

INDEX OF PLANS

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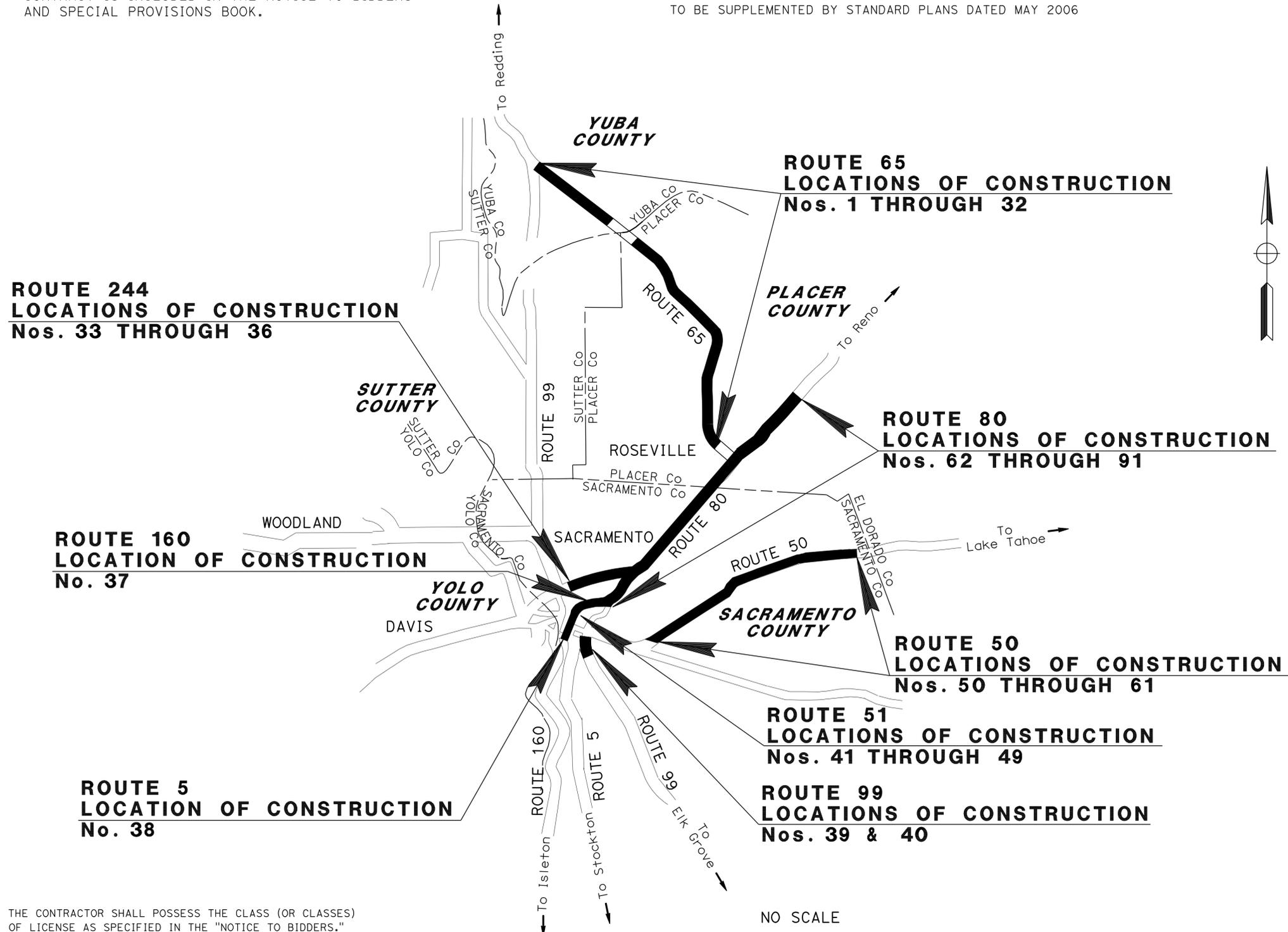
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA ACHSSTPG-000C(343)E  
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN PLACER, SACRAMENTO, YOLO, AND YUBA COUNTIES  
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yolo,Yuba	5,50,51, 65,80,etc.	Var	1	70



**NOTE:**  
THE TABLE OF LOCATIONS OF CONSTRUCTION IS SHOWN ON THE LOCATIONS OF CONSTRUCTION SHEET.

PROJECT MANAGER  
DOUGLAS LANGE

DESIGN ENGINEER  
ROBERT PETERSON

Dennis L. Corcoran 4-21-11  
PROJECT ENGINEER DATE  
REGISTERED CIVIL ENGINEER

April 21, 2011  
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.



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

CONTRACT No.	<b>03-3E0304</b>
PROJECT ID	<b>0300000467</b>

DATE PLOTTED => 29-APR-2011  
TIME PLOTTED => 11:12  
08-17-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	2	70

*Dennis L. Corcoran* 4-21-11  
REGISTERED CIVIL ENGINEER DATE

4-21-11  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
DENNIS CORCORAN  
No. 59438  
Exp. 12-31-11  
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.

### LOCATIONS OF CONSTRUCTION

Loc	COUNTY	ROUTE	PM	DIRECTION	DESCRIPTION
1	Pla	65	23.9	SB	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)
2	Pla	65	23.2	SB	MBGR PERPENDICULAR TO CULVERT (R+ SIDE ONLY)
3	Pla	65	21.9	SB	UNDER RR SIGN POST
4	Pla	65	21.7	SB	IN FRONT OF RR TRACKS
5	Pla	65	20.8	SB	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)
6	Pla	65	19.7	SB	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)
7	Pla	65	18.3	SB	ATTACH TO Br No. 19-0009 (R+ SIDE ONLY)
8	Pla	65	18.3	NB	ATTACH TO Br No. 19-0008 (R+ SIDE ONLY)
9	Pla	65	19.7	NB	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)
10	Pla	65	20.8	NB	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)
11	Pla	65	21.6	NB	UNDER RR SIGN POST
12	Pla	65	21.7	NB	IN FRONT OF RR TRACKS
13	Pla	65	23.2	NB	MBGR PERPENDICULAR TO CULVERT (R+ SIDE ONLY)
14	Pla	65	23.7	NB	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)
15	Yub	65	9.3	SB	IN FRONT OF EXIT 17 SIGN
16	Yub	65	9.2	SB	ATTACH TO Br No. 16-0042 (L+ SIDE)
17	Yub	65	9.2	SB	ATTACH TO Br No. 16-0042 (R+ SIDE)
18	Yub	65	7.6	SB	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr
19	Yub	65	7.6	SB	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr
20	Yub	65	7.5	SB	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr
21	Yub	65	7.5	SB	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr
22	Yub	65	3.6	SB	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)
23	Yub	65	2.2	SB	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)
24	Yub	65	1.8	SB	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)
25	Yub	65	1.8	NB	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)
26	Yub	65	2.2	NB	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)
27	Yub	65	3.6	NB	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)
28	Yub	65	7.5	NB	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr
29	Yub	65	7.5	NB	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr
30	Yub	65	7.6	NB	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr
31	Yub	65	7.6	NB	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr
32	Pla	65	5.5	SB	UNDER RENO/SACRAMENTO SIGN
33	Sac	244	0.9	WB	ON-RAMP TO EB Rte 80
34	Sac	244	0.3	WB	UNDER THE SECOND WATT Ave EXIT SIGN
35	Sac	244	0.8	EB	REPLACE MBGR NEAR Emb
36	Sac	244	0.9	EB	REPLACE MBGR NEAR Emb
37	Sac	160	46.4	NB	ATTACH TO Br No. 24-0130 (R+ SIDE)
38	Sac	5	22.5	WB	OFF-RAMP TO Q St FROM NB Rte 5
39	Sac	99	24.0	NB	OFF-RAMP TO WB Rte 50 Br No. 24-0157 (L+ SIDE)
40	Sac	99	24.3	NB	ATTACH TO Br No. 24-0233F (OFF-RAMP TO EB Rte 50)
41	Sac	51	3.5	NB	OFF-RAMP TO WB ARDEN WAY
42	Sac	51	5.3	NB	OFF-RAMP TO MARCONI Ave
43	Sac	51	8.5	SB	ON-RAMP TO SB Rte 51 (L+ SIDE) Br No. 24-0292
44	Sac	51	8.5	SB	ON-RAMP TO SB Rte 51 (R+ SIDE) Br No. 24-0292
45	Sac	51	1.5	SB	UNDER S LAKE TAHOE/SAN FRANCISCO SIGN
46	Sac	51	0.3	SB	OFF-RAMP TO EB Rte 50 (L+ SIDE) Br No. 24-0233F
47	Sac	51	4.1	NB	ATTACH TO Br No. 24-0132
48	Sac	51	8.1	SB	ATTACH TO Br No. 24-0125
49	Sac	51	3.9	SB	REPLACE MBGR IN MEDIAN WITH A CAT SYSTEM
50	Sac	50	L0.4	EB	OFF-RAMP TO Q St FROM EB Rte 50 (FIRST COLUMN)
51	Sac	50	L0.4	EB	OFF-RAMP TO Q St FROM EB Rte 50 (SECOND COLUMN)
52	Sac	50	L1.2	EB	15TH St OFF-RAMP

Loc	COUNTY	ROUTE	PM	DIRECTION	DESCRIPTION
53	Sac	50	R3.45	EB	EB OFF-RAMP TO HOWE Ave
54	Sac	50	4.9	WB	MBGR UNDER CSUS SIGN
55	Sac	50	3.2	WB	ON-RAMP FROM HORNET Ave
56	Sac	50	0.3	WB	OFF-RAMP TO NB Rte 51 (R+ SIDE) Br No. 24-0227F
57	Sac	50	0.3	WB	OFF-RAMP TO NB Rte 51 (L+ SIDE) Br No. 24-0227F
58	Sac	50	0.2	WB	OFF-RAMP TO SB Rte 99 (R+ SIDE) Br No. 24-0234F
59	Sac	50	0.2	WB	OFF-RAMP TO SB Rte 99 (L+ SIDE) Br No. 24-0234F
60	Yol	50	2.5	EB	ATTACH TO Br No. 22-129 (R+ SIDE)
61	Yol	50	2.5	EB	ATTACH TO Br No. 22-129 (L+ SIDE)
62	Pla	80	6.3	WB	UNDER ROCKLIN Rd SIGN
63	Pla	80	3.18	WB	OFF-RAMP TO ATLANTIC St (L+ SIDE OF ROAD)
64	Pla	80	0.4	WB	ON-RAMP FROM NB AUBURN Blvd
65	Sac	80	M8.1	EB	IN FRONT OF Br No. 24-0106 COLUMNS
66	Sac	80	M8.1	WB	IN FRONT OF Br No. 24-0106 COLUMNS
67	Sac	80	M2.6	WB	IN FRONT OF Br No. 24-0207B COLUMNS
68	Sac	80	M2.2	EB	OFF-RAMP TO NB Rte 5
69	Sac	80	M2.9	WB	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0210 (R+ SIDE)
70	Sac	80	M2.9	WB	OFF-RAMP TO SB Rte 5 MBGR IN FRONT OF Br No. 24-0210
71	Sac	80	M2.9	WB	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (L+ SIDE)
72	Sac	80	M2.9	WB	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (R+ SIDE)
73	Sac	80	M2.6	WB	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (L+ SIDE)
74	Sac	80	M2.6	WB	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (R+ SIDE)
75	Sac	80	R10.7	WB	ATTACH TO WATT Ave Br No. 24-0290 OVERPASS
76	Pla	80	5.9	EB	UNDER ROCKLIN Rd SIGN
77	Pla	80	17.6	WB	OFF-RAMP TO SB Rte 49
78	Pla	80	16.9	WB	OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (R+ SIDE)
79	Pla	80	16.9	WB	OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (L+ SIDE)
80	Pla	80	8.1	EB	ATTACH TO Br No. 19-0096 BRACE Rd OC
81	Pla	80	8.7	EB	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC
82	Pla	80	9.5	EB	ATTACH TO Br No. 19-0098 KING Rd OC
83	Pla	80	10.3	EB	ATTACH TO Br No. 19-0099 PENRYN Rd OC
84	Pla	80	12.3	EB	ATTACH TO Br No. 19-0101 GILARDI Rd OC
85	Pla	80	13.8	EB	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC
86	Pla	80	13.8	WB	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC
87	Pla	80	12.3	WB	ATTACH TO Br No. 19-0101 GILARDI Rd OC
88	Pla	80	10.3	WB	ATTACH TO Br No. 19-0099 PENRYN Rd OC
89	Pla	80	9.5	WB	ATTACH TO Br No. 19-0098 KING Rd OC
90	Pla	80	8.7	WB	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC
91	Pla	80	8.1	WB	ATTACH TO Br No. 19-0096 BRACE Rd OC

### LOCATIONS OF CONSTRUCTION LC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	3	70

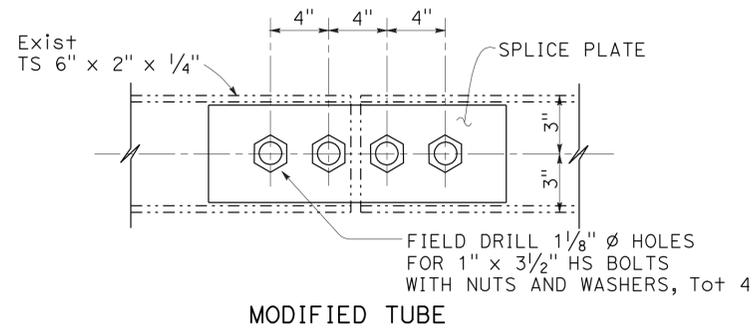
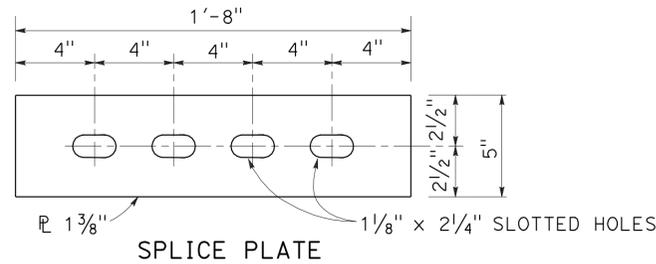
  

<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE	
4-21-11 PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	

REGISTERED PROFESSIONAL ENGINEER  
 DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA

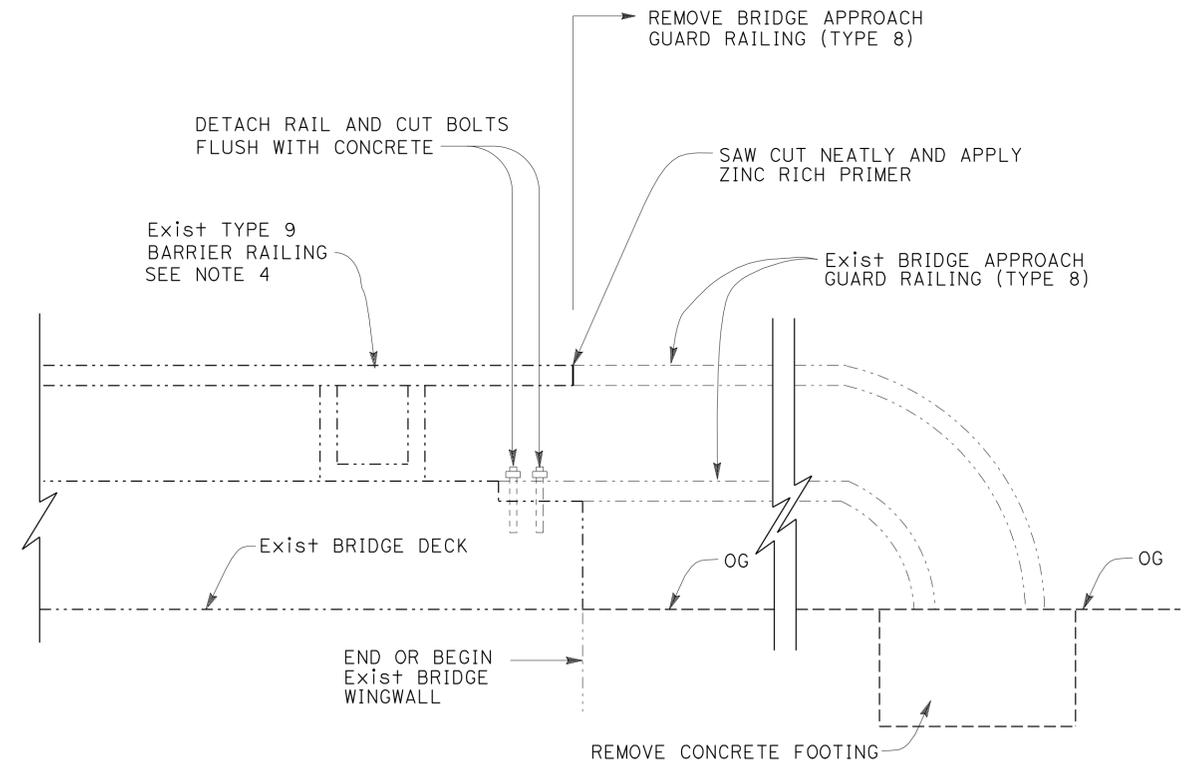
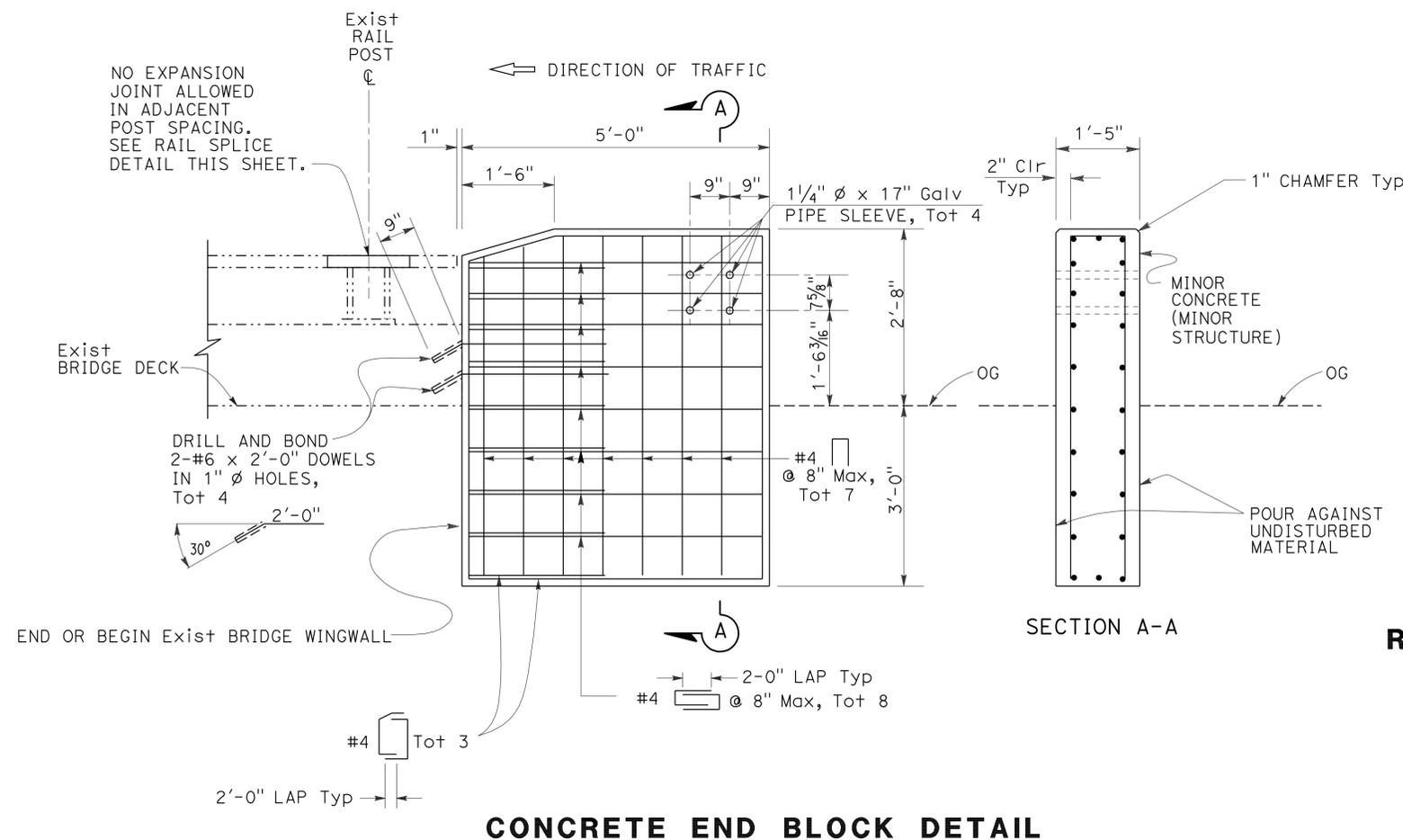
**NOTES:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
2. EXISTING BARRIER DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BEFORE FABRICATING ANY END CONNECTION TO CONFORM WITH EXISTING CONDITIONS.
3. ALL PLATES AND BOLTS SHALL BE GALVANIZED.
4. IF RAIL IS NOT CONTINUOUS OVER 2 POSTS, USE RAIL SPLICE DETAIL AT EXISTING EXPANSION JOINT.
5. EXTERIOR SPLICE BOLT HOLES SHALL BE STANDARD 1" x 1/8" SLOT SIZE FOR RAIL SPLICE AT POST No. T4 AND THE CONNECTION TO THE CONCRETE BARRIER OR RAILING. INTERIOR SPLICE BOLT HOLES MAY BE INCREASED UP TO 1 1/8". WASHERS SHALL BE USED WITH SPLICE BOLTS ON BACK SIDE OF RAIL ELEMENT AT POST No. T4 AND CONNECTION TO THE CONCRETE BARRIER OR RAILING.
6. FOR RELOCATE PULL BOX AT LOCATION 40 INFORMATION, SEE SHEET E-1.
7. COORDINATE WITH THE ENGINEER BEFORE WORK TO RELOCATE PULL BOX.
8. ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
9. FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.



**RAIL SPLICE DETAIL**

SEE NOTE 4



**CONSTRUCTION DETAILS**  
LOCATIONS: 18-21, 28-31, & 40

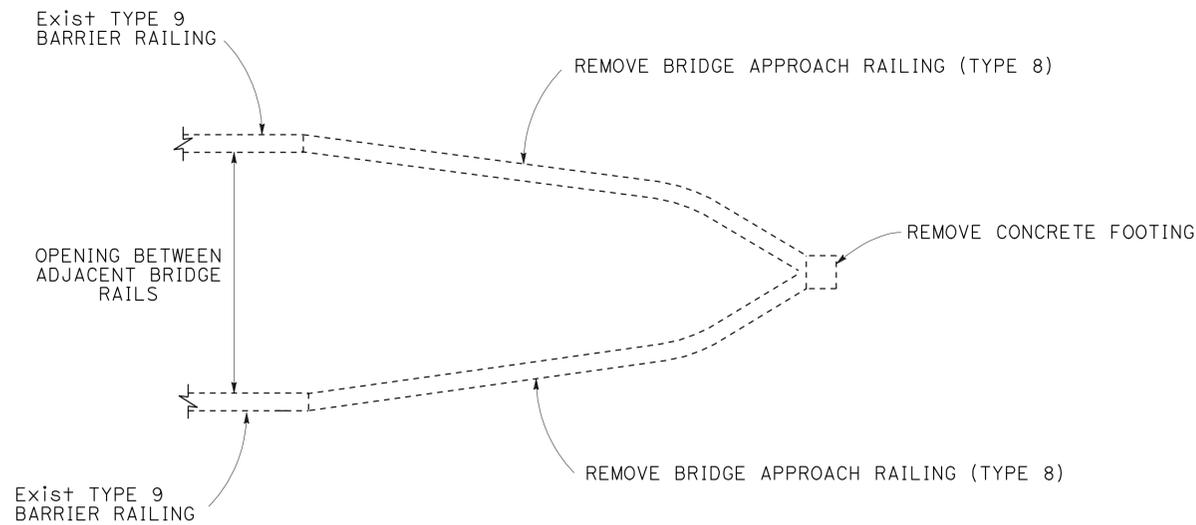
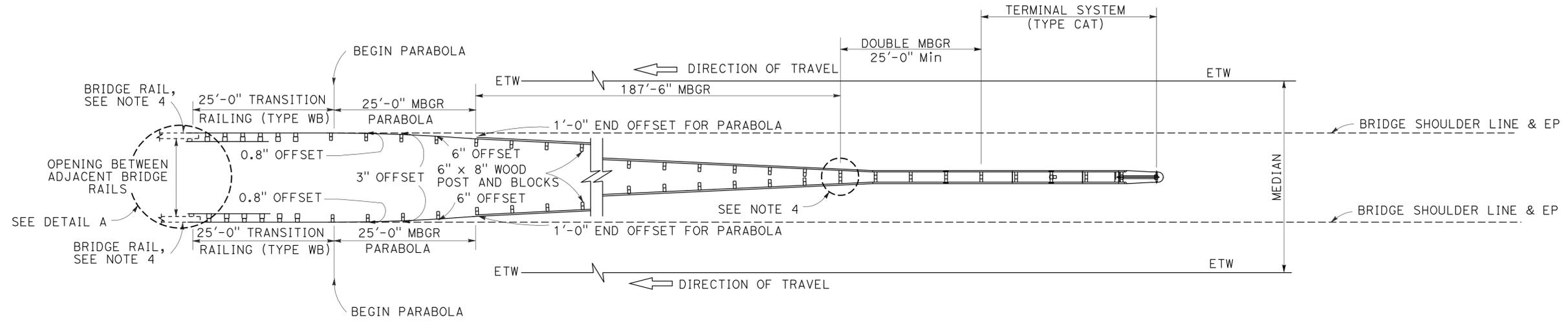
NO SCALE

**C-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	4	70
<i>Dennis J. Corcoran</i> REGISTERED CIVIL ENGINEER			4-21-11 DATE		
4-21-11 PLANS APPROVAL DATE					
<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:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- GUARD RAILING POST SPACING TO BE 6'-3" CENTER TO CENTER, EXCEPT AS OTHERWISE NOTED.
- EXCEPT AS NOTED, LINE POSTS ARE 6" x 8" x 6'-0" WOOD WITH 6" x 8" x 1'-2" WOOD BLOCKS. W6 x 9 STEEL POSTS, 6'-0" IN LENGTH, WITH 6" x 8" x 1'-2" NOTCHED WOOD BLOCKS OR NOTCHED RECYCLED PLASTIC BLOCKS MAY BE USED FOR 6" x 8" x 6'-0" WOOD LINE POSTS WITH 6" x 8" x 1'-2" WOOD BLOCKS WHERE APPLICABLE AND WHEN SPECIFIED.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION; SEE SHEET C-1, REVISED STANDARD PLAN A77G2, AND SUMMARY OF QUANTITIES.



DETAIL A

**CONSTRUCTION DETAILS**  
**LOCATION: 53**  
 NO SCALE

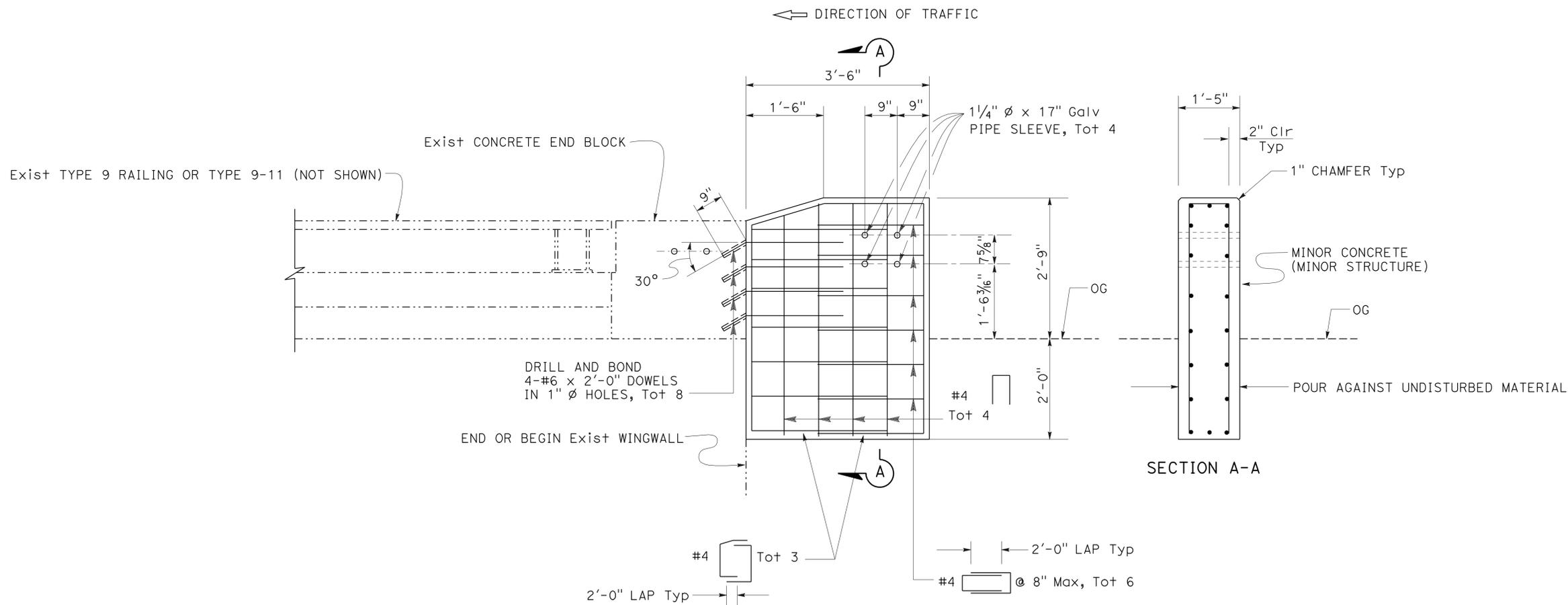
**C-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	5	70
<i>Dennis L. Corcoran</i> REGISTERED CIVIL ENGINEER			4-21-11 DATE		
4-21-11			PLANS APPROVAL DATE		
<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:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- EXISTING BARRIER DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BEFORE FABRICATING ANY END CONNECTION TO CONFORM WITH EXISTING CONDITIONS.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC
FUNCTIONAL SUPERVISOR	ROBERT PETERSON
CALCULATED-DESIGNED BY	CHECKED BY
DENNIS CORCORAN	ROBERT PETERSON
REVISOR	DATE
REVISOR	DATE



**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**  
 LOCATIONS: 43, 44, & 55

NO SCALE

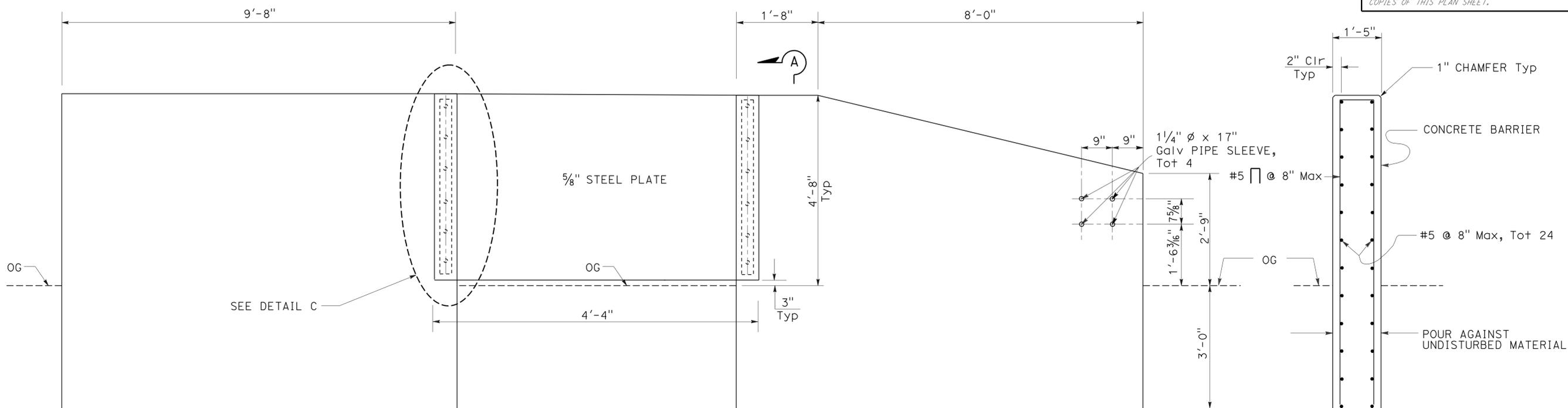
**C-3**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5, 50, 51, 65, 80, etc.	Var	7	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11 PLANS APPROVAL DATE					
<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>					

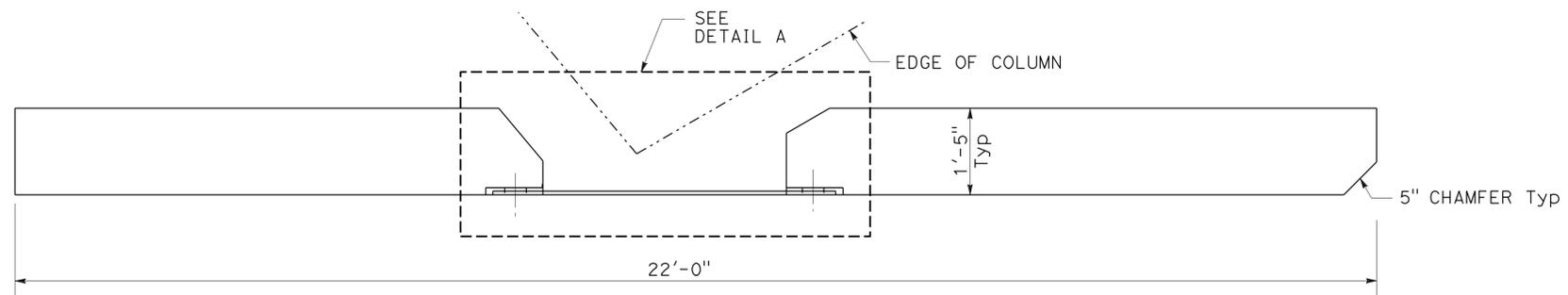
**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- FOR DETAILS A, C, AND ALTERNATIVE ANCHORAGE, SEE SHEET C-7.
- THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

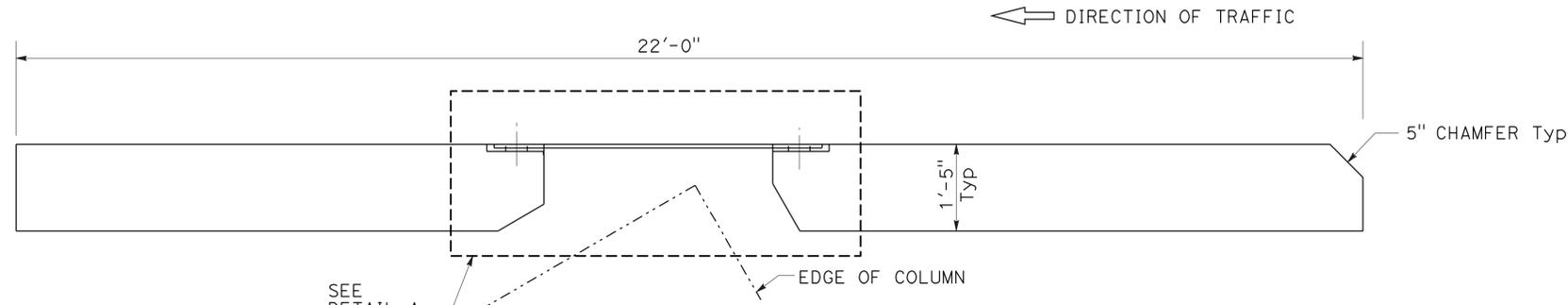


ELEVATION

SECTION A-A



PLAN LOCATION 38



PLAN LOCATION 51

**CONCRETE BARRIER DETAIL**

**CONSTRUCTION DETAILS**  
LOCATIONS: 38 & 51

NO SCALE

**C-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b>	ROBERT PETERSON	DENNIS CORCORAN	
	ROBERT PETERSON	ROBERT PETERSON	
	CHECKED BY	DESIGNED BY	

