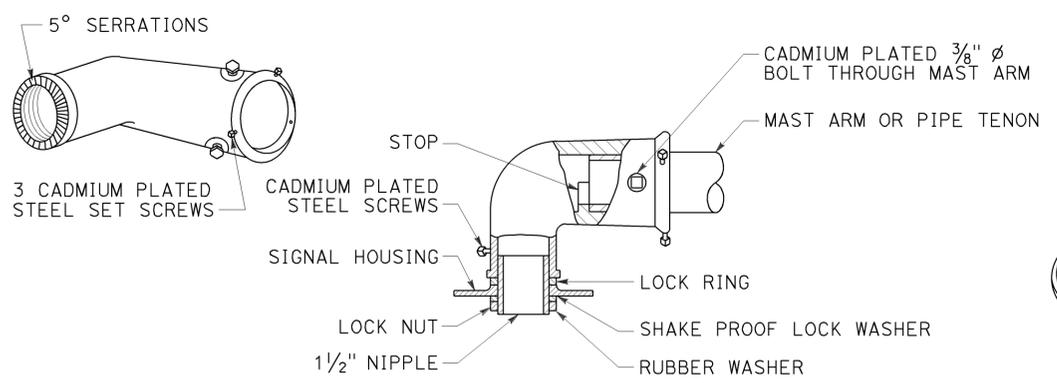


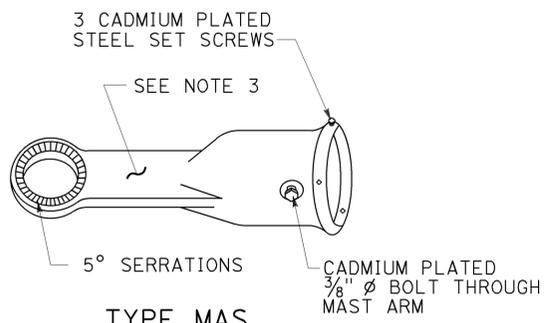
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	301	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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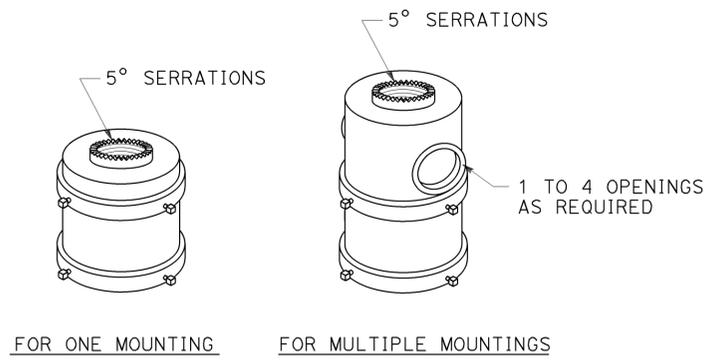
2010 REVISED STANDARD PLAN RSP ES-4D



TYPE MAT
MAST ARM MOUNTING
For 2 NPS pipe, see Note 1.

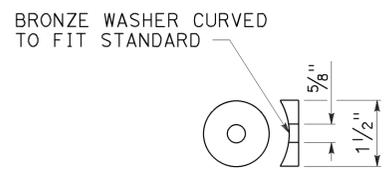


TYPE MAS
MAST ARM MOUNTING
For 2 NPS pipe, see Note 1.

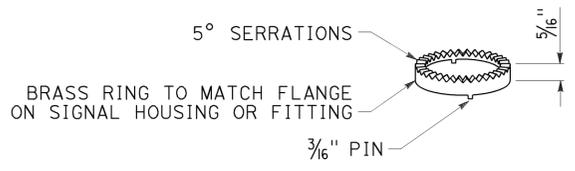


TOP MOUNTINGS
For 4 NPS pipe, see Note 2.

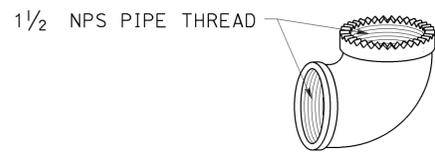
SIGNAL SLIP FITTERS



DETAIL C



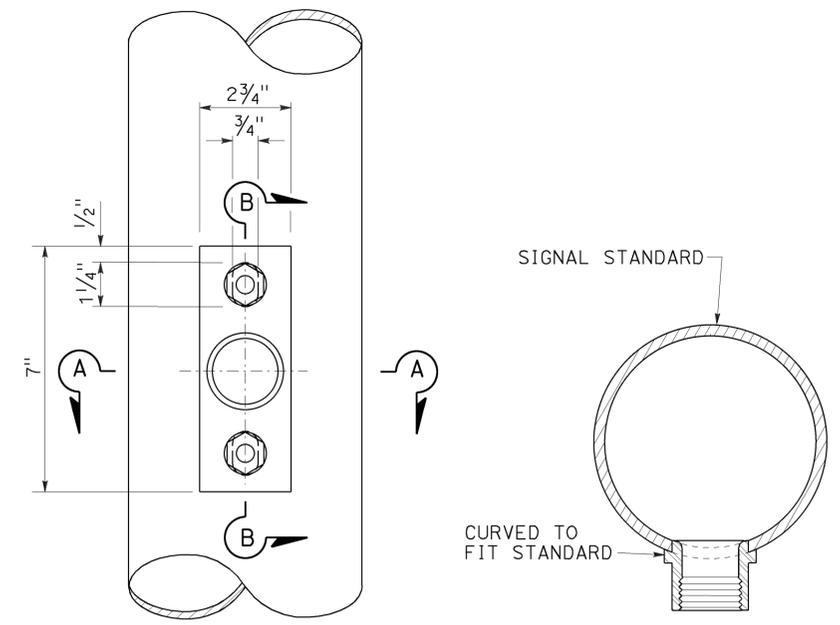
LOCK RING
Use where locking ring is not integral with signal housing or fitting.



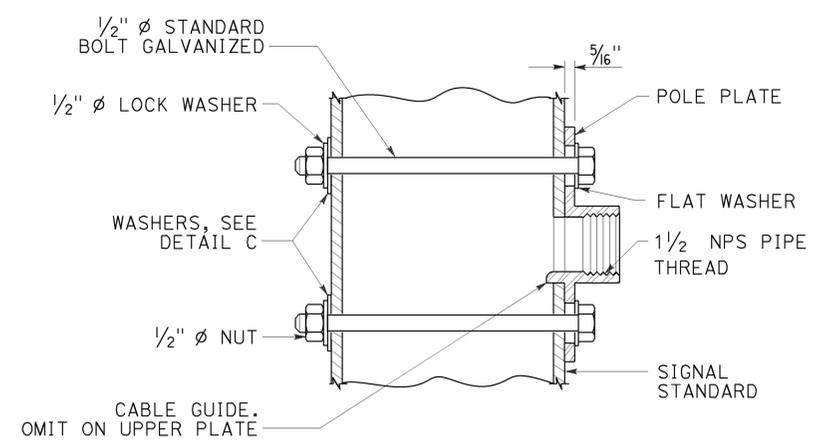
SPECIAL 90° ELBOW
One for each signal head, except those with special slip fitter mounting

- NOTES:**
- After mast arm signal has been plumbed and secured, drill $\frac{1}{16}$ " hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated $\frac{3}{8}$ " ϕ galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
 - (A) Threaded top mounted slip fitter openings shall be $1\frac{1}{2}$ NPS.
(B) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
(C) Top opening shall be offset when backplate is used.
 - Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of $\frac{1}{2}$ ".

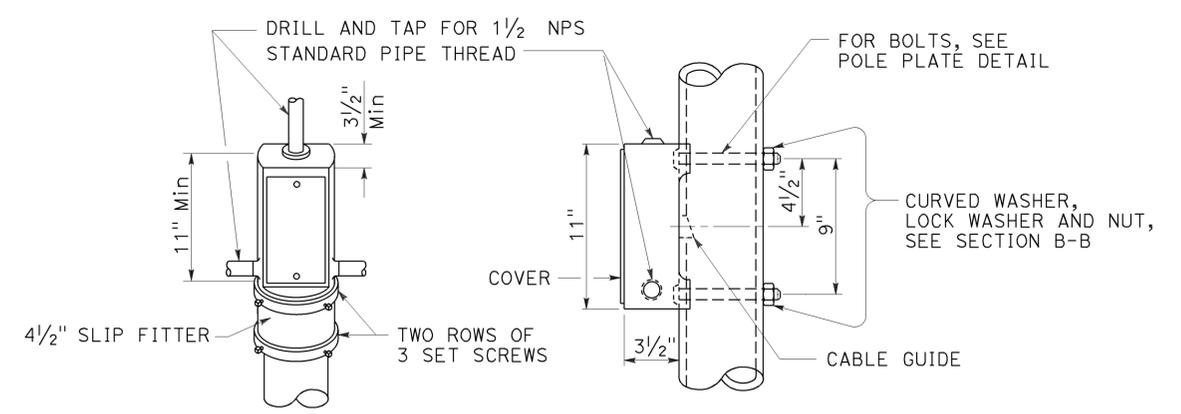
MISCELLANEOUS MOUNTING HARDWARE



POLE PLATE FOR SIDE MOUNTED SIGNAL HEAD WITHOUT TERMINAL COMPARTMENT



SECTION B-B



TERMINAL COMPARTMENT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL HEAD MOUNTING)
NO SCALE

RSP ES-4D DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 20, 2011 - PAGE 446 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4D

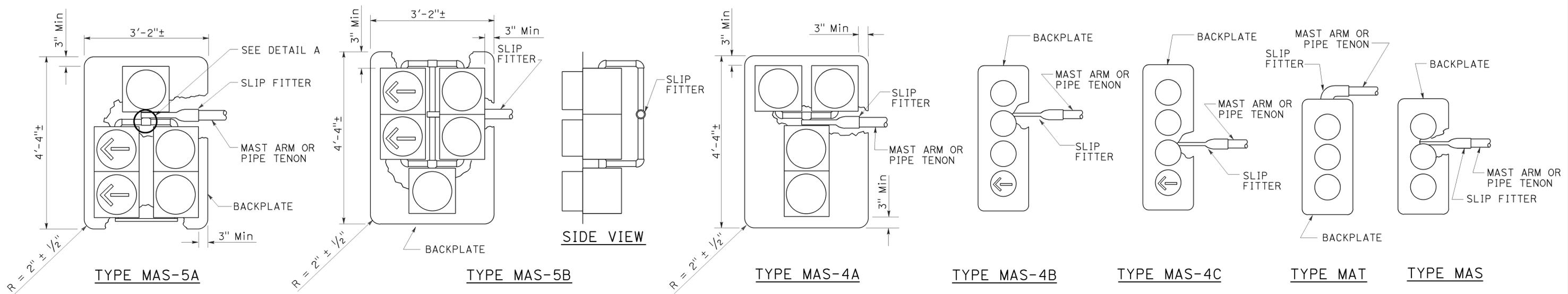
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	302	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

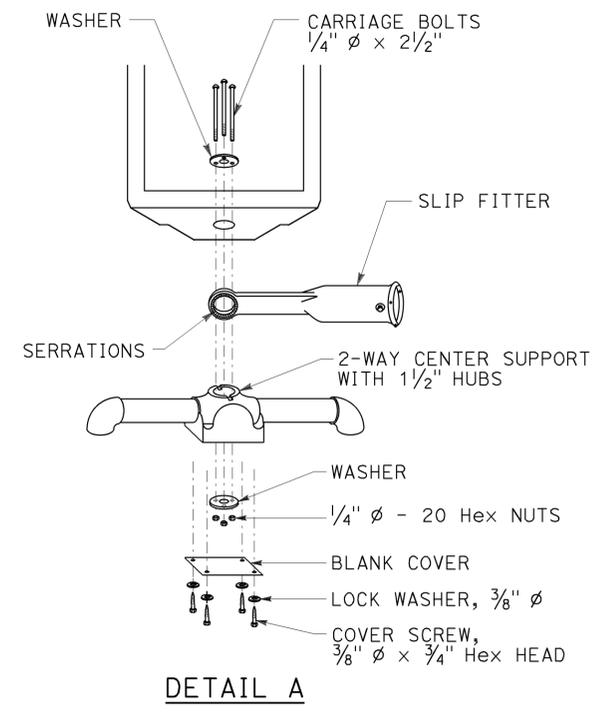
Theresa
 Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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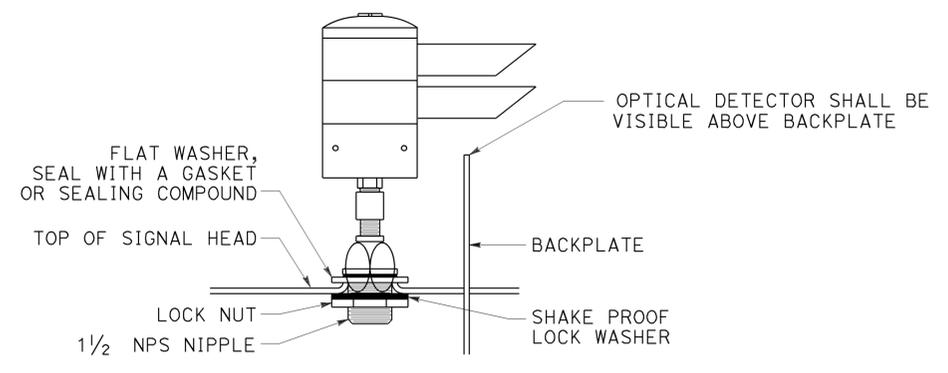
TO ACCOMPANY PLANS DATED 6-28-16



MAST ARM MOUNTINGS



DETAIL A



OPTICAL DETECTOR MOUNTING FOR EMERGENCY VEHICLE DETECTION

DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SIGNAL HEADS AND
 OPTICAL DETECTOR MOUNTING)**

NO SCALE

RSP ES-4E DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4E DATED JULY 19, 2013 AND STANDARD PLAN ES-4E DATED MAY 20, 2011 - PAGE 447 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4E

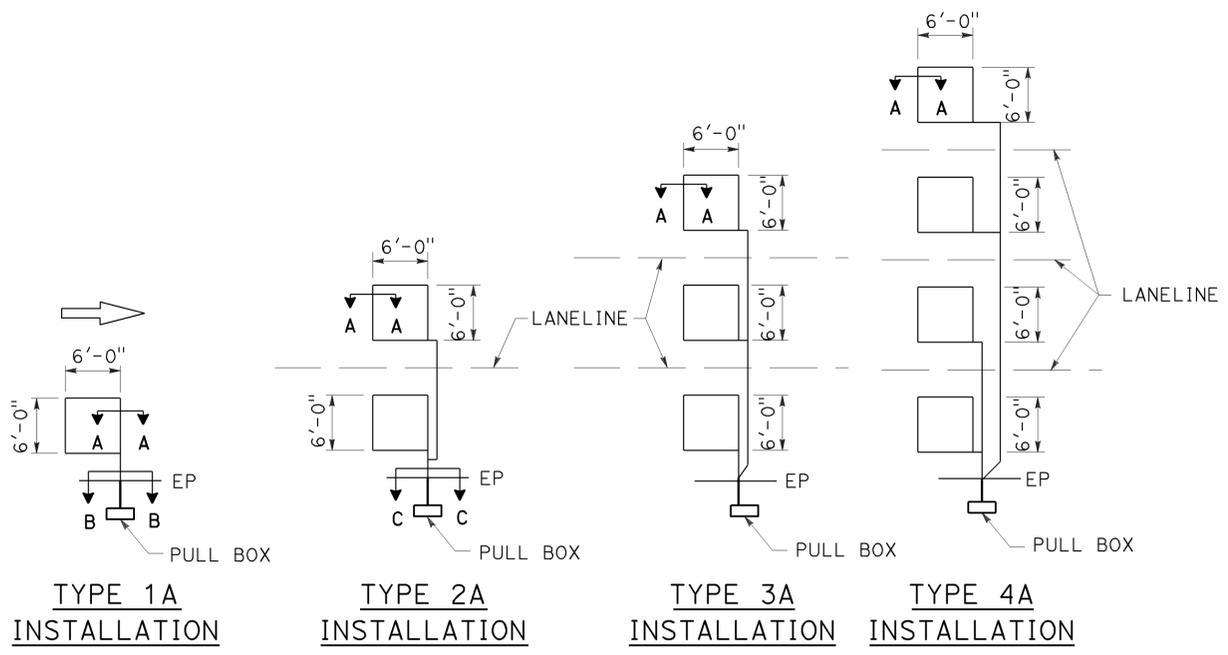
2010 REVISED STANDARD PLAN RSP ES-4E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	303	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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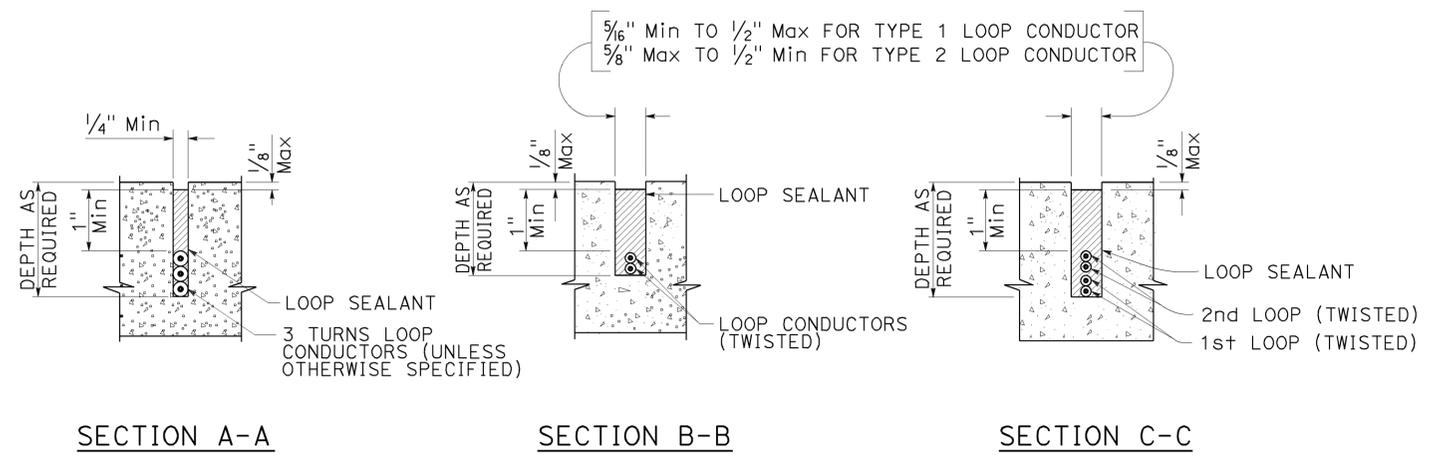


TO ACCOMPANY PLANS DATED 6-28-16

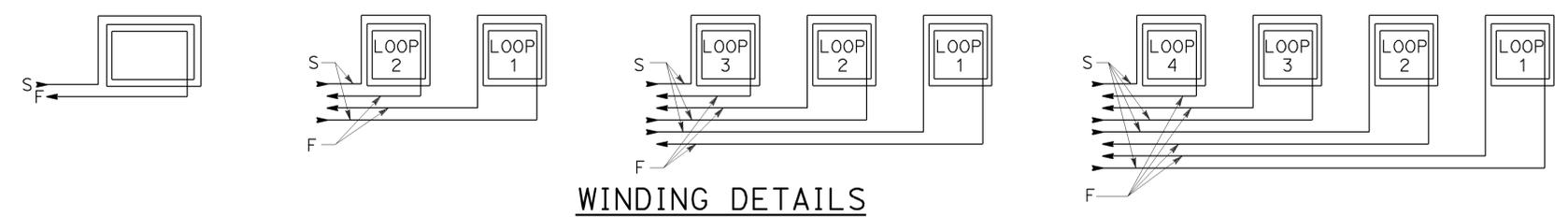


SAWCUT DETAILS

- Type A loop detector configurations illustrated
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans.

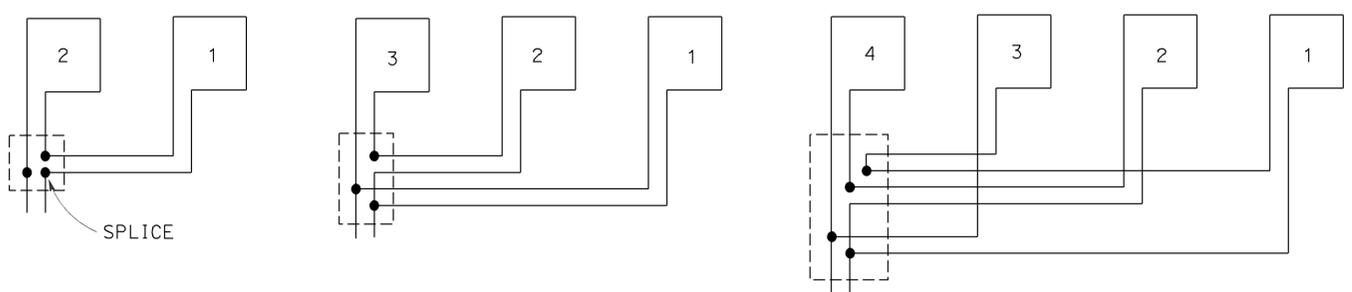


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS

Dashed lines represent the pull box

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LOOP DETECTORS)**
 NO SCALE

RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5A

2010 REVISED STANDARD PLAN RSP ES-5A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	304	370

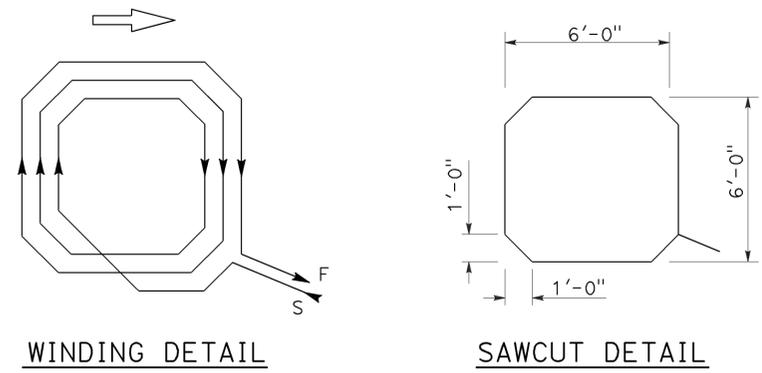
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

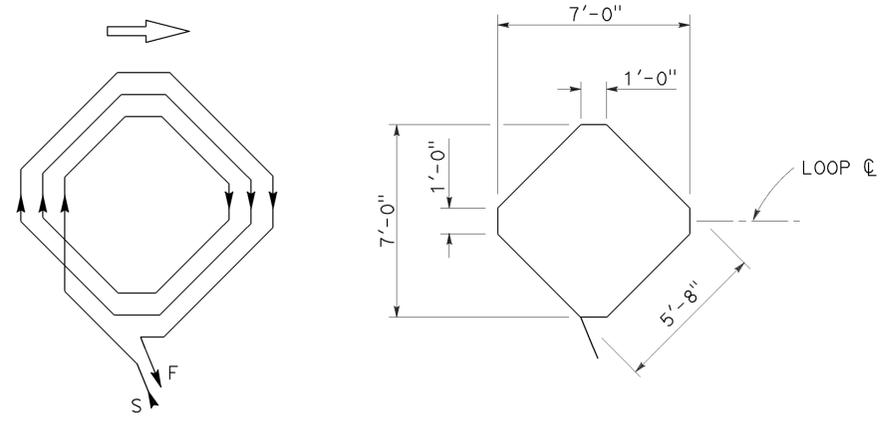
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TO ACCOMPANY PLANS DATED 6-28-16

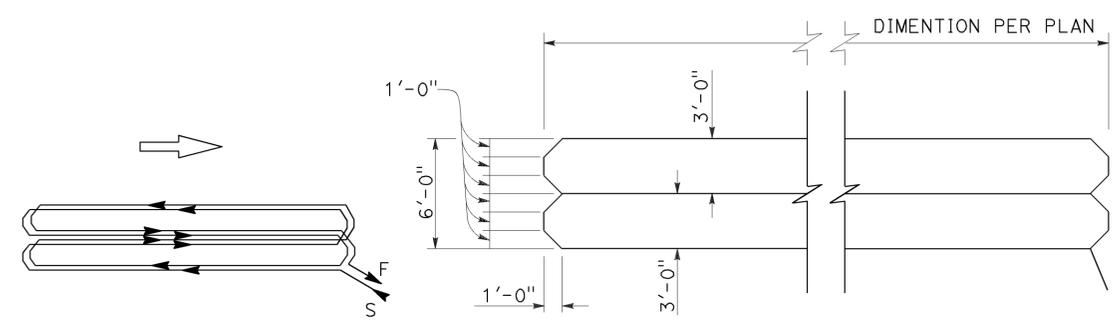
2010 REVISED STANDARD PLAN RSP ES-5B



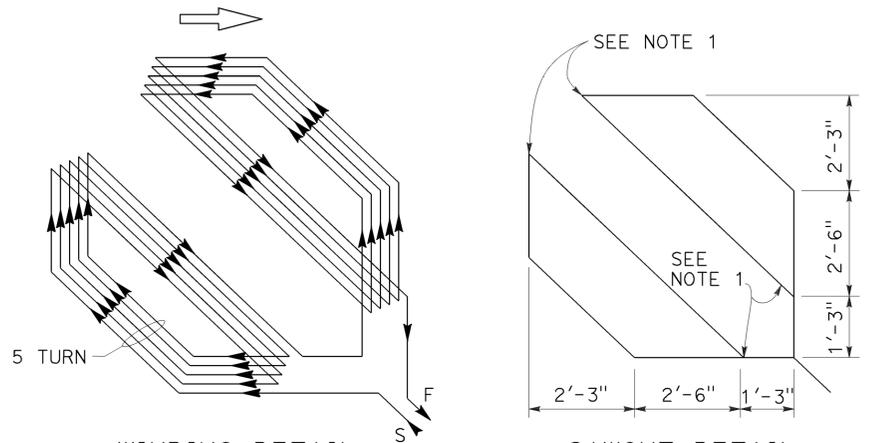
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



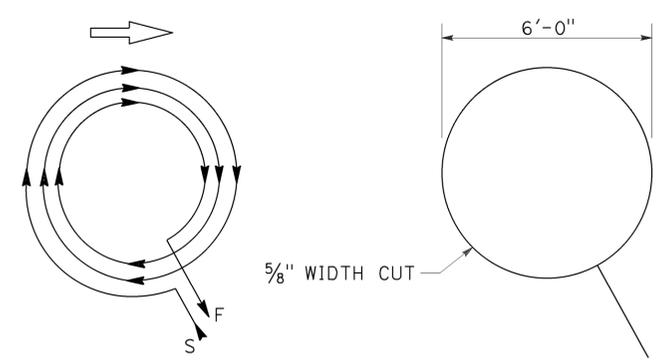
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



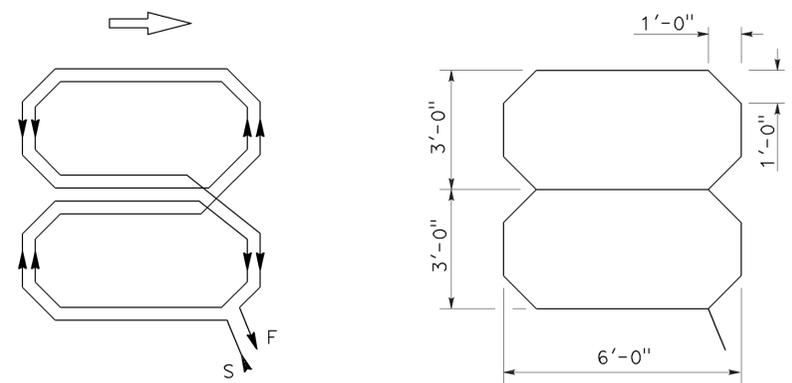
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



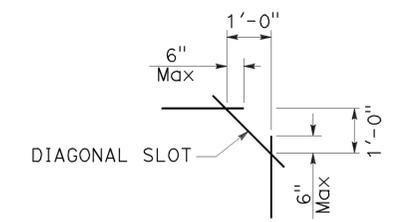
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
 3. Use Type D loops for limit line detector installations in left turn and bicycle lanes.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)
NO SCALE

RSP ES-5B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5B DATED JULY 19, 2013 AND STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	305	370

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

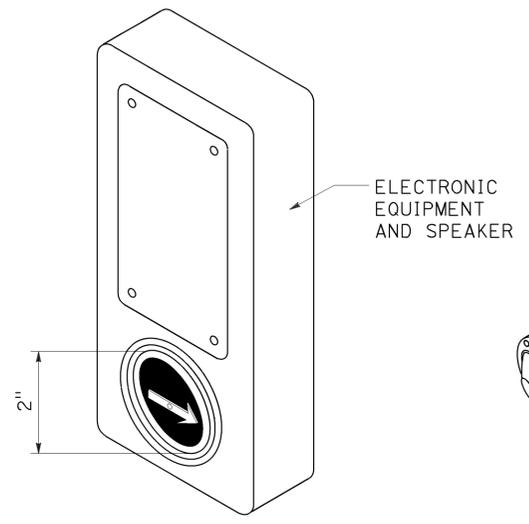
Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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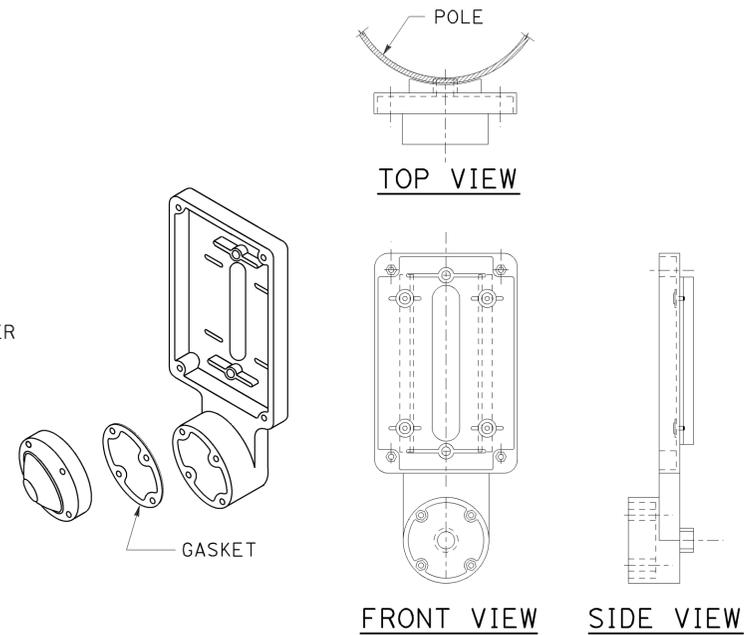
TO ACCOMPANY PLANS DATED 6-28-16

NOTES:

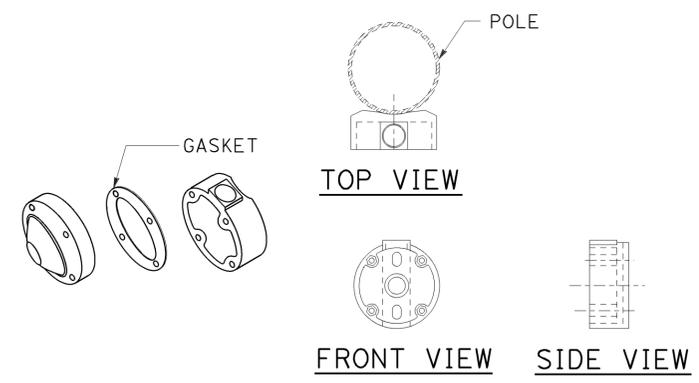
1. Back casting shape to fit curvature of pole.
2. Provide cover fitting for top of post, when PBA is mounted on push button assembly post.
3. Install push button on crosswalk side of standard.
4. Use R10 series regulatory signs and plaques for pedestrian and bicycle facilities.



ACCESSIBLE PEDESTRIAN SIGNAL
DETAIL A



TYPE B PUSH BUTTON ASSEMBLY
DETAIL B



TYPE C PUSH BUTTON ASSEMBLY
DETAIL C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ACCESSIBLE PEDESTRIAN SIGNAL
AND PUSH BUTTON ASSEMBLIES)**

NO SCALE

RSP ES-5C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5C DATED JULY 19, 2013 AND STANDARD PLAN ES-5C DATED MAY 20, 2011 - PAGE 450 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5C

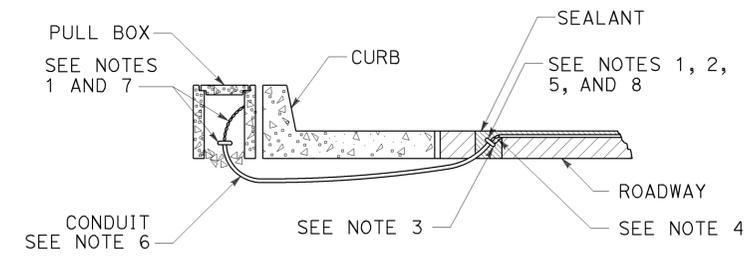
2010 REVISED STANDARD PLAN RSP ES-5C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	306	370

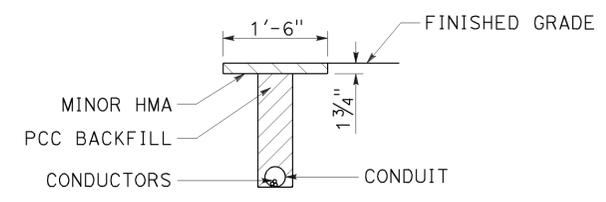
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 6-28-16

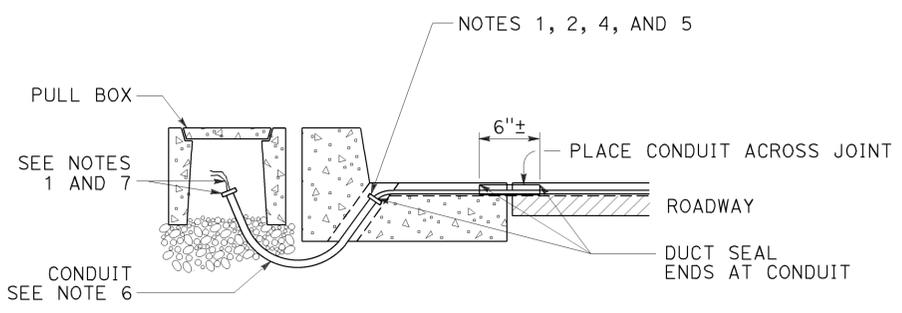
2010 REVISED STANDARD PLAN RSP ES-5D



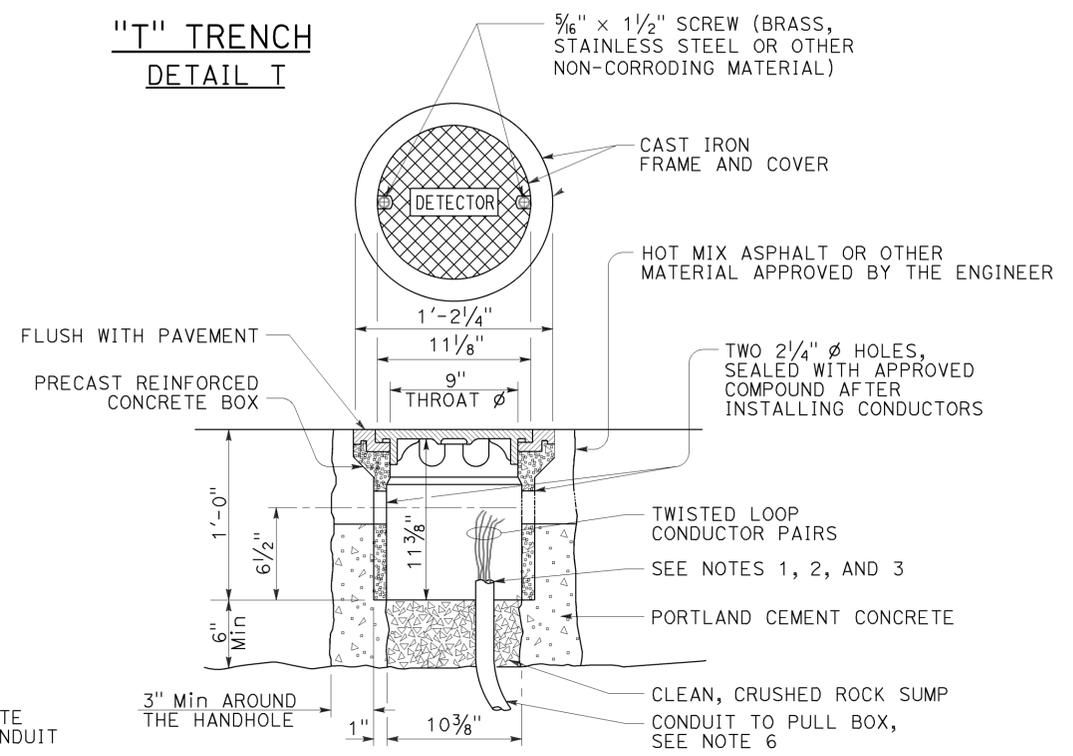
TYPE A
CURB TERMINATION DETAIL



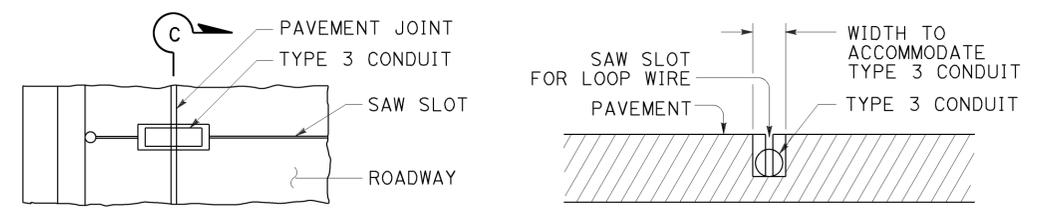
"T" TRENCH
DETAIL 1



CROSS SECTION



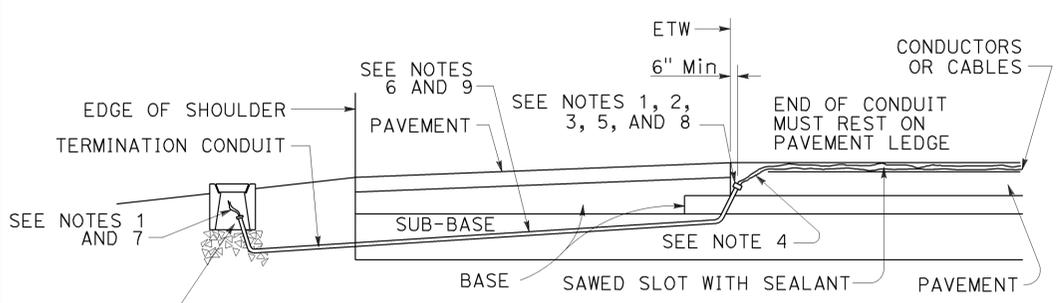
DETECTOR HANDHOLE DETAIL



PLAN VIEW

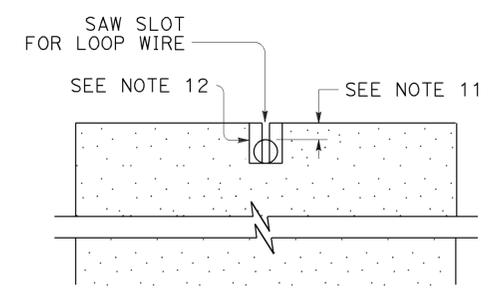
SECTION C-C

TYPE B
CURB TERMINATION DETAIL

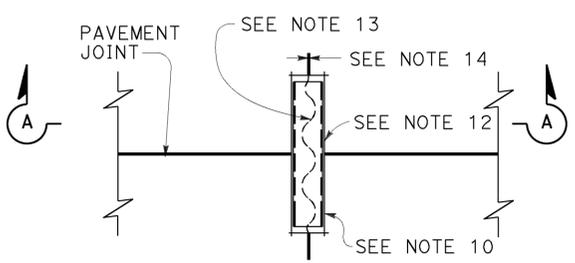


CROSS SECTION

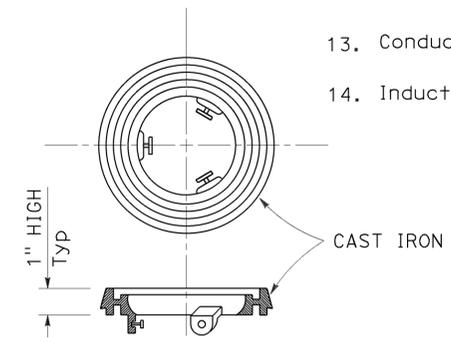
PLAN VIEW
SHOULDER TERMINATION DETAILS



SECTION A-A



PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT



LOCKING GRADE RING

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(CURB AND SHOULDER TERMINATION, TRENCH, AND HANDHOLE DETAILS)

NO SCALE

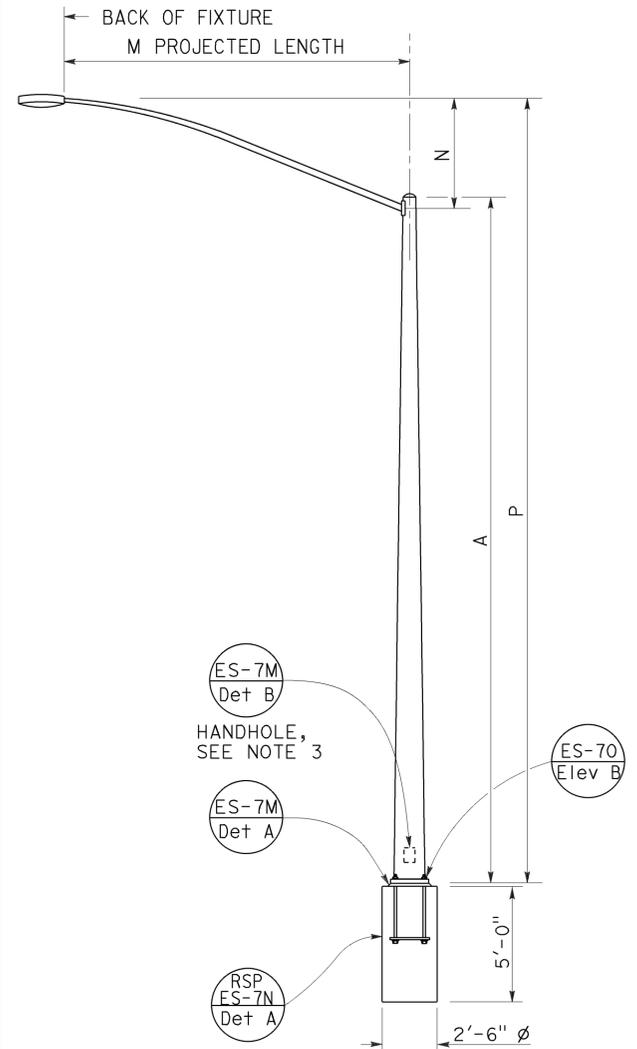
RSP ES-5D DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5D DATED JULY 19, 2013 AND STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D

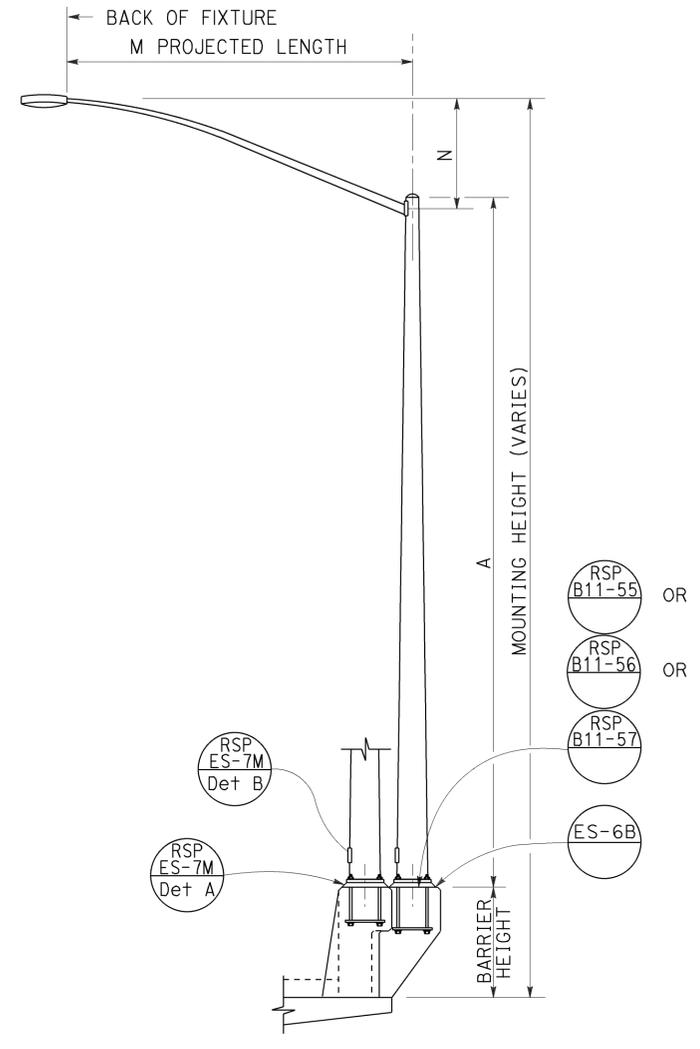
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	307	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA



**TYPE 15 AND TYPE 21
ELEVATION A**



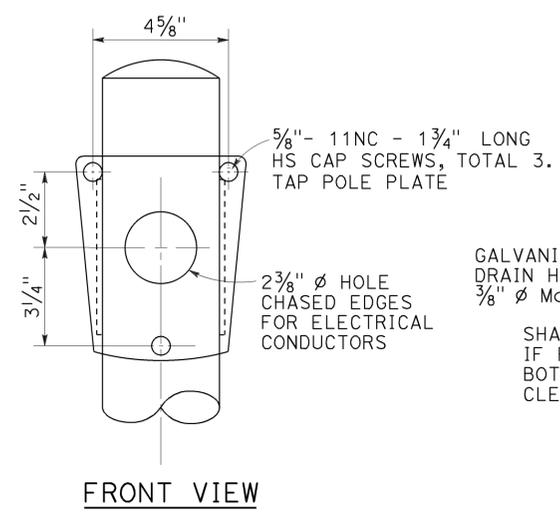
**TYPE 15 AND TYPE 21 BARRIER RAIL MOUNTED
ELEVATION B**

POLE TYPE	POLE DATA			BASE PLATE DATA			
	A HEIGHT	Min OD BASE	WALL THICKNESS TOP	C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE
15	30'-0"	8"	0.1196"	1'-0"	1'-0"	2"	1" ϕ x 3'-0" *
21	35'-0"	8 5/8"	0.1793"	1'-0"	1'-0"	2"	1 1/4" ϕ x 3'-0" *

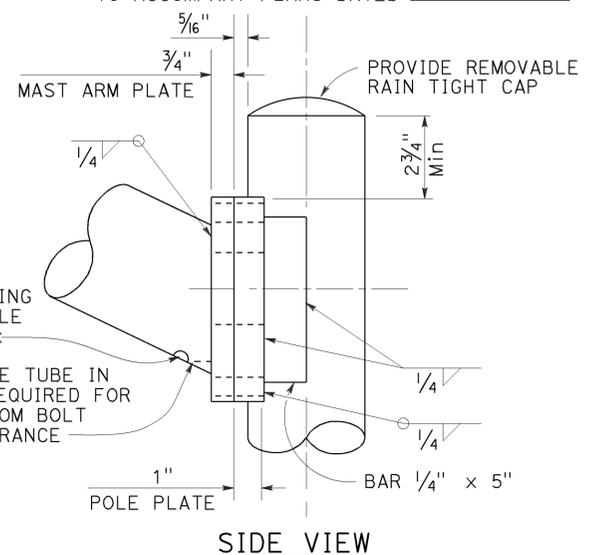
* FOR BARRIER RAIL BOLTS, SEE STANDARD PLAN ES-6B.

NOTES:

- Indicates mast arm length to be used unless otherwise noted on the plans.
- For Type 15-SB, use Type 15 standard with Type 30 slip base plate details, see Revised Standard Plan RSP ES-6F.
- Handhole shall be located on the downstream side of traffic.
- For additional notes and details, see Revised Standard Plans RSP ES-7M and RSP ES-7N.

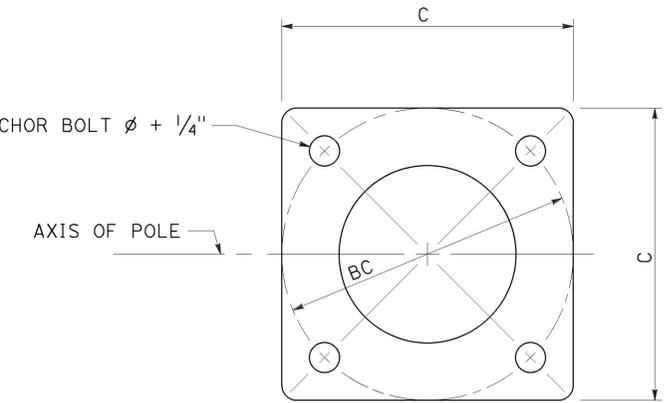


FRONT VIEW



SIDE VIEW

**LUMINAIRE MAST ARM CONNECTION
DETAIL R**



**BASE PLATE
DETAIL A**

LUMINAIRE MAST ARM DATA					
M PROJECTED LENGTH	N RISE	Min OD AT POLE	NOMINAL THICKNESS	P	
				TYPE 15	TYPE 21
6'-0"	2'-0"±	3/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LIGHTING STANDARD,
TYPES 15 AND 21)**

NO SCALE

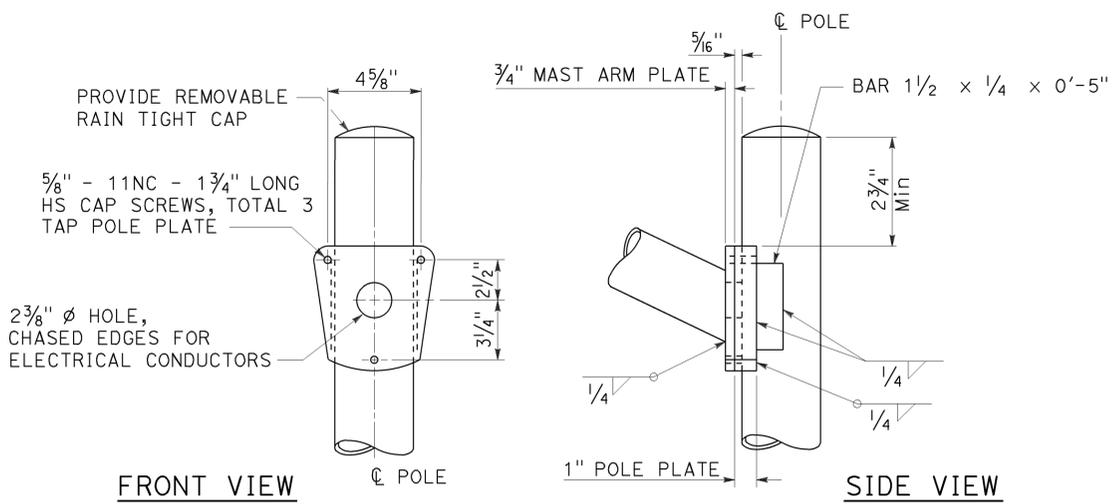
RSP ES-6A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-6A DATED MAY 20, 2011 - PAGE 452 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-6A

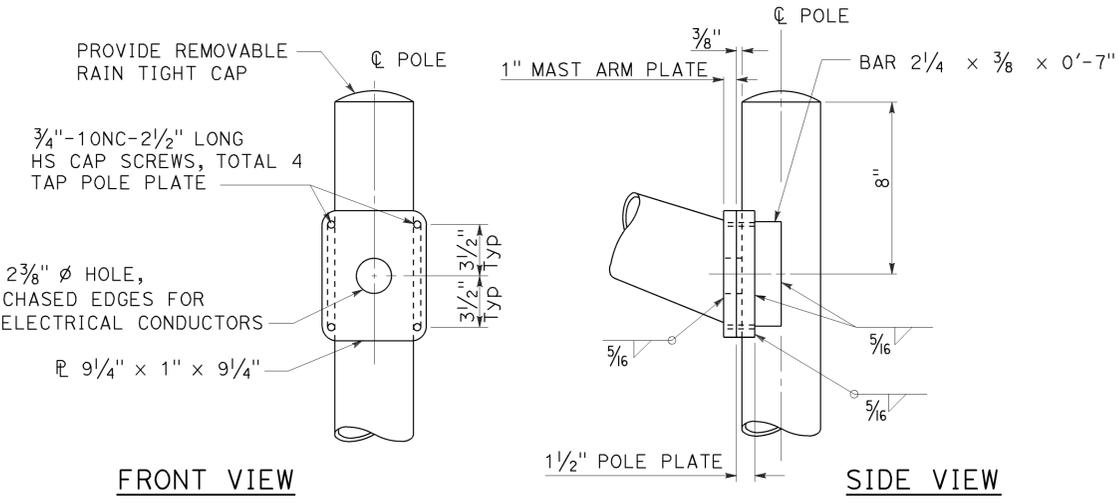
2010 REVISED STANDARD PLAN RSP ES-6A

LUMINAIRE MAST ARM DATA			
PROJECTED LENGTH	THICKNESS	MINIMUM OD AT POLE	MOUNTING HEIGHT
* 6'-0"	0.1196"	3 1/4"	36'-9"±
* 8'-0"		3 1/2"	37'-3"±
* 10'-0"		3 3/4"	38'-0"±
* 12'-0"		4 1/4"	39'-0"±
* 15'-0"			39'-6"±
** 20'-0"	0.1793"	5"	37'-0"±

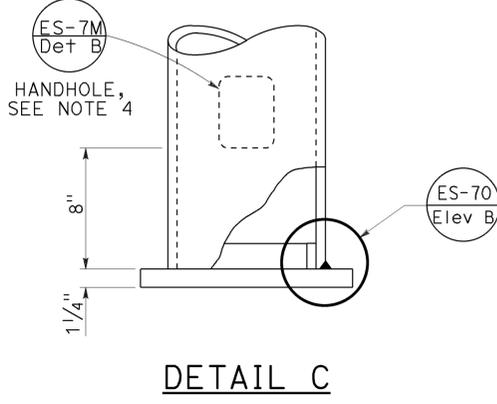
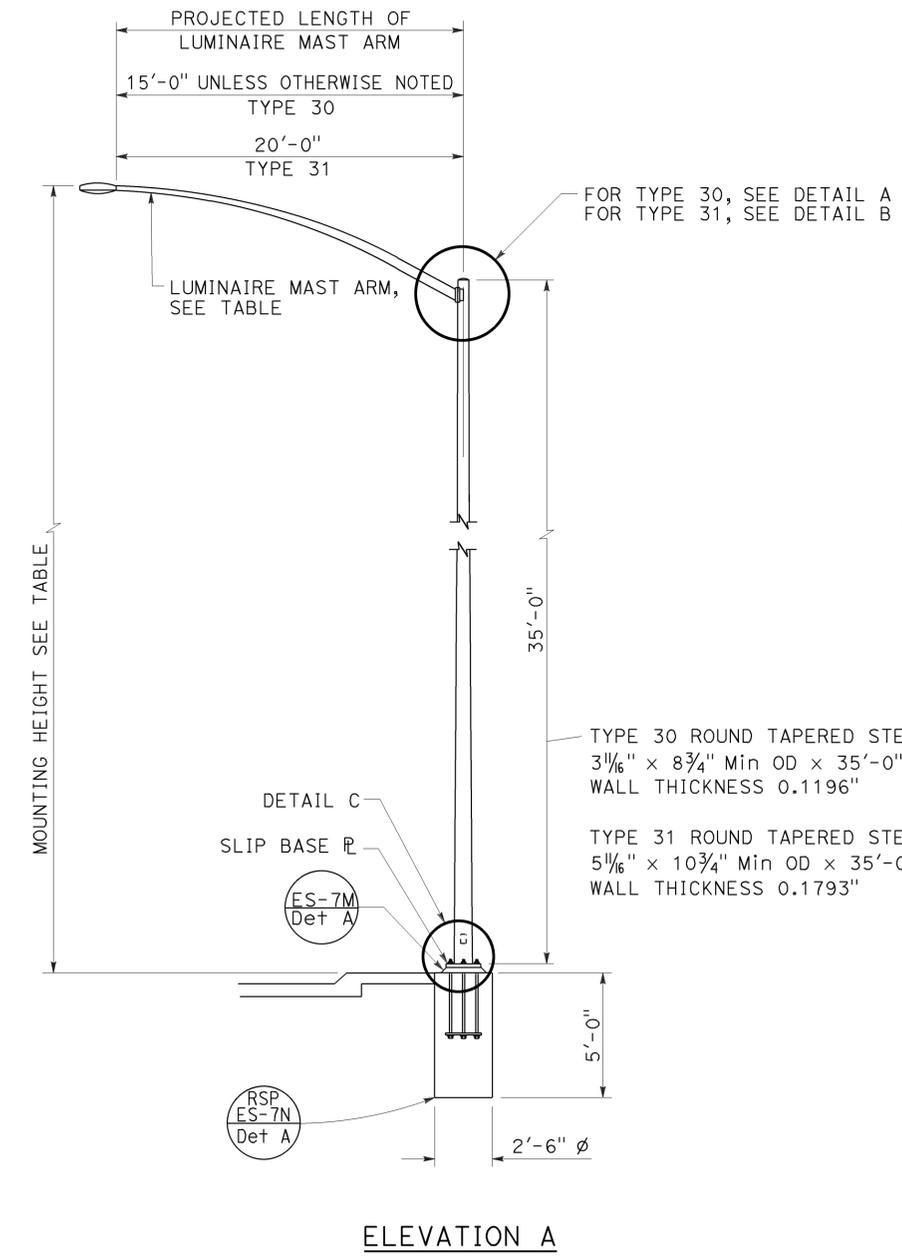
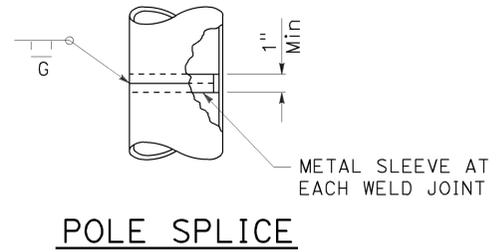
* TYPE 30
** TYPE 31



TYPE 30
DETAIL A



TYPE 31
DETAIL B



NOTES:

1. For slip base plate details, see Revised Standard Plan RSP ES-6F.
2. For Type 30 fixed base use Type 15 base plate and foundation shown on Revised Standard Plan RSP ES-6A. Use 1 1/4" Dia x 3'-6" anchor bolts.
3. For Type 31 fixed base use Type 32 base plate, anchor bolts and foundation on Revised Standard Plan RSP ES-6G.
4. Handhole shall be located on the downstream side of traffic.
5. For additional notes and details, see Revised Standard Plans RSP ES-7M and RSP ES-7N.

TO ACCOMPANY PLANS DATED 6-28-16

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LIGHTING STANDARD,
TYPES 30 AND 31)**
NO SCALE

RSP ES-6E DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-6E DATED MAY 20, 2011 - PAGE 456 OF THE STANDARD PLANS BOOK DATED 2010.

