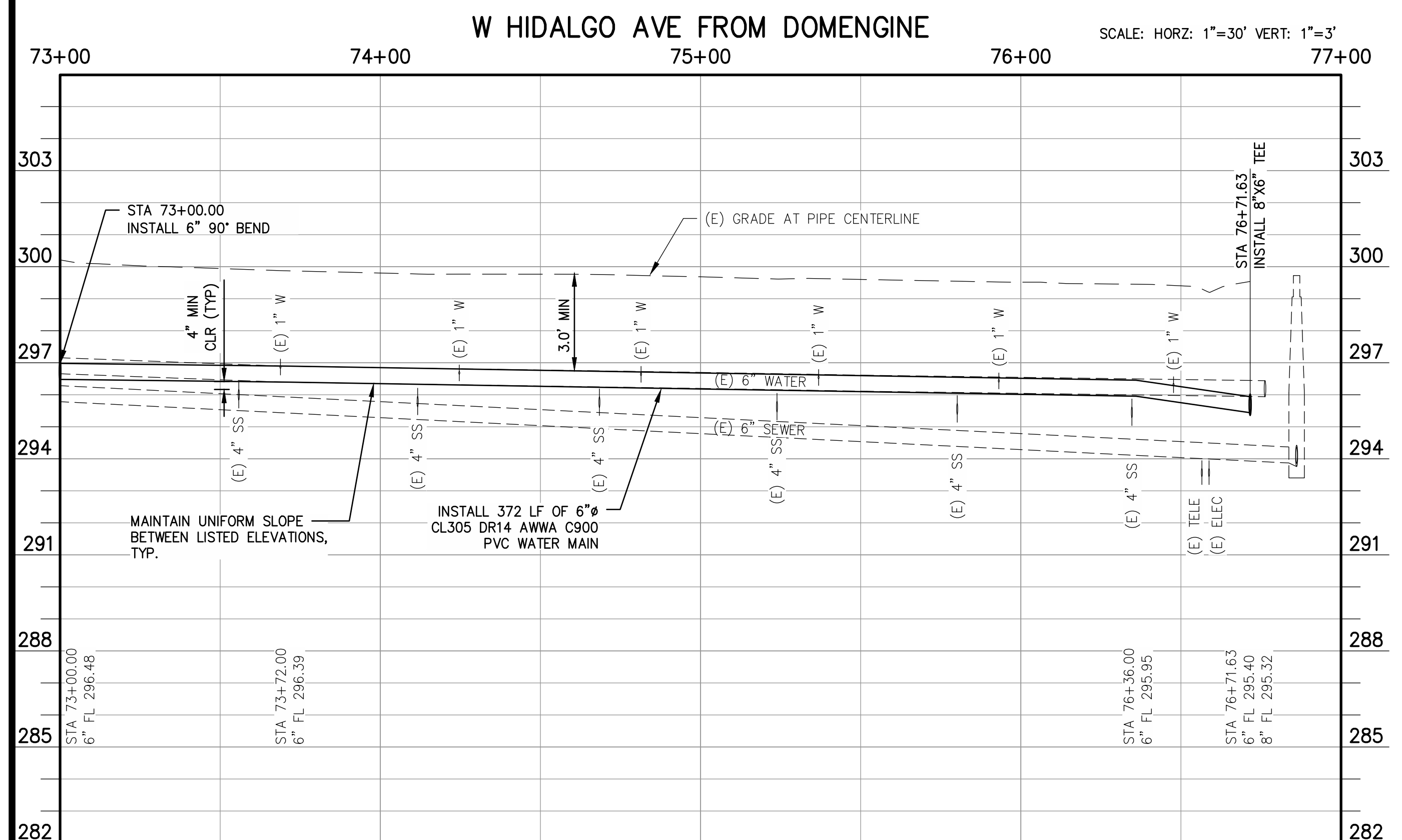
DEPARTMENT OF PUBLIC WORKS AND PLANNING
W LATTA AVE STA 65+00 TO END
CSA 32 CANTUA CREEK

BRIDGE NO. N/A

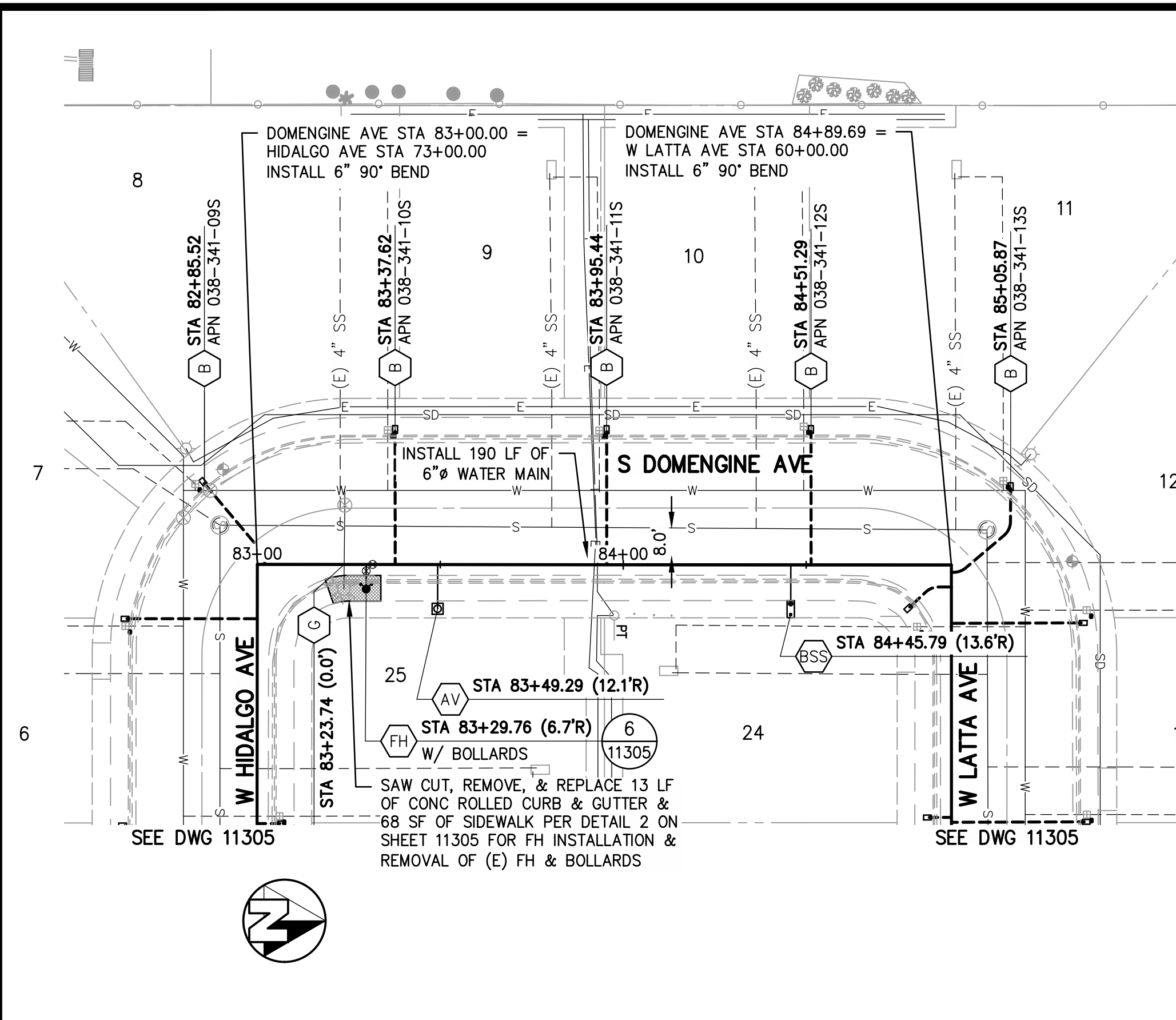
DRAWING NO. 11305 SHEET NO. C2-2 TOTAL 33



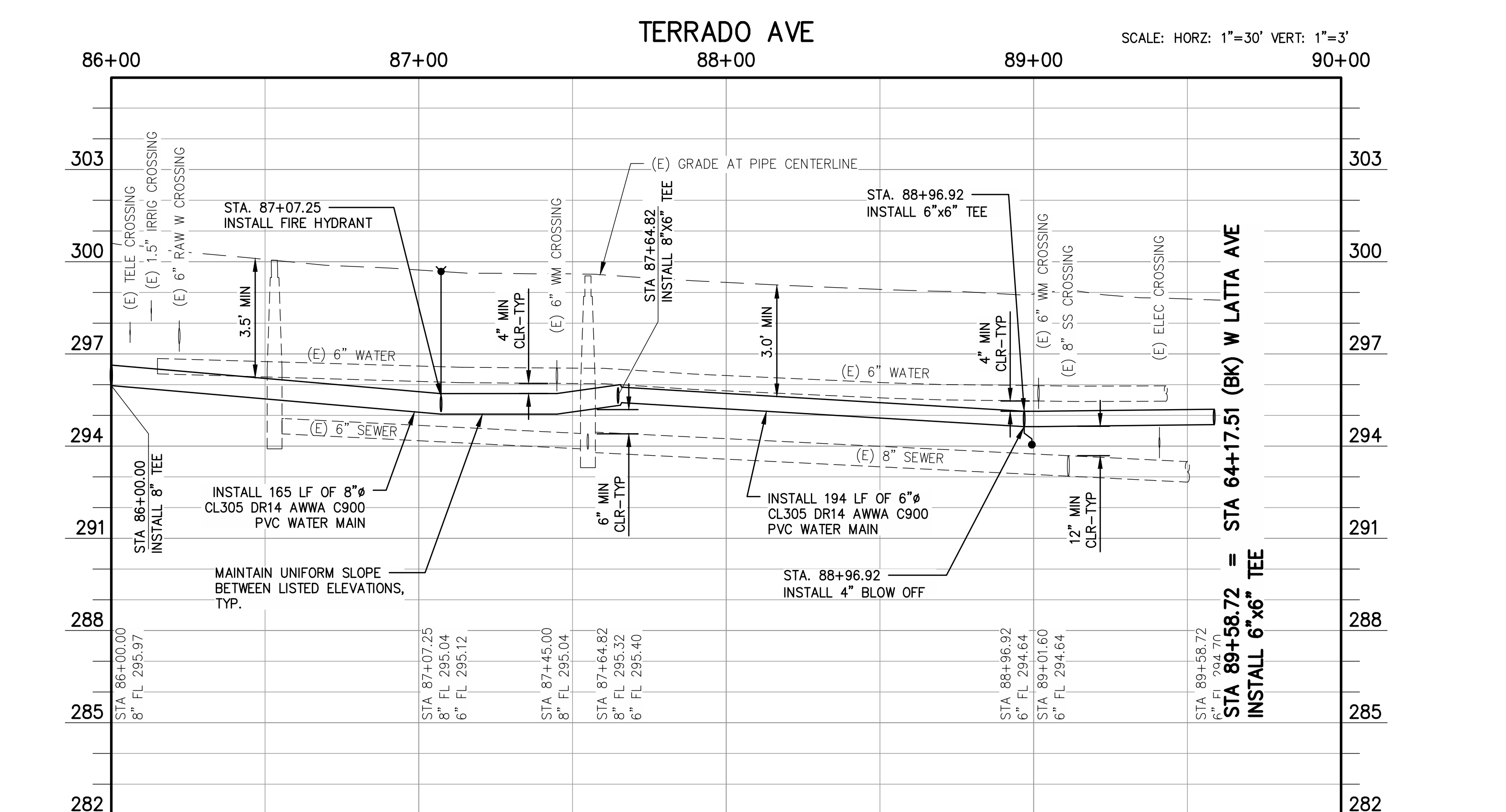
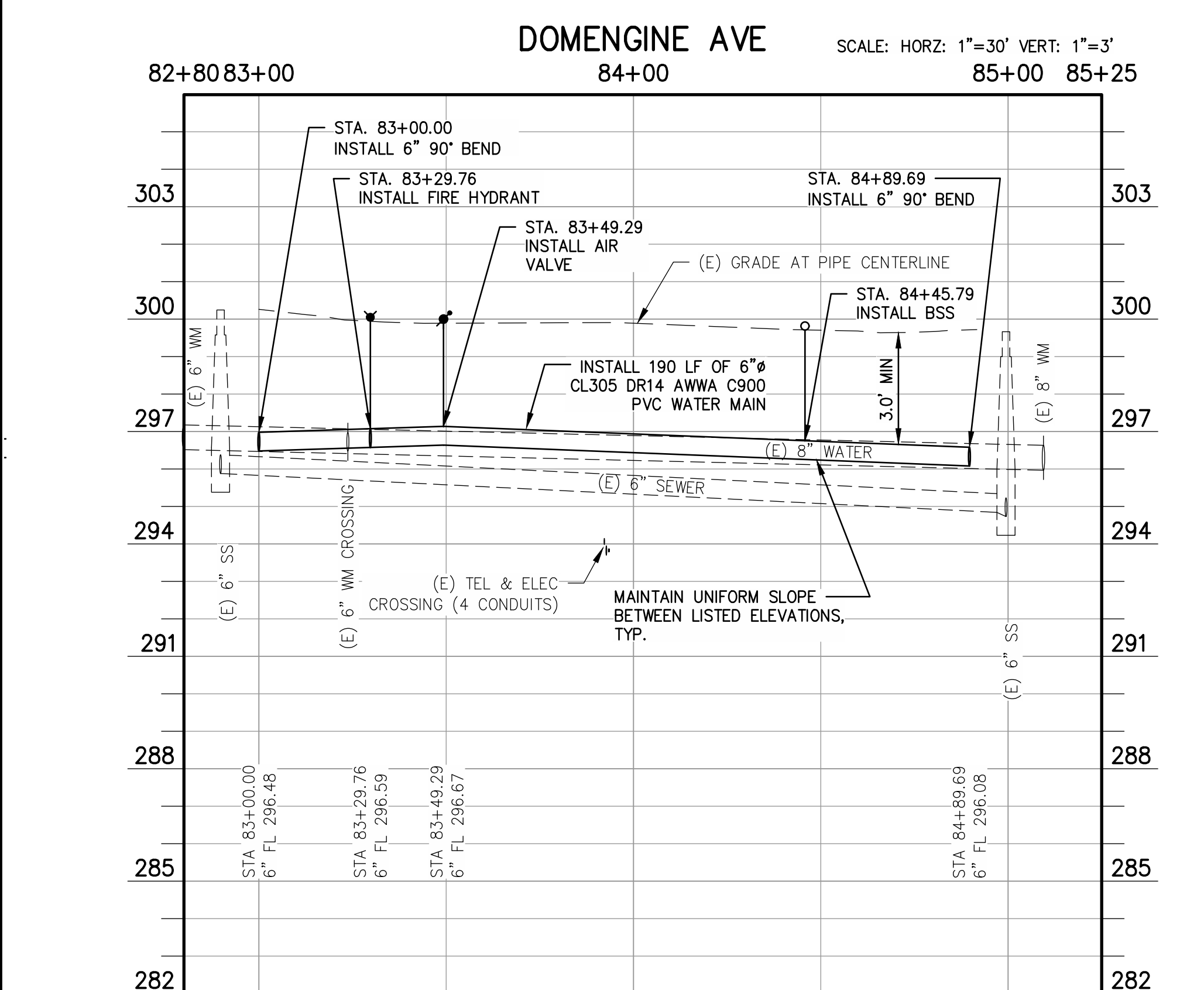
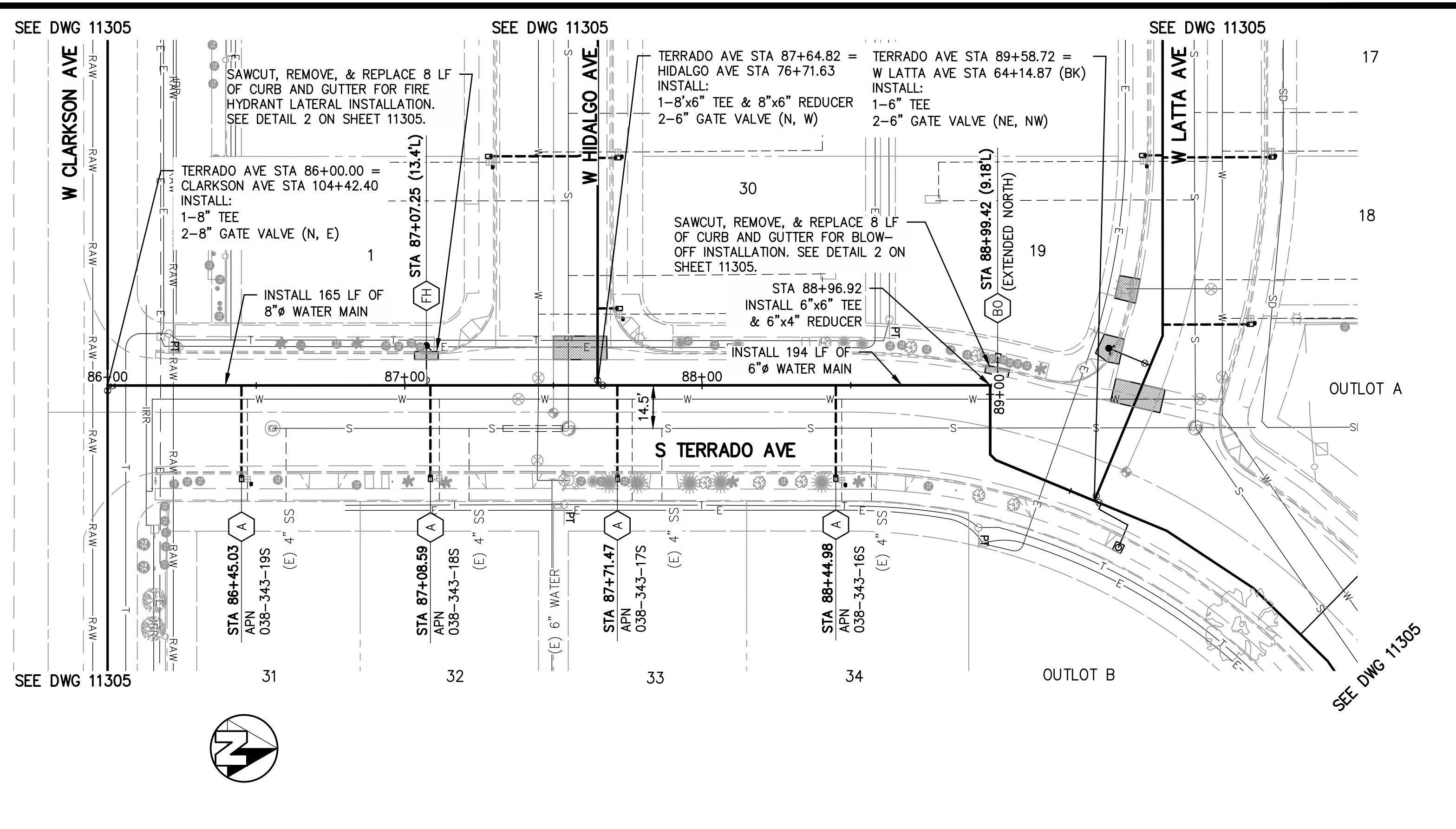
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	PROJECT CSA 30 & 32 WATER SYSTEM IMPROVEMENTS COUNTY OF FRESNO		DEPARTMENT OF PUBLIC WORKS AND PLANNING W HIDALGO AVE STA 73+00 TO END CSA 32 CANTUA CREEK
	BRIDGE NO. N/A		DRAWING NO. 11305 SHEET NO. C2-3 TOTAL 33



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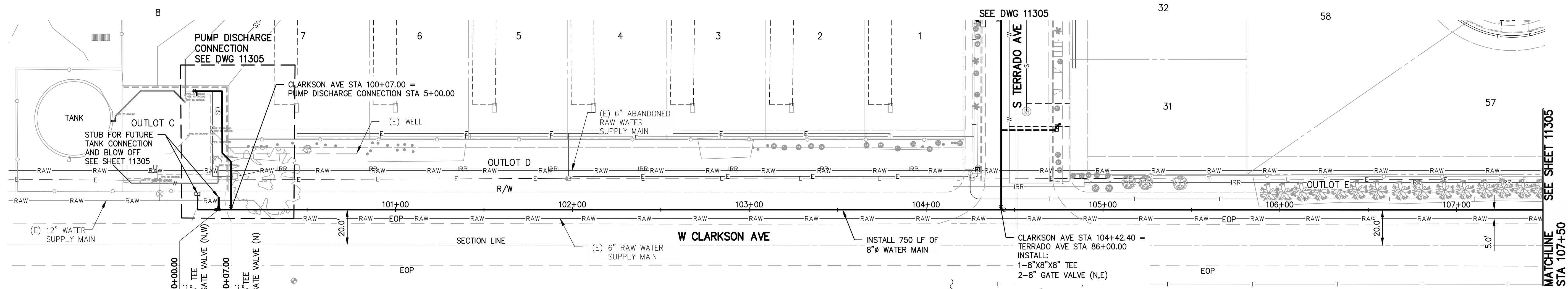


SCALE IN FEET
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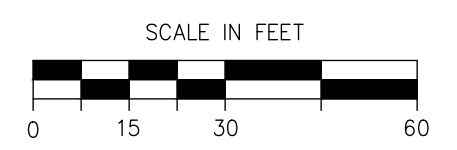
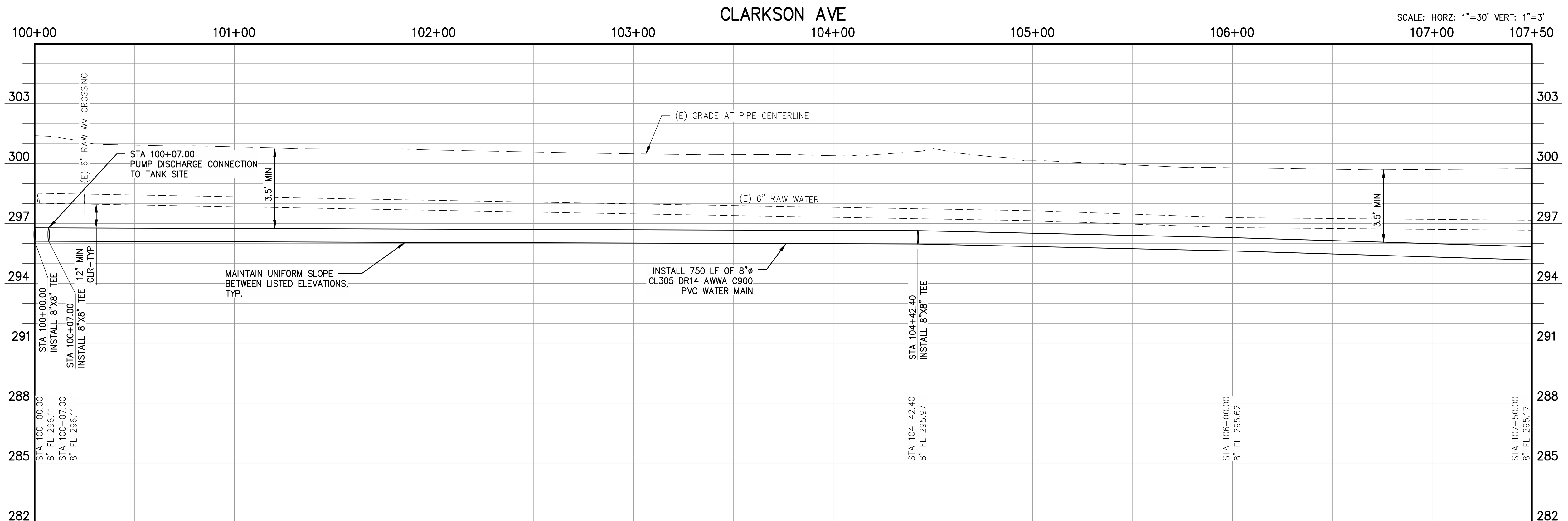
06/30/2020

PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A

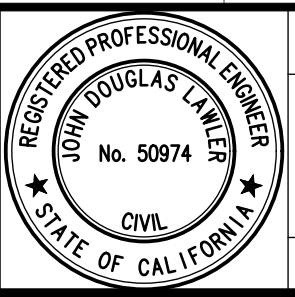
DEPARTMENT OF PUBLIC WORKS AND PLANNING
DOMENGINE & TERRADO AVE
CSA 32 CANTUA CREEK
DRAWING NO. 11305 SHEET NO. C2-4 TOTAL 33



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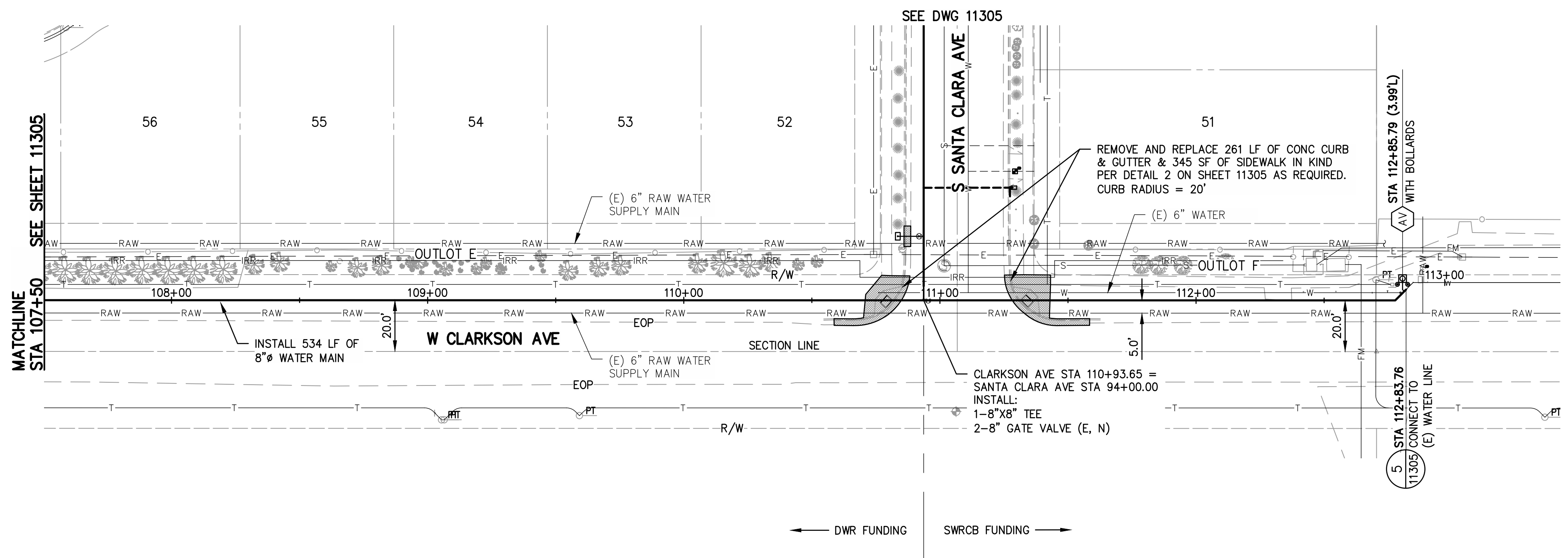
John D. Lanier
06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



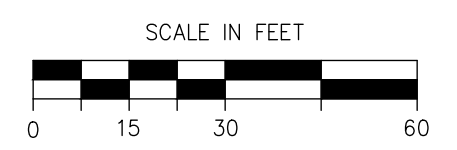
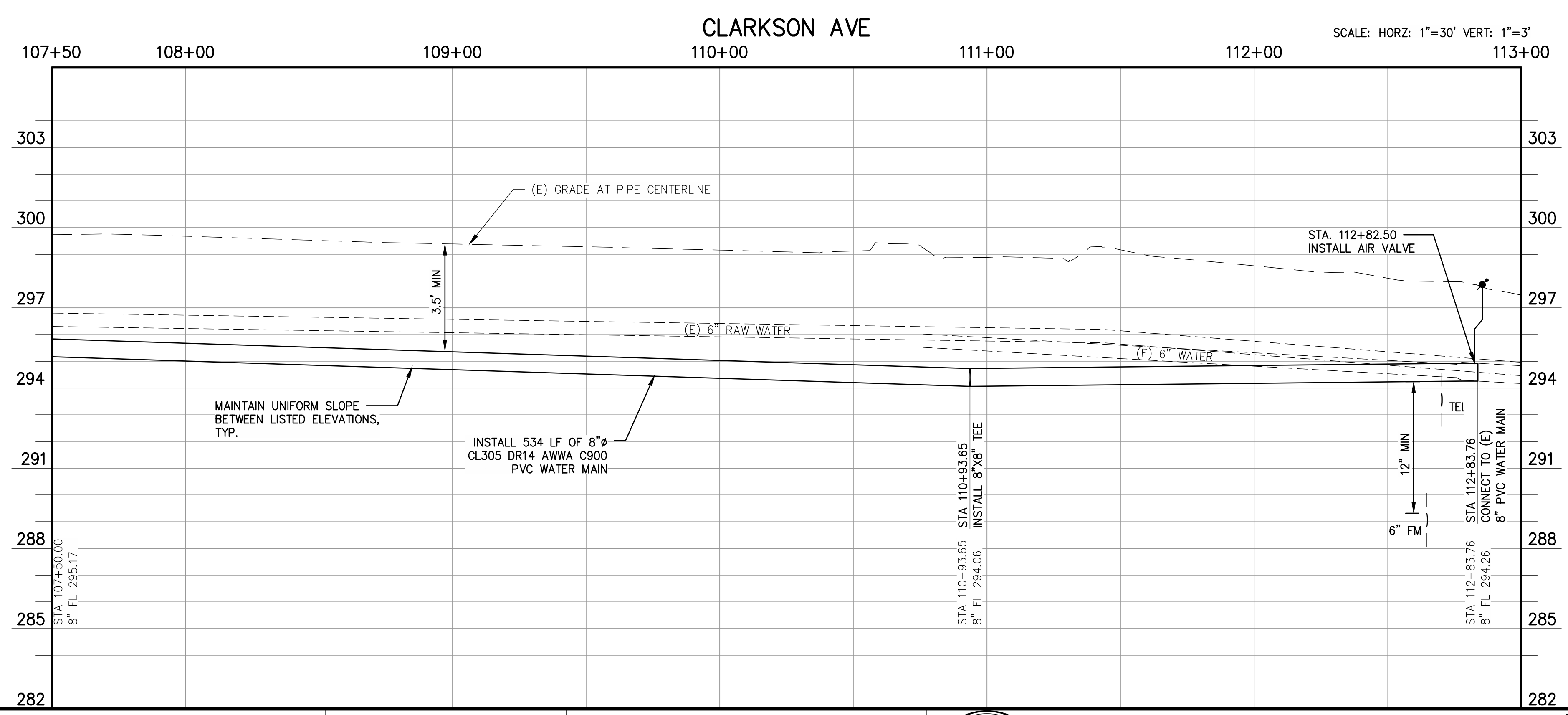
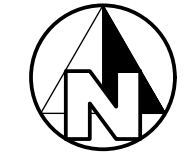
DEPARTMENT OF PUBLIC WORKS AND PLANNING
W CLARKSON AVE STA 100+00 TO STA 107+50
CSA 32 CANTUA CREEK



