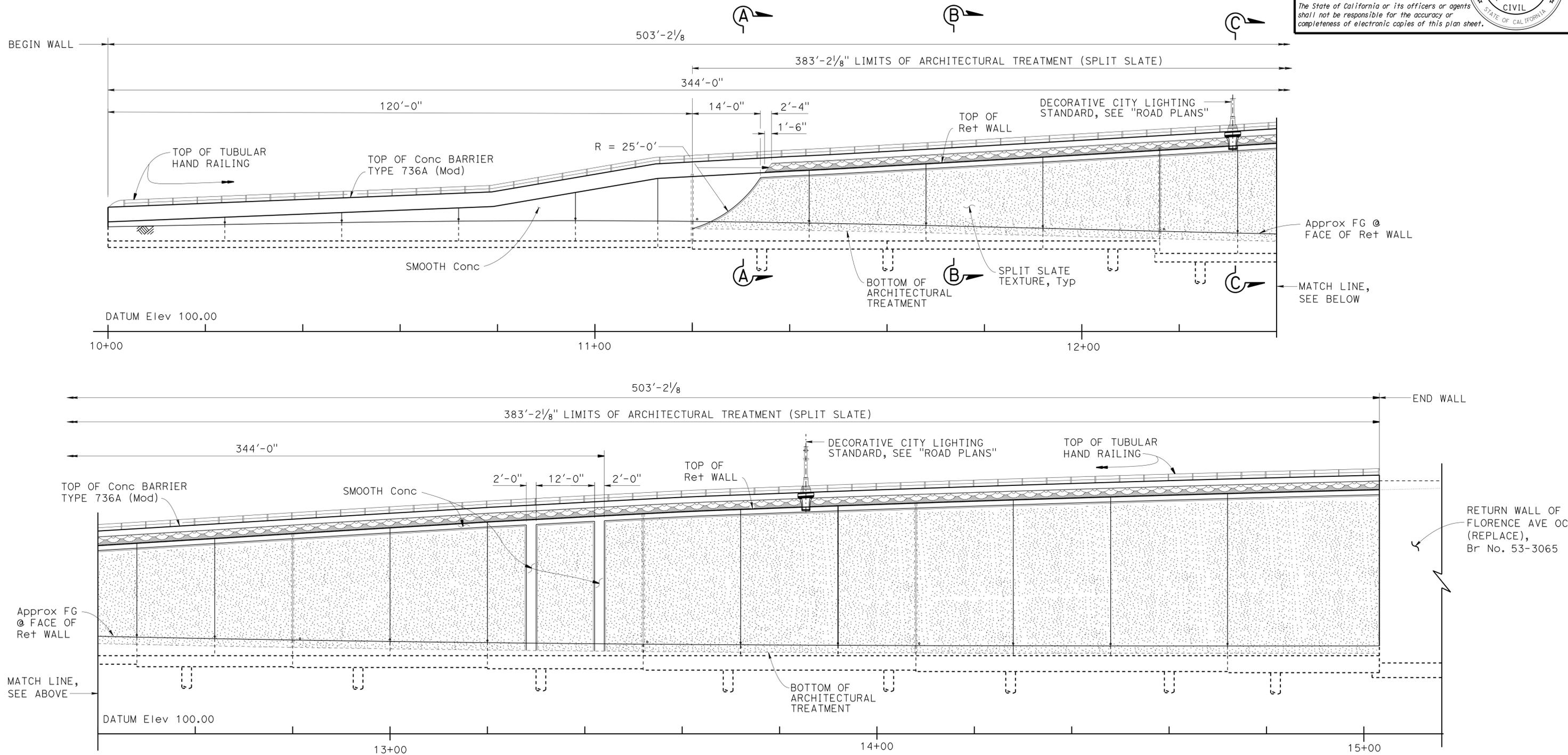


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	901	985
P. Vijitakula			12/28/12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. C 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

NOTES:

1. For "SECTION A-A", "SECTION B-B" and "SECTION C-C", see "RETAINING WALL ARCHITECTURAL DETAILS" sheet.
2. For barrier architectural details, see "CONCRETE BARRIER ARCHITECTURAL DETAILS" sheet.
3. All longitudinal dimensions are measured along RW LOL.



DEVELOPED ELEVATION

1" = 10'

DESIGN	BY Isaac Tasabia	CHECKED Javier Chavez
DETAILS	BY C. Figuerres / J. Zhou	CHECKED A. Pearson / E. Watson
QUANTITIES	BY Paul Hayes	CHECKED Jeff Klieby

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0210
POST MILE	6.41

RETAINING WALL NO. 95
RETAINING WALL ARCHITECTURAL TREATMENT

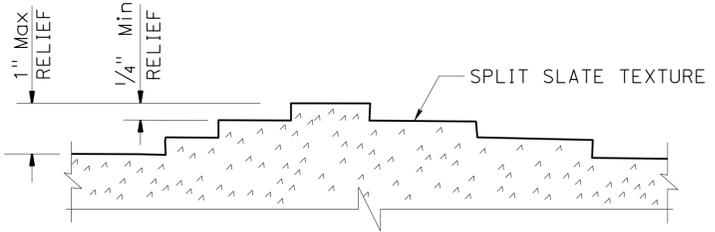


REVISION DATES	SHEET	OF
09-13-12 11/26/12 11/28/12 12/17/12	9	14

USERNAME => s121614 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:07

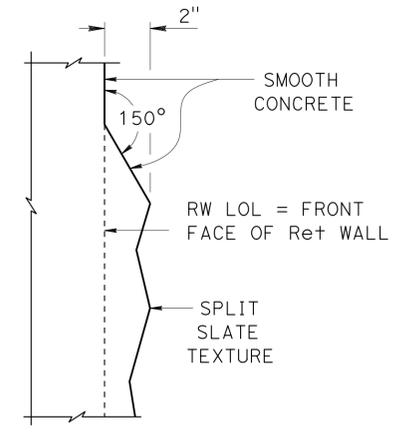
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	902	985
			12/28/12		
			REGISTERED CIVIL ENGINEER		
			6-24-13		
			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE
 P. VIJITAKULA
 No. C 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

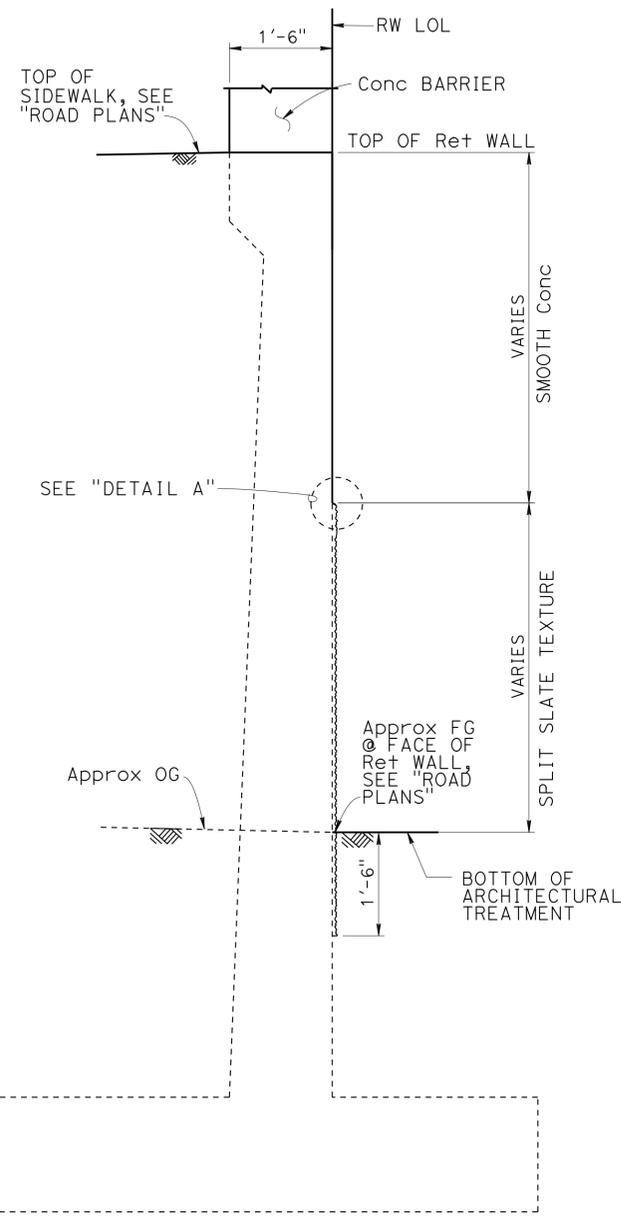


SPLIT SLATE DETAIL
 NO SCALE

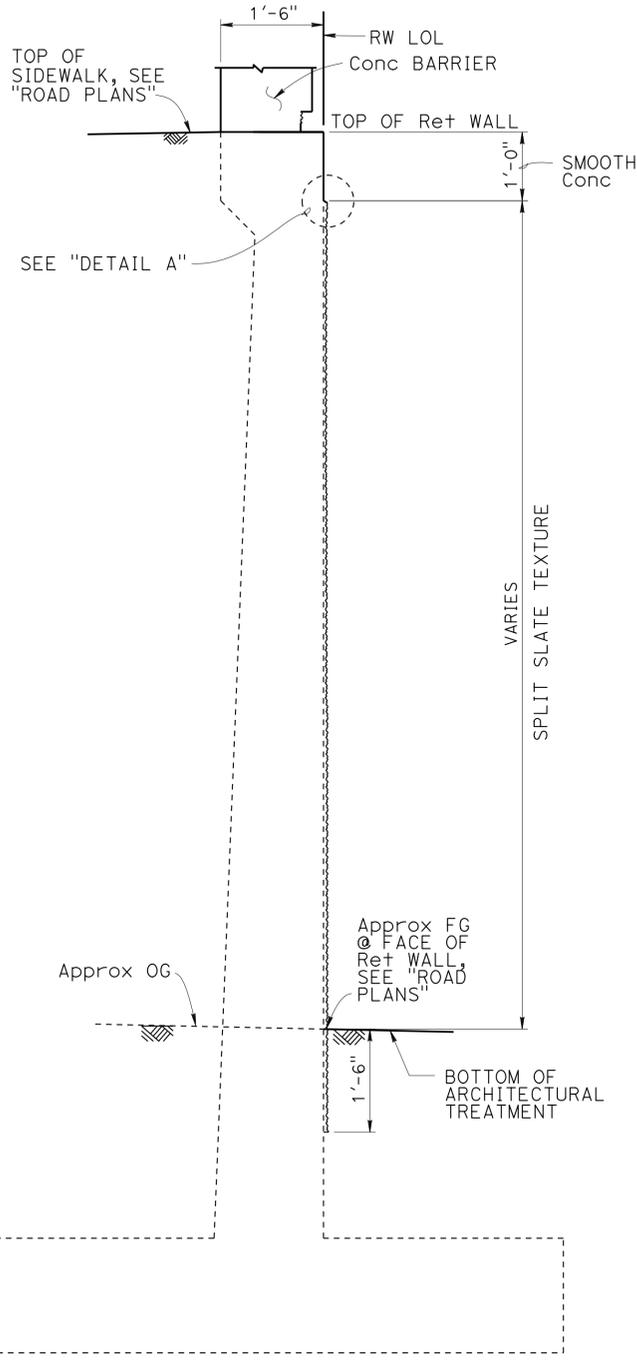
- NOTES:
1. For locations of SECTION A-A, SECTION B-B & SECTION C-C, see "ARCHITECTURAL TREATMENT" sheet.
 2. For concrete barrier architectural details, see "CONCRETE BARRIER ARCHITECTURAL DETAILS" sheet.
 3. Tubular Hand Railing and piles not shown.



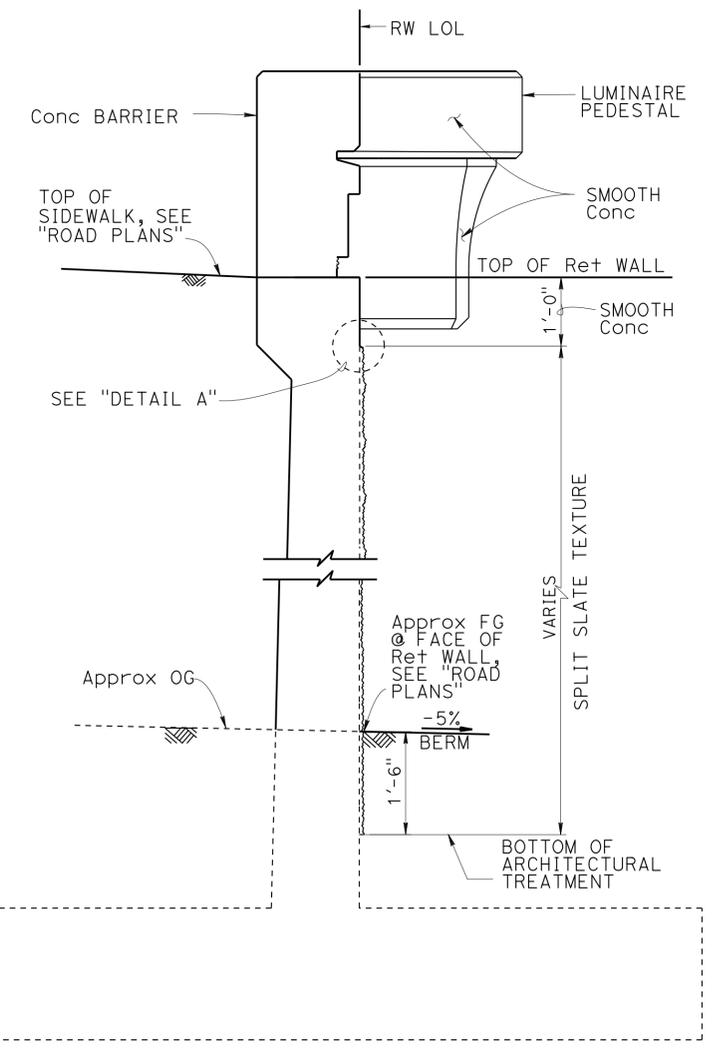
DETAIL A
 3" = 1'-0"



SECTION A-A
 3/4" = 1'-0"



SECTION B-B
 3/4" = 1'-0"



SECTION C-C
 3/4" = 1'-0"

DESIGN	I. Tasabia / A. Pearson	CHECKED	Javier Chavez
DETAILS	C. Flguerres / J. Zhou	CHECKED	A. Pearson / E. Watson
QUANTITIES	Paul Hayes	CHECKED	Jeff Klieby

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

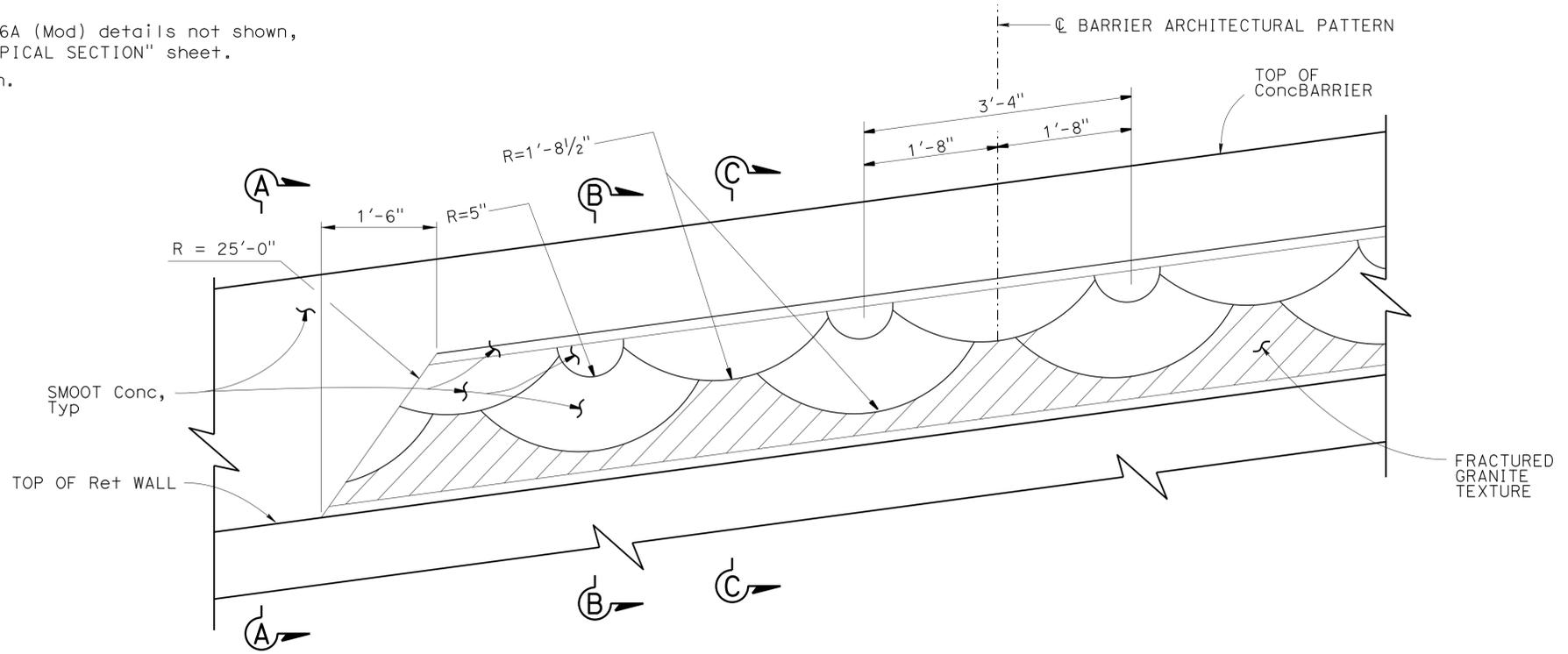
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0210
POST MILE	6.41

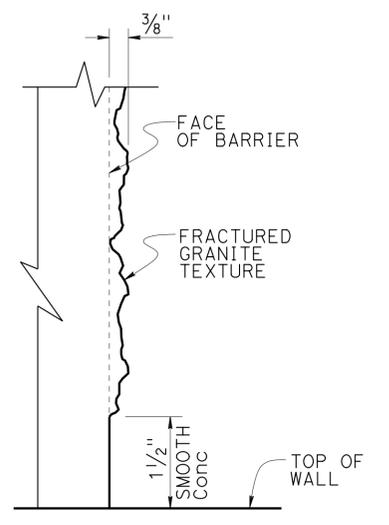
RETAINING WALL NO. 95
RETAINING WALL ARCHITECTURAL DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	903	985
P. Vijitakula			12/28/12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. C 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					
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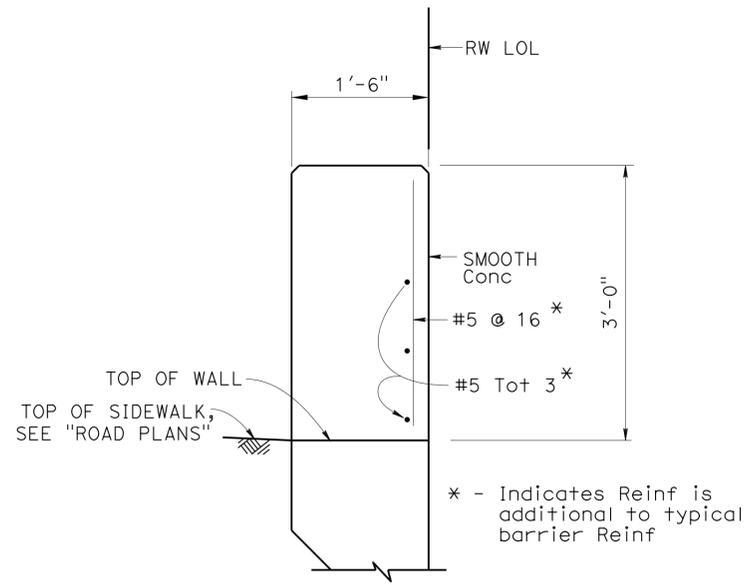
- NOTES:
- For concrete barrier type 736A (Mod) details not shown, see "BARRIER SECTION" on "TYPICAL SECTION" sheet.
 - Tubular hand railing not shown.



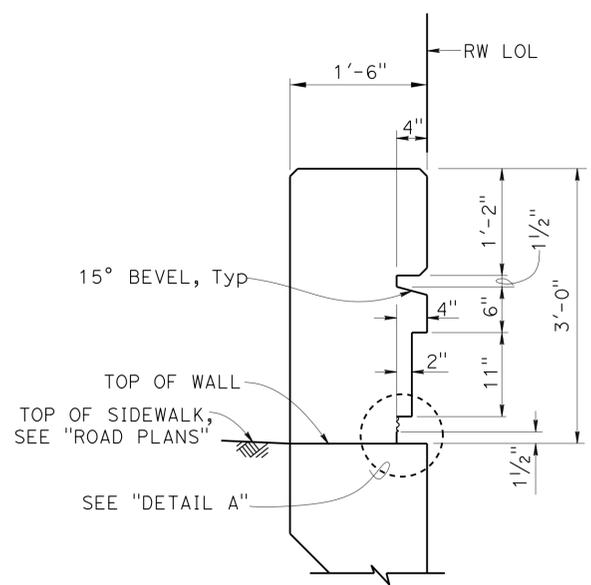
PART ELEVATION - CONCRETE BARRIER TYPE 736A (MOD)
1" = 1'-0"



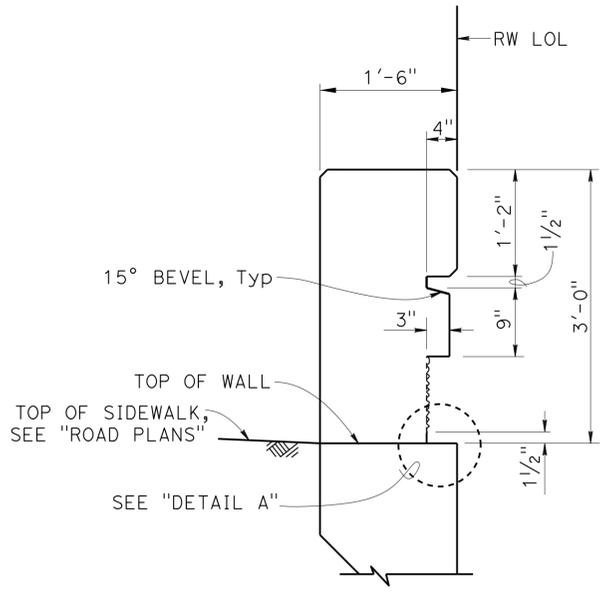
DETAIL A
NO SCALE



SECTION A-A
1" = 1'-0"



SECTION B-B
1" = 1'-0"



SECTION C-C
1" = 1'-0"

* - Indicates Reinf is additional to typical barrier Reinf

DESIGN	BY Isaac Tasabia	CHECKED Javier Chavez
DETAILS	BY C. Figuerres / J. Zhou	CHECKED A. Pearson / E. Watson
QUANTITIES	BY Paul Hayes	CHECKED Jeff Klieby

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0210
POST MILE	6.41

RETAINING WALL NO. 95
CONCRETE BARRIER ARCHITECTURAL DETAILS

REVISION DATES	SHEET	OF
09/07/12 09/28/12 11/26/12 11/21/12	11	14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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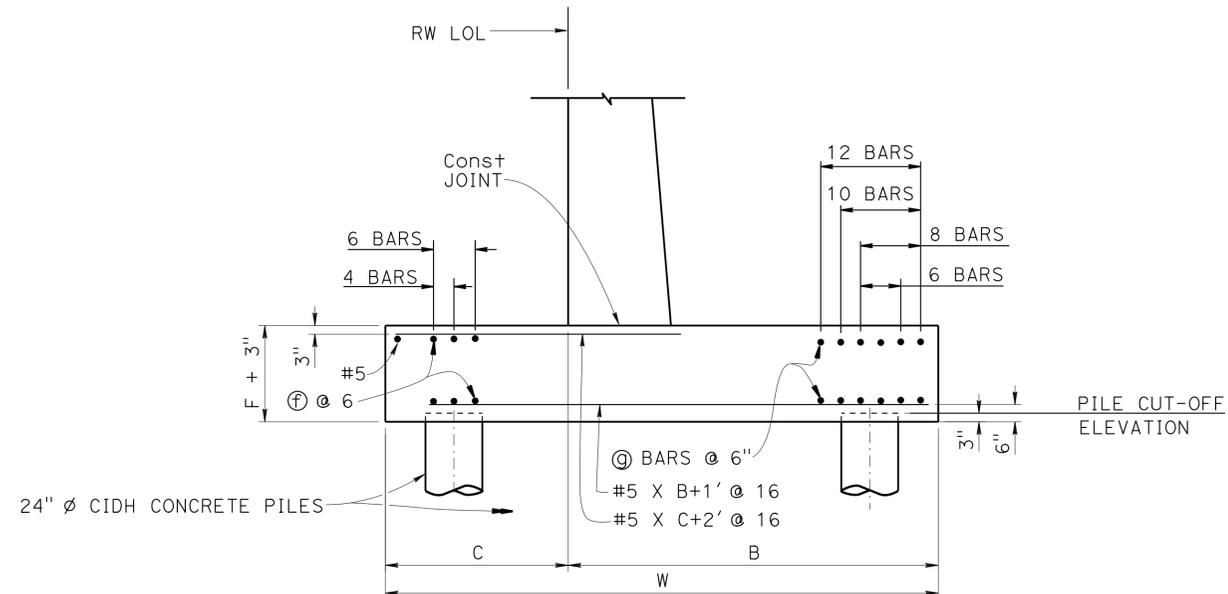
P. Vijitakula 12/28/12
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

P. VIJITAKULA
No. C 54701
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

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TABLE OF REINFORCING STEEL DIMENSIONS AND DATA																	
Design H	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'
Total (g) bars	6-#6	6-#6	10-#6	12-#6	12-#6	8-#6	8-#6	10-#6	8-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6
Total (f) bars	4-#6	4-#6	4-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	4-#5	4-#5	4-#5	4-#5	4-#5	4-#5	4-#5



PILE FOOTING SECTION

Reinforcement detailed is to be placed in addition to that shown for spread footing on Std Plan B3-1A. All piles not shown, see pile layout on other plan sheets.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. Hight / D. Sessions	CHECKED R. da Cruz Ferreira / E. Watson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	RETAINING WALL NO. 95	
	DETAILS	BY S. Jiang / J. Zhou	CHECKED R. da Cruz Ferreira / E. Watson			53E0210	RETAINING WALL DETAILS	
	QUANTITIES	BY Paul Hayes	CHECKED Jeff Klieby			POST MILE	6.41	
				UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3			04-16-12 07/22/12 12/17/12
								SHEET 12 OF 14

FILE => r\w95-u-rwd02_detail.dgn

06408
27-JUN-2013
DATE PLOTTED =>
TIME PLOTTED =>

BENCH MARKS

LA 5 PM 6.4, 1995 Elev. Not shown
 2.5" CADT Disk in Asphalt
 Located along the northbound shoulder of I-5 FWY, 150 ft north of the Florence Avenue Overcrossing
 N=1799072.3, E=6533513.4
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US FT

LA 5 PM 6.7, 1995 Elev. 135.089'
 2.5" CADT Disk in Concrete Curb
 Located on the southbound I-5 transition ramp to the northbound 605 FWY. It is on the south curb between the north and the southbound lanes of the 605.
 N=1800522.8, E=6532535.7
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Feet

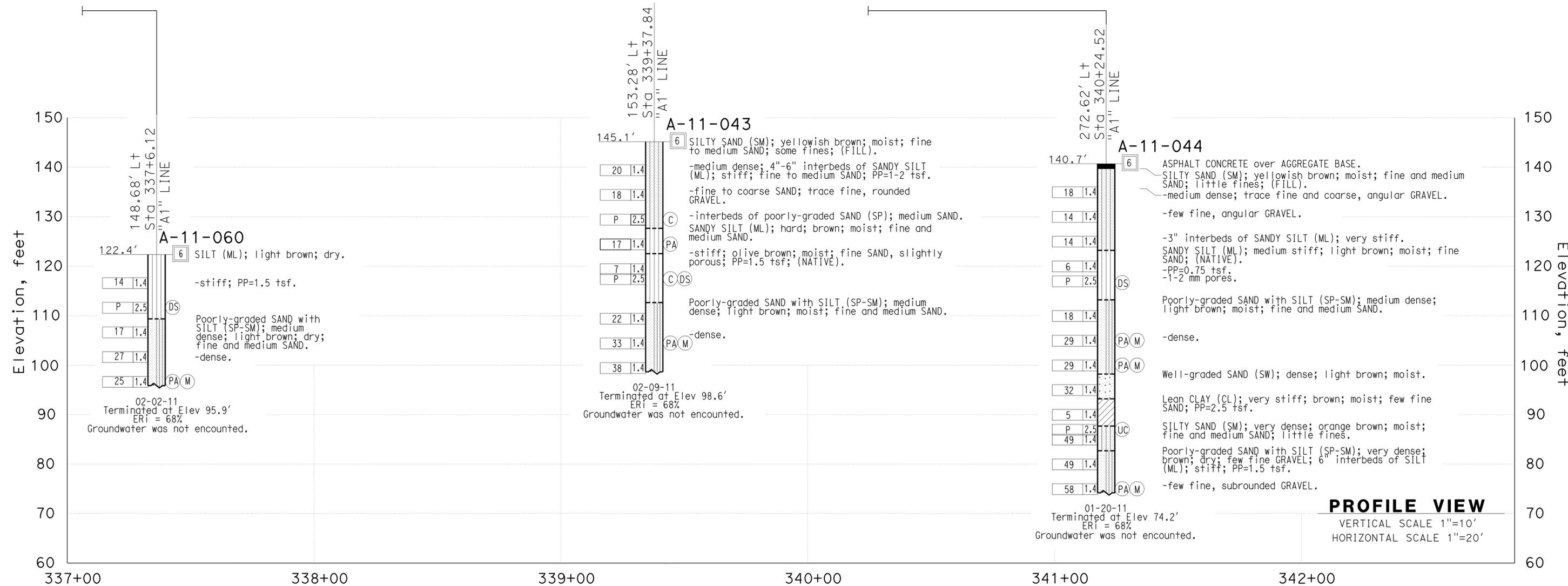
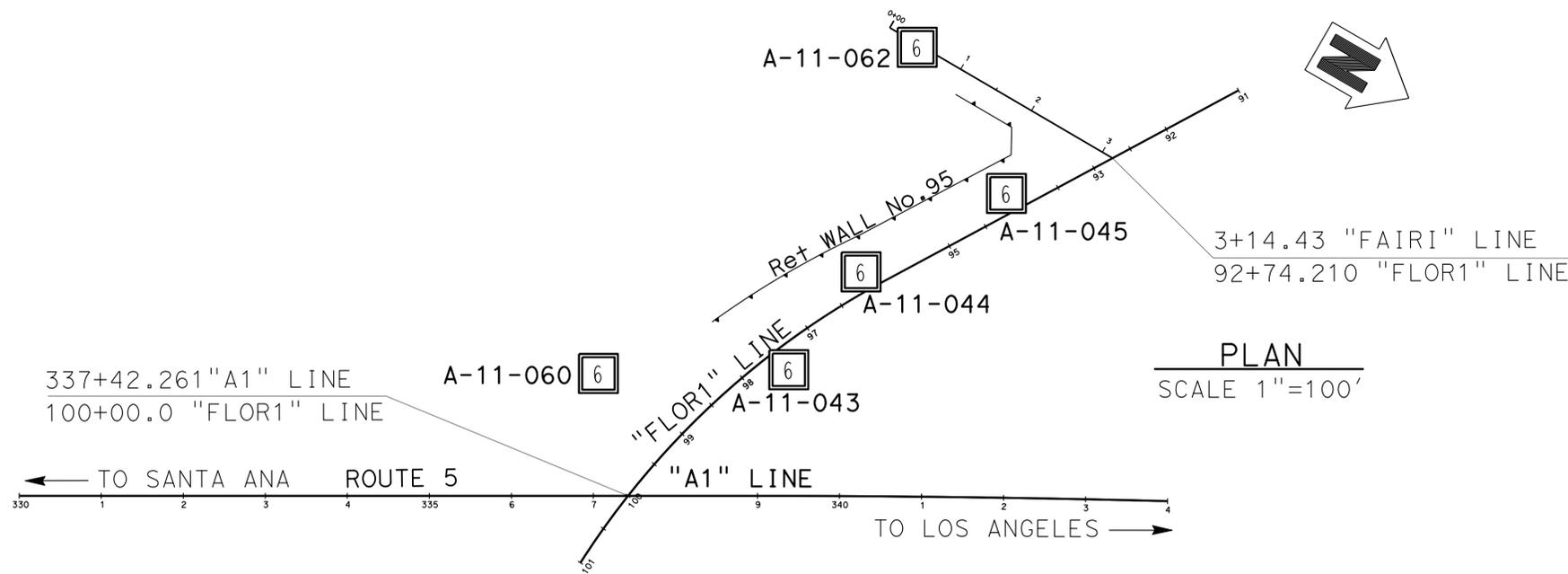
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	905	985

6/2012
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

Nadeem Srour
 No. 2801
 Exp. 12-31-2013
 STATE OF CALIFORNIA
 GEOTECHNICAL

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ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		RETAINING WALL NO. 95	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		53E0210		LOG OF TEST BORINGS SHEET 1 OF 2	
NAME: S.SUKIASIAN		CHECKED BY: K.BARKER		FIELD INVESTIGATION BY: N.SROUR		DESIGN BRANCH 1		POST MILE		REVISION DATES	
						PROJECT NUMBER & PHASE: 07000018351		6.41		SHEET OF	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES		13 14	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	906	985

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 2

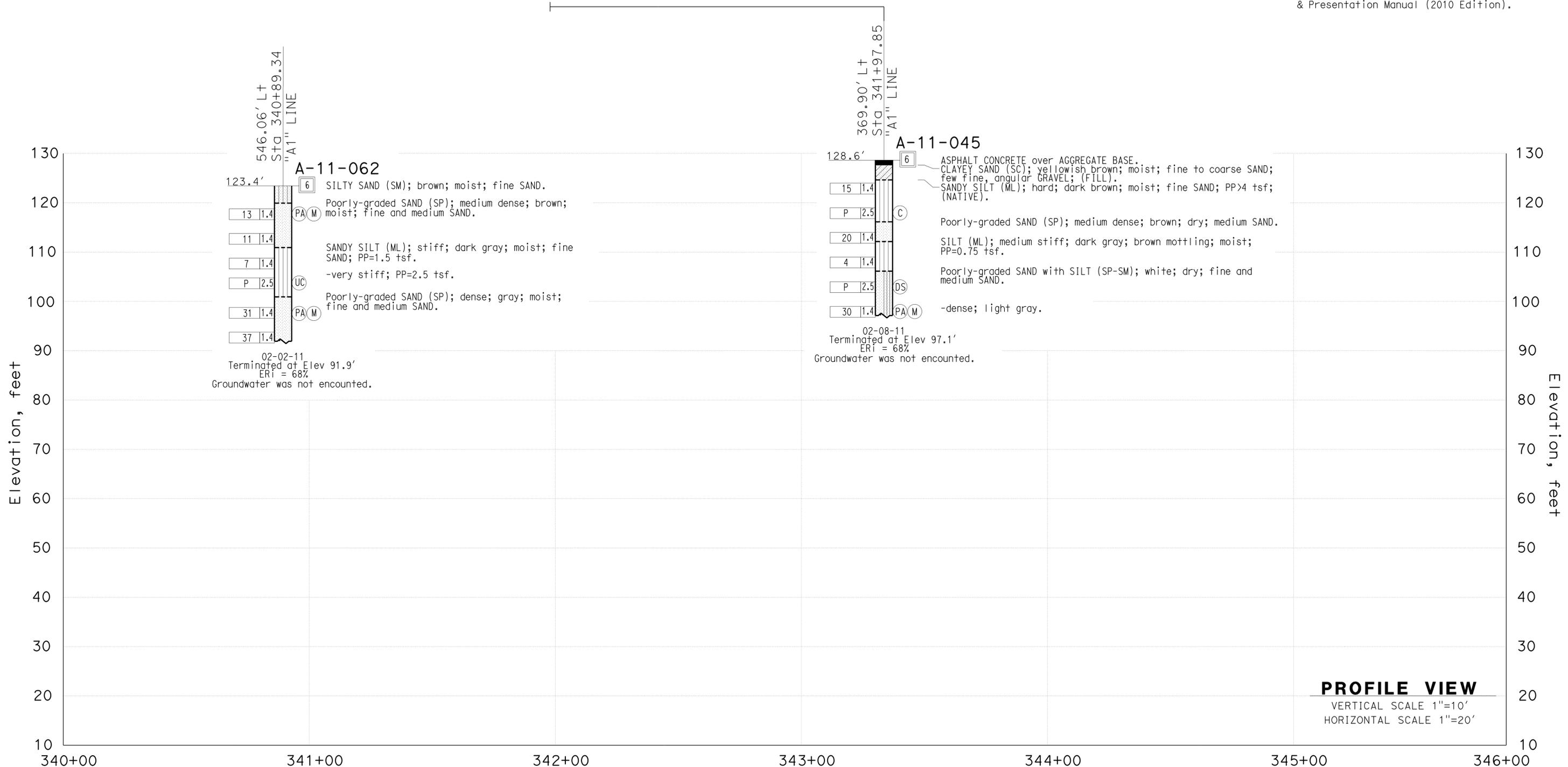
6/2012
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

Nadeem Srour
No. 2801
Exp. 12-31-2013
GEOTECHNICAL
STATE OF CALIFORNIA

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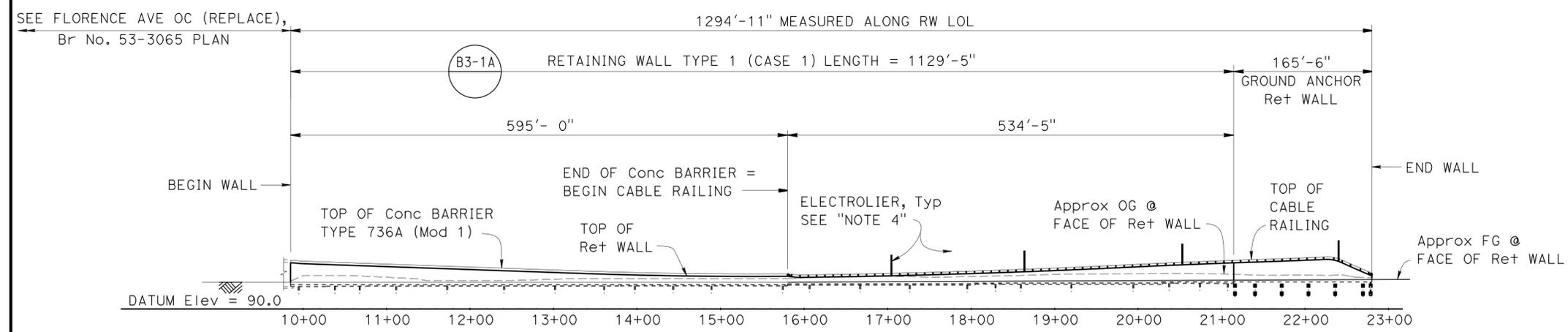
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		RETAINING WALL NO. 95	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		53E0210		LOG OF TEST BORINGS SHEET 2 OF 2	
NAME: S.SUKIASIAN		CHECKED BY: K.BARKER		N.SROUR		DESIGN BRANCH 1		POST MILE			
								6.41			
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3				REVISION DATES		SHEET OF	
								05-01-12 09-12-12 09-21-12		14 14	

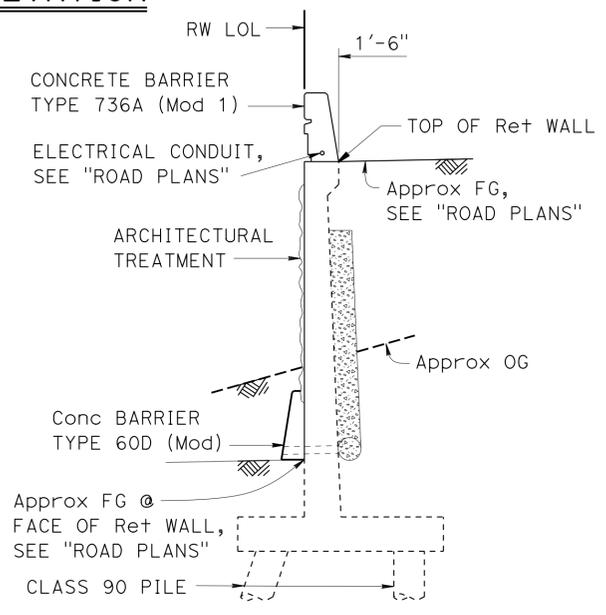
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	907	985
P. Vijitakula REGISTERED CIVIL ENGINEER No. 54701 Exp. 12-31-13 CIVIL			12/28/12 DATE 6-24-13 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

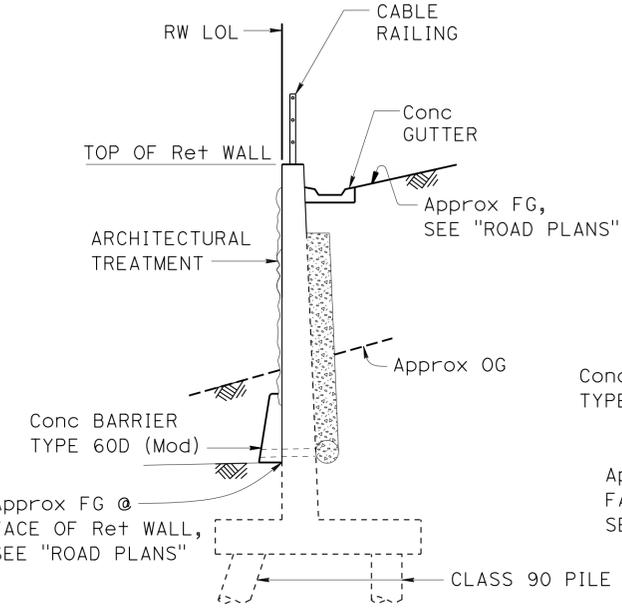


DEVELOPED MIRRORED ELEVATION
1" = 80'

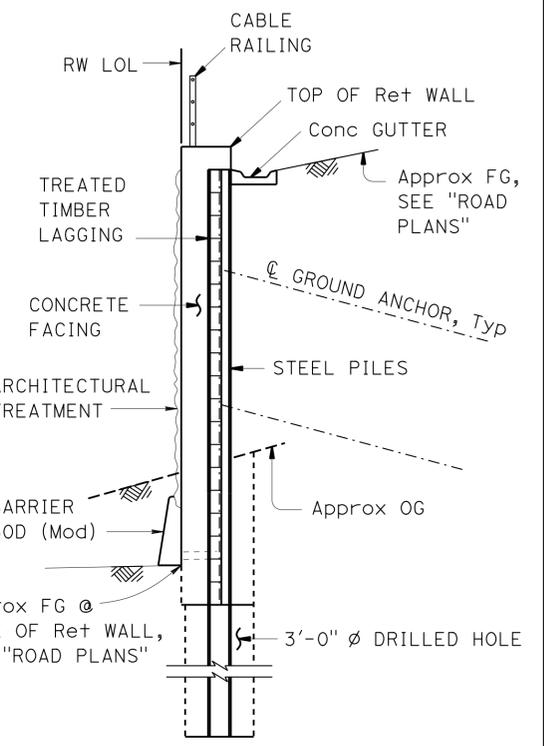
- NOTES:
1. For DESIGN NOTES, see "INDEX TO PLANS" sheet and Standard Plan B3-1A.
 2. For "PILE DATA TABLE", see "INDEX TO PLANS" and "EXCAVATION AND BACKFILL" sheets.
 3. All piles not shown in "DEVELOPED MIRRORED ELEVATION"
 4. Electrical system (Lighting Standard Type 15 and 21) total 4, see "ROAD PLANS". For Pedestal details, see "STRUCTURE PLAN NO. 4" and "GROUND ANCHOR WALL DETAILS NO. 1" sheets.
 5. Concrete Gutter not shown in "DEVELOPED MIRRORED ELEVATION"



WITH CONCRETE BARRIER



WITH CABLE RAILING



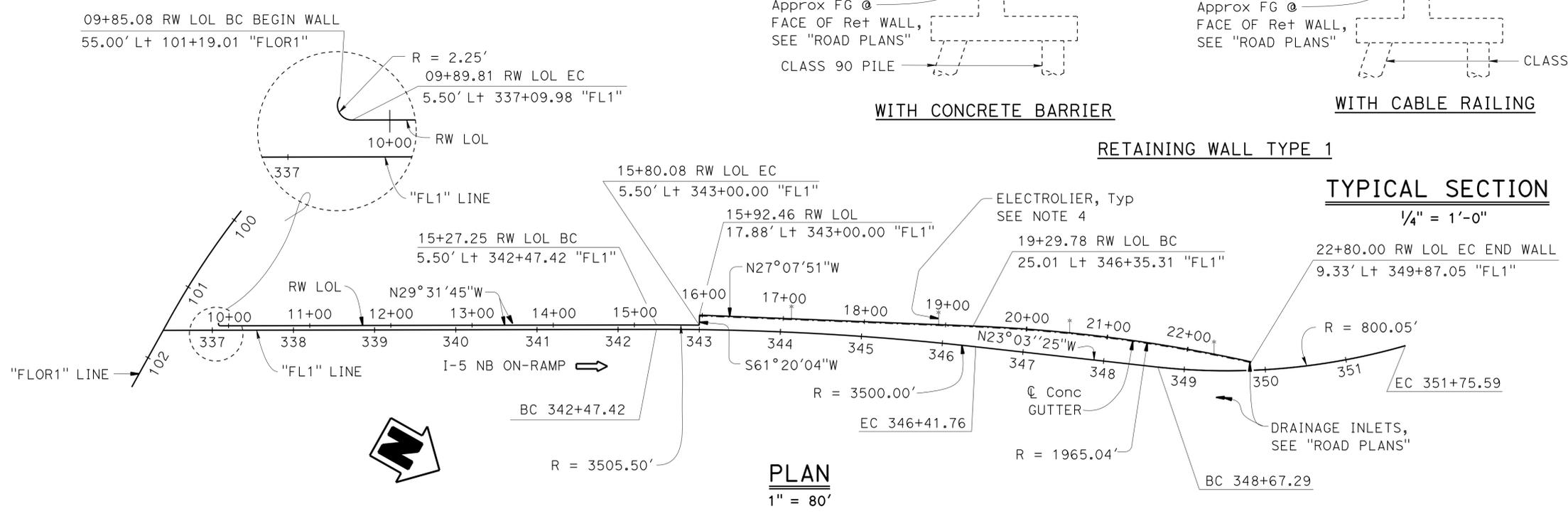
GROUND ANCHOR Ret WALL

RETAINING WALL TYPE 1

TYPICAL SECTION
1/4" = 1'-0"

CURVE DATA

RW LOL		
R = 2.25'	R = 3505.50'	R = 1965.04'
Δ = 120°41'38"	Δ = 0°51'49"	Δ = 10°24'35"
T = 3.95'	T = 26.42'	T = 179.00'
L = 4.73'	L = 52.84'	L = 357.02'
"FL1" LINE		
R = 3500.00'	R = 800.05'	
Δ = 6°27'20"	Δ = 22°04'44"	
T = 197.38'	T = 156.09'	
L = 394.34'	L = 308.3'	



PLAN
1" = 80'

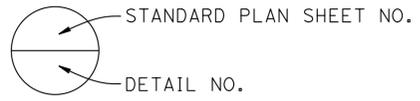
DESIGN ENGINEER Jeff Sims	DESIGN BY	Greg Thornton	CHECKED	Eric Burgeson	LOAD & RESISTANCE FACTOR DESIGN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	53E0215	RETAINING WALL NO. 341 GENERAL PLAN		
	DETAILS BY	B. Huddleston \ Y. Feng	CHECKED	Eric Burgeson	LAYOUT BY			Greg Thornton	POST MILE		6.38	
	QUANTITIES BY	Paul Hayes	CHECKED	N. Tiangco / G. Galo	SPECIFICATIONS BY	Xiahong Li	PLANS AND SPECS COMPARED	Xiahong Li				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3576 PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES		
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10)										REVISION DATES 2-28-12 05/06/13 01/28/15	SHEET 1	OF 30

INDEX TO PLANS

SHEET NO	TITLE
1.	GENERAL PLAN
2.	INDEX TO PLANS
3.	EXCAVATION AND BACKFILL DETAILS
4.	STRUCTURE PLAN NO. 1
5.	STRUCTURE PLAN NO. 2
6.	STRUCTURE PLAN NO. 3
7.	STRUCTURE PLAN NO. 4
8.	STRUCTURE PLAN NO. 5
9.	STRUCTURE PLAN NO. 6
10.	STRUCTURE PLAN NO. 7
11.	FOUNDATION PLAN NO. 1
12.	FOUNDATION PLAN NO. 2
13.	FOUNDATION PLAN NO. 3
14.	RETAINING WALL ARCHITECTURAL TREATMENT NO. 1
15.	RETAINING WALL ARCHITECTURAL TREATMENT NO. 2
16.	CONCRETE BARRIER ARCHITECTURAL DETAILS
17.	RETAINING WALL DETAILS
18.	GROUND ANCHOR WALL DETAILS NO. 1
19.	GROUND ANCHOR WALL DETAILS NO. 2
20.	GROUND ANCHOR WALL DETAILS NO. 3
21.	SOLDIER PILE WALL WITH GROUND ANCHORS
22.	GROUND ANCHOR WALL LAGGING DETAILS
23.	SUB HORIZONTAL GROUND ANCHOR DETAILS
24.	LOG OF TEST BORINGS 1 OF 7
25.	LOG OF TEST BORINGS 2 OF 7
26.	LOG OF TEST BORINGS 3 OF 7
27.	LOG OF TEST BORINGS 4 OF 7
28.	LOG OF TEST BORINGS 5 OF 7
29.	LOG OF TEST BORINGS 6 OF 7
30.	LOG OF TEST BORINGS 7 OF 7

STANDARD PLANS DATED 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL CONCRETE BARRIER TYPE 60D
A76A	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B2-5	PILE DETAILS - CLASS 90 AND CLASS 140
RSP B3-1A	RETAINING WALL TYPE 1 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS NO. 1
B3-6	RETAINING WALL DETAILS NO. 2
RSP B11-47	CABLE RAILING
B11-56	CONCRETE BARRIER TYPE 736
ES-6B	ELECTRICAL SYSTEMS (ELECTROLIOR ANCHORAGE AND GROUTING FOR TYPES 15 AND 21, BARRIER RAIL MOUNTED)



QUANTITIES

STRUCTURE EXCAVATION (RETAINING WALL)	4,640	CY
STRUCTURE EXCAVATION (TYPE Y-2) (AERIALY DEPOSITED LEAD)	1,230	CY
STRUCTURE BACKFILL (RETAINING WALL)	5,240	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	400	CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	90	CY
LEAN CONCRETE BACKFILL	40	CY
GROUND ANCHOR (SUBHORIZONTAL)	37	EA
STEEL SOLDIER PILE (W 12 X 40)	1,570	LF
FURNISH PILING (CLASS 90) (ALTERNATIVE X)	10,970	LF
DRIVE PILE (CLASS 90) (ALTERNATIVE X)	393	EA
36" DRILLED HOLE	500	LF
STRUCTURAL CONCRETE, RETAINING WALL	1,970	CY
ARCHITECTURAL TREATMENT (SPLIT SLATE)	12,750	SQFT
BAR REINFORCING STEEL (RETAINING WALL)	334,100	LB
TIMBER LAGGING	20	MEBM
MINOR CONCRETE (GUTTER) (LF)	170	LF
CABLE RAILING	700	LF
CONCRETE BARRIER (TYPE 60D MODIFIED)	1,290	LF
CONCRETE BARRIER (TYPE 736A MODIFIED)	595	LF

DESIGN NOTES - GROUND ANCHOR RW

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

LIVE LOAD: Uniform 100 psf

SOIL PARAMETERS: Backfill soil weight = 120 lb/ft³
Friction Angle = 28°
Active Pressure coefficient, Ka = varies
STR Trial Wedge Method
Extreme Event: Mononobe-Okabe Equation
kh = 0.23

STEEL SOLDIER PILES: ASTM A572/A Grade 50

REINFORCED CONCRETE (FACIA): f'c = 4.0 ksi
fy = 60 ksi

STRUCTURAL TIMBER: Treated Douglas Fir, Grade No. 1 or better. Timber to be full sawn.

PRESTRESSING STEEL (GROUND ANCHORS): FDL = Factored Design Load on ground anchor (kips)
FTL = Factored Test Load (kips)
LL = Lock-Off Load (kips)

fpu = Minimum ultimate tensile strength of ground anchor steel (ksi)
As (Min) = Minimum cross sectional area of steel in ground anchor (sq in)

Steel = ASTM designation: A416 (HS Strands)

$$As (Min) = \frac{1.0 FTL}{0.75 fpu}$$

Steel = ASTM designation: A722 (HS Bars)

$$As (Min) = \frac{1.0 FTL}{0.80 fpu}$$

FDL = SEE TABLE
FTL = 1.0 FDL
LL = 0.67 FDL

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	908	985

P. Vijitkula 12/28/12
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
P. VIJITAKULA
No. 54701
Exp. 12/31/2013
CIVIL
STATE OF CALIFORNIA

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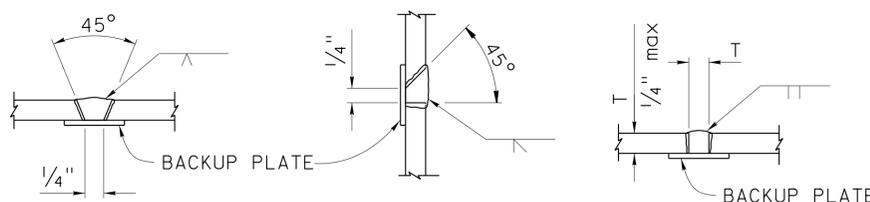
GROUND ANCHOR Ret WALL PILE DATA TABLE

PILE GROUP No.	LOCATION	GROUND ANCHOR Elev (ft)	FDL (kip)	TOP OF PILE Elev (ft)	UNBONDED LENGTH (ft)
1	RW LOL 21+16.00	139.05	60	144.05	25
		129.05	70		20
2	RW LOL 21+24.00	139.33	115	144.33	25
		129.33	115		20
3	RW LOL 21+32.00	139.60	115	144.60	25
		129.60	115		20
4	RW LOL 21+40.00	139.90	115	144.90	25
		129.90	115		20
5	RW LOL 21+48.00	140.13	115	145.13	25
		130.13	115		20
6	RW LOL 21+56.00	140.40	120	145.40	25
		130.40	130		20
7	RW LOL 21+64.00	140.65	120	145.65	25
		130.65	130		20
8	RW LOL 21+72.00	140.93	120	145.93	25
		130.93	130		20
9	RW LOL 21+80.00	141.20	120	146.20	25
		131.20	130		20
10	RW LOL 21+88.00	141.52	120	146.52	25
		131.52	130		20
11	RW LOL 21+96.00	141.83	120	146.83	25
		131.83	130		20
12	RW LOL 22+04.00	142.18	120	147.18	25
		132.18	130		20
13	RW LOL 22+12.00	142.55	125	147.55	25
		132.55	150		20
14	RW LOL 22+20.00	142.94	125	147.94	25
		132.94	150		20
15	RW LOL 22+28.00	142.17	125	147.17	25
		132.17	150		20
16	RW LOL 22+36.00	141.40	125	146.40	25
		131.40	150		20
17	RW LOL 22+44.00	139.20	125	144.20	25
		129.20	150		20
18	RW LOL 22+52.00	134.00	115	140.60	25
19	RW LOL 22+60.00	132.00	80	137.00	25
20	RW LOL 22+69.25	129.30	50	133.05	25
21	RW LOL 22+78.50	N/A	N/A	129.10	—

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN BY Greg Thornton	CHECKED Eric Burgeson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. 53E0215	RETAINING WALL NO. 341 INDEX TO PLANS		
	DETAILS BY Jie Tang	CHECKED Eric Burgeson			POST MILE 6.38			
	QUANTITIES BY Paul Hayes	CHECKED N. Tiangco / G. Galo						
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 2 OF 30

FILE => rw341-a-1tp01.dgn

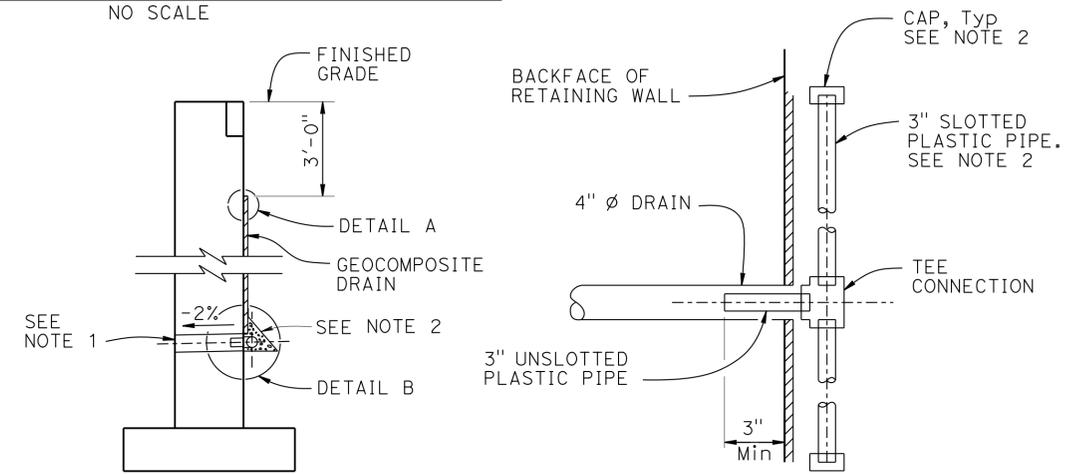
PILE DATA TABLE - RETAINING WALL TYPE 1							
LOCATION (ALONG RW LOL)	PILE TYPE	CUT-OFF ELEVATION	NOMINAL RESISTANCE (KIP)		DESIGN TIP ELEVATION (FT)	SPECIFIED TIP Elev (FT)	NOMINAL DRIVING RESISTANCE (KIPS)
			COMPRESSION	TENSION			
RW LOL 09+85.08 TO 10+65.08	CLASS 90	116.6	180	0	(a)89.0 (b)98.0	89.0	180
RW LOL 10+65.08 TO 11+21.08	CLASS 90	116.8	180	0	(a)90.0 (b)98.0	90.0	180
RW LOL 11+21.08 TO 11+61.08	CLASS 90	117.1	180	0	(a)90.0 (b)98.0	90.0	180
RW LOL 11+61.08 TO 12+52.08	CLASS 90	117.3	180	0	(a)90.0 (b)99.0	90.0	180
RW LOL 12+52.08 TO 13+80.08	CLASS 90	117.4	180	0	(a)90.0 (b)100.0	90.0	180
RW LOL 13+80.08 TO 15+00.08	CLASS 90	117.5	180	0	(a)90.0 (b)95.0	90.0	180
RW LOL 15+00.08 TO 15+82.44	CLASS 90	117.7	180	0	(a)90.0 (b)95.0	90.0	180
RW LOL 15+82.44 TO 17+32.08	CLASS 90	118.7	180	0	(a)91.0 (b)102.0	91.0	180
RW LOL 17+32.08 TO 18+04.08	CLASS 90	118.5	180	0	(a)91.0 (b)101.0	91.0	180
RW LOL 18+04.08 TO 18+36.08	CLASS 90	119.5	180	0	(a)92.0 (b)102.0	92.0	180
RW LOL 18+36.08 TO 19+32.08	CLASS 90	119.4	180	0	(a)92.0 (b)102.0	92.0	180
RW LOL 19+32.08 TO 20+28.08	CLASS 90	119.3	180	0	(a)92.0 (b)102.0	92.0	180
RW LOL 20+28.08 TO 20+44.08	CLASS 90	120.6	180	0	(a)93.0 (b)98.0	93.0	180
RW LOL 20+44.08 TO 20+92.08	CLASS 90	120.4	180	0	(a)93.0 (b)98.0	93.0	180
RW LOL 20+92.08 TO 21+14.50	CLASS 90	120.2	180	0	(a)93.0 (b)97.0	93.0	180



Notes:

- Single Vee-Groove And Square Groove Permitted for all positions.
- Single Bevel-Groove permitted for horizontal joints only.
- For purposes of non-destructive testing, pile shall be considered a main tension member from top of pile to 2 meters below bottom of lagging. The remaining embedded portion of the pile shall be considered a main compression member.

PILE WELDING DETAIL-BUTT JOINTS



WALL SECTION

SECTION A-A

DETAIL A

DETAIL B

WEEP HOLE AND GEOCOMPOSITE DRAIN

ALTERNATIVE TO BRIDGE DETAIL (BO-3/3-1)

NOTES:

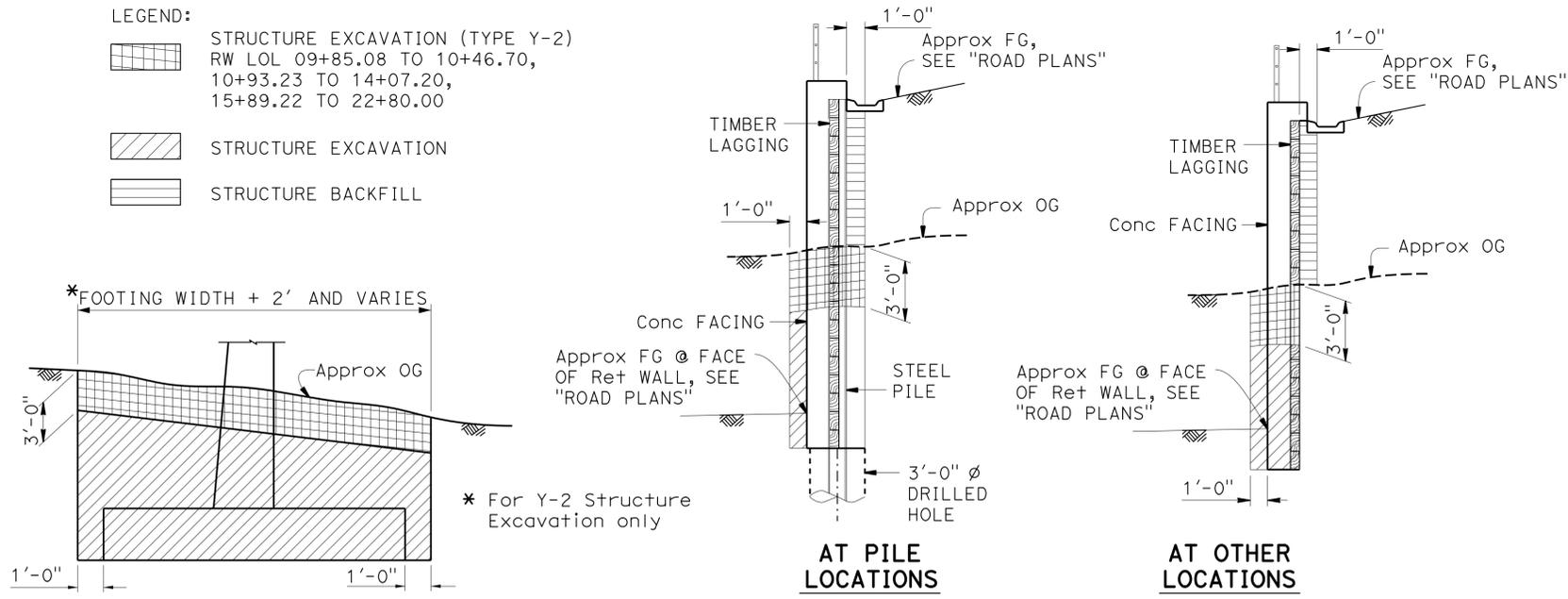
- 4" ϕ drains at 25' max center to center. For walls adjacent to sidewalks or curbs, provide 4" cast iron or asbestos cement pipe under the sidewalk to discharge through curb face. Exposed wall drains shall be located 3" \pm above finished grade.
- Geocomposite drain, cement treated permeable base, and 3" ϕ slotted plastic pipe continuous behind retaining wall. Cap ends of pipe. Provide "Tee" connection at each 4" ϕ drain.

NOTES:

- Design tip elevations are controlled by (a) Compression and (b) Settlement.
- The specified tip elevation shall not be raised, unless directed by Engineer.
- Class 90 shall be the Alternative "X" piles which shall not have a dimension "T" less than 14 inches.

LEGEND:

- STRUCTURE EXCAVATION (TYPE Y-2)
RW LOL 09+85.08 TO 10+46.70,
10+93.23 TO 14+07.20,
15+89.22 TO 22+80.00
- STRUCTURE EXCAVATION
- STRUCTURE BACKFILL



Ret WALL TYPE 1

GROUND ANCHOR WALL

LIMITS OF PAYMENT FOR STRUCTURE EXCAVATION AND BACKFILL

NO SCALE
NOTE: For details not shown, see Std Plan A62B.

DESIGN	BY Greg Thornton	CHECKED Eric Burgeson
DETAILS	BY B.Huddleston / Y.Feng	CHECKED Eric Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

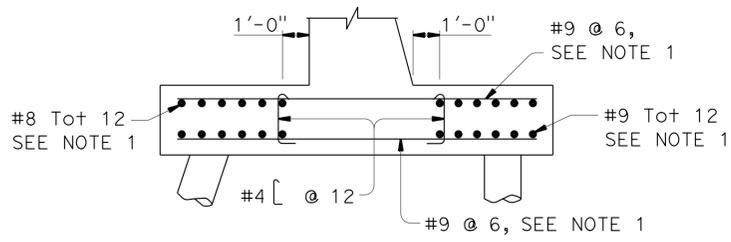
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. 53E0215
POST MILE 6.38

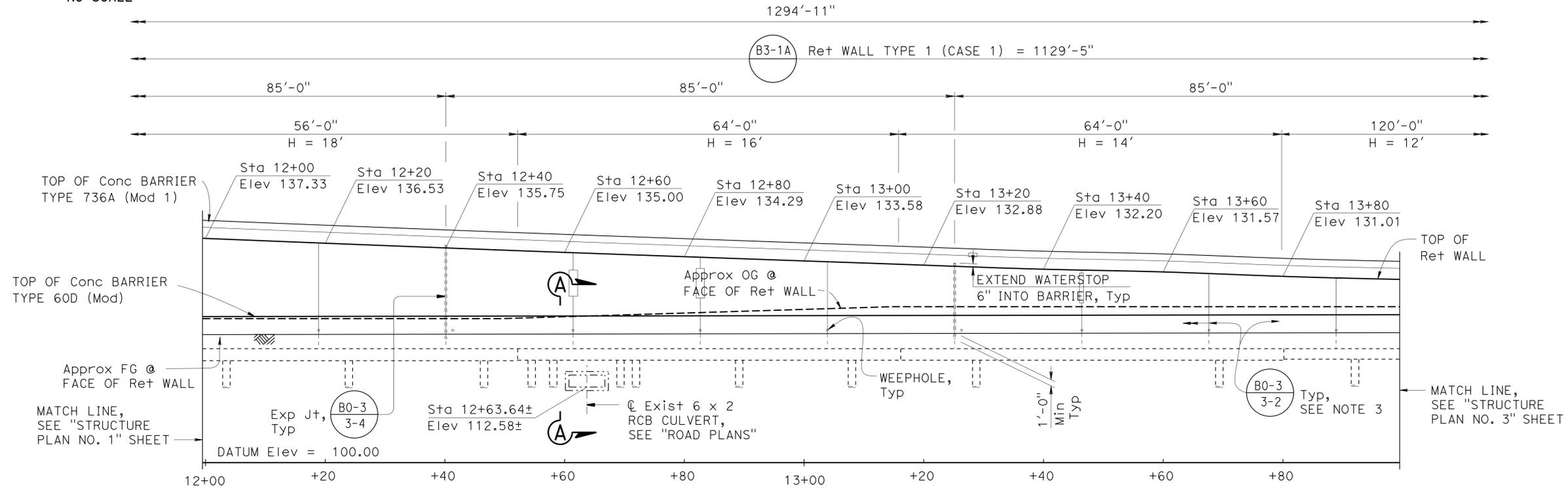
RETAINING WALL NO. 341
EXCAVATION AND BACKFILL DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	911	985
			P. Vijitakula 12/28/12 REGISTERED CIVIL ENGINEER DATE		
			6-24-13 PLANS APPROVAL DATE		
			P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA		
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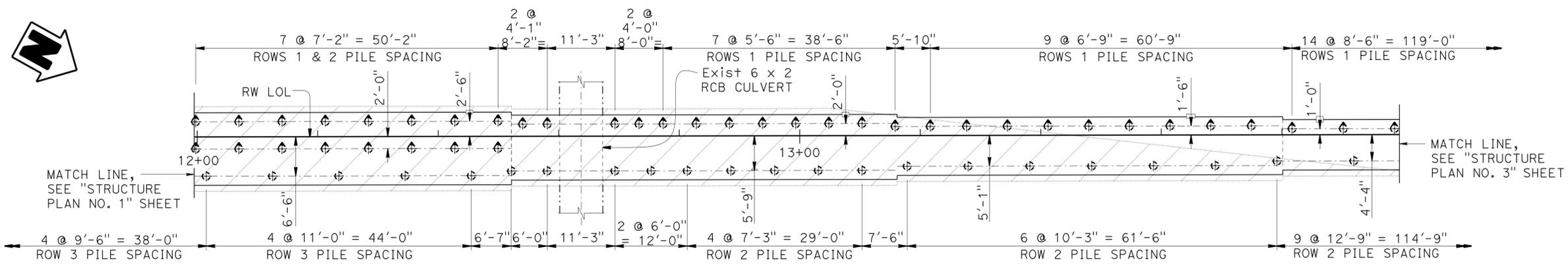


(RW LOL Sta 12+41 TO 12+86)
SECTION A-A
 NO SCALE

- NOTES:
1. Reinforcement placed in addition to that shown in Standard Plan B3-1A.
 2. For all other NOTES and LEGEND, see "STRUCTURE PLAN NO. 1" sheet.