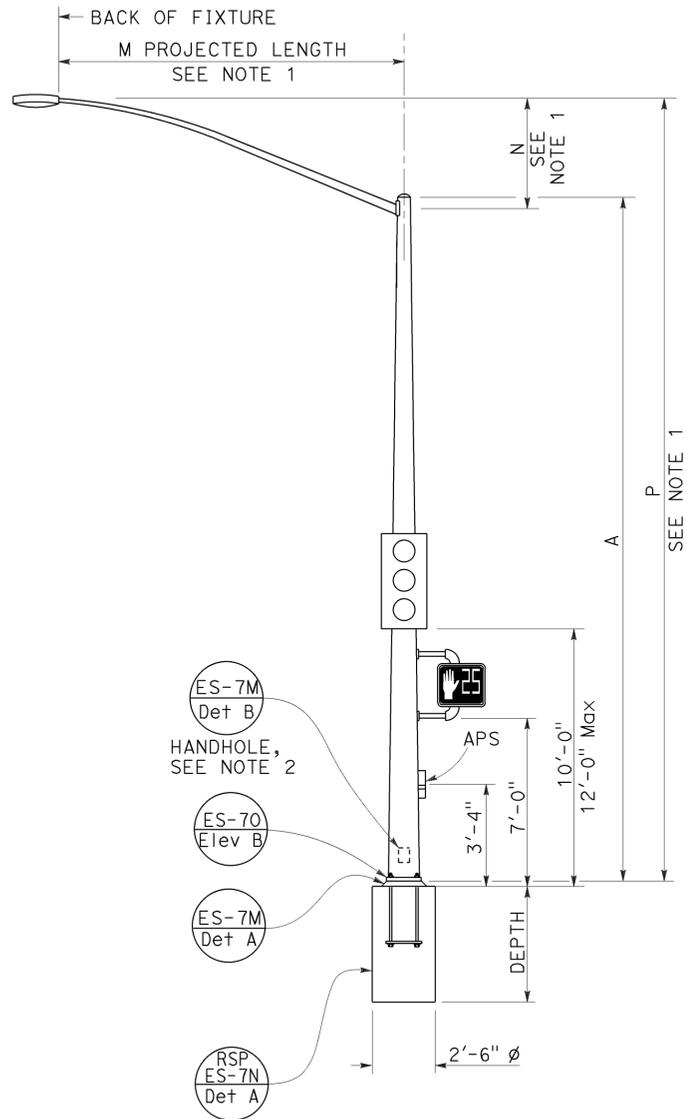
REVISED STANDARD PLAN RSP ES-6E

2010 REVISED STANDARD PLAN RSP ES-6E

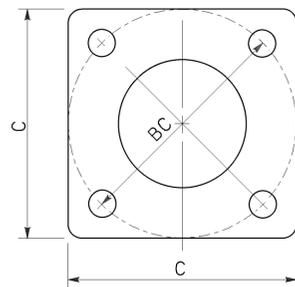
NOTES:

- For additional notes, details and data for Type 15TS and Type 21TS Standards, see Revised Standard Plan RSP ES-6A.
- Handhole shall be located on the downstream side of traffic.

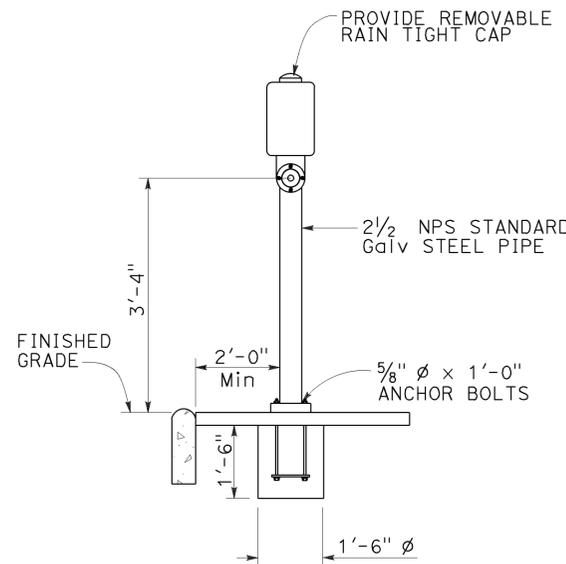
TO ACCOMPANY PLANS DATED 6-28-16



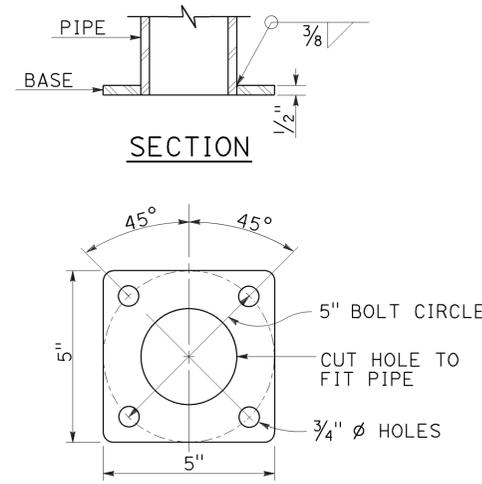
TYPE 15TS AND 21TS STANDARD
ELEVATION A
 (See Note 1)



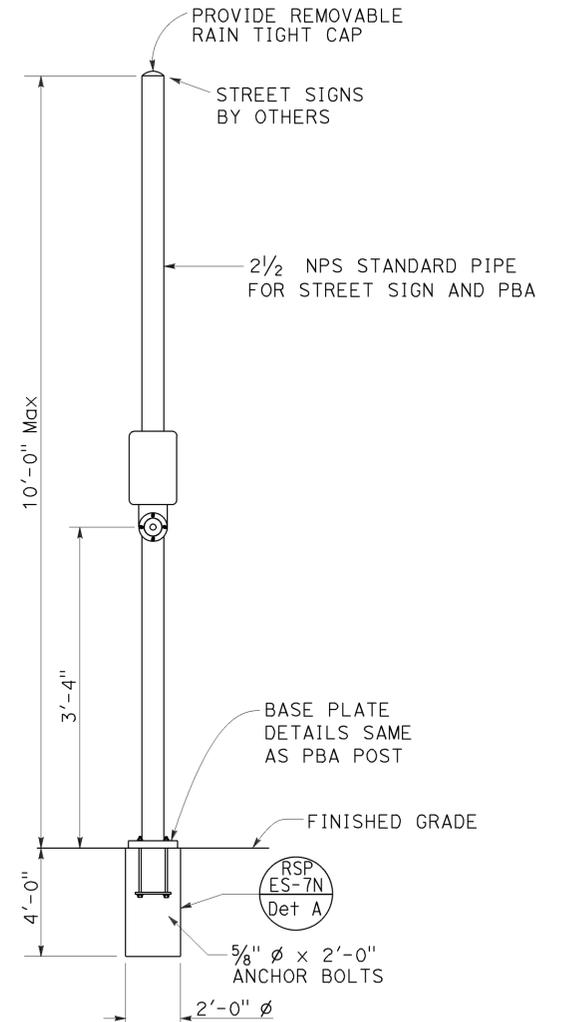
BASE PLATE
TYPE 15TS AND 21TS
DETAIL A



PUSH BUTTON ASSEMBLY POST
DETAIL B



BASE PLATE
PBA POST



COMBINED STREET SIGN
PUSH BUTTON ASSEMBLY POST
DETAIL C

POLE TYPE	POLE DATA			WALL THICKNESS	BASE PLATE DATA			CIDH DEPTH
	A HEIGHT	Min OD			C	BC = BOLT CIRCLE	THICKNESS	
15TS	30'-0"	8"	3 1/16"	0.1793"	1'-1 1/2"	1'-0"	1 1/2" ø x 42"	7'-6"
21TS	35'-0"	9 3/8"	3 3/16"		1'-3"	1'-2"		8'-6"

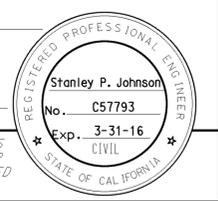
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD, TYPE TS,
AND PUSH BUTTON ASSEMBLY POST)

NO SCALE

RSP ES-7A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-7A DATED JULY 19, 2013 AND STANDARD PLAN ES-7A DATED MAY 20, 2011 - PAGE 462 OF THE STANDARD PLANS BOOK DATED 2010.

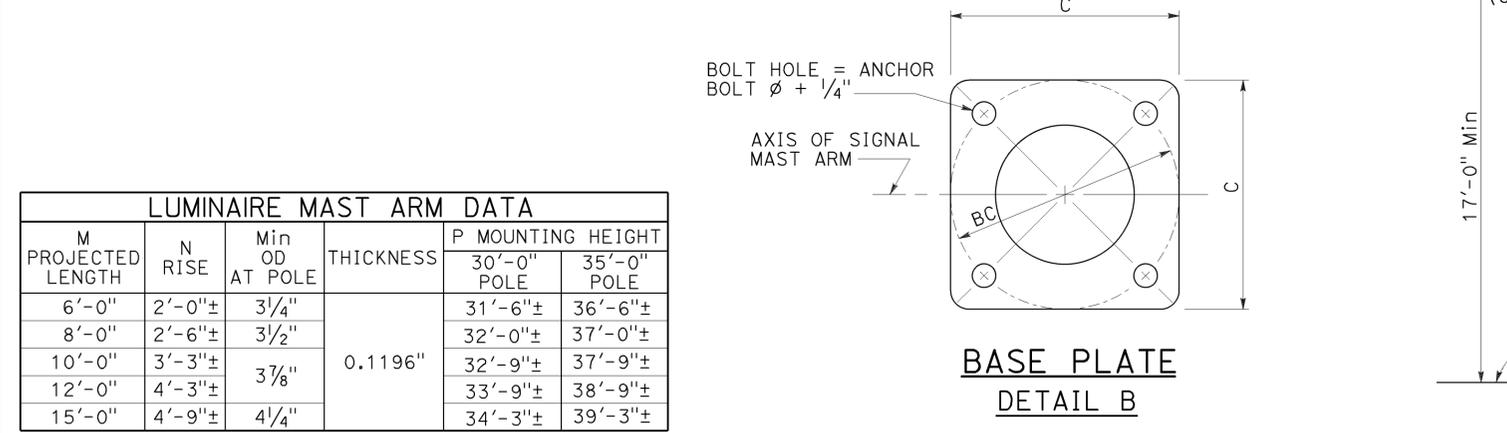
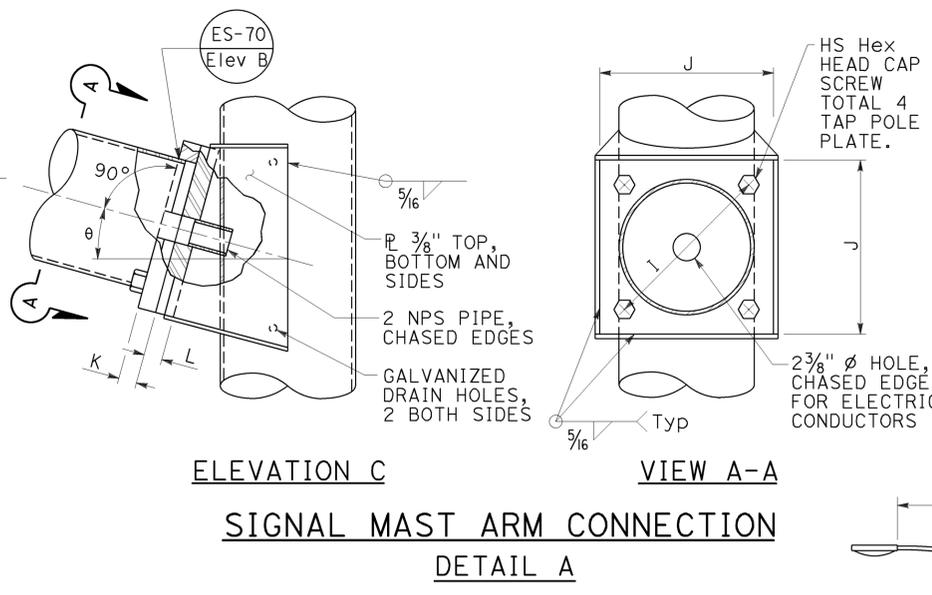
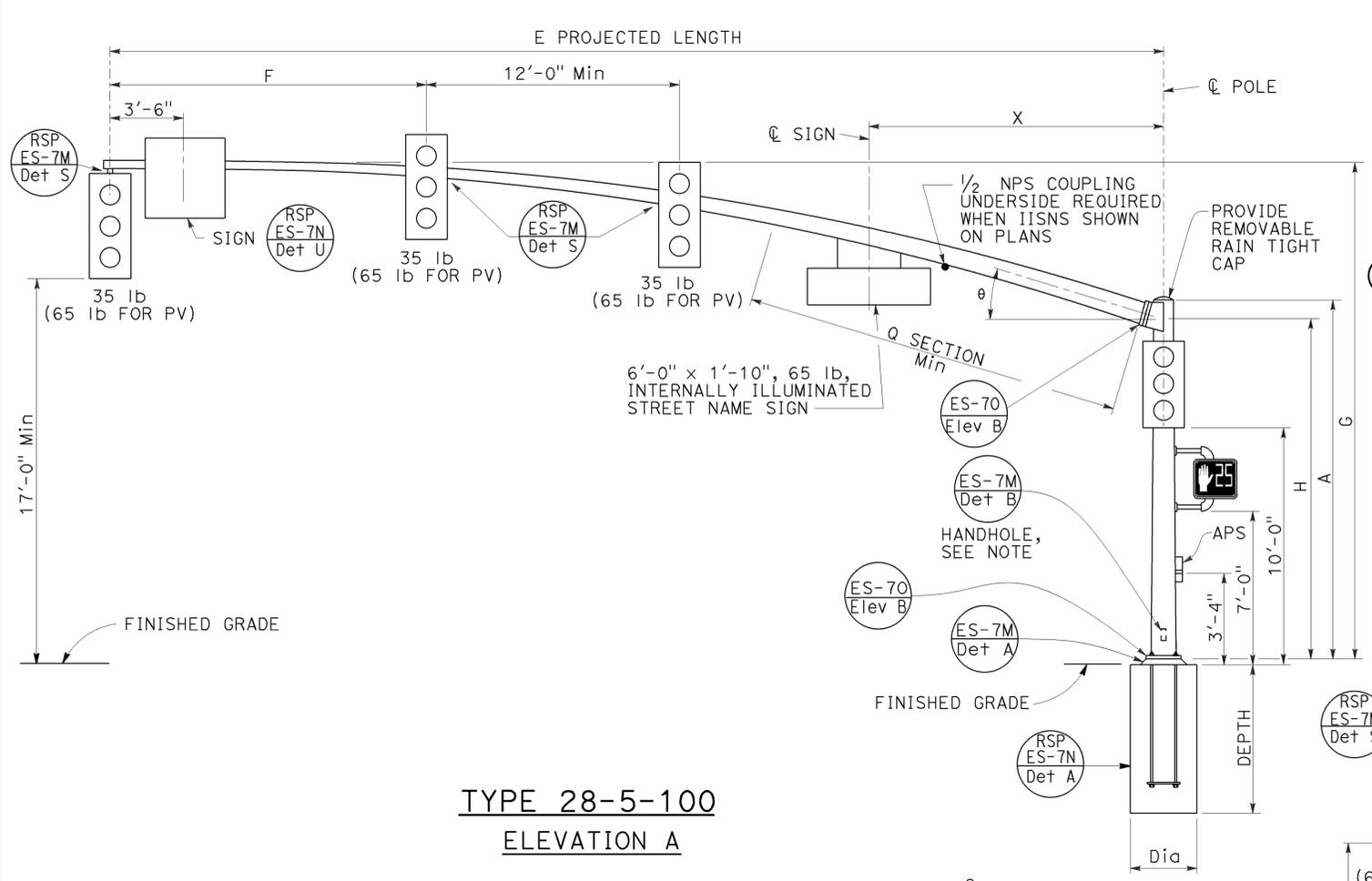
REVISED STANDARD PLAN RSP ES-7A

2010 REVISED STANDARD PLAN RSP ES-7A



TO ACCOMPANY PLANS DATED 6-28-16

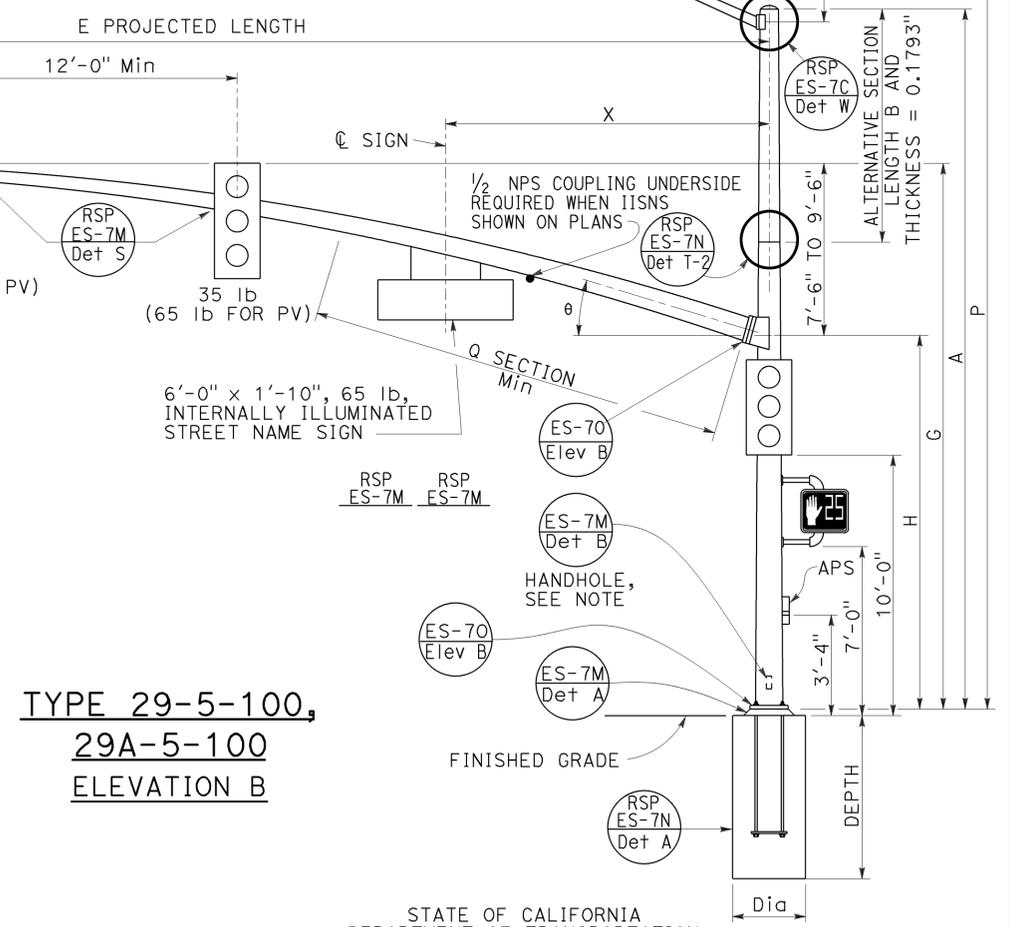
NOTE: Handhole shall be located on the downstream side of traffic.



M PROJECTED LENGTH	N RISE	Min OD AT POLE	THICKNESS	P MOUNTING HEIGHT	
				30'-0" POLE	35'-0" POLE
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"		32'-9"±	37'-9"±
12'-0"	4'-3"±	3 7/8"		33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"		34'-3"±	39'-3"±

E PROJECTED LENGTH	F Min SPACING	G MOUNTING HEIGHT	H	Min OD AT POLE	THICKNESS	I BOLT CIRCLE	HS CAP SCREWS	J PLATE SIZE	K MAST ARM P THICKNESS	L POLE P THICKNESS	θ	Q SECTION		X Max
												LENGTH	THICKNESS	
50'-0" 55'-0"	15'-0"	23'-7"± TO 25'-7"±	16'-0"	11 7/16" 1'-1/4"	0.1793"	16"	1 1/2"-6NC-3 1/4"	1'-4"	1 3/4"	1 3/4"	15°	18'-0" 23'-0"	0.2391"	14'-0"

POLE TYPE	LOAD CASE	WIND VELOCITY (mph)	POLE DATA				BASE PLATE DATA				LUMINAIRE MAST ARM	SIGNAL MAST ARM	CIDH PILE FOUNDATION					
			A HEIGHT	Min OD BASE	Min OD TOP	THICKNESS	B LENGTH	ALTERNATIVE SECTION BOTTOM	ALTERNATIVE SECTION TOP	C			BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	Dia	DEPTH	REINFORCED
28-5-100	5	100	17'-0"	11 9/16"	0.3125"	NONE	23"	21"	3"	2 1/2" Ø x 42"	NONE	6'-15' [15'-0"]	50'-0", 55'-0"	3'-6"	12'-0"	YES		
29-5-100			30'-0"	14"		9 1/16"					10'-0"						11 1/8"	9 1/16"
29A-5-100			35'-0"	14"		8 1/16"					15'-0"						11 1/8"	8 1/16"



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
CASE 5 SIGNAL MAST ARM LOADING,
WIND VELOCITY=100 MPH AND SIGNAL
MAST ARM LENGTHS 50' TO 55')**

NO SCALE

INDICATES MAST ARM LENGTH TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

RSP ES-7G DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-7G DATED JULY 19, 2013 AND ES-7G DATED MAY 20, 2011 - PAGE 468 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-7G

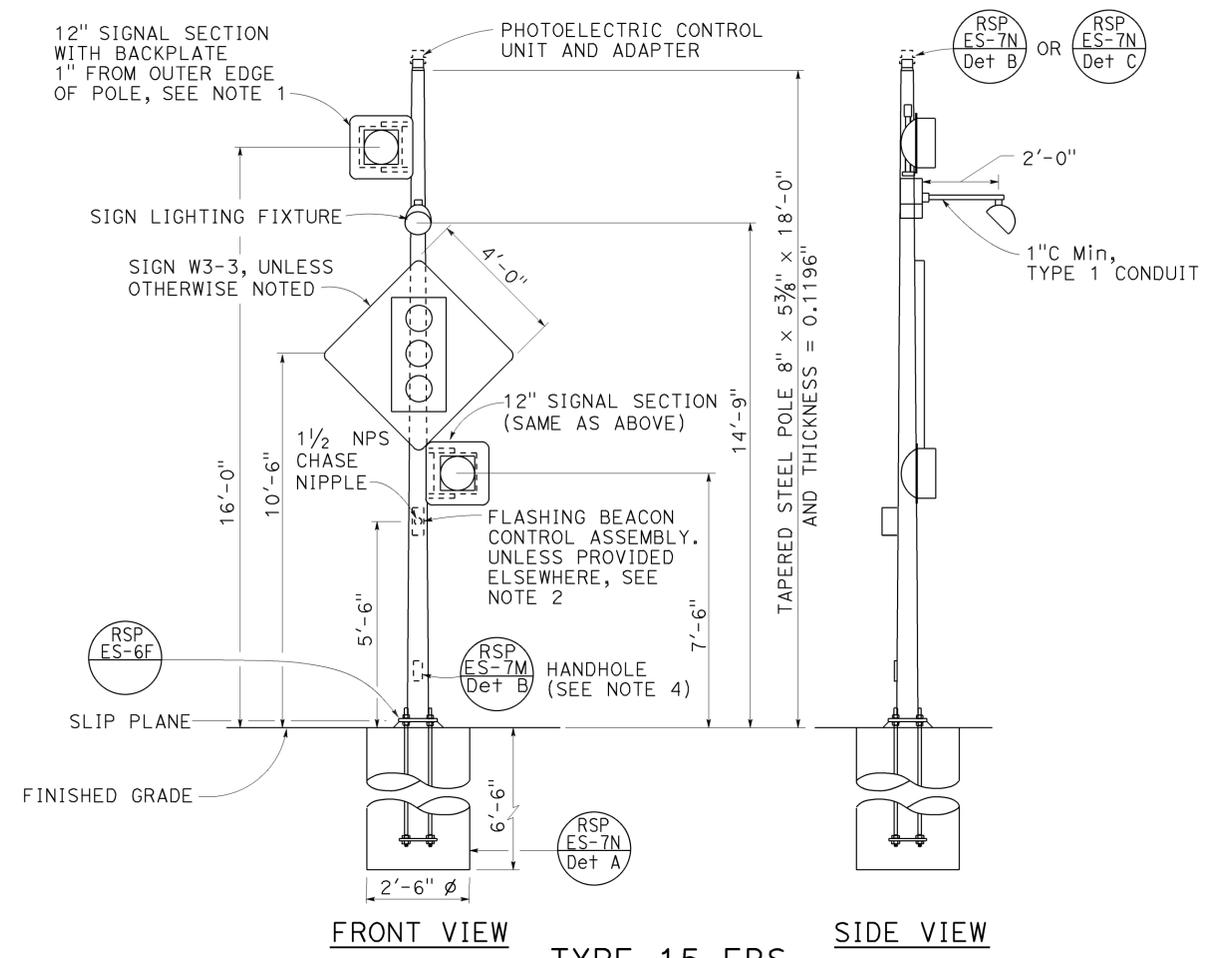
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	312	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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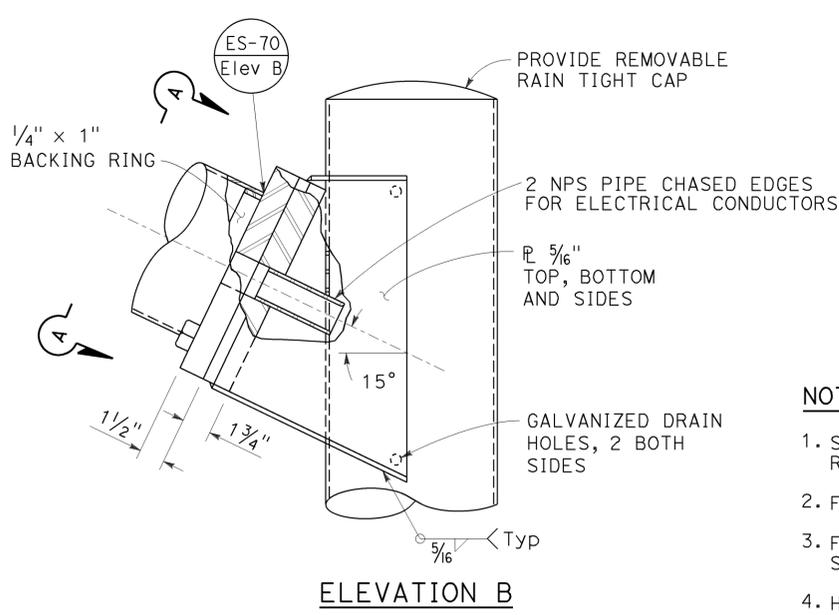
TO ACCOMPANY PLANS DATED 6-28-16

NOTES:

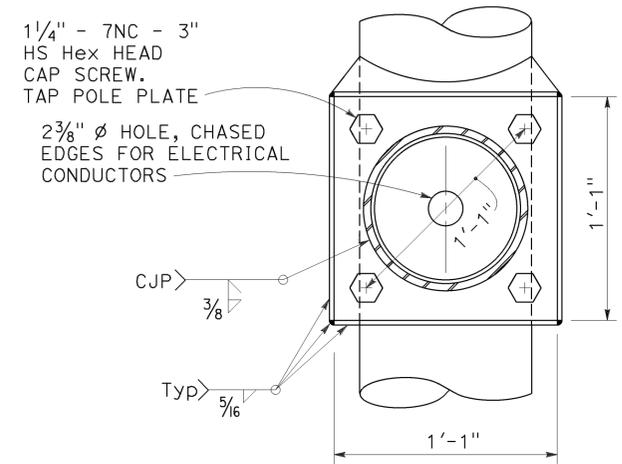
1. See Revised Standard Plans RSP ES-4A and RSP ES-4D for attachment fitting details.
2. For wiring diagram, see Standard Plan ES-14B.
3. For additional notes and details, see Revised Standard Plans RSP ES-7M and RSP ES-7N.
4. Handhole shall be located on the downstream side of traffic.
5. See project plans for type of standard to be installed.



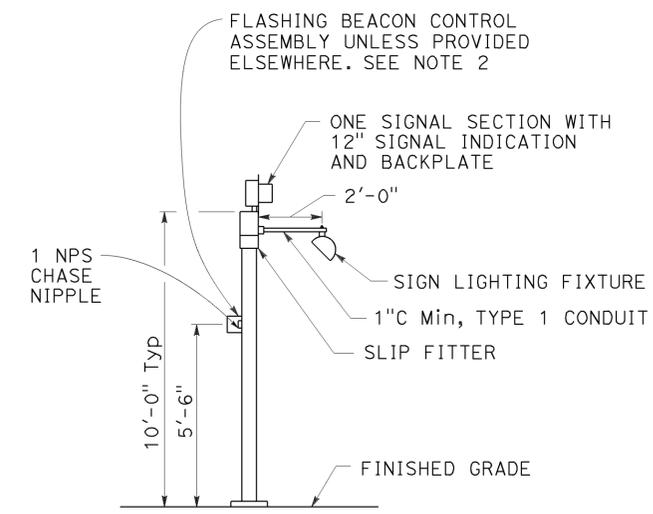
TYPE 15-FBS
ADVANCE FLASHING BEACON WITH SLIP BASE INSTALLATION
DETAIL A



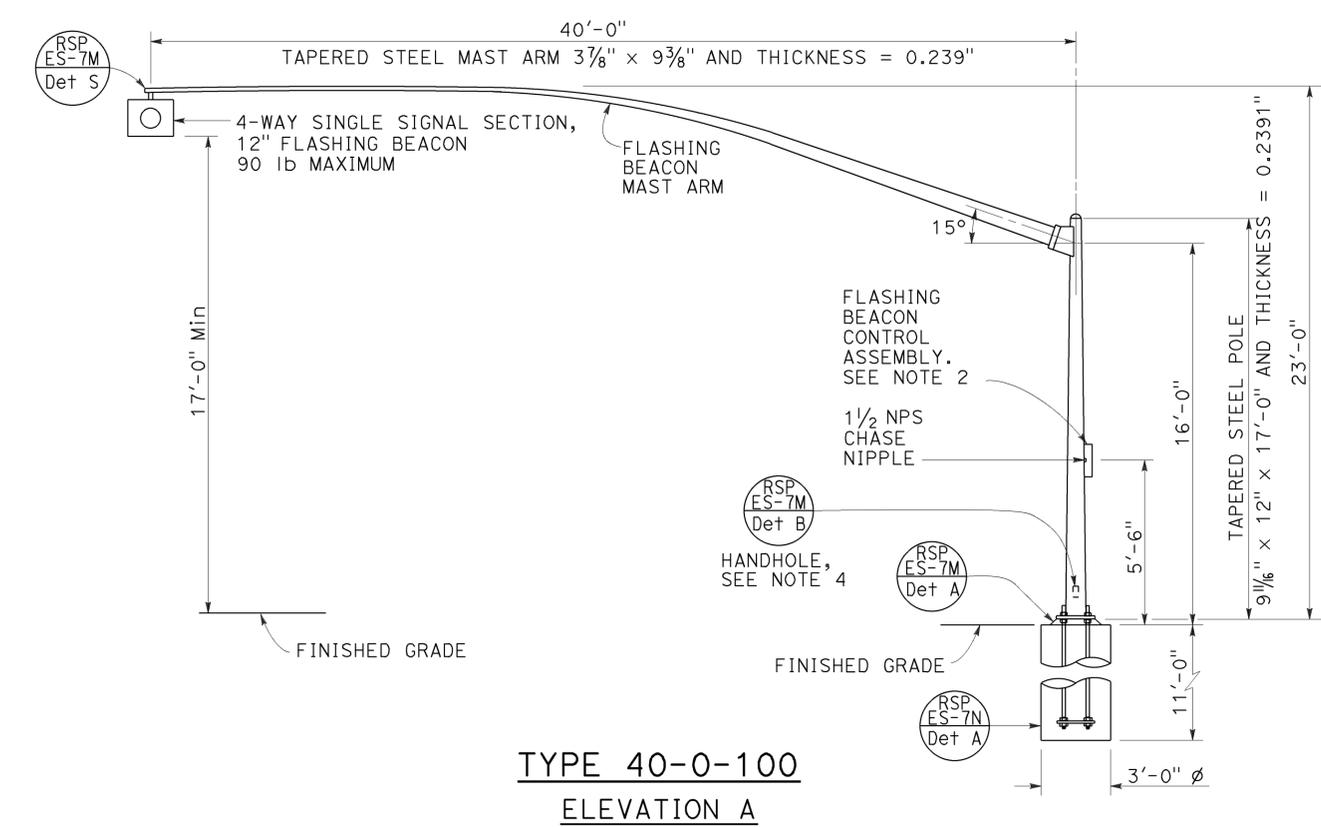
ELEVATION B



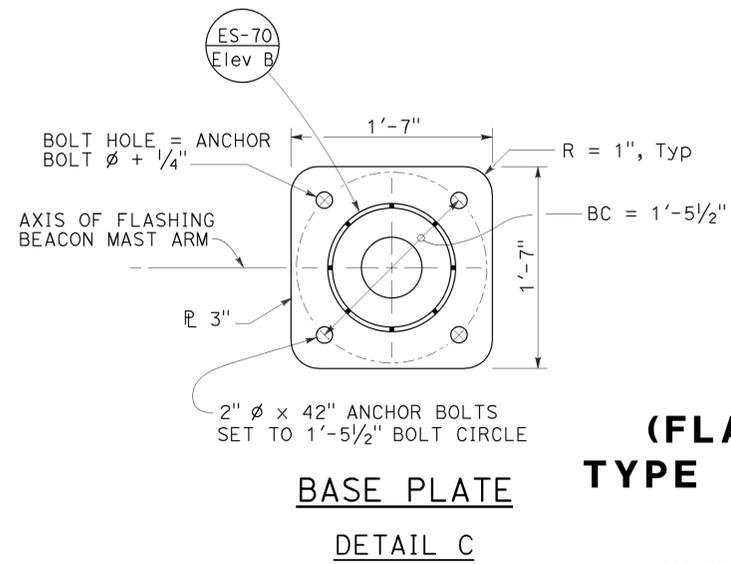
VIEW A-A
FLASHING BEACON MAST ARM
CONNECTION DETAIL
DETAIL B



TYPE 1-A, 1-B, 1-C, AND 1-D
ADVANCE FLASHING
BEACON INSTALLATION
DETAIL D
 See Note 5



TYPE 40-0-100
ELEVATION A



BASE PLATE
DETAIL C

ELECTRICAL SYSTEMS
(FLASHING BEACON ON A TYPE 1,
TYPE 15-FBS, AND TYPE 40 STANDARD)
 NO SCALE

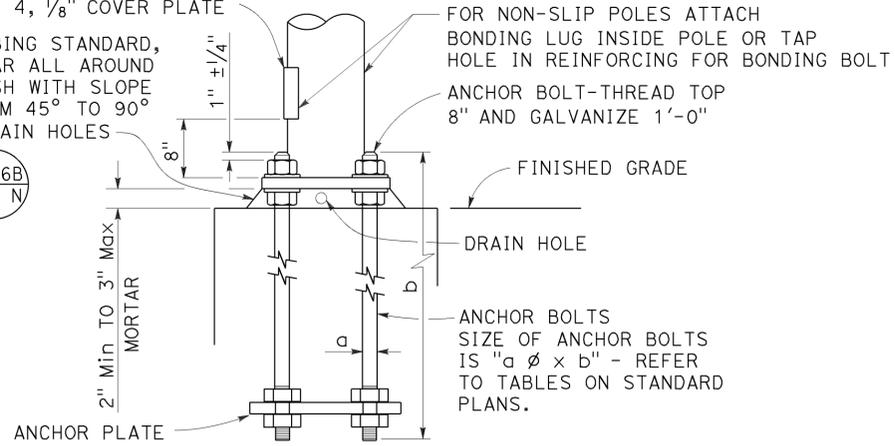
RSP ES-7J DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-7J DATED JULY 19, 2013 AND STANDARD PLAN ES-7J DATED MAY 20, 2011 - PAGE 471 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-7J

4" x 6 1/2" ROUNDED RECTANGLE HANDHOLE REINFORCED WITH RING WELDED TO OUTSIDE OF POLE. SEE NOTE 4, 1/8" COVER PLATE

AFTER PLUMBING STANDARD, PLACE MORTAR ALL AROUND BOLTS. FINISH WITH SLOPE RANGING FROM 45° TO 90° INCLUDES DRAIN HOLES

4 SIDES ES-6B Det N



HANDHOLE AND ANCHORAGE
DETAIL A

IDENTIFICATION NUMBER

1. Attach a stamped metal tag with pole's identification number above the handhole. 1/4" high number, minimum.
2. Attach a stamped metal tag with mast arm's identification number to the bottom of the signal mast arm near the pole plate. 1/4" high number, minimum.

SAMPLE IDENTIFICATION NUMBER

Type 26A - 3 - 100 - 45 - 10 - F or FB
 Load case (Use SL for special load case)
 Design wind velocity (mph)
 Signal mast arm length (ft)
 Standard plan year
 Only for poles or mast arms using Detail F
 Only for poles or mast arms using ES-70

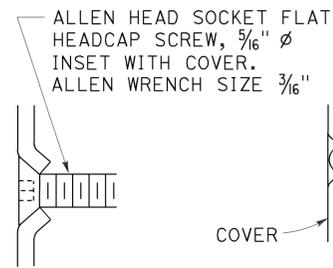
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	313	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

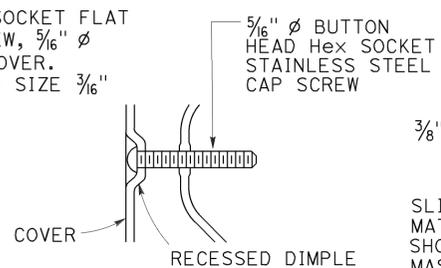
Stanley P. Johnson
 REGISTERED PROFESSIONAL ENGINEER
 No. C57793
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA

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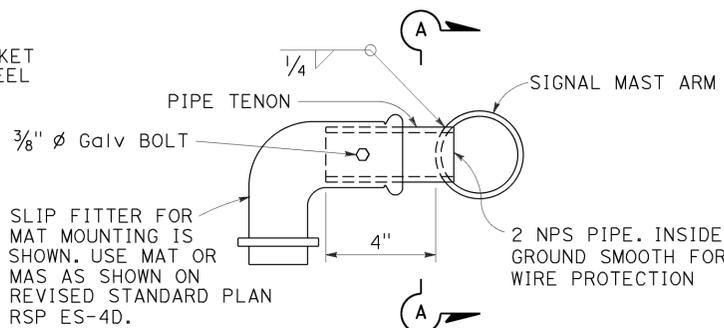
TO ACCOMPANY PLANS DATED 6-28-16



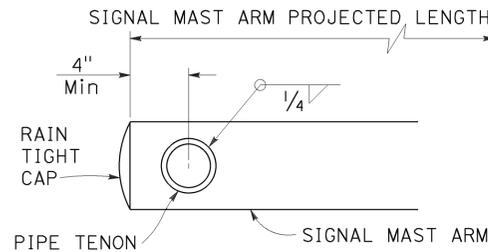
TYPICAL DETAIL
DETAIL B-1



ALTERNATIVE DETAIL
DETAIL B-2



SIDE TENON
DETAIL S-1

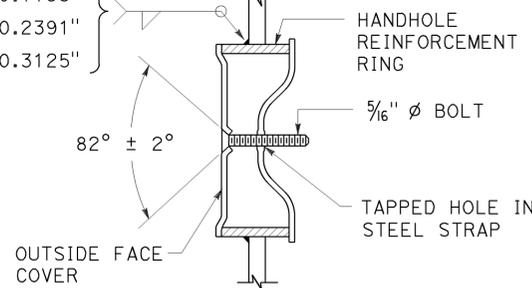


SECTION A-A

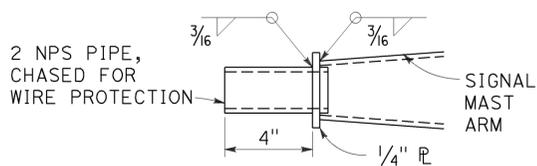
NOTES:

1. Provide a Hex nut, leveling nut and 2 washers for each bolt.
2. Luminaire mast arms shall be round, tapered steel tubes, taper of 0.1375" to 0.143-inch per foot with an end section 2 3/8" OD for mounting hardware. Extensions of 2 NPS Standard pipe and 7" long may be used at the option of the manufacturer. When low pressure sodium luminaires are required, the extension shall be 1'-3".
3. Signal mast arms shall be round, tapered steel tubes, maximum taper 0.143-inch per foot.
4. Handhole reinforcement ring shall be 1/4" x 2" for 0.1196" to 0.2391" thick poles, 3/8" x 2" for 0.3125" thick poles.
5. Handholes shall be located on the downstream side of traffic.
6. Detail F, fatigue resistant weld, is required at socket welded signal mast arm plate and pole base plate.
7. Cap screws shall be tightened by the turn-of-nut method 1/3 turn from a snug tight condition. No washer will be required.
8. Outside diameter, wall thickness, and corresponding section properties of poles and mast arms as shown in the Standard Plans are minimums. Unless otherwise specified, alternative sections shall require approval by the Engineer.
9. Wind Loading (3 seconds gust): 100 mph
10. Unit Stresses (Structural steel):
 fy = 55,000 psi (tapered steel tube and anchor bolts)
 fy = 50,000 psi (unless otherwise noted)
11. Unit Stresses (Reinforced concrete):
 f'c = 3,625 psi
 fy = 60,000 psi

WELD SIZE	WALL THICKNESS
3/16"	0.1196"
1/4"	0.1793"
5/16"	0.2391"
3/8"	0.3125"



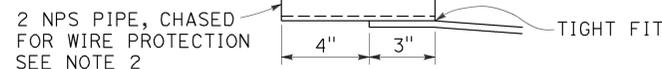
TAMPER RESISTANT HANDHOLE COVER
DETAIL B



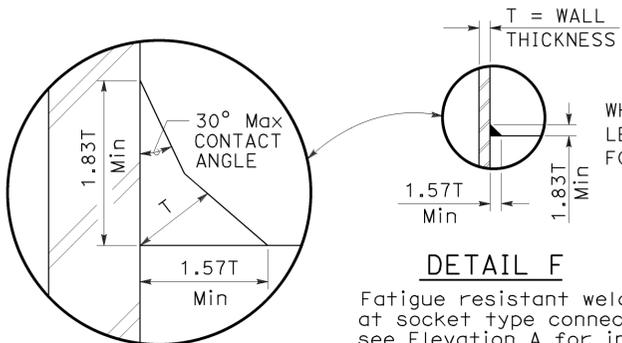
TIP TENON
DETAIL TL
This detail supersedes Detail S when so designated

PIPE TENONS
DETAIL S

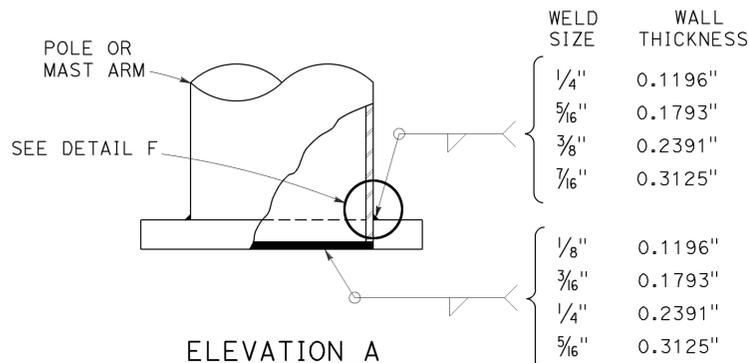
WELD SIZE	WALL THICKNESS
1/8"	0.1196"
3/16"	0.1793"
1/4"	0.2391"



TIP TENON
DETAIL TS



DETAIL F
Fatigue resistant weld at socket type connection see Elevation A for inner weld



ELEVATION A

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
DETAIL No. 1)
 NO SCALE

RSP ES-7M DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-7M DATED MAY 20, 2011 - PAGE 474 OF THE STANDARD PLANS BOOK DATED 2010.

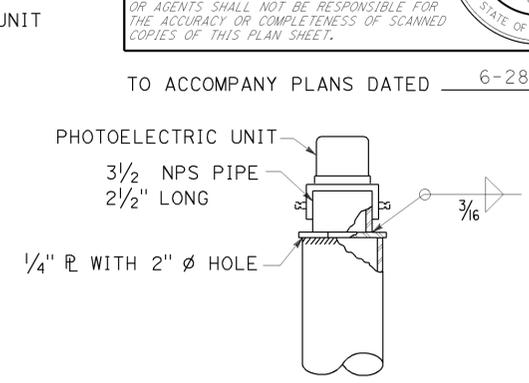
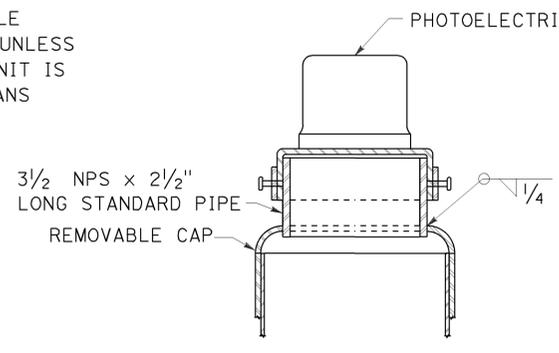
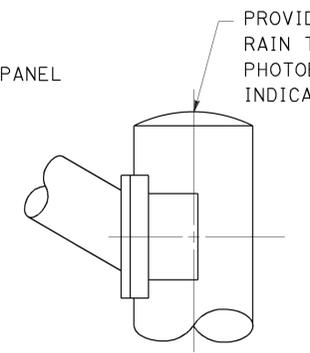
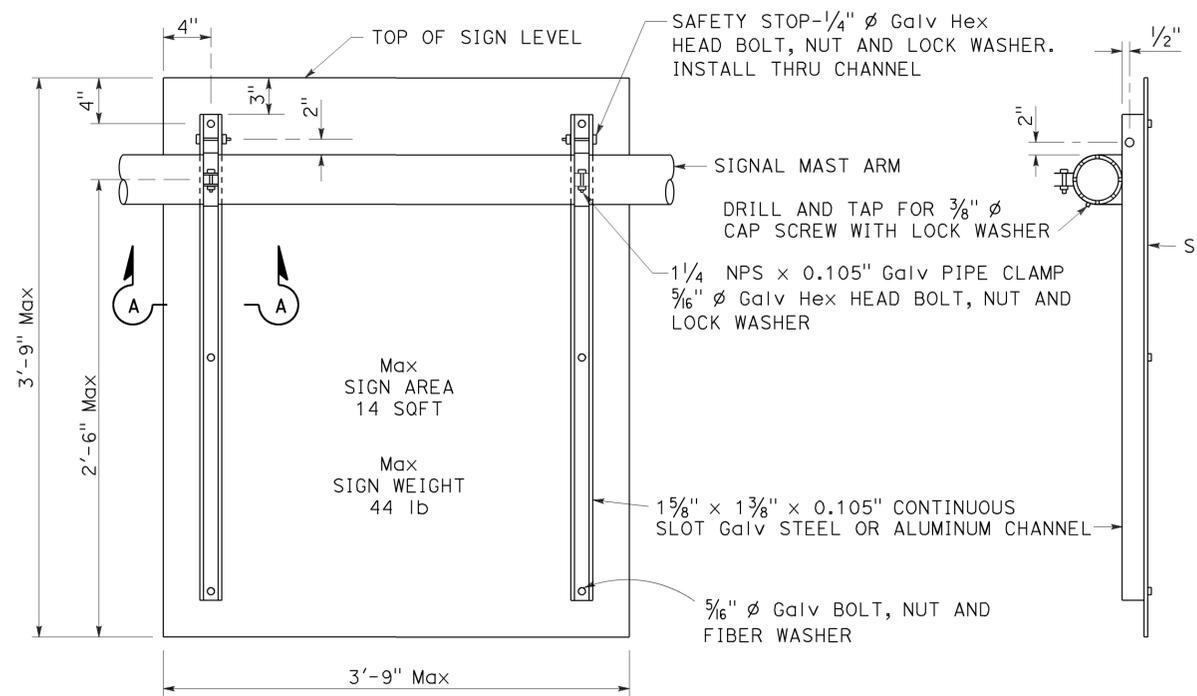
REVISED STANDARD PLAN RSP ES-7M

2010 REVISED STANDARD PLAN RSP ES-7M

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	314	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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Stanley P. Johnson
 REGISTERED PROFESSIONAL ENGINEER
 No. C57793
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA



TO ACCOMPANY PLANS DATED 6-28-16

REAR VIEW

SIDE VIEW

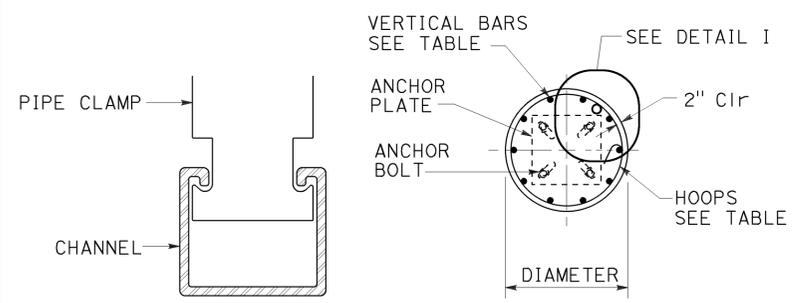
STANDARD TOP
DETAIL B-1

MOUNTING ADAPTER FOR
PHOTOELECTRIC UNIT
DETAIL B-2

ALTERNATIVE
MOUNTING ADAPTER
DETAIL B-3

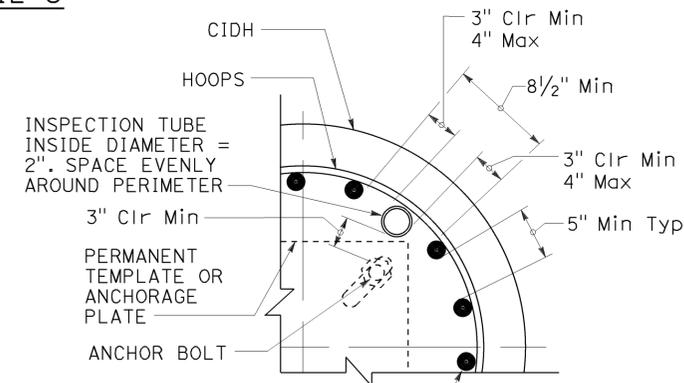
POLE TOP DETAILS
DETAIL B

**SIGN MOUNTING DETAILS
DETAIL U**



SECTION A-A

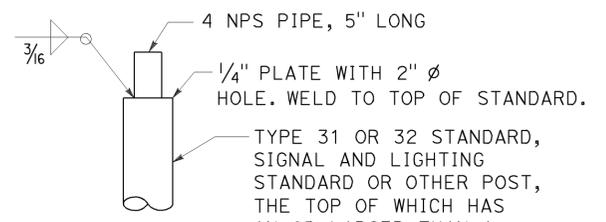
SECTION B-B



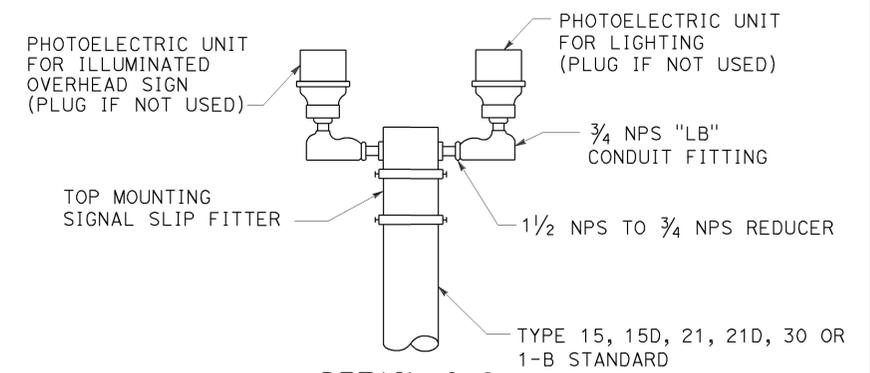
**INSPECTION TUBE PLACEMENT
DETAIL I**

CIDH DIAMETER	VERTICAL BARS	HOOPS (WELDED)	INSPECTION TUBE
2 ft	8-#5	#4 AT 6	2
2.5 ft	10-#6		4*
3 ft	12-#7	#5 AT 6	4
3.5 ft	14-#8		5
4 ft	18-#9	2-#4 AT 7	6
5 ft	22-#10	2-#5 AT 7	7
6 ft	26-#11	2-#6 AT 7	

* FOR SLIP BASE VERSIONS WITH 3 ANCHOR BOLTS USE 3 INSPECTION TUBES.



DETAIL C-1



**DUAL PHOTOELECTRIC UNIT MOUNTING DETAIL
DETAIL C**

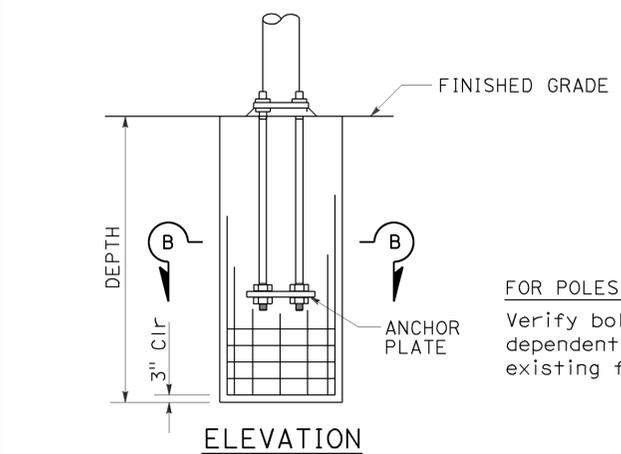
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
DETAIL No. 2)**

NO SCALE

RSP ES-7N DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-7N DATED MAY 20, 2011 - PAGE 475 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-7N

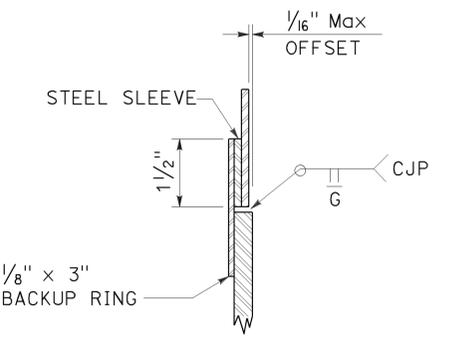


ELEVATION

**CAST-IN-DRILLED-HOLE PILE FOUNDATION,
REINFORCED PILE
DETAIL A**

FOR POLES TO BE INSTALLED ON EXISTING FOUNDATION:
Verify bolt circles, anchor bolt sizes and dependent dimensions for poles to be installed on existing foundations before fabricating the poles.