SEE SHEET 11305

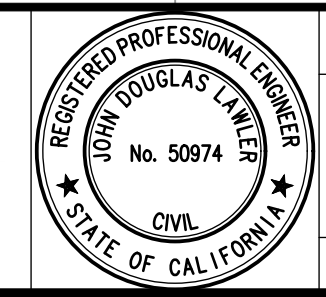
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John D. Lander

06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



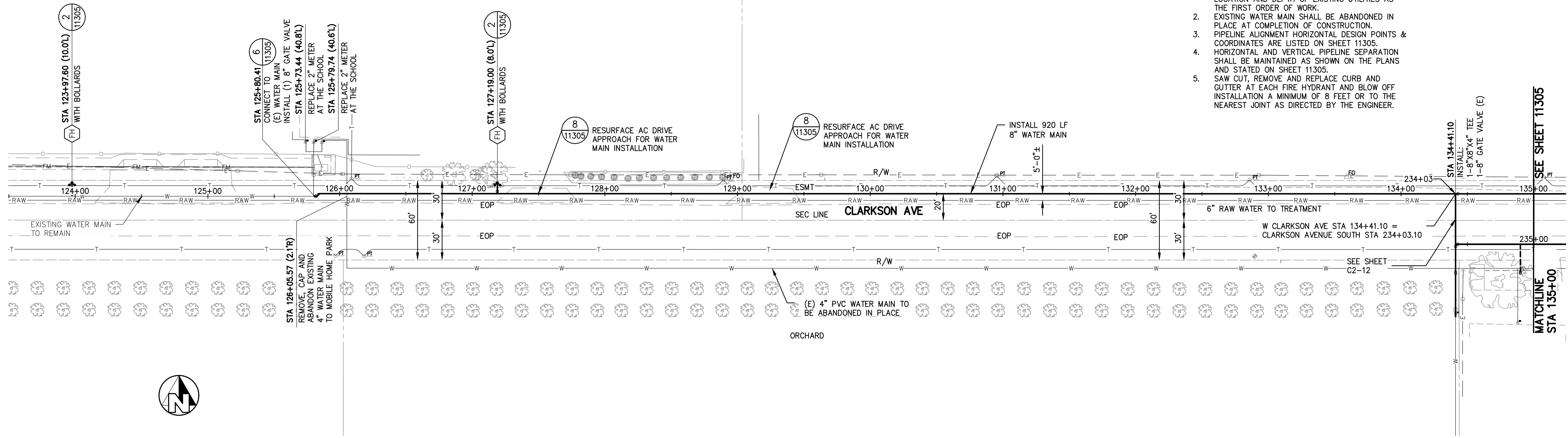
DEPARTMENT OF PUBLIC WORKS AND PLANNING
W CLARKSON AVE STA 107+50 TO 112+84
CSA 32 CANTUA CREEK

CANTUA CREEK ELEMENTARY SCHOOL

SCHOOL HOUSING

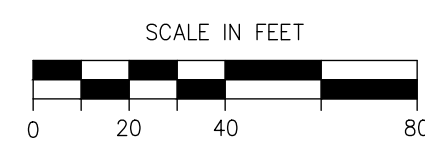
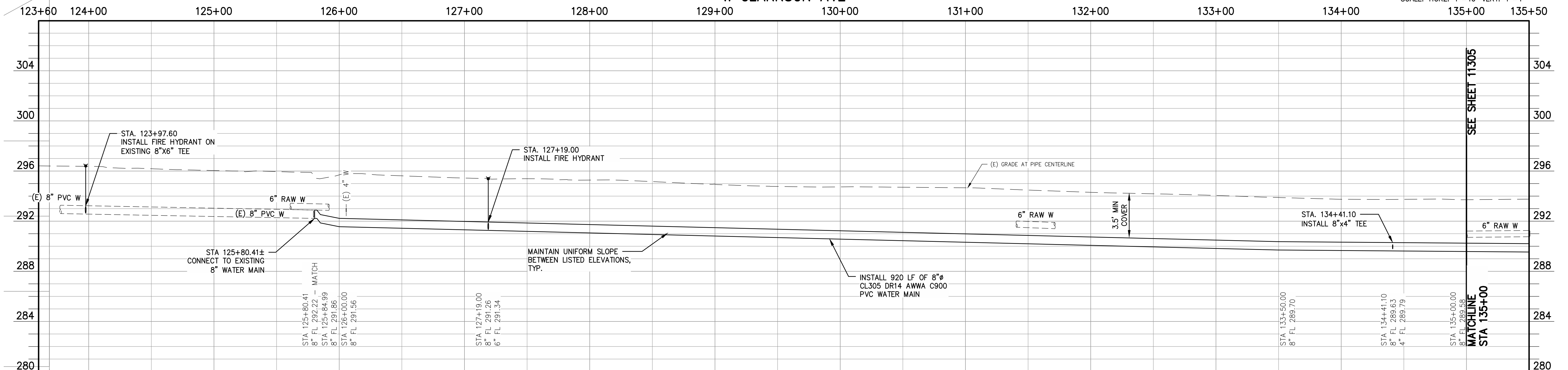
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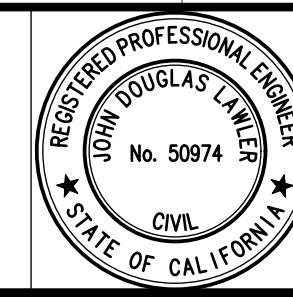
W CLARKSON AVE

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



John D. Lander
 REGISTERED PROFESSIONAL ENGINEER
 No. 50974
 CIVIL
 STATE OF CALIFORNIA

06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO

BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
 W CLARKSON AVE STA 125+50 TO 135+00
 CSA 32 CANTUA CREEK

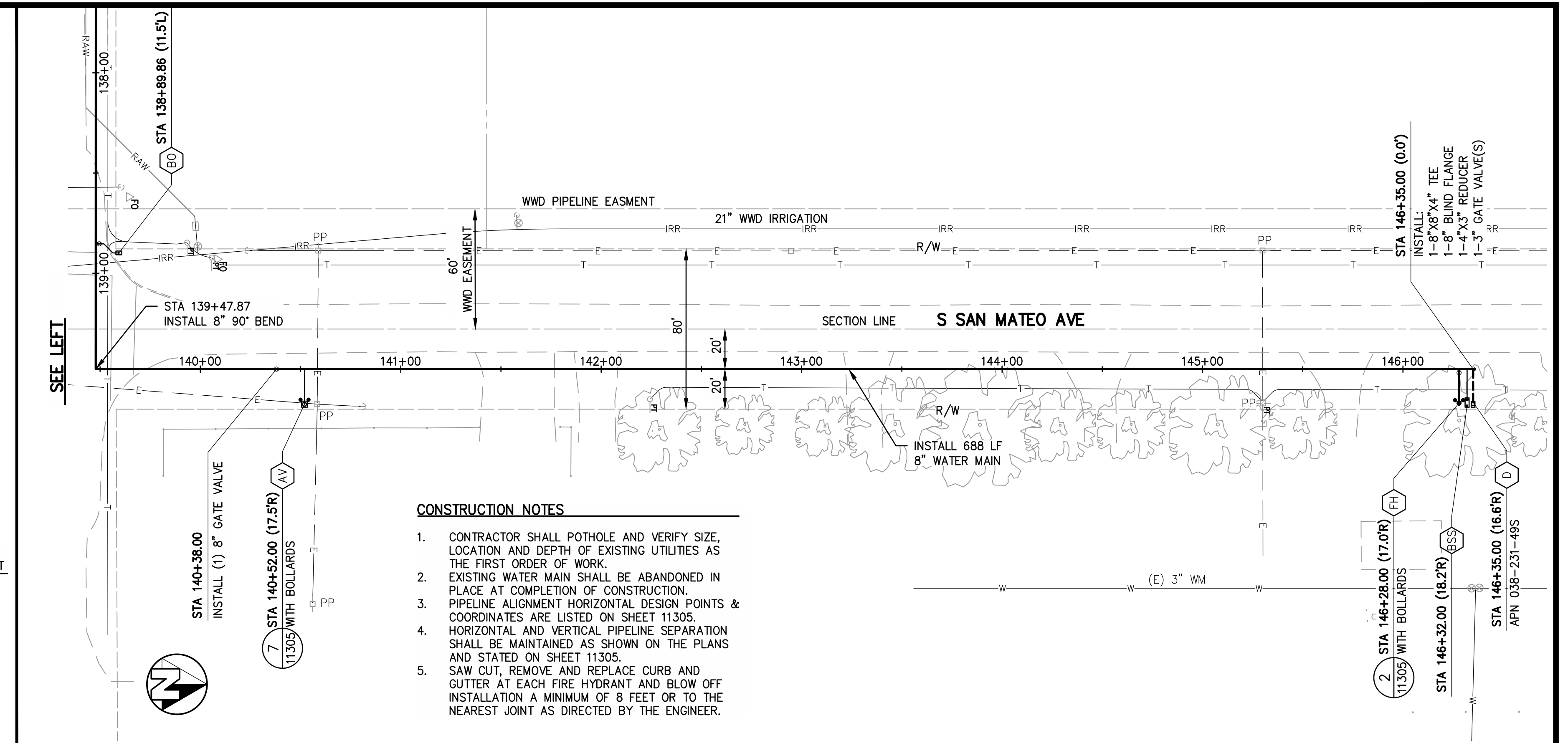
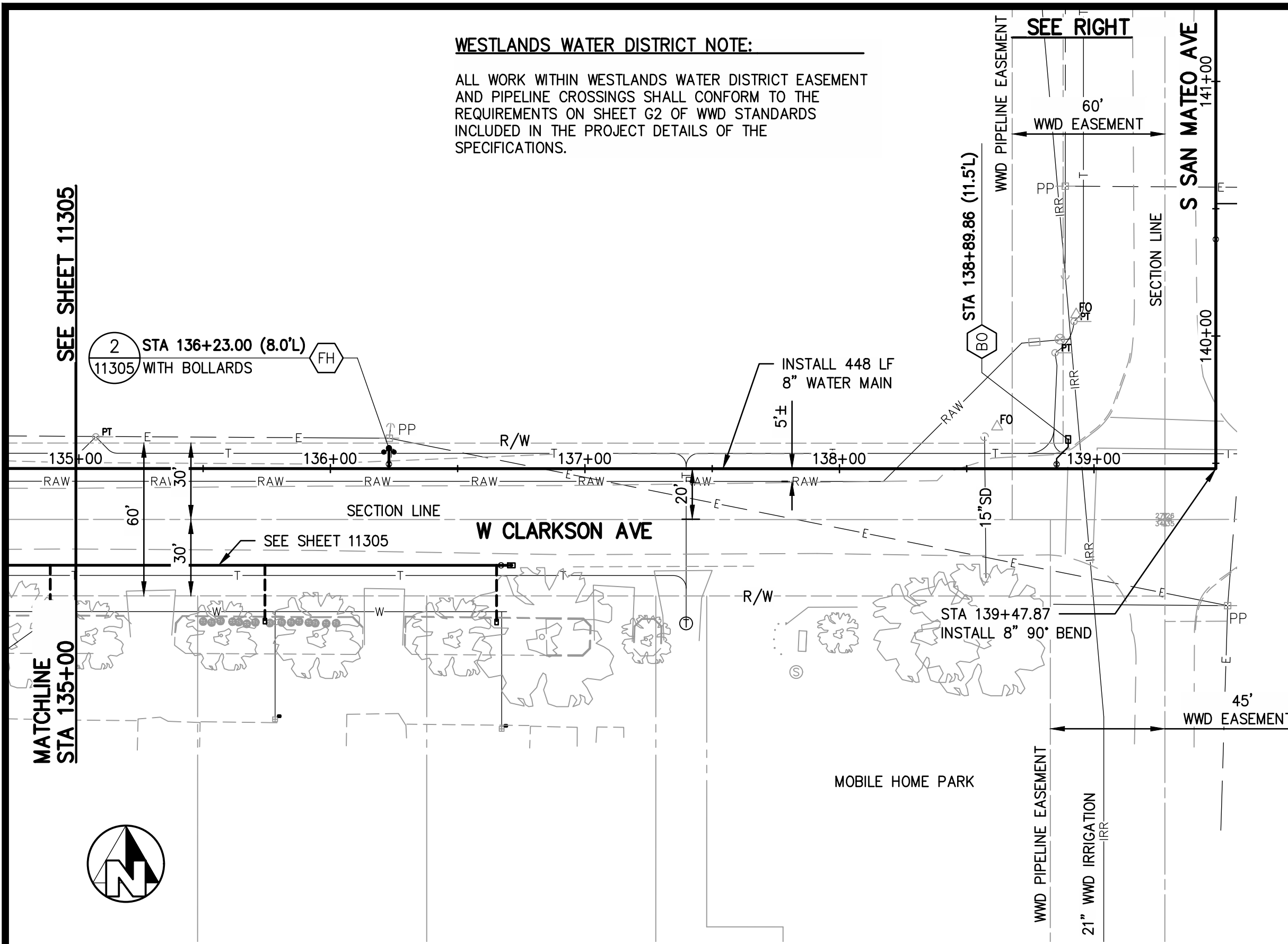
DRAWING NO. 11305

SHEET NO. C2-9

TOTAL 33

WESTLANDS WATER DISTRICT NOTE:

ALL WORK WITHIN WESTLANDS WATER DISTRICT EASEMENT AND PIPELINE CROSSINGS SHALL CONFORM TO THE REQUIREMENTS ON SHEET G2 OF WWD STANDARDS INCLUDED IN THE PROJECT DETAILS OF THE SPECIFICATIONS.



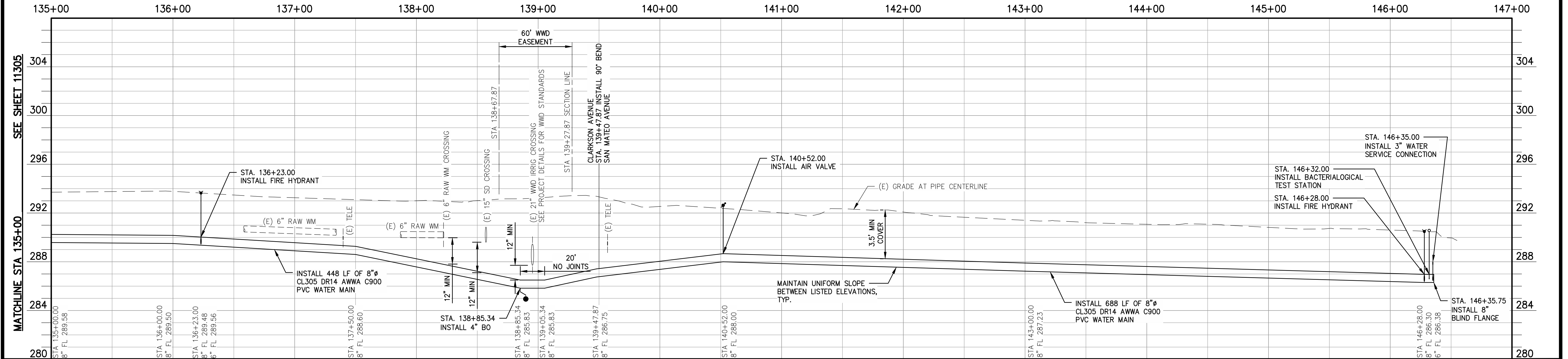
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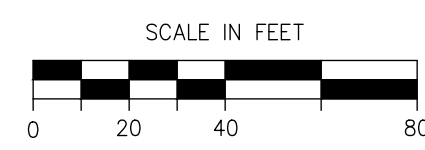
W CLARKSON AVE

SAN MATEO AVE

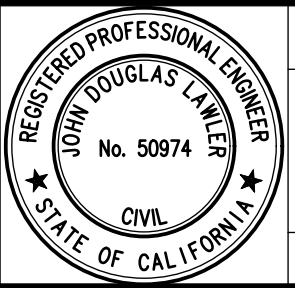
SCALE: HORIZ: 1"=40' VERT: 1"=4'



STA 135+00.00 8" FL 289.56	STA 136+00.00 8" FL 289.50	STA 136+23.00 8" FL 289.48	STA 137+50.00 8" FL 288.60	STA 138+85.34 8" FL 285.54	STA 139+05.34 8" FL 285.83	STA 139+47.87 8" FL 286.75	STA 140+52.00 8" FL 288.00	STA 143+00.00 8" FL 287.23	STA 146+28.00 8" FL 286.30	STA 146+35.75 8" FL 286.38
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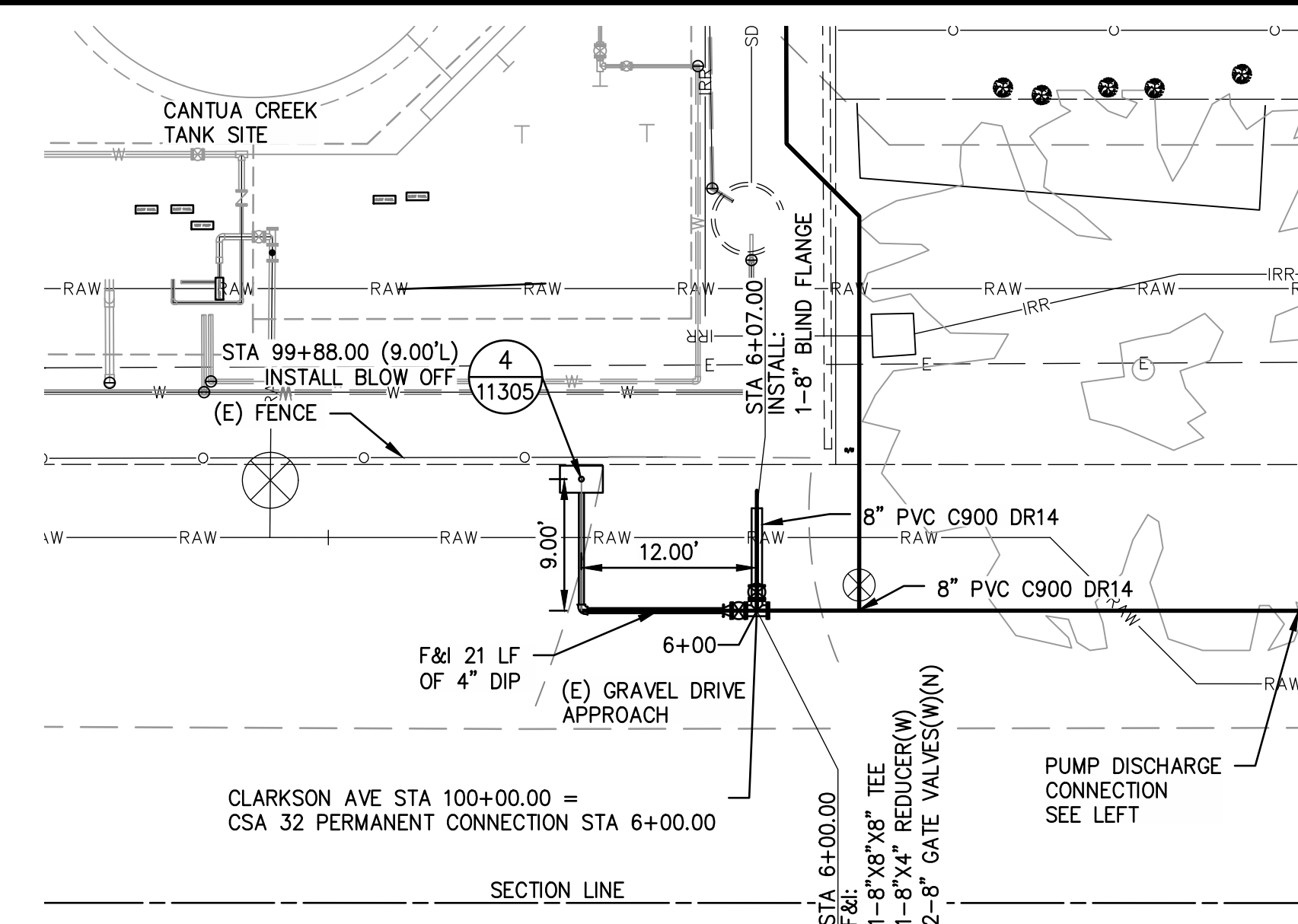
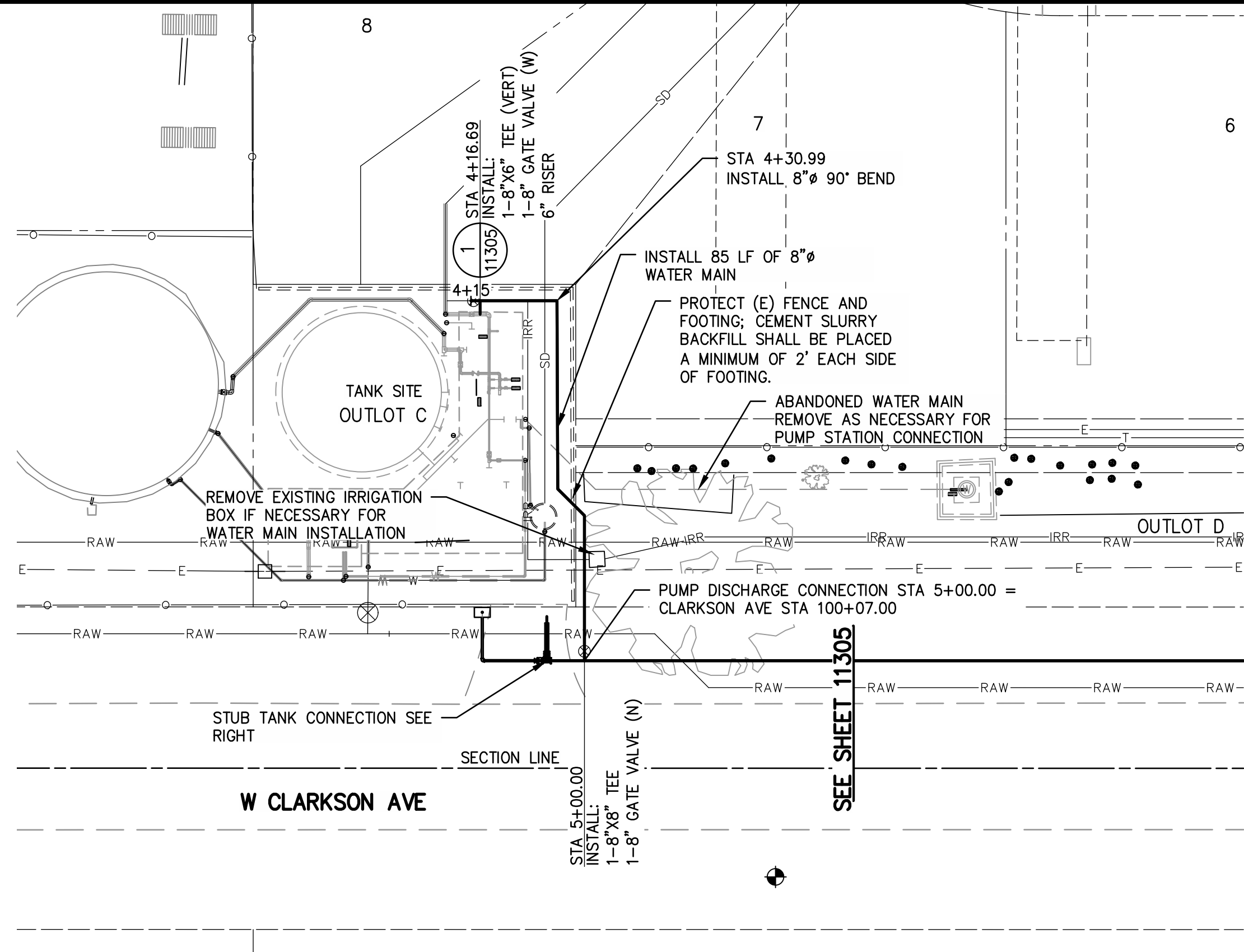
John Paul
06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A

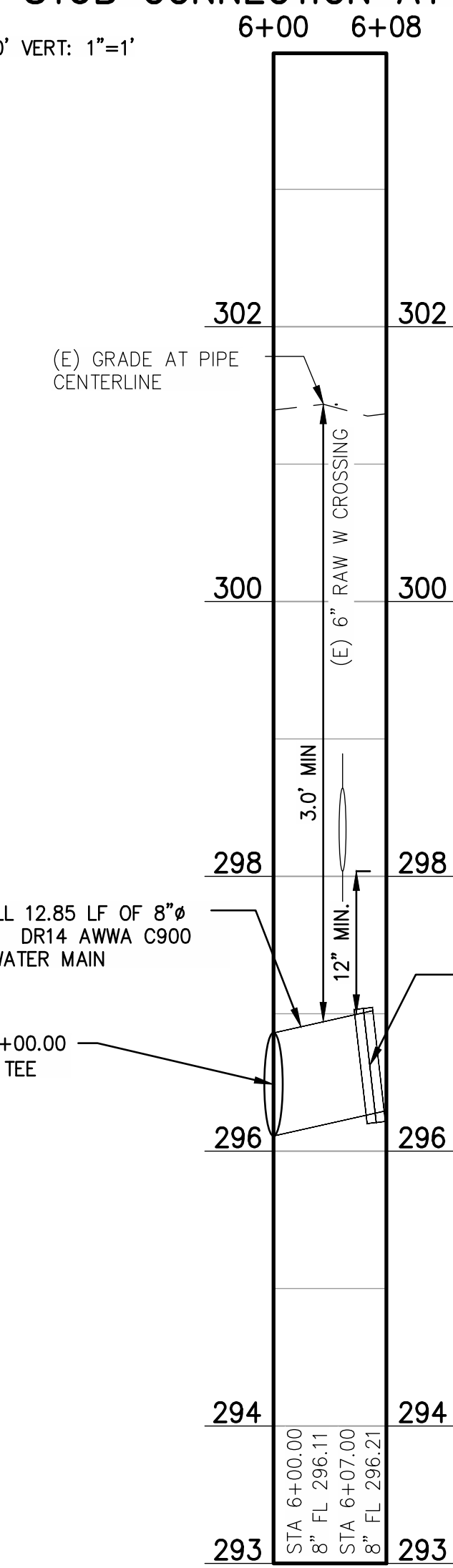


DEPARTMENT OF PUBLIC WORKS AND PLANNING
CLARKSON & SAN MATEO AVE STA 135+00 TO END
CSA 32 CANTUA CREEK
DRAWING NO. 11305 SHEET NO. C2-10 TOTAL 33



STUB CONNECTION AT TANK SITE

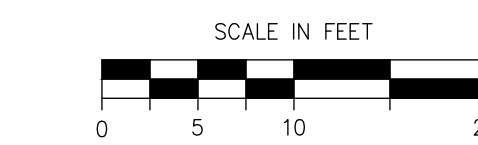
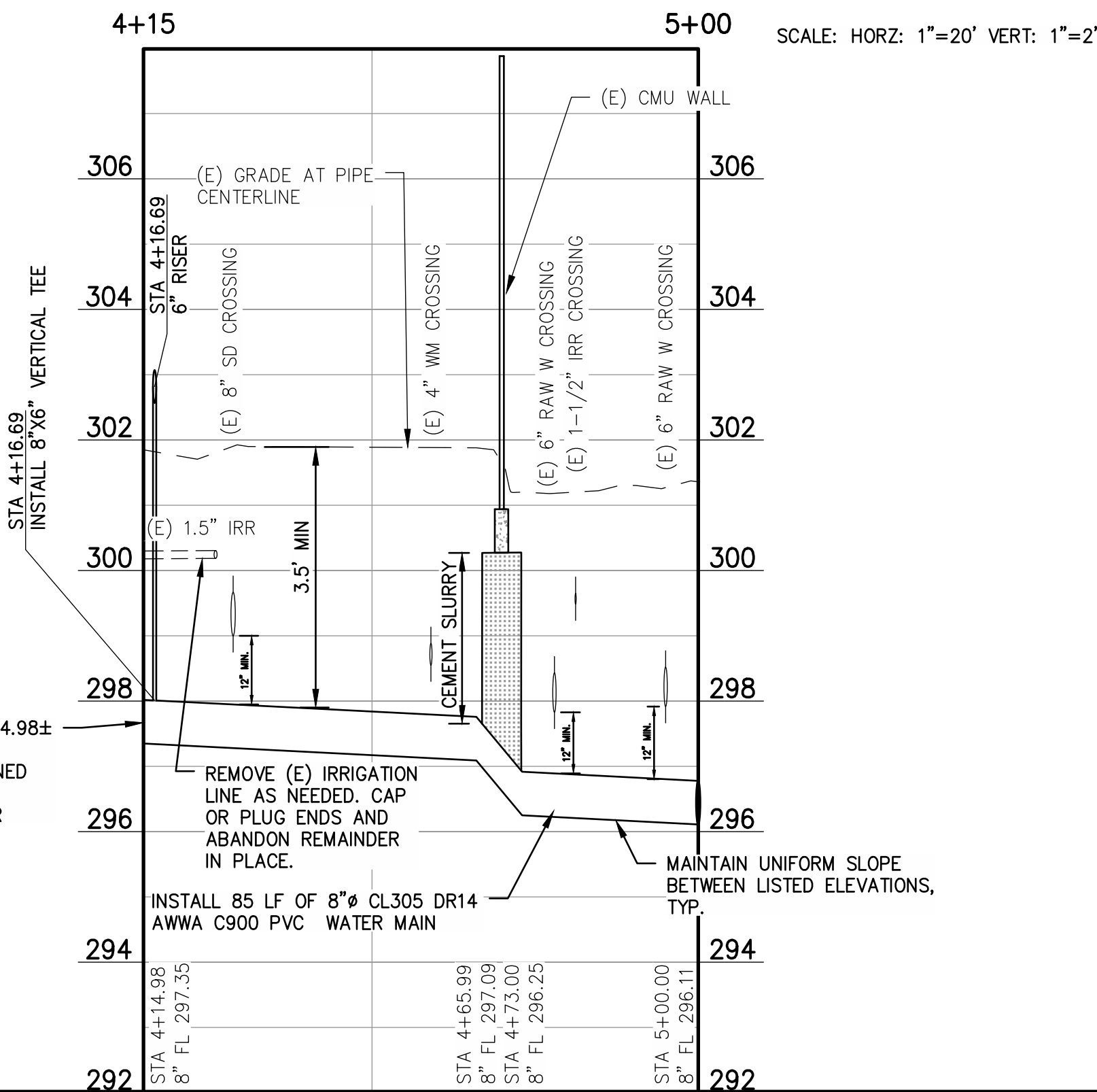
SCALE: HORZ: 1"=10' VERT: 1"=1'