DEVELOPED MIRRORED ELEVATION
 1" = 10'



FOOTING PLAN
 1" = 10'

DESIGN	BY Greg Thornton	CHECKED Eric Burgeson
DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Eric Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

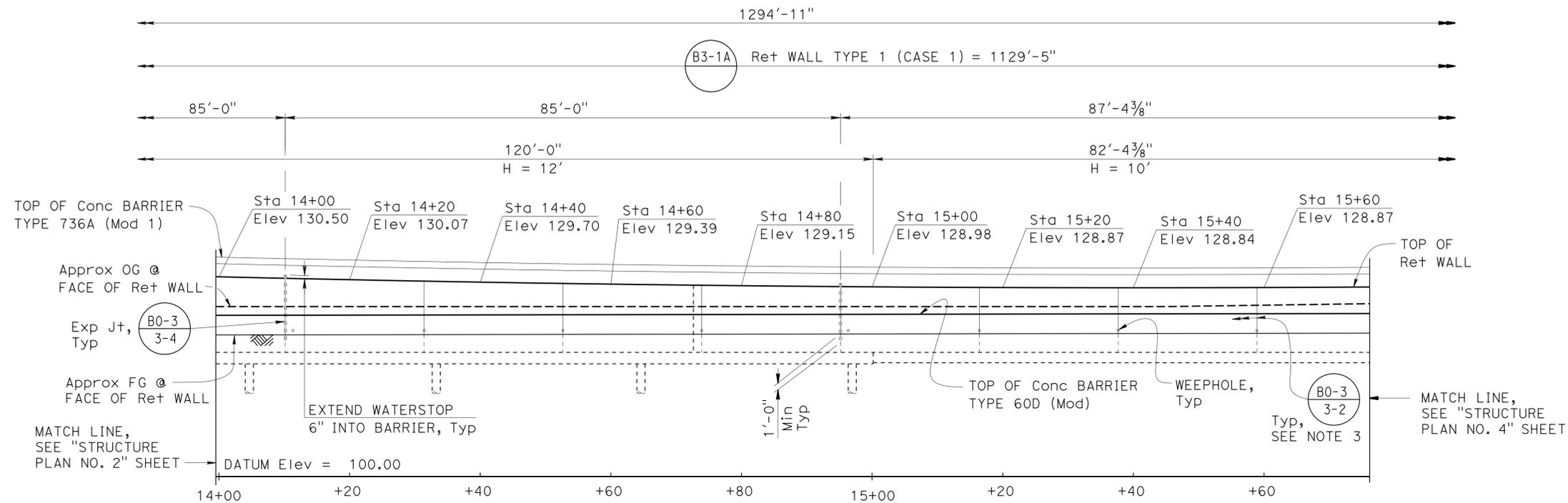
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
STRUCTURE PLAN NO. 2

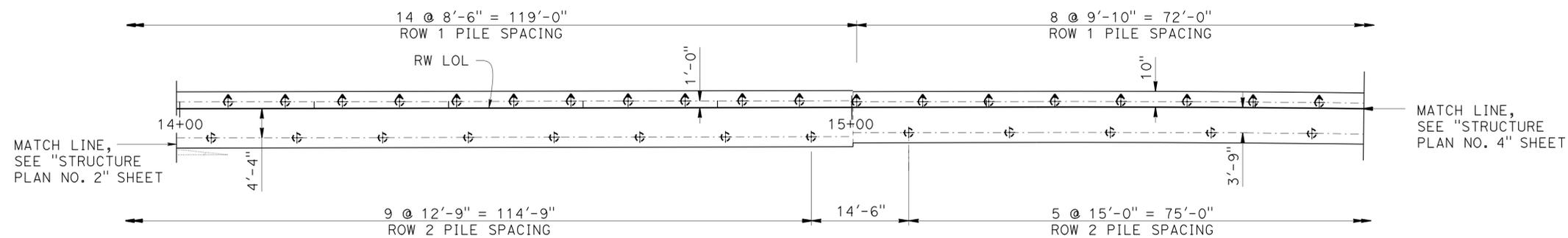
NOTE: For NOTES and LEGEND, see "STRUCTURE PLAN NO. 1" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	912	985
			P. Vijitakula REGISTERED CIVIL ENGINEER DATE 12/28/12		
			6-24-13 PLANS APPROVAL DATE		
			P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA		
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DEVELOPED MIRRORED ELEVATION

1" = 10'



FOOTING PLAN

1" = 10'



DESIGN	BY Greg Thornton	CHECKED Eric Burgeson
DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Eric Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

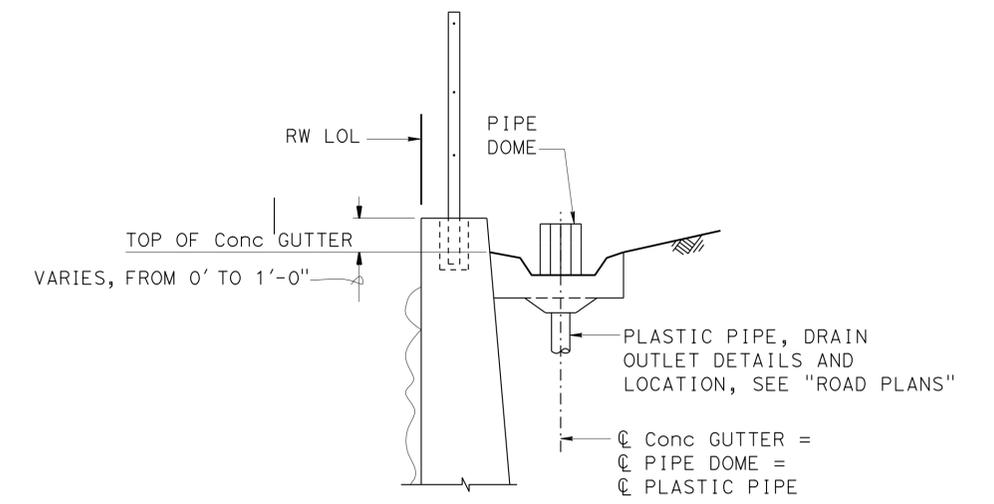
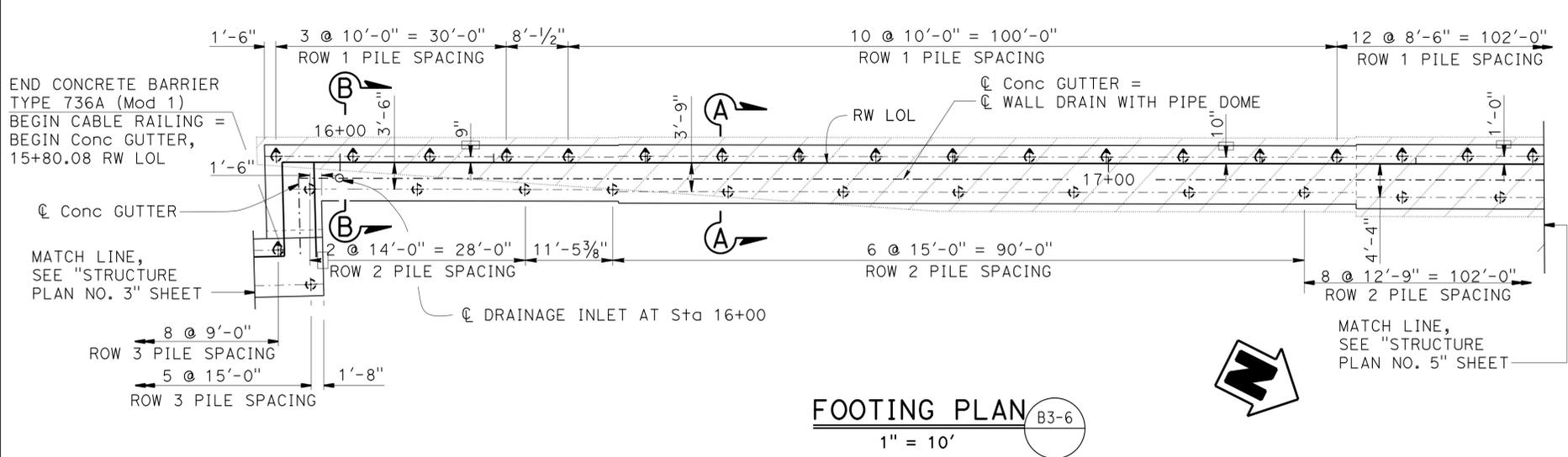
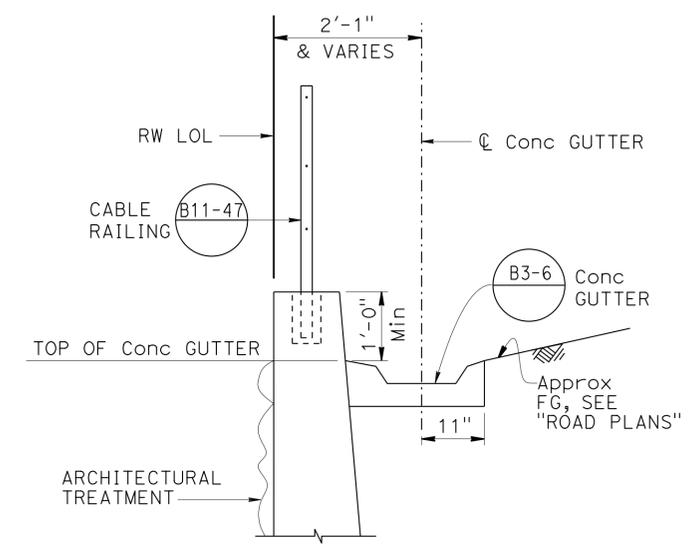
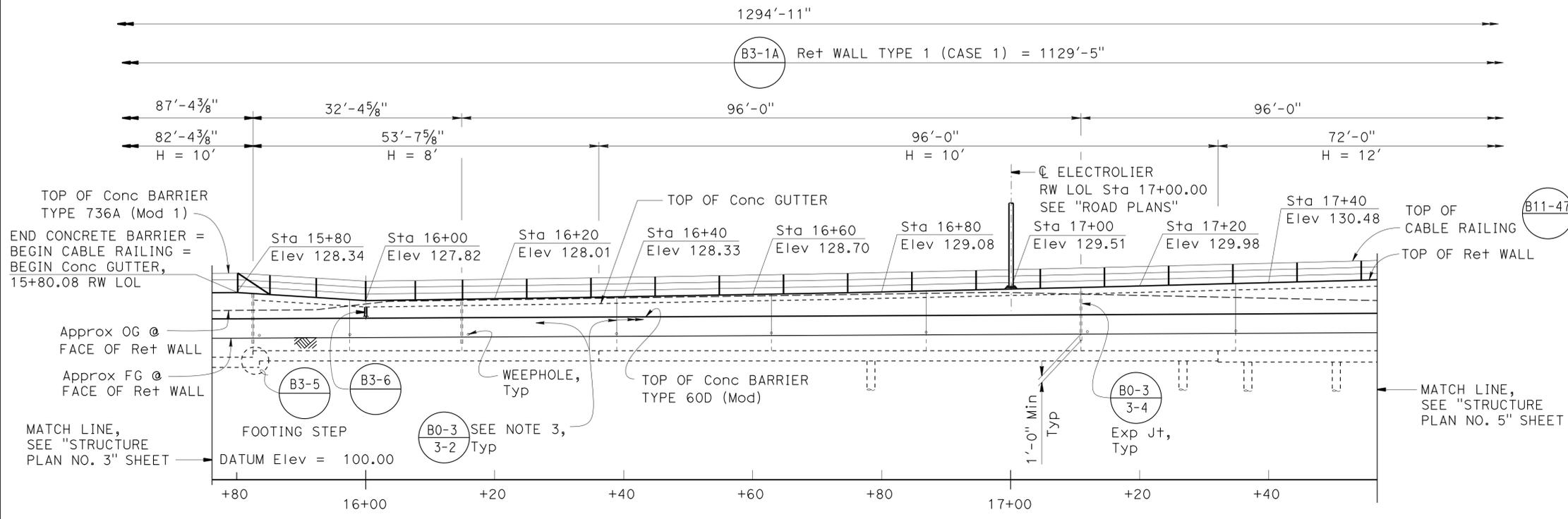
BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
STRUCTURE PLAN NO. 3

NOTE:

1. For PEDESTAL DETAILS, see "STRUCTURE PLAN NO. 5" sheet.
2. For all other NOTES and LEGEND, see "STRUCTURE PLAN NO. 1" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	913	985
P. Vijitakula REGISTERED CIVIL ENGINEER			12/28/12 DATE	P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL	
6-24-13			PLANS APPROVAL DATE		
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NOTE:
For details not shown, see "SECTION A-A"

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Greg Thornton	CHECKED E. Burgeson / R. da Cruz	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	53E0215	RETAINING WALL NO. 341 STRUCTURE PLAN NO. 4	
	DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Eric Burgeson			POST MILE	6.38		
	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo			PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3576		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 3-06-12, 05/06/13, 02/04/15	SHEET 7 OF 30

NOTES:

1. For "SECTION A-A", see "STRUCTURE PLAN NO. 4" sheet.
2. For all other NOTES and LEGEND, see "STRUCTURE PLAN NO. 1" sheet.

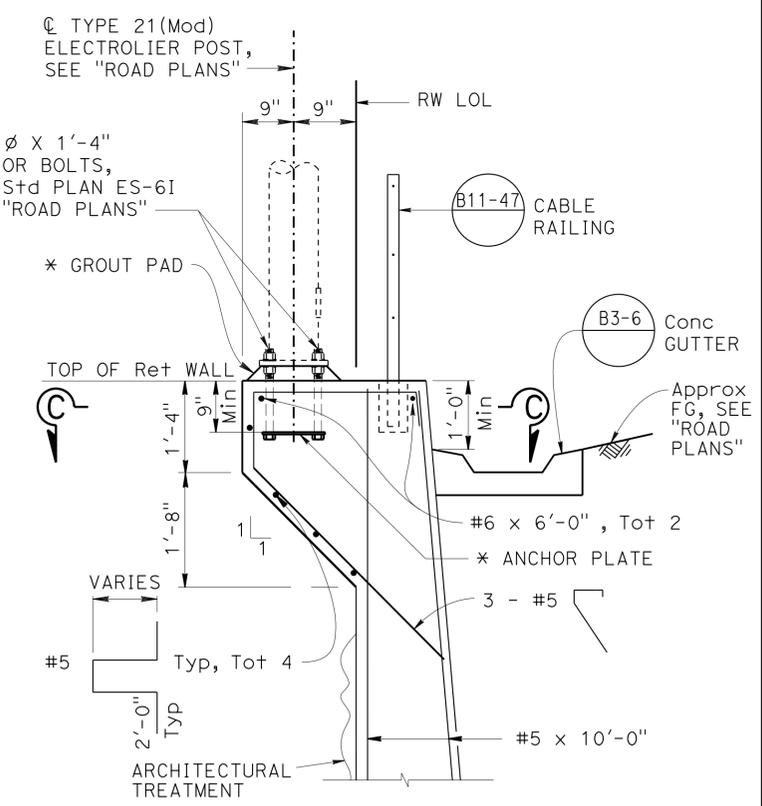
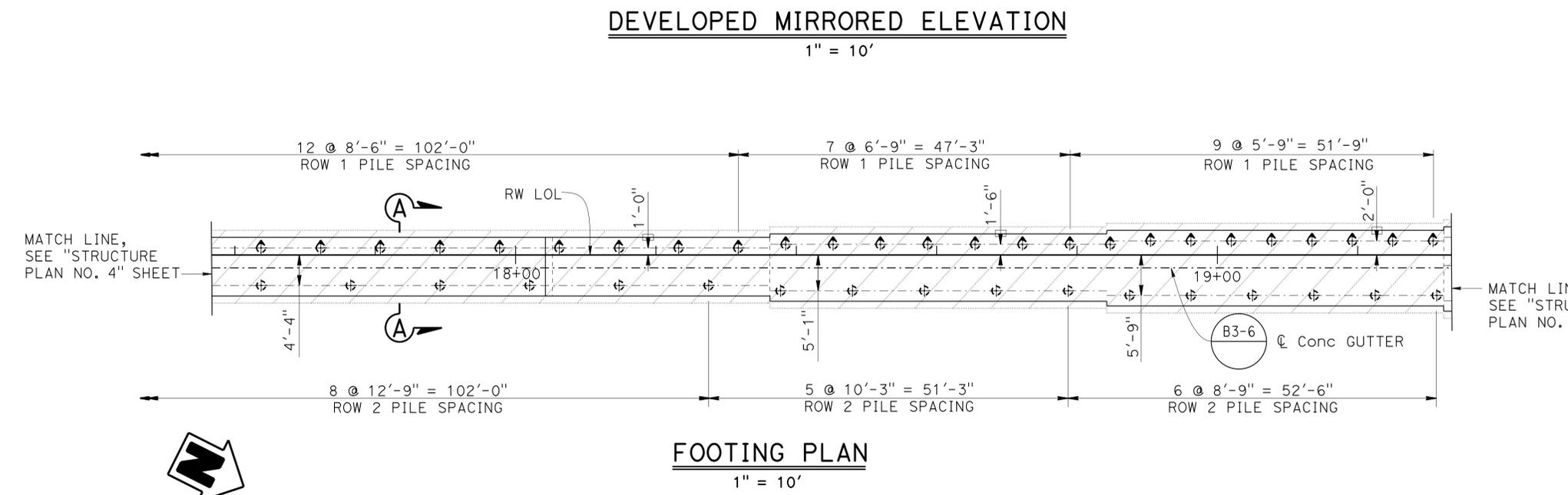
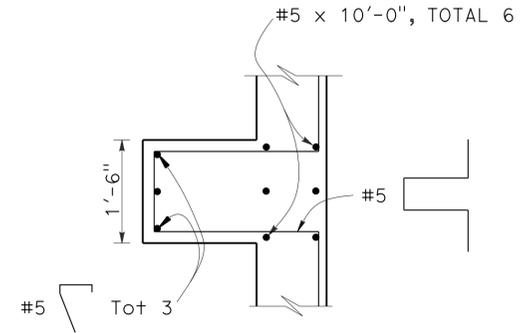
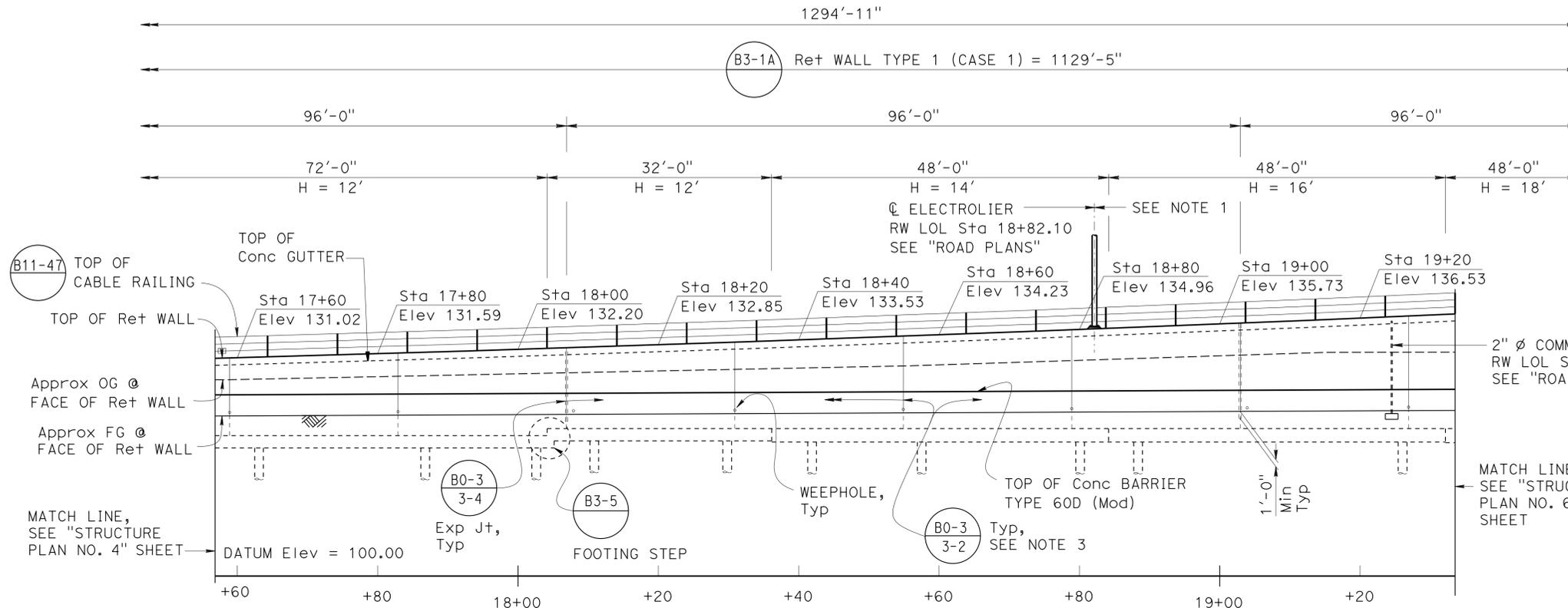
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	914	985

P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
P. VIJITAKULA
 No. 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

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DESIGN BY: G.Thornton / D.Sessions CHECKED: E.Burgeson / R. da Cruz DETAILS BY: B. Huddleston \ Y. Feng CHECKED: Eric Burgeson QUANTITIES BY: Paul Hayes CHECKED: N. Tiangco / G. Galo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	RETAINING WALL NO. 341
			53E0215	STRUCTURE PLAN NO. 5
			6.38	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3576 PROJECT NUMBER & PHASE: 07000018351 CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES
			REVISION DATES: 3-06-12, 05/06/13, 03/06/13	SHEET 8 OF 30

NOTES:

1. For PEDESTAL DETAILS, see "STRUCTURE PLAN NO. 5" sheet.
2. For "SECTION A-A", see "STRUCTURE PLAN NO. 4" sheet.
3. For all other NOTES and LEGEND, see "STRUCTURE PLAN NO. 1" sheet.

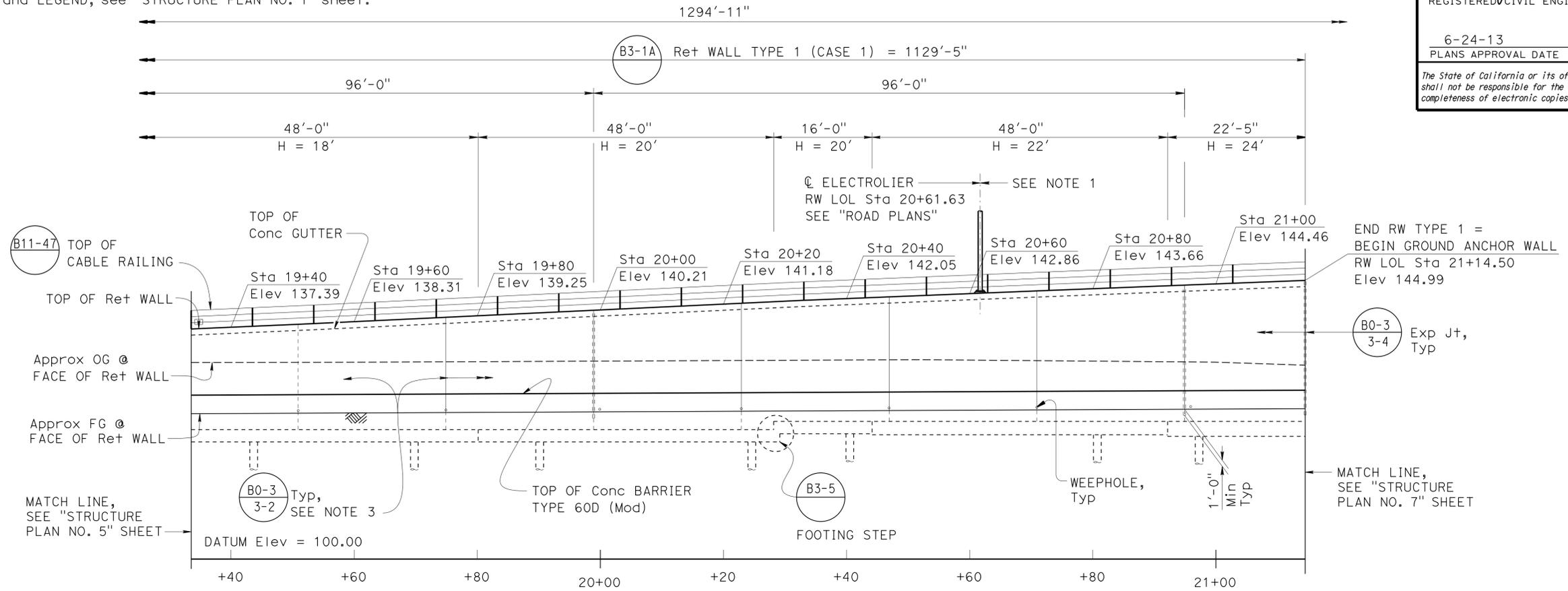
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	915	985

P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

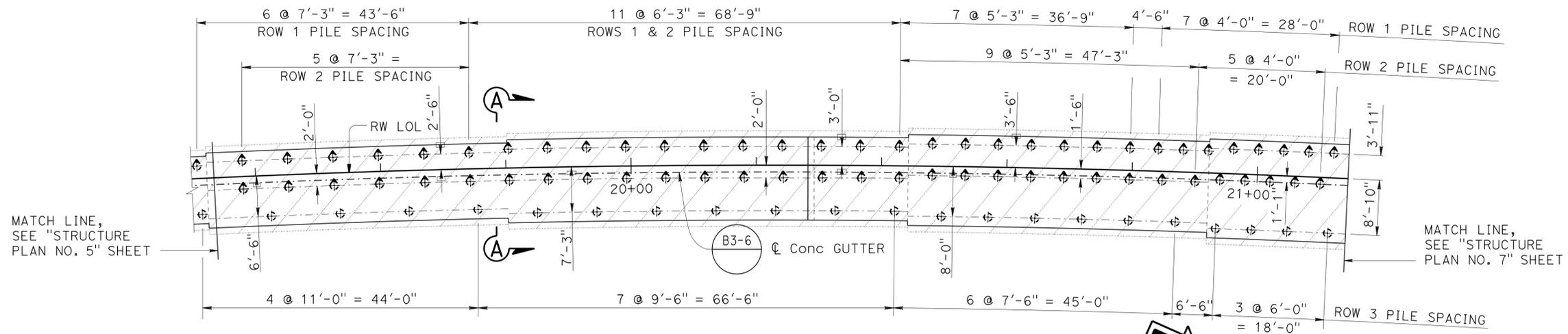
REGISTERED PROFESSIONAL ENGINEER
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 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

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DEVELOPED MIRRORED ELEVATION

1" = 10'



FOOTING PLAN

1" = 10'

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Greg Thornton	CHECKED E. Burgeson / R. da Cruz	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	53E0215	RETAINING WALL NO. 341 STRUCTURE PLAN NO. 6	
	DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Eric Burgeson			POST MILE	6.38		
	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo			CONTRACT NO.:	07-215954		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	UNIT: 3576 PROJECT NUMBER & PHASE: 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	SHEET 9 OF 30

NOTES:

1. For Ret wall details not shown, see "GROUND ANCHOR WALL DETAILS" sheets.
2. For "Ret WALL DETAILS AT ELECTROLIER", see "GROUND ANCHOR WALL DETAILS NO. 1" sheet.
3. Concrete facing and architectural treatment not shown in "DEVELOPED MIRRORED ELEVATION", see "ARCHITECTURAL TREATMENT" sheets.
4. All longitudinal dimensions are measured along the RW LOL.
5. For SECTION D-D, see "GROUND ANCHOR WALL DETAILS NO. 2" sheet.

LEGEND:

 - Indicates Limits of Payment for Structure Excavation Type Y-2, see Typical Section on "EXCAVATION AND BACKFILL DETAILS" sheet

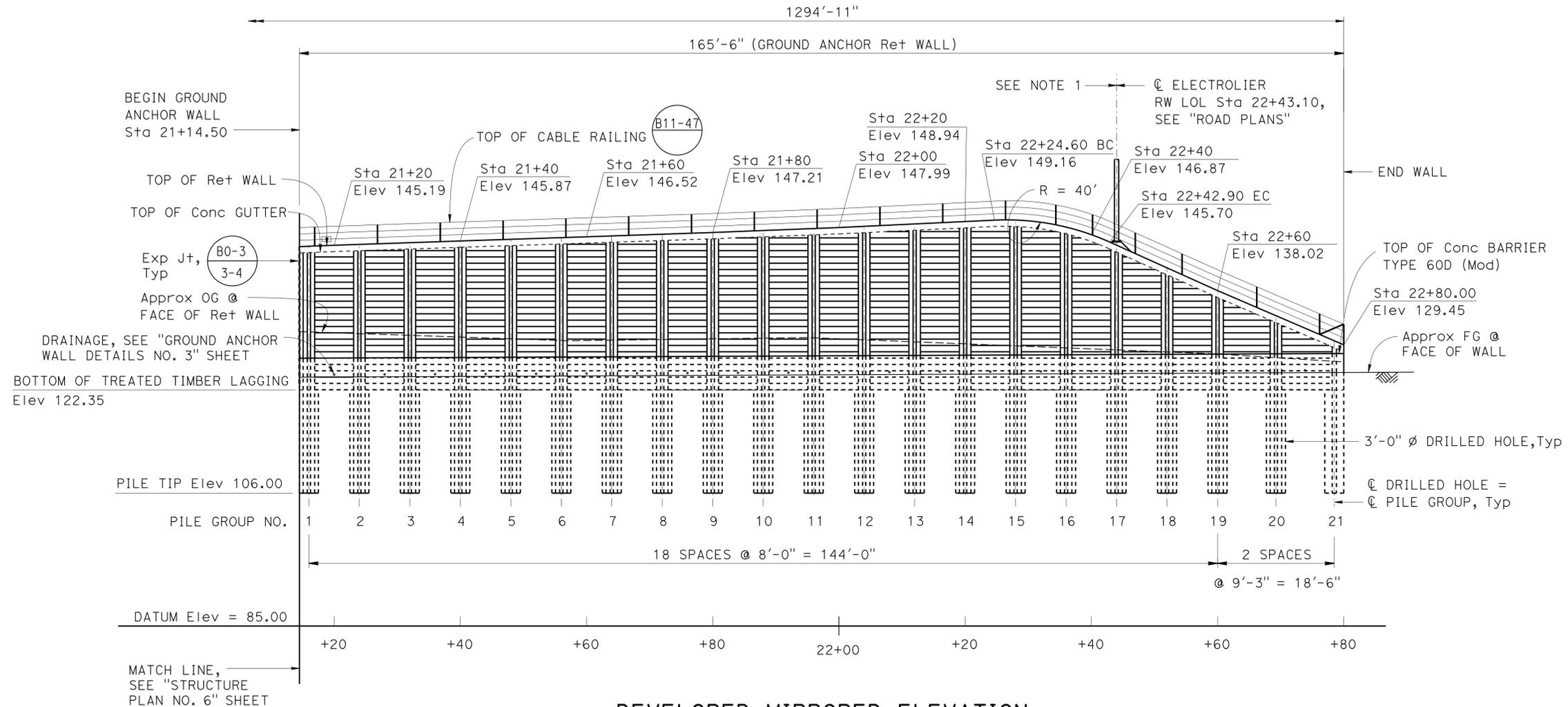
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	916	985

P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE

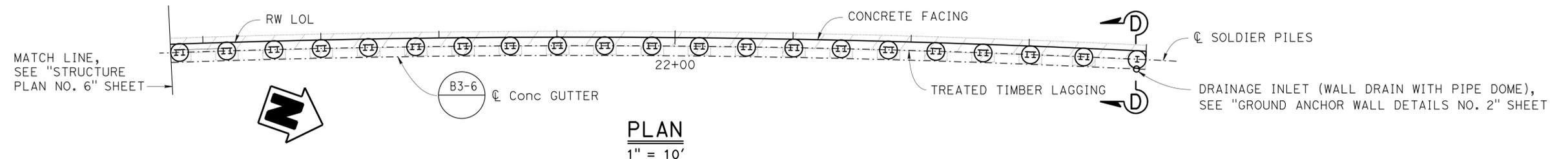
6-24-13
 PLANS APPROVAL DATE

P. VIJITAKULA
 No. 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

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DEVELOPED MIRRORED ELEVATION
1" = 10'



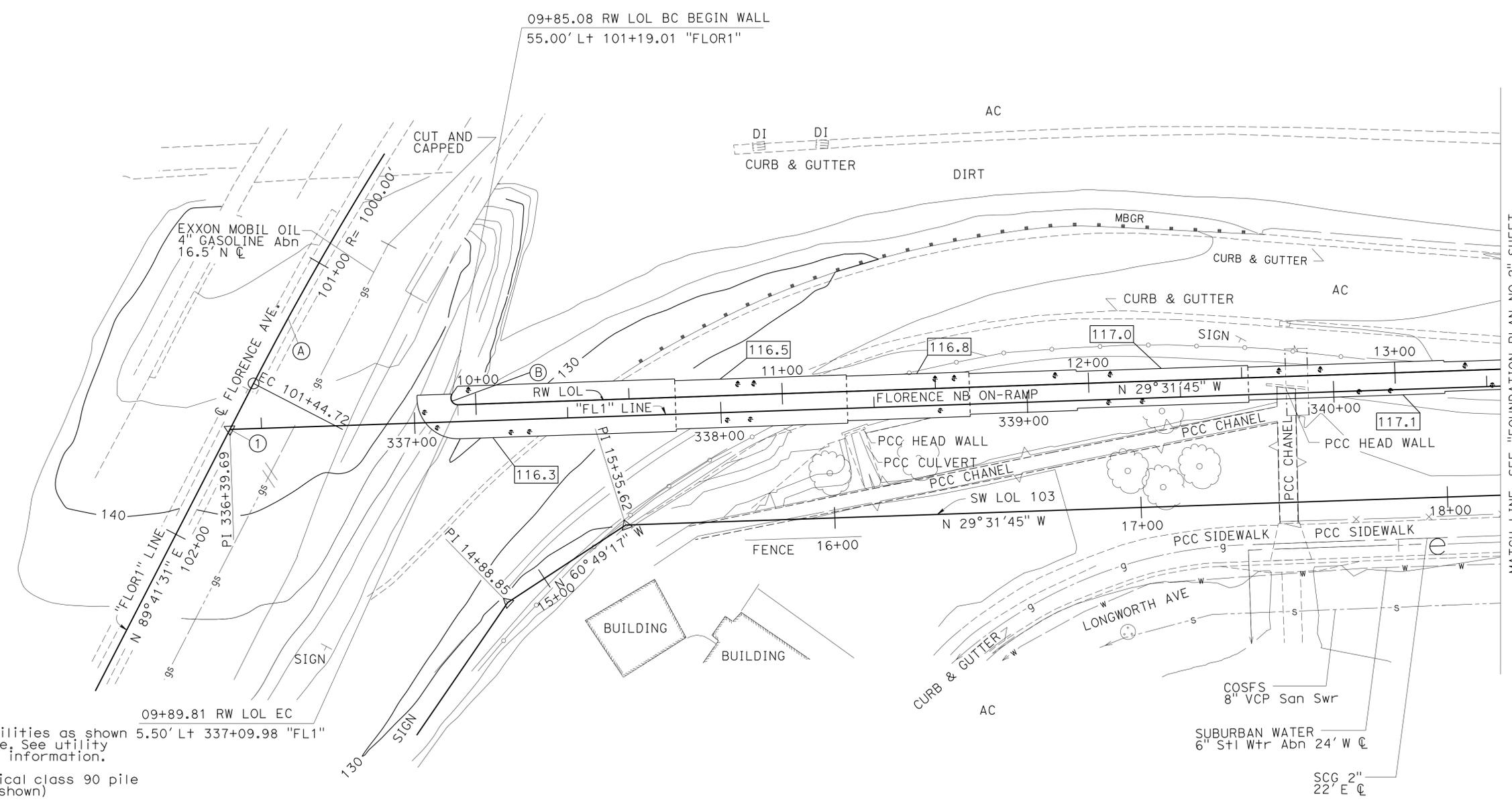
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: x-small;">DESIGN</td> <td style="font-size: x-small;">BY Eric Burgeson</td> <td style="font-size: x-small;">CHECKED Greg Thornton</td> </tr> <tr> <td style="font-size: x-small;">DETAILS</td> <td style="font-size: x-small;">BY B. Huddleston \ Y. Feng</td> <td style="font-size: x-small;">CHECKED Greg Thornton</td> </tr> <tr> <td style="font-size: x-small;">QUANTITIES</td> <td style="font-size: x-small;">BY Paul Hayes</td> <td style="font-size: x-small;">CHECKED N. Tiangco / G. Galo</td> </tr> </table>	DESIGN	BY Eric Burgeson	CHECKED Greg Thornton	DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Greg Thornton	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: x-small;">BRIDGE NO.</td> <td>53E0215</td> </tr> <tr> <td style="font-size: x-small;">POST MILE</td> <td>6.38</td> </tr> </table>	BRIDGE NO.	53E0215	POST MILE	6.38
DESIGN	BY Eric Burgeson	CHECKED Greg Thornton														
DETAILS	BY B. Huddleston \ Y. Feng	CHECKED Greg Thornton														
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo														
BRIDGE NO.	53E0215															
POST MILE	6.38															
RETAINING WALL NO. 341 STRUCTURE PLAN NO. 7		PROJECT NUMBER & PHASE: 07000018351 CONTRACT NO.: 07-215954														
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS														
0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES														
		REVISION DATES: 3-08-12, 05/07/13, 03/04/15 SHEET 10 OF 30														

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	917	985
P. Vijitakula			12/28/12		
REGISTERED CIVIL ENGINEER			DATE		
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					
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CURVE DATA				
No.	R	Δ	T	L
(A)	1000.00	31°41'30"	283.84	553.12
(B)	2.25	120°41'38"	3.95	4.73

① STA. 101+61.56 "FLOR1" LINE =
 STA. 336+39.69 "FL1" LINE



MATCH LINE, SEE "FOUNDATION PLAN NO. 2" SHEET

NOTES:
 Underground utilities as shown 5.50' L+ 337+09.98 "FL1" are approximate. See utility plans for more information.
 ⊕ - Indicates vertical class 90 pile (not all piles shown)
 ⊕ - Indicates battered class 90 pile (not all piles shown)

LEGEND:
 [XXX.X] - Bottom of footing elevation
SURVEY CONTROL
 SEE FOUNDATION PLAN NO. 2

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Greg Thornton	CHECKED Eric Burgeson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. 53E0215	RETAINING WALL NO. 341 FOUNDATION PLAN 1				
SCALE 1"=20'	VERT. DATUM NAVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY Yingjue Feng	CHECKED Eric Burgeson	POST MILE 6.38								
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY S. ABASSY 10/2011	CHECKED BY S. ALIVIO 10/2011	QUANTITIES BY Paul Hayes	CHECKED N. Tiangco / G. Galo									
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3647	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 11	OF 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	918	985

P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE

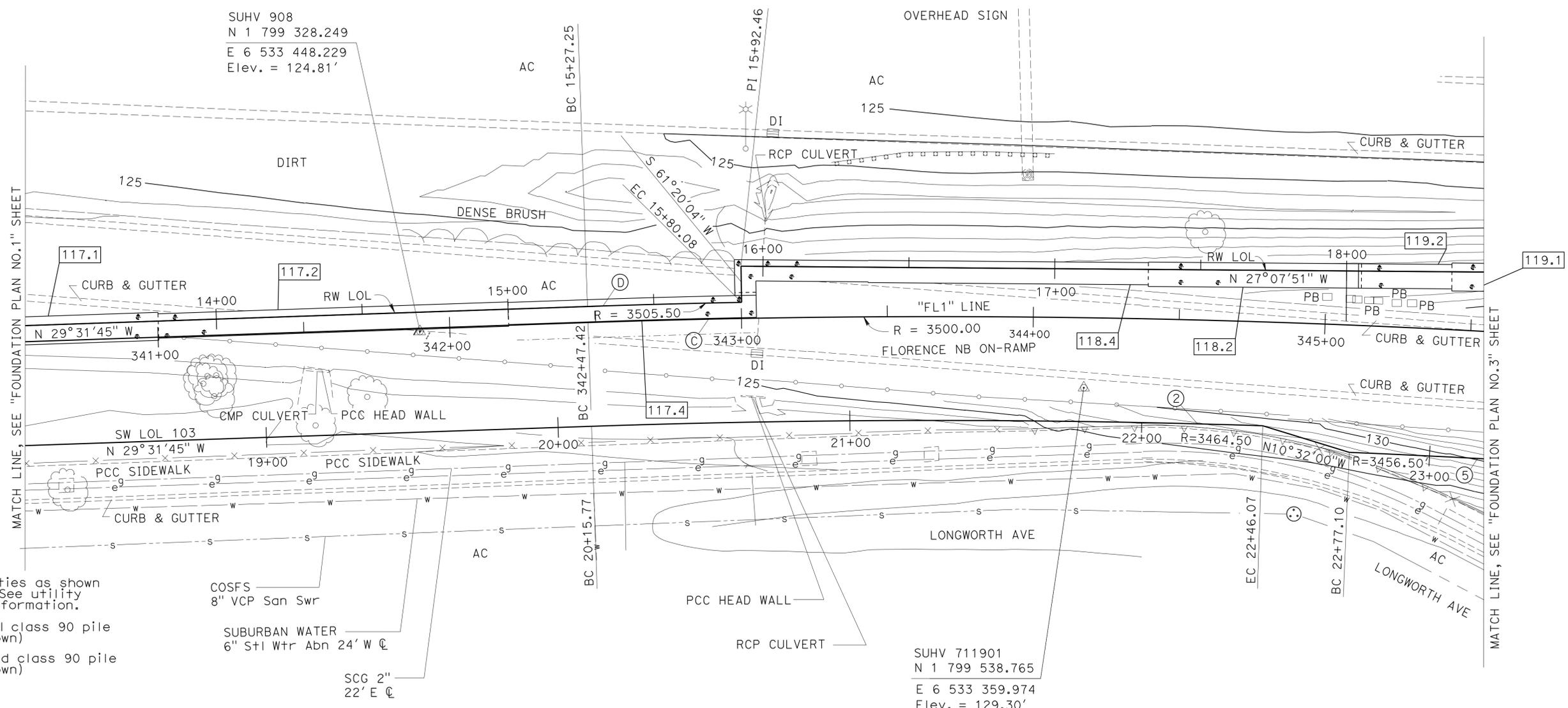
6-24-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 P. VIJITAKULA
 No. 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

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CURVE DATA				
No.	R	Δ	T	L
Ⓒ	3500.00	06°27'20"	197.38	394.34
Ⓓ	3505.50	00°51'49"	26.42	52.83
②	3464.50	03°48'14"	115.04	230.00
⑤	3456.50	01°39'40"	50.11	100.21



NOTES:

Underground utilities as shown are approximate. See utility plans for more information.

⊕ - Indicates vertical class 90 pile (not all piles shown)

⊕ - Indicates battered class 90 pile (not all piles shown)

LEGEND:

XXX.X - Bottom of footing elevation

SURVEY CONTROL

SUHV 908 SET SPK / AC 1.11' FT Rt. "FL1" LINE Sta. 341+89.75 N 1 799 328.249 E 6 533 448.229 Elev. = 124.81'	SUHV 711901 SET SPK 23.96' FT Rt. "FL1" LINE Sta. 344+17.65 N 1 799 538.765 E 6 533 359.974 Elev. = 129.30'
--	---

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Greg Thornton	CHECKED Eric Burgeson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. 53E0215	RETAINING WALL NO. 341 FOUNDATION PLAN NO. 2		
SCALE 1"=20'	VERT. DATUM NAVD 88	PHOTOGRAMMETRY AS OF: X	DETAILS BY Yingjue Feng	CHECKED Eric Burgeson	POST MILE 6.38						
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY S. ABASSY 10/2011	CHECKED BY S. ALIVIO 10/2011	QUANTITIES BY Paul Hayes	CHECKED N. Tiangco / G. Galo							
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3647 PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10/28/11 02/05/13 12/28/12	SHEET 12 OF 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	919	985

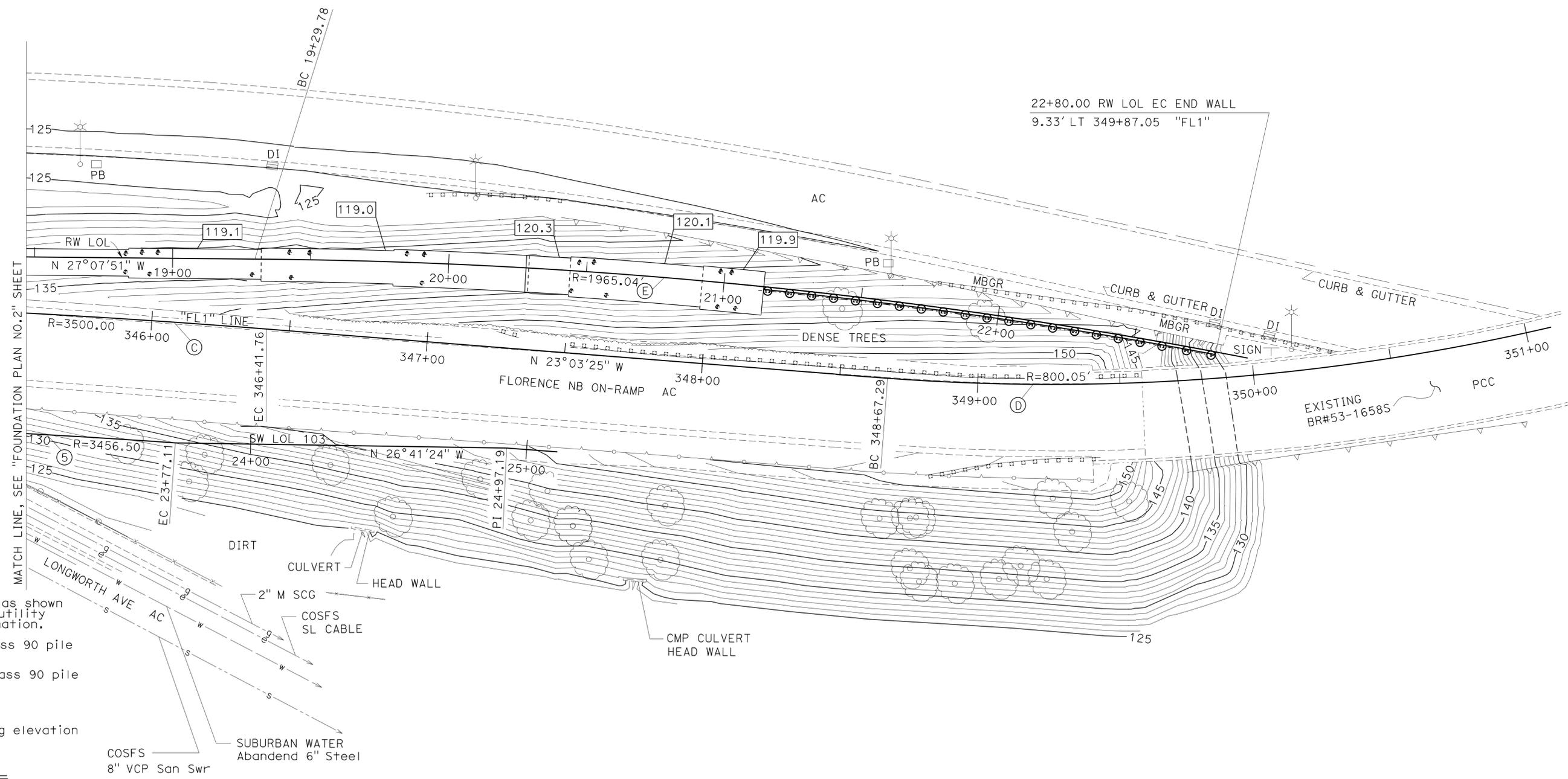
P. Vijitakula 12/28/12
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 P. VIJITAKULA
 No. 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA

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CURVE DATA				
No.	R	Δ	T	L
Ⓒ	3500.00	06°27'20"	197.38	394.34
Ⓓ	800.05	22°04'45"	156.09	308.30
Ⓔ	1965.04	10°24'35"	179.00	357.02
Ⓔ	3456.50	01°39'40"	50.11	100.21



NOTES:

Underground utilities as shown are approximate. See utility plans for more information.

⊕ - Indicates vertical class 90 pile (not all piles shown)

⊕ - Indicates battered class 90 pile (not all piles shown)

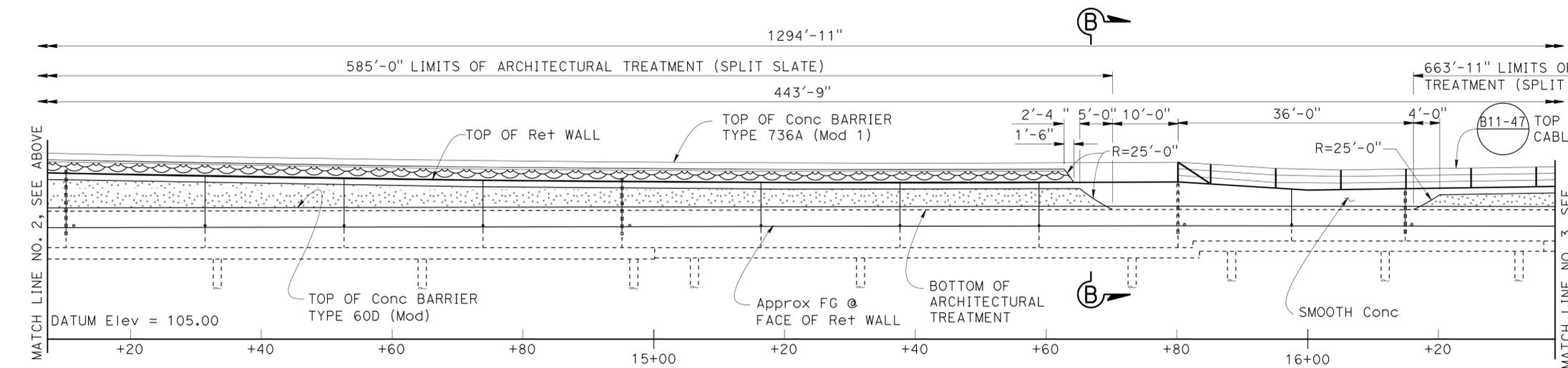
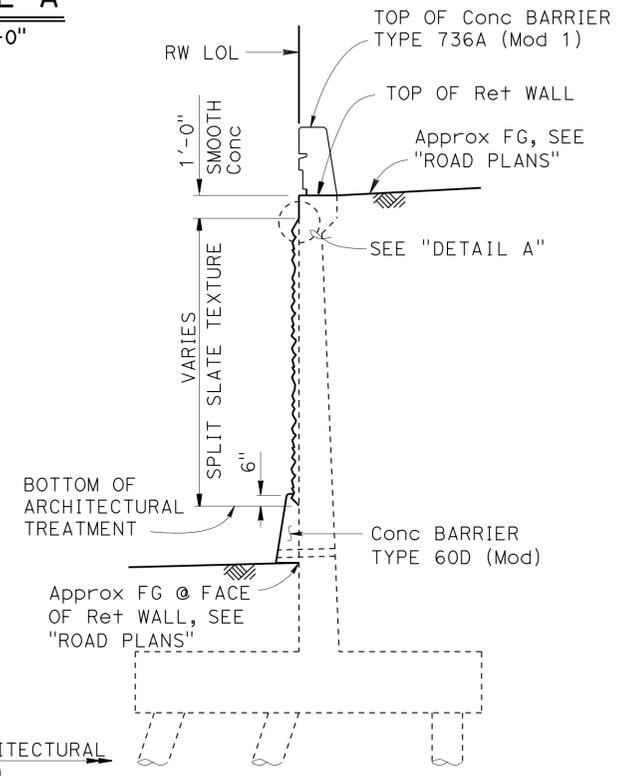
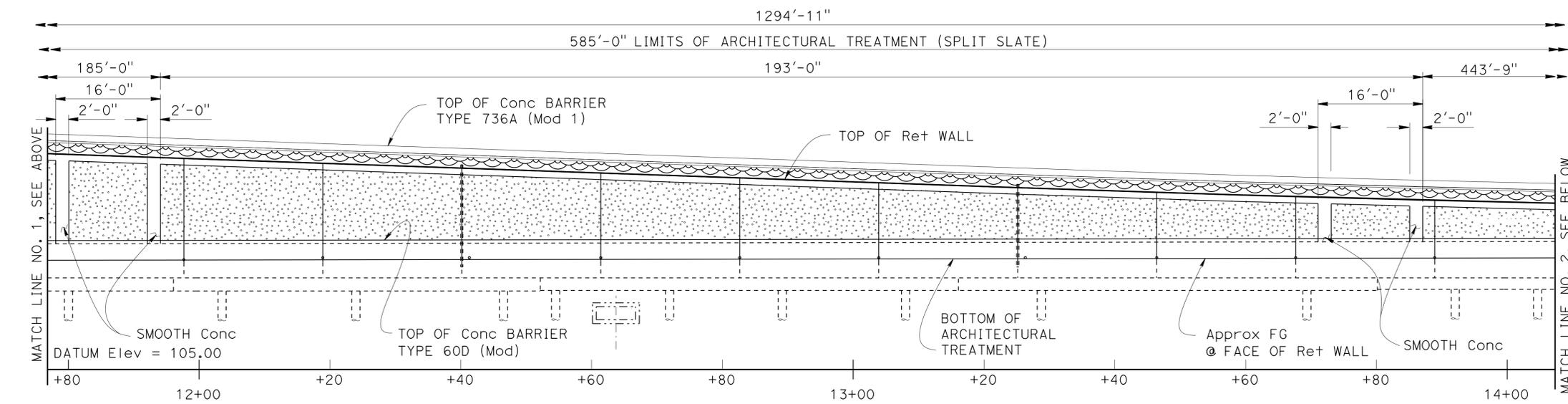
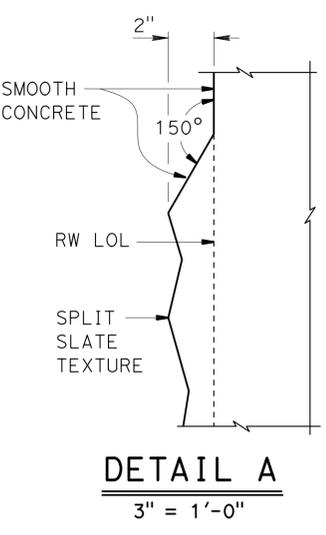
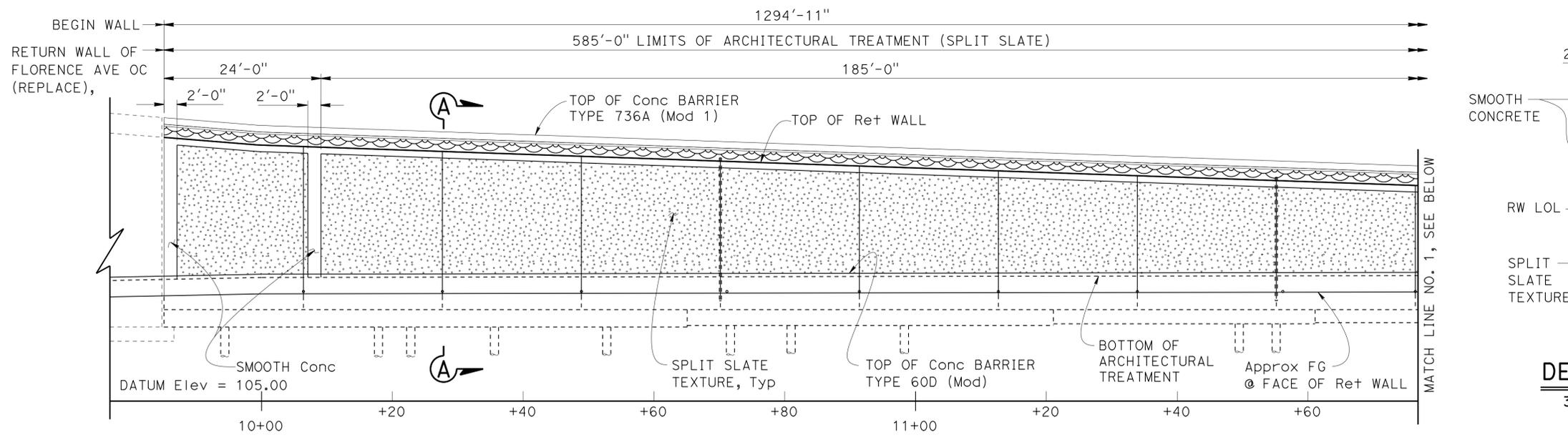
LEGEND:

XXX.X - Bottom of footing elevation

SURVEY CONTROL
 SEE FOUNDATION PLAN NO. 2

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Greg Thornton	CHECKED Eric Burgeson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. 53E0215	RETAINING WALL NO. 341 FOUNDATION PLAN NO. 3
SCALE: VERT. DATUM NAVD 88	PHOTOGRAMMETRY AS OF: X	DRAFTED BY S. ABASSY 10/2011	CHECKED BY S. ALIVIO 10/2011	DETAILS BY Yingjue Feng	CHECKED Eric Burgeson			POST MILE 6.38	
1"=20'	HORIZ. DATUM NAD 83 (1991.35)	SURVEYED BY C. STEWART / T. PHUNG	CHECKED BY C. STEWART 9/2011	QUANTITIES BY Paul Hayes	CHECKED N. Tiangco / G. Galo				
ALIGNMENT TIES Dist. Traverse Sheet						UNIT: 3647	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES	SHEET 13 OF 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	920	985
P. Vijitakula REGISTERED CIVIL ENGINEER DATE 12/28/12			P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA		
6-24-13 PLANS APPROVAL DATE					
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- NOTES:
- For SECTION B-B, see "RETAINING WALL ARCHITECTURAL TREATMENT NO. 2" sheet.
 - For concrete barrier Type 736A (Mod 1) architectural details and split slate texture details, see "CONCRETE BARRIER ARCHITECTURAL DETAILS" sheet.
 - All longitudinal dimensions are measured along RW LOL.

DEVELOPED MIRRORED ELEVATION
1" = 10'

DESIGN	BY Isaac Tasabia	CHECKED Javier Chavez
DETAILS	BY Yingjue Feng	CHECKED G. Thornton / E. Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

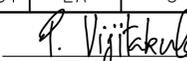
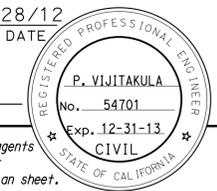
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

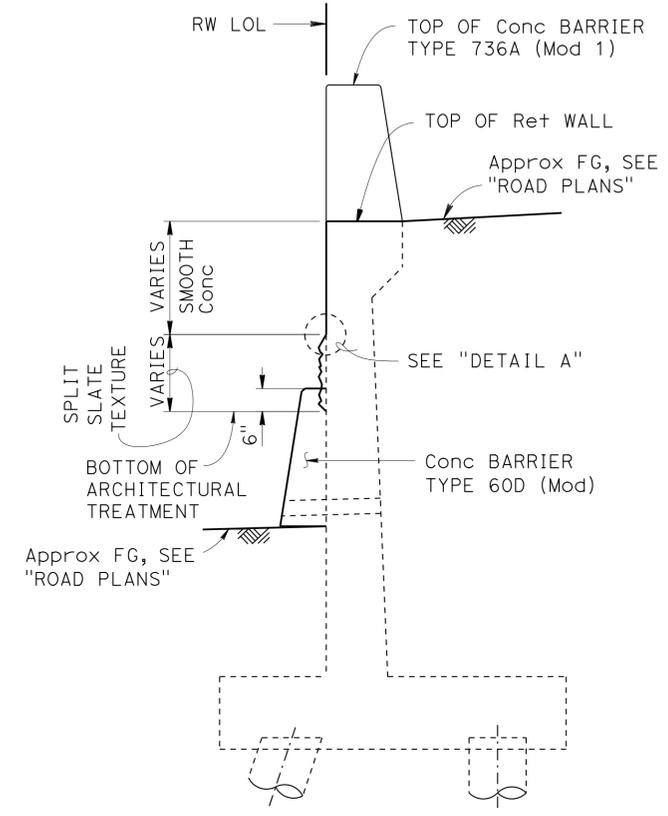
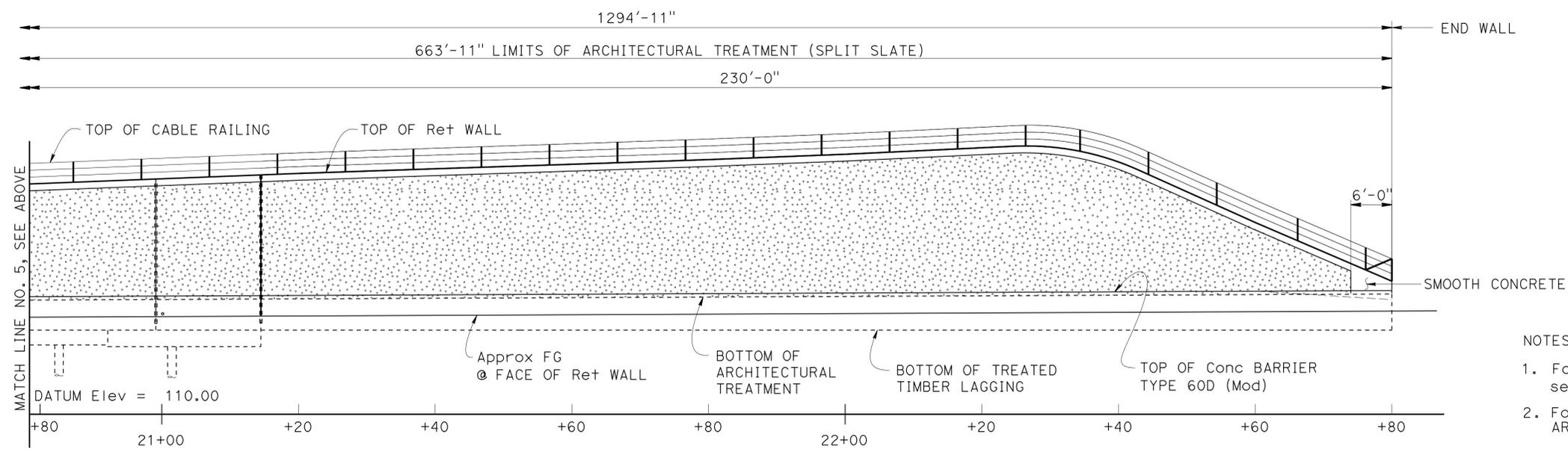
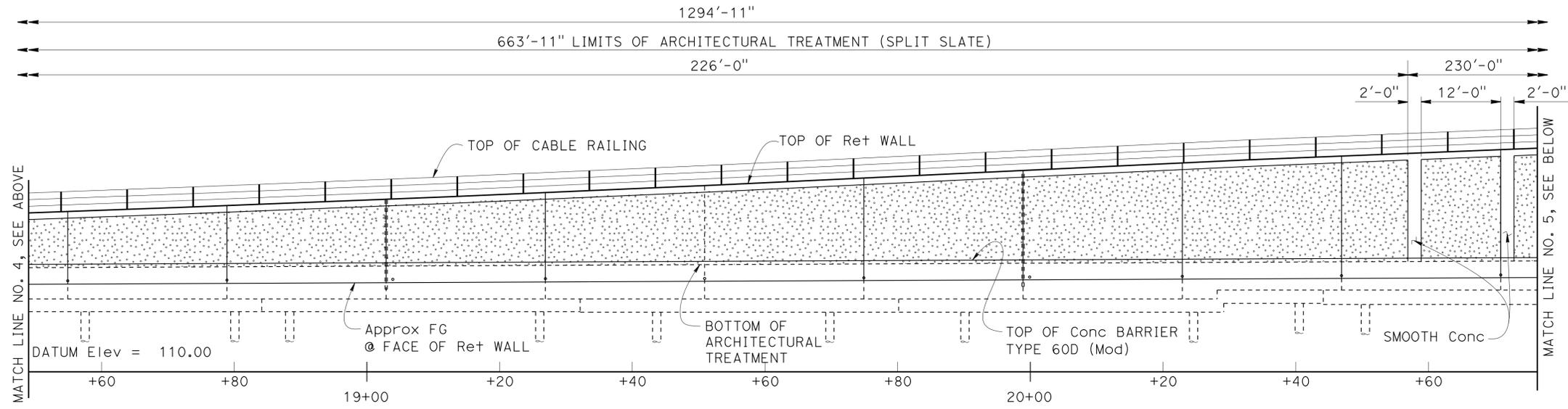
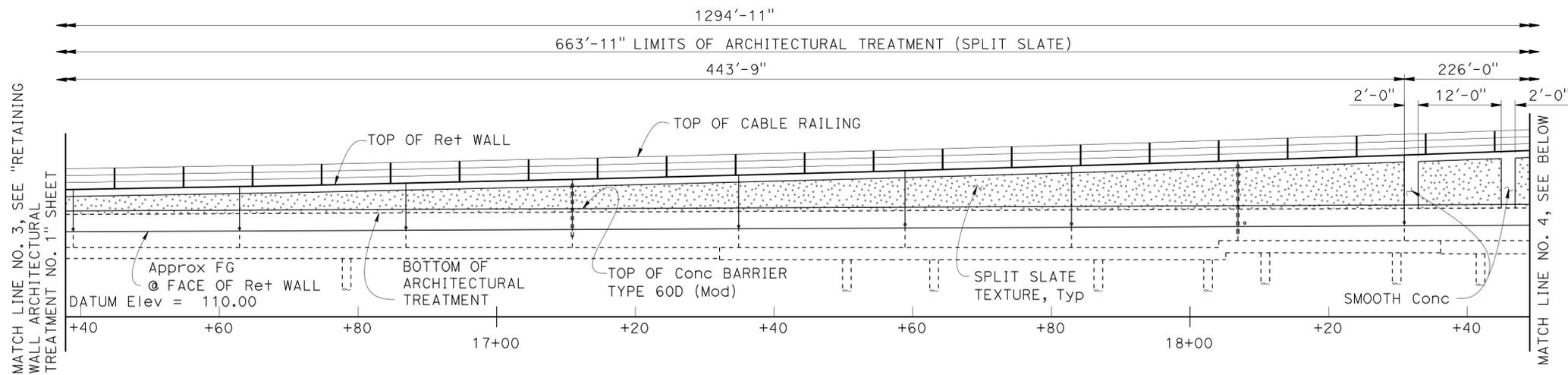
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
RETAINING WALL ARCHITECTURAL TREATMENT NO. 1

REVISION DATES	SHEET	OF
7-5-12	14	30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	921	985
 REGISTERED CIVIL ENGINEER			12/28/12 DATE		
6-24-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



SECTION B-B
1/2" = 1'-0"

- NOTES:
- For location of "SECTION B-B", "DETAIL A" and all other NOTES, see "RETAINING WALL ARCHITECTURAL TREATMENT NO. 1" sheet.
 - For split slate texture details, see "CONCRETE BARRIER ARCHITECTURAL DETAILS" sheet.

DEVELOPED MIRRORED ELEVATION
1" = 10'

DESIGN	BY Isaac Tasabia	CHECKED Javier Chavez
DETAILS	BY Yingjue Feng	CHECKED G. Thornton / E. Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

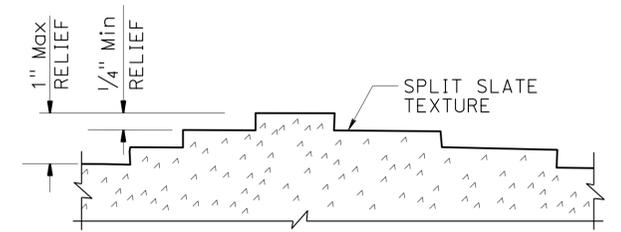
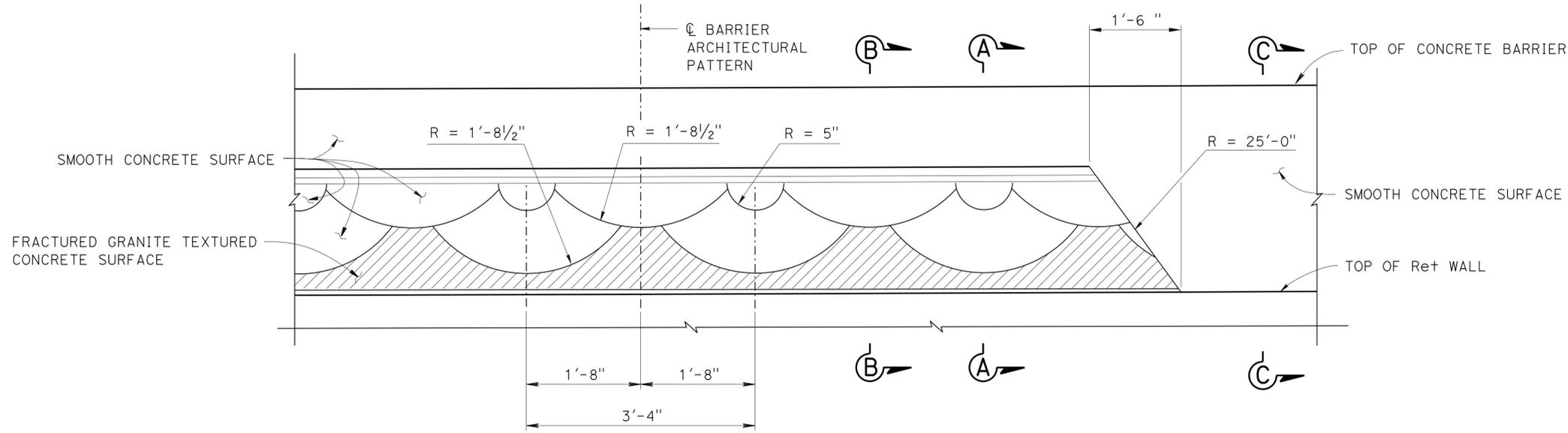
RETAINING WALL NO. 341
RETAINING WALL ARCHITECTURAL TREATMENT NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	922	985
P. Vijitakula			12/28/12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
P. VIJITAKULA			No. 54701		
Exp. 12-31-13			CIVIL		
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NOTES:

For Conc Barrier Type 736A (Mod 1) details not shown, see STANDARD PLAN B11-56.

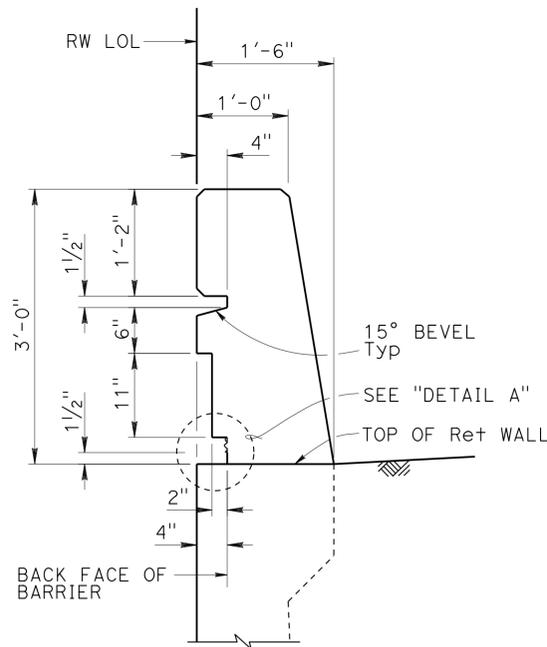
* - Indicates Reinf is in addition to typical barrier Reinf.



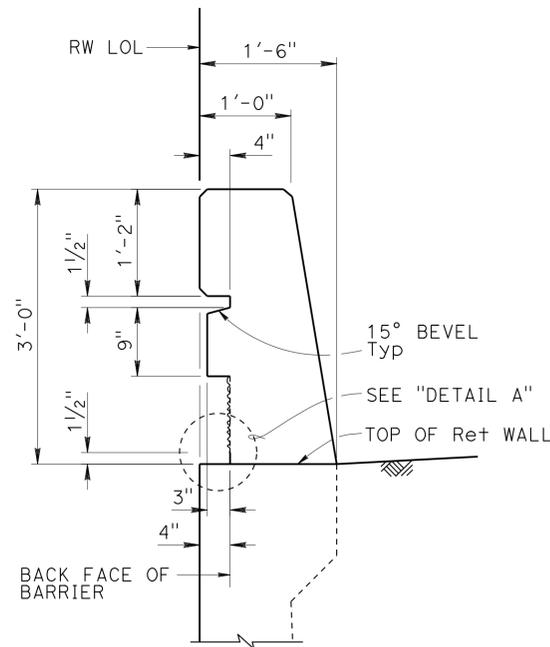
SPLIT SLATE DETAILS
NO SCALE

PART MIRRORED ELEVATION CONCRETE BARRIER TYPE 736A (MOD 1)

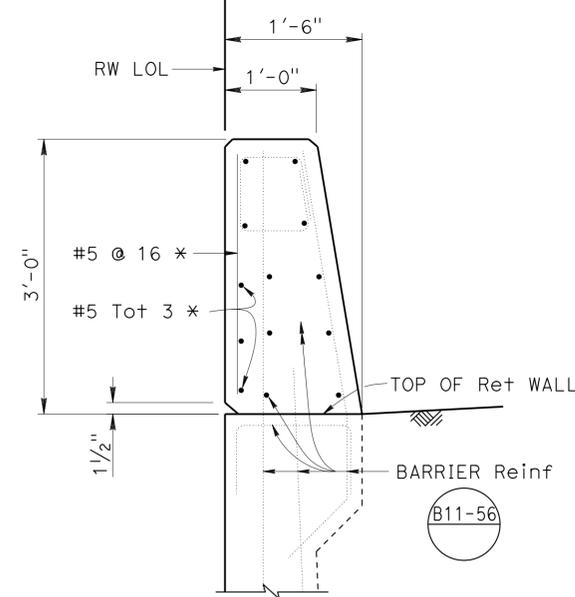
1" = 1'-0"



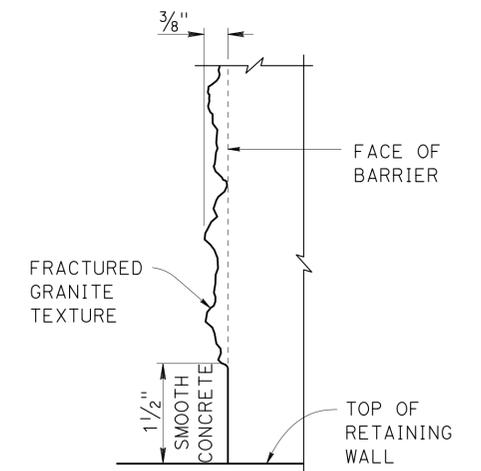
SECTION A-A
1" = 1'-0"



SECTION B-B
1" = 1'-0"



SECTION C-C
1" = 1'-0"



DETAIL A
NO SCALE

NOTE: Details at SECTION B-B shown, details at SECTION A-A similar.