FOR UNIFORM TUBE THICKNESS
DETAIL T-1



AT TUBE THICKNESS CHANGE
DETAIL T-2

**POLE SPLICES
DETAIL T**

2010 REVISED STANDARD PLAN RSP ES-7N

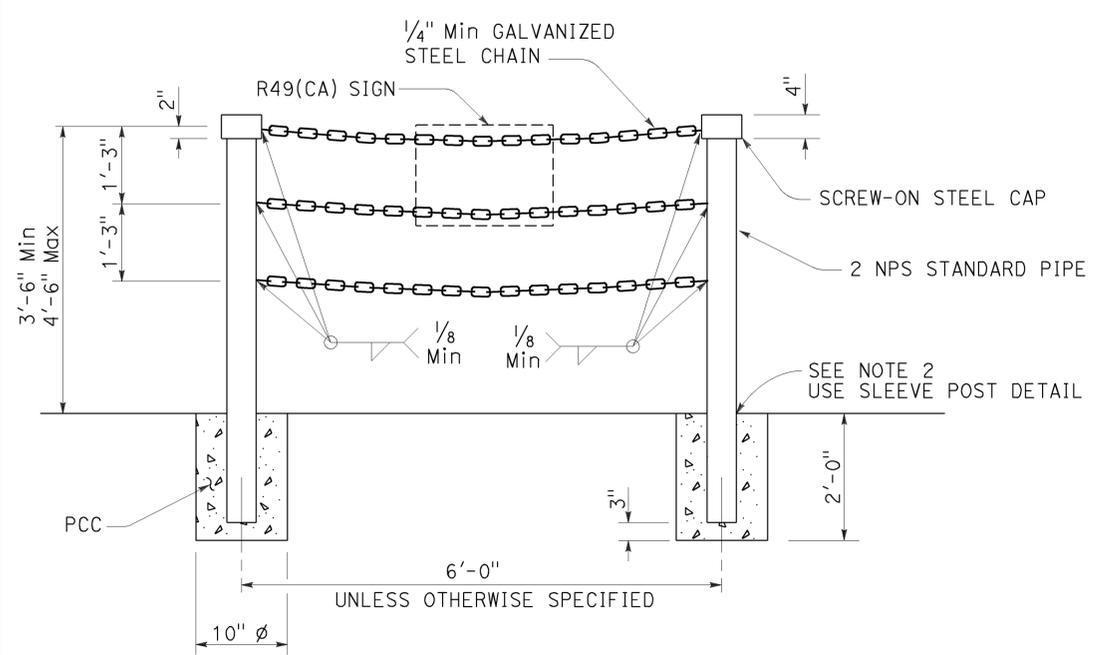
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	315	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE

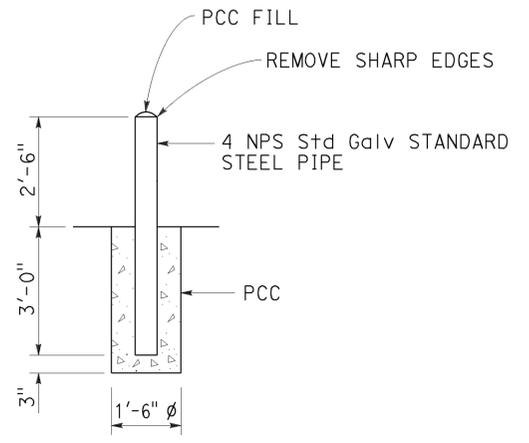
REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA

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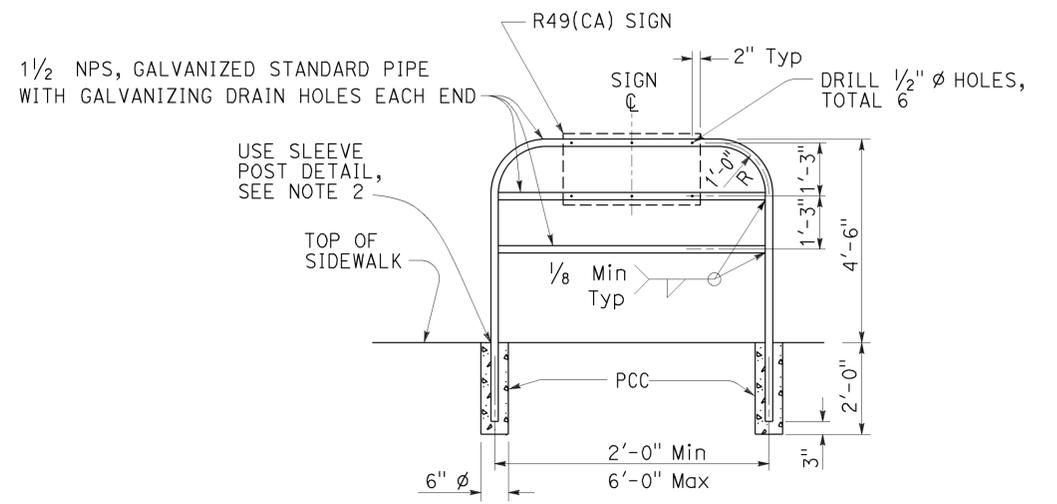
TO ACCOMPANY PLANS DATED 6-28-16



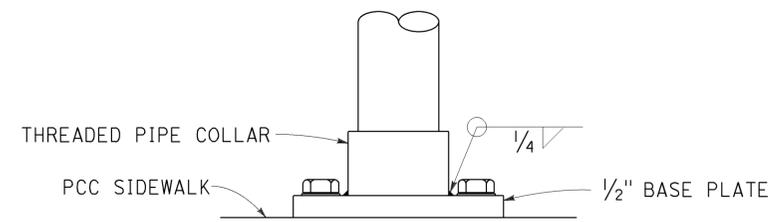
**TYPE II
DETAIL A**



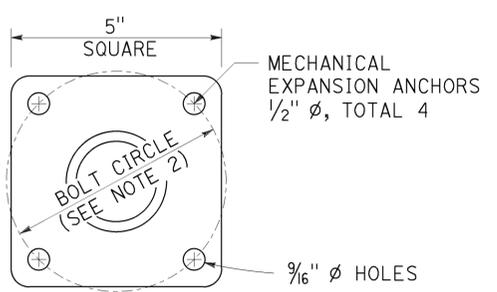
**GUARD POST
DETAIL B**



**TYPE I
DETAIL C**



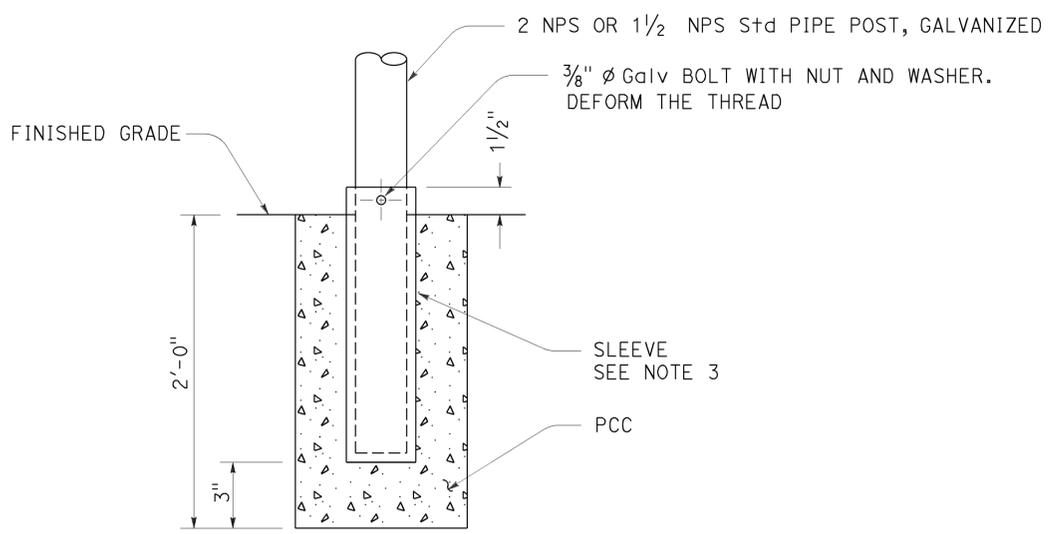
ELEVATION



PLAN

POST ANCHORAGE DETAIL

DETAIL D



SLEEVE POST DETAIL

Use unless otherwise specified or shown on plans

DETAIL E

NOTES:

1. Pipe post to be set 1'-6" back from face of curb unless otherwise specified.
2. Where barricade posts are installed in existing concrete sidewalk, the post may be anchored to the sidewalk as shown in the "Post Anchorage Detail". Bolt circle diameter shall be 4" minimum for Type I barricade and 5" minimum for Type II barricade.
3. Steel sleeve shall be constructed with an inside diameter 1/10" larger than the post's outside diameter. Wall thickness of sleeve shall be same as post or larger.
4. Alternative details may be submitted for approval by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(PEDESTRIAN BARRICADES)**

NO SCALE

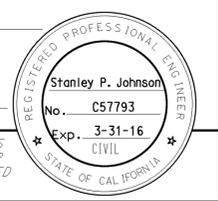
RSP ES-70 DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-70 DATED MAY 20, 2011 - PAGE 478 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-70

2010 REVISED STANDARD PLAN RSP ES-70

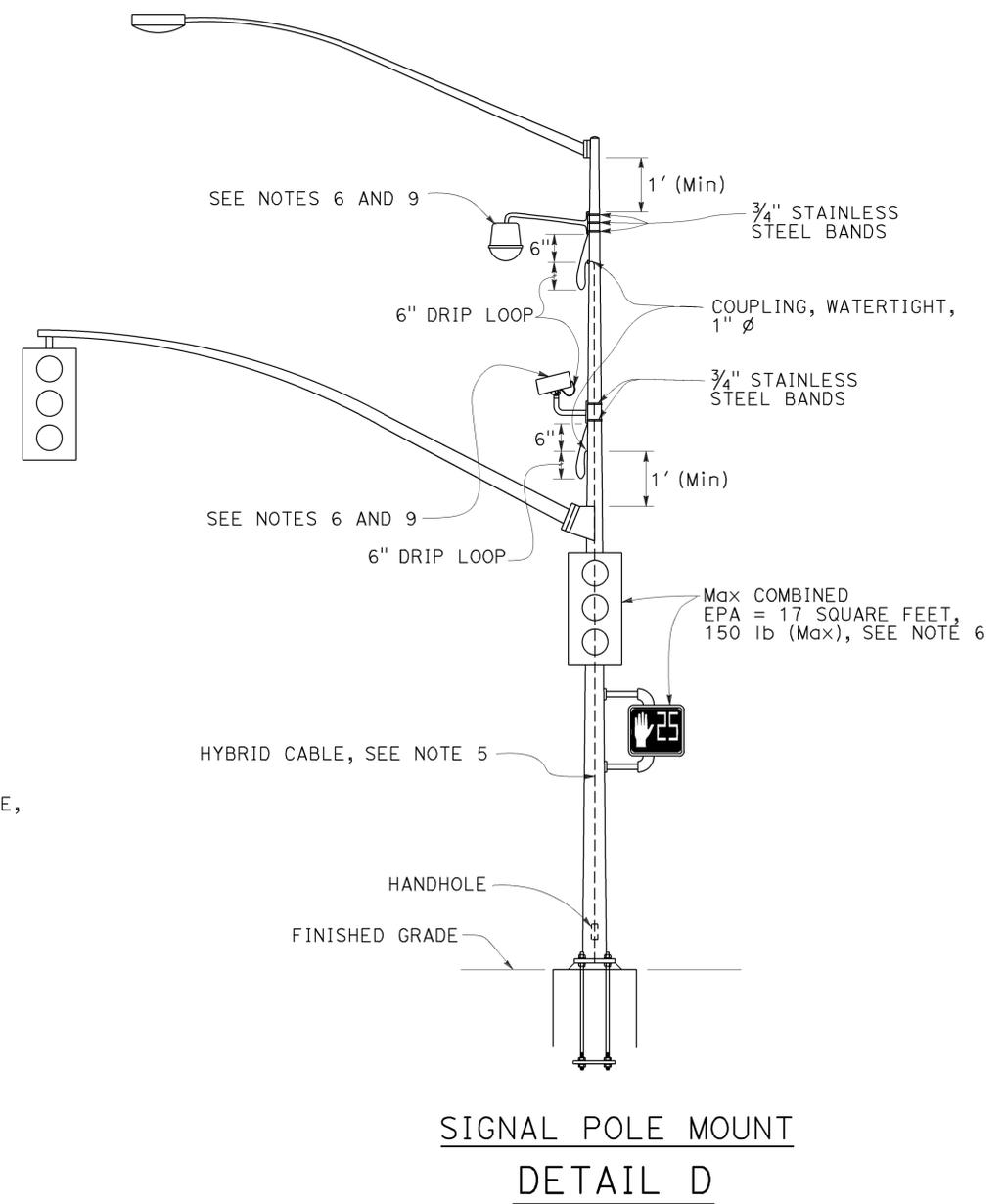
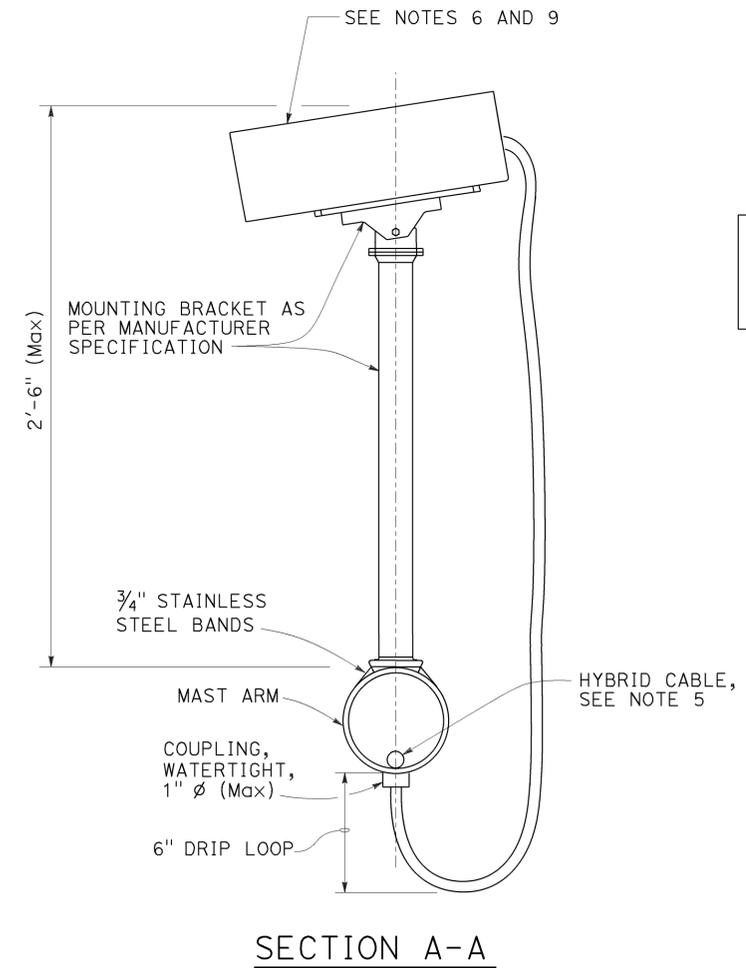
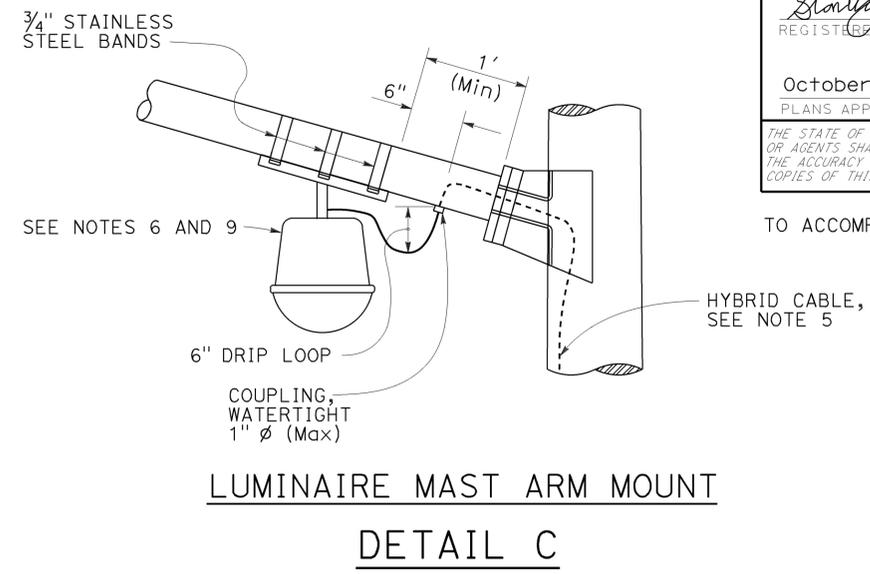
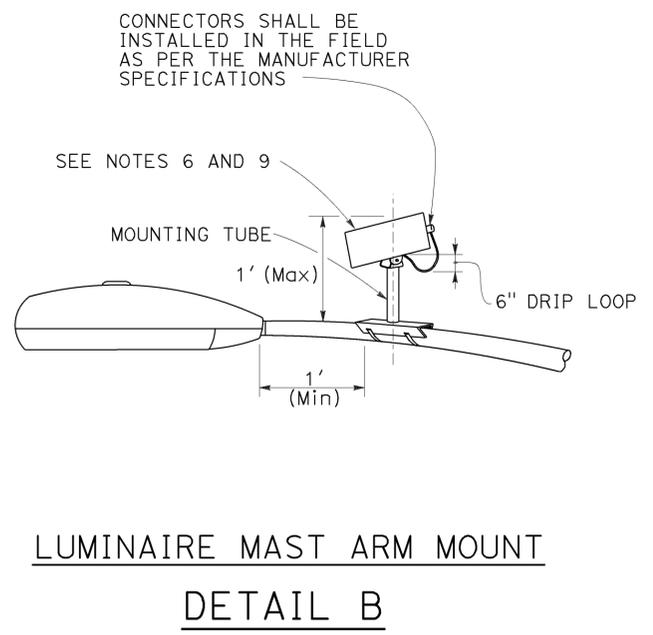
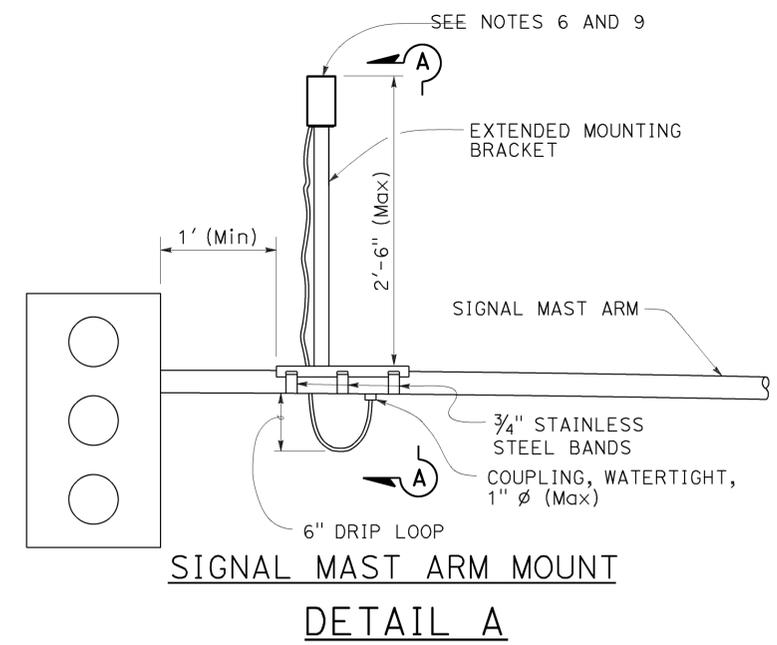
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	316	370

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 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.



TO ACCOMPANY PLANS DATED 6-28-16

2010 REVISED STANDARD PLAN RSP ES-7R



NOTES:

- Exact mounting location of miscellaneous attachment and bracket shall be approved by the Engineer per manufacturer's recommendation.
- Location of cable entrances on signal pole shall be a minimum of 1' from any flange or base plate.
- Hybrid cable entrances on signal pole shall be drilled for weathertight coupling as required.
- Hybrid cable shall have a drip loop at the entrance into signal pole, luminaire mast arm and signal mast arm.
- A single hybrid cable shall run continuous and shall not be twisted from the miscellaneous attachment to the controller cabinet. No splices shall be allowed.
- Use the manufacturer's Effective Projected Area (EPA) for miscellaneous attachment. The maximum EPA for each miscellaneous attachment shall be 1.6 square feet with 10 lb Max.
- Maximum of two miscellaneous attachments per traffic signal standard.
- Maximum of one miscellaneous attachment per mast arm.
- Miscellaneous attachment shall be mounted using clamping devices.

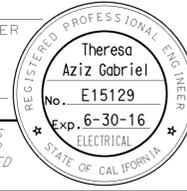
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SIGNAL AND LIGHTING,
 MISCELLANEOUS ATTACHMENT)**
 NO SCALE

RSP ES-7R DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-7R DATED JULY 19, 2013 AND STANDARD PLAN ES-7R DATED MAY 20, 2011 - PAGE 479 OF THE STANDARD PLANS BOOK DATED 2010.

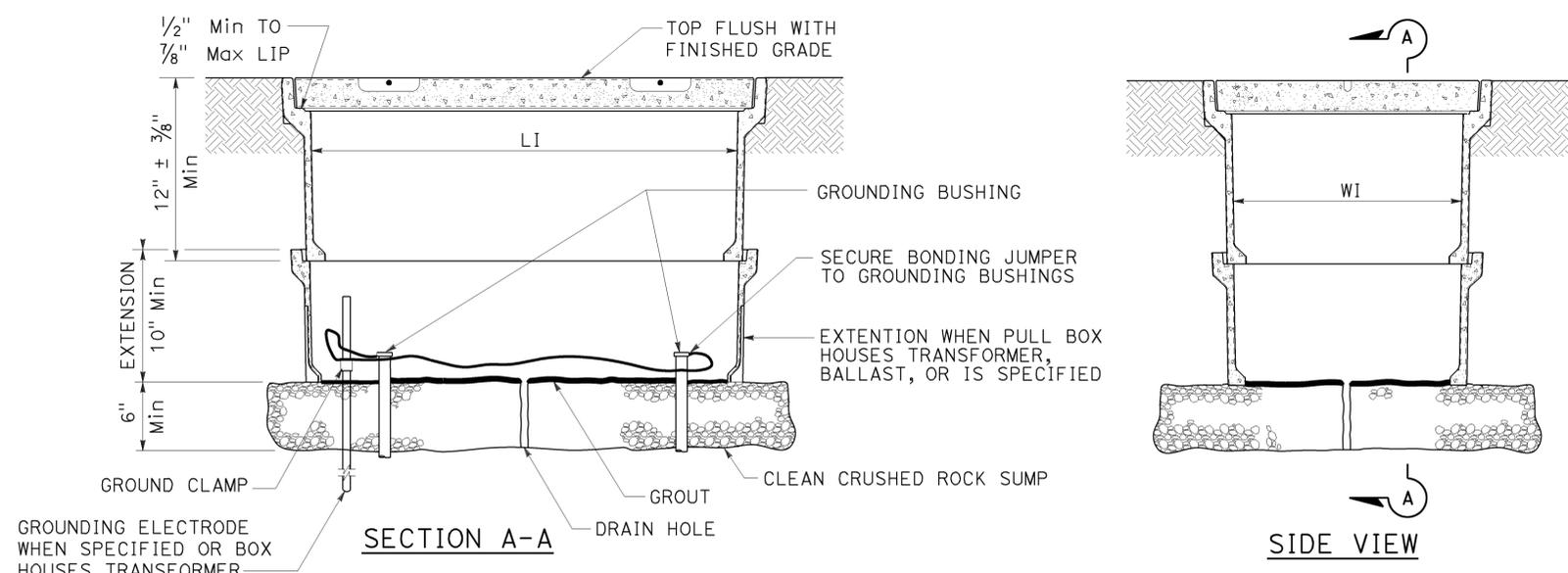
REVISED STANDARD PLAN RSP ES-7R

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	317	370

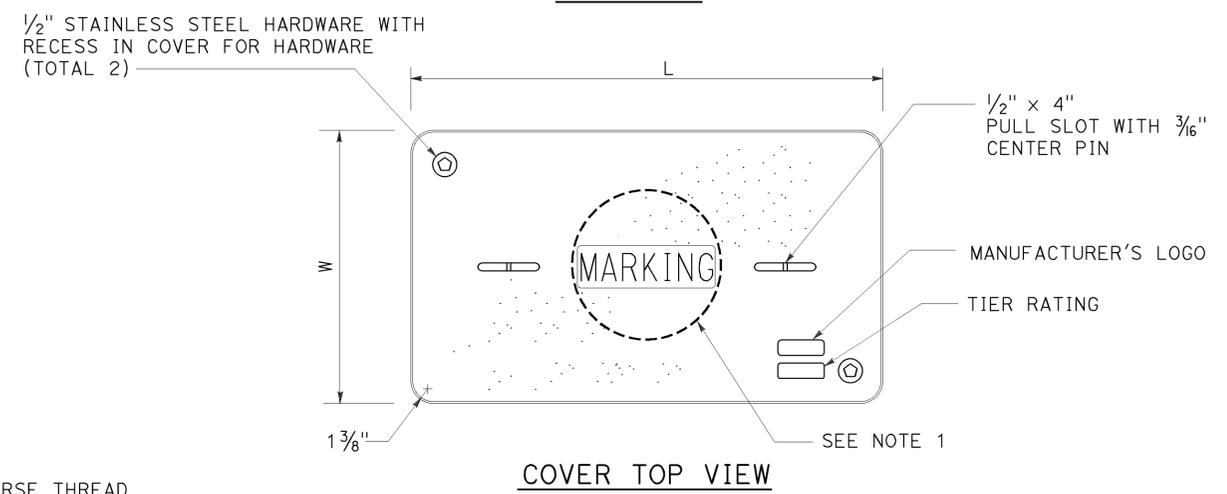
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



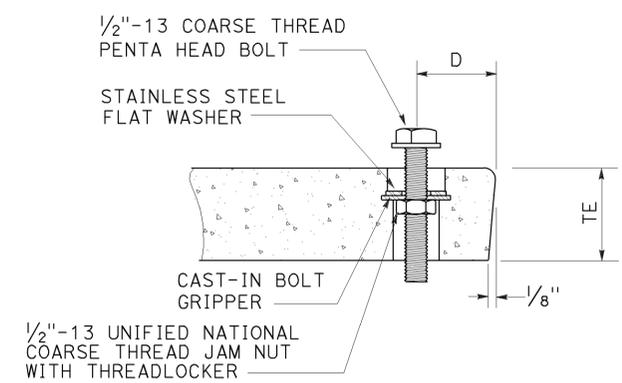
TO ACCOMPANY PLANS DATED 6-28-16



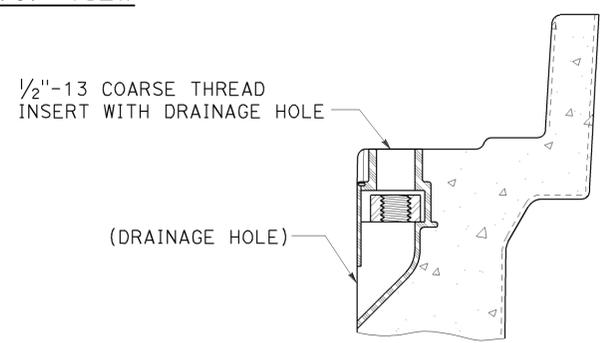
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
OR SIMILAR



TYPICAL THREADED INSERT
OR SIMILAR

NOTES:

- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3 1/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- Dimensions for the cover for non-traffic pull box are nominal values.

DIMENSION TABLE										
PULL BOX	PULL BOX				COVER					
	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MINIMUM WEIGHT	LI Min	WI Min	TE	D	L	W	MINIMUM WEIGHT
No. 3 1/2	12"	N/A	40 lb	1' - 3"	9"	1 3/4"	1 3/4"	1'-3 1/4" - 1'-3 3/8"	10" - 10 1/8"	30 lb
No. 5	12"	10"	55 lb	1' - 8"	11"	2"	1 3/4"	1'-11 1/4"	1'-1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 4 1/4"	1' - 3 1/4"	2"	2"	2'-6 1/2"	1'-5 1/2"	85 lb

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(NON-TRAFFIC PULL BOX)
NO SCALE

RSP ES-8A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8A DATED JULY 19, 2013 AND RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8A

2010 REVISED STANDARD PLAN RSP ES-8A

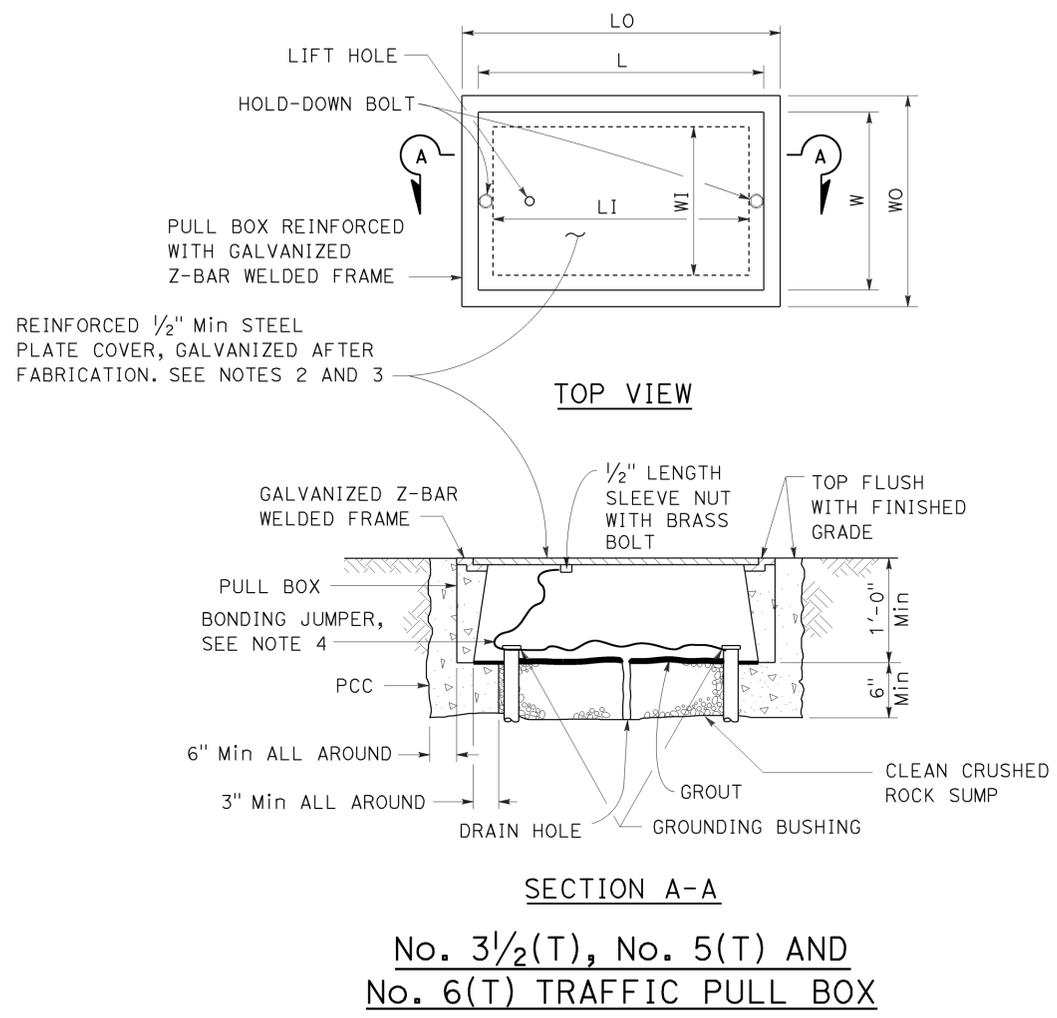
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	318	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 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.

TO ACCOMPANY PLANS DATED 6-28-16



NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

PULL BOX	PULL BOX				COVER			
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	LO	LI	WO	WI	L **	W **
No. 3 1/2(T)	1 1/2"	1'-0"	1'-10" - 1'-11"	1'-5" - 1'-6 1/2"	1'-3" - 1'-4"	10" - 1'-0"	1'-8" - 1'-8 1/2"	1'-1" - 1'-2"
No. 5(T)	1 3/4"	1'-0"	2'-5" - 2'-6"	2'-0" - 2'-1"	1'-6" - 1'-7"	1'-1" - 1'-2"	2'-3" - 2'-3 1/2"	1'-4" - 1'-4 1/2"
No. 6(T)	2"	1'-0"	2'-11" - 3'-1"	2'-6" - 2'-7"	1'-10" - 2'-0"	1'-5" - 1'-6"	2'-9" - 2'-9 1/2"	1'-8" - 1'-8 1/2"

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (TRAFFIC PULL BOX)**
 NO SCALE

RSP ES-8B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8B DATED JULY 19, 2013 AND RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

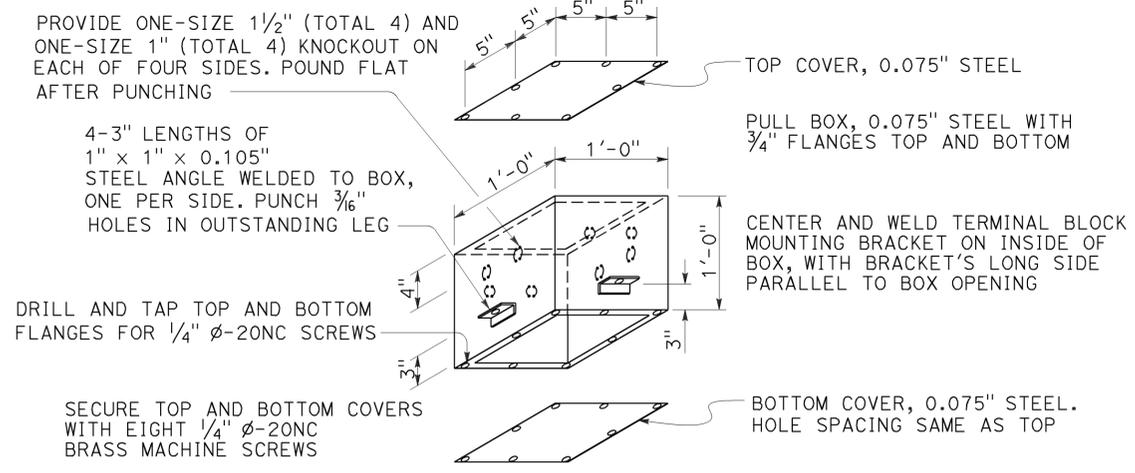
2010 REVISED STANDARD PLAN RSP ES-8B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	319	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

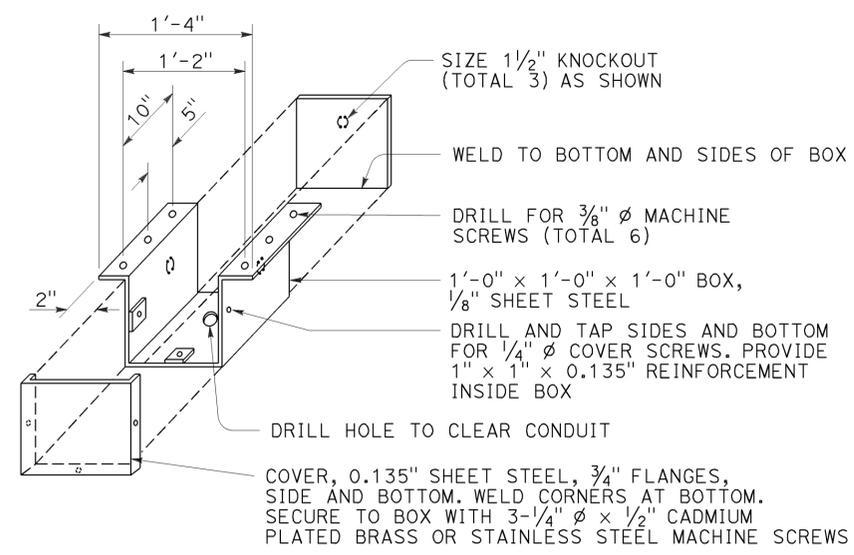
October 30, 2015
 PLANS APPROVAL DATE

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No. 7 CEILING PULL BOX

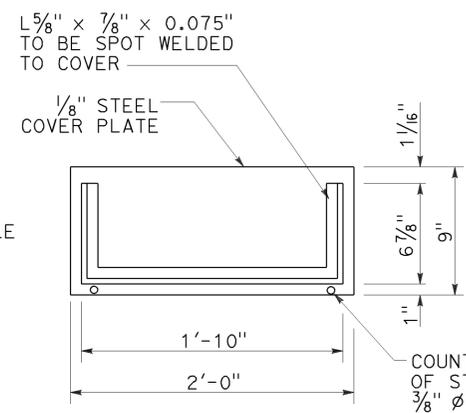
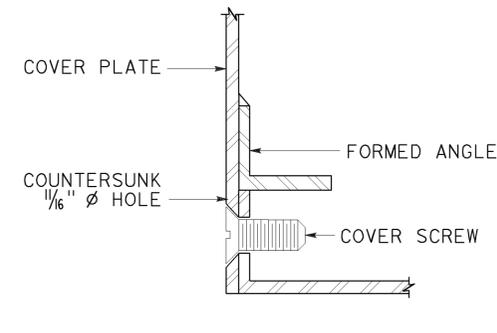
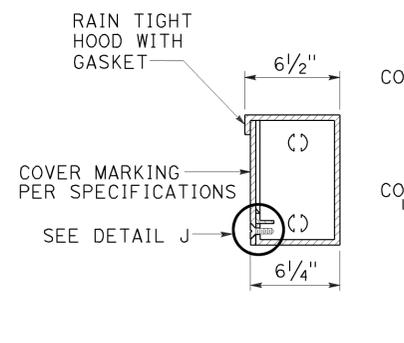
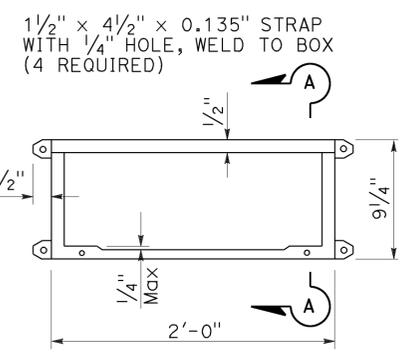
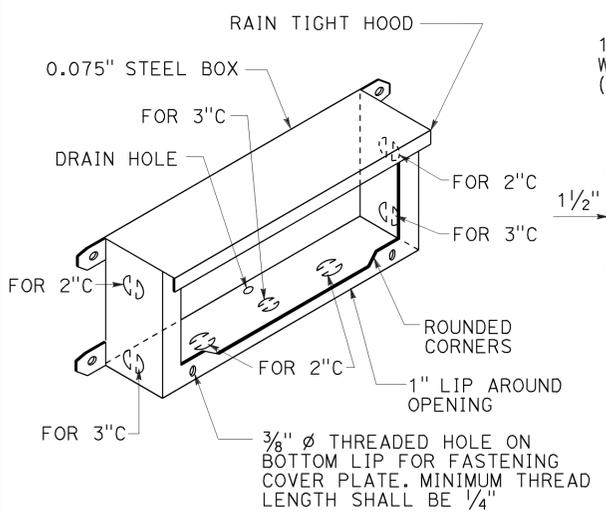
See Note 6



No. 8 PULL BOX

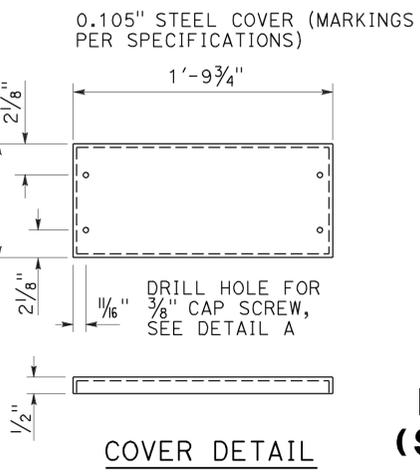
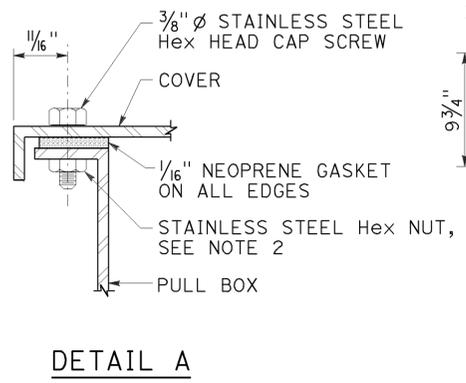
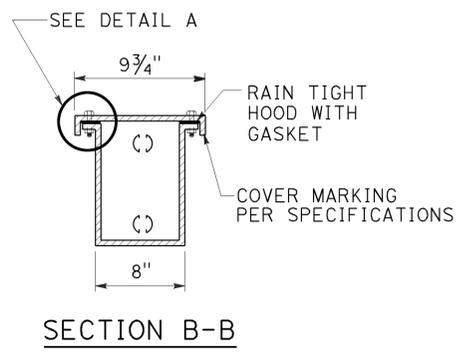
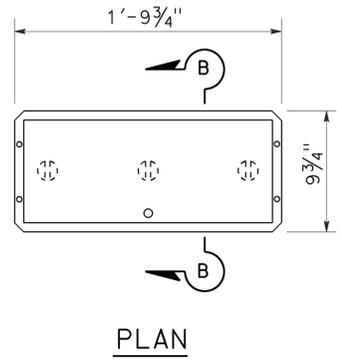
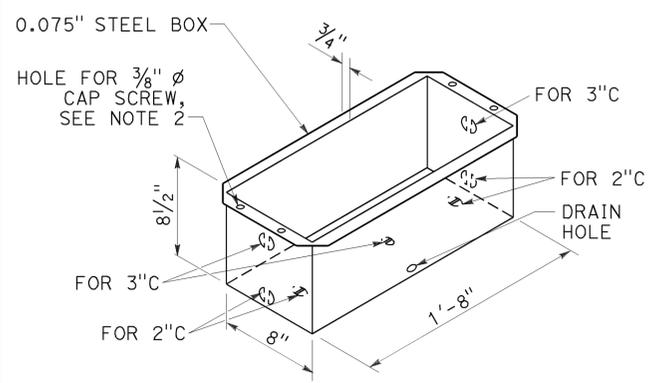
NOTES:

- Corner joints shall be lapped and secured by spot welding or riveting.
- Where cap screws are used to attach cover to box, either of the following methods of providing adequate threading may be used:
 - Tack weld stainless steel Hex nut to bottom of flange (total 4)
 - Tack weld a 1/4" x 5/8" x 8" bar beneath flange (total 2)
- Pound knockouts flat after punching.
- Multiple size knockouts (concentric) shall not be permitted.
- Pull box covers shall be marked as specified on Revised Standard Plans RSP ES-8A and RSP ES-8B.
- Installation of No. 7 pull box:
 - Install with bottom flange flush with concrete.
 - Both covers shall be on a box during pouring.
- Install box parallel to top of railing. Cover box during pouring with 1/4" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of rain tight hood.



No. 9 STRUCTURE PULL BOX

See Note 7



No. 9A STRUCTURE PULL BOX

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (STRUCTURE PULL BOX)

NO SCALE

RSP ES-9C DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9C DATED MAY 20, 2011 - PAGE 483 OF THE STANDARD PLANS BOOK DATED 2010.

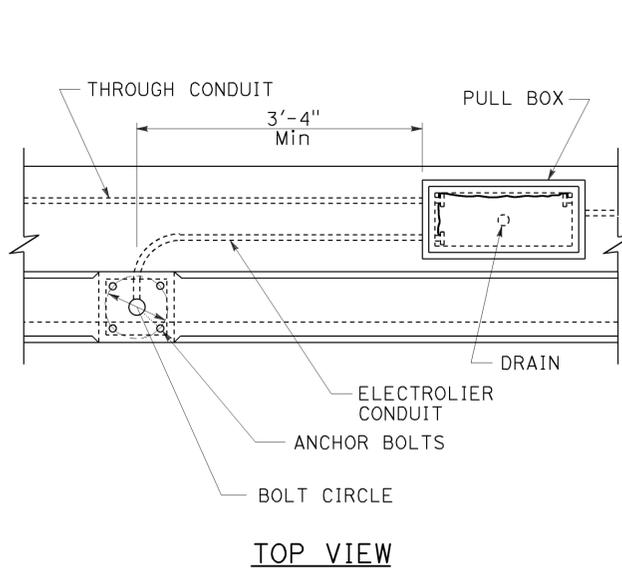
REVISED STANDARD PLAN RSP ES-9C

2010 REVISED STANDARD PLAN RSP ES-9C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	320	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 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.

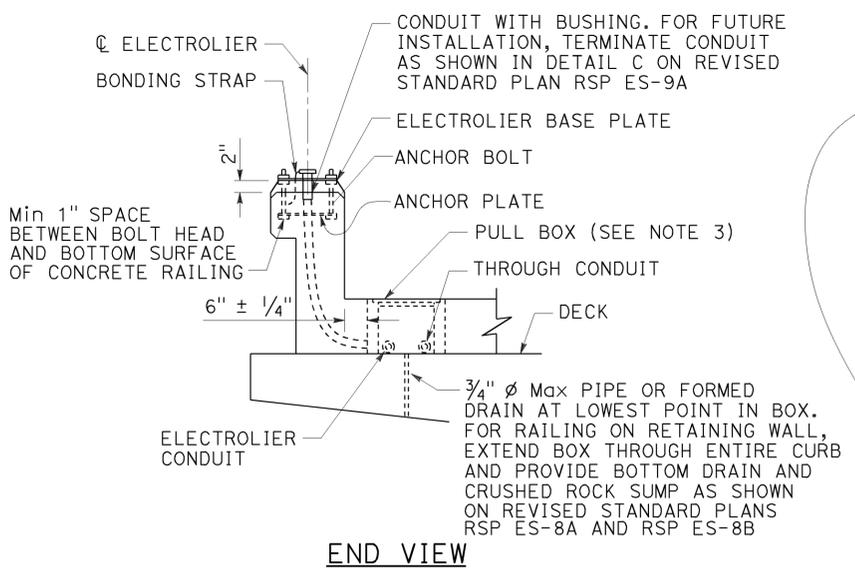
TO ACCOMPANY PLANS DATED 6-28-16



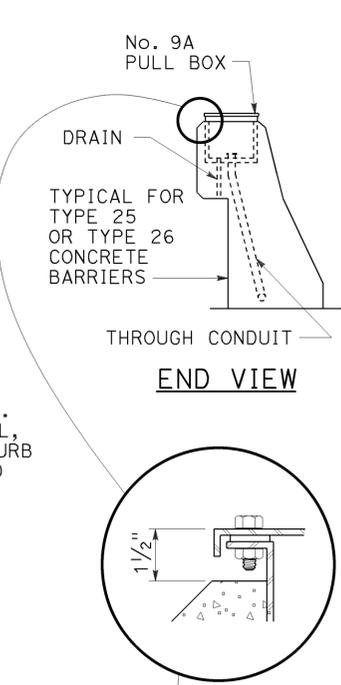
TOP VIEW

No. 3 1/2, 5, OR 6 PULL BOX INSTALLATION

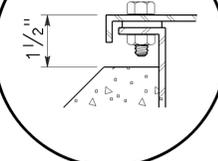
DETAIL A



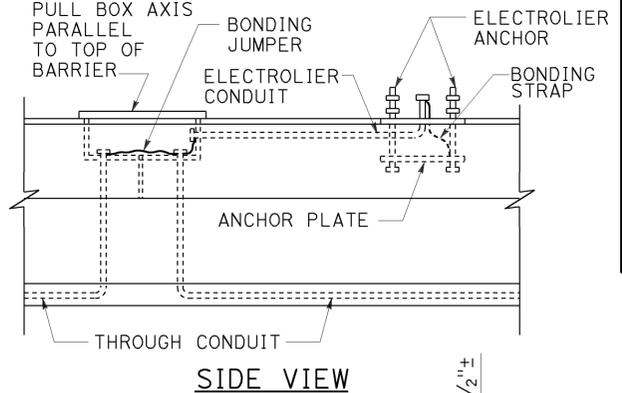
END VIEW



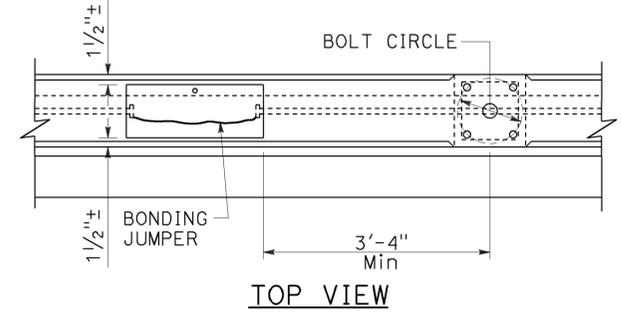
END VIEW



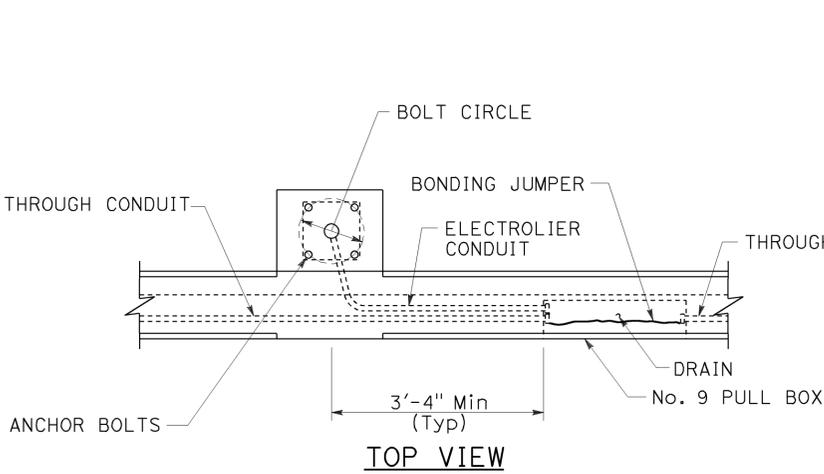
TOP VIEW



SIDE VIEW



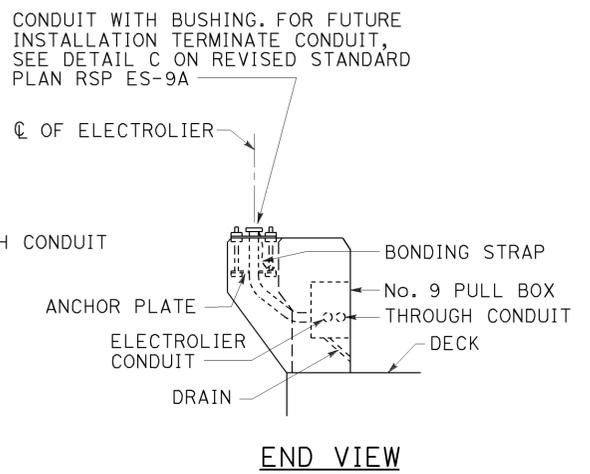
TOP VIEW



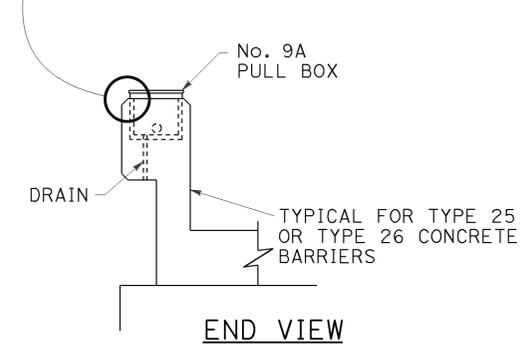
TOP VIEW

No. 9 PULL BOX INSTALLATION

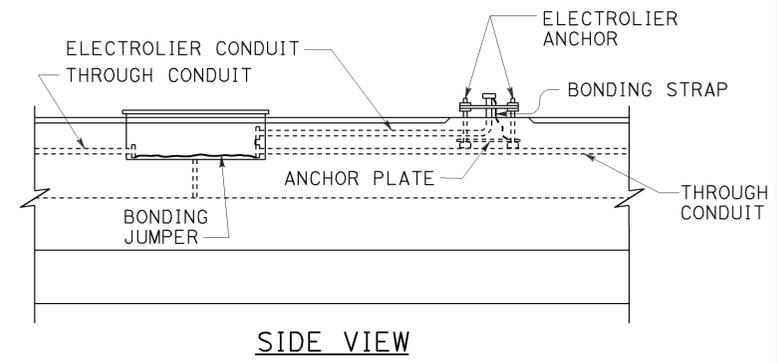
DETAIL B



END VIEW



END VIEW



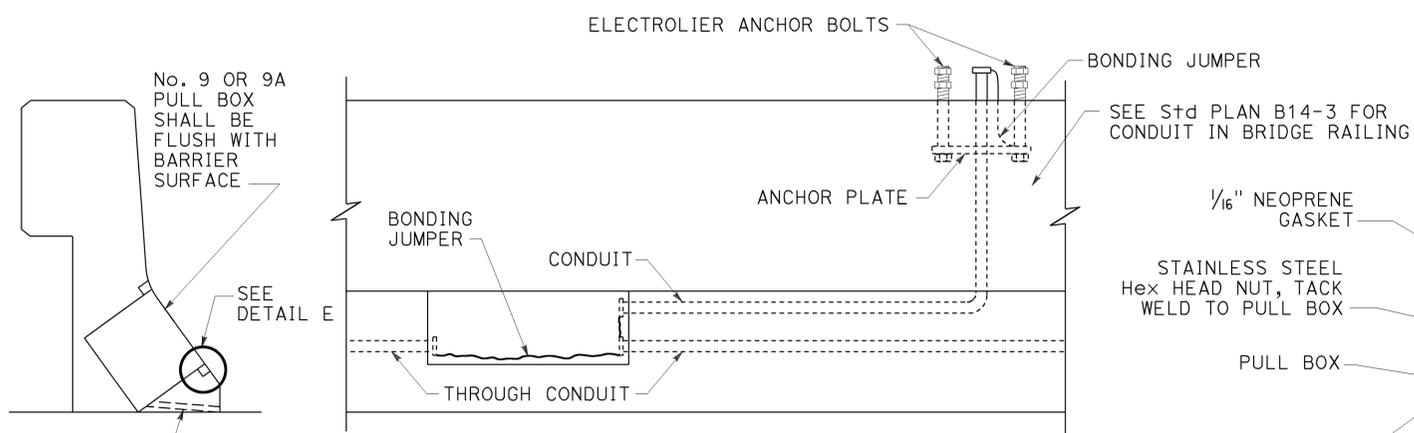
SIDE VIEW

No. 9A PULL BOX INSTALLATION

DETAIL C

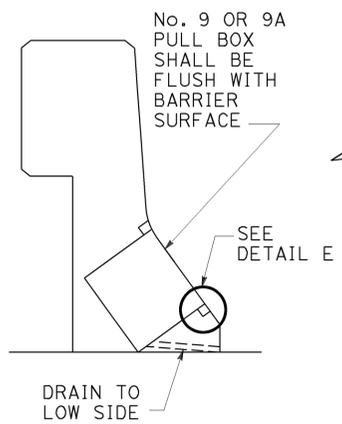
NOTES:

1. Axis of pull box shall be parallel to top of barrier, sidewalk or railing.
2. See railing sheet for reinforcement and structural details at electroliers and pull boxes.
3. Top of pull boxes in sidewalk areas shall be flush with sidewalk. Modify base of pull box as required.
4. Boxes inside of vertical barrier or railing shall be closed during pouring of PCC with 1/4" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of raintight hood.
5. Use drain in center if box is horizontal, or at low end if box is inclined. When box is mounted in sloping parapet 1/2" elongated drain hole inside at center or near end as required for drainage.
6. For electrolier anchorage bolts and grouting details, see Standard Plan ES-6B.
7. See Standard Plan B14-3 for conduit in concrete barrier.

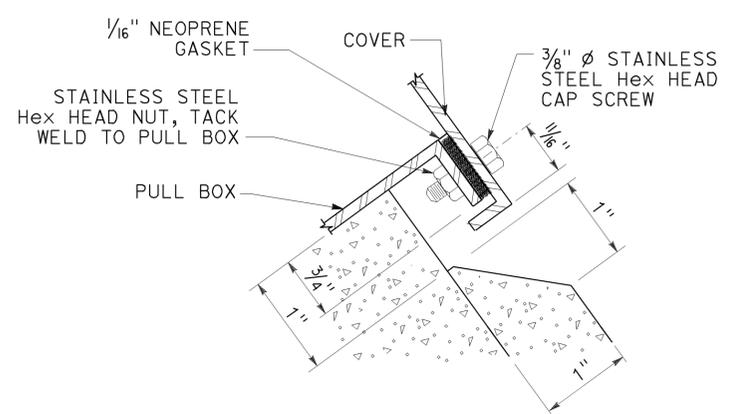


INSTALLATION IN SLOPING PARAPETS

DETAIL D



DRAIN TO LOW SIDE



DETAIL E

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(STRUCTURE PULL BOX
INSTALLATIONS)**

NO SCALE

RSP ES-9D DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9D DATED MAY 20, 2011 - PAGE 484 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9D

2010 REVISED STANDARD PLAN RSP ES-9D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	321	370

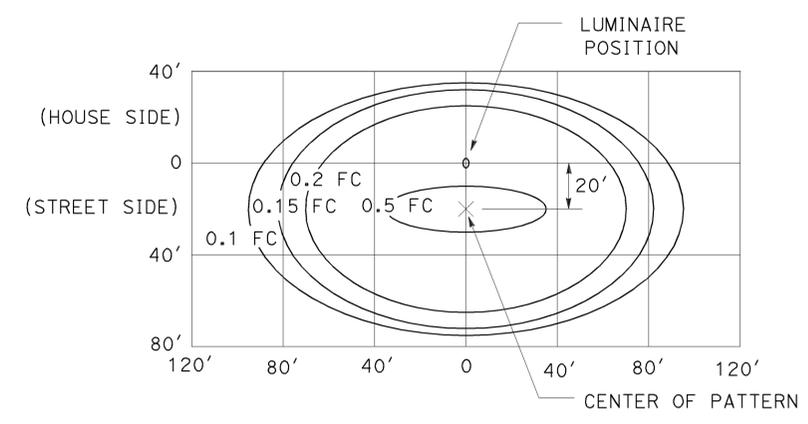
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

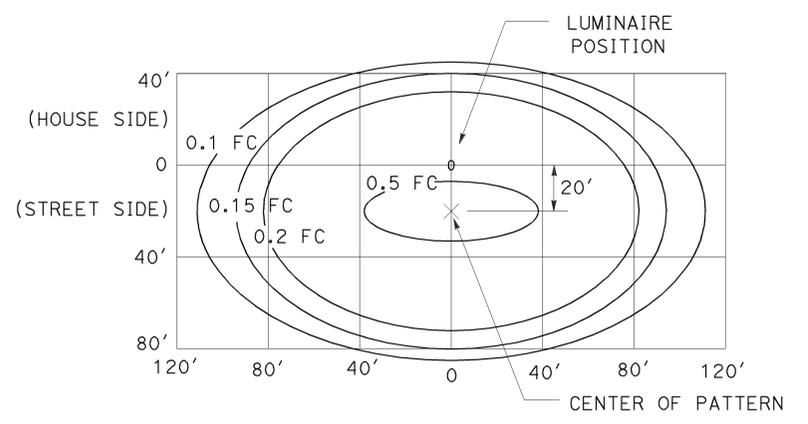
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TO ACCOMPANY PLANS DATED 6-28-16

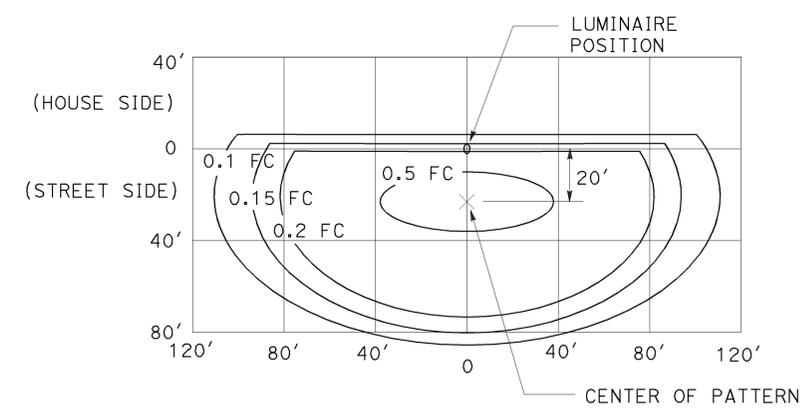
NOTE:
Curves represent the minimum footcandle (FC).



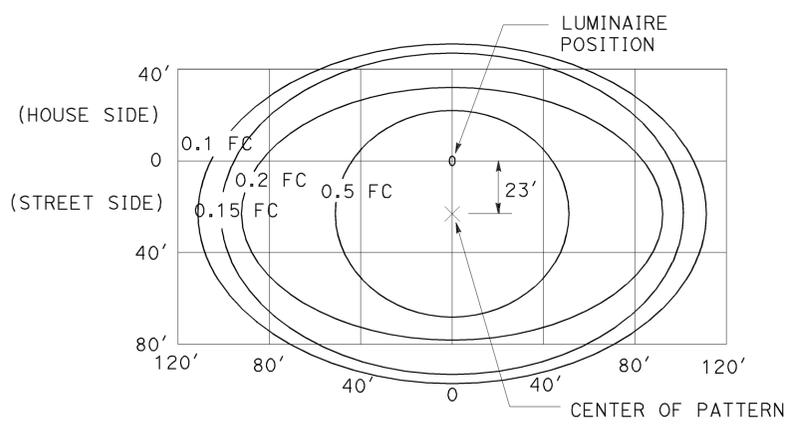
LED LUMINAIRE 165 W
34' Mounting Height



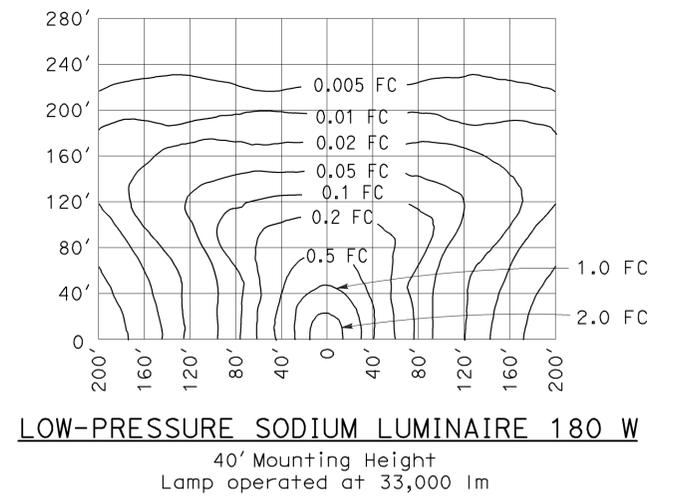
LED LUMINAIRE 235 W
40' Mounting Height



LED LUMINAIRE 235 W
40' Mounting Height
with back side control



LED LUMINAIRE 300 W
40' Mounting Height



LOW-PRESSURE SODIUM LUMINAIRE 180 W
40' Mounting Height
Lamp operated at 33,000 lm

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE CURVES)**

NO SCALE

RSP ES-10A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10A DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-10A

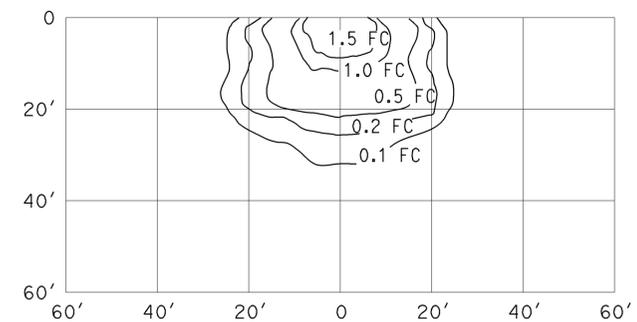
2010 REVISED STANDARD PLAN RSP ES-10A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	322	370

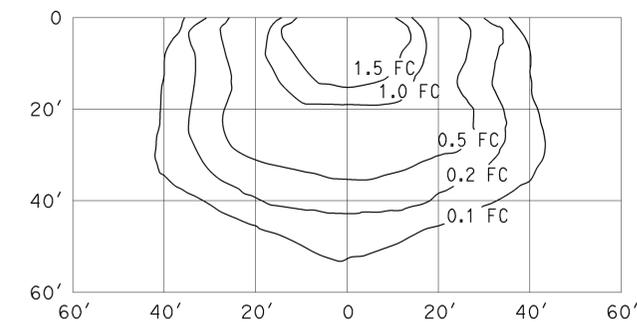
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-28-16

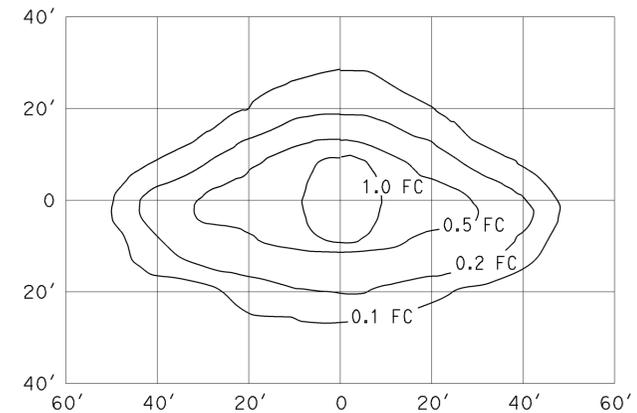
NOTE:
Curves represent the minimum footcandle (FC).