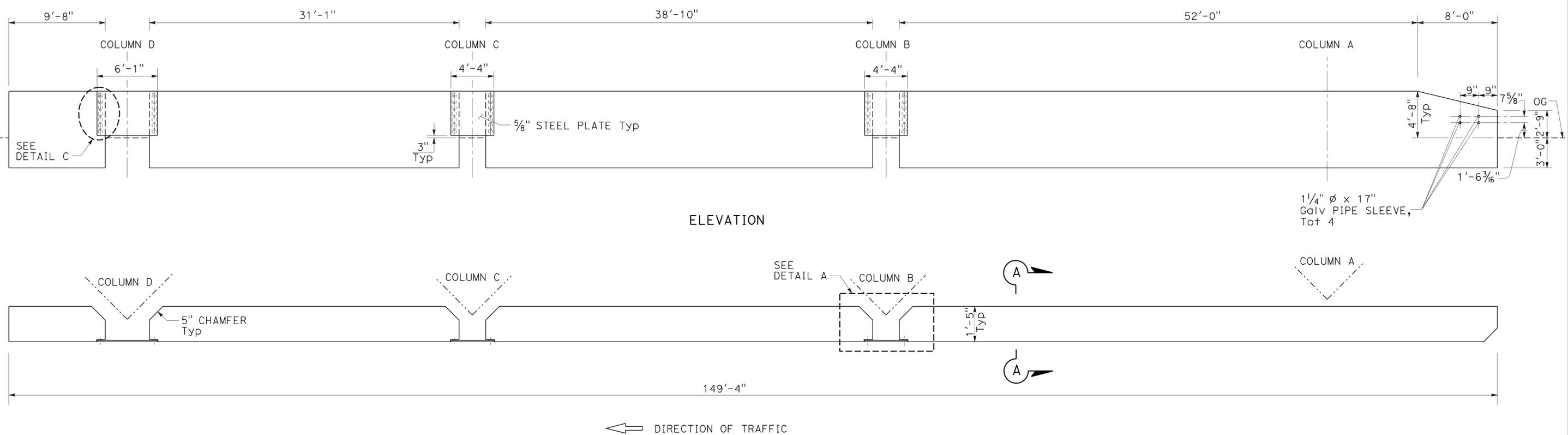
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	8	70

Dennis L. Corcoran 4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE  
 No. 59438  
 Exp. 12-31-11  
 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:**
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
  - FOR SECTION A-A, SEE SHEET C-5.
  - FOR DETAILS A, C, AND ALTERNATIVE ANCHORAGE, SEE SHEET C-7.
  - THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
  - FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR  
 ROBERT PETERSON  
 CALCULATED/DESIGNED BY  
 DENNIS CORCORAN  
 CHECKED BY  
 ROBERT PETERSON  
 REVISED BY  
 DENNIS CORCORAN  
 DATE REVISED  
 ROBERT PETERSON



**PLAN**  
**RECTANGULAR COLUMNS**

**CONSTRUCTION DETAILS**  
**LOCATION: 37**  
 NO SCALE  
**C-6**

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:23





STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED: ROBERT PETERSON

**NOTES:**

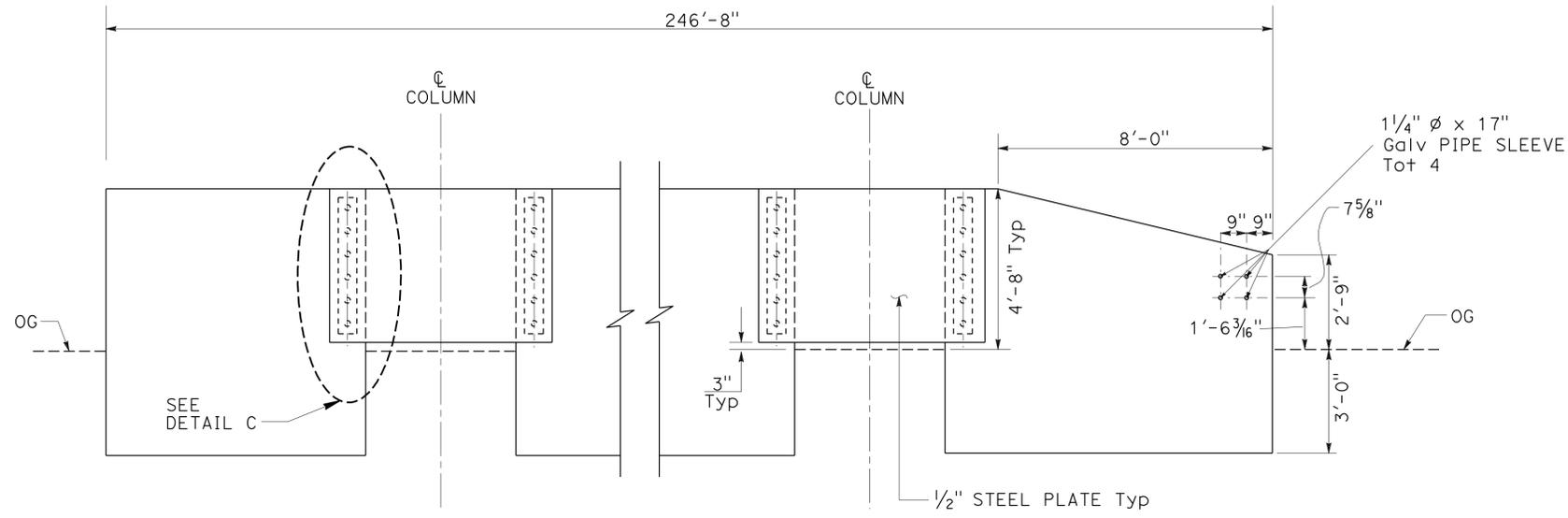
1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
2. FOR SECTION A-A, SEE SHEET C-5.
3. FOR DETAILS A, C, AND ALTERNATIVE ANCHORAGE, SEE SHEET C-11.
4. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
5. FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	11	70

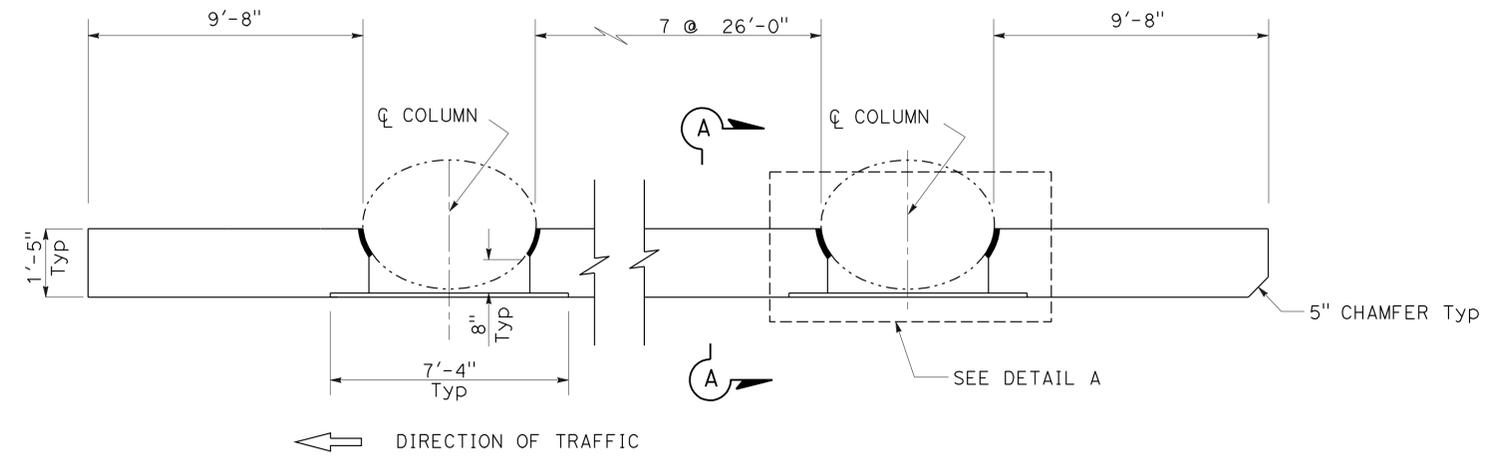
Dennis L. Corcoran 4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA

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ELEVATION



PLAN  
 ELLIPTICAL COLUMNS

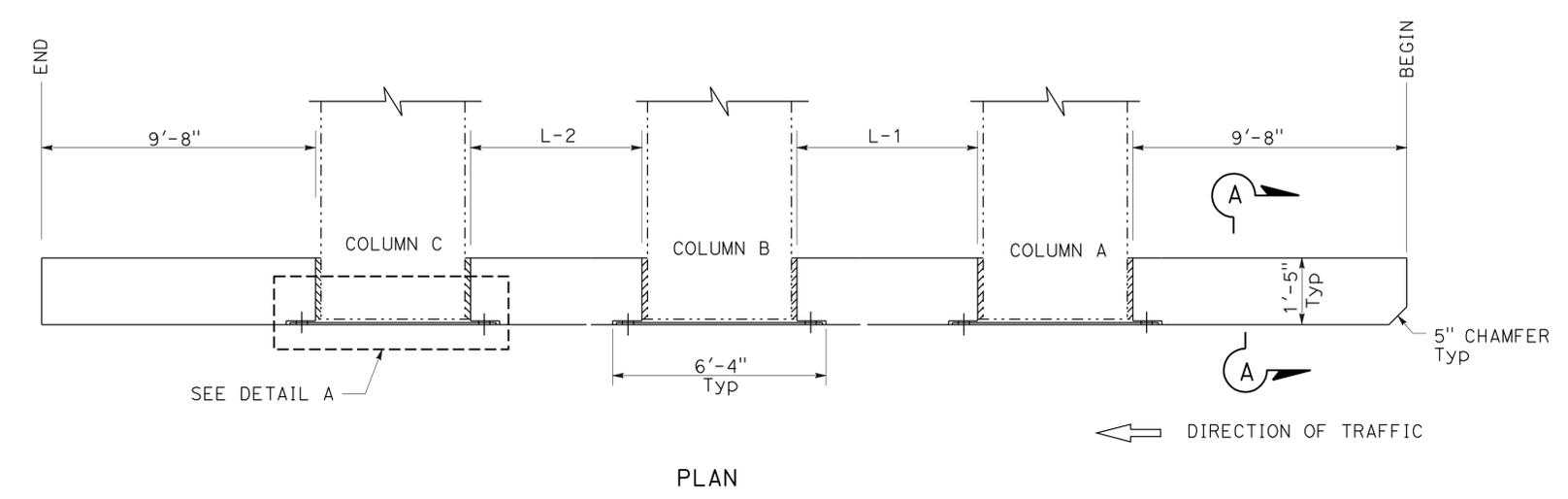
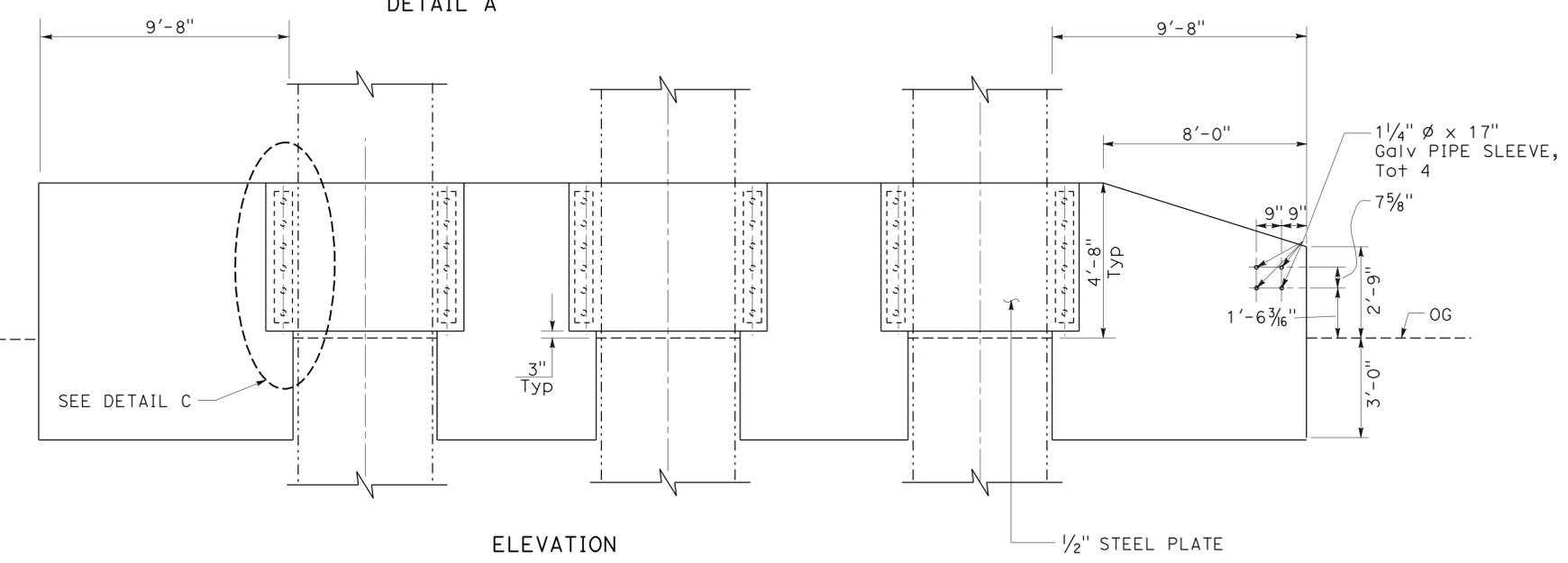
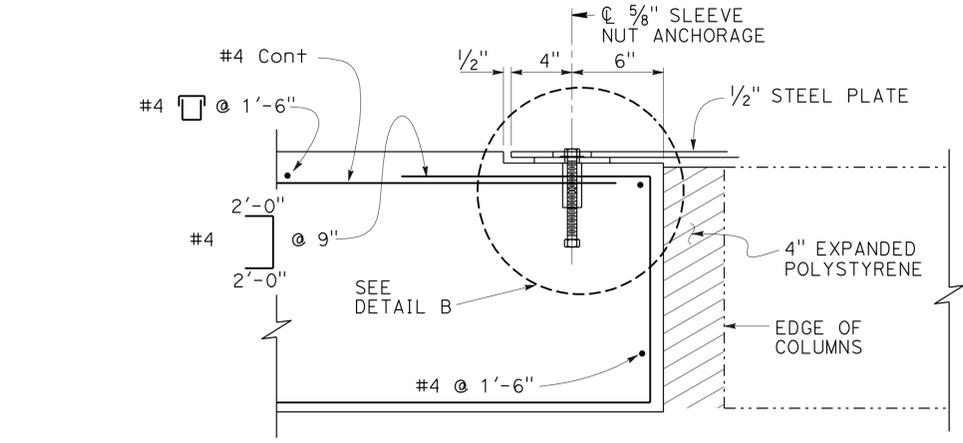
**CONCRETE BARRIER DETAIL**

**CONSTRUCTION DETAILS**  
 LOCATION: 69  
 NO SCALE  
**C-9**

- NOTES:**
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
  - FOR SECTION A-A, SEE SHEET C-5.
  - FOR DETAILS B, AND C, SEE SHEET C-11.
  - THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
  - FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

LOCATION NUMBER	EACH LOCATION		REMOVE CONCRETE * (CY)
	LENGTH-FT	VOLUME-CY	
80, 82, 84, 87, 89, & 91	65'	11.2	67.2
81 & 90	50'	8.6	17.2
83 & 88	67'	11.5	23.0
85 & 86	50'	8.6	17.2
<b>TOTAL FOR LOCATIONS 80 THROUGH 91</b>			124.6

\* SEE SUMMARY OF QUANTITIES FOR PROJECT TOTALS.



**CONCRETE BARRIER AT 3 COLUMN LOCATIONS LOCATIONS 80, 82, 84, 87, 89 & 91**

FROM	TO	LENGTH	LENGTH L-1 AND L-2	BARRIER LENGTH PER LOCATION *
		FT	FT	LF
BEGIN	COLUMN A	9'-8"		
COLUMN A	COLUMN B		15'-8"	
COLUMN B	COLUMN C		15'-8"	
COLUMN C	END	9'-8"		
				64.7

\* SEE SUMMARY OF QUANTITIES FOR PROJECT TOTALS.

**LOCATIONS 83 & 88**

FROM	TO	LENGTH	LENGTH L-1 AND L-2	BARRIER LENGTH PER LOCATION *
		FT	FT	LF
BEGIN	COLUMN A	9'-8"		
COLUMN A	COLUMN B		16'-10"	
COLUMN B	COLUMN C		16'-10"	
COLUMN C	END	9'-8"		
				67.0

\* SEE SUMMARY OF QUANTITIES FOR PROJECT TOTALS.

**CONCRETE BARRIER AT 2 COLUMN LOCATIONS LOCATIONS 81 & 90**

FROM	TO	LENGTH	LENGTH L-1	BARRIER LENGTH PER LOCATION *
		FT	FT	LF
BEGIN	COLUMN A	9'-8"		
COLUMN A	COLUMN B		25'-6"	
COLUMN B	END	9'-8"		
				54.2

\* SEE SUMMARY OF QUANTITIES FOR PROJECT TOTALS.

**LOCATIONS 85 & 86**

FROM	TO	LENGTH	LENGTH L-1	BARRIER LENGTH PER LOCATION *
		FT	FT	LF
BEGIN	COLUMN A	9'-8"		
COLUMN A	COLUMN B		26'-6"	
COLUMN B	END	9'-8"		
				55.2

\* SEE SUMMARY OF QUANTITIES FOR PROJECT TOTALS.

**CONSTRUCTION DETAILS LOCATIONS: 80 THROUGH 91**

NO SCALE

C-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISIONS: DENNIS CORCORAN, ROBERT PETERSON  
 REVISED BY: DATE REVISIONS

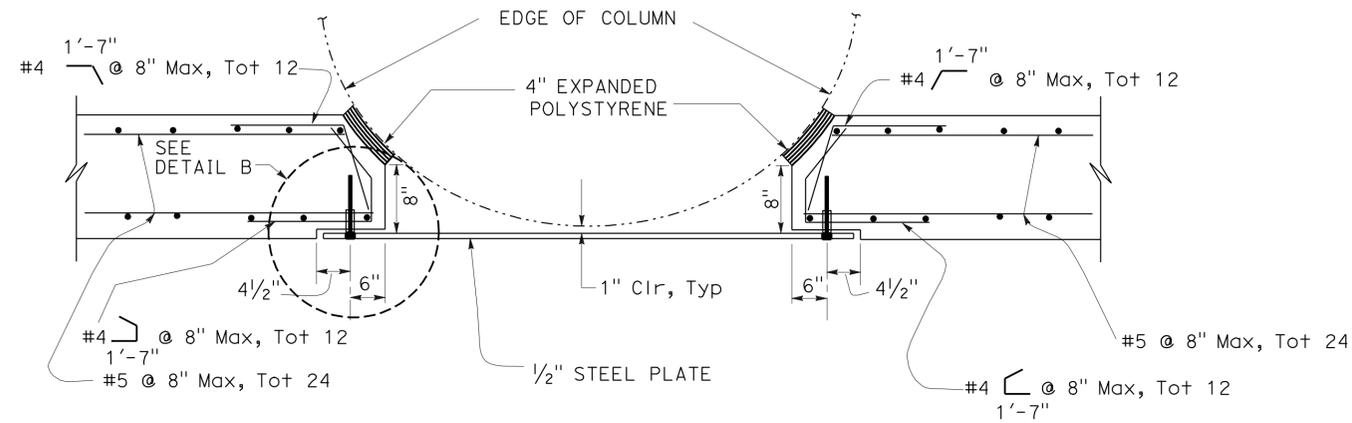
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISION: ROBERT PETERSON

**NOTES:**

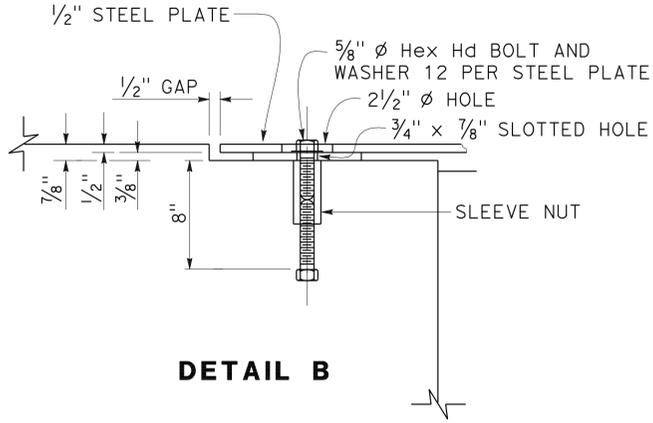
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- RESIN CAPSULE ANCHORAGE IS SUBJECT TO APPROVAL OF THE ENGINEER. INSTALLATION PROCEDURES SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	13	70

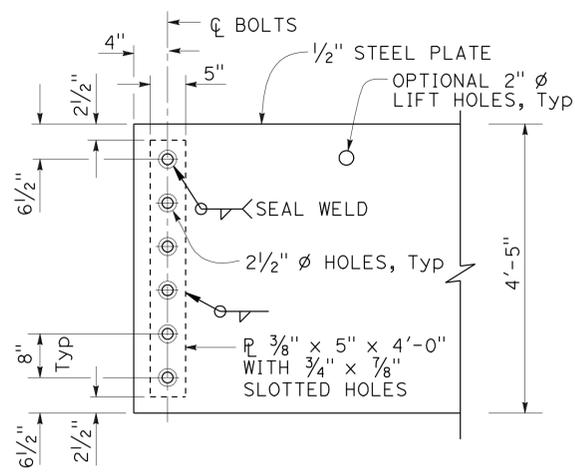
4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 DENNIS L. CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



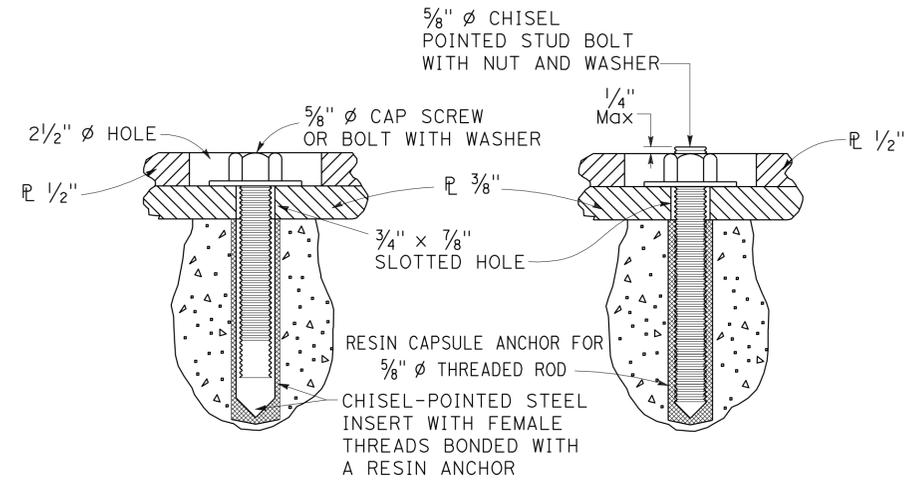
**DETAIL A**



**DETAIL B**



**DETAIL C**



ALTERNATIVE #1 ALTERNATIVE #2

**ALTERNATIVE ANCHORAGE**  
 (SEE NOTE 2)

**CONSTRUCTION DETAILS**  
 NO SCALE  
**C-11**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED: ROBERT PETERSON

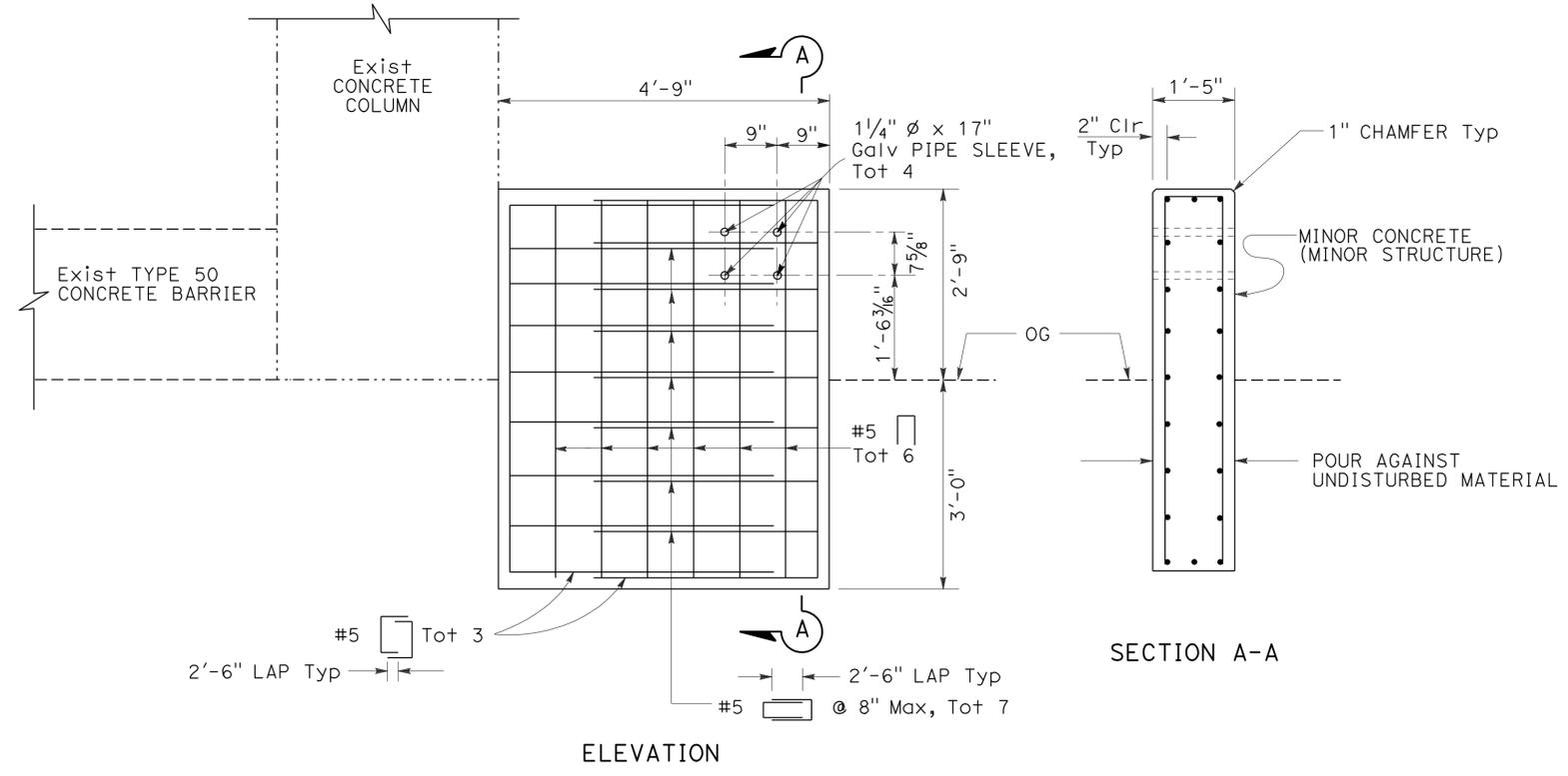
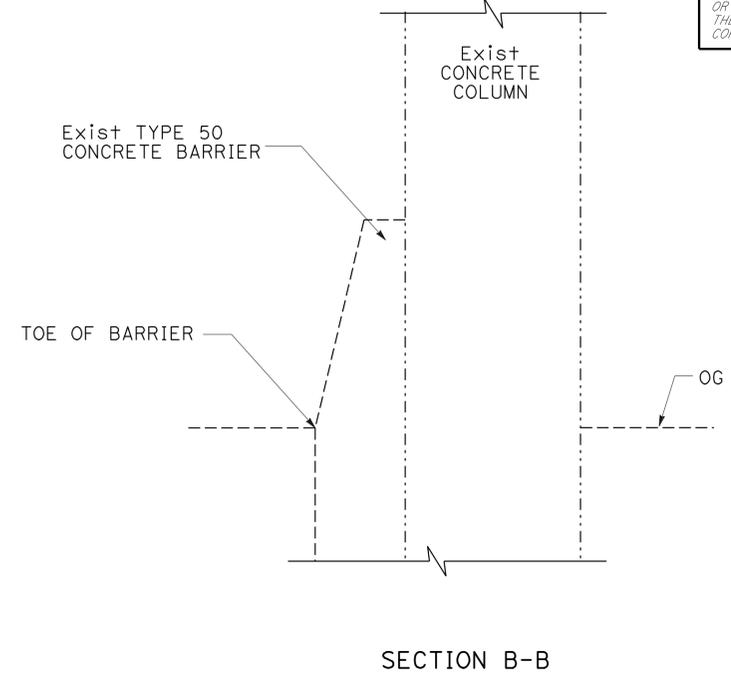
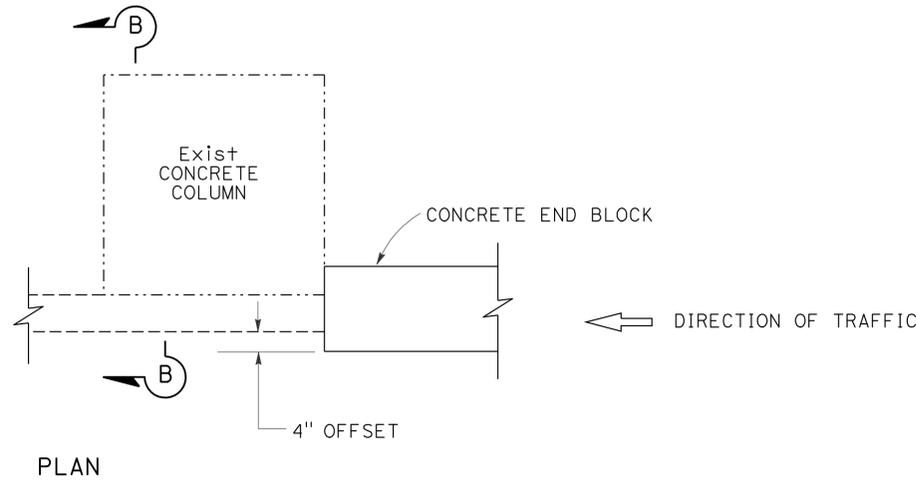
**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- EXISTING BARRIER DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BEFORE FABRICATING ANY END CONNECTION TO CONFORM WITH EXISTING CONDITIONS.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	14	70

DENNIS L. CORCORAN 4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER

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.