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PUMP DISCHARGE CONNECTION AT TANK SITE



SEE ABOVE FOR SCALE

John D. Lander

06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO



DEPARTMENT OF PUBLIC WORKS AND PLANNING
PUMP CONNECTION AT TANK SITE
CSA 32 CANTUA CREEK

BRIDGE NO. N/A

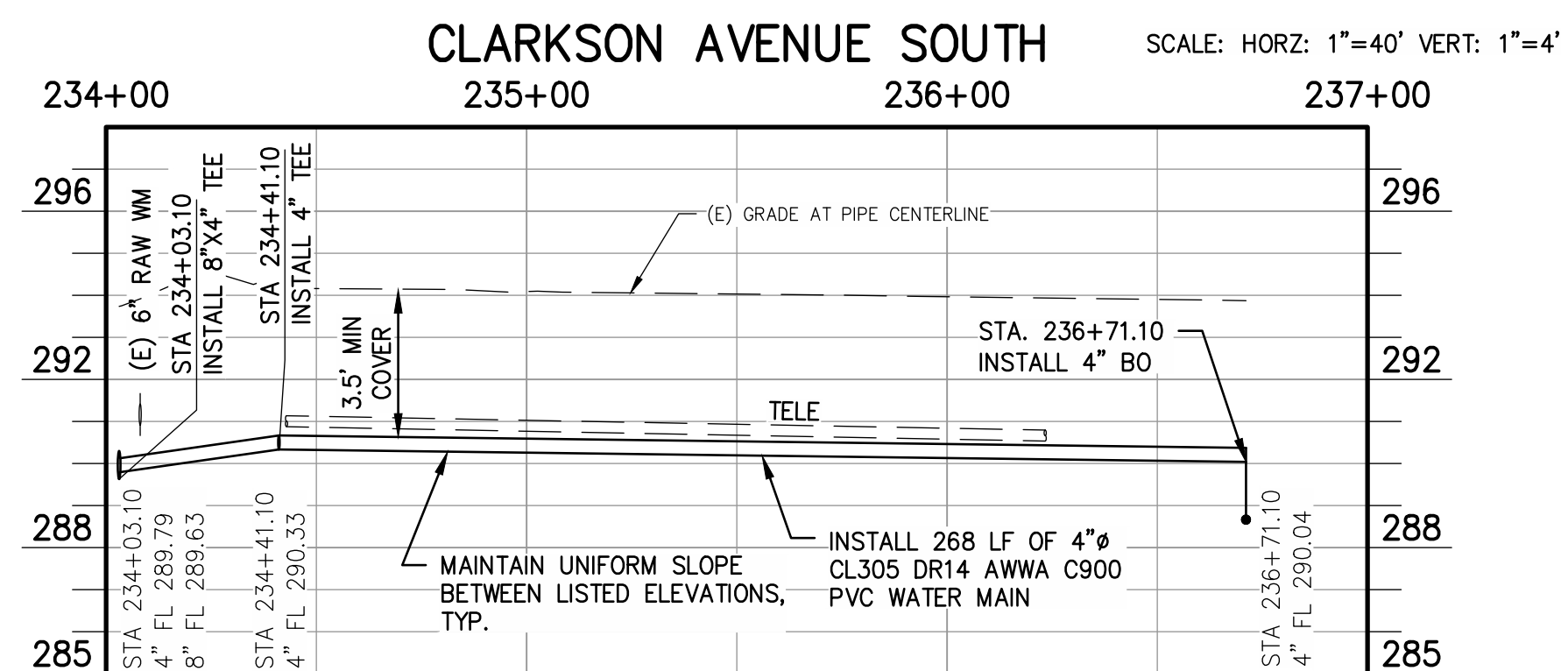
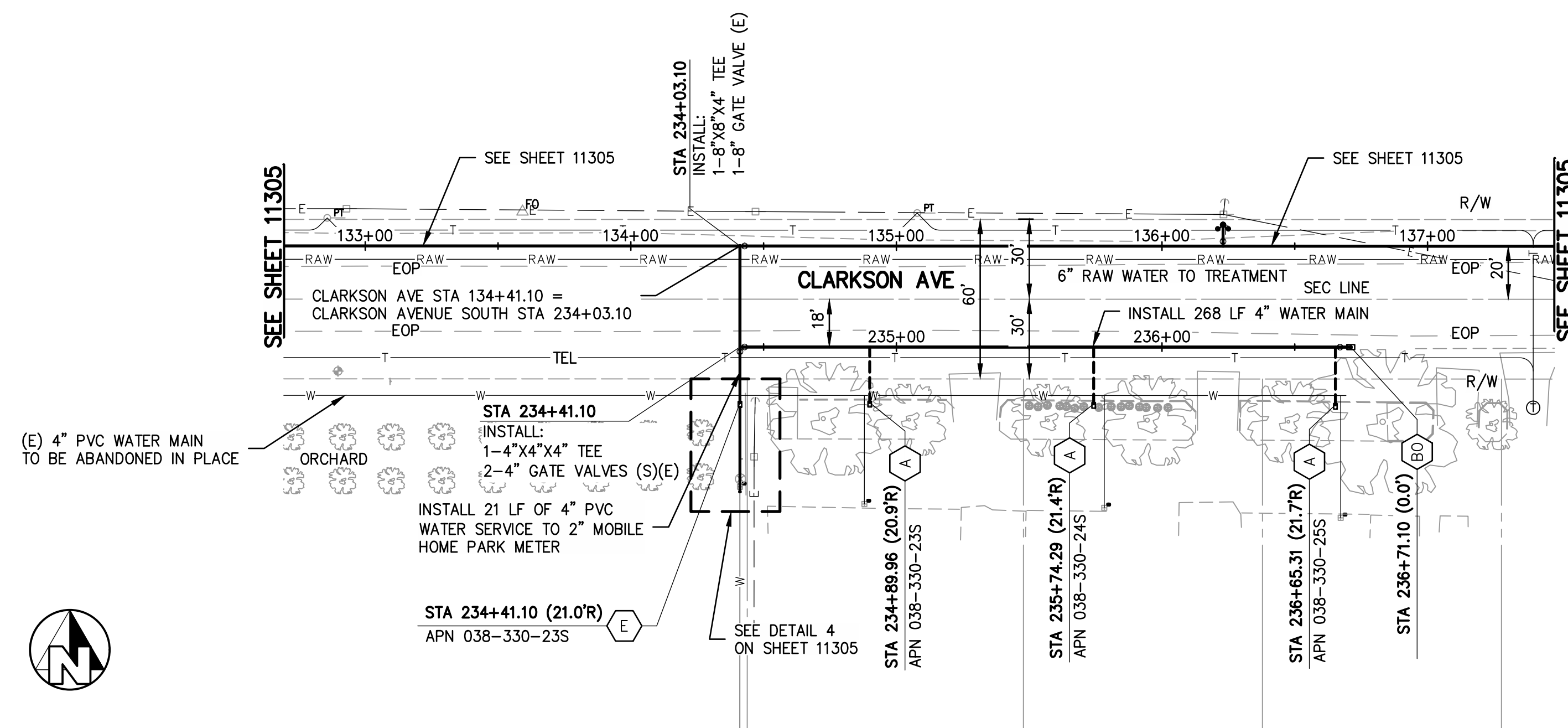
DRAWING NO. 11305

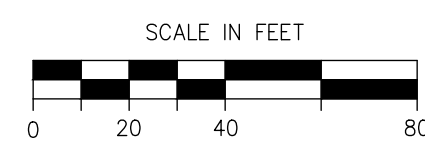
SHEET NO. C2-11

TOTAL 33

CONSTRUCTION NOTES

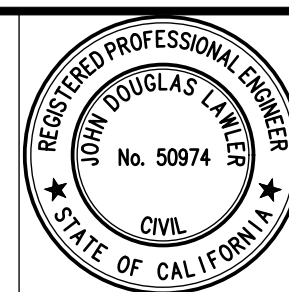
1. CONTRACTOR SHALL POTHOLE AND VERIFY SIZE, LOCATION AND DEPTH OF EXISTING UTILITIES AS THE FIRST ORDER OF WORK.
2. EXISTING WATER MAIN SHALL BE ABANDONED IN PLACE AT COMPLETION OF CONSTRUCTION.
3. PIPELINE ALIGNMENT HORIZONTAL DESIGN POINTS & COORDINATES ARE LISTED ON SHEET 11305.
4. HORIZONTAL AND VERTICAL PIPELINE SEPARATION SHALL BE MAINTAINED AS SHOWN ON THE PLANS AND STATED ON SHEET 11305.
5. SAW CUT, REMOVE AND REPLACE CURB AND GUTTER AT EACH FIRE HYDRANT AND BLOW OFF INSTALLATION A MINIMUM OF 8 FEET OR TO THE NEAREST JOINT AS DIRECTED BY THE ENGINEER.





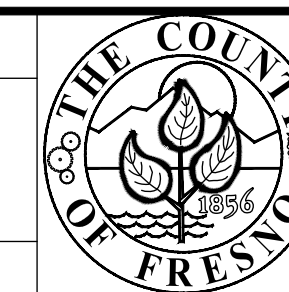
John D. Lander

06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO

BRIDGE NO. N/A

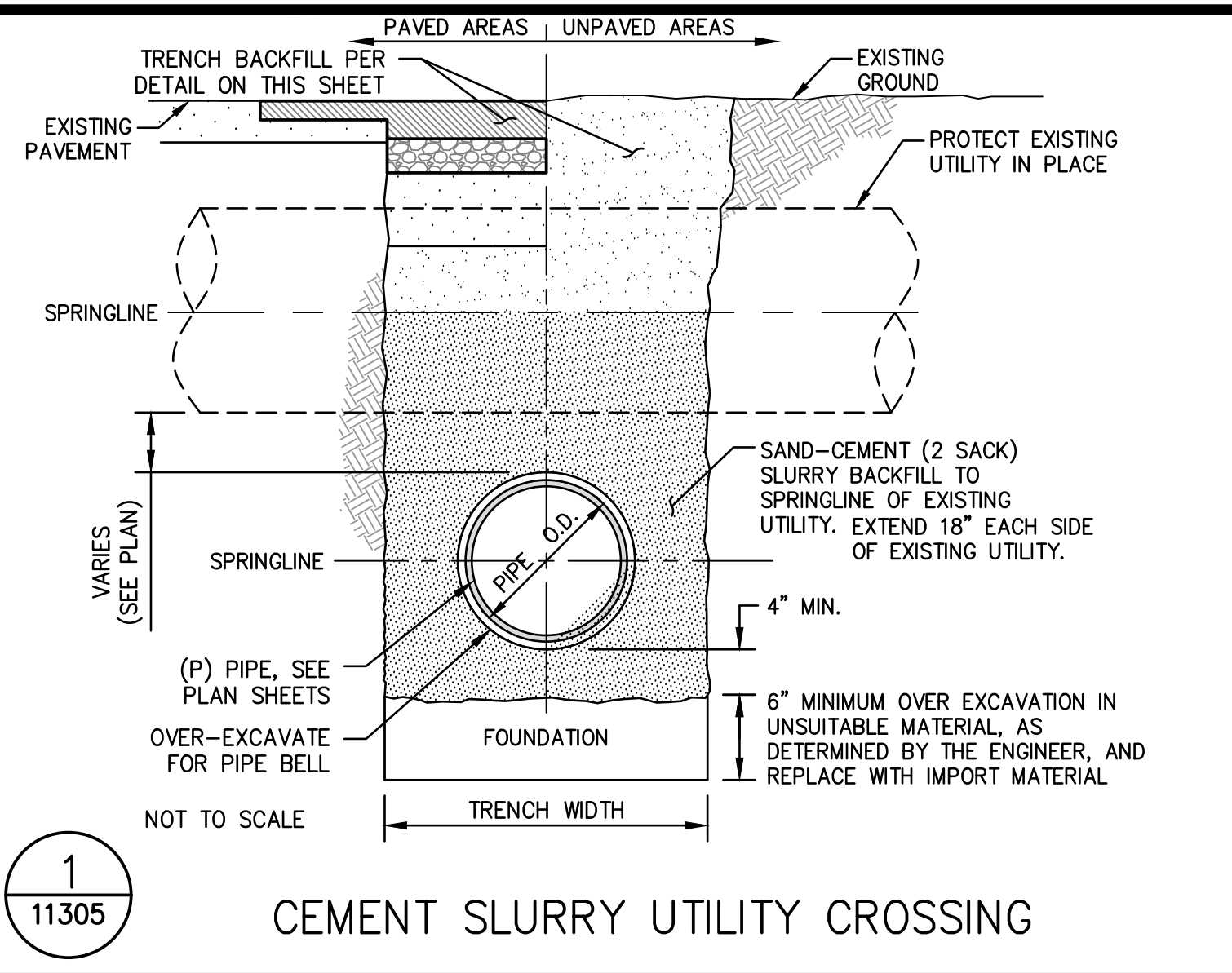


DEPARTMENT OF PUBLIC WORKS AND PLANNING
W CLARKSON AVE SOUTH STA 234+03 TO 236+71
CSA 32 CANTUA CREEK

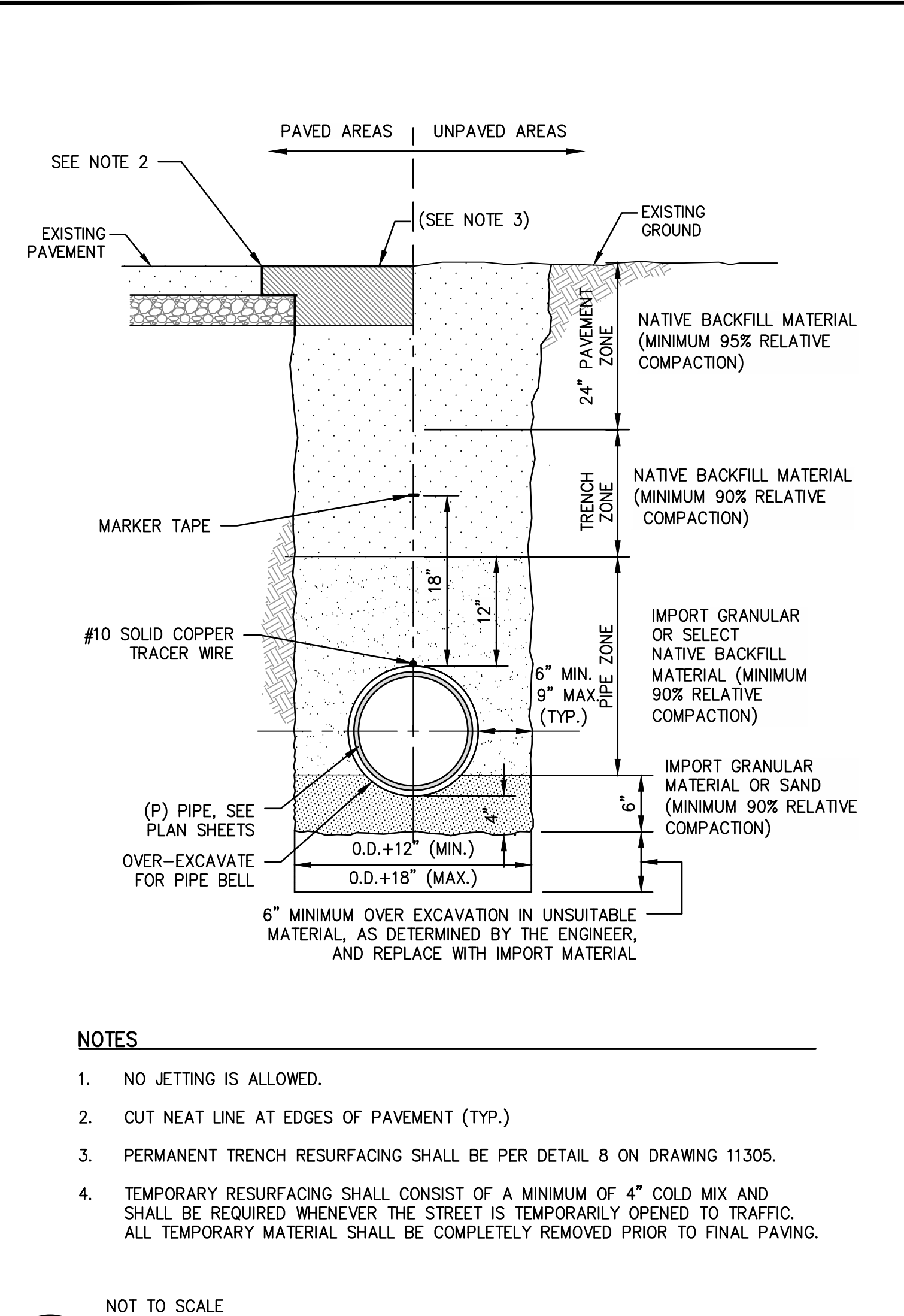
DRAWING NO. 11305

SHEET NO. C2-12

TOTAL 33



1
11305
CEMENT SLURRY UTILITY CROSSING

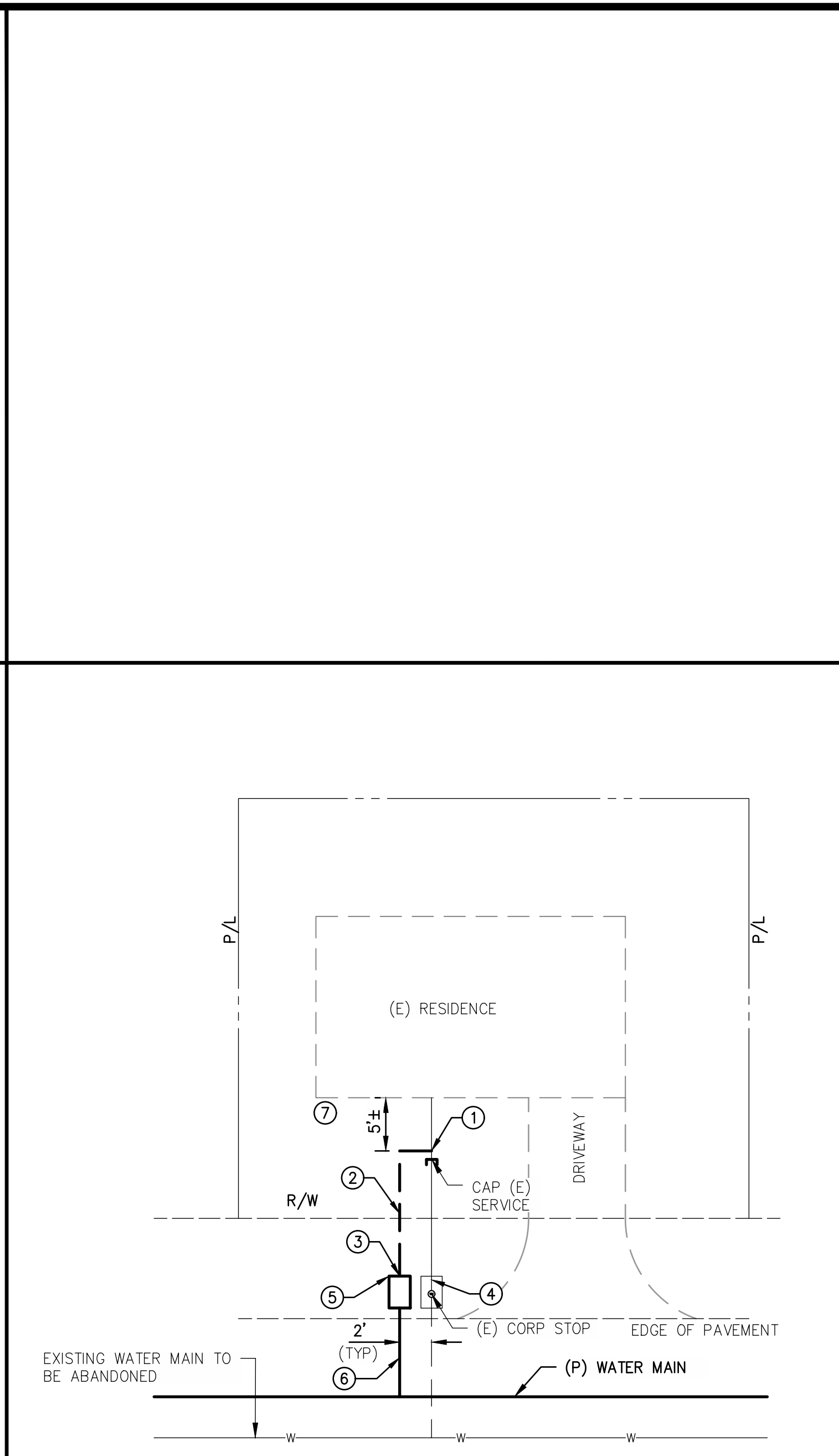


NOTES

- NO JETTING IS ALLOWED.
- CUT NEAT LINE AT EDGES OF PAVEMENT (TYP.)
- PERMANENT TRENCH RESURFACING SHALL BE PER DETAIL 8 ON DRAWING 11305.
- TEMPORARY RESURFACING SHALL CONSIST OF A MINIMUM OF 4" COLD MIX AND SHALL BE REQUIRED WHENEVER THE STREET IS TEMPORARILY OPENED TO TRAFFIC. ALL TEMPORARY MATERIAL SHALL BE COMPLETELY REMOVED PRIOR TO FINAL PAVING.

NOT TO SCALE

2
11305
PIPE BEDDING AND TRENCH BACKFILL



CONSTRUCTION NOTES:

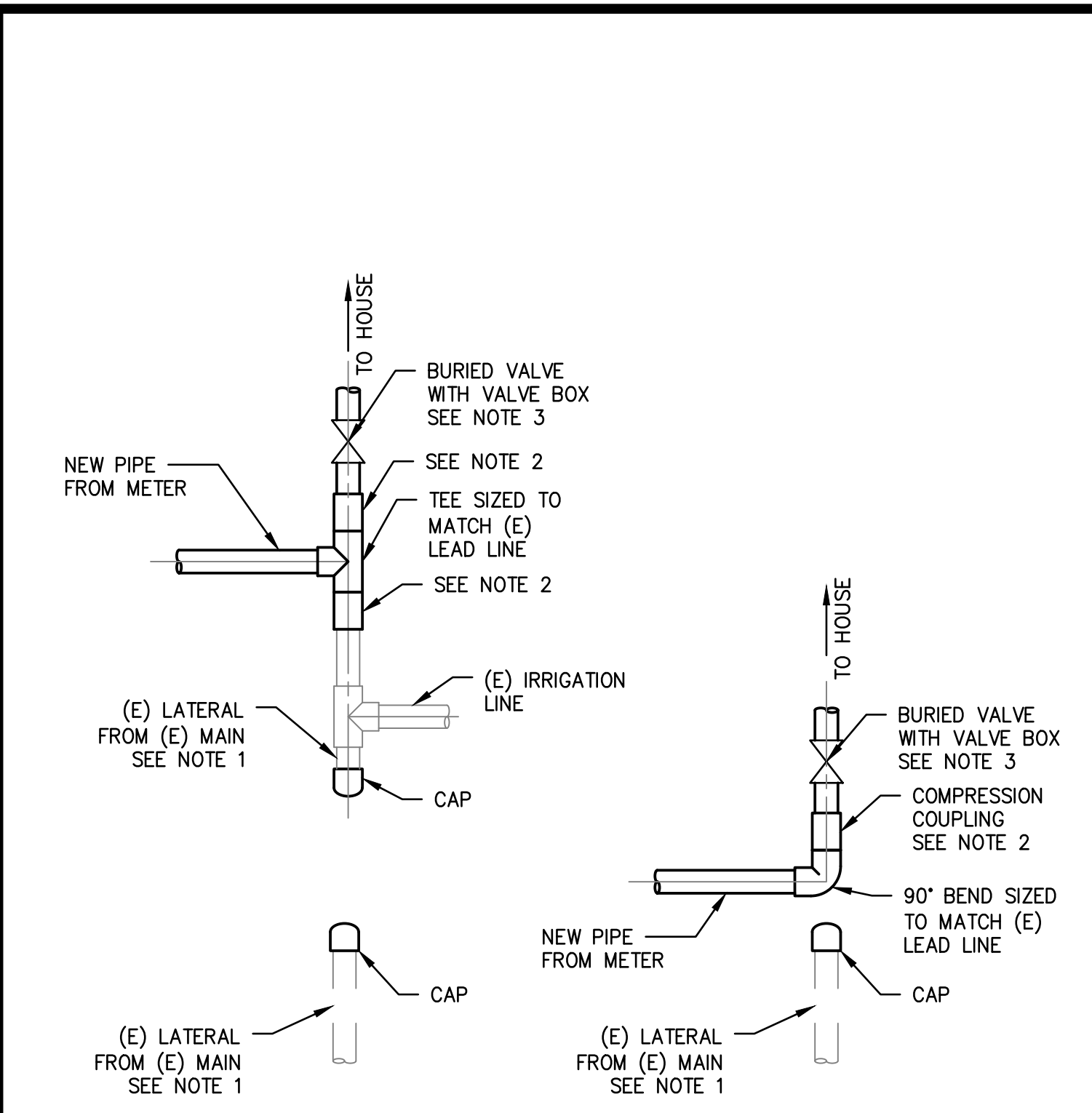
- CONNECTION TO (E) LEAD LINE PER DETAIL 4 SHEET 11305.
- BORE, TRENCH, HAND DIG LEAD LINE.
- CONNECTION TO PIPING WITHIN METER BOX.
- ABANDON (E) SERVICE PER DETAIL 3 SHEET 11305.
- NEW METER AND METER BOX PER DETAIL 5 ON SHEET 11305.
- NEW WATER SERVICE LINE PER DETAIL 5 ON SHEET 11305.
- INSTALL RESIDENTIAL GROUNDING SYSTEM AT LOCATIONS REQUIRED BY THE OWNER.

NOTES

- REPLACE ALL SURFACE AND LANDSCAPING TO PRE-CONSTRUCTION CONDITION (IN-KIND).