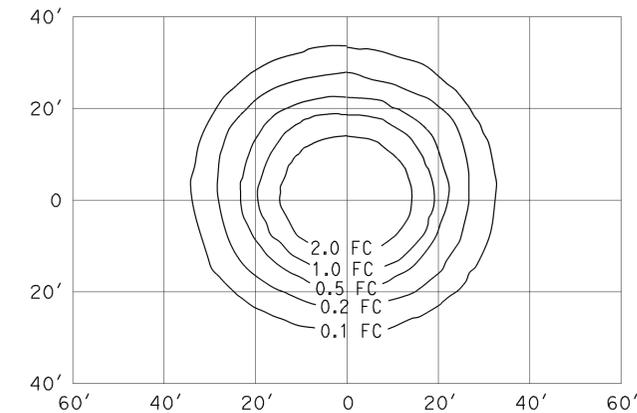
**HIGH-PRESSURE SODIUM
WALL-MOUNTED LUMINAIRE 70 W**
15' Mounting Height
ANSI Designation S62
Lamp operated at 5,800 lm



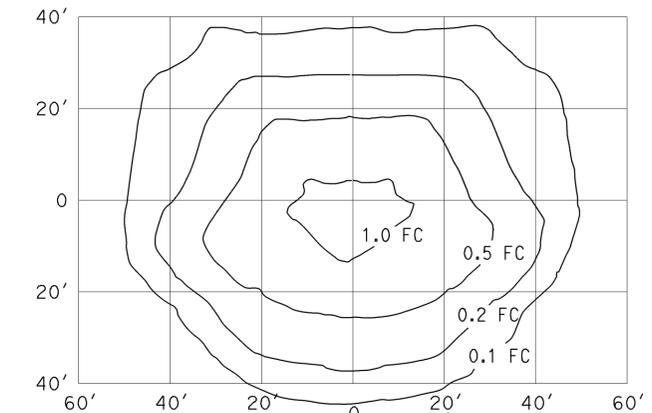
**HIGH-PRESSURE SODIUM
WALL-MOUNTED LUMINAIRE 100 W**
15' Mounting Height
ANSI Designation S54
Lamp operated at 9,500 lm



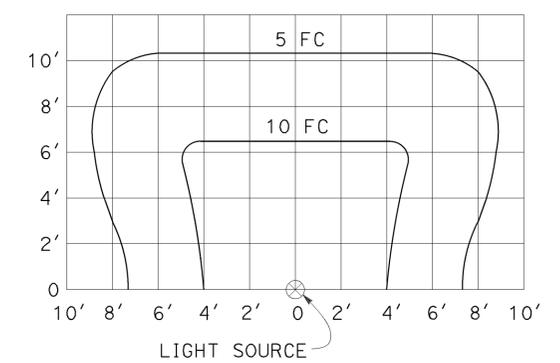
**HIGH-PRESSURE SODIUM
PENDANT SOFFIT LUMINAIRE 70 W
TYPE III SHORT**
17' Mounting Height
ANSI Designation S62
Lamp operated at 5,800 lm



**HIGH-PRESSURE SODIUM
PENDANT SOFFIT LUMINAIRE 70 W**
17' Mounting Height
ANSI Designation S62
Lamp operated at 5,800 lm



**HIGH-PRESSURE SODIUM
FLUSH-MOUNTED SOFFIT LUMINAIRE 70 W**
17' Mounting Height
ANSI Designation S62
Lamp operated at 5,800 lm



**INDUCTION SIGN
LIGHTING FIXTURE 85 W**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

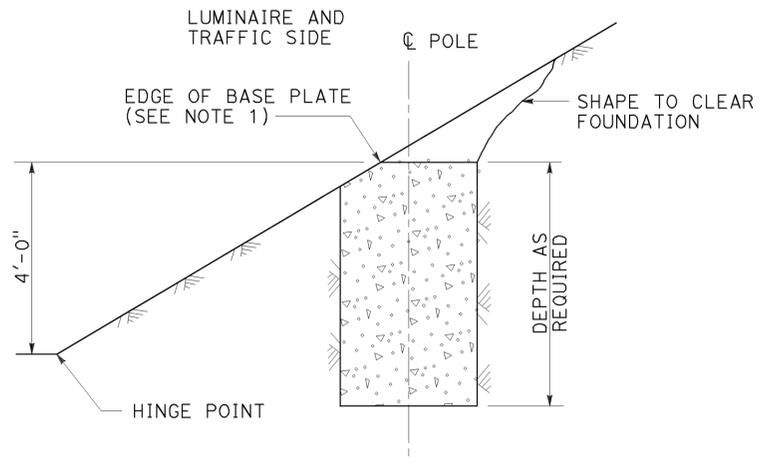
**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE CURVES)**

NO SCALE

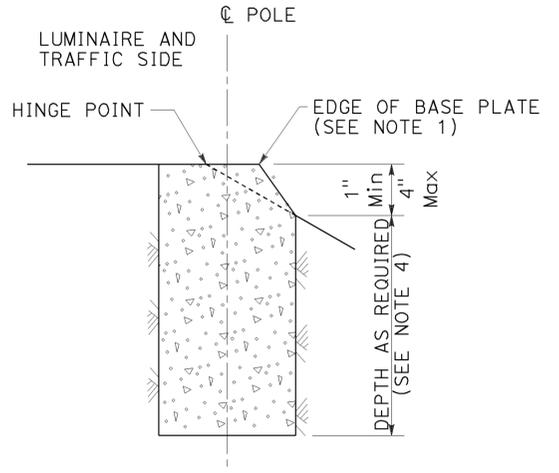
RSP ES-10B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10B DATED JULY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-10B

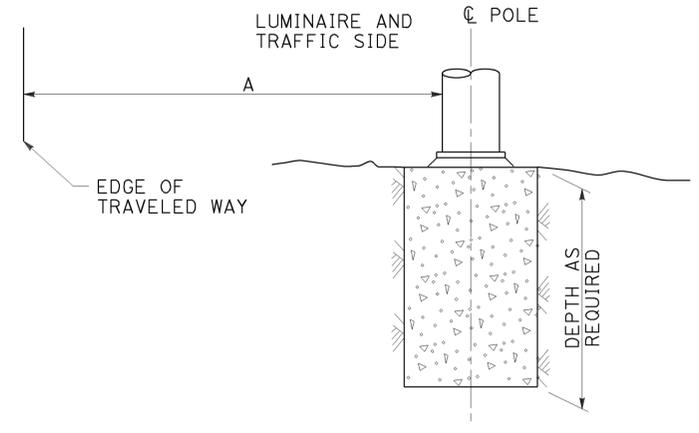
2010 REVISED STANDARD PLAN RSP ES-10B



CUT SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-1
 See Note 2 and 3



FILL SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-2
 See Note 2 and 3



FLAT SECTIONS, CUT OR FILL SLOPES
4:1 OR FLATTER
DETAIL A-3
 See Note 2

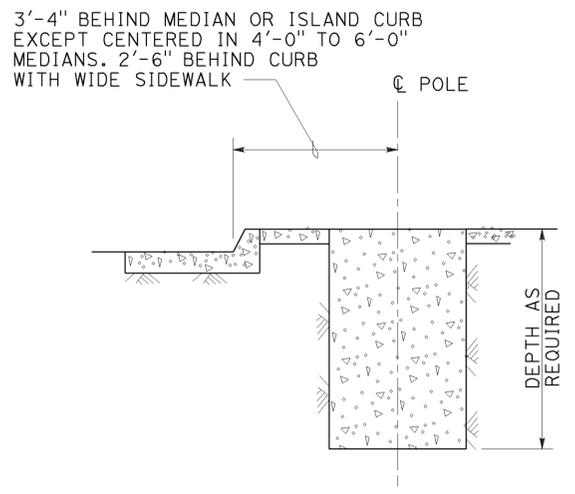
TO ACCOMPANY PLANS DATED 6-28-16

STANDARD TYPE	SETBACK (DIMENSION A)
32	30'-0" (Min)
31	20'-0" (Min)
15, 15D, 15-SB, 21, 21D, 30	ARM LENGTH (Min)

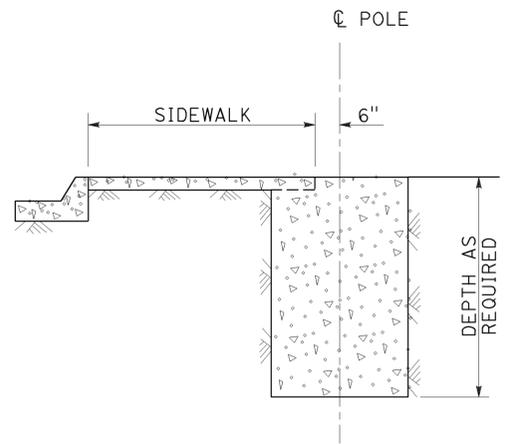
FOUNDATIONS ADJACENT TO ALL ROADWAYS EXCEPT
IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL A

NOTES:

- Where a portion of the foundation is above grade, the top edges shall have a 1" chamfer.
- Slopes shall be horizontal to vertical ratio (Horizontal : Vertical).
- Horizontal setbacks on cut and fill slopes steeper than 4:1 shall not exceed the distance shown for flat sections.
- CIDH embedment depth shall be increased beyond standard depths by the diameter of the CIDH.



MEDIAN, ISLAND
OR WIDE SIDEWALK
DETAIL B-1
 7' Wide and wider



NARROW SIDEWALK
DETAIL B-2
 Less than 7' wide

FOUNDATIONS IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(FOUNDATION INSTALLATIONS)
 NO SCALE

RSP ES-11 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-11
 DATED MAY 20, 2011 - PAGE 488 OF THE STANDARD PLANS BOOK DATED 2010.

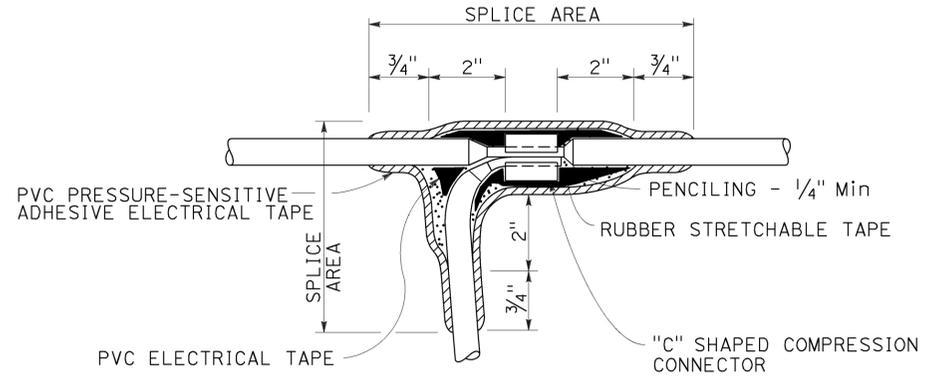
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	324	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

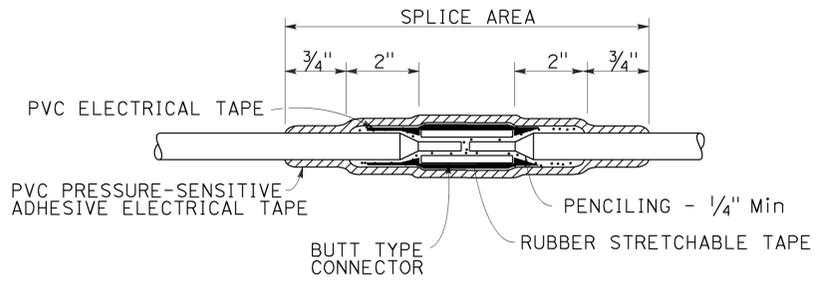
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TO ACCOMPANY PLANS DATED 6-28-16



TYPE C SPLICE

See Note 3

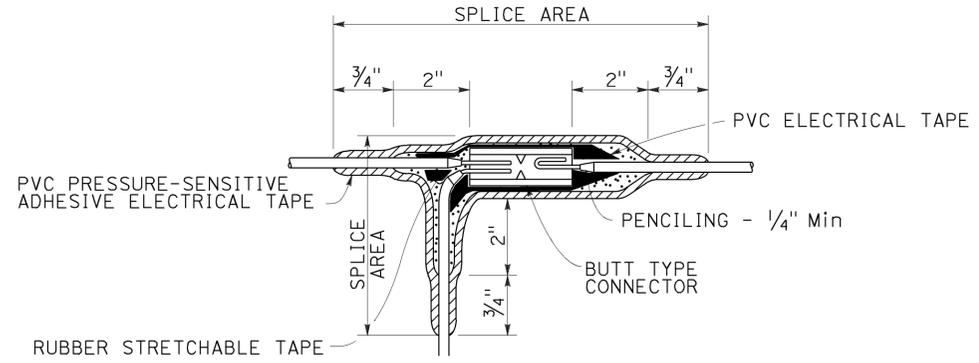


TYPE S SPLICE

See Note 4

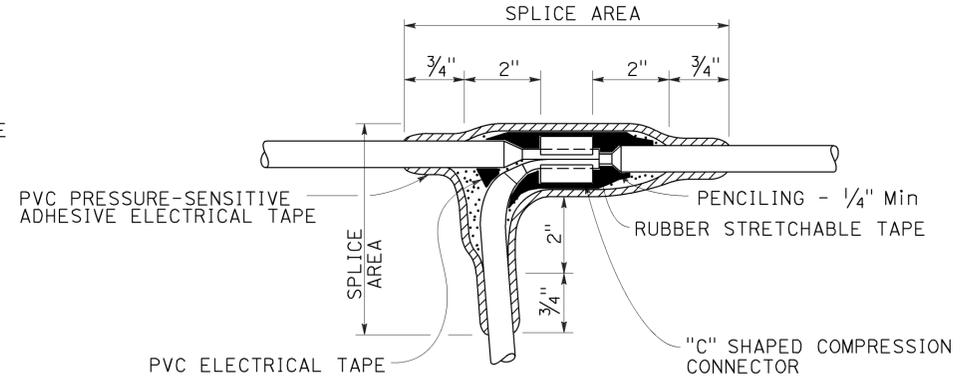
NOTES:

1. Dimensions are minimum.
2. Rubber tapes shall be rolled after application.
3. Between 1 free-end and 1 through conductor.
4. Between 2 free-end conductors.
5. Between 3 free-end conductors.



TYPE ST SPLICE

See Note 5



TYPE T SPLICE

See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SPLICING DETAILS)**

NO SCALE

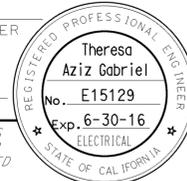
RSP ES-13A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-13A DATED MAY 20, 2011 - PAGE 491 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-13A

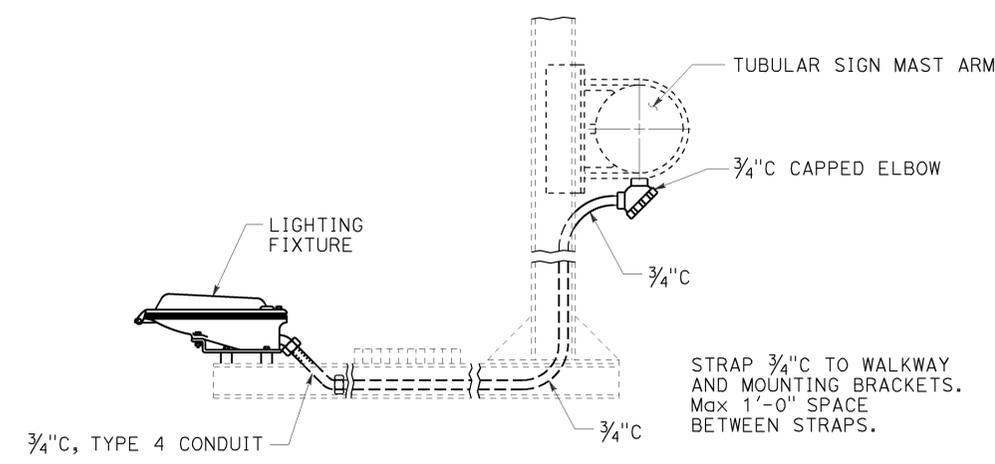
2010 REVISED STANDARD PLAN RSP ES-13A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	325	370

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 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.

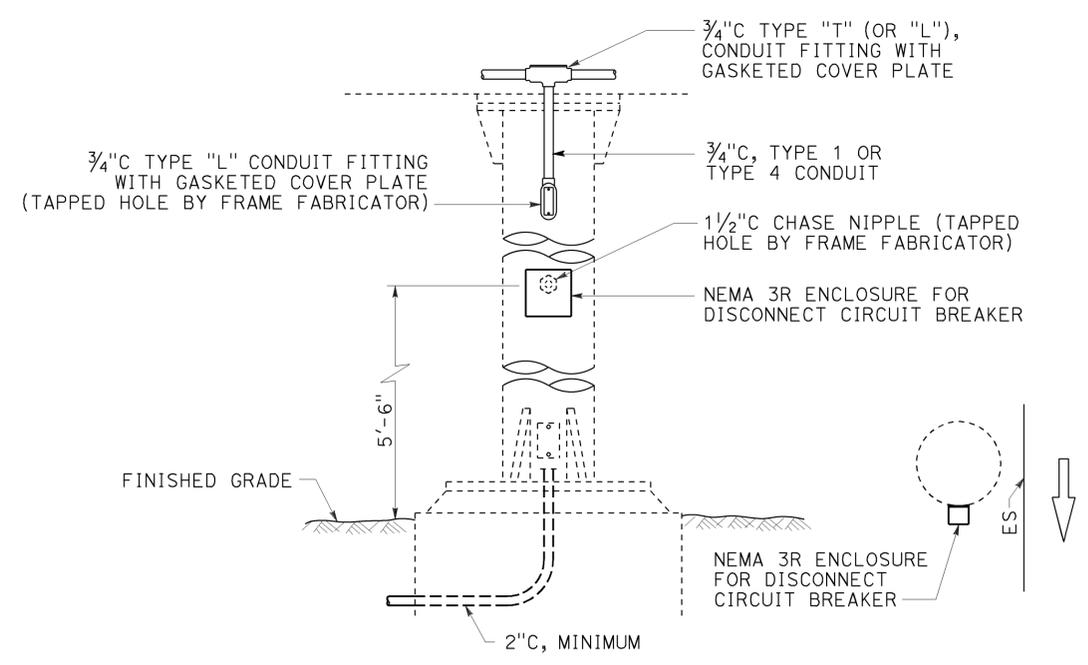


TO ACCOMPANY PLANS DATED 6-28-16



**TYPICAL SIGN ILLUMINATION EQUIPMENT
INSTALLATION FOR OVERHEAD SIGNS TUBULAR**

DETAIL A

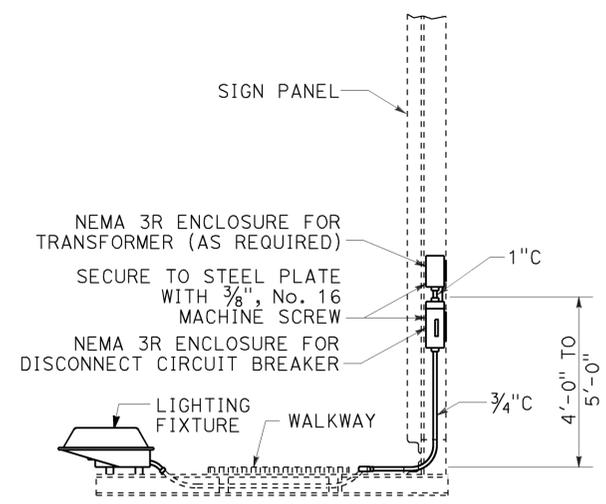


**TYPICAL SIGN ILLUMINATION EQUIPMENT
INSTALLATION FOR OVERHEAD SIGNS ROUND POST**

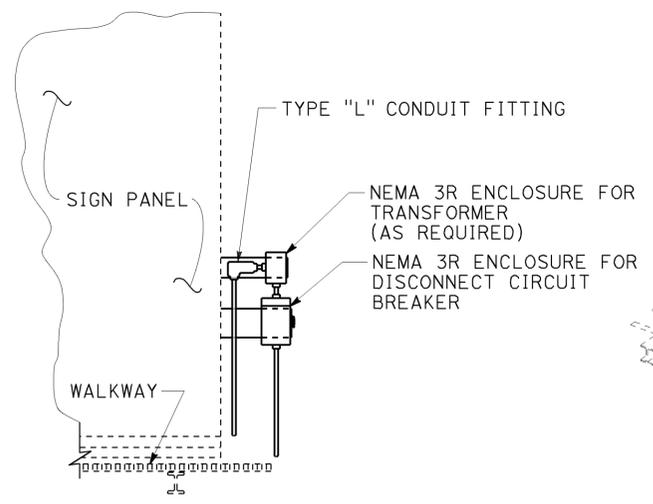
DETAIL B

NOTES:

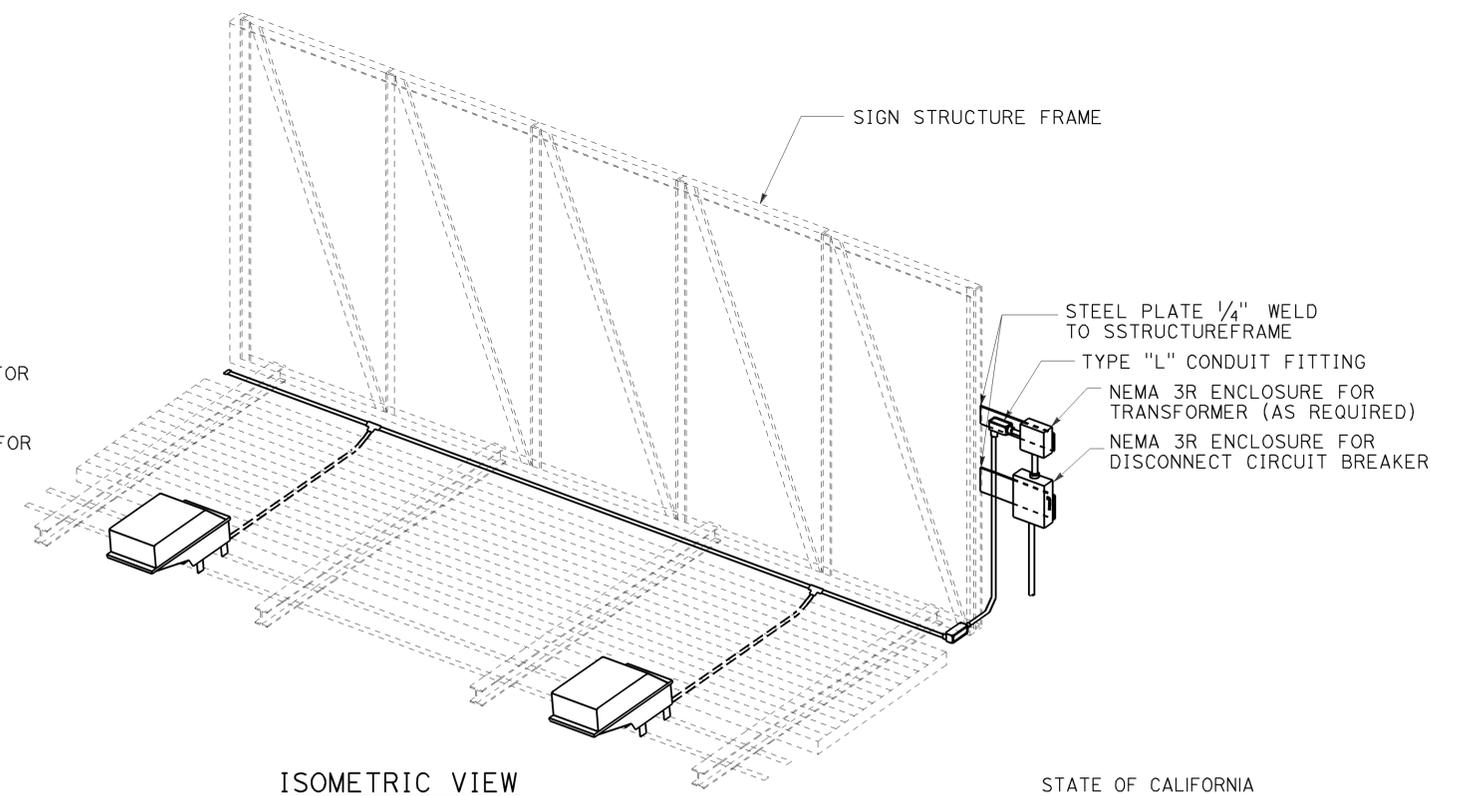
1. Type 4 conduit shall be secured to the nearest walkway bracket using one-hole galvanized malleable iron or steel straps and brass machine screws tapped into the bracket.
2. See Overhead Signs Standard Plans for overhead signs and frame juncture details for photoelectric unit installation.
3. Enclosures and straps shall be secured by 3/8 inch maximum size screws.
4. The Contactor and test switch enclosures shall be readily accessible from the sign walkway.



SIDE VIEW



FRONT VIEW



ISOMETRIC VIEW

**TYPICAL SIGN ILLUMINATION EQUIPMENT
INSTALLATION FOR OVERHEAD SIGNS
BRIDGE MOUNTED**

DETAIL C
See Note 4

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(SIGN ILLUMINATION EQUIPMENT)**

NO SCALE

RSP ES-15C DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-15C DATED MAY 20, 2011 - PAGE 498 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-15C

2010 REVISED STANDARD PLAN RSP ES-15C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	326	370

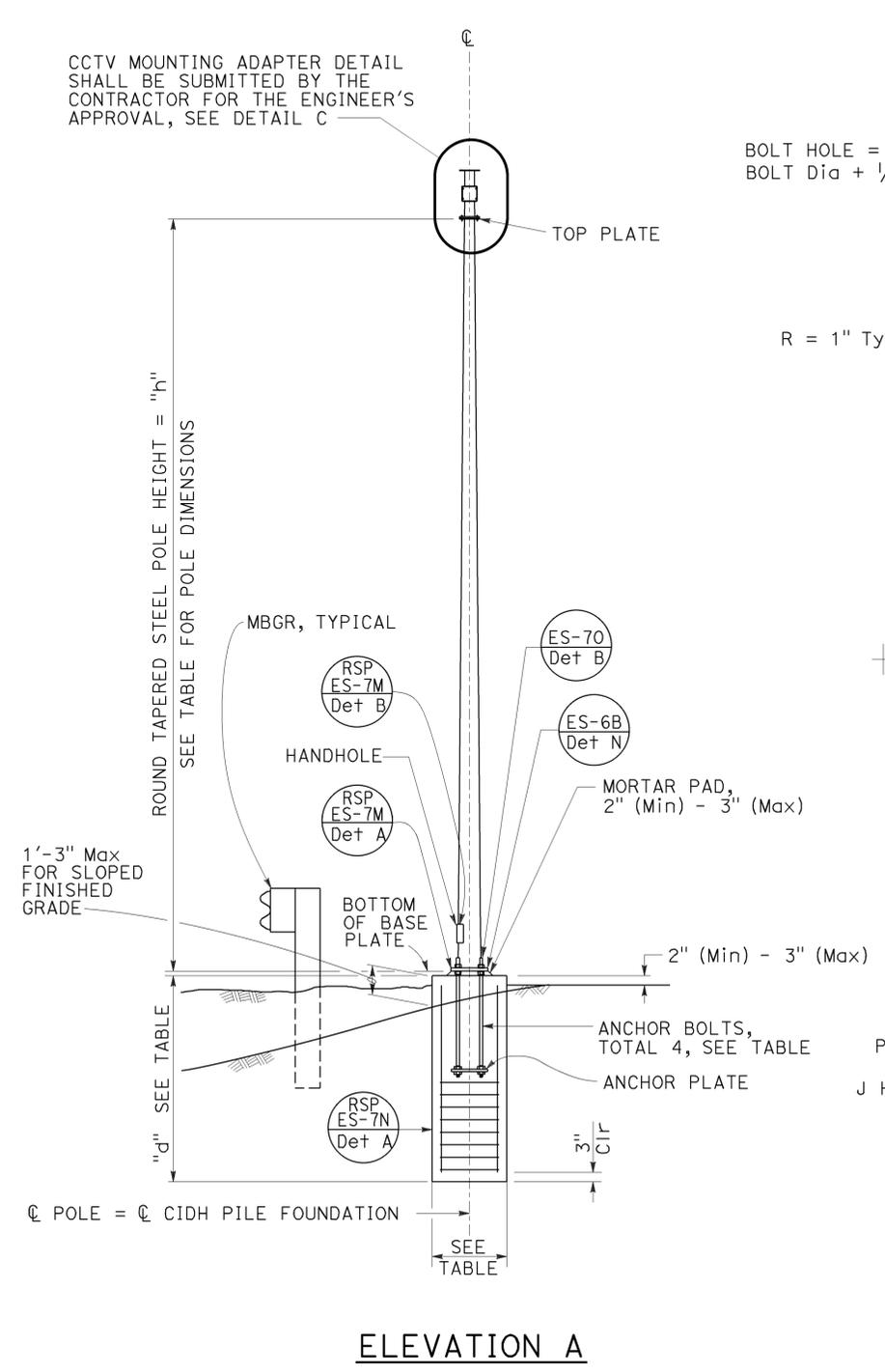
Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 No. C57793
 Exp. 3-31-16
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER

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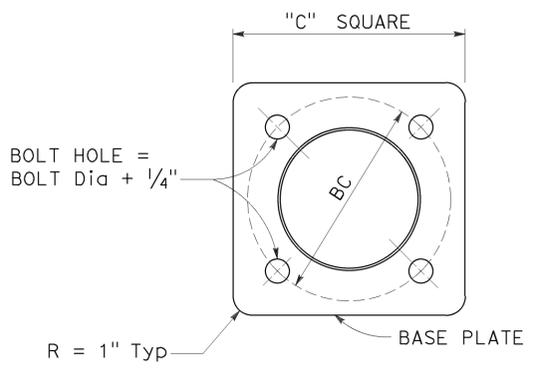
POLE TYPE	POLE DATA				BASE PLATE DATA				CIDH	
	HEIGHT "h"	Min OD		THICKNESS	"c"	THICKNESS	ANCHOR BOLT SIZE	BC = BOLT CIRCLE	Dia	"d"
		BASE	TOP							
CCTV 25	25'	7 ³ / ₈ "			1'-1"			11 ¹ / ₂ "		7'-0"
CCTV 30	30'	8"			1'-1 ¹ / ₂ "			1'-0"		7'-6"
CCTV 35	35'	8 ⁵ / ₈ "	3 ³ / ₄ "	0.1793"	1'-2"	1"	1/2" ϕ x 36"	1'-1"	2'-6"	8'-0"
CCTV 40	40'	9 ³ / ₈ "			1'-3"			1'-1 ¹ / ₂ "		8'-0"
CCTV 45	45'	10"						1'-2"		8'-6"

TO ACCOMPANY PLANS DATED 6-28-16

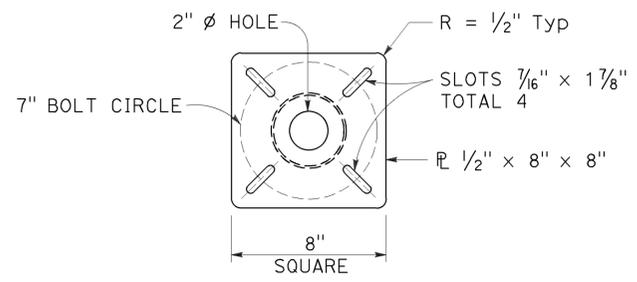
CCTV MOUNTING ADAPTER DETAIL SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S APPROVAL, SEE DETAIL C



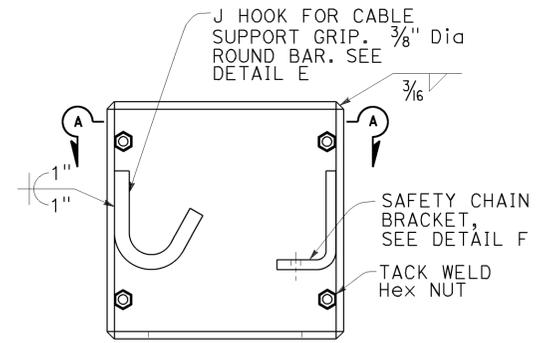
ELEVATION A



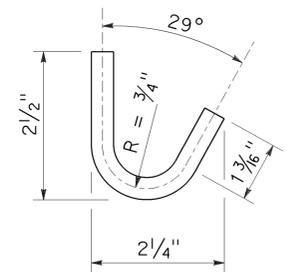
BASE PLATE
DETAIL A



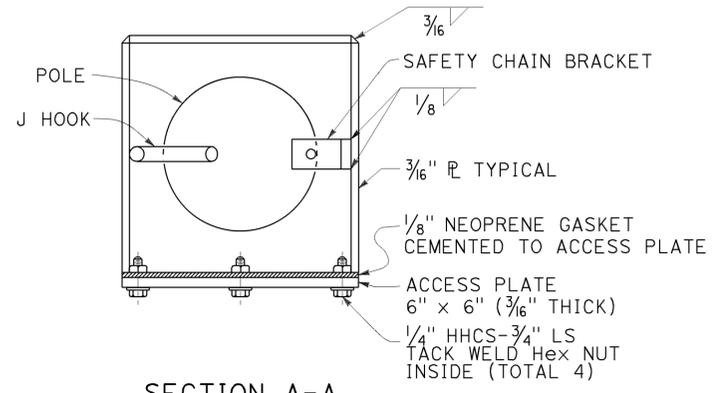
TOP PLATE
DETAIL B



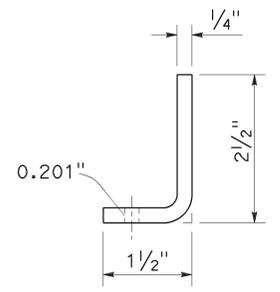
BOX ENCLOSURE
DETAIL D



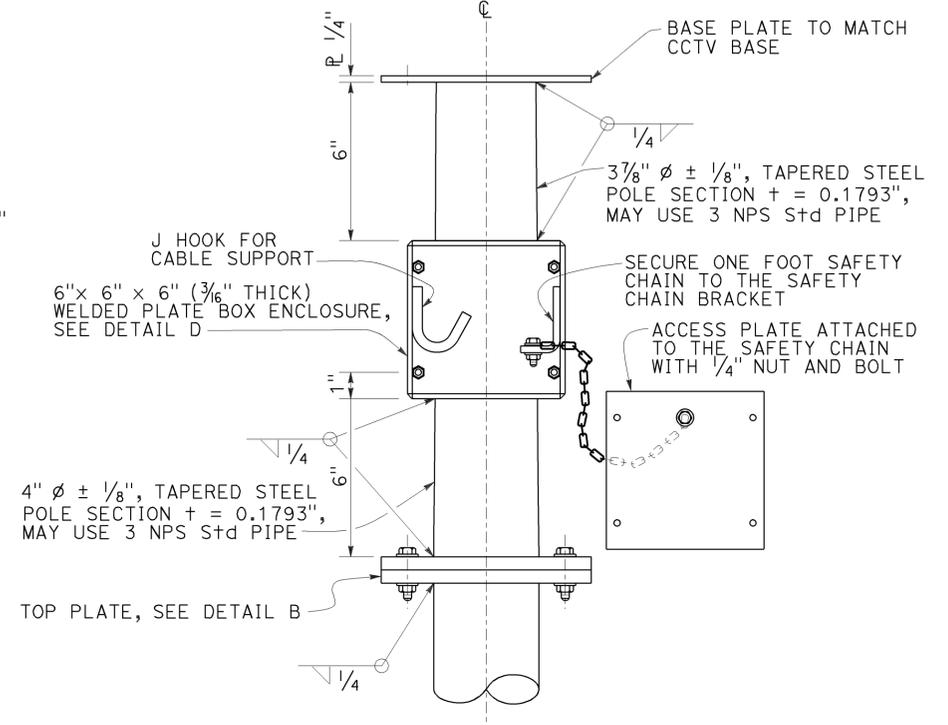
J HOOK
DETAIL E



SECTION A-A



SAFETY CHAIN BRACKET
DETAIL F



CLOSED CIRCUIT TELEVISION MOUNTING ADAPTER
DETAIL C

NOTES:

- Verify controlling field dimensions before ordering or fabricating any material.
- During pole installation, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
- Wind Loadings (3-second gust): 100 mph
- Unit Stresses (Structural Steel):
 - $f_y = 55,000$ psi (tapered steel tube and anchor bolts)
 - $f_y = 50,000$ psi (unless otherwise noted)
- Unit Stresses (Reinforced Concrete):
 - $f'_c = 3,625$ psi
 - $f_y = 60,000$ psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(CLOSED CIRCUIT TELEVISION,
25' TO 45' POLE)**
NO SCALE

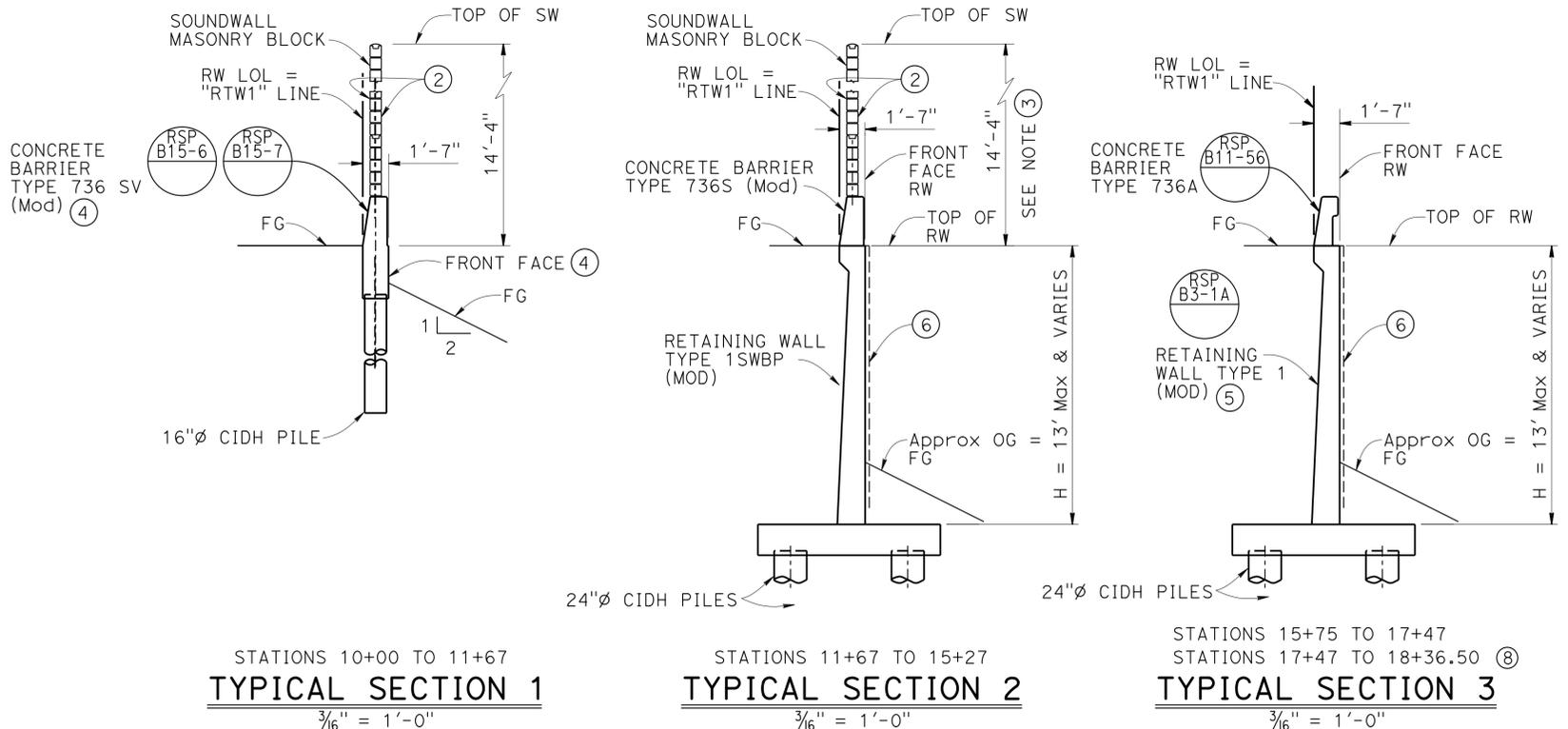
RSP ES-16B DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-16B DATED MAY 20, 2011 - PAGE 501 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-16B

2010 REVISED STANDARD PLAN RSP ES-16B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	327	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE
 6-28-16
 PLANS APPROVAL DATE
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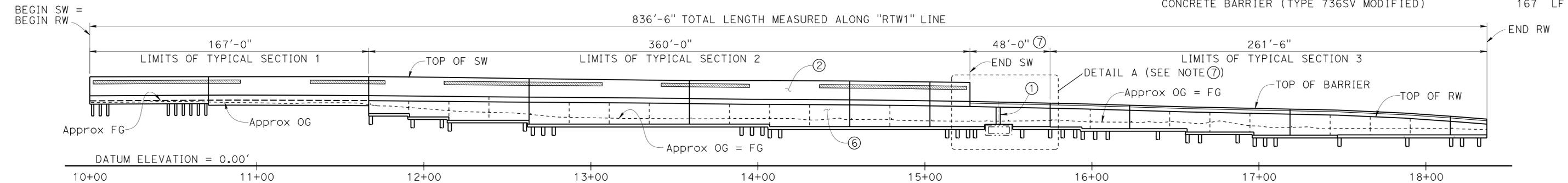


- NOTES:
- Lightweight Sign Pedestal, see "ROADWAY PLANS"
 - Architectural Treatment, see "ARCHITECTURAL TREATMENT DETAILS" sheet
 - For Masonry Block and Anchorage in Concrete Barrier, see RSP B15-6, RSP B15-7
 - Modified with pile length and width.
 - Modified with piles, footing dimensions.
 - Concrete Surface Texture, see "CONCRETE SURFACE TEXTURE" sheet.
 - For "DETAIL A" section between Sta 15+27 to 15+75, see "RETAINING WALL - DETAILS NO. 1" sheet.
 - Footing Modified, see "STRUCTURE PLAN NO. 4" sheet.
 - MGS, see "ROADWAY PLANS".

LEGEND: Denotes "SMOOTH FACE TEXTURE" Blocks

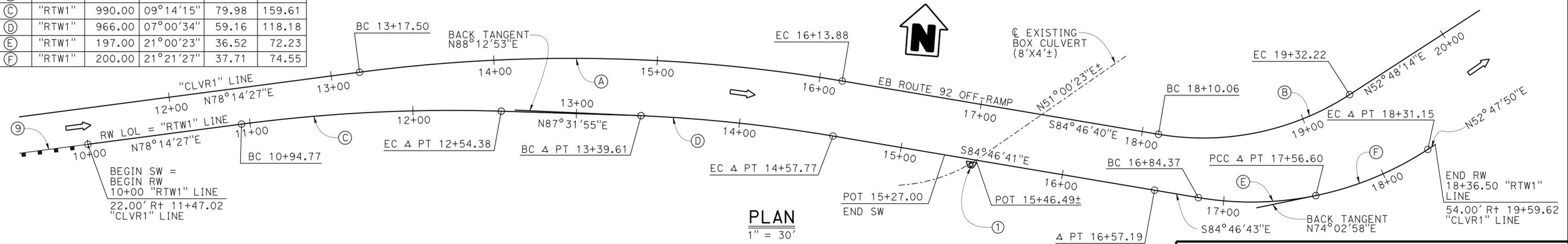
QUANTITIES

STRUCTURE EXCAVATION (RETAINING WALL)	2,040	CY
STRUCTURE BACKFILL (RETAINING WALL)	2,156	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	155	CY
16" CAST-IN-DRILLED-HOLE CONCRETE PILING	1,008	LF
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	6,055	LF
STRUCTURAL CONCRETE, RETAINING WALL	735	CY
FRACTURED RIB TEXTURE	6,825	SQFT
BAR REINFORCING STEEL (RETAINING WALL)	288,200	LB
HEADED BAR REINFORCEMENT	1,038	EA
SOUND WALL (MASONRY BLOCK)	5,972	SQFT
ANTI-GRAFFITI COATING	12,797	SQFT
CONCRETE BARRIER (TYPE 736A)	310	LF
CONCRETE BARRIER (TYPE 736S MODIFIED)	360	LF
CONCRETE BARRIER (TYPE 736SV MODIFIED)	167	LF



CURVE DATA

CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR1"	1000.00	16°58'53"	149.28	296.38
(B)	"CLVR1"	165.00	42°25'06"	64.03	122.16
(C)	"RTW1"	990.00	09°14'15"	79.98	159.61
(D)	"RTW1"	966.00	07°00'34"	59.16	118.18
(E)	"RTW1"	197.00	21°00'23"	36.52	72.23
(F)	"RTW1"	200.00	21°21'27"	37.71	74.55



HØGNI SETBERG
DESIGN ENGINEER

DESIGN	BY Pete Norboe	CHECKED Keith Nakaaka	LOAD & RESISTANCE FACTOR DESIGN
DETAILS	BY F. Maagma / C. Cancino	CHECKED Keith Nakaaka	LAYOUT
QUANTITIES	BY D. Romero / K. Nakaaka	CHECKED M. Beall / F. Thwabah	SPECIFICATIONS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 1
GENERAL PLAN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	328	370

Peter W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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INDEX TO PLANS

SHEET NO	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	STRUCTURE PLAN NO. 1
4	STRUCTURE PLAN NO. 2
5	STRUCTURE PLAN NO. 3
6	STRUCTURE PLAN NO. 4
7	FOUNDATION PLAN NO. 1
8	FOUNDATION PLAN NO. 2
9	TYPICAL SECTION
10	RETAINING WALL TYPE 1SWBP-DETAILS No. 1
11	RETAINING WALL TYPE 1SWBP-DETAILS No. 2
12	RETAINING WALL - DETAILS NO. 1
13	ARCHITECTURAL TREATMENT DETAILS
14	CONCRETE SURFACE TEXTURE
15	LOG OF TEST BORINGS 1 OF 6
16	LOG OF TEST BORINGS 2 OF 6
17	LOG OF TEST BORINGS 3 OF 6
18	LOG OF TEST BORINGS 4 OF 6
19	LOG OF TEST BORINGS 5 OF 6
20	LOG OF TEST BORINGS 6 OF 6

GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

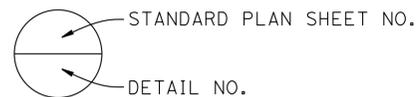
- DESIGN : AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th Edition with California Amendments, dated January 2014
- LIVE LOADING : 240 psf Surcharge
- REINFORCED CONCRETE : $f'c = 3.6 \text{ Ksi}$
 $fy = 60 \text{ Ksi}$
- SOIL PARAMETERS : $\gamma = 125 \text{ pcf}$, $\phi = 34^\circ$
- WS : 33 psf on Sound Wall and Barrier
- CT : 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward
- EQE : Mononabe-Okabe Method
 $K_h = 0.3$
 $K_v = 0.0$

Where:

- EQE: Seismic Earth Pressure
WS: Wind Load on Sound Wall and Barrier
CT: Vehicular Collision Force

STANDARD PLANS DATED 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP 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)
RSP A10F	LEGEND - SOIL (SHEET 1 OF 2)
RSP A10G	LEGEND - SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B2-3	16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
RSP B3-1A	RETAINING WALL TYPE 1 (CASE 1)
RSP B3-5	RETAINING WALL DETAILS NO. 1
RSP B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1)
RSP B15-7	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (2)
B15-8	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (3)



IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 INDEX TO PLANS

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	35E0055
DETAILS	BY F. Maagma / C. Cancino	CHECKED Keith Nakaoka			POST MILE	11.0/11.5
QUANTITIES	BY D. Romero / K. Nakaoka	CHECKED M. Beall / F. Thwabah				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS

0 1 2 3

UNIT: 3593
PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524

DISREGARD PRINTS BEARING
EARLIER REVISION DATES

REVISION DATES	SHEET	OF
6/18/15 04/25/16 02/17/16	2	20

FILE => 35-wd1101-b-1tp.dgn

11:26 15-JUL-2016 DATE PLOTTED => 8130819 USERNAME =>

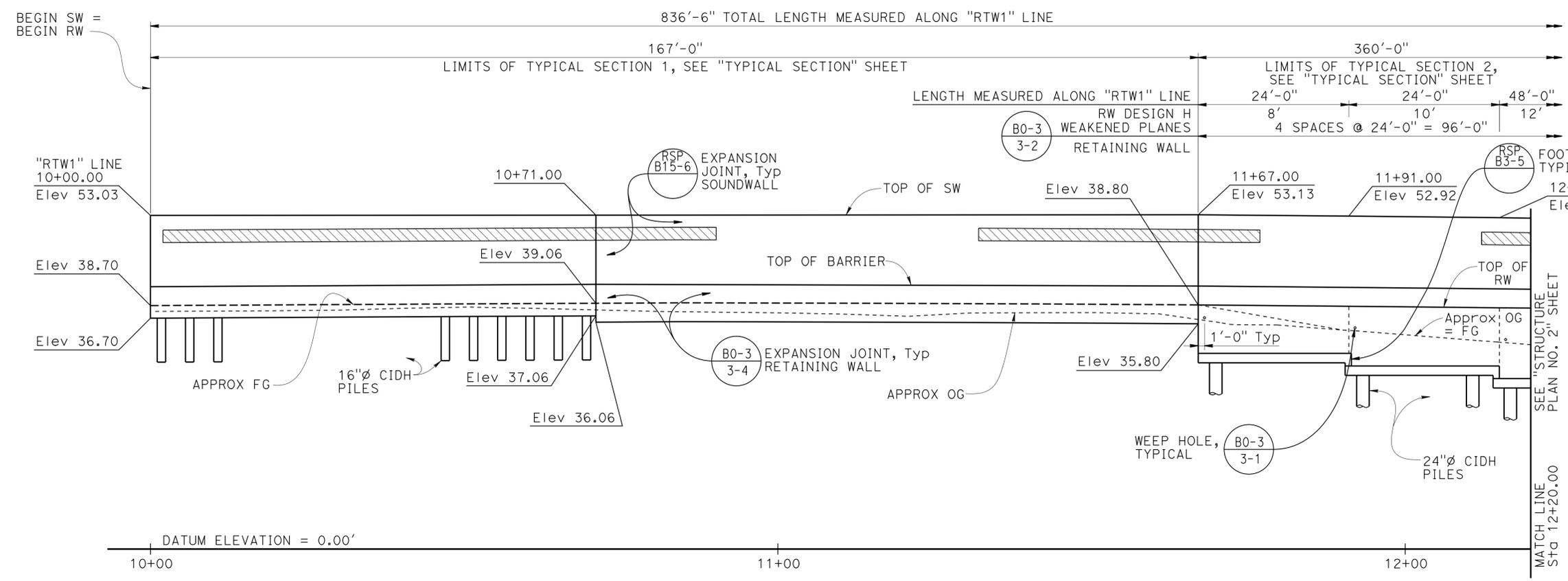
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	329	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

6-28-16
 PLANS APPROVAL DATE

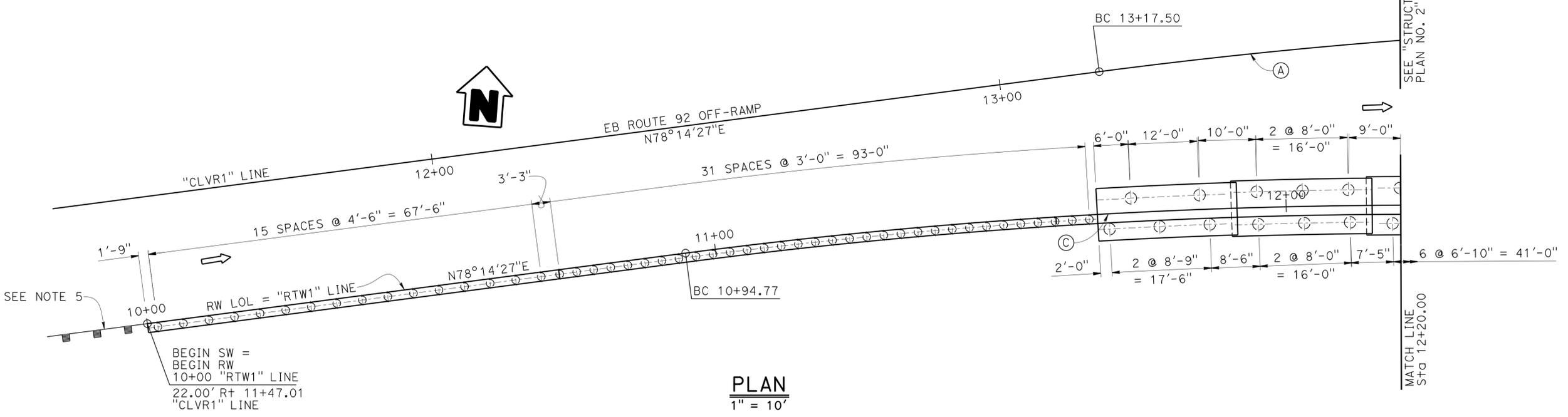
PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

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- LEGEND:**
- Denotes 16"Ø CIDH Pile
 - Denotes 24"Ø CIDH Pile
 - ▨ Denotes "SMOOTH FACE TEXTURE" Blocks, see "ARCHITECTURAL TREATMENT DETAILS" sheet
- NOTES:**
1. Not all piles shown.
 2. Design height "H" does not equal actual wall height.
 3. All pile spacings are measured along RW LOL and placed radial to RW LOL.
 4. Architectural treatment and concrete surface texture not shown.
 5. MGS, see "ROADWAY PLANS"

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR1"	1000.00	16°58'53"	149.28	296.38
(C)	"RTW1"	990.00	09°14'15"	79.98	159.61



DESIGN	BY	Pete Norboe	CHECKED	Keith Nakaoka	
	DETAILS	BY	F. Maagma / C. Cancino	CHECKED	Keith Nakaoka
	QUANTITIES	BY	D. Romero / K. Nakaoka	CHECKED	M. Beall / F. Thwabah

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 8

BRIDGE NO.
 35E0055
 POST MILE
 11.0/11.5

IMPROVE 92/82 INTERCHANGE

RETAINING WALL NO. 1

STRUCTURE PLAN NO. 1

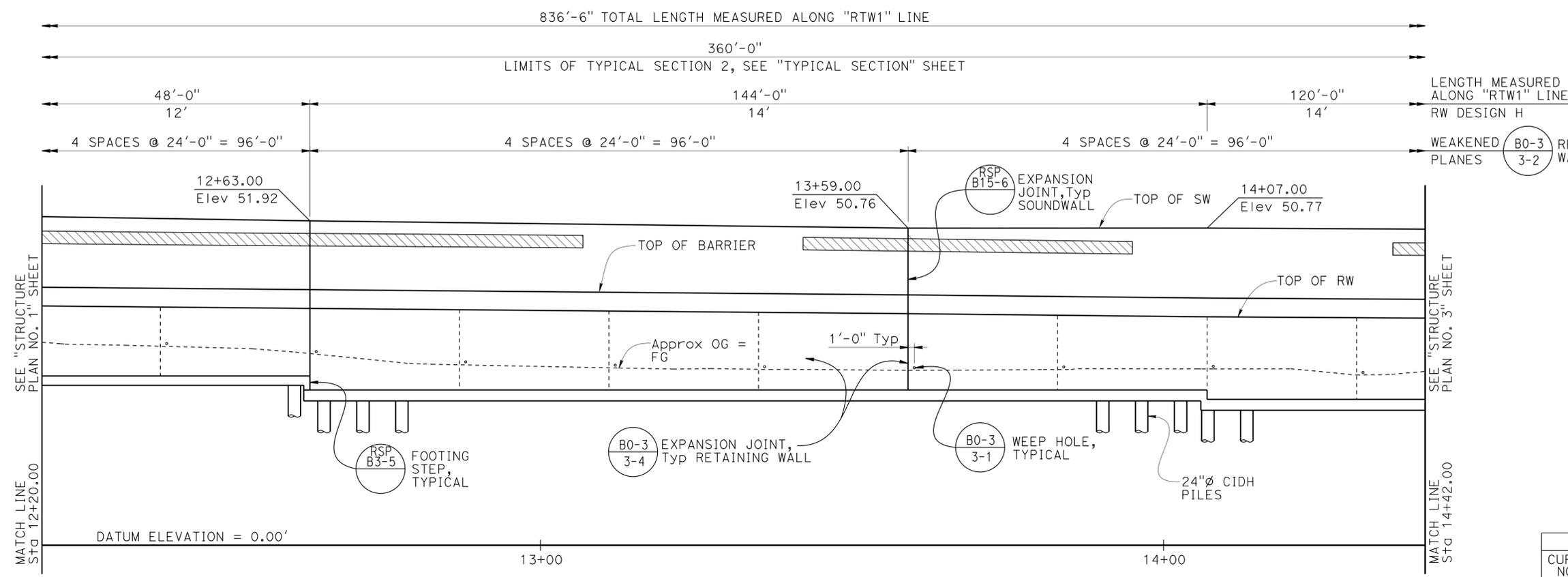
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	330	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

6-28-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

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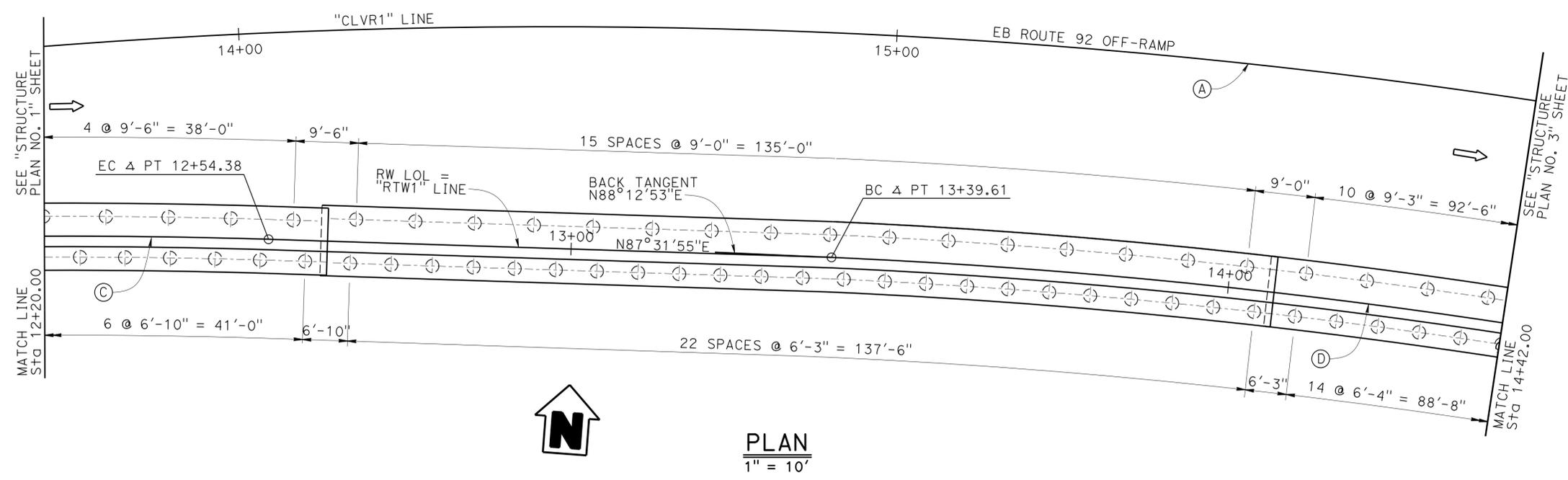


- LEGEND:
- Denotes 24"Ø CIDH Pile
 - ▨ Denotes "SMOOTH FACE TEXTURE" Blocks, see "ARCHITECTURAL TREATMENT DETAILS" sheet

- NOTES:
- Not all piles shown.
 - Design height "H" does not equal actual wall height.
 - All pile spacings are measured along RW LOL and placed radial to RW LOL.
 - Architectural treatment and concrete surface texture not shown.