**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**

LOCATION: 78

NO SCALE

**C-12**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC

FUNCTIONAL SUPERVISOR  
 ROBERT PETERSON

CALCULATED-DESIGNED BY  
 CHECKED BY

DENNIS CORCORAN  
 ROBERT PETERSON

REVISED BY  
 DATE REVISED

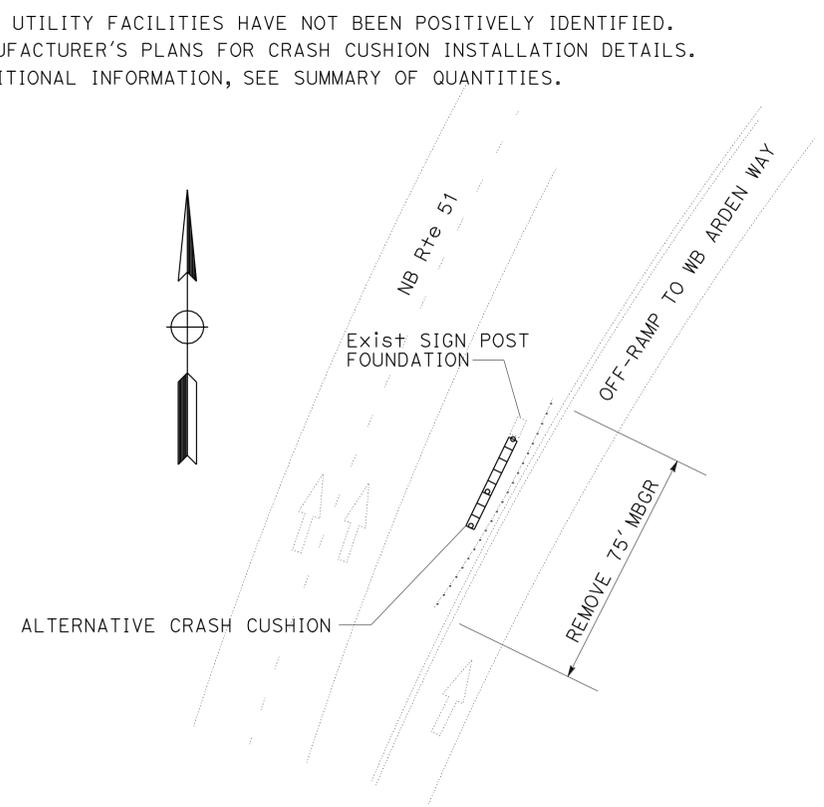
- NOTES:**
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
  - SEE MANUFACTURER'S PLANS FOR CRASH CUSHION INSTALLATION DETAILS.
  - FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	15	70

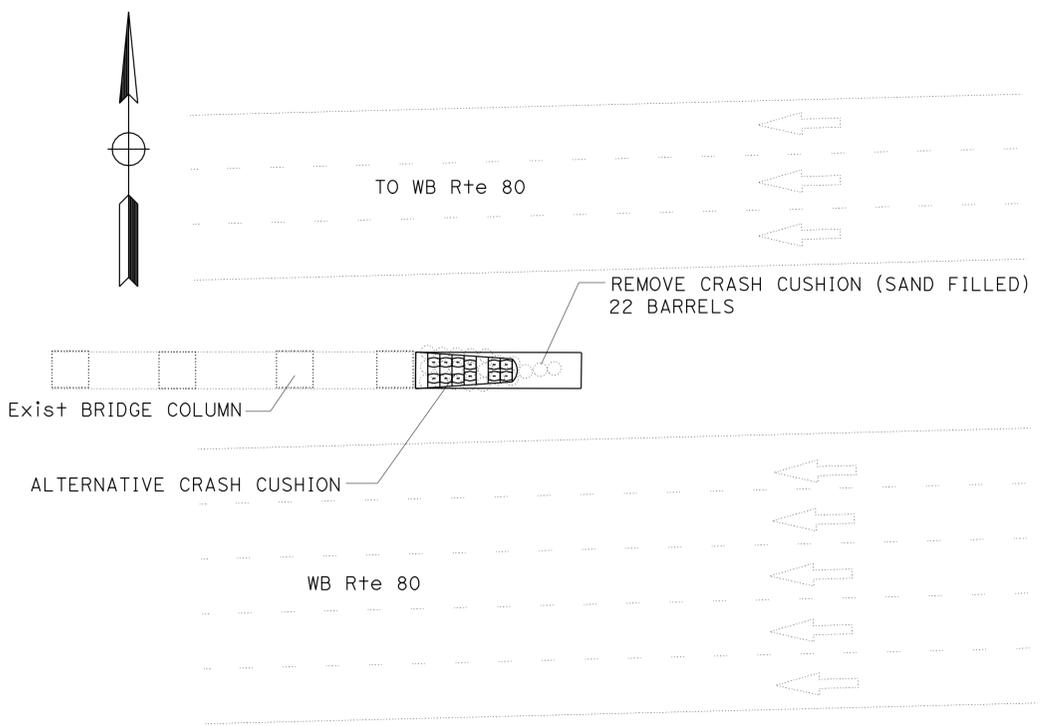
4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA

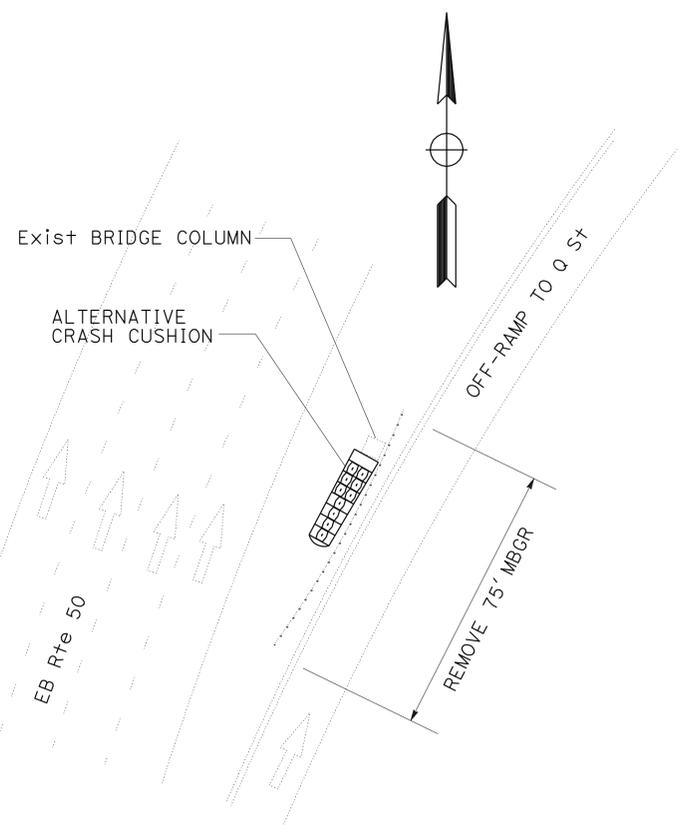
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



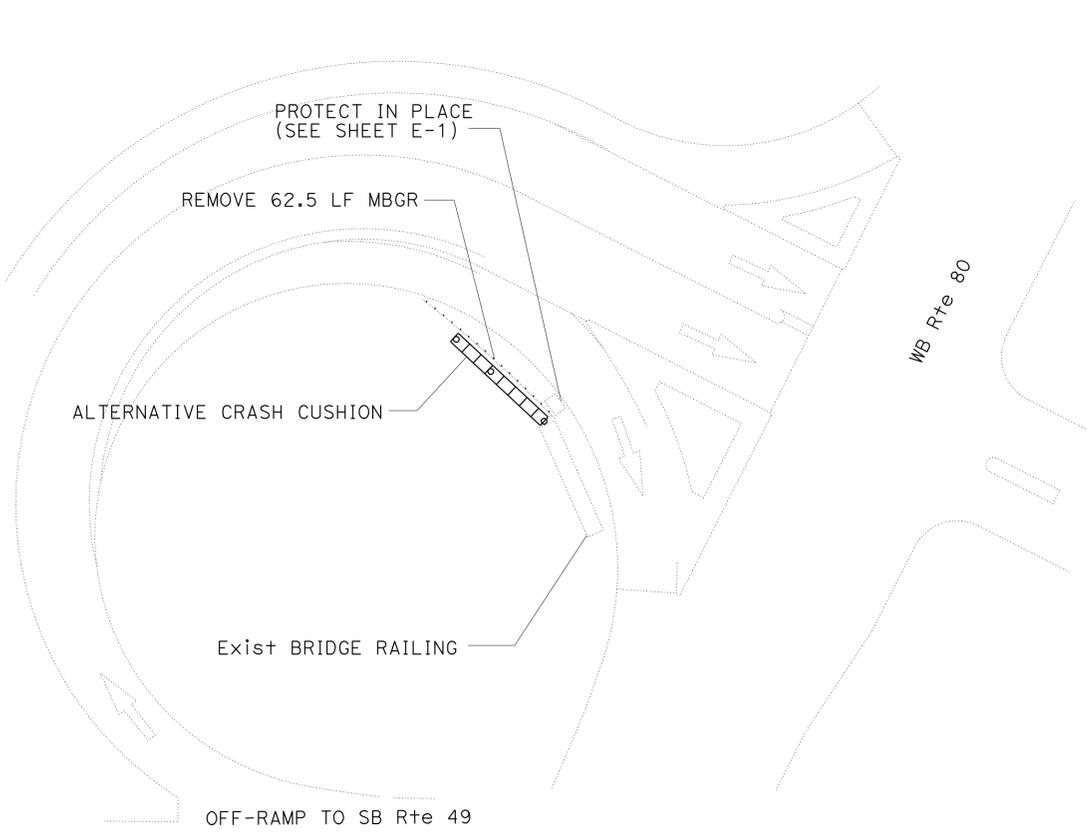
LOCATION 41



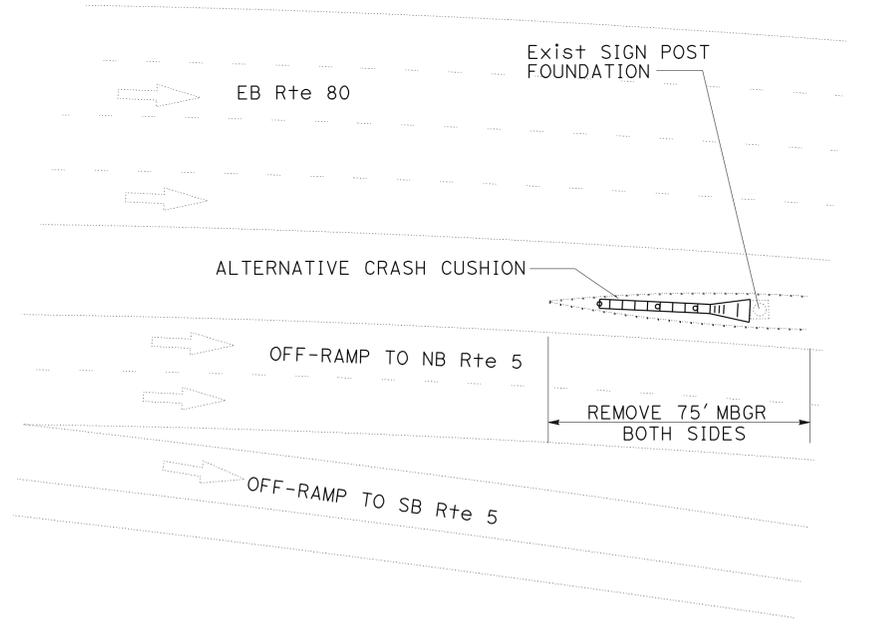
LOCATION 75



LOCATION 50



LOCATION 77



LOCATION 68

**CONSTRUCTION DETAILS**  
 LOCATIONS: 41, 50, 68, 75, & 77

NO SCALE

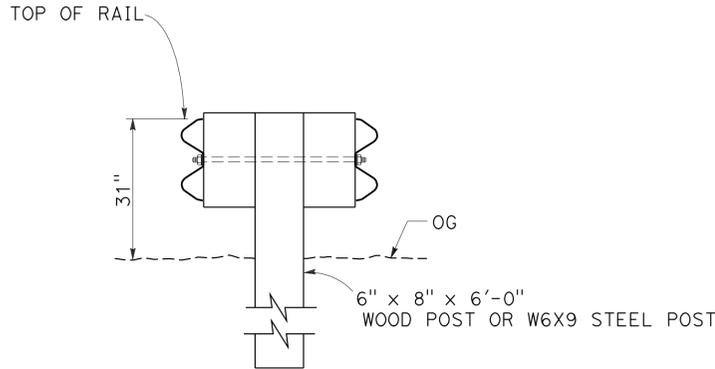
**C-13**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	17	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11				PLANS APPROVAL DATE	
<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>					

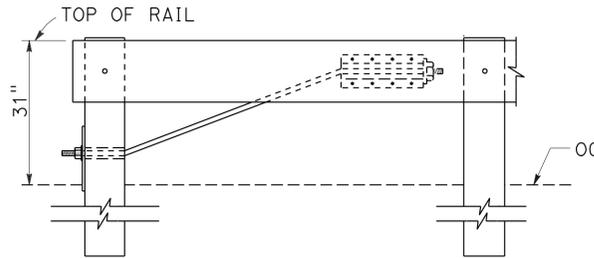
**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- EXISTING BARRIER DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BEFORE FABRICATING ANY END CONNECTION TO CONFORM TO EXISTING CONDITIONS.
- SAW CUT METAL RAIL NEATLY AND REMOVE PORTION AS REQUIRED. APPLY ZINC RICH PRIMER TO SAW CUT.
- FOR ADDITIONAL DETAILS, SEE STANDARD PLAN A77H2.
- FOR ADDITIONAL DETAILS, SEE REVISED STANDARD PLAN A77F3.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.



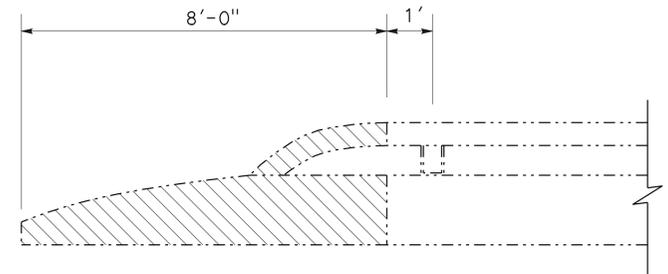
**MODIFIED DOUBLE METAL BEAM GUARD RAILING**

(SEE NOTE 5)



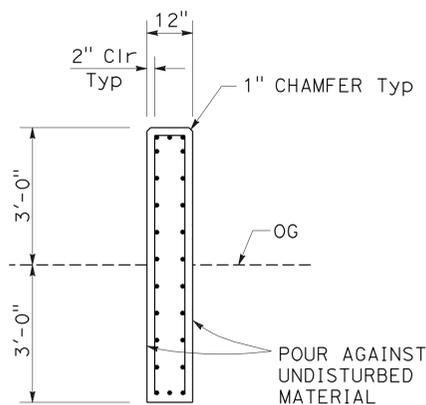
**MODIFIED RAIL TENSIONING ASSEMBLY**

(SEE NOTE 4)

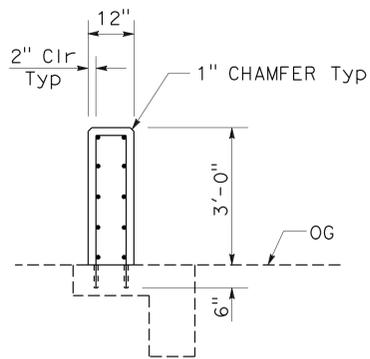


**REMOVE BRIDGE RAILING**

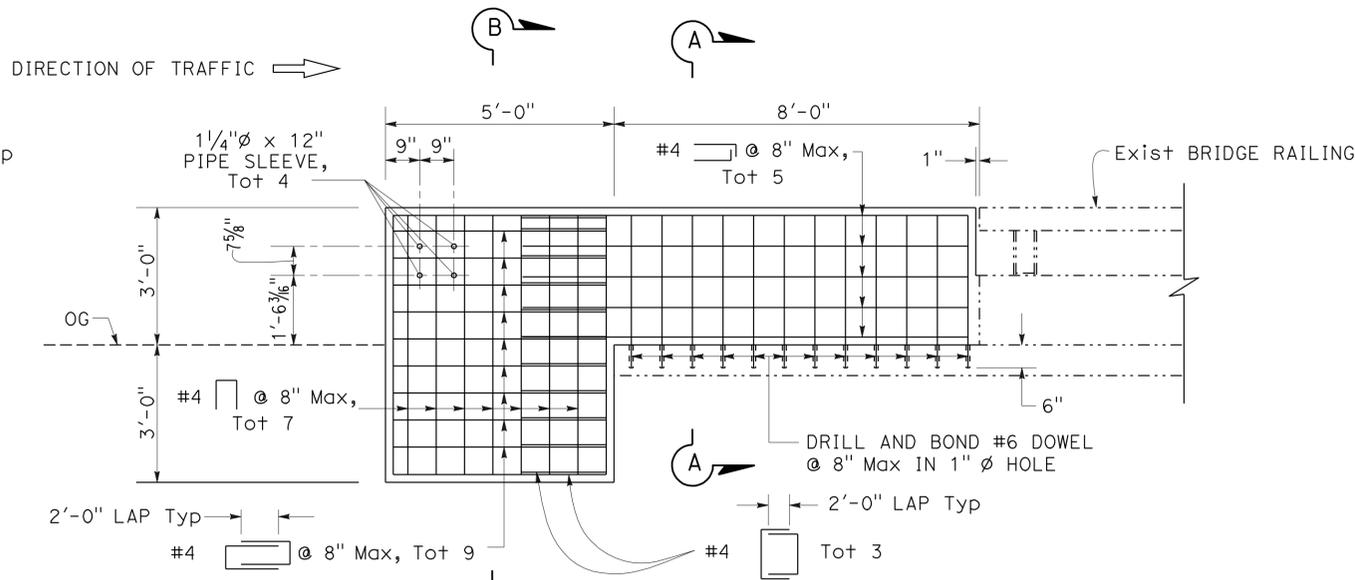
(SEE NOTE 3)



SECTION B-B



SECTION A-A



ELEVATION

**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**

LOCATION: 52  
(SHEET 2 OF 2)

NO SCALE

**C-15**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISOR: DENNIS CORCORAN  
 DATE REVISOR: ROBERT PETERSON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	18	70

<i>Dennis L. Corcoran</i> 4-21-11	
REGISTERED CIVIL ENGINEER	DATE
4-21-11	
PLANS APPROVAL DATE	

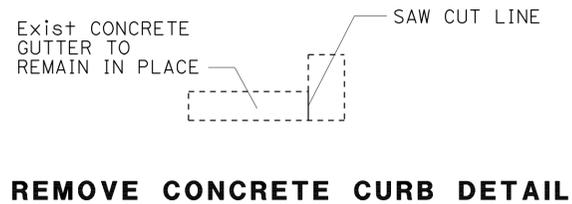
  

REGISTERED PROFESSIONAL ENGINEER	DENNIS CORCORAN
No. 59438	Exp. 12-31-11
CIVIL	

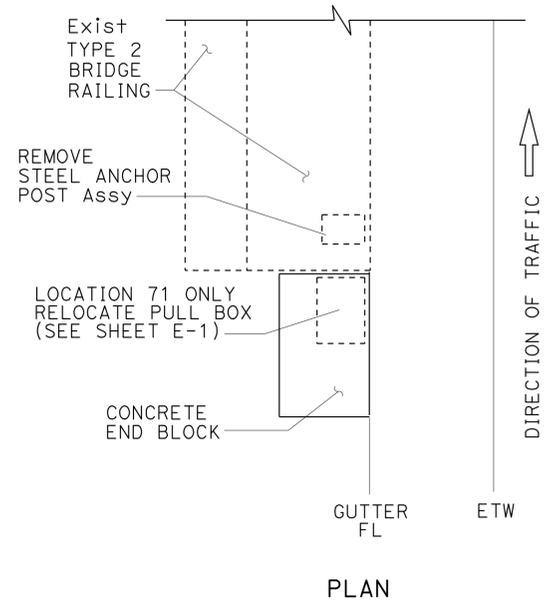
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

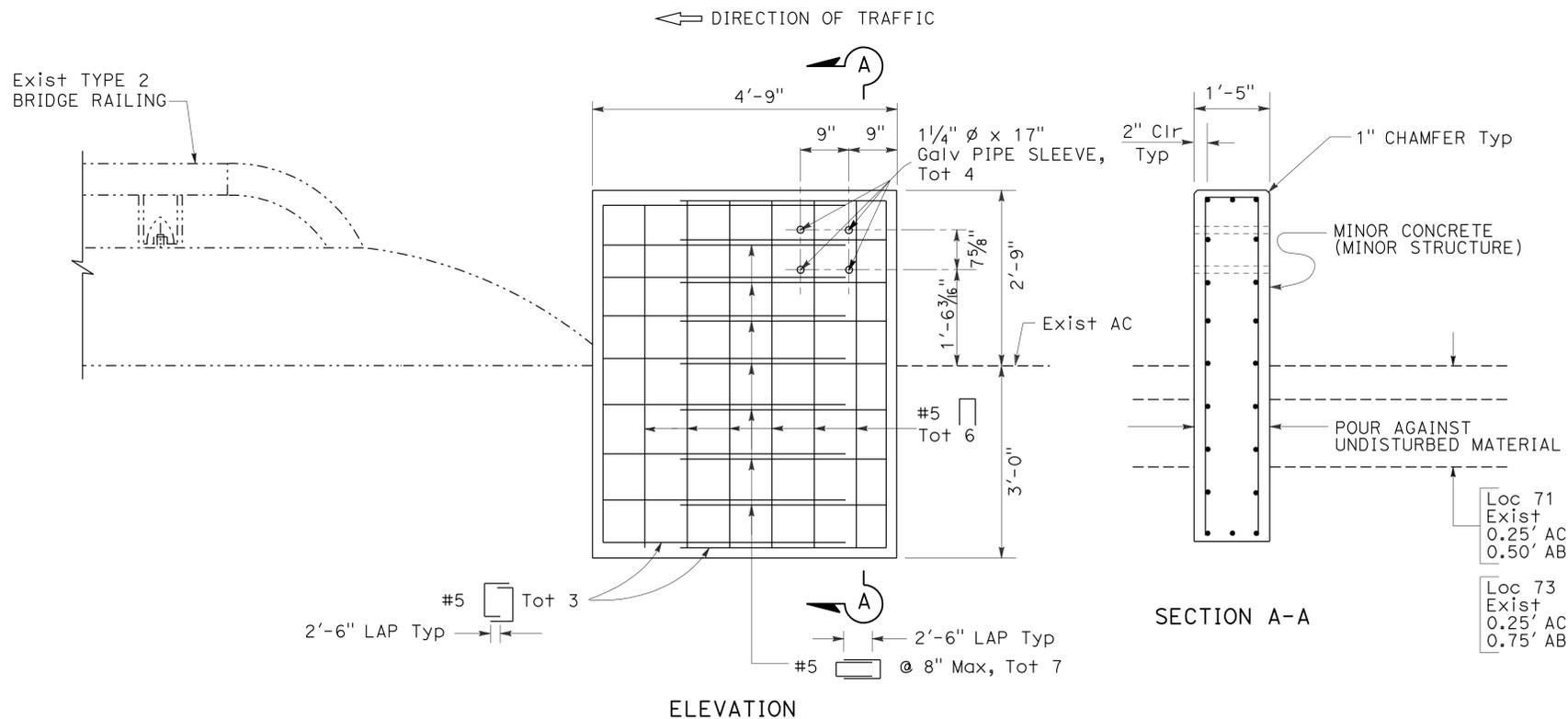
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- FOR MODIFIED MBGR DETAILS, SEE SHEET C-24.
- FOR MODIFIED TRANSITION RAILING (TYPE WB) DETAILS, SEE SHEET C-25.
- FOR MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM DETAILS, SEE SHEET C-26.
- COORDINATE WITH THE ENGINEER BEFORE WORK TO RELOCATE PULL BOX.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.



**REMOVE CONCRETE CURB DETAIL**



**PLAN**



**SECTION A-A**

**ELEVATION**

**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**  
**LOCATIONS: 71 & 73**  
 NO SCALE  
**C-16**

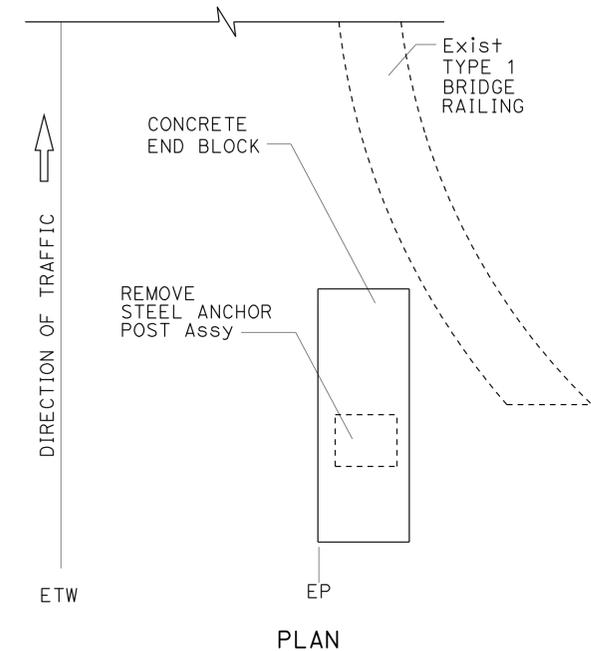
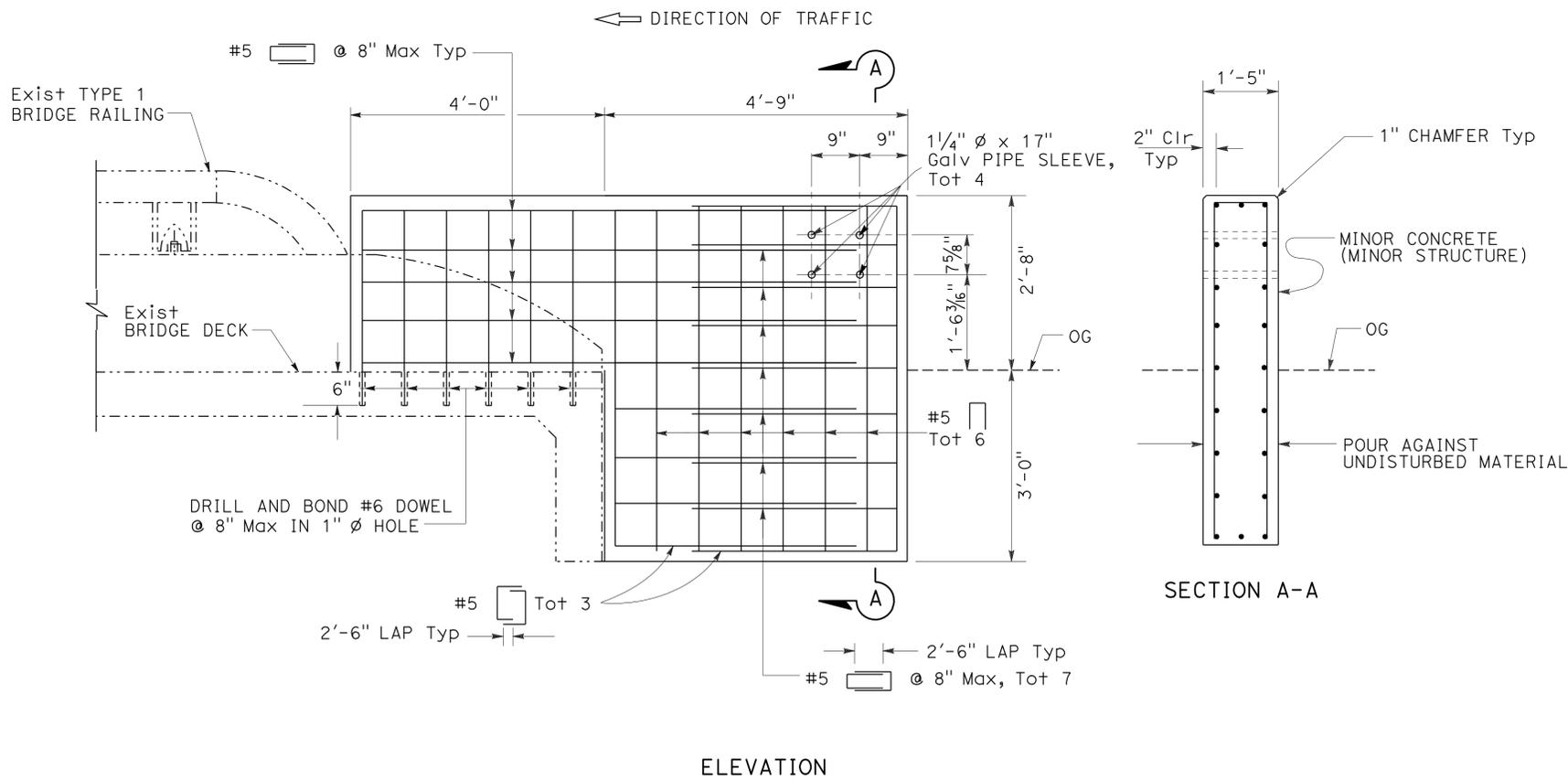
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b>	ROBERT PETERSON	DENNIS CORCORAN	
TRAFFIC	ROBERT PETERSON	ROBERT PETERSON	
	CHECKED BY	DESIGNED BY	
		DENNIS CORCORAN	
		ROBERT PETERSON	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	19	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11 PLANS APPROVAL DATE					
<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:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

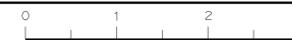
DESIGNED BY	REVISOR	DATE
DENNIS CORCORAN	ROBERT PETERSON	
CHECKED BY	DESIGNED BY	DATE
ROBERT PETERSON	DENNIS CORCORAN	
FUNCTIONAL SUPERVISOR	CHECKED BY	DATE
ROBERT PETERSON	ROBERT PETERSON	
DEPARTMENT OF TRANSPORTATION	DESIGNED BY	DATE
TRAFFIC	DENNIS CORCORAN	



**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**  
 LOCATIONS: 72 & 74  
 NO SCALE

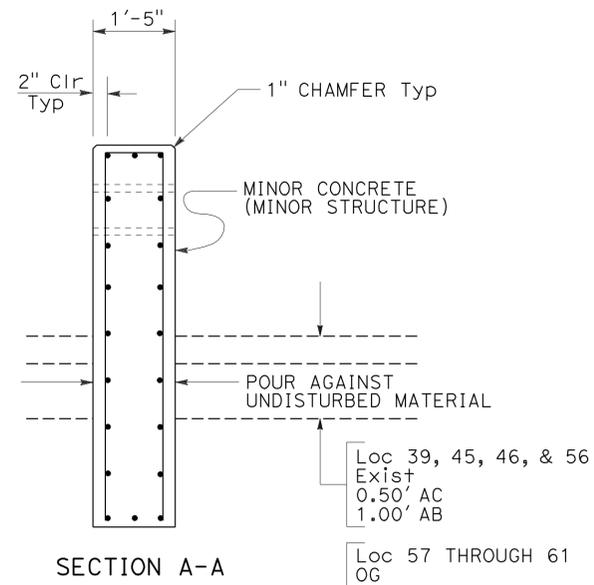
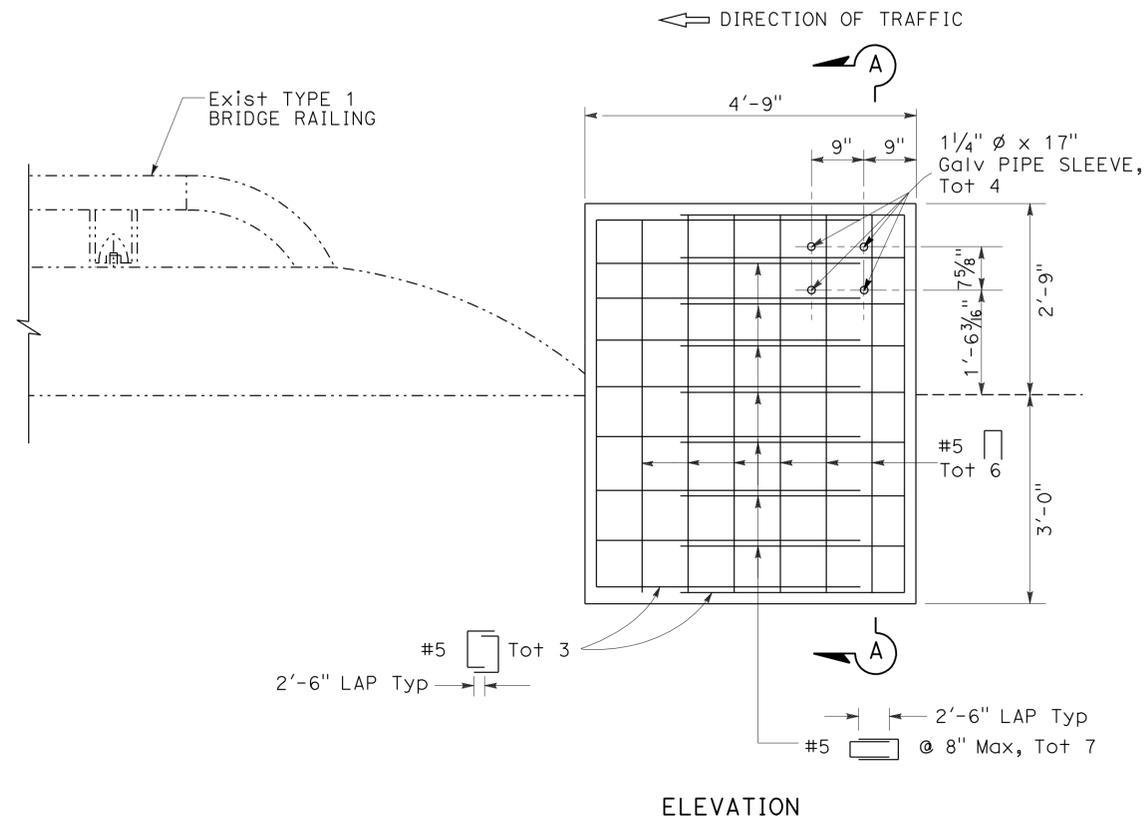
**C-17**



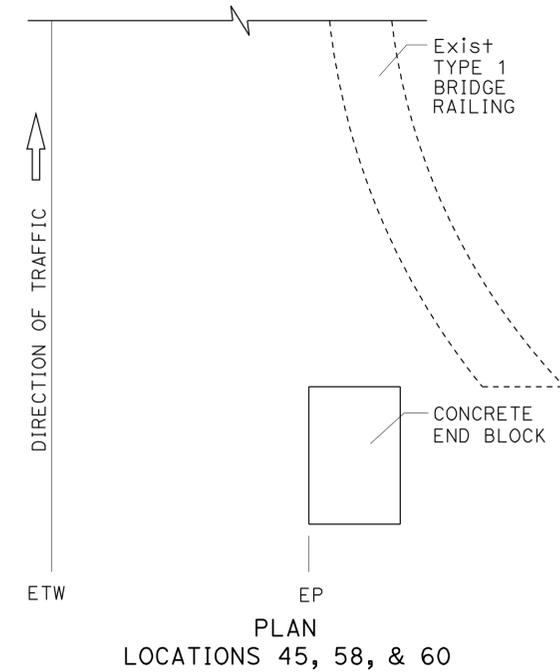
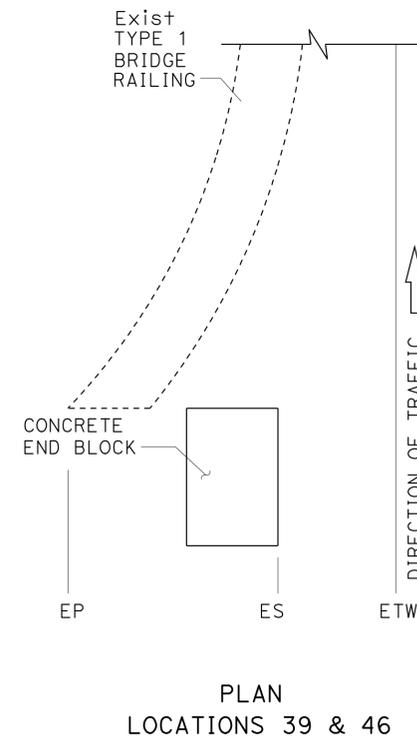
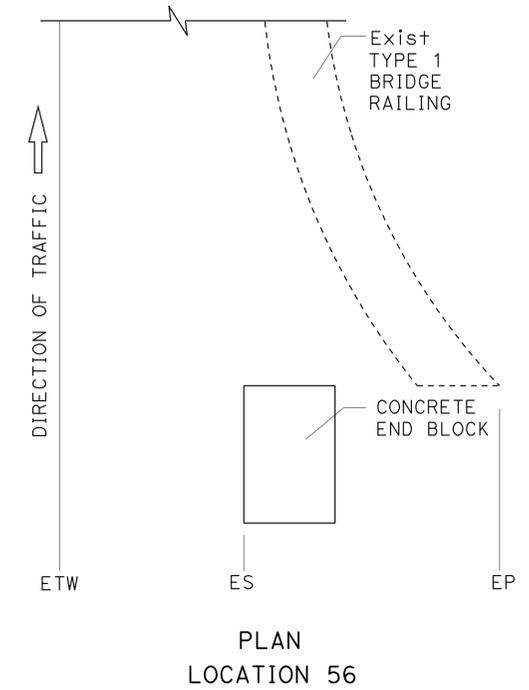
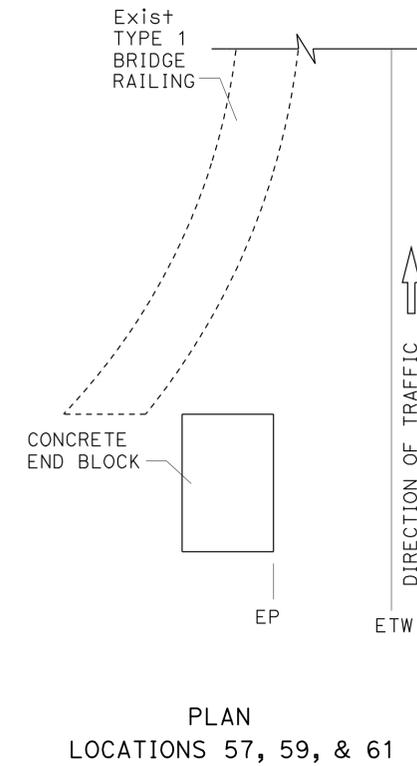
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	20	70
Dennis L. Corcoran			4-21-11	REGISTERED CIVIL ENGINEER DATE	
4-21-11			PLANS APPROVAL DATE		
No. 59438			Exp. 12-31-11		
CIVIL			STATE OF CALIFORNIA		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.