DESIGN	BY I. Tasabia	CHECKED Javier Chavez
DETAILS	BY Yingjue Feng	CHECKED G. Thornton / E. Burgeson
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
CONCRETE BARRIER ARCHITECTURAL DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	923	985

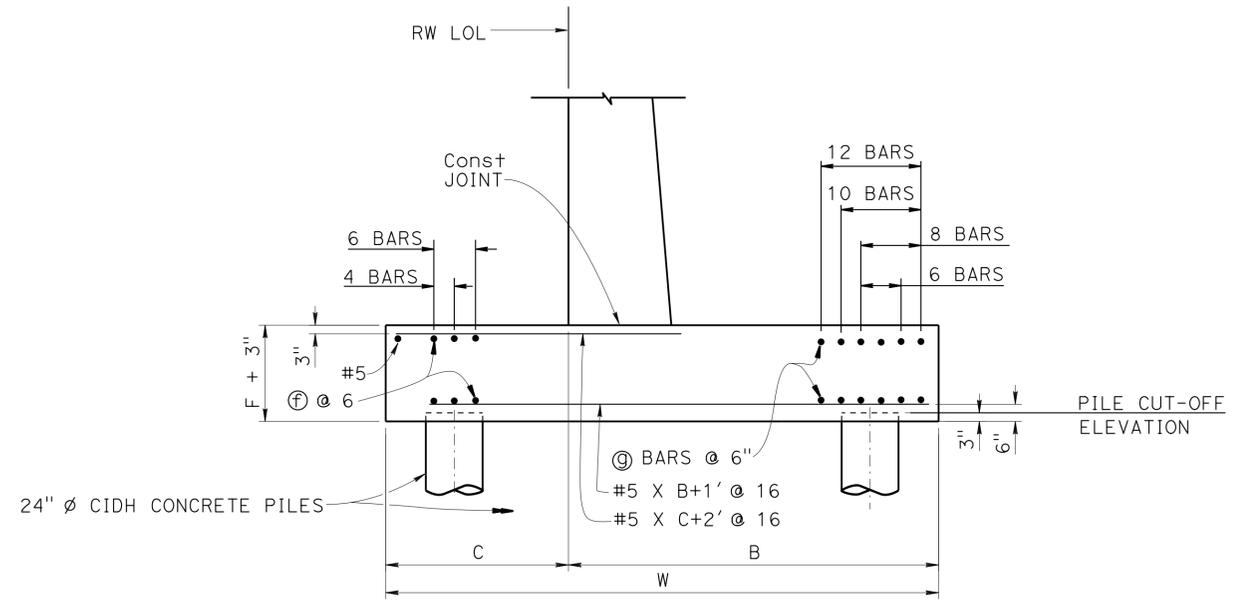
P. Vijitakula 12/28/12
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

P. VIJITAKULA
No. 54701
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

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TABLE OF REINFORCING STEEL DIMENSIONS AND DATA																	
Design H	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'
Total (g) bars	6-#6	6-#6	10-#6	12-#6	12-#6	8-#6	8-#6	10-#6	8-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6
Total (f) bars	4-#6	4-#6	4-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	6-#6	4-#5	4-#5	4-#5	4-#5	4-#5	4-#5	4-#5



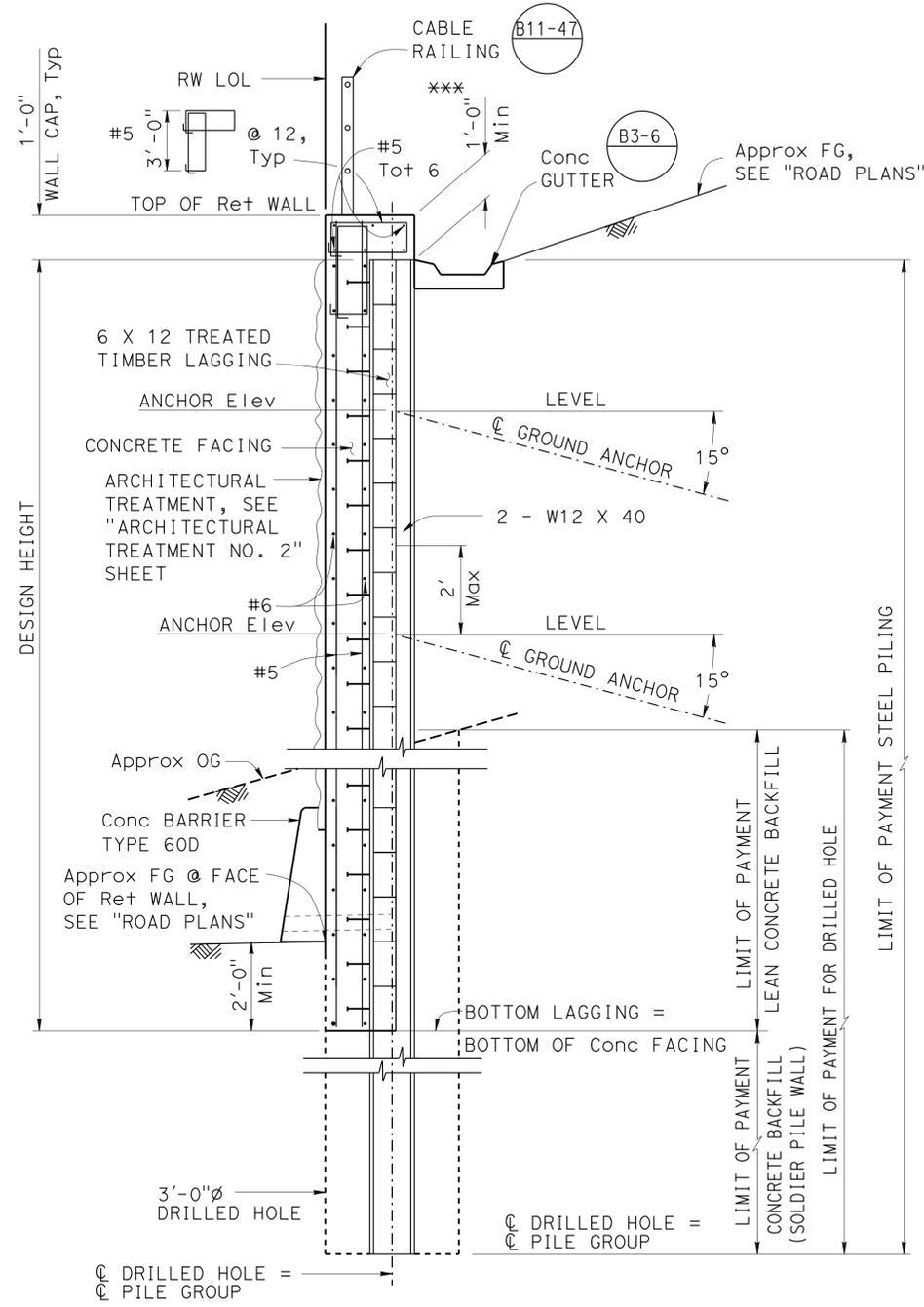
PILE FOOTING SECTION

Reinforcement detailed is to be placed in addition (unless otherwise shown) to that shown for spread footing on Std Plan B3-1A. All piles not shown, see pile layout on other plan sheets.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY G. Hight/D. Sessions	CHECKED R. da Cruz Ferreira/G. Thornton	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	RETAINING WALL NO. 341		
	DETAILS	BY Jie Tang	CHECKED R. da Cruz Ferreira/E. Burgeson			POST MILE	RETAINING WALL DETAILS		
	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo			6.38			
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 17 OF 30

06:10
27-JUN-2013
DATE PLOTTED =>
TIME PLOTTED =>

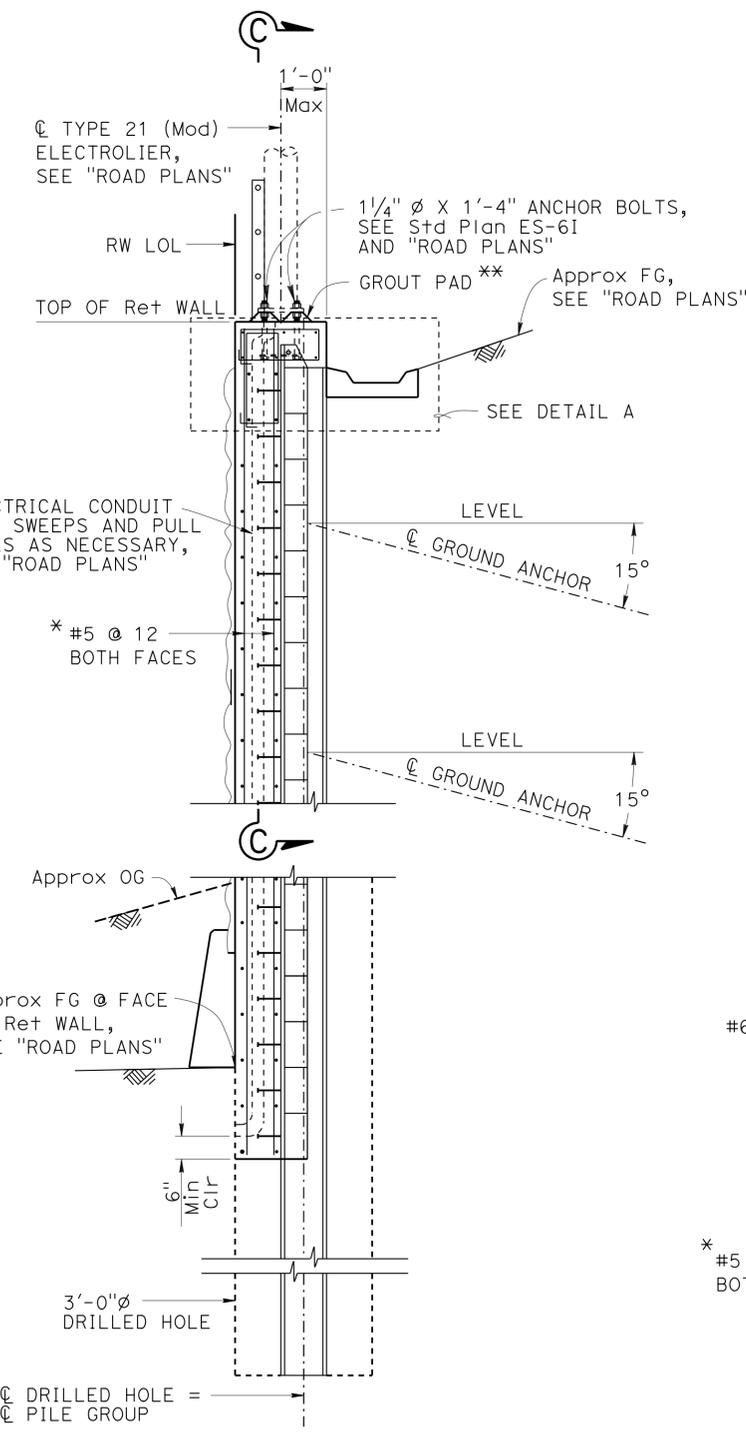
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS					
07	LA	5	0.0/7.6	924	985					
P. Vijitkula			12/28/12	REGISTERED CIVIL ENGINEER DATE						
6-24-13			PLANS APPROVAL DATE							
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.										
<table border="1"> <tr> <td>REGISTERED PROFESSIONAL ENGINEER</td> </tr> <tr> <td>P. VIJITKULA</td> </tr> <tr> <td>No. 54701</td> </tr> <tr> <td>Exp. 12-31-13</td> </tr> <tr> <td>CIVIL</td> </tr> </table>						REGISTERED PROFESSIONAL ENGINEER	P. VIJITKULA	No. 54701	Exp. 12-31-13	CIVIL
REGISTERED PROFESSIONAL ENGINEER										
P. VIJITKULA										
No. 54701										
Exp. 12-31-13										
CIVIL										



TYPICAL SECTION
1/2" = 1'-0"

*** CLEAR DISTANCE BETWEEN TOP OF Ret WALL AND TOP OF GUTTER

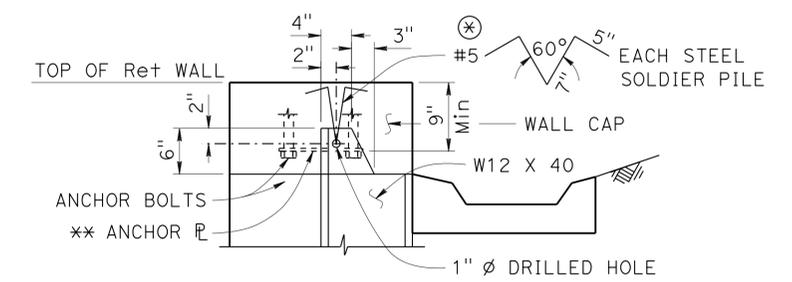
NOTE:
At the back face of retaining wall timber laggings, the structure backfill shall be placed and compacted to a maximum height of 13'-9" prior to stressing the ground anchor and lock-off.



RETAINING WALL DETAILS AT ELECTROLIER
1/2" = 1'-0"

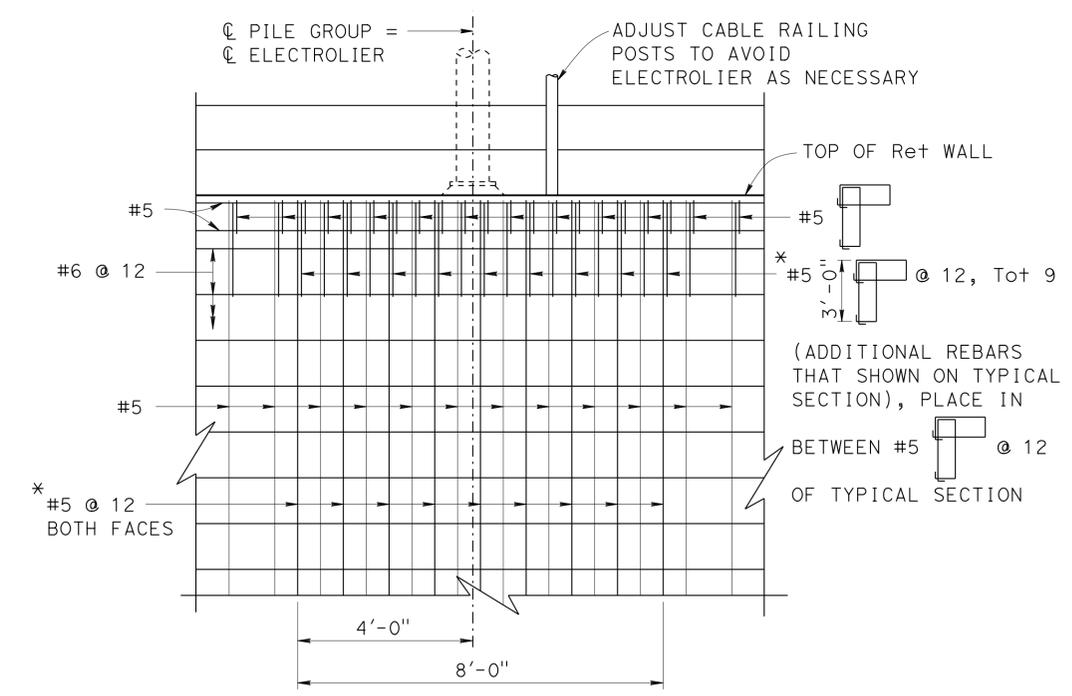
** For anchor plate and grout pad, see Std Plan ES-6B and "ROAD PLANS".

NOTE:
For details not shown, see "TYPICAL SECTION".



DETAIL A
1" = 1'-0"

⊗ BEND IF NECESSARY TO CLEAR EDGE OF WALL CAP
NOTE: For clarity Reinf not shown.



SECTION C-C
1/2" = 1'-0"

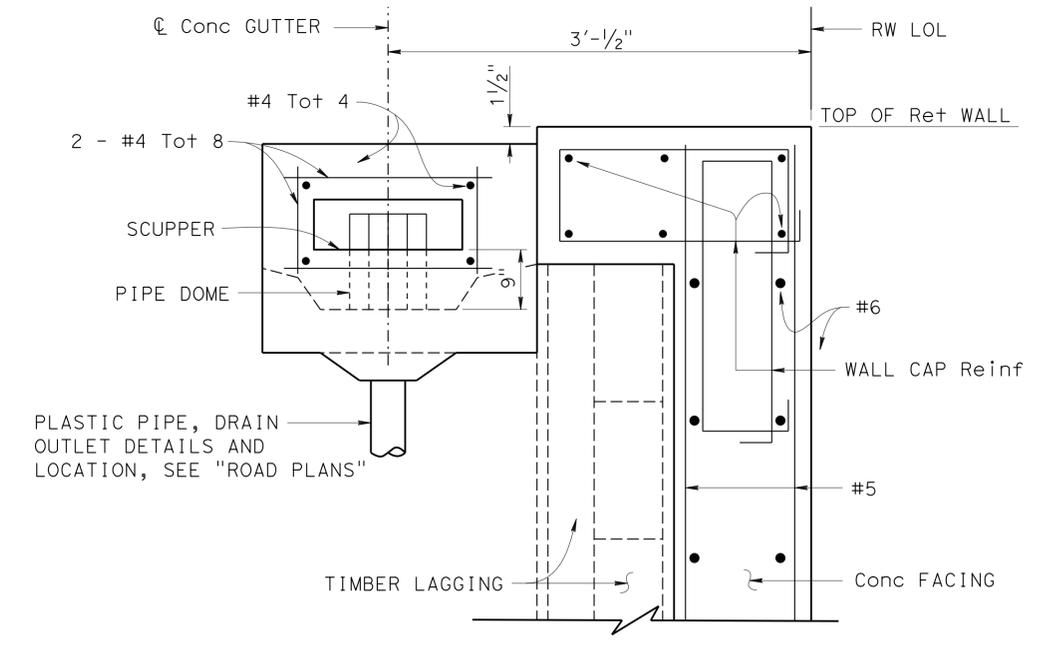
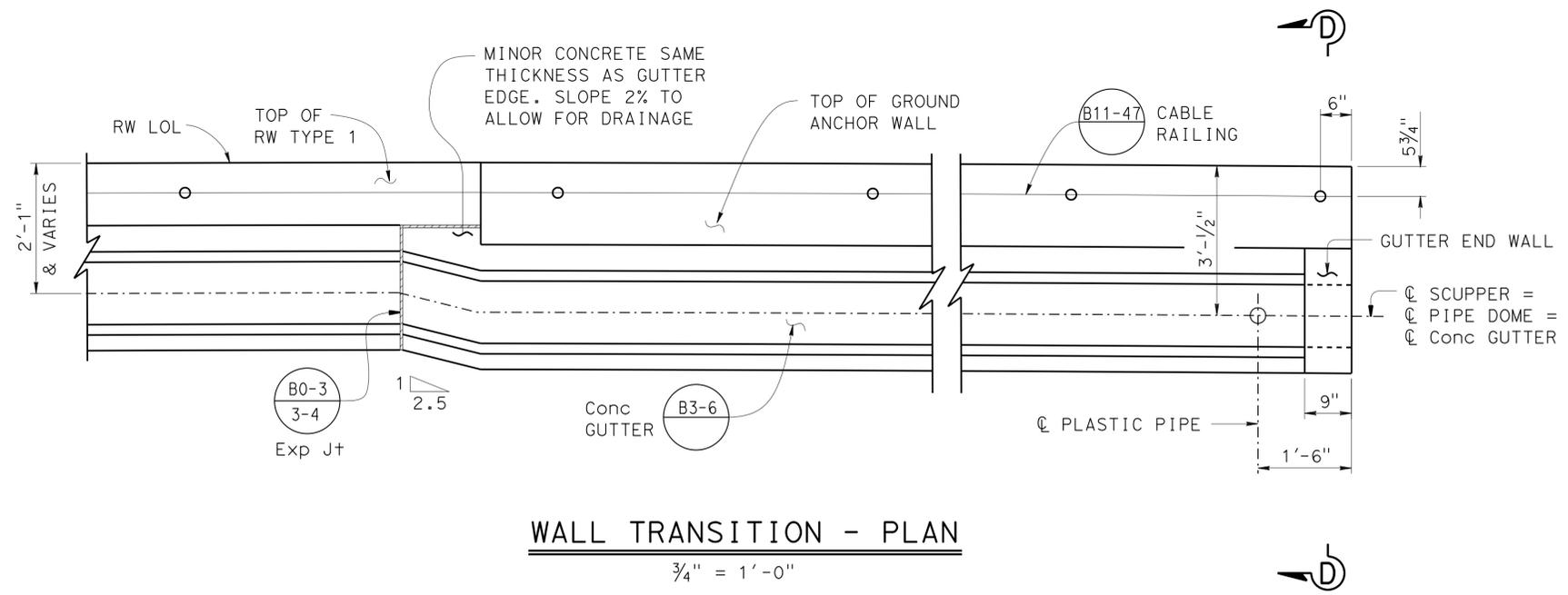
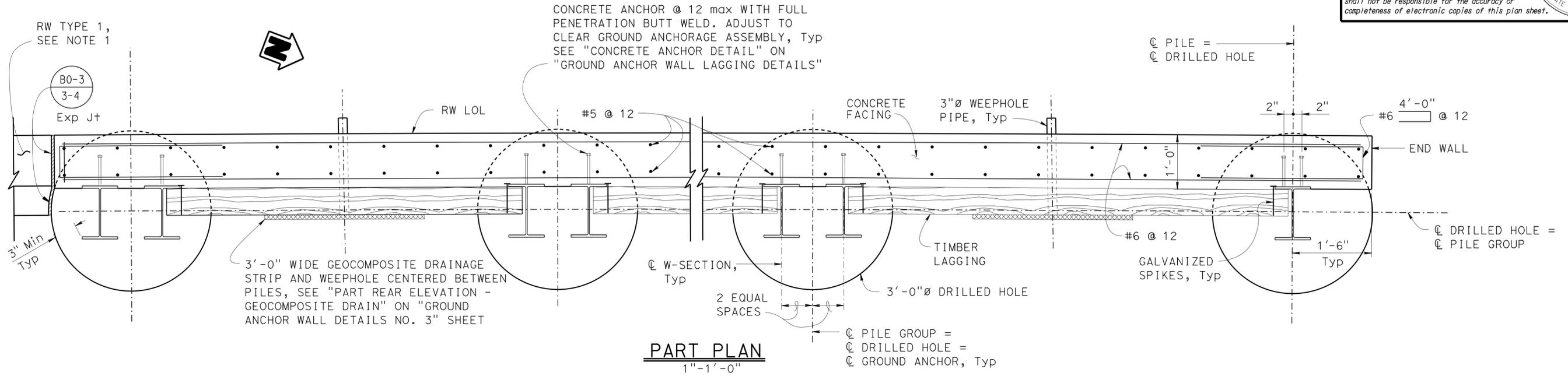
* ADJUST AS NECESSARY TO AVOID THE ELECTRICAL CONDUIT

DESIGN	BY	Eric Burgeson	CHECKED	Greg Thornton	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	53E0215	RETAINING WALL NO. 341		
	DETAILS	BY	Yingjue Feng	CHECKED			Greg Thornton	POST MILE		6.38	GROUND ANCHOR WALL DETAILS NO. 1
	QUANTITIES	BY	Paul Hayes	CHECKED			N. Tiangco / G. Galo	UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	07/05/13	12/28/12	18	30	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	925	985
			DATE		
			12/28/12		
			REGISTERED CIVIL ENGINEER		
			6-24-13		
			PLANS APPROVAL DATE		
			P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA		
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NOTES:

- Retaining wall type 1 reinforcement not shown.
- The concrete facing of the ground anchor Ret wall shall be placed after the construction of adjacent Ret wall type 1 and structure backfill are completed. The contractor shall maintain the same RW LOL alignment for both Ret wall type 1 and ground anchor Ret wall per plan.



DESIGN	BY Eric Burgeson	CHECKED Greg Thornton
DETAILS	BY Yingjue Feng	CHECKED Greg Thornton
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

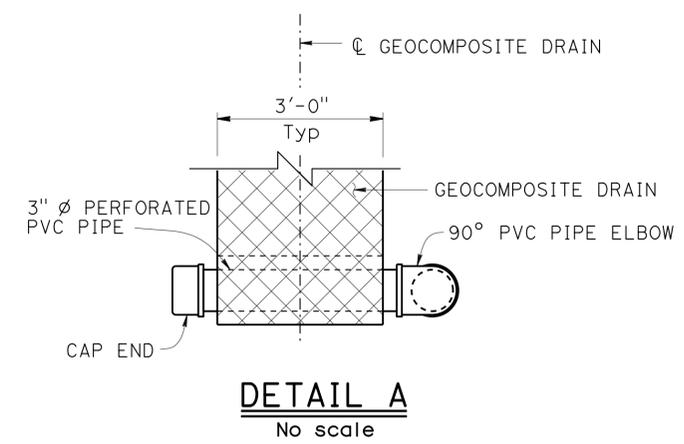
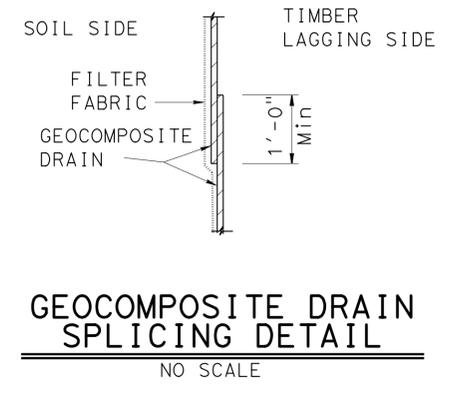
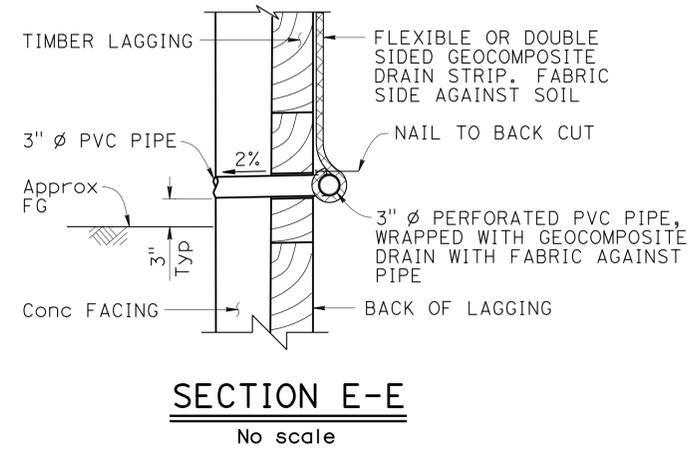
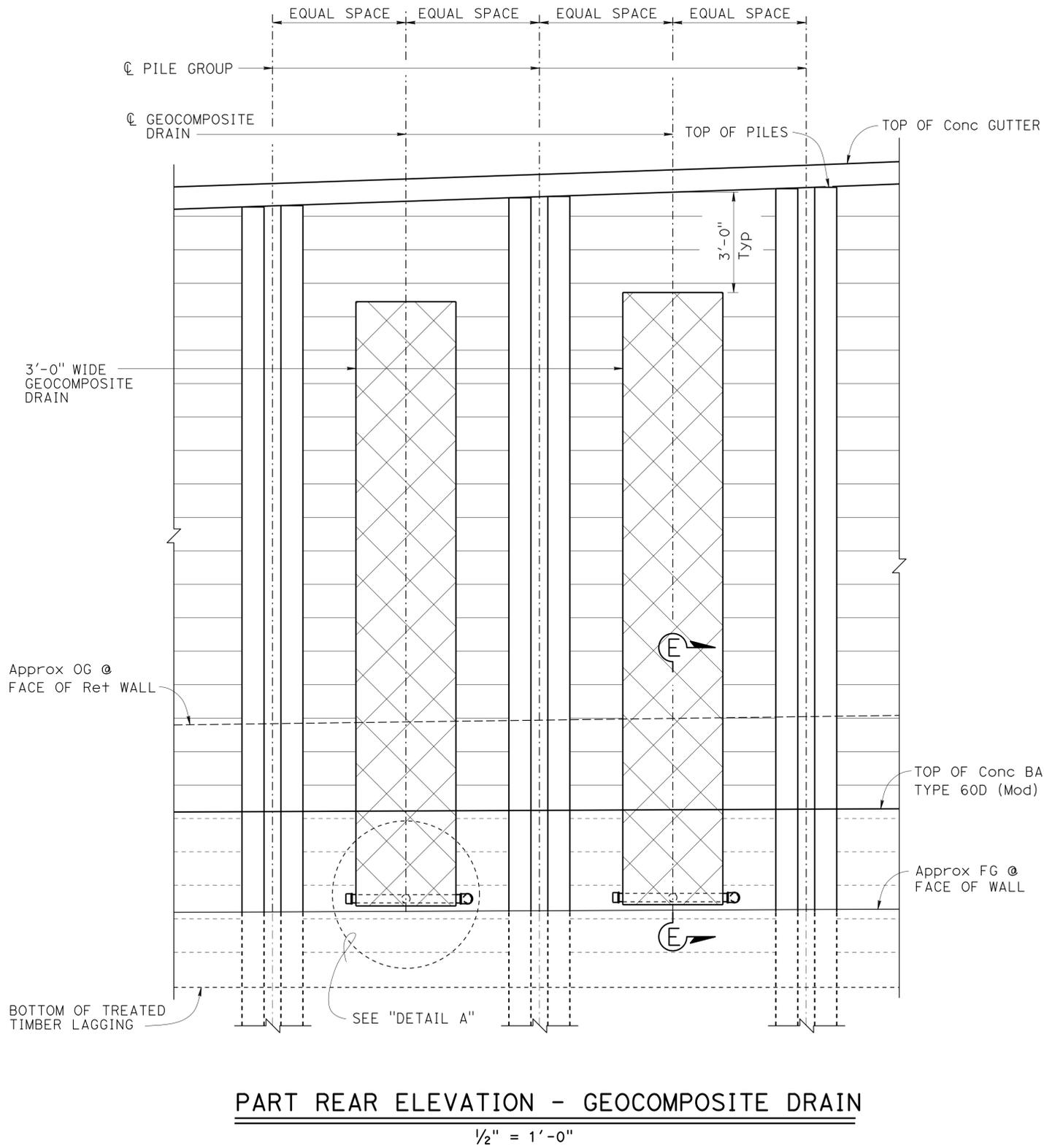
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
GROUND ANCHOR WALL DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	926	985
<i>P. Vijitkula</i> REGISTERED CIVIL ENGINEER			12/28/12 DATE		
6-24-13 PLANS APPROVAL DATE					
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PART REAR ELEVATION - GEOCOMPOSITE DRAIN
 $\frac{1}{2}'' = 1'-0''$

DESIGN	BY Eric Burgeson	CHECKED Greg Thornton
DETAILS	BY Yingjue Feng	CHECKED Greg Thornton
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

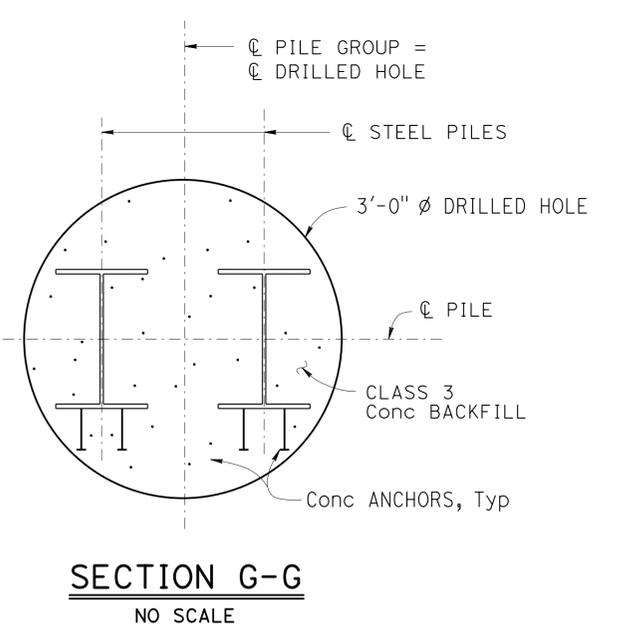
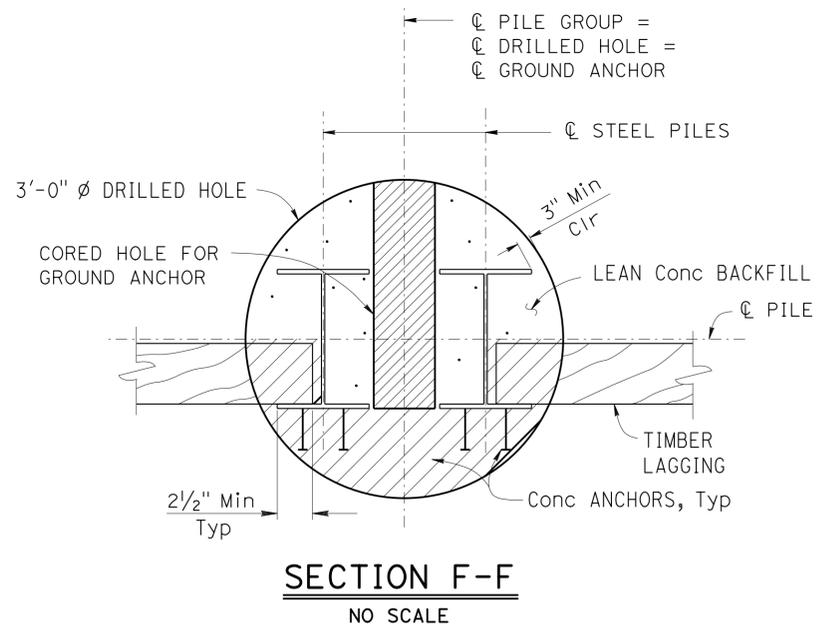
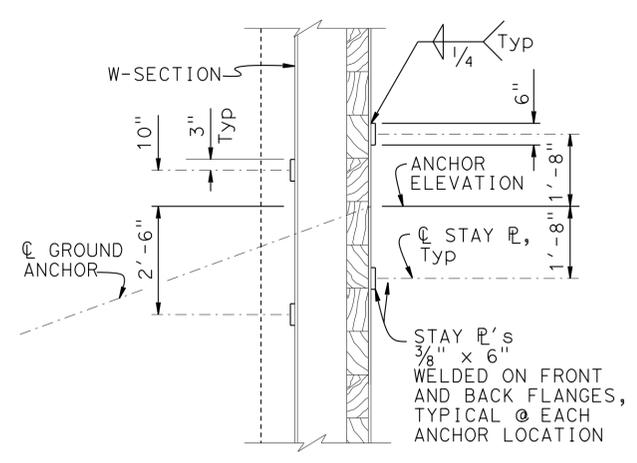
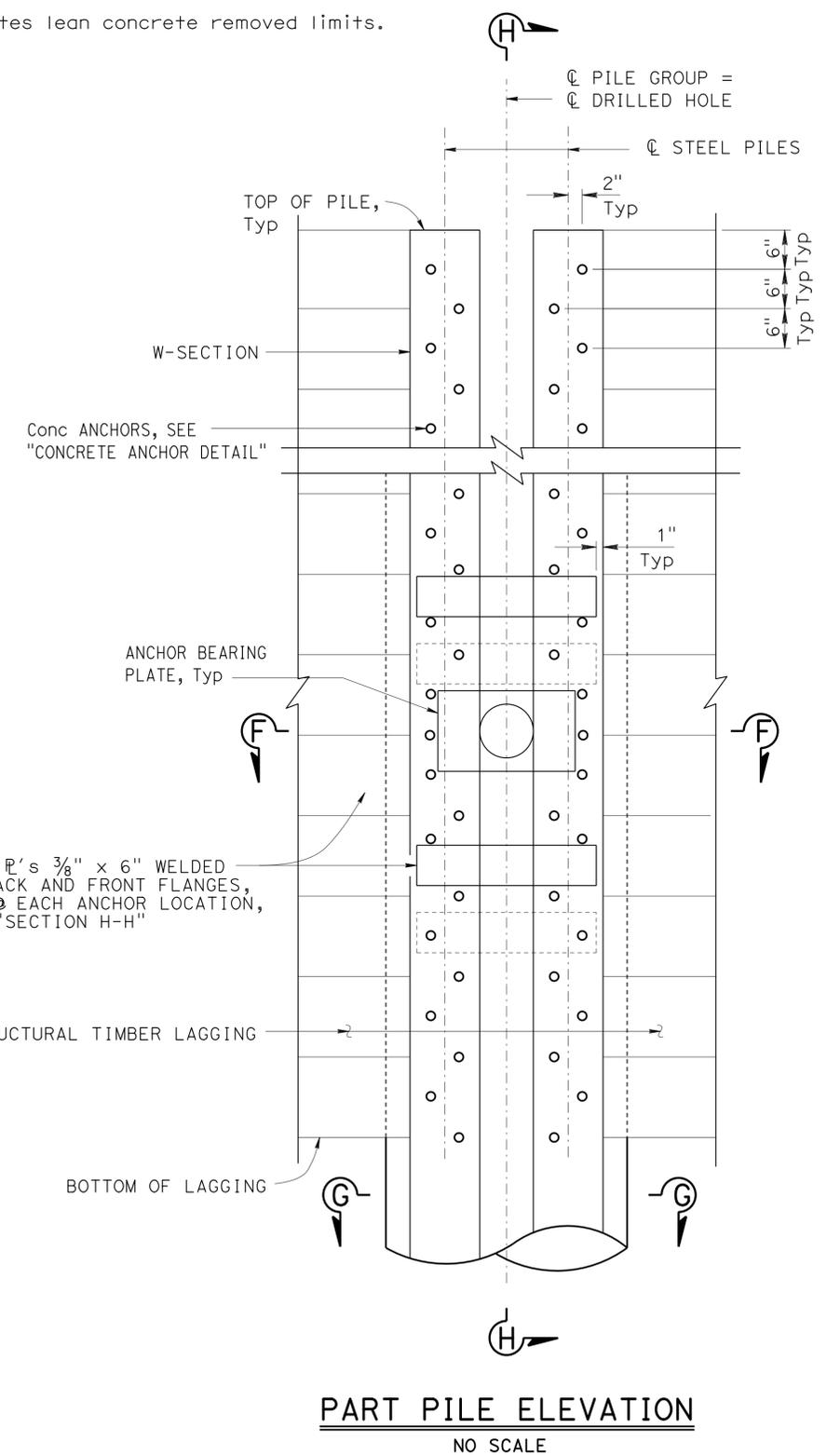
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
GROUND ANCHOR WALL DETAILS NO. 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	927	985
P. Vijitakula			12/28/12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

NOTES:
 1. No clipping of timber lagging corners allowed.
 ▨ - Indicates lean concrete removed limits.



PART PILE ELEVATION
NO SCALE

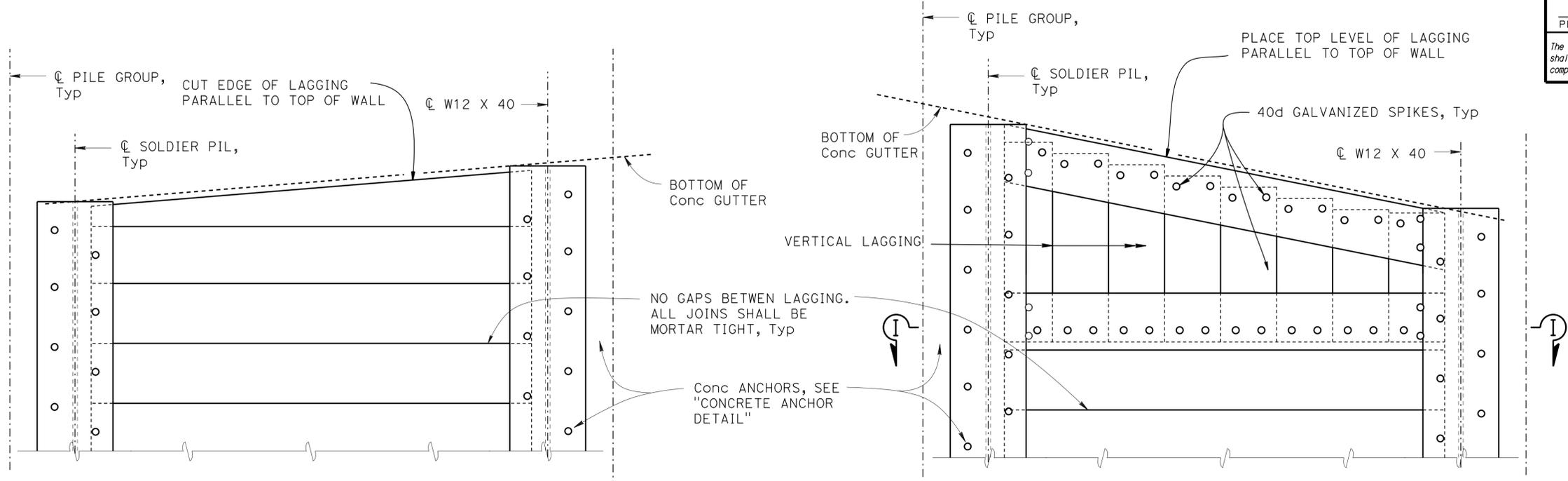
SECTION H-H
NO SCALE

SECTION F-F
NO SCALE

SECTION G-G
NO SCALE

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Eric Burgeson	CHECKED Greg Thornton	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	RETAINING WALL NO. 341
	DETAILS	BY Yingjue Feng	CHECKED Greg Thornton			53E0215	
	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo			POST MILE	SOLDIER PILE WALL WITH GROUND ANCHORS
						6.38	
				UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES	SHEET 21 OF 30
						7-25-12 02/05/13 12/24/12	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	928	985
P. Vijitakula			12/28/12		
REGISTERED CIVIL ENGINEER			DATE		
6-24-13			PLANS APPROVAL DATE		
P. VIJITAKULA			REGISTERED PROFESSIONAL ENGINEER		
No. 54701			Exp. 12-31-13		
CIVIL			STATE OF CALIFORNIA		
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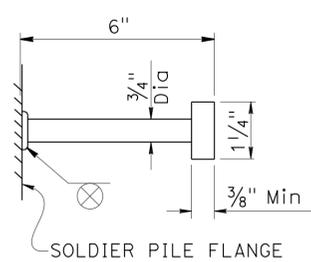


ALTERNATIVE 1

ALTERNATIVE 2

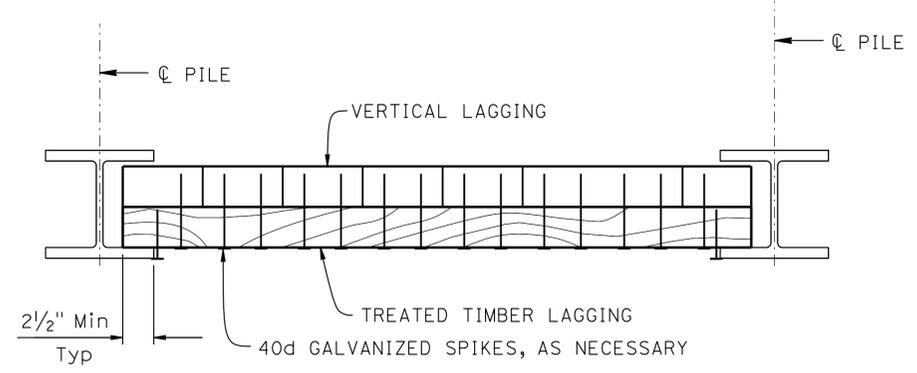
PART ELEVATION - TOP OF WALL LAGGING DETAILS

NO SCALE



CONCRETE ANCHOR DETAIL

NO SCALE



SECTION I-I

NO SCALE

DESIGN	BY Eric Burgeson	CHECKED Greg Thornton
DETAILS	BY Yingjue Feng	CHECKED Greg Thornton
QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	53E0215
POST MILE	6.38

RETAINING WALL NO. 341
GROUND ANCHOR WALL LAGGING DETAILS

REVISION DATES	SHEET	OF
7-25-12	22	30

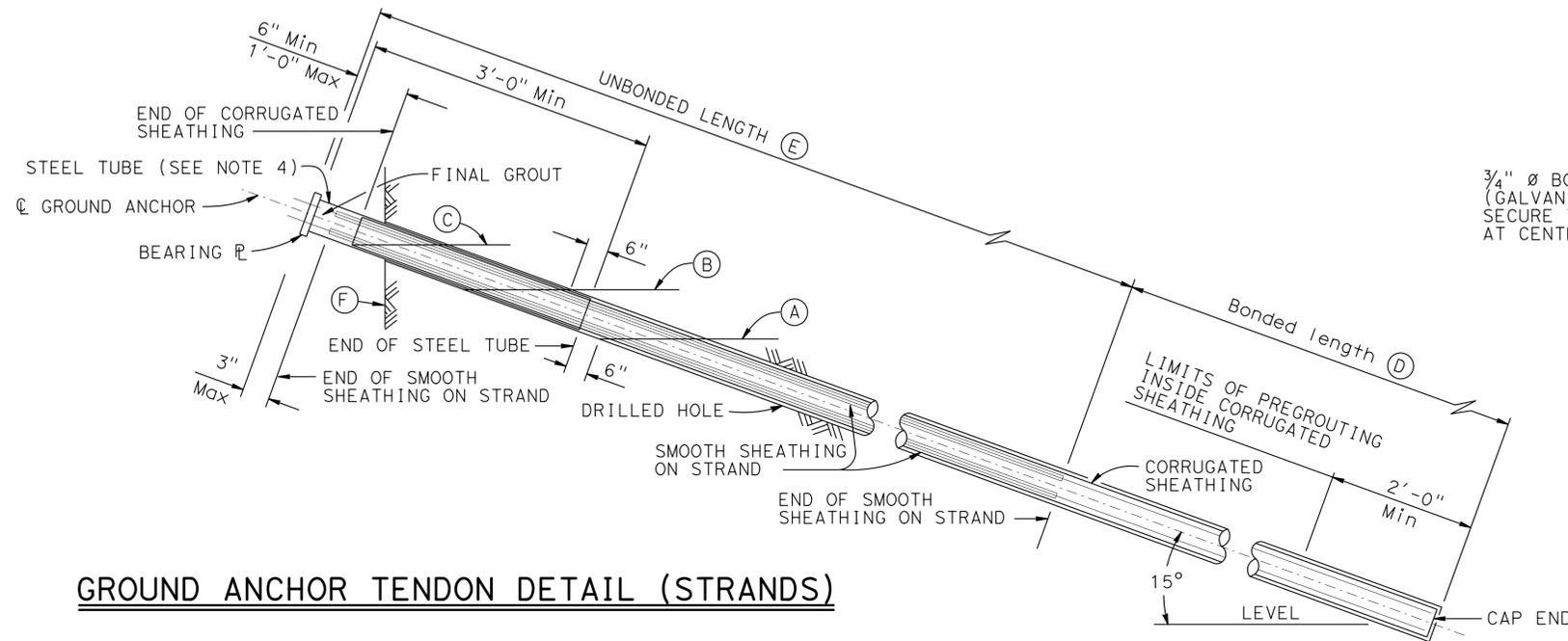
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	929	985
			DATE		
			12/28/12		
			REGISTERED CIVIL ENGINEER		
			PLANS APPROVAL DATE		
			6-24-13		
			REGISTERED PROFESSIONAL ENGINEER		
			P. VIJITAKULA		
			No. 54701		
			Exp. 12-31-13		
			CIVIL		
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NOTES:

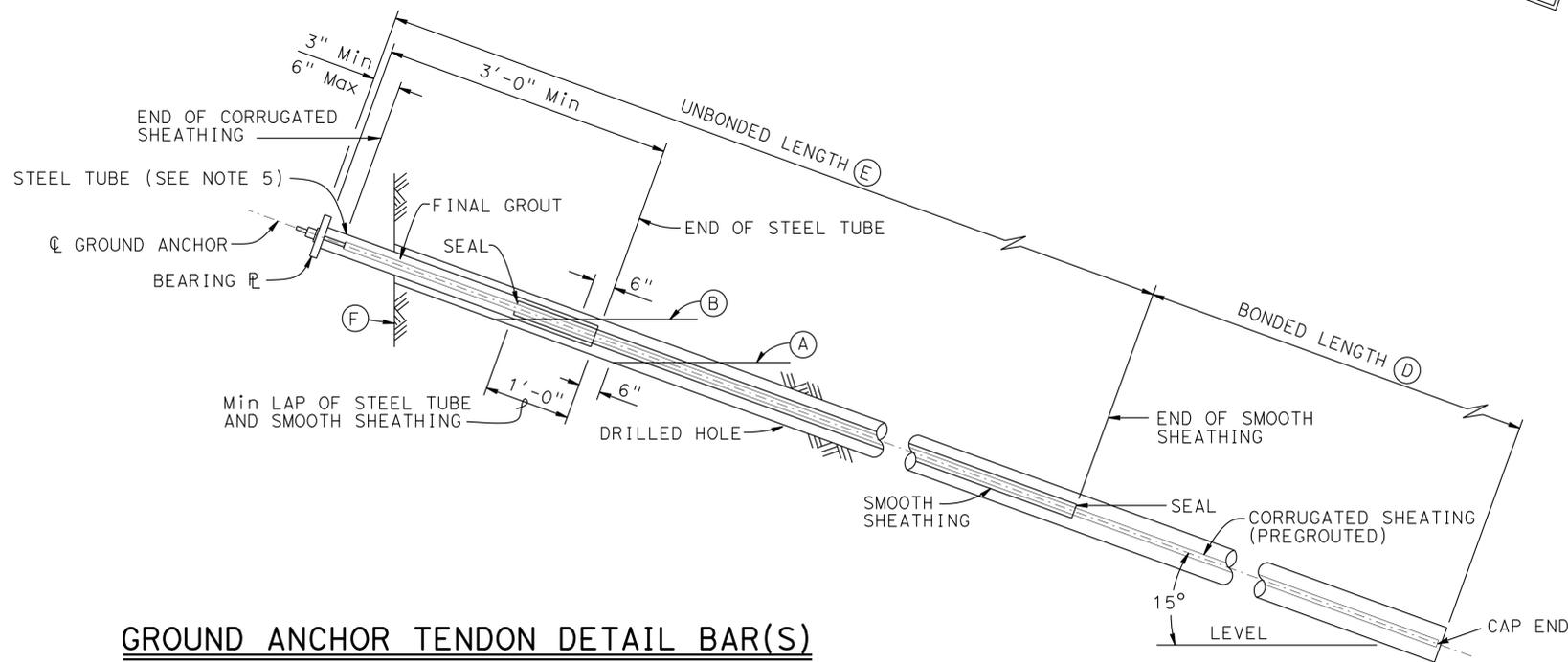
- (A) Level of initial grouting for drilled hole 6" in diameter or smaller
- (B) Level of secondary grouting
- (C) Level of initial grouting inside corrugated sheathing
- (D) Bonded length shall be determined by the contractor
- (E) For unbonded length, see "INDEX TO PLANS" sheet
- (F) Face of Wall Excavation

NOTES:

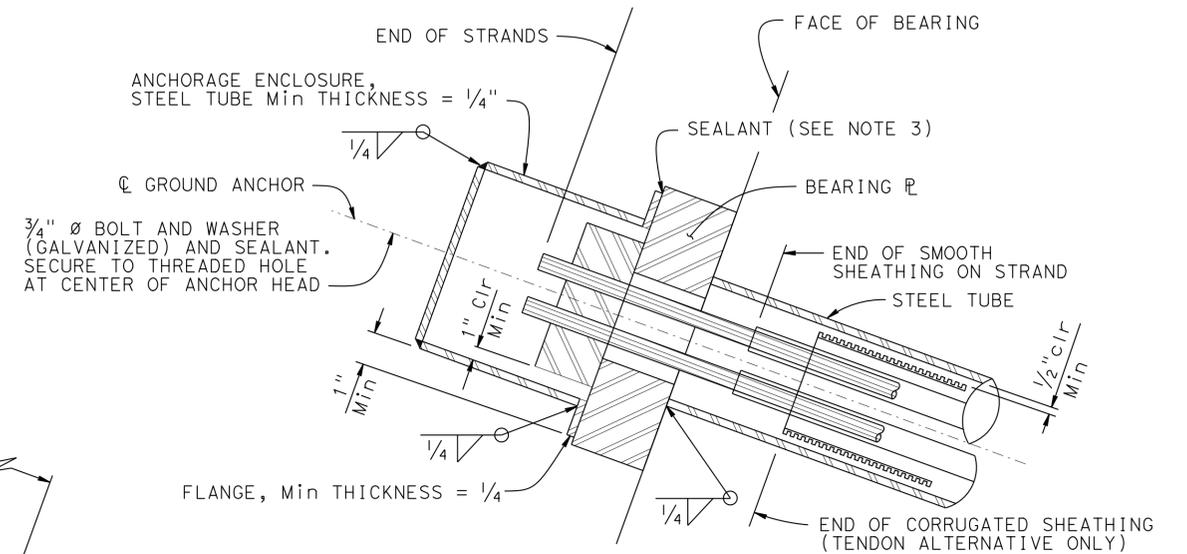
- 1. Anchorage enclosure shall only be used when anchor head assembly is not enclosed in concrete.
- 2. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
- 3. Silicone sealant to cover full width of flange.
- 4. Steel tube (Min thickness = 1/4") welded to bearing plate. Galvanize assembly after fabrication
- 5. Steel tube welded to bearing plate. Inside diameter of steel tube (Min thickness = 1/4") to be 1" greater than outside diameter of smooth sheathing.
- 6. Galvanize assembly after fabrication.



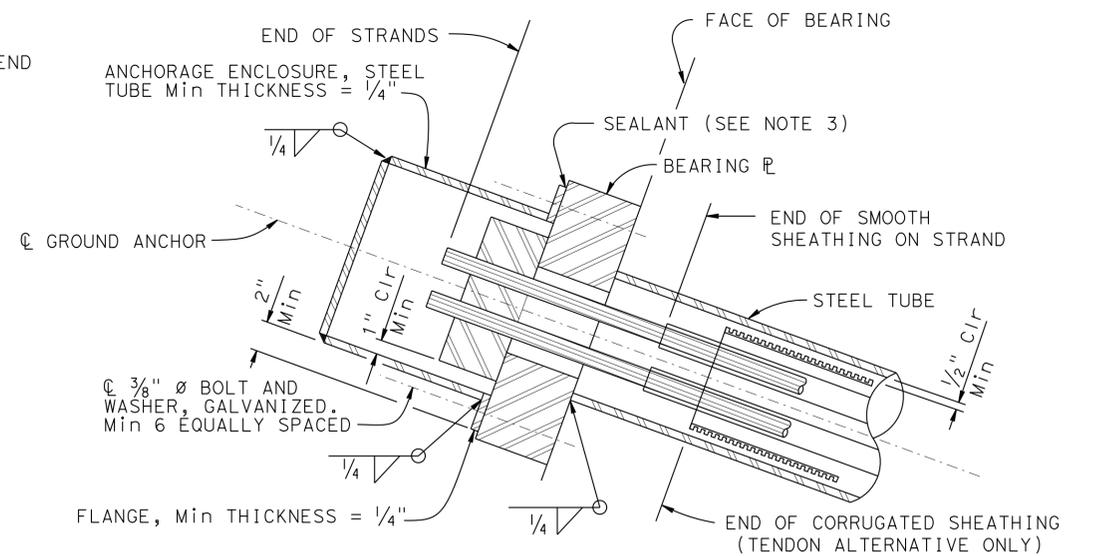
GROUND ANCHOR TENDON DETAIL (STRANDS)



GROUND ANCHOR TENDON DETAIL BAR(S)



ALTERNATIVE X



ALTERNATIVE Y

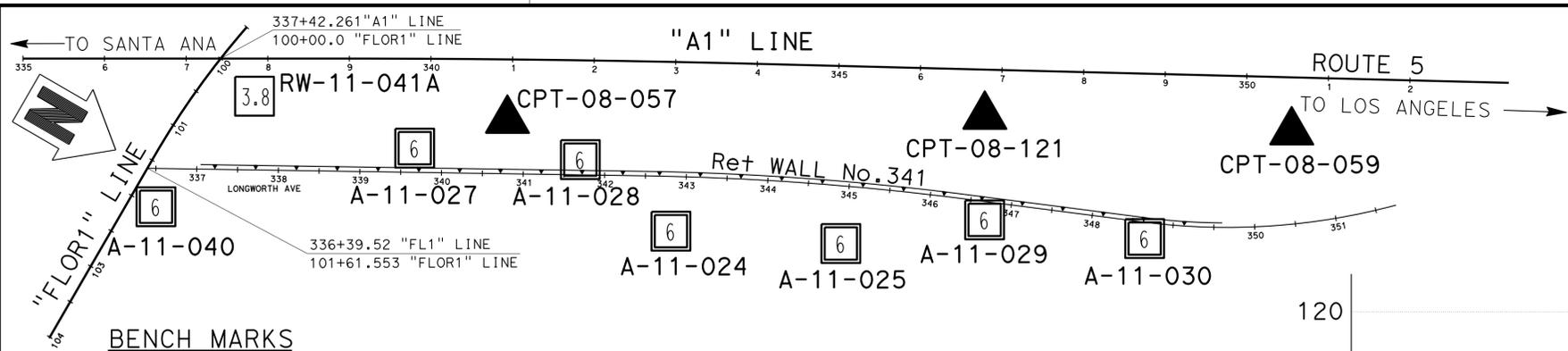
ANCHORAGE ENCLOSURE DETAILS

NO SCALE

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Eric Burgeson	CHECKED Greg Thornton	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO.	53E0215	RETAINING WALL NO. 341 SUB HORIZONTAL GROUND ANCHOR DETAILS
	DETAILS	BY Yingjue Feng	CHECKED Greg Thornton			POST MILE	6.38	
	QUANTITIES	BY Paul Hayes	CHECKED N. Tiangco / G. Galo			CONTRACT NO.:	07-215954	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.:	07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0	1	2	3	REVISION DATES
								7-25-12 10/21/12 02/05/13
								SHEET 23 OF 30

DATE PLOTTED => 27-JUN-2013 06:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	930	985
			6/2012	DATE	
REGISTERED CIVIL ENGINEER			DATE		
6-24-13			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

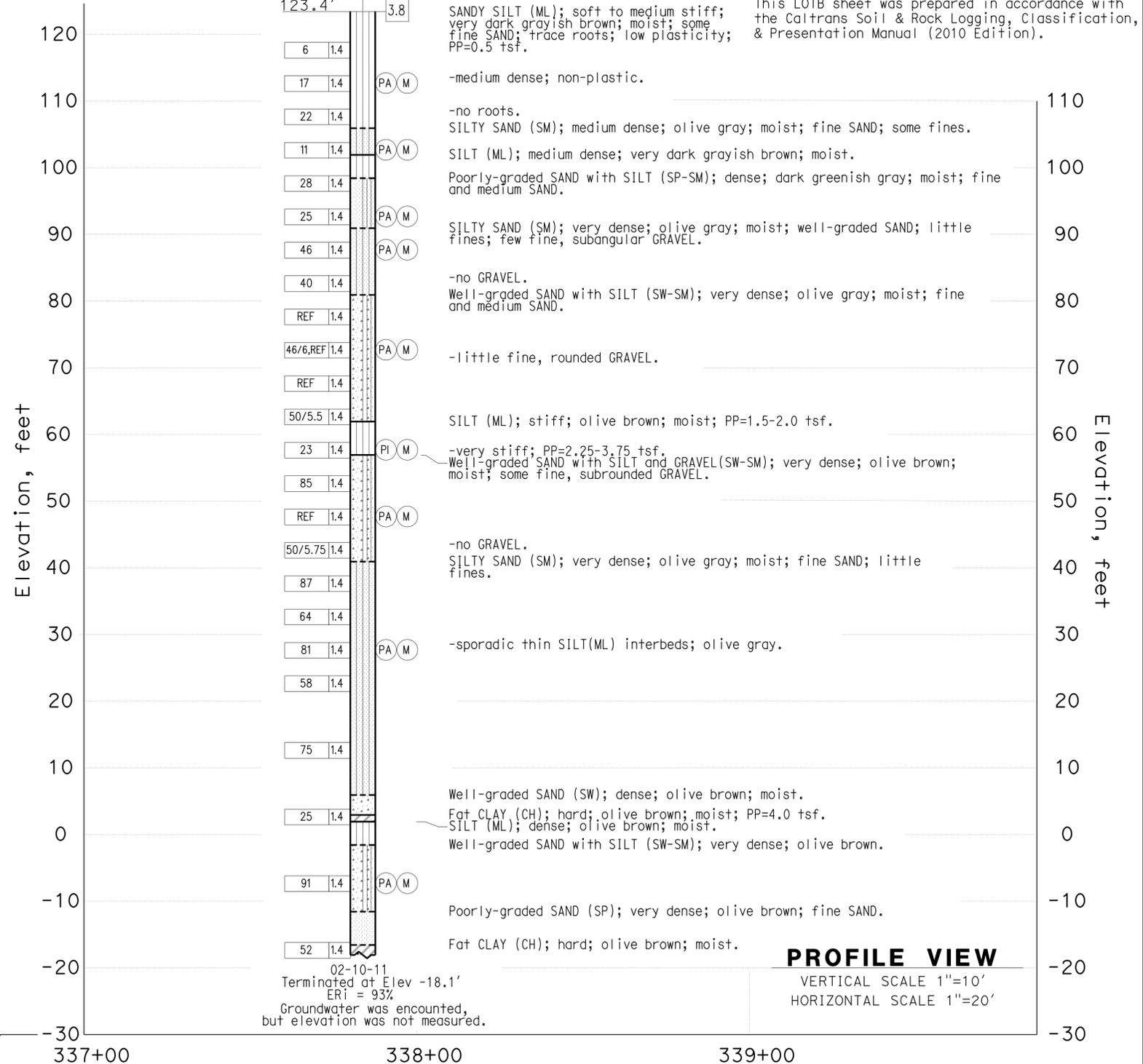
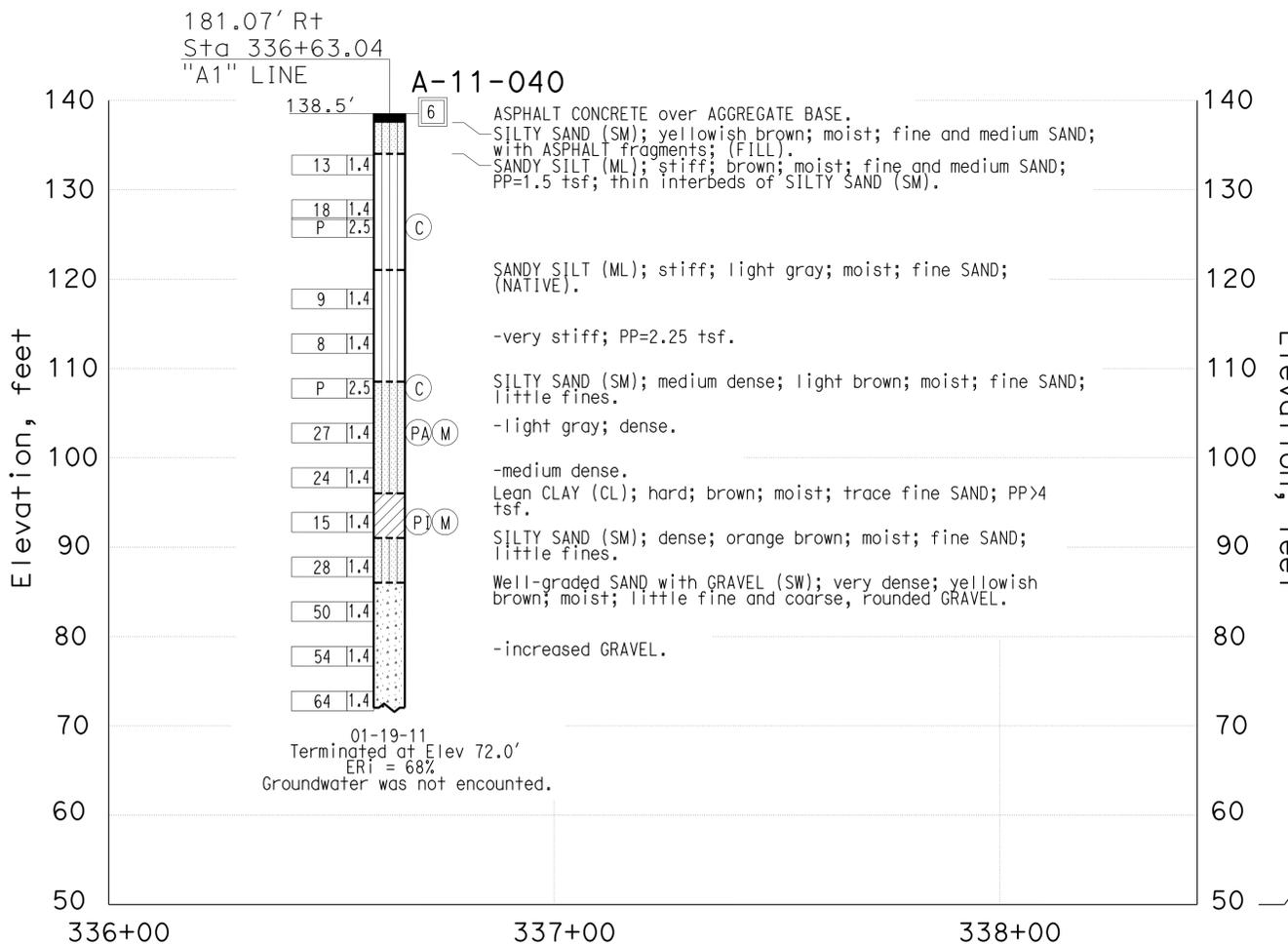


BENCH MARKS

LA 5 PM 6.4, 1995 Elev. Not shown
 2.5" CADT Disk in Asphalt
 Located along the northbound shoulder of I-5 FWY,
 150 ft north of the Florence Avenue Overcrossing
 N=1799072.3, E=6533513.4
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Ft

LA 5 PM 6.7, 1995 Elev. 135.089'
 2.5" CADT Disk in Concrete Curb
 Located on the southbound I-5 transition ramp to the
 northbound 605 FWY. It is on the south curb between
 the north and the southbound lanes of the 605.
 N=1800522.8, E=6532535.7
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Feet

PLAN
 SCALE 1"=100'



PROFILE VIEW
 VERTICAL SCALE 1"=10'
 HORIZONTAL SCALE 1"=20'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 53E0215		LOG OF TEST BORINGS SHEET 1 OF 7	
NAME: S.SUKIASIAN		CHECKED BY: M.AHMED		FIELD INVESTIGATION BY: K.BARKER/N.SROUR		POST MILE 6.38			
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576 PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		REVISION DATES SHEET OF	
								07/02/12 12/03/12 24 30	

USERNAME => s124496 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:11

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	931	985

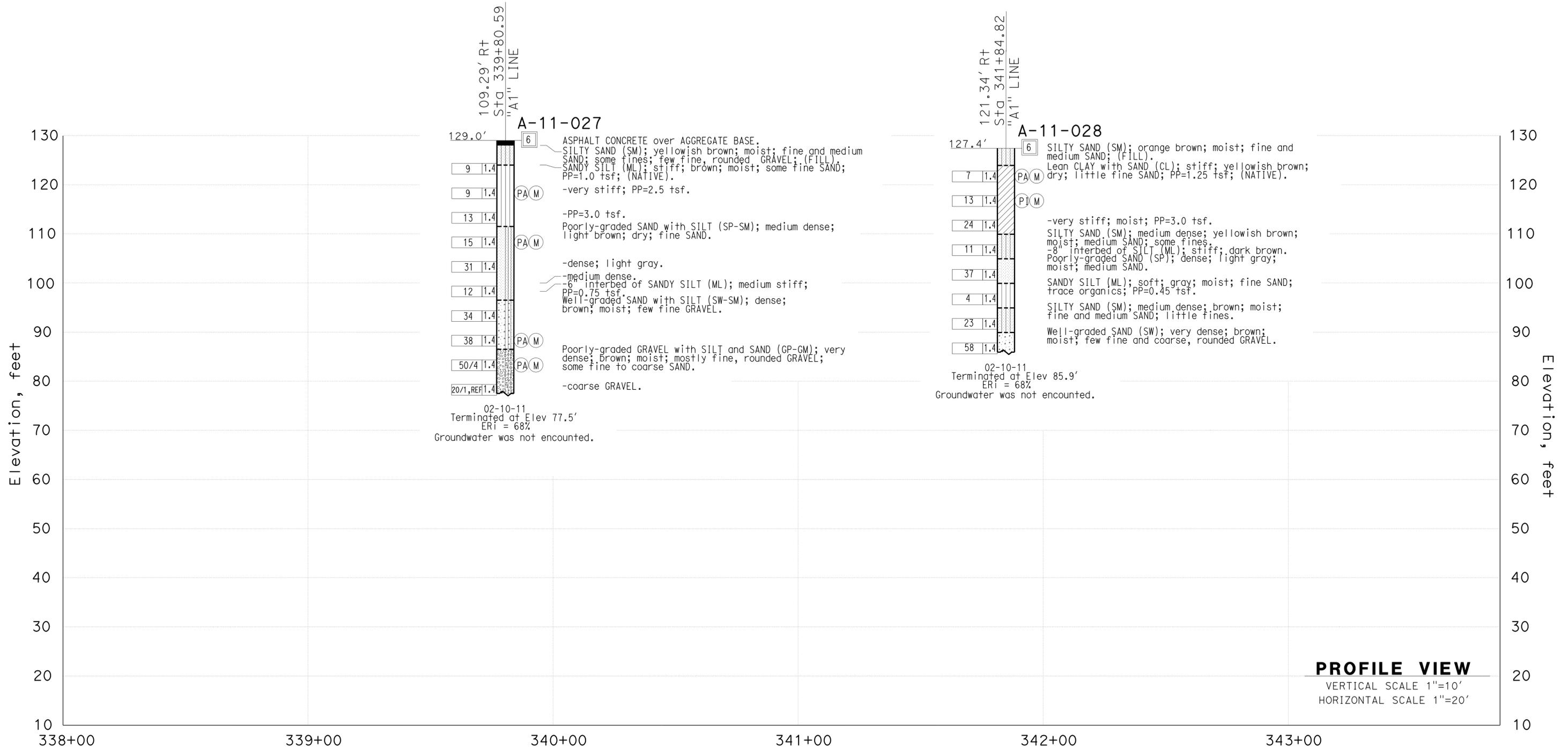
6/2012
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

Nadeem Srour
No. 2801
Exp. 12-31-2013
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
GEOTECHNICAL

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ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		53E0215		LOG OF TEST BORINGS SHEET 2 OF 7	
NAME: S.SUKIASIAN		CHECKED BY: M.AHMED		N.SROUR		DESIGN BRANCH 1		POST MILE		CONTRACT NO.: 07-215954	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
		0 1 2 3		07/02/12 12/03/12		SHEET 25		OF 30		DATE PLOTTED => 27-JUN-2013 06:11	

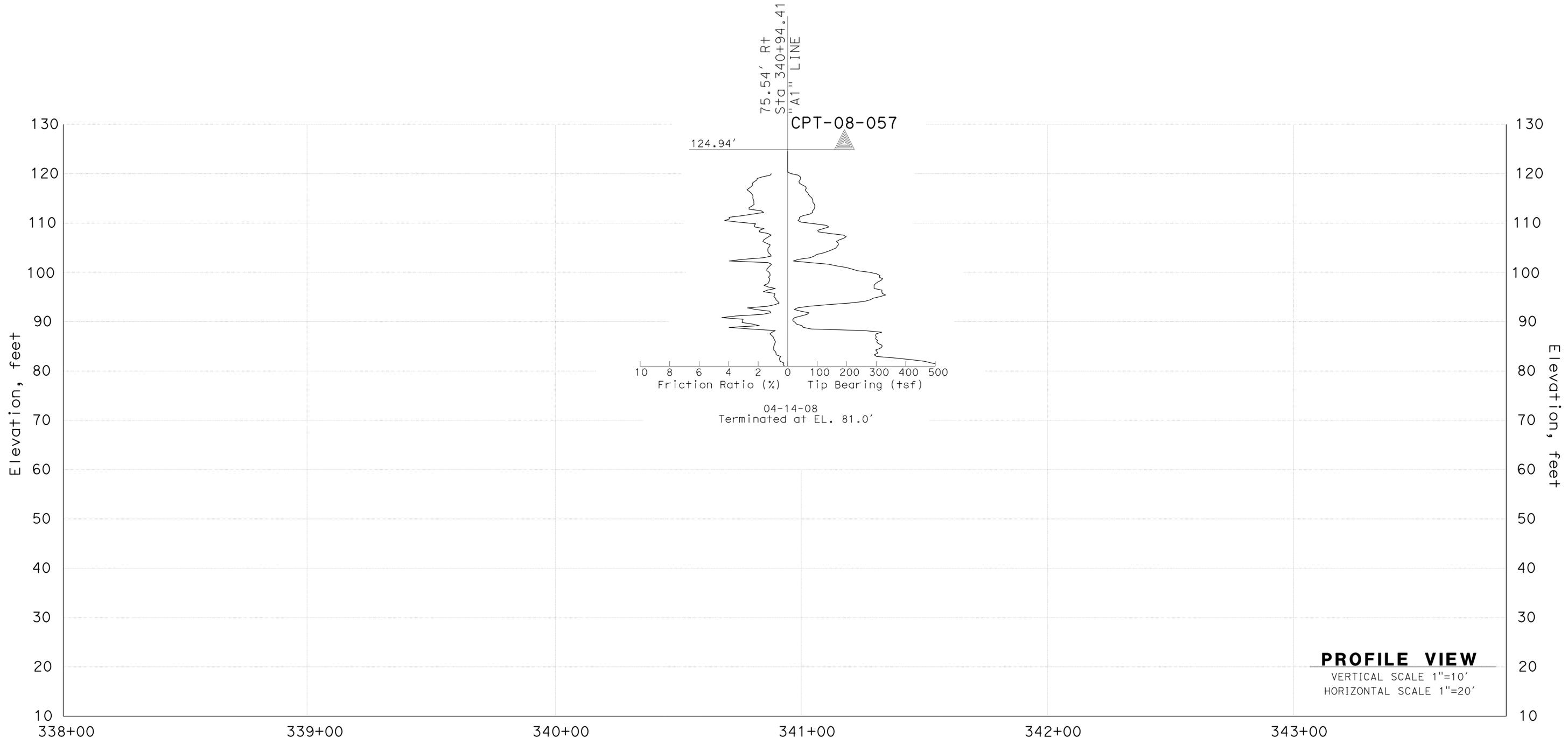
FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	932	985


 REGISTERED CIVIL ENGINEER DATE 12/2011
 PLANS APPROVAL DATE 6-24-13

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PROFILE VIEW
 VERTICAL SCALE 1"=10'
 HORIZONTAL SCALE 1"=20'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR NAME: M. SMITH	DRAWN BY: T. PANAH (URS CORP)	FIELD INVESTIGATION BY: P. MCDONALD		BRIDGE NO. 53E0215		POST MILE 6.38		LOG OF TEST BORINGS SHEET 3 OF 7	
CHECKED BY: D. ORRIS		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576 PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 07/02/12, 12/03/12 SHEET 26 OF 30	

USERNAME => s124496 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:11

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	933	985

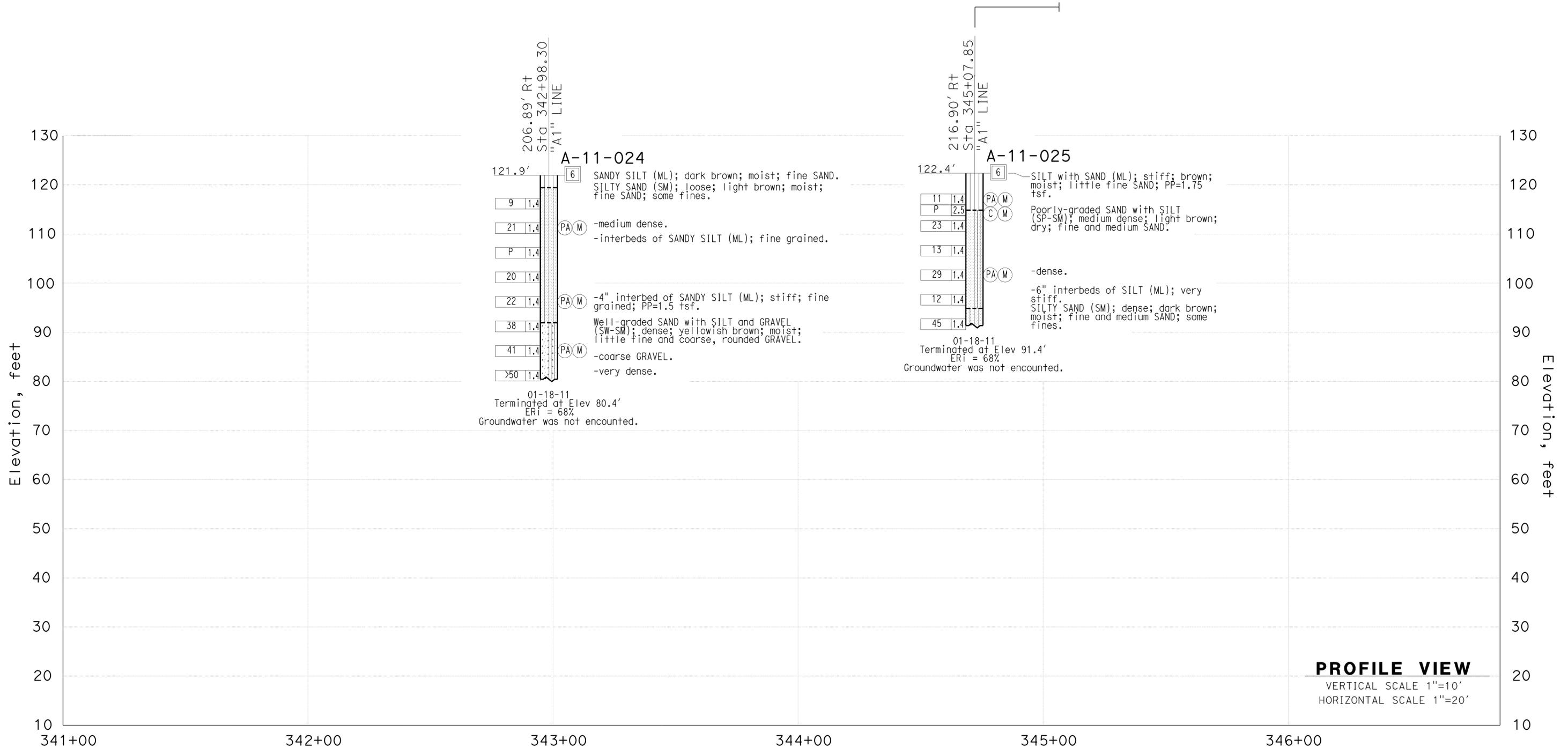
6/2012
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

Nadeem Srour
No. 2801
Exp. 12-31-2013
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
GEOTECHNICAL

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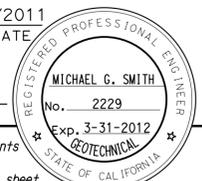
PROFILE VIEW
VERTICAL SCALE 1"=10'
HORIZONTAL SCALE 1"=20'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR NAME: S.SUKIASIAN	DRAWN BY: T.PANAH (URS CORP)	FIELD INVESTIGATION BY: N.SROUR		BRIDGE NO. 53E0215		POST MILE 6.38		LOG OF TEST BORINGS SHEET 4 OF 7	
CHECKED BY: M.AHMED		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		REVISION DATES 07/02/12 12/03/12	
O&S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 27 OF 30	