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR1"	1000.00	16°58'53"	149.28	296.38
(C)	"RTW1"	990.00	09°14'15"	79.98	159.61
(D)	"RTW1"	966.00	07°00'34"	59.16	118.18

DEVELOPED ELEVATION
 1" = 10'



PLAN
 1" = 10'

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 1
STRUCTURE PLAN NO. 2

DESIGN BY: Pete Norboe	CHECKED: Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0055
DETAILS BY: F. Maagma / C. Cancino	CHECKED: Keith Nakaoka			POST MILE 11.0/11.5
QUANTITIES BY: D. Romero / K. Nakaoka	CHECKED: M. Beall / F. Thwabah			

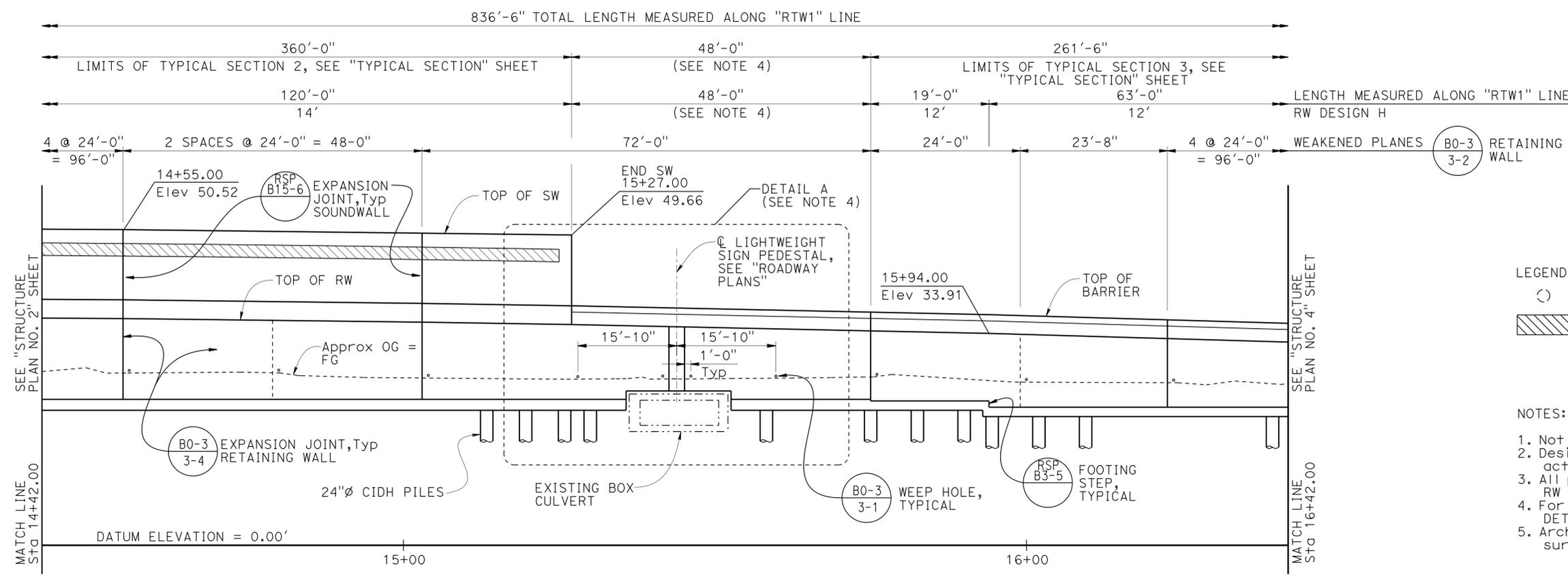
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	331	370

Peter W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

6-28-16
 PLANS APPROVAL DATE

PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

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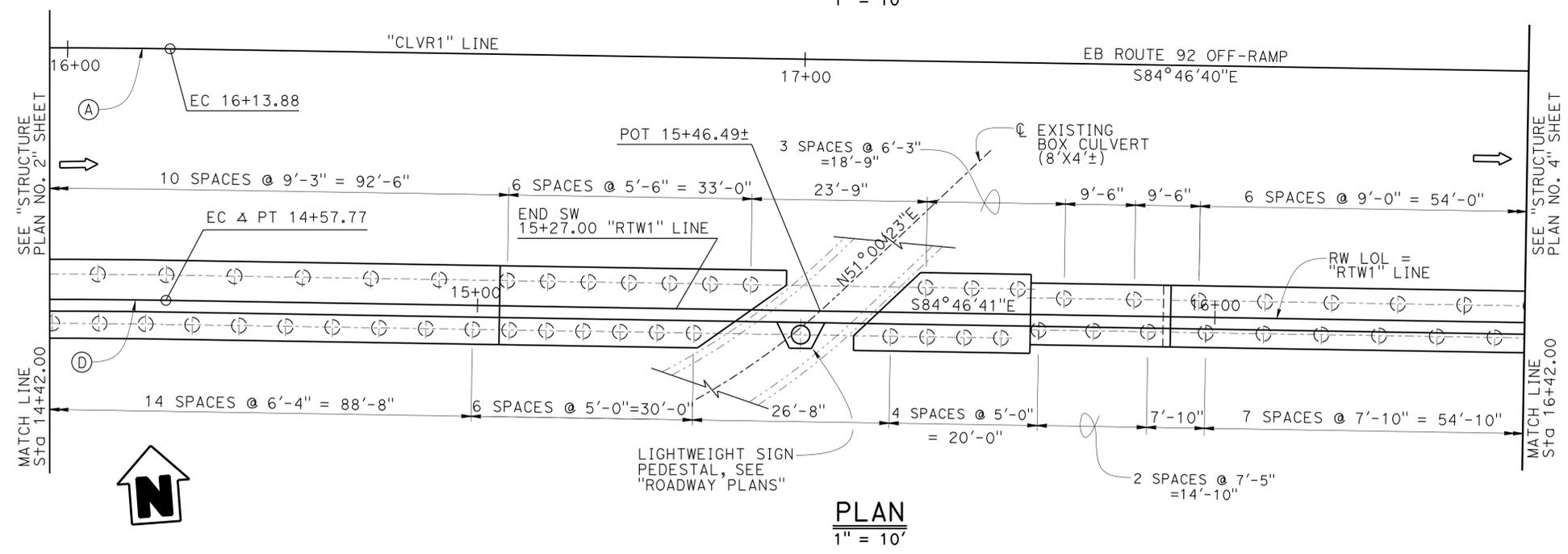


- LEGEND:
- Denotes 24"Ø CIDH Pile
 - ▨ Denotes "SMOOTH FACE TEXTURE" Blocks, see "ARCHITECTURAL TREATMENT DETAILS" sheet

- NOTES:
- Not all piles shown.
 - Design height "H" does not equal actual wall height.
 - All pile spacings are measured along RW LOL and placed radial to RW LOL.
 - For "DETAIL A", see "RETAINING WALL - DETAILS NO. 1" sheet.
 - Architectural treatment and concrete surface texture not shown.

DEVELOPED ELEVATION
 1" = 10'

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR1"	1000.00	16°58'53"	149.28	296.38
(D)	"RTW1"	966.00	07°00'34"	59.16	118.18



IMPROVE 92/82 INTERCHANGE

RETAINING WALL NO. 1

STRUCTURE PLAN NO. 3

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	35E0055
DETAILS	BY F. Maagma / C. Cancino	CHECKED Keith Nakaoka			POST MILE	11.0/11.5
QUANTITIES	BY D. Romero / K. Nakaoka	CHECKED M. Beall / F. Thwabah				

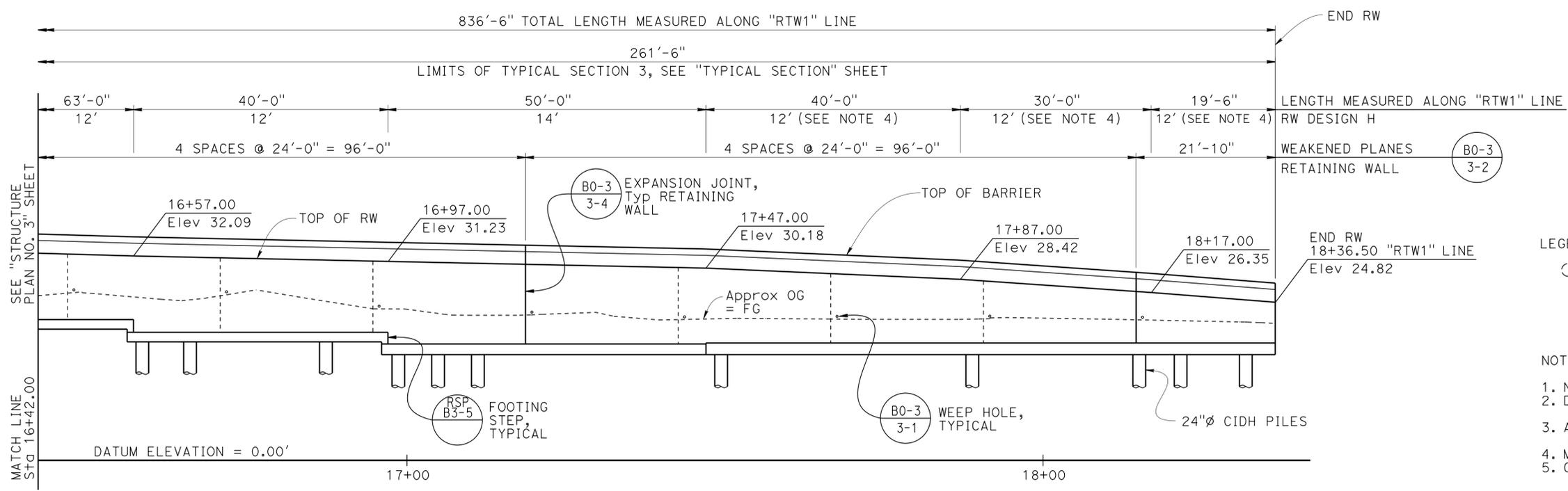
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	332	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

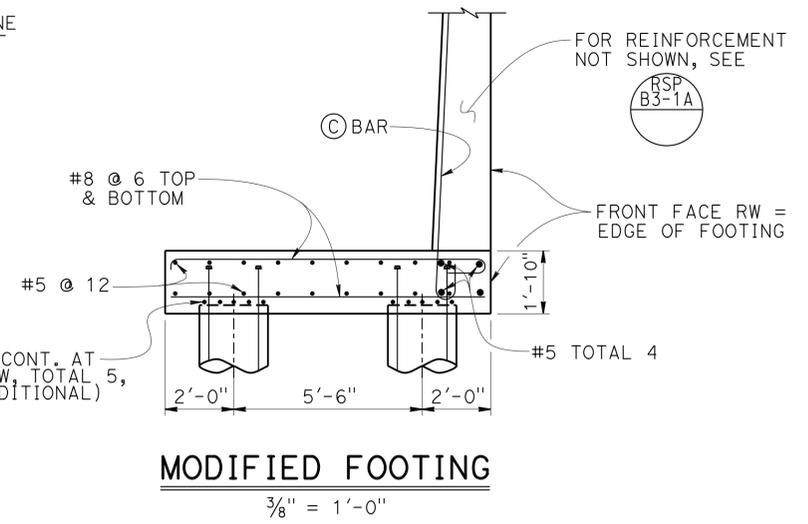
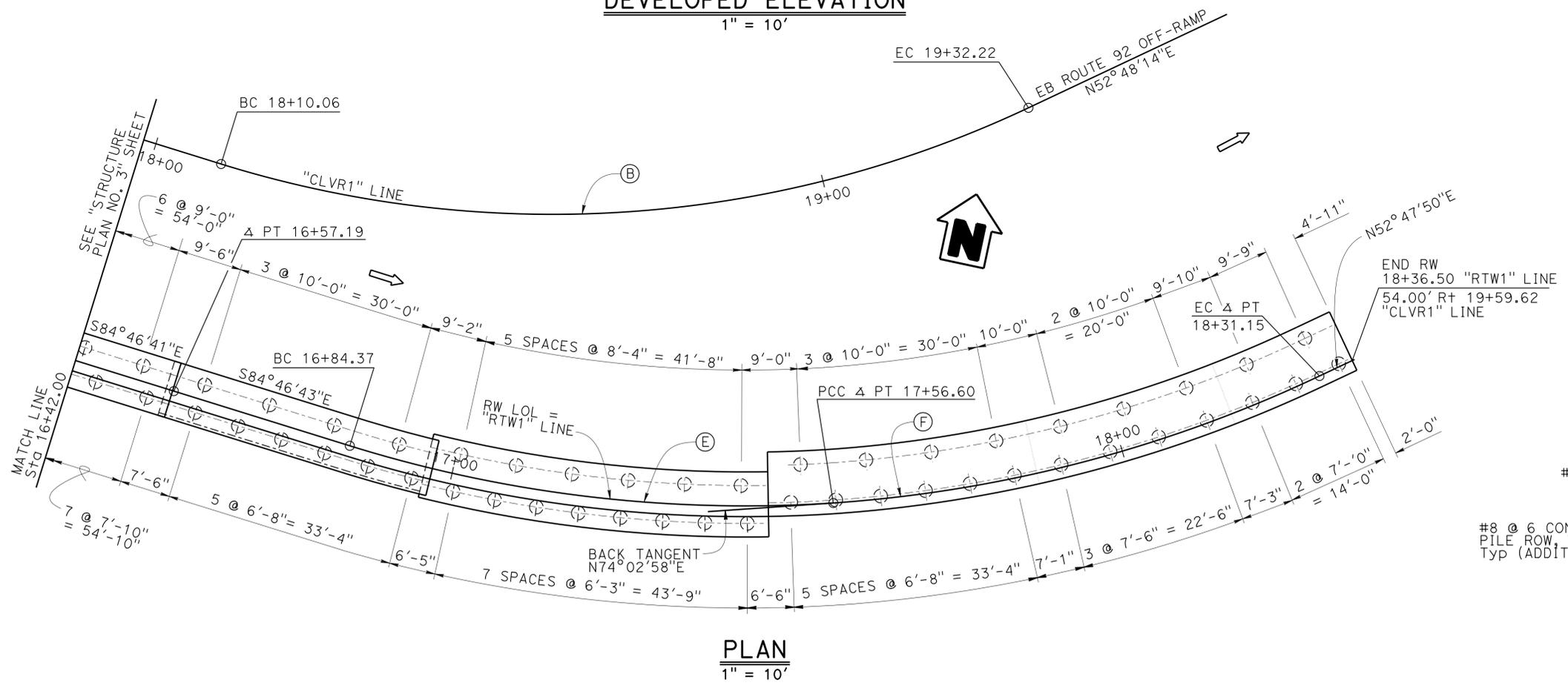
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



LEGEND:
 (C) Denotes 24"Ø CIDH Pile

- NOTES:
- Not all piles shown.
 - Design height "H" does not equal actual wall height.
 - All pile spacings are measured along RW LOL and placed radial to RW LOL.
 - Modified footing, see "MODIFIED FOOTING" detail.
 - Concrete surface texture not shown.

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(B)	"CLVR1"	165.00	42°25'06"	64.03	122.16
(E)	"RTW1"	197.00	21°00'23"	36.52	72.23
(F)	"RTW1"	200.00	21°21'27"	37.71	74.55



DESIGN BY: Pete Norboe			CHECKED: Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0055	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 STRUCTURE PLAN NO. 4
DETAILS BY: F. Maagma / C. Cancino			CHECKED: Keith Nakaoka			POST MILE 11.0/11.5	
QUANTITIES BY: D. Romero / K. Nakaoka			CHECKED: M. Beall / F. Thwabah				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3593
PROJECT NUMBER & PHASE: 0412000496, 1
CONTRACT NO.: 04-235524

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
6/18/15	05/23/16	05/05/16
	6	20

FILE => 35-wa1101-c-sp04.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	333	370

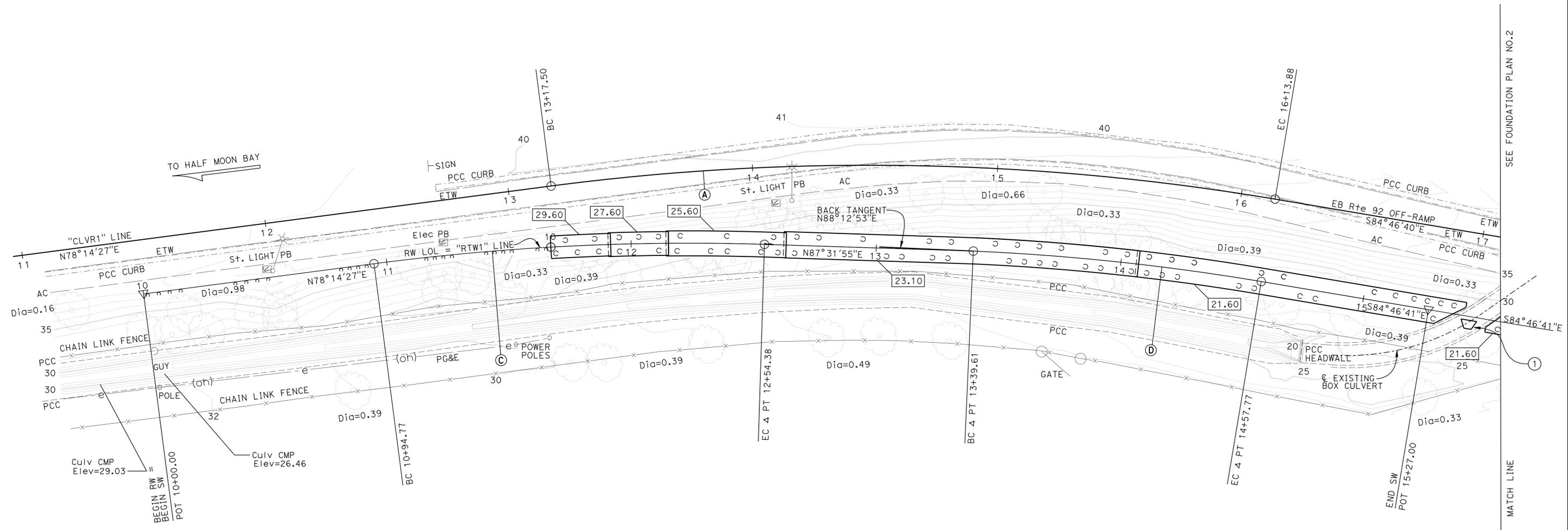
Peter W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL

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CURVE DATA				
CURVE NO.	R	Δ	T	L
(A)	1000.00	16°58'53"	149.28	296.38
(C)	990.00	09°14'15"	79.98	159.61
(D)	966.00	07°00'34"	59.16	118.18



SURVEY CONTROL

HV1215801 (Not Shown)
Fnd X In Top of Curb
51.02' Rt "M1" LINE
Sta 60+56.77
N 2027846.14
E 6036402.47
Elev=42.26

HV1215802 (Not Shown)
Fnd X In Top of Curb
43.93' Rt "M1" LINE
Sta 63+14.28
N 2027653.39
E 6036573.37
Elev=20.65

LEGEND:

- Indicates bottom of footing elevation
- Denotes 16"Ø CIDH pile
- Denotes 24"Ø CIDH pile

NOTE:

1. Not all piles shown.
- ① Lightweight Sign Pedestal, "see "ROADWAY PLANS".

PRELIMINARY INVESTIGATION SECTION				DESIGN BY: Pete Norboe	CHECKED: Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0055	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 FOUNDATION PLAN NO. 1			
SCALE: 1"=20'	VERT. DATUM: NAVD88	PHOTOGRAMMETRY AS OF: X	DETAILS BY: F. Maagma / C. Cancino	CHECKED: Keith Nakaoka	POST MILE 11.0-11.50							
ALIGNMENT TIES Dist	TRAVERSE SHEET	DRAFTED BY: S. ZHENG	CHECKED BY: D. Romero / K. Nakaoka	CHECKED: M. Beall / F. Thwabah								
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3593	PROJECT NUMBER & PHASE: 0412000496, 1	CONTRACT NO.: 04-235524	SUBMITTAL DATE: 6/14/2015	REVISION DATES: 05/25/16, 05/04/16, 04/11/16	SHEET 7 OF 20

USERNAME => s130819 DATE PLOTTED => 15-JUL-2016 TIME PLOTTED => 11:27

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	334	370

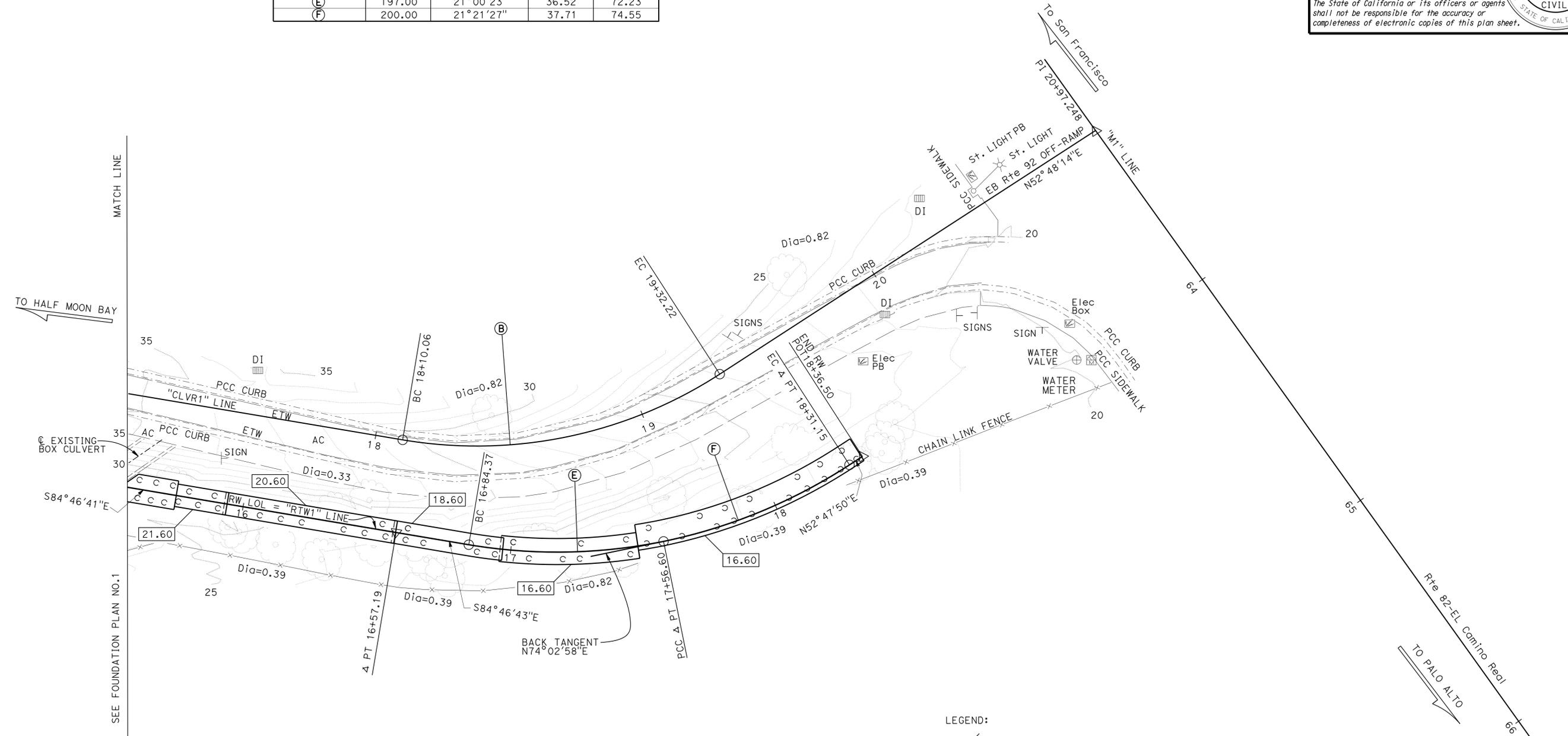
Peter W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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CURVE NO.	R	Δ	T	L
(B)	165.00	42°25'06"	64.03	122.16
(E)	197.00	21°00'23"	36.52	72.23
(F)	200.00	21°21'27"	37.71	74.55



LEGEND:
 Indicates bottom of footing elevation
 Denotes 24"Ø CIDH pile

NOTE:
1. Not all piles shown.

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0055	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 FOUNDATION PLAN NO. 2		
SCALE VERT. DATUM NAVD88	PHOTOGRAMMETRY AS OF: X	DRAFTED BY S. ZHENG	CHECKED BY L. LEW	DETAILS BY F. Magma / C. Cancino	CHECKED Keith Nakaoka			POST MILE 11.0-11.5			
1"=20'	HORIZ. DATUM NAD83 (1991.35)	SURVEYED BY DISTRICT	CHECKED BY DON IVY	QUANTITIES BY D. Romero / K. Nakaoka	CHECKED M. Beall / F. Thwabah						
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3593	PROJECT NUMBER & PHASE: 0412000496, 1	CONTRACT NO.: 04-235524	SUBMITTAL DATE 04/2015	REVISION DATES 05/25/16, 05/04/16, 05/22/16	SHEET 8 OF 20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	336	370

Peter W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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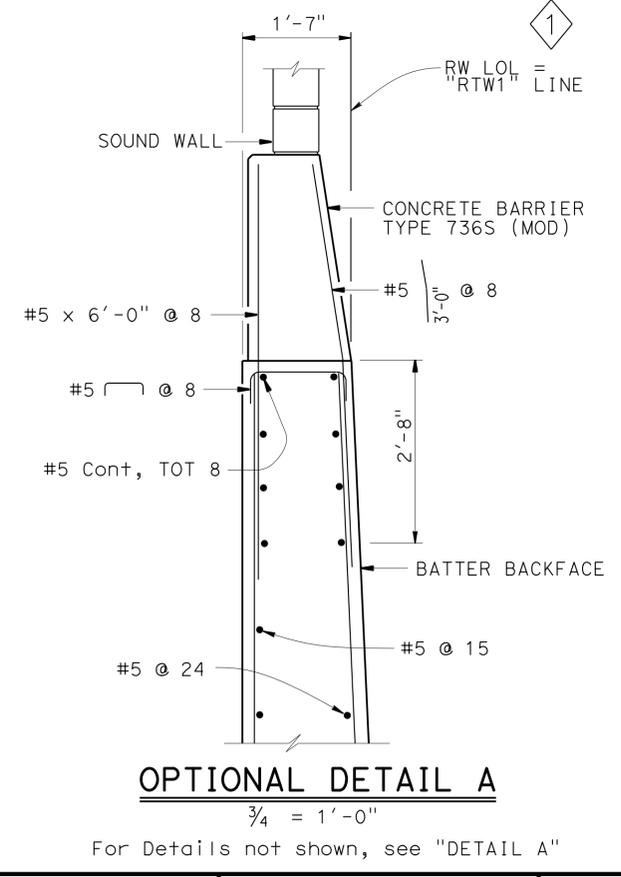
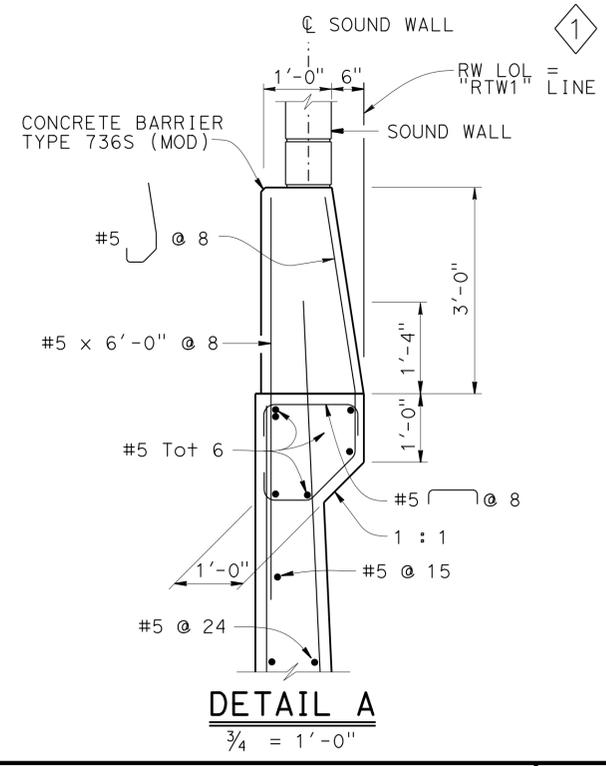
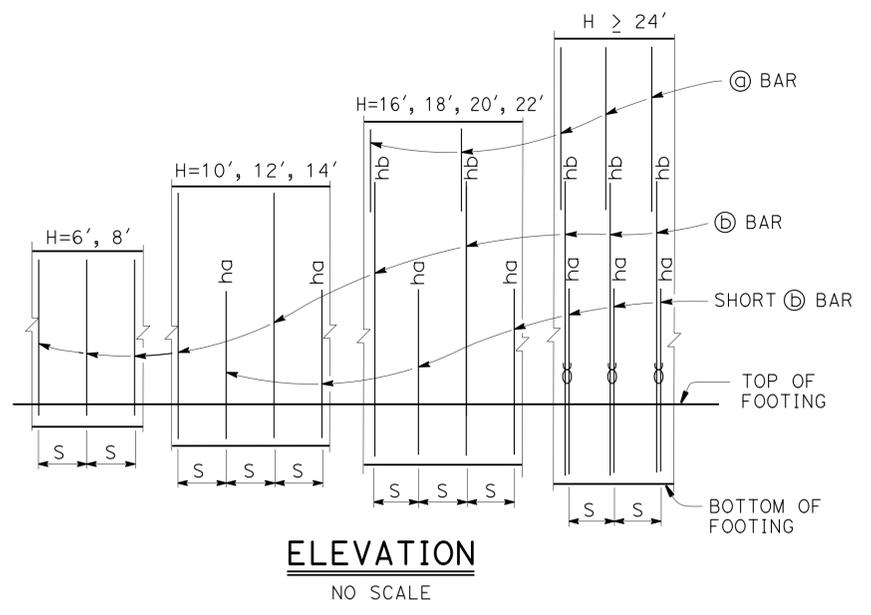
DESIGN H	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'
W	8'- 3"	9'- 2"	9'- 8"	10'- 2"	10'- 8"	10'- 9"	11'- 3"	12'- 0"	13'- 3"	14'- 3"	15'- 9"	16'- 9"	18'- 0"	19'- 9"
C	2'- 9"	3'- 1"	3'- 4"	3'- 7"	3'- 8"	3'- 6"	3'- 9"	4'- 0"	4'- 3"	4'- 9"	5'- 3"	5'- 6"	5'- 9"	6'- 7"
B	5'- 6"	6'- 1"	6'- 4"	6'- 7"	7'- 0"	7'- 3"	7'- 6"	8'- 0"	9'- 0"	9'- 6"	10'- 6"	11'- 3"	12'- 3"	13'- 2"
F PILE FOOTING	1'- 6"	1'- 6"	1'- 6"	1'- 6"	1'- 9"	2'- 0"	2'- 0"	2'- 6"	2'- 9"	2'- 9"	3'- 0"	3'- 3"	3'- 9"	4'- 0"
M	1'- 3"	1'- 6"	1'- 6"	1'- 9"	1'- 10"	2'- 0"	2'- 3"	2'- 6"	2'- 9"	3'- 3"	3'- 9"	4'- 0"	4'- 3"	5'- 1"
N	4'- 0"	4'- 3"	4'- 6"	4'- 9"	5'- 2"	5'- 9"	6'- 0"	6'- 6"	7'- 6"	8'-0"	9'-0"	9'- 9"	10'- 9"	11'- 8"
ROW 1 SPACING	12'- 3"	10'- 3"	8'- 9"	7'- 6"	6'- 3"	5'- 3"	4'- 9"	4'- 0"	3'- 9"	3'- 9"	4'-0"	3'- 9"	3'- 9"	3'- 9"
ROW 2 SPACING	14'- 0"	12'- 9"	11'- 6"	10'- 3"	9'- 3"	8'- 3"	7'- 9"	6'- 6"	7'- 6"	6'- 0"	4'- 0"	4'- 0"	3'- 9"	3'-9"
ROW 3 SPACING									6'- 0"	5'- 3"	5'-0"	4'- 0"	6'- 0"	4'- 0"
ROW 4 SPACING													3'- 9"	3'-9"
STEM WITH HAUNCH, BATTER	0	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	5/8:12	3/4:12	7/8:12	1:12	1:12
STEM WITHOUT HAUNCH, BATTER	0	0	0	0	0	0	0	0	1/4:12	1/4:12	1/2:12	3/4:12	3/4:12	3/4:12
Ⓐ BARS						#7 @ 14	#7 @ 12	#7 @ 12	#8 @ 12	#6 @ 6	#6 @ 6	#6 @ 6	#8 @ 9	#9 @ 9
Ⓑ BARS	#8 @ 12	#7 @ 9	#7 @ 6	#7 @ 6	#7 @ 6	#9 @ 7	#9 @ 6	#10 @ 6	#10 @ 6	#8 @ 6	#8 @ 6	#8 @ 6	#10 @ 9	#11 @ 9
ha			5'- 0"	6'- 0"	7'- 0"	7'- 0"	6'- 0"	7'- 0"	7'- 0"	7'- 6"	8'- 6"	9'- 3"	15'- 0"	11'- 3"
hb						11'- 6"	12'- 0"	13'- 3"	16'- 0"	15'- 6"	17'- 6"	18'- 9"	21'- 0"	20'- 9"
Ⓒ BARS	#6 @ 12	#6 @ 9	#6 @ 6	#6 @ 6	#6 @ 6	#8 @ 7	#8 @ 6	#9 @ 6	#9 @ 6	#10 @ 6	#10 @ 6	#11 @ 6	#10 @ 9	#10 @ 9
Ⓓ BARS	#5 @ 12	#5 @ 9	#5 @ 12	#5 @ 12	#5 @ 12	#6 @ 14	#5 @ 12	#5 @ 12	#6 @ 12	#6 @ 12	#6 @ 12	#7 @ 12	#6 @ 9	#9 @ 9
Ⓔ BARS	10-#7 @ 6	8-#7 @ 7	10-#6 @ 6	8-#6 @ 6	6-#6 @ 12	6-#5 @ 12	6-#5 @ 12	6-#5 @ 15	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18
Ⓕ BARS	10-#8 @ 7	10-#8 @ 6	10-#7 @ 8	12-#6 @ 7	8-#7 @ 11	7-#6 @ 13	8-#6 @ 12	8-#5 @ 15	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18	#5 @ 18

NOTE:
Total Ⓐ bars and Ⓑ bars shown are total number of top and bottom bars combined.

LEGEND:
⊘ : 2 bar bundle

- NOTES:
- All piles are 24" CIDH piles.
 - ~~Pile batter shown are 1:3.~~
 - ~~Minimum distance between center of pile and edge of footing is 1'-6".~~
 - ~~Lateral resistance of each pile: 30 kip for strength limit states, 40 kip for extreme limit states. Pile group reduction factors are not applied unless soil passive resistance on footing is included.~~

- Maximum spacing between piles is shown in the table. Reduce to suit the length of footing.
- ~~Minimum distance between any two piles is 3'-0". Reduce to suit the length of footing.~~
- For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
- For details not shown and drainage notes, see B3-5
- Footing cover, 1'-6" minimum.
- For sound wall and Barrier reinforcements see "SOUND WALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheets.
- For H=6' through 14', extend Ⓑ bars into Barrier for stem with haunch.
- For H>16', extend Ⓐ bars into Barrier for stem with haunch.
- For H<8', provide additional #6 @ 12 Ⓑ bars over the distance of 8'-0" measured from all expansion joints, begin wall and end wall locations.



For Details not shown, see "DETAIL A"

DESIGN DATA

Design: AASHTO LRFD Bridge Design Specifications 4th edition with California Amendments

WS: 33 psf on Sound Wall and Barrier
LS: Varied surcharge on level ground surface
CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward

EQE: Mononobe-Okabe Method
 $K_h = 0.3$
 $K_v = 0.0$

Soil: $\phi = 34^\circ$
 $\gamma = 120$ pcf

Reinforced Concrete: $f'_c = 3600$ psi
 $f_y = 60,000$ psi

Load Combinations and Limit States

Service I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00LS + 0.30WS$
Service II $Q = 1.00DC + 1.00EV + 1.00EH + 1.00WS$
Strength I $Q = aDC + BEV + 1.50EH + 1.75LS$
 $Q = 1.25DC + 1.35EV + 0.90EH + 1.75LS$ (for piles at heel)
Strength III $Q = aDC + BEV + 1.50EH + 1.40WS$
Strength V $Q = aDC + BEV + 1.50EH + 1.35LS + 0.40WS$
Extreme I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00EQD + 1.00EQE$
Extreme II $Q = 1.00DC + 1.00EV + 1.00EH + 1.00CT$

Where:

Q: Force Effects
a: 1.25 or 0.90, Which ever Controls Design
B: 1.35 or 1.00, which ever Controls Design
DC: Dead Load of Structure Components
EV: Vertical Earth Fill Pressure
LS: Live Load Surcharge
EQE: Seismic Earth Pressure
EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design
WS: Wind Load on Sound Wall and Barrier
CT: Vehicular Collision Force

REVISED STANDARD DRAWING

FILE NO. **xs14-320-1**

APPROVAL DATE October 2014

- Ⓐ Note Added
- Ⓑ Note Modified
- Ⓒ Note Removed
- Ⓓ Table Modified

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 35E0055
POST MILE 11.0/11.5

IMPROVE 92/82 INTERCHANGE

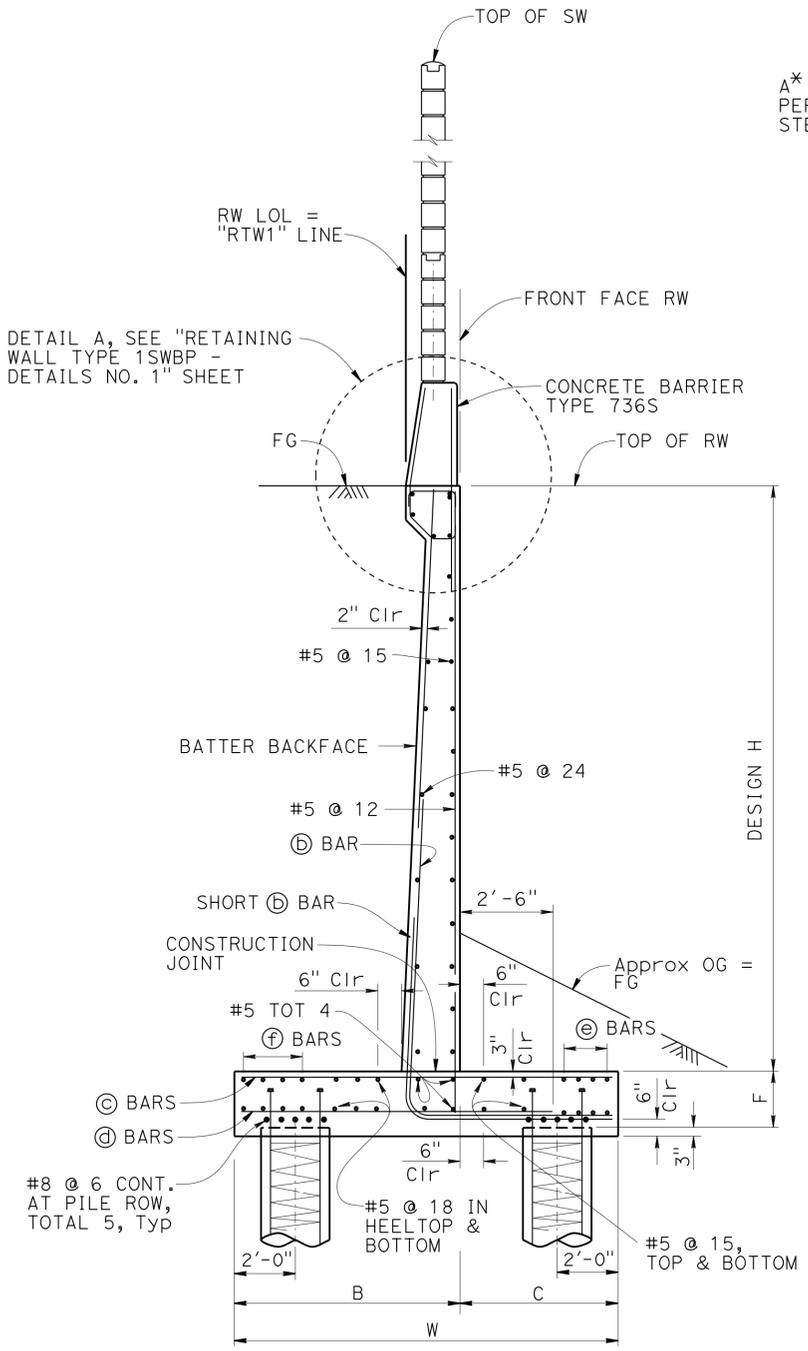
RETAINING WALL NO. 1

RETAINING WALL TYPE 1SWBP-DETAILS No. 1

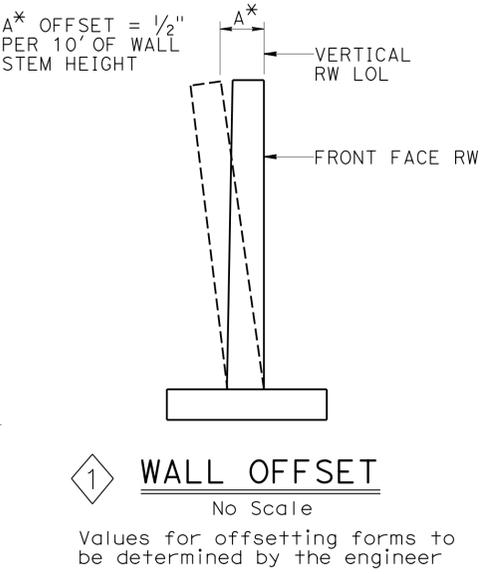
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	337	370

Peter W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE
 6-28-16
 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.

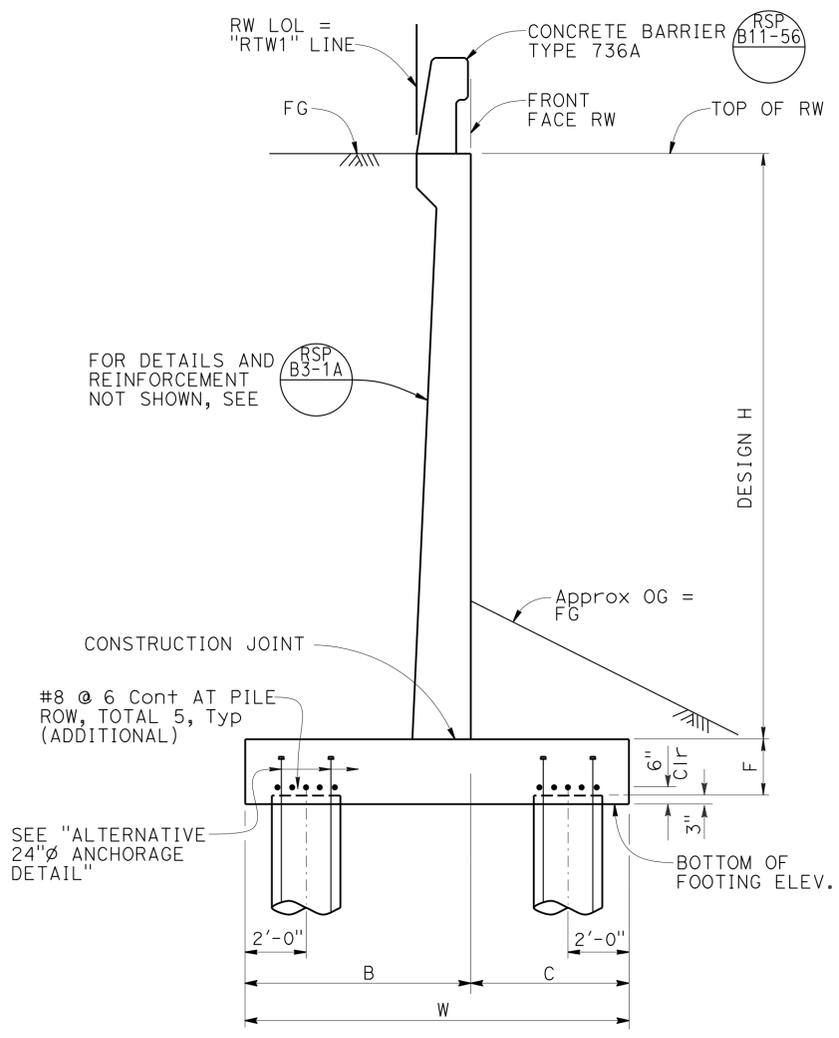
REGISTERED PROFESSIONAL ENGINEER
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA



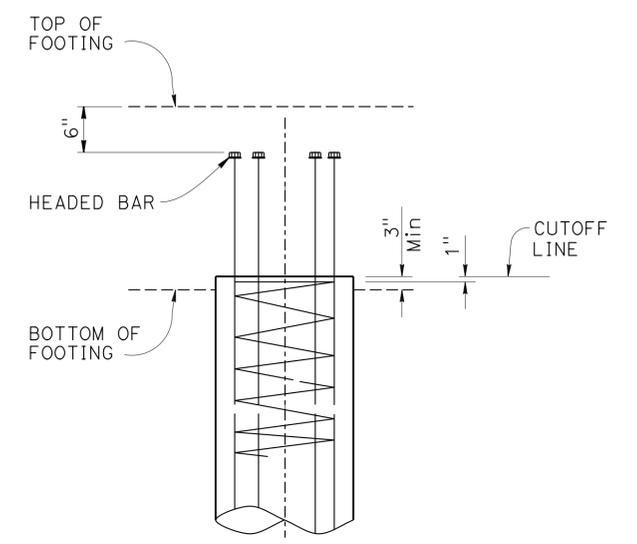
STATIONS 11+67 TO 15+27
RETAINING WALL TYPE 1SWBP (MOD)
(WITH SOUNDWALL)
 No Scale



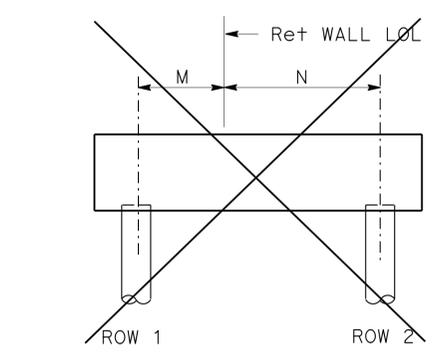
1 WALL OFFSET
 No Scale
 Values for offsetting forms to be determined by the engineer



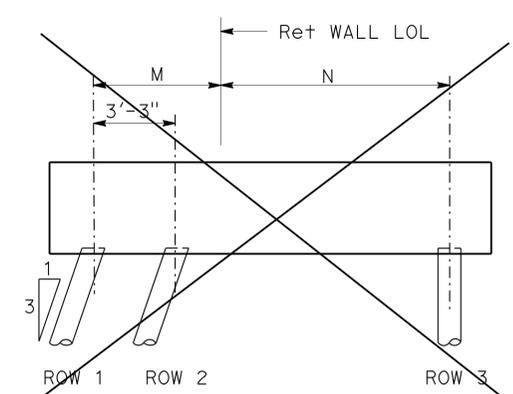
STATIONS 15+27 TO 18+36.50
RETAINING WALL TYPE 1 (MOD)
(WITHOUT SOUNDWALL)
 No Scale



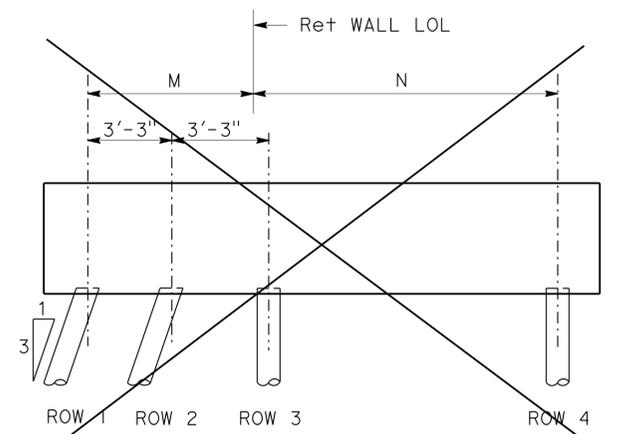
2 ALTERNATIVE 24"Ø ANCHORAGE DETAIL
 No Scale



3 H = 6' THROUGH 20'



3 H = 22' THROUGH 28'



3 H = 30' AND 32'

PILE PATTERN
 No Scale

REVISED STANDARD DRAWING

- 1 Details Modified
- 2 Details Added

- 3 Details Removed

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 35E0055
 POST MILE 11.0/11.5

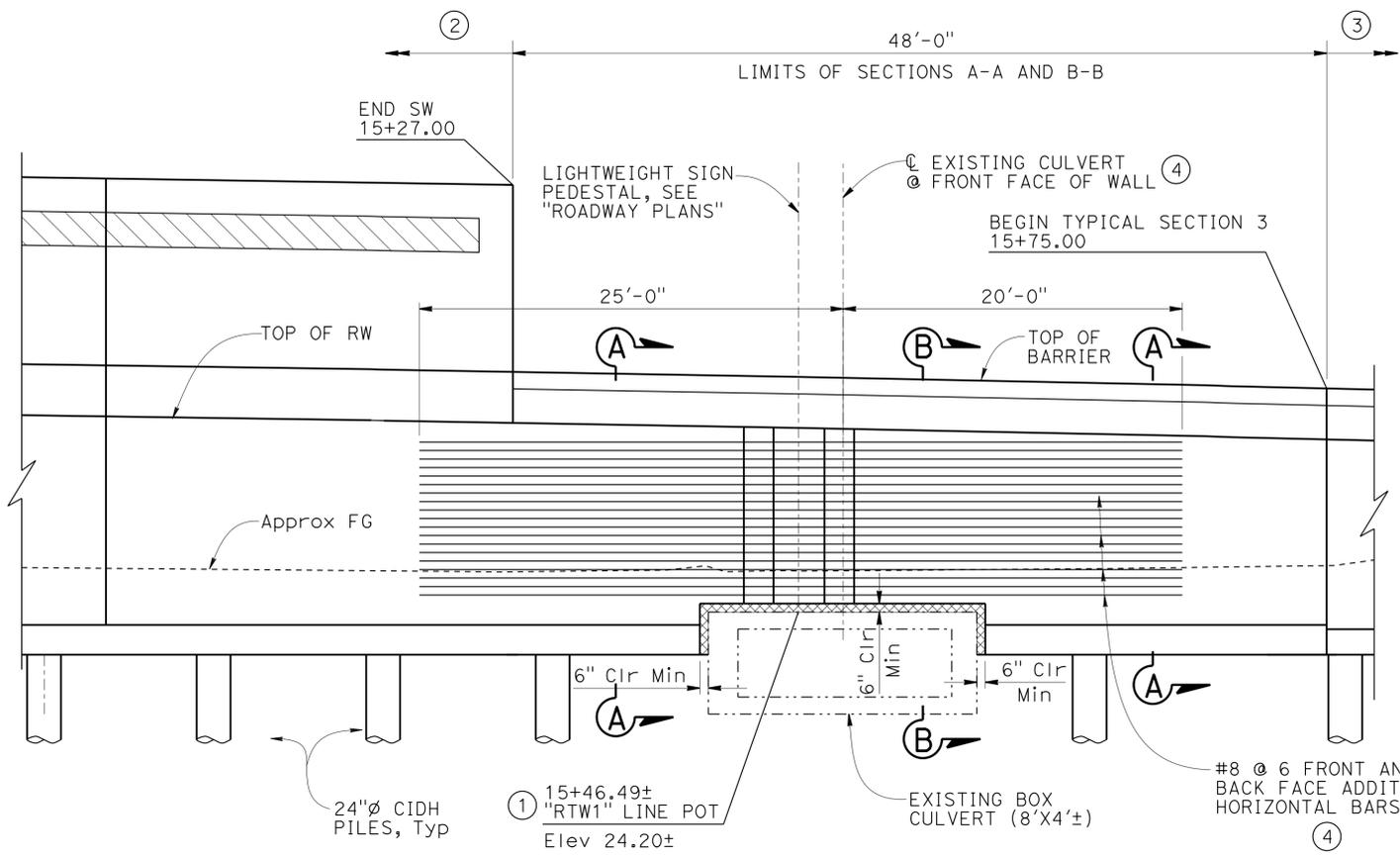
IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 1
RETAINING WALL TYPE 1SWBP-DETAILS No. 2

UNIT: 3593
 PROJECT NUMBER & PHASE: 0412000496, 1
 CONTRACT NO.: 04235524

REVISION DATES	SHEET	OF
6-19-14	11	20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	338	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE
 6-28-16
 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.

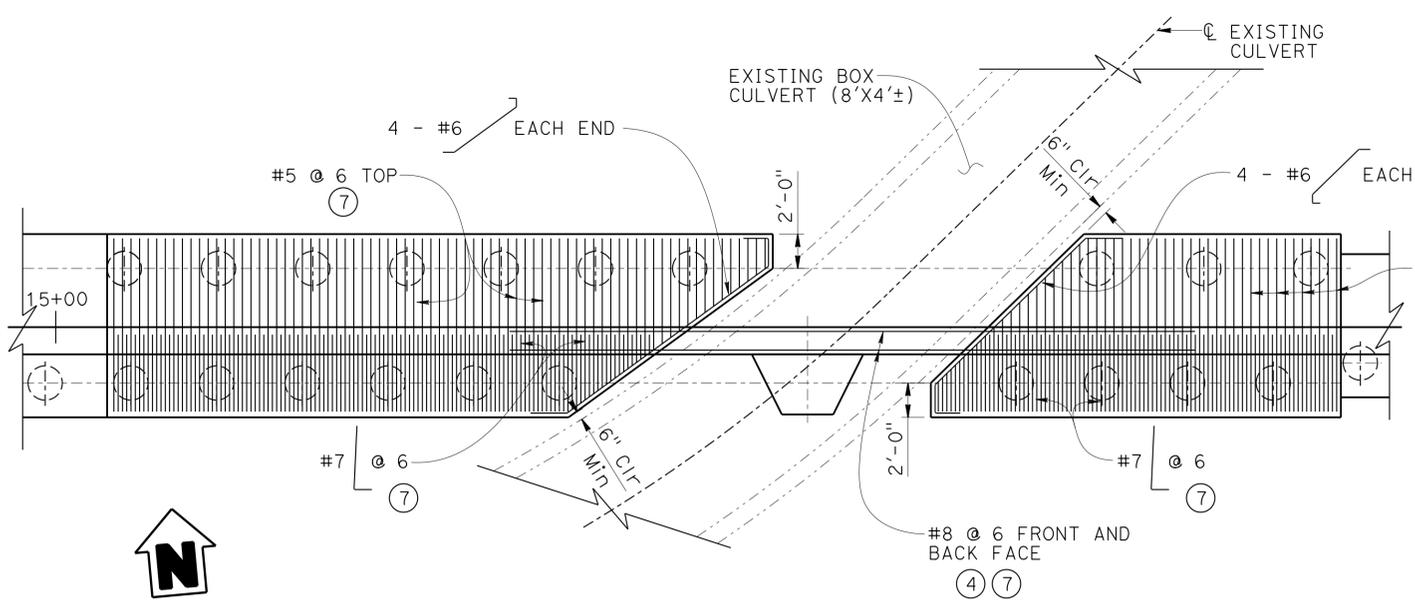


- NOTES:
- Existing concrete box culvert dimensions and elevation approximate. Contractor shall verify location and dimensions before ordering any materials and installation of CIDH piles.
 - For retaining wall and soundwall details, see elsewhere.
 - For retaining wall details, see elsewhere.
 - Bars to be centered about \bar{C} existing culvert at front face of wall.
 - For details and reinforcement not shown, use H=14' of Table on "RETAINING WALL TYPE 1SWBP - DETAILS NO. 1" and "RETAINING WALL TYPE 1SWBP - DETAILS NO. 2" sheets.
 - See "ALTERNATIVE 24'Ø ANCHORAGE DETAILS" on "RETAINING WALL TYPE 1SWBP - DETAILS NO. 2" sheet.
 - Bars are in addition to Table reinforcement (not shown).
 - See "CONCRETE SURFACE TEXTURE" sheet for details.

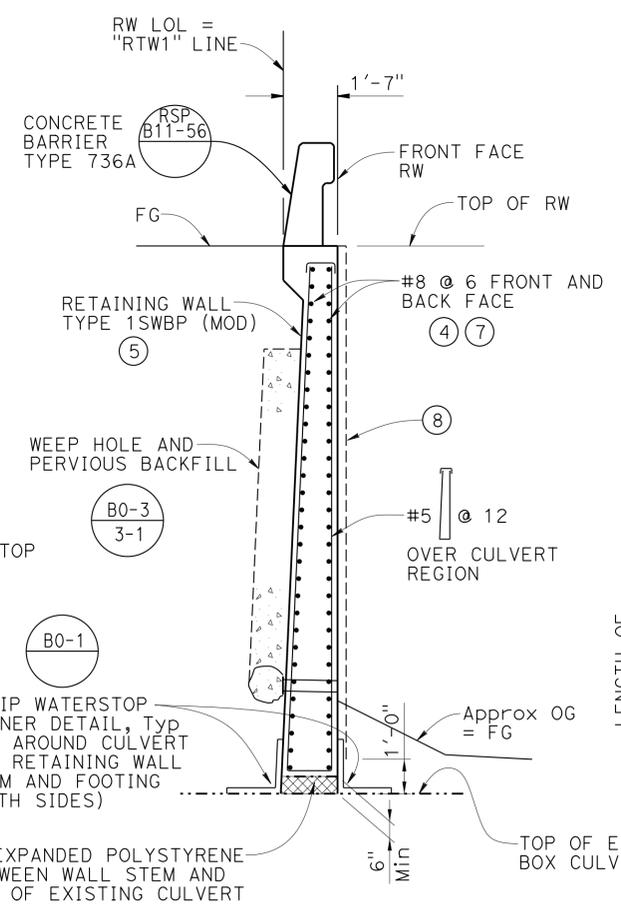
LEGEND:
 Indicates 6" Expanded Polystyrene

NOTE:
 Not all piles shown.