**CONCRETE END BLOCK DETAIL**



**CONSTRUCTION DETAILS**  
LOCATIONS: 39, 45, 46, & 56 THROUGH 61  
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
TRAFFIC

FUNCTIONAL SUPERVISOR: ROBERT PETERSON

DESIGNED BY: DENNIS CORCORAN

CHECKED BY: ROBERT PETERSON

REVISOR: DENNIS CORCORAN

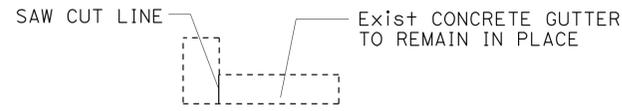
DATE: DENNIS CORCORAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: ROBERT PETERSON  
 REVISIONS: DENNIS CORCORAN, ROBERT PETERSON

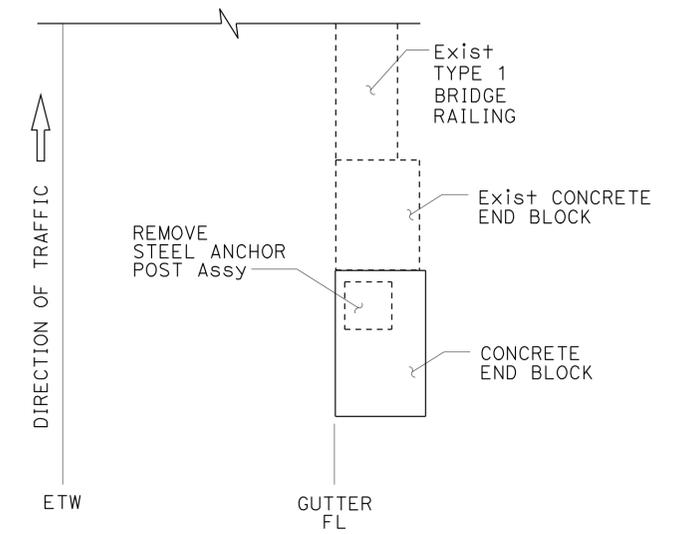
**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- EXISTING BARRIER DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BEFORE FABRICATING ANY END CONNECTION TO CONFORM WITH EXISTING CONDITIONS.
- FOR MODIFIED TRANSITION RAILING (TYPE WB) DETAILS, SEE SHEET C-25.
- FOR MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM DETAILS, SEE SHEET C-26.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

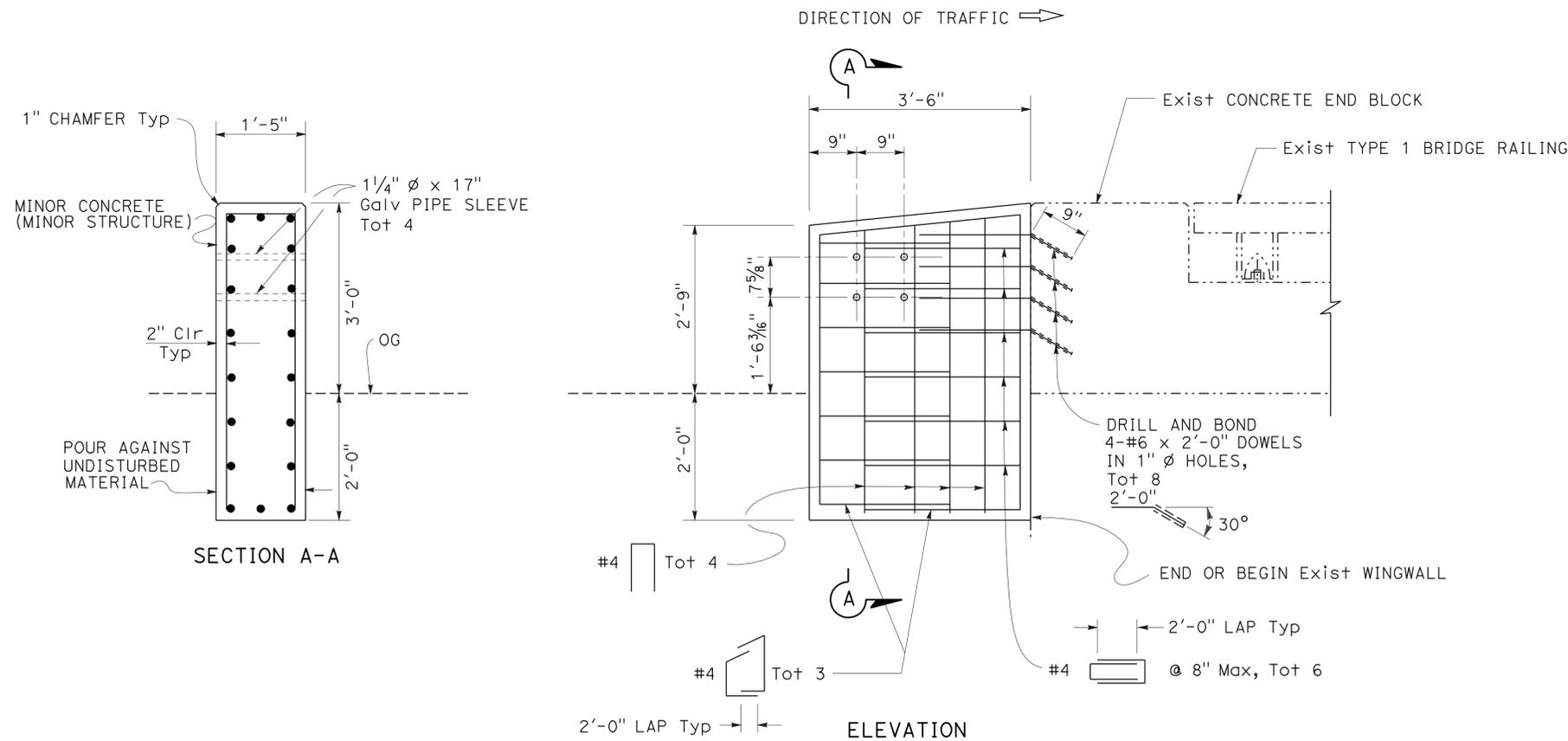
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	21	70
Dennis L. Corcoran			4-21-11	REGISTERED CIVIL ENGINEER DATE	
4-21-11			PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



**REMOVE CONCRETE CURB DETAIL**

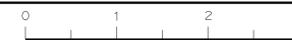


PLAN



**CONCRETE END BLOCK DETAIL**

**CONSTRUCTION DETAILS**  
 LOCATION: 47  
 NO SCALE  
**C-19**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISIONS: REVISED BY: DENNIS CORCORAN, DATE: 4-21-11  
 REVISED BY: ROBERT PETERSON, DATE: 4-21-11

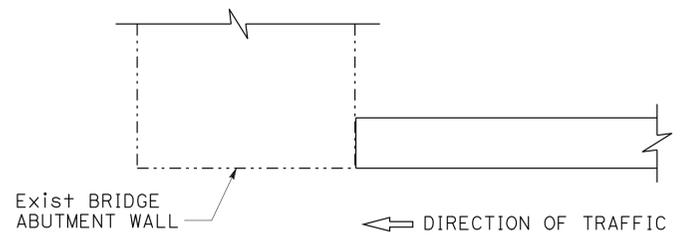
**NOTES:**

- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
- ALL CONCRETE END BLOCKS HAVE A 5" x 5" CHAMFER.
- FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

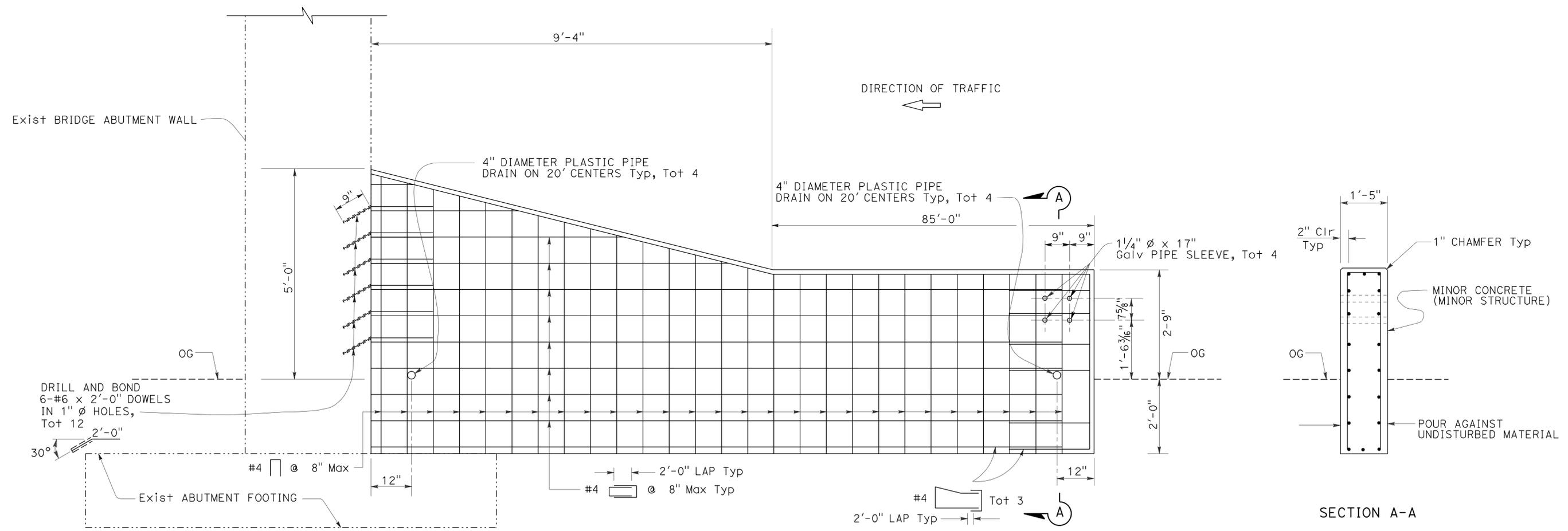
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	22	70

REGISTERED CIVIL ENGINEER: *Dennis L. Corcoran*  
 No. 59438  
 Exp. 12-31-11  
 DATE: 4-21-11  
 PLANS APPROVAL DATE: 4-21-11

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.

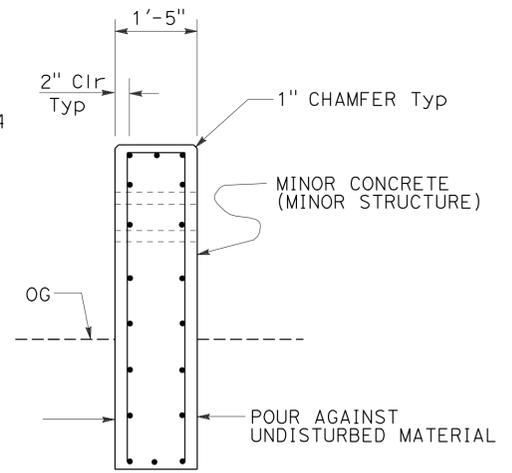


PLAN



ELEVATION

**CONCRETE END BLOCK DETAIL**



SECTION A-A

**CONSTRUCTION DETAILS**

LOCATION: 48

NO SCALE

**C-20**

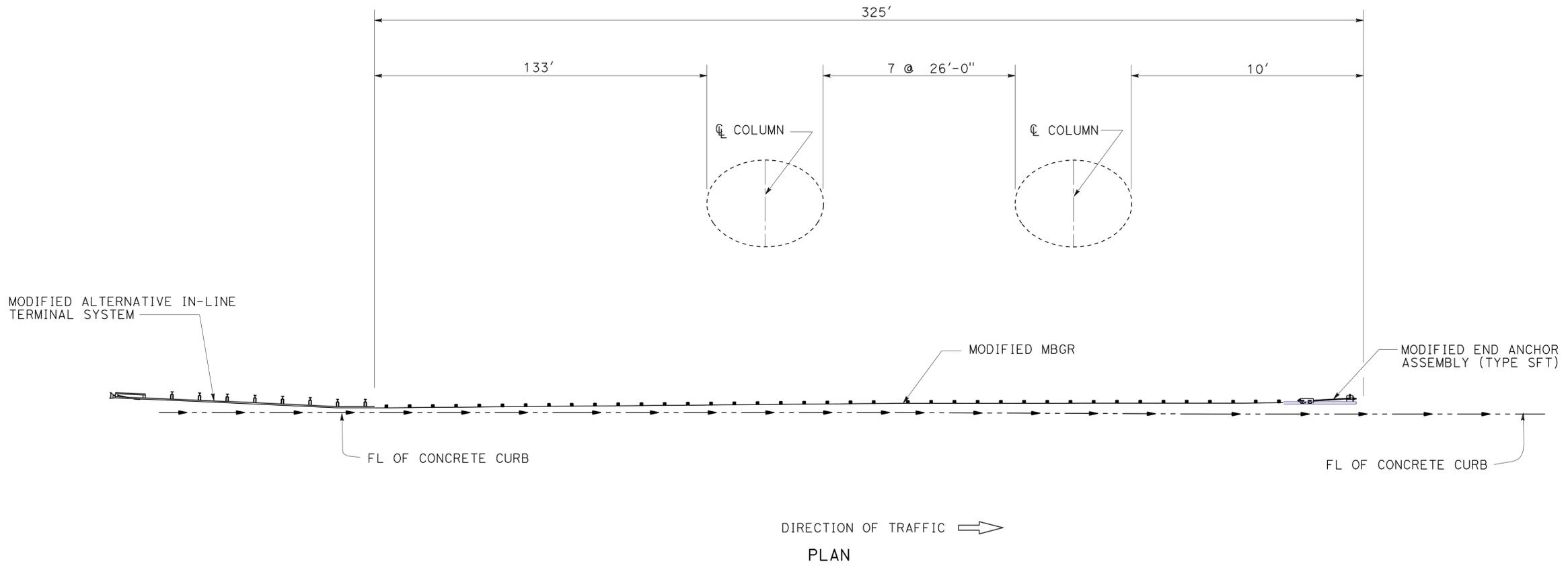


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED: ROBERT PETERSON

**NOTES:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
2. FOR MODIFIED MBGR DETAILS, SEE SHEET C-24.
3. FOR MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM DETAILS, SEE SHEET C-26.
4. FOR MODIFIED END ANCHOR ASSEMBLY (TYPE SFT) DETAILS, SEE SHEET C-27.
5. FOR ADDITIONAL INFORMATION, SEE SUMMARY OF QUANTITIES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yub	5, 50, 51, 65, 80, etc.	Var	24	70
<i>Dennis L. Corcoran</i> REGISTERED CIVIL ENGINEER			4-21-11	DATE	
4-21-11 PLANS APPROVAL DATE					
<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>					



**ELLIPTICAL COLUMNS WITH MODIFIED MBGR**

**CONSTRUCTION DETAILS**

LOCATION: 70

NO SCALE

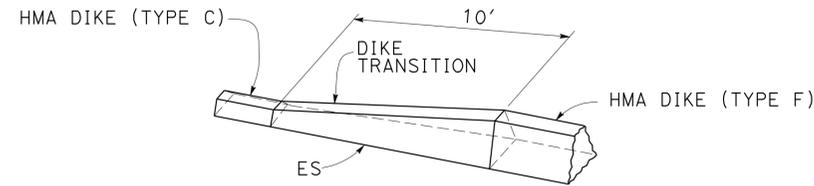
**C-22**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5, 50, 51, 65, 80, etc.	Var	25	70
<i>Dennis L. Corcoran</i> REGISTERED CIVIL ENGINEER			4-21-11 DATE		
PLANS APPROVAL DATE			4-21-11		
<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>					

**NOTE:**

1. FOR ADDITIONAL DETAILS, SEE STANDARD PLAN A87B.

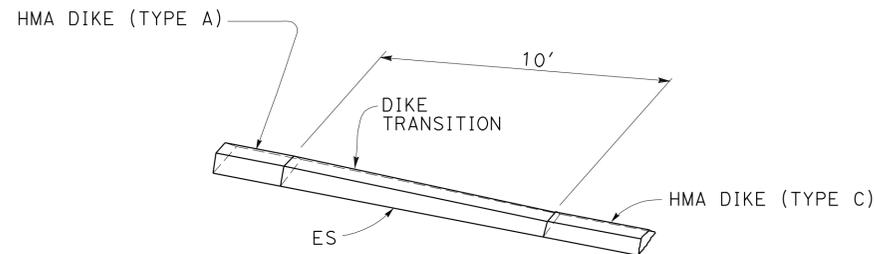
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
<b>Caltrans</b>	ROBERT PETERSON	CHECKED BY	DENNIS CORCORAN
TRAFFIC	ROBERT PETERSON		ROBERT PETERSON
			DATE REVISOR



**HMA DIKE (TYPE C) TO HMA DIKE (TYPE F)**



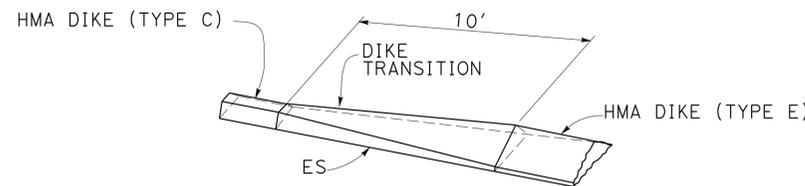
LOCATIONS: 1, 14, 29, 31, 35, 36, 40, 43, 45, 46, 55, 56, 59, 61, & 74



**HMA DIKE (TYPE A) TO HMA DIKE (TYPE C)**



LOCATIONS: 35, 36, 43, 52, & 61



**HMA DIKE (TYPE C) TO HMA DIKE (TYPE E)**



LOCATIONS: 56, 59, 60, & 74

**HMA DIKE TRANSITION DETAILS**

**CONSTRUCTION DETAILS**

NO SCALE

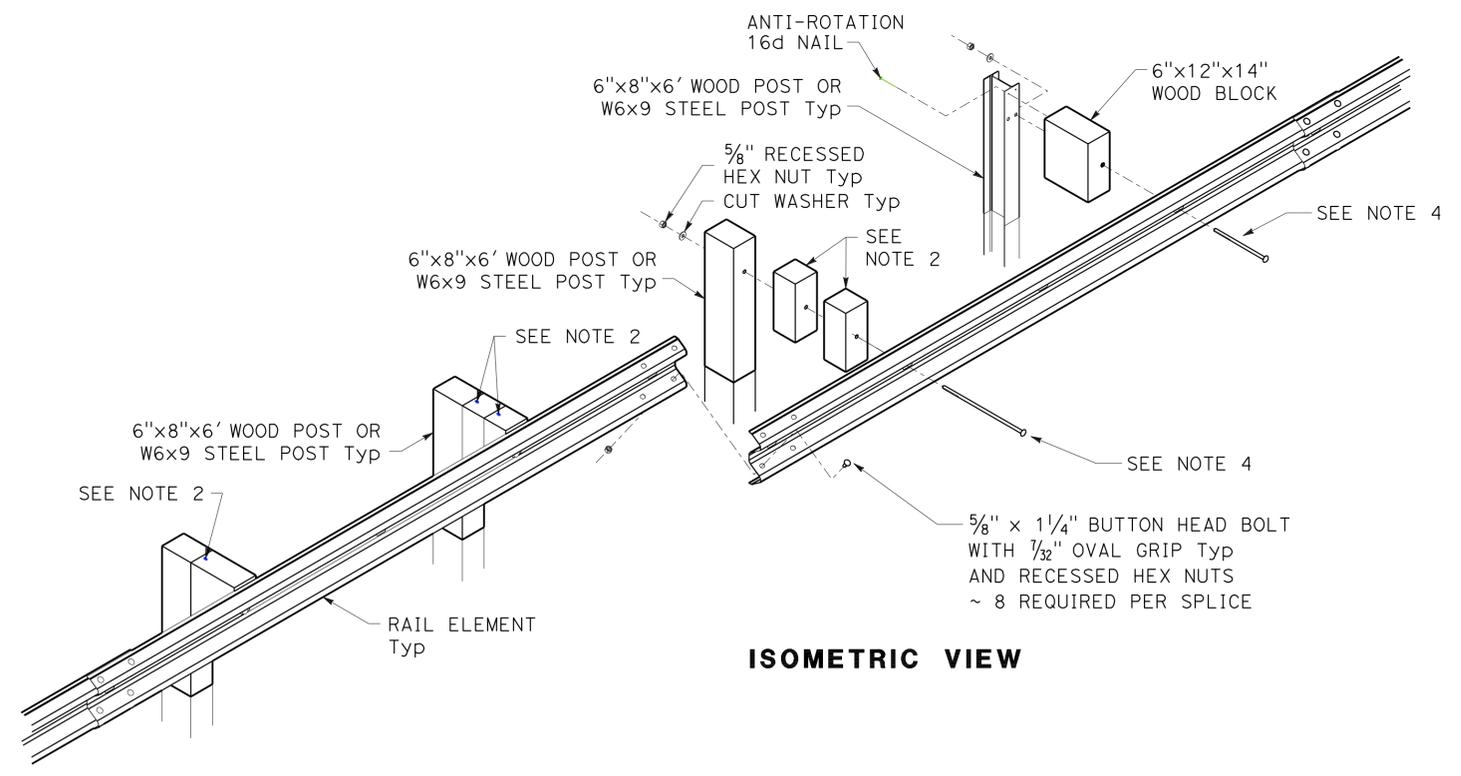
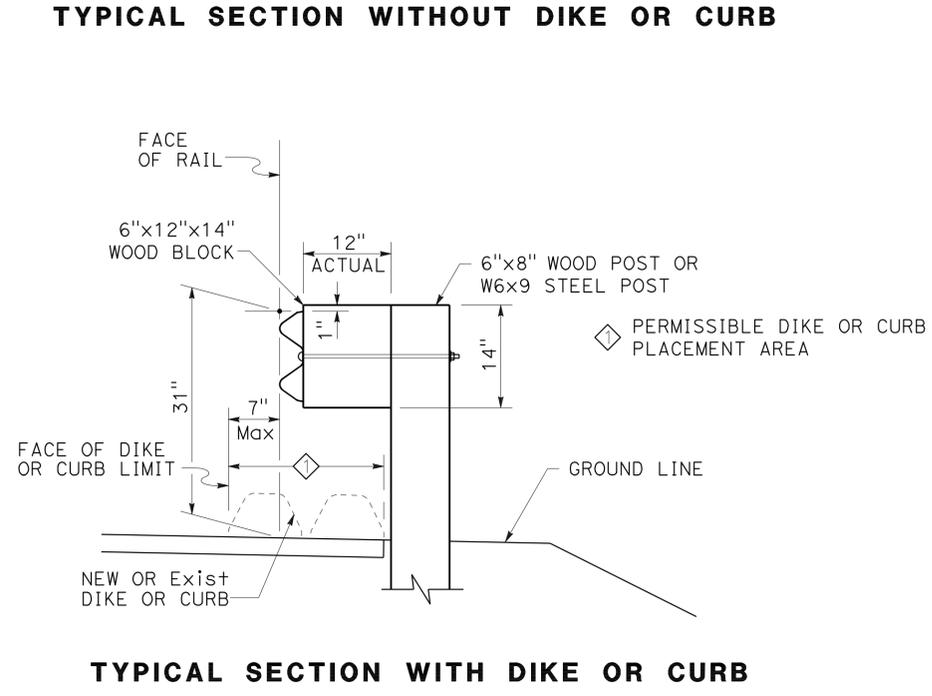
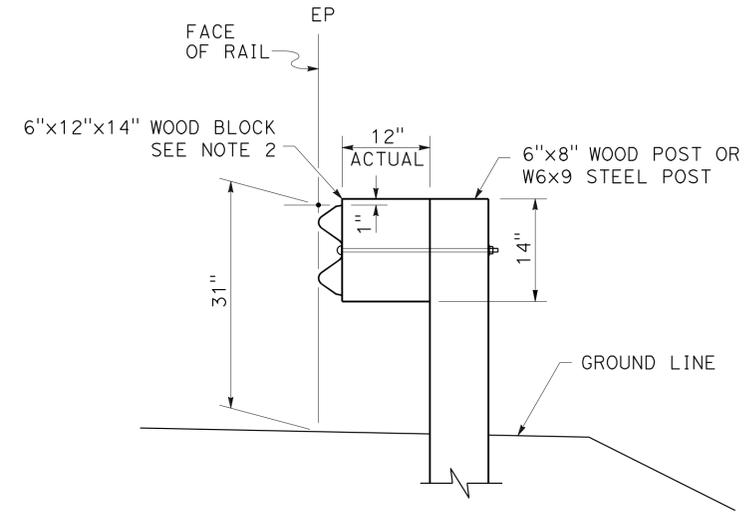
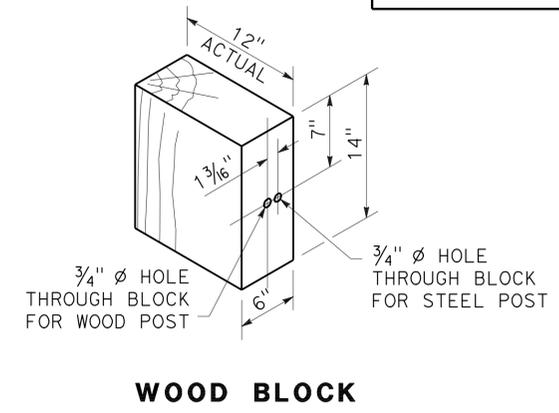
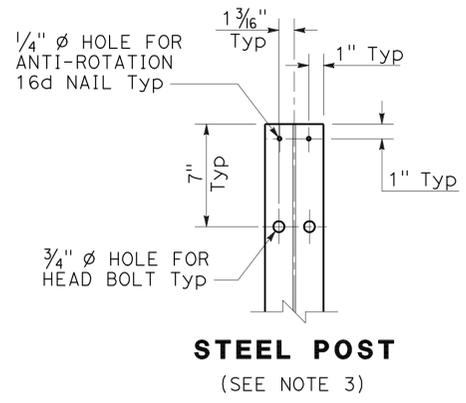
**C-23**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	26	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11 PLANS APPROVAL DATE					
<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. USE A SINGLE OR COMBINATION OF BLOCKS TO ACHIEVE THE ACTUAL 12" OFFSET. WOOD OR PLASTIC BLOCKS SHALL BE TOE-NAILED TO POST (AND BLOCKS, IF BLOCK COMBINATIONS ARE UTILIZED) WITH A 16d GALVANIZED NAIL TO PREVENT BLOCK ROTATION.
2. ON STEEL POSTS, ATTACH BLOCKOUTS USING BOLT HOLES ON APPROACHING TRAFFIC SIDE OF POST WEB.
3. USE A 5/8" x 22" BUTTON HEAD BOLT WITH A 1/32" OVAL GRIP (Typ) FOR WOOD POSTS, AND A 5/8" x 14" BUTTON HEAD BOLT WITH A 1/32" OVAL GRIP RECESSED HEX NUT WITH CUT WASHER (Typ) FOR STEEL POSTS.
4. FOR ADDITIONAL DETAILS, SEE STANDARD PLAN A77A1.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED: ROBERT PETERSON

**MODIFIED METAL BEAM GUARD RAILING**

**CONSTRUCTION DETAILS**

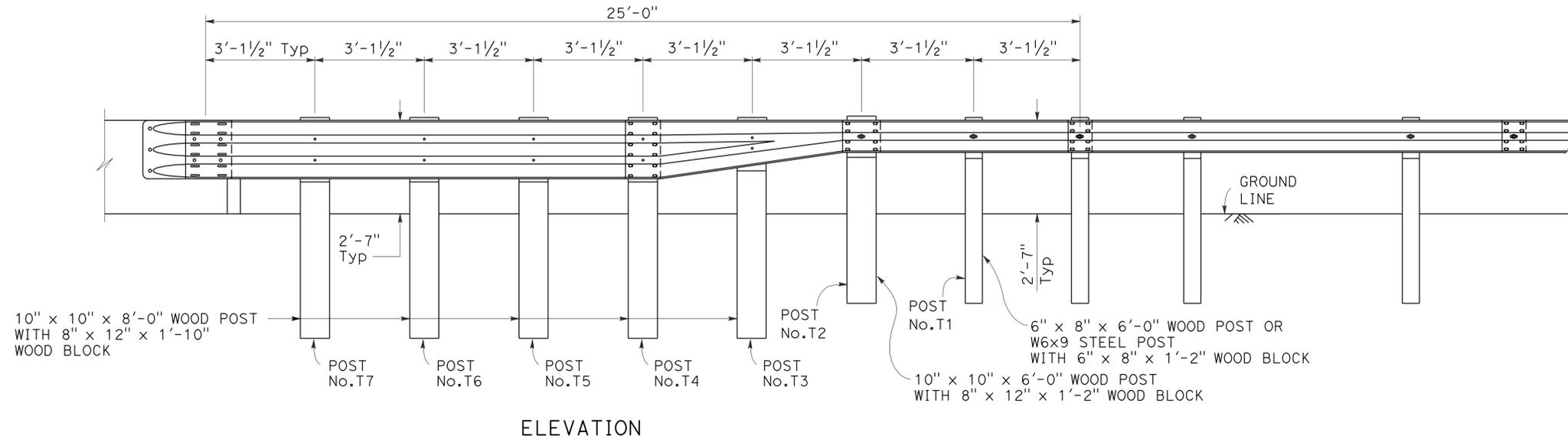
NO SCALE

**C-24**

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:25

**NOTES:**

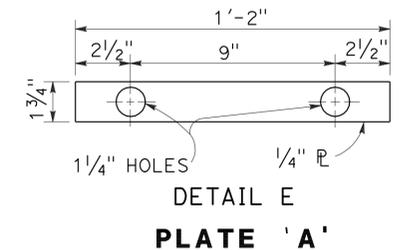
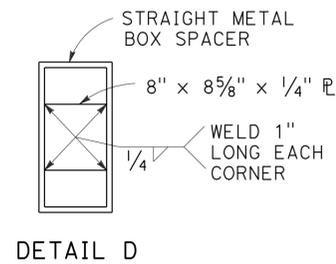
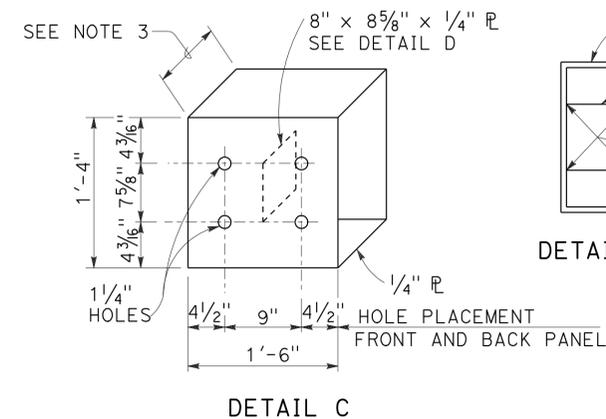
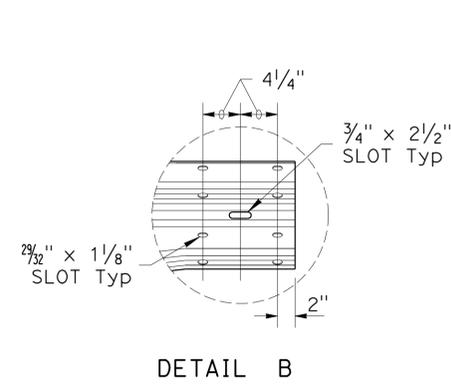
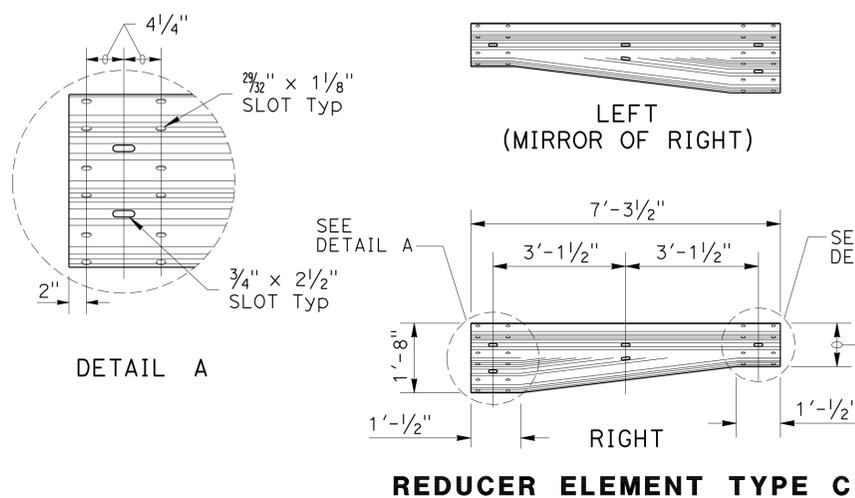
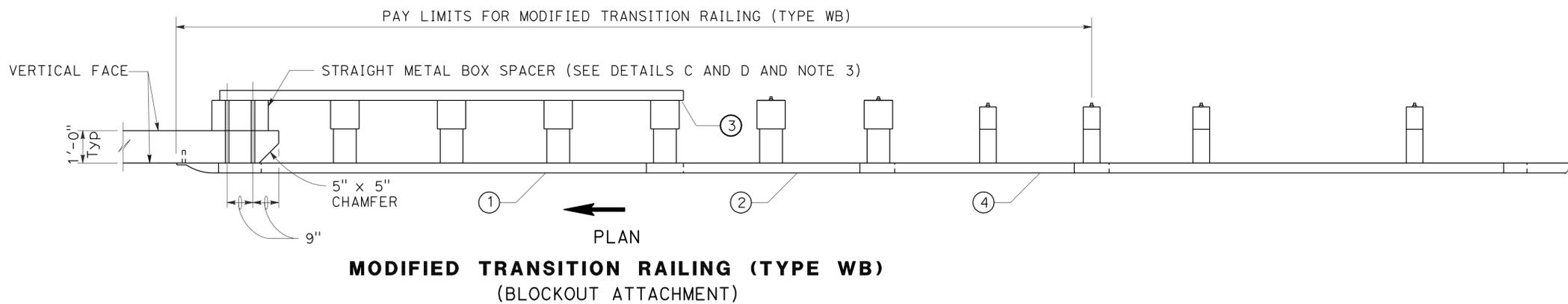
1.  $9/8$ " FOR 1'-0" WIDE CONCRETE END BLOCK.  
 $4/8$ " FOR 1'-5" WIDE CONCRETE END BLOCK.
2. FOR ADDITIONAL DETAILS, SEE REVISED STANDARD PLAN A77J4.