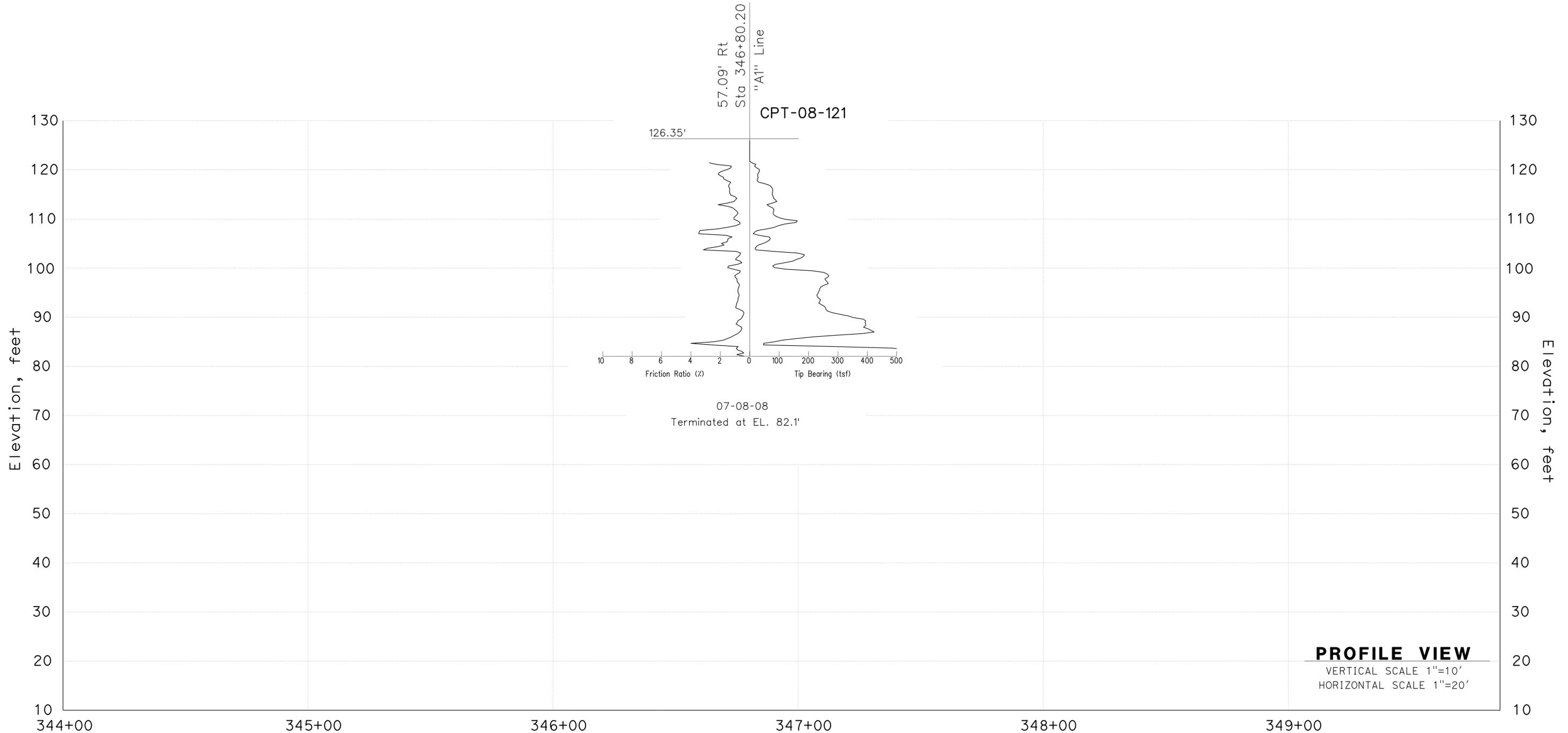
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FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	934	985


 REGISTERED CIVIL ENGINEER DATE 12/2011
 PLANS APPROVAL DATE 6-24-13

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ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1		BRIDGE NO. 53E0215	RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR NAME: m.SMITH	DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY: P.MCDONALD		PROJECT NUMBER & PHASE: 07000018351		POST MILE 6.38	LOG OF TEST BORINGS SHEET 5 OF 7		
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 07/02/12 12/03/12
				0 1 2 3						SHEET OF 28 30

USERNAME => s124496 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:11

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	935	985

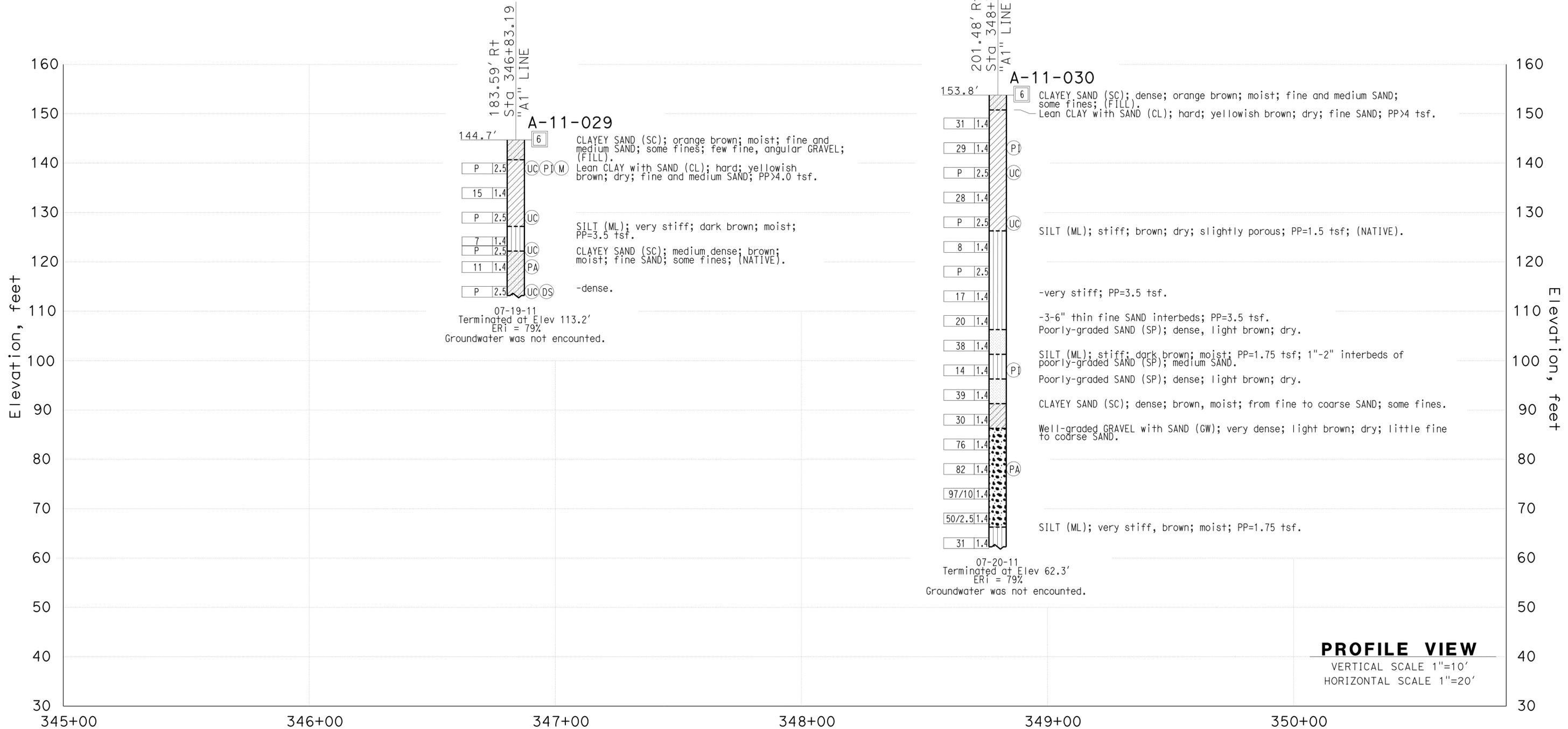
6/2012
REGISTERED CIVIL ENGINEER DATE

6-24-13
PLANS APPROVAL DATE

Nadeem Srour
No. 2801
Exp. 12-31-2013
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
GEOTECHNICAL

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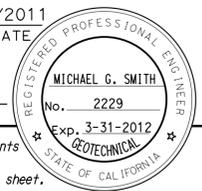


ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		53E0214		LOG OF TEST BORINGS SHEET 6 OF 7	
NAME: S.SUKIASIAN		CHECKED BY: M.AHMED		N.SROUR		DESIGN BRANCH 1		POST MILE		CONTRACT NO.: 07-215954	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
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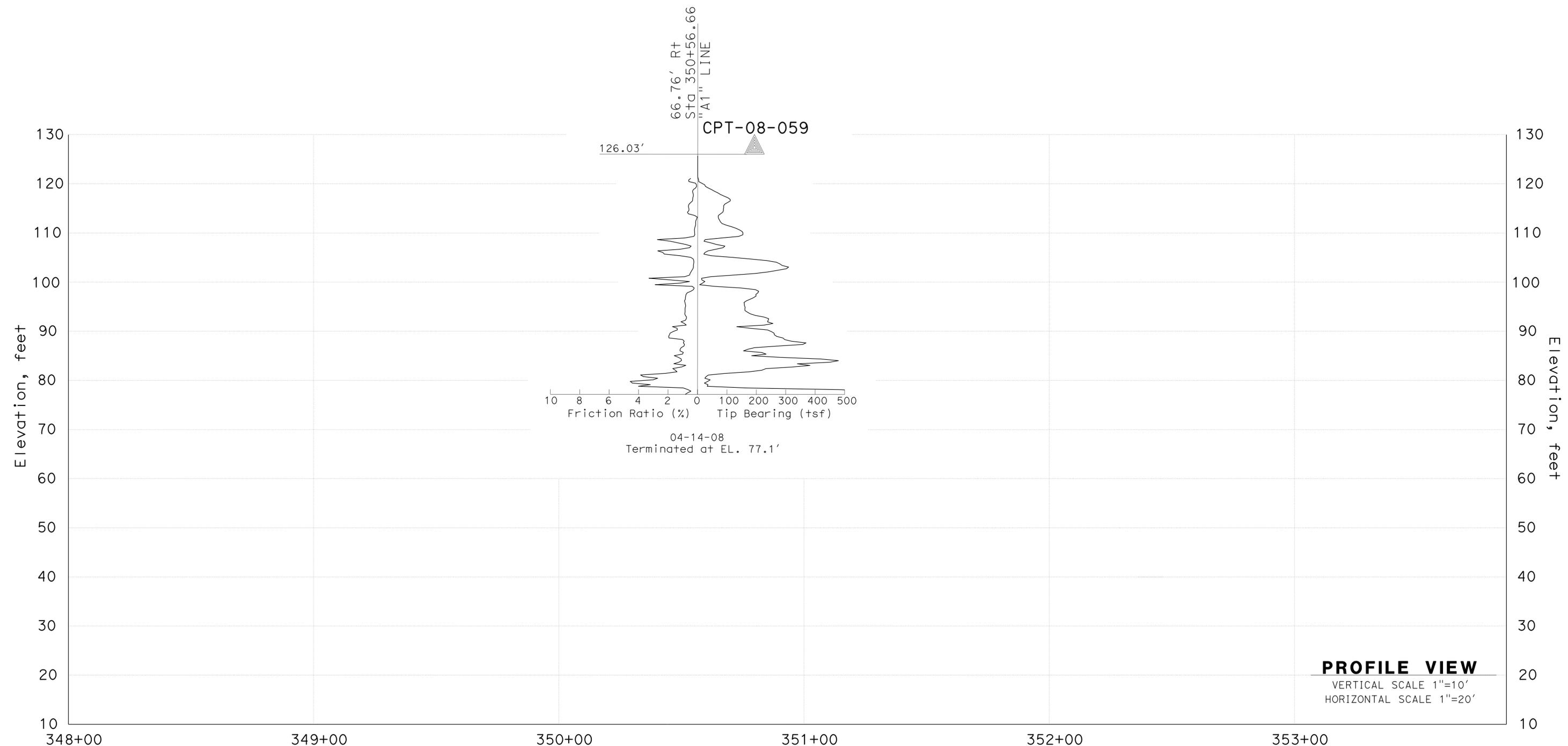
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	936	985

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7


 REGISTERED CIVIL ENGINEER DATE 12/2011
 PLANS APPROVAL DATE 6-24-13


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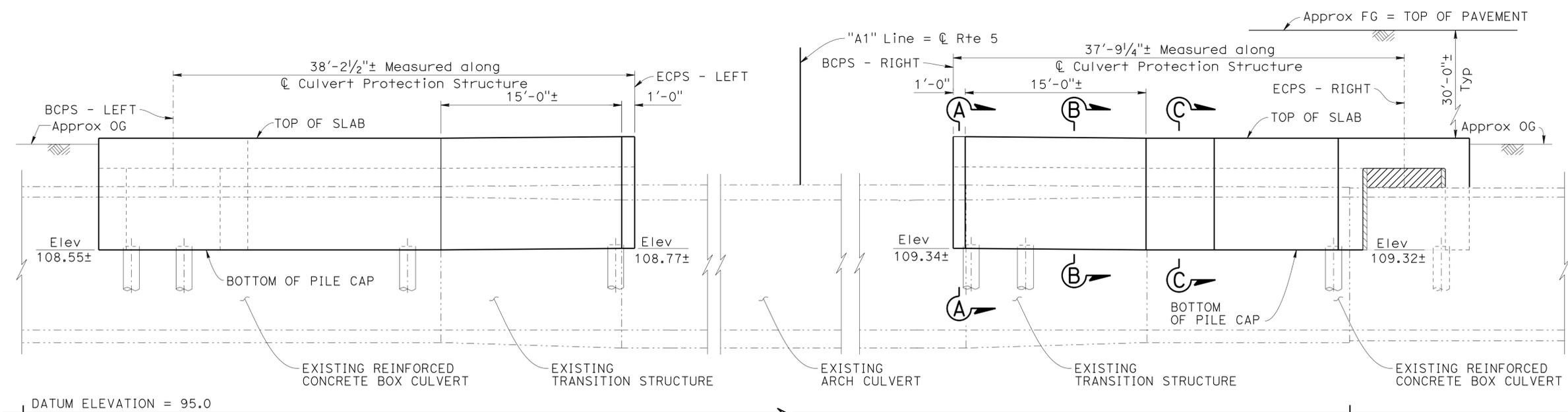
PROFILE VIEW
VERTICAL SCALE 1"=10'
HORIZONTAL SCALE 1"=20'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1		BRIDGE NO. 53E0215		RETAINING WALL NO. 341	
FUNCTIONAL SUPERVISOR NAME: M. SMITH		DRAWN BY: T. PANAH (URS CORP) CHECKED BY: D. ORRIS		FIELD INVESTIGATION BY: P. MCDONALD		PROJECT NUMBER & PHASE: 07000018351		POST MILE 6.38		LOG OF TEST BORINGS SHEET 7 OF 7	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3576		CONTRACT NO.: 07-215954		REVISION DATES		SHEET OF	
				0 1 2 3				07/02/12 12/03/12		30 30	

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	937	985

P. Vijitakula
 REGISTERED CIVIL ENGINEER
 No. C 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA
 12-28/12
 DATE
 6-24-13
 PLANS APPROVAL DATE
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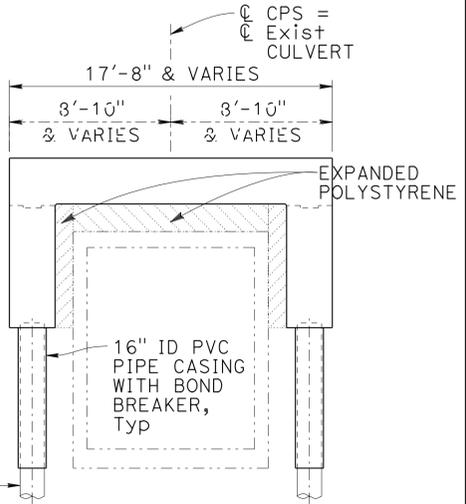


DEVELOPED ELEVATION

1" = 5'

- NOTES
1. For "GENERAL NOTES", see "PILE CAP LAYOUT" sheet.
 2. For "PILE DATA TABLE" and "QUANTITIES", see "SLAB REINFORCEMENT" sheet.
 3. For SECTION A-A, SECTION B-B and SECTION C-C, see "TYPICAL SECTION" sheet
 4. For "VIEW D-D" and "VIEW E-E", see "SLAB REINFORCEMENT" sheet
 5. For retaining wall details not shown, see "SW NO. 313" and "RW NO. 314" plans
 6. Not all piles shown in "DEVELOPED ELEVATION".

7. Alignment and stationing of existing culvert are based on 111+00 the Los Angeles County Flood Control District As-Built Plans.
8. The Contractor shall take extra caution working in the vicinity of existing storm drain. For the purpose of soil compaction, the contractor shall use hand held equipments when working adjacent to or over the existing storm drain in order to not cause any structural damage to storm drain.



TYPICAL SECTION AT EXISTING RCB

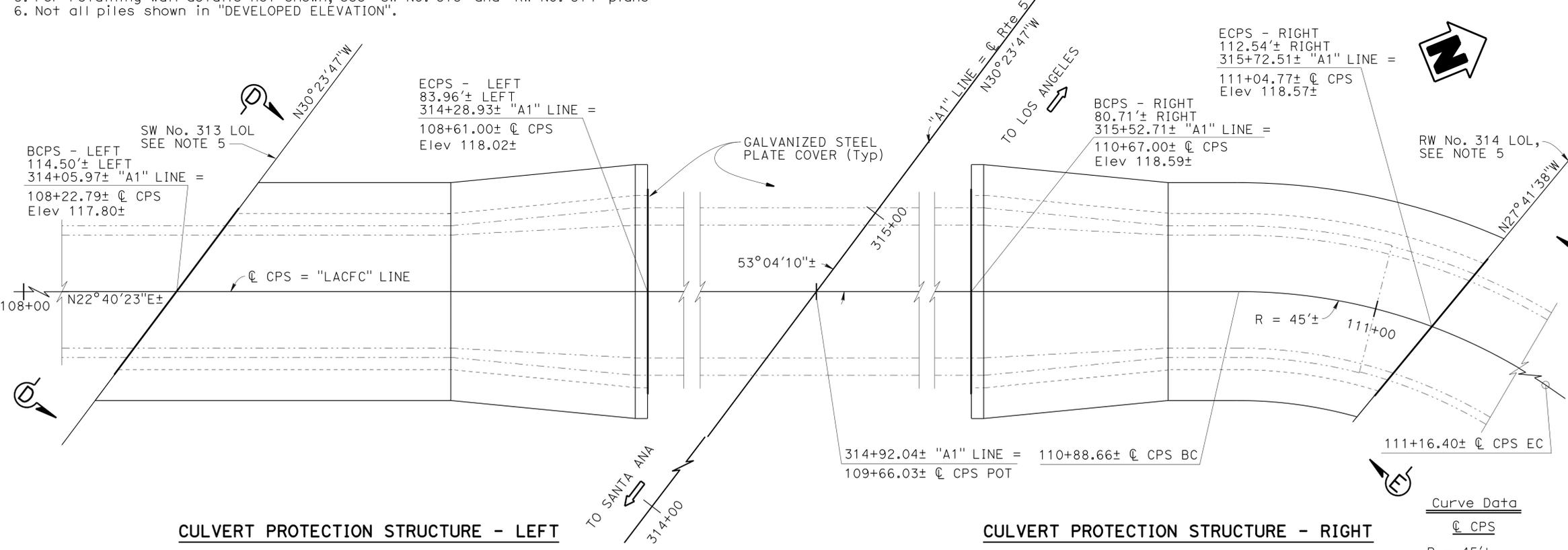
1" = 5'

INDEX TO PLANS

1. GENERAL PLAN
2. FOUNDATION PLAN
3. PILE CAP LAYOUT
4. SLAB REINFORCEMENT
5. TYPICAL SECTION
6. LOG OF TEST BORING 1 OF 3
7. LOG OF TEST BORING 2 OF 3
8. LOG OF TEST BORING 3 OF 3

STANDARD PLANS DATED 2010

- | | |
|-------|--|
| A10A | ABBREVIATIONS (SHEET 1 OF 2) |
| A10B | ABBREVIATIONS (SHEET 2 OF 2) |
| A10C | LINES AND SYMBOLS (SHEET 1 OF 3) |
| A10D | LINES AND SYMBOLS (SHEET 2 OF 3) |
| A10E | LINES AND SYMBOLS (SHEET 3 OF 3) |
| A10F | LEGEND - SOIL (SHEET 1 OF 2) |
| A10G | LEGEND - SOIL (SHEET 2 OF 2) |
| A10H | LEGEND - ROCK |
| B0-5 | BRIDGE DETAILS |
| B0-13 | BRIDGE DETAILS |
| B2-3 | 16" Ø AND 24" Ø CAST-IN-DRILLED-HOLE CONCRETE PILE |



CULVERT PROTECTION STRUCTURE - LEFT

CULVERT PROTECTION STRUCTURE - RIGHT

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

- LEGEND:
- Indicates existing structure
 - CPS = CULVERT PROTECTION STRUCTURE
 - BCPS = BEGIN CULVERT PROTECTION STRUCTURE
 - ECPS = END CULVERT PROTECTION STRUCTURE

PLAN

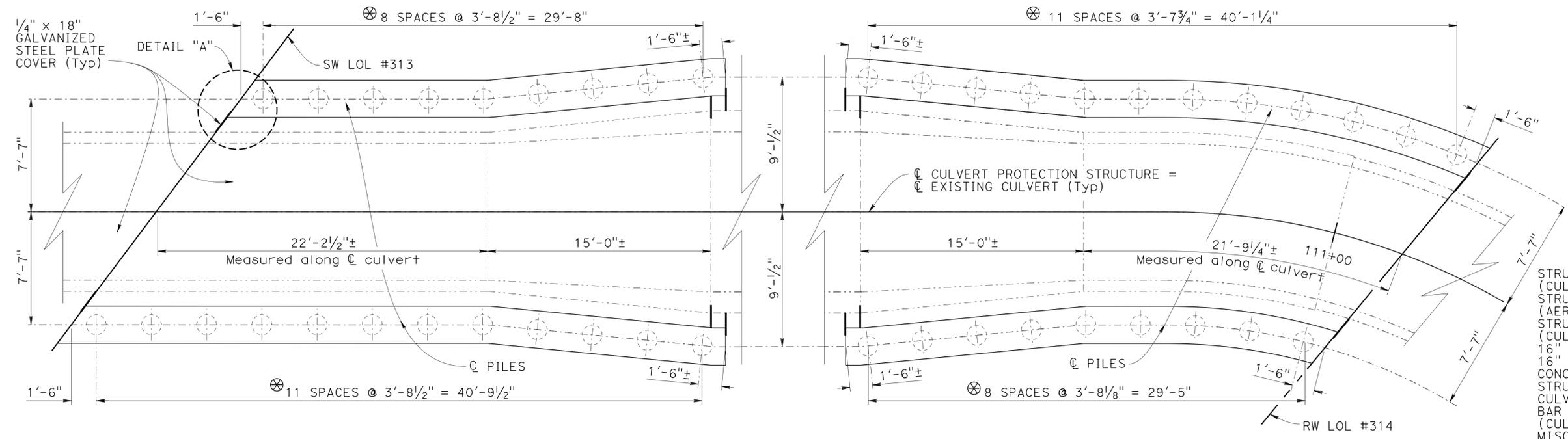
1" = 5'

Curve Data

- Curve Data
- ∅ CPS
- R = 45'±
- Δ = 35°19'24"±
- T = 14.33'±
- L = 27.74'±

DESIGN ENGINEER Jeff Sims	DESIGN	BY P. Vijitakula	CHECKED Greg Thornton	LOAD & RESISTANCE FACTOR DESIGN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	CULVERT PROTECTION STRUCTURE @ PM 5.97
	DETAILS	BY Gary Souza	CHECKED Greg Thornton	LAYOUT P. Vijitakula		DESIGN BRANCH 1	POST MILE	
	QUANTITIES	BY Greg Thornton	CHECKED Ashraf Ahmed	SPECIFICATIONS Xiahong Li				GENERAL PLAN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	939	985
P. Vijitakula			12-28-12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. C 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					



CULVERT PROTECTION STRUCTURE - LEFT

CULVERT PROTECTION STRUCTURE - RIGHT

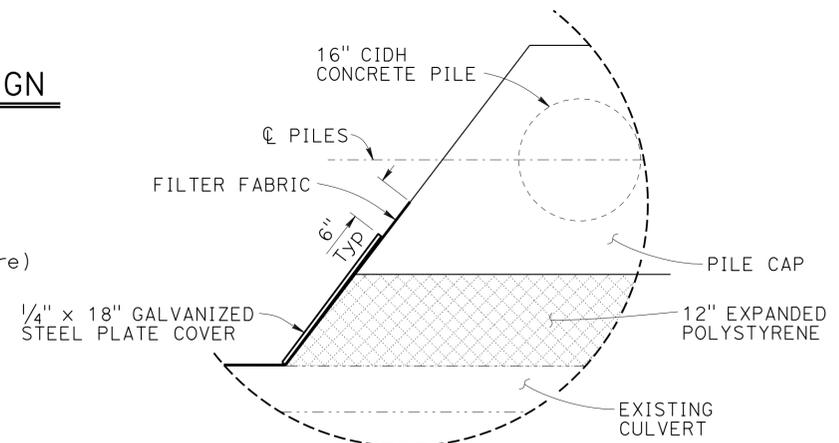
Notes:
 ⊗ Place radial or normal to and space along ϕ Piles
 ○ Indicates vertical piles

QUANTITIES

STRUCTURE EXCAVATION (CULVERT PROTECTION)	480 CY
STRUCTURE EXCAVATION (TYPE Y-2) (AERIALY DEPOSITED LEAD)	170 CY
STRUCTURE BACKFILL (CULVERT PROTECTION)	110 CY
16" PVC PIPE CASING	336 LF
16" CAST-IN-DRILLED-HOLE CONCRETE PILING	2,110 LF
STRUCTURAL CONCRETE, CULVERT PROTECTION	225 CY
BAR REINFORCING STEEL (CULVERT PROTECTION)	22,500 LB
MISCELLANEOUS METAL (BRIDGE)	1,700 LB

PILE CAP PLAN

1/4" = 1'



DETAIL "A"

1" = 1'

GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
 AASHTO LRFD Bridge Design Specifications, 4th edition and the California Amendments, preface date December 2008

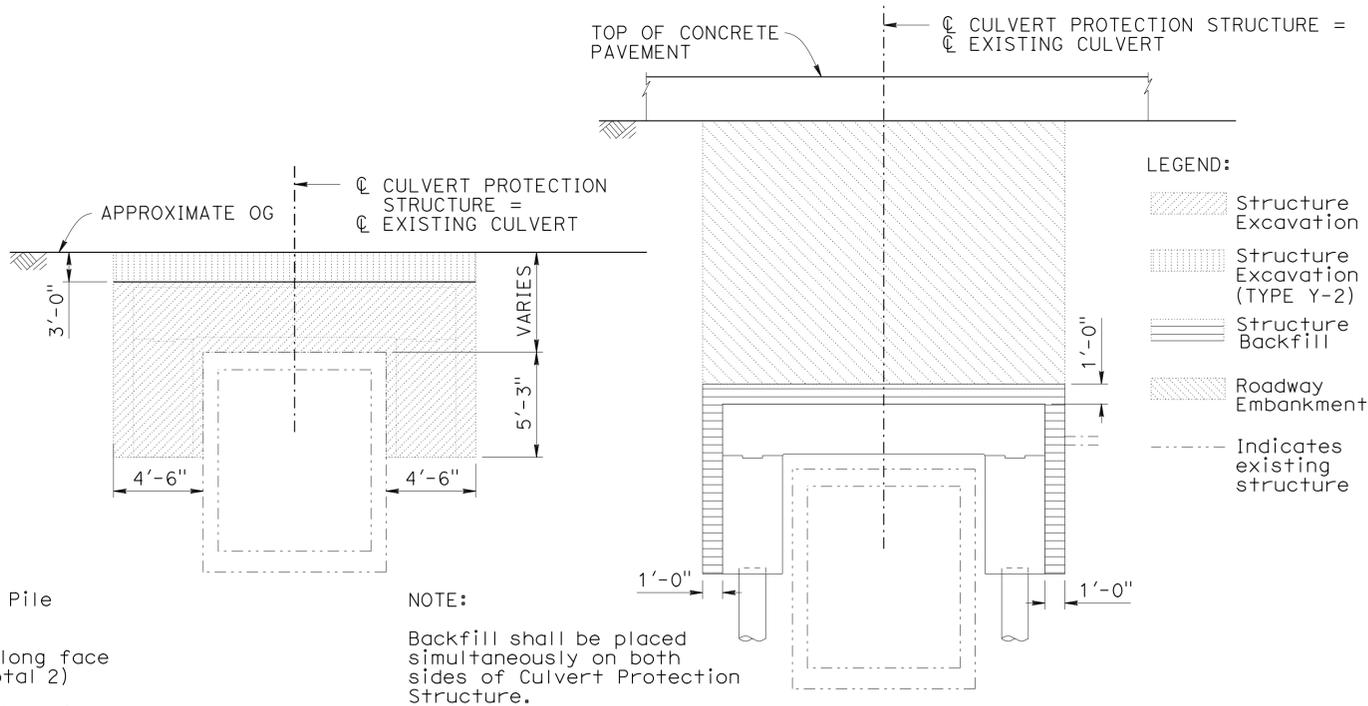
EARTH LOAD: (Soil parameters to design earth pressure)
 $\phi = 34^\circ$
 $\gamma = 120$ pcf

CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$

STRUCTURAL STEELS:
 ASTM A36

- NOTES:
- Place 1/4" x 18" galvanized steel plate cover and filter fabric full height of Pile Cap at all corners of structures (Left & Right) (Total 8)
 - Place 1/4" x 20" galvanized steel plate cover and filter fabric horizontally along face of CPS-Expanded Polystyrene at Existing Reinforced Concrete Box Culvert (Total 2)
 - Place 1/4" x 20" galvanized steel plate cover and filter fabric horizontally along face of CPS-Expanded Polystyrene at Existing Transition Structure (Total 2)
 - Secure steel plate cover in proper locations prior to placing the structure backfill.

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



STRUCTURE EXCAVATION LIMITS OF STRUCTURE EXCAVATION AND BACKFILL

NO SCALE

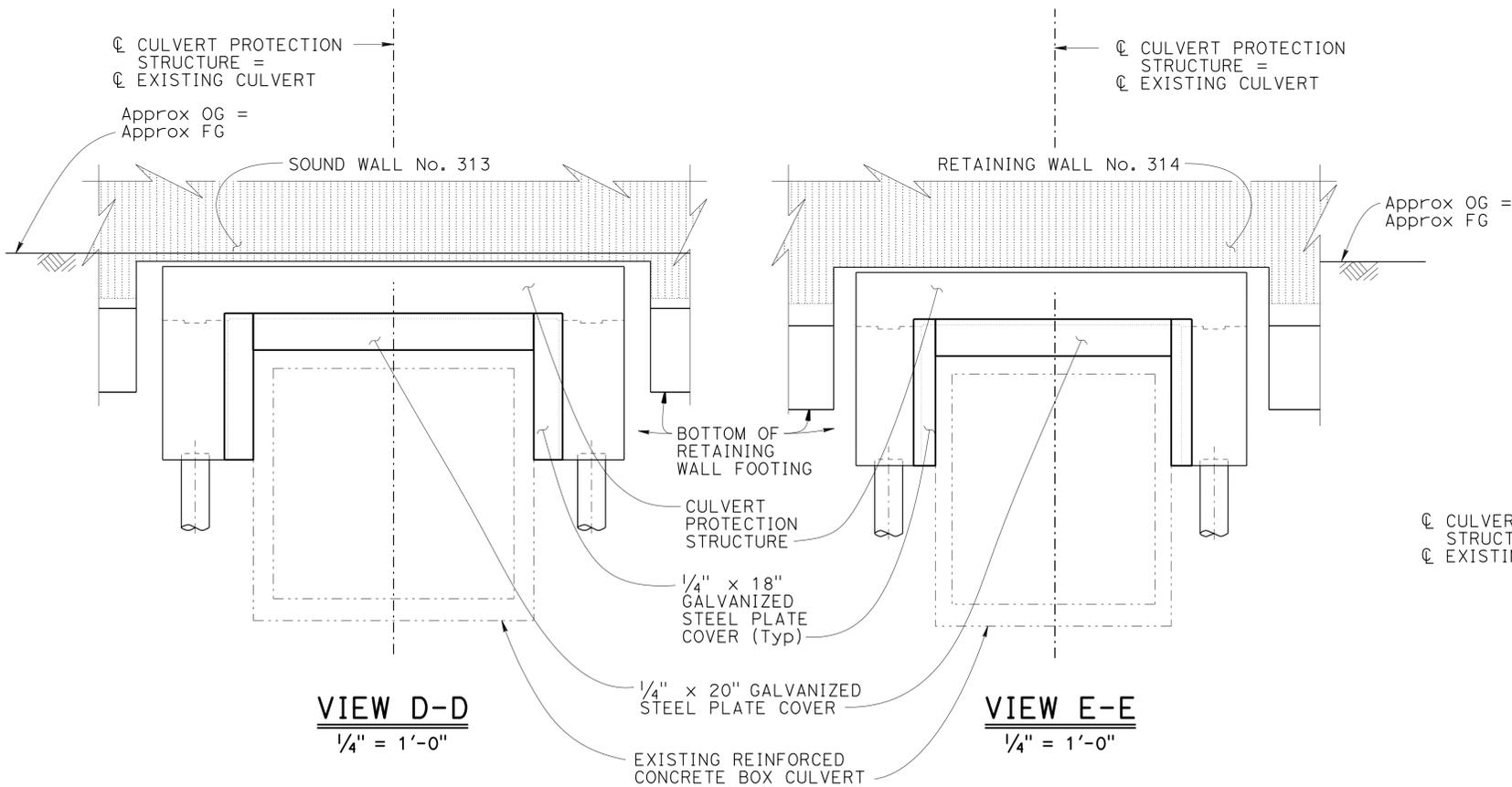
DESIGN BY P. Vijitakula	CHECKED BY Greg Thornton	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	CULVERT PROTECTION STRUCTURE @ PM 5.97
DETAILS BY Gary Souza	CHECKED BY Greg Thornton		DESIGN BRANCH 1	POST MILE	
QUANTITIES BY Greg Thornton	CHECKED BY Ashraf Ahmed			5.97	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 3 OF 8
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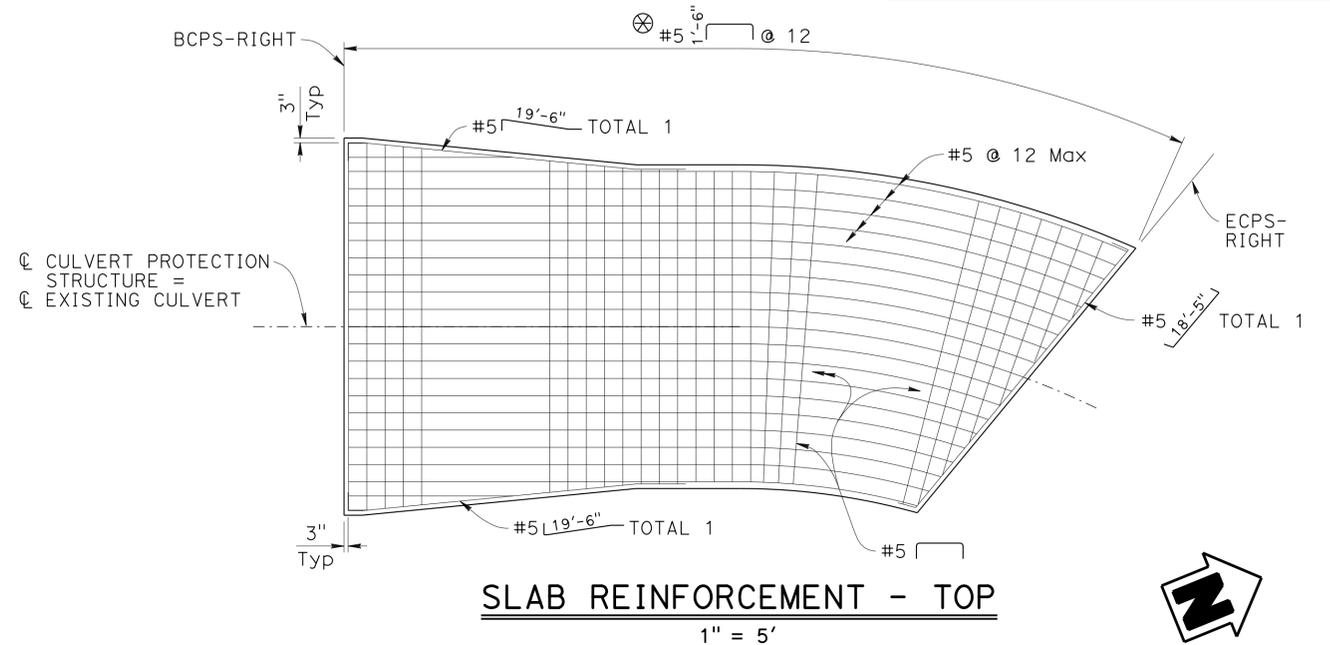
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	940	985
P. Vijitakula			12-28-12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER P. VIJITAKULA No. C 54701 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

LOCATION	PILE TYPE	CUT-OFF ELEVATION (ft)	NOMINAL RESISTANCE (Kips)		DESIGN TIP ELEVATION (ft)	SPECIFIED TIP ELEVATION (ft)
			COMPRESSION	TENSION		
CPS - LEFT	16" Ø CIDH Conc PILE	110.00±	160	N/A	(a) 60.0 (b) N/A (c) 75.0	60.0
CPS - RIGHT	16" Ø CIDH Conc PILE	110.50±	160	N/A	(a) 60.0 (b) N/A (c) 75.0	60.0

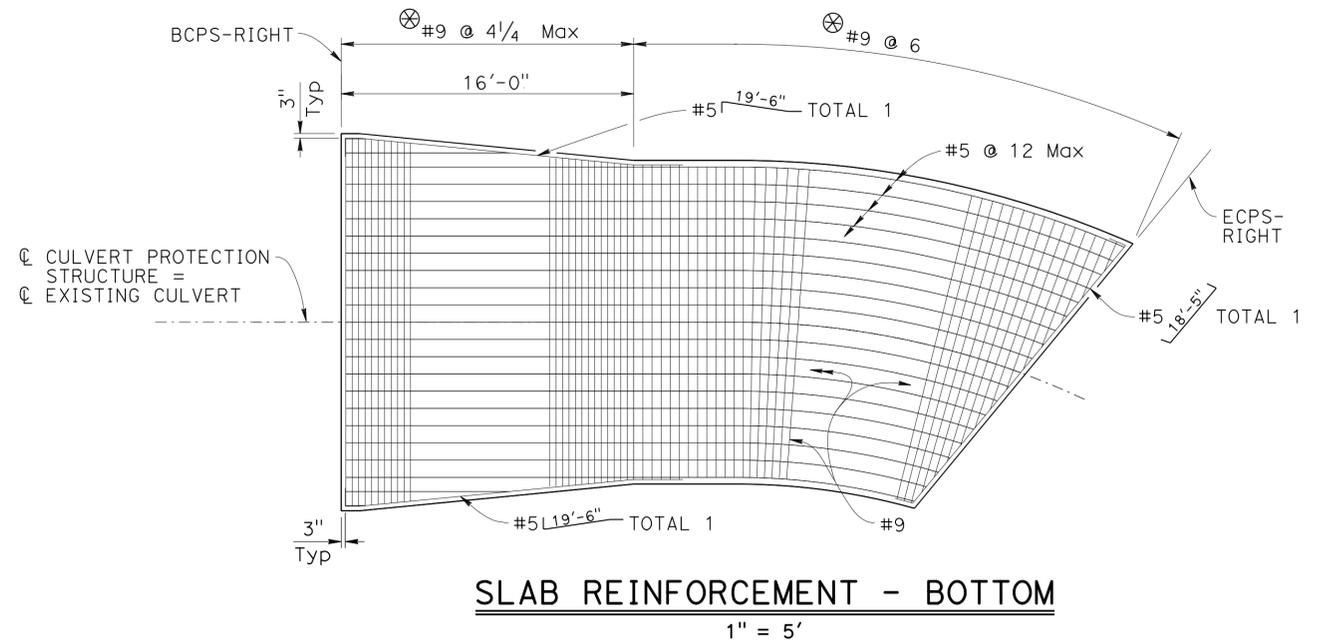
NOTES: 1. Design tip elevations are controlled by: (a) Compression, (b) Tension and (c) Lateral load.
2. The specified tip elevation shall not be raised, unless directed by Engineer.



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



NOTE:
Reinforcement @ Culvert Protection Structure-Right shown, Reinforcement @ Culvert Protection Structure-Left is similar.
⊗ Place radial or normal to and space along Culvert Protection Structure.



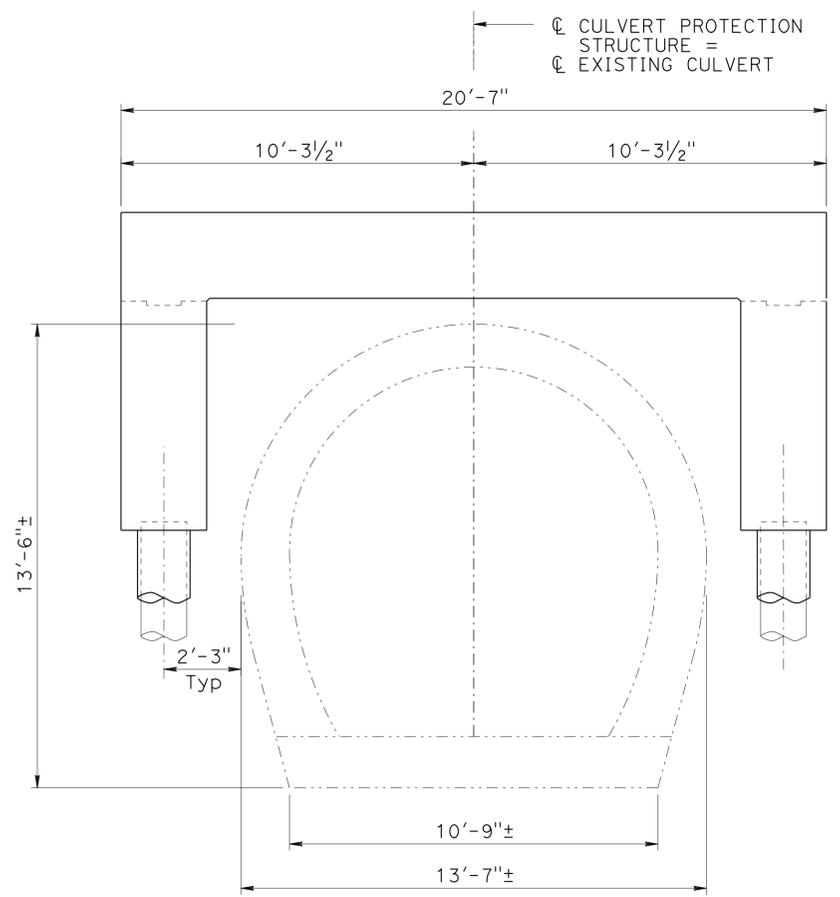
DESIGN	BY P. Vijitakula	CHECKED Greg Thornton
DETAILS	BY Gary Souza	CHECKED Greg Thornton
QUANTITIES	BY Greg Thornton	CHECKED Ashraf Ahmed

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

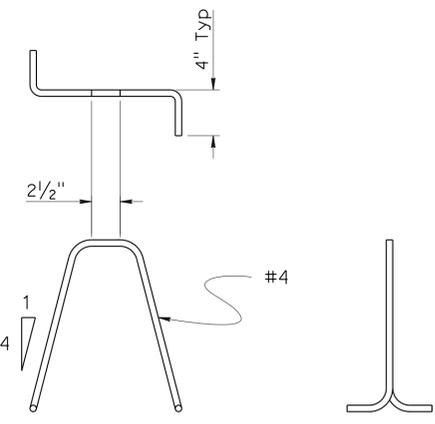
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. CULVERT PROTECTION STRUCTURE @ PM 5.97
POST MILE 5.97
SLAB REINFORCEMENT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	941	985
P. Vijitakula			12-28-12	REGISTERED PROFESSIONAL ENGINEER	
6-24-13			DATE	P. VIJITAKULA	
PLANS APPROVAL DATE				No. C 54701	
				Exp. 12-31-13	
				CIVIL	
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

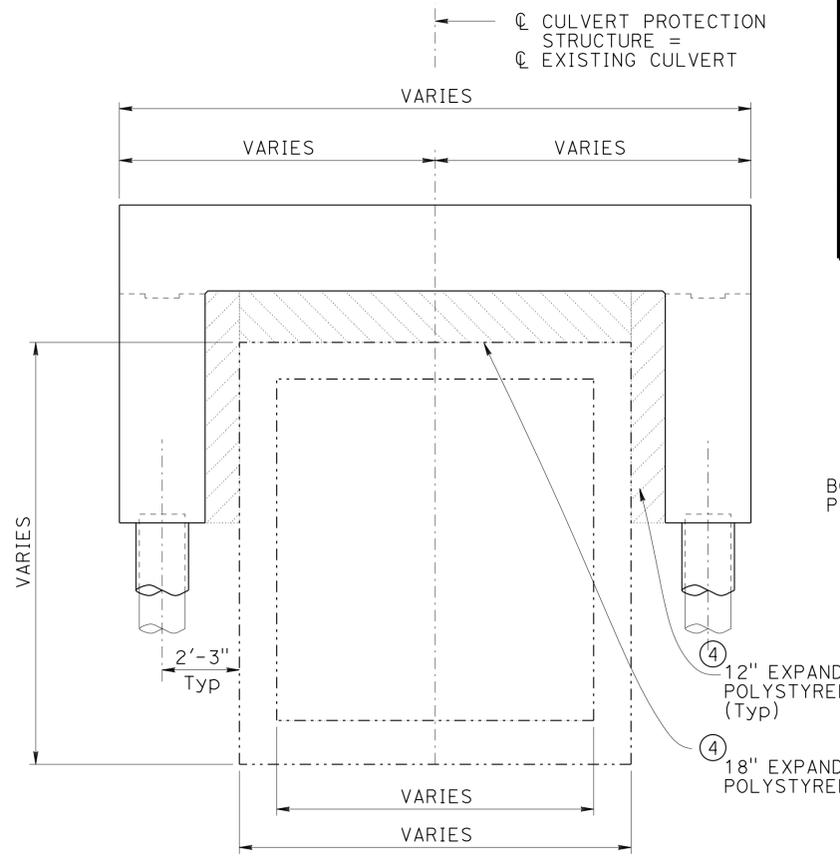


SECTION A-A
3/8" = 1'

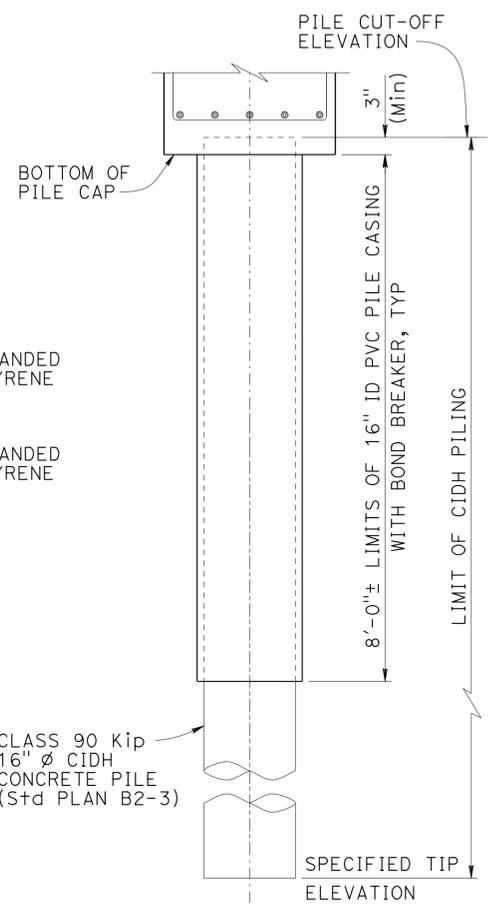


BAR CHAIR DETAIL
1" = 1'-0"

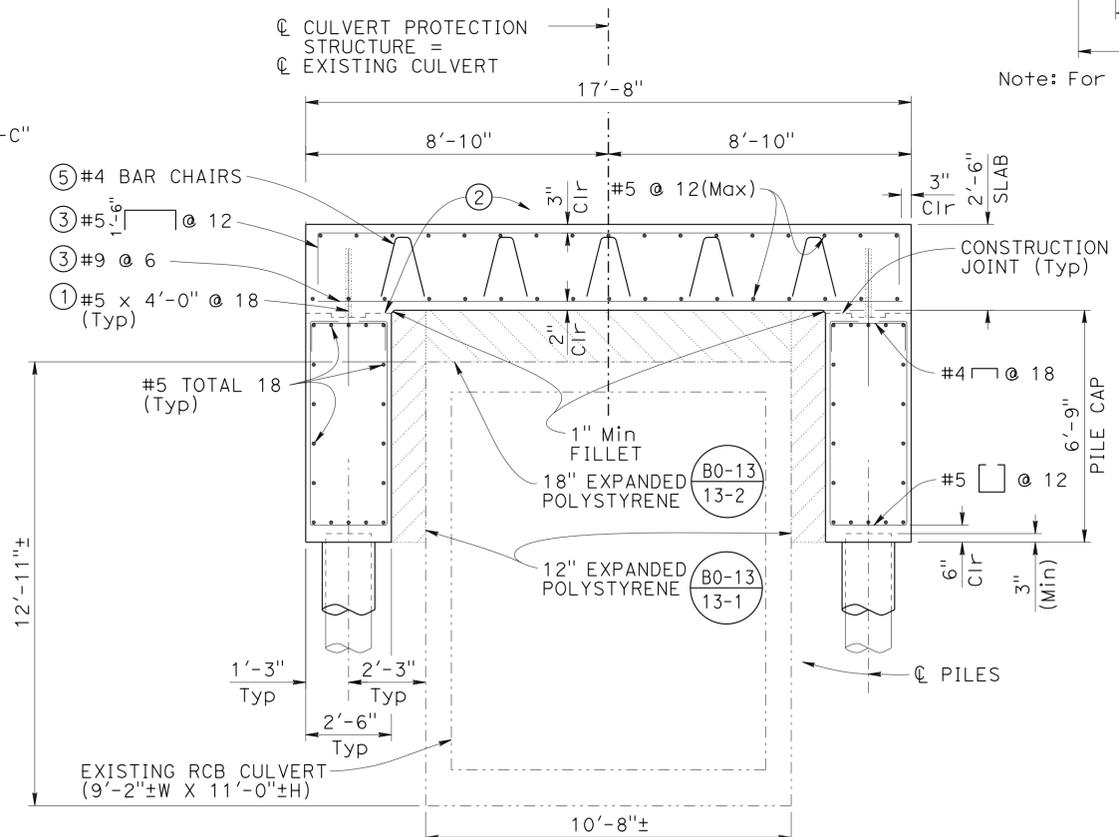
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SECTION B-B
3/8" = 1'



CIDH CONCRETE PILE SLEEVE DETAILS (Typ)
NO SCALE



SECTION C-C
3/8" = 1'

NOTE: Details and Reinforcement are symmetrical about C/Culvert Protection Structure

- NOTES:
- 1" Expanded polystyrene wrapped around #5 reinforcement in slab portion
 - Place two layers of 15 lbs. building paper on top of pile cap along the entire length of pile cap
 - See Slab Reinforcement on "Slab Reinforcement" sheet
 - Terminate Expanded Polystyrene at the end of existing arch culvert
 - Spaced 3'-0"± transversely and 4'-0"± longitudinally

DESIGN	BY P. Vijitakula	CHECKED Greg Thornton
DETAILS	BY Gary Souza	CHECKED Greg Thornton
QUANTITIES	BY Greg Thornton	CHECKED Ashraf Ahmed

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

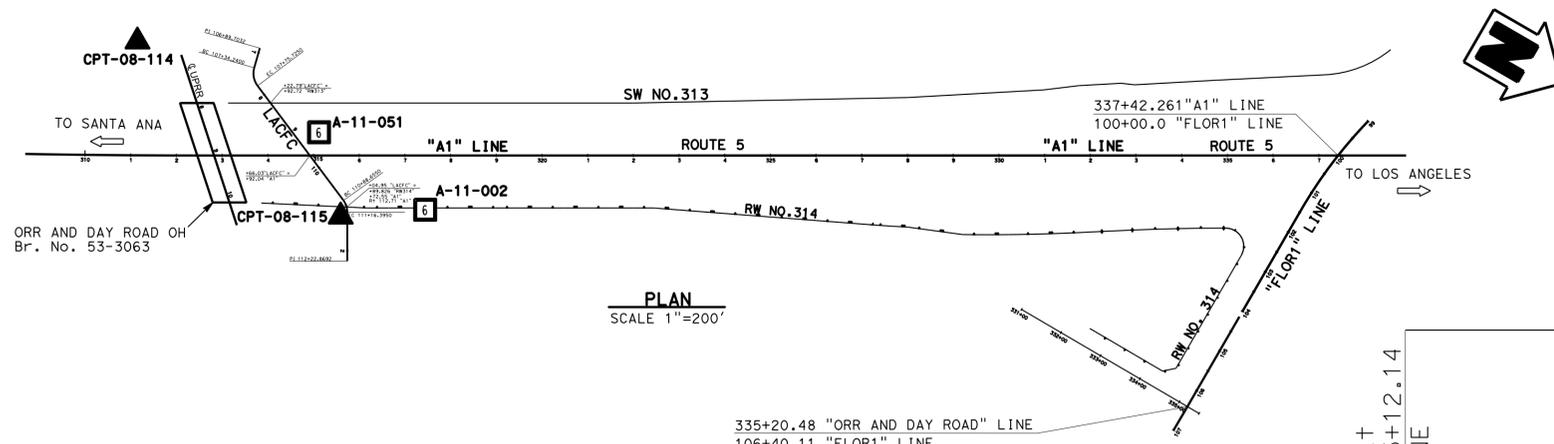
BRIDGE NO.	
POST MILE	5.97

CULVERT PROTECTION STRUCTURE @ PM 5.97
TYPICAL SECTION

BENCH MARKS

LA 5 PM 6.1, 1995 Elev. 126.778'
 2.5" CADT Disk in Concrete Curb
 Located at the nose of the southbound
 I-5 FWY Onramp Gore from Orr & Day Rd
 N=1797387.8, E=6534371.3
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Ft

LA 5 PM 6.4, 1995 Elev. Not shown
 2.5" CADT Disk in Asphalt
 Located along the northbound shoulder of
 I-5 FWY, 150 ft north of the Florence
 Avenue Overcrossing
 N=1799072.3, E=6533513.4
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Ft



PLAN
 SCALE 1"=200'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	942	985

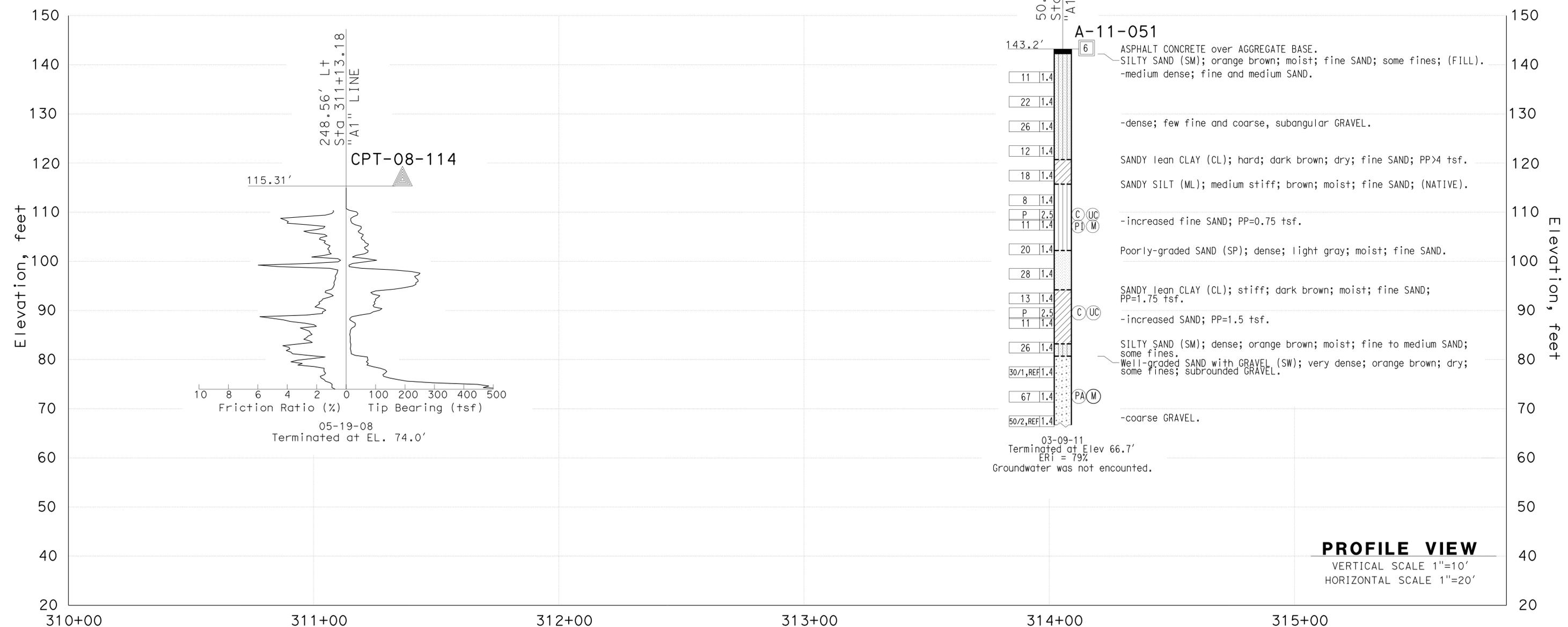
6/2012
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

Nadeem Srour
 No. 2801
 Exp. 12-31-2013
 GEOTECHNICAL
 STATE OF CALIFORNIA

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



PROFILE VIEW
 VERTICAL SCALE 1"=10'
 HORIZONTAL SCALE 1"=20'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		CULVERT PROTECTION STRUCTURE @ PM 5.97	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		POST MILE		LOG OF TEST BORINGS SHEET 1 OF 3	
NAME: S.SUKIASIAN		CHECKED BY: M.AHMED/D.ORRIS		N.SROUR/P.MCDONALD		DESIGN BRANCH 1		5.97			
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3						REVISION DATES	
										SHEET 6 OF 8	

DATE PLOTTED => 27-JUN-2013
 TIME PLOTTED => 06:12
 USERNAME => s124496

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 3

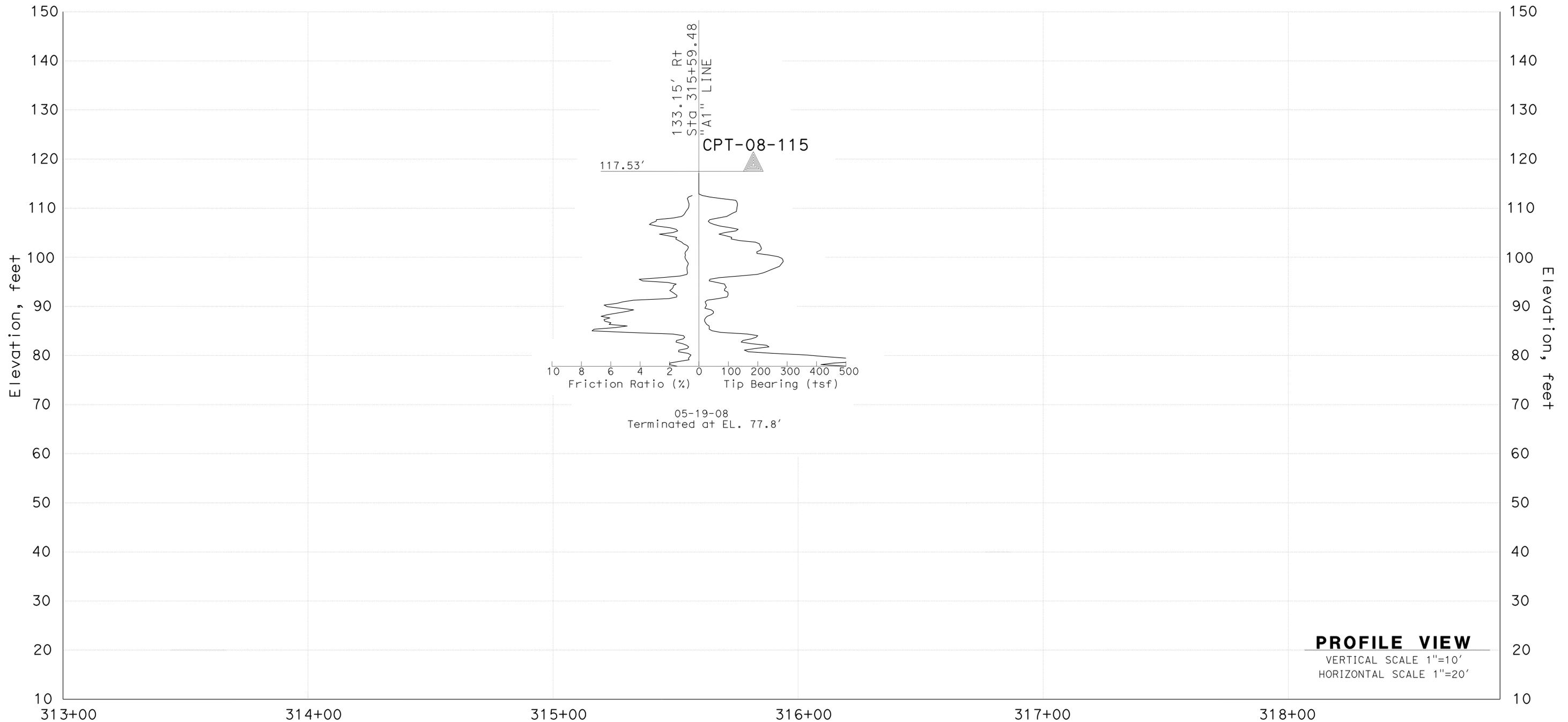
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	943	985

 06/2012
 REGISTERED CIVIL ENGINEER DATE
 6-24-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL G. SMITH
 No. 2229
 Exp. 3-31-2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

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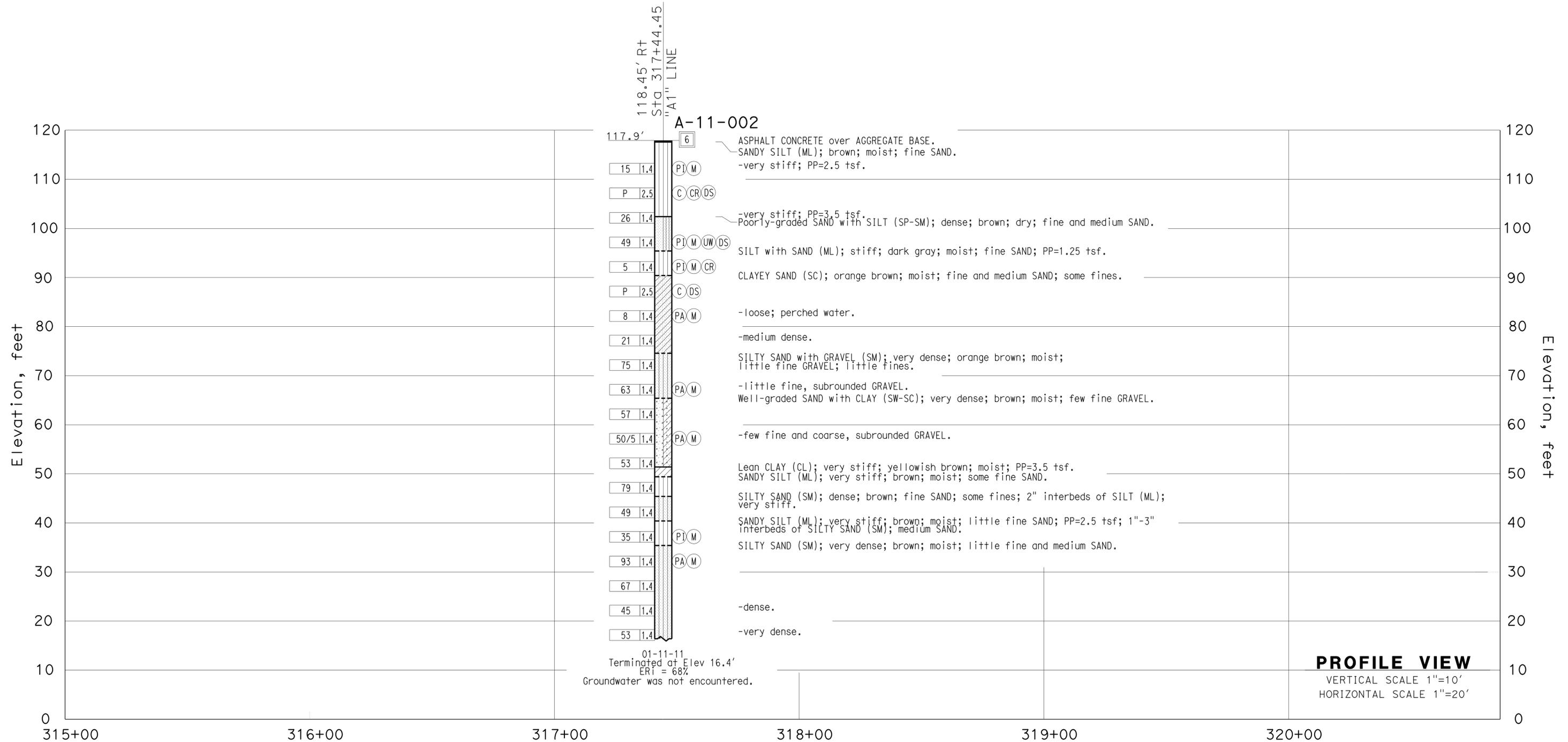
ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		CULVERT PROTECTION STRUCTURE @ PM 5.97	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		POST MILE		LOG OF TEST BORINGS SHEET 2 OF 3	
NAME: M.SMITH		CHECKED BY: D.ORRIS		P.MCDONALD		DESIGN BRANCH 1		5.97			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET OF	
								JUNE 2012		7 8	

USERNAME => s124486 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:12

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	944	985
			6/2012	REGISTERED CIVIL ENGINEER DATE	
			6-24-13	PLANS APPROVAL DATE	
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

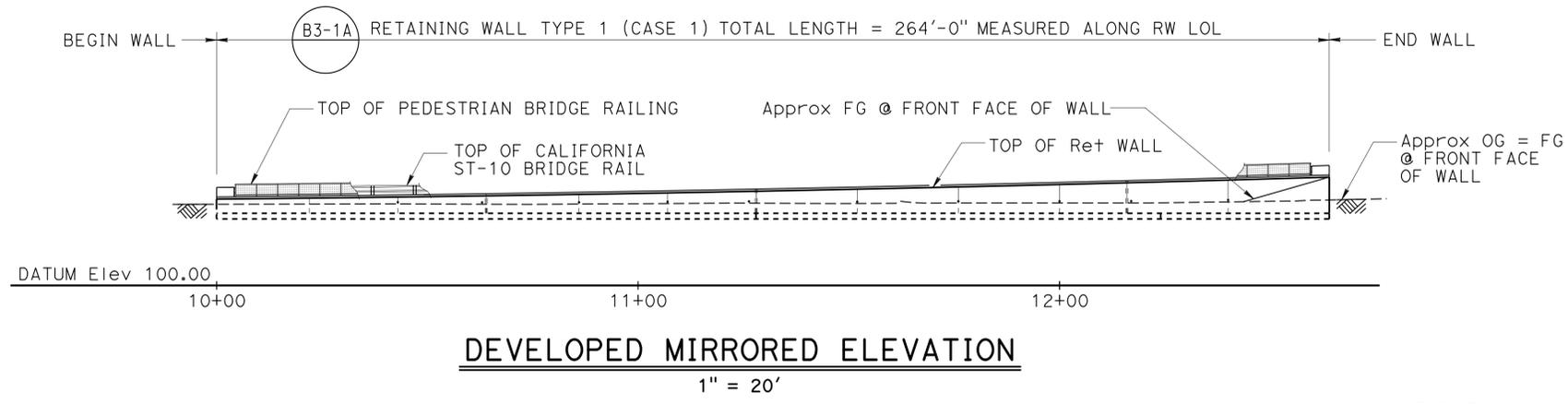
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		CULVERT PROTECTION STRUCTURE @ PM 5.97	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		POST MILE		LOG OF TEST BORINGS SHEET 3 OF 3	
NAME: S.SUKIASIAN		CHECKED BY: M.AHMED		N.SROUR		DESIGN BRANCH 1		5.97			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3576		PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215954		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3						REVISION DATES	
										SHEET 8 OF 8	

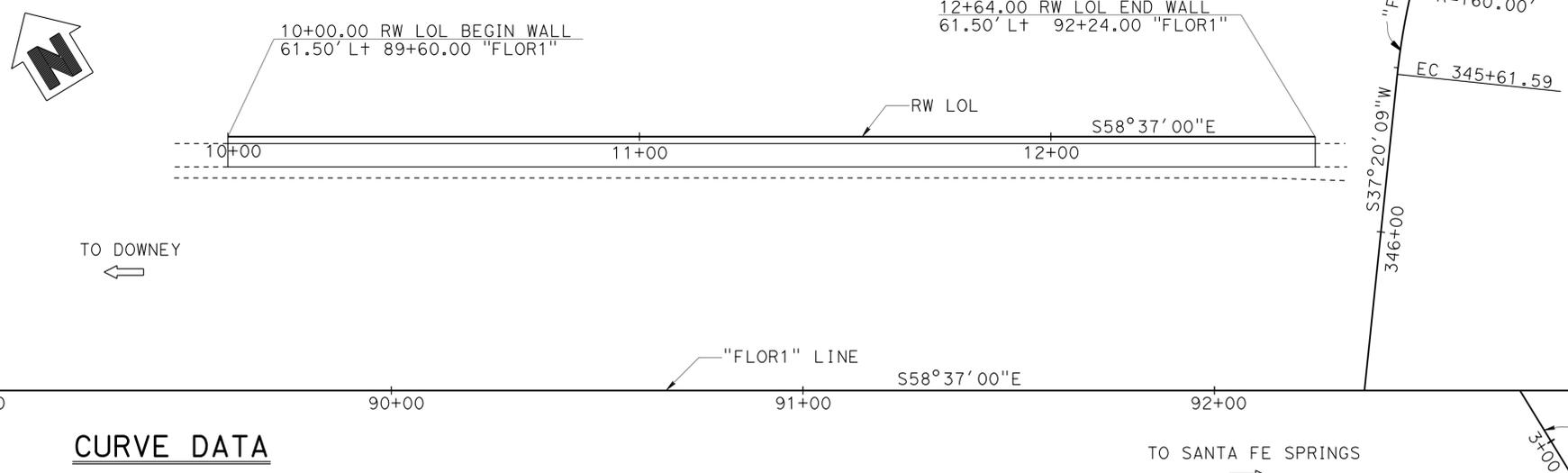
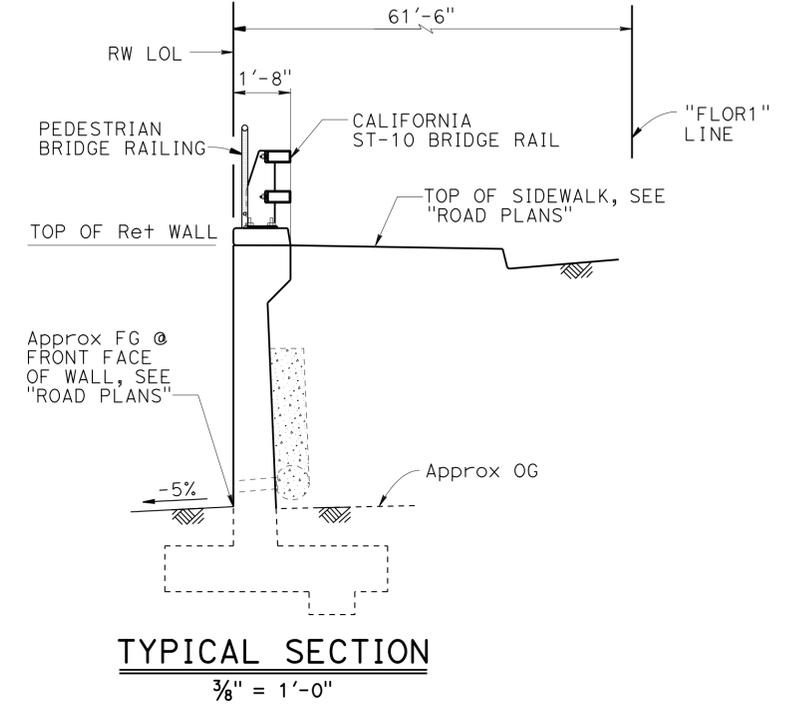
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	945	985
			P. Vijitakula REGISTERED CIVIL ENGINEER No. 54701 Exp. 12-31-13 CIVIL		12/28/12 DATE 6-24-13 PLANS APPROVAL DATE
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NOTE:
For DESIGN NOTES, see Std Plan B3-1A.