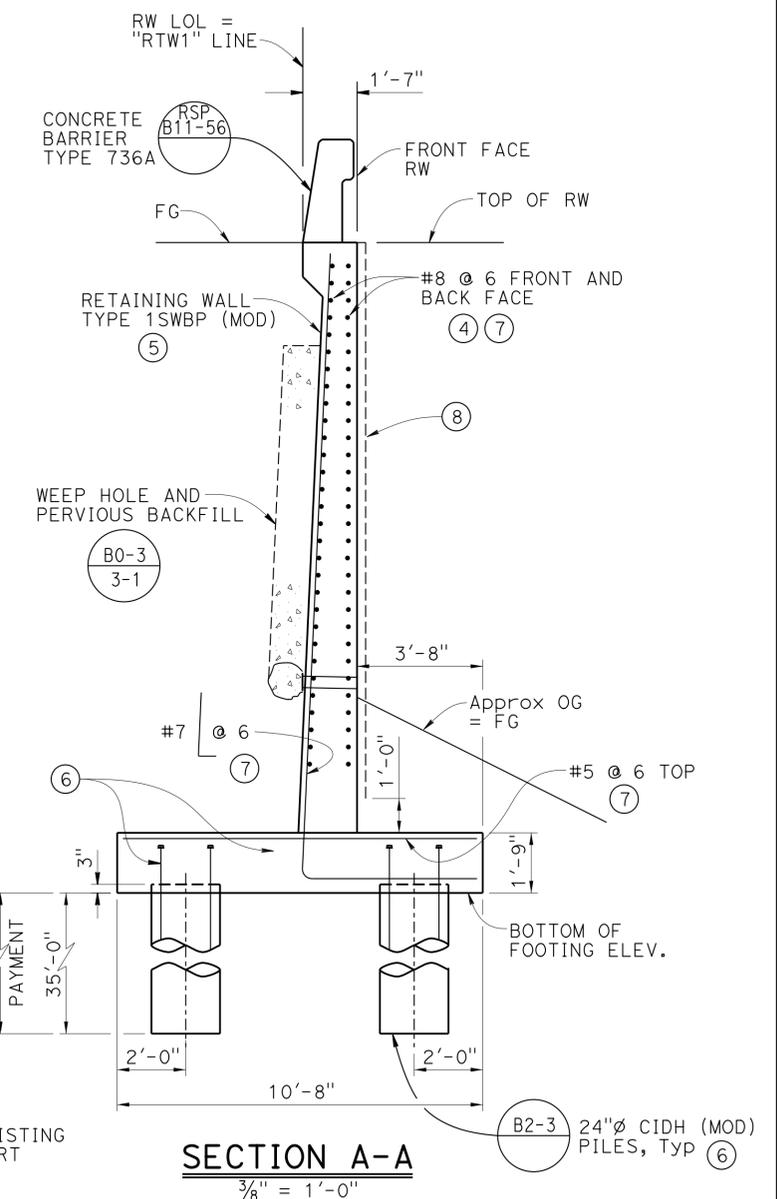
DETAIL A
 $\frac{3}{16}'' = 1'-0''$



PART PLAN DETAIL A
 $\frac{3}{16}'' = 1'-0''$



SECTION B-B
 $\frac{3}{8}'' = 1'-0''$



SECTION A-A
 $\frac{3}{8}'' = 1'-0''$

DESIGN BY <i>Pete Norboe</i> CHECKED <i>Keith Nakaoka</i> DETAILS BY <i>Carlo Cancino</i> CHECKED <i>Keith Nakaoka</i> QUANTITIES BY <i>D. Romero / K. Nakaoka</i> CHECKED <i>M. Beall / F. Thwaboh</i>			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0055 POST MILE 11.0/11.5	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 RETAINING WALL - DETAILS NO. 1
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3593 PROJECT NUMBER & PHASE: 0412000496, 1	CONTRACT NO.: 04-235524	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES: 05-06-16, 05-06-16 SHEET 12 OF 20

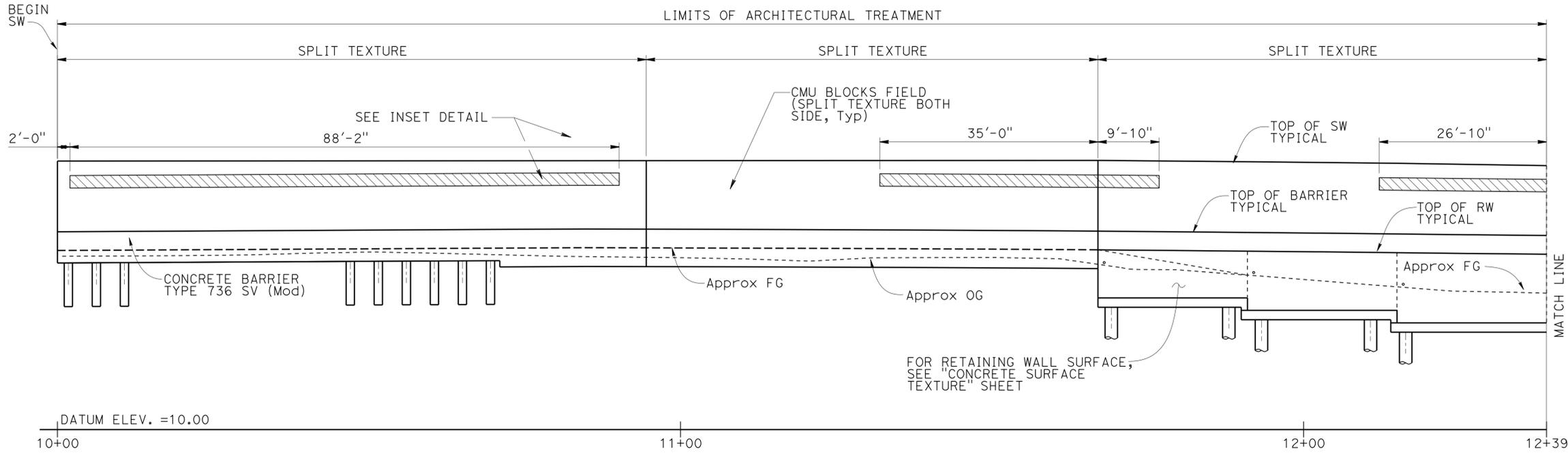
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	339	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

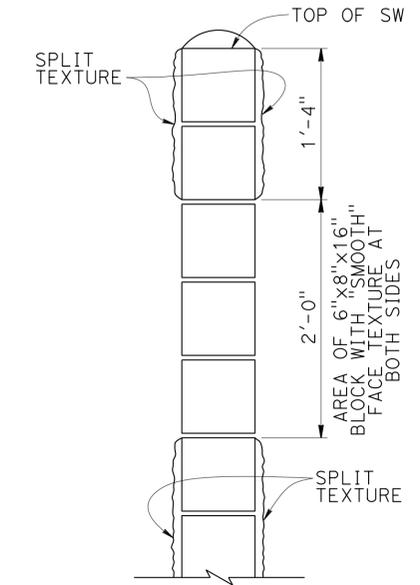
6-28-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

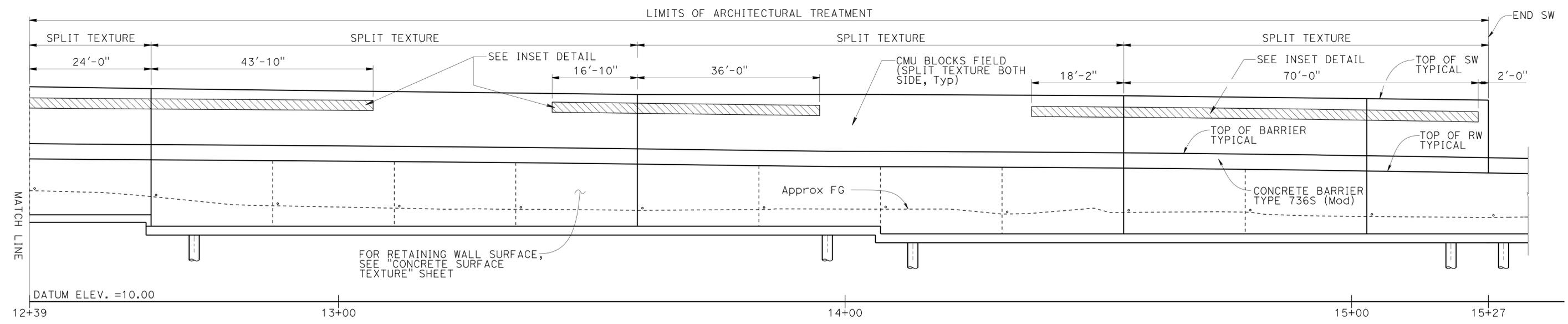
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



DEVELOPED ELEVATION
1" = 10'



INSET DETAIL
No Scale



DEVELOPED ELEVATION
1" = 10'

- NOTES:
- Not all piles shown.
 - All visible surfaces on side opposite of traffic, excluding barrier face to be treated with "ANTI-GRAFFITI COATING".

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka
DETAILS	BY Carlo Cancino	CHECKED Keith Nakaoka
QUANTITIES	BY D. Romero / K. Nakaoka	CHECKED M. Beall / F. Thwabah

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

BRIDGE NO.	35E0055
POST MILE	11.0/11.5

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 1
ARCHITECTURAL TREATMENT DETAILS

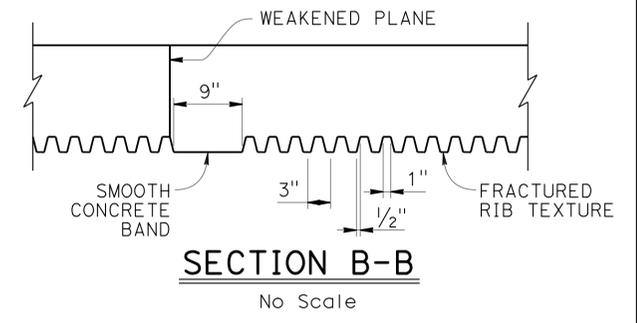
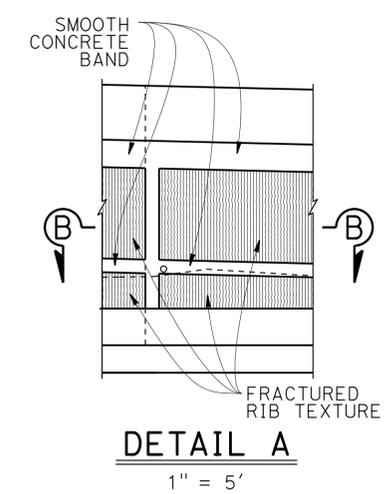
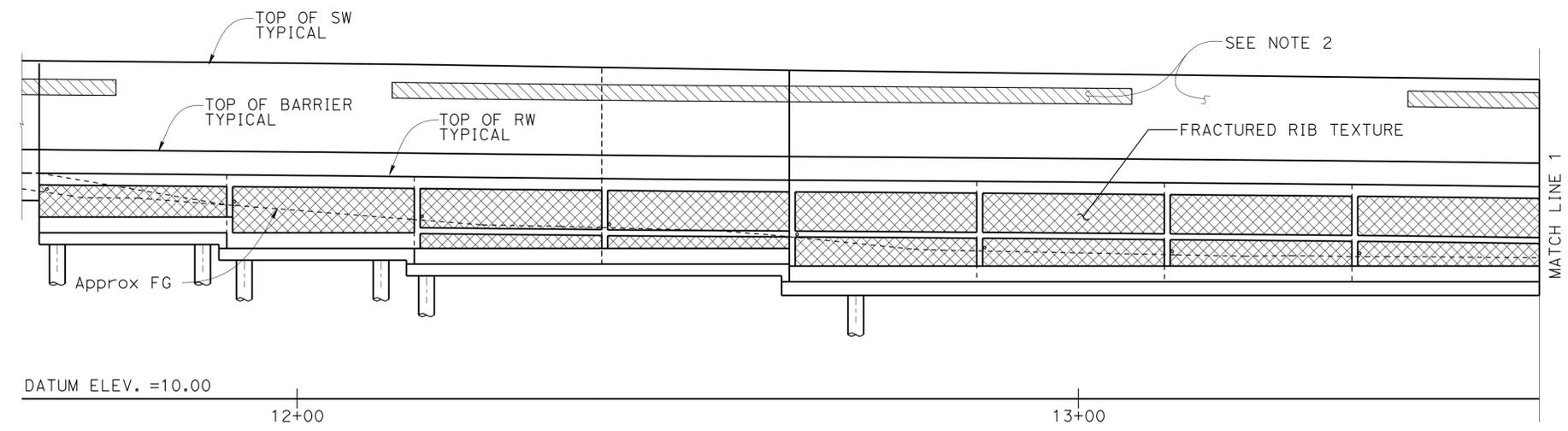
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	340	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

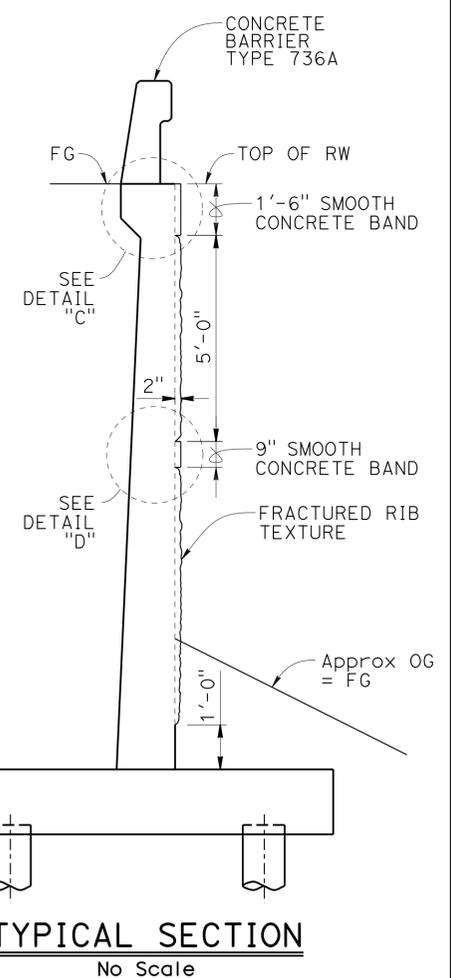
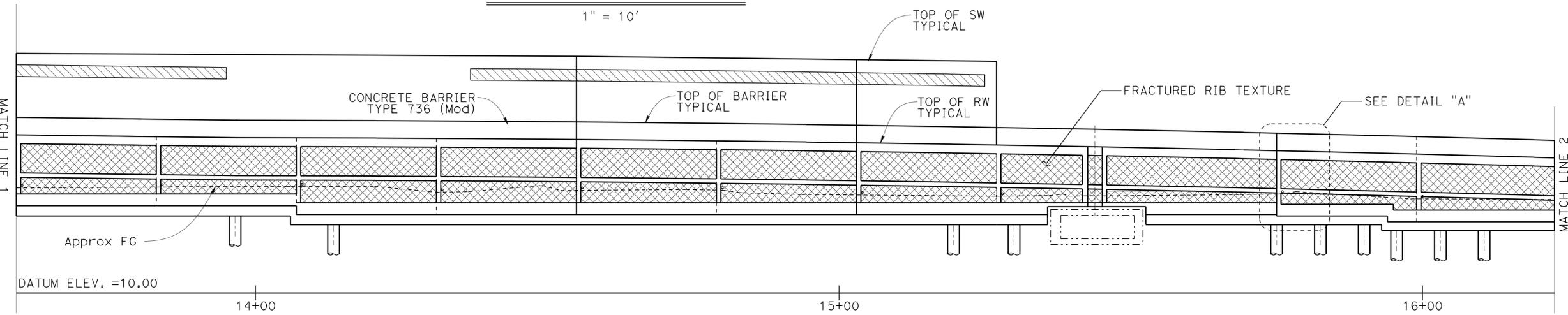
6-28-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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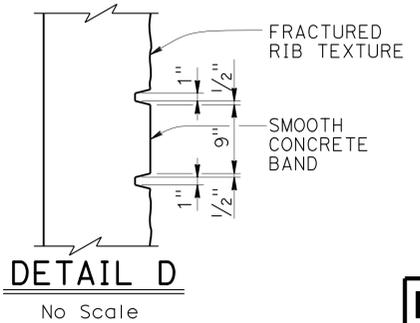
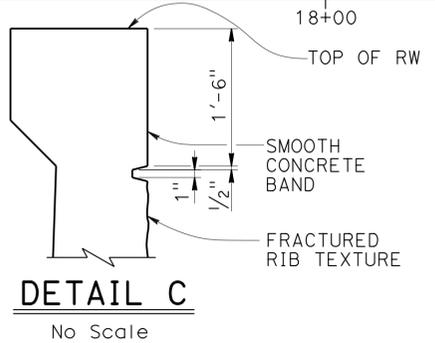
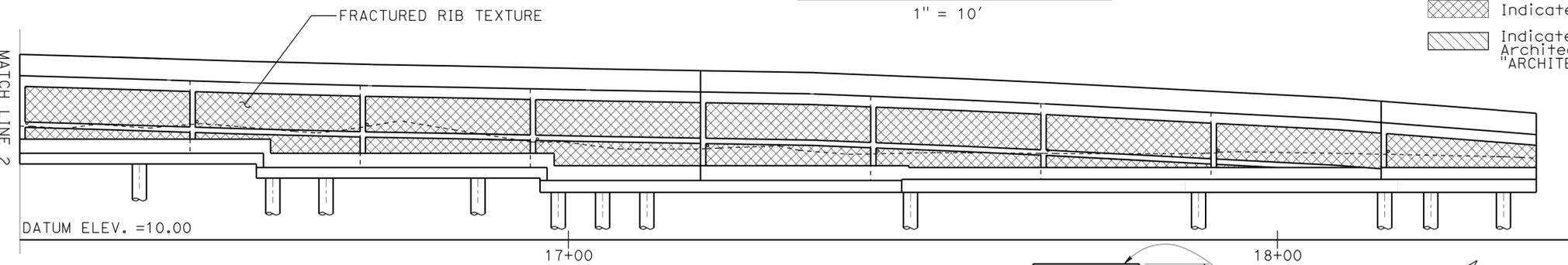


DEVELOPED ELEVATION
1" = 10'



DEVELOPED ELEVATION
1" = 10'

LEGEND:
 Indicates "FRACTURED RIB TEXTURE"
 Indicates "SMOOTH FACE TEXTURE" Architectural Treatment, see "ARCHITECTURAL TREATMENT DETAIL" sheet



DEVELOPED ELEVATION
1" = 10'

- NOTES:
1. All visible surfaces on side opposite of traffic, excluding barrier face to be treated with "ANTI-GRAFFITI COATING".
2. Architectural Treatment not shown.

DESIGN BY Pete Norboe CHECKED Keith Nakaoka DETAILS BY Eric Hallstrom CHECKED Keith Nakaoka QUANTITIES BY D. Romero / K. Nakaoka CHECKED M. Beall / F. Thwabah			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8		BRIDGE NO. 35E0055 POST MILE 11.0/11.5		IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 1 CONCRETE SURFACE TEXTURE								
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3593 PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524			DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 04/25/16 05/04/16 05/12/16		SHEET 14 OF 20	

FILE => 35-wall101-m-archtreat2.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	341	370

John C. Moore 06-16-15
REGISTERED CIVIL ENGINEER
6-28-16
PLANS APPROVAL DATE

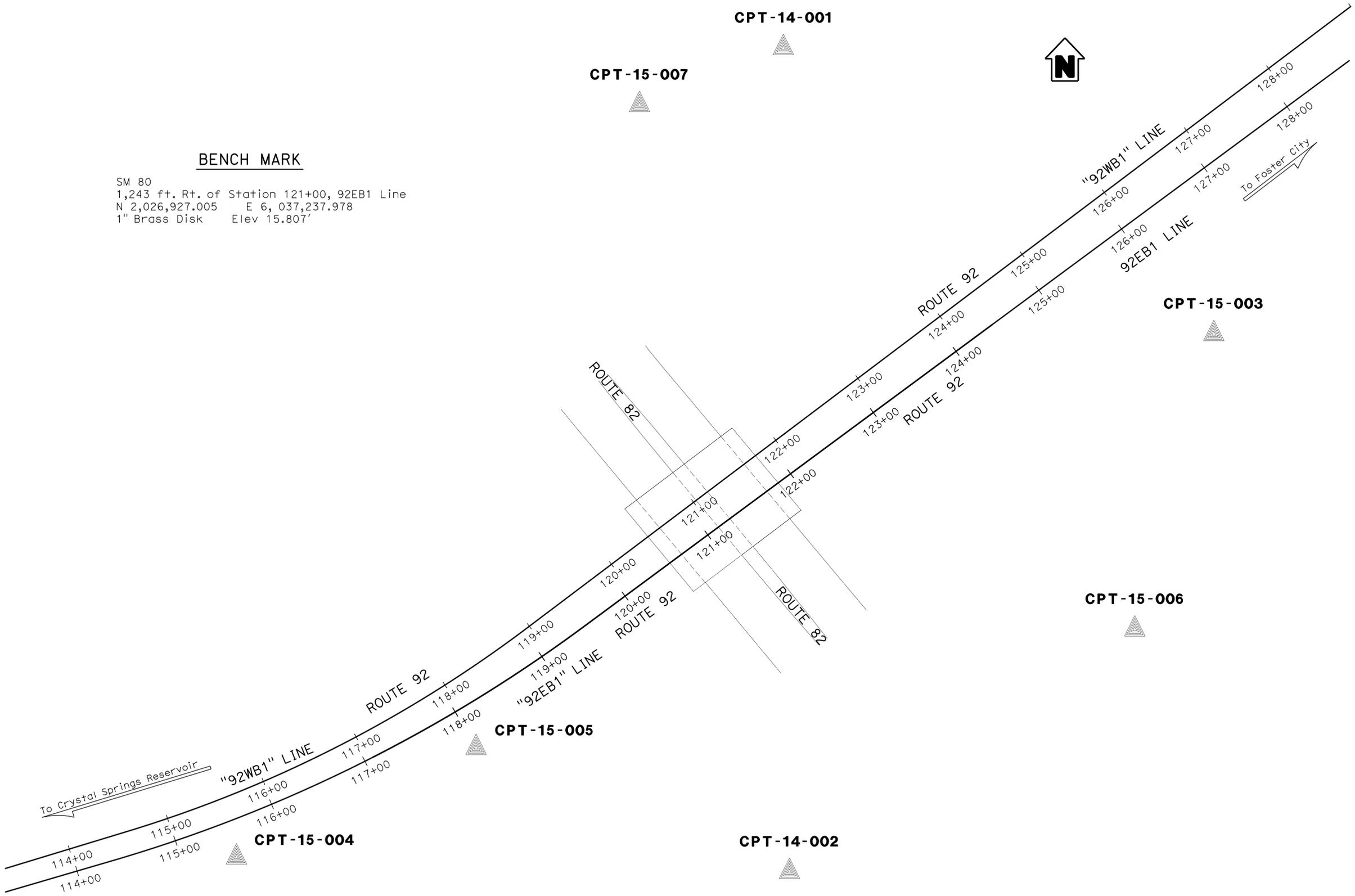
John C. Moore
REGISTERED PROFESSIONAL ENGINEER
No. C61792
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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

BENCH MARK

SM 80
1,243 ft. Rt. of Station 121+00, 92EB1 Line
N 2,026,927.005 E 6,037,237.978
1" Brass Disk Elev 15.807'



PLAN
1"=50'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		35E0055		LOG OF TEST BORINGS 1 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		POST MILES			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3				REVISION DATES		SHEET OF	
								06-23-15		15 20	

FILE => 35-wal101-p-lotb1of6.dgn
DATE PLOTTED => 15-JUL-2016
TIME PLOTTED => 11:27
USERNAME => s130819

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	342	370

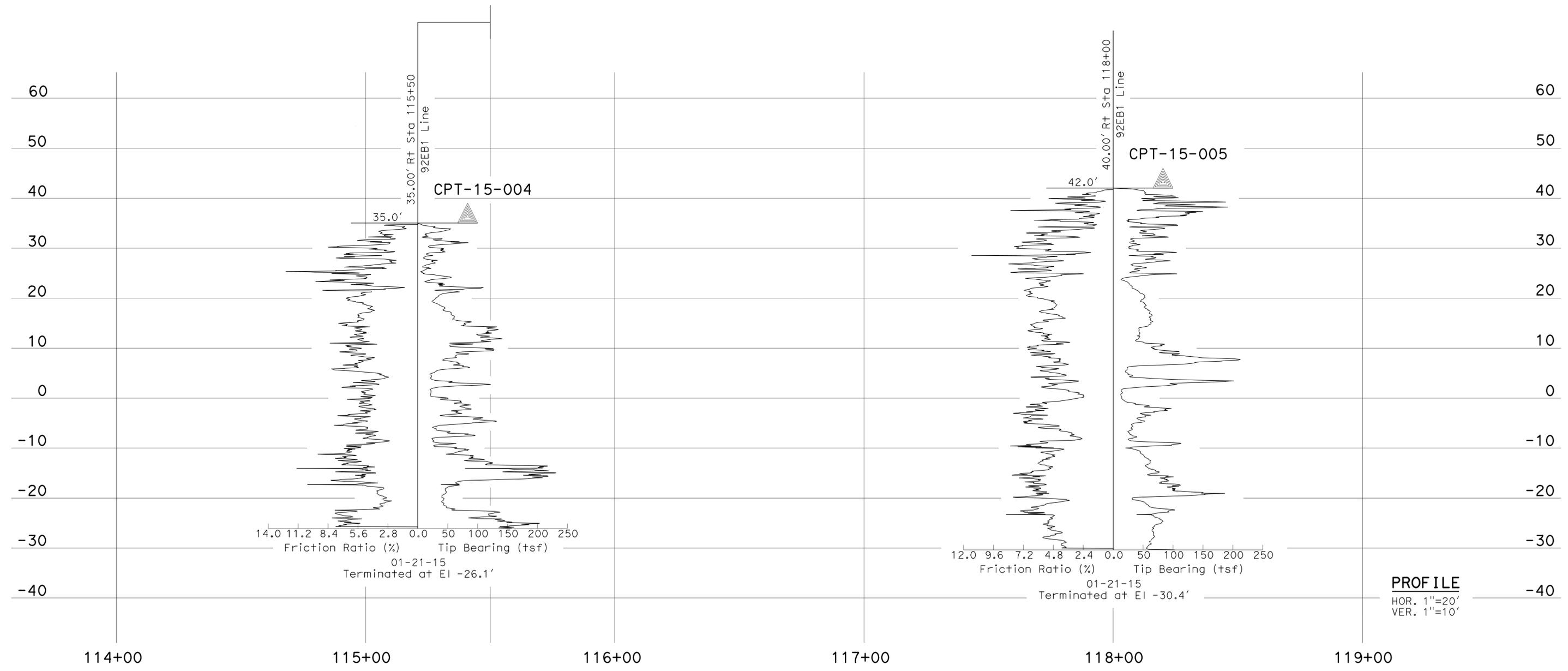
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		35E0055		LOG OF TEST BORINGS 2 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		POST MILES 11.0/11.5 10.3/10.7			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3				REVISION DATES		SHEET OF	
								06-23-15		16 20	

USERNAME => s130819 DATE PLOTTED => 15-JUL-2016 TIME PLOTTED => 11:27
 FILE => 35-wal101-p-lotb2of6.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	343	370

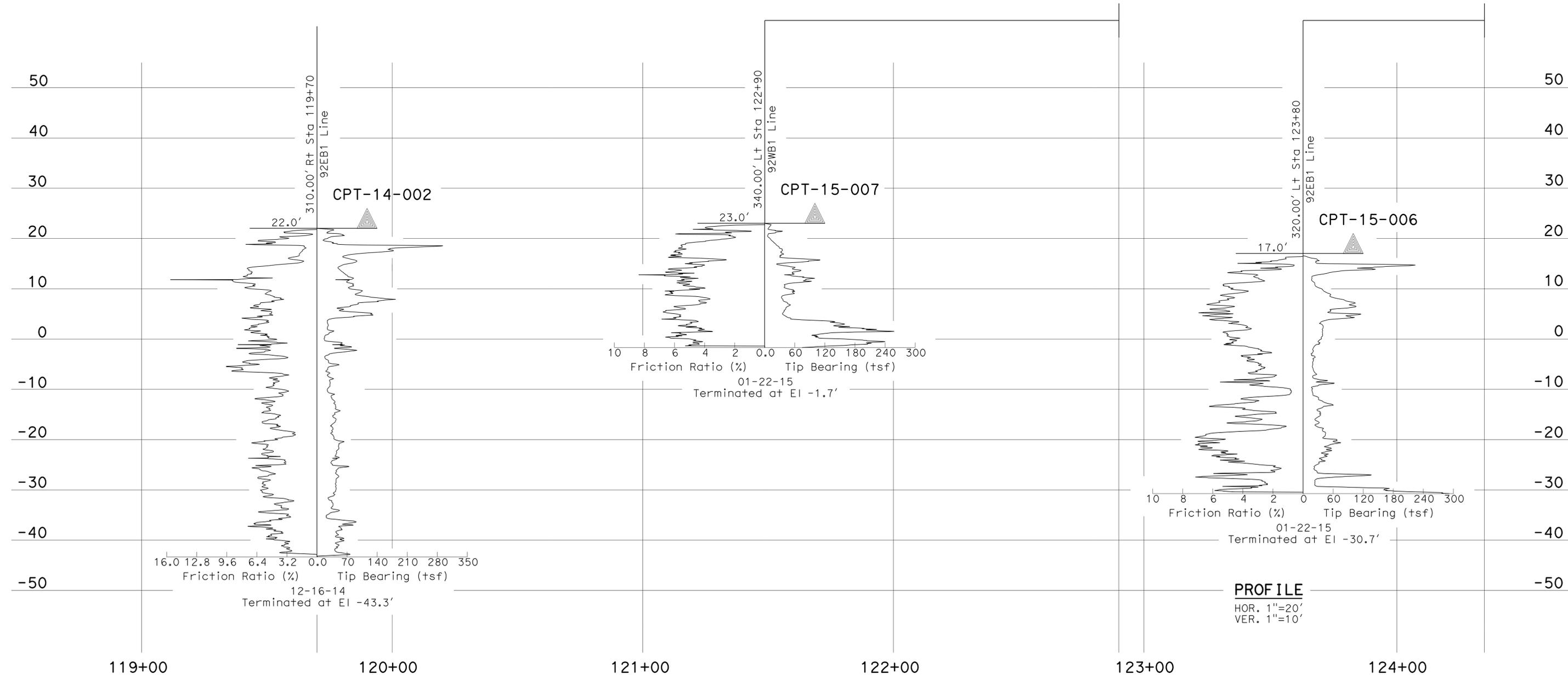
John C. Moore 06-16-15
REGISTERED CIVIL ENGINEER
6-28-16
PLANS APPROVAL DATE

John C. Moore
No. C61792
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0055		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES 11.0/11.5		LOG OF TEST BORINGS 3 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		10.3/10.7		SHEET 17 OF 20	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
										REVISION DATES	
										06-23-15	

USERNAME => s130819 DATE PLOTTED => 15-JUL-2016 TIME PLOTTED => 11:27
 FILE => 35-wal101-p-lotb3of6.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	344	370

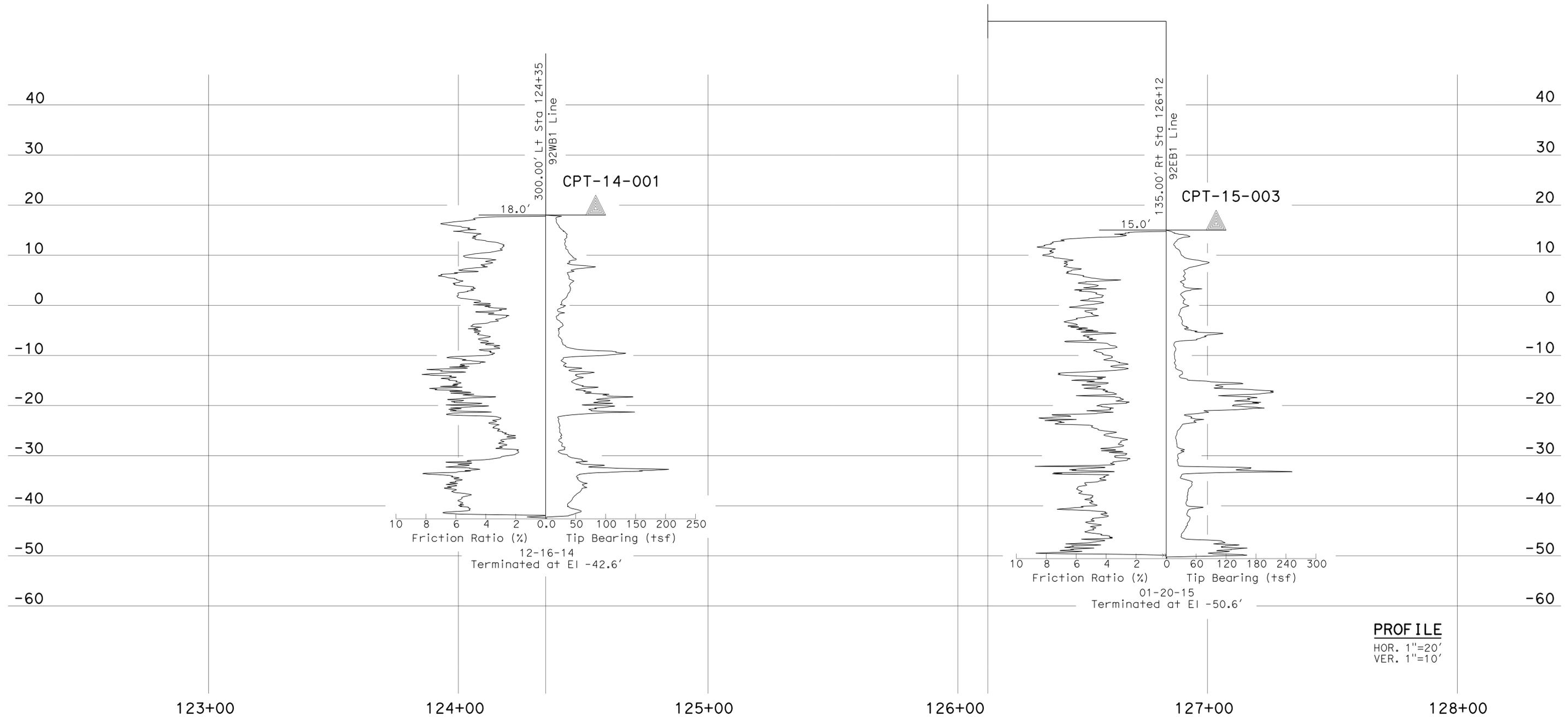
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



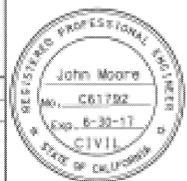
PROFILE
 HOR. 1"=20'
 VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0055		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES 11.0/11.5		LOG OF TEST BORINGS 4 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		10.3/10.7		SHEET 18 OF 20	
O&S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
										REVISION DATES	
										06-23-15	

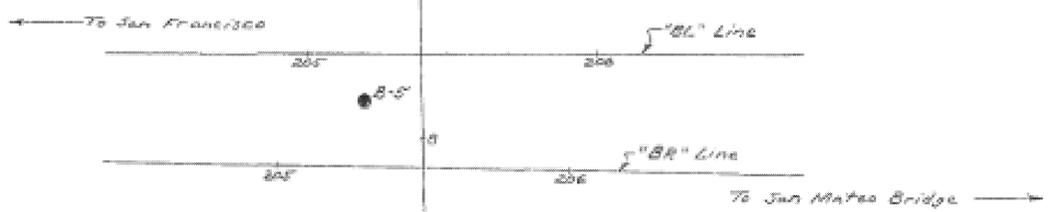
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 FILE => 35-wal101-p-lotb4of6.dgn

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.74	345	370

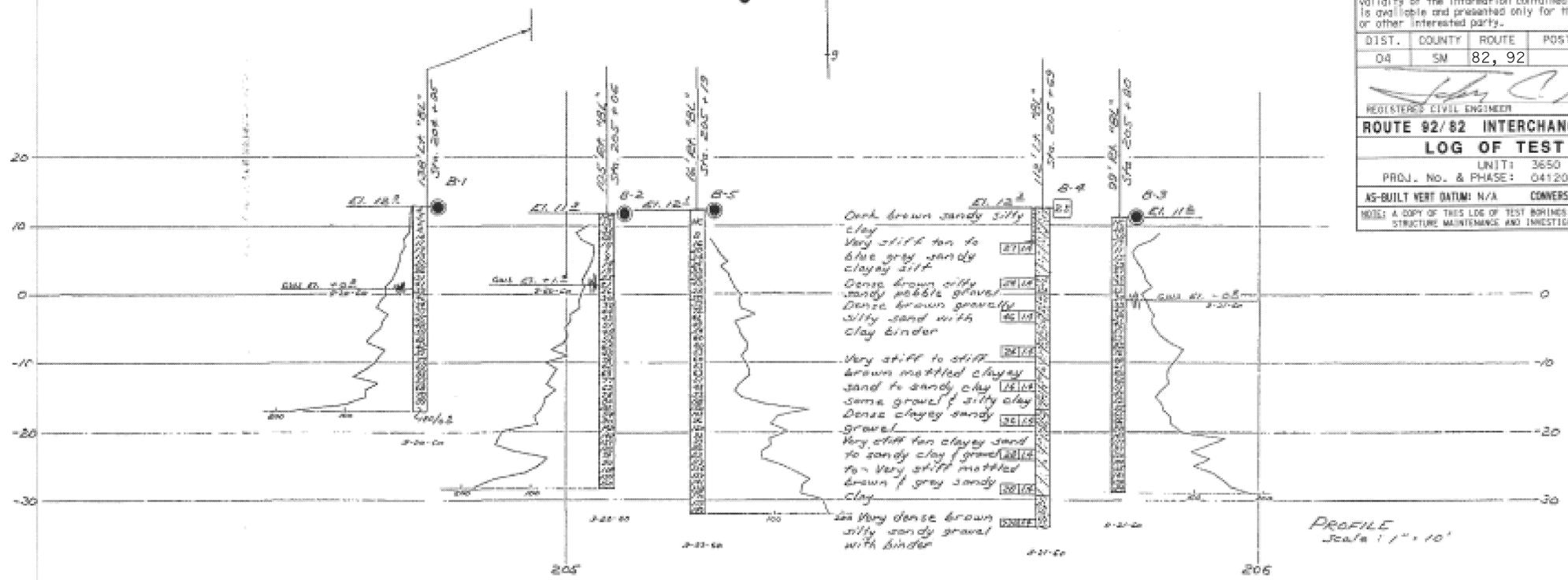
DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES
 As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.
 July 29, 1961



BM "A" RR Spike in J.P.
 25' Bx "PA" 9 + 05"
 Elev. 12.40



PLAN Scale: 1" = 30'



PROFILE Scale: 1" = 10'

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.74	345	370

REGISTERED CIVIL ENGINEER
 DATE: 5/19/61

ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT

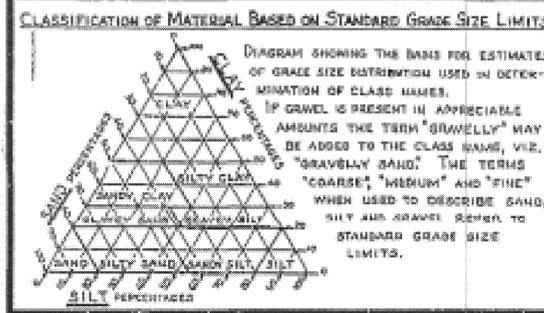
LOG OF TEST BORINGS 5 OF 6

UNIT: 3650	CONTRACT NO. 04-235524	BRIDGE NO. N/A
PROJ. No. & PHASE: 04120004961	04-235524	N/A
AS-BUILT VERT DATUM: N/A	CONVERSION: N/A	Sheet of 19 20

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

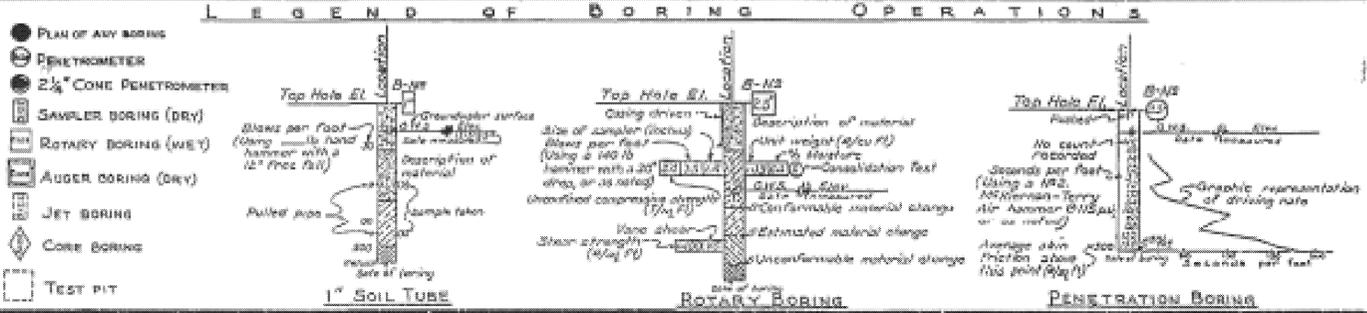
AS BUILT PLANS
 Contract No. 62-4713(3)
 Date Completed _____
 Document No. 4000 2471

DRAWN BY: J. P. MOORE
 CHECKED BY: J. P. MOORE
 APPROVED BY: J. P. MOORE



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT AND/OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK



NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

PALM AVENUE UNDERCROSSING

LOG OF TEST BORINGS

SCALE: As Noted | BRIDGE: 35-150 | FILE: | DRAWING: 31-30-3

39

DATE: July 24, 1961

REGISTERED CIVIL ENGINEER

John Moore

No. C61792

Exp. 6-30-17

CIVIL

STATE OF CALIFORNIA

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	10.418.74	346	370

DATE: 6/19/65

ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT

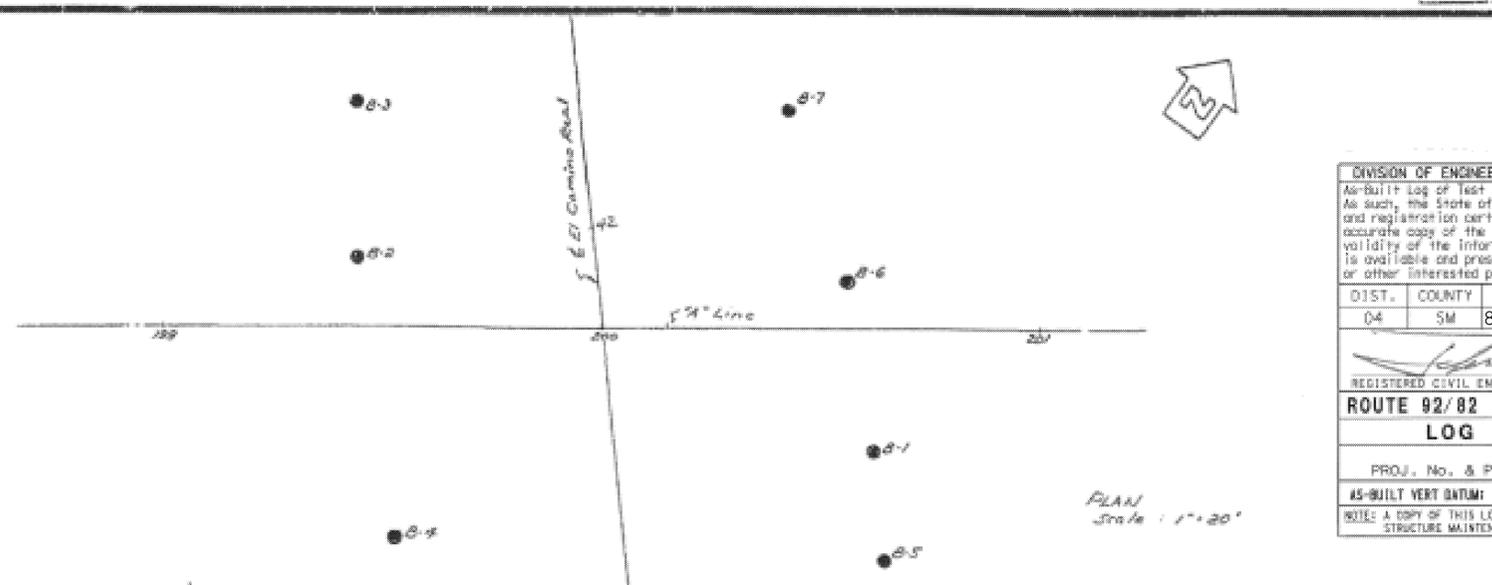
LOG OF TEST BORINGS 6 OF 8

UNIT: 3650 CONTRACT No. BRIDGE No.
 PROJ. No. & PHASE: 04120004961 04-235524 N/A

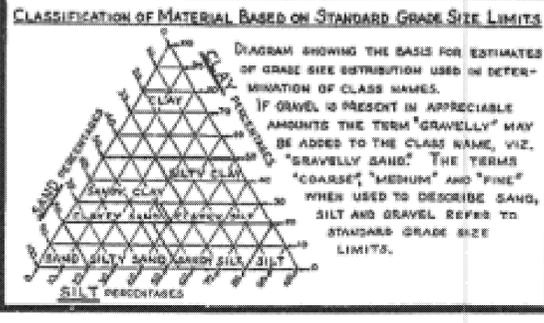
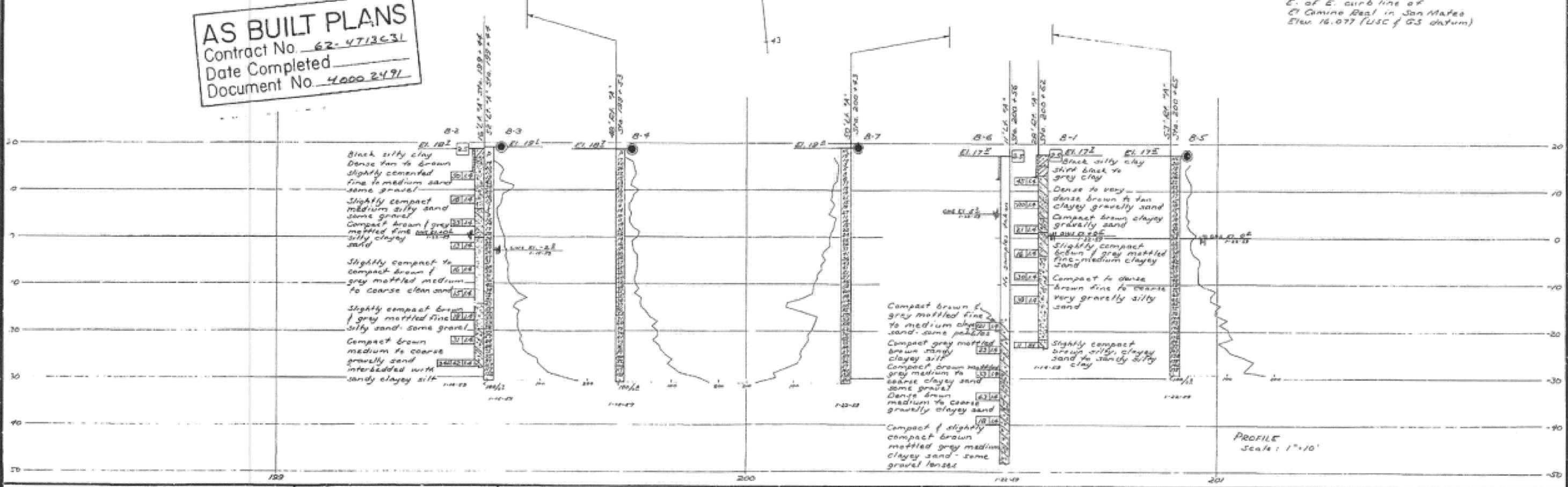
AS-BUILT VERT DATUM: N/A CONVERSION: N/A Sheet of
 20 20

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

AS BUILT PLANS
 Contract No. 62-4713631
 Date Completed _____
 Document No. 4000 2491



BM "SM 92" Nail set in sidewalk on N. side of 19th Ave. 88' E. of E. curb line of E. Camino Real in San Mateo Elev. 16.077 (USC of GS datum)



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT 4% OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

NOTES

The contractor's attention is directed to Section 2, Article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

ROUTE 92/82 SEPARATION
 -ROUTE 105/2 SEPARATION

LOG OF TEST BORINGS

SCALE: As Noted BRIDGE 35-156 FILE E-35 DRAWING 35150-13

BRIDGE DEPARTMENT

Vertical text on the left margin, possibly a signature or reference.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	347	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

6-28-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

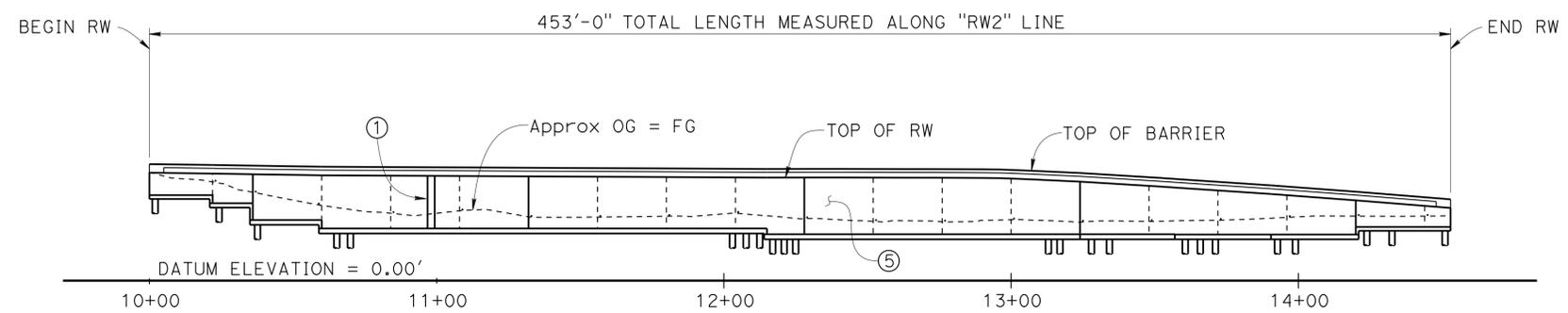
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

NOTES:

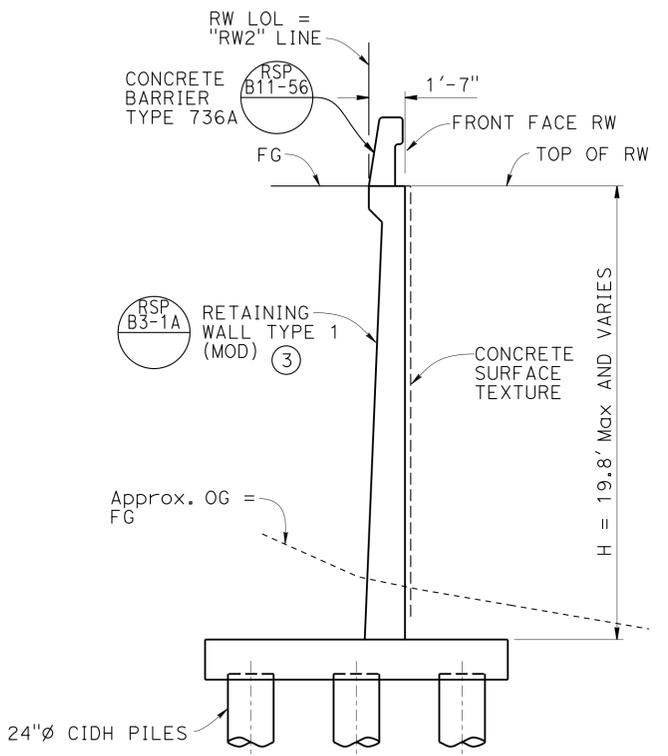
- ① Lightweight Sign Pedestal, see "ROADWAY PLANS"
- ② Not all piles shown
- ③ Modified with piles
- ④ MGS, see "ROADWAY PLANS"
- ⑤ Concrete Surface Texture not shown. For Details, see "CONCRETE SURFACE TEXTURE" sheet.

QUANTITIES

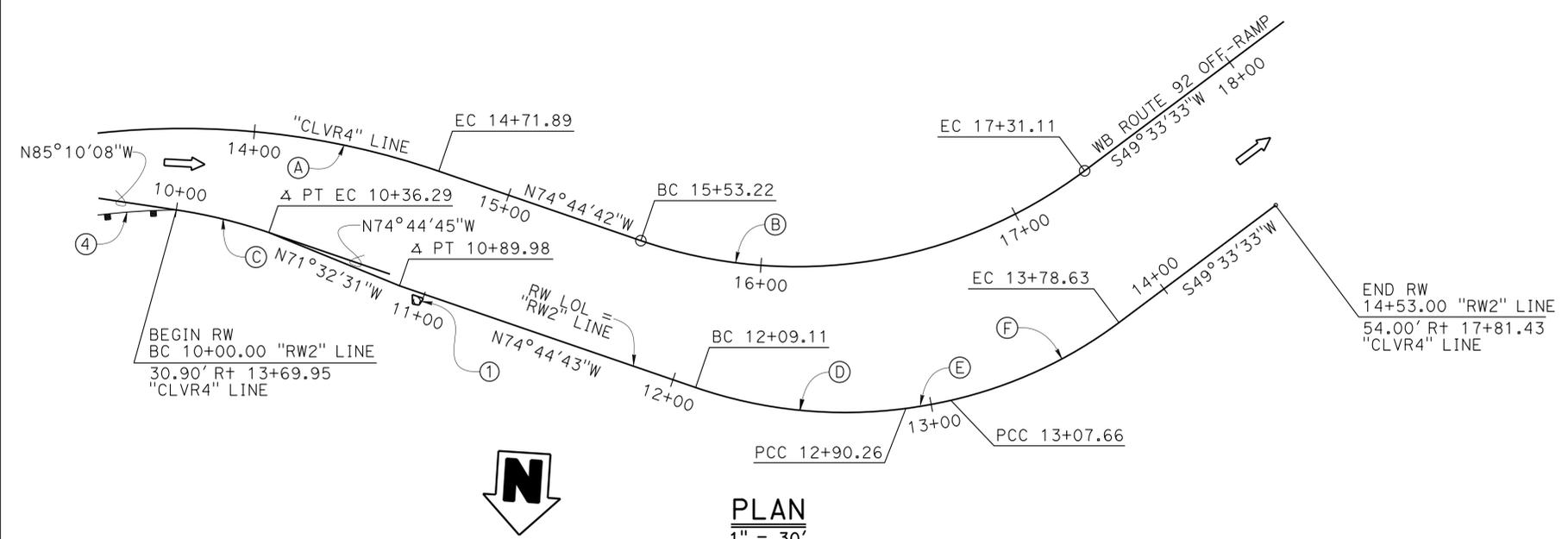
STRUCTURE EXCAVATION (RETAINING WALL)	1,840	CY
STRUCTURE BACKFILL (RETAINING WALL)	2,350	CY
PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	185	CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	6,080	LF
STRUCTURAL CONCRETE, RETAINING WALL	695	CY
FRACTURED RIB TEXTURE	6,810	SQFT
BAR REINFORCING STEEL (RETAINING WALL)	277,000	LB
HEADED BAR REINFORCEMENT	912	EA
ANTI-GRAFFITI COATING	6,810	SQFT
CONCRETE BARRIER (TYPE 736A)	453	LF



DEVELOPED ELEVATION
 1" = 30'



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



PLAN
 1" = 30'

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR4"	300.00	47°41'42"	132.61	249.73
(B)	"CLVR4"	183.00	55°41'44"	96.68	177.89
(C)	"RW2"	199.50	10°25'23"	18.20	36.29
(D)	"RW2"	175.47	26°29'49"	41.31	81.15
(E)	"RW2"	191.66	05°12'08"	8.71	17.40
(F)	"RW2"	169.45	23°59'47"	36.01	70.97

IMPROVE 92/82 INTERCHANGE

RETAINING WALL NO. 2

GENERAL PLAN

HØGNI SETBERG DESIGN ENGINEER	DESIGN	By Pete Norboe	CHECKED Keith Nakaoka	LOAD & RESISTANCE FACTOR DESIGN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. 35E0056	
	DETAILS	By F. Maagma / C. Cancino	CHECKED Keith Nakaoka	LAYOUT		BY Pete Norboe	CHECKED Keith Nakaoka	POST MILE 11.0/11.5
	QUANTITIES	By Keith Nakaoka	CHECKED Nora Kyo	SPECIFICATIONS		BY Kevin Ellingson	PLANS AND SPECS COMPARED	Pete Norboe

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3593
 PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	6/18/15 05/12/16 05/05/16	1	14

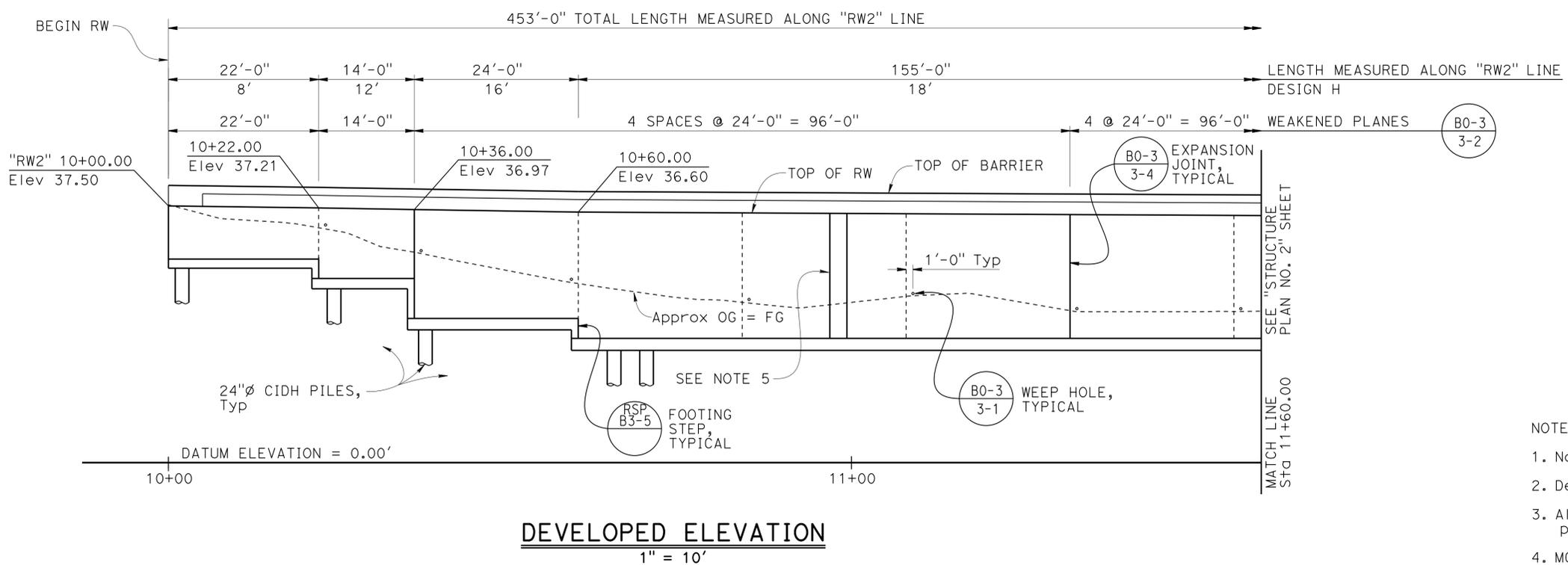
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	349	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

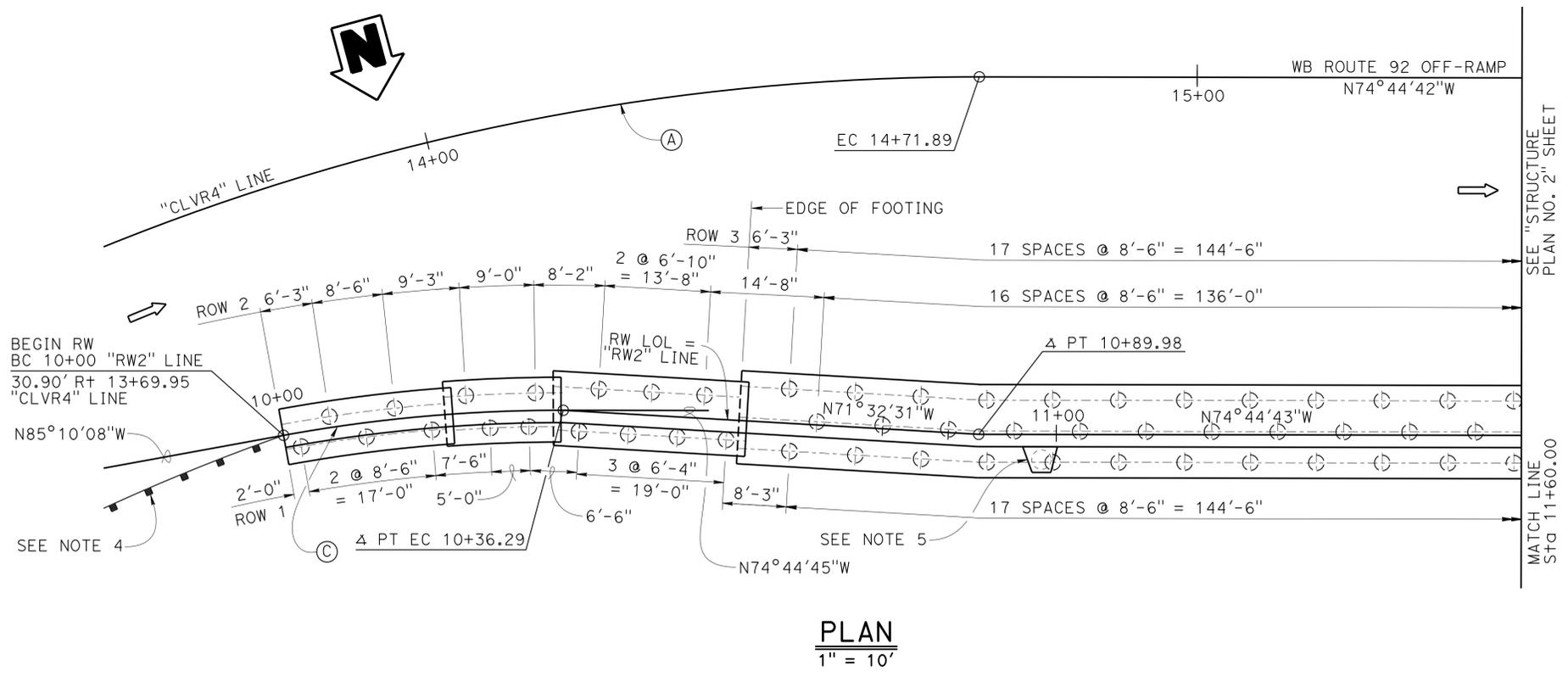
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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.



- NOTES:
1. Not all piles shown.
 2. Design height "H" does not equal actual wall height.
 3. All pile spacings are measured along RW LOL and placed radial to RW LOL.
 4. MGS, see "ROADWAY PLANS".
 5. Lightweight sign pedestal, see "ROADWAY PLANS".
 6. Concrete Surface Texture not shown. For Details, see "CONCRETE SURFACE TEXTURE" sheet.