**LEGEND**

- ① NESTED THRIE BEAM ELEMENTS (ONE 12 GAGE ELEMENT NESTED OVER ONE 10 GAGE ELEMENT).
- ② ONE 10 GAGE REDUCER ELEMENT TYPE C.
- ③ ONE 12 GAGE THRIE BEAM ELEMENT.
- ④ ONE 10 GAGE "W" BEAM RAIL ELEMENT (7'-3 1/2" LENGTH)

10 GAGE = 0.135" THICK  
 12 GAGE = 0.108" THICK



**STRAIGHT METAL BOX SPACER**

**CONSTRUCTION DETAILS**

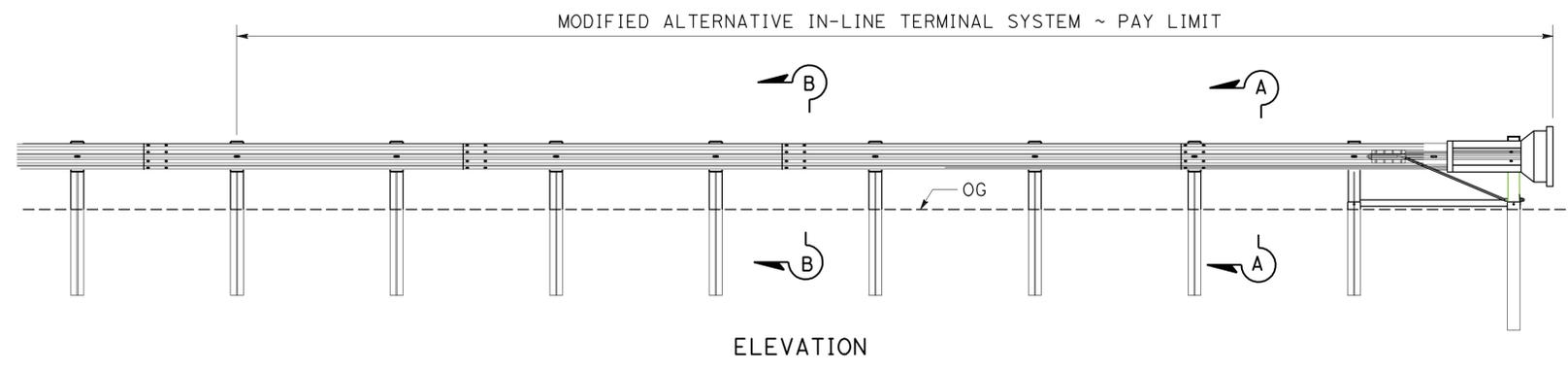
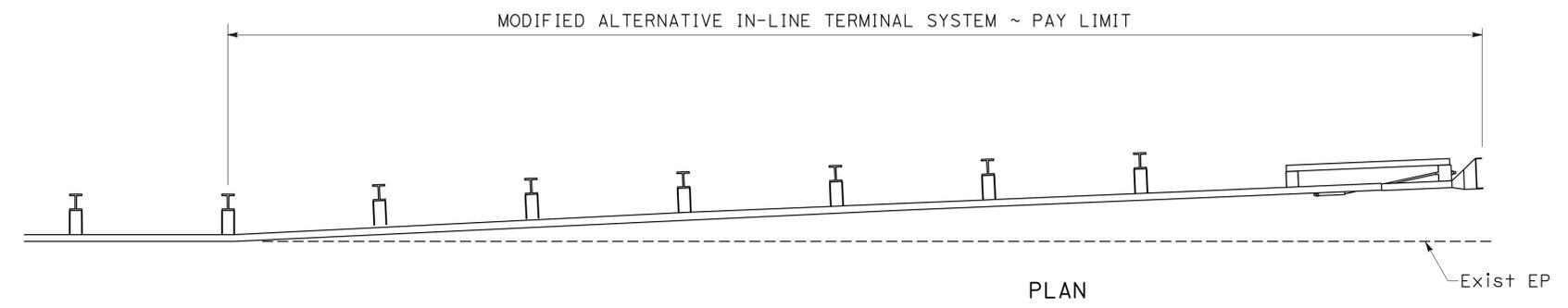
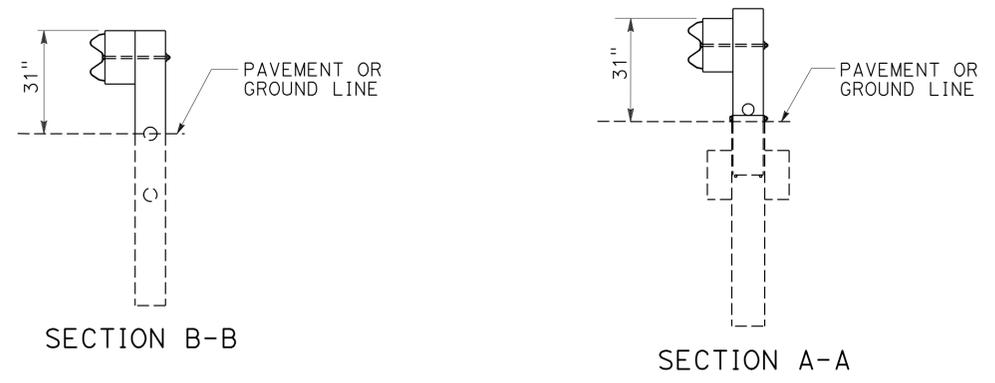
NO SCALE

**C-25**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	28	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE			4-21-11 PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER No. 59438 Exp. 12-31-11 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.		

**NOTE:**

1. FOR ADDITIONAL DETAILS, SEE STANDARD PLANS A77L2 AND A77L3.



**MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM**

**CONSTRUCTION DETAILS**

NO SCALE

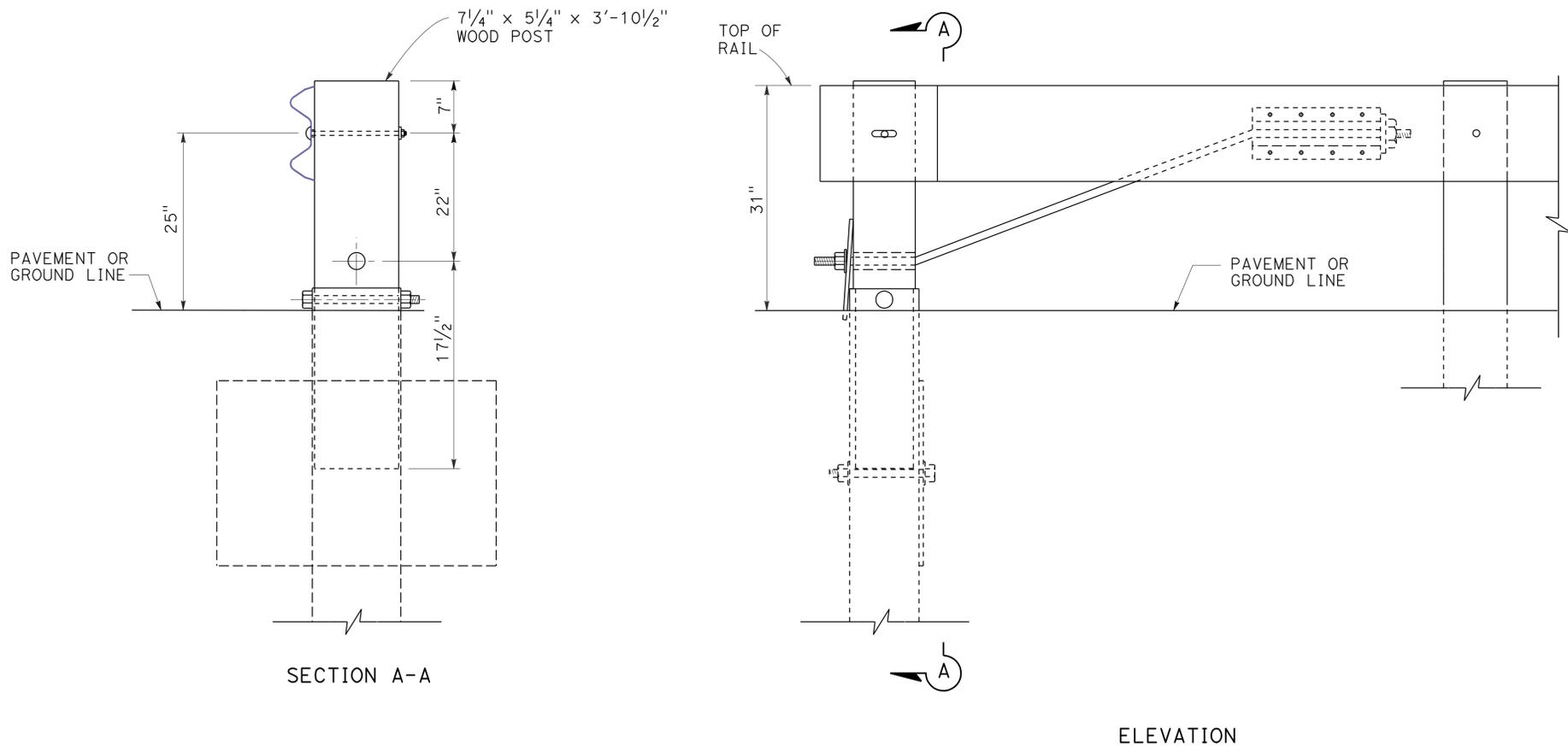
**C-26**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED: ROBERT PETERSON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5, 50, 51, 65, 80, etc.	Var	29	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11 PLANS APPROVAL DATE					
<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>					

**NOTE:**

1. FOR ADDITIONAL DETAILS, SEE STANDARD PLAN A77H1.



**MODIFIED END ANCHOR ASSEMBLY (TYPE SFT)**

**CONSTRUCTION DETAILS**  
 NO SCALE  
**C-27**

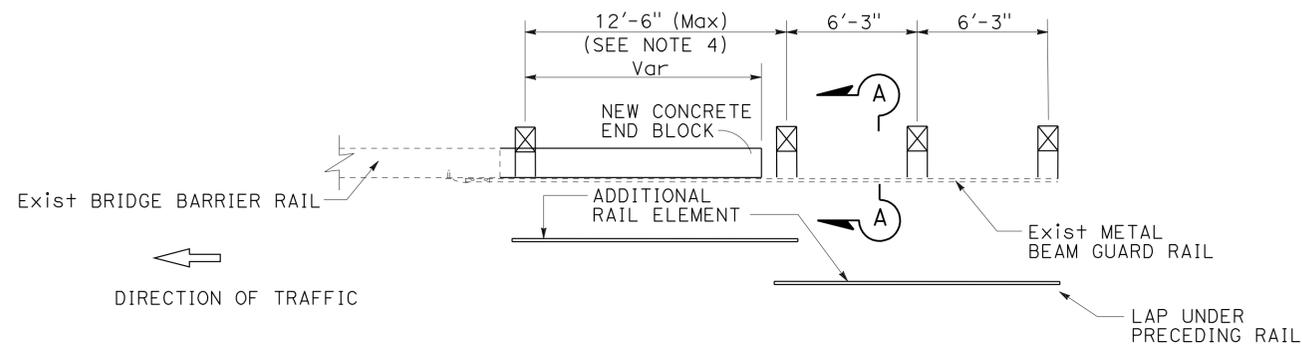
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	DENNIS CORCORAN	REVISED BY
<b>Caltrans</b>	ROBERT PETERSON	CHECKED BY	ROBERT PETERSON	DATE REVISED
TRAFFIC				

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:25

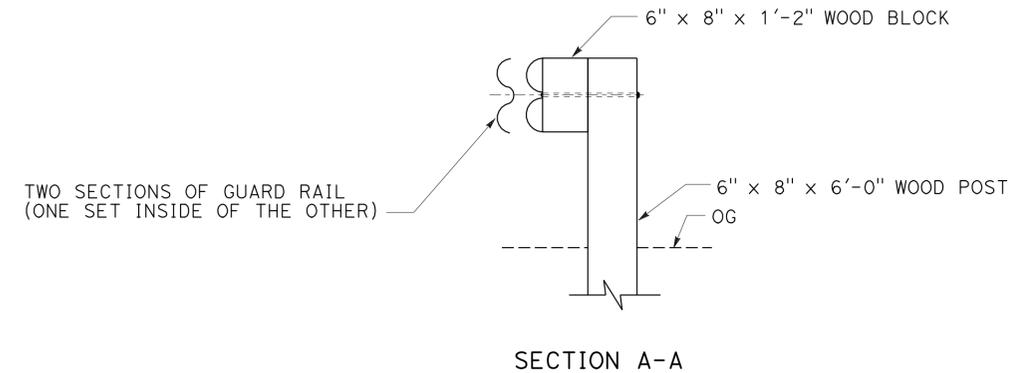
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5, 50, 51, 65, 80, etc.	Var	30	70
<i>Dennis L. Corcoran</i> 4-21-11 REGISTERED CIVIL ENGINEER DATE					
4-21-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

**NOTES:**

1. CONCRETE END BLOCKS SHALL BE SHIELDED FROM TRAFFIC UNTIL CONCRETE CURES AND PERMANENT MBGR CONNECTION IS PLACED.
2. THIS SHIELD DETAIL IS A SUGGESTED DETAIL. THE WORK FOR THIS DETAIL OR AN ALTERNATE DETAIL THAT MAYBE BE APPROVED BY THE ENGINEER IS NOT A SEPARATE PAY ITEM.
3. EXISTING POST SPACING MAY BE VARIABLE DEPENDING ON THE FIELD CONDITIONS.

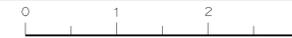


**CONCRETE END BLOCK TEMPORARY SHIELD DETAIL**  
(SEE NOTE 3)



SECTION A-A

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC
FUNCTIONAL SUPERVISOR	ROBERT PETERSON
CALCULATED-DESIGNED BY	CHECKED BY
DENNIS CORCORAN	ROBERT PETERSON
REVISOR BY	DATE REVISED





Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5,50,51, 65,80, etc.	Var	32	81

4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 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.

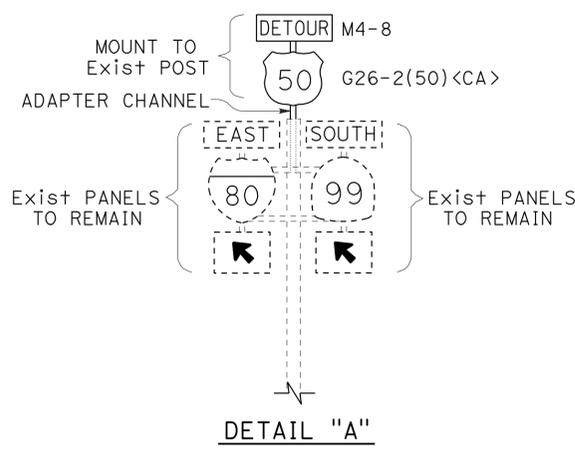
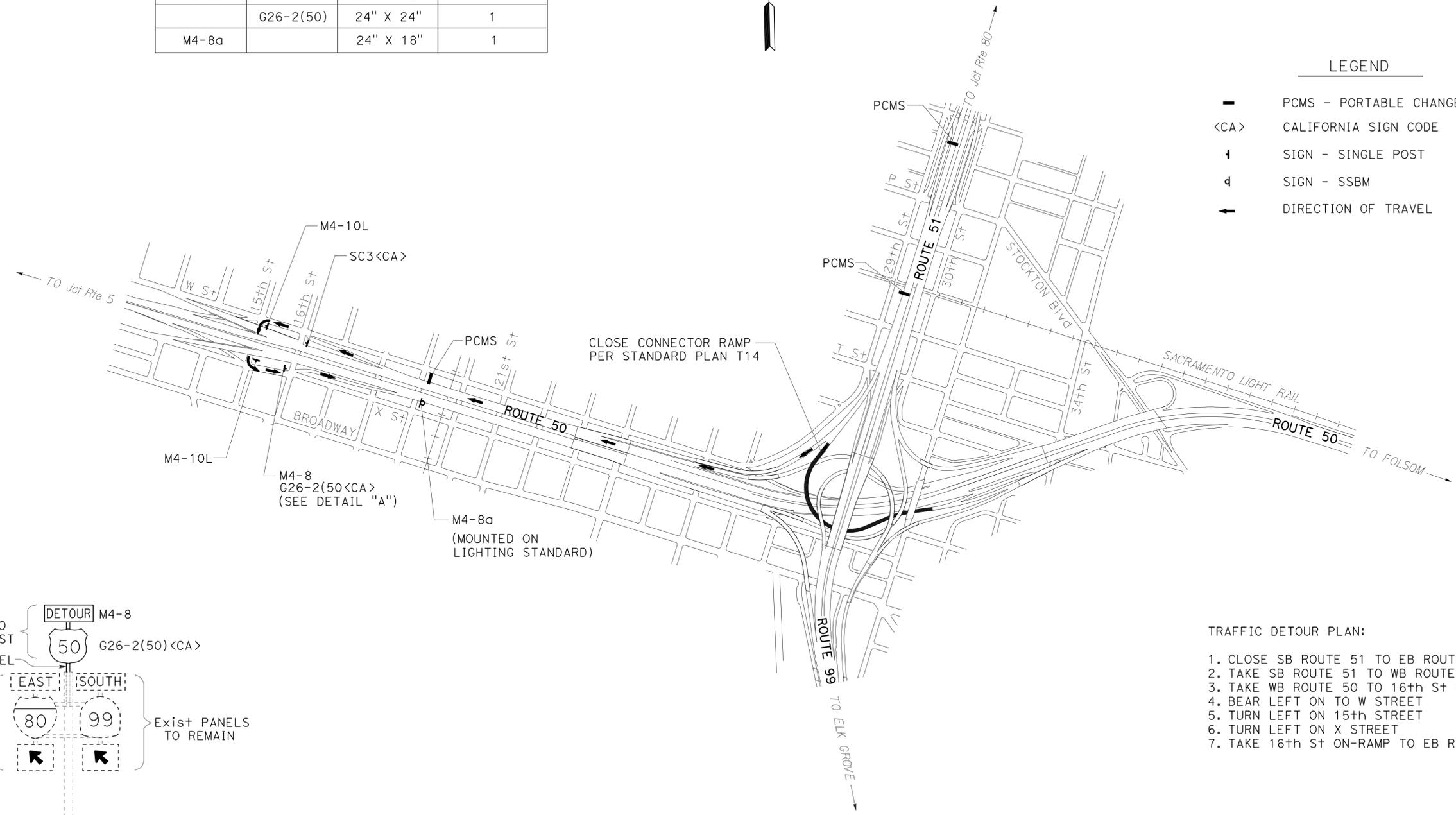
REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
	SC3	48" X 18"	1
M4-10L		48" X 18"	2
M4-8		24" X 12"	1
	G26-2(50)	24" X 24"	1
M4-8a		24" X 18"	1



LEGEND

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ↑ SIGN - SINGLE POST
- ⌞ SIGN - SSBM
- DIRECTION OF TRAVEL



- TRAFFIC DETOUR PLAN:
1. CLOSE SB ROUTE 51 TO EB ROUTE 50 CONNECTOR
  2. TAKE SB ROUTE 51 TO WB ROUTE 50 CONNECTOR
  3. TAKE WB ROUTE 50 TO 16th St OFF-RAMP
  4. BEAR LEFT ON TO W STREET
  5. TURN LEFT ON 15th STREET
  6. TURN LEFT ON X STREET
  7. TAKE 16th St ON-RAMP TO EB ROUTE 50

DETOUR FOR CLOSURE OF SB ROUTE 51 TO EB ROUTE 50 CONNECTOR

**MOTORIST INFORMATION PLAN**  
NO SCALE

**MI-1**

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON  
 CALCULATED/DESIGNED BY: JEFFREY S. JEWETT  
 CHECKED BY: JACK KEMMERLY  
 REVISED BY: JEFFREY S. JEWETT  
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	33	81

4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

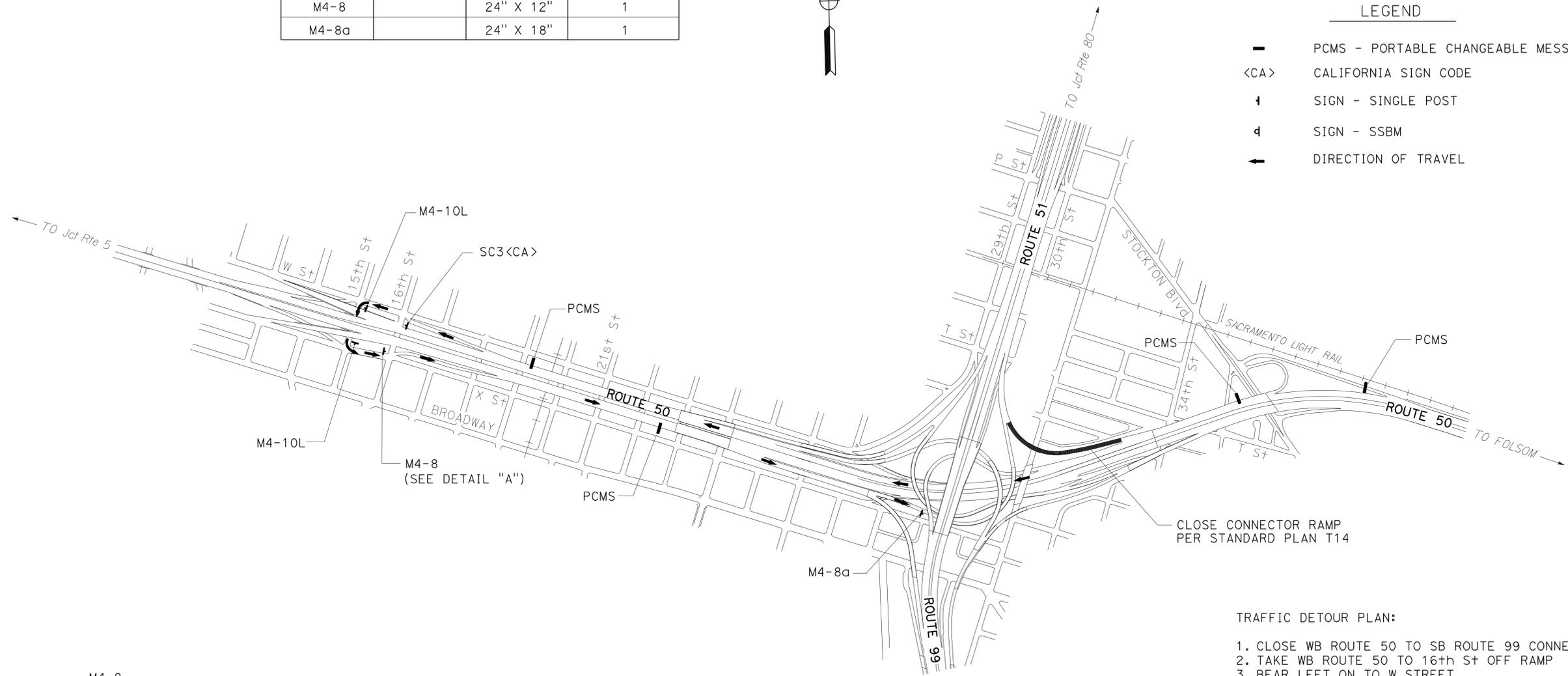
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
	SC3	48" X 18"	1
M4-10L		48" X 18"	2
M4-8		24" X 12"	1
M4-8a		24" X 18"	1

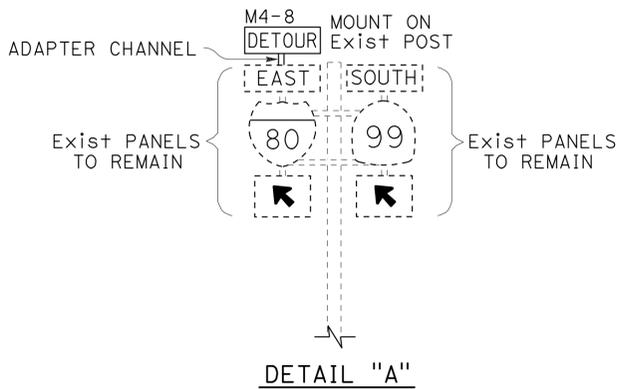


LEGEND

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ↑ SIGN - SINGLE POST
- Ⓧ SIGN - SSBM
- DIRECTION OF TRAVEL



- TRAFFIC DETOUR PLAN:
1. CLOSE WB ROUTE 50 TO SB ROUTE 99 CONNECTOR
  2. TAKE WB ROUTE 50 TO 16th St OFF RAMP
  3. BEAR LEFT ON TO W STREET
  4. TURN LEFT ON 15th STREET
  5. TURN LEFT ON X STREET
  6. TAKE 16th St ON RAMP TO EB ROUTE 50
  7. TAKE EB ROUTE 50 TO SB ROUTE 99 CONNECTOR



NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
WB ROUTE 50 TO  
NB ROUTE 51 CONNECTOR

**MOTORIST  
INFORMATION PLAN**  
NO SCALE

**MI-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON

REVISOR: JEFFREY S. JEWETT

CHECKER: JACK KEMMERLY

TRAFFIC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	34	81

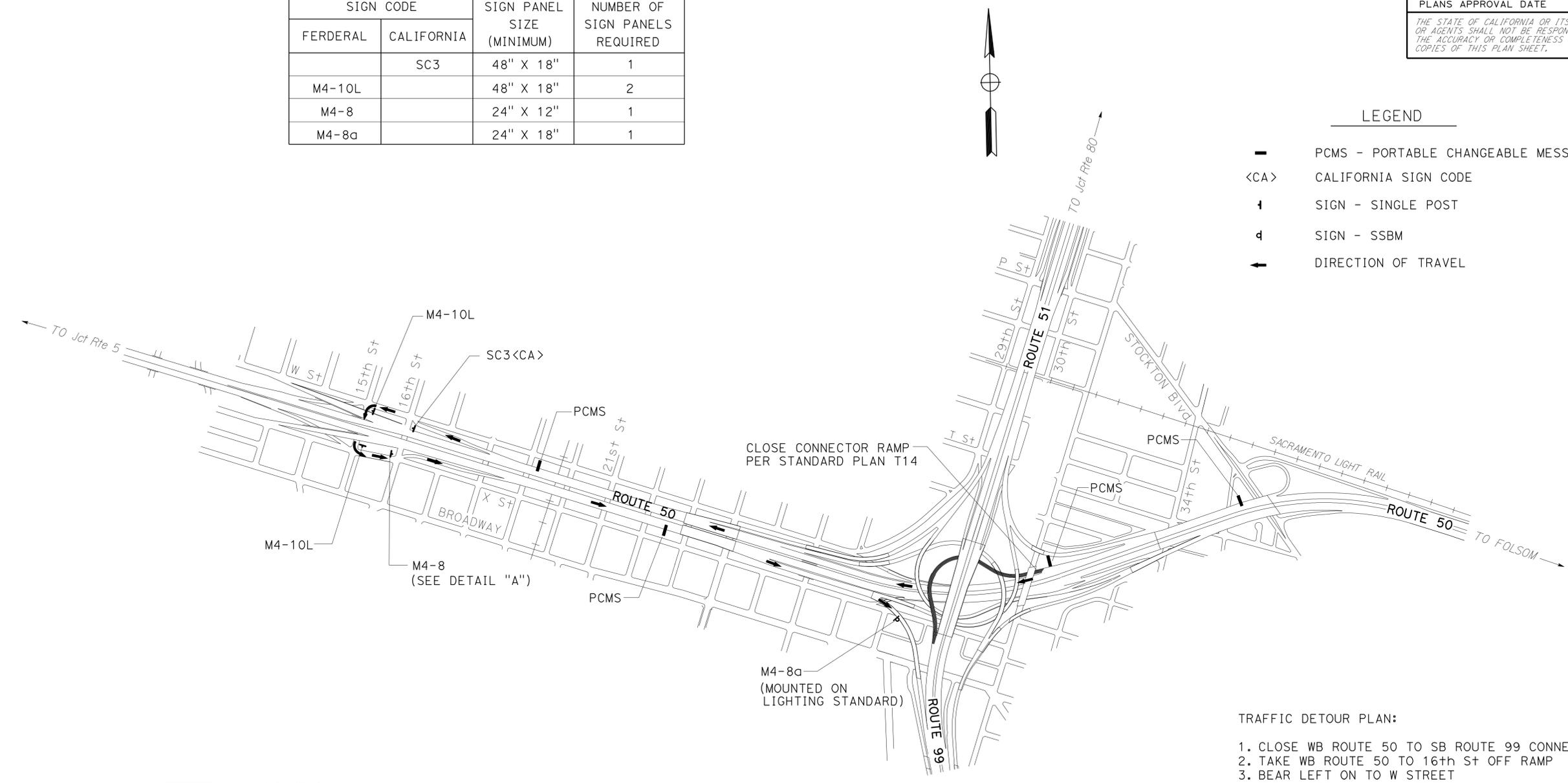
REGISTERED CIVIL ENGINEER DATE 4-21-11  
 REGISTERED PROFESSIONAL ENGINEER  
**JEFFREY S. JEWETT**  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

4-21-11  
 PLANS APPROVAL DATE

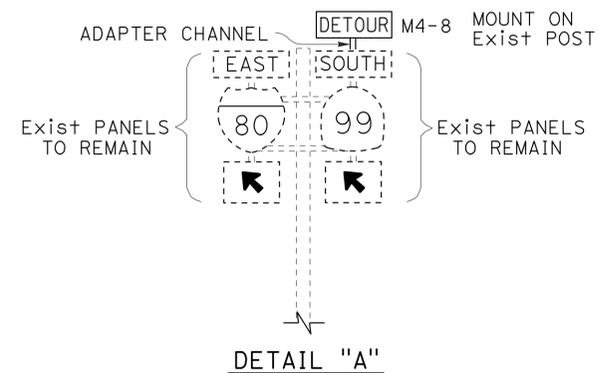
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
	SC3	48" X 18"	1
M4-10L		48" X 18"	2
M4-8		24" X 12"	1
M4-8a		24" X 18"	1

- LEGEND
- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
  - <CA> CALIFORNIA SIGN CODE
  - ↑ SIGN - SINGLE POST
  - Ⓧ SIGN - SSBM
  - DIRECTION OF TRAVEL



- TRAFFIC DETOUR PLAN:
1. CLOSE WB ROUTE 50 TO SB ROUTE 99 CONNECTOR
  2. TAKE WB ROUTE 50 TO 16th St OFF RAMP
  3. BEAR LEFT ON TO W STREET
  4. TURN LEFT ON 15th STREET
  5. TURN LEFT ON X STREET
  6. TAKE 16th St ON RAMP TO EB ROUTE 50
  7. TAKE EB ROUTE 50 TO SB ROUTE 99 CONNECTOR



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
WB ROUTE 50 TO  
SB ROUTE 99 CONNECTOR

## MOTORIST INFORMATION PLAN

NO SCALE

**MI-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON

REVISOR: JEFFREY S. JEWETT

CHECKER: JACK KEMMERLY

DATE: 4-21-11



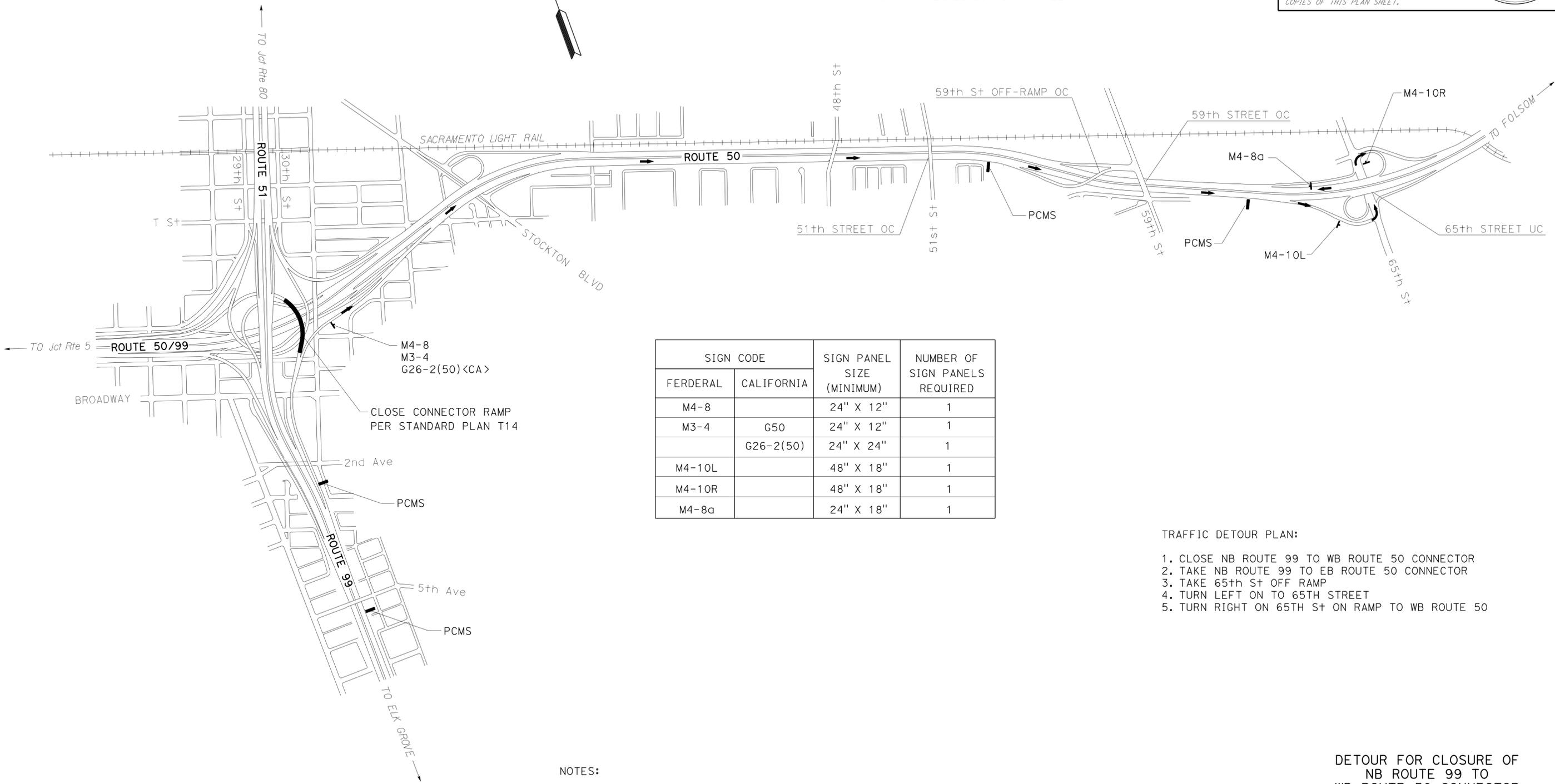
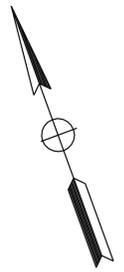
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yola, Yuba	5,50,51, 65,80, etc.	Var	36	81

REGISTERED CIVIL ENGINEER  
 4-21-11 DATE  
 4-21-11 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  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

LEGEND

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ↑ SIGN - SINGLE POST
- ← DIRECTION OF TRAVEL



SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
M4-8		24" X 12"	1
M3-4	G50	24" X 12"	1
	G26-2(50)	24" X 24"	1
M4-10L		48" X 18"	1
M4-10R		48" X 18"	1
M4-8a		24" X 18"	1

TRAFFIC DETOUR PLAN:

1. CLOSE NB ROUTE 99 TO WB ROUTE 50 CONNECTOR
2. TAKE NB ROUTE 99 TO EB ROUTE 50 CONNECTOR
3. TAKE 65th St OFF RAMP
4. TURN LEFT ON TO 65TH STREET
5. TURN RIGHT ON 65TH St ON RAMP TO WB ROUTE 50

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF NB ROUTE 99 TO WB ROUTE 50 CONNECTOR

**MOTORIST INFORMATION PLAN**  
NO SCALE

**MI-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON

DESIGNED BY: JEFFREY S. JEWETT

CHECKED BY: JACK KEMMERLY

REVISOR: JEFFREY S. JEWETT

DATE: 4-21-11

DATE PLOTTED => 22-APR-2011  
TIME PLOTTED => 12:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Plq, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	37	81

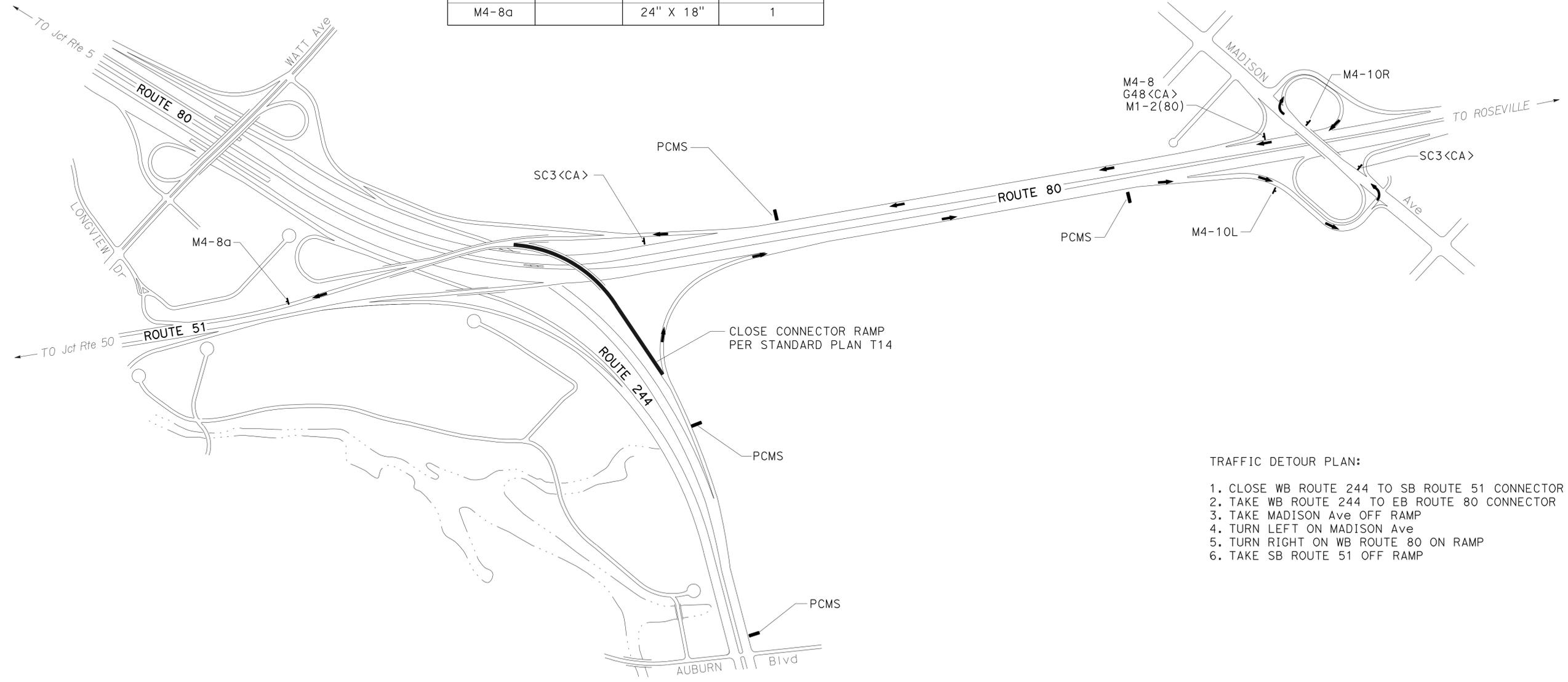
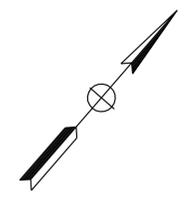
REGISTERED CIVIL ENGINEER  
 4-21-11 DATE  
 4-21-11 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