NOT TO SCALE

3
11305
1" WATER SERVICE CONNECTION, WATER METER AND METER BOX

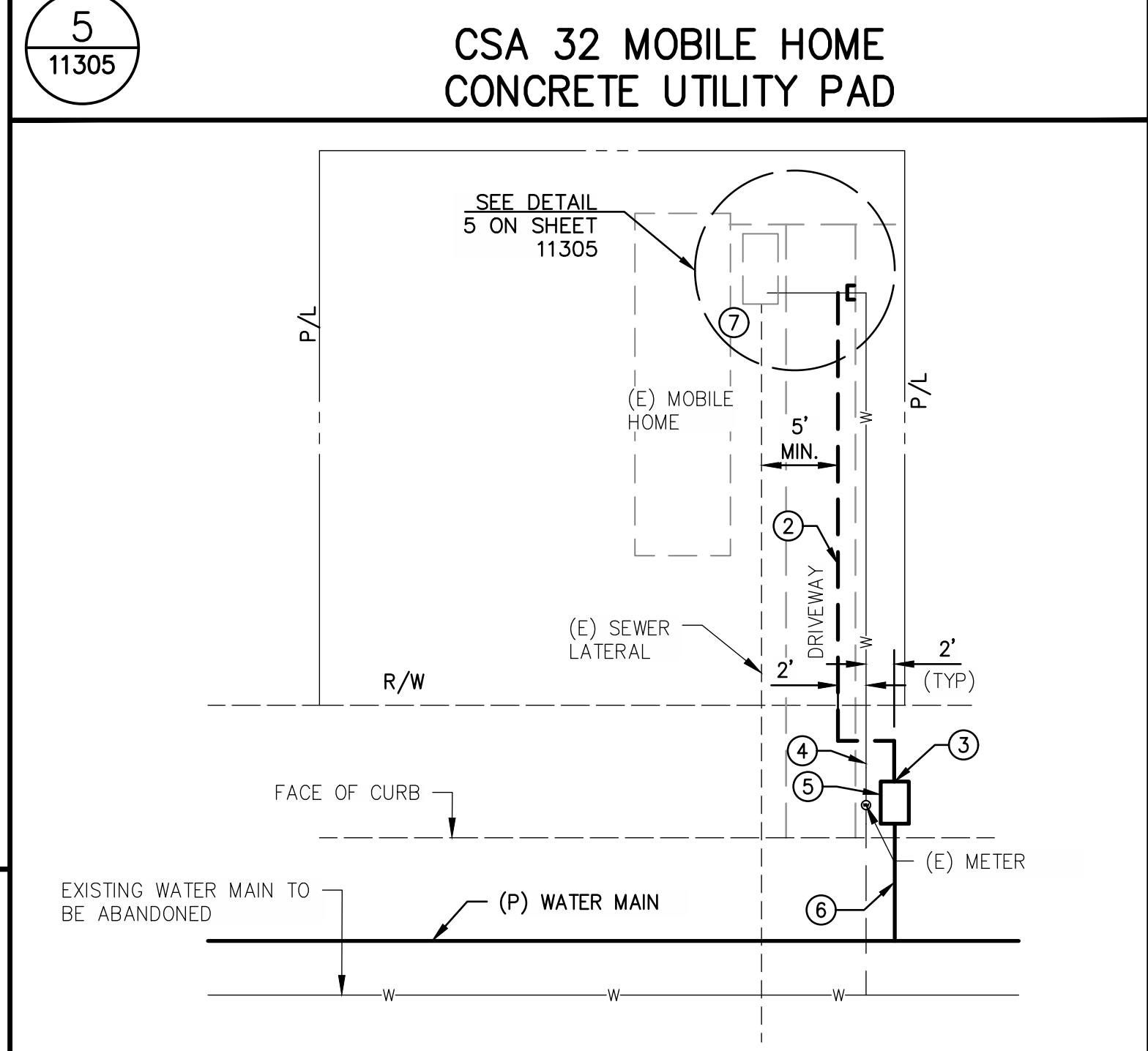
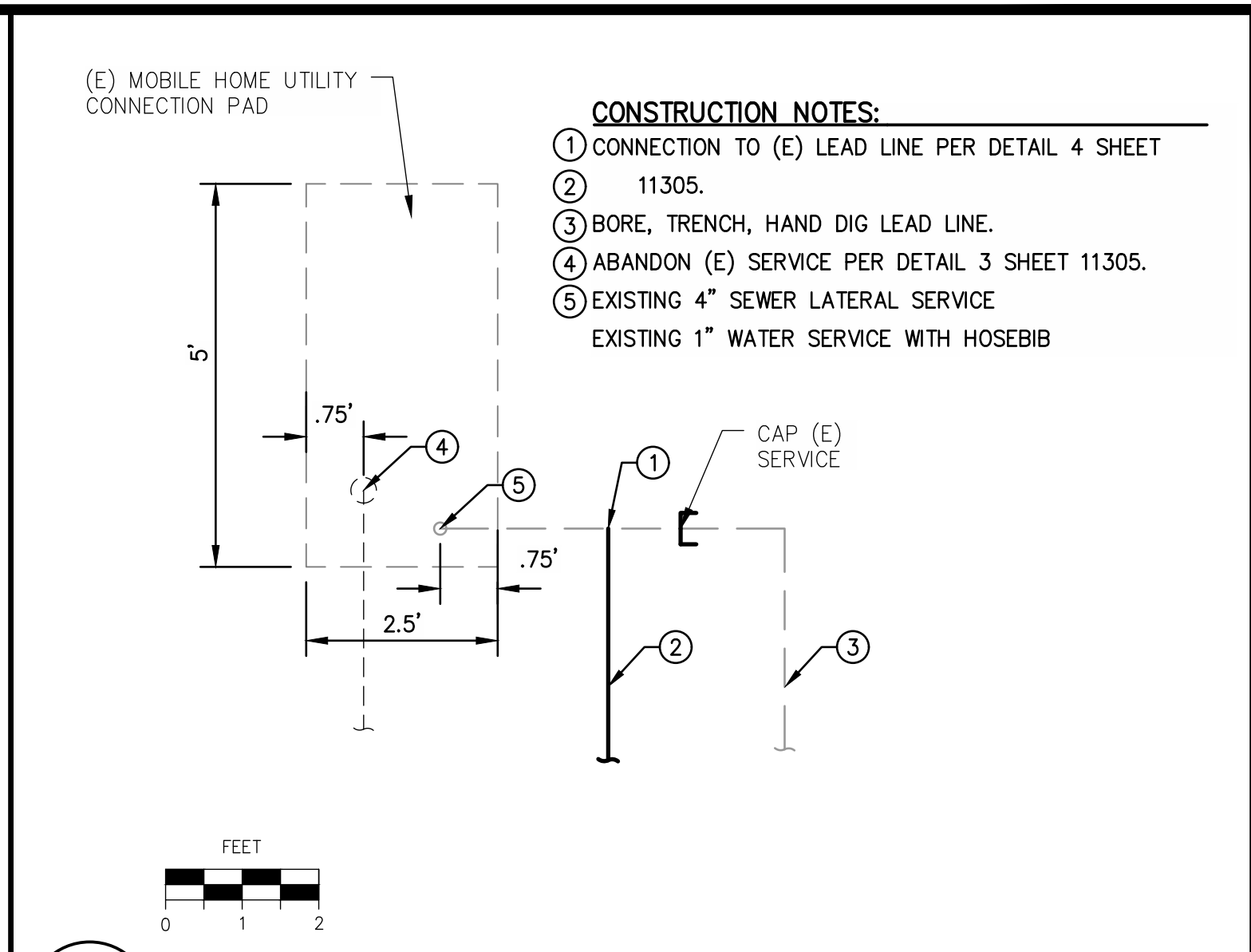


NOTES

- ABANDON (E) LINE PER DETAIL 3 ON SHEET 11305.
- INSTALL INSULATING COUPLING AT CONNECTION BETWEEN TWO DIFFERENT METALS IF NECESSARY.
- WHERE HOUSE DOES NOT HAVE AN EXISTING WORKING SHUT OFF VALVE INSTALL TYPE 6 BALL VALVE PER SPEC 40 05 23 AND NDS STANDARD SERIES 6-INCH ICV BOX OR APPROVED EQUAL.
- ALL FITTINGS SHALL BE SIZED TO MATCH THE EXISTING LEAD LINE.
- CONTRACTOR RESPONSIBLE FOR ALL WORK ASSOCIATED WITH PROVIDING A FULLY FUNCTIONAL LEAD LINE CONNECTION.
- LEAD LINE PIPE MATERIAL TO BE PVC SCHEDULE 80.

NOT TO SCALE

4
11305
LEAD LINE CONNECTION (SIDE BY SIDE SERVICE)



CONSTRUCTION NOTES:

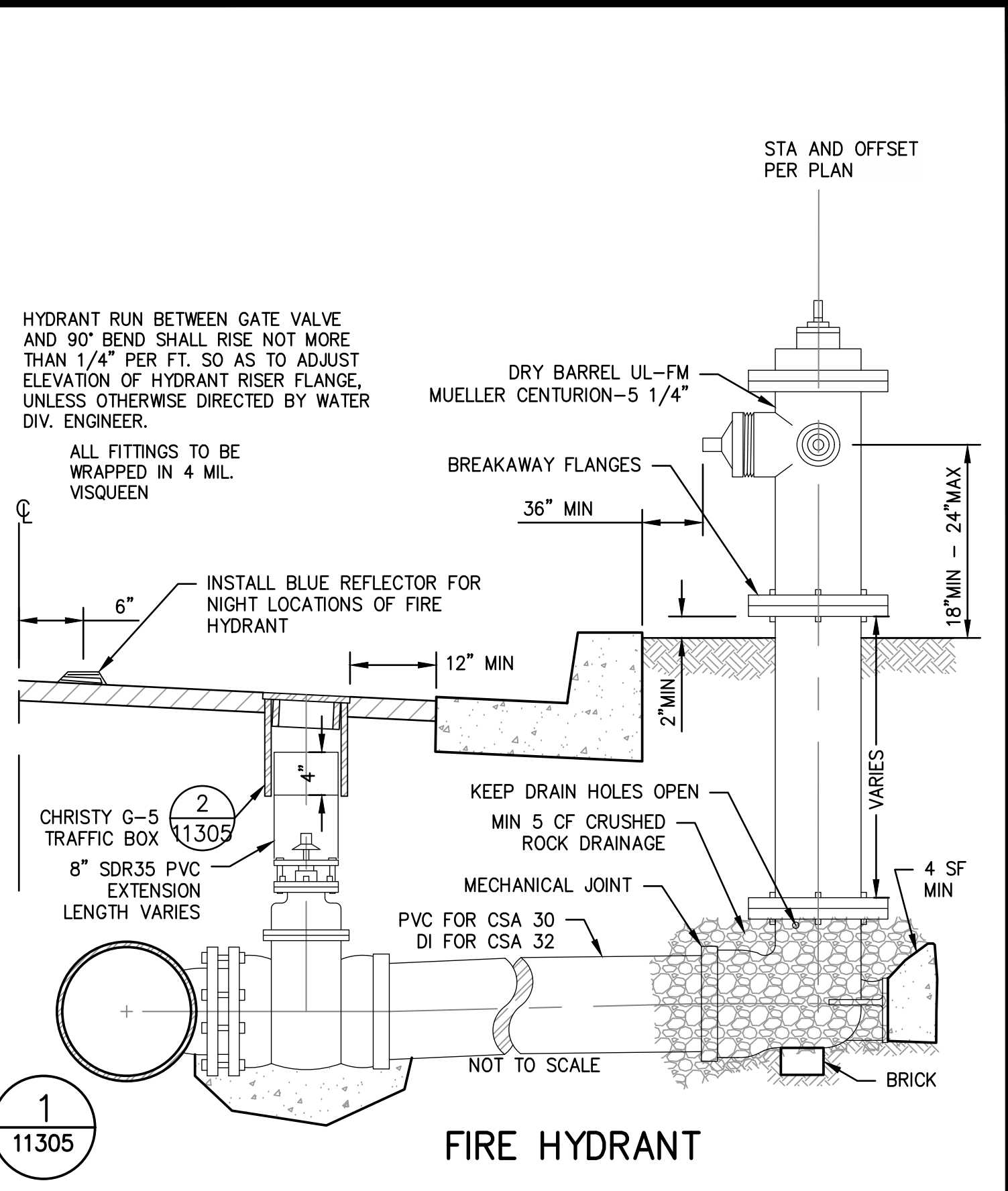
- CONNECTION TO (E) LEAD LINE PER DETAIL 4 SHEET 11305.
- BORE, TRENCH, HAND DIG LEAD LINE.
- CONNECTION TO PIPING WITHIN METER BOX.
- ABANDON (E) SERVICE PER DETAIL 3 SHEET 11305.
- NEW METER AND METER BOX PER DETAIL 5 ON SHEET 11305.
- NEW WATER SERVICE LINE PER DETAIL 5 ON SHEET 11305.
- INSTALL RESIDENTIAL GROUNDING SYSTEM AT LOCATIONS REQUIRED BY THE OWNER.

NOTES

- REPLACE ALL SURFACE AND LANDSCAPING TO PRE-CONSTRUCTION CONDITION (IN-KIND).
- ANY EXISTING IMPROVEMENTS DISTURBED SHALL BE REPLACED IN KIND.

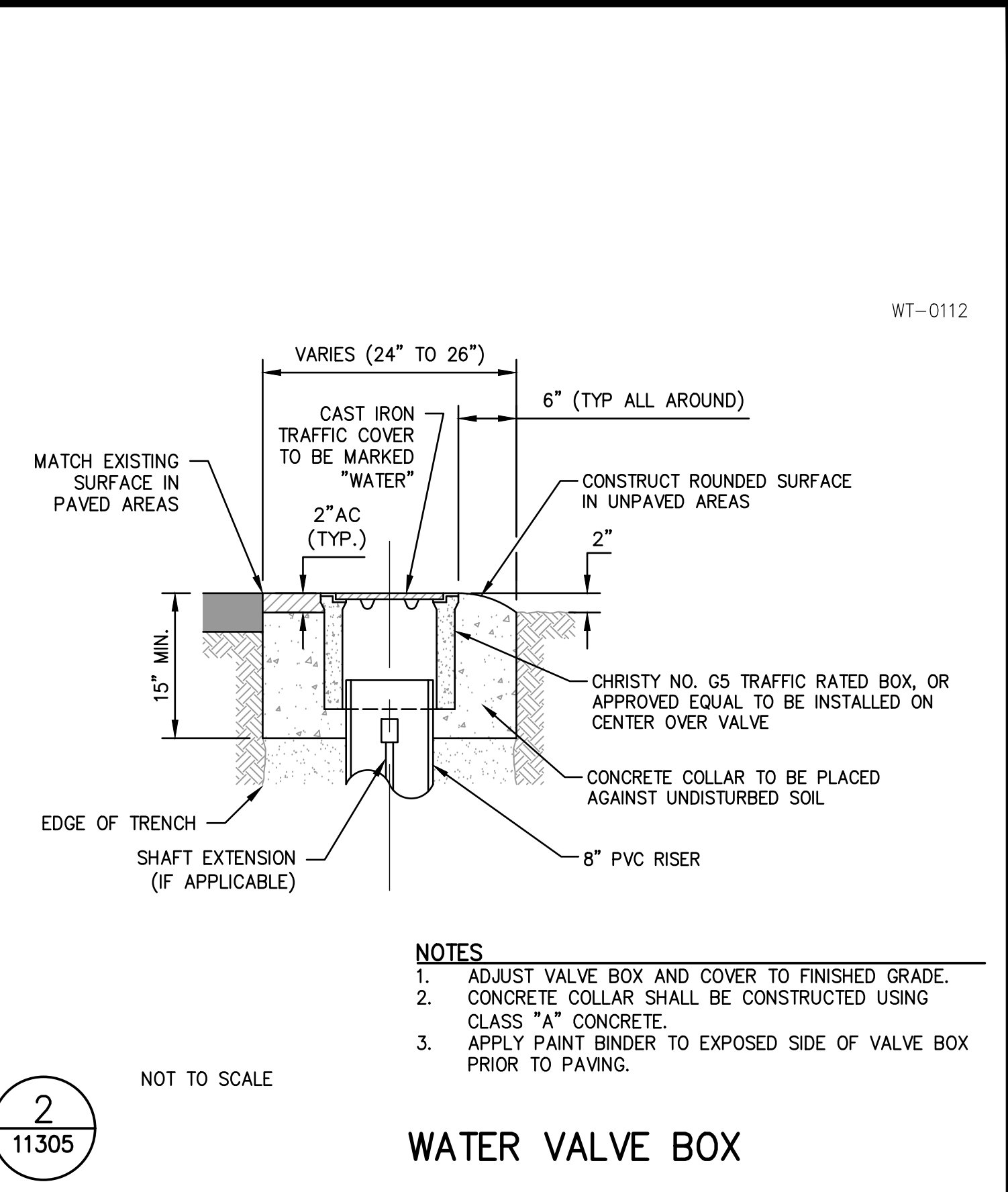
NOT TO SCALE

6
11305
CSA 32 1" WATER SERVICE CONNECTION LOTS 1-30



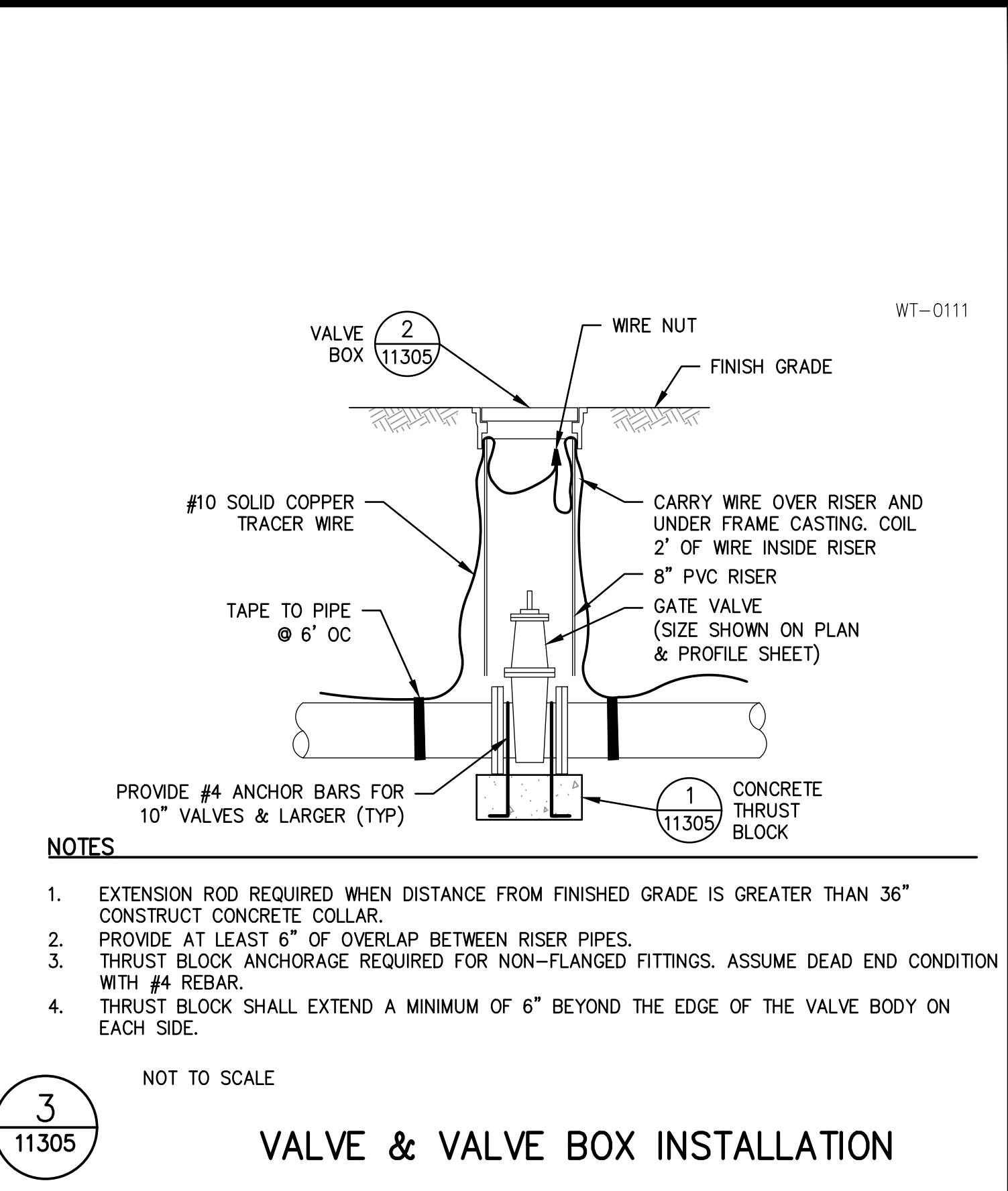
FIRE HYDRANT

1
11305



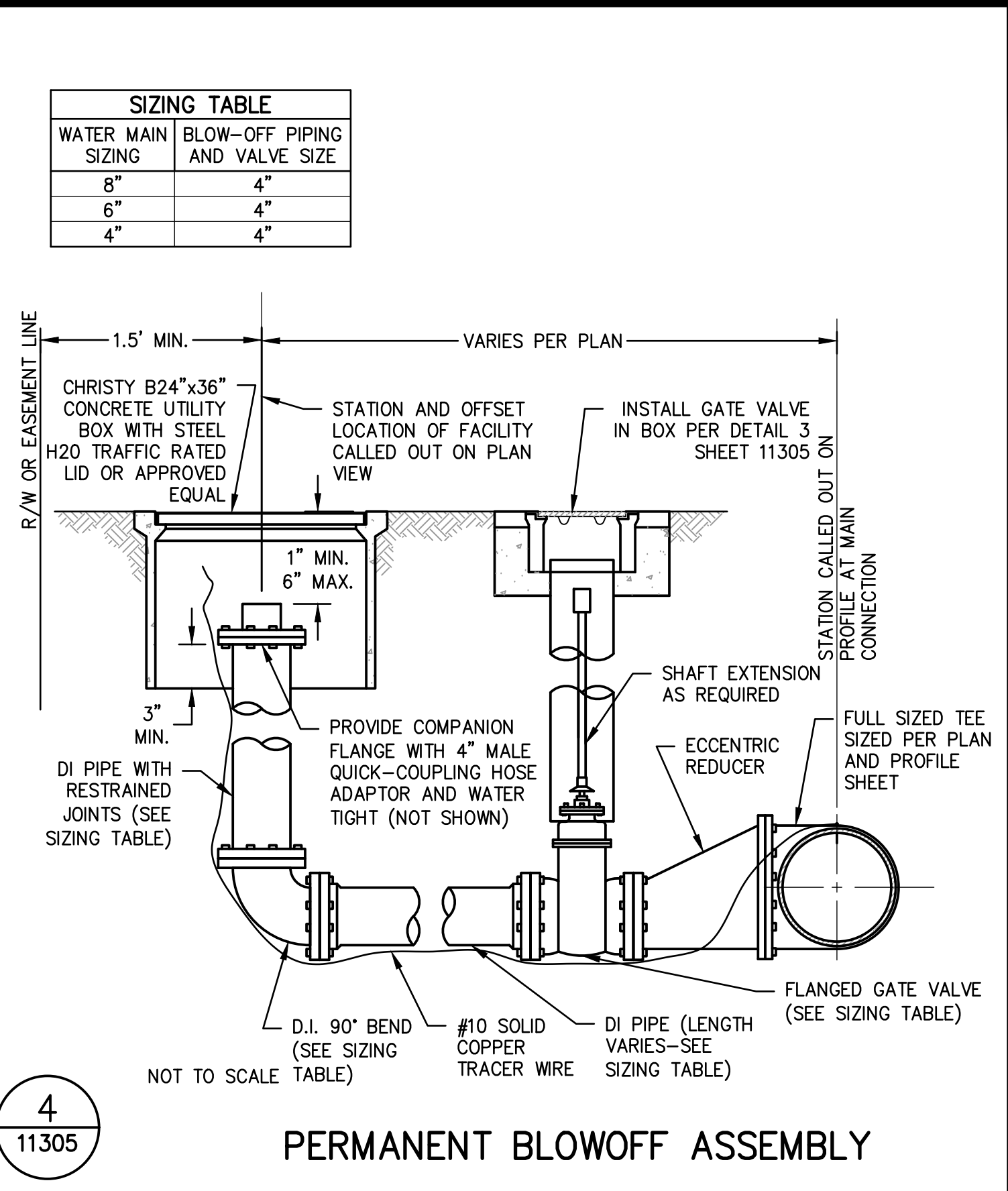
WATER VALVE BOX

2
11305



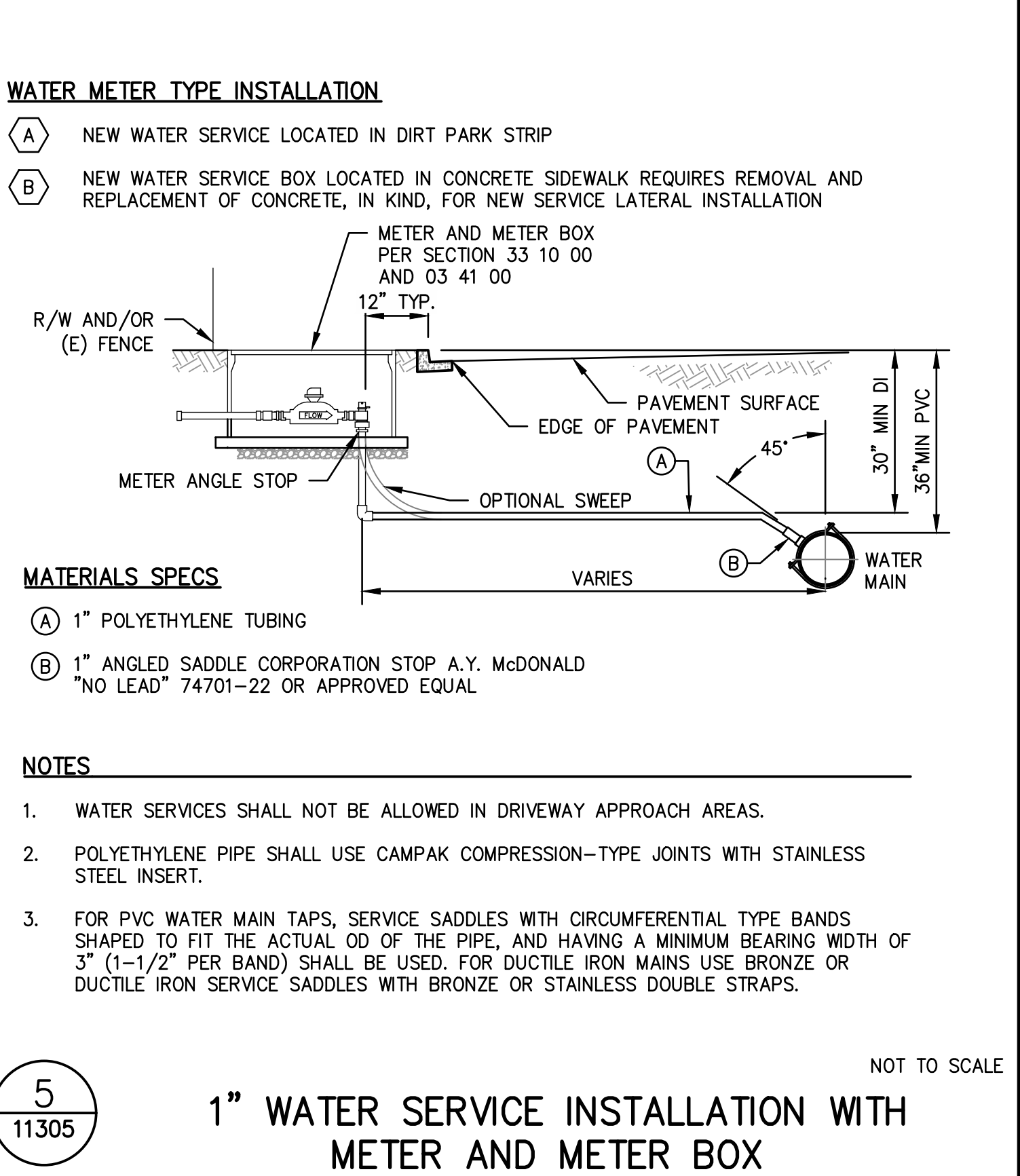
VALVE & VALVE BOX INSTALLATION

3
11305



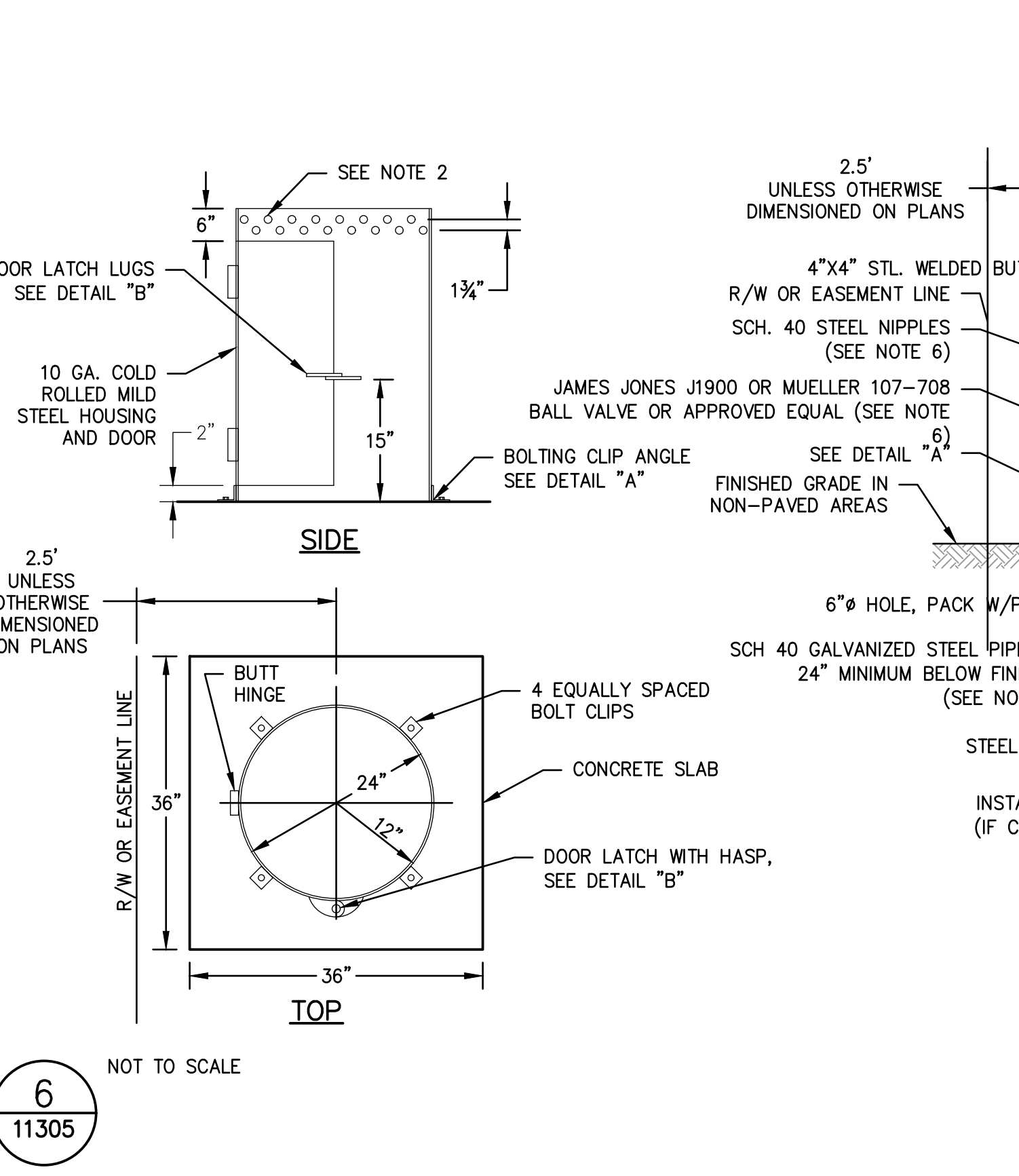
PERMANENT BLOWOFF ASSEMBLY

4
11305



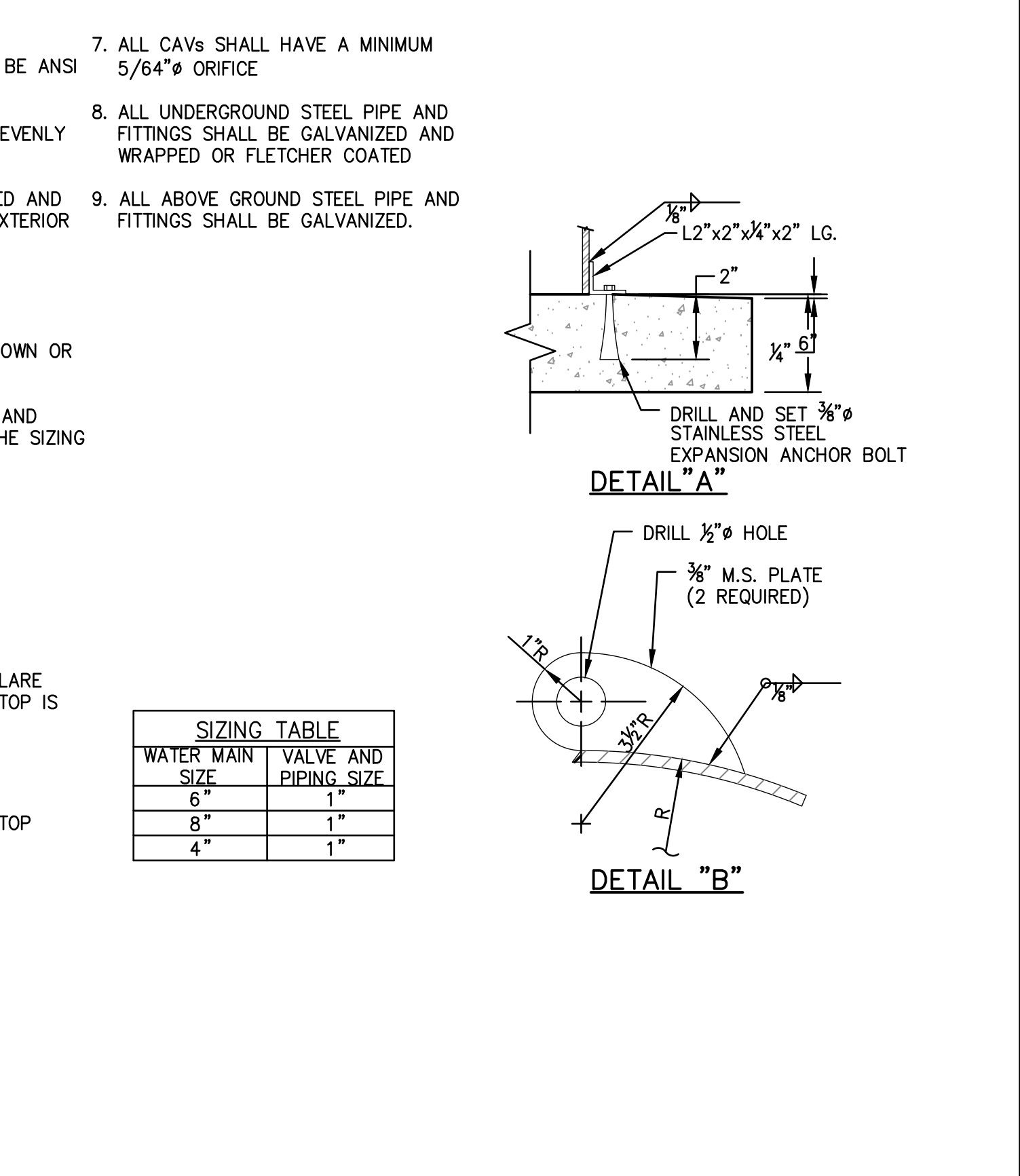
1" WATER SERVICE INSTALLATION WITH METER AND METER BOX