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR4"	300.00	47°41'42"	132.61	249.73
(C)	"RW2"	199.50	10°25'23"	18.20	36.29



IMPROVE 92/82 INTERCHANGE

RETAINING WALL NO. 2

STRUCTURE PLAN NO. 1

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	35E0056
DETAILS	BY F. Maagma / C. Cancino	CHECKED Keith Nakaoka			POST MILE	11.0/11.5
QUANTITIES	BY Keith Nakaoka	CHECKED Nora Kyo				

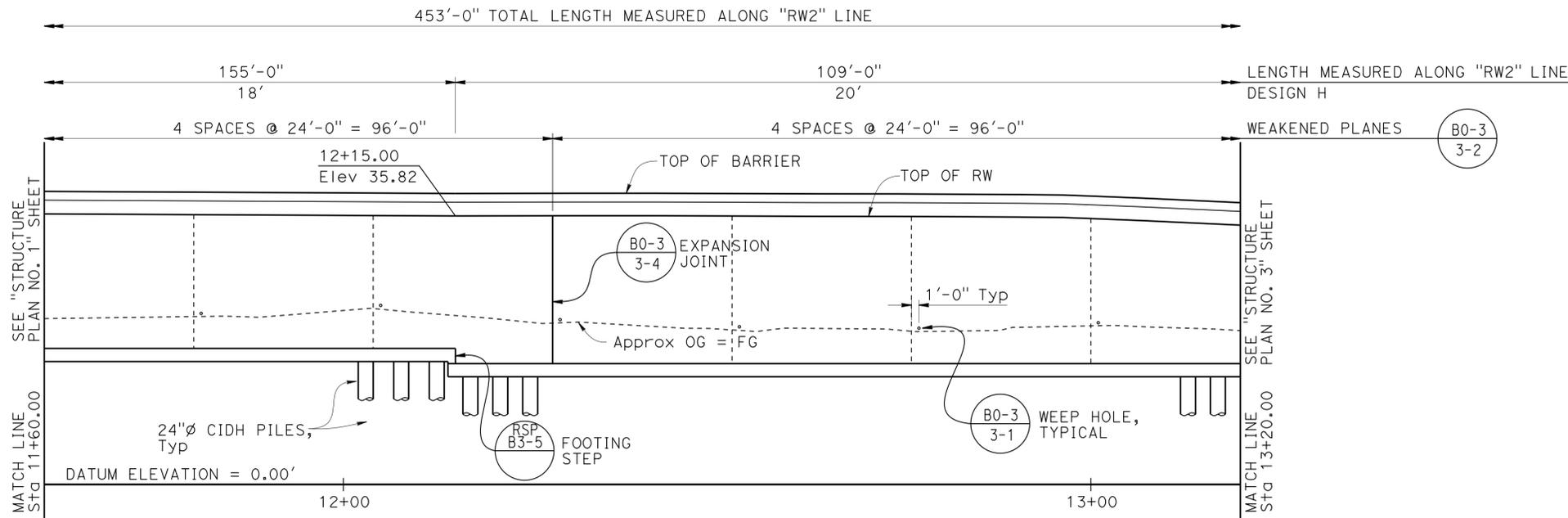
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	350	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

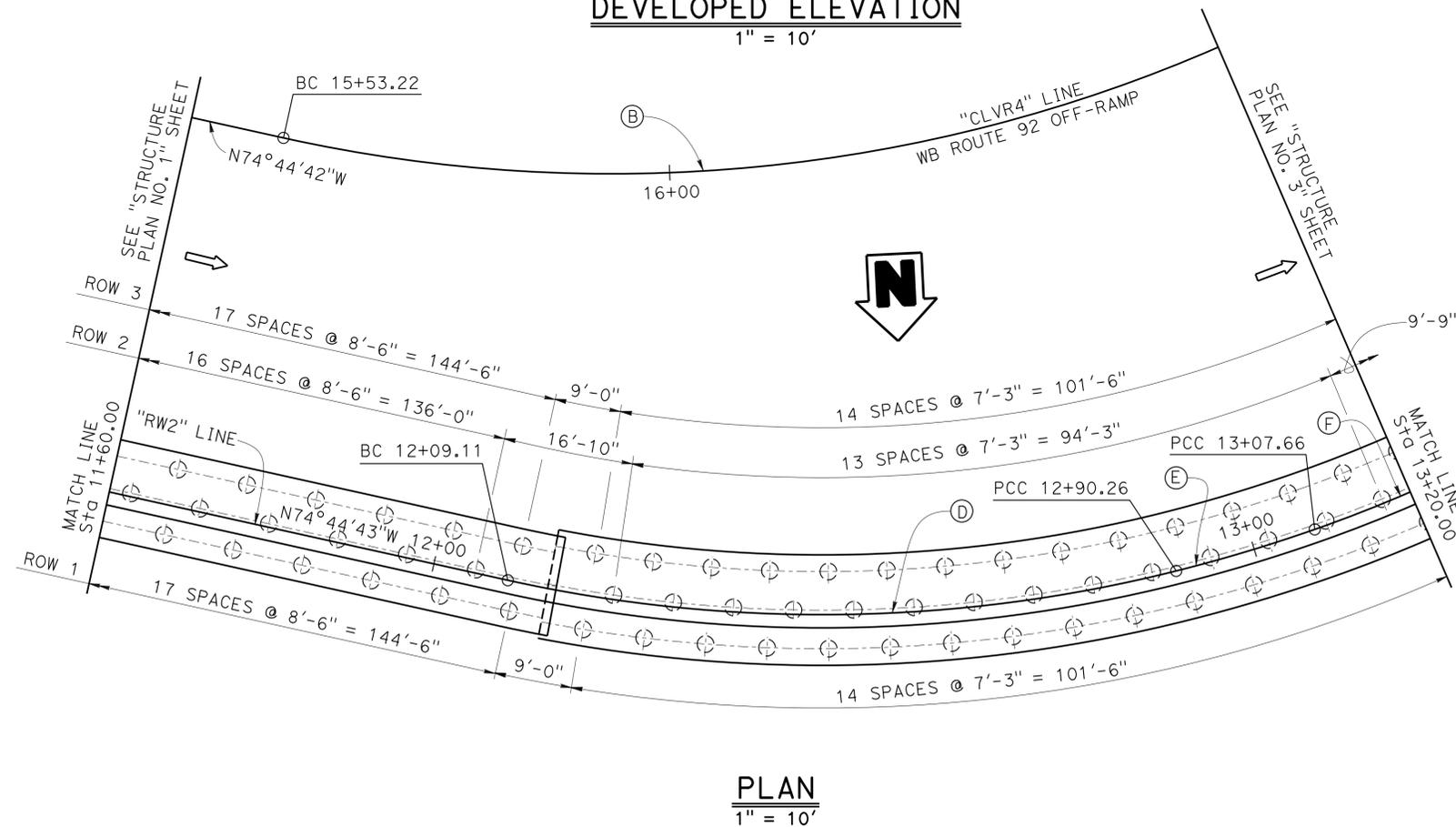
6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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DEVELOPED ELEVATION
1" = 10'



PLAN
1" = 10'

NOTES:

- Not all piles shown.
- Design height "H" does not equal actual wall height.
- All pile spacings are measured along RW LOL and placed radial to RW LOL.
- Concrete Surface Texture not shown. For Details, see "CONCRETE SURFACE TEXTURE" sheet.

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
ⓑ	"CLVR4"	183.00	55°41'44"	96.68	177.89
Ⓓ	"RW2"	175.47	26°29'49"	41.31	81.15
Ⓔ	"RW2"	191.66	05°12'08"	8.71	17.40
Ⓕ	"RW2"	169.45	23°59'47"	36.01	70.97

DESIGN	BY	Pete Norboe	CHECKED	Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	35E0056	
	DETAILS	BY	F. Maagma / C. Cancino	CHECKED			Keith Nakaoka	POST MILE	11.0/11.5
	QUANTITIES	BY	Keith Nakaoka	CHECKED			Nora Kyo		

UNIT: 3593
PROJECT NUMBER & PHASE: 0412000496, 1
CONTRACT NO.: 04-235524

IMPROVE 92/82 INTERCHANGE

RETAINING WALL NO. 2

STRUCTURE PLAN NO. 2

REVISION DATES	SHEET	OF
6/18/15	4	14

DISREGARD PRINTS BEARING EARLIER REVISION DATES

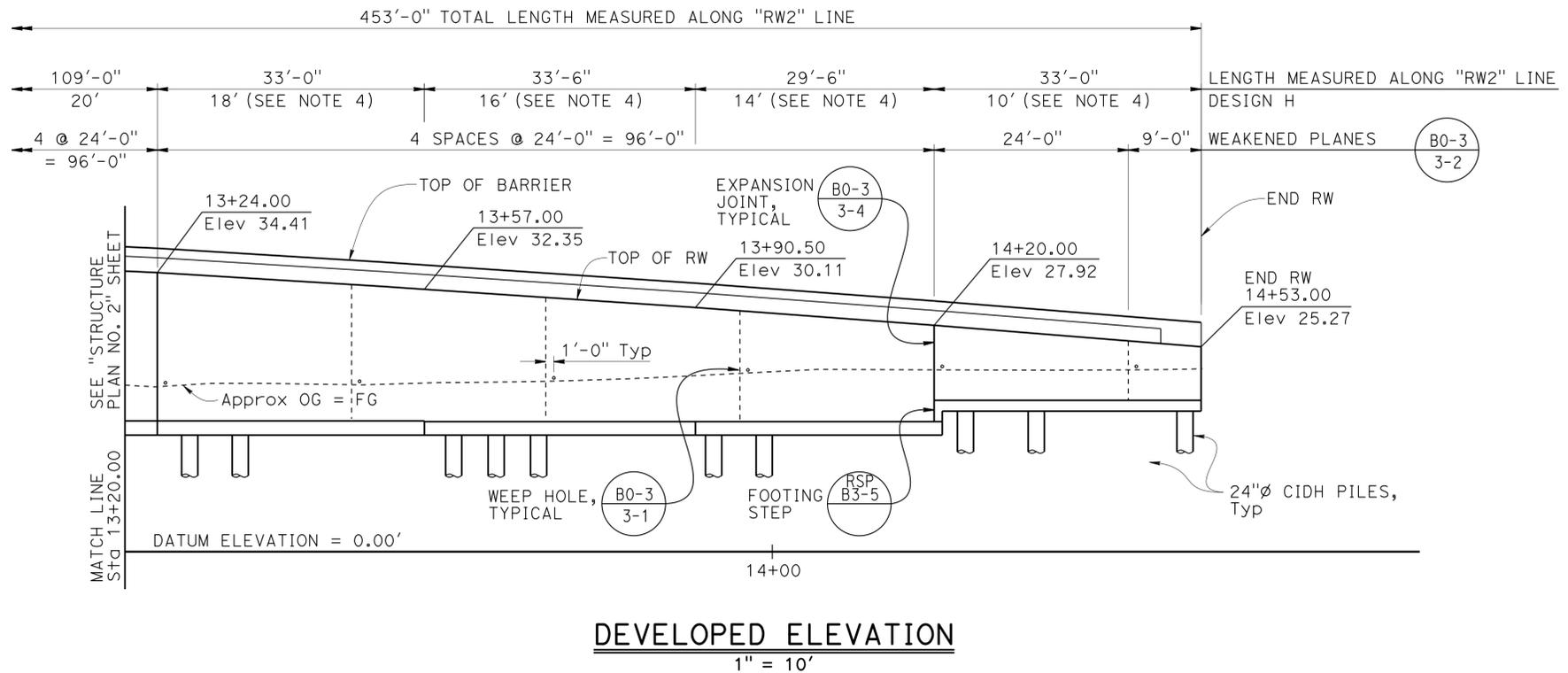
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	351	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

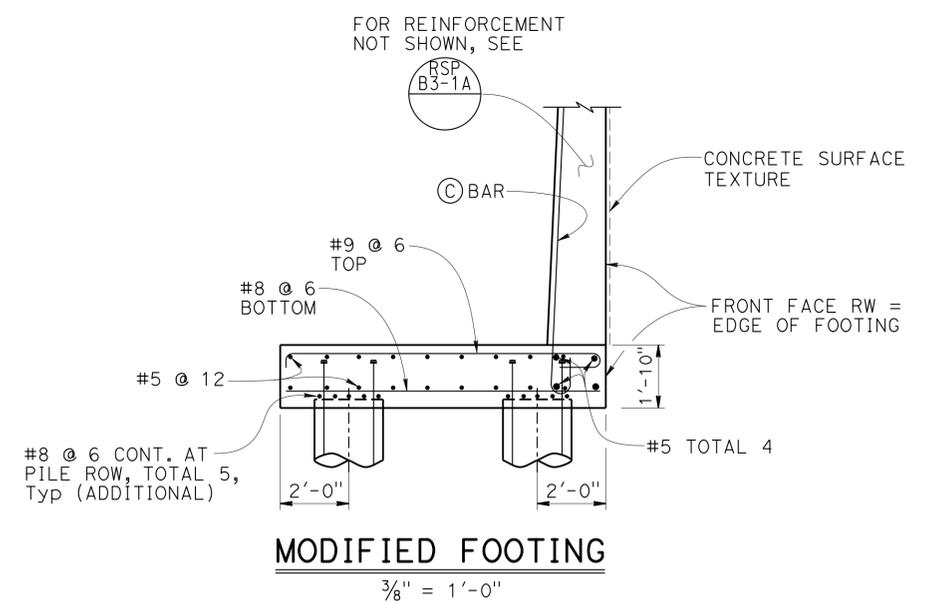
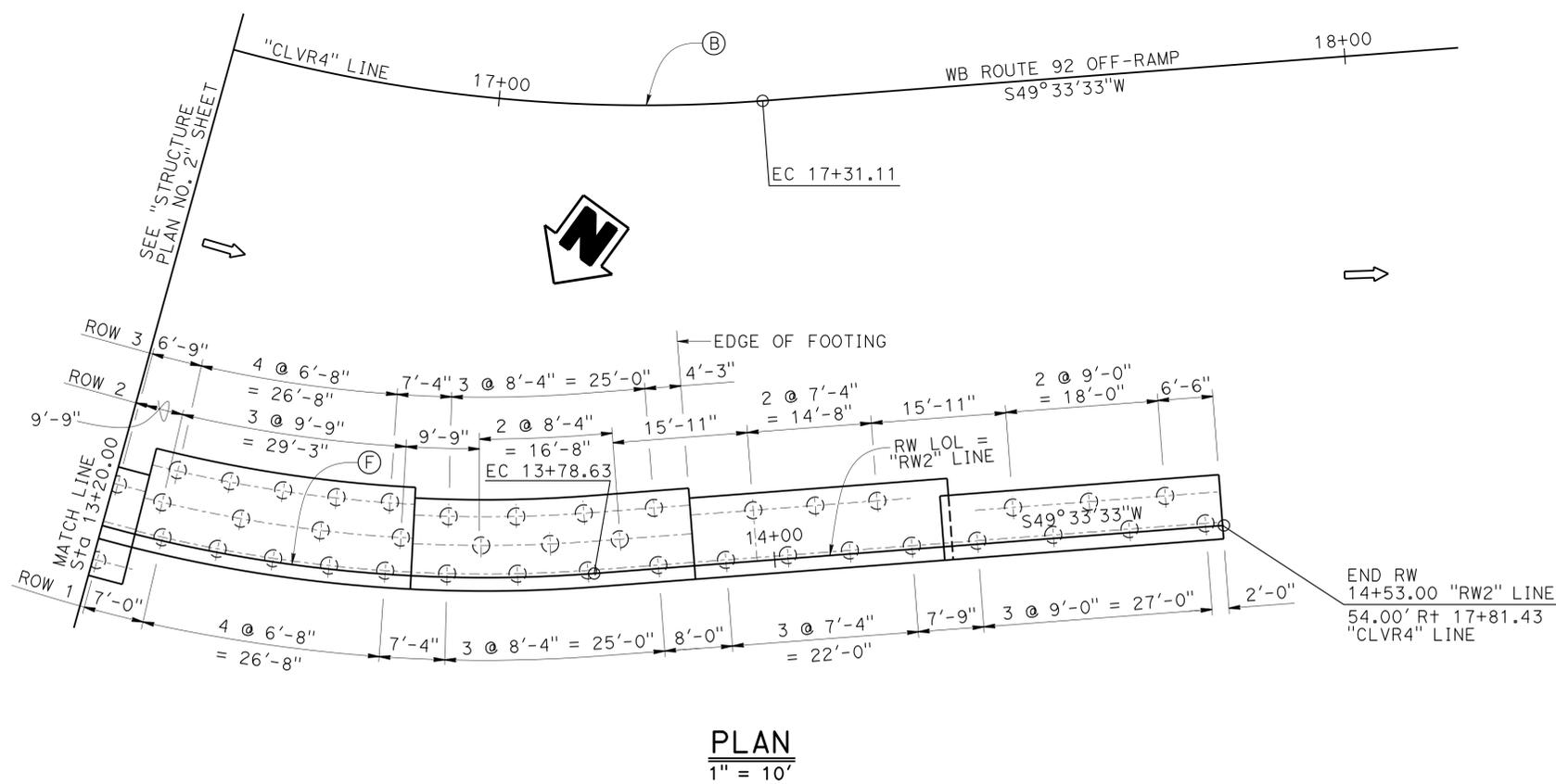
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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- NOTES:
1. Not all piles shown.
 2. Design height "H" does not equal actual wall height.
 3. All pile spacings are measured along RW LOL and placed radial to RW LOL.
 4. Modified footing, see "MODIFIED FOOTING" detail.
 5. Concrete Surface Texture not shown. For Details, see "CONCRETE SURFACE TEXTURE" sheet.

CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(B)	"CLVR4"	183.00	55°41'44"	96.68	177.89
(F)	"RW2"	169.45	23°59'47"	36.01	70.97



NOTE:
H = 14' SHOWN, H = 18', H = 16' AND H = 10' SIMILAR

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3593 PROJECT NUMBER & PHASE: 0412000496, 1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
DESIGN	BY	Keith Nakaoka	CHECKED	Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	35E0056	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 2 STRUCTURE PLAN NO. 3		
DETAILS	BY	F. Maagma / C. Cancino	CHECKED	Keith Nakaoka			POST MILE	11.0/11.5			
QUANTITIES	BY	Keith Nakaoka	CHECKED	Nora Kyo			REVISION DATES	6/18/15 05/02/16 05/05/16			
FILE => 35-wd1102-c-sp03.dgn								SHEET	5	OF	14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	352	370

Peter W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

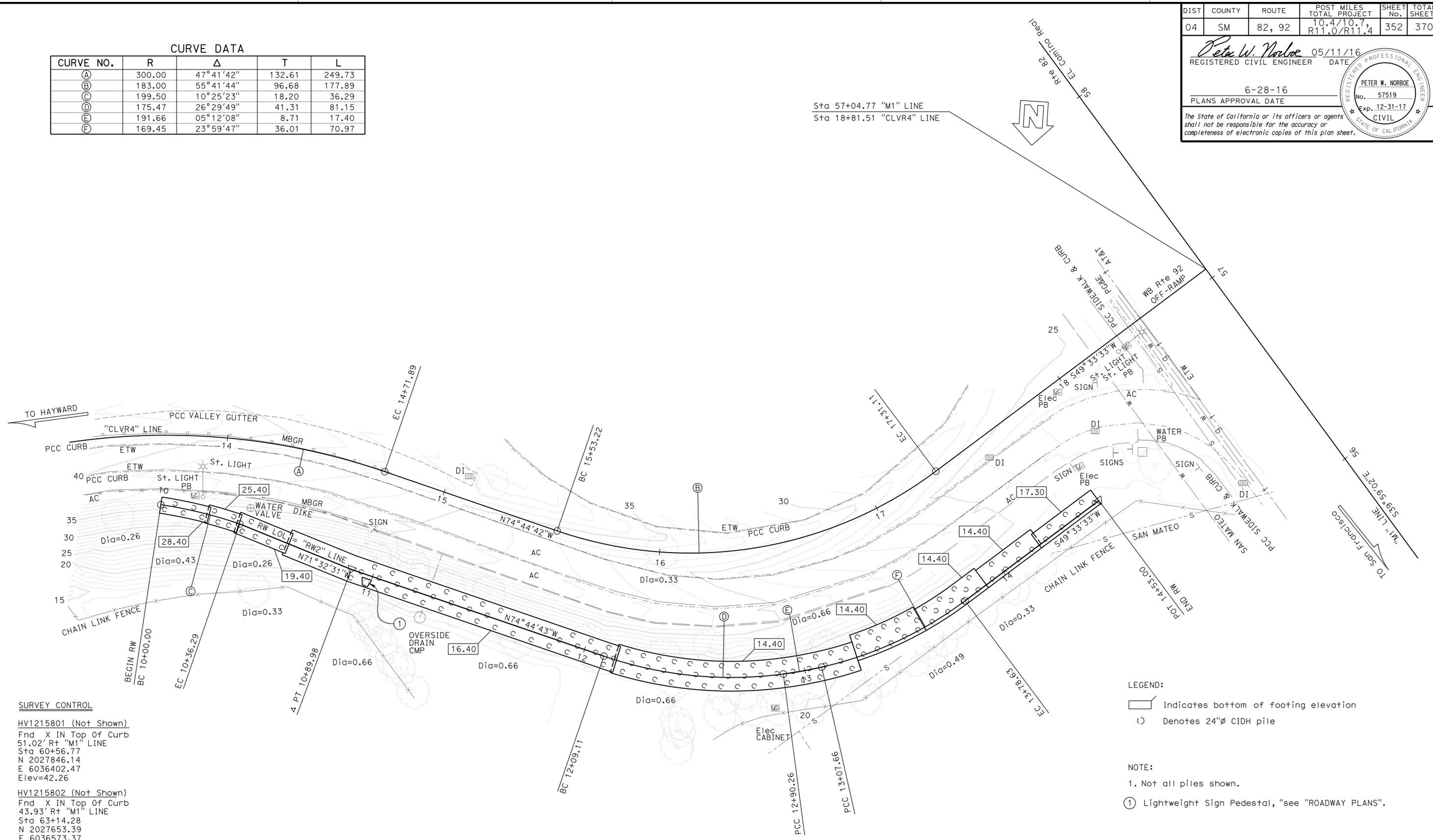
6-28-16
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

CURVE DATA

CURVE NO.	R	Δ	T	L
(A)	300.00	47°41'42"	132.61	249.73
(B)	183.00	55°41'44"	96.68	177.89
(C)	199.50	10°25'23"	18.20	36.29
(D)	175.47	26°29'49"	41.31	81.15
(E)	191.66	05°12'08"	8.71	17.40
(F)	169.45	23°59'47"	36.01	70.97



SURVEY CONTROL

HV1215801 (Not Shown)
 Fnd X IN Top Of Curb
 51.02' Rt "M1" LINE
 Sta 60+56.77
 N 2027846.14
 E 6036402.47
 Elev=42.26

HV1215802 (Not Shown)
 Fnd X IN Top Of Curb
 43.93' Rt "M1" LINE
 Sta 63+14.28
 N 2027653.39
 E 6036573.37
 Elev=20.65

LEGEND:

□ Indicates bottom of footing elevation
 () Denotes 24"Ø CIDH pile

NOTE:

1. Not all piles shown.
 ① Lightweight Sign Pedestal, "see "ROADWAY PLANS".

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 35E0056	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 2 FOUNDATION PLAN
SCALE 1"=20'	VERT. DATUM NAVD88	PHOTOGRAMMETRY AS OF: X	DETAILS BY F. Maagma / C. Cancino	CHECKED Keith Nakaoka	POST MILE 11.0-11.5				
ALIGNMENT TIES Dis+ TRAVERSE SHEET	SURVEYED BY S. ZHENG	CHECKED BY L. LEW	QUANTITIES BY Keith Nakaoka	CHECKED Nora Kyo					

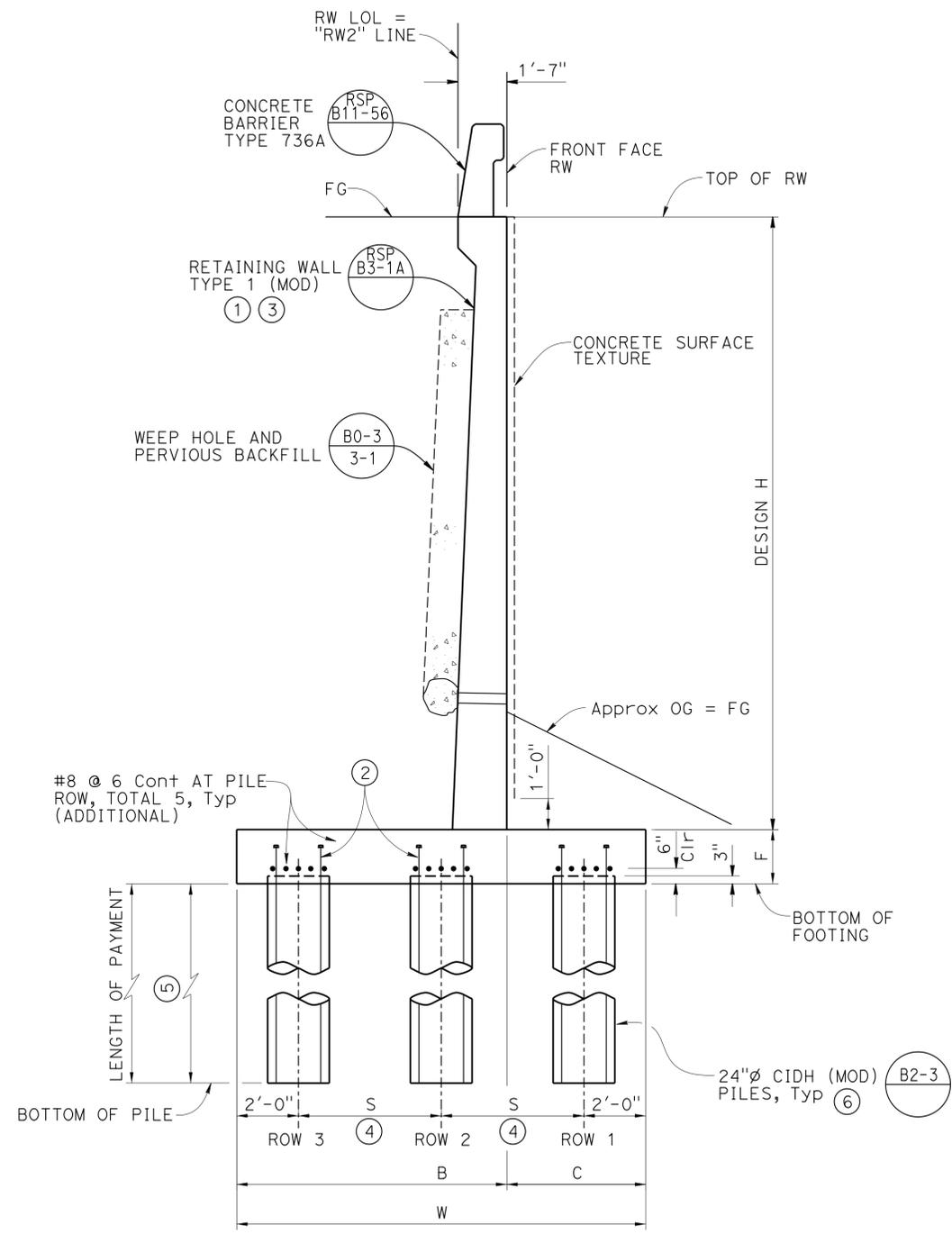
UNIT: 3593
 PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524

DATE PLOTTED => 15-JUL-2016

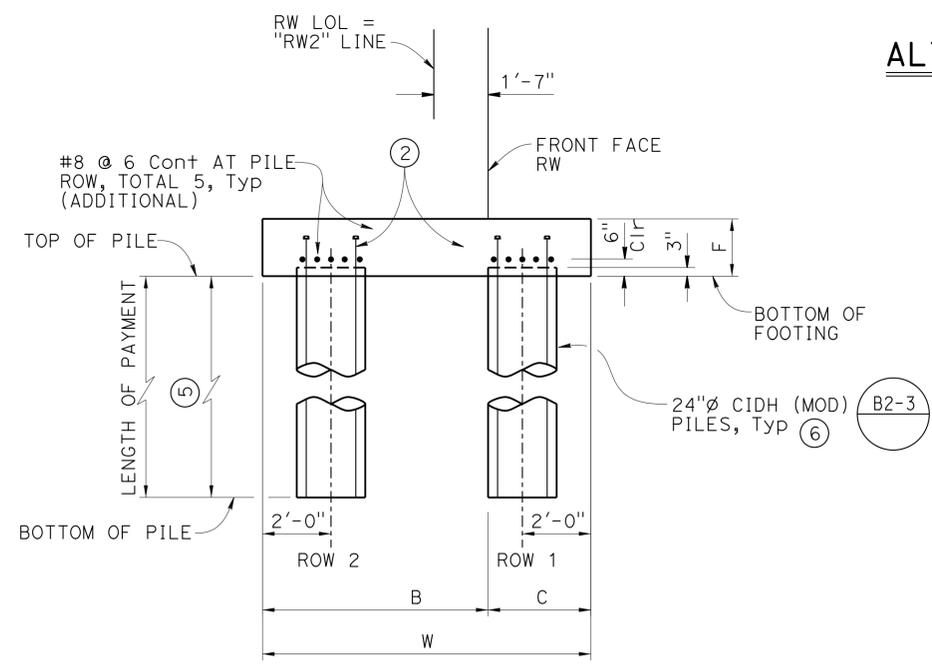
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	353	370
<i>Pete W. Norboe</i> 05/11/16 REGISTERED CIVIL ENGINEER DATE			PETER W. NORBOE No. 57519 Exp. 12-31-17 CIVIL STATE OF CALIFORNIA		
PLANS APPROVAL DATE 6-28-16					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					

NOTES:

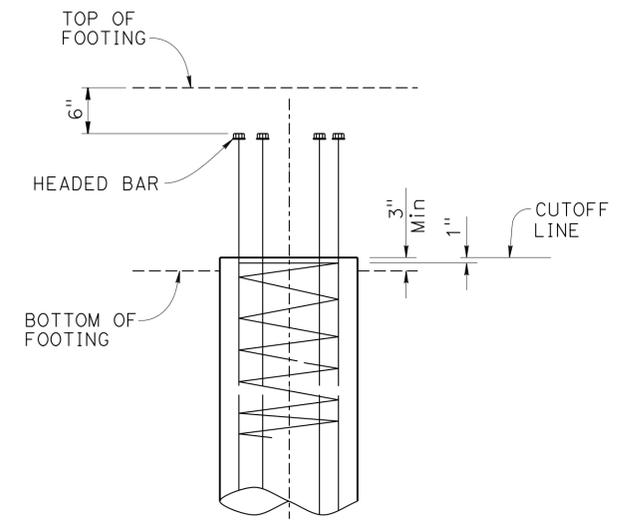
- ① Modified with piles.
- ② Use "ALTERNATIVE 24"Ø ANCHORAGE DETAILS" pile anchorage, Typ
- ③ For Retaining wall details and reinforcement not shown, see 
- ④ Spacing between rows is equal.
- ⑤ Pile length is 40'-0" unless otherwise noted.
- ⑥ Anchorage detail modified.
- ⑦ TYPICAL SECTION, H = 16' THROUGH H = 20' shown, similar for H = 8' THROUGH H = 14', except use "PILE PATTERN H = 8' THROUGH H = 14'"
- ⑧ For "MODIFIED FOOTING" location and details, see "STRUCTURE PLAN NO. 3" sheet.



H = 16' THROUGH H = 20'
TYPICAL SECTION ⑦ ⑧
 $\frac{3}{8}'' = 1'-0''$



H = 8' THROUGH H = 14'
PILE PATTERN ⑧
 No Scale



ALTERNATIVE 24"Ø ANCHORAGE DETAIL
 No Scale

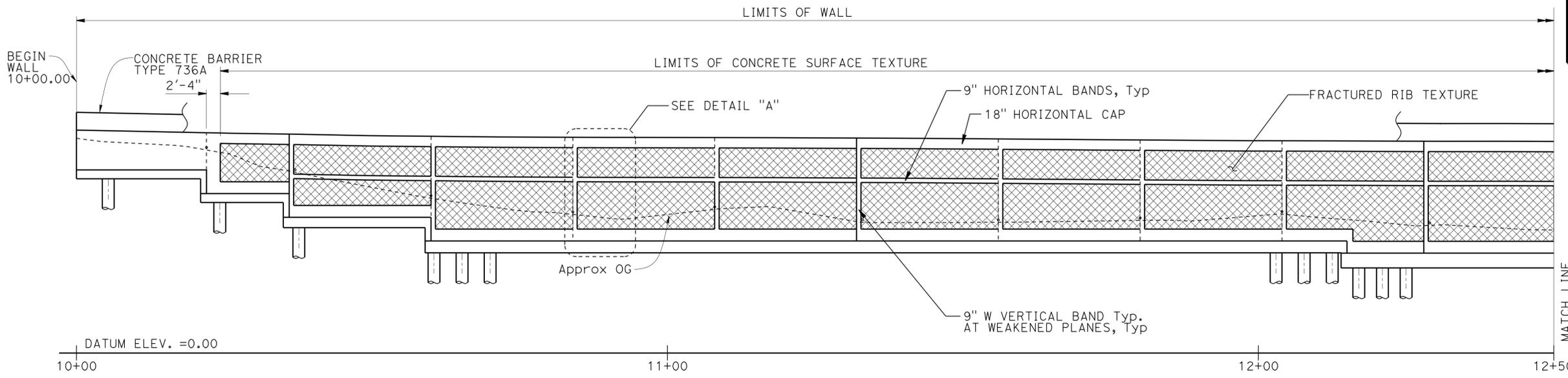
NOTE:
 For details not shown, see "TYPICAL SECTION"

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8		BRIDGE NO. 35E0056 POST MILE 11.0/11.5	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 2 TYPICAL SECTION								
DESIGN BY	Pete Norboe	CHECKED	Keith Nakaoka										
DETAILS BY	F. Maagma / C. Cancino	CHECKED	Keith Nakaoka										
QUANTITIES BY	Keith Nakaoka	CHECKED	Nora Kyo										
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3593	PROJECT NUMBER & PHASE: 0412000496, 1								
				CONTRACT NO.: 04-235524	REVISION DATES								
				DISREGARD PRINTS BEARING EARLIER REVISION DATES	<table border="1" style="font-size: small;"> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>SHEET</th> <th>OF</th> </tr> <tr> <td>6/18/15</td> <td></td> <td>7</td> <td>14</td> </tr> </table>	DATE	DESCRIPTION	SHEET	OF	6/18/15		7	14
DATE	DESCRIPTION	SHEET	OF										
6/18/15		7	14										

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	354	370

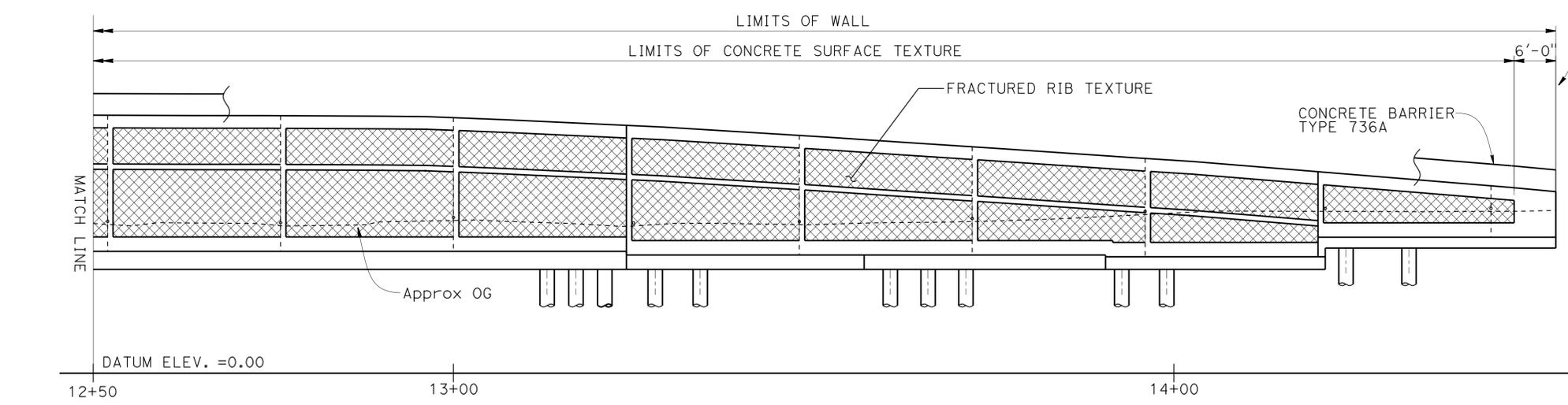
Peter W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE
 6-28-16
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

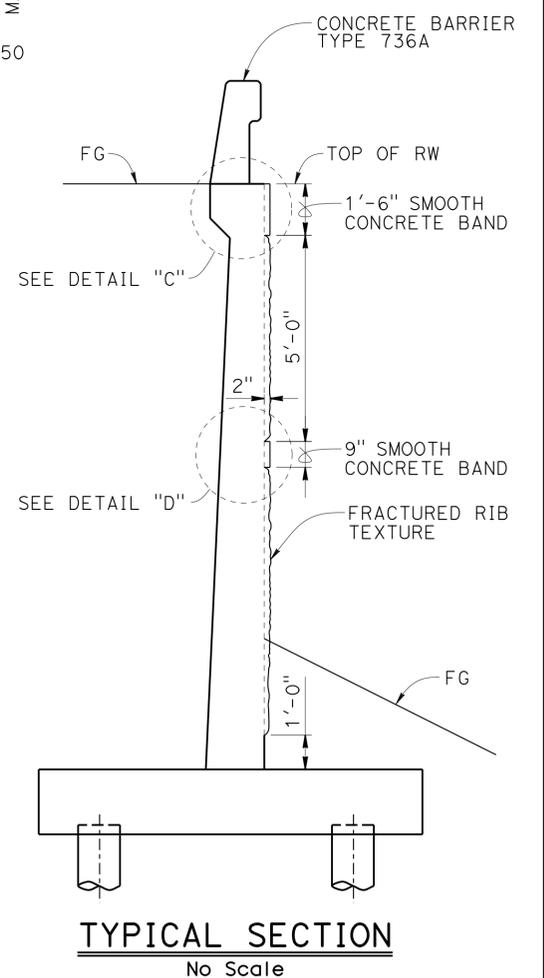


DEVELOPED ELEVATION
1" = 10'

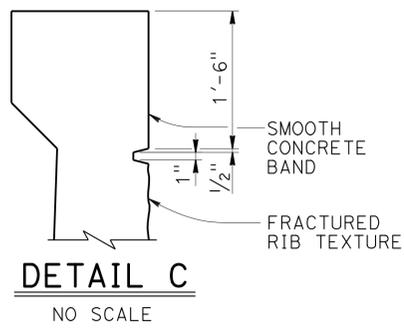
LEGEND:
 INDICATES FRACTURED RIB TEXTURE



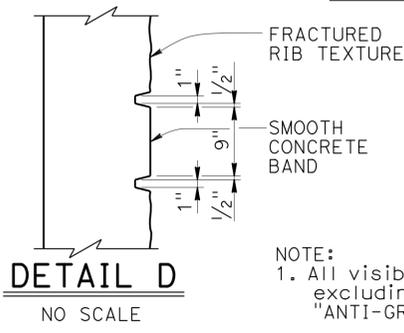
DEVELOPED ELEVATION
1" = 10'



TYPICAL SECTION
No Scale

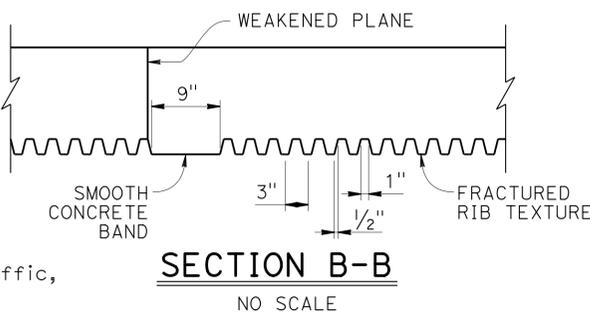


DETAIL C
NO SCALE

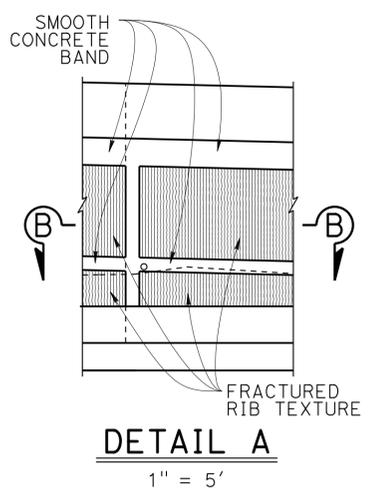


DETAIL D
NO SCALE

NOTE:
 1. All visible surfaces on side opposite of traffic, excluding barrier face to be treated with "ANTI-GRAFFITI COATING".



SECTION B-B
NO SCALE



DETAIL A
1" = 5'

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 2
CONCRETE SURFACE TEXTURE

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka
DETAILS	BY Carlo Cancino	CHECKED Keith Nakaoka
QUANTITIES	BY Keith Nakaoka	CHECKED Nora Kyo

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 8

BRIDGE NO.	35E0056
POST MILE	11.0/11.5

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	355	370

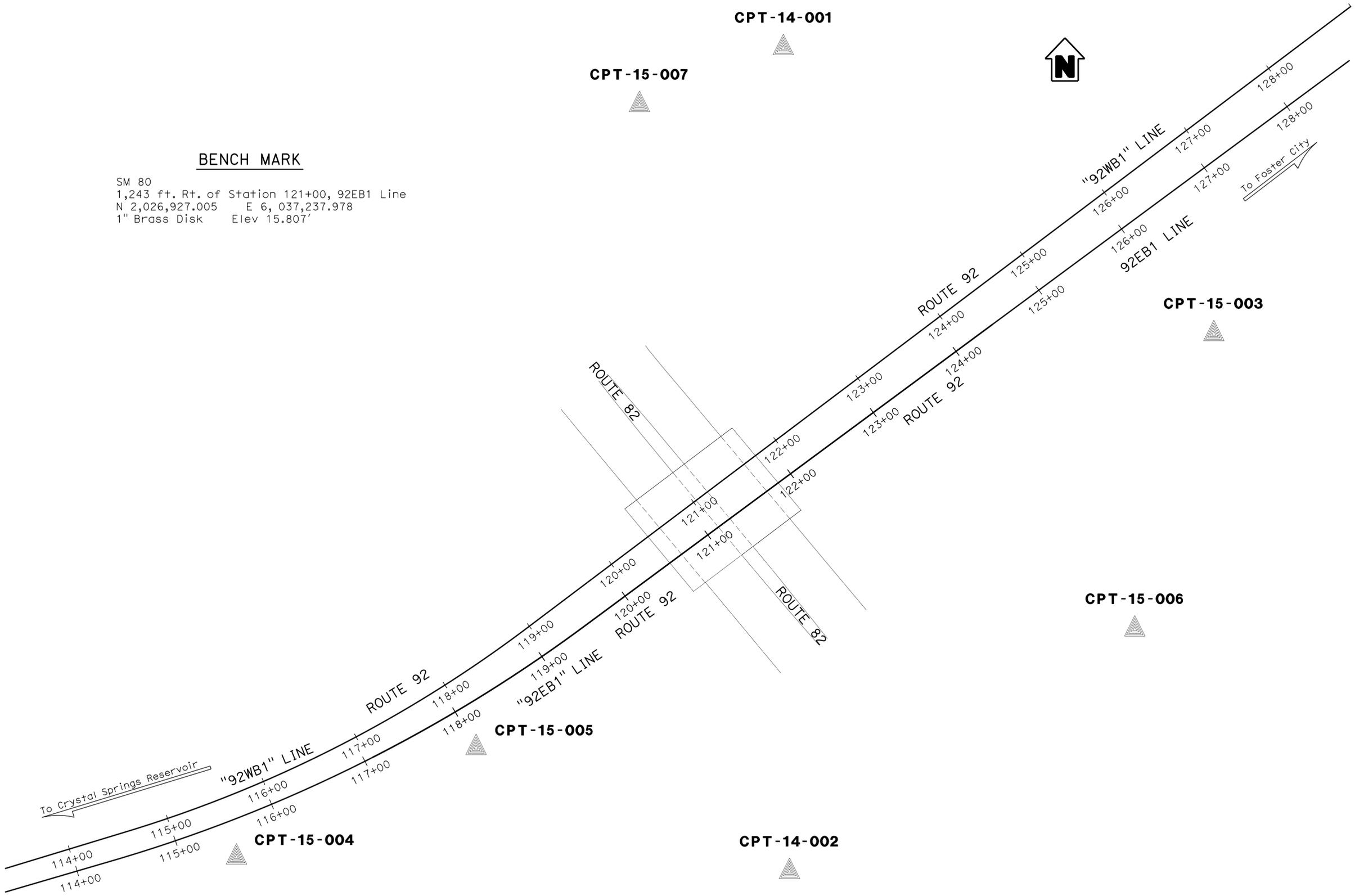
John C. Moore 06-16-15
REGISTERED CIVIL ENGINEER
6-28-16
PLANS APPROVAL DATE

John C. Moore
REGISTERED PROFESSIONAL ENGINEER
No. C61792
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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BENCH MARK

SM 80
1,243 ft. Rt. of Station 121+00, 92EB1 Line
N 2,026,927.005 E 6,037,237.978
1" Brass Disk Elev 15.807'



PLAN
1"=50'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		35E0056		LOG OF TEST BORINGS 1 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		POST MILES		REVISION DATES	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		11.0/11.5 10.3/10.7		SHEET OF	
						CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES		9 14	

FILE => 35-wal102-p-lotb1of6.dgn
DATE PLOTTED => 15-JUL-2016
TIME PLOTTED => 11:27
USERNAME => s130819

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	356	370

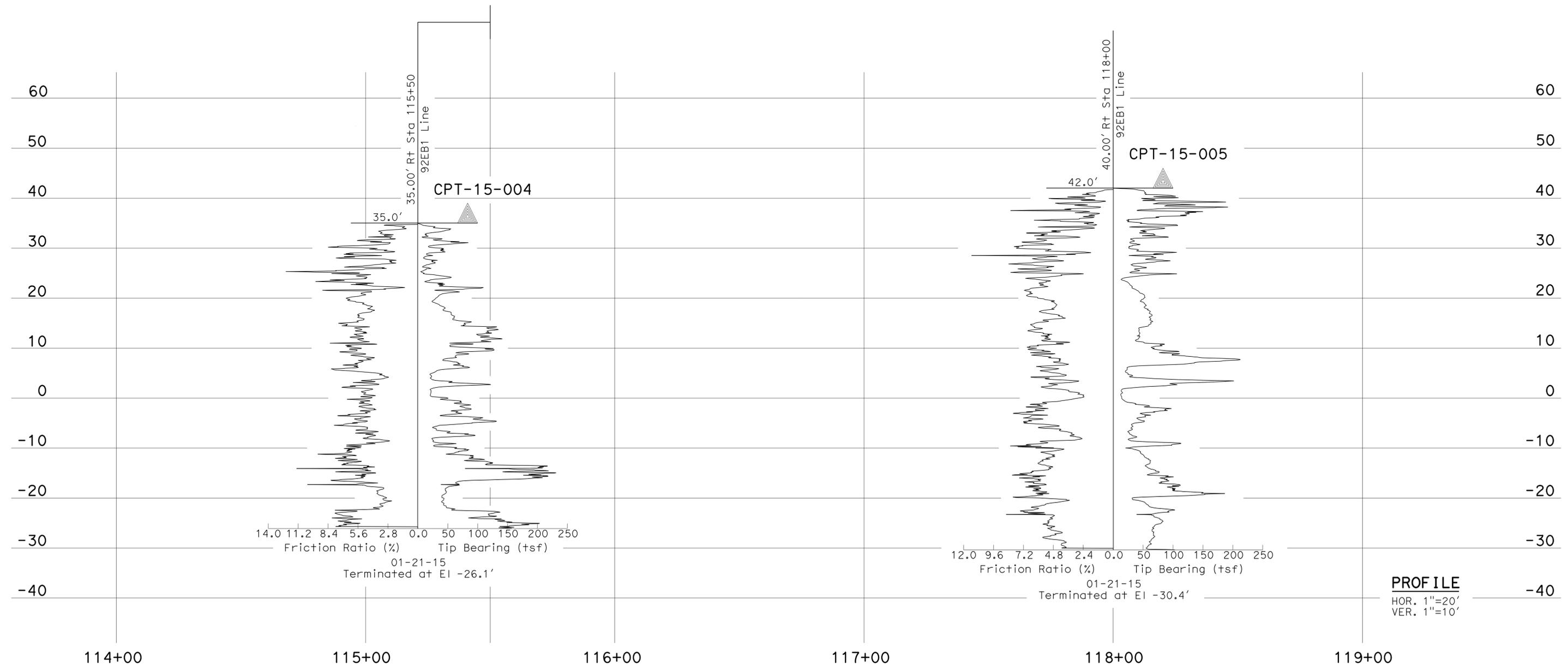
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

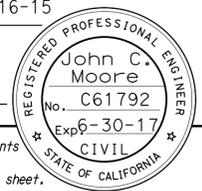
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0056		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES 11.0/11.5		LOG OF TEST BORINGS 2 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		10.3/10.7		SHEET 10 OF 14	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES		06-23-15	

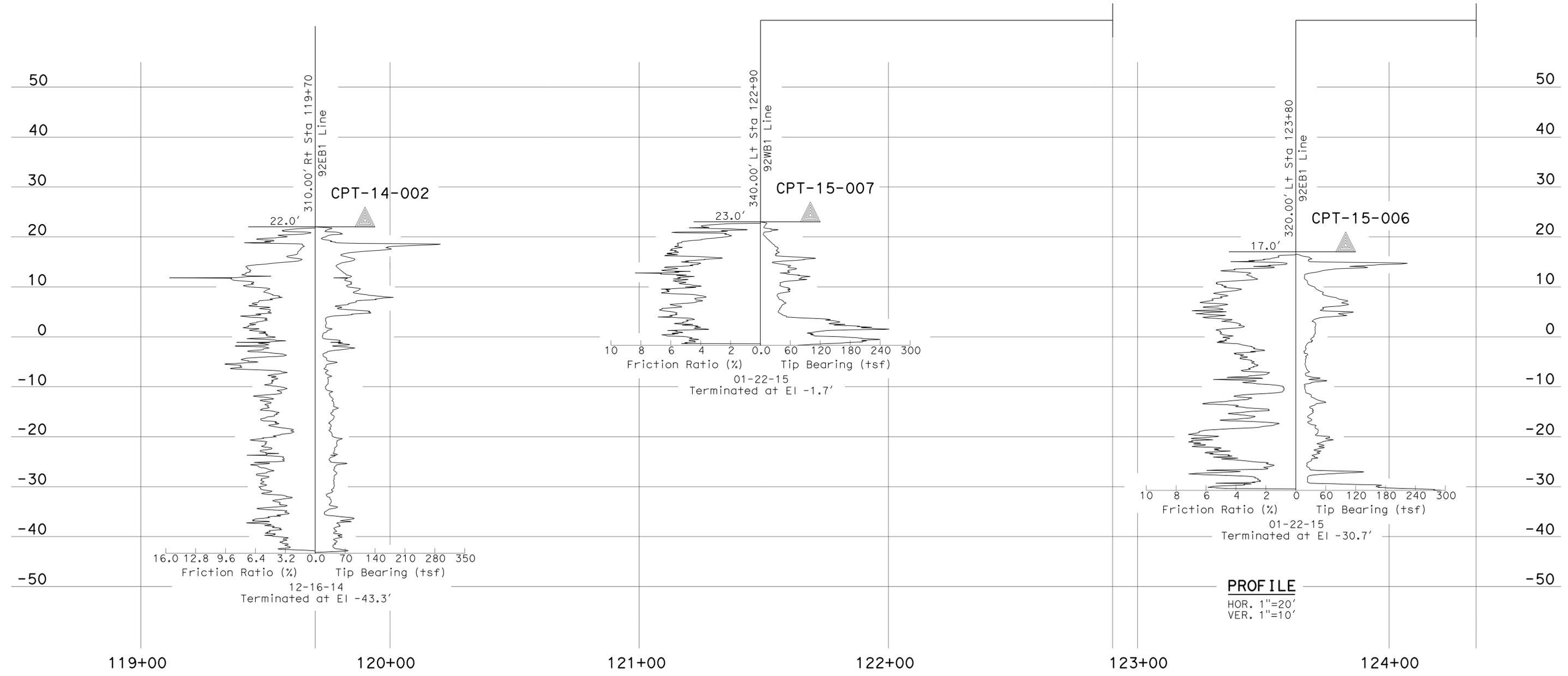
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	357	370
<i>John C. Moore</i> 06-16-15 REGISTERED CIVIL ENGINEER					
6-28-16 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0056		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		FIELD INVESTIGATION BY: J. Moore		OFFICE OF GEOTECHNICAL		POST MILES 11.0/11.5		LOG OF TEST BORINGS 3 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt				DESIGN BRANCH		10.3/10.7		SHEET 11 OF 14	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES		DATE PLOTTED => 15-JUL-2016	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	358	370

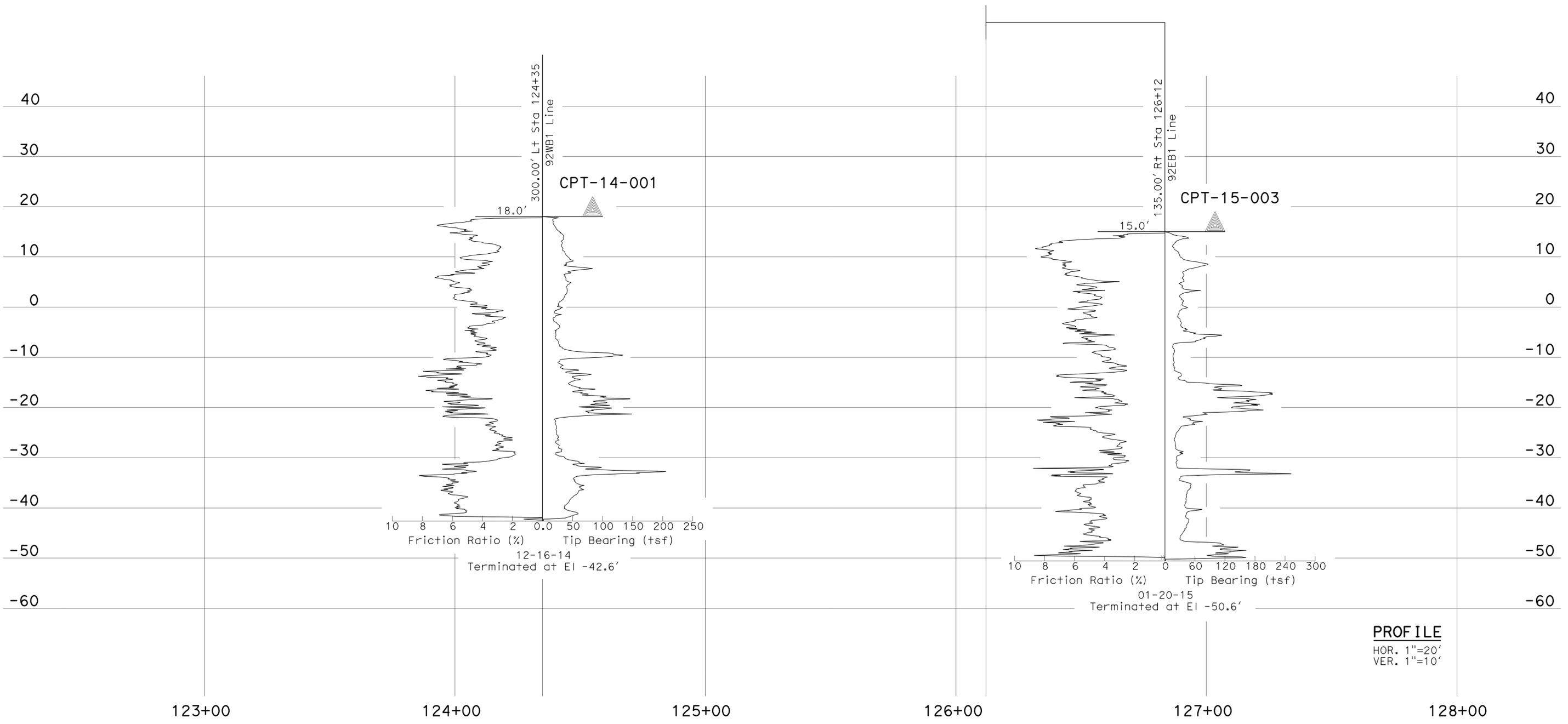
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



PROFILE
 HOR. 1"=20'
 VER. 1"=10'

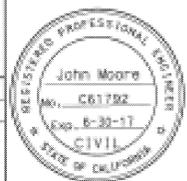
123+00 124+00 125+00 126+00 127+00 128+00

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 35E0056		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES 11.0/11.5		LOG OF TEST BORINGS 4 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		10.3/10.7		SHEET 12 OF 14	
O&S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES		SHEET 12 OF 14	

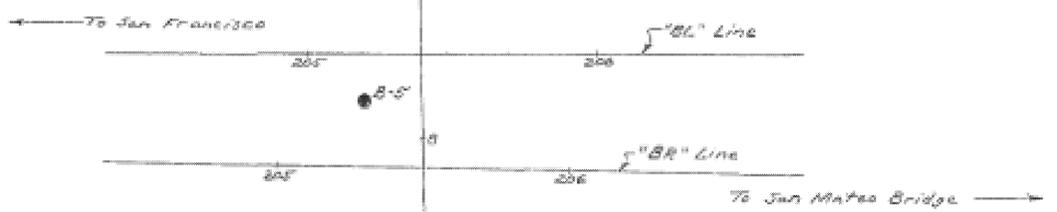
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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.74	359	370

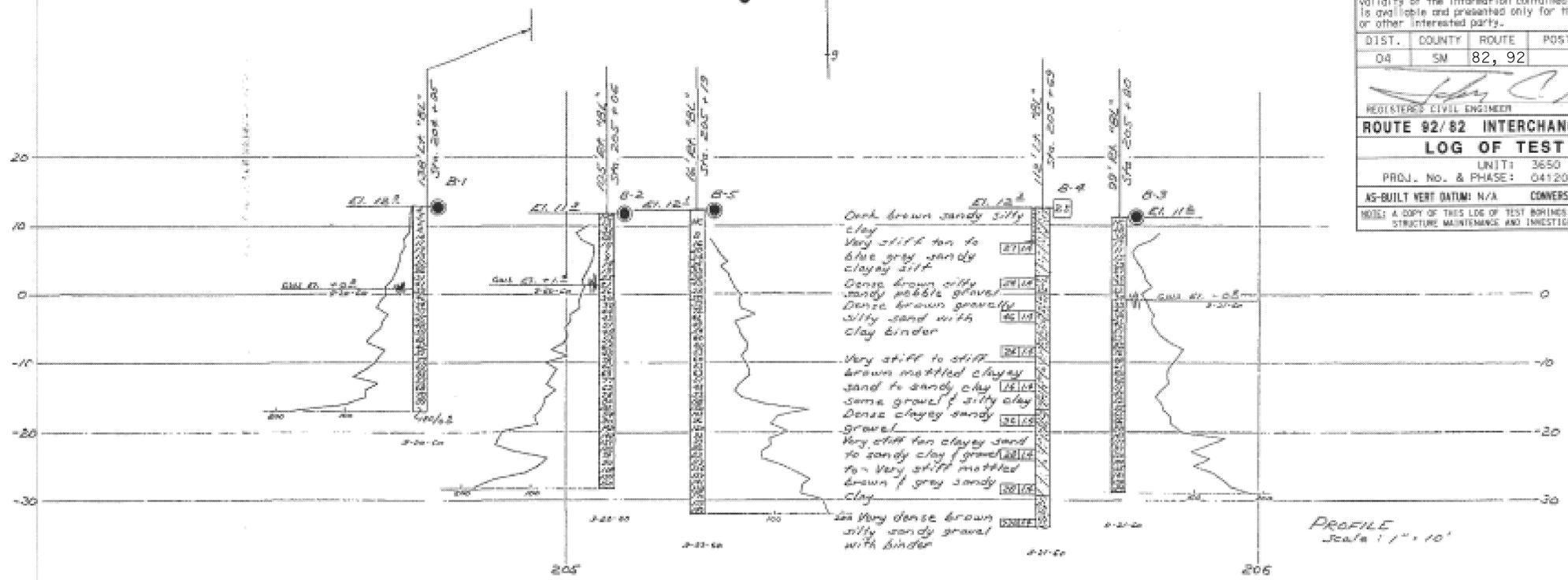
DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES
 As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.
 July 29, 1961



BM "A" RR Spike in J.P.
 25' Bx "PA" 9 + 05"
 Elev. 12.40



PLAN Scale: 1" = 30'

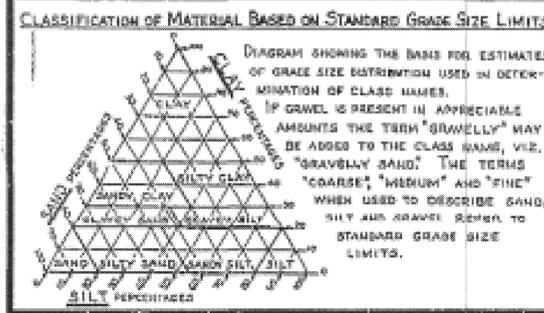


PROFILE Scale: 1" = 10'

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES					
As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.74	359	370
REGISTERED CIVIL ENGINEER John C. Moore 5/19/25 DATE					
ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT					
LOG OF TEST BORINGS 5 OF 6					
UNITS: 3650		CONTRACT NO.:		BRIDGE NO.:	
PROJ. No. & PHASE: 04120004961		04-235524		N/A	
AS-BUILT VERT DATUM: N/A		CONVERSION: N/A		Sheet of	
NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA				13 14	

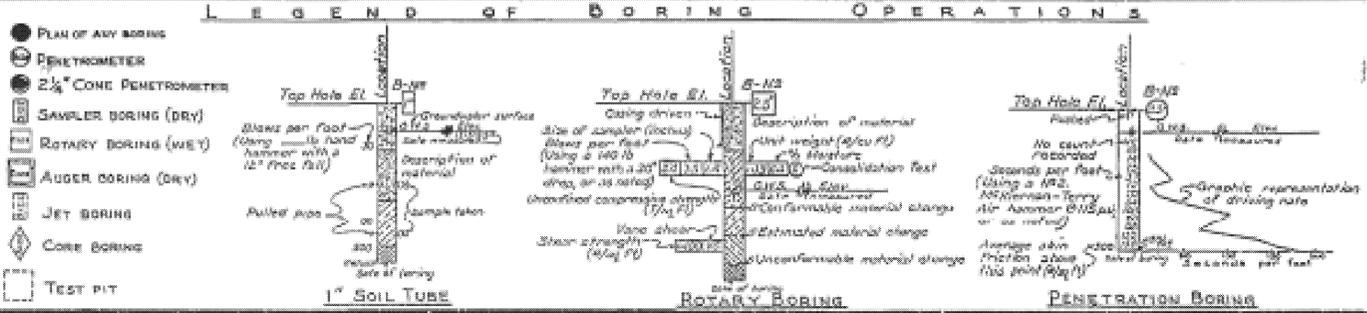
AS BUILT PLANS
 Contract No. 62-4713(3)
 Date Completed _____
 Document No. 4000 2471

DRAWN BY: J. P. ...
 CHECKED BY: ...
 APPROVED BY: ...