LEGEND

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ⊥ SIGN - SINGLE POST

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
M4-10L		48" X 18"	1
	SC3	48" X 18"	2
M4-10R		48" X 18"	1
M4-8		24" X 12"	1
	G48	21" X 9"	1
M1-2(80)	G31-1(80)	24" X 24"	1
M4-8a		24" X 18"	1



- TRAFFIC DETOUR PLAN:
1. CLOSE WB ROUTE 244 TO SB ROUTE 51 CONNECTOR
  2. TAKE WB ROUTE 244 TO EB ROUTE 80 CONNECTOR
  3. TAKE MADISON Ave OFF RAMP
  4. TURN LEFT ON MADISON Ave
  5. TURN RIGHT ON WB ROUTE 80 ON RAMP
  6. TAKE SB ROUTE 51 OFF RAMP

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
WB ROUTE 244 TO  
SB ROUTE 51 CONNECTOR

**MOTORIST  
INFORMATION PLAN**  
NO SCALE

**MI-6**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON

DESIGNED BY: JEFFREY S. JEWETT

CHECKED BY: JACK KEMMERLY

REVISOR: JEFFREY S. JEWETT

DATE REVISOR: 4-21-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5, 50, 51, 65, 80, etc.	Var	38	81

4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 CIVIL  
 STATE OF CALIFORNIA

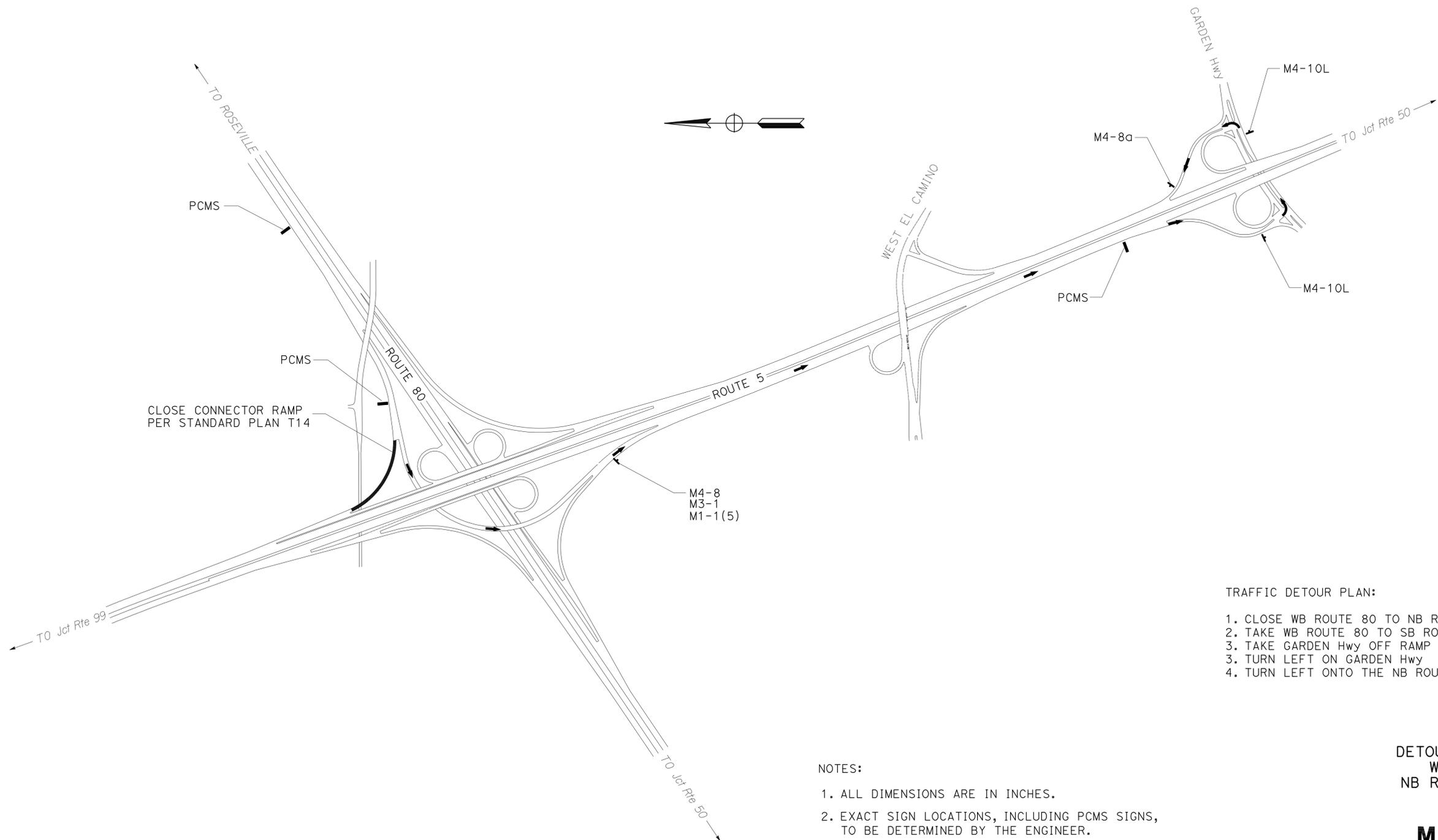
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
M4-8		24" X 12"	1
M3-1		24" X 12"	1
M1-1(5)	G27-1(5)	24" X 24"	1
M4-10L		48" X 18"	2
M4-8a		24" X 18"	1

LEGEND

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ↑ SIGN - SINGLE POST

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON  
 CALCULATED/DESIGNED BY: JACK KEMMERLY  
 CHECKED BY: JEFFREY S. JEWETT  
 REVISIONS: (blank)  
 REVISOR: (blank)  
 DATE: (blank)  
 REVISIONS: (blank)  
 REVISOR: (blank)  
 DATE: (blank)



- TRAFFIC DETOUR PLAN:
1. CLOSE WB ROUTE 80 TO NB ROUTE 5 CONNECTOR
  2. TAKE WB ROUTE 80 TO SB ROUTE 5 CONNECTOR
  3. TAKE GARDEN HWY OFF RAMP
  3. TURN LEFT ON GARDEN HWY
  4. TURN LEFT ONTO THE NB ROUTE 5 ON RAMP

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
 WB ROUTE 80 TO  
 NB ROUTE 5 CONNECTOR  
**MOTORIST  
 INFORMATION PLAN**  
 NO SCALE  
**MI-7**

LAST REVISION: 11-9-10  
 DATE PLOTTED => 22-APR-2011  
 TIME PLOTTED => 12:26

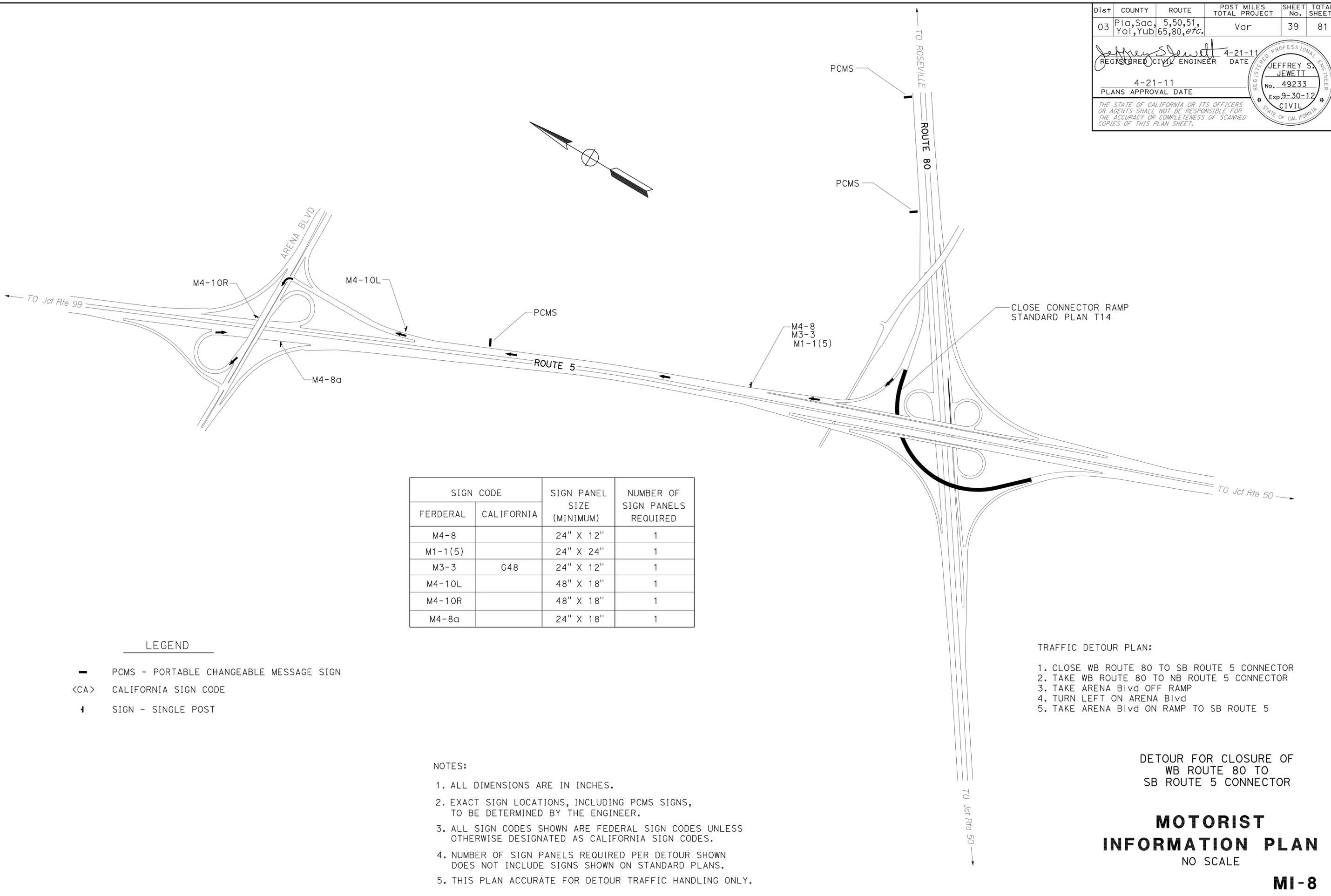
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	39	81

REGISTERED CIVIL ENGINEER DATE 4-21-11  
 4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON  
 CALCULATED/DESIGNED BY: JACK KEMMERLY  
 CHECKED BY: JEFFREY S. JEWETT  
 REVISOR: JACK KEMMERLY  
 DATE REVISOR: JEFFREY S. JEWETT



SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FERDERAL	CALIFORNIA		
M4-8		24" X 12"	1
M1-1(5)		24" X 24"	1
M3-3	G48	24" X 12"	1
M4-10L		48" X 18"	1
M4-10R		48" X 18"	1
M4-8a		24" X 18"	1

- LEGEND**
- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
  - <CA> CALIFORNIA SIGN CODE
  - ↑ SIGN - SINGLE POST

- TRAFFIC DETOUR PLAN:**
1. CLOSE WB ROUTE 80 TO SB ROUTE 5 CONNECTOR
  2. TAKE WB ROUTE 80 TO NB ROUTE 5 CONNECTOR
  3. TAKE ARENA Blvd OFF RAMP
  4. TURN LEFT ON ARENA Blvd
  5. TAKE ARENA Blvd ON RAMP TO SB ROUTE 5

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
 WB ROUTE 80 TO  
 SB ROUTE 5 CONNECTOR

**MOTORIST  
 INFORMATION PLAN**  
 NO SCALE  
**MI-8**

LAST REVISION: 11-9-10    DATE PLOTTED => 22-APR-2011    TIME PLOTTED => 12:27

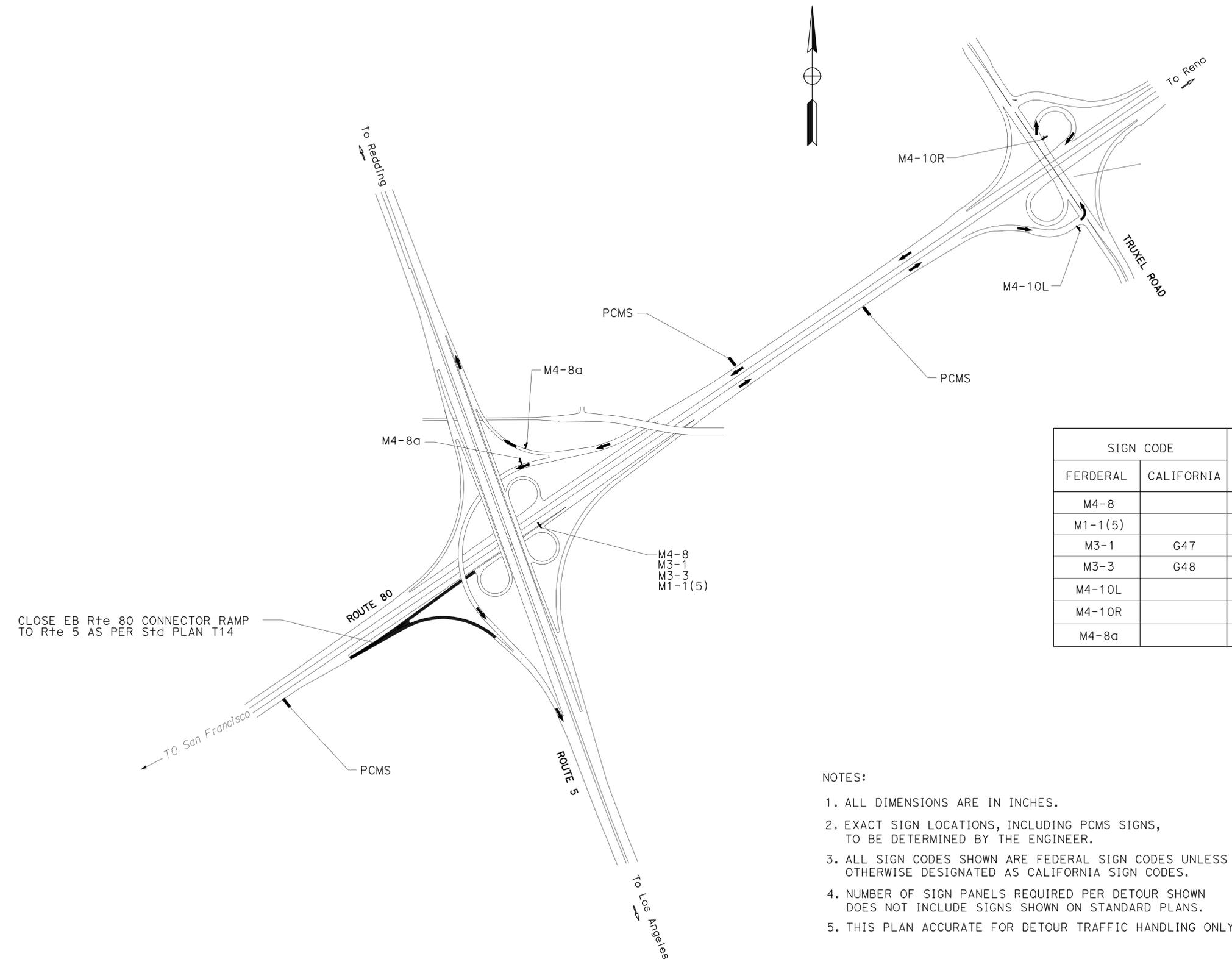
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	40	81

REGISTERED CIVIL ENGINEER DATE 4-21-11  
 REGISTERED CIVIL ENGINEER DATE 4-21-11  
 PLANS APPROVAL DATE 4-21-11

REGISTERED PROFESSIONAL ENGINEER  
 JEFFREY S. JEWETT  
 No. 49233  
 Exp. 9-30-12  
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON  
 CALCULATED/DESIGNED BY: JACK KEMMERLY  
 CHECKED BY: JEFFREY S. JEWETT  
 REVISOR: JACK KEMMERLY  
 DATE REVISOR: JEFFREY S. JEWETT  
 DATE REVISOR:



**LEGEND**

- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
- <CA> CALIFORNIA SIGN CODE
- ⚡ SIGN - SINGLE POST

SIGN CODE		SIGN PANEL SIZE (MINIMUM)	NUMBER OF SIGN PANELS REQUIRED
FEDERAL	CALIFORNIA		
M4-8		24" X 12"	1
M1-1(5)		24" X 24"	1
M3-1	G47	24" X 12"	1
M3-3	G48	24" X 12"	1
M4-10L		48" X 18"	1
M4-10R		48" X 18"	1
M4-8a		24" X 18"	2

- TRAFFIC DETOUR PLAN:**
1. CLOSE EB ROUTE 80 TO ROUTE 5 CONNECTOR
  2. TAKE EB ROUTE 80 TO TRUXEL Rd OFF RAMP
  3. TAKE TRUXEL Rd OFF RAMP
  4. TURN LEFT ON TRUXEL Rd
  5. TURN RIGHT ON WB ROUTE 80 ON RAMP
  6. FROM WB ROUTE 80, TAKE ROUTE 5 OFF RAMP

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES.
  2. EXACT SIGN LOCATIONS, INCLUDING PCMS SIGNS, TO BE DETERMINED BY THE ENGINEER.
  3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
  4. NUMBER OF SIGN PANELS REQUIRED PER DETOUR SHOWN DOES NOT INCLUDE SIGNS SHOWN ON STANDARD PLANS.
  5. THIS PLAN ACCURATE FOR DETOUR TRAFFIC HANDLING ONLY.

DETOUR FOR CLOSURE OF  
 EB ROUTE 80 TO  
 ROUTE 5 CONNECTOR

**MOTORIST  
 INFORMATION PLAN**  
 NO SCALE

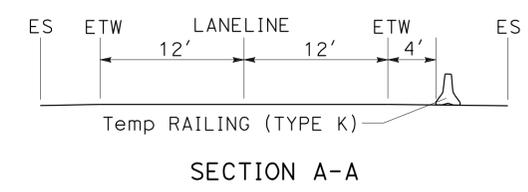
**MI-9**

**NOTES:**

1. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
2. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
4. CALIFORNIA SIGN C40A SHALL BE PLACED 500' AHEAD OF THE W20-1 OR C19(CA) SIGNS AS SHOWN IN STANDARD PLANS T10, T11, T13, AND T14.

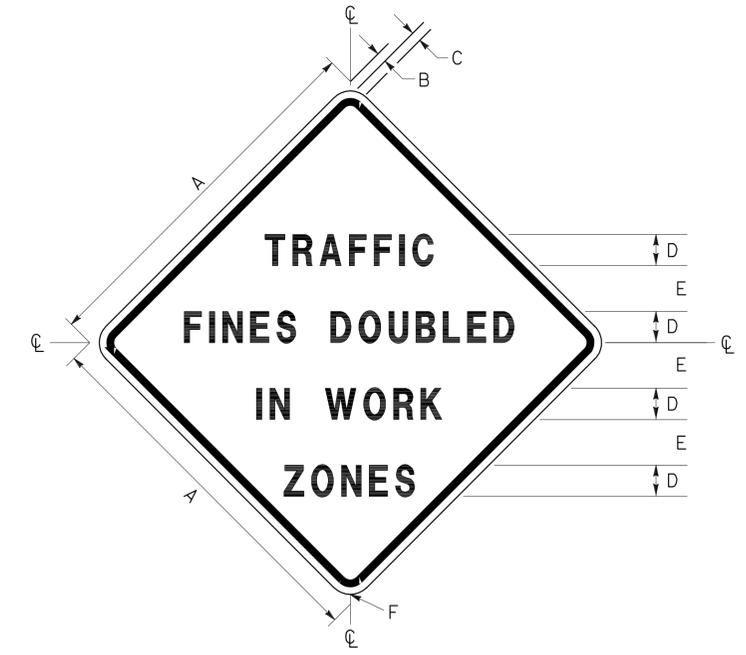
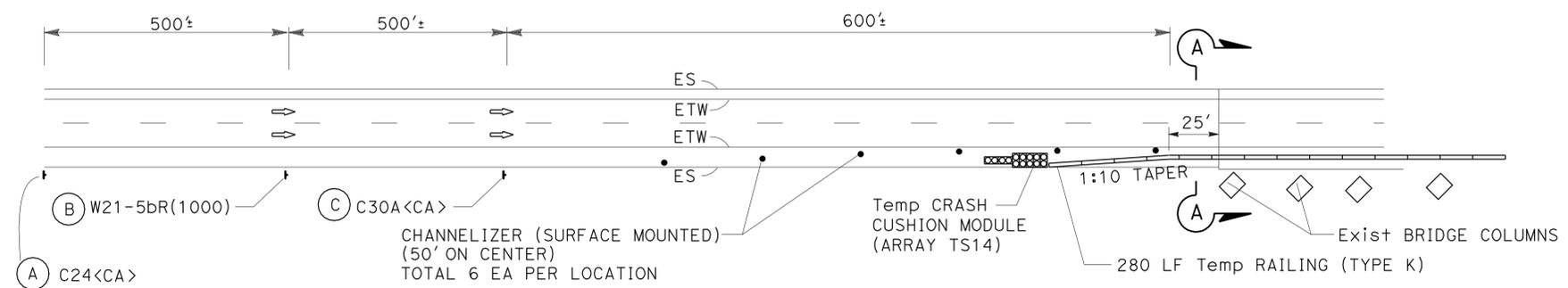
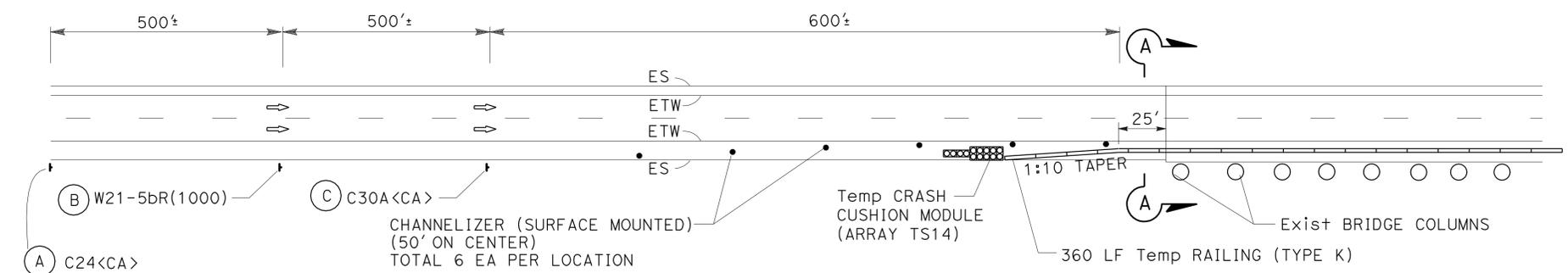
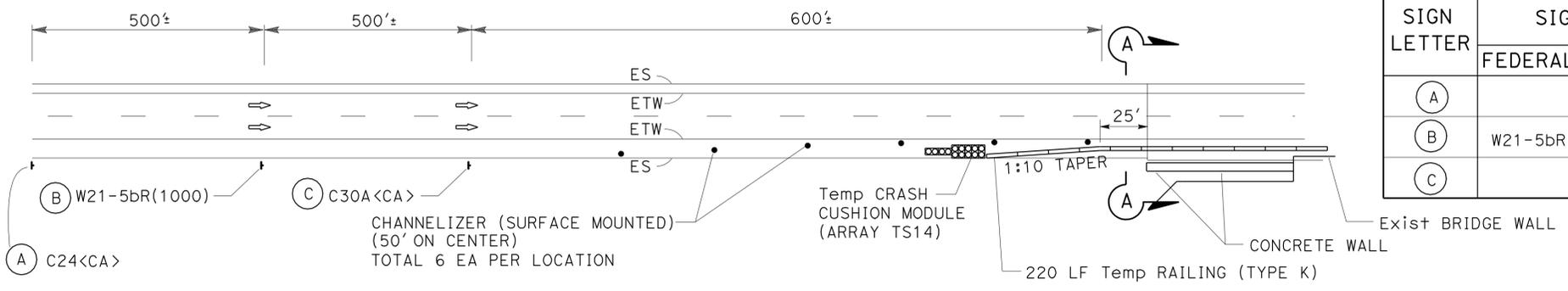
**LEGEND**

- (X) CONSTRUCTION AREA SIGN LETTER
- <CA> CALIFORNIA SIGN CODE
- ! SIGN - SINGLE POST
- ⇒ DIRECTION OF TRAVEL



**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN LETTER	SIGN CODE		SIGN MESSAGE	PANEL SIZE	NUMBER AND SIZE OF POST	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)		C24	SHOULDER WORK AHEAD	48" x 48"	1- 6" x 6"	4
(B)	W21-5bR		RIGHT SHOULDER CLOSED 1000 FT	48" x 48"	1- 6" x 6"	4
(C)		C30A	SHOULDER CLOSED	48" x 48"	1- 6" x 6"	4



SIGN SIZES (INCHES)	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
36 x 36	36	1/2	3/4	4C	2 1/2	1 7/8
48 x 48	48	5/8	1	5C	3	2 5/8

**TRAFFIC HANDLING PLAN**  
NO SCALE

**TH-1**

DENNIS CORCORAN ROBERT PETERSON  
 ROBERT PETERSON  
 FUNCTIONAL SUPERVISOR  
 DEPARTMENT OF TRANSPORTATION  
 TRAFFIC  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans

**NOTES:**

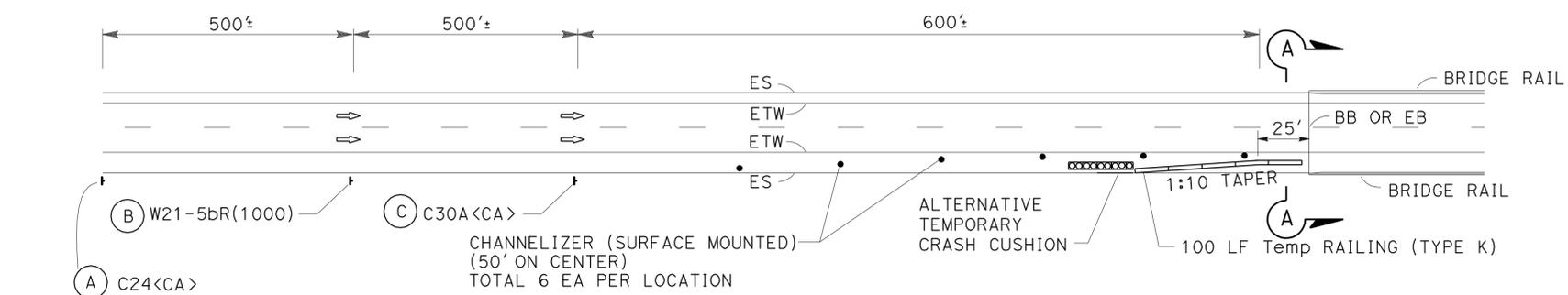
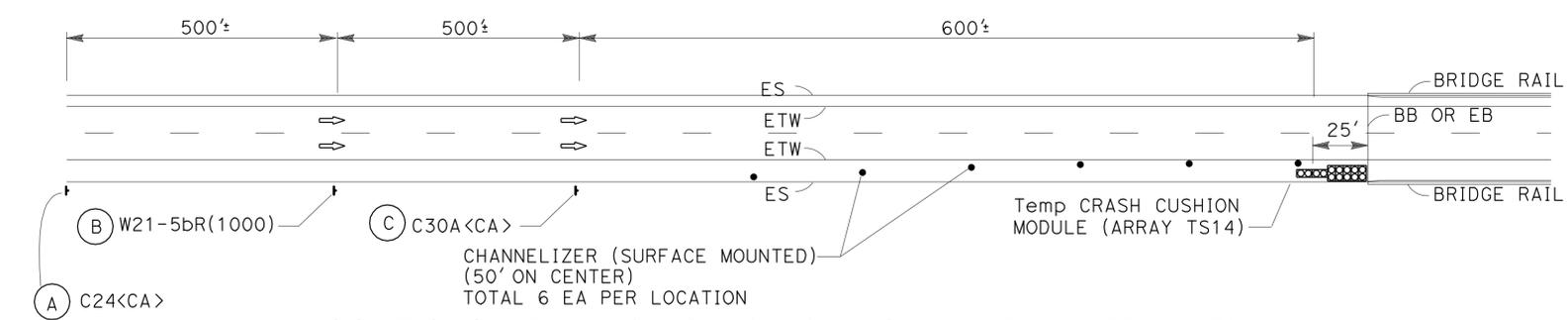
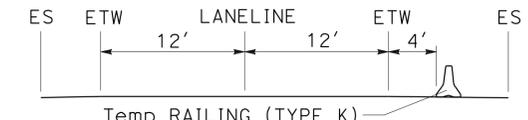
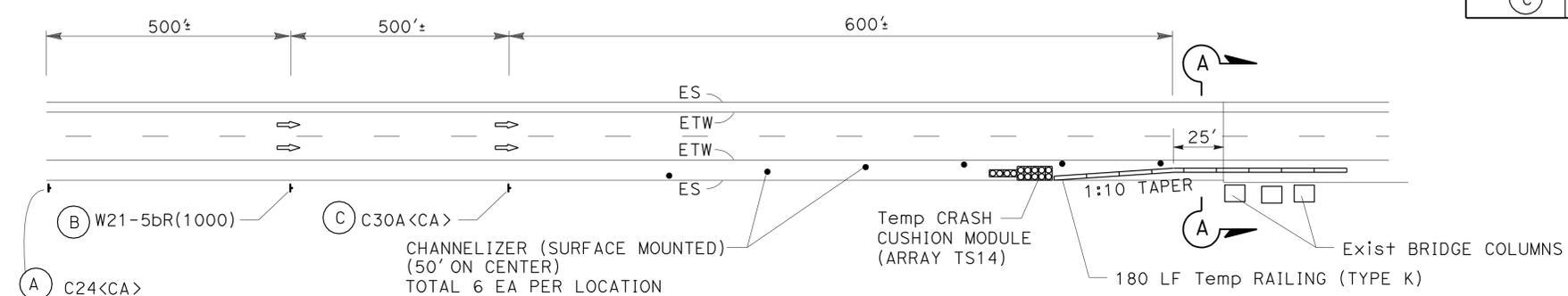
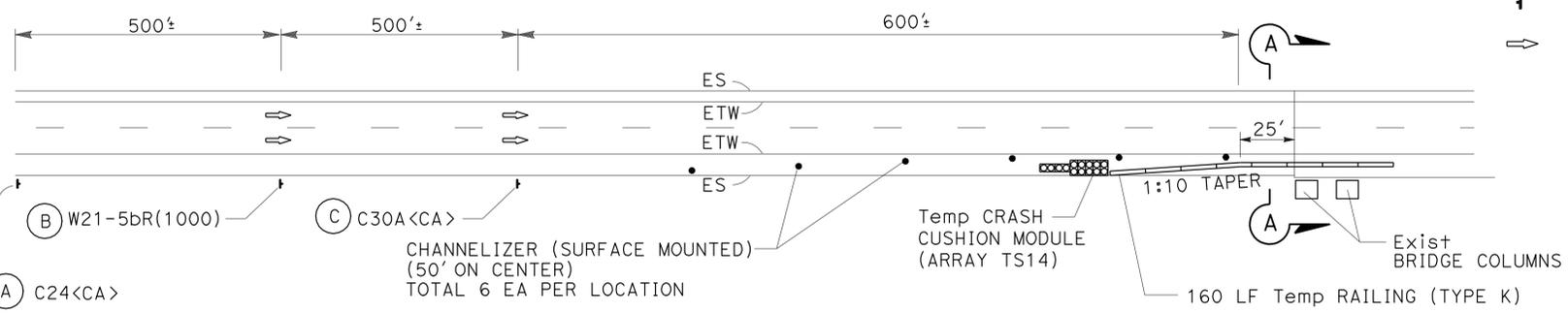
1. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
2. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.

**LEGEND**

- (X) CONSTRUCTION AREA SIGN LETTER
- <CA> CALIFORNIA SIGN CODE
- ↑ SIGN - SINGLE POST
- ⇒ DIRECTION OF TRAVEL

**ADDITIONAL STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN LETTER	SIGN CODE		SIGN MESSAGE	PANEL SIZE	NUMBER AND SIZE OF POST	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)		C24	SHOULDER WORK AHEAD	48" x 48"	1- 6" x 6"	32
(B)	W21-5bR		RIGHT SHOULDER CLOSED 1000 FT	48" x 48"	1- 6" x 6"	32
(C)		C30A	SHOULDER CLOSED	48" x 48"	1- 6" x 6"	32



**TRAFFIC HANDLING PLAN**

NO SCALE

**TH-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 TRAFFIC  
 DENNIS CORCORAN  
 ROBERT PETERSON  
 ROBERT PETERSON  
 Et Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yub	5,50,51, 65,80, etc.	Var	43	70

Dennis L. Corcoran 4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA

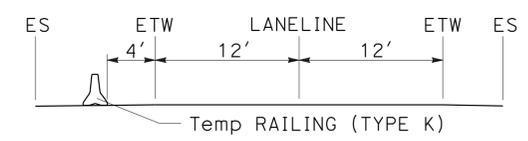
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

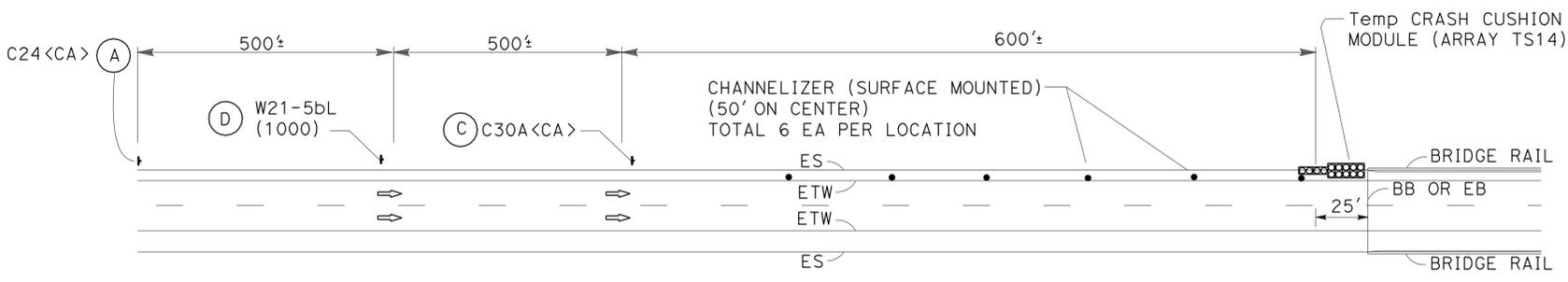
1. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
2. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY IDENTIFIED.
4. SOME LOCATIONS MAY REQUIRE SIGNS TO BE PLACED BY SSBM.