5
11305



COMBINATION AIR VALVE ASSEMBLY

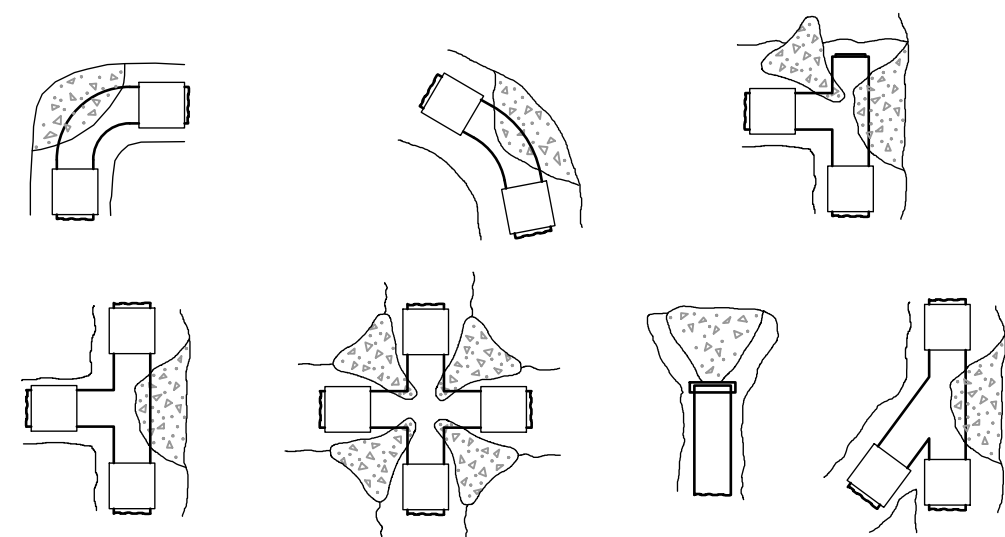
6
11305



SIZING TABLE	
WATER MAIN SIZE	VALVE AND PIPING SIZE
8"	1"
6"	1"
4"	1"

DETAIL "A"

DETAIL "B"



ALL FITTINGS TO BE WRAPPED IN 4 MIL VISQUEEN

AREA OF CONCRETE BEARING AGAINST UNDISTURBED SOIL SQUARE FEET

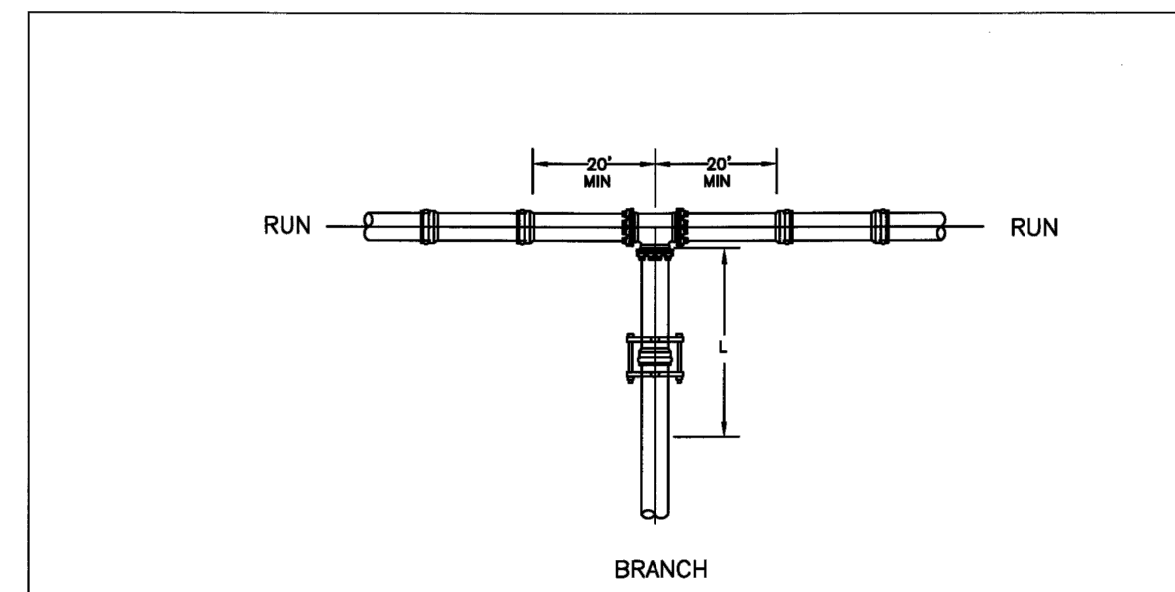
PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
6	1.8	2.5	1.4	0.7	0.3
8	3.1	4.4	2.4	1.2	0.6
10	4.9	6.9	3.8	1.9	1.0
12	7.0	10.0	5.4	2.8	1.4
14	9.5	13.6	7.4	3.8	1.9

BASED ON 2000 P.S.F. SOIL BEARING CAPACITY AND 125 P.S.I. STATIC PRESSURE - SPECIAL DESIGN REQUIRED FOR SOIL LESS THAN 2000 P.S.F. CONCRETE TO HAVE ULTIMATE STRENGTH OF 2500 P.S.I. @ 28 DAYS.

TABLE MUST BE RECALCULATED FOR EACH PROJECT BASED ON ASAE STANDARD S376-1
NOT TO SCALE

1
11305

THRUST BLOCKS



BRANCH SIZE	RUN SIZE										
	4	6	8	10	12	14	16	18	20	24	
4	*	*	*	*	*	*	*	*	*	*	*
6	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*
24	*	*	*	*	*	*	*	*	*	*	*

* -FOR THIS CONDITION NEED ONLY RESTRAIN THE BRANCH OUTLET OF THE TEE.

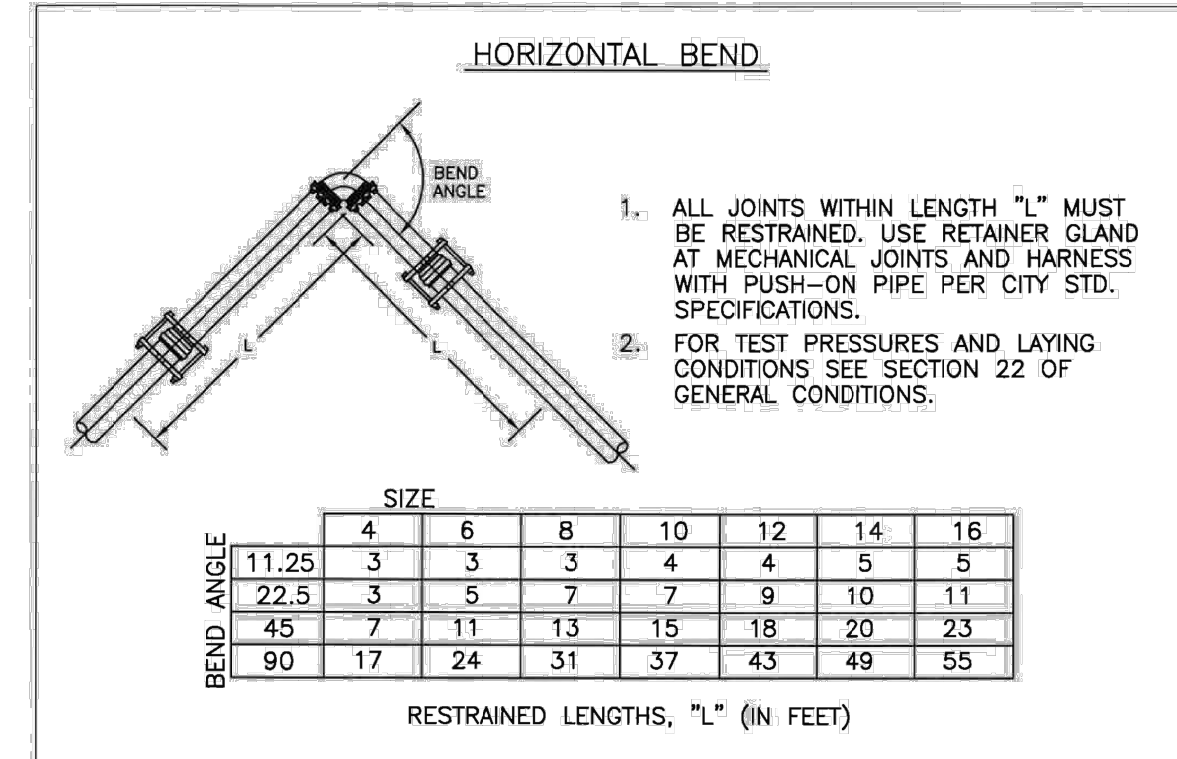
RESTRAINED LENGTHS, "L" (IN FEET)

- RESTRAIN THE TWO MECHANICAL JOINTS ON THE RUN SIDES OF THE TEE. WHEN LESS THAN A FULL 20' LENGTH OF PIPE IS INSTALLED ON EACH SIDE OF THE RUN.
- ALL JOINTS WITHIN THE LENGTH "L" ON THE BRANCH MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS ON PUSH-ON PIPE PER CITY SPECIFICATION.
- FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION 22 OF GENERAL CONDITIONS.

2
11305

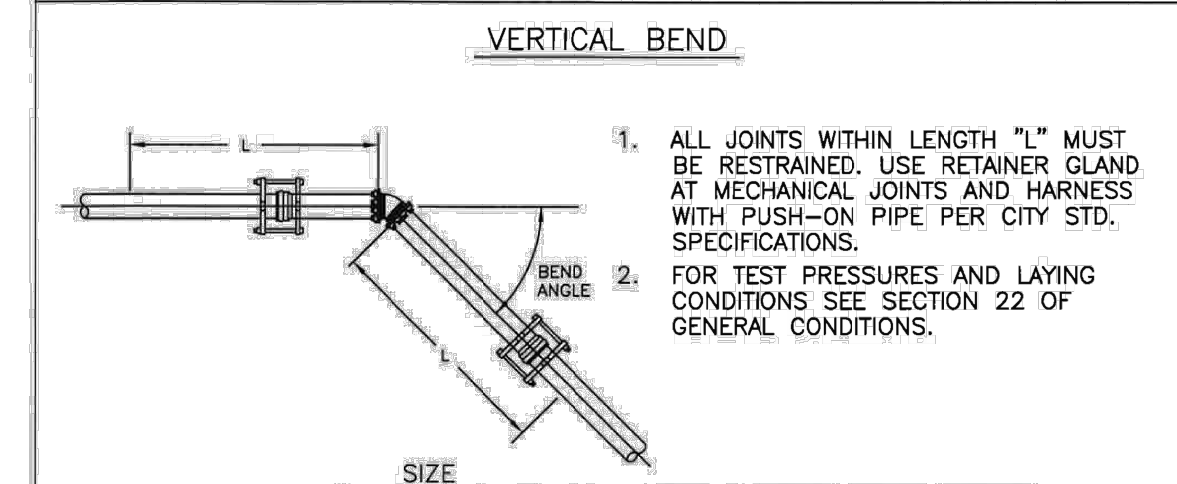
PVC TEE RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-31



BEND ANGLE	SIZE						
	4	6	8	10	12	14	16
11.25	3	3	3	4	4	5	5
22.5	3	5	7	7	9	10	11
45	7	11	13	15	18	20	23
90	17	24	31	37	43	49	55

RESTRAINED LENGTHS, "L" (IN FEET)



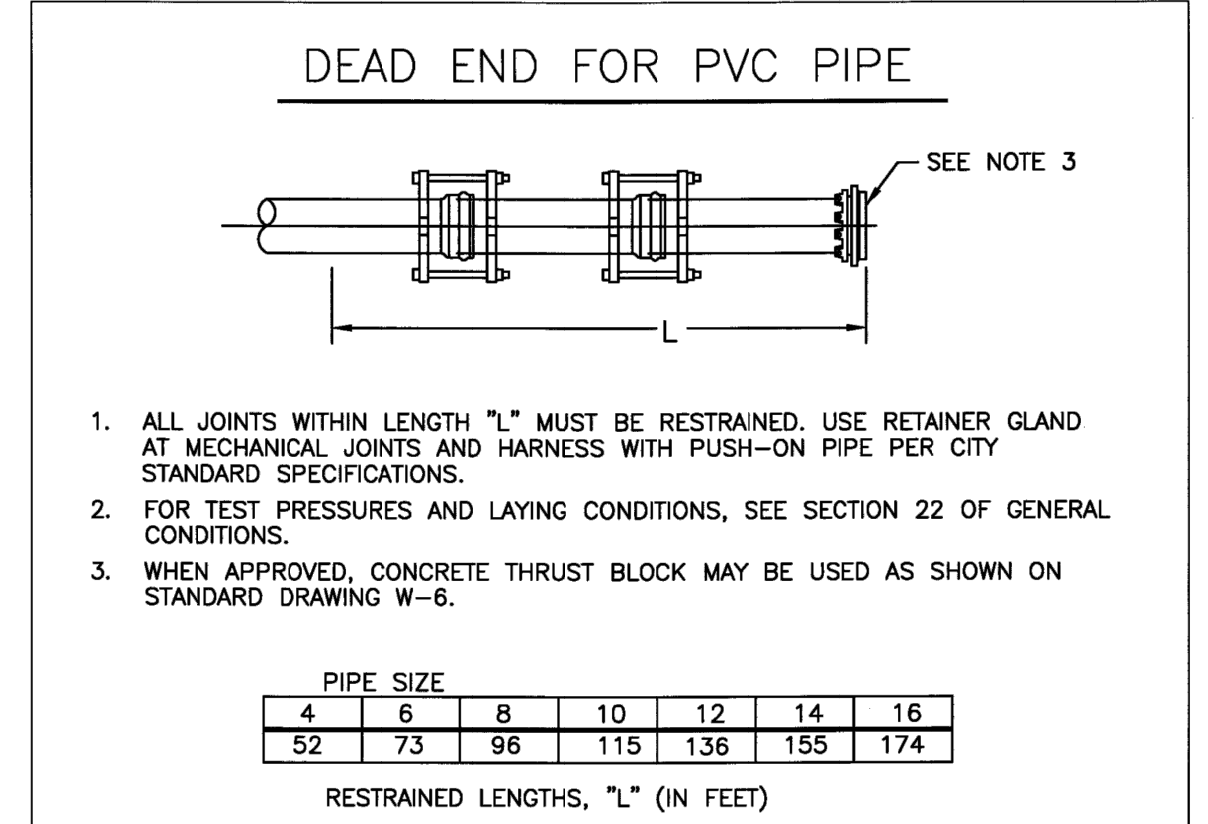
BEND ANGLE	SIZE						
	4	6	8	10	12	14	16
11.25	5	7	9	11	13	15	17
22.5	11	15	19	23	27	31	35
45	23	31	40	48	56	64	72

RESTRAINED LENGTHS, "L" (IN FEET)

3
11305

PVC BEND RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-32



- ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STANDARD SPECIFICATIONS.
- FOR TEST PRESSURES AND LAYING CONDITIONS, SEE SECTION 22 OF GENERAL CONDITIONS.
- WHEN APPROVED, CONCRETE THRUST BLOCK MAY BE USED AS SHOWN ON STANDARD DRAWING W-6.

PIPE SIZE						
4	6	8	10	12	14	16
52	73	96	115	136	155	174

RESTRAINED LENGTHS, "L" (IN FEET)

GENERAL NOTES ON USE OF RESTRAINED JOINT LENGTHS
THESE RESTRAINED LENGTH CALCULATIONS ARE BASED ON THE FOLLOWING DESIGN CRITERIA

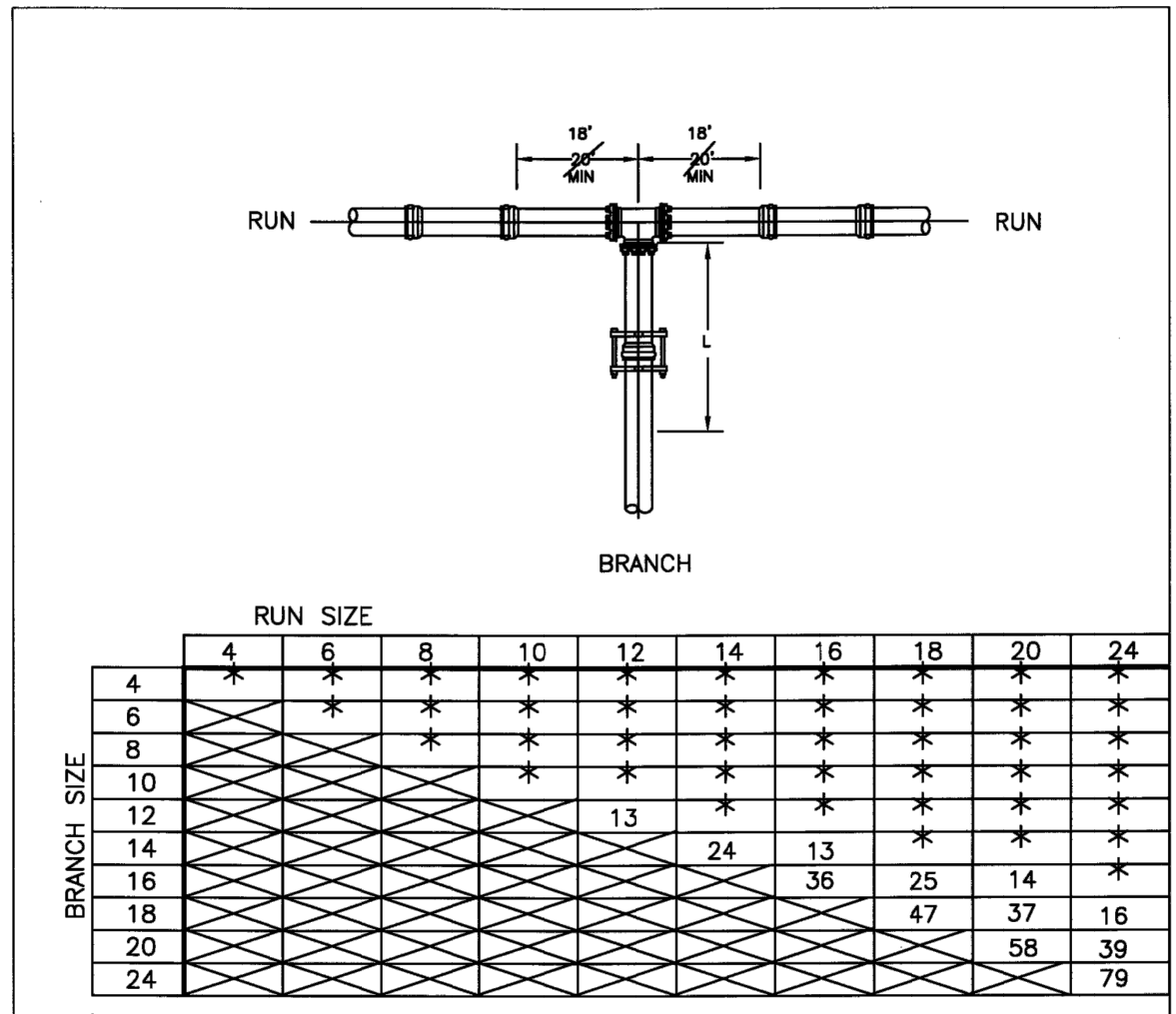
- THREE (3) FEET MINIMUM DEPTH OF COVER
- A SAFETY FACTOR OF 1.5
- SOIL TYPE OF SM--SILTY GRAVEL AND SILTY SANDS AS DEFINED BY ASTM D-2487
- TRENCH COMPACTION OF TYPE 5 - PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO THE CENTER LINE OF PIPE, 4 INCHES MINIMUM UNDER PIPE. COMPACTED GRANULAR MATERIAL OR SELECT MATERIAL TO TOP OF THE PIPE. (APPROXIMATELY 90 PERCENT STANDARD PROCTOR DENSITY, AASHTO T-99)
- TEST PRESSURES OF 200 PSI FOR THE 4 THROUGH 16 INCH SIZES

IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, CONSULT THE DESIGN ENGINEER FOR MODIFICATIONS TO THE RESTRAINED LENGTHS OR DESIGN.

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11305

PVC PIPE RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-33



BRANCH SIZE	RUN SIZE										
	4	6	8	10	12	14	16	18	20	24	
4	*	*	*	*	*	*	*	*	*	*	*
6	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*
24	*	*	*	*	*	*	*	*	*	*	*

* -FOR THIS CONDITION NEED ONLY RESTRAIN THE BRANCH OUTLET OF THE TEE.

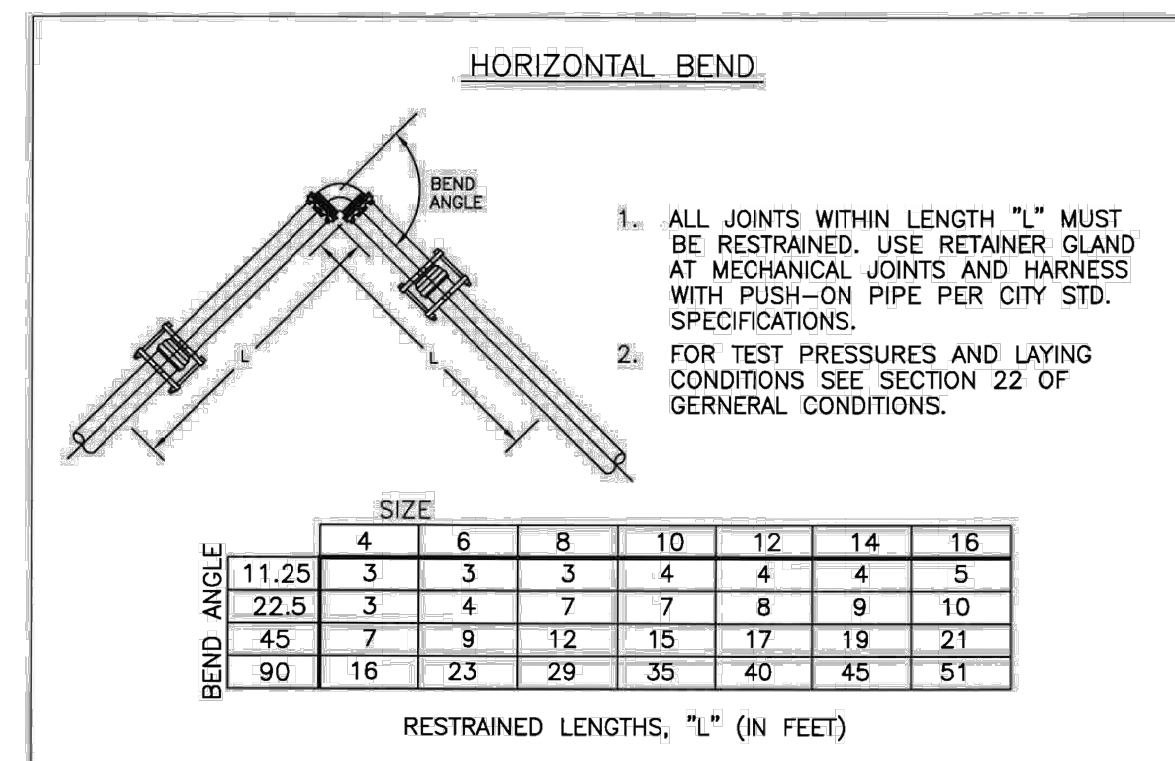
RESTRAINED LENGTHS, "L" (IN FEET)

- RESTRAIN THE TWO MECHANICAL JOINTS ON THE RUN SIDES OF THE TEE WHEN LESS THAN A FULL 18' LENGTH OF PIPE IS INSTALLED ON EACH SIDE OF THE RUN.
- ALL JOINTS WITHIN THE LENGTH "L" ON THE BRANCH MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS ON PUSH-ON PIPE PER CITY SPECIFICATION.
- FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION 22 OF GENERAL CONDITIONS.

5
11305

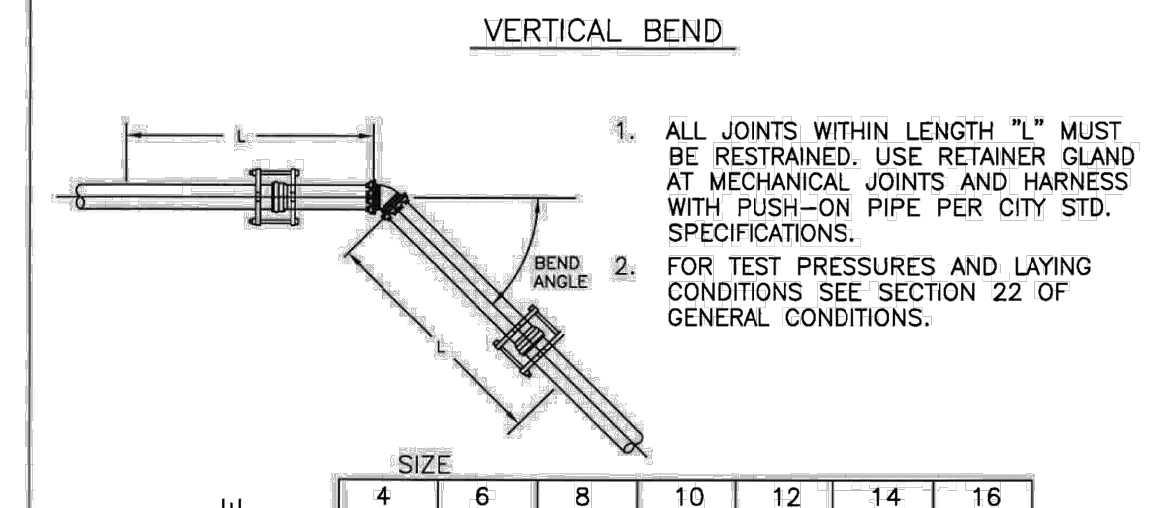
DUCTILE IRON TEE RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-34



BEND ANGLE	SIZE						
	4	6	8	10	12	14	16
11.25	3	3	3	4	4	4	5
22.5	3	4	7	7	8	9	10
45	7	9	12	15	17	19	21
90	16	23	29	35	40	45	51

RESTRAINED LENGTHS, "L" (IN FEET)



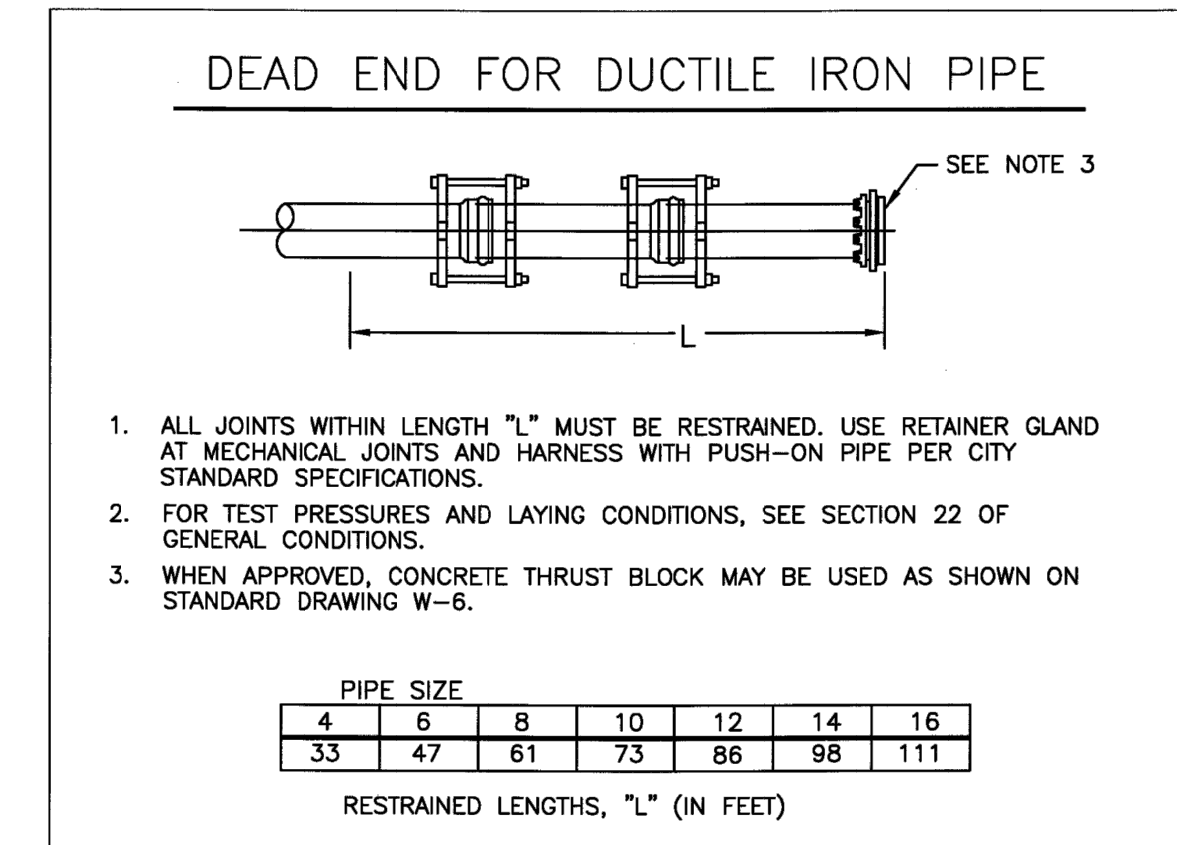
BEND ANGLE	SIZE						
	4	6	8	10	12	14	16
11.25	3	5	7	8	8	10	11
22.5	7	11	12	15	17	20	22
45	15	19	25	31	36	41	46

RESTRAINED LENGTHS, "L" (IN FEET)

6
11305

DUCTILE IRON BEND RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-35



- ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STANDARD SPECIFICATIONS.
- FOR TEST PRESSURES AND LAYING CONDITIONS, SEE SECTION 22 OF GENERAL CONDITIONS.
- WHEN APPROVED, CONCRETE THRUST BLOCK MAY BE USED AS SHOWN ON STANDARD DRAWING W-6.