QUANTITIES

STRUCTURE EXCAVATION (RETAINING WALL)	790	CY
STRUCTURE EXCAVATION (TYPE Y-2) (AERIALY DEPOSITED LEAD)	60	CY
STRUCTURE BACKFILL (RETAINING WALL)	970	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	5	CY
STRUCTURAL CONCRETE, RETAINING WALL	170	CY
BAR REINFORCING STEEL (RETAINING WALL)	22,400	LB
PEDESTRIAN RAILING	258	LF
CALIFORNIA ST-10 BRIDGE RAIL	264	LF



INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	STRUCTURE PLAN NO. 1
3.	STRUCTURE PLAN NO. 2
4.	FOUNDATION PLAN
5.	TYPICAL SECTION
6.	MISCELLANEOUS DETAILS
7.	LOG OF TEST BORINGS

STANDARD PLANS 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES SYMBOLS (SHEET 1 OF 3)
A10D	LINES SYMBOLS (SHEET 2 OF 3)
A10E	LINES SYMBOLS (SHEET 3 OF 3)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL
B0-3	BRIDGE DETAIL
RSP B3-1A	RETAINING WALL TYPE 1 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS No. 1
RSP B11-68	CALIFORNIA ST-10 BRIDGE RAIL (SHEET 1 OF 3)
B11-69	CALIFORNIA ST-10 BRIDGE RAIL (SHEET 2 OF 3)
B11-70	CALIFORNIA ST-10 BRIDGE RAIL (SHEET 3 OF 3)

CURVE DATA

"FL3" LINE
 R = 160.0'
 Δ = 111°56'50"
 T = 236.97'
 L = 312.62'

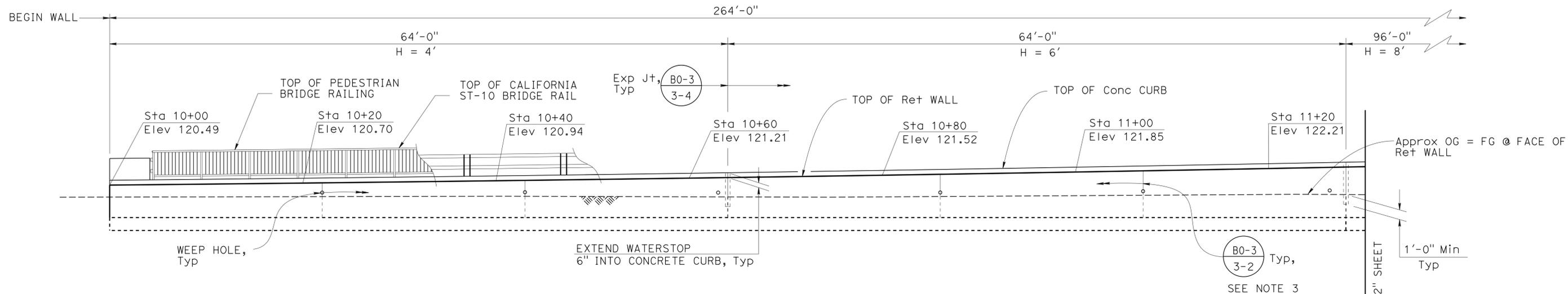
Jeff Sims DESIGN ENGINEER	DESIGN	BY April Pearson	CHECKED Vadim Shostak	LOAD & RESISTANCE FACTOR DESIGN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. S3E0207	RETAINING WALL NO. 90 GENERAL PLAN
	DETAILS	BY Jin Zhou	CHECKED Vadim Shostak	LAYOUT		BY April Pearson	CHECKED Vadim Shostak	
	QUANTITIES	BY Paul Hayes	CHECKED Mike Bergman	SPECIFICATIONS	BY Xiahong Li	PLANS AND SPECS COMPARED Xiahong Li		

NOTES:

1. For pedestrian bridge railing and california ST-10 bridge rail details, see "TYPICAL SECTION" sheet.
2. For retaining wall details, see Standard Plan B3-1A.
3. Retaining wall expansion joints, weakened planes, and weep holes shall be placed per Detail 3-3 of Standard Plan B0-3.
4. All longitudinal dimensions are measured along the RW LOL.
5. For "WEEPHOLE AND GEOCOMPOSITE DRAIN" alternative, see "TYPICAL SECTION" sheet.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	946	985

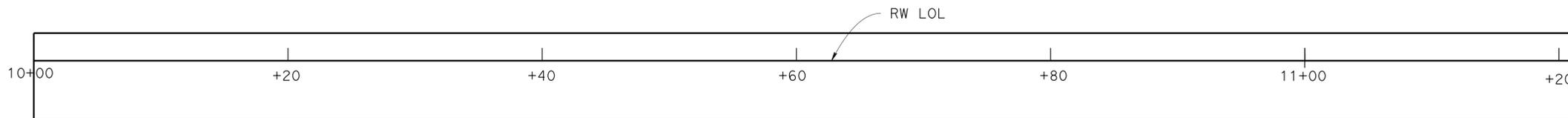
P. Vijitkula 12/28/12
 REGISTERED CIVIL ENGINEER DATE
 6-24-13
 PLANS APPROVAL DATE
 P. VIJITKULA
 No. 54701
 Exp. 12-31-13
 CIVIL
 STATE OF CALIFORNIA
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DATUM Elev 100.00

10+00 +20 +40 +60 +80 11+00 +20

DEVELOPED MIRRORED ELEVATION (B3-1A)
 $\frac{3}{16}" = 1'-0"$



FOOTING PLAN
 $\frac{3}{16}" = 1'-0"$

DESIGN	BY A. Pearson	CHECKED Vadim Shostak
DETAILS	BY Jin Zhou	CHECKED Vadim Shostak
QUANTITIES	BY Paul Hayes	CHECKED Mike Bergman

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	S3E0207
POST MILE	6.51

RETAINING WALL NO. 90
STRUCTURE PLAN NO. 1

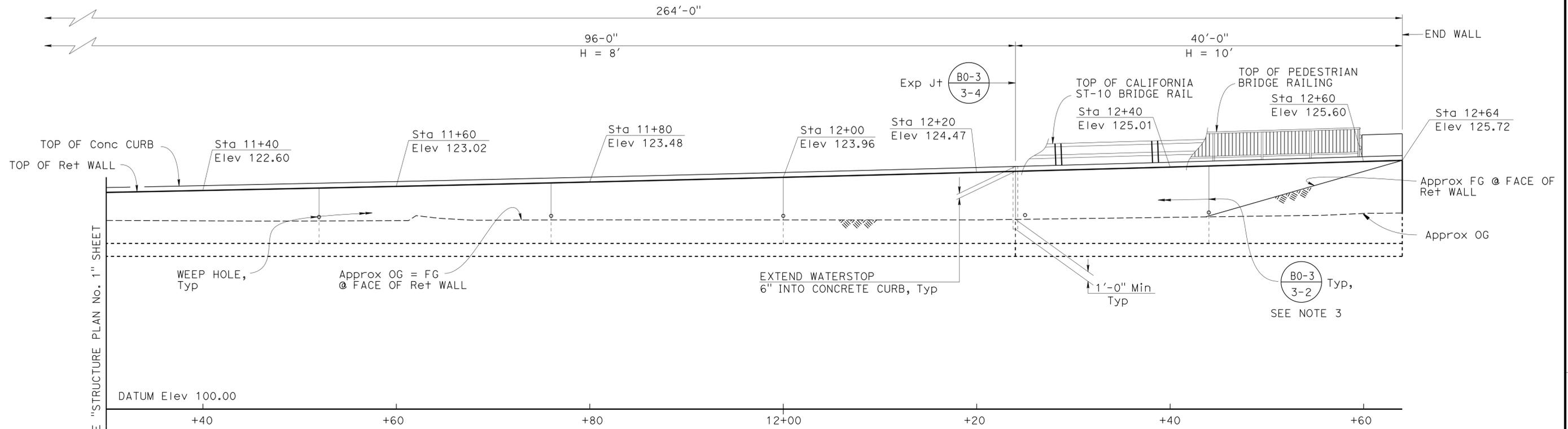


REVISION DATES	SHEET	OF
07/09/12 01/24/13 12/24/12	2	7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	947	985
P. Vijitkula			12/28/12		
REGISTERED CIVIL ENGINEER			DATE		
6-24-13			PLANS APPROVAL DATE		
P. VIJITAKULA			REGISTERED PROFESSIONAL ENGINEER		
No. 54701			Exp. 12-31-13		
CIVIL			STATE OF CALIFORNIA		
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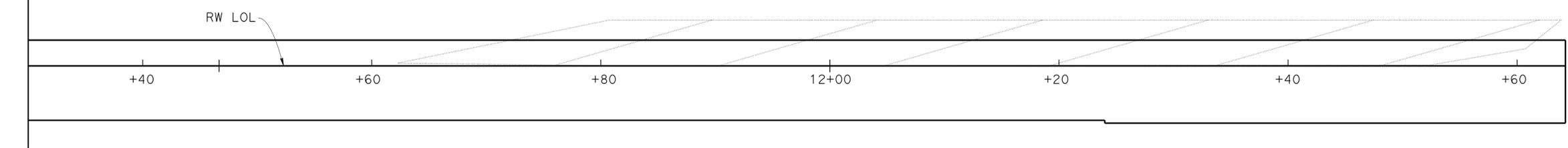
NOTE: For NOTES, see "STRUCTURE PLAN NO. 1" sheet.

 - Indicates Limits of Payment for Structure Excavation Type Y-2, see Typical Section on "MISCELLANEOUS DETAILS" sheet



DEVELOPED MIRRORED ELEVATION (B3-1A)
 $\frac{3}{16}'' = 1'-0''$

MATCH LINE, SEE "STRUCTURE PLAN NO. 1" SHEET



FOOTING PLAN
 $\frac{3}{16}'' = 1'-0''$

DESIGN	BY April Pearson	CHECKED Vadim Shostak
DETAILS	BY Jin Zhou	CHECKED Vadim Shostak
QUANTITIES	BY Paul Hayes	CHECKED Mike Bergman

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO.	S3E0207
POST MILE	6.51

RETAINING WALL NO. 90
STRUCTURE PLAN NO. 2



REVISION DATES	SHEET	OF
08-27-12 05/09/13 07/24/13	3	7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	948	985

P. Vijitakula
12/28/12
REGISTERED CIVIL ENGINEER DATE

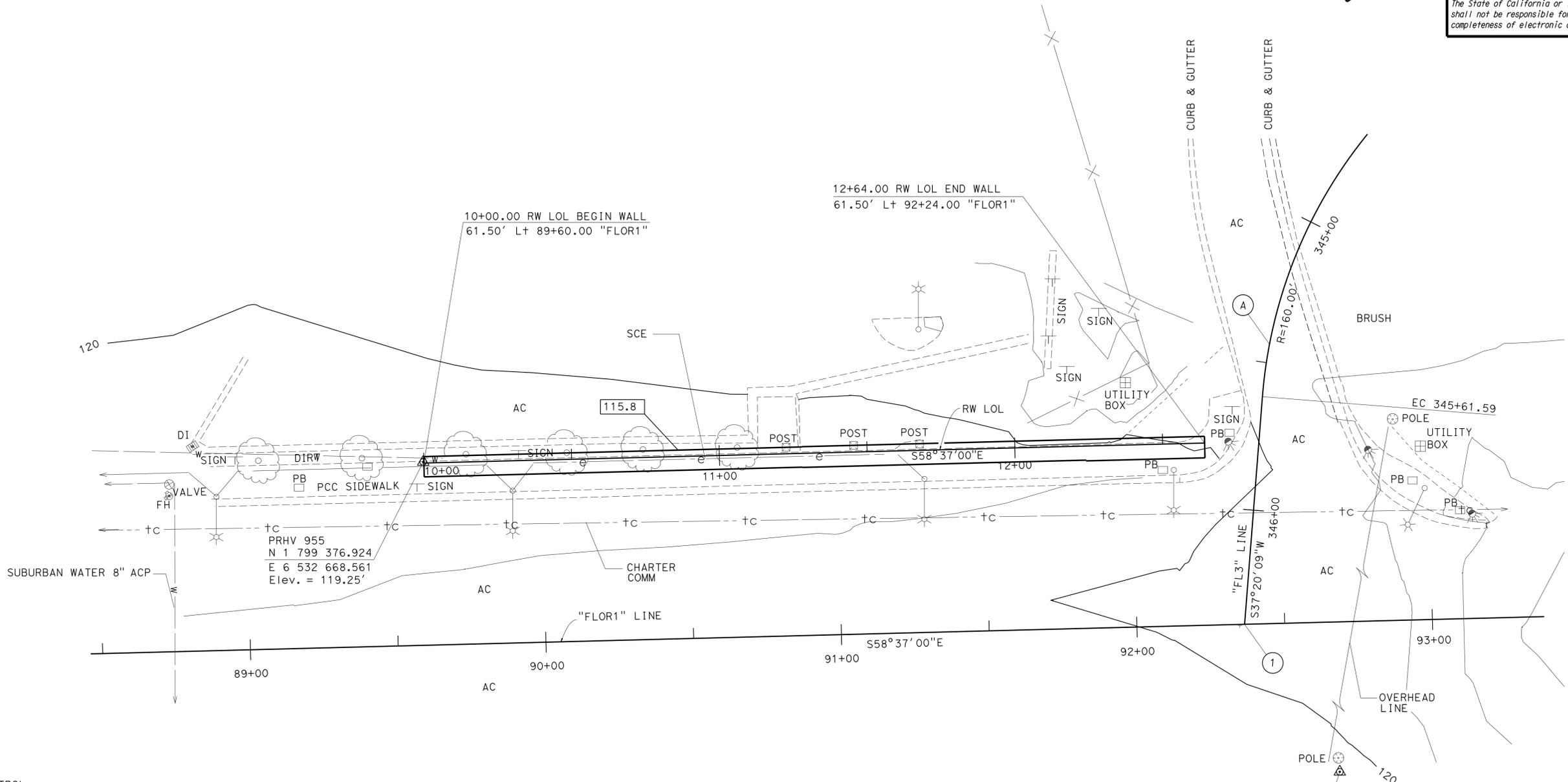
6-24-13
PLANS APPROVAL DATE

P. VIJITAKULA
No. 54701
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CURVE DATA				
No.	R	Δ	T	L
(A)	160.00	111°56'50"	236.97	312.62

① Sta 346+38.63 "FL3" POT =
Sta 92+36.44 "FLOR1" POT



SURVEY CONTROL
 PRHV 951
 SET CHZL "X" ON SW
 50.60 FT Rt. Q FLORENCE AVE.
 Sta. 92+67.36
 N 1 799 120.942
 E 6 532 872.243
 Elev. = 120.61'
 PRHV 955
 SET CHZL "X" ON SW
 61.86 FT Lt. Q FLORENCE AVE.
 Sta. 89+60.17
 N 1 799 376.924
 E 6 532 668.561
 Elev. = 119.25'

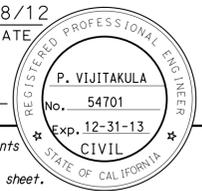
PRHV 951
 N 1 799 120.942
 E 6 532 872.243
 Elev. = 120.61'

NOTES:
 Underground utilities as shown are approximate.
 See utility plans for mor information.

xx.x - Indicates elevation at bottom of footing.

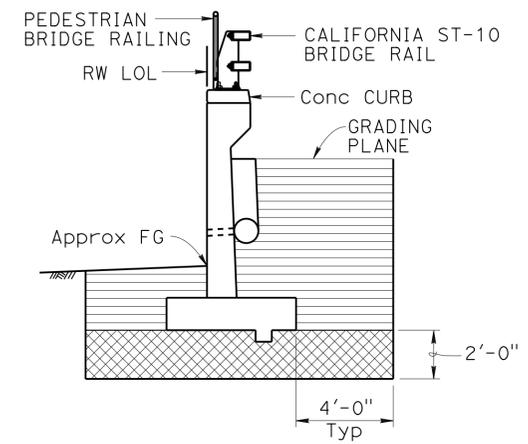
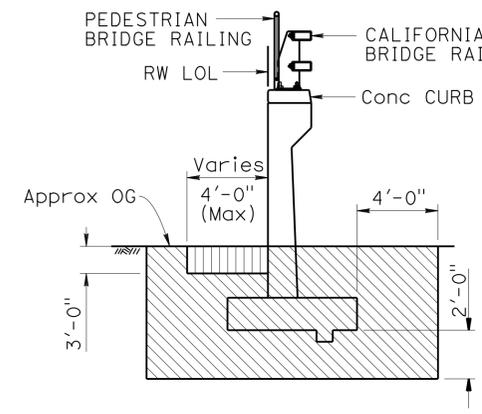
PRELIMINARY INVESTIGATION SECTION				DESIGN BY April Pearson	CHECKED Vadim Shostak	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. S3E0207	RETAINING WALL NO. 90 FOUNDATION PLAN			
SCALE 1"=20'	VERT. DATUM NAVD 88	PHOTOGRAMMETRY AS OF:	DETAILS BY Jin Zhou	CHECKED Vadim Shostak	POST MILE 6.51							
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY S. ABASSY 6/2011	CHECKED BY C. STEWART 6/2011	QUANTITIES BY Paul Hayes	CHECKED Mike Bergman								
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3576	PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215954	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 4 OF 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	950	985
P. Vijitakula			12/28/12	REGISTERED CIVIL ENGINEER DATE	
6-24-13			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



LEGEND:

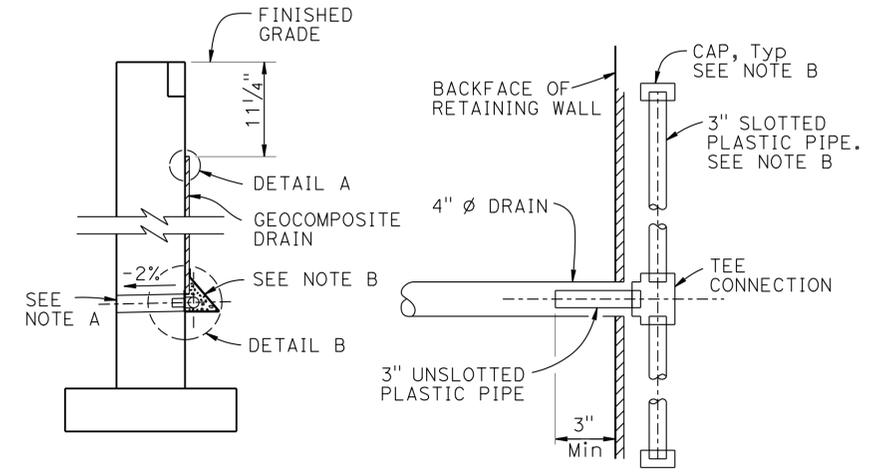
- Structure excavation (Retaining wall)
- Structure excavation (Type Y-2) RW LOL 11+62.30 to 12+63.85
- Structure backfill
- Structure backfill to be compacted to 95% relative compaction



NOTE: For details not shown, see Std Plan A62B.

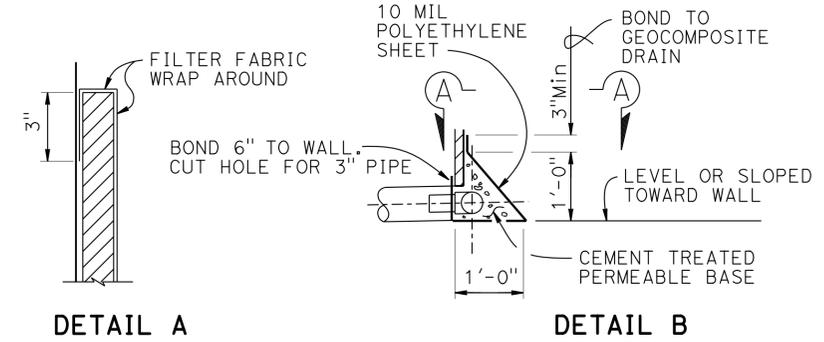
LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL

No Scale



WALL SECTION

SECTION A-A



DETAIL A

DETAIL B

WEEP HOLE AND GEOCOMPOSITE DRAIN

ALTERNATIVE TO BRIDGE DETAIL BO-3
3-1

NOTES:

- A. 4" ϕ drains at 25' max center to center. For walls adjacent to sidewalks or curbs, provide 4" cast iron or asbestos cement pipe under the sidewalk to discharge through curb face. Exposed wall drains shall be located 3"± above finished grade.
- B. Geocomposite drain, cement treated permeable base, and 3" ϕ slotted plastic pipe continuous behind retaining wall. Cap ends of pipe. Provide "Tee" connection at each 4" ϕ drain.

DESIGN	BY A. Pearson / P. Hayes	CHECKED Vadim Shostak
DETAILS	BY Jin Zhou	CHECKED Vadim Shostak
QUANTITIES	BY Paul Hayes	CHECKED Mike Bergman

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

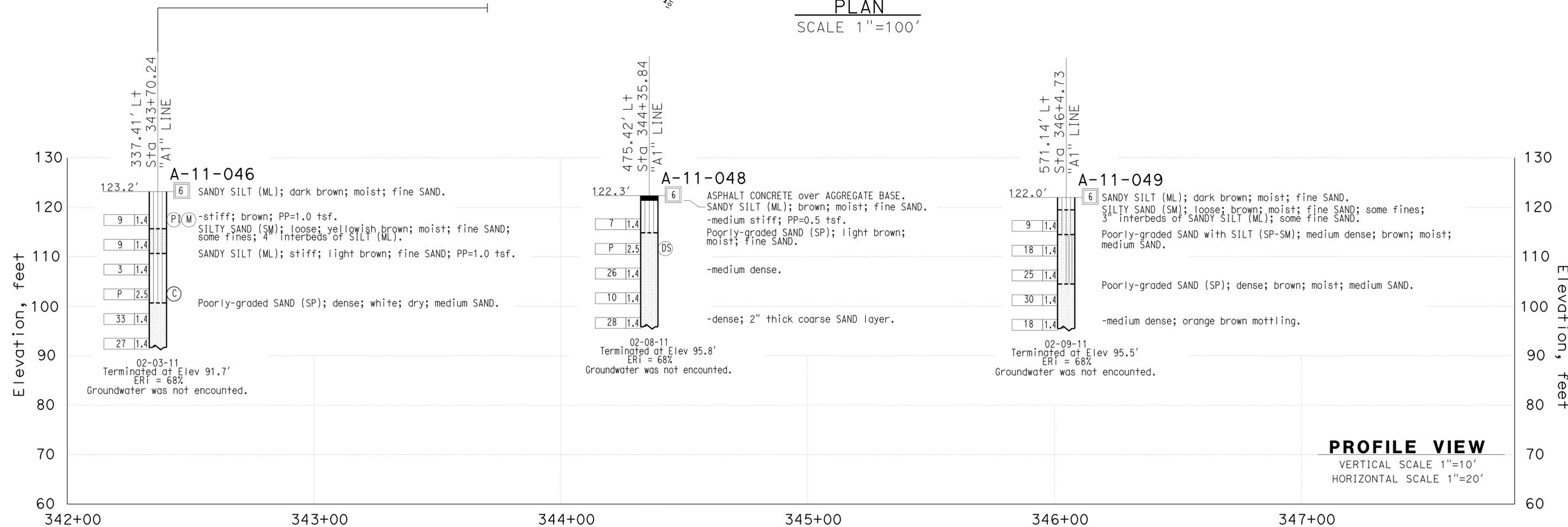
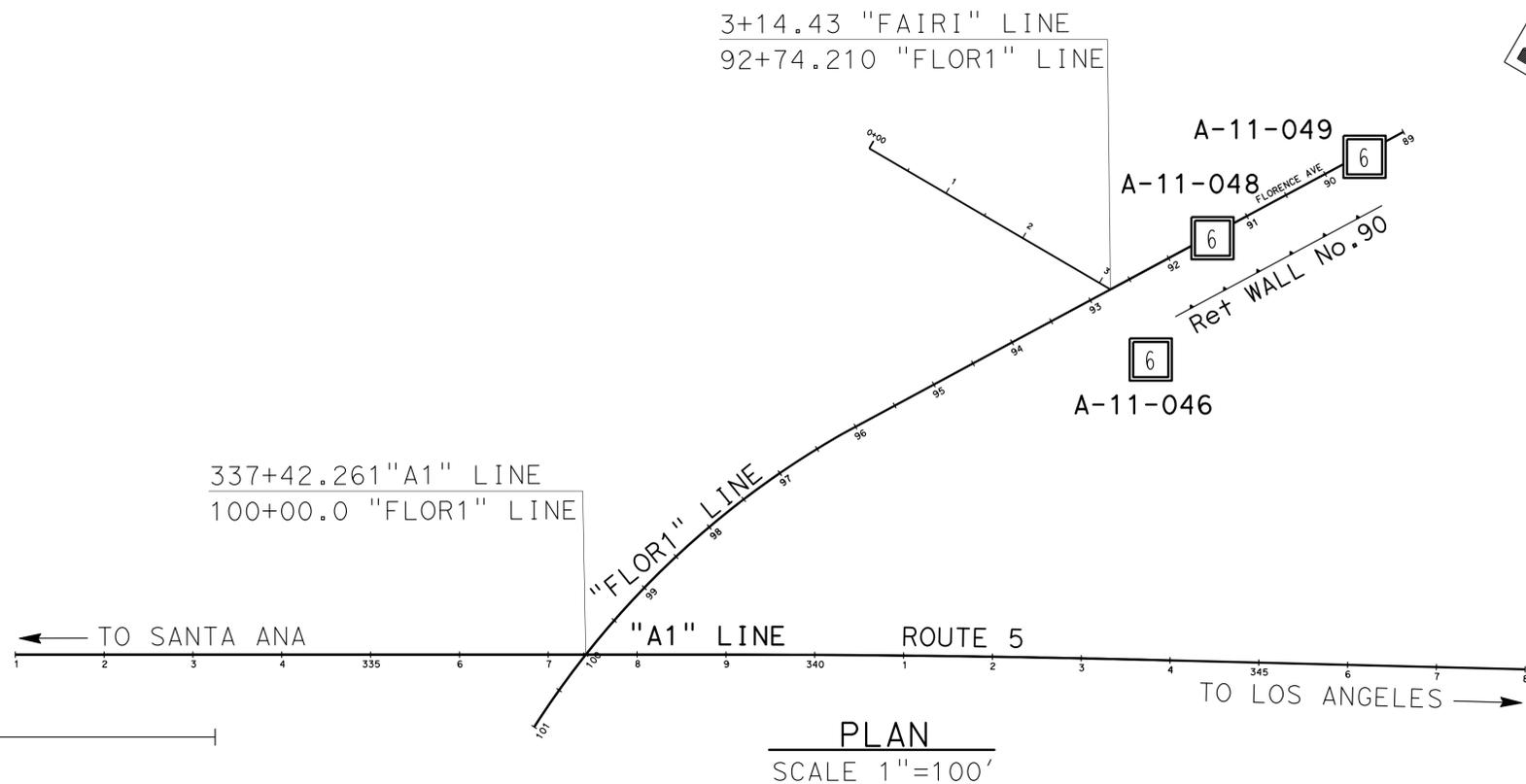
BRIDGE NO.	S3E0207
POST MILE	6.51

RETAINING WALL NO. 90
MISCELLANEOUS DETAILS

BENCH MARKS

LA 5 PM 6.4, 1995 Elev. Not shown
 2.5" CADT Disk in Asphalt
 Located along the northbound shoulder of I-5 FWY, 150 ft north of the Florence Avenue Overcrossing
 N=1799072.3, E=6533513.4
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Ft

LA 5 PM 6.7, 1995 Elev. 135.089'
 2.5" CADT Disk in Concrete Curb
 Located on the southbound I-5 transition ramp to the northbound 605 FWY. It is on the south curb between the north and the southbound lanes of the 605.
 N=1800522.8, E=6532535.7
 VERTICAL NAVD88, 0405-CALIFORNIA 5 US Feet



PROFILE VIEW
 VERTICAL SCALE 1"=10'
 HORIZONTAL SCALE 1"=20'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	951	985

6/2012
 REGISTERED CIVIL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

Nadeem Srour
 No. 2801
 Exp. 12-31-2013
 GEOTECHNICAL
 STATE OF CALIFORNIA

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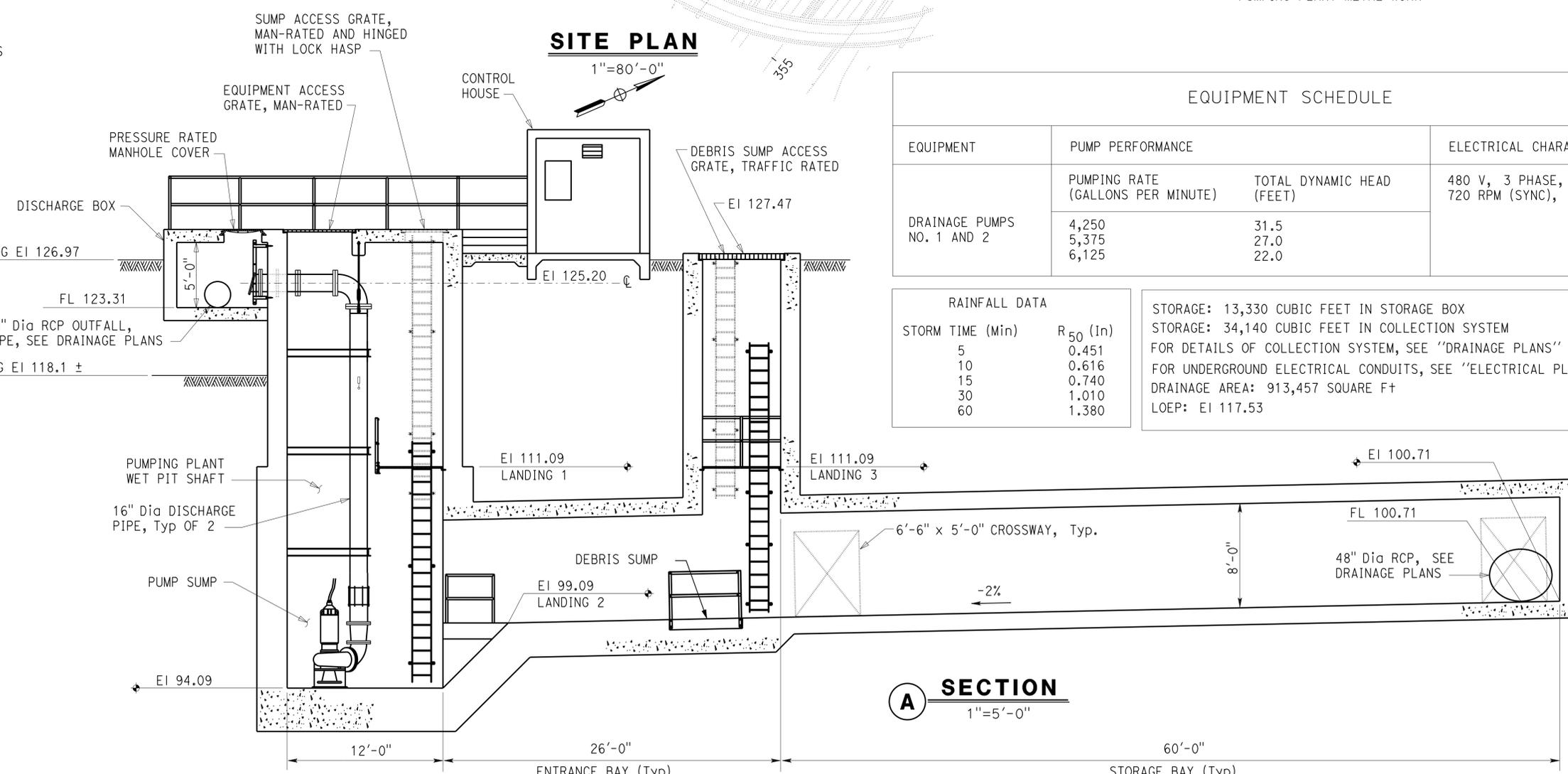
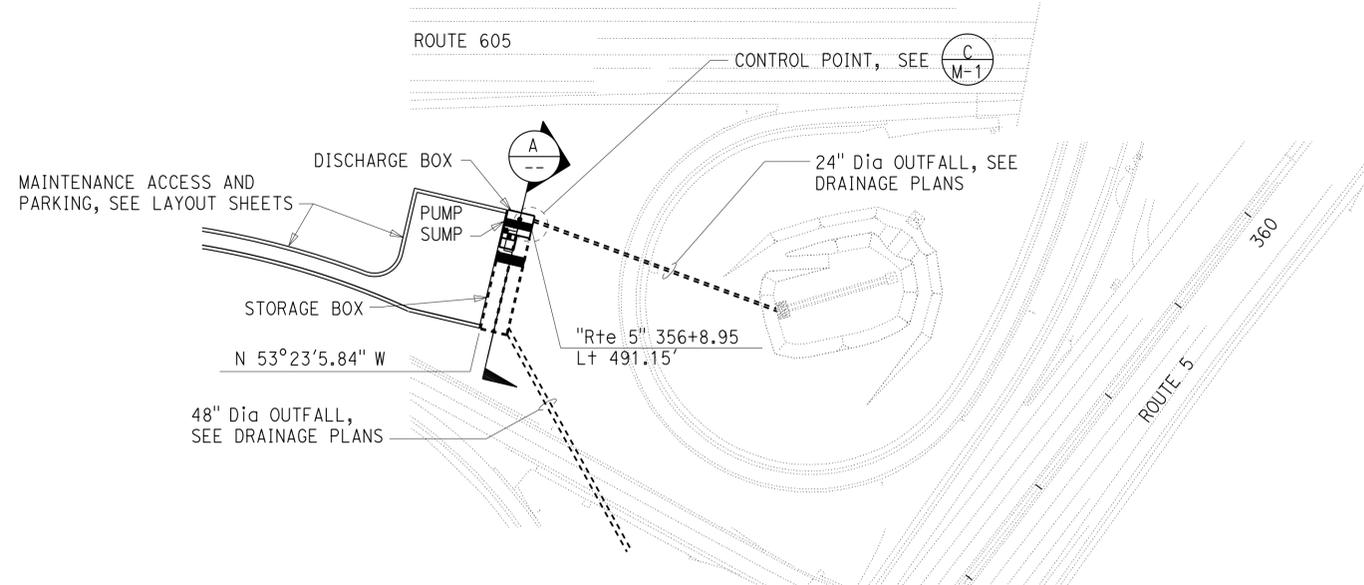
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		RETAINING WALL NO. 90	
FUNCTIONAL SUPERVISOR		DRAWN BY: T.PANAH (URS CORP)		FIELD INVESTIGATION BY:		DEPARTMENT OF TRANSPORTATION		53E0207		LOG OF TEST BORINGS	
NAME: S.SUKIASIAN		CHECKED BY: K.BARKER		N.SROUR		DESIGN BRANCH 1		POST MILE			
								6.51			
06S CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3576		REVISION DATES	
				PROJECT NUMBER & PHASE: 07000018351				CONTRACT NO.: 07-215954		SHEET OF	
								DISREGARD PRINTS BEARING EARLIER REVISION DATES		7 7	

USERNAME => s121614 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:28

INDEX OF SHEETS

SHEET	DESCRIPTION
GP	GENERAL PLAN
STRUCTURAL	
ST-0	STRUCTURAL SITE PLAN
ST-1	PUMPING PLANT PLAN
ST-2	PUMPING PLANT SECTION 1
ST-3	FOUNDATION PLAN
ST-4	PUMPING PLANT SECTION 2
ST-5	WET PIT SHAFT VERTICAL SECTIONS
ST-6	WET PIT SHAFT SECTIONS
ST-7	WET PIT SHAFT SECTIONS
ST-8	ROOF TOP SLAB
ST-9	WET PIT SHAFT SECTIONS
ST-10	STORAGE BOX SECTIONS
ST-11	DEBRIS SUMP SECTIONS
ST-12	STORAGE BOX SECTIONS
ST-13	LANDING FRAME SECTION
ST-14	LANDING GRATE AND GUARDRAIL DETAILS
ST-15	LANDING FRAME DETAILS
ST-16	LANDING FRAME DETAILS
ST-17	LANDING 3 PLAN AND DETAILS
ST-18	LADDER AND LANDING DETAILS
ST-19	DEBRIS SUMP GRATE PLAN AND DETAILS
ST-20	EQUIPMENT ACCESS GRATE PLAN AND DETAILS
ST-21	ACCESS GRATE DETAILS
ST-22	DISCHARGE PIPE SUPPORT DETAILS
ST-23	CONTROL HOUSE PLAN AND SECTION
ST-24	CONTROL HOUSE PLANS
ST-25	STAIR DETAILS
ST-26	LADDER UP SAFETY POST
ST-27	PUMP PLANT EXTERIOR FINISH PLAN
1 OF 3	LOG OF TEST BORINGS
2 OF 3	LOG OF TEST BORINGS
3 OF 3	LOG OF TEST BORINGS
MECHANICAL	
M-1	PUMPING PLANT DETAILS
M-2	CONTROL HOUSE DOOR DETAILS
ELECTRICAL	
EE-0.0	LEGEND
EE-0.1	NOTES AND ABBREVIATIONS
EE-1	SITE PLAN
EE-2	POWER AND LIGHTING PLAN
EE-3	DETAILS 1
EE-4	POWER SCHEMATIC DIAGRAM
EE-5	CONTROL SCHEMATIC DIAGRAM
EE-6	MOTOR CONTROL CENTER
EE-7	SERVICE EQUIPMENT
EE-8	DETAILS 2
EE-9	DETAILS 3
ABBREVIATIONS	
EI	ELEVATION
Ft	FEET
In	INCHES
LOEP	LOW EDGE OF PAVEMENT
Min	MINUTE
OD	OUTSIDE DIAMETER
PP	PUMPING PLANT
Sch	SCHEDULE
SS	STAINLESS STEEL



EQUIPMENT SCHEDULE			
EQUIPMENT	PUMP PERFORMANCE		ELECTRICAL CHARACTERISTICS
	PUMPING RATE (GALLONS PER MINUTE)	TOTAL DYNAMIC HEAD (FEET)	480 V, 3 PHASE, 60 Hz 720 RPM (SYNC), 50 HP
DRAINAGE PUMPS NO. 1 AND 2	4,250 5,375 6,125	31.5 27.0 22.0	

RAINFALL DATA	
STORM TIME (Min)	R ₅₀ (In)
5	0.451
10	0.616
15	0.740
30	1.010
60	1.380

STORAGE: 13,330 CUBIC FEET IN STORAGE BOX
 STORAGE: 34,140 CUBIC FEET IN COLLECTION SYSTEM
 FOR DETAILS OF COLLECTION SYSTEM, SEE "DRAINAGE PLANS"
 FOR UNDERGROUND ELECTRICAL CONDUITS, SEE "ELECTRICAL PLANS"
 DRAINAGE AREA: 913,457 SQUARE FT
 LOEP: EI 117.53

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: *[Signature]*
 SPEAKER MEYER
 Approval date: 09-03-12

CSFM #01-19-11-0196-000

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	952	985

[Signature] 12-07-12
 REGISTERED MECHANICAL ENGINEER DATE

6-24-13
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 Jack Wheeler
 No. 21648
 Exp. 6-30-13
 MECH
 STATE OF CALIFORNIA

QUANTITIES	
STRUCTURE EXCAVATION (PUMPING PLANT)	2,510 CY
STRUCTURE BACKFILL (PUMPING PLANT)	1,880 CY
STRUCTURE CONCRETE (PUMPING PLANT)	565 CY
FRACTURED RIB TEXTURE	800 SQ FT
BAR REINFORCING STEEL (PUMPING PLANT)	142,300 LB
DRAINAGE PUMPING EQUIPMENT	LUMP SUM
PUMPING PLANT ELECTRICAL EQUIPMENT	LUMP SUM
PUMPING PLANT METAL WORK	20,050 LB

DESIGN SUPERVISOR <i>[Signature]</i>	DESIGN BY Thomas Dietsch	CHECKED Shahjahan Ali	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET 1	
DESIGN ENGINEER <i>[Signature]</i>	DETAILS BY Thomas Dietsch	CHECKED Shahjahan Ali		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE		GENERAL PLAN	OF 34
	QUANTITIES BY Thomas Dietsch	CHECKED Shahjahan Ali		UNIT 3615	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	

TAEMWW Imperial Rev. 7/10 FILE => gp.dgn DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:28 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT PROJECT NUMBER & PHASE 07000018351 EA 215951

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	953	985

CALIFORNIA STATE FIRE MARSHAL APPROVED <small>Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.</small>	
Reviewed by: <i>[Signature]</i> SPEINER MEYER Approval date: 09-03-12	12-07-12 DATE

6-24-13	PLANS APPROVAL DATE
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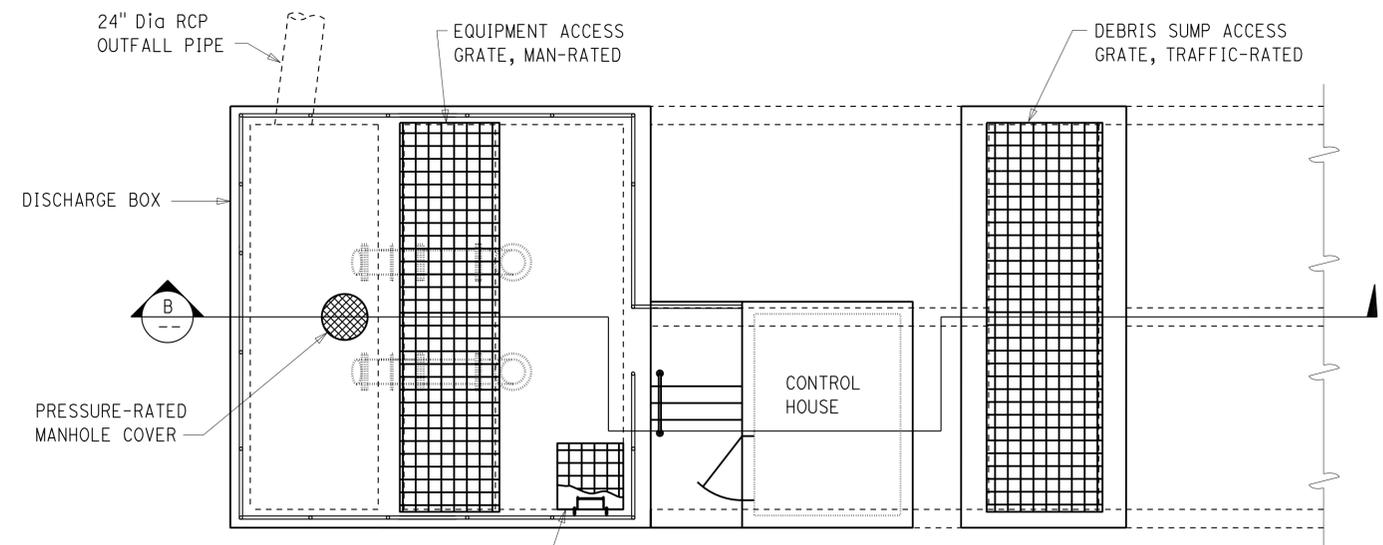
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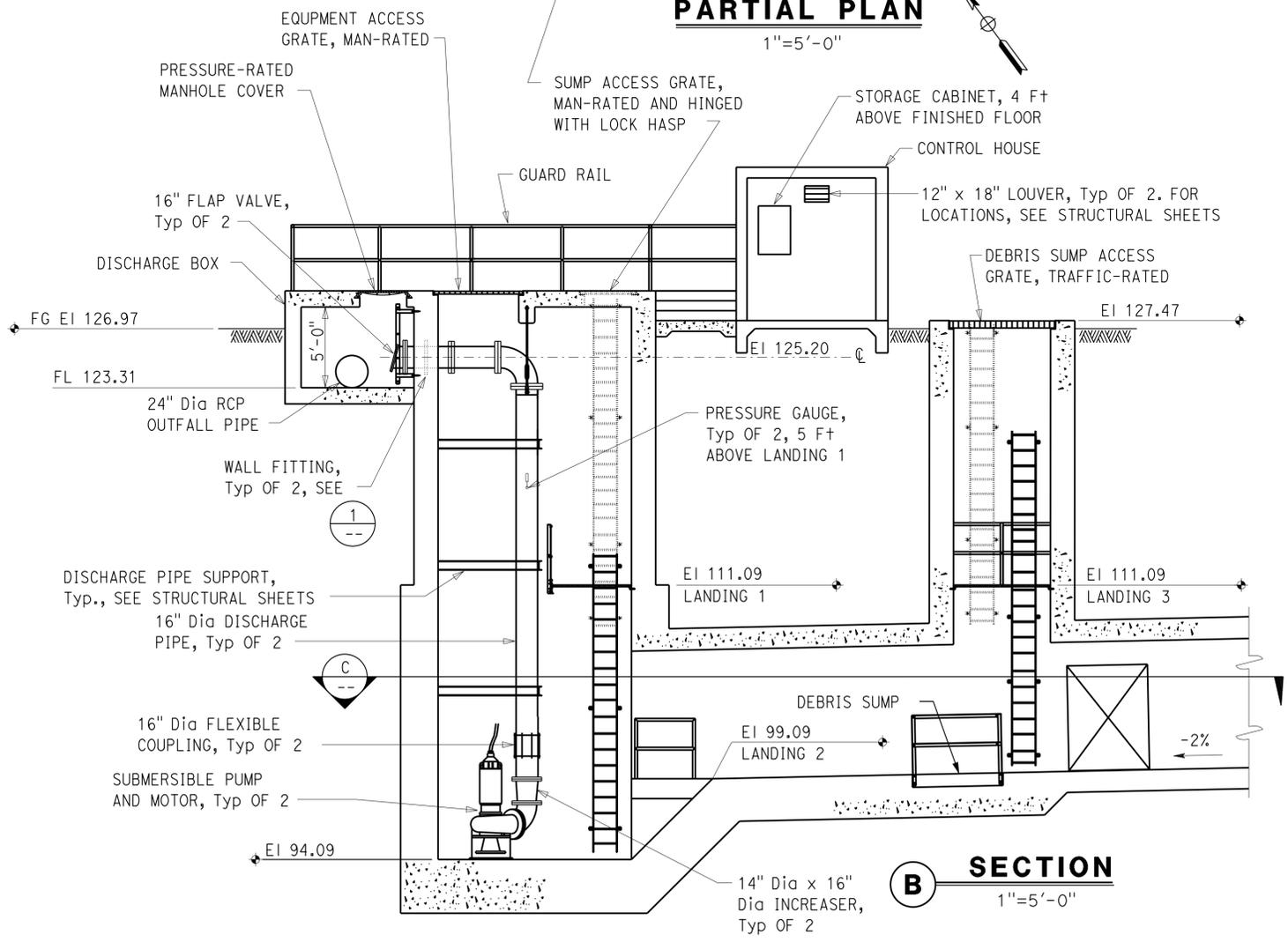
NOTES:

- Support pump motor cables with stainless steel grips. See Electrical sheets for details.
- Pumps shall be installed with cast-in-place studs, epoxy concrete expansion anchor bolts, or per manufacturer's recommendation. The size and number of fasteners shall match manufacturer's recommendation. All fasteners and appurtenances shall be stainless steel. Pump setting details shall be in accordance with pump manufacturer installation requirements.

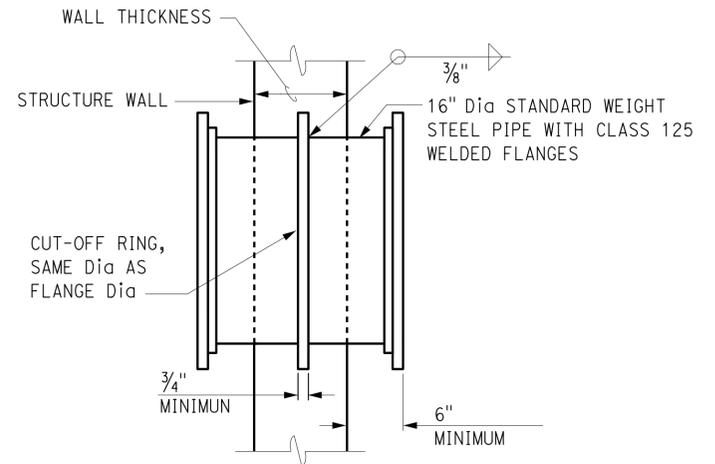
CFSM #01-19-11-0196-000



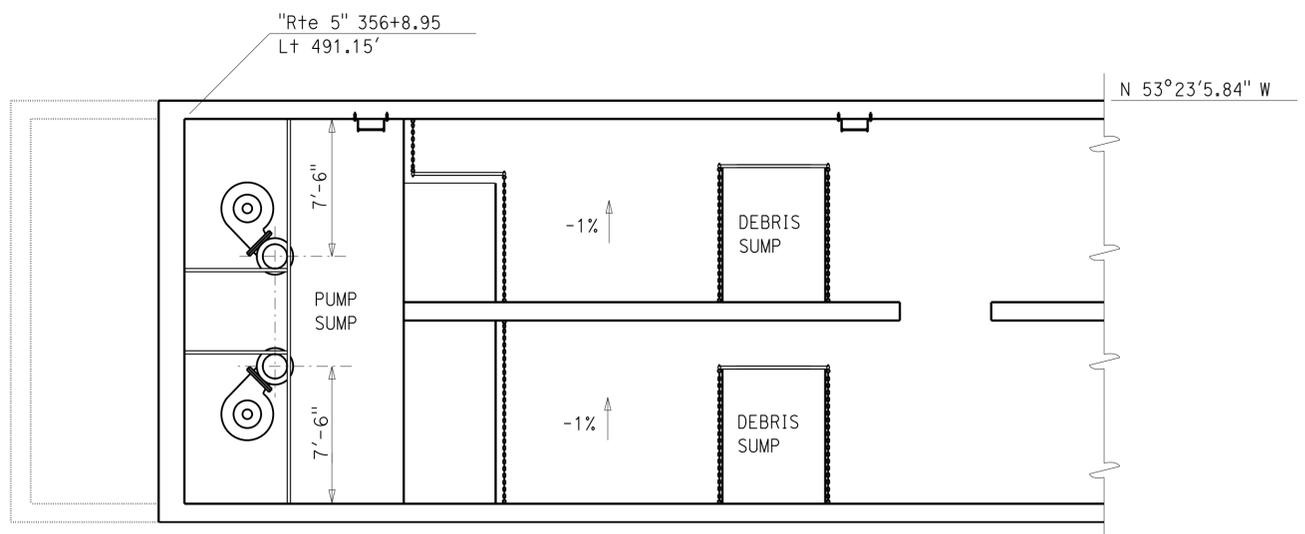
PARTIAL PLAN
1"=5'-0"



SECTION B
1"=5'-0"



1 WALL FITTING DETAIL
NO SCALE



SECTION C
1"=5'-0"

PRESSURE TRANSDUCER CONTROL ELEVATIONS	
DESCRIPTION	EI (FEET)
START LEAD PUMP	101.36
STOP LEAD PUMP	98.0
START LAG PUMP	101.86
STOP LAG PUMP	98.0
HIGH LEVEL ALARM	102.61
LOW LEVEL ALARM	97.0

FLOAT SWITCH CONTROL ELEVATIONS	
DESCRIPTION	EI (FEET)
FS-1 START BOTH PUMPS HIGH LEVEL ALARM	102.61
FS-2 STOP BOTH PUMPS LOW LEVEL ALARM	97.0

NOTE: See Electrical sheets for pressure transducer and float switch locations and details.

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN BY Thomas Dietsch CHECKED Shahjahan Ali DETAILS BY Thomas Dietsch CHECKED Shahjahan Ali QUANTITIES BY Thomas Dietsch CHECKED Shahjahan Ali	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT PUMPING PLANT DETAILS	SHEET M-1
			POST MILE		REVISION DATES (PRELIMINARY STAGE ONLY) 07/21/12 07/29/12 07/26/12 07/26/12 07/26/12 07/26/12
TAEMWW Imperial Rev. 7/10 FILE => m_1.dgn DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:29	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3615 07000018351 EA 215951	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 07/21/12 07/29/12 07/26/12 07/26/12 07/26/12 07/26/12	SHEET OF 2 34

USERNAME => s121614 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:29

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	954	985

	12-07-12 REGISTERED MECHANICAL ENGINEER DATE
6-24-13 PLANS APPROVAL DATE	
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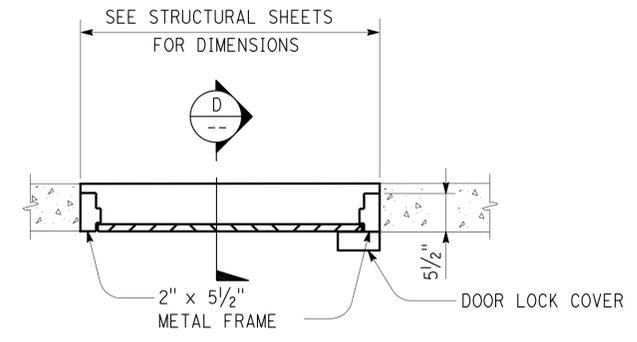
CALIFORNIA STATE FIRE MARSHAL APPROVED

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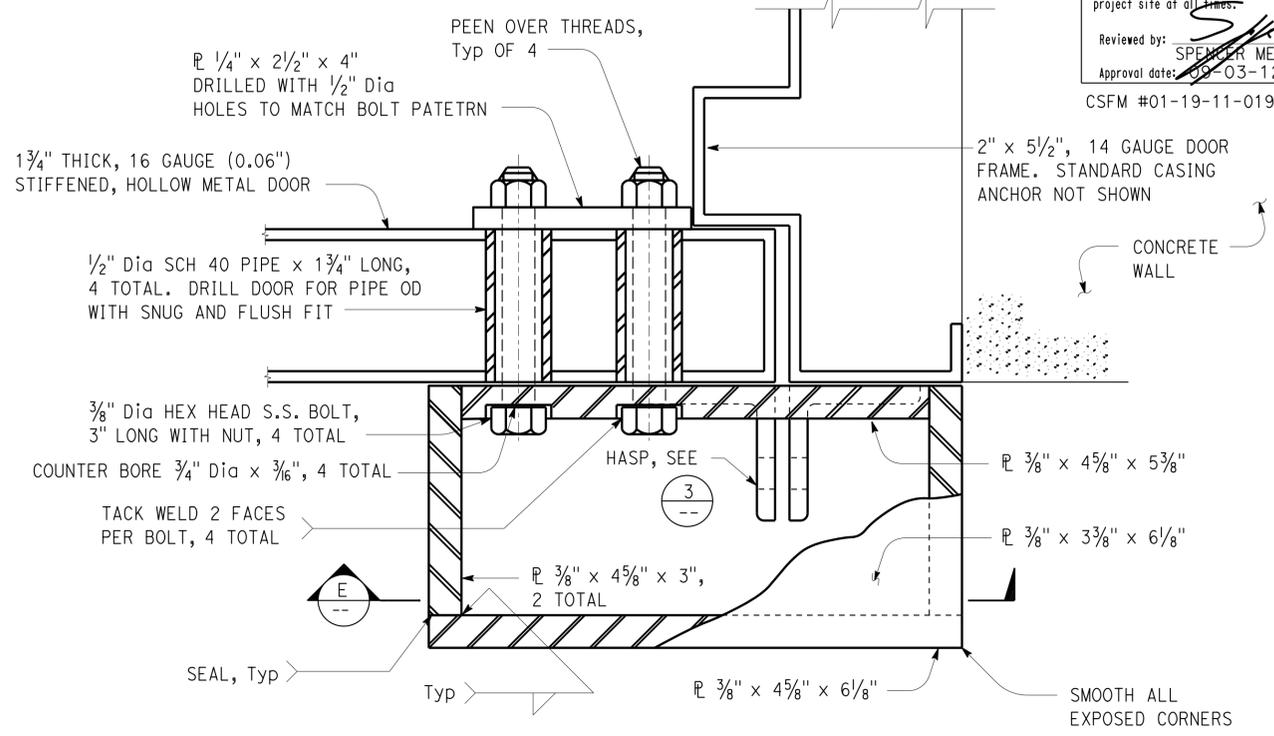
Reviewed by: SPENCER MEYER
 Approval date: 09-03-12

CSFM #01-19-11-0196-000

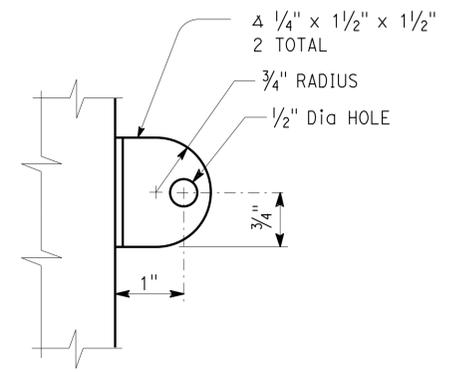
- NOTES:
- Completed door lock cover shall be primed and painted to match door finish.



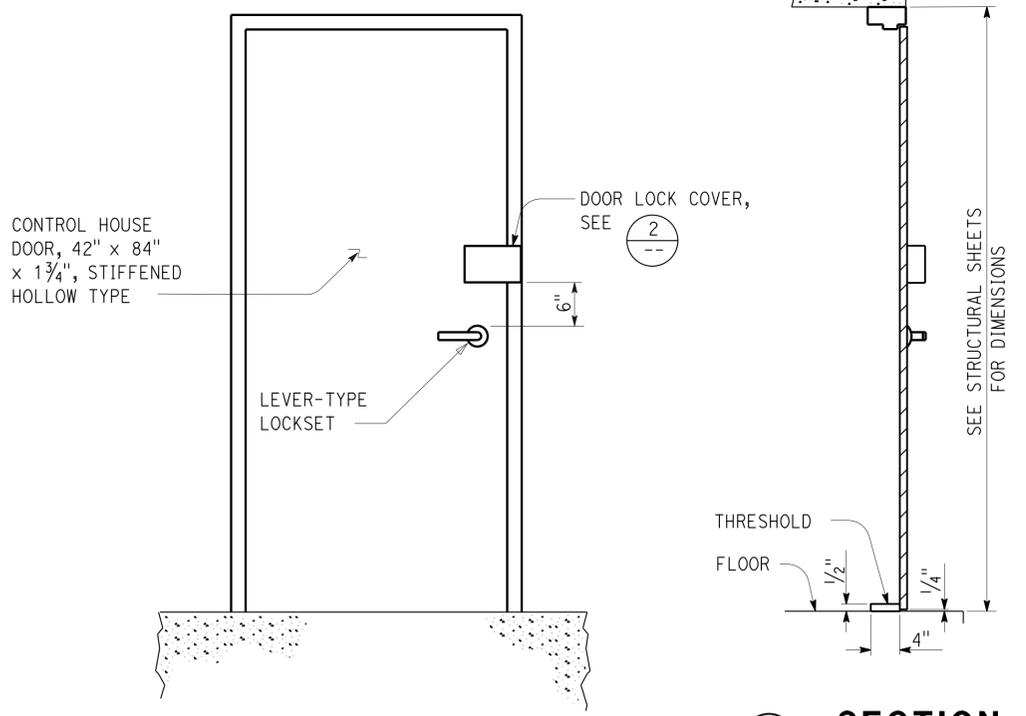
DOOR PLAN
NO SCALE



2 DOOR LOCK COVER DETAIL
NO SCALE

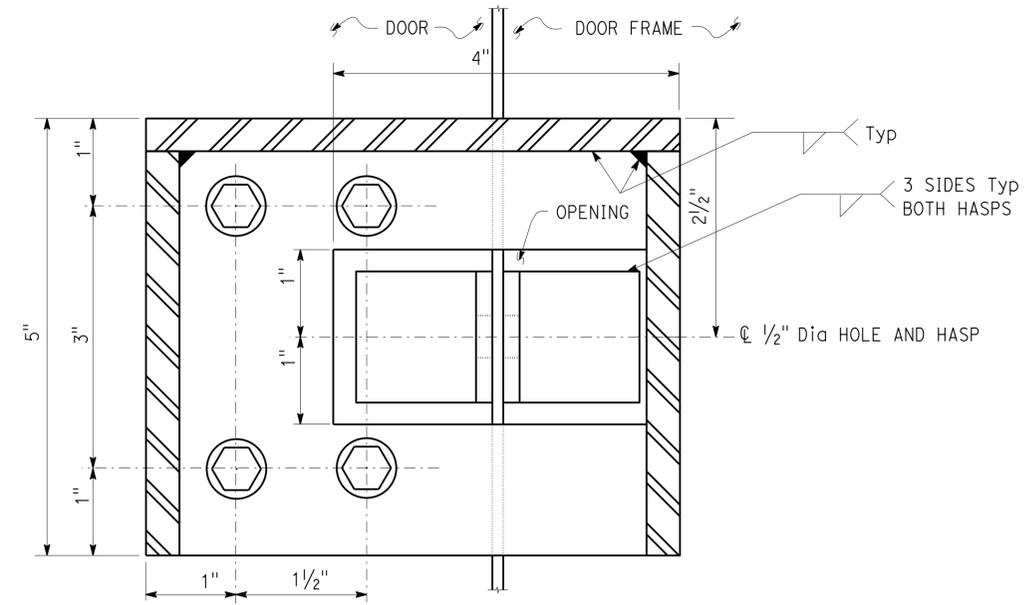


3 HASP DETAIL
NO SCALE
TWO REQUIRED



DOOR ELEVATION
NO SCALE

D SECTION
NO SCALE



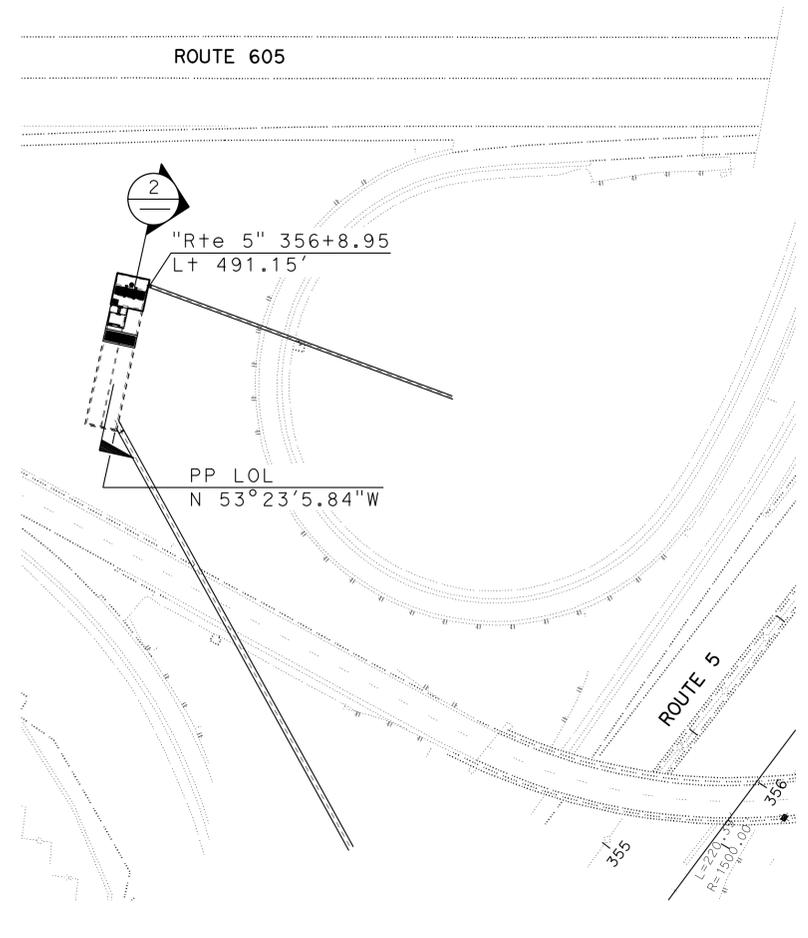
E SECTION
NO SCALE

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

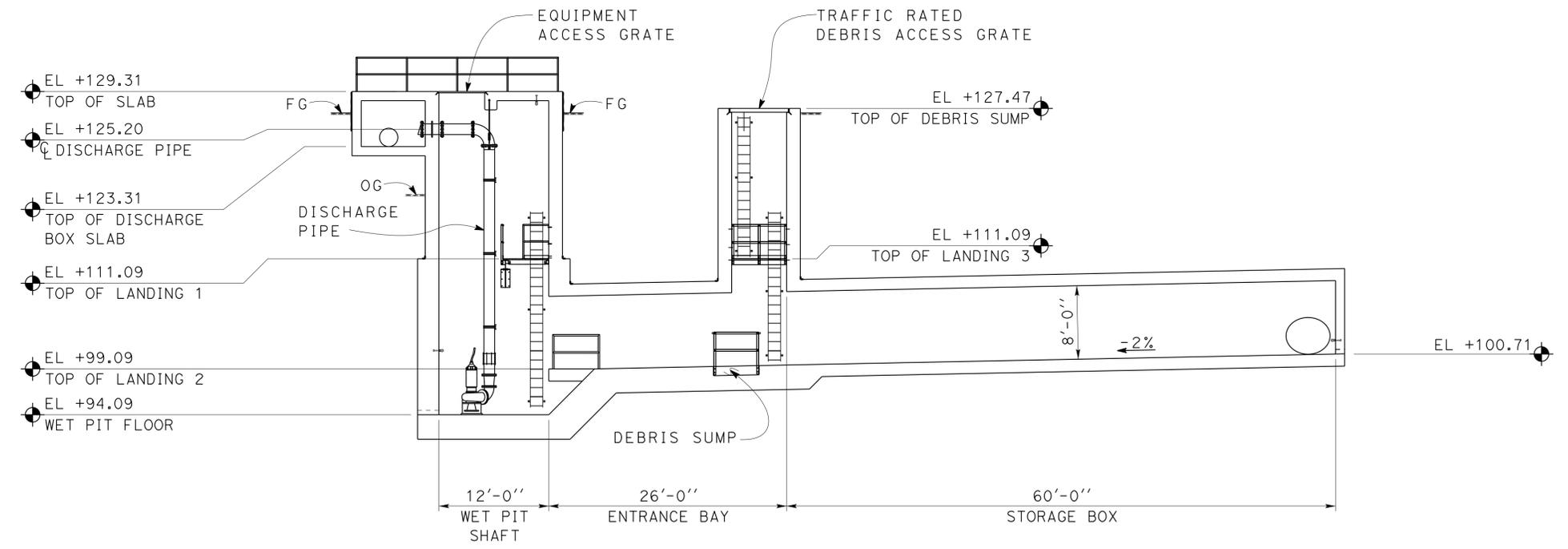
DESIGN BY Thomas Dietsch CHECKED Shahjahan Ali	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 53-1660W POST MILE	ROUTE 5/605 PUMPING PLANT	SHEET OF						
DETAILS BY Thomas Dietsch CHECKED Shahjahan Ali				CONTROL HOUSE DOOR DETAILS	M-2						
QUANTITIES BY Thomas Dietsch CHECKED Shahjahan Ali											
TAEMWW Imperial Rev. 7/10	FILE => m_2.dgn DATE PLOTTED => 27-JUN-2013	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3615 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)						
	TIME PLOTTED => 06:29				<table border="1"> <tr> <td>07/23/12</td> <td>07/23/12</td> <td>07/23/12</td> <td>07/23/12</td> <td>07/23/12</td> <td>07/23/12</td> </tr> </table>	07/23/12	07/23/12	07/23/12	07/23/12	07/23/12	07/23/12
07/23/12	07/23/12	07/23/12	07/23/12	07/23/12	07/23/12						
					SHEET 3 OF 34						

USERNAME => s121614 DATE PLOTTED => 27-JUN-2013 TIME PLOTTED => 06:29

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	955	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER			12-07-2012 DATE		
6-24-13 PLANS APPROVAL DATE					
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1 SITE PLAN
 Scale 1/64" = 1' - 0"



2 PUMPING PLANT SECTION
 Scale 1/8" = 1' - 0"

 DESIGN SUPERVISOR	DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
	DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
	QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT STRUCTURAL SITE PLAN	SHEET OF ST-0 4 34
POST MILE 5.8/8.3		

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT PROJECT NUMBER & PHASE
 3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 05-08-12 12-13-11 05-21-12 12-05-12 02-14-13 03-27-13 04-13-13 04-17-13 05-01-13	SHEET OF
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27-JUN-2013 06:29

A PUMPING PLANT DESIGN NOTES:

1. Design: AASHTO LRFD Bridge Design Specification, 4th Edition with California Amendments Preface dated December 2008
 - a. Loads:
 - Vertical Box:
 - Earth Loads (Equivalent Fluid Pressure):
 - 60 pcf above GWT
 - 90 pcf below GWT
 - Horizontal Box:
 - Live Load: HS 20-44 Truck
 - Roof: 30% impact up to 3' of cover, no impact above 3' of cover.
 - Walls: No surcharge
 - Invert: No impact
 - Earth Loads (Equivalent Fluid Pressure for two conditions):
 - 140 pcf vertical and 42 pcf horizontal
 - 140 pcf vertical and horizontal
 - Landings: Live Load 100 psf
 - b. Reinforced Concrete (Ultimate Strength Design):
 - f'c = 3,250 psi
 - fy = 60,000 psi
 - c. Miscellaneous Metal (Working Stress Design):
 - fy = 36,000 psi unless otherwise noted
2. Soil Report: Dated March 08, 2012

B DETAIL NOTES:

1. Metal Work Notes:
 - a. All metal work shall be hot dip galvanized after fabrication
 - b. Secure metal to metal connections with a 5/8"Ø x 1 1/2" hex head machine bolt, lock washer and hex nut unless otherwise noted.
 - c. Mechanical Expansion Anchors shall be 5/8"Ø and have a 4" minimum embedment, 3'-0" maximum spacing and placed 6" from ends, two minimum, unless otherwise shown.
 - d. Mechanical Expansion Anchors used for securing ladders inside of Pumping Plant shall be of stainless steel.
 - e. All lock washers shall be helical spring lock washers.
 - f. All Railing and Ladders shall have smooth edges.
 - g. **Welded Steel Grate:** Unless otherwise noted
 - Bearing Bars 1 3/4" x 3/16" @ 1 3/16" C-C
 - Cross Bars 1/2" @ 4" C-C
 - Trim Bars 1 3/4" x 3/16" fillet welded to ends of Bearing Bars
 Grate shall be anchored to supports with 1/4"Ø threaded stud and "Saddle Clip" type fastener as recommended by the manufacturer. Fasteners shall be installed at 3'-0" C-C maximum 6" from ends with 3 minimum per fixed grate.
 - h. **Welded Steel Grate:**
 - Traffic Rated Grate:
 - Bearing Bars 5" x 3/8" @ 1 3/16" C-C
 - Cross Bars 1/2" @ 4" C-C
 - Trim Bars 5" x 3/8" fillet welded to ends of Bearing Bars
 Direction of Bearing Bars is indicated by
2. For Discharge Pipe locations and elevations, see Mechanical Plans.
3. For APC and CIPCP elevation and locations, see Road Plans.
4. For Ground Rod details not shown, see Electrical Plans.
5. For Ladder Details see & for Ladder up Safety Post.