**LEGEND**

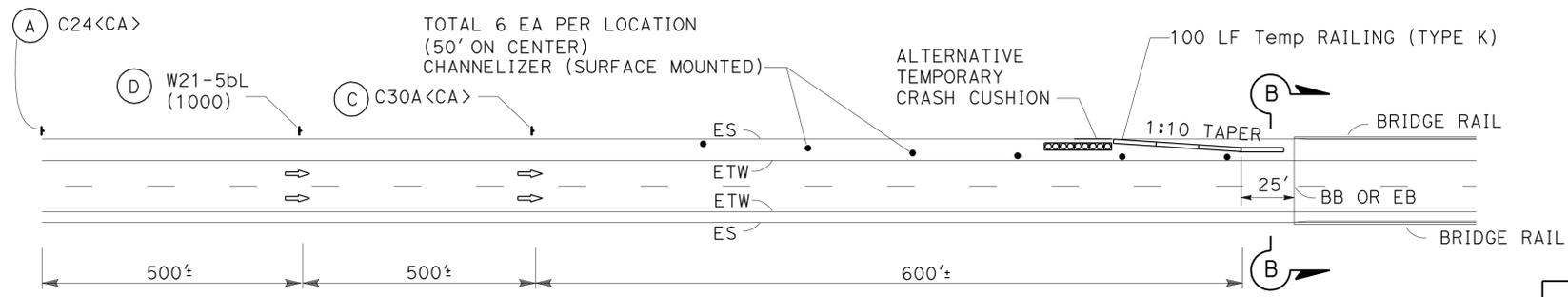
- (X) CONSTRUCTION AREA SIGN LETTER
- <CA> CALIFORNIA SIGN CODE
- ↓ SIGN - SINGLE POST
- DIRECTION OF TRAVEL



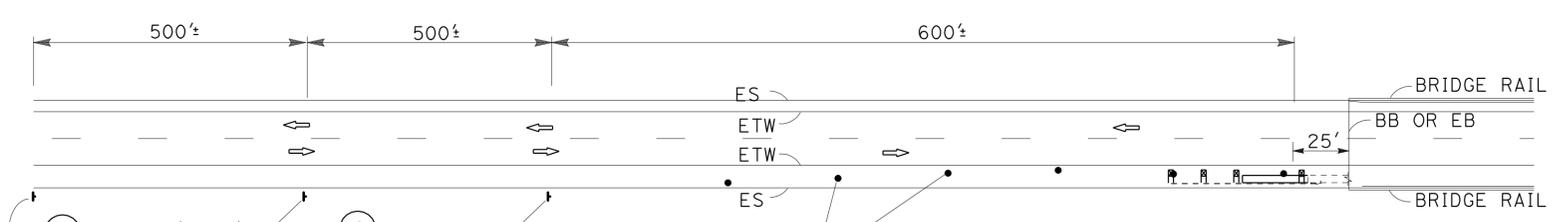
SECTION B-B



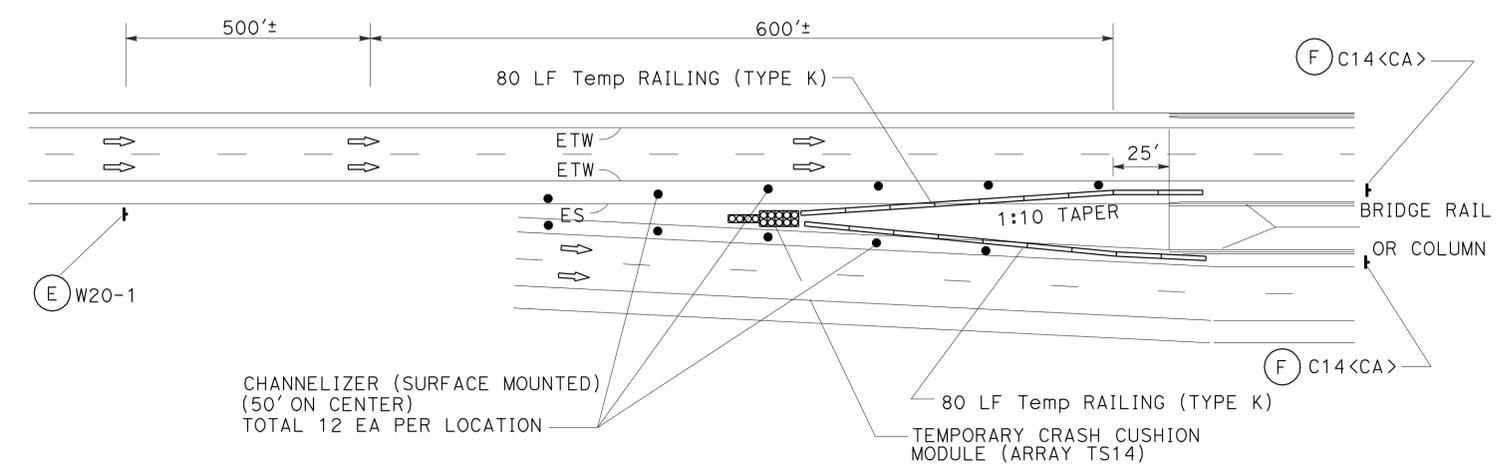
LOCATIONS: 16, 18, 20, 28, 30, & 51



LOCATIONS: 39, 43, 46, 57, 59, 61, 71, & 73



LOCATIONS: 5, 6, 7, 9, & 10



LOCATIONS: 52 & 53

**ADDITIONAL STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN LETTER	SIGN CODE		SIGN MESSAGE	PANEL SIZE	NUMBER AND SIZE OF POST	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)		C24	SHOULDER WORK AHEAD	48" x 48"	1- 6" x 6"	19
(B)	W21-5bR		RIGHT SHOULDER CLOSED 1000 FT	48" x 48"	1- 6" x 6"	5
(C)		C30A	SHOULDER CLOSED	48" x 48"	1- 6" x 6"	19
(D)	W21-5bL		LEFT SHOULDER CLOSED 1000 FT	48" x 48"	1- 6" x 6"	14
(E)	W20-1	C23	ROAD WORK AHEAD	48" x 48"	1- 6" x 6"	2
(F)		C14	END ROAD WORK	48" x 24"	1- 4" x 6"	4

**TRAFFIC HANDLING PLAN**  
NO SCALE  
**TH-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DATE REVISION:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	44	70

*Dennis L. Corcoran* 4-21-11  
REGISTERED CIVIL ENGINEER DATE

4-21-11  
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.

### RAILINGS

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	REMOVE MBGR		REMOVE BRIDGE APPROACH RAILING (TYPE 8)		(N)	(N)	(N)	(N)	MBGR	MODIFIED MBGR	DOUBLE MBGR (WOOD POST)	MODIFIED DOUBLE MBGR	TRANSITION RAILING (TYPE WB)	MODIFIED TRANSITION RAILING (TYPE WB)	RAIL TENSIONING ASSEMBLY	MODIFIED RAIL TENSIONING ASSEMBLY	TERMINAL SYSTEM (TYPE CAT)	TERMINAL SYSTEM (TYPE CAT) BACKUP	END CAP (TYPE TC)	END ANCHOR ASSEMBLY (TYPE SFT)	MODIFIED END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARED TERMINAL SYSTEM
				LF	EA	EA	EA	EA	TYPE	LF	LF																
1	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)	SB		75.0						12A	25					1						1					
2	MBGR PERPENDICULAR TO CULVERT (R+ SIDE ONLY)	SB		50.0						11A	0														1		
3	UNDER RR SIGN POST	SB		62.5						16B	25												1				1
4	IN FRONT OF RR TRACKS	SB		62.5						16B	25												1				1
5	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	SB	C-4	62.5						12A	0					1						1					
6	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	SB	C-4	62.5						12A	0					1						1					
7	ATTACH TO Br No. 19-0009 (R+ SIDE ONLY)	SB	C-4	62.5						12A	0					1						1					
8	ATTACH TO Br No. 19-0008 (R+ SIDE ONLY)	NB		62.5						12A	0					1						1					
9	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	NB	C-4	62.5						12A	0					1						1					
10	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	NB	C-4	62.5						12A	0					1						1					
11	UNDER RR SIGN POST	NB		62.5						16A	25												1				
12	IN FRONT OF RR TRACKS	NB		62.5						16A	25												1				
13	MBGR PERPENDICULAR TO CULVERT (R+ SIDE ONLY)	NB		75.0						11A	0												1				
14	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)	NB		62.5						12A	0					1						1					
15	IN FRONT OF EXIT 17 SIGN	SB		62.5				1		16B	25												1				1
16	ATTACH TO Br No. 16-0042 (L+ SIDE)	SB	C-4	62.5				1		12A	25					1						1					
17	ATTACH TO Br No. 16-0042 (R+ SIDE)	SB	C-4	62.5				1		12A	50					1						1					
18	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	SB	C-1						100				175			1		1		1	1	1					
19	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	SB	C-1						50				12A	25		1						1					
20	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	SB	C-1						100				12E	25		1		1		1	1	1					
21	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	SB	C-1						50				12A	50		1						1					
22	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)	SB		62.5						12B	25					1						1					1
23	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)	SB		62.5						12B	25					1						1					1
24	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)	SB		62.5						12B	25					1						1					1
25	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)	NB		62.5						12B	25					1						1					1
26	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)	NB		62.5						12B	25					1						1					1
27	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)	NB		62.5						12B	25					1						1					1
28	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	NB	C-1						100				12E	25		1		1		1	1	1					
29	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	NB	C-1						50				12B	25		1						1					1
30	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	NB	C-1						100				12E	25		1		1		1	1	1					
31	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	NB	C-1						50				12B	25		1						1					1
32	UNDER RENO/SACRAMENTO SIGN	SB								16A	25												1				
33	ON-RAMP TO EB Rte 80	WB		1,100.0				2		11A	1,050												1				
34	UNDER THE SECOND WATT Ave EXIT SIGN	WB		62.5						16A	25												1				
35	REPLACE MBGR NEAR Emb	EB		225.0				2		11A	175												1				
36	REPLACE MBGR NEAR Emb	EB		800.0				2		11A	750												1				
37	ATTACH TO Br No. 24-0130 (R+ SIDE)	NB	C-6	200.0						12B	0					1											1
38	OFF-RAMP TO Q St FROM NB Rte 5	WB	C-5	100.0						12B	0					1											1
39	OFF-RAMP TO WB Rte 50 Br No. 24-0157 (L+ SIDE)	NB	C-18	325.0				1	1	12A	250					1						1					
40	ATTACH TO Br No. 24-0233F (OFF-RAMP TO EB Rte 50)	NB	C-1						45				12A	75		1						1					
<b>SUBTOTAL SHEET Q-1</b>				4,262.5	645	10	1	9		2,950		700		28		4		4	4	28	10		23		13		

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

## SUMMARY OF QUANTITIES Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: ROBERT PETERSON  
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	45	81

4-21-11  
 REGISTERED CIVIL ENGINEER DATE  
 4-21-11  
 PLANS APPROVAL DATE

DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL

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.

### RAILINGS

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	REMOVE MBGR		REMOVE BRIDGE APPROACH RAILING (TYPE 8)		(N)	(N)	(N)	MBGR LAYOUT	MBGR	MODIFIED MBGR	DOUBLE MBGR (WOOD POST)	MODIFIED DOUBLE MBGR	TRANSITION RAILING (TYPE WB)	MODIFIED TRANSITION RAILING (TYPE WB)	RAIL TENSIONING ASSEMBLY	MODIFIED RAIL TENSIONING ASSEMBLY	TERMINAL SYSTEM (TYPE CAT)	TERMINAL SYSTEM (TYPE CAT) BACKUP	END CAP (TYPE TC)	END ANCHOR ASSEMBLY (TYPE SFT)	MODIFIED END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	MODIFIED ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARED TERMINAL SYSTEM
				LF	EA	EA	EA	EA	EA	EA																	
41	OFF-RAMP TO WB ARDEN WAY	NB	C-13	75.0																							
42	OFF-RAMP TO MARCONI Ave	NB		75.0						12A	0				1							1			1		
43	ON-RAMP TO SB Rte 51 (L+ SIDE) Br No. 24-0292	SB	C-3	500.0		1				12A	425				1							1			1		
44	ON-RAMP TO SB Rte 51 (R+ SIDE) Br No. 24-0292	SB	C-3	200.0		1				12A	125				1							1			1		
45	UNDER S LAKE TAHOE/SAN FRANCISCO SIGN	SB	C-18	100.0				1		12A	0				1							1			1		
46	OFF-RAMP TO EB Rte 50 (L+ SIDE) Br No. 24-0233F	SB	C-18	300.0		1		1		12B	225				1							1				1	
47	ATTACH TO Br No. 24-0132	NB	C-19	75.0						12A		0				1						1				1	
48	ATTACH TO Br No. 24-0125	SB	C-20	162.5		1		1		12A	0				1							1				1	
49	REPLACE MBGR IN MEDIAN WITH A CAT SYSTEM	SB		62.5																1	1						
50	OFF-RAMP TO Q St FROM EB Rte 50 (FIRST COLUMN)	EB	C-13	75.0																							
51	OFF-RAMP TO Q St FROM EB Rte 50 (SECOND COLUMN)	EB	C-5	100.0						12B	0				1							1					1
52	15TH St OFF-RAMP	EB	C-14,15	75.0				1						25		1			1			1					
53	EB OFF-RAMP TO HOWE Ave	EB	C-2		200				1		425		25		2				1	1	2						
54	MBGR UNDER CSUS SIGN	WB		62.5						11A	0														1		
55	ON-RAMP FROM HORNET Ave	WB	C-3	1,025.0						12A	950				1							1			1		
56	OFF-RAMP TO NB Rte 51 (R+ SIDE) Br No. 24-0227F	WB	C-18							12A	0				1							1			1		
57	OFF-RAMP TO NB Rte 51 (L+ SIDE) Br No. 24-0227F	WB	C-18	300.0				1		12A	225				1							1			1		
58	OFF-RAMP TO SB Rte 99 (R+ SIDE) Br No. 24-0234F	WB	C-18	275.0				1		12A	200				1							1			1		
59	OFF-RAMP TO SB Rte 99 (L+ SIDE) Br No. 24-0234F	WB	C-18	75.0				1		12A	0				1							1			1		
60	ATTACH TO Br No. 22-129 (R+ SIDE)	EB	C-18	325.0		1				12A	250				1							1			1		
61	ATTACH TO Br No. 22-129 (L+ SIDE)	EB	C-18	350.0		1				12A	275				1							1			1		
62	UNDER ROCKLIN Rd SIGN	WB		75.0																							
63	OFF-RAMP TO ATLANTIC St (L+ SIDE OF THE ROAD)	WB		75.0						16B	25											1					1
64	ON-RAMP FROM NB AUBURN Blvd	WB		62.5		1				11B	0																1
65	IN FRONT OF Br No. 24-0106 COLUMNS	EB	C-21	150.0																							
66	IN FRONT OF Br No. 24-0106 COLUMNS	WB	C-21	150.0																							
67	IN FRONT OF Br No. 24-0207B COLUMNS	WB	C-8	250.0						12A	0				1							1			1		
68	OFF-RAMP TO NB Rte 5	EB	C-13	150.0		4																					
69	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0210 (R+ SIDE)	WB	C-9	225.0						12A	0				1							1			1		
70	OFF-RAMP TO SB Rte 5 MBGR IN FRONT OF Br No. 24-0210	WB	C-22							16A	325													1		1	
71	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (L+ SIDE)	WB	C-16	300.0		1		1		12A	50				1							1			1		
72	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (R+ SIDE)	WB	C-17	300.0		1		1		12A	225				1							1			1		
73	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (L+ SIDE)	WB	C-16	75.0		1		1		12A		25			1							1			1		
74	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (R+ SIDE)	WB	C-17	75.0		1		1		12A	0				1							1			1		
76	UNDER ROCKLIN Rd SIGN	EB		62.5						16A	25																
77	OFF-RAMP TO SB Rte 49	WB	C-13	62.5																		1			1		
78	WB OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (R+ SIDE)	WB	C-12	175.0						12A	125				1							1			1		
79	WB OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (L+ SIDE)	WB		225.0						16B	175															1	
SUBTOTAL SHEET Q-2				6,625.0	200	15	12	1			3,675	400	25	25	21	4		1	2	2	25	3	1	19	4	5	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

## SUMMARY OF QUANTITIES Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED:

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:28



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	47	70

*Dennis L. Corcoran* 4-21-11  
 REGISTERED CIVIL ENGINEER DATE

4-21-11  
 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.

### PORTLAND CEMENT CONCRETE

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	REMOVE CONCRETE					CONCRETE BARRIER
				LF	CY	SQYD	CY	LF	
5	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	SB	C-4				0.9		
6	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	SB	C-4				0.9		
7	ATTACH TO Br No. 19-0009 (R+ SIDE ONLY)	SB	C-4				0.9		
9	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	NB	C-4				0.9		
10	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	NB	C-4				0.9		
16	ATTACH TO Br No. 16-0042 (L+ SIDE)	SB	C-4				0.9		
17	ATTACH TO Br No. 16-0042 (R+ SIDE)	SB	C-4				0.9		
18	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	SB	C-1				1.5		
19	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	SB	C-1				1.5		
20	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	SB	C-1				1.5		
21	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	SB	C-1				1.5		
28	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	NB	C-1				1.5		
29	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	NB	C-1				1.5		
30	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	NB	C-1				1.5		
31	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	NB	C-1				1.5		
37	ATTACH TO Br No. 24-0130 (R+ SIDE)	NB	C-6					149.3	
38	OFF-RAMP TO Q St FROM NB Rte 5	WB	C-5					22.0	
39	OFF-RAMP TO WB Rte 50 Br No. 24-0157 (L+ SIDE)	NB	C-18				1.4		
40	ATTACH TO Br No. 24-0233F (OFF-RAMP TO EB Rte 50)	NB	C-1				1.5		
43	ON-RAMP TO SB Rte 51 (L+ SIDE) Br No. 24-0292	SB	C-3				0.9		
44	ON-RAMP TO SB Rte 51 (R+ SIDE) Br No. 24-0292	SB	C-3				0.9		
45	UNDER S LAKE TAHOE/SAN FRANCISCO SIGN	SB	C-18				1.4		
46	OFF-RAMP TO EB Rte 50 (L+ SIDE) Br No. 24-0233F	SB	C-18				1.4		
47	ATTACH TO Br No. 24-0132	NB	C-19	3.50			0.9		
48	ATTACH TO Br No. 24-0125	SB	C-20				24.0		
51	OFF-RAMP TO Q St FROM EB Rte 50 (SECOND COLUMN)	EB	C-5					22.0	
52	15TH St OFF-RAMP	EB	C-14,15	326.00		32	2.0		
53	EB OFF-RAMP TO HOWE Ave	EB	C-2				3.0		
55	ON-RAMP FROM HORNET Ave	WB	C-3				0.9		
56	OFF-RAMP TO NB Rte 51 (R+ SIDE) Br No. 24-0227F	WB	C-18				1.4		
57	OFF-RAMP TO NB Rte 51 (L+ SIDE) Br No. 24-0227F	WB	C-18				1.4		
58	OFF-RAMP TO SB Rte 99 (R+ SIDE) Br No. 24-0234F	WB	C-18				1.4		
59	OFF-RAMP TO SB Rte 99 (L+ SIDE) Br No. 24-0234F	WB	C-18				1.4		

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	REMOVE CONCRETE					CONCRETE BARRIER
				LF	CY	SQYD	CY	LF	
60	ATTACH TO Br No. 22-129 (R+ SIDE)	EB	C-18				1.4		
61	ATTACH TO Br No. 22-129 (L+ SIDE)	EB	C-18				1.4		
67	IN FRONT OF Br No. 24-0207B COLUMNS	WB	C-8					249.0	
69	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0210 (R+ SIDE)	WB	C-9					246.7	
71	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (L+ SIDE)	WB	C-16	4.75			1.4		
72	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (R+ SIDE)	WB	C-17				2.0		
73	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (L+ SIDE)	WB	C-16	4.75			1.4		
74	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (R+ SIDE)	WB	C-17				2.0		
78	WB OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (R+ SIDE)	WB	C-12				1.4		
80	ATTACH TO Br No. 19-0096 BRACE Rd OC	EB	C-10			11.2		64.7	
81	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC	EB	C-10			8.6		54.2	
82	ATTACH TO Br No. 19-0098 KING Rd OC	EB	C-10			11.2		64.7	
83	ATTACH TO Br No. 19-0099 PENRYN Rd OC	EB	C-10			11.5		67.0	
84	ATTACH TO Br No. 19-0101 GILARDI Rd OC	EB	C-10			11.2		64.7	
85	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC	EB	C-10			8.6		55.2	
86	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC	WB	C-10			8.6		55.2	
87	ATTACH TO Br No. 19-0101 GILARDI Rd OC	WB	C-10			11.2		64.7	
88	ATTACH TO Br No. 19-0099 PENRYN Rd OC	WB	C-10			11.5		67.0	
89	ATTACH TO Br No. 19-0098 KING Rd OC	WB	C-10			11.2		64.7	
90	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC	WB	C-10			8.6		54.2	
91	ATTACH TO Br No. 19-0096 BRACE Rd OC	WB	C-10			11.2		64.7	
<b>TOTAL</b>				339.00	124.6	32	73.2	1,430.0	

## SUMMARY OF QUANTITIES

### Q-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DATE REVISIED

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	48	81

*Dennis L. Corcoran* 2-8-11  
 REGISTERED CIVIL ENGINEER DATE

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  
 DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 CIVIL  
 STATE OF CALIFORNIA

### ASPHALT CONCRETE

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	REMOVE AC DIKE						HMA (TEXTURED PAVING)	MINOR HMA	
				LF	LF	LF	LF	LF	LF			SQYD
1	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)	SB		100					25		0.9	
14	ATTACH TO Br No. 19-0013 (R+ SIDE ONLY)	NB		100					25		0.9	
29	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	NB	C-1	100					25		0.9	
31	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	NB	C-1	100					25		0.9	
33	ON-RAMP TO EB Rte 80	WB		200					200		2.9	
35	REPLACE MBGR NEAR Emb	EB		250					175		3.2	
36	REPLACE MBGR NEAR Emb	EB		825					750		5.2	
40	ATTACH TO Br No. 24-0233F (OFF-RAMP TO EB Rte 50)	NB	C-1	175					100		2.1	
43	ON-RAMP TO SB Rte 51 (Lt SIDE) Br No. 24-0292	SB	C-3	500					450		7.2	
45	UNDER S LAKE TAHOE/SAN FRANCISCO SIGN	SB	C-18	100					25		0.9	
46	OFF-RAMP TO EB Rte 50 (Lt SIDE) Br No. 24-0233F	SB	C-18	100					25		0.9	
47	ATTACH TO Br No. 24-0132	NB	C-19	30								
52	15TH St OFF-RAMP	EB	C-14,15		93	62			150		28.3	
55	ON-RAMP FROM HORNET Ave	WB	C-3	1,050					975		14.8	
56	OFF-RAMP TO NB Rte 51 (R+ SIDE) Br No. 24-0227F	WB	C-18	200					25		3.9	
57	OFF-RAMP TO NB Rte 51 (Lt SIDE) Br No.24-0227F	WB	C-18	200								
59	OFF-RAMP TO SB Rte 99 (Lt SIDE) Br No. 24-0234F	WB	C-18	285					75	185	6.3	
60	ATTACH TO Br No. 22-129 (R+ SIDE)	EB	C-18	135					25	110	3.3	
61	ATTACH TO Br No. 22-129 (Lt SIDE)	EB	C-18	375						300	5.0	
74	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (R+ SIDE)	WB	C-17	500					75	400	12.4	
TOTAL				5,325	93	1,212	795	3,175	150	100.0		

### PORTABLE CONCRETE BARRIER (TYPE 60K)

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	QUANTITY
				LF
65	IN FRONT OF Br No. 24-0106 COLUMNS	EB	C-21	117.75
66	IN FRONT OF Br No. 24-0106 COLUMNS	WB	C-21	117.75
TOTAL				235.50

### OBJECT MARKER (TYPE L-1)

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	QUANTITY
				EA
3	UNDER RR SIGN POST	SB		1
4	IN FRONT OF RR TRACKS	SB		1
15	IN FRONT OF EXIT 17 SIGN	SB		1
18	ATTACH TO Br No. 16-0046 (Lt SIDE) REEDS Cr	SB	C-1	1
20	ATTACH TO Br No. 16-0045 (Lt SIDE) HUTCHINSON Cr	SB	C-1	1
22	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)	SB		1
23	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)	SB		1
24	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)	SB		1
25	ATTACH TO Br No. 16-0001 (R+ SIDE ONLY)	NB		1
26	ATTACH TO Br No. 16-0002 (R+ SIDE ONLY)	NB		1
27	ATTACH TO Br No. 16-0003 (R+ SIDE ONLY)	NB		1
28	ATTACH TO Br No. 16-0045 (Lt SIDE) HUTCHINSON Cr	NB	C-1	1
29	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	NB	C-1	1
30	ATTACH TO Br No. 16-0046 (Lt SIDE) REEDS Cr	NB	C-1	1
31	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	NB	C-1	1
37	ATTACH TO Br No. 24-0130 (R+ SIDE)	NB	C-6	1
38	OFF-RAMP TO Q St FROM NB Rte 5	WB	C-5	1
46	OFF-RAMP TO EB Rte 50 (Lt SIDE) Br No. 24-0233F	SB	C-18	1
51	OFF-RAMP TO Q St FROM EB Rte 50 (SECOND COLUMN)	EB	C-5	1
63	OFF-RAMP TO ATLANTIC St (Lt SIDE OF ROAD)	WB		1
64	ON-RAMP FROM NB AUBURN Blvd	WB		1
79	WB OFF-RAMP TO OPHIR Rd ATTACH TO UC 19-0081 (Lt SIDE)	WB		1
82	ATTACH TO Br No. 19-0098 KING Rd OC	EB	C-10	1
85	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC	EB	C-10	1
87	ATTACH TO Br No. 19-0101 GILARDI Rd OC	WB	C-10	1
TOTAL				25

### ROADWAY EXCAVATION (TYPE Z-2) (AERIALY DEPOSITED LEAD)

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	QUANTITY
				CY
52	15TH St OFF-RAMP	EB	C-14,15	85
TOTAL				85

### TEMPORARY FENCE (TYPE ESA)

LOCATION	DESCRIPTION	DIRECTION	COMMENT	QUANTITY
				LF
2	MBGR PERPENDICULAR TO CULVERT (R+ SIDE ONLY)	SB	*PLACE 20 FEET FROM CANOPY	100
TOTAL				100

\* - EXACT FENCE LOCATION TO BE DETERMINED BY THE ENGINEER.

### SUMMARY OF QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla, Sac, Yolo, Yuba	5,50,51, 65,80, etc.	Var	49	70

*Dennis L. Corcoran* 4-21-11  
 REGISTERED CIVIL ENGINEER DATE

4-21-11  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 DENNIS CORCORAN  
 No. 59438  
 Exp. 12-31-11  
 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.

### CRASH CUSHIONS

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	(N)			
				REMOVE CRASH CUSHION (SAND FILLED) EA	BARRELS EA	ALTERNATIVE CRASH CUSHION EA	CRASH CUSHION (TYPE X-MAS) EA
41	OFF-RAMP TO WB ARDEN WAY	NB	C-13			1	
50	OFF-RAMP TO Q St FROM EB Rte 50 (FIRST COLUMN)	EB	C-13			1	
52	15TH St OFF-RAMP	EB	C-14,15				1
65	IN FRONT OF Br No. 24-0106 COLUMNS	EB	C-21			1	
66	IN FRONT OF Br No. 24-0106 COLUMNS	WB	C-21			1	
68	OFF-RAMP TO NB Rte 5	EB	C-13			1	
75	ATTACH TO WATT Ave Br No. 24-0290 OVERPASS	WB	C-13	1	22	1	
77	OFF-RAMP TO SB Rte 49	WB	C-13			1	
<b>TOTAL</b>				1	22	7	1

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

## SUMMARY OF QUANTITIES

### Q-6

LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 TIME PLOTTED => 12:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	50	70

*Dennis L. Corcoran* 4-21-11  
REGISTERED CIVIL ENGINEER DATE

4-21-11  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
DENNIS CORCORAN  
No. 59438  
Exp. 12-31-11  
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.

### TEMPORARY TRAFFIC CONTROL

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	ALTERNATIVE TEMPORARY CRASH CUSHION			
				EA	EA	EA	LF
5	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	SB	C-4			6	
6	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	SB	C-4			6	
7	ATTACH TO Br No. 19-0009 (R+ SIDE ONLY)	SB	C-4			6	
9	ATTACH TO Br No. 19-0010 (R+ SIDE ONLY)	NB	C-4			6	
10	ATTACH TO Br No. 19-0011 (R+ SIDE ONLY)	NB	C-4			6	
16	ATTACH TO Br No. 16-0042 (L+ SIDE)	SB	C-4			6	
17	ATTACH TO Br No. 16-0042 (R+ SIDE)	SB	C-4			6	
18	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	SB	C-1		14	6	
19	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	SB	C-1		14	6	
20	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	SB	C-1		14	6	
21	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	SB	C-1		14	6	
28	ATTACH TO Br No. 16-0045 (L+ SIDE) HUTCHINSON Cr	NB	C-1		14	6	
29	ATTACH TO Br No. 16-0045 (R+ SIDE) HUTCHINSON Cr	NB	C-1		14	6	
30	ATTACH TO Br No. 16-0046 (L+ SIDE) REEDS Cr	NB	C-1		14	6	
31	ATTACH TO Br No. 16-0046 (R+ SIDE) REEDS Cr	NB	C-1		14	6	
37	ATTACH TO Br No. 24-0130 (R+ SIDE)	NB	C-6		14	6	280
38	OFF-RAMP TO Q St FROM NB Rte 5	WB	C-5			6	
39	OFF-RAMP TO WB Rte 50 Br No. 24-0157 (L+ SIDE)	NB	C-18	1		6	100
40	ATTACH TO Br No. 24-0233F (OFF-RAMP TO EB Rte 50)	NB	C-1		14	6	
43	ON-RAMP TO SB Rte 51 (L+ SIDE) Br No. 24-0292	SB	C-3	1		6	100
44	ON-RAMP TO SB Rte 51 (R+ SIDE) Br No. 24-0292	SB	C-3	1		6	100
45	UNDER S LAKE TAHOE/SAN FRANCISCO SIGN	SB	C-18		14	6	
46	OFF-RAMP TO EB Rte 50 (L+ SIDE) Br No. 24-0233F	SB	C-18	1		6	100
47	ATTACH TO Br No. 24-0132	NB	C-19			6	
48	ATTACH TO Br No. 24-0125	SB	C-20		14	6	220
51	OFF-RAMP TO Q St FROM EB Rte 50 (SECOND COLUMN)	EB	C-5			6	
52	15TH St OFF-RAMP	EB	C-14,15		14	12	160
53	EB OFF-RAMP TO HOWE Ave	EB	C-2		14	12	160
55	ON-RAMP FROM HORNET Ave	WB	C-3			6	
56	OFF-RAMP TO NB Rte 51 (R+ SIDE) Br No. 24-0227F	WB	C-18	1		6	100
57	OFF-RAMP TO NB Rte 51 (L+ SIDE) Br No. 24-0227F	WB	C-18	1		6	100
58	OFF-RAMP TO SB Rte 99 (R+ SIDE) Br No. 24-0234F	WB	C-18	1		6	100
59	OFF-RAMP TO SB Rte 99 (L+ SIDE) Br No. 24-0234F	WB	C-18	1		6	100

LOCATION	DESCRIPTION	DIRECTION	"C" SHEET No.	ALTERNATIVE TEMPORARY CRASH CUSHION			
				EA	EA	EA	LF
60	ATTACH TO Br No. 22-129 (R+ SIDE)	EB	C-18	1		6	100
61	ATTACH TO Br No. 22-129 (L+ SIDE)	EB	C-18	1		6	100
65	IN FRONT OF Br No. 24-0106 COLUMNS	EB	C-21		14	6	
66	IN FRONT OF Br No. 24-0106 COLUMNS	WB	C-21		14	6	
67	IN FRONT OF Br No. 24-0207B COLUMNS	WB	C-8		14	6	360
69	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0210 (R+ SIDE)	WB	C-9		14	6	360
71	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (L+ SIDE)	WB	C-16	1		6	100
72	OFF-RAMP TO SB Rte 5 ATTACH TO Br No. 24-0206F (R+ SIDE)	WB	C-17	1		6	100
73	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (L+ SIDE)	WB	C-16	1		6	100
74	OFF-RAMP TO NB Rte 5 ATTACH TO Br No. 24-0350F (R+ SIDE)	WB	C-17	1		6	100
80	ATTACH TO Br No. 19-0096 BRACE Rd OC	EB	C-10		14	6	180
81	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC	EB	C-10		14	6	160
82	ATTACH TO Br No. 19-0098 KING Rd OC	EB	C-10		14	6	180
83	ATTACH TO Br No. 19-0099 PENRYN Rd OC	EB	C-10		14	6	180
84	ATTACH TO Br No. 19-0101 GILARDI Rd OC	EB	C-10		14	6	180
85	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC	EB	C-10		14	6	160
86	ATTACH TO Br No. 19-0102 NEWCASTLE Rd OC	WB	C-10		14	6	160
87	ATTACH TO Br No. 19-0101 GILARDI Rd OC	WB	C-10		14	6	180
88	ATTACH TO Br No. 19-0099 PENRYN Rd OC	WB	C-10		14	6	180
89	ATTACH TO Br No. 19-0098 KING Rd OC	WB	C-10		14	6	180
90	ATTACH TO Br No. 19-0097 HORSESHOE BAR Rd OC	WB	C-10		14	6	160
91	ATTACH TO Br No. 19-0096 BRACE Rd OC	WB	C-10		14	6	180
<b>TOTAL</b>				14	420	342	5,020

### SUMMARY OF QUANTITIES Q-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROBERT PETERSON  
 CALCULATED/DESIGNED BY: DENNIS CORCORAN  
 CHECKED BY: ROBERT PETERSON  
 REVISED BY: DENNIS CORCORAN  
 DATE REVISED:

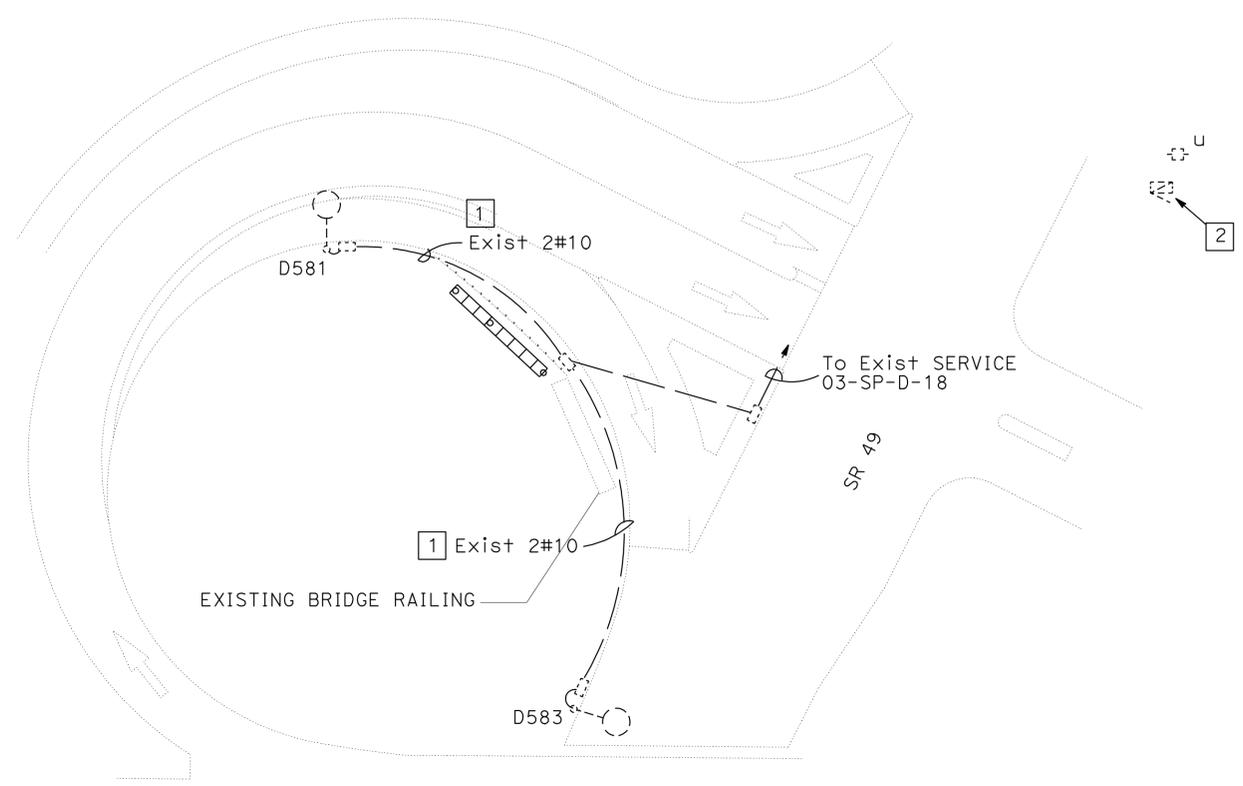
LAST REVISION | DATE PLOTTED => 22-APR-2011  
 00-00-00 | TIME PLOTTED => 12:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Sac, Pla, Yol, Yub	5, 50, 51, 65, 80, etc.	Var	51	70

Jaskaran Boparai 4-21-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 4-21-11  
 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.