PIPE SIZE						
4	6	8	10	12	14	16
33	47	61	73	86	98	111

RESTRAINED LENGTHS, "L" (IN FEET)

GENERAL NOTES ON USE OF RESTRAINED JOINT LENGTHS
THESE RESTRAINED LENGTH CALCULATIONS ARE BASED ON THE FOLLOWING DESIGN CRITERIA

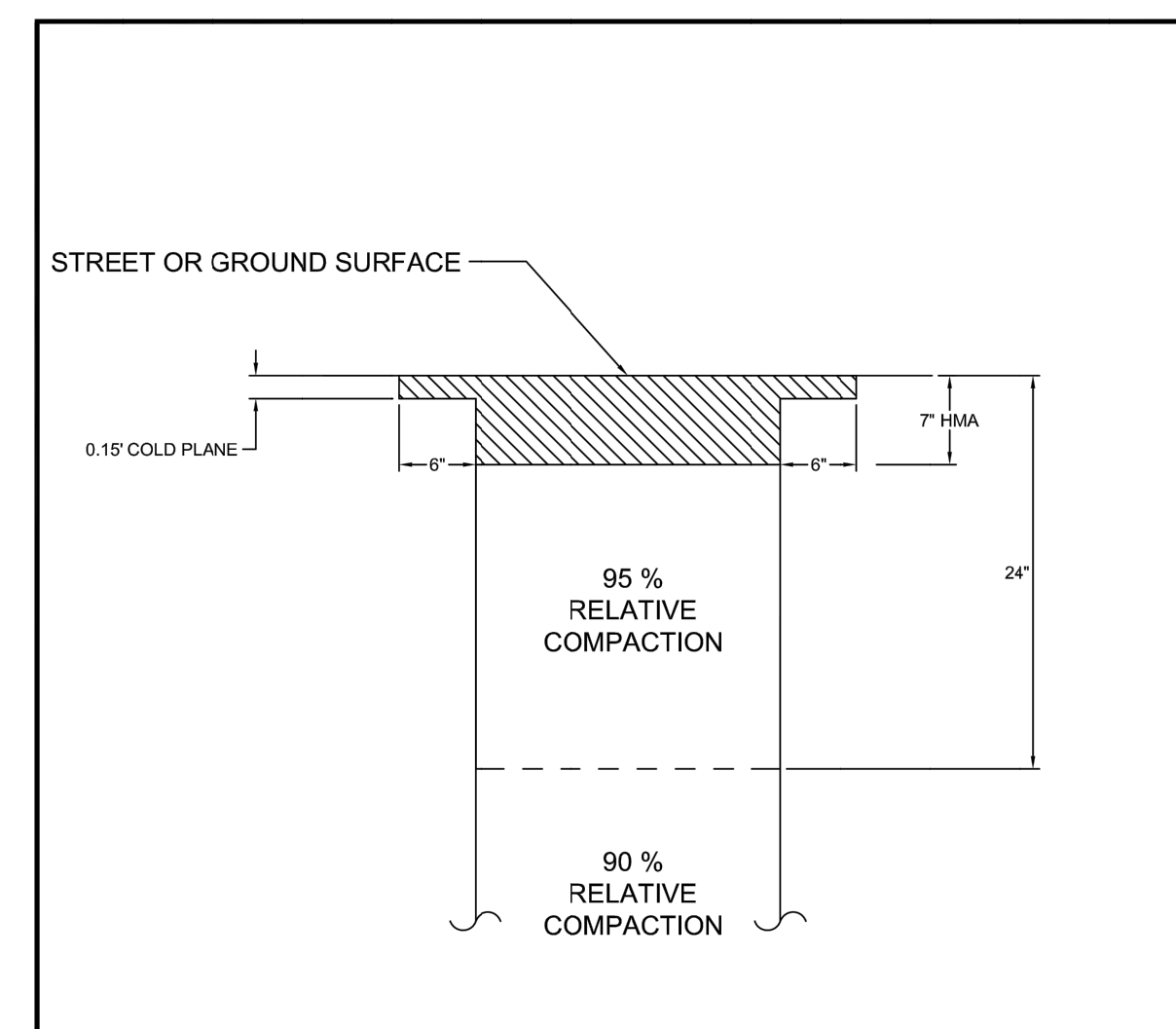
- THREE (3) FEET MINIMUM DEPTH OF COVER
- A SAFETY FACTOR OF 1.5
- SOIL TYPE OF SM--SILTY GRAVEL AND SILTY SANDS AS DEFINED BY ASTM D-2487
- TRENCH COMPACTION OF TYPE 5 - PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO THE CENTER LINE OF PIPE, 4 INCHES MINIMUM UNDER PIPE. COMPACTED GRANULAR MATERIAL OR SELECT MATERIAL TO TOP OF THE PIPE. (APPROXIMATELY 90 PERCENT STANDARD PROCTOR DENSITY, AASHTO T-99)
- TEST PRESSURES OF 200 PSI FOR THE 4 THROUGH 16 INCH SIZES

IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, CONSULT THE DESIGN ENGINEER FOR MODIFICATIONS TO THE RESTRAINED LENGTHS OR DESIGN.

7
11305

DUCTILE IRON PIPE RESTRAINTS

REF. & REV. MAR. 2006 CITY OF FRESNO W-36

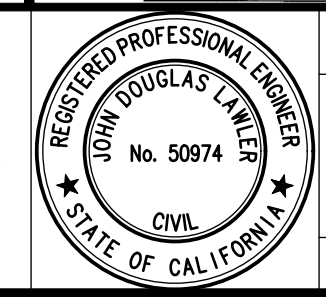


- NOTES:
- HMA = HOT MIX ASPHALT CONCRETE PG 64-10
 - IF THERE IS LESS THAN 2 FEET BETWEEN THE EDGE OF A TRENCH CUT AND A CONCRETE IMPROVEMENT, OR EDGE OF PAVING, THEN REMOVE AND REPLACE THE ASPHALT CONCRETE PAVEMENT FROM THE EDGE OF THE TRENCH CUT TO THE CONCRETE IMPROVEMENT, OR EDGE OF PAVING.
 - RELATIVE COMPACTION SHALL BE PREPARED PER APPLICABLE COUNTY STANDARDS AND TESTING PERFORMED BY CALIFORNIA TEST METHOD 216 AND 231 AS DETERMINED BY THE COUNTY.
 - NO JETTING IS ALLOWED.

8
11305

DESIGNED: _____ DATE: _____ REVISED DATE: 7/11/2010
DRAWN: _____
CHECKED: _____
THE COUNTY OF FRESNO DEPARTMENT OF PUBLIC WORKS AND PLANNING
TRENCH BACKFILL AND RESURFACING

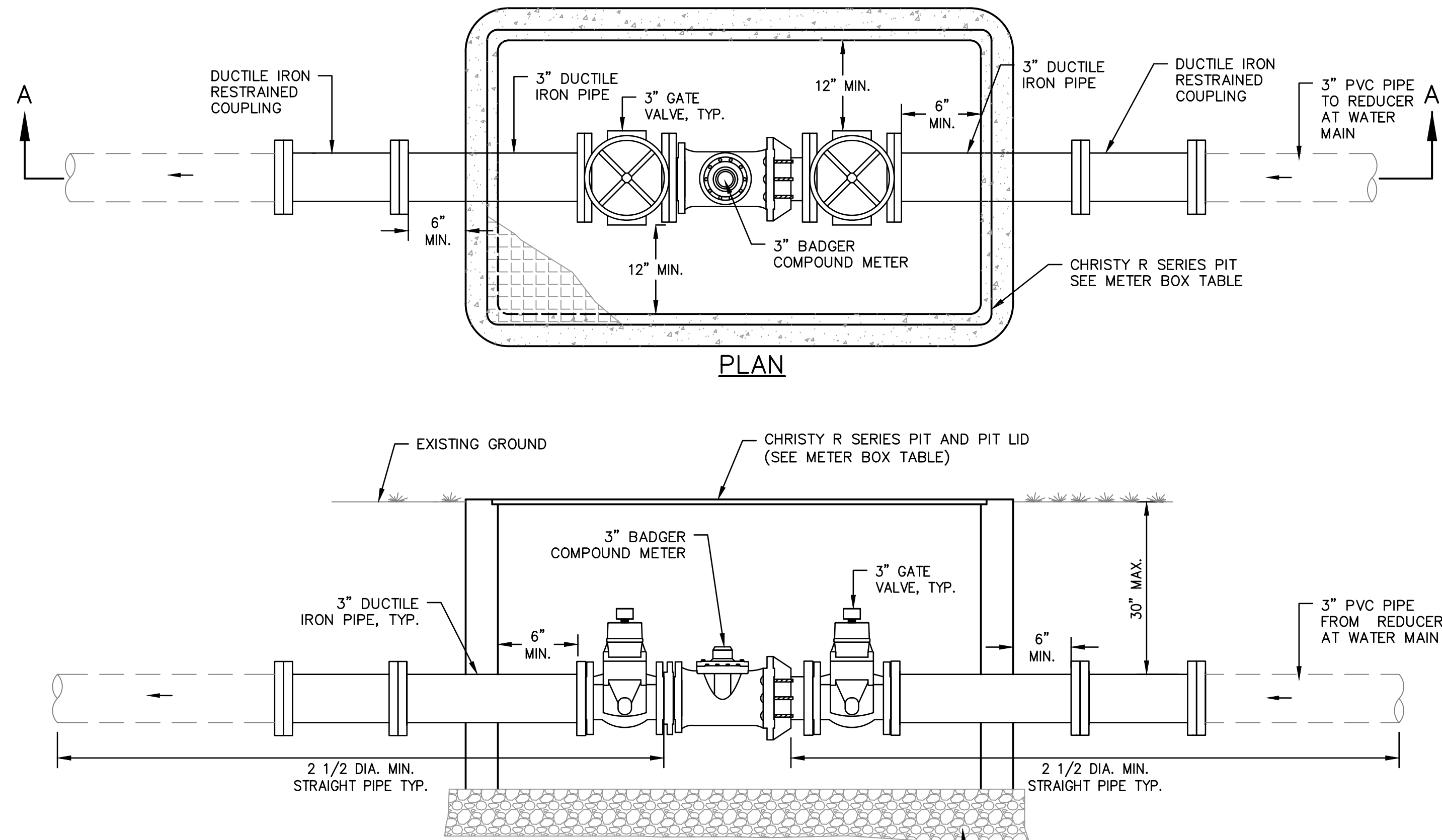
John Paul
06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONSTRUCTION DETAILS 3
DETAILS
DRAWING NO. 11305 SHEET NO. CD-3 TOTAL 33



NOTES

- PIPE AND FITTING SIZES SHALL MATCH METER SIZES IDENTIFIED IN TABLE.
- SMITH-BLAIR FLANGE COUPLING ADAPTOR WITH ANCHOR STUDS OR APPROVED EQUAL MAY BE USED WITH ENGINEER'S APPROVAL TO CONNECT NEW PIPING TO EXISTING SERVICE PIPE.
- METER VAULTS IN TRAFFIC AREA TO UTILIZE H2O RATE LID AS SHOWN ON THE PLANS.
- ALL VAULTS SHALL INCLUDE 8" ROUND SELF-CLOSING READING LID.
- METER BOX SHALL BE PLACED WHERE SHOWN ON THE PLANS.
- ALL BURIED FITTINGS SHALL HAVE MECHANICAL JOINTS.

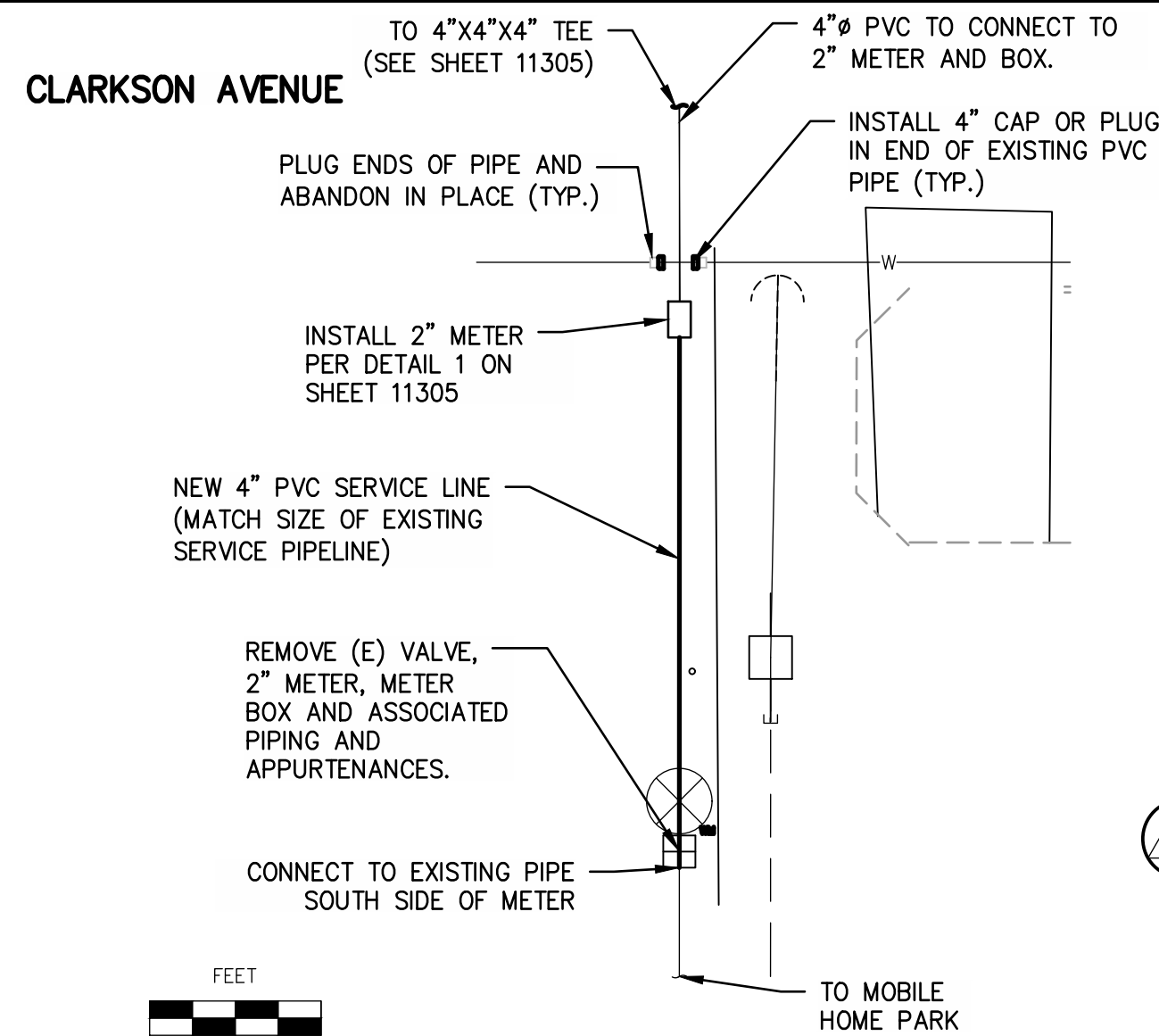
METER BOX TABLE		
METER SIZE	BOX TYPE	LID TYPE
3"	R17P36	R17-52J OR R17-52HT*

* SEE NOTES 5 AND 6.

3" METER INSTALLATION

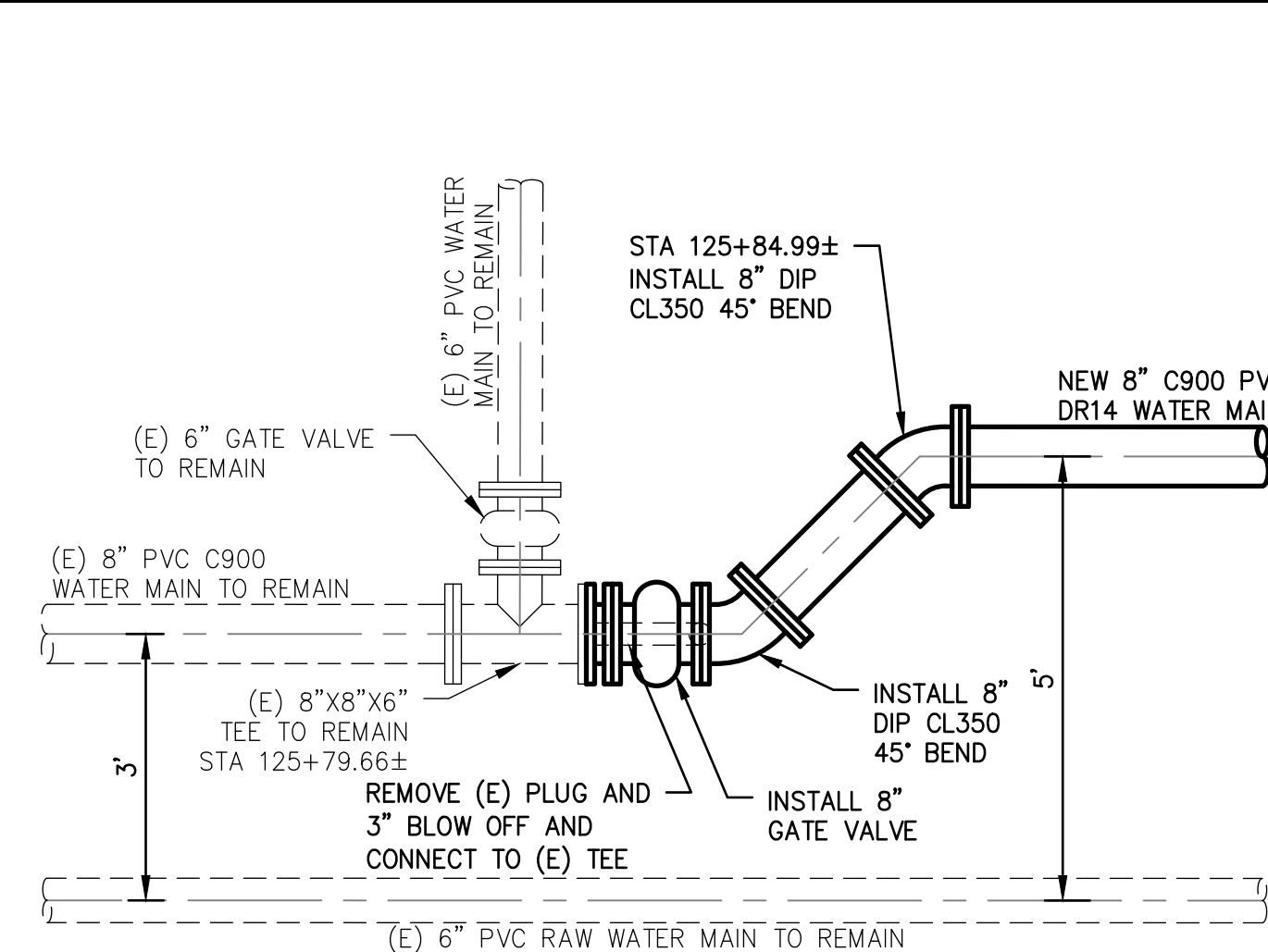
NOT TO SCALE

1
11305



4
11305

TYPE E MOBILE HOME PARK 4" SERVICE 2" METER AND METER BOX



6
11305

CLARKSON AVENUE CONNECTION 1

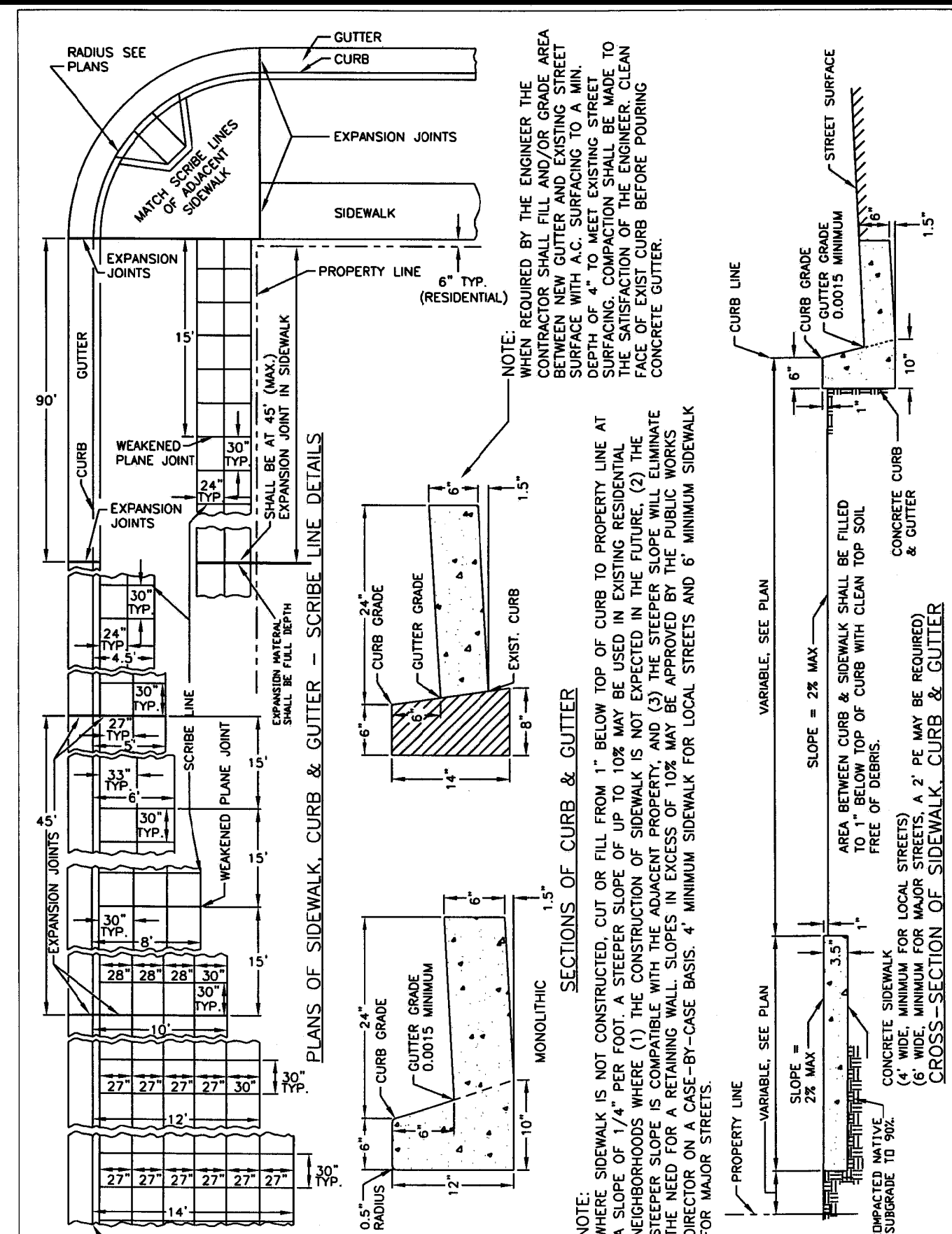
- NOTES:**
- CONNECTION TO BE MADE AFTER EXISTING SYSTEM IS OUT OF SERVICE PER SPECIFICATIONS.

2
11305

CONSTRUCTION DETAILS FOR CONCRETE SIDEWALK, CURB & GUTTER

REF. & REV. JUNE 2015

CITY OF FRESNO P-5

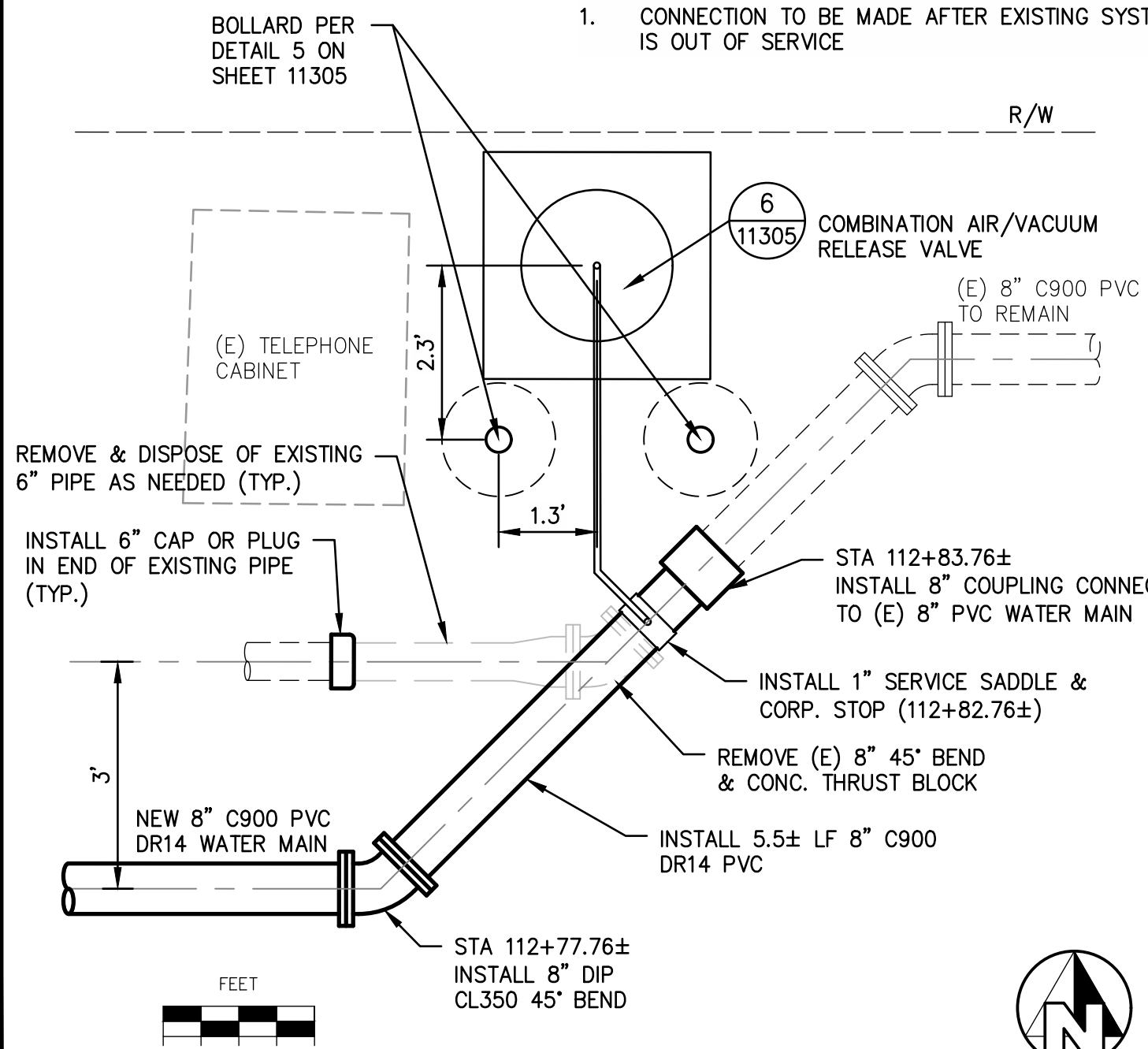


NOTE:

- CONNECTION TO BE MADE AFTER EXISTING SYSTEM IS OUT OF SERVICE

5
11305

CLARKSON AVENUE CONNECTION 2

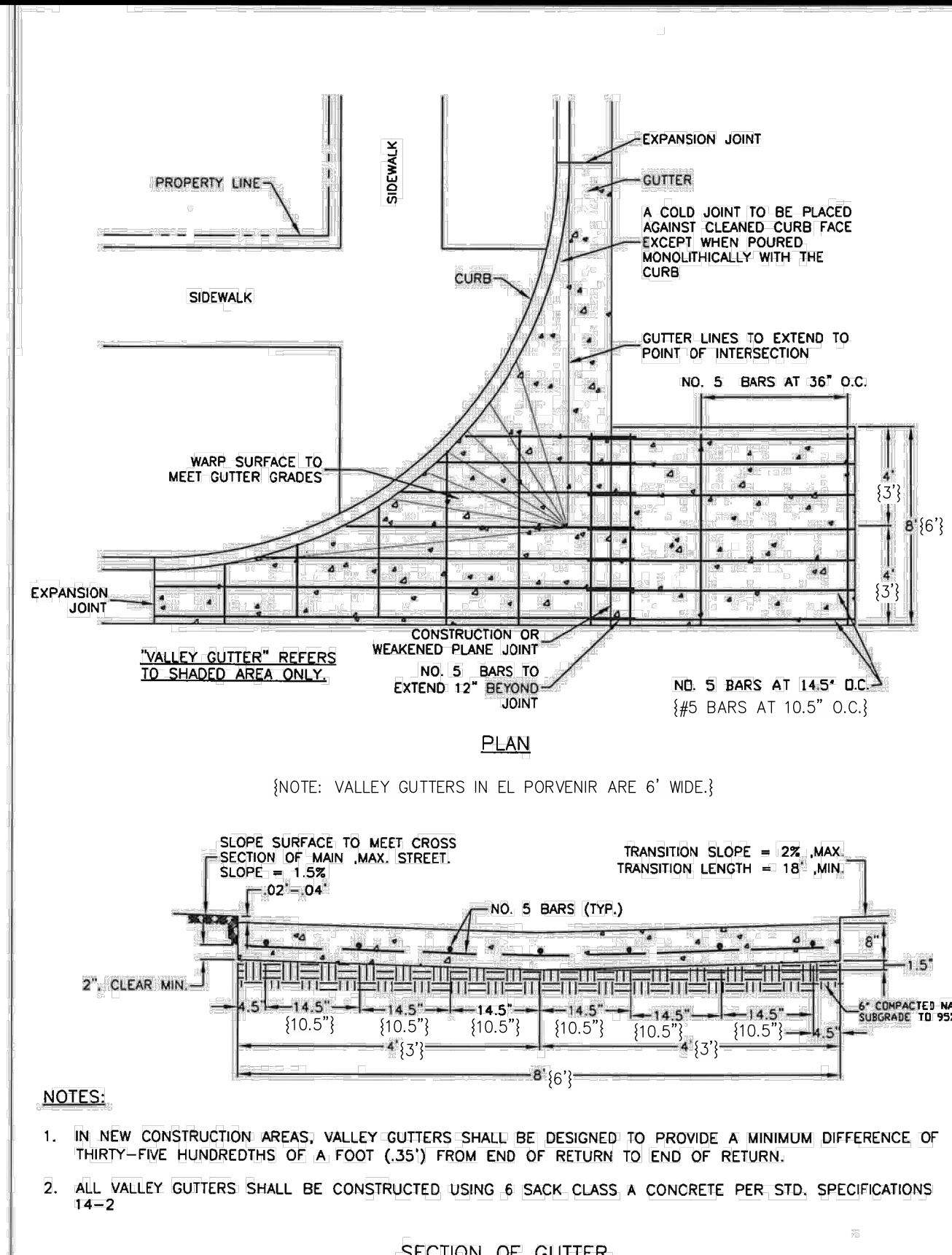


3
11305

CONCRETE VALLEY GUTTER

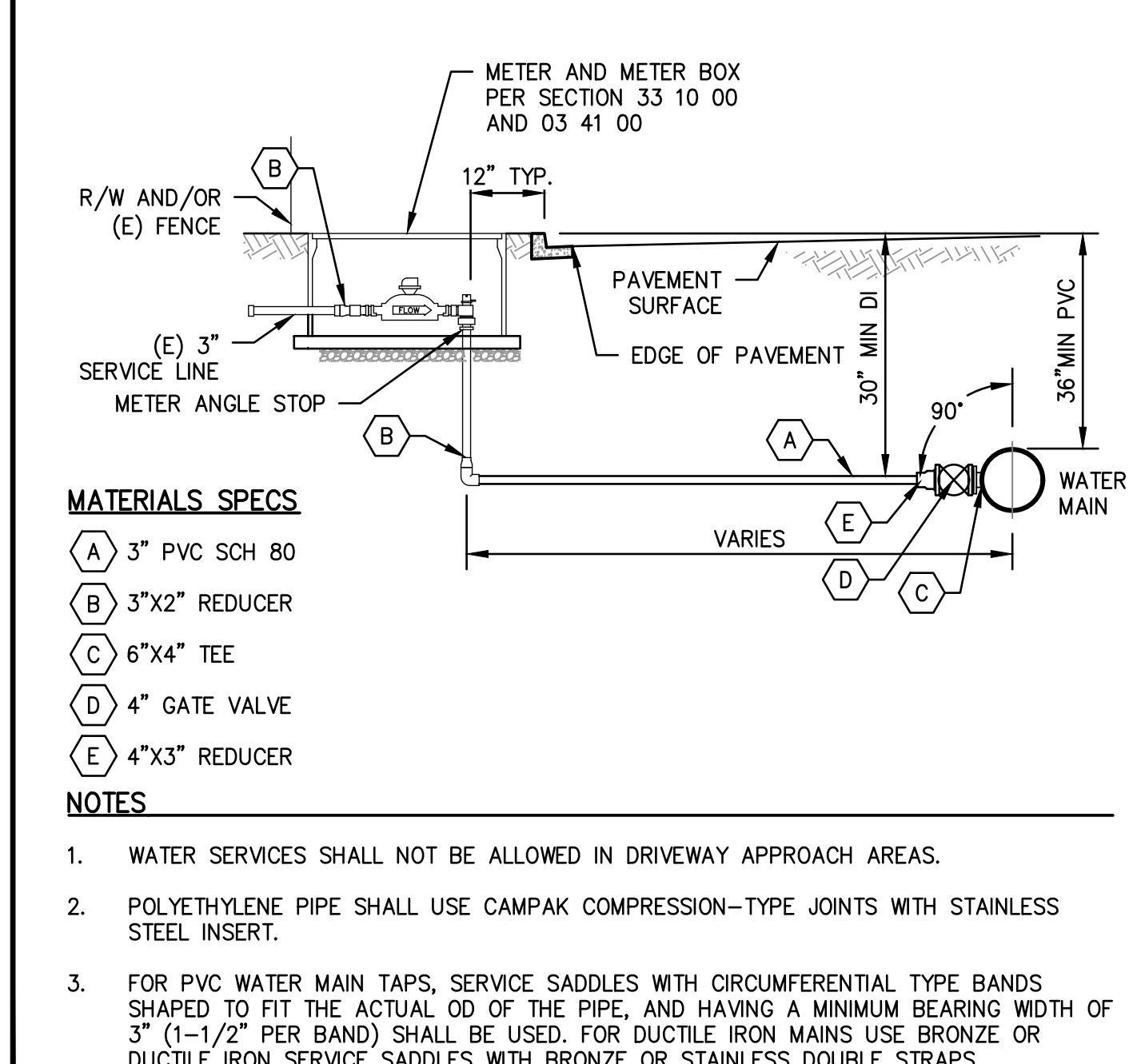
REF. & REV. JUNE 2015

CITY OF FRESNO P-10



7
11305

3" WATER SERVICE, 2" METER AND METER BOX



MATERIALS SPECS

- (A) 3" PVC SCH 80
- (B) 3"x2" REDUCER
- (C) 6"x4" TEE
- (D) 4" GATE VALVE
- (E) 4"x3" REDUCER

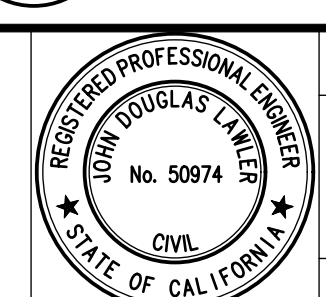
NOTES

- WATER SERVICES SHALL NOT BE ALLOWED IN DRIVEWAY APPROACH AREAS.
- POLYETHYLENE PIPE SHALL USE CAMPAK COMPRESSION-TYPE JOINTS WITH STAINLESS STEEL INSERT.
- FOR PVC WATER MAIN TAPS, SERVICE SADDLES WITH CIRCUMFERENTIAL TYPE BANDS SHAPED TO FIT THE ACTUAL OD OF THE PIPE, AND HAVING A MINIMUM BEARING WIDTH OF 3" (1-1/2" PER BAND) SHALL BE USED. FOR DUCTILE IRON MAINS USE BRONZE OR DUCTILE IRON SERVICE SADDLES WITH BRONZE OR STAINLESS DOUBLE STRAPS.

NOT TO SCALE

John Paul

06/30/2020

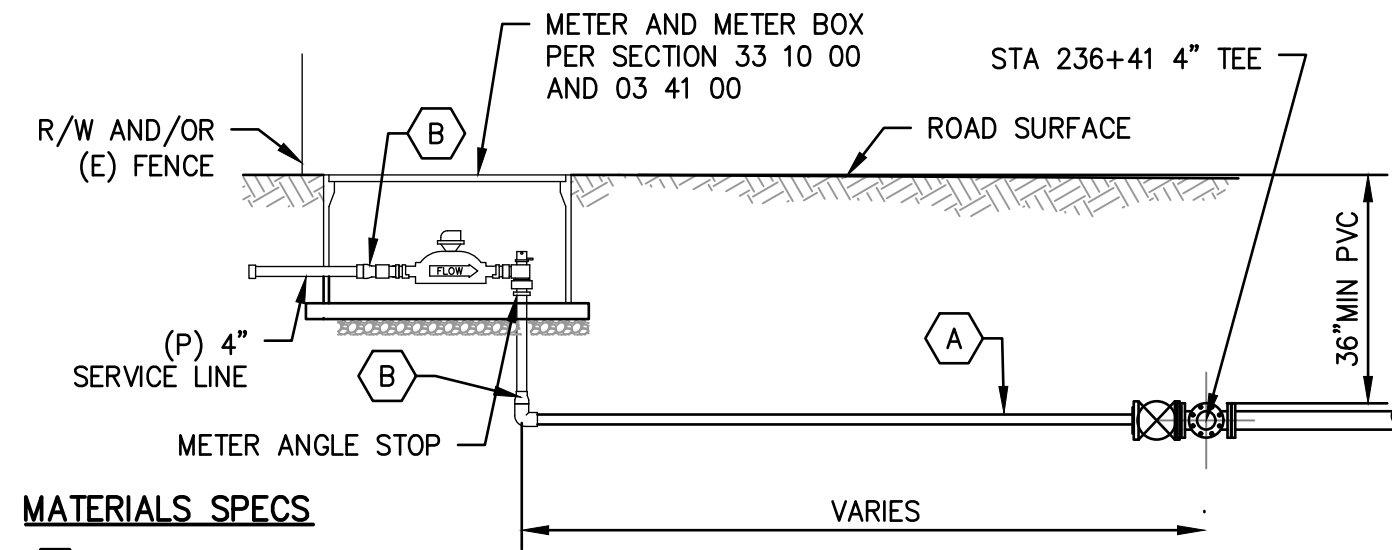


PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONNECTION & MISC DETAILS 2
DETAILS

DRAWING NO. 11305 SHEET NO. CD-5 TOTAL 33



- MATERIALS SPECS**
- (A) 4" PVC DR 18
 - (B) 4"x2" REDUCER

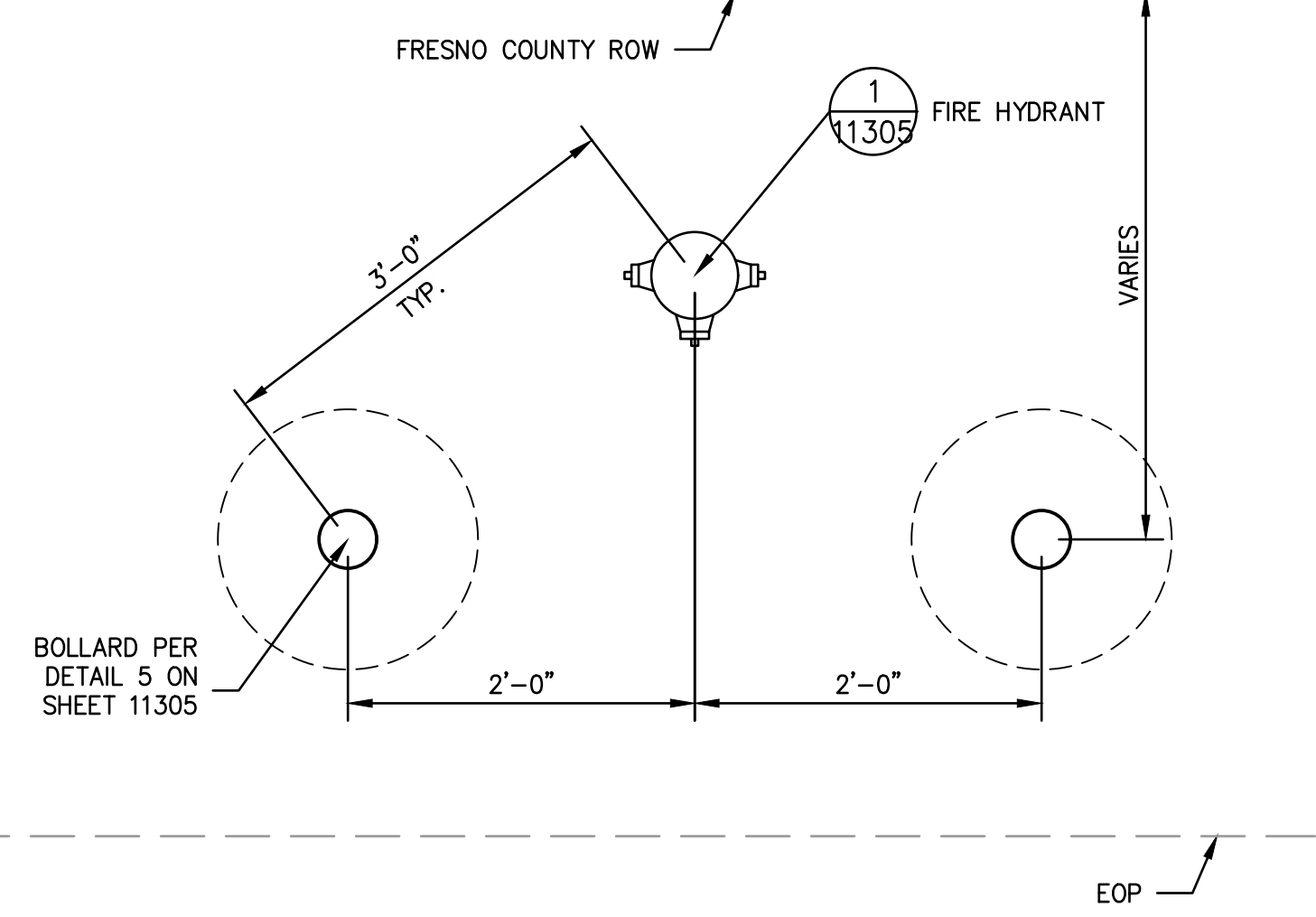
NOTES

1. WATER SERVICES SHALL NOT BE ALLOWED IN DRIVEWAY APPROACH AREAS.

NOT TO SCALE

1
11305

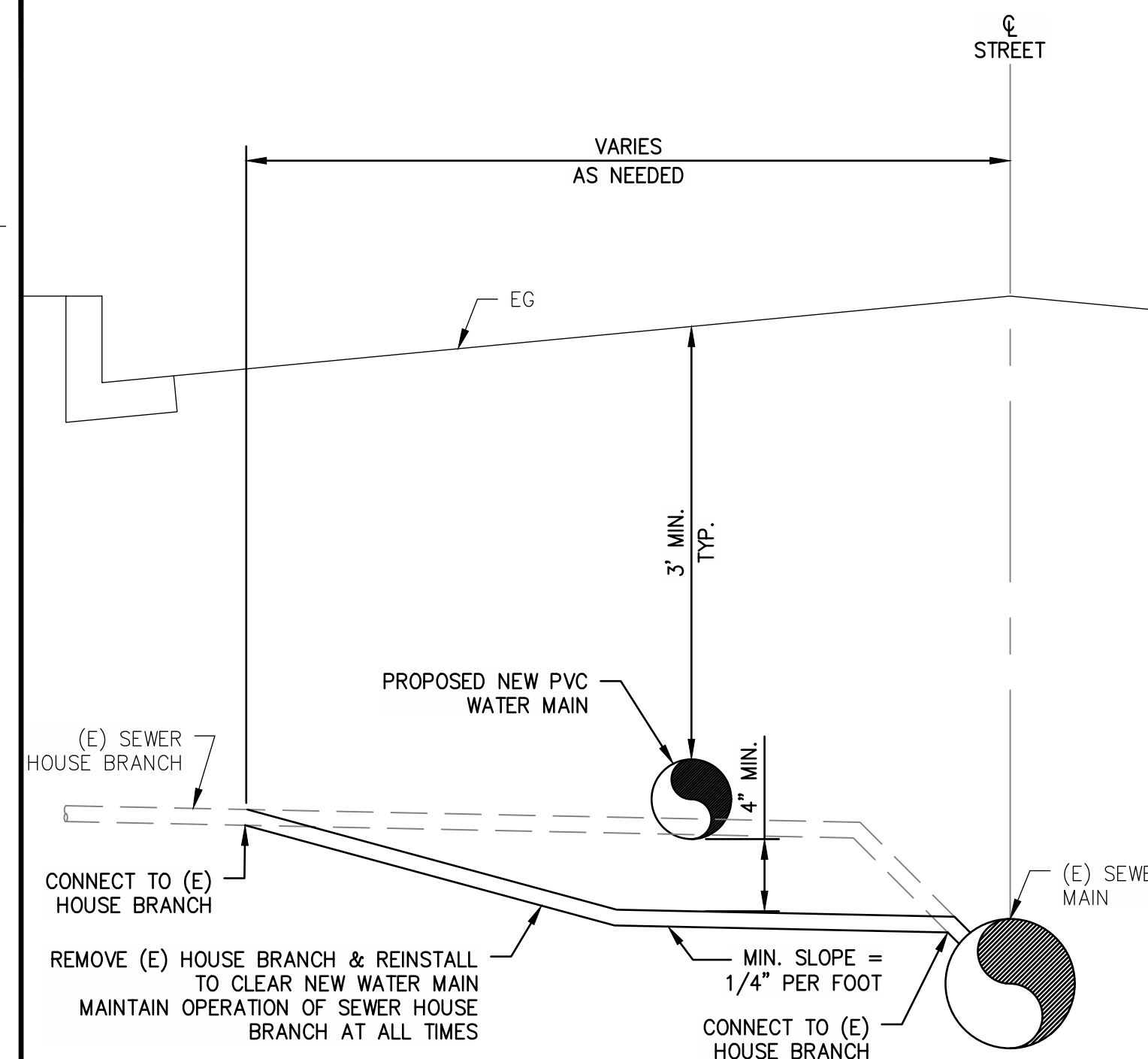
4" WATER SERVICE, 2" METER AND METER BOX FOR MOBILE HOME PARK



NOT TO SCALE

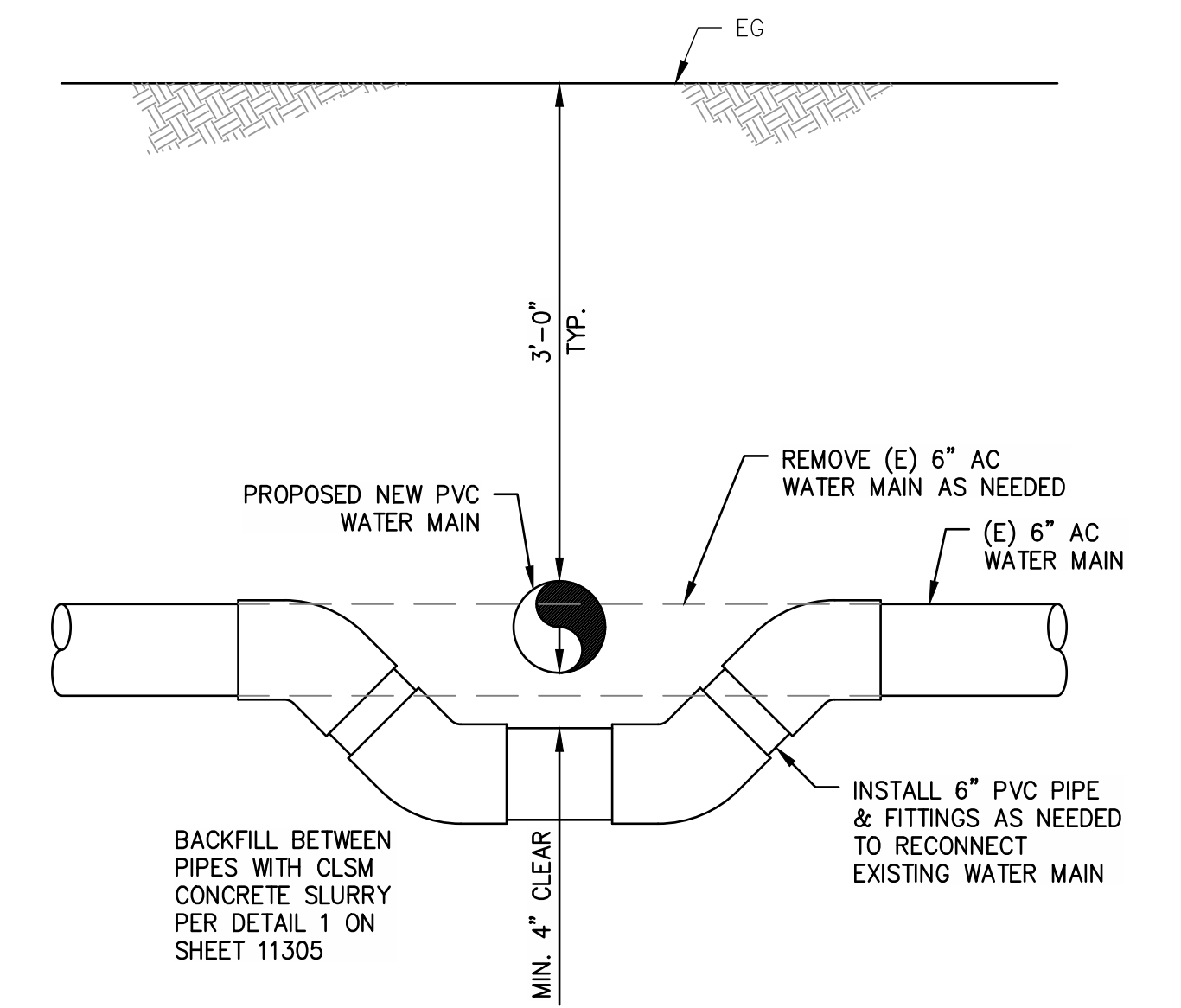
2
11305

FIRE HYDRANT BOLLARD LAYOUT



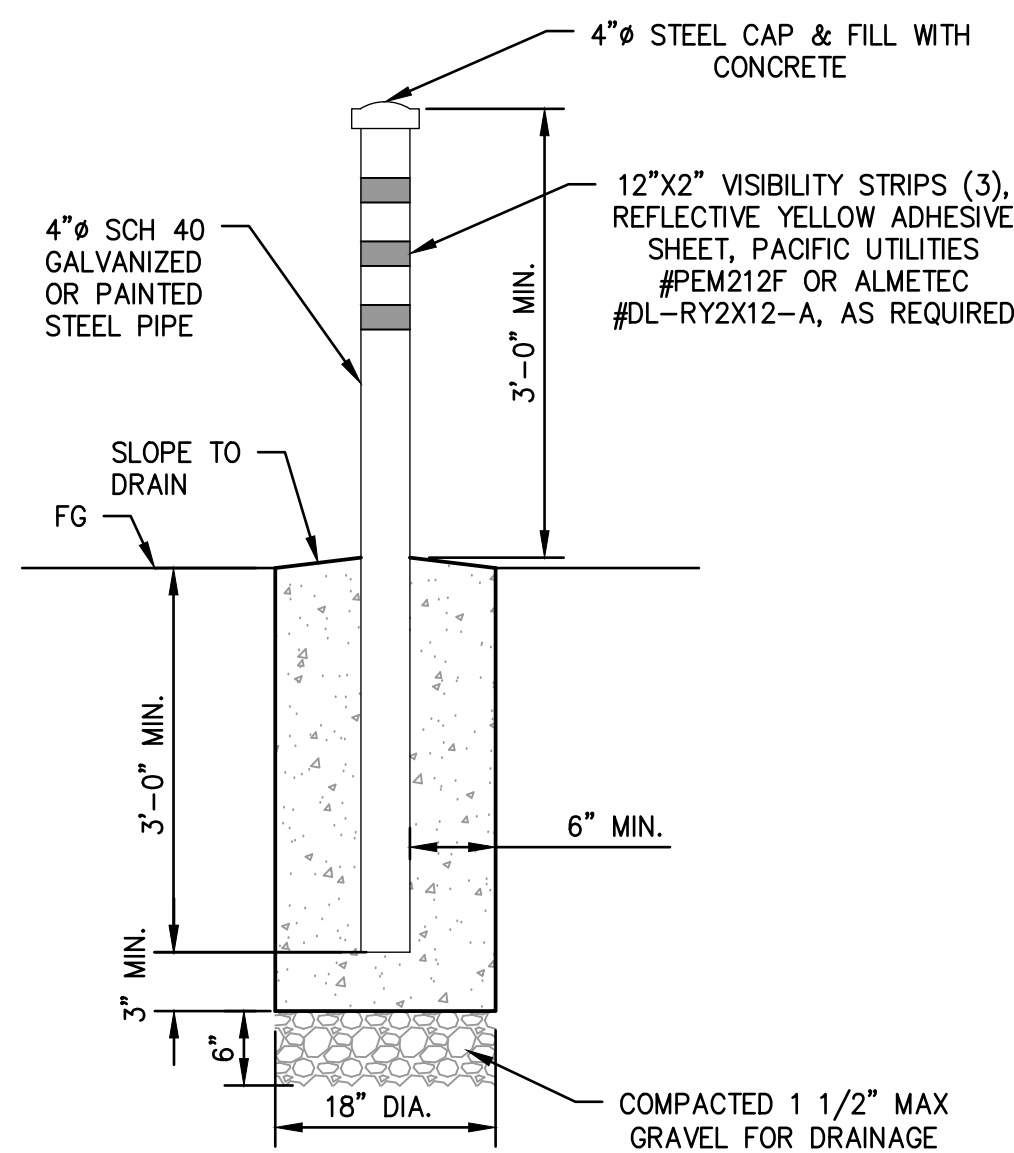
3
11305

SEWER SERVICE BYPASS CSA 32



4
11305

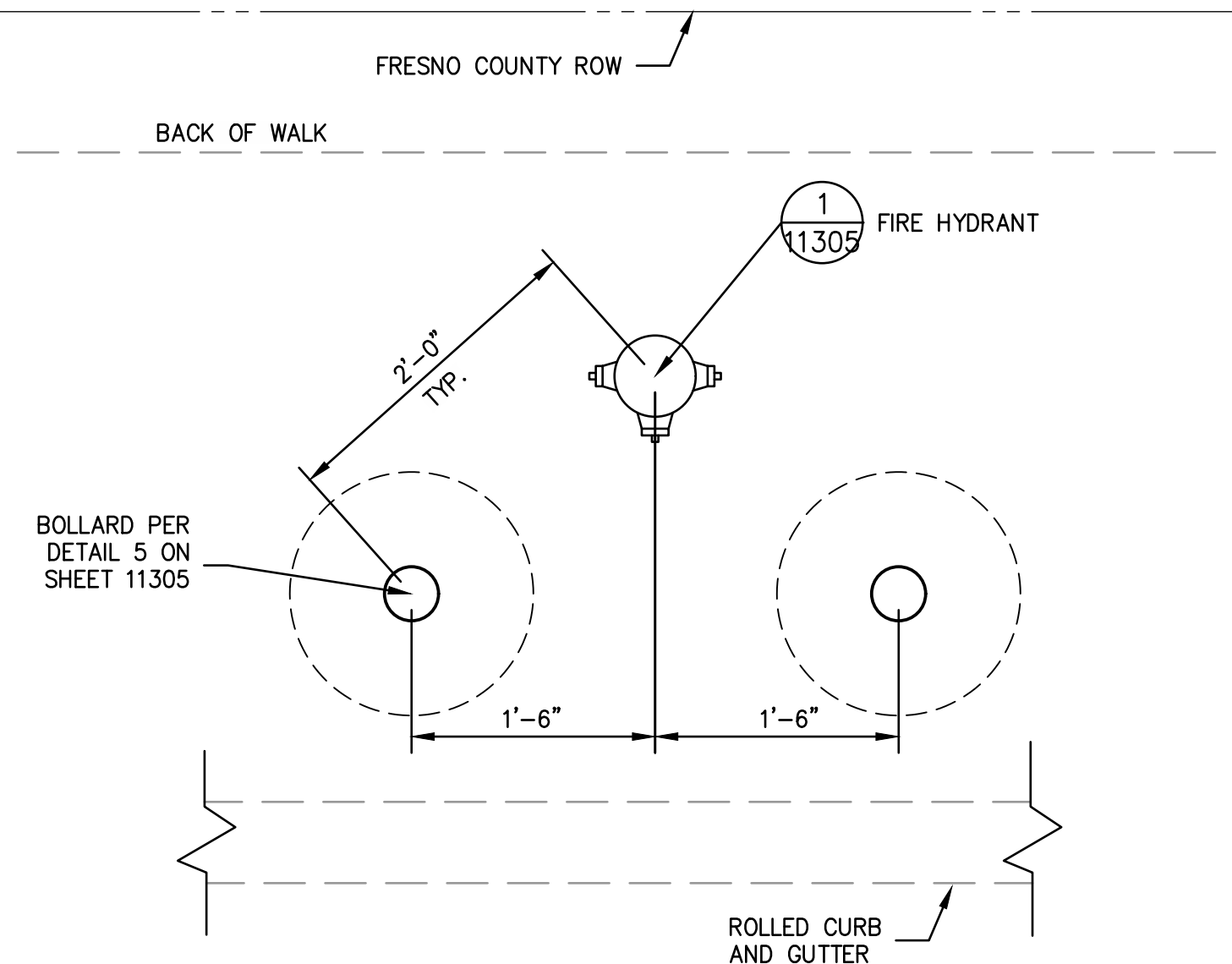
TEMPORARY RELOCATION OF EXISTING WATER MAIN