ABBREVIATIONS

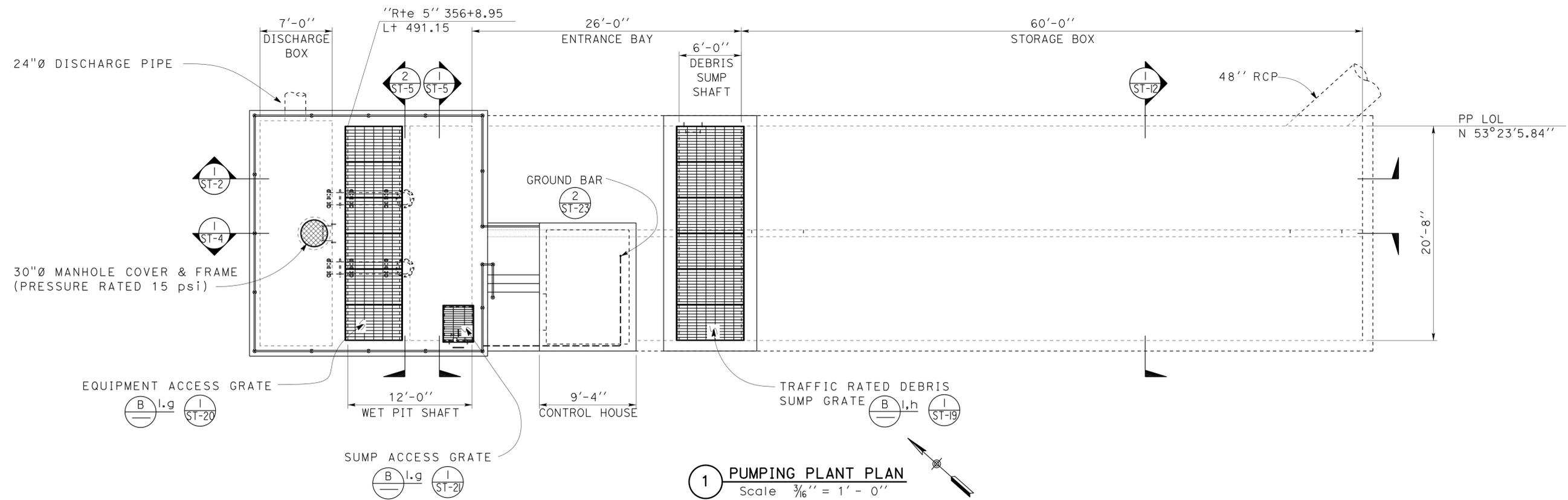
Alt	ALTERNATIVE
APC	ALTERNATIVE PIPE CULVERT
C-C	CENTER-TO-CENTER
Clr	CLEAR
Conc	CONCRETE
Const	CONSTRUCTION
EL	ELEVATION
(E)	EXISTING
Exp	EXPANSION
FL	FLOW LINE
GWT	GROUND WATER TABLE
Jt	JOINT
MEA	MECHANICAL EXPANSION ANCHOR
OH	OPPOSITE HAND
PP LOL	PUMPING PLANT LAYOUT LINE
RCP	REINFORCED CONCRETE PIPE
Sim	SIMILAR
Stagg	STAGGERED
Sym	SYMMETRICAL
Typ	TYPICAL

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	956	985

REGISTERED CIVIL ENGINEER
DATE 12-07-2012
PLANS APPROVAL DATE 6-24-13
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SYMBOLS

- ELEVATION OF WORKING POINT
- EXISTING FEATURES
- EARTH
- FREE DRAINING GRANULAR MATERIAL
- REINFORCED CONCRETE
- DETAIL NUMBER OR NOTE NUMBER
ADDITIONAL REFERENCE (IF REQUIRED)
SHEET NUMBER
- LIMITS OF STRUCTURE BACKFILL
(SHOWN ON PLAN VIEW)
- STRUCTURE EXCAVATION & BACKFILL



1 PUMPING PLANT PLAN
Scale 3/16" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

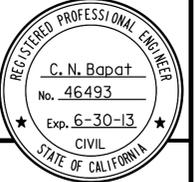
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-1
POST MILE 5.8/8.3	PUMPING PLANT PLAN	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	957	985

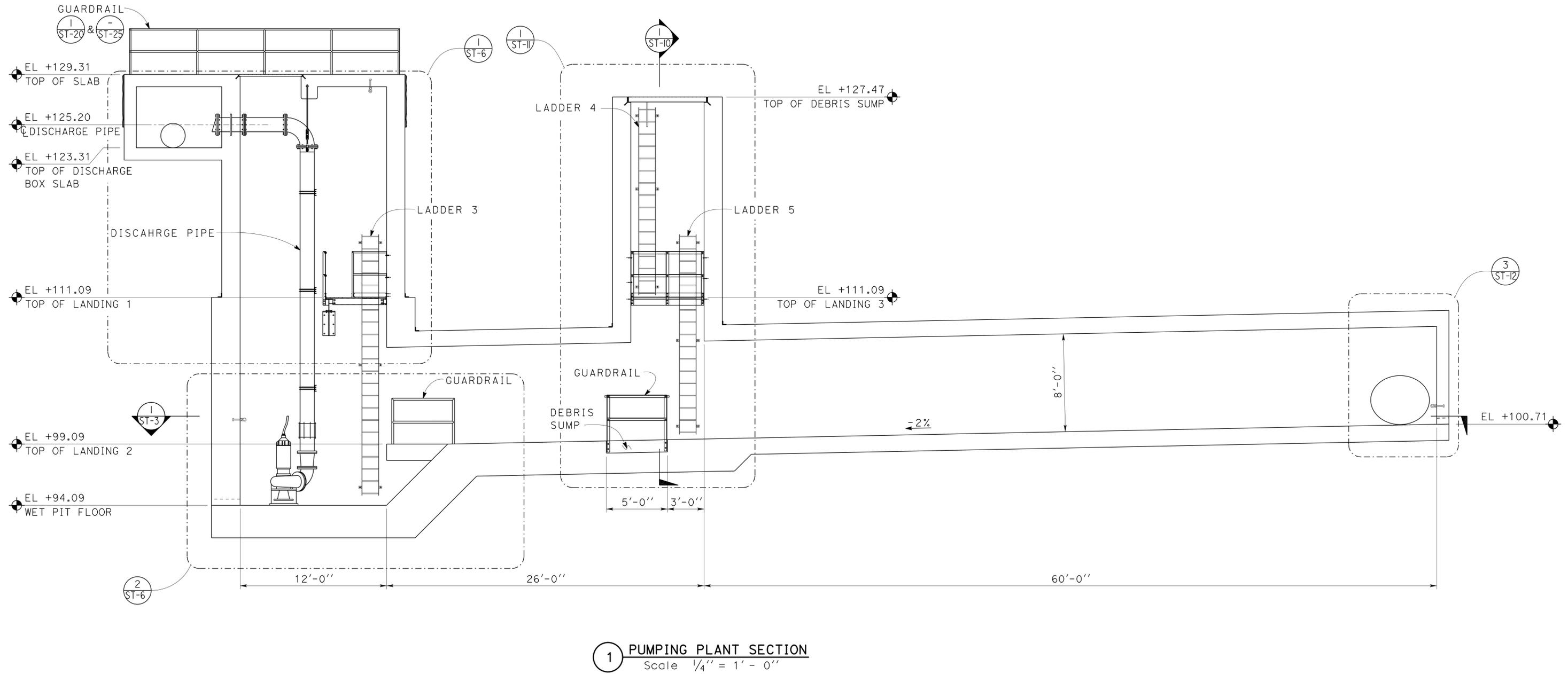
N. Bapat
REGISTERED CIVIL ENGINEER

12-07-2012
DATE



6-24-13
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



1 PUMPING PLANT SECTION
Scale 1/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
PUMPING PLANT SECTION I

SHEET OF
ST-2 6 34

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT PROJECT NUMBER & PHASE 3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	12-28-11 02-07-12 03-15-12 04-13-12 05-01-12 05-08-12 12-05-12	6 34

D:\User\Projects\Dist_07\0700001835_route_5_and_605_pumping_plant\Expedite_12-10-2012\st_02.dgn

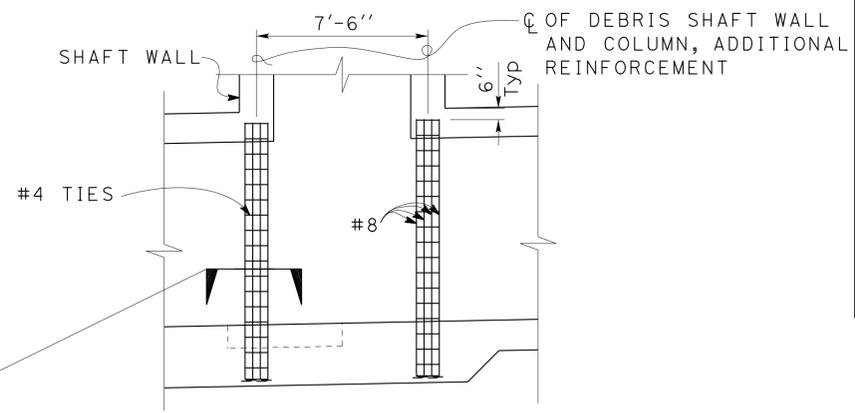
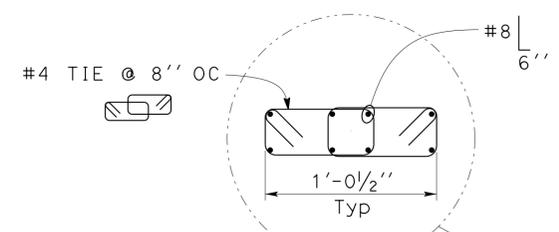
27-JUN-2013 06:29

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	958	985

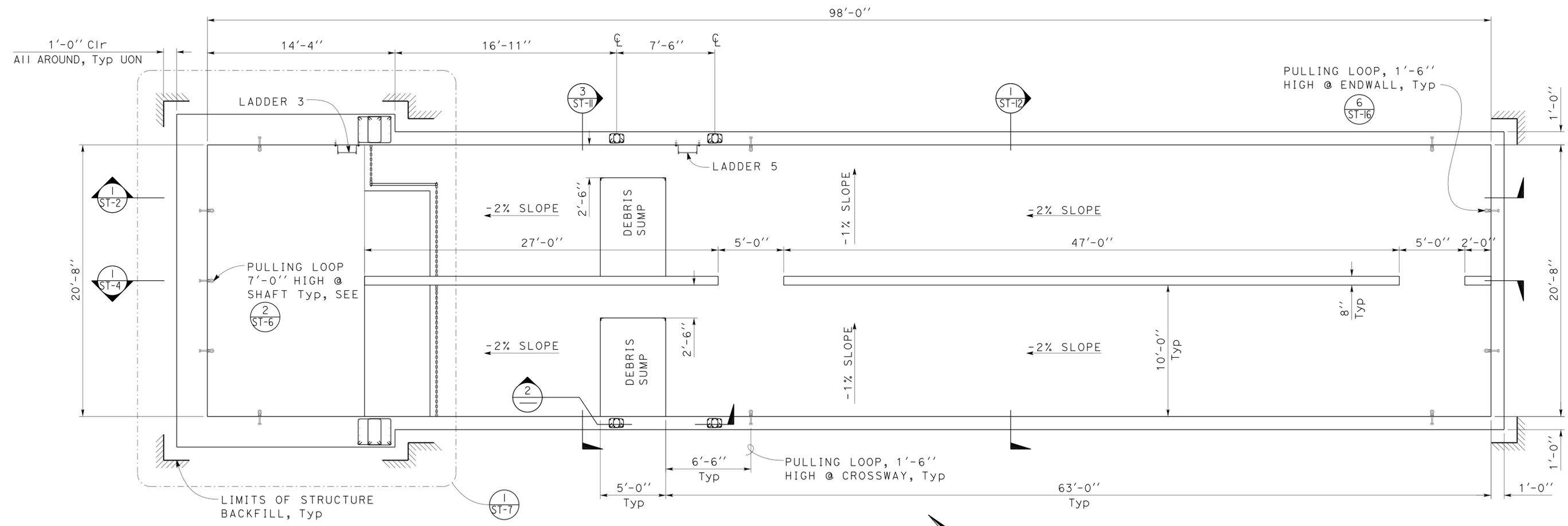
<i>N. Bapat</i>	12-07-2012
REGISTERED CIVIL ENGINEER	DATE

6-24-13
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



2 ADDITIONAL WALL REINFORCEMENT
Scale 1/4" = 1' - 0"



1 FOUNDATION PLAN
Scale 1/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
FOUNDATION PLAN

SHEET	7	OF	34
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TAEMWW Imperial Rev. 7/10

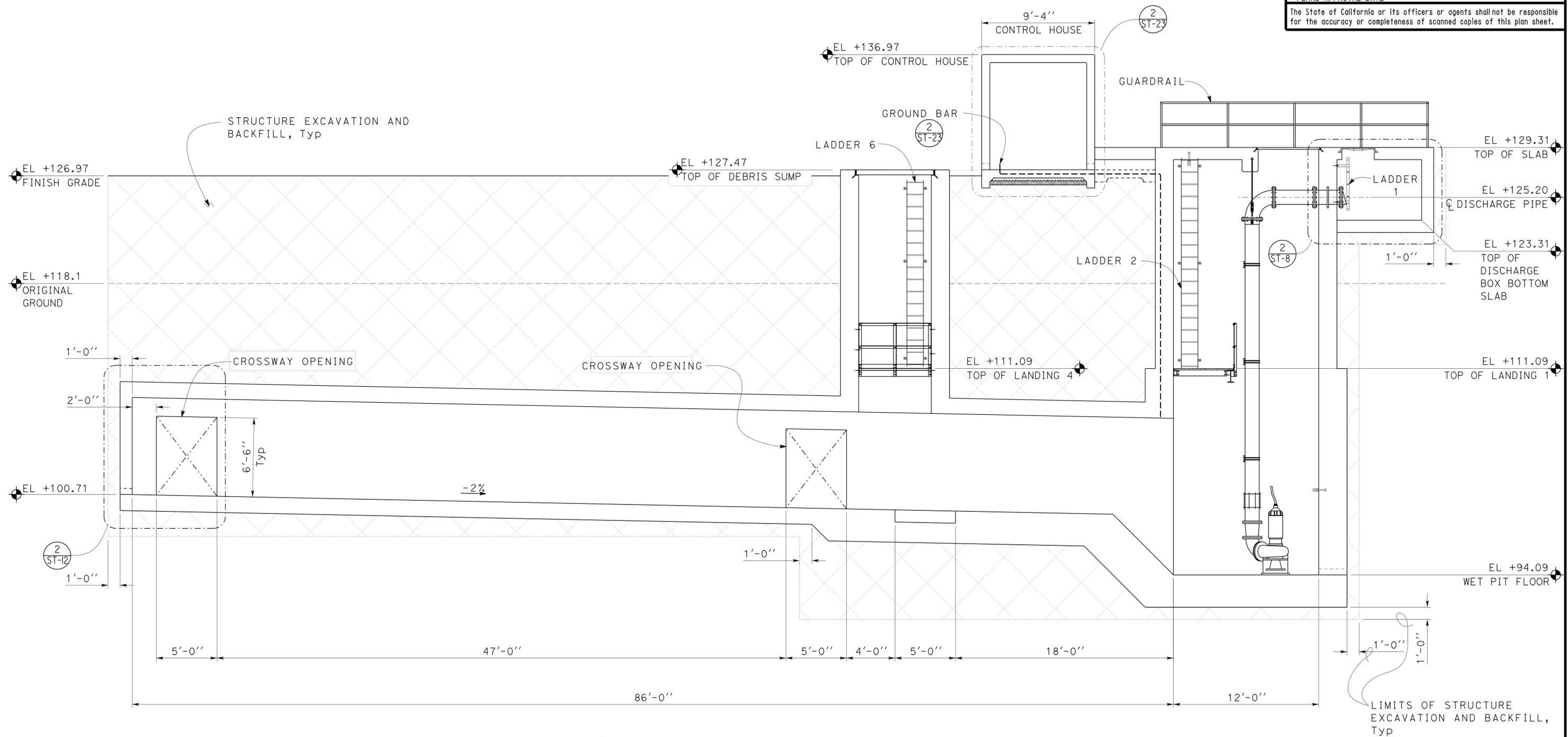
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT PROJECT NUMBER & PHASE
3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
	12-27-11, 02-01-12, 02-07-12, 05-12-12, 05-19-12, 05-21-12, 05-21-12, 05-21-12

27-JUN-2013 06:29

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	959	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER			12-07-2012 DATE		
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					



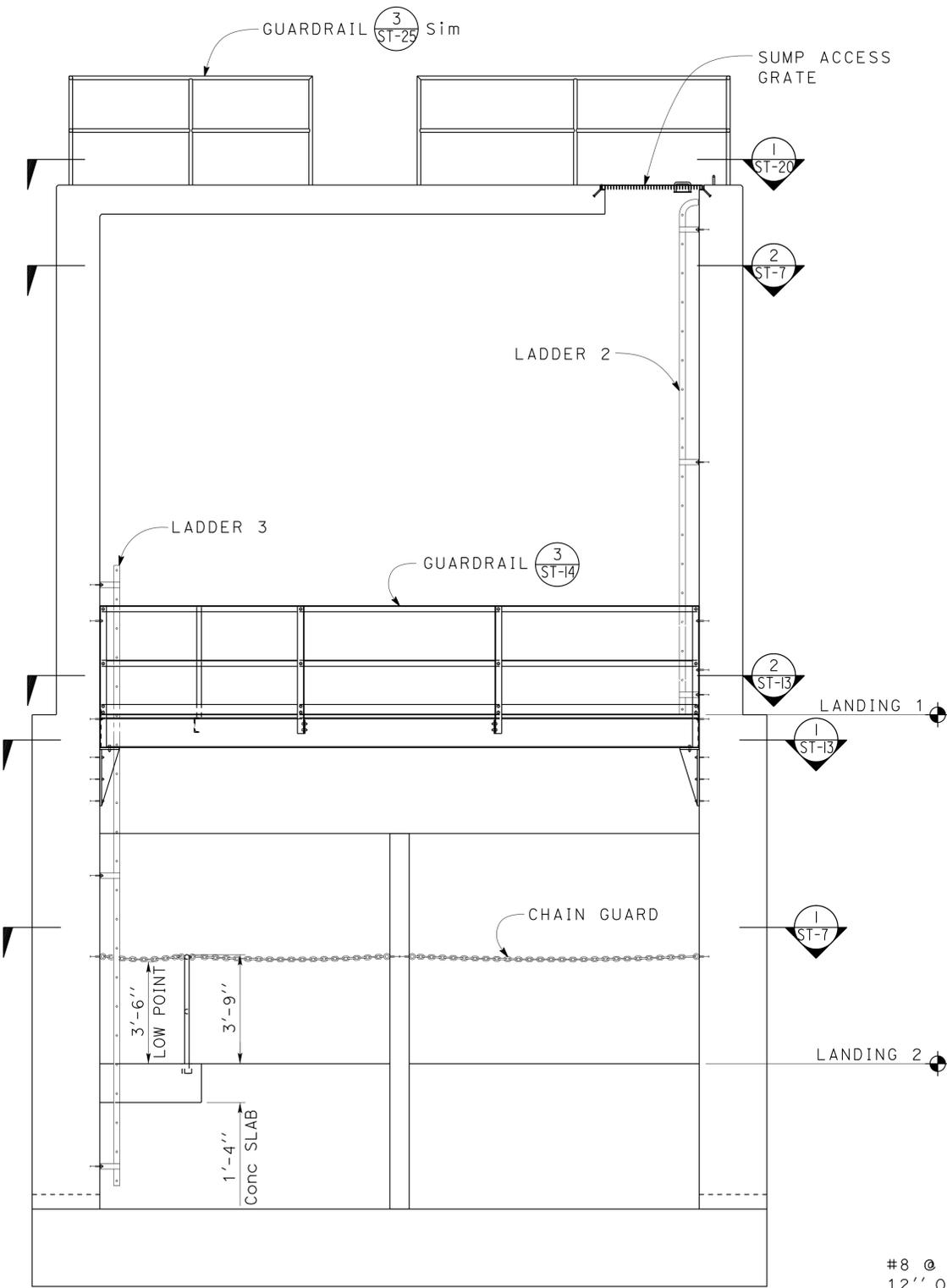
1 PUMPING PLANT SECTION
 Scale 1/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

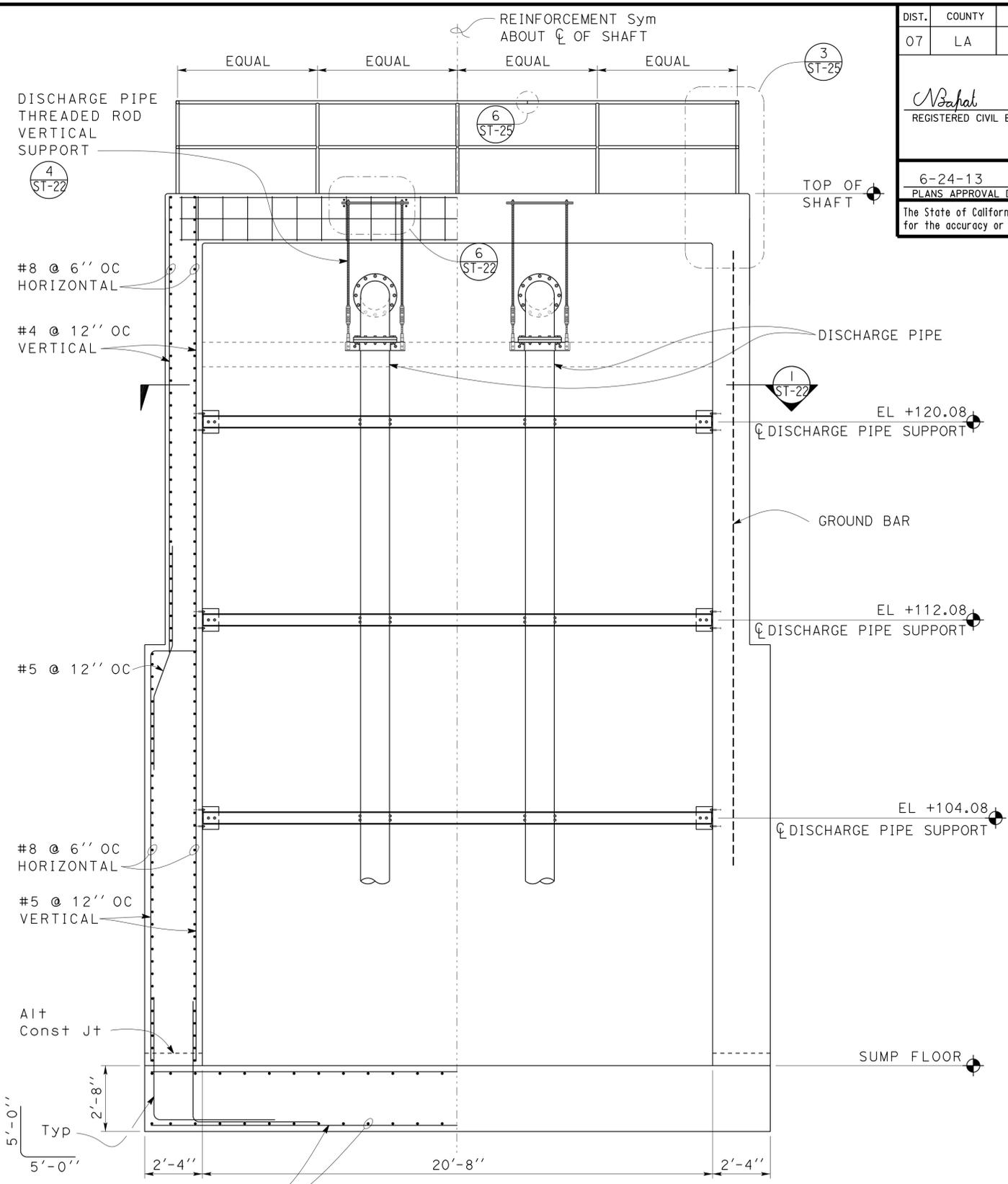
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-4
POST MILE	5.8/8.3		
PUMPING PLANT SECTION 2			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	960	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE		C. N. Bapat No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA	
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					



1 WET PIT SHAFT VERTICAL SECTION
 Scale $\frac{3}{8}'' = 1' - 0''$



2 DISCHARGE PIPE SUPPORT ELEVATION
 Scale $\frac{3}{8}'' = 1' - 0''$

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT
POST MILE	5.8/8.3	
WET PIT SHAFT VERTICAL SECTIONS		SHEET OF
		9 34

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT PROJECT NUMBER & PHASE 3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	12-28-11 02-08-12 02-08-12 02-14-12 02-15-12 02-24-12 03-28-12 05-01-12 05-18-12 05-12	9 34

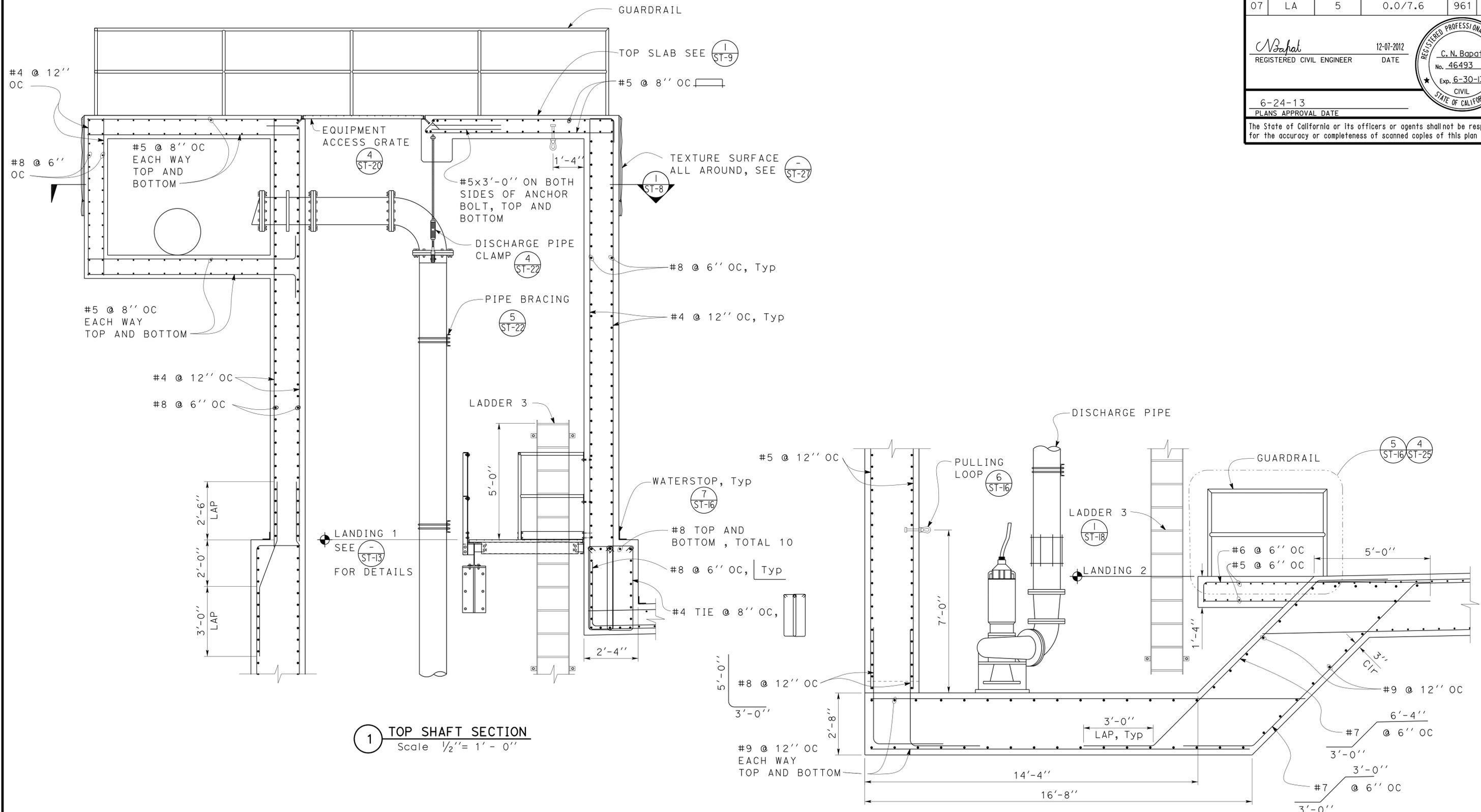
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	961	985

C. N. Bapat
 REGISTERED CIVIL ENGINEER
 DATE 12-07-2012
 PLANS APPROVAL DATE 6-24-13

C. N. Bapat
 No. 46493
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

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1 TOP SHAFT SECTION
Scale 1/2" = 1' - 0"

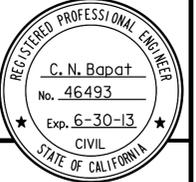
2 LANDING 2 SECTION
Scale 1/2" = 1' - 0"

NOTE: For more reinforcement information, see **1** ST-7

DESIGN BY Chandra Bapat CHECKED Thomas Tong	BY Daniel Harakh CHECKED Chandra Bapat	CHECKED Chandra Bapat	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-6	
					POST MILE 5.8/8.3			WET PIT SHAFT SECTIONS
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	UNIT PROJECT NUMBER & PHASE 3581 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) 12-28-10 02-09-12 02-14-12 02-15-12 02-24-12 05-10-12 05-12-12	SHEET OF 10 34

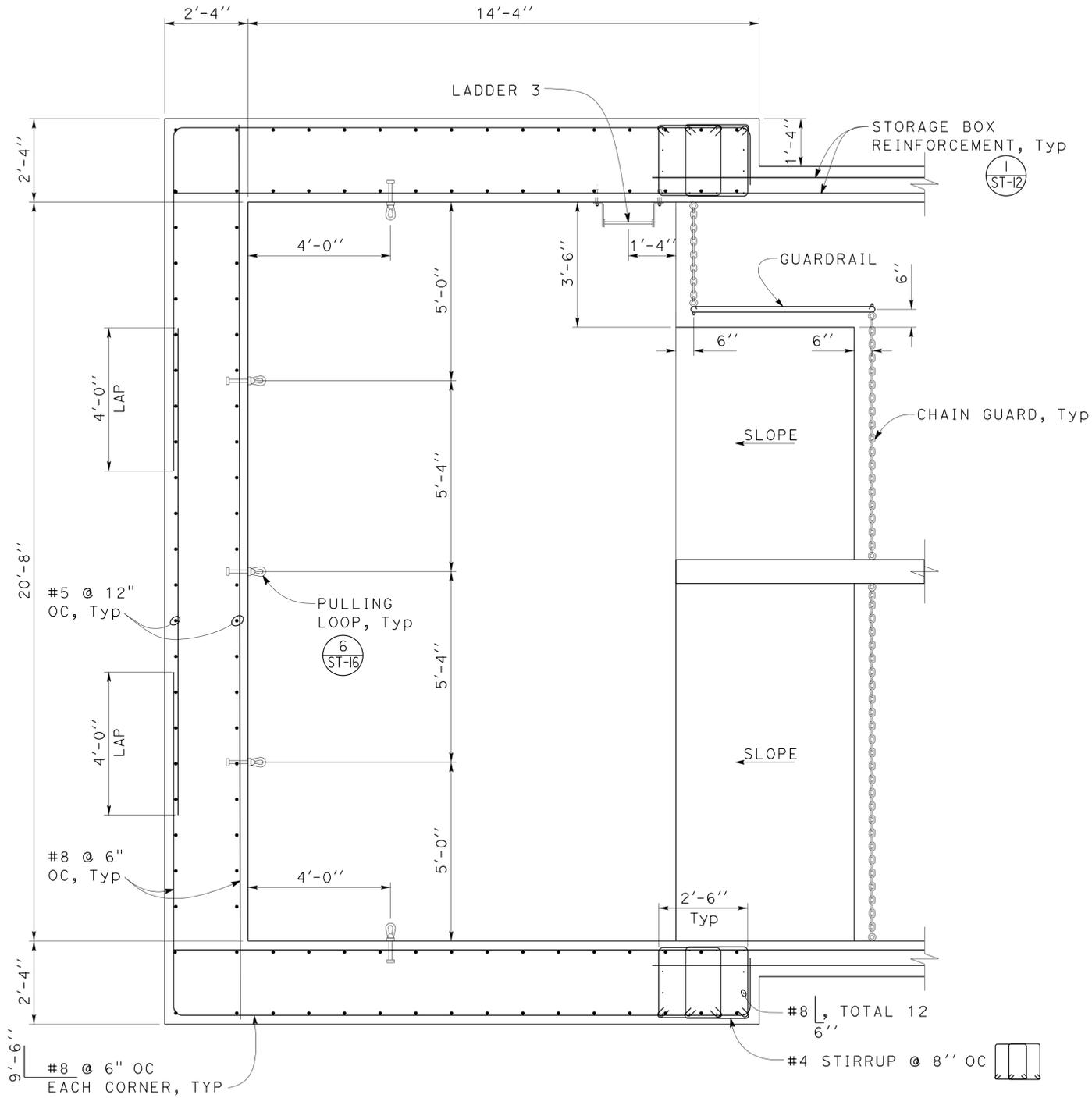
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	962	985

N. Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012

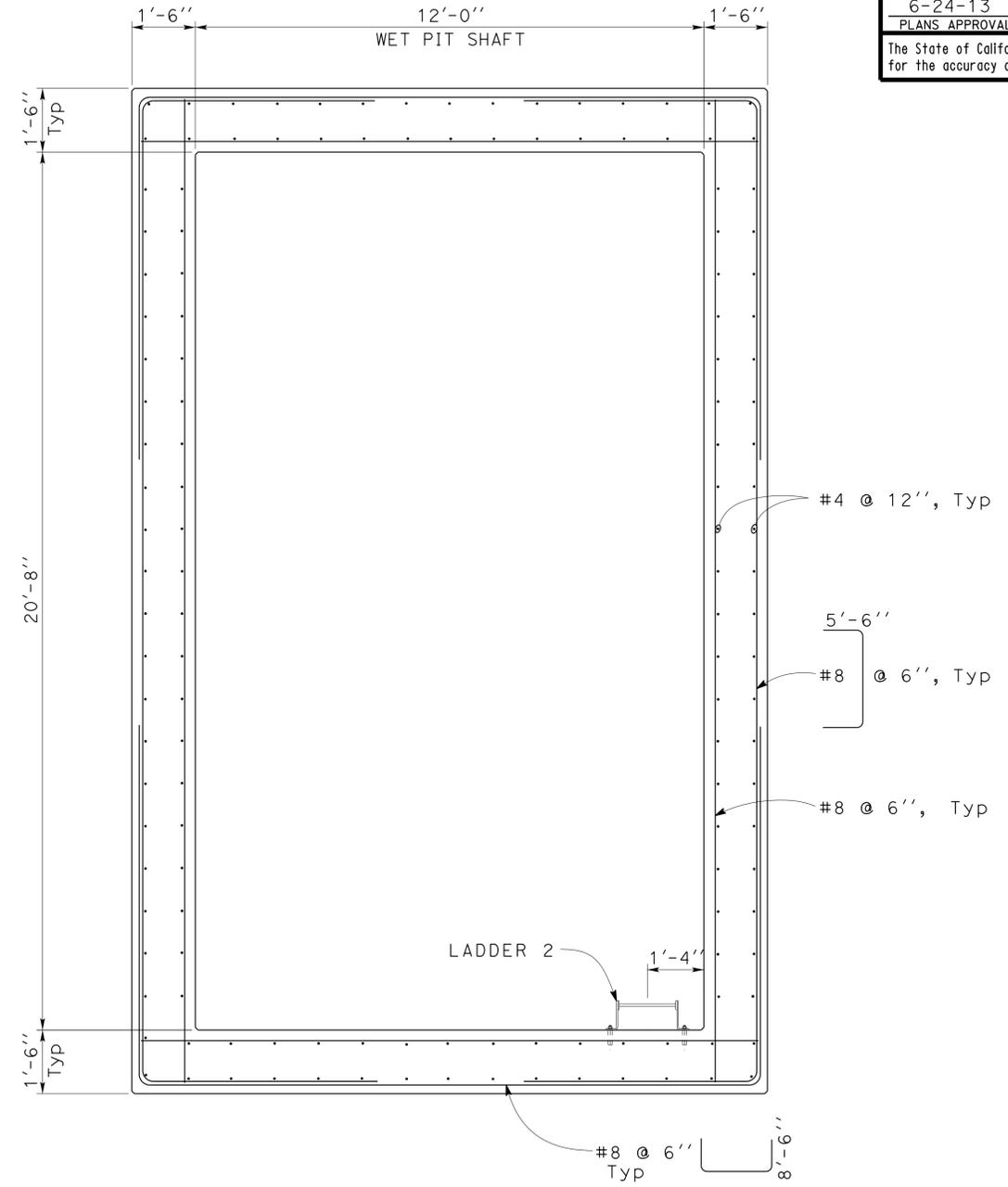


6-24-13
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



1 WET PIT SHAFT SECTION
Scale 1/2" = 1' - 0"



2 WET PIT SHAFT SECTION
Scale 1/2" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
WET PIT SHAFT SECTIONS

SHEET OF
ST-7 11 34

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT PROJECT NUMBER & PHASE 3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	02-03-12 02-08-12 02-11-12 02-15-12 04-19-12 05-01-12 05-18-12 06-01-12 07-05-12 12-05-12	11 34

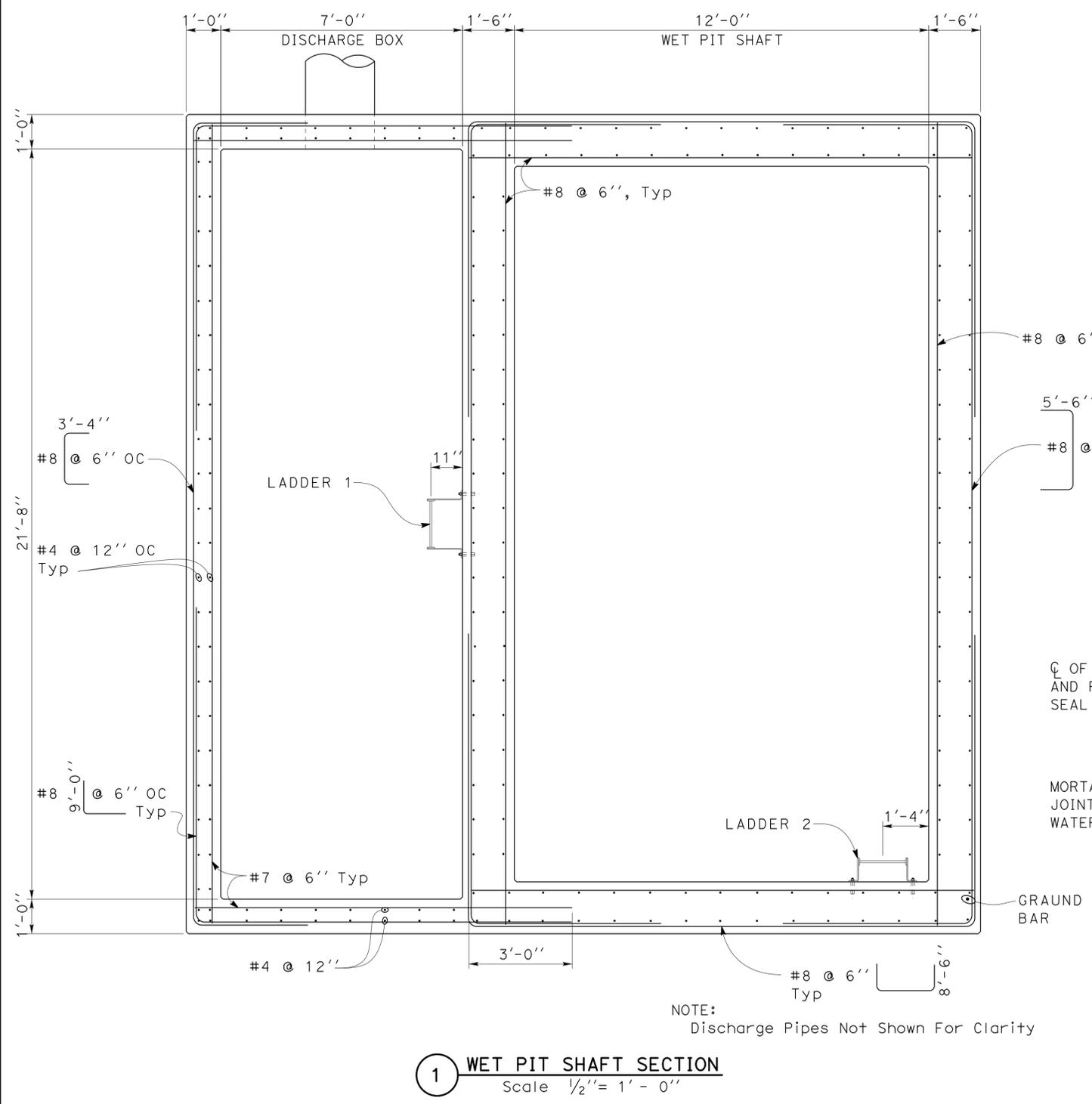
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	963	985

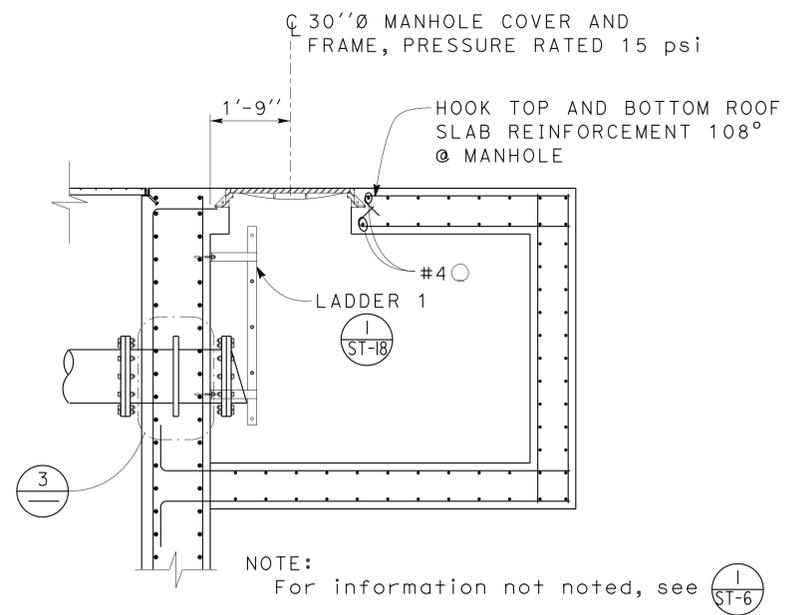
<i>Bapat</i>	12-07-2012	REGISTERED PROFESSIONAL ENGINEER C. N. Bapat No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA
REGISTERED CIVIL ENGINEER	DATE	

6-24-13	PLANS APPROVAL DATE
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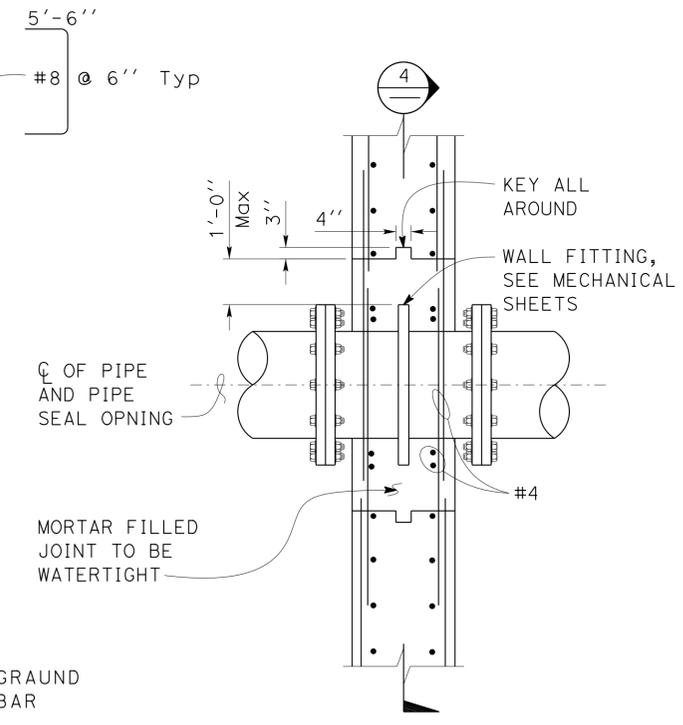
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



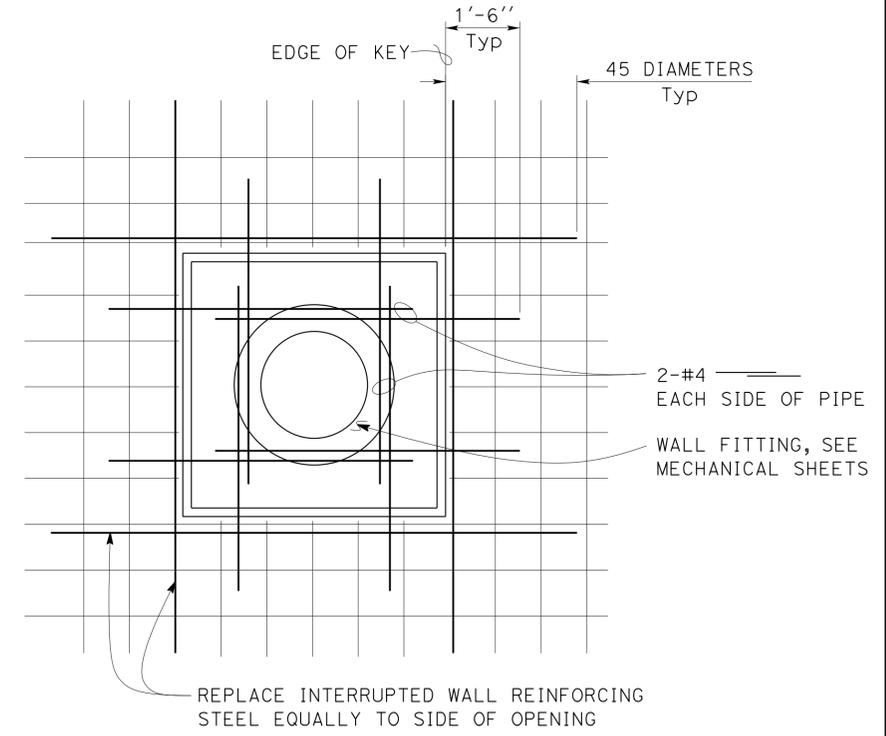
1 WET PIT SHAFT SECTION
Scale 1/2" = 1' - 0"



2 DISCHARGE BOX MANHOLE SECTION
Scale 1/2" = 1' - 0"



3 WALL FITTING SEAL DETAIL
NO SCALE



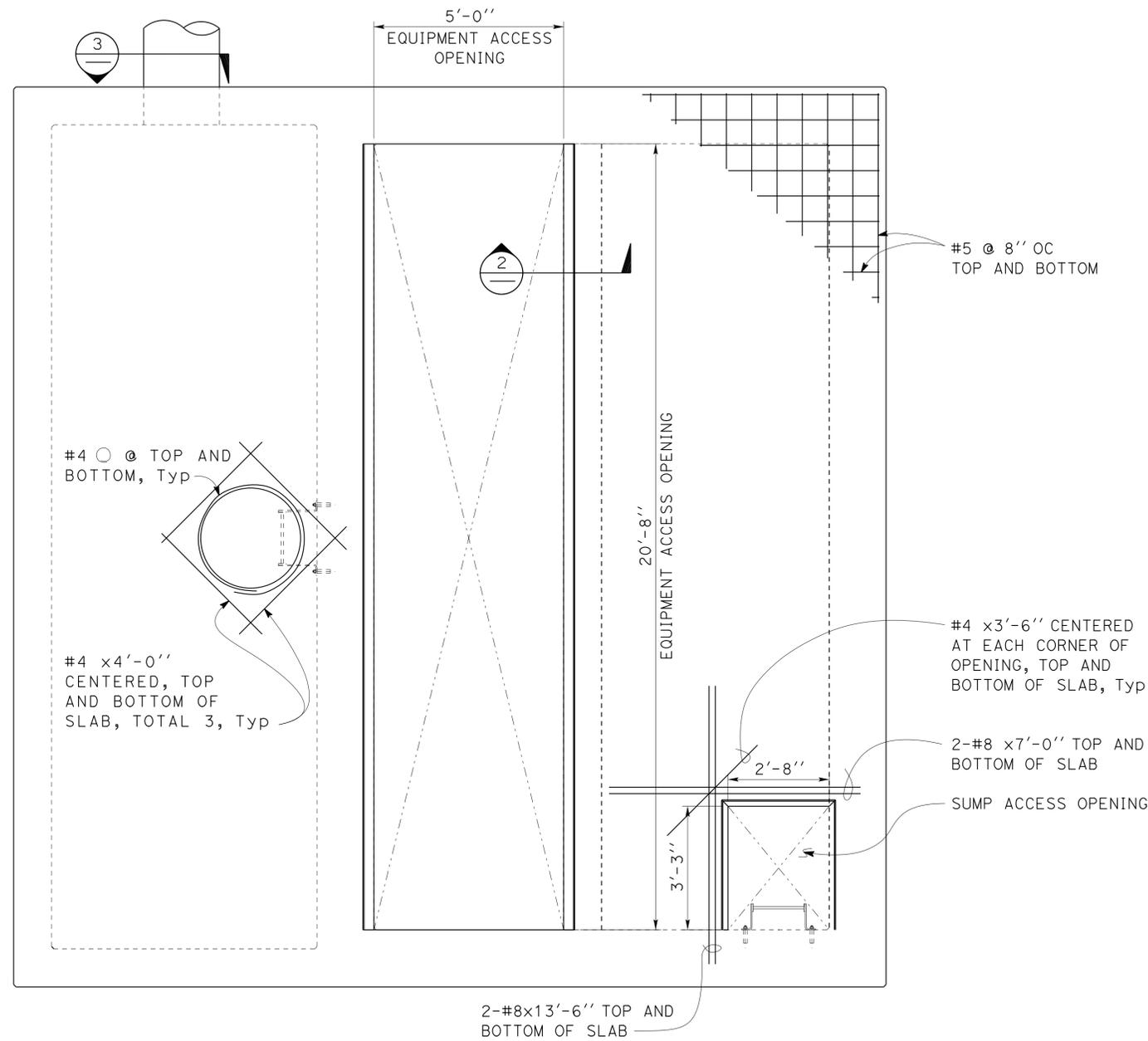
4 PIPE SEAL DETAIL
NO SCALE

DESIGN BY Chandra Bapat	CHECKED BY Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-8
DETAILS BY Daniel Harakh	CHECKED BY Chandra Bapat		PROJECT NUMBER & PHASE 3581 07000018351	POST MILE 5.8/8.3		
QUANTITIES BY	CHECKED		UNIT EA 215951	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF 12 34

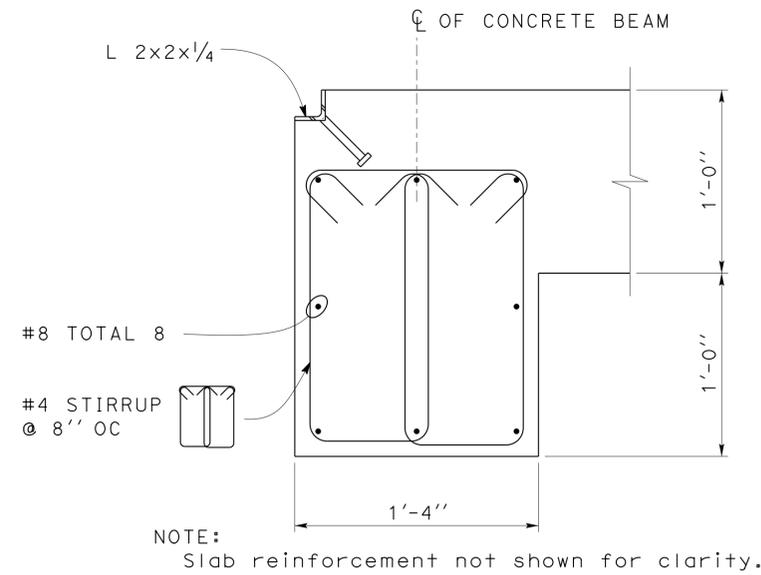
TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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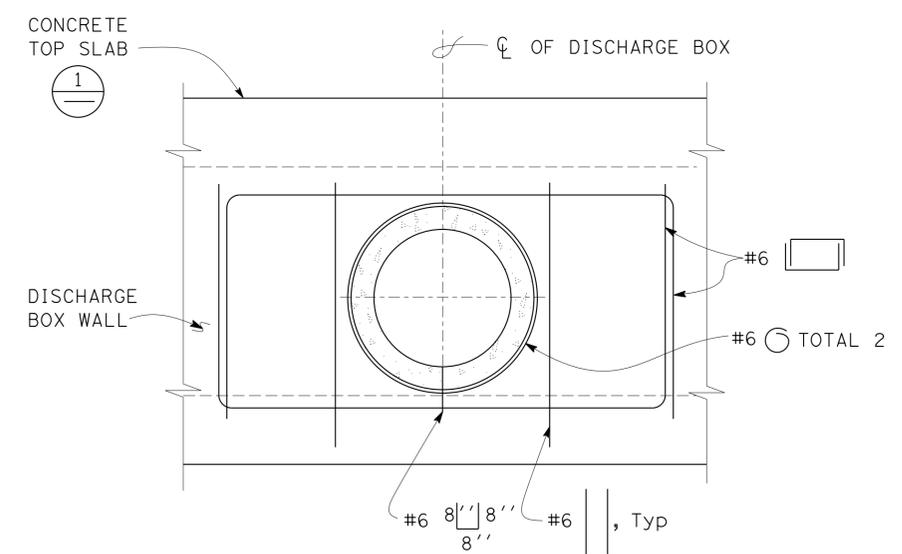
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	964	985
<i>Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE			
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					



1 ROOF TOP SLAB
Scale 1/2" = 1' - 0"



2 CONCRETE TOP SLAB CONCRETE BEAM
Scale 2" = 1' - 0"



NOTES:
 1. Wall Reinforcement not shown.
 2. Replace interrupted wall reinforcing steel equally to sides of Opening.

3 DISCHARGE BOX PIPE SEAL DETAIL
Scale 3/4" = 1' - 0"

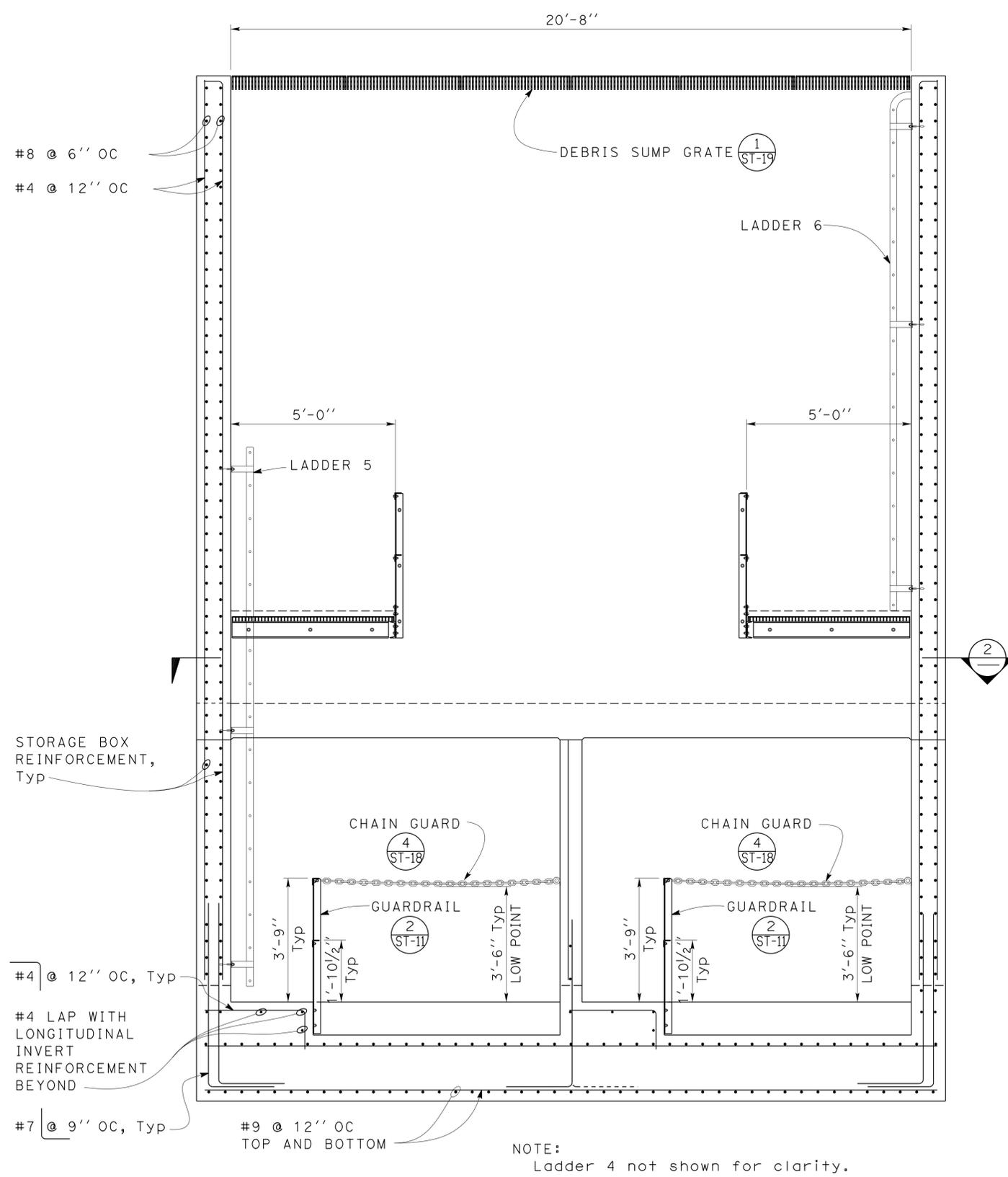
DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET OF ST-9		
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE			5.8/8.3	WET PIT SHAFT SECTIONS
QUANTITIES	BY		CHECKED		UNIT	3581	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		13	34
TAEMWW Imperial Rev. 7/10					PROJECT NUMBER & PHASE		07000018351		12-28-11 02-08-12 03-26-12 04-03-12 05-02-12 05-10-12		D:\User\Projects\Dist_07\0700001835_route_5_and_605_pumping_plant\Expedite_12-10-2012\st_09.dgn	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	965	985

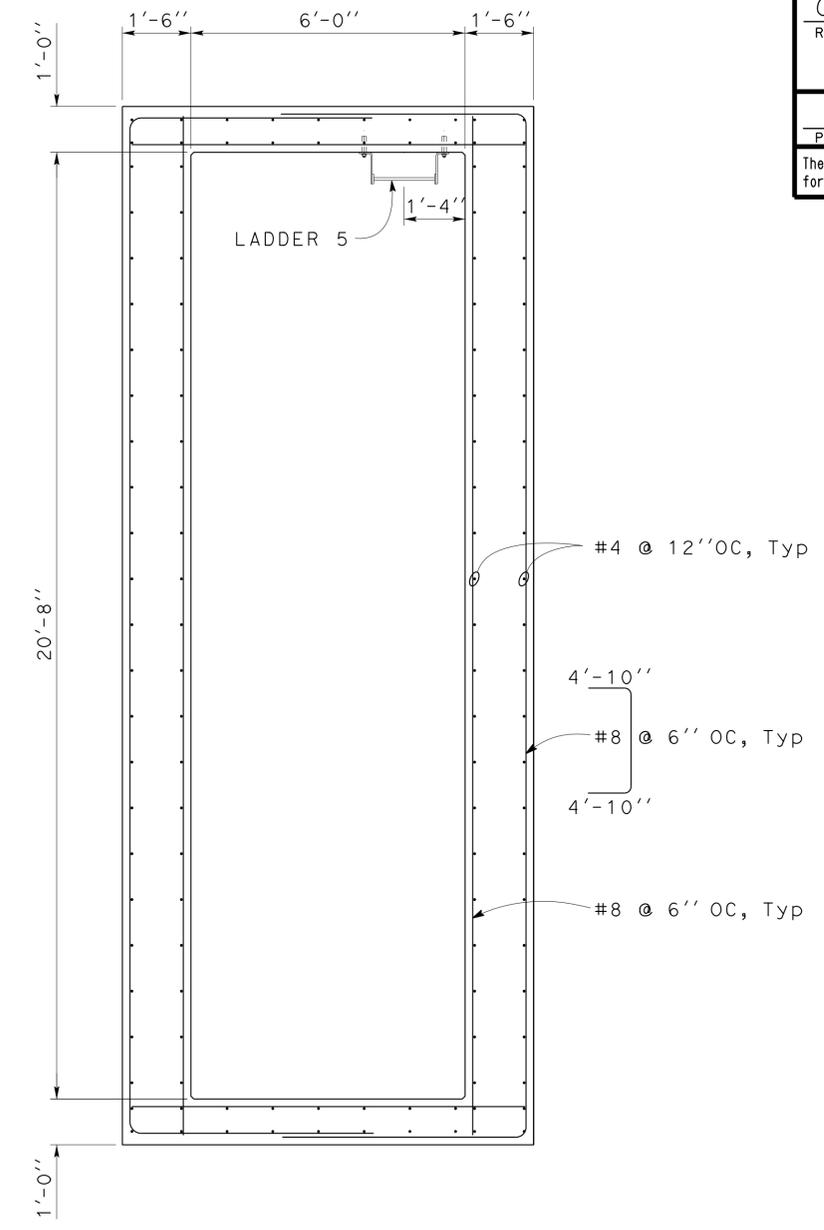
N. Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012
C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

6-24-13
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



1 DEBRIS SUMP SECTION
Scale 1/2" = 1' - 0"



2 DEBRIS SUMP SHAFT SECTION
Scale 1/2" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
DEBRIS SUMP SECTIONS

SHEET **ST-10**

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT 3581
PROJECT NUMBER & PHASE 07000018351
EA 215951

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
12-28-11 01-12-12 02-08-12 03-19-12 04-02-12 05-02-12 05-11-12 12-05-12	14	34

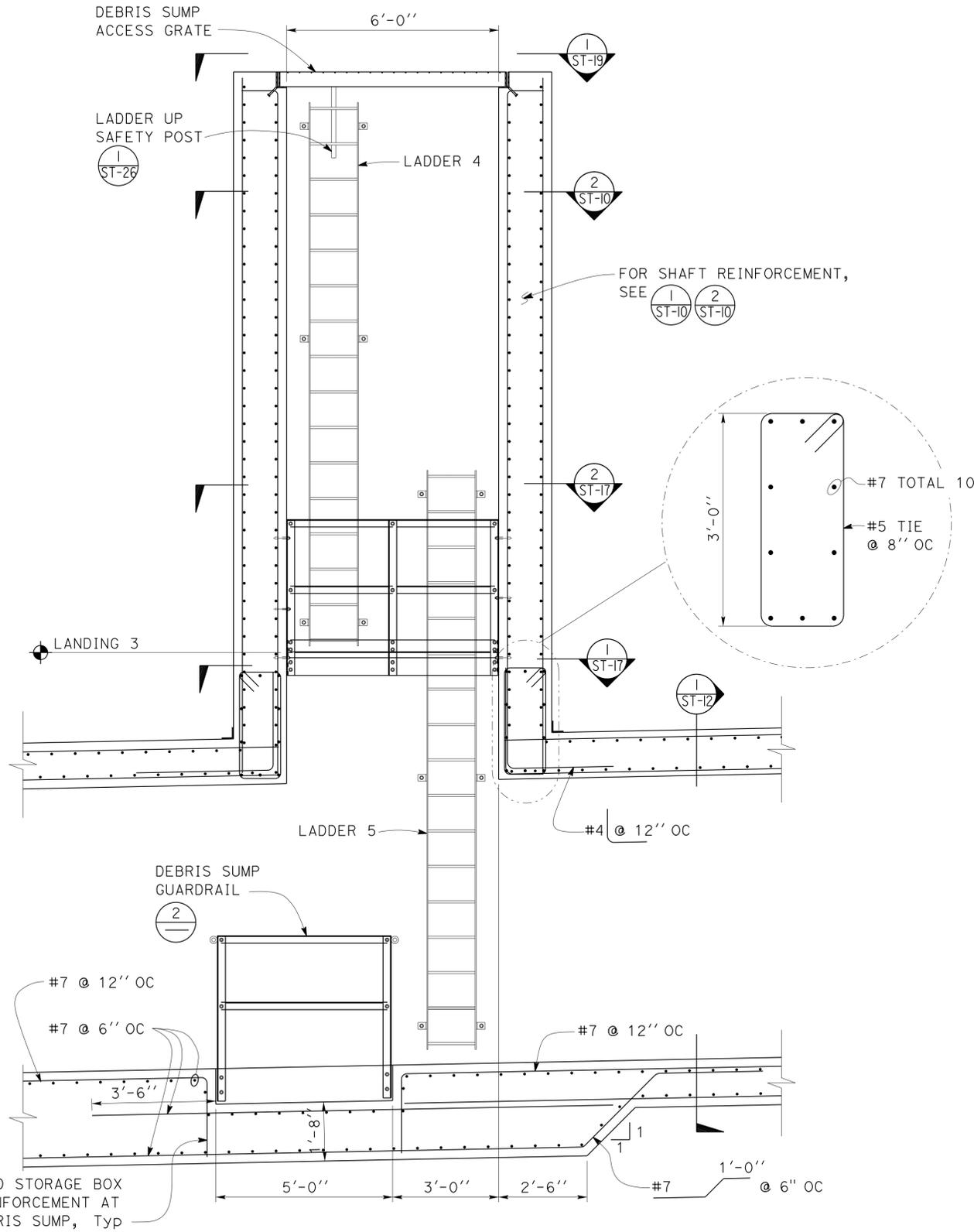
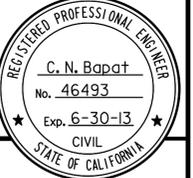
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	966	985

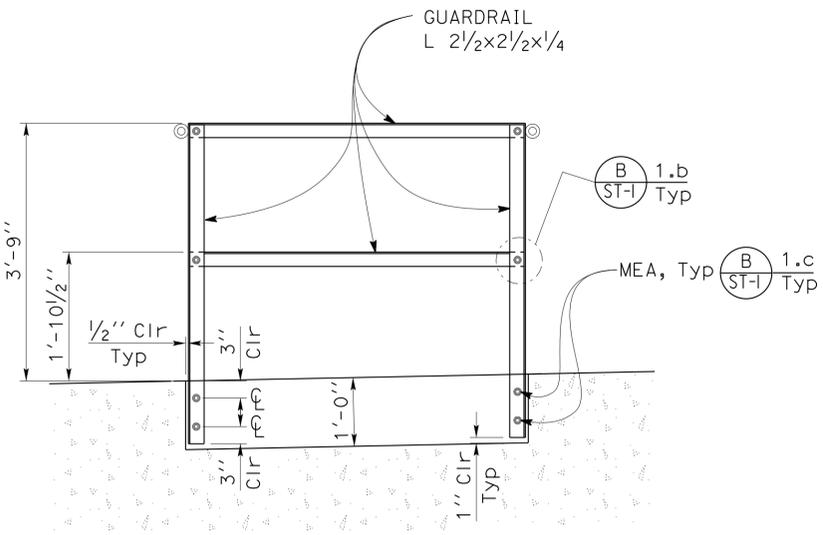
N. Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012

6-24-13
PLANS APPROVAL DATE

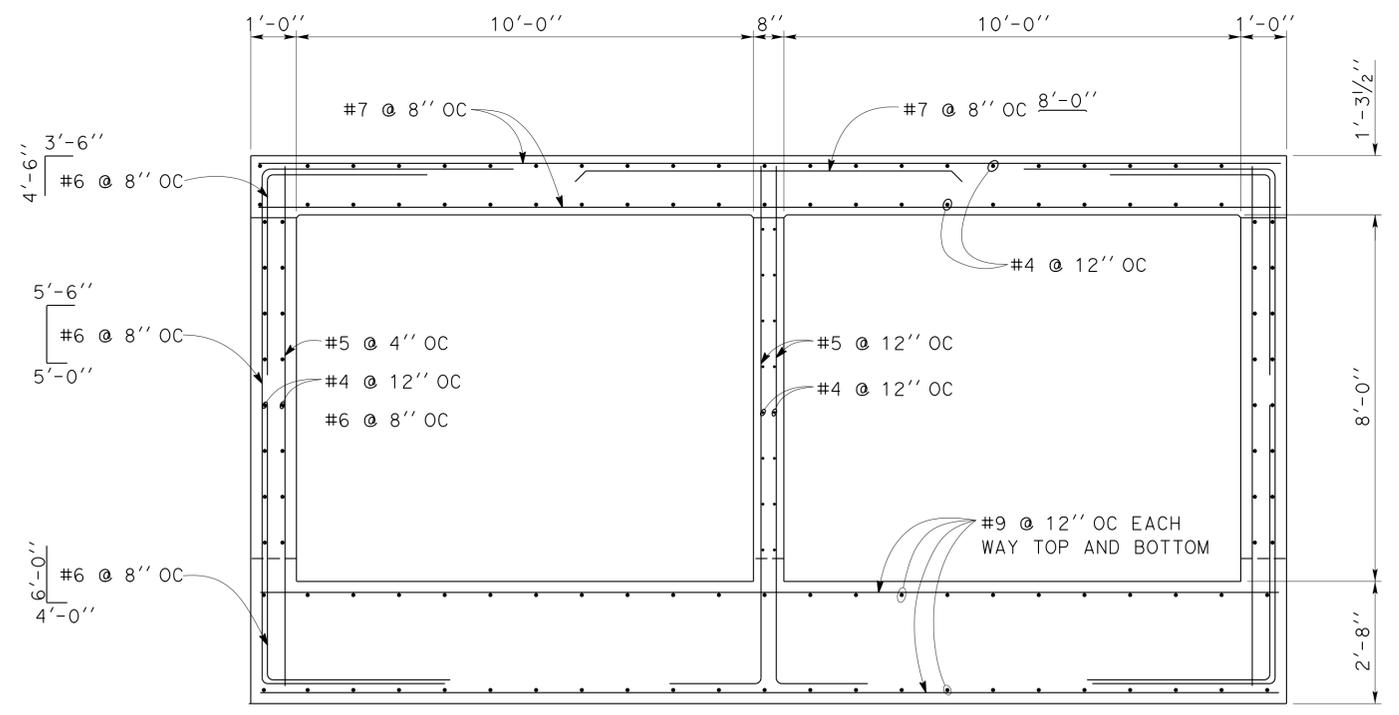
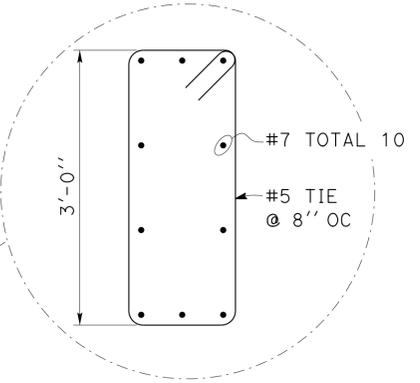
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



1 DEBRIS SUMP SECTION
Scale 1/2" = 1' - 0"



2 GUARDRAIL DETAIL
Scale 3/4" = 1' - 0"



3 ENTRANCE BAY SECTION
Scale 1/2" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET OF
POST MILE	5.8/8.3		
DEBRIS SUMP SECTIONS			

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

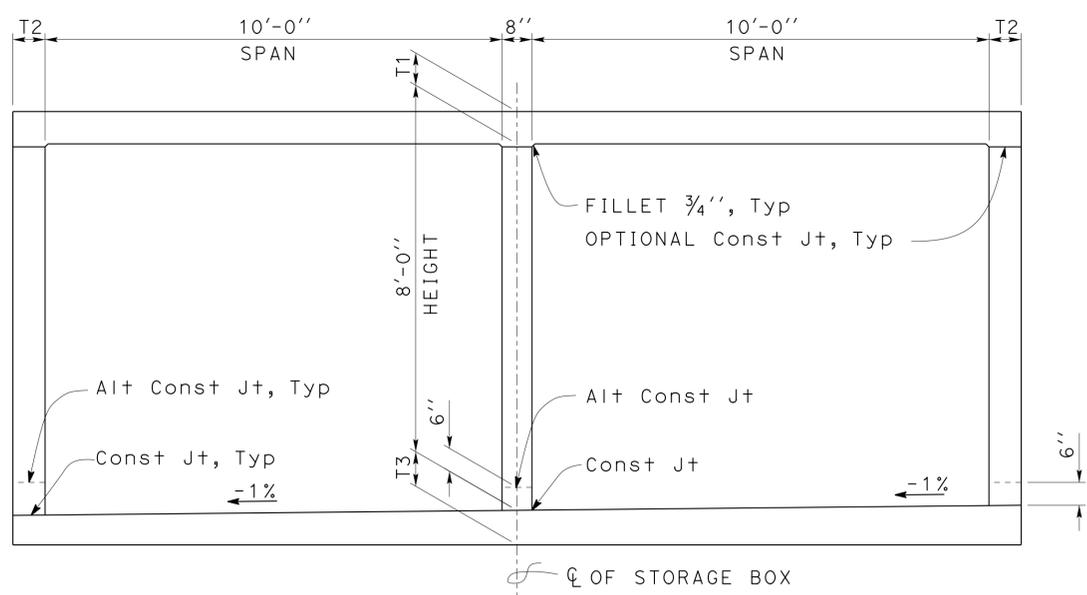
0	1	2	3
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UNIT PROJECT NUMBER & PHASE 3581 07000018351

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
05-11-12/12-05-12	02-06-12/02-10-12/03-18-12/04-08-12/04-13-12/05-02-12	15 34

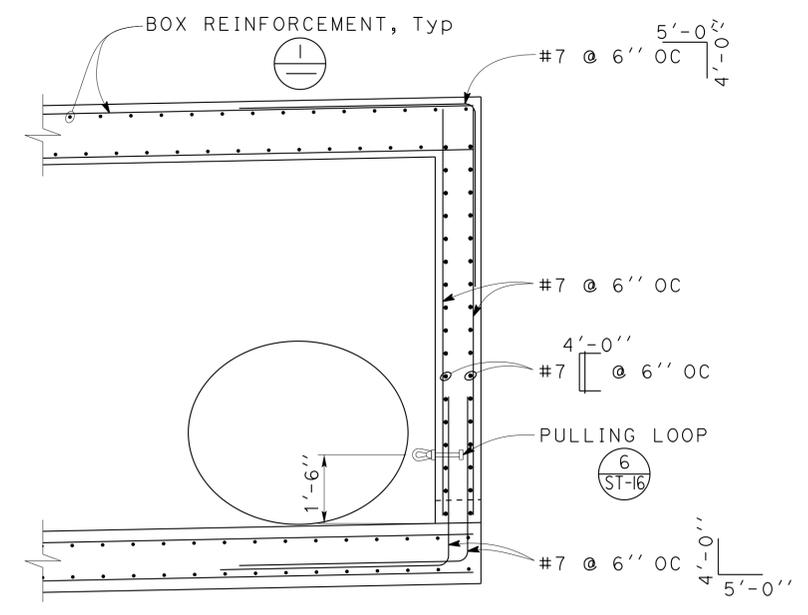
27-JUN-2013 06:30

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	967	985
<i>C. N. Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE			
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					

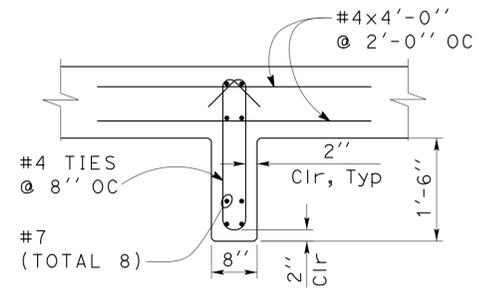


NOTE:
 For storage box reinforcement, see Standard Plans D81.
 Use: Span = 10'-0" Height = 8'-0"
 Maximum earth cover (design) = 20'-0"

1 STORAGE BOX SECTION
 Scale 1/2" = 1' - 0"

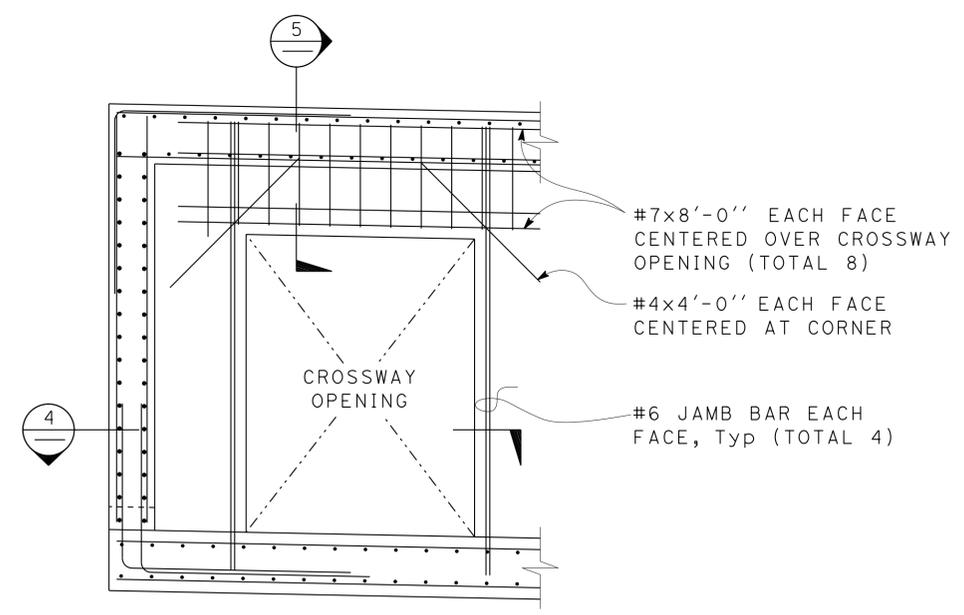


3 ENDWALL SECTION
 Scale 1/2" = 1' - 0"



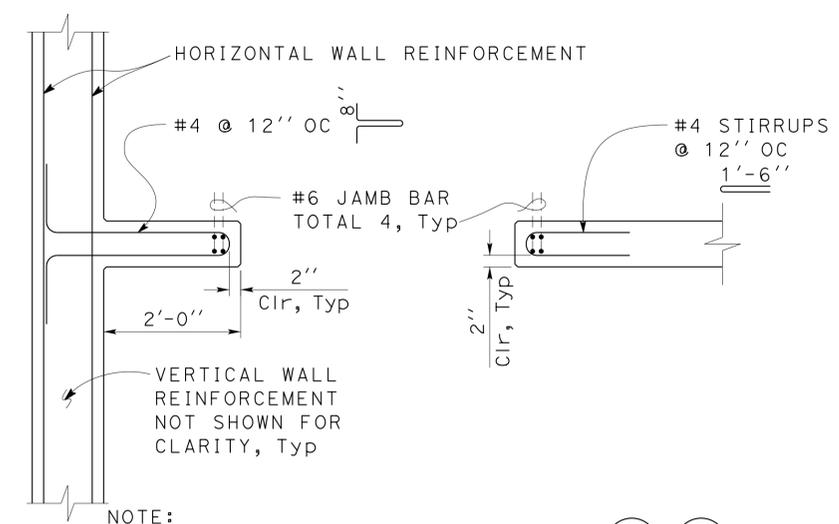
NOTE:
 For reinforcement not shown, see **2**

5 CROSSWAY BEAM
 Scale 3/4" = 1' - 0"



NOTE:
 For reinforcement not shown, see **3**

2 CROSSWAY SECTION
 Scale 1/2" = 1' - 0"



NOTE:
 For reinforcement not shown, see **1** **3**

4 CROSSWAY SECTION
 Scale 3/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
 STORAGE BOX SECTIONS

SHEET
ST-12

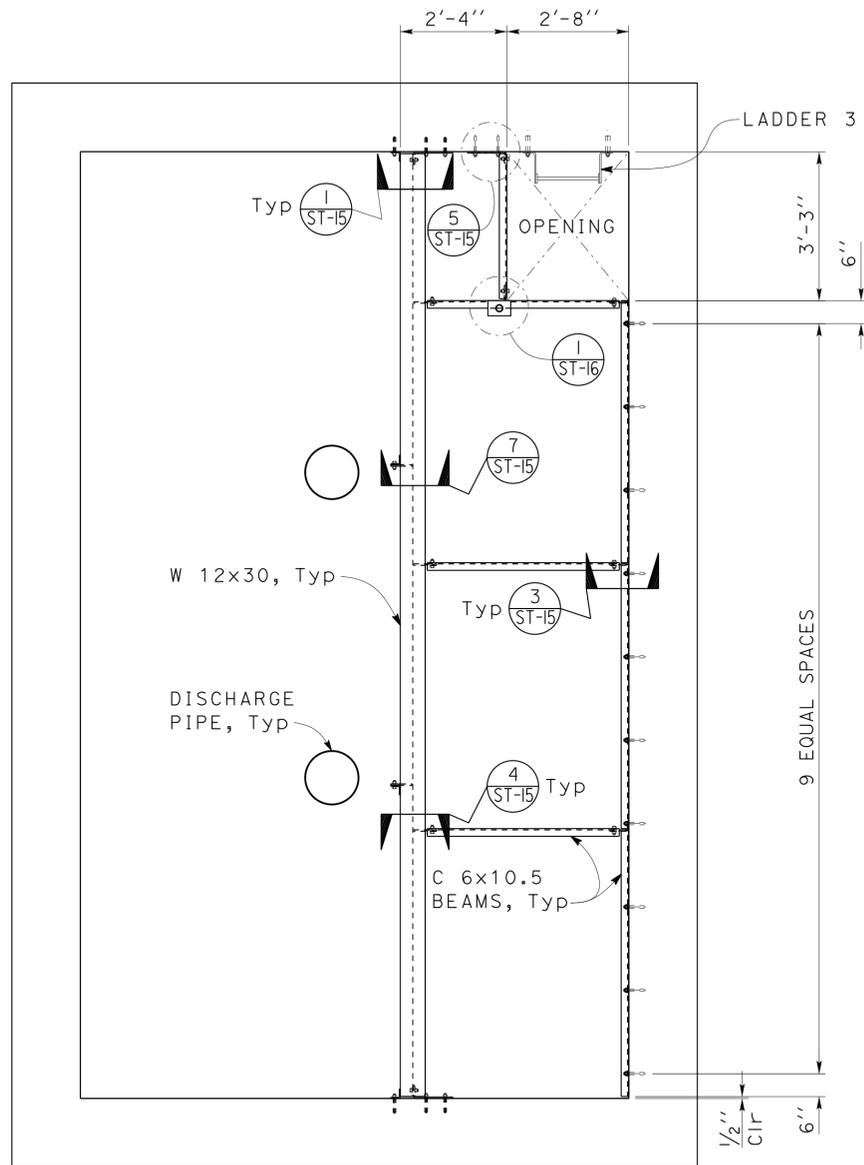
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	968	985

N. Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012

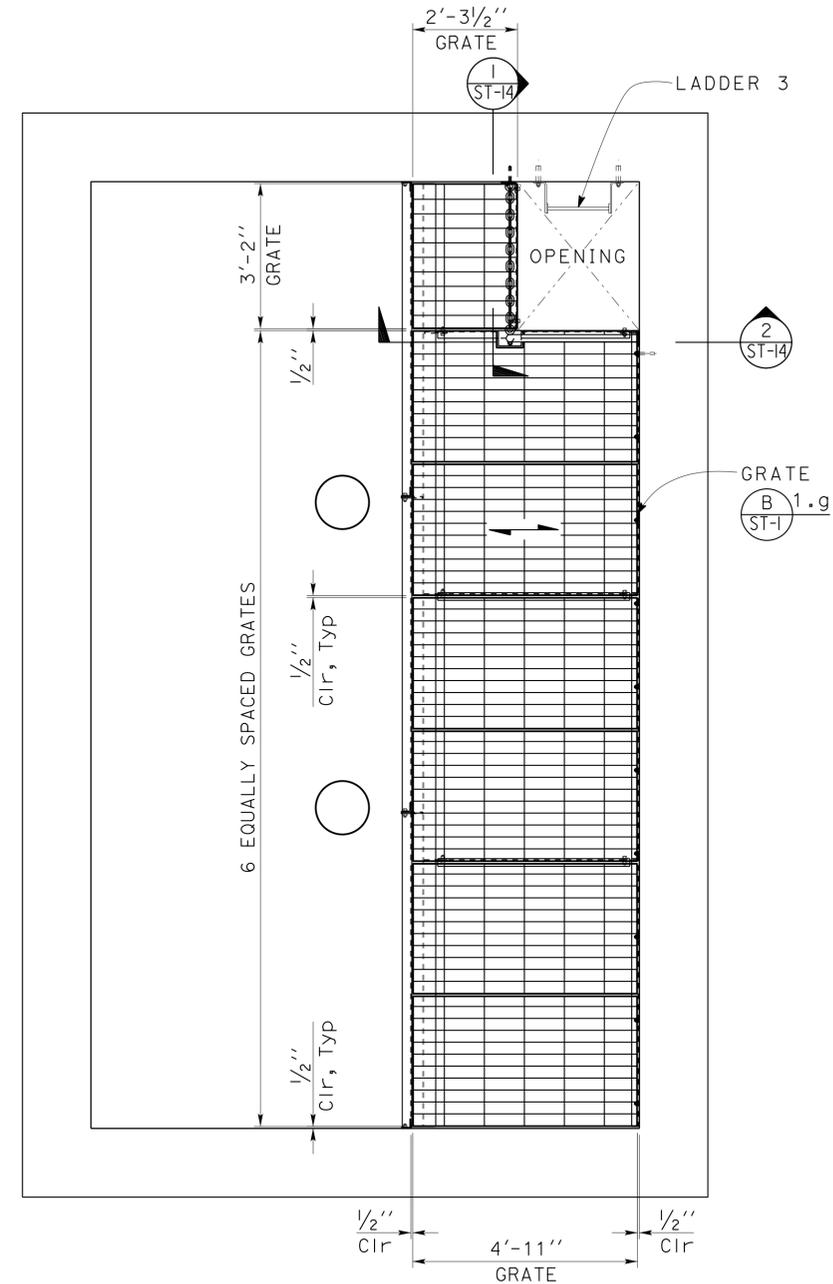


6-24-13
PLANS APPROVAL DATE

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1 LANDING 1 FRAME SECTION
Scale 1/2" = 1' - 0"



2 LANDING 1 GRATE SECTION
Scale 1/2" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
LANDING FRAME SECTION

SHEET ST-13

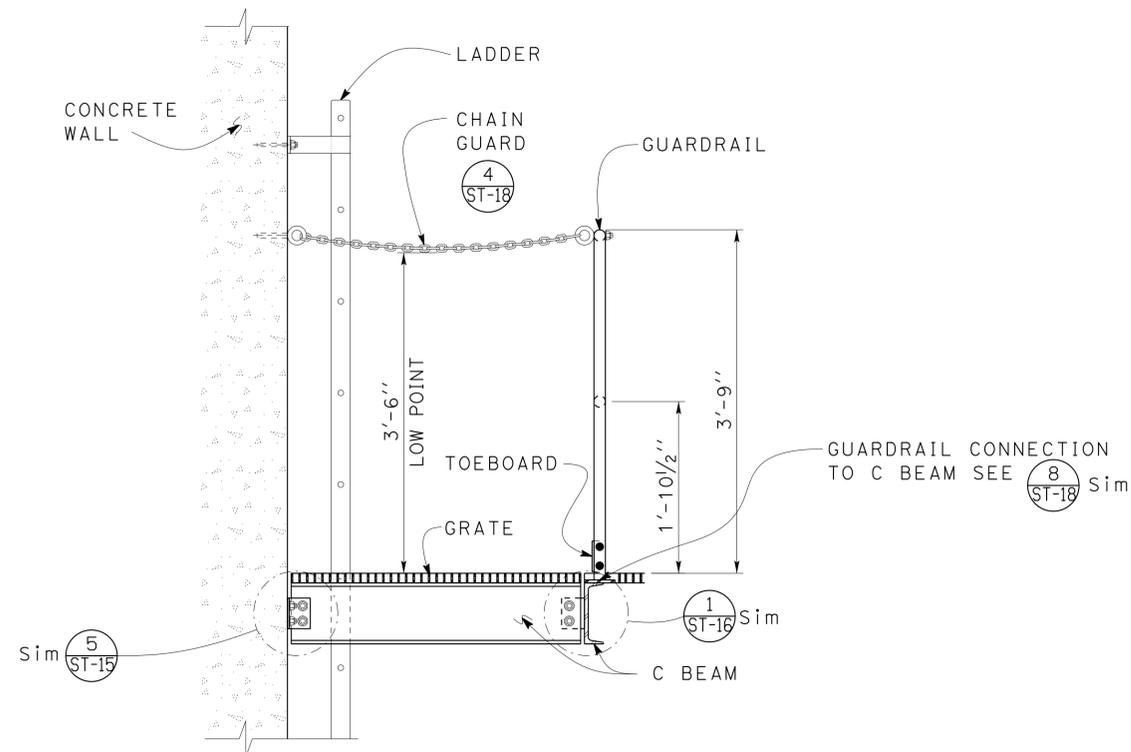
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	969	985

N. Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012

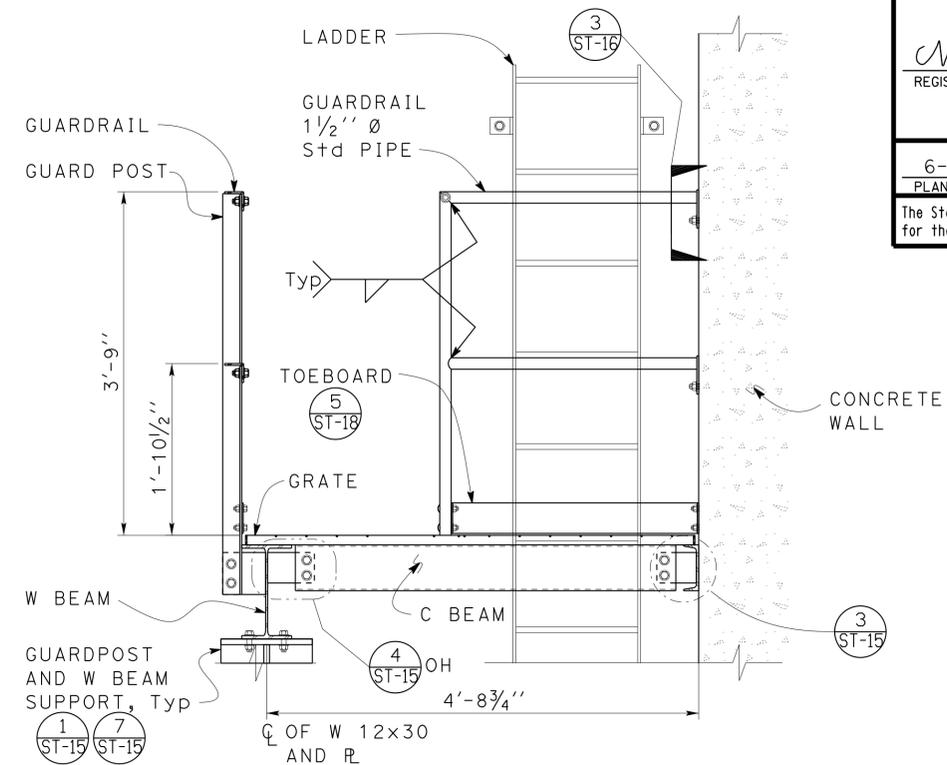
6-24-13
PLANS APPROVAL DATE

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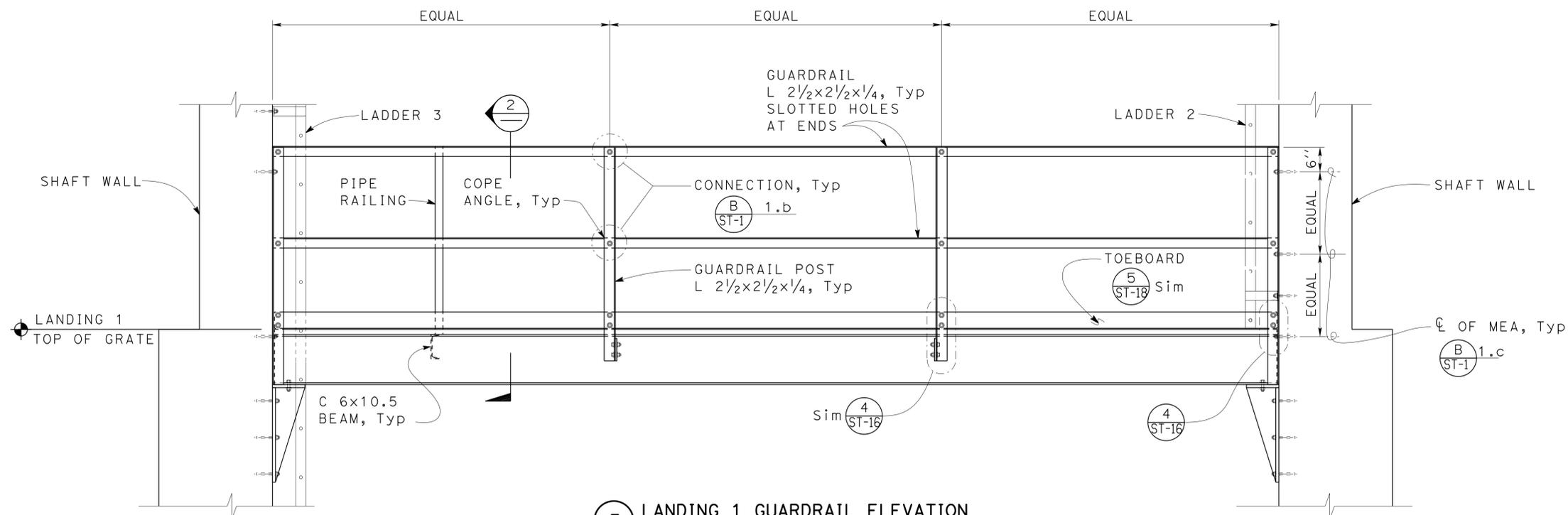
REGISTERED PROFESSIONAL ENGINEER
C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA



1 CHAIN GUARD CONNECTION
Scale 1" = 1' - 0"



2 GUARDRAIL CONNECTION
Scale 1" = 1' - 0"



3 LANDING 1 GUARDRAIL ELEVATION
Scale 3/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
LANDING GRATE AND GUARDRAIL DETAILS

SHEET ST-14



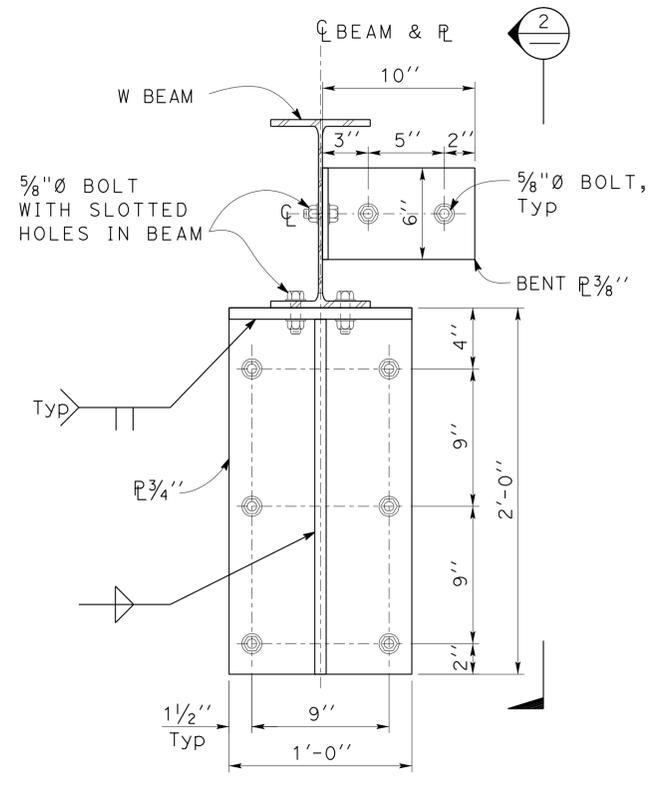
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	970	985

Chandra Bapat
REGISTERED CIVIL ENGINEER
DATE 12-07-2012

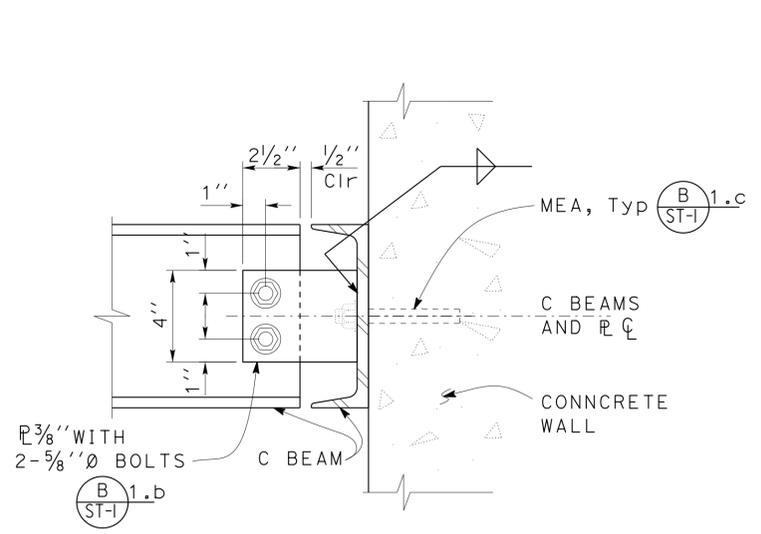
6-24-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

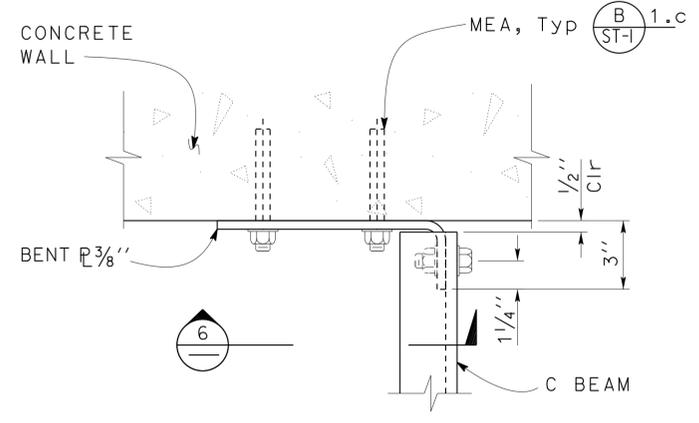
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



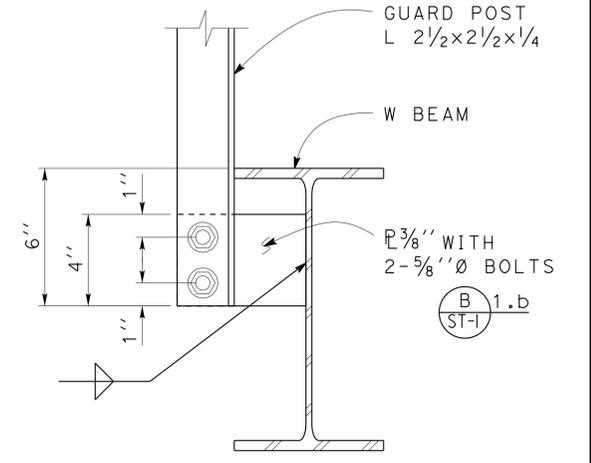
1 BEAM TO WALL CONNECTION
Scale 2" = 1' - 0"



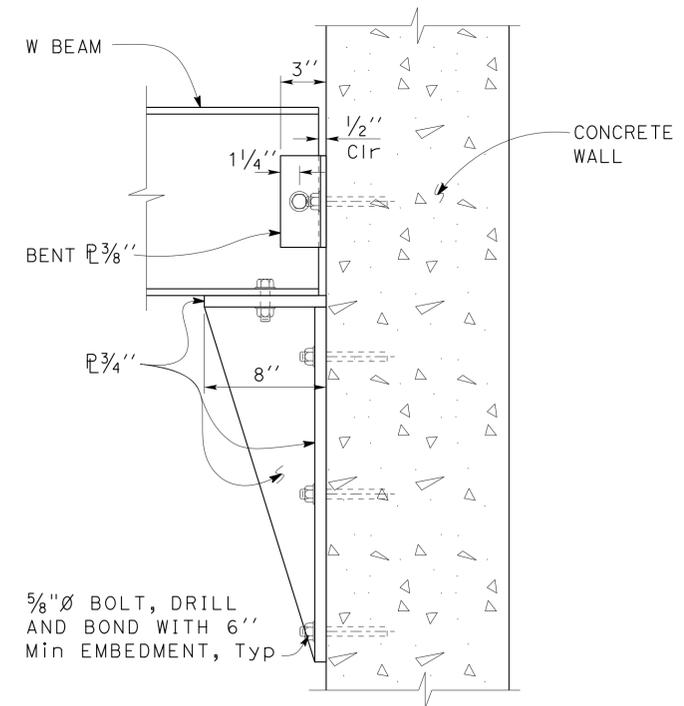
3 C BEAMS CONNECTION
Scale 3" = 1' - 0"



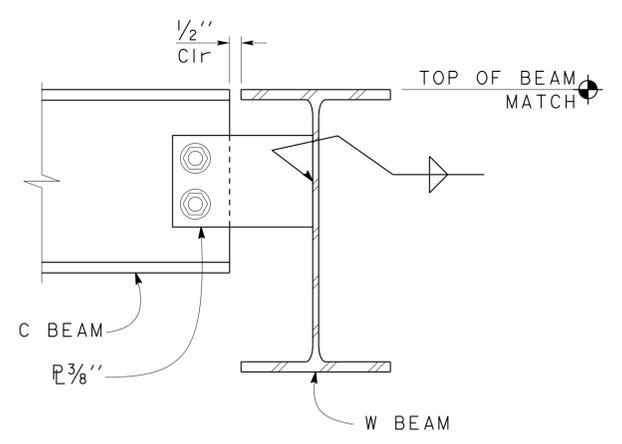
5 C BEAM CONNECTION
Scale 3" = 1' - 0"



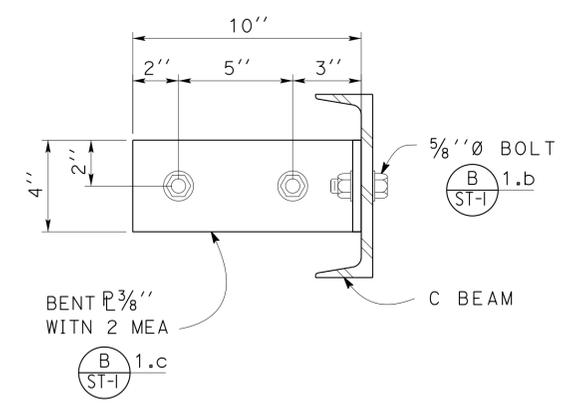
7 POST/BEAM CONNECTION
Scale 3" = 1' - 0"



2 SECTION
Scale 2" = 1' - 0"



4 BEAMS CONNECTION
Scale 3" = 1' - 0"



6 C BEAM CONNECTION
Scale 3" = 1' - 0"

DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-15
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE		
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT	3581	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
						PROJECT NUMBER & PHASE	07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	01-28-12 02-07-12 02-15-12 05-11-12	19 34

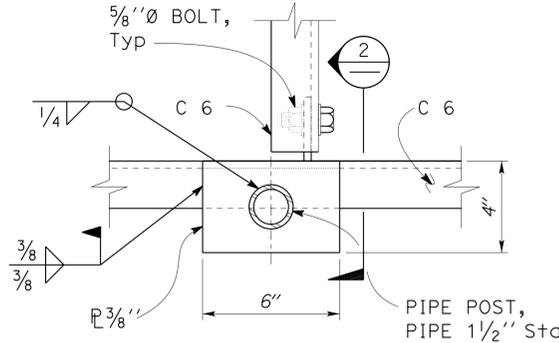
27-JUN-2013 06:30

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	971	985

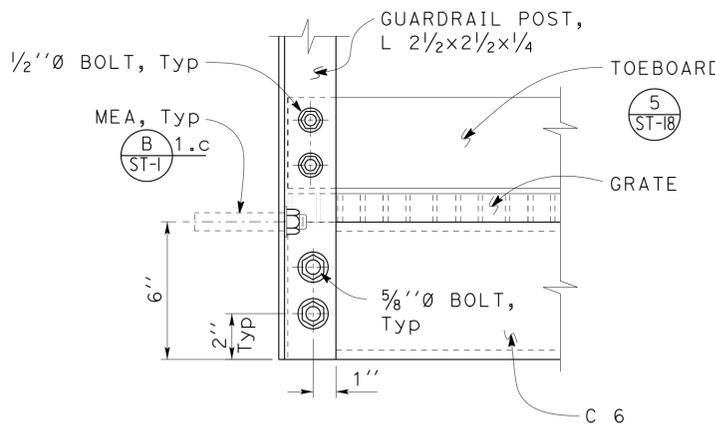
<i>Chandra Bapat</i>	12-07-2012
REGISTERED CIVIL ENGINEER	DATE

6-24-13
PLANS APPROVAL DATE

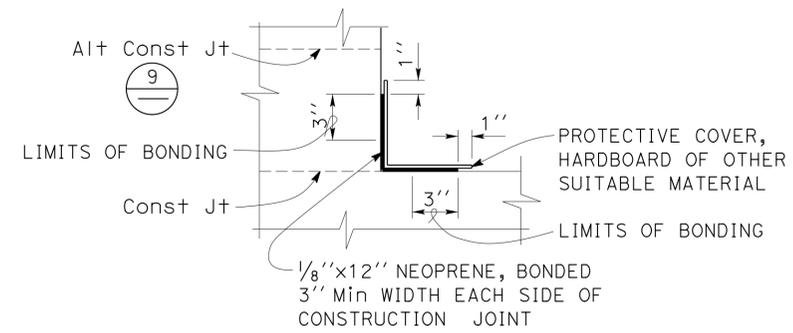
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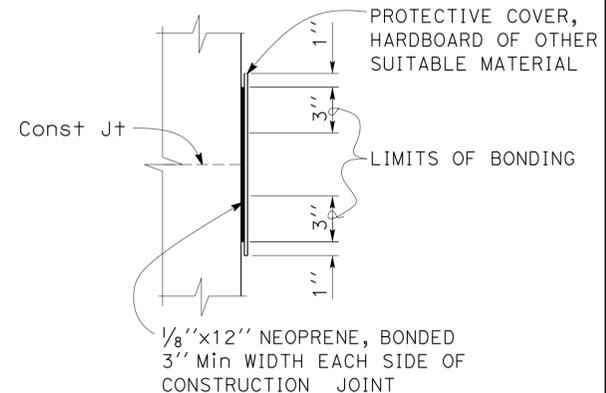
1 C6 TO C6 AT OPENING
Scale 3" = 1' - 0"



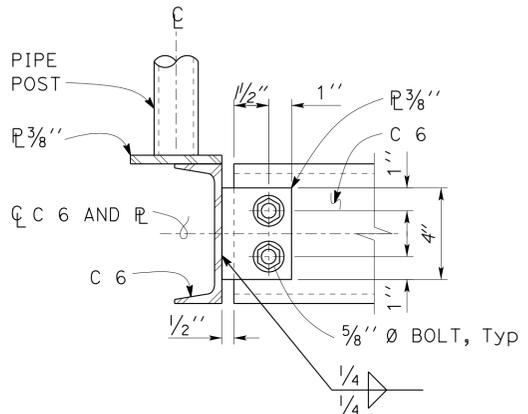
4 GUARDRAIL POST CONNECTION
Scale 3" = 1' - 0"



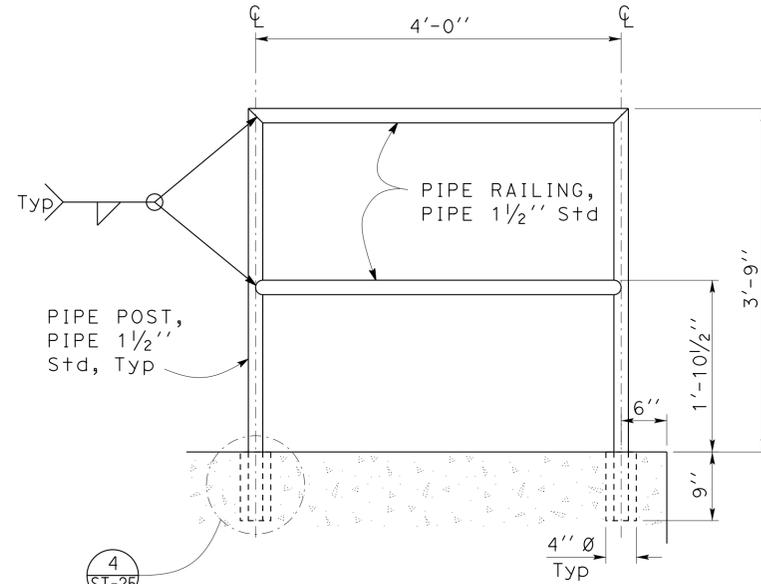
7 WATERSTOP DETAIL
NO SCALE



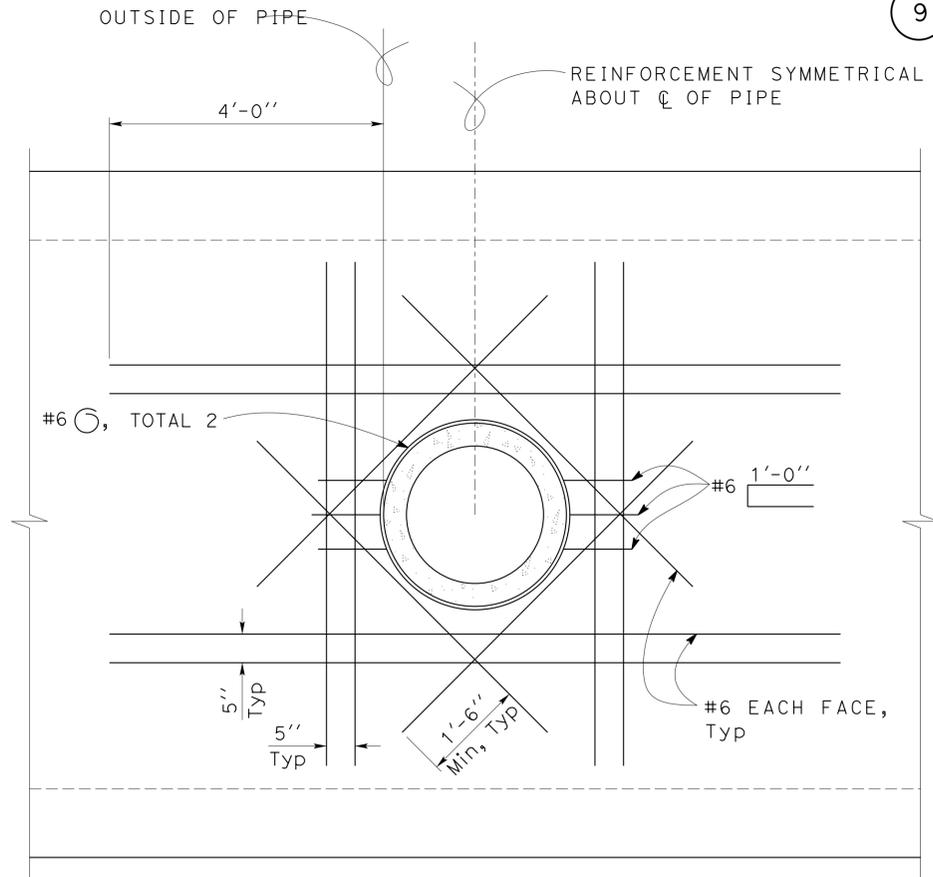
9 WATERSTOP DETAIL
NO SCALE



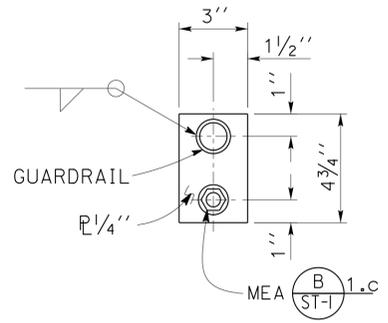
2 C6 TO C6 SECTION
Scale 3" = 1' - 0"



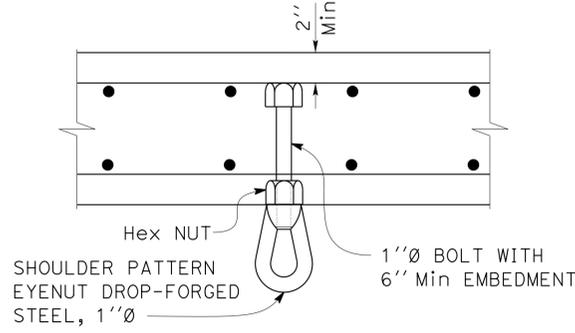
5 LANDING 2 GUARDRAIL
Scale 1" = 1' - 0"



8 PIPE WALL PENETRATION
Scale 3/4" = 1' - 0"



3 RAIL TO WALL CONNECTION
Scale 3" = 1' - 0"

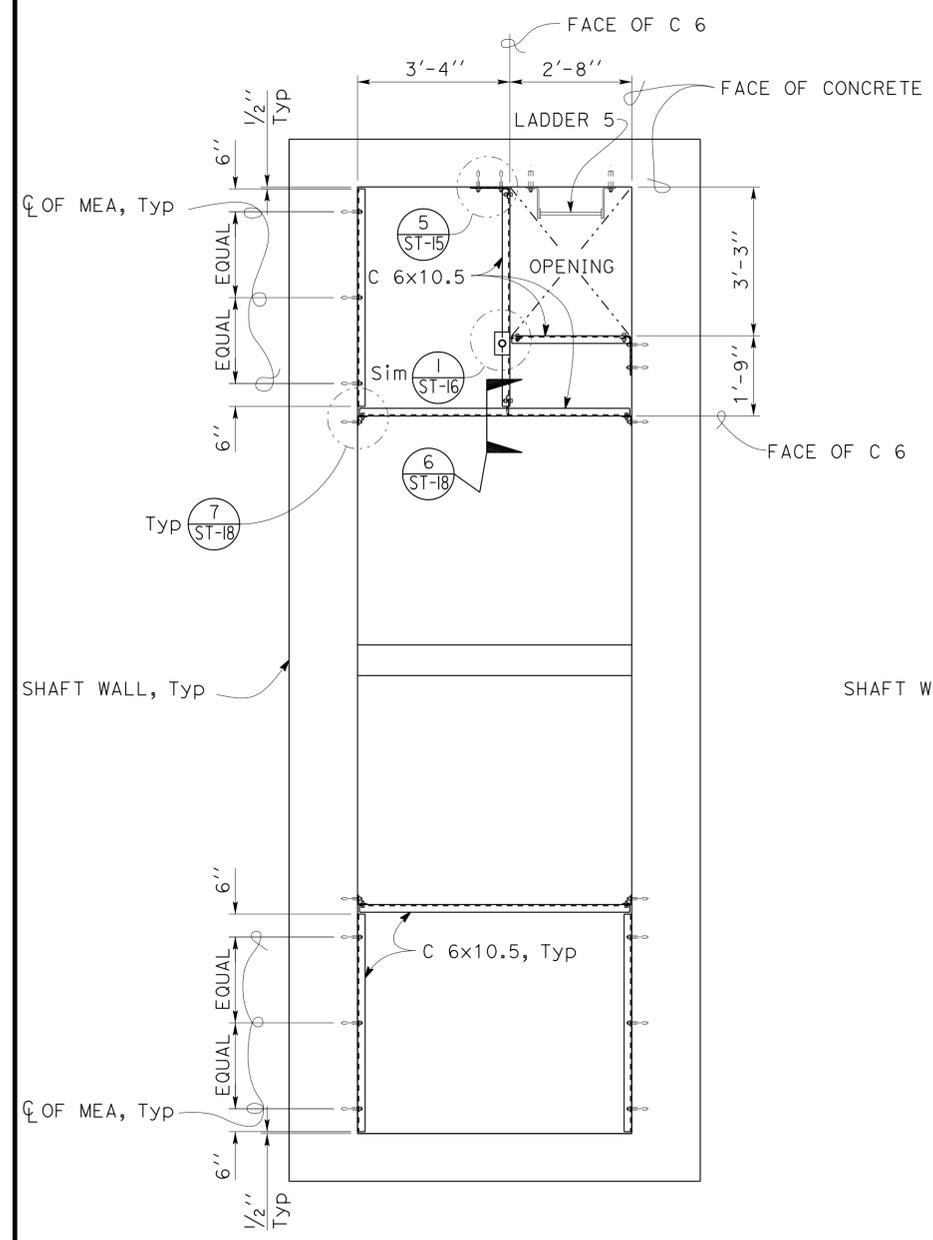


6 PULLING LOOP DETAIL
NO SCALE

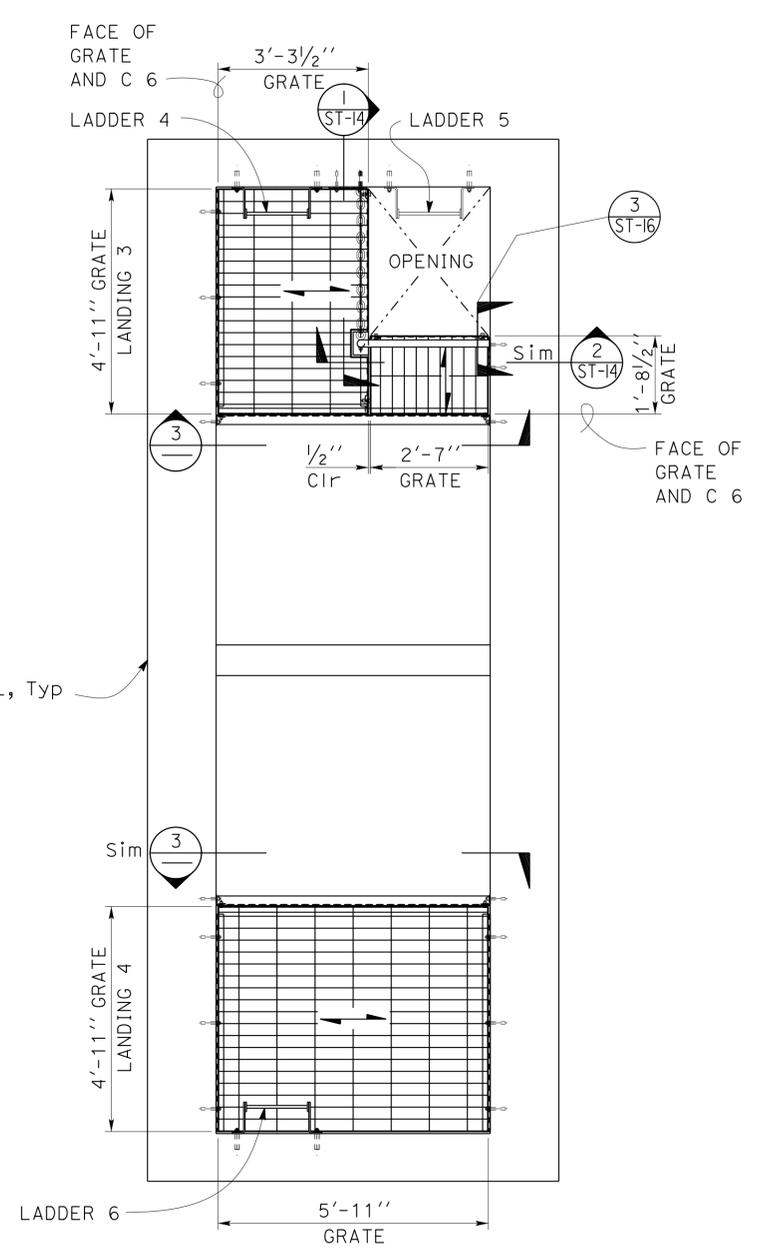
DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-16		
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE			5.8/8.3	LANDING FRAME DETAILS
QUANTITIES	BY		CHECKED		UNIT	3581	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET		
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	20	34
					PROJECT NUMBER & PHASE	07000018351	02-07-12 02-15-12 03-18-12 05-04-12 05-14-12 12-05-12			OF		

27-JUN-2013 06:30

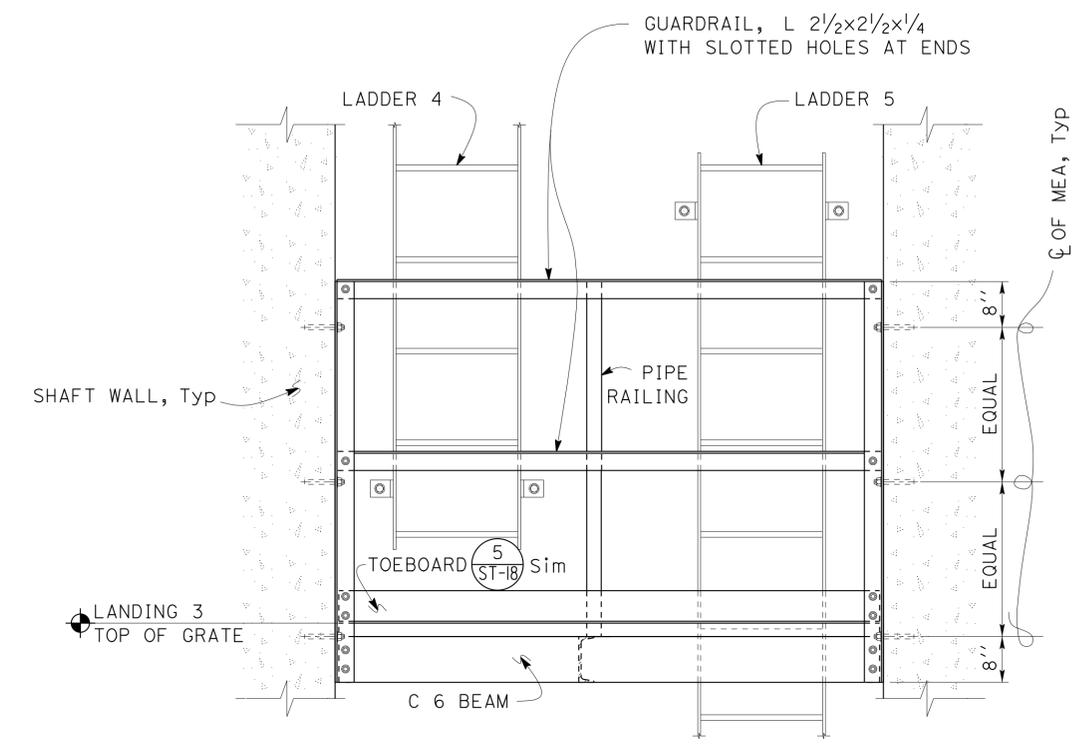
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	972	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER			12-07-2012 DATE		
6-24-13 PLANS APPROVAL DATE					
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1 LANDING 3&4 FRAME PLAN
Scale 1/2" = 1' - 0"



2 LANDING 3&4 GRATE
Scale 1/2" = 1' - 0"



3 LANDING 3 GUARDRAIL ELEVATION
Scale 3/4" = 1' - 0"

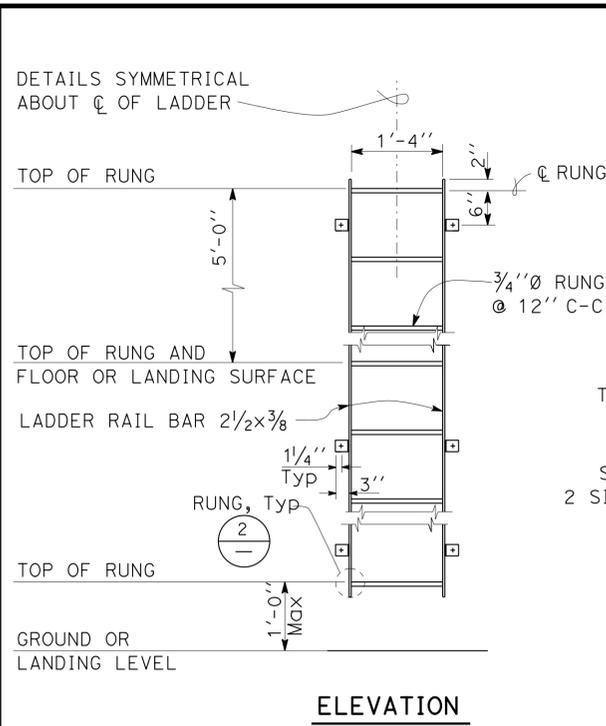
DESIGN BY Chandra Bapat CHECKED BY Thomas Tong	DETAILS BY Daniel Harakh CHECKED BY Chandra Bapat	QUANTITIES BY CHECKED BY 	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-17
					POST MILE 5.8/8.3		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3			UNIT PROJECT NUMBER & PHASE 3581 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 02-01-12 02-07-12 02-15-12 03-18-12 04-18-12 05-02-12 05-14-12 05-28-12 05-12	SHEET OF 21 34	

27-JUN-2013 06:30

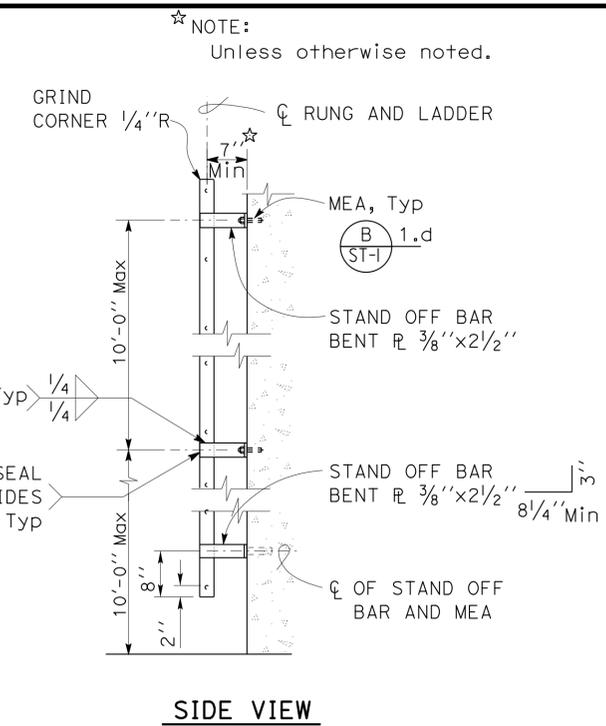
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	973	985

<i>N. Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE
6-24-13 PLANS APPROVAL DATE		

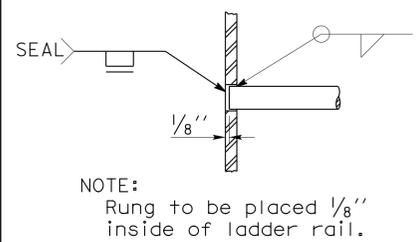
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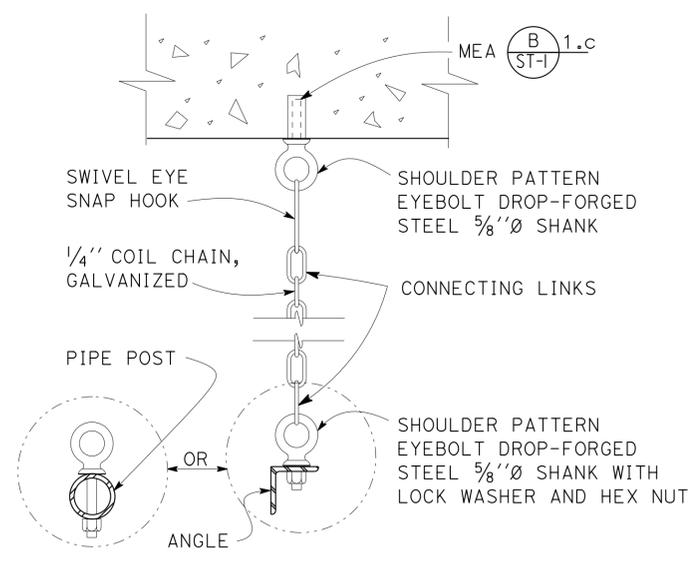
1 LADDER DETAILS
Scale 3/4" = 1'-0"



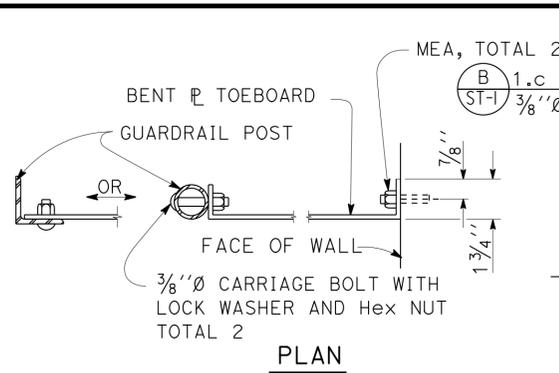
2 RUNG DETAIL
Scale 4" = 1'-0"



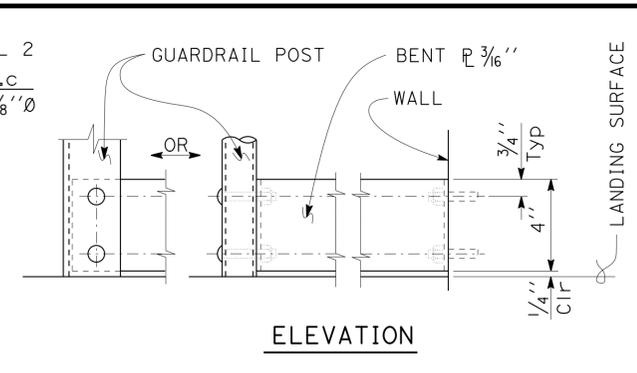
3 BOTTOM OF LADDER OPTION
Scale 3/4" = 1'-0"



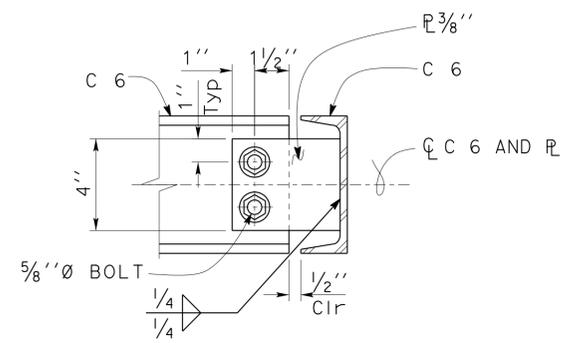
4 CHAIN GUARD DETAIL
NO SCALE



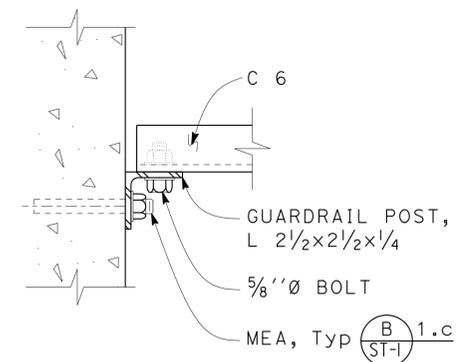
5 TOEBOARD DETAIL
Scale 1/4" = 1'-0"



6 C6 TO C6 CONNECTION
Scale 3" = 1'-0"



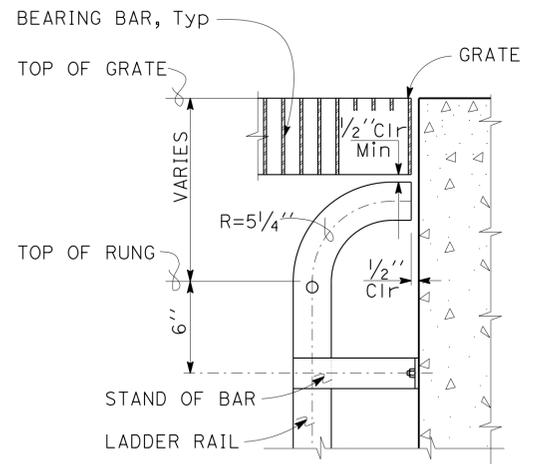
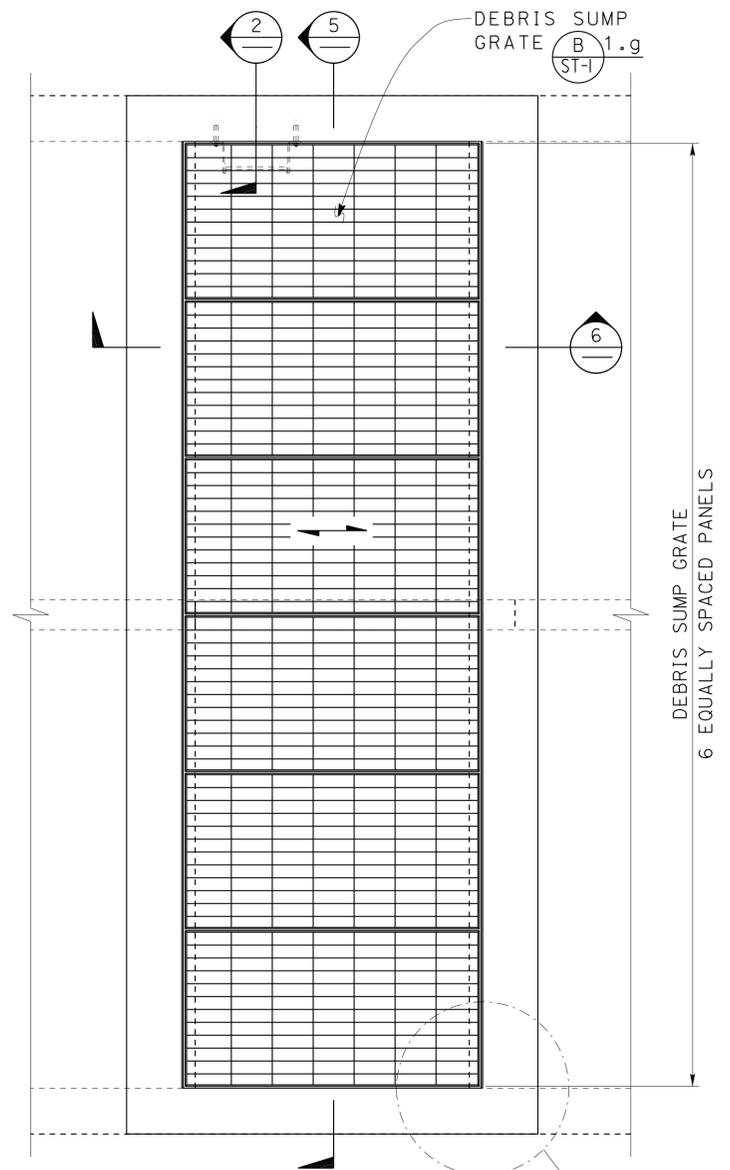
7 GUARDRAIL POST TO WALL AND C6
Scale 3" = 1'-0"



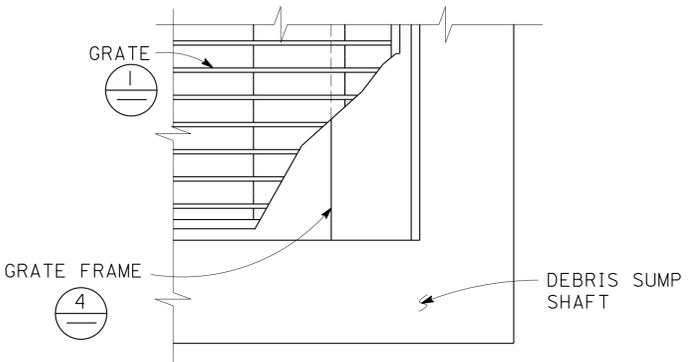
DESIGN	BY Chandra Bapat	CHECKED Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT LADDER AND LANDING DETAILS	SHEET 22
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat		ARCHITECTURAL AND STRUCTURAL DESIGN	POST MILE 5.8/8.3		OF 34
QUANTITIES	BY	CHECKED		UNIT PROJECT NUMBER & PHASE 3581 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

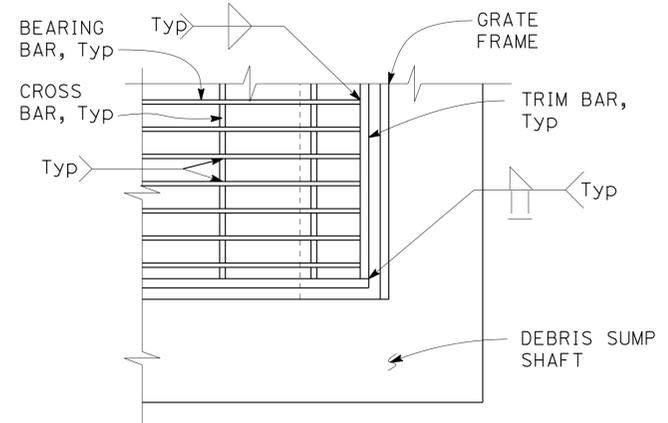
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	974	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER			12-07-2012 DATE		
6-24-13 PLANS APPROVAL DATE					
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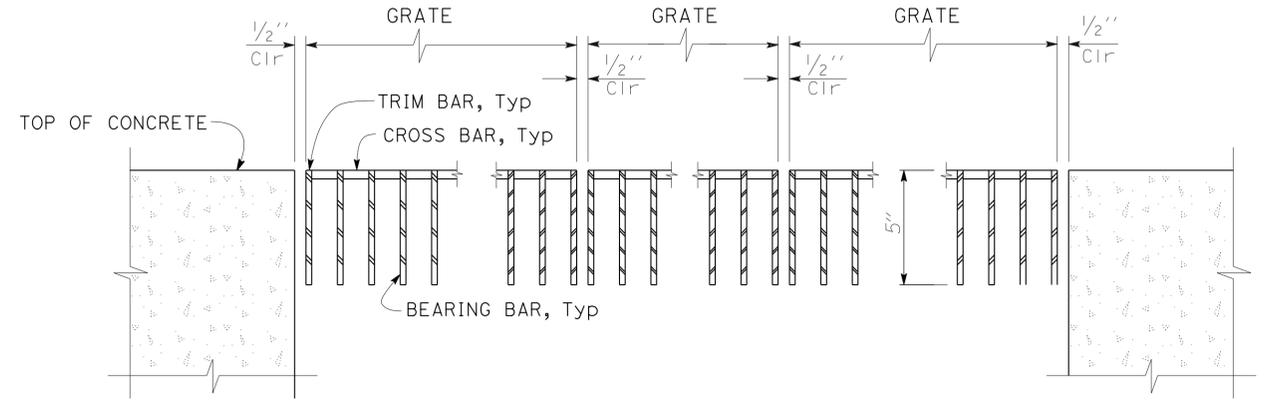
2 LADDER AT ACCESS GRATE
Scale 2" = 1' - 0"



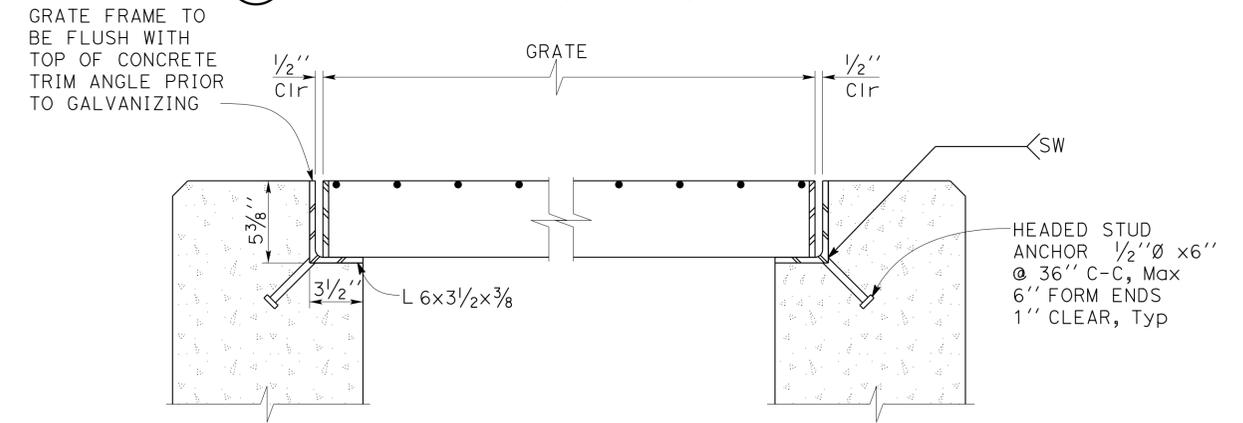
3 GRATE FRAME DETAIL
Scale 3" = 1' - 0"



4 GRATE DETAIL
Scale 3" = 1' - 0"



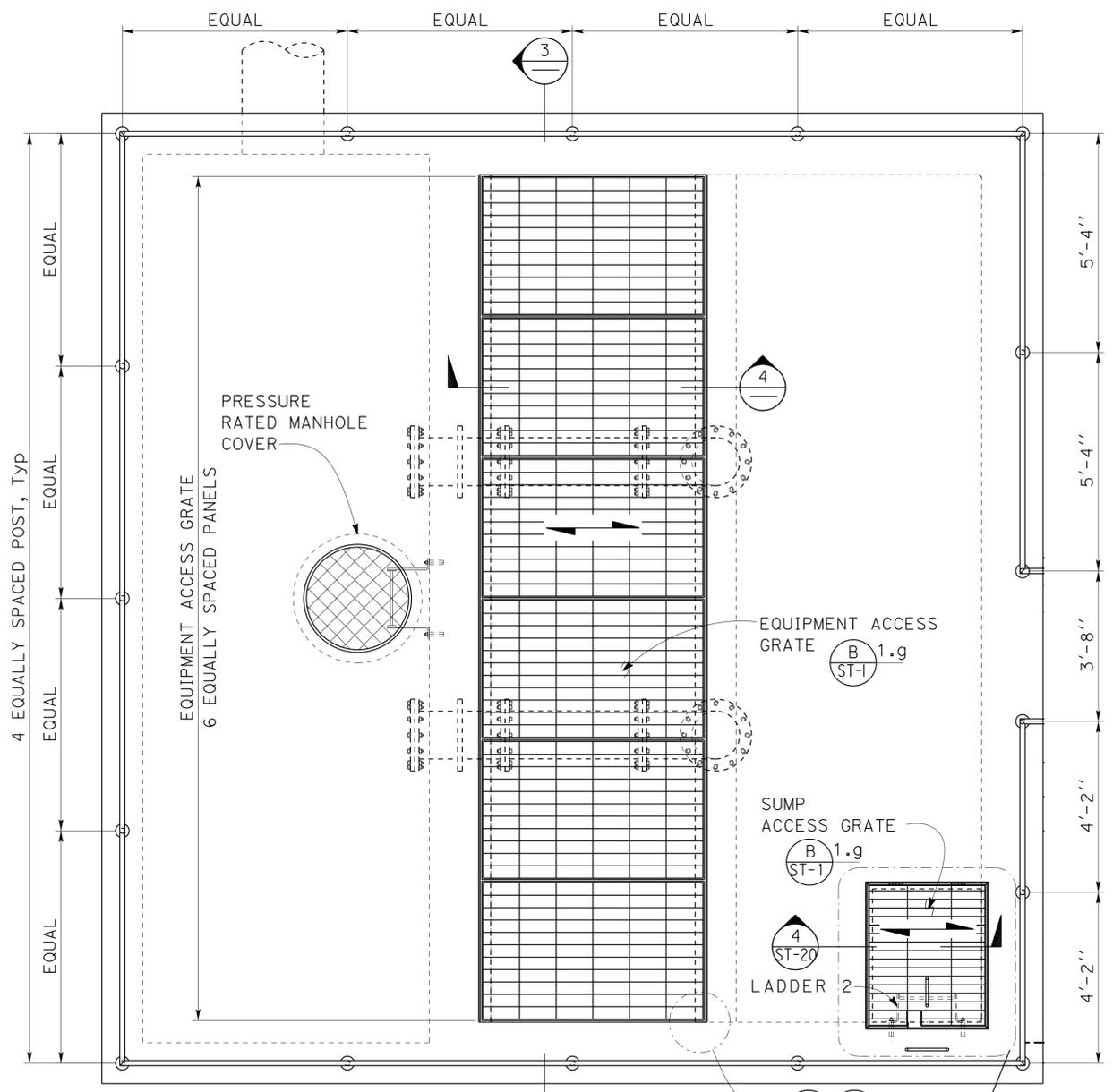
5 TRAFFIC RATED GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



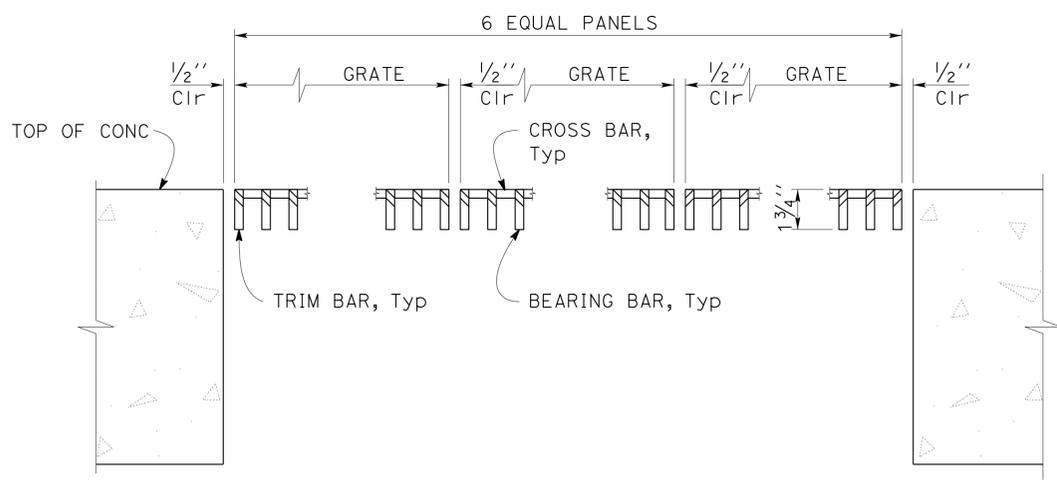
6 GRATE AND FRAME SECTION
Scale 2" = 1' - 0"

DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET OF ST-19	
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE			5.8/8.3
QUANTITIES	BY		CHECKED		UNIT	3581	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF	
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	PROJECT NUMBER & PHASE	07000018351	12-28-11 02-01-12 02-06-12 02-15-12 05-14-12 11-06-12 12-05-12		23 34
TAEMWW Imperial Rev. 7/10					EA 215951		D:\User\Projects\Dist_07\0700001835_route_5_and_605_pumping_plant\Expedite_12-10-2012\st_19.dgn			27-JUN-2013 06:20	

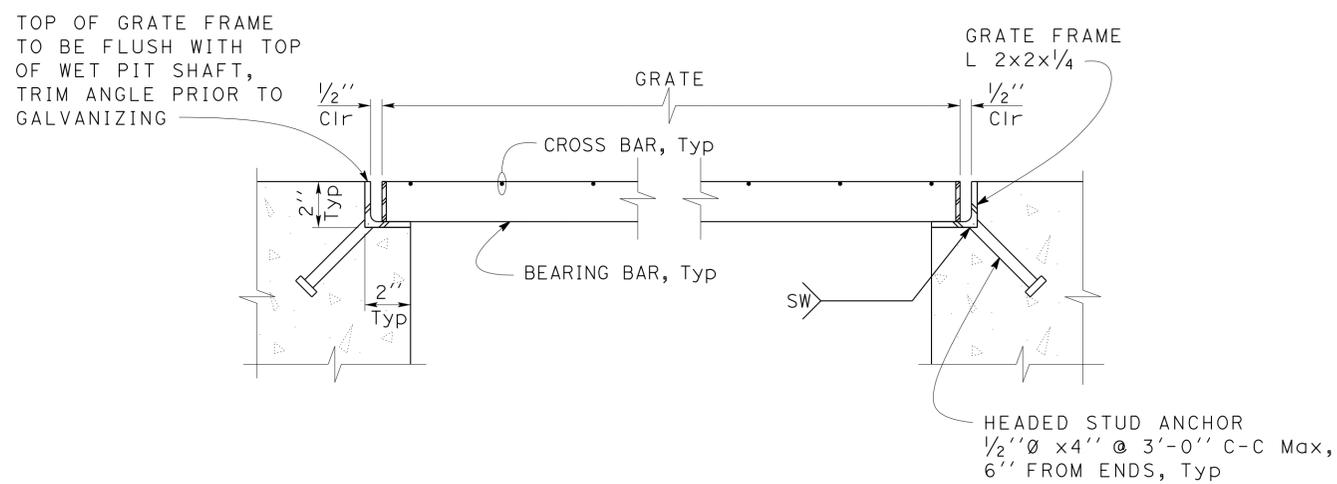
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	975	985
<i>C. N. Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE			
6-24-13					
PLANS APPROVAL DATE					
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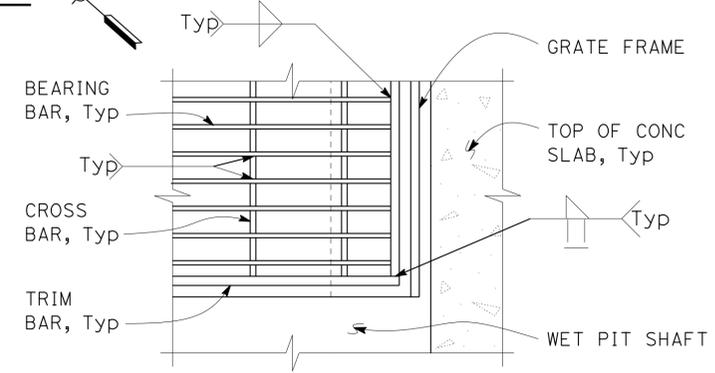
1 EQUIPMENT ACCESS GRATE PLAN
Scale 1/2" = 1' - 0"



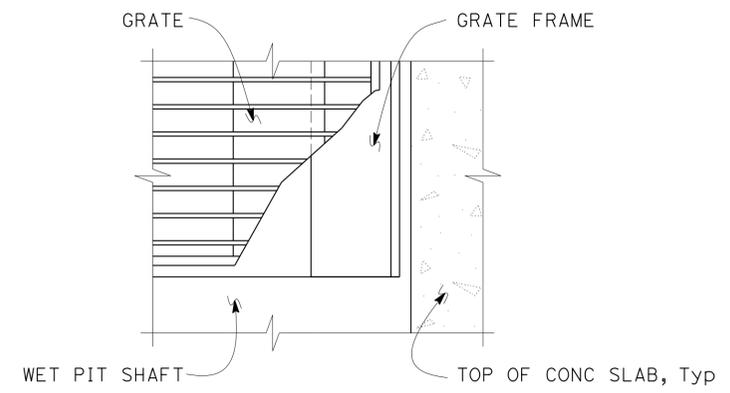
3 GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



4 GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



2 GRATE DETAIL
Scale 3" = 1' - 0"



5 GRATE FRAME DETAIL
Scale 3" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

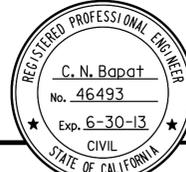
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

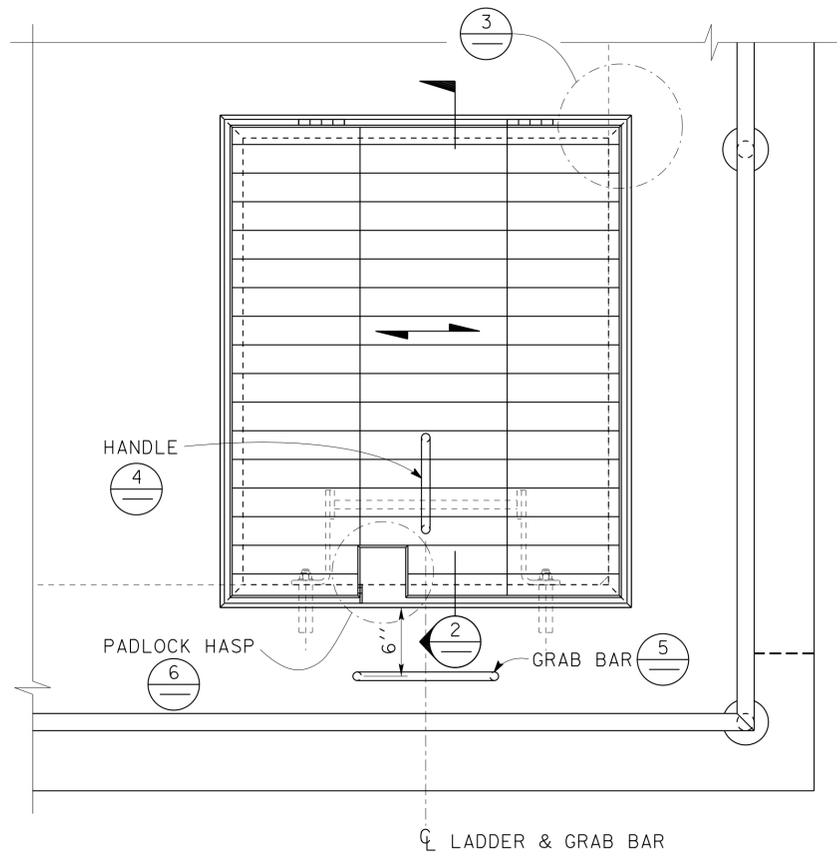
DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 53-1660W
POST MILE 5.8/8.3

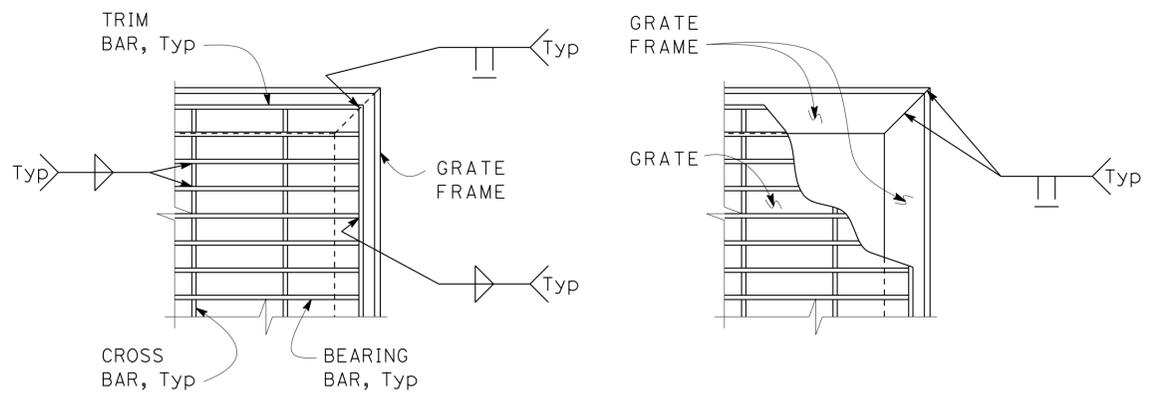
ROUTE 5/605 PUMPING PLANT
EQUIPMENT ACCESS GRATE
PLAN & DETAILS

SHEET ST-20 OF 24

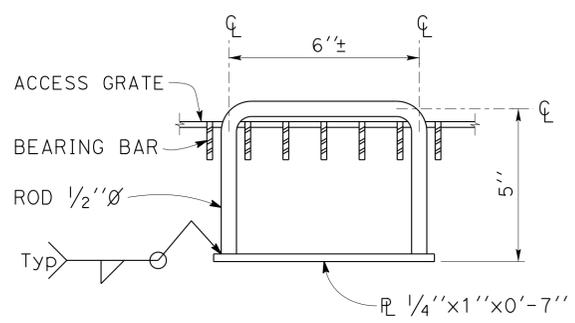
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	976	985
<i>N. Bapat</i> REGISTERED CIVIL ENGINEER			12-07-2012 DATE		
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					



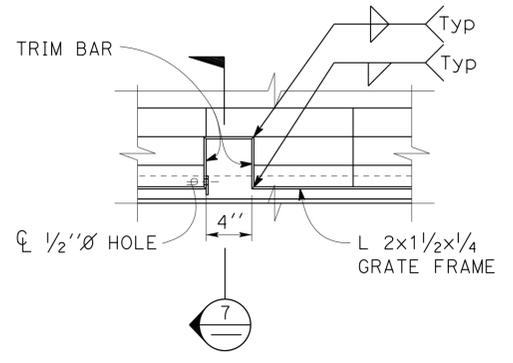
1 SUMP ACCESS GRATE DETAIL
Scale 1/2" = 1' - 0"



3 GRATE AND FRAME DETAILS
Scale 3" = 1' - 0"

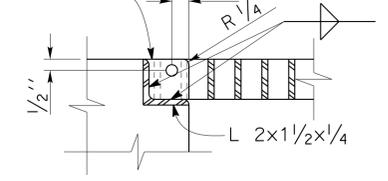


4 HANDLE DETAIL
Scale 4" = 1' - 0"

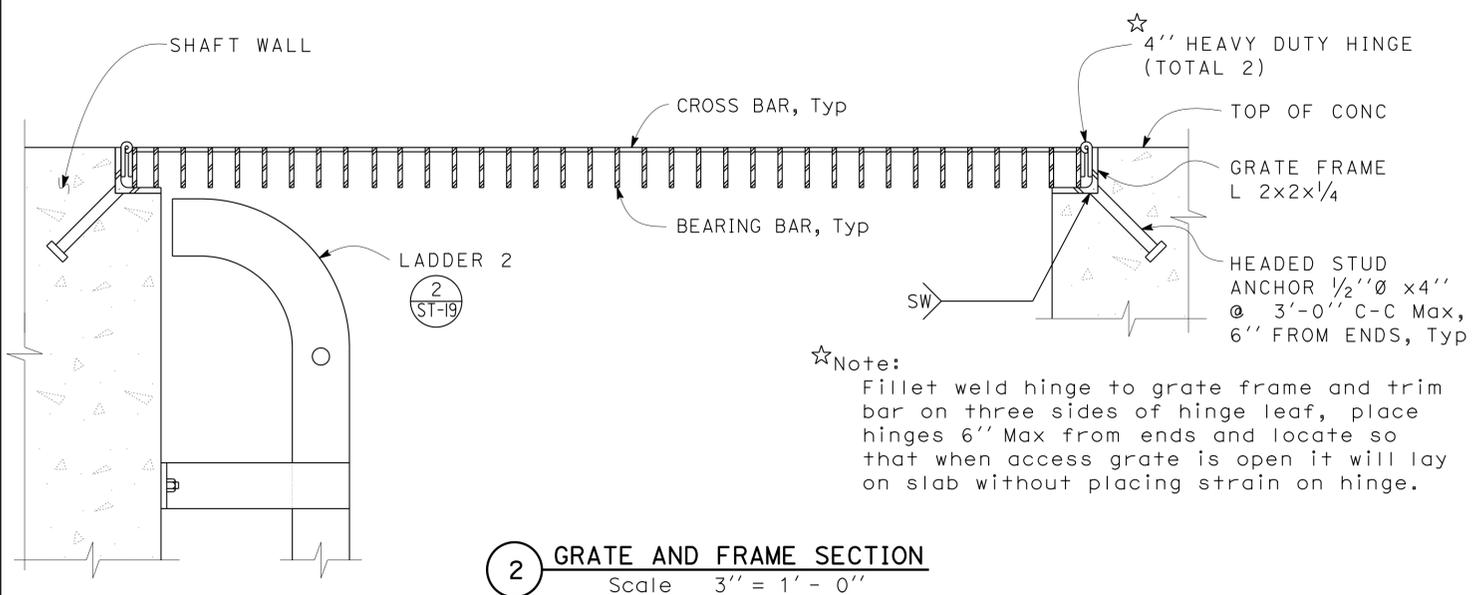


6 HASP PLAN VIEW
Scale 1/2" = 1' - 0"

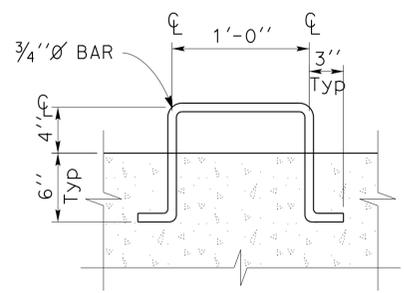
R 1/4" x 1 1/4" x 0' - 1 3/4"
WITH 1/2" Ø HOLE FOR
PADLOCK PROVIDE HOLE
IN ADJACENT TRIM BAR
TO MATCH



7 HASP SECTION
Scale 3" = 1' - 0"



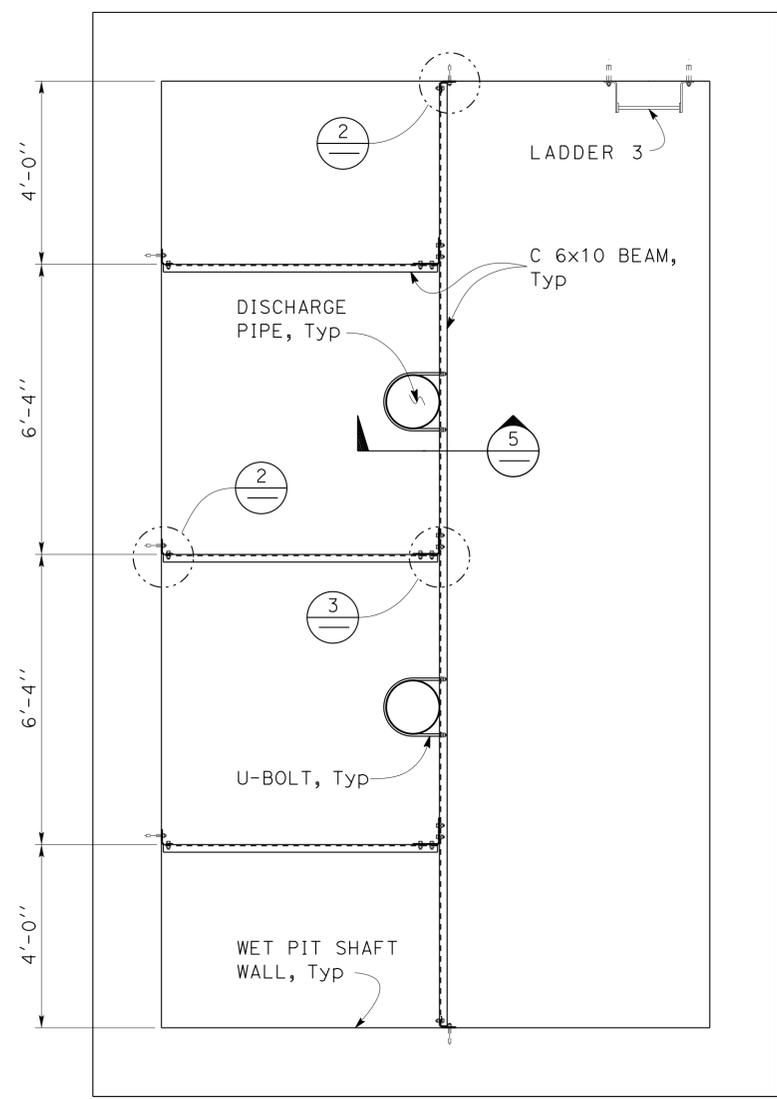
2 GRATE AND FRAME SECTION
Scale 3" = 1' - 0"



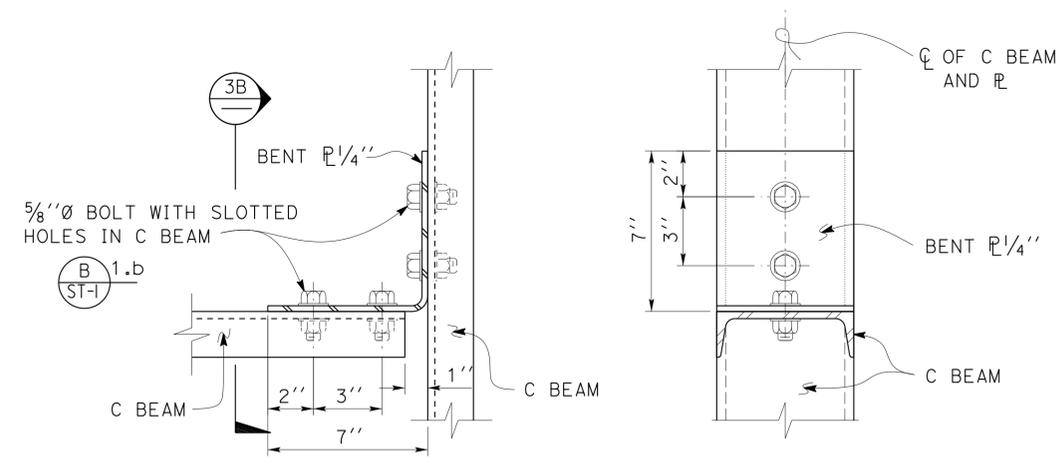
5 GRAB BAR DETAIL
Scale 1/2" = 1' - 0"

DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET OF ST-21
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE		
QUANTITIES	BY		CHECKED		UNIT	3581	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	25	34
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	D:\User\Projects\Dist_07\0700001835_route_5_and_605_pumping_plant\Expedite_12-10-2012\st_21.dgn	

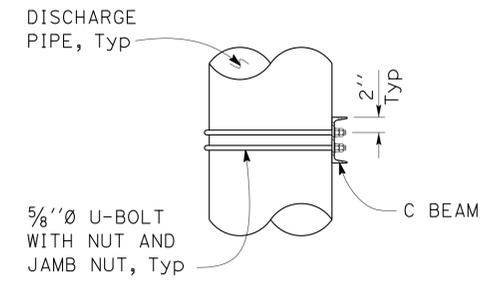
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	977	985
<i>C. N. Bapat</i> REGISTERED CIVIL ENGINEER		12-07-2012 DATE			
6-24-13 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.					