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT AND/OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK



NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

PALM AVENUE UNDERCROSSING

LOG OF TEST BORINGS

SCALE As Noted BRIDGE 35-150 FILE DRAWING 3-100-6
 50160-8 kly FR-6462

39

July 24, 1961

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
04	SM	92	19.8/21.4	360	370

REGISTERED CIVIL ENGINEER: *John C. Moore* 6/19/65

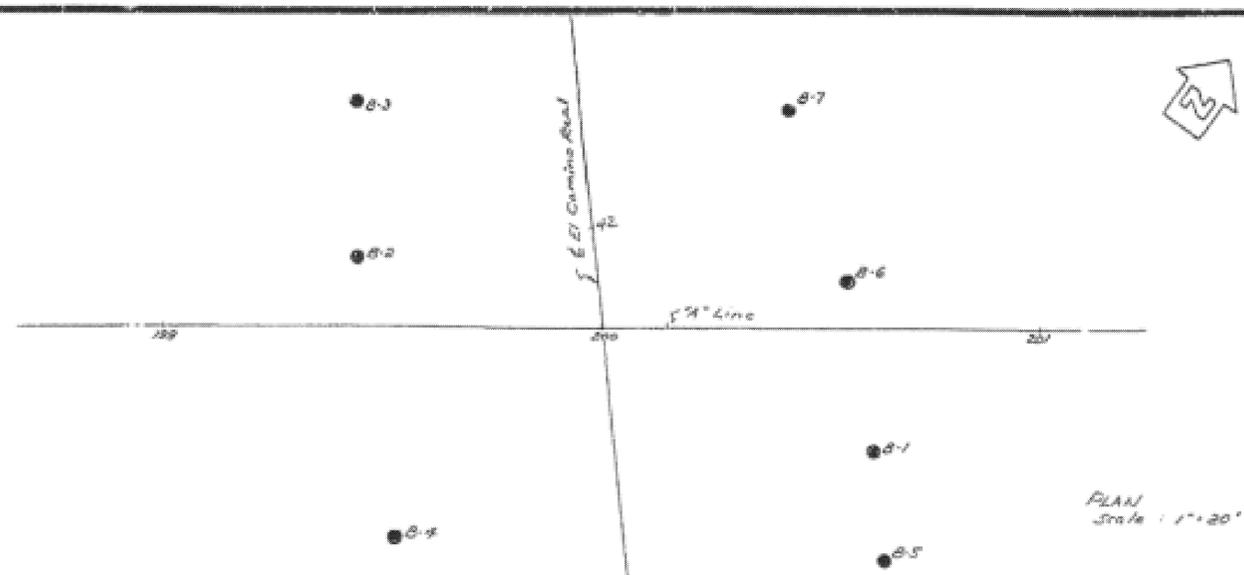
ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT

LOG OF TEST BORINGS 6 OF 8

UNIT: 3650	CONTRACT No.:	BRIDGE No.:
PROJ. No. & PHASE: 04120004961	04-235524	N/A

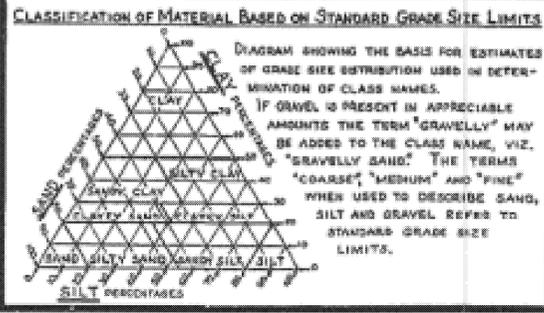
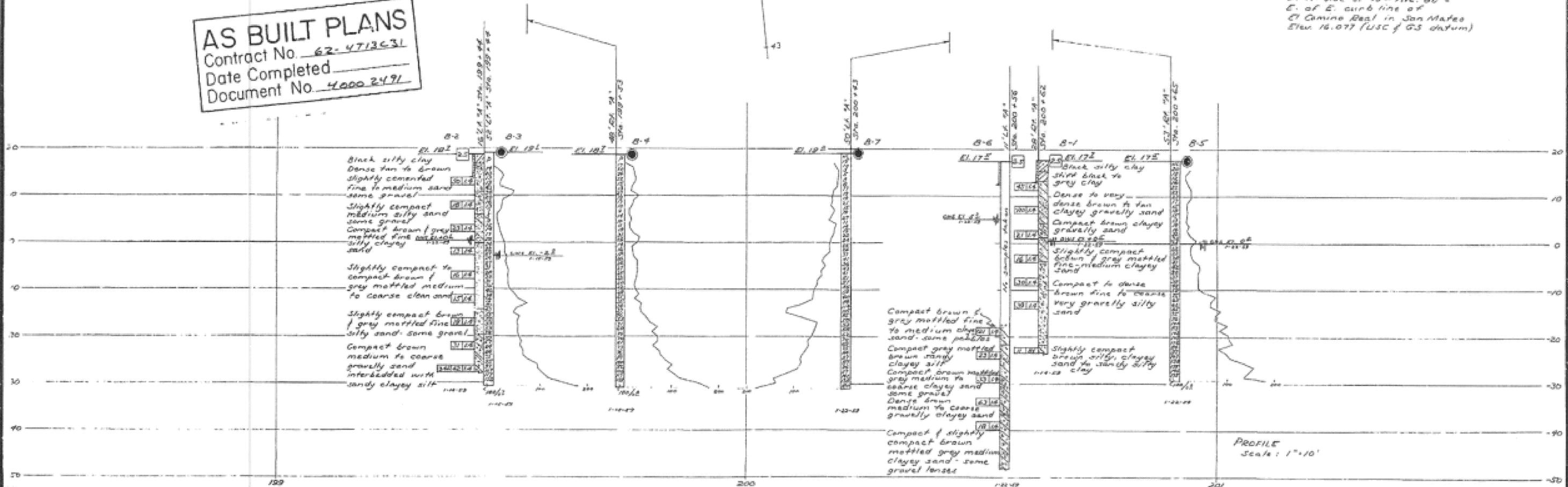
AS-BUILT VERT DATUM: N/A CONVERSION: N/A Sheet of 14 14

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA



AS BUILT PLANS
 Contract No. 62-4713631
 Date Completed _____
 Document No. 4000 2491

BM "SM 92" Nail set in sidewalk on N. side of 19th Ave. 88' E. of E. curb line of El Camine Real in San Mateo Elev. 16.077 (USC of GS datum)



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT 4% OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- PLACE OF ANY BORING
- ⊙ PENETROMETER
- ⊙ 2 1/4" CONE PENETROMETER
- ⊙ SAMPLER BORING (DRY)
- ⊙ ROTARY BORING (WET)
- ⊙ AUGER BORING (DRY)
- ⊙ JET BORING
- ⊙ CORE BORING
- TEST PIT

1" SOIL TUBE
 Shows casing, sampler, and soil sample details.

ROTARY BORING
 Shows casing, sampler, and soil sample details.

PENETRATION BORING
 Shows casing, sampler, and soil sample details.

NOTES

The contractor's attention is directed to Section 2, Article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

ROUTE 92/82 SEPARATION
 -ROUTE 105/2 SEPARATION

LOG OF TEST BORINGS

SCALE: As Noted BRIDGE 35-156 FILE E-35 DRAWING 35150-13

BRIDGE DEPARTMENT

John C. Moore

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	361	370

Pete W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

6-28-16
 PLANS APPROVAL DATE

PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

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GENERAL NOTES

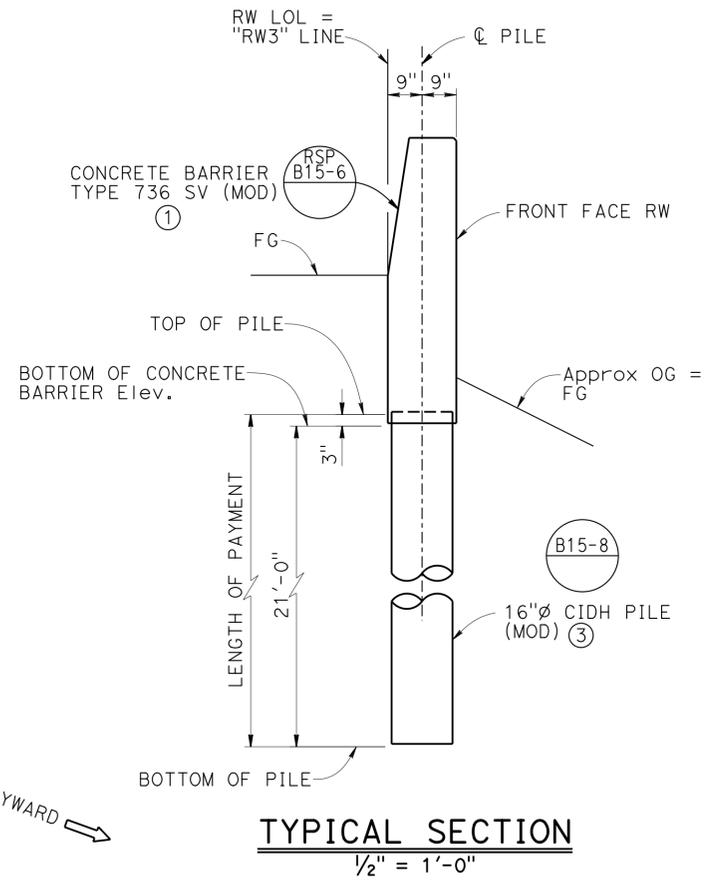
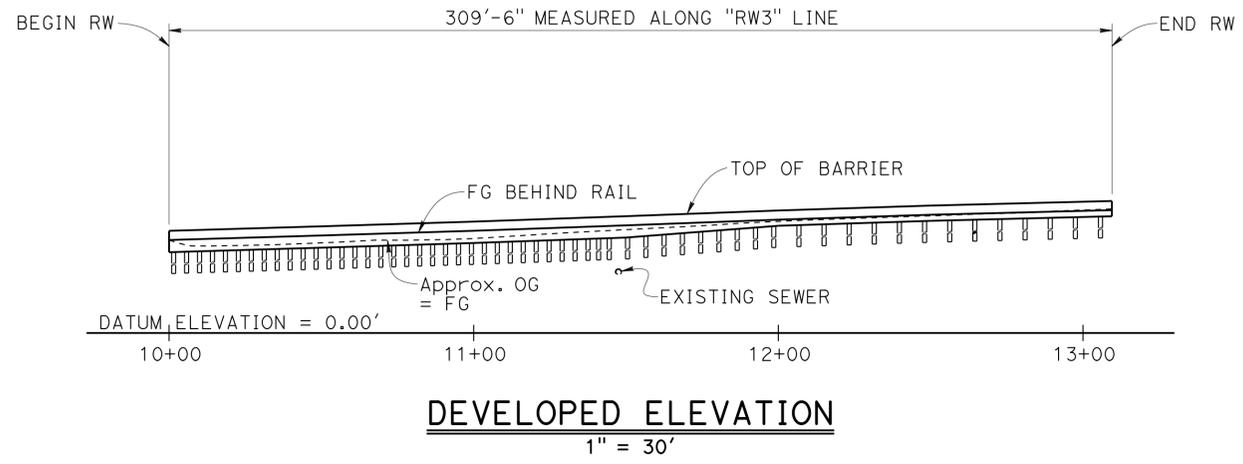
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN : AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th Edition and California Amendments, dated January 2014

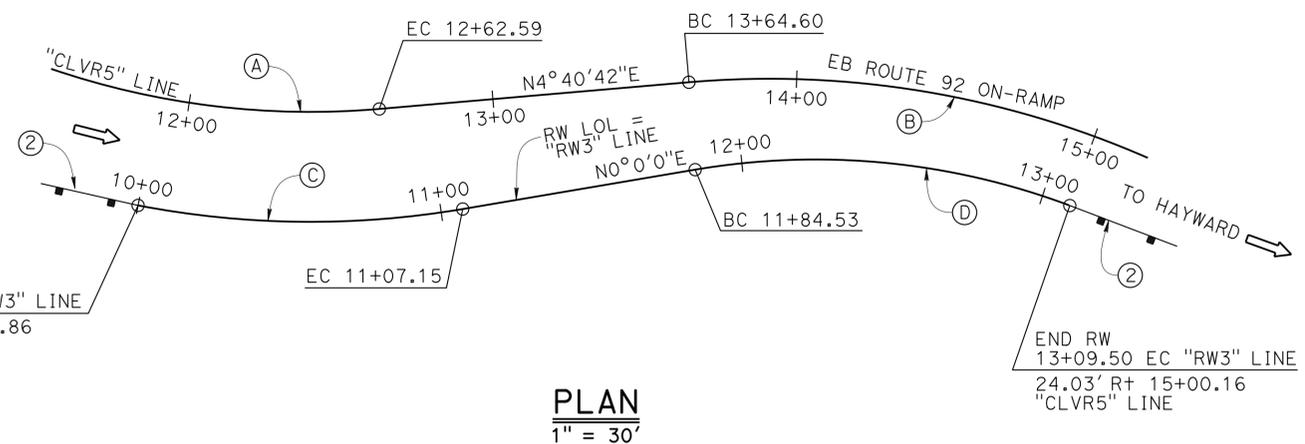
For additional Design Notes, see RSP B15-7

QUANTITIES

16" CAST-IN-DRILLED-HOLE CONCRETE PILING	1,212	LF
CONCRETE BARRIER (TYPE 736SV MODIFIED)	310	LF



- NOTES:
- ① Modified with no Soundwall.
 - ② MGS, see "ROADWAY PLANS"
 - ③ Modified pile length.



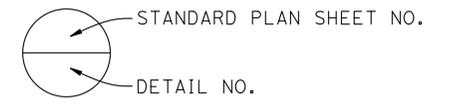
CURVE DATA					
CURVE NO.	LINE	R	Δ	T	L
(A)	"CLVR5"	264.00	45°33'26"	110.86	209.91
(B)	"CLVR5"	310.00	44°41'09"	127.41	241.77
(C)	"RW3"	300.00	20°27'51"	54.15	107.15
(D)	"RW3"	237.82	30°06'28"	63.96	124.97

INDEX TO PLANS

SHEET NO	TITLE
1	GENERAL PLAN
2	STRUCTURE PLAN NO. 1
3	STRUCTURE PLAN NO. 2
4	FOUNDATION PLAN
5	LOG OF TEST BORINGS 1 OF 6
6	LOG OF TEST BORINGS 2 OF 6
7	LOG OF TEST BORINGS 3 OF 6
8	LOG OF TEST BORINGS 4 OF 6
9	LOG OF TEST BORINGS 5 OF 6
10	LOG OF TEST BORINGS 6 OF 6

STANDARD PLANS DATED 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP 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)
RSP A10F	LEGEND - SOIL (SHEET 1 OF 2)
RSP A10G	LEGEND - SOIL (SHEET 2 OF 2)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL CONCRETE BARRIER TYPE 736
RSP B11-56	CONCRETE BARRIER TYPE 736
RSP B15-6	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (1)
RSP B15-7	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (2)
B15-8	SOUND WALL MASONRY BLOCK ON TYPE 736S/SV BARRIER DETAILS (3)



NOTE:
 For MGS connection details and barrier top and face transitions, see RSP B11-56.

HØGNI SETBERG DESIGN ENGINEER	DESIGN	By Pete Norboe	CHECKED Keith Nakaaka	LOAD & RESISTANCE FACTOR DESIGN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. N/A	IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 3 GENERAL PLAN	
	DETAILS	By F. Maagma / C. Cancino	CHECKED Keith Nakaaka	LAYOUT		By Pete Norboe	CHECKED Keith Nakaaka		POST MILE 11.0/11.5
	QUANTITIES	By David Romero	CHECKED Fares Thwabah	SPECIFICATIONS		By Kevin Ellingson	CHECKED PLANS AND SPECS COMPARED Pete Norboe		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT: 3593 PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES	SHEET 1 OF 10

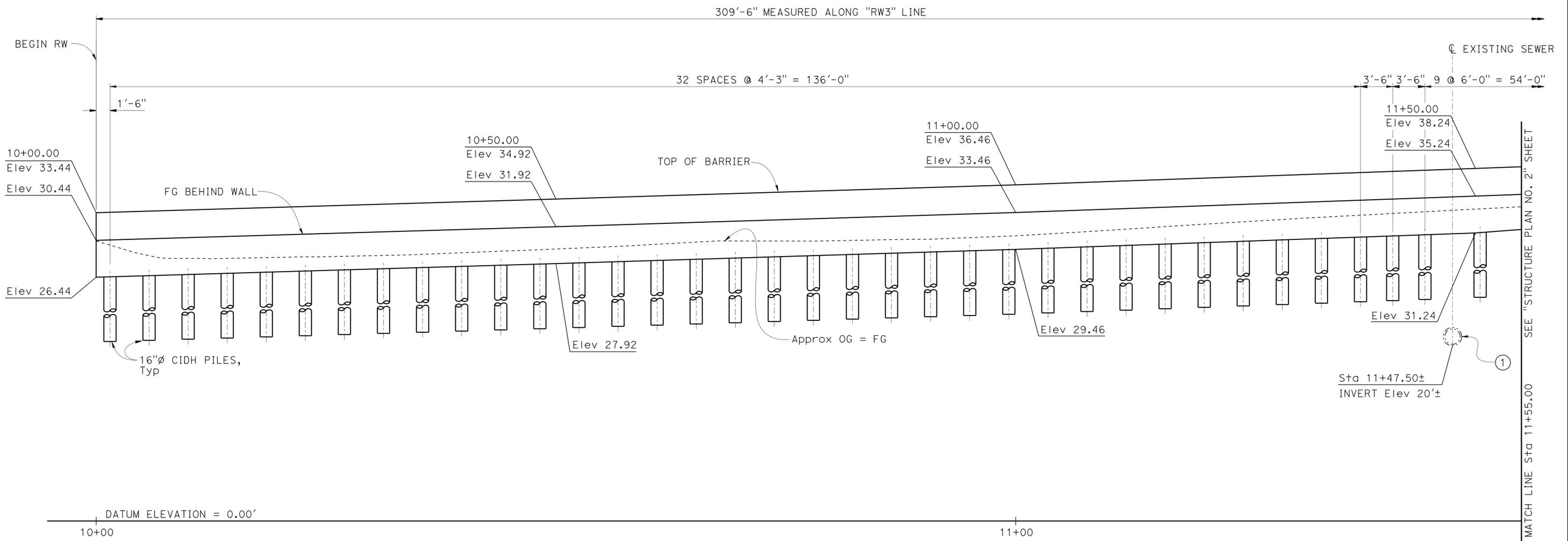
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	362	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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DEVELOPED ELEVATION
 $\frac{3}{16}'' = 1'-0''$

NOTE:
① Existing sewer line to be verified by Contractor before drilling. Dimensions and elevations shown are approximate. Adjacent piles may be relocated to center the sewer line between the piles.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8		BRIDGE NO. N/A POST MILE 11.0/11.5		IMPROVE 92/82 INTERCHANGE RETAINING WALL NO. 3 STRUCTURE PLAN NO. 1		
DESIGN	BY	Keith Nakaoka	CHECKED	Keith Nakaoka	PROJECT NUMBER & PHASE:	0412000496, 1	CONTRACT NO.:	04-235524	REVISION DATES	SHEET	OF	
DETAILS	BY	F. Maagma / C. Cancino	CHECKED	Keith Nakaoka	UNIT:	3593	DISREGARD PRINTS BEARING EARLIER REVISION DATES	6/18/15	05/04/16	02/27/16	2	10
QUANTITIES	BY	David Romero	CHECKED	Fares Thwabah	FILE =>	35-wd1103-b-sp01.dgn						

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	363	370

Pete W. Norboe 05/11/16
REGISTERED CIVIL ENGINEER DATE

6-28-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
PETER W. NORBOE
No. 57519
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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309'-6" MEASURED ALONG "RW3" LINE

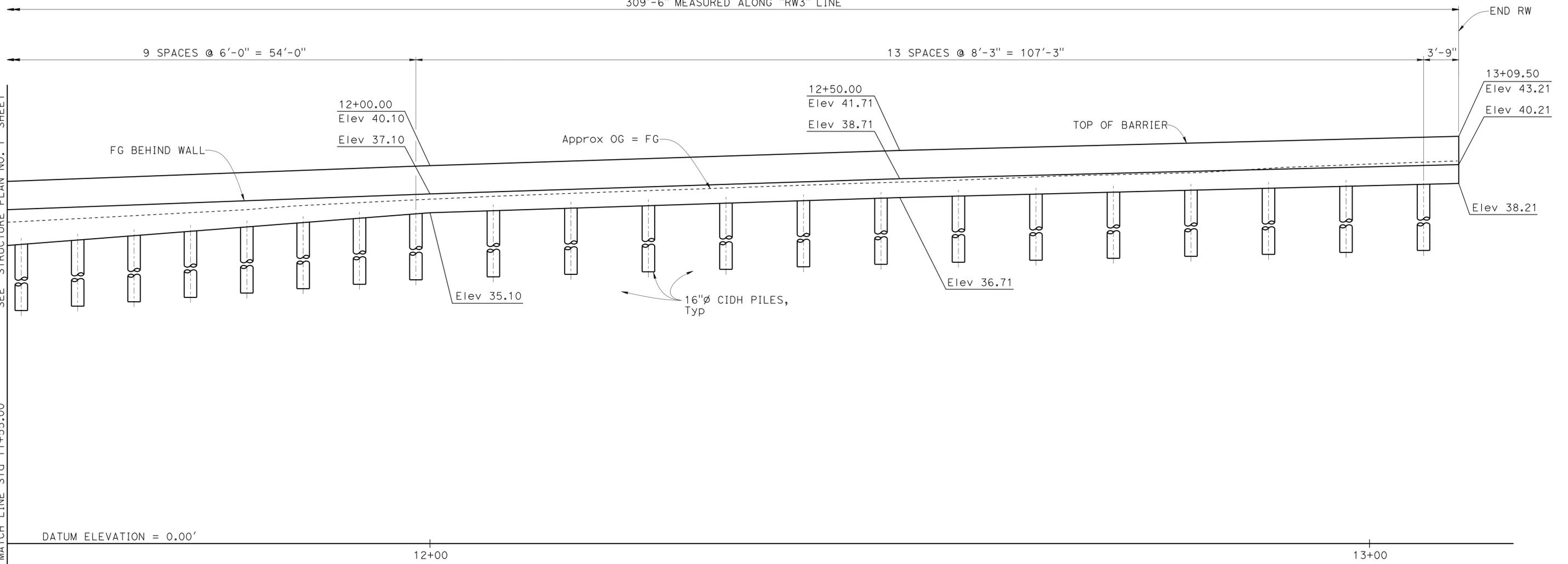
9 SPACES @ 6'-0" = 54'-0"

13 SPACES @ 8'-3" = 107'-3"

3'-9"

SEE "STRUCTURE PLAN NO. 1" SHEET

MATCH LINE Sta 11+55.00



DATUM ELEVATION = 0.00'

12+00

13+00

DEVELOPED ELEVATION
 $\frac{3}{16}'' = 1'-0''$

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 3
STRUCTURE PLAN NO. 2

DESIGN	BY Pete Norboe	CHECKED Keith Nakaoka
DETAILS	BY F. Maagma / C. Cancino	CHECKED Keith Nakaoka
QUANTITIES	BY David Romero	CHECKED Fares Thwabah

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

BRIDGE NO.	N/A
POST MILE	11.0/11.5

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3593
PROJECT NUMBER & PHASE: 0412000496, 1 CONTRACT NO.: 04-235524

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
6/18/15	3	10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	364	370

Peter W. Norboe 05/11/16
 REGISTERED CIVIL ENGINEER DATE

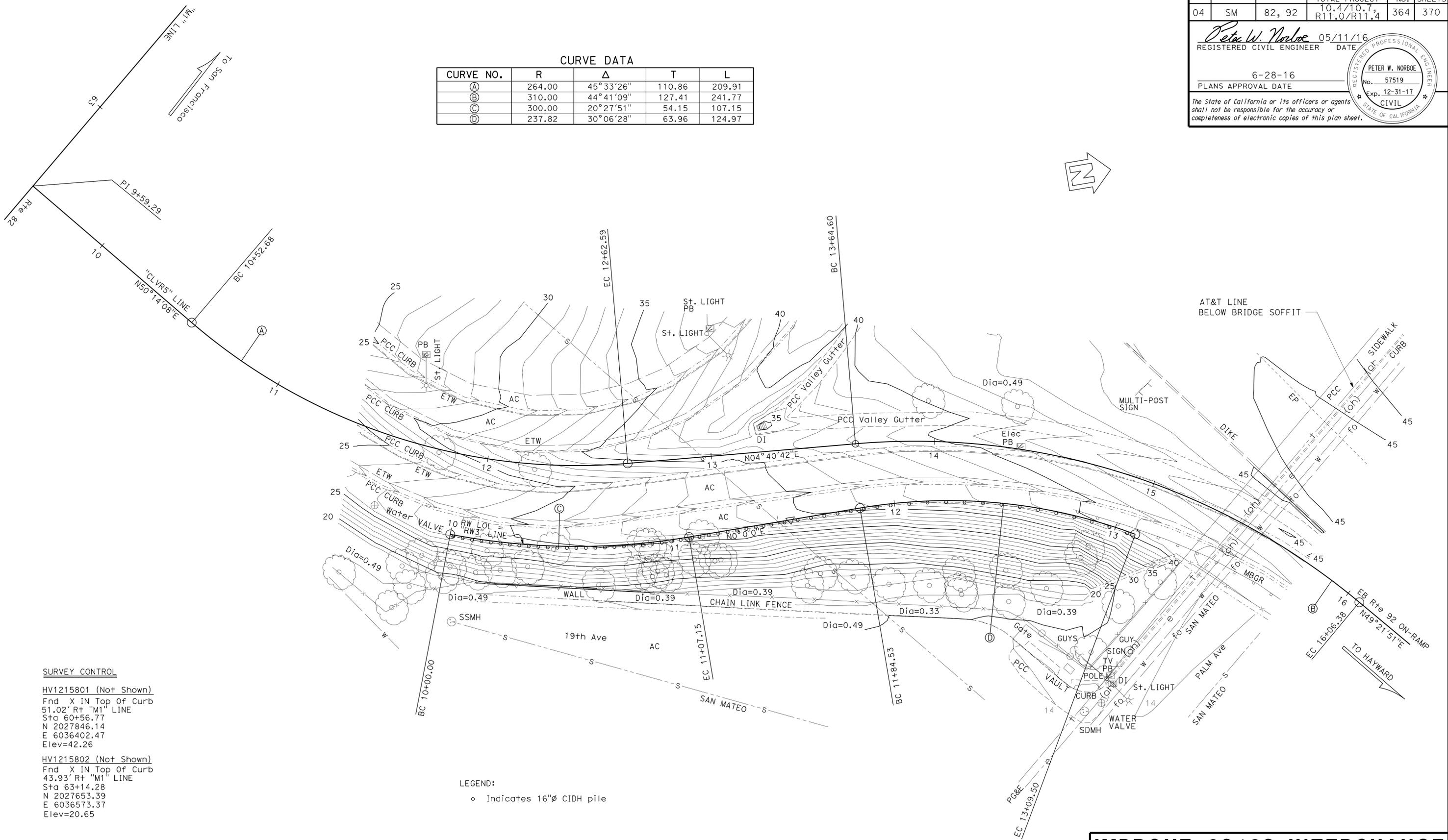
6-28-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 PETER W. NORBOE
 No. 57519
 Exp. 12-31-17
 CIVIL
 STATE OF CALIFORNIA

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CURVE DATA

CURVE NO.	R	Δ	T	L
(A)	264.00	45° 33' 26"	110.86	209.91
(B)	310.00	44° 41' 09"	127.41	241.77
(C)	300.00	20° 27' 51"	54.15	107.15
(D)	237.82	30° 06' 28"	63.96	124.97



SURVEY CONTROL

HV1215801 (Not Shown)
 Fnd X IN Top Of Curb
 51.02' R+ "M1" LINE
 Sta 60+56.77
 N 2027846.14
 E 6036402.47
 Elev=42.26

HV1215802 (Not Shown)
 Fnd X IN Top Of Curb
 43.93' R+ "M1" LINE
 Sta 63+14.28
 N 2027653.39
 E 6036573.37
 Elev=20.65

LEGEND:
 ○ Indicates 16"Ø CIDH pile

IMPROVE 92/82 INTERCHANGE
RETAINING WALL NO. 3
FOUNDATION PLAN

PRELIMINARY INVESTIGATION SECTION				DESIGN BY Pete Norboe	CHECKED Keith Nakaoka	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. N/A
SCALE 1"=20'	VERT. DATUM NAVD88	PHOTOGRAMMETRY AS OF: X	DETAILS BY Carlo Cancino	CHECKED Keith Nakaoka	PROJECT NUMBER & PHASE: 0412000496, 1		DESIGN BRANCH 8	POST MILE 11.0/11.5
ALIGNMENT TIES Dis+ TRAVERSE SHEET	DRAFTED BY S. ZHENG	CHECKED BY L. LEW	QUANTITIES BY David Romero	CHECKED Fares Thwabab	CONTRACT NO.: 04-235524			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3593
 PROJECT NUMBER & PHASE: 0412000496, 1
 CONTRACT NO.: 04-235524

SUBMITTAL DATE	REVISION DATES	SHEET	OF
6/24/2015	4/13/16, 03/27/16, 05/04/16	4	10

USERNAME => s130819 DATE PLOTTED => 15-JUL-2016 TIME PLOTTED => 11:28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	365	370

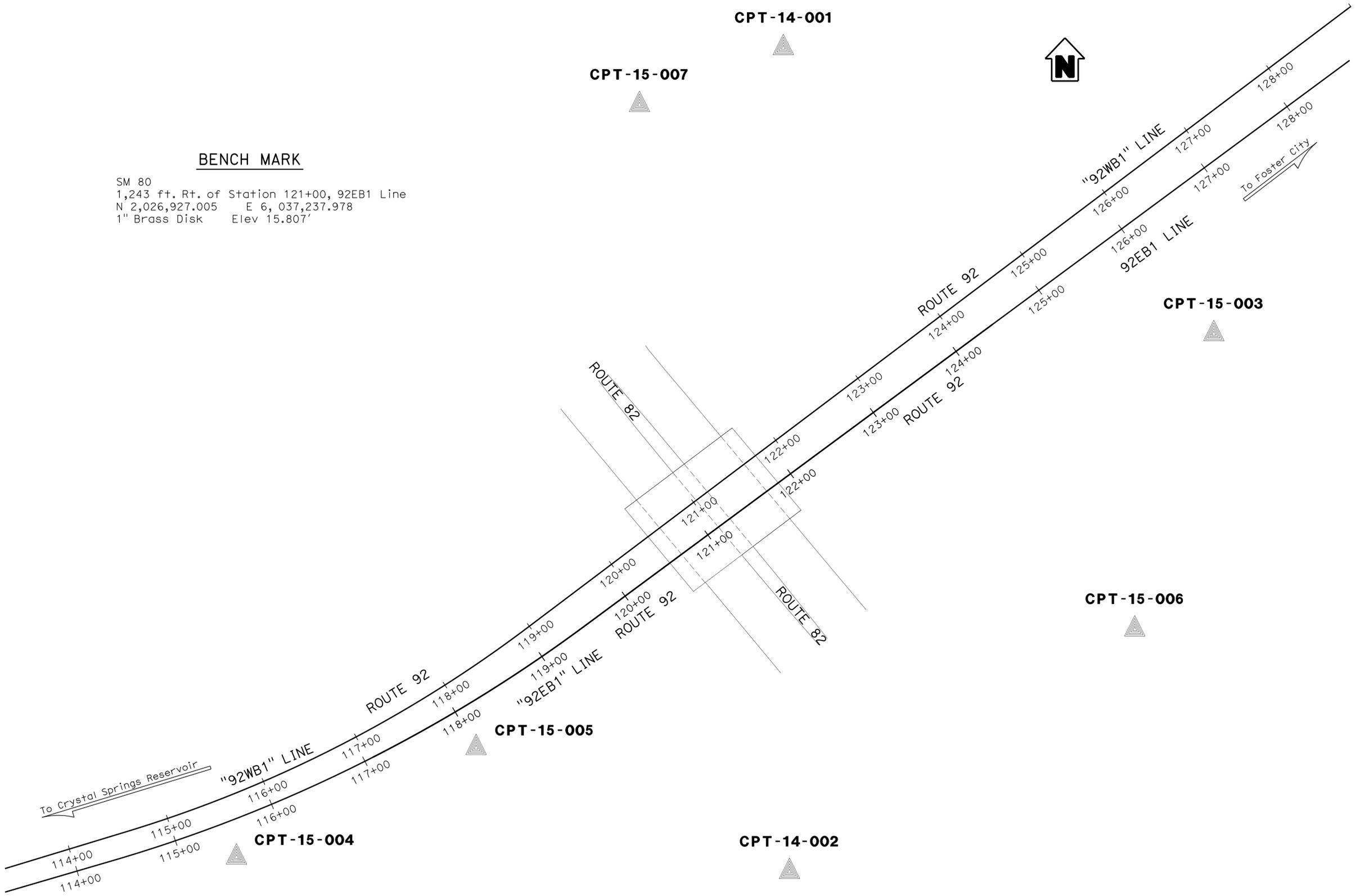
John C. Moore 06-16-15
REGISTERED CIVIL ENGINEER
6-28-16
PLANS APPROVAL DATE

John C. Moore
REGISTERED PROFESSIONAL ENGINEER
No. C61792
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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BENCH MARK

SM 80
1,243 ft. Rt. of Station 121+00, 92EB1 Line
N 2,026,927.005 E 6,037,237.978
1" Brass Disk Elev 15.807'



PLAN
1"=50'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES		LOG OF TEST BORINGS 1 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		11.0/11.5 10.3/10.7		REVISION DATES	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3660 PROJECT NUMBER & PHASE: 0412000496,1 CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET OF 5 10	

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DATE PLOTTED => 15-JUL-2016
TIME PLOTTED => 11:28
USERNAME => s130819

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.0/R11.4	366	370

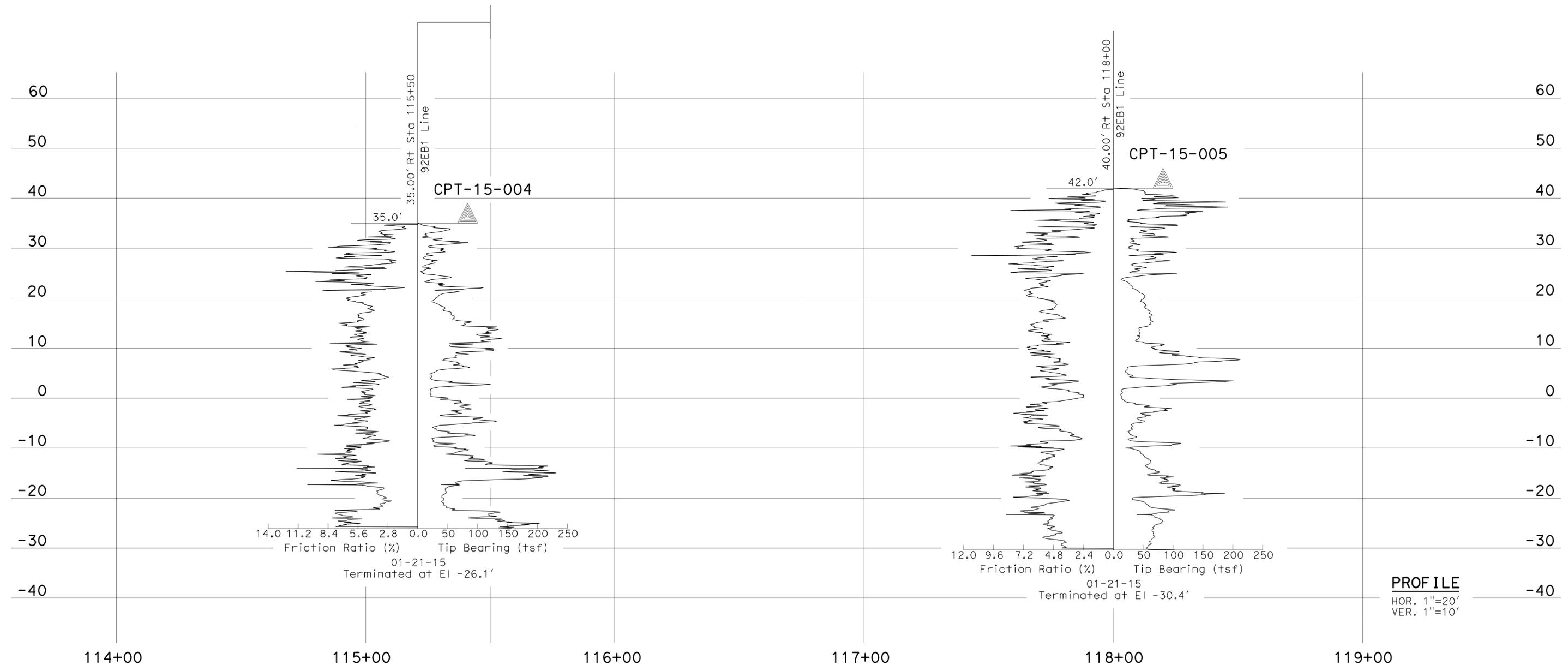
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES		LOG OF TEST BORINGS 2 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		11.0/11.5 10.3/10.7		REVISION DATES	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3						REVISION DATES	
										SHEET OF	
										6 10	

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	367	370

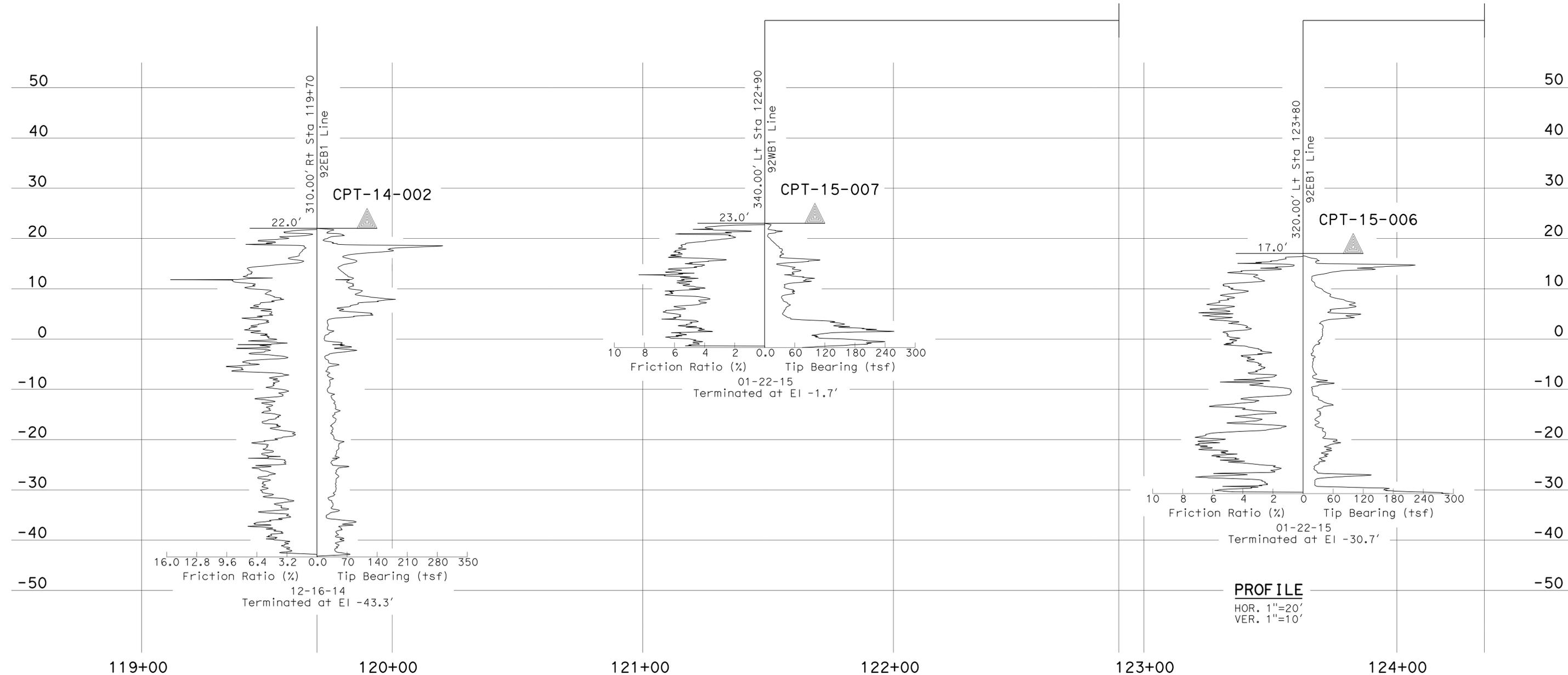
John C. Moore 06-16-15
REGISTERED CIVIL ENGINEER
6-28-16
PLANS APPROVAL DATE

John C. Moore
No. C61792
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		FIELD INVESTIGATION BY:		OFFICE OF GEOTECHNICAL		POST MILES		LOG OF TEST BORINGS 3 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		J. Moore		DESIGN BRANCH		11.0/11.5 10.3/10.7			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3				REVISION DATES		SHEET OF	
								06-23-15		7 10	

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USERNAME => s130819

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SM	82, 92	10.4/10.7, R11.0/R11.4	368	370

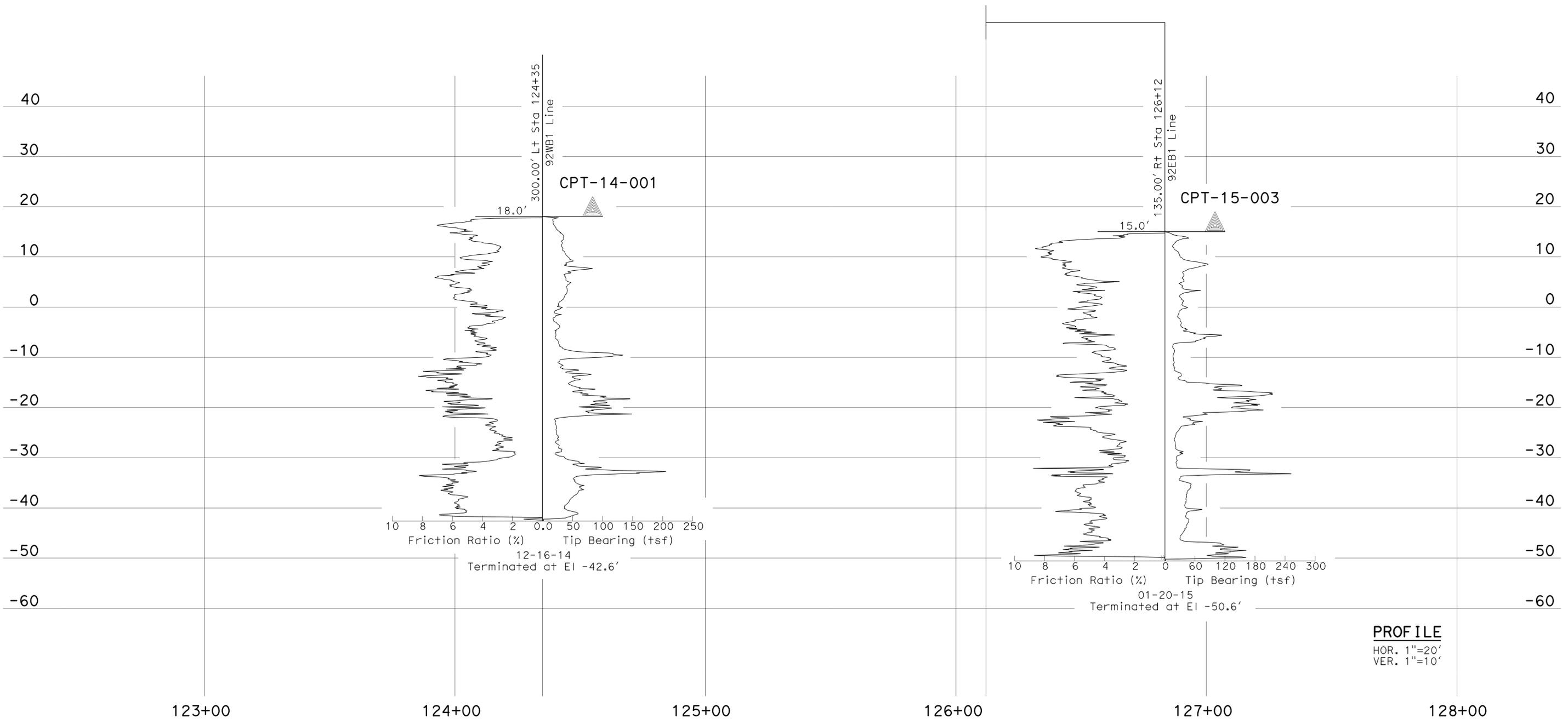
John C. Moore 06-16-15
 REGISTERED CIVIL ENGINEER
 6-28-16
 PLANS APPROVAL DATE

John C. Moore
 No. C61792
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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(For Boring Location See Plan, LOTB Sheet 1 of 6)

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



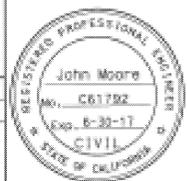
PROFILE
 HOR. 1"=20'
 VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		ROUTE 92/ 82 INTERCHANGE RECONSTRUCTION PROJECT	
FUNCTIONAL SUPERVISOR		DRAWN BY: M. Reynolds		DEPARTMENT OF TRANSPORTATION		OFFICE OF GEOTECHNICAL		POST MILES		LOG OF TEST BORINGS 4 of 6	
NAME: M. Momenzadeh		CHECKED BY: D. Nesbitt		FIELD INVESTIGATION BY: J. Moore		DESIGN BRANCH		11.0/11.5 10.3/10.7		SHEET OF	
O&S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3660		PROJECT NUMBER & PHASE: 0412000496,1		CONTRACT NO.: 04-235524		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3				REVISION DATES		8 10	
								06-23-15			

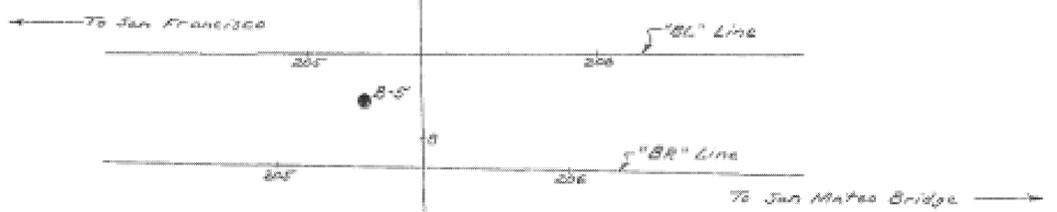
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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.6/R11.4	369	370

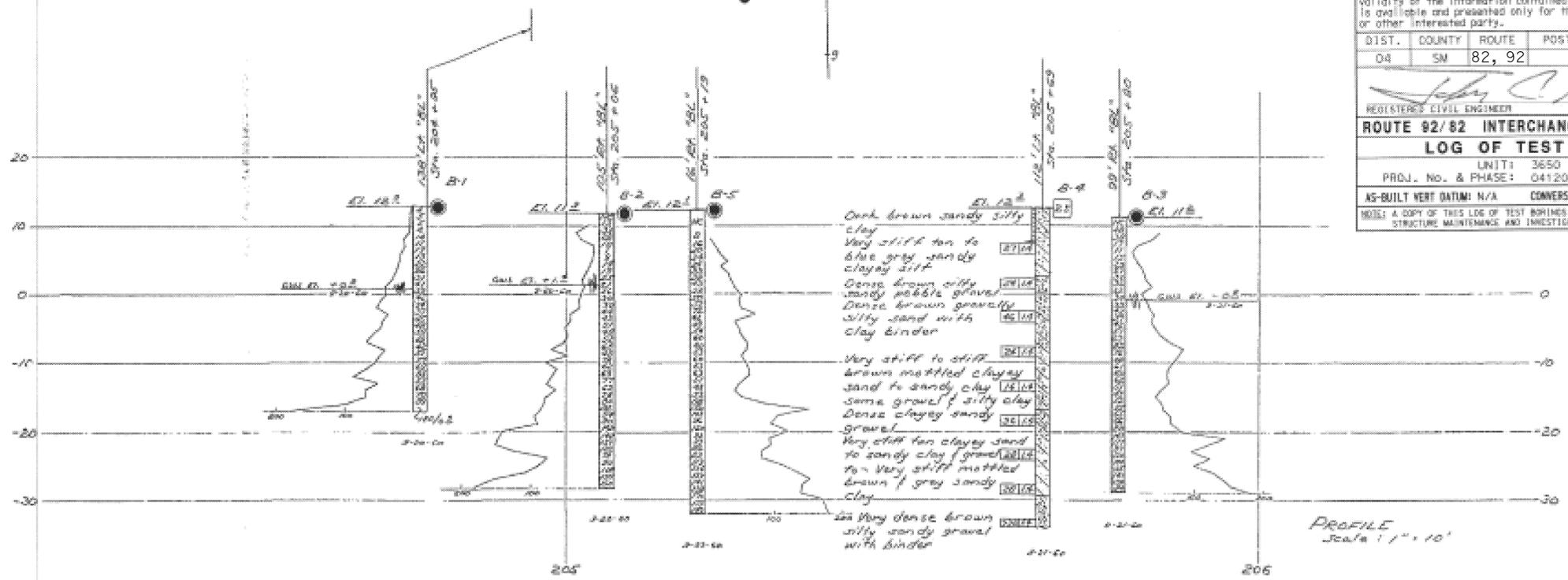
DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES
 As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.
 July 29, 1961



BM "A" RR Spike in J.P.
 25' Bx "PA" S + 63"
 Elev. 12.40



PLAN Scale: 1" = 30'

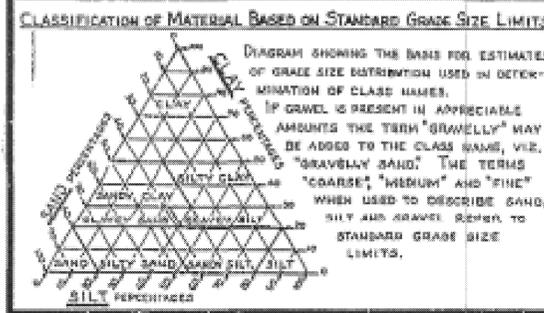


PROFILE Scale: 1" = 10'

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES					
As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	82, 92	10.4/10.7 R11.6/R11.4	369	370
REGISTERED CIVIL ENGINEER: <i>John C. Moore</i> 5/19/25 DATE:					
ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT					
LOG OF TEST BORINGS 5 OF 6					
UNITS:	3650	CONTRACT NO.:	04-235524	BRIDGE NO.:	N/A
PROJ. No. & PHASE:	04120004961				
AS-BUILT VERT DATUM:	N/A	CONVERSION:	N/A	SHEET OF:	9 10
NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA					

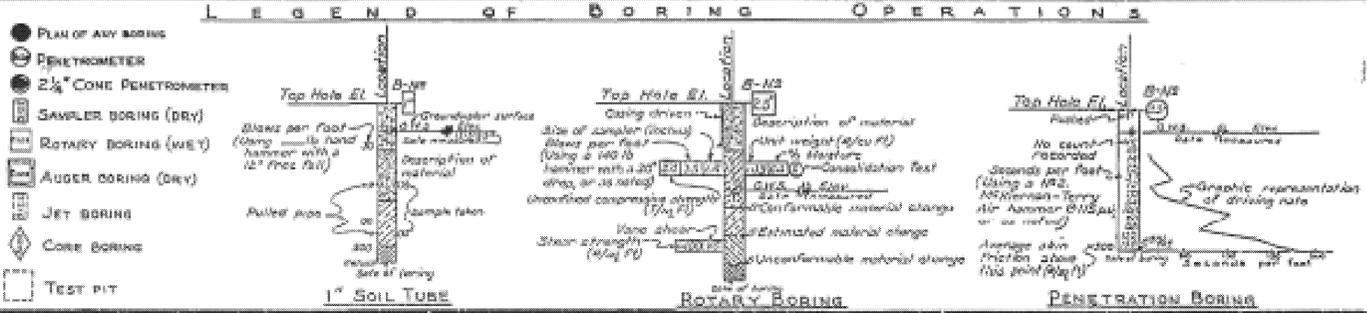
AS BUILT PLANS
 Contract No. 62-4713(3)
 Date Completed _____
 Document No. 4000 2471

DRAWN: [Signature]
 CHECKED: [Signature]
 APPROVED: [Signature]



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT AND/OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK



NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

PALM AVENUE UNDERCROSSING

LOG OF TEST BORINGS

SCALE: As Noted | BRIDGE: 35-150 | FILE: | DRAWING: 31-30-3
 50160-8 kly | FR-6462

39

July 24, 1961

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
04	SM	92	R11.0/R11.4	370	370

REGISTERED CIVIL ENGINEER
 DATE: 6/19/65
ROUTE 92/82 INTERCHANGE RECONSTRUCTION PROJECT
LOG OF TEST BORINGS 6 OF 8

UNIT: 3650	CONTRACT No.:	BRIDGE No.:
PROJ. No. & PHASE: 04120004961	04-235524	N/A

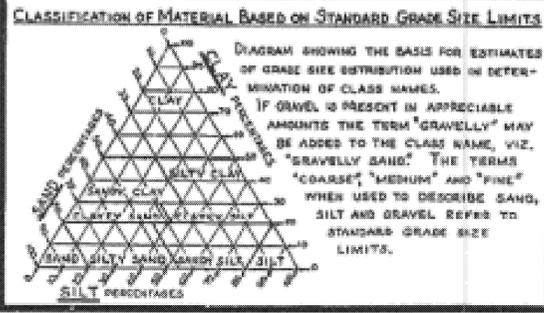
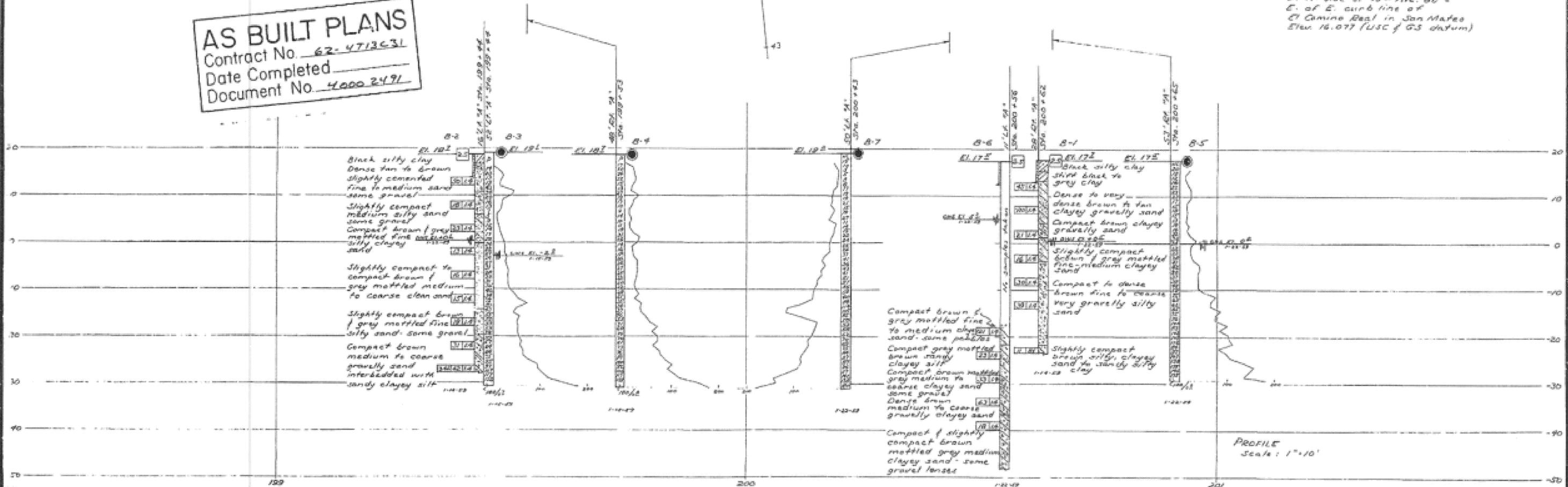
AS-BUILT VERT DATUM: N/A CONVERSION: N/A Sheet of 10 10

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA



AS BUILT PLANS
 Contract No. 62-4713631
 Date Completed _____
 Document No. 4000 2491

BM "SM 92" Nail set in sidewalk on N. side of 19th Ave. 88' E. of E. curb line of El Camino Real in San Mateo Elev. 16.077 (USC of GS datum)



LEGEND OF EARTH MATERIALS

GRAVEL	SILTY CLAY OR CLAYEY SILT
SAND	PEAT 4% OR ORGANIC MATTER
SILT	FILL MATERIAL
CLAY	IGNEOUS ROCK
SANDY CLAY OR CLAYEY SAND	SEDIMENTARY ROCK
SANDY SILT OR SILTY SAND	METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- PLACE OF ANY BORING
- ⊙ PENETROMETER
- ⊙ 2 1/4" CONE PENETROMETER
- ⊙ SAMPLER BORING (DRY)
- ⊙ ROTARY BORING (WET)
- ⊙ AUGER BORING (DRY)
- ⊙ JET BORING
- ⊙ CORE BORING
- ⊙ TEST PIT

1" SOIL TUBE
 Shows casing, sampler, and soil sample location.

ROTARY BORING
 Shows casing, sampler, and soil sample location with detailed notes on sampling procedure.

PENETRATION BORING
 Shows casing, sampler, and soil sample location with detailed notes on penetration test procedure.

NOTES

The contractor's attention is directed to Section 2, Article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

ROUTE 92/82 SEPARATION
 -ROUTE 105/2 SEPARATION

LOG OF TEST BORINGS

SCALE: As Noted BRIDGE: 35-156 1/2 FILE: E-35 DRAWING: 25150-13

BRIDGE DEPARTMENT

J. Moore