NOT TO SCALE

5
11305

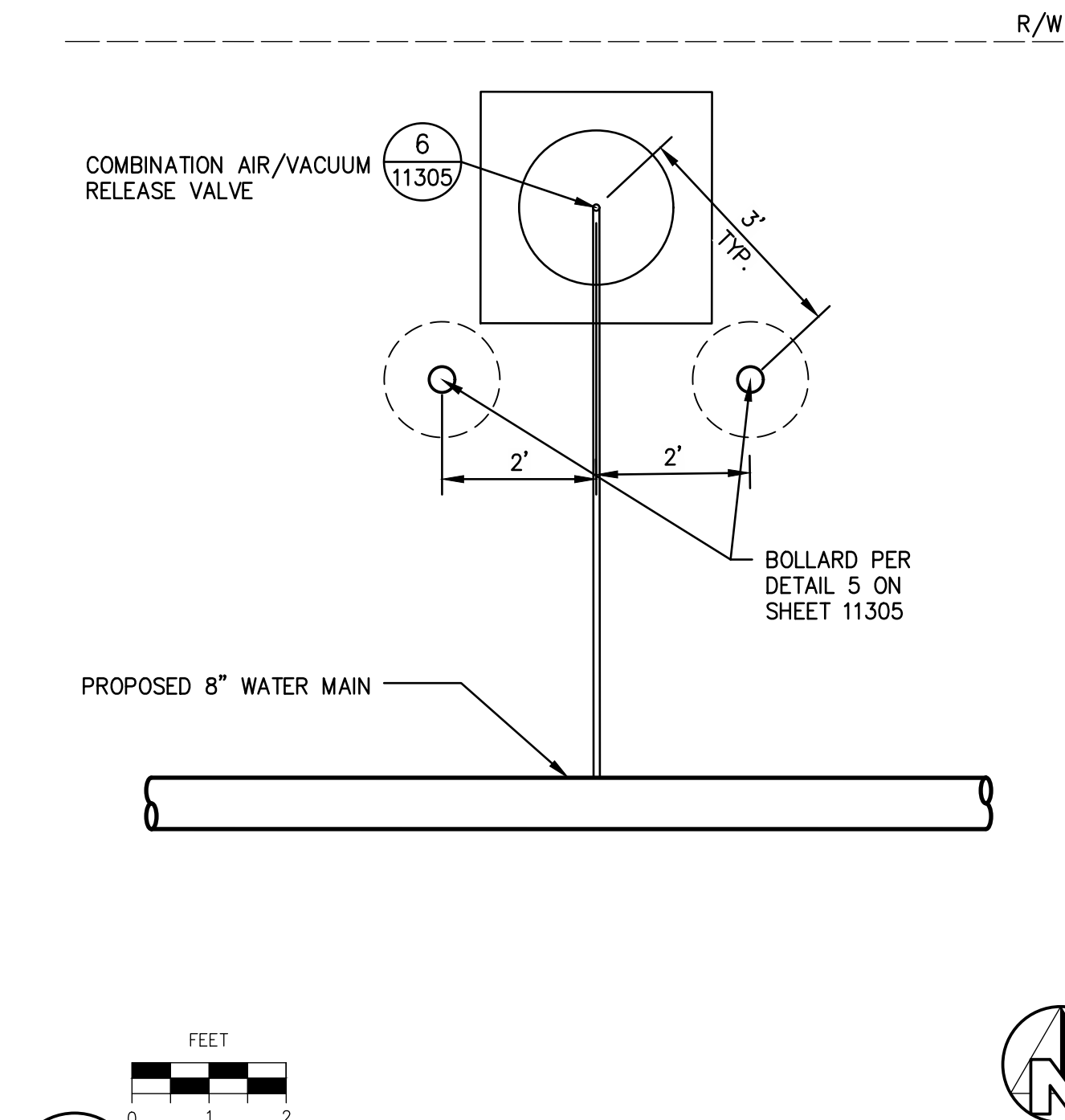
BOLLARD



NOT TO SCALE

6
11305

FIRE HYDRANT BOLLARD LAYOUT WITH ROLLED CURB AND GUTTER

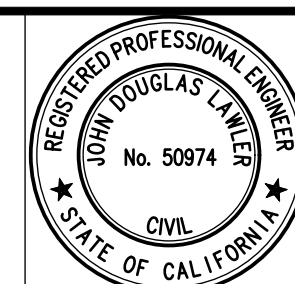


7
11305

AIR VALVE BOLLARD LAYOUT

John D. Lander

06/30/2020

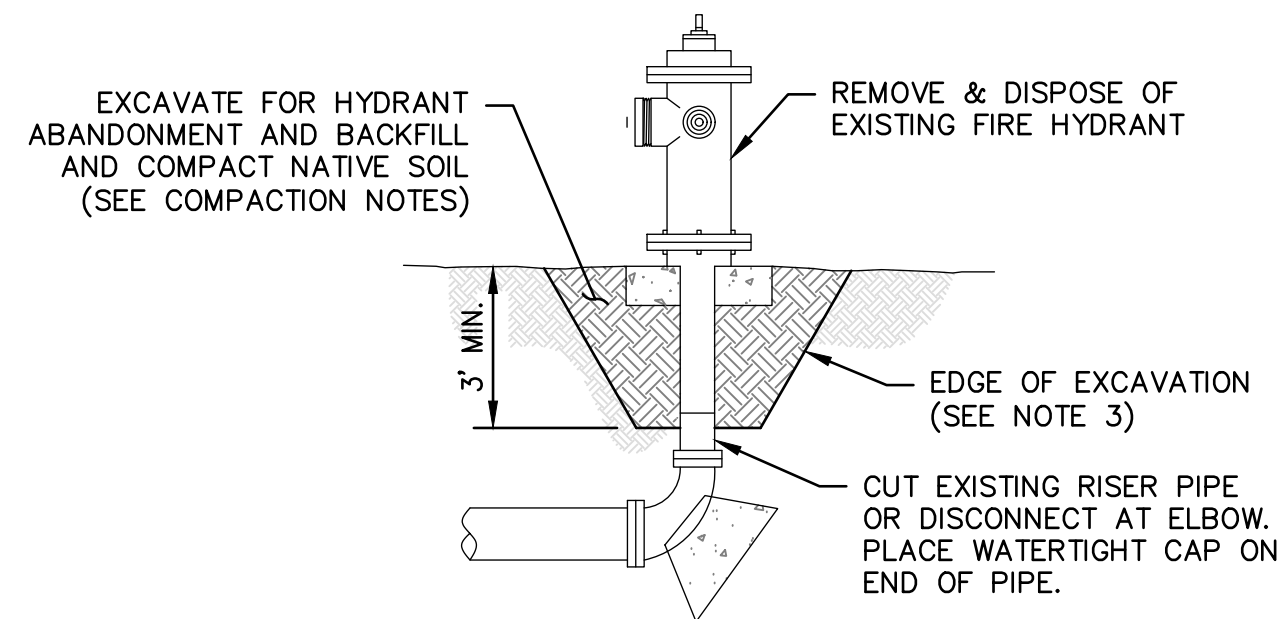


PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONNECTION & MISC DETAILS 3
DETAILS

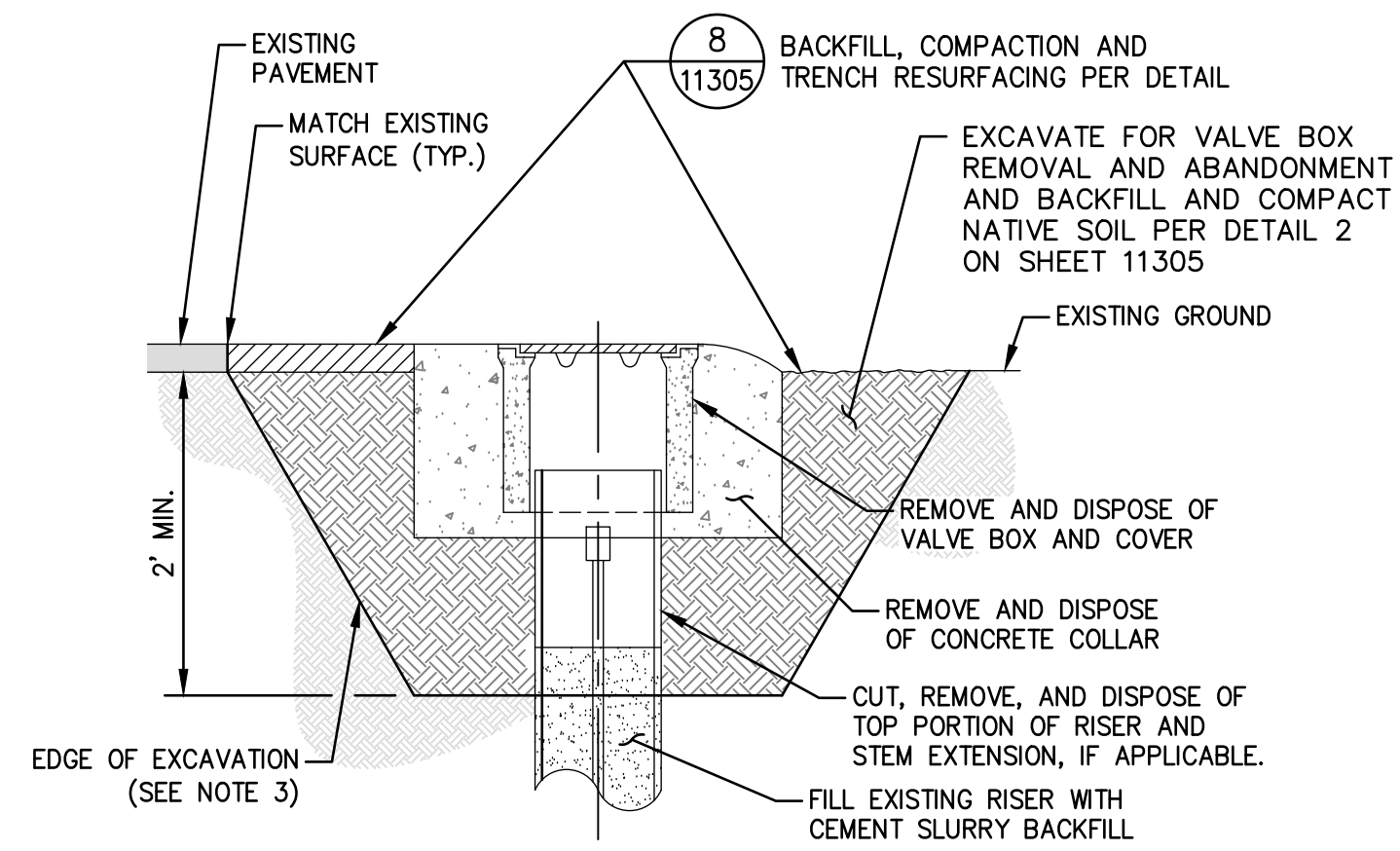
DRAWING NO. 11305 SHEET NO. CD-6 TOTAL 33



- NOTES:**
1. EDGE OF EXCAVATION SHOWN FOR ILLUSTRATION PURPOSES ONLY, TRENCH WIDTH MAY VARY.
 2. IF THE FIRE HYDRANT HAS PROTECTIVE BOLLARDS THEY ARE TO BE REMOVED AS WELL INCLUDING CONCRETE FOOTING, AND BACKFILLED.

1
11305

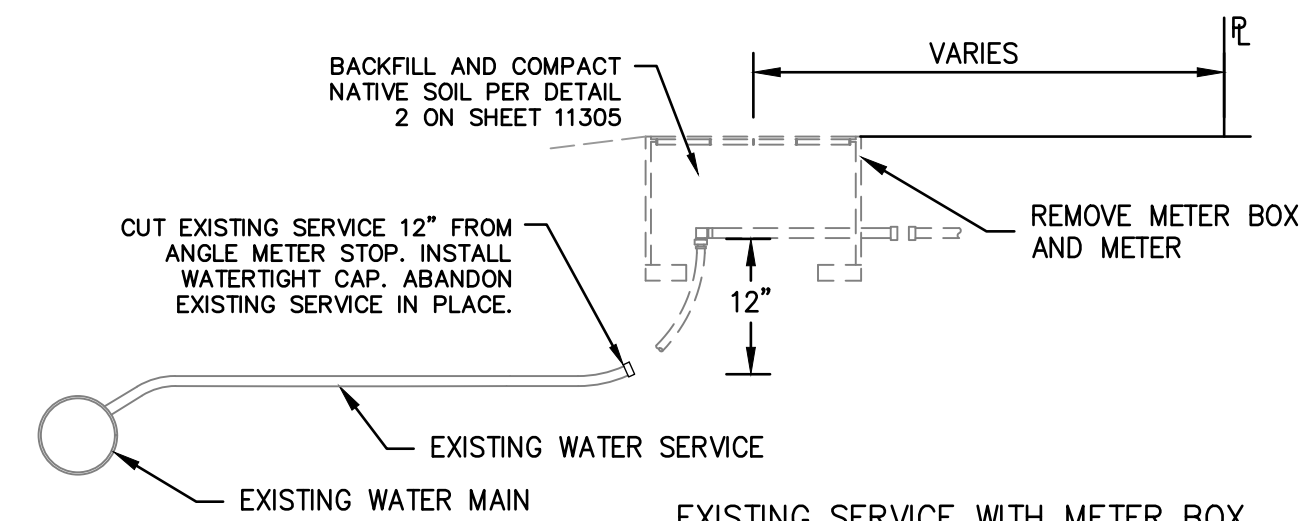
FIRE HYDRANT ABANDONMENT



- NOTES:**
1. CONCRETE PLUG SHALL BE PER SPECIFICATIONS.
 2. PLUG THICKNESS SHALL BE MINIMUM 2X DIAMETER OF ABANDONED PIPE.
 3. EDGE OF EXCAVATION SHOWN FOR ILLUSTRATION PURPOSES ONLY, TRENCH WIDTH MAY VARY.

2
11305

WATER VALVE BOX ABANDONMENT & REMOVAL



- NOTES:**
1. CONCRETE SHALL BE SAWCUT, REMOVED AND REPLACED TO ALL ADJACENT CONTROL JOINTS IN SIDEWALK AND/OR DRIVE APPROACH.

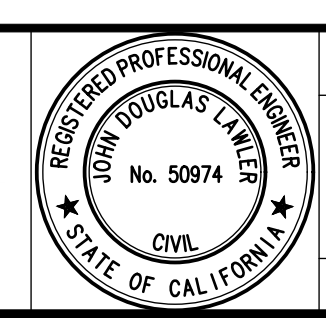
3
11305

WATER SERVICE ABANDONMENT DETAIL

- WATER SYSTEM ABANDONMENT NOTES**
1. THE CONTRACTOR SHALL CONSTRUCT NEW WATER SYSTEM IMPROVEMENTS. AFTER THE NEW WATER SYSTEM HAS BEEN TESTED AND ACCEPTED BY THE COUNTY OF FRESNO, THE CONTRACTOR SHALL MAKE CONNECTIONS TO TANK SITES AND SCHOOL FIRST, AND THEN TO EXISTING WATER SERVICES.
 2. THE CONTRACTOR SHALL CONNECT ALL NEW WATER SERVICES TO EXISTING LEAD LINES PER PLANS AND SPECS.
 3. THE CONTRACTOR SHALL ABANDON ALL EXISTING WATER SERVICES PER DETAIL 3 ON DRAWING 11305 AT THE TIME CONNECTION IS MADE TO THE NEW WATER SYSTEM.

4
11305

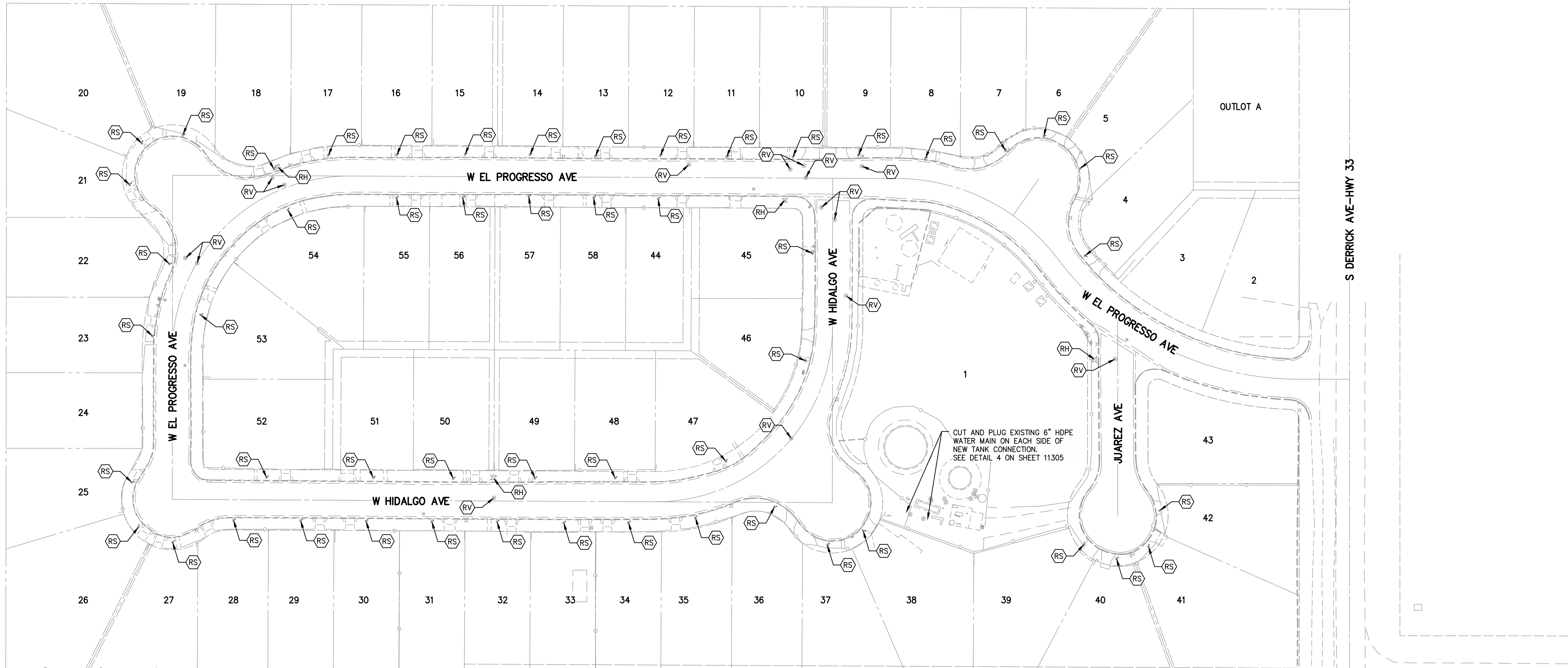
John D. Lander
06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
ABANDONMENT DETAILS
DETAILS
DRAWING NO. 11305 SHEET NO. CD-7 TOTAL 33

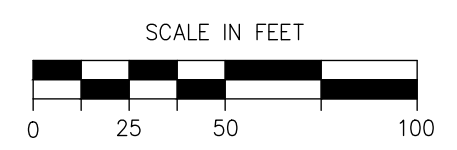


WATER DISTRIBUTION SYSTEM ABANDONMENT LEGEND

ITEM	DESCRIPTION	
(RH)	REMOVE EXISTING FIRE HYDRANT PER DETAIL	1 11305
(RS)	REMOVE EXISTING WATER METER AND ABANDON WATER SERVICE PER DETAIL	3 11305
(RV)	REMOVE EXISTING WATER VALVE BOX PER DETAIL	2 11305

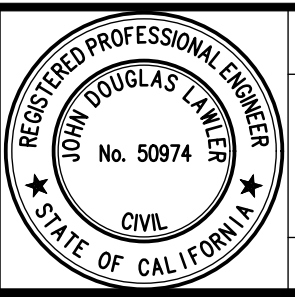
EXISTING WATER MAINS WILL BE ABANDONED IN-PLACE AFTER COMPLETION OF THE NEW DISTRIBUTION SYSTEM.

SEE NOTES IN DETAIL 4 ON DRAWING 11305



John D. Lander

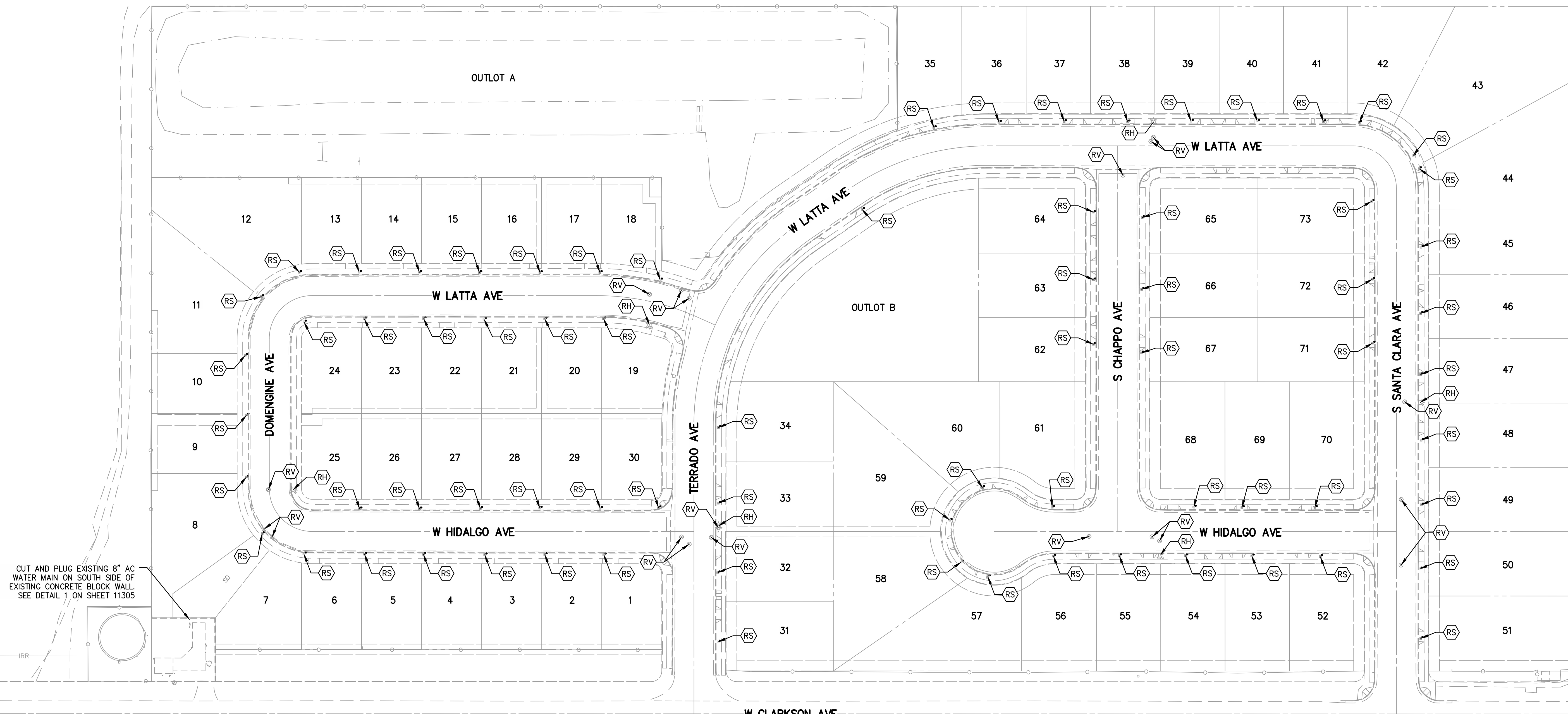
06/30/2020



PROJECT
 CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
 COUNTY OF FRESNO
 BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
 CSA 30 EL PORVENIR WATER MAIN ABANDONMENT
 DETAILS



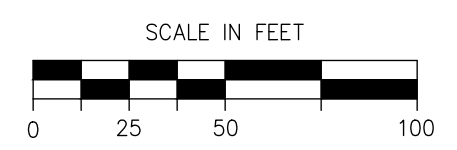
CUT AND PLUG EXISTING 8" AC WATER MAIN ON SOUTH SIDE OF EXISTING CONCRETE BLOCK WALL. SEE DETAIL 1 ON SHEET 11305

EXISTING WATER MAINS WILL BE ABANDONED IN-PLACE AFTER COMPLETION OF THE NEW DISTRIBUTION SYSTEM.

WATER DISTRIBUTION SYSTEM ABANDONMENT LEGEND	
ITEM	DESCRIPTION
(RH)	REMOVE EXISTING FIRE HYDRANT PER DETAIL
(RS)	REMOVE EXISTING WATER METER AND ABANDON WATER SERVICE PER DETAIL
(RV)	REMOVE EXISTING WATER VALVE BOX PER DETAIL

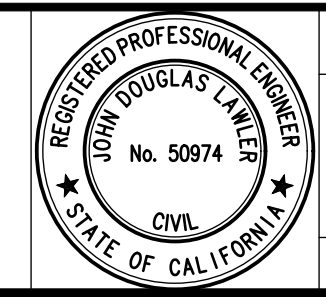
- 1
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- 3
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- 2
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SEE NOTES IN DETAIL 4 ON DRAWING 11305



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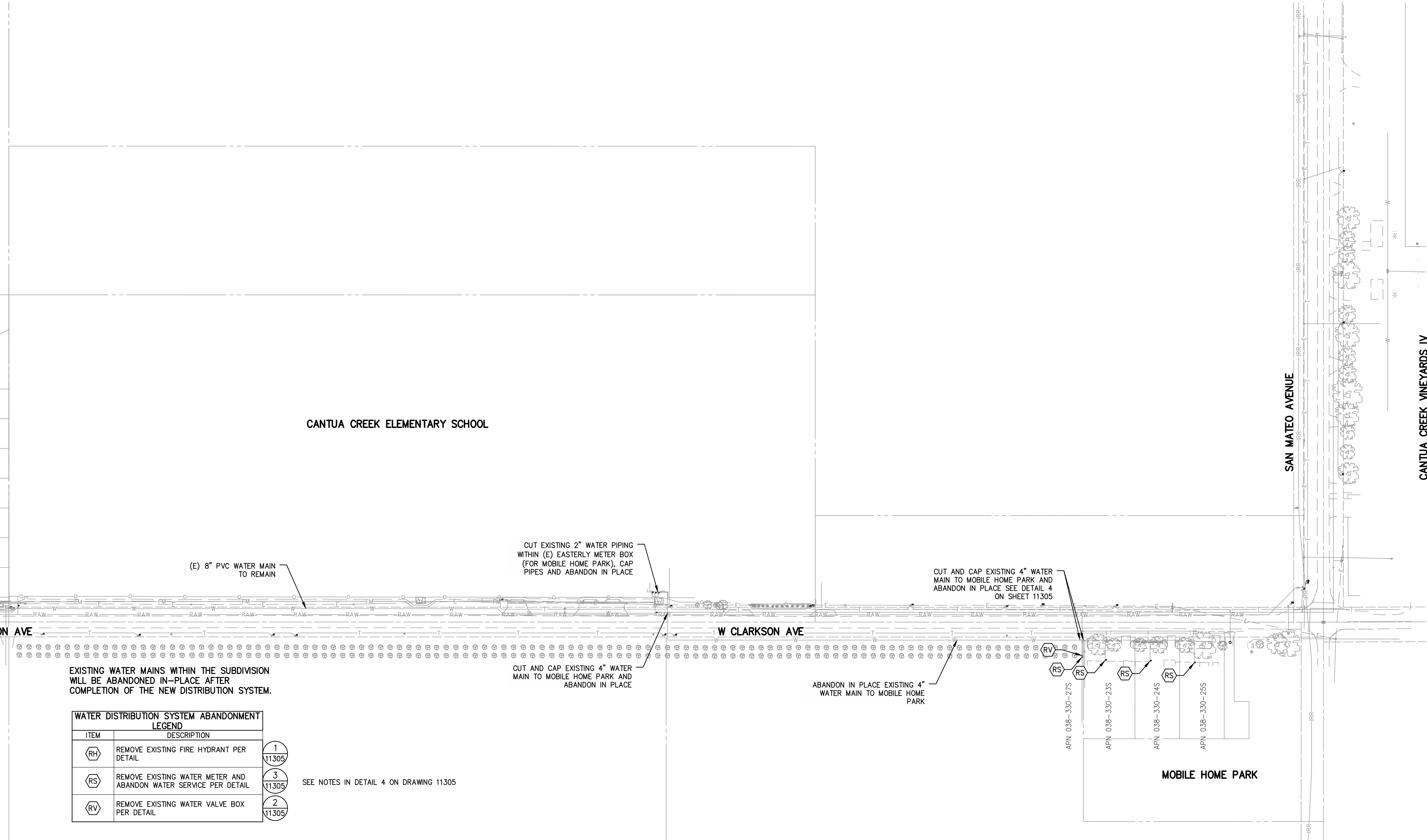
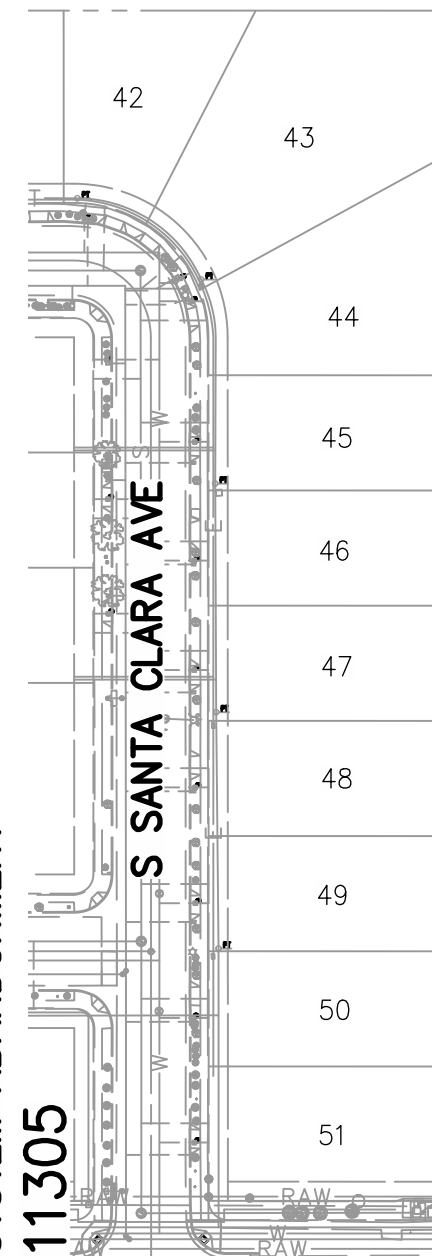


PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO
BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
CSA 32 CANTUA CREEK WATER MAIN ABANDONMENT
DETAILS
DRAWING NO. 11305 SHEET NO. CD-9 TOTAL 33

SEE CSA 32 WATER SYSTEM ABANDONMENT SHEET 11305

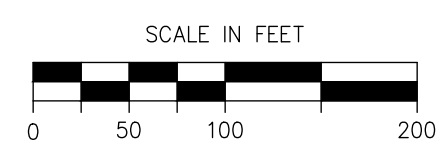


EXISTING WATER MAINS WITHIN THE SUBDIVISION WILL BE ABANDONED IN-PLACE AFTER COMPLETION OF THE NEW DISTRIBUTION SYSTEM.

WATER DISTRIBUTION SYSTEM ABANDONMENT LEGEND	
ITEM	DESCRIPTION
(RH)	REMOVE EXISTING FIRE HYDRANT PER DETAIL
(RS)	REMOVE EXISTING WATER METER AND ABANDON WATER SERVICE PER DETAIL
(RV)	REMOVE EXISTING WATER VALVE BOX PER DETAIL

1
11305
3
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2
11305

SEE NOTES IN DETAIL 4 ON DRAWING 11305



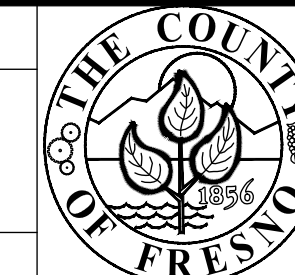
John D. Lander

06/30/2020



PROJECT
CSA 30 & 32 WATER SYSTEM IMPROVEMENTS
COUNTY OF FRESNO

BRIDGE NO. N/A



DEPARTMENT OF PUBLIC WORKS AND PLANNING
CSA 32 CLARKSON AVENUE WATER MAIN
ABANDONMENT
DETAILS

DRAWING NO. 11305

SHEET NO. CD-10

TOTAL 33