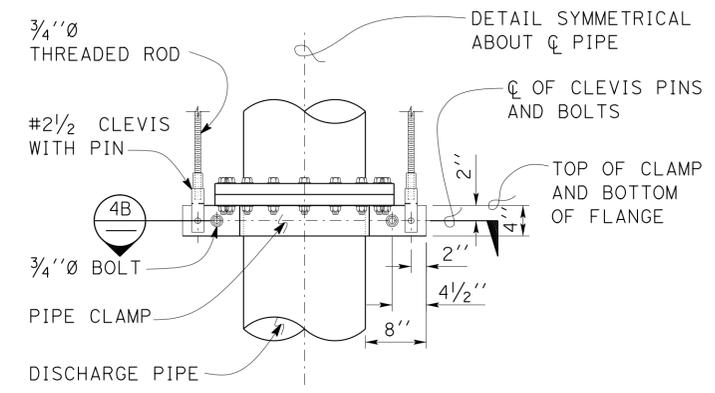
1 DISCHARGE PIPE SUPPORT PLAN
Scale 1/2" = 1' - 0"



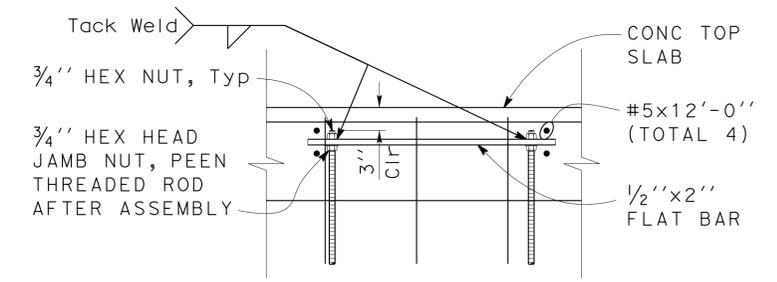
3 C BEAM TO C BEAM CONNECTION
Scale 3" = 1' - 0"



5 PIPE TO C BEAM BRACING CONNECTION
Scale 1" = 1' - 0"

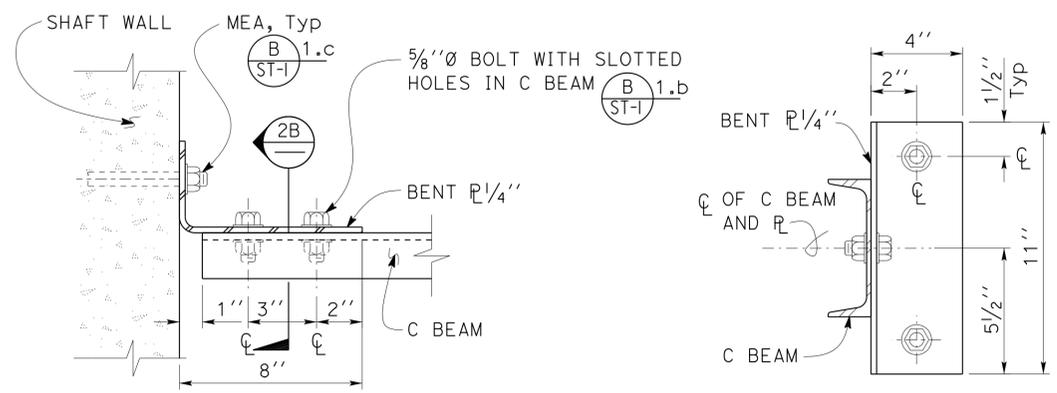


4A ELEVATION

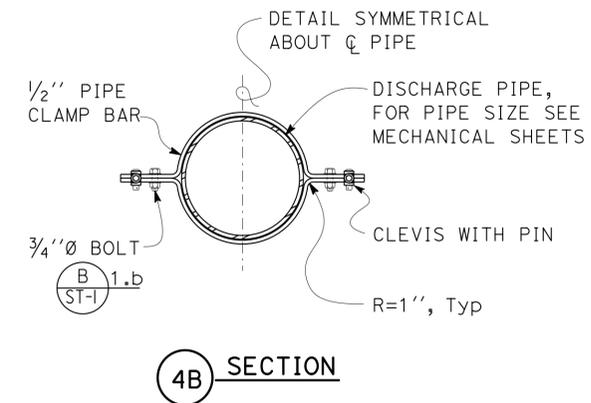


NOTE: For items not noted see detail 4

6 THREADED ROD INTO TOP SLAB CONNECTION
Scale 1" = 1' - 0"



2A PLAN
2B ELEVATION
2 C BEAM TO WALL CONNECTION
Scale 3" = 1' - 0"



4B SECTION

4 PIPE CLAMP DETAIL
Scale 1" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET OF ST-22
POST MILE	5.8/8.3		
DISCHARGE PIPE SUPPORT DETAILS			

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3581
PROJECT NUMBER & PHASE 07000018351

REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
12-28-11 01-16-12 01-26-12 02-01-12 02-15-12 02-23-12 04-13-12 05-15-12 12-05-12	26 34

D:\User\Projects\Dist_07\0700001835_route_5_and_605_pumping_plant\Expedite_12-10-2012\st_22.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	978	985

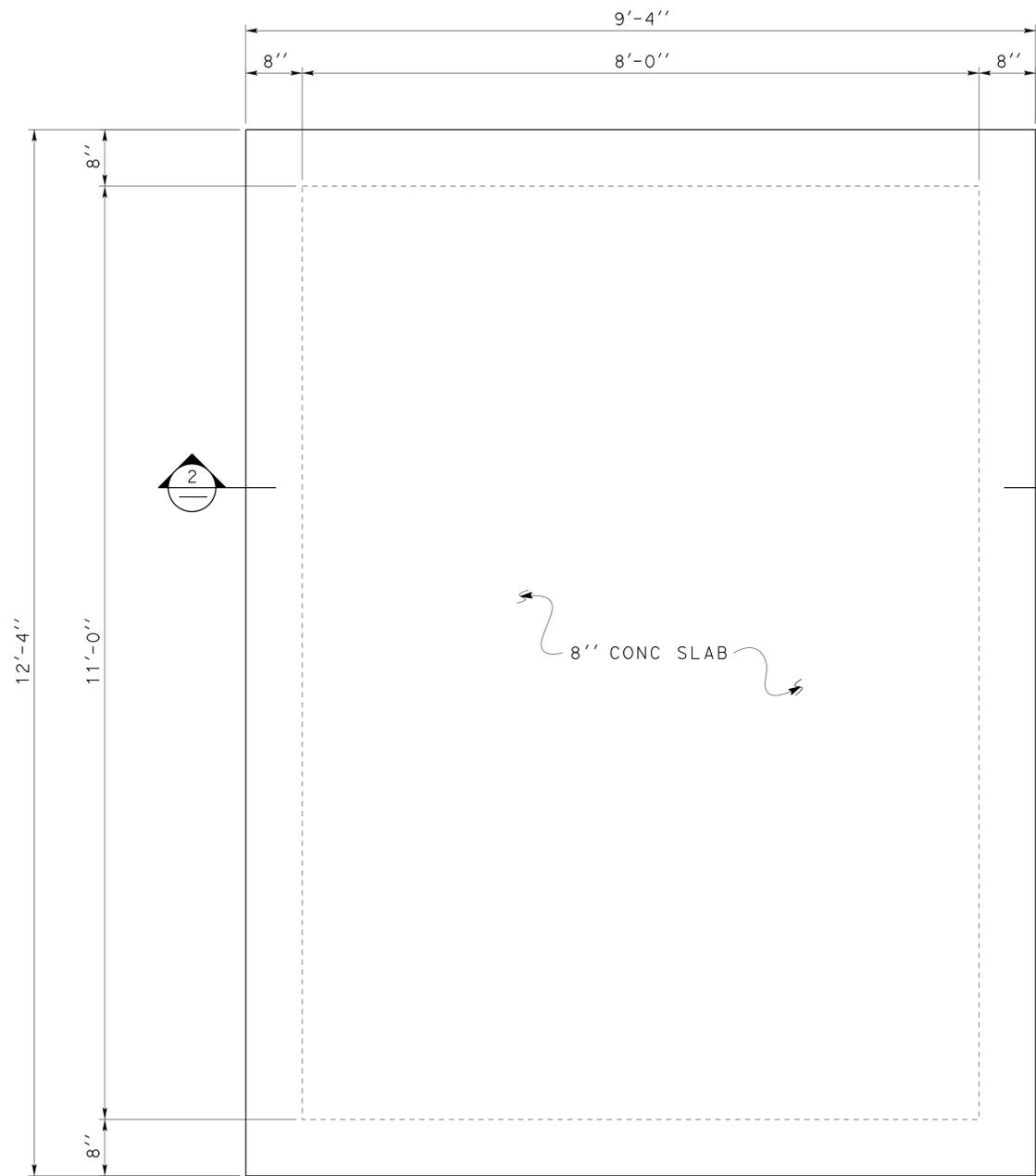
N. Bapat
REGISTERED CIVIL ENGINEER

12-07-2012
DATE

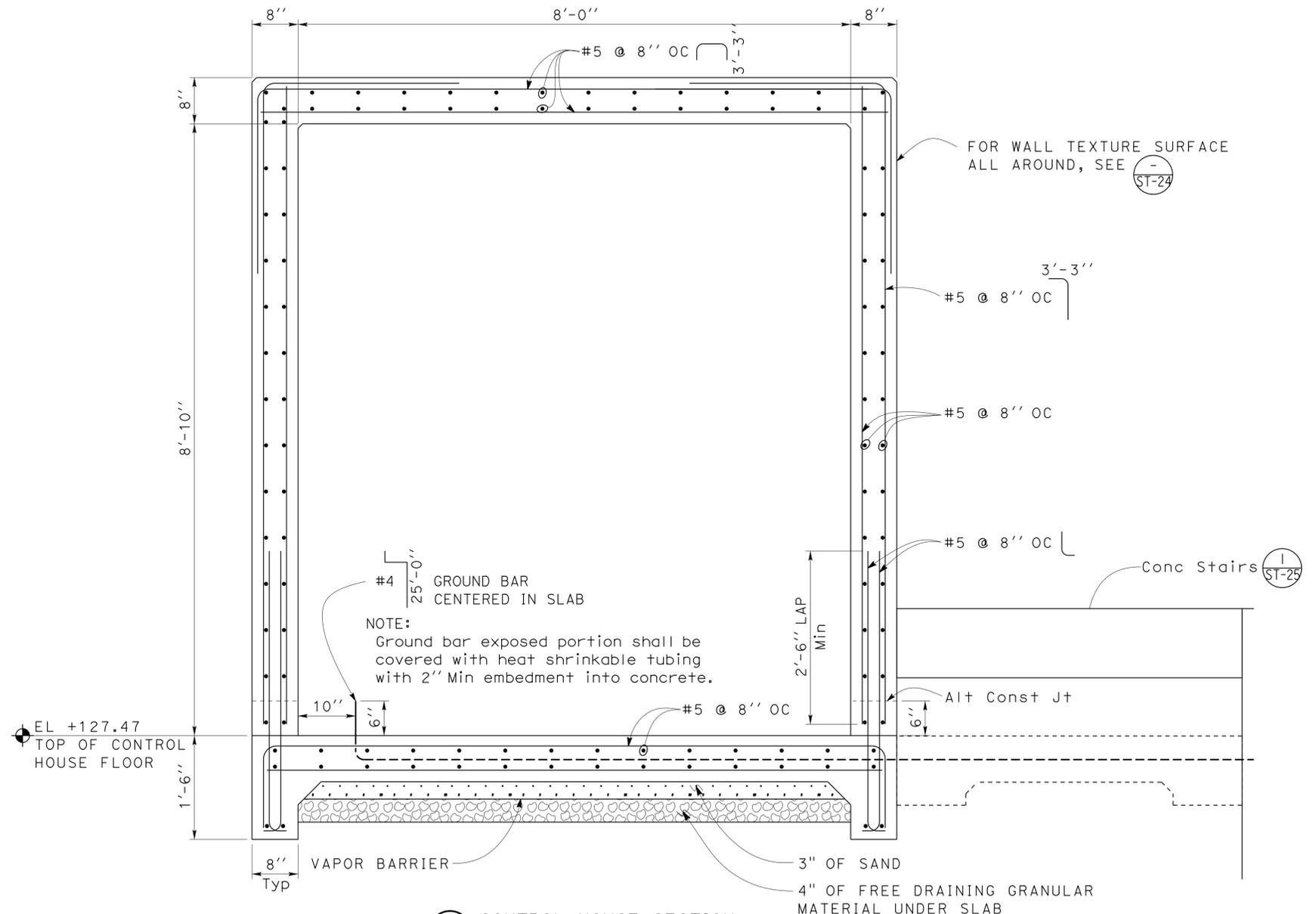
C. N. Bapat
No. 46493
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

6-24-13
PLANS APPROVAL DATE

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1 CONTROL HOUSE PLAN
Scale 1" = 1' - 0"



2 CONTROL HOUSE SECTION
Scale 1" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT
CONTROL HOUSE PLAN & SECTION

SHEET 27 OF 34
ST-23

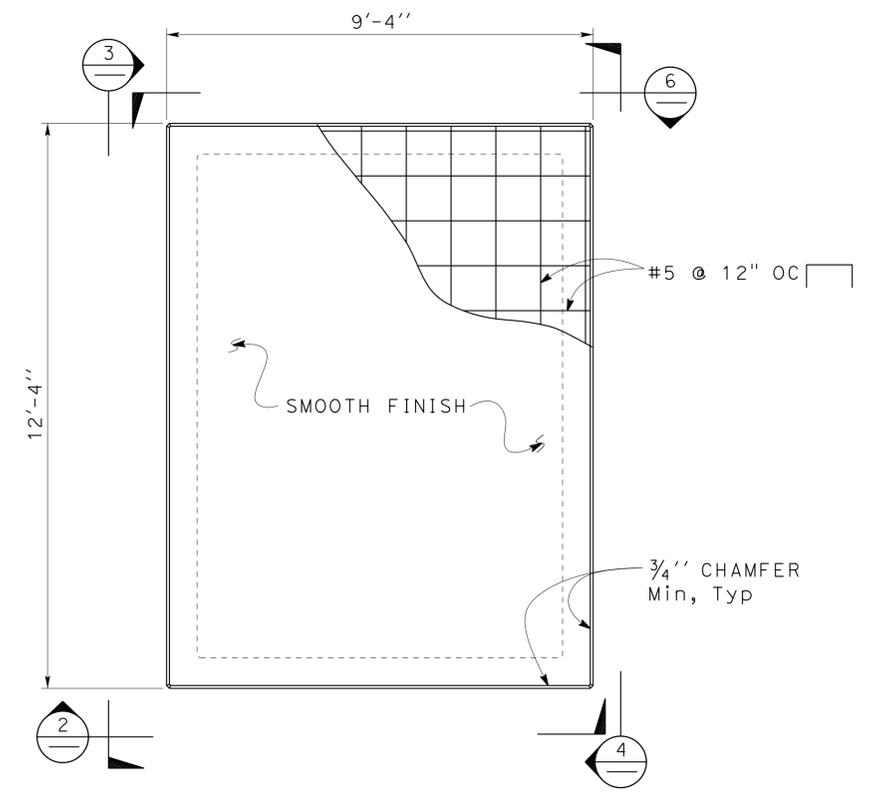


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	979	985

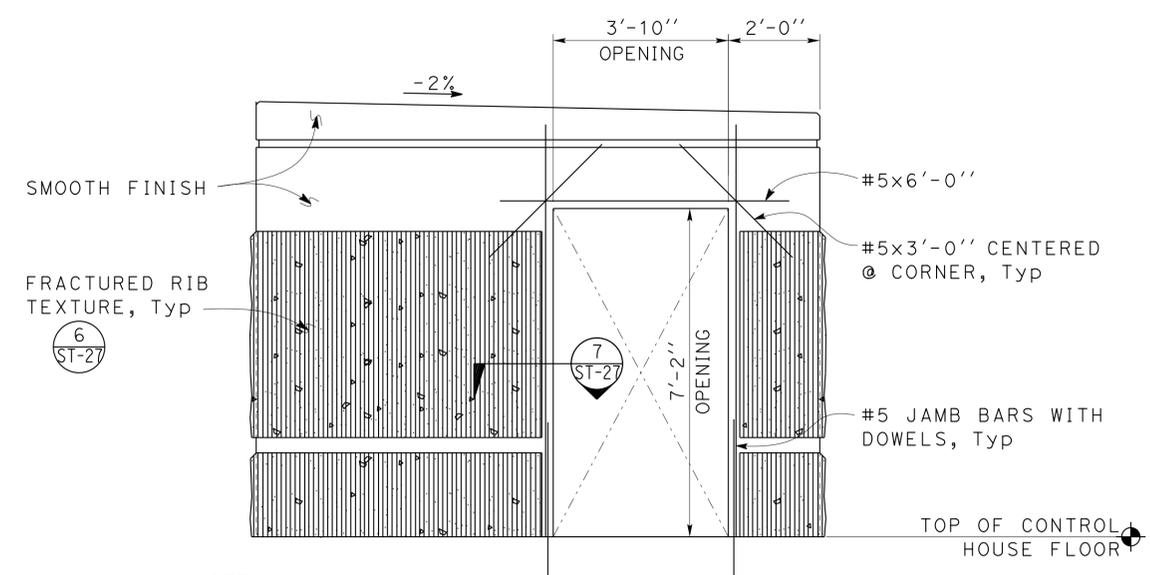
<i>N. Bapat</i>	12-07-2012	REGISTERED PROFESSIONAL ENGINEER C. N. Bapat No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA
REGISTERED CIVIL ENGINEER	DATE	

6-24-13
PLANS APPROVAL DATE

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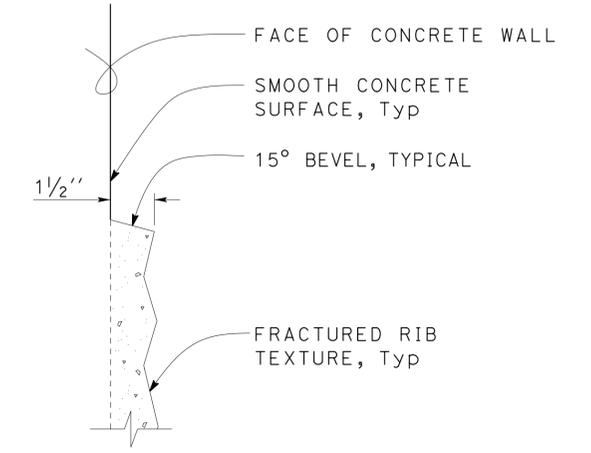


1 CONTROL HOUSE ROOF PLAN
Scale 1/2" = 1' - 0"

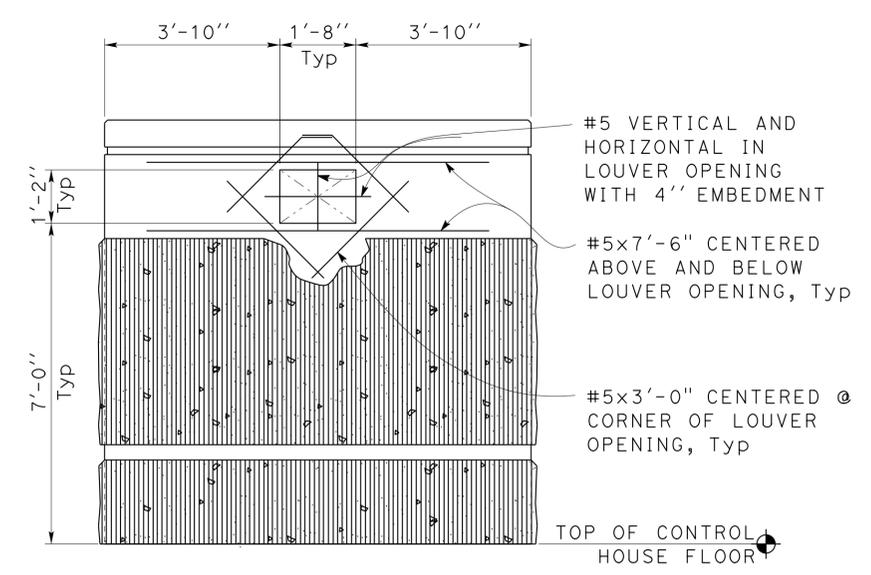


NOTE:
See mechanical plans for door & louver details.

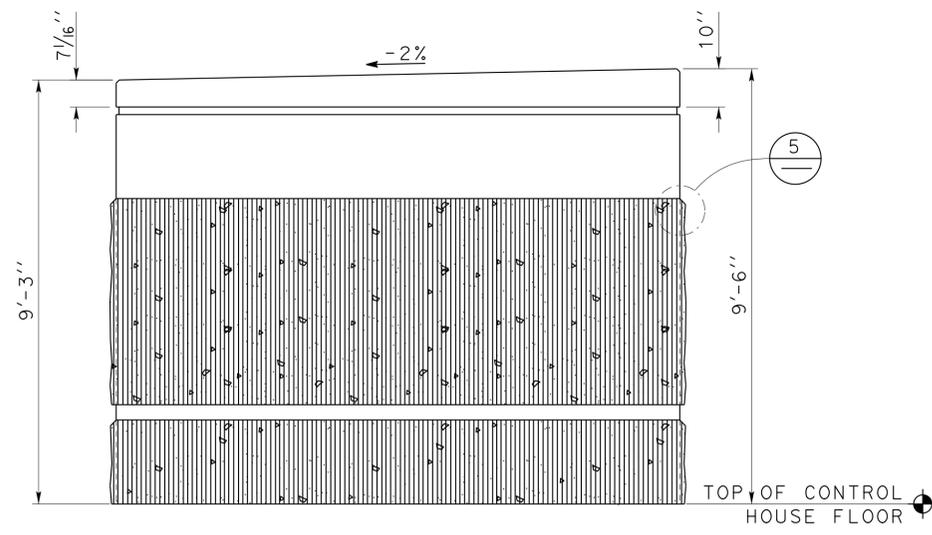
3 CONTROL HOUSE LEFT ELEVATION
Scale 1/2" = 1' - 0"



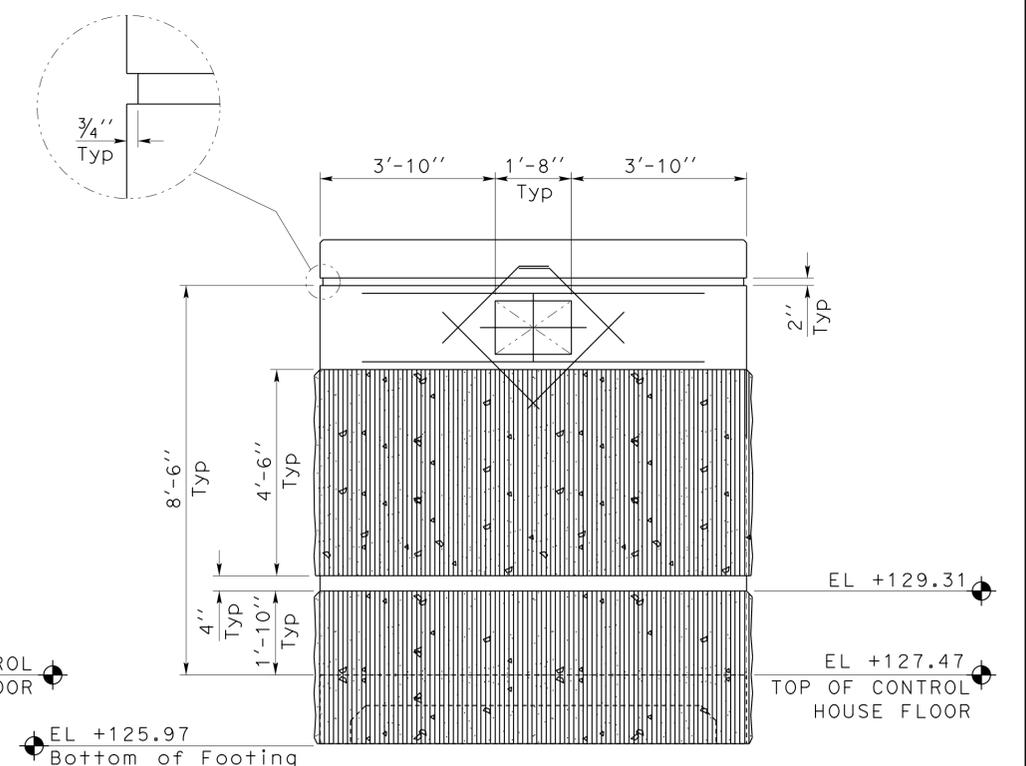
5 CONTROL HOUSE TEXTURE DETAIL
Scale 3" = 1' - 0"



2 CONTROL HOUSE FRONT ELEVATION
Scale 1/2" = 1' - 0"



4 CONTROL HOUSE RIGHT ELEVATION
Scale 1/2" = 1' - 0"



NOTE:
Match bottom of Texture with bottom of footing, typical

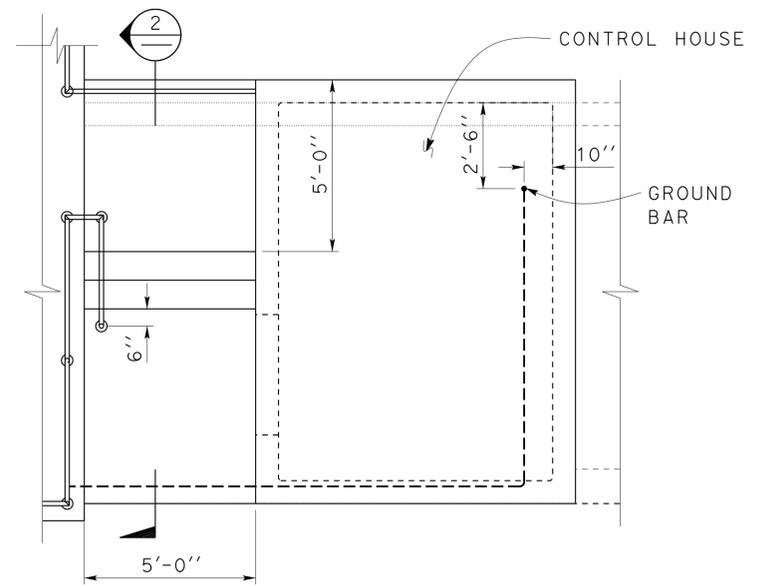
6 CONTROL HOUSE BACK ELEVATION
Scale 1/2" = 1' - 0"

DESIGN BY Chandra Bapat	CHECKED BY Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-24
				POST MILE 5.8/8.3		
DETAILS BY Daniel Harakh	CHECKED BY Chandra Bapat	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3581 07000018351	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 02-13-12 02-15-12 03-15-12 04-08-12 05-07-12 05-15-12 08-21-12 08-28-12	SHEET OF 28 34
QUANTITIES BY	CHECKED	EA 215951	D:\User\Projects\Dist_07\0700001835_route_5_and_605_pump_ing_plant\Expedite_12-10-2012\st_24.dgn			

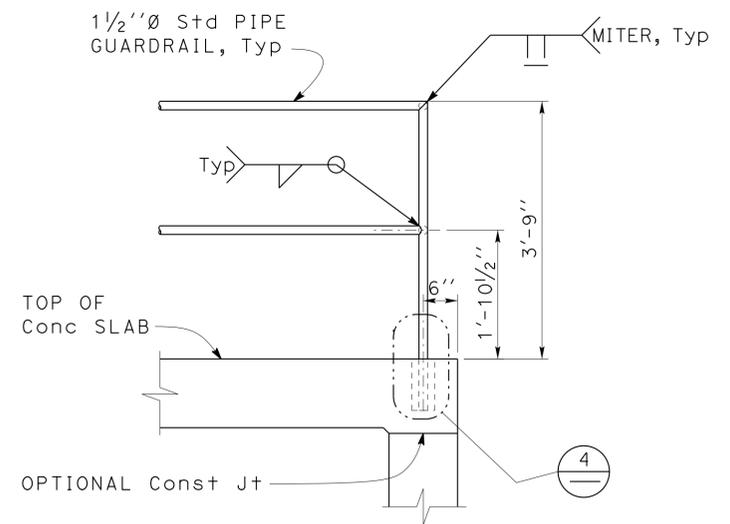
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	980	985

<i>Abhat</i>	12-07-2012	REGISTERED PROFESSIONAL ENGINEER C. N. Bapat No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA
REGISTERED CIVIL ENGINEER	DATE	
6-24-13	PLANS APPROVAL DATE	

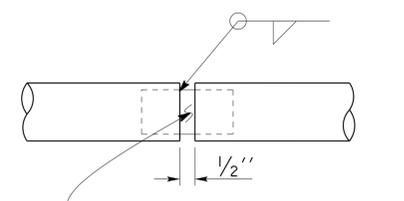
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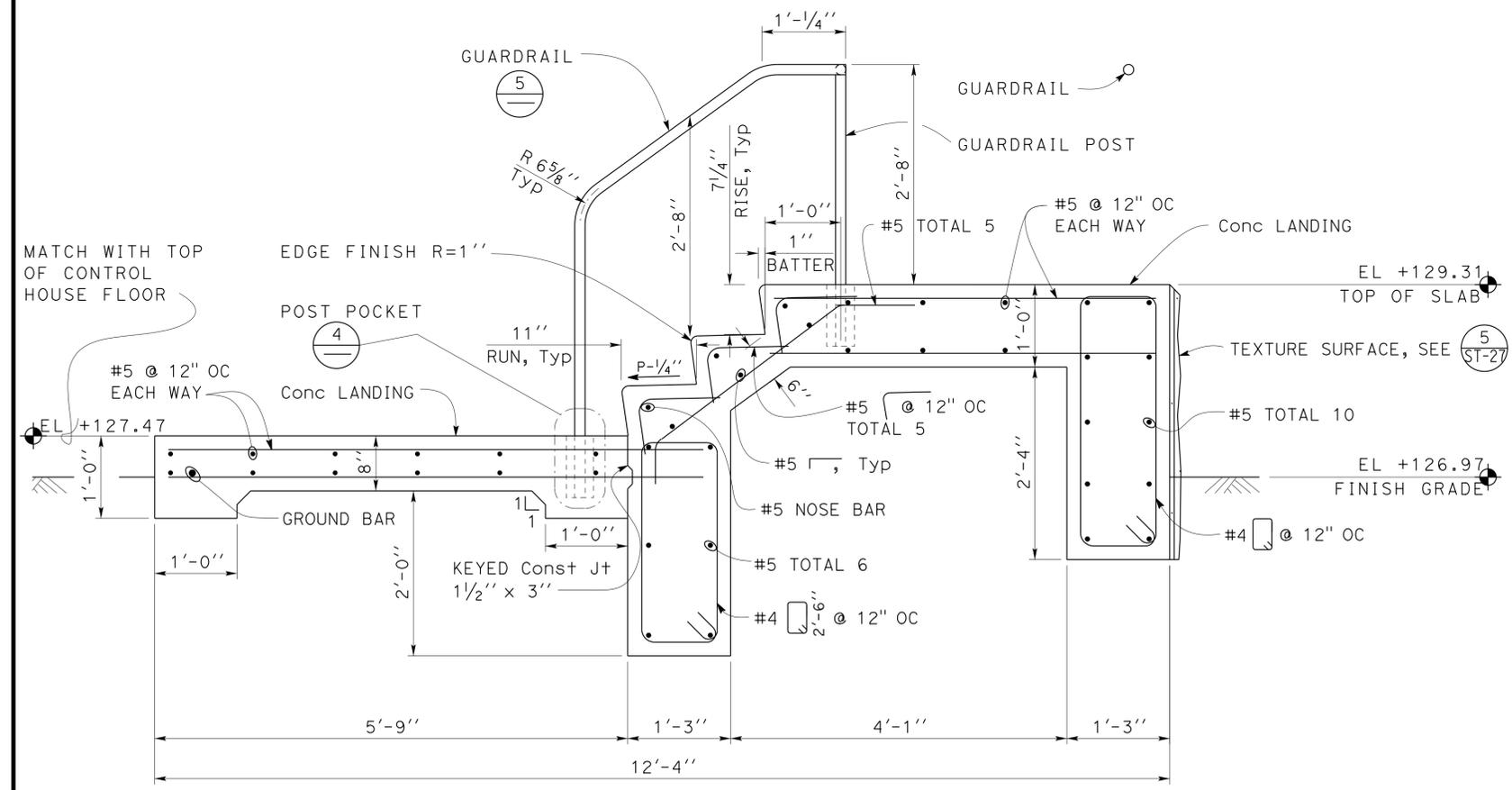
1 STAIRWAY AT CONTROL HOUSE
Scale $\frac{3}{8}'' = 1' - 0''$



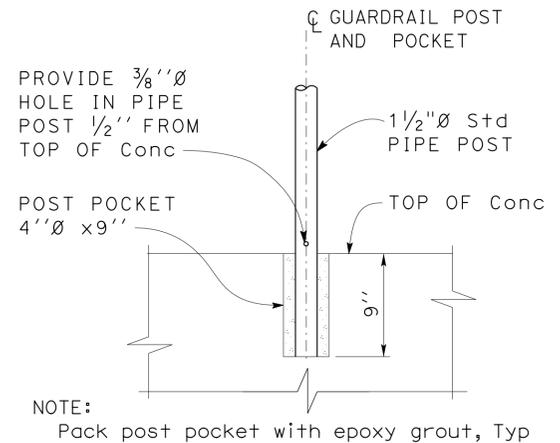
3 GUARDRAIL ELEVATION
Scale $\frac{3}{4}'' = 1' - 0''$



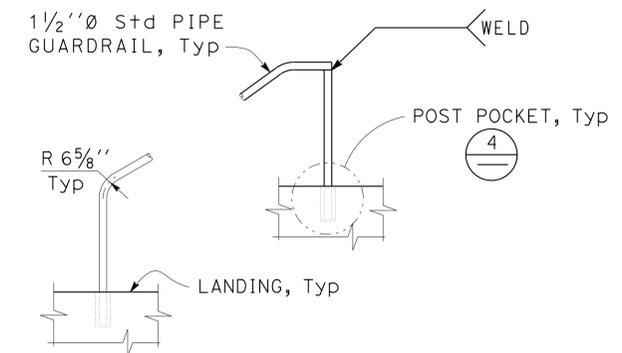
6 EXPANSION JOINT DETAIL
Scale $4'' = 1' - 0''$



2 CONCRETE STAIRS @ CONTROL HOUSE
Scale $1'' = 1' - 0''$



4 POST POCKET DETAIL
Scale $1\frac{1}{2}'' = 1' - 0''$



5 ACCESS STAIRWAY RAILING DETAILS
Scale $\frac{1}{2}'' = 1' - 0''$

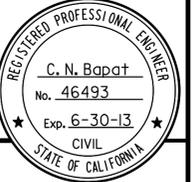
DESIGN	BY	Chandra Bapat	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	53-1660W	ROUTE 5/605 PUMPING PLANT	SHEET ST-25		
	DETAILS	BY	Daniel Harakh	CHECKED			Chandra Bapat	POST MILE			5.8/8.3	STAIR DETAILS
QUANTITIES	BY		CHECKED		UNIT	3581	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	29	34
PROJECT NUMBER & PHASE						EA 215951	07000018351	04-04-12 04-08-12 04-11-12 05-16-12 05-18-12 05-29-12			OF	

TAEMWW Imperial Rev. 7/10
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	981	985

N. Bapat
REGISTERED CIVIL ENGINEER

12-07-2012
DATE

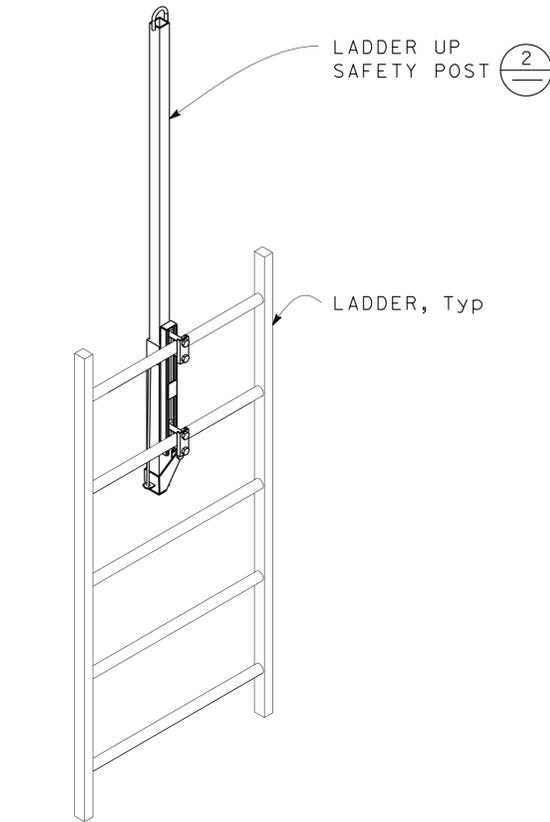


6-24-13
PLANS APPROVAL DATE

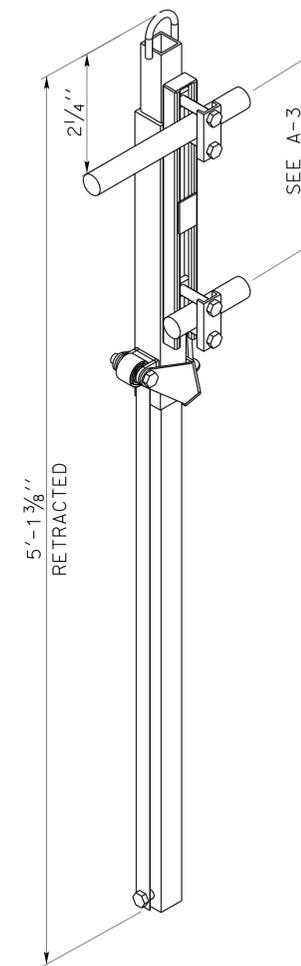
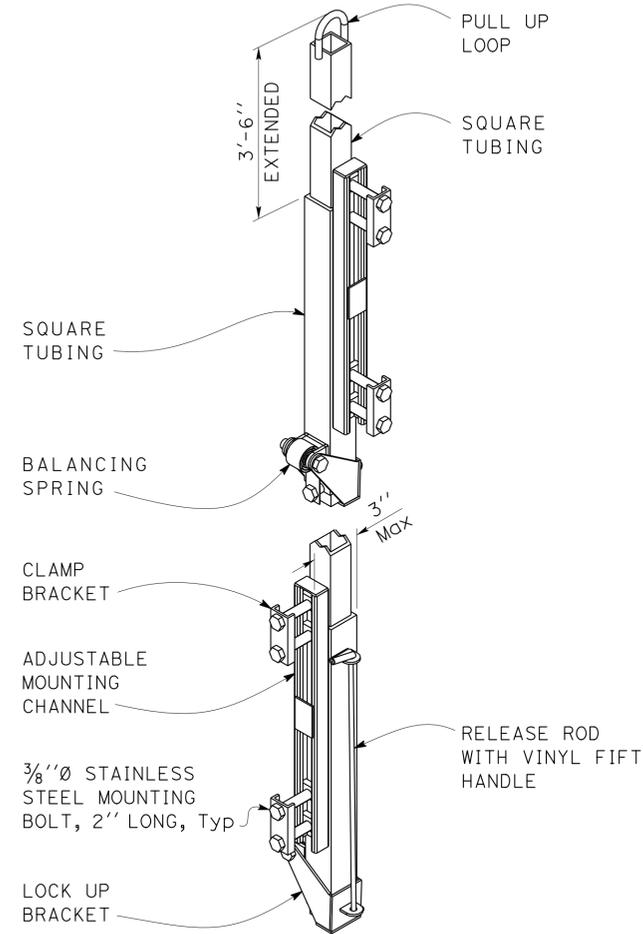
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

A NOTES:

1. The Ladder Up safety post is furnished completely assembled ready to mount on rear of ladder with clamp brackets on climbing side. Ladder must be structurally sound and securely anchored.
2. On hollow round rung ladders insert solid round bar (same length as rung) into the top two rungs to provide additional strength and prevent crushing of the rung when the Ladder Up is fastened.
3. Adjustable mounting fits ladders with rung spacing up about 14" center to center.
4. Clamp bracket may be reversed to accommodate rung sizes of 3/4" to 1 1/4" with standard 2" bolt furnished. Larger rungs will require longer bolts.



1 CONNECTION VIEW
NO SCALE



2 DETAILS
NO SCALE

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF
CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL
AND
STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

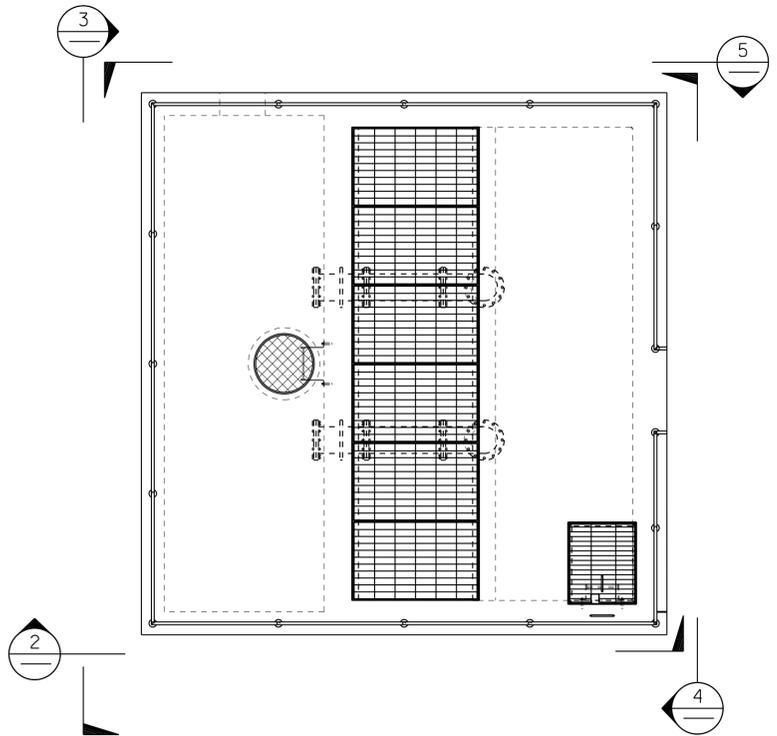
ROUTE 5/605 PUMPING PLANT
LADDER UP SAFETY POST

SHEET
ST-26

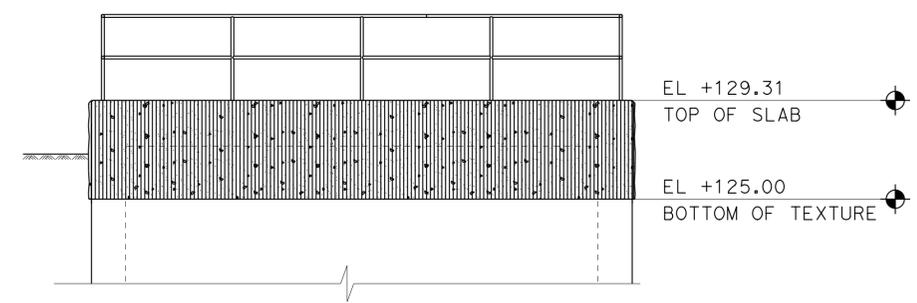
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	0.0/7.6	982	985

<i>N. Bapat</i>	12-07-2012	REGISTERED PROFESSIONAL ENGINEER No. 46493 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA
REGISTERED CIVIL ENGINEER	DATE	
6-24-13	PLANS APPROVAL DATE	

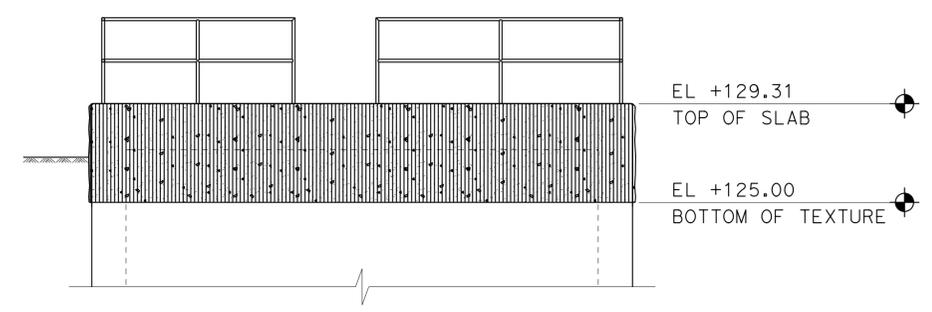
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



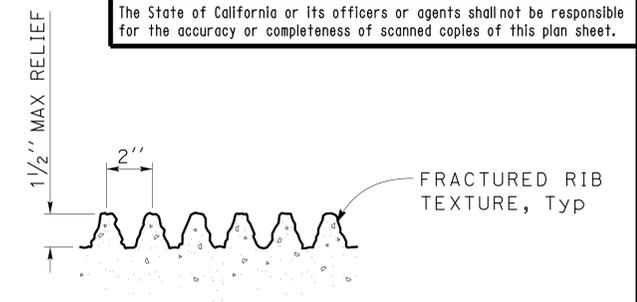
1 PUMP PLANT ROOF PLAN
Scale 1/4" = 1' - 0"



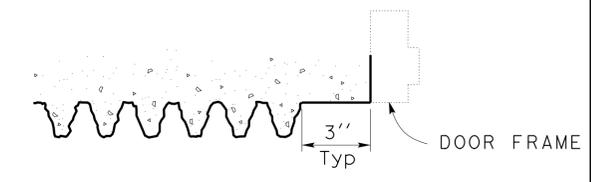
3 PUMP PLANT LEFT ELEVATION
Scale 1/4" = 1' - 0"



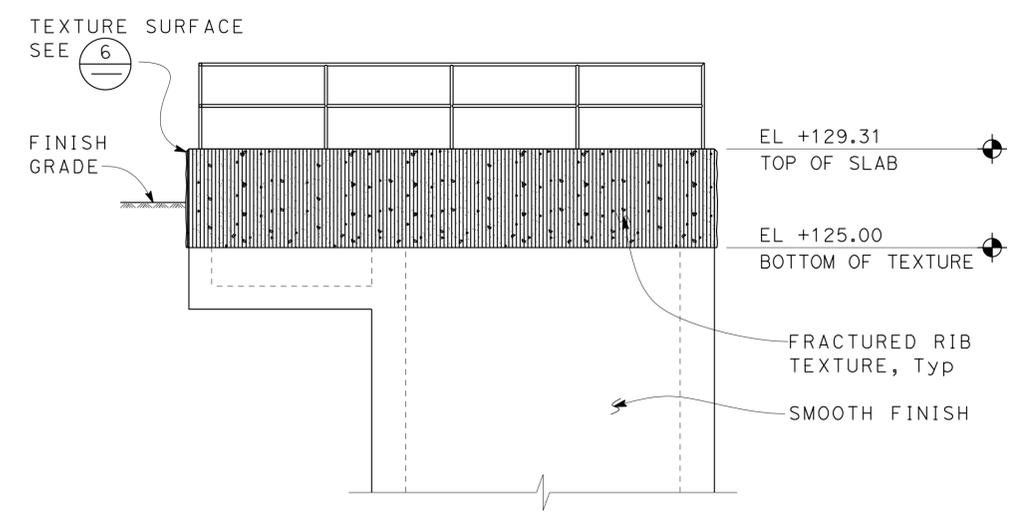
4 PUMP PLANT RIGHT ELEVATION
Scale 1/4" = 1' - 0"



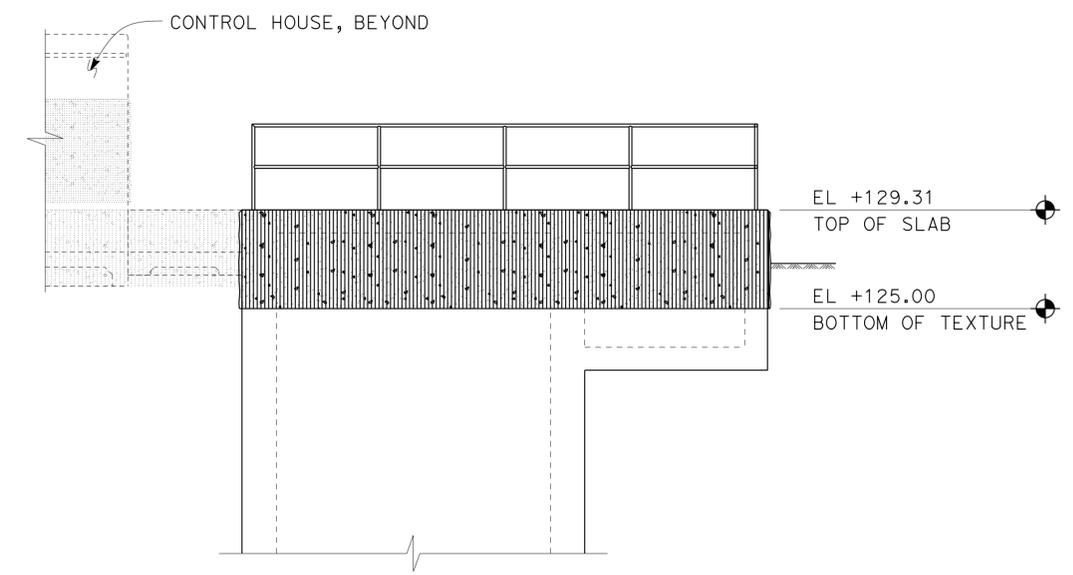
6 TEXTURE DETAIL
Scale 3" = 1' - 0"



7 TEXTURE DETAIL AT DOOR
Scale 3" = 1' - 0"



2 PUMP PLANT FRONT ELEVATION
Scale 1/4" = 1' - 0"



5 PUMP PLANT BACK ELEVATION
Scale 1/4" = 1' - 0"

DESIGN	BY Chandra Bapat	CHECKED Thomas Tong
DETAILS	BY Daniel Harakh	CHECKED Chandra Bapat
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	53-1660W
POST MILE	5.8/8.3

ROUTE 5/605 PUMPING PLANT

PUMP PLANT EXTERIOR FINISH PLAN

SHEET **ST-27**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	983	985

M. Mushtaq Ahmed
 REGISTERED CIVIL ENGINEER DATE 5-29-12
 PLANS APPROVAL DATE 6-24-13

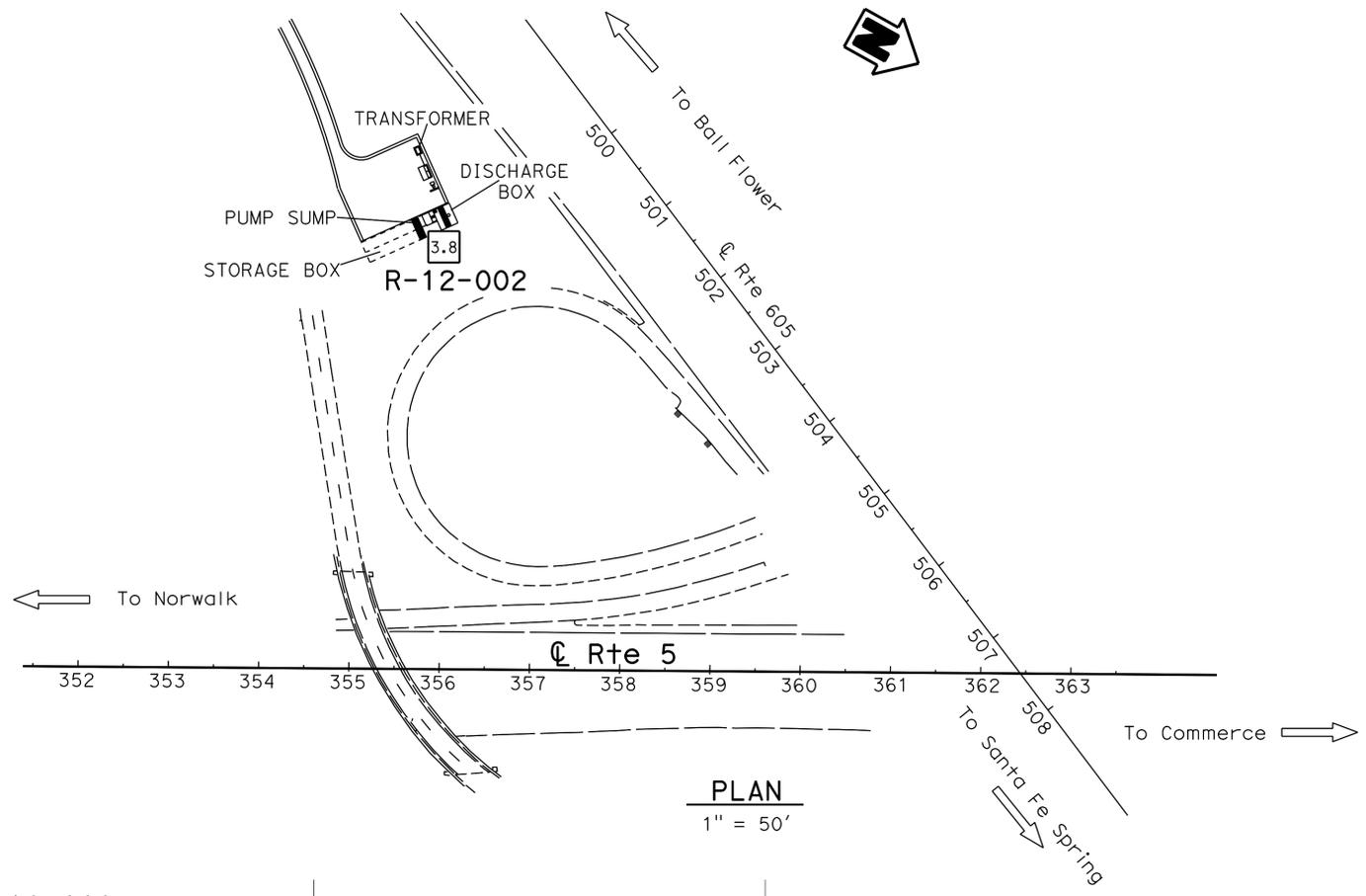
Mushtaq Ahmed
 No. C056390
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

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BENCH MARK

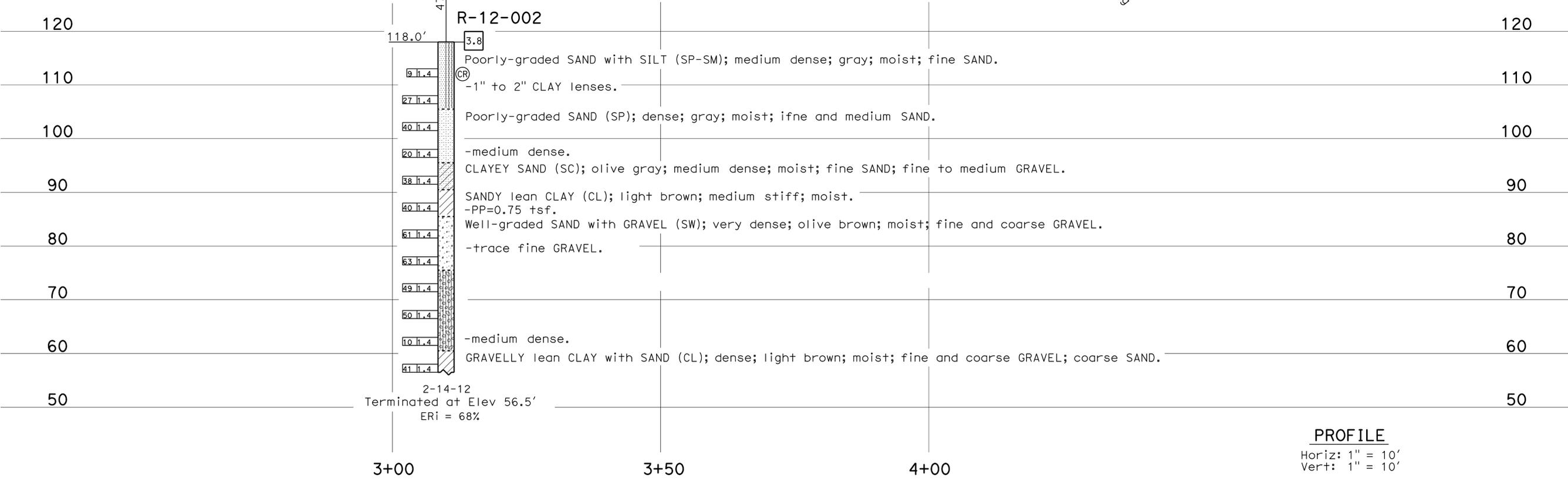
Elev 41.148' LA 5 6.7 1995
 Set 2 1/2" CADT Disk in concrete curb, flush, stamped "LA 5 6.7 1995".
 The mark is located on the southbound 5 transition ramp to the northbound 605 (San Gabriel) Fwy. It is on the south curb between the north and southbound lanes of the 605.

Northing 1,991,116.983
 Easting 548,799.365
 Vertical NAVD88, 0405-CALIFORNIA 5 US FEET



PLAN
 1" = 50'

Note: No ground water encountered during field investigation.



PROFILE
 Horiz: 1" = 10'
 Vert: 1" = 10'

ENGINEERING SERVICES		MATERIALS AND GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH X		BRIDGE NO.	ROUTE 5/605 PUMPING PLANT		
FUNCTIONAL SUPERVISOR NAME: S. Sukiasian	DRAWN BY: W. Tang 05/12 CHECKED BY: K. Barker	FIELD INVESTIGATION BY: M. Ahmed						POST MILE 5.8/6.8	LOG OF TEST BORINGS 1 OF 3		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3643 PROJECT NUMBER & PHASE: 07000018351		CONTRACT NO.: 07-215951		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 05-21-12 05-23-12	SHEET 32 OF 34

FILE => st_Log01_of_03.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	0.0/7.6	984	985

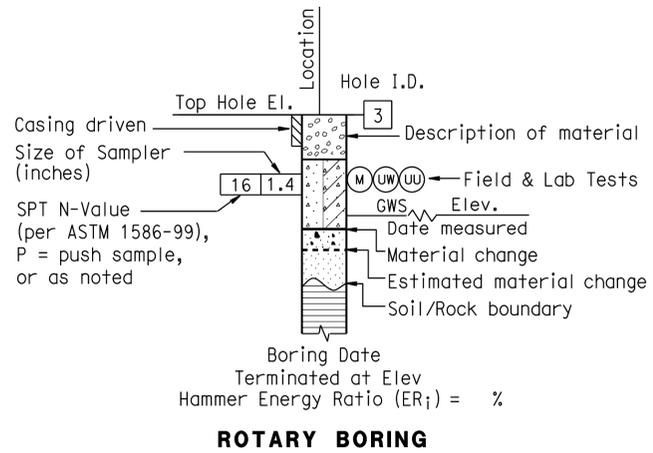
M. Mushfaq Ahmed
 REGISTERED CIVIL ENGINEER DATE 5-29-12
 PLANS APPROVAL DATE 6-24-13
 No. C056390
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

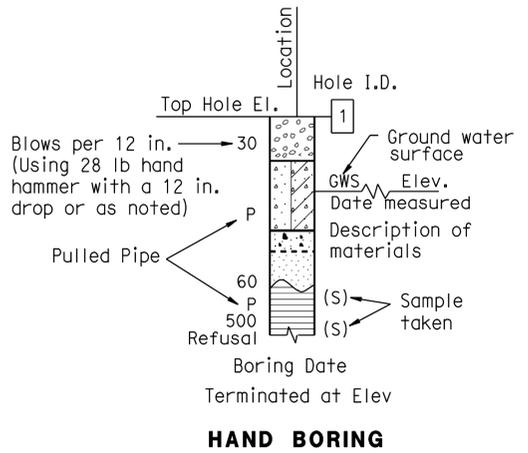
BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	RC	Rotary drilled rock core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778)
	O	Other (note on LOTB)

Note: Size in inches.

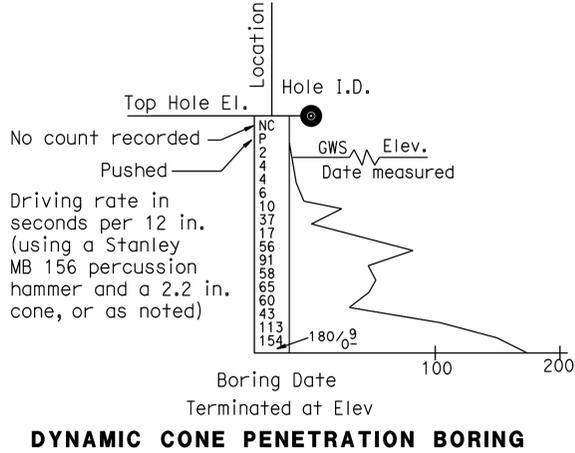
CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



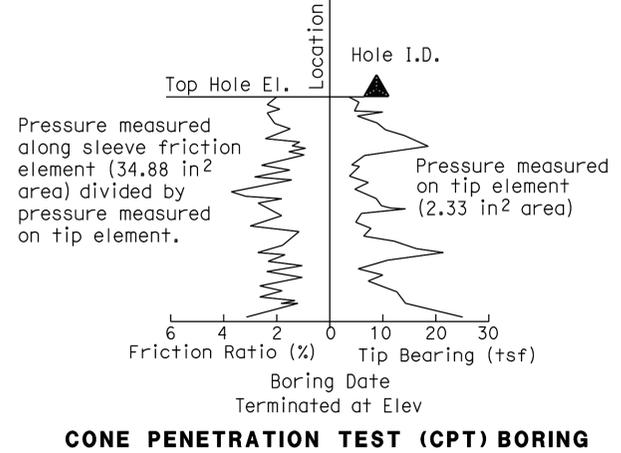
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) BORING

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH X	BRIDGE NO. POST MILE 5.8/6.8	ROUTE 5/605 PUMPING PLANT LOG OF TEST BORINGS 2 OF 3
PREPARED BY: W. Tang 05/12		UNIT: 3643 PROJECT NUMBER & PHASE: 07000018351	CONTRACT NO.: 07-215951	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET 33 OF 34

GS LOTB SOIL LEGEND ORIGINAL SCALE IN INCHES FOR REDUCED PLANS FILE => st_Log02_of_03.dgn

GROUP SYMBOLS AND NAMES					
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	GW	Well-graded GRAVEL		CL	Lean CLAY
		Well-graded GRAVEL with SAND			Lean CLAY with SAND
	GP	Poorly-graded GRAVEL		CL-ML	Lean CLAY with GRAVEL
		Poorly-graded GRAVEL with SAND			SANDY lean CLAY
	GW-GM	Well-graded GRAVEL with SILT		ML	SANDY lean CLAY with GRAVEL
		Well-graded GRAVEL with SILT and SAND			GRAVELLY lean CLAY
	GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY)		OL	GRAVELLY lean CLAY with SAND
		Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)			SILTY CLAY
	GP-GM	Poorly-graded GRAVEL with SILT		OH	SILTY CLAY with SAND
		Poorly-graded GRAVEL with SILT and SAND			SILTY CLAY with GRAVEL
	GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		OH	SANDY SILTY CLAY
		Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)			SANDY SILTY CLAY with GRAVEL
	GM	SILTY GRAVEL		OH	GRAVELLY SILTY CLAY
		SILTY GRAVEL with SAND			GRAVELLY SILTY CLAY with SAND
	GC	CLAYEY GRAVEL		OH	ORGANIC lean CLAY
		CLAYEY GRAVEL with SAND			ORGANIC lean CLAY with SAND
	GC-GM	SILTY, CLAYEY GRAVEL		OH	ORGANIC lean CLAY with GRAVEL
		SILTY, CLAYEY GRAVEL with SAND			SANDY ORGANIC lean CLAY
	SW	Well-graded SAND		CH	SANDY ORGANIC lean CLAY with GRAVEL
		Well-graded SAND with GRAVEL			GRAVELLY ORGANIC lean CLAY
	SP	Poorly-graded SAND		MH	GRAVELLY ORGANIC lean CLAY with SAND
		Poorly-graded SAND with GRAVEL			Fat CLAY
	SW-SM	Well-graded SAND with SILT		MH	Fat CLAY with SAND
		Well-graded SAND with SILT and GRAVEL			Fat CLAY with GRAVEL
	SW-SC	Well-graded SAND with CLAY (or SILTY CLAY)		OH	SANDY fat CLAY
		Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)			SANDY fat CLAY with GRAVEL
	SP-SM	Poorly-graded SAND with SILT		OH	GRAVELLY fat CLAY
		Poorly-graded SAND with SILT and GRAVEL			GRAVELLY fat CLAY with SAND
	SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY)		OH	ORGANIC elastic SILT
		Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)			ORGANIC elastic SILT with SAND
	SM	SILTY SAND		OH	ORGANIC elastic SILT with GRAVEL
		SILTY SAND with GRAVEL			SANDY ORGANIC elastic SILT
	SC	CLAYEY SAND		OH	SANDY ORGANIC elastic SILT with GRAVEL
		CLAYEY SAND with GRAVEL			GRAVELLY ORGANIC elastic SILT
	SC-SM	SILTY, CLAYEY SAND		OH	GRAVELLY ORGANIC elastic SILT with SAND
		SILTY, CLAYEY SAND with GRAVEL			ORGANIC SOIL
	PT	PEAT		OL/OH	ORGANIC SOIL with SAND
		PEAT			ORGANIC SOIL with GRAVEL
		COBBLES		OL/OH	SANDY ORGANIC SOIL
		COBBLES and BOULDERS			GRAVELLY ORGANIC SOIL
		BOULDERS			GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(UC)	Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)

M. Mushaq Ahmed
 REGISTERED CIVIL ENGINEER DATE 5-29-12
 6-24-13
 PLANS APPROVAL DATE
 No. C056390
 Exp. 6-30-13
 CIVIL
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APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	