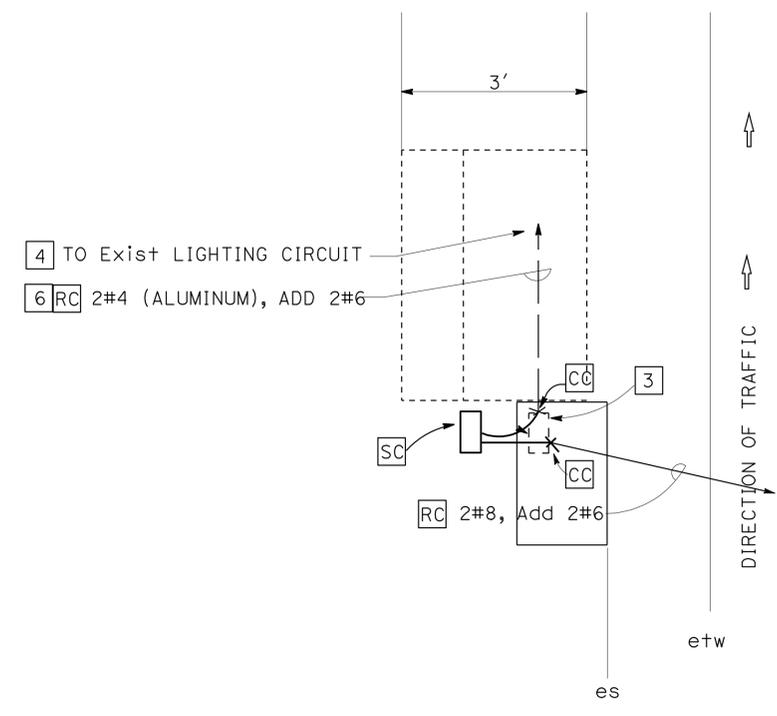
REGISTERED PROFESSIONAL ENGINEER  
**JASKARAN SINGH BOPARAI**  
 No. 15056  
 Exp. 12-31-11  
 ELECT  
 STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC  
 FUNCTIONAL SUPERVISOR: STEVE S LEE  
 CALCULATED/DESIGNED BY: JASKARAN SINGH BOPARAI  
 CHECKED BY: STEVE S LEE  
 REVISED BY: JASKARAN SINGH BOPARAI  
 DATE REVISED:

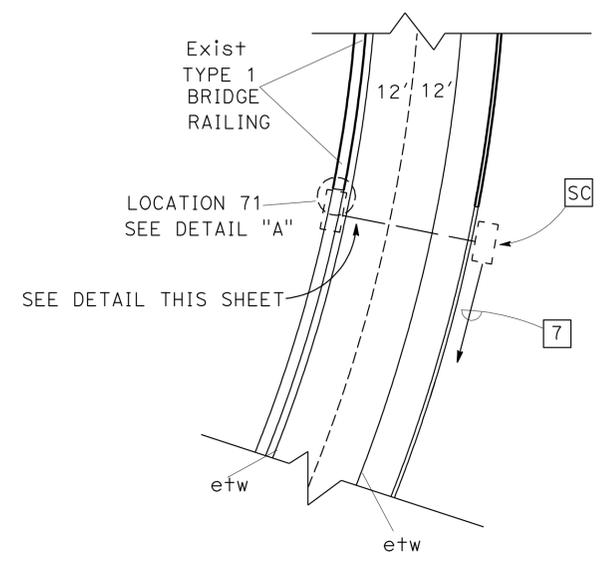


WB SR 80 OFFRAMP TO NB SR 49 STREET LOCATION 77

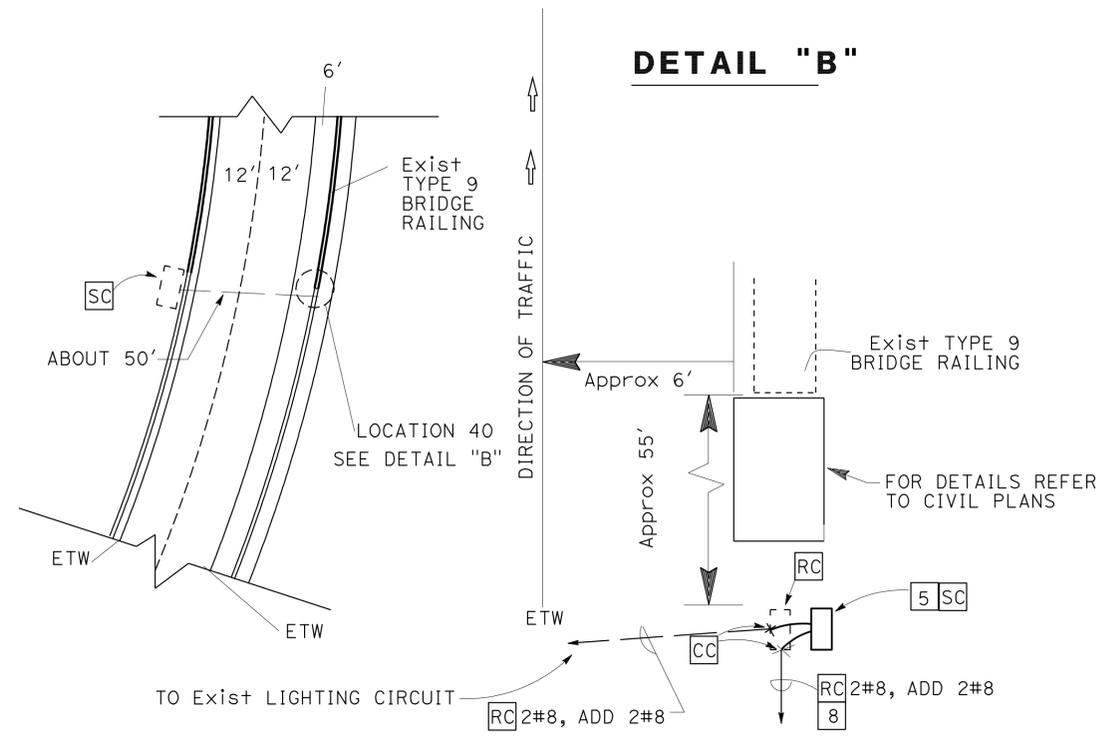
**DETAIL A**



WB SR 80 OFFRAMP TO SB Rte 5 LOCATION 71



**DETAIL "B"**



SB SR 99 OFFRAMP TO EB SR 50 LOCATION 40

**PROJECT NOTES: (THIS SHEET ONLY)**

- 1 PROTECT EXIST CONDUIT AND CONDUCTORS IN PLACE.
- 2 Exist type III-A 120/240 V Service CTID # 03-SP-D-18
- 3 RC Exist PULL BOX AS SHOWN
- 4 CONDUIT GOES TO PULL BOX ABOUT 500' ON OTHER SIDE OF BRIDGE ABUTMENT.
- 5 INSTALL #5(T) PULL BOX ABOUT 2' FROM EXIST PULL BOX ON THE SLOPE.
- 6 EXIST PULL BOX IS ABOUT 500' ON OTHER SIDE OF BRIDGE. SPLICE CONDUCTORS IN THIS EXIST PULL BOX.
- 7 TO EXIST SERVICE CTID #0324080M002552, WHICH IS LOCATED ON I-5 S/B TO I-80 E/B CONNECTOR ABOUT 1000' FROM EXIST PULL BOX.
- 8 TO EXIST PULL BOX ABOUT 150' AND SPLICE CONDUCTORS. EXIST SERVICE CTID #0324050R000350, WHICH IS LOCATED ON V St and 33rd CORNER.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

**MODIFY ELECTRICAL**  
NO SCALE

**E-1**

LAST REVISION: DATE PLOTTED => 29-APR-2011    TIME PLOTTED => 11:20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	52	70

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

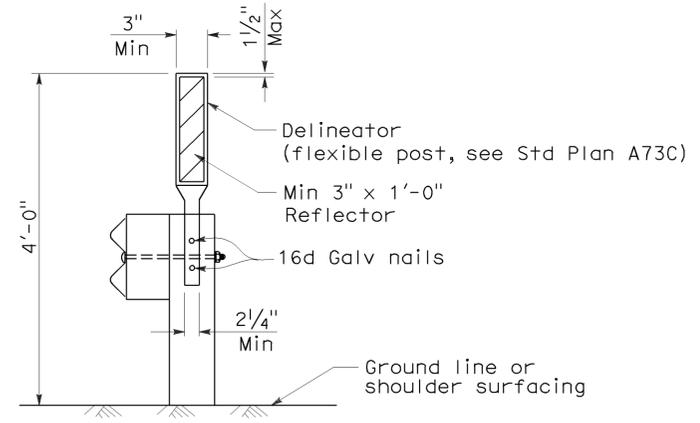
June 6, 2008  
PLANS APPROVAL DATE

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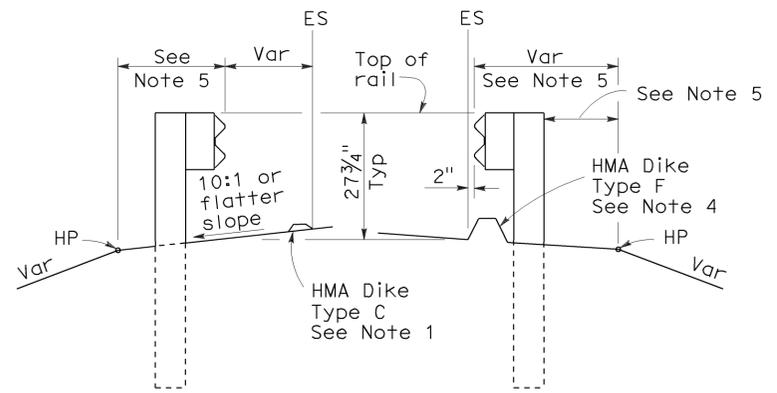
To accompany plans dated 4-21-11

**NOTES:**

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and Standard Plan A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.



**GUARD RAILING DELINEATION**  
See Note 3



**DIKE POSITIONING**  
See Note 1

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL RAILING DELINEATION  
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77C4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77C4  
DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77C4**

2006 REVISED STANDARD PLAN RSP A77C4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	53	70

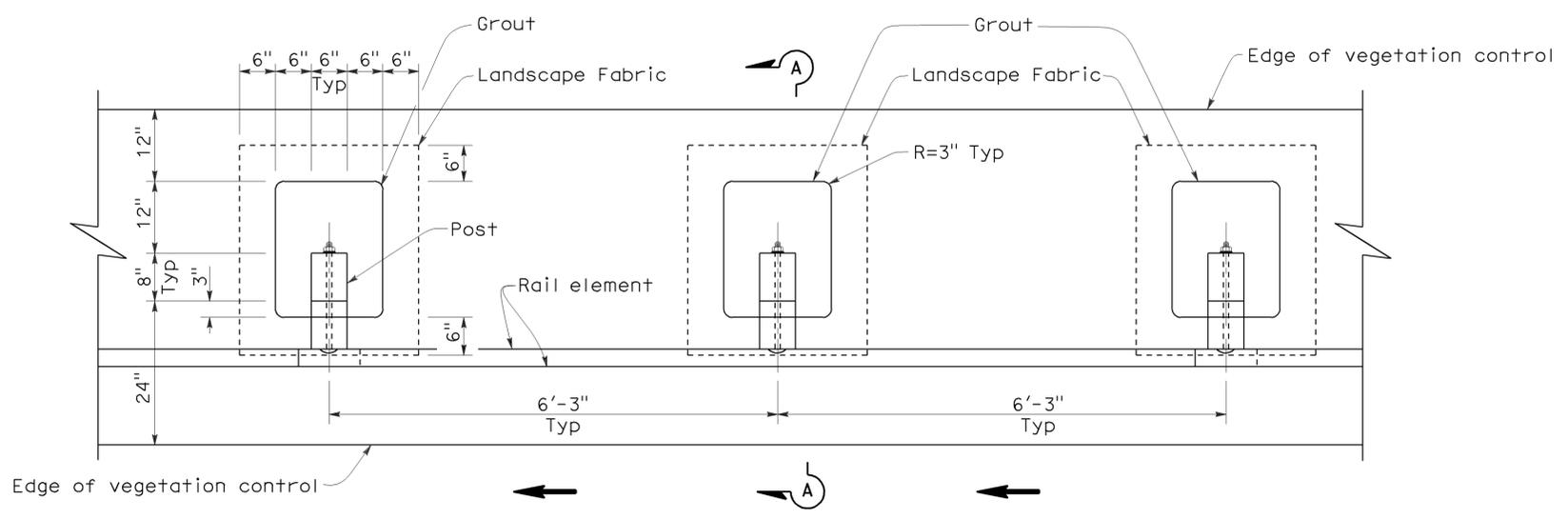
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

October 20, 2006  
PLANS APPROVAL DATE

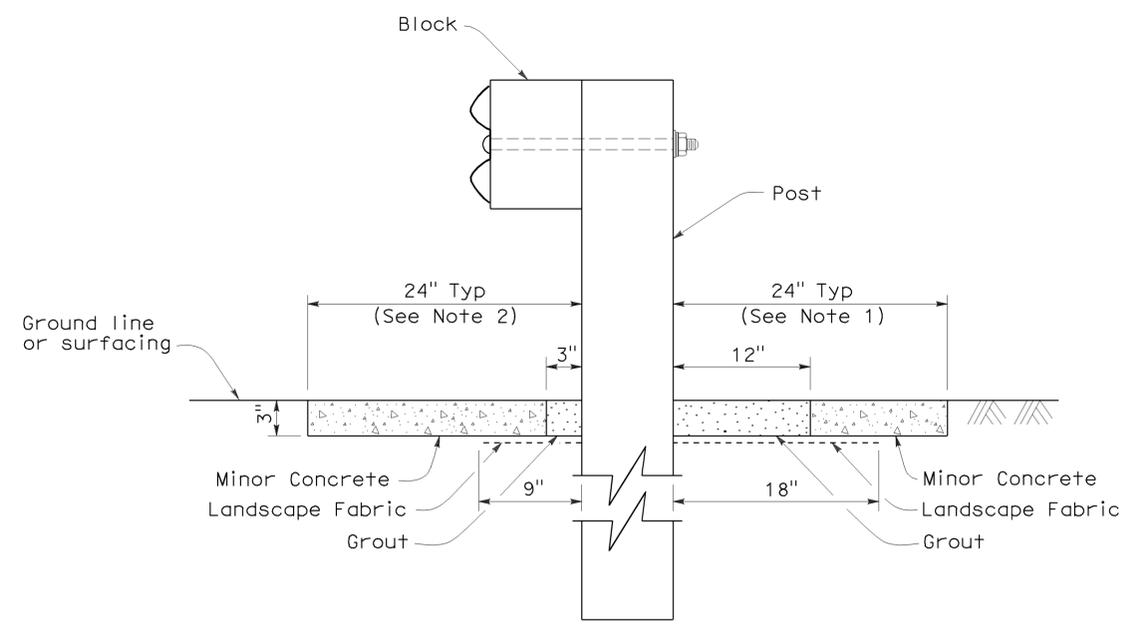
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-07  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated 4-21-11



PLAN



SECTION A-A

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
STANDARD RAILING SECTION**

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C5**

2006 NEW STANDARD PLAN NSP A77C5

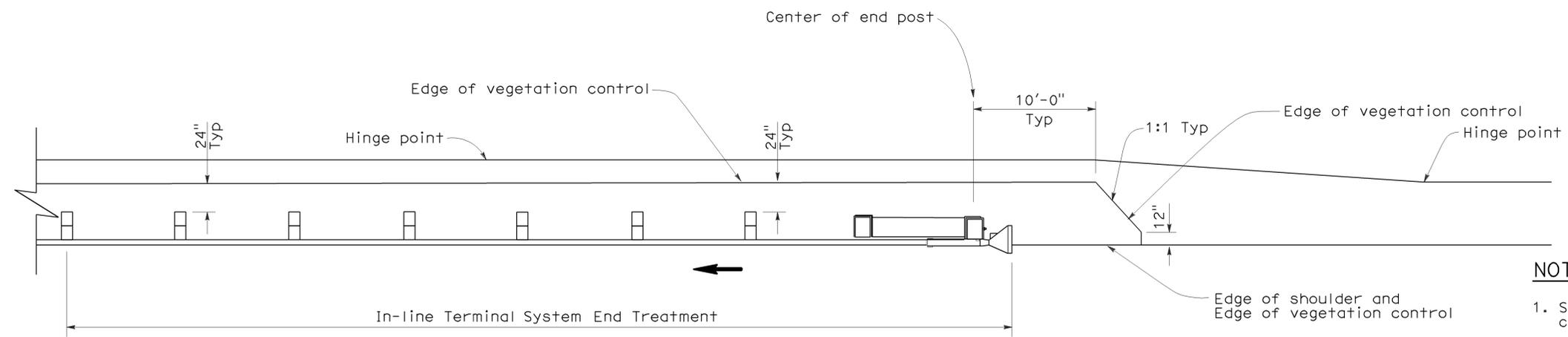
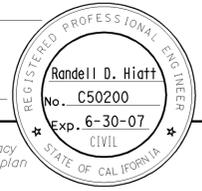
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	54	70

Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

October 20, 2006  
PLANS APPROVAL DATE

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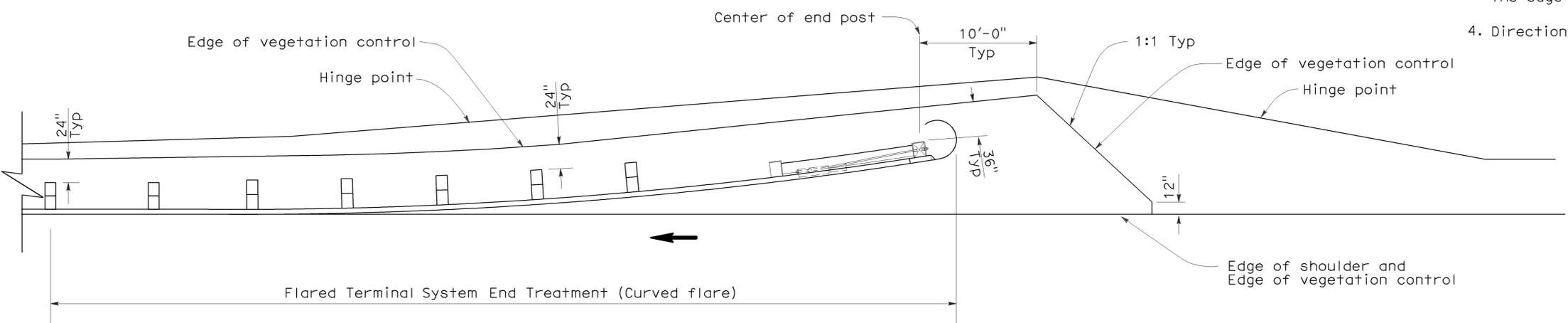
To accompany plans dated 4-21-11



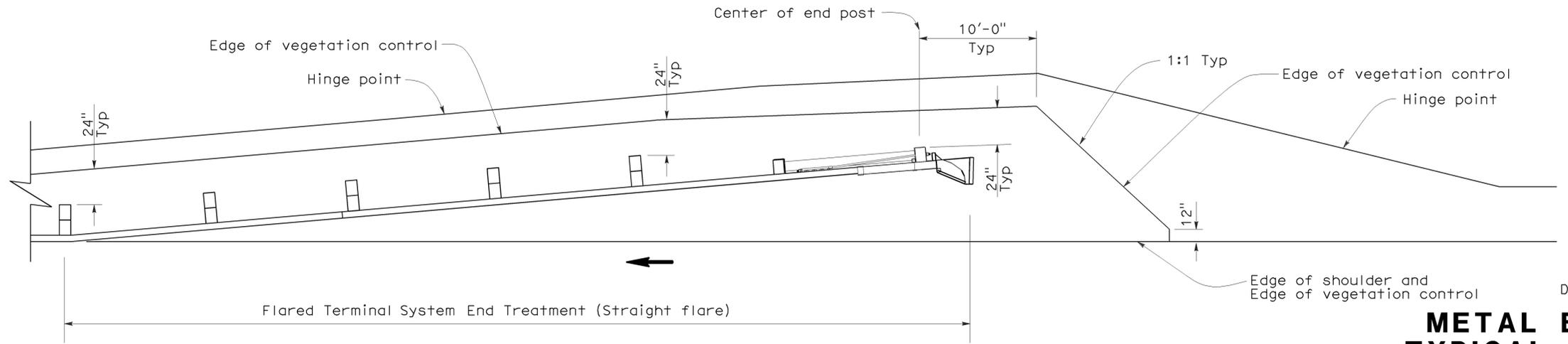
PLAN

**NOTES:**

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN



PLAN

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
FOR TERMINAL SYSTEM END TREATMENTS**

NO SCALE

NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C6**

2006 NEW STANDARD PLAN NSP A77C6

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	55	70

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

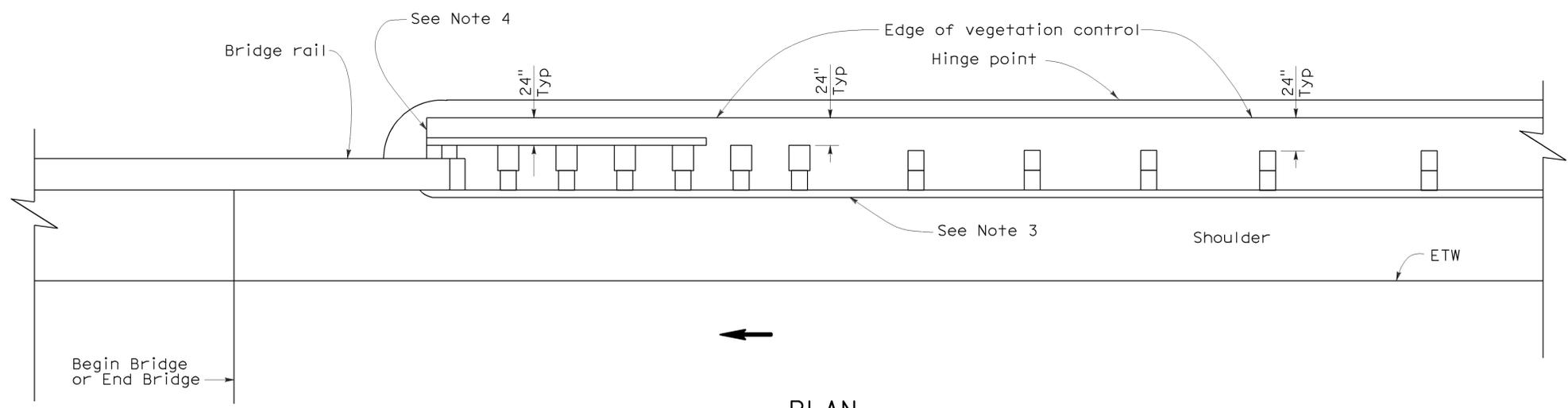
October 20, 2006  
PLANS APPROVAL DATE

*Randell D. Hiatt*  
No. C50200  
Exp. 6-30-07  
CIVIL  
STATE OF CALIFORNIA

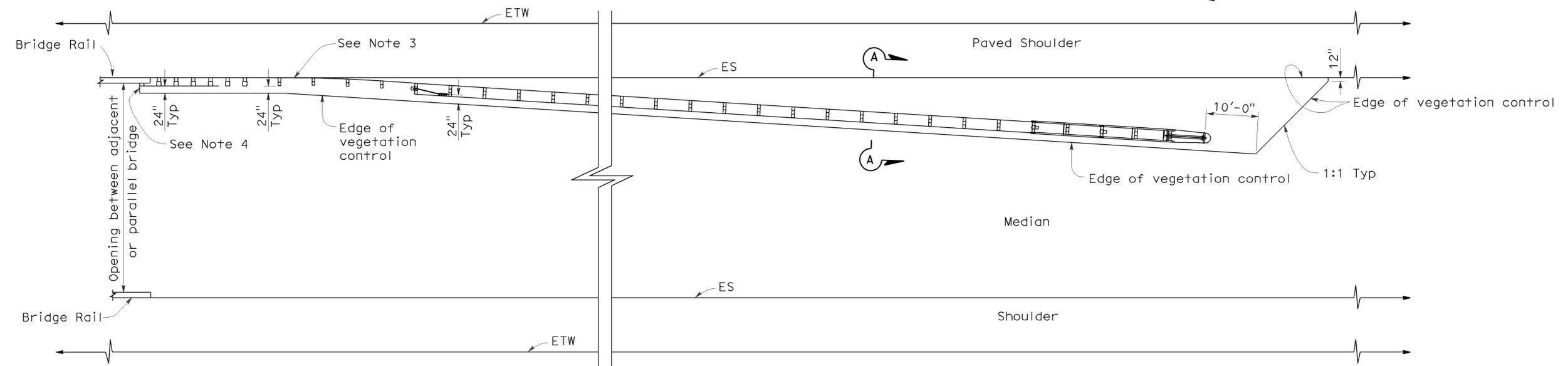
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To accompany plans dated 4-21-11

2006 NEW STANDARD PLAN NSP A77C7



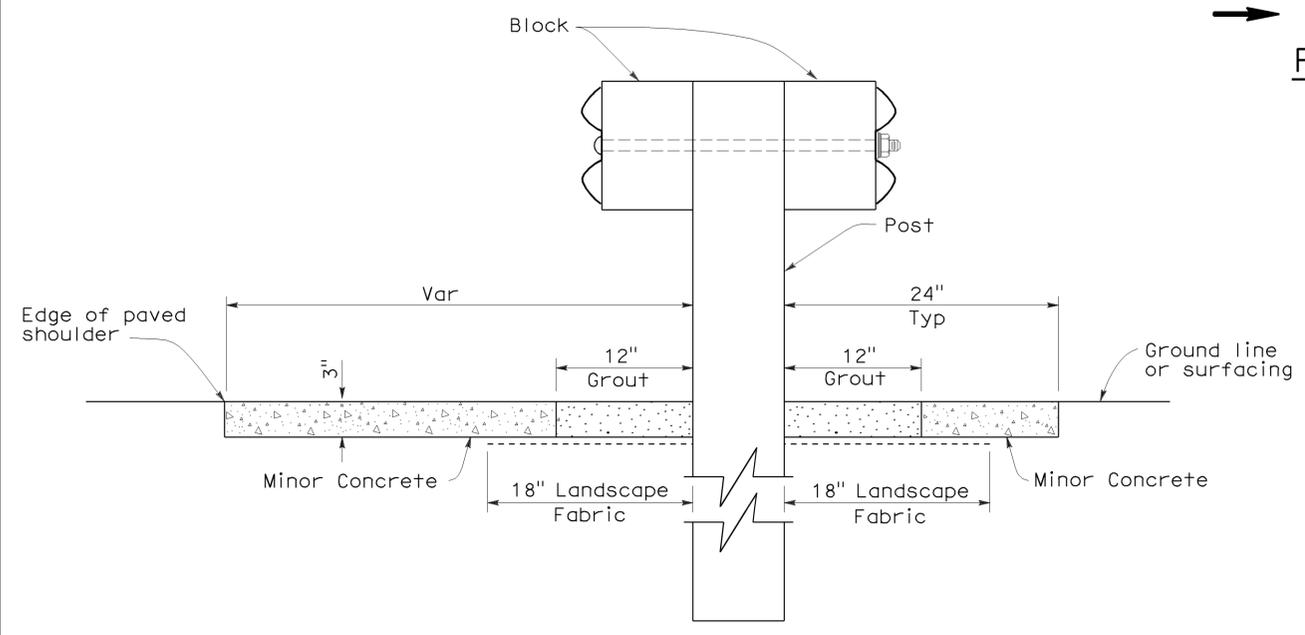
PLAN



PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. End vegetation control at end of backside rail element.
5. Direction of adjacent traffic indicated by ←.



SECTION A-A

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
AT STRUCTURE APPROACH  
AND DEPARTURE**

NO SCALE

NSP A77C7 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C7**

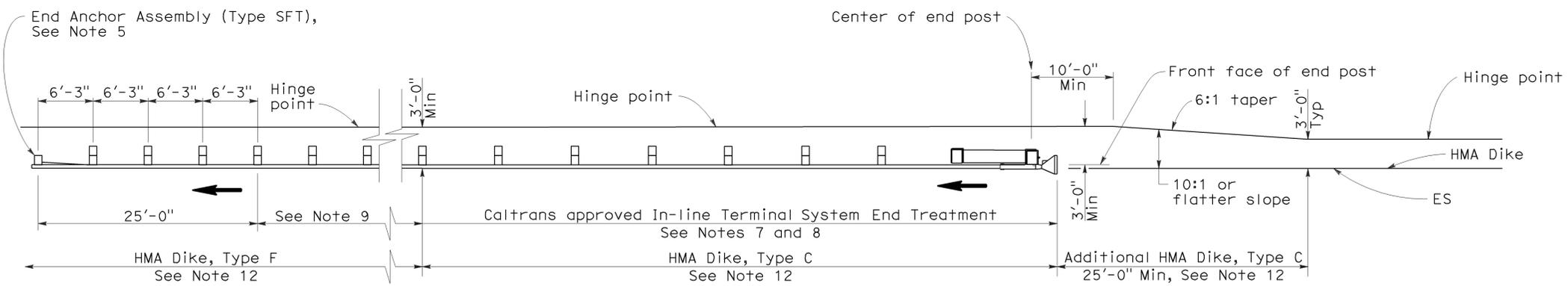
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	56	70

RANDALL D. HIATT  
 REGISTERED CIVIL ENGINEER  
 No. C50200  
 Exp. 6-30-09  
 CIVIL  
 STATE OF CALIFORNIA

June 6, 2008  
 PLANS APPROVAL DATE

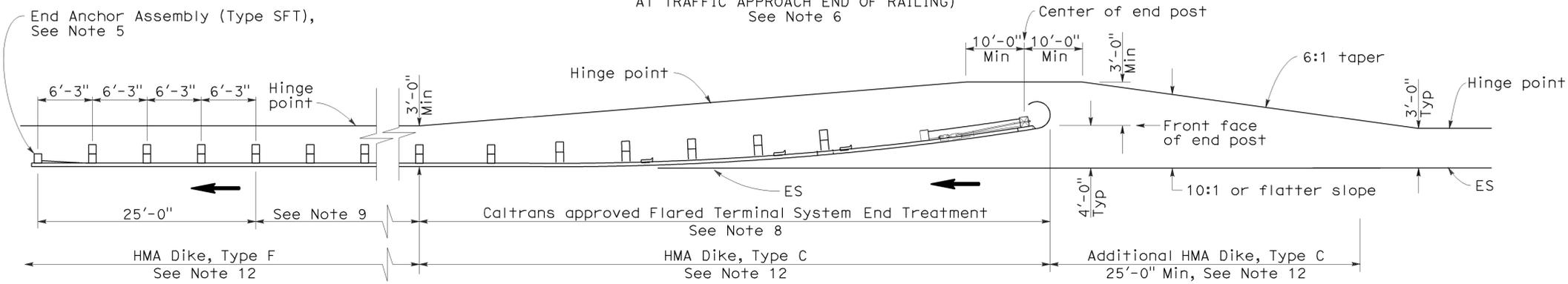
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-21-11



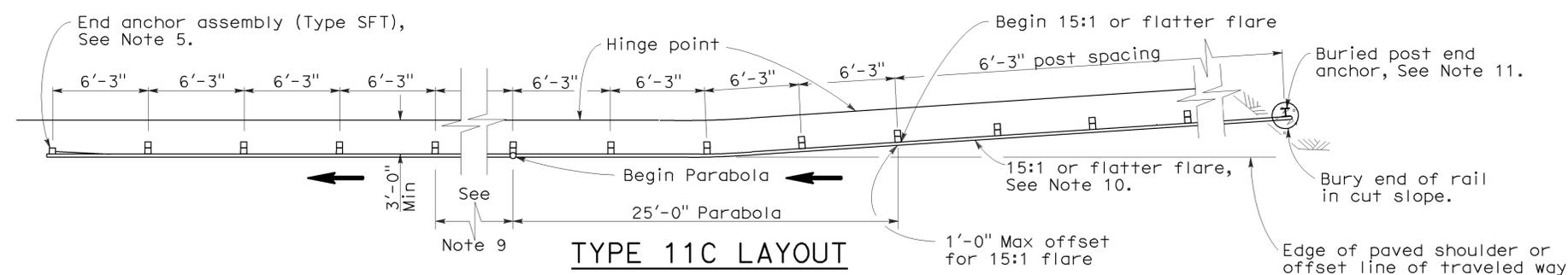
**TYPE 11A LAYOUT**

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING) See Note 6



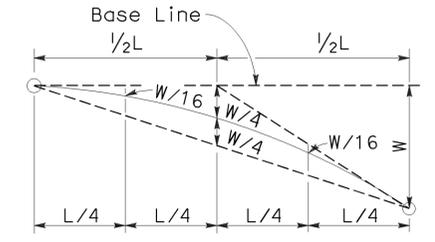
**TYPE 11B LAYOUT**

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING) See Note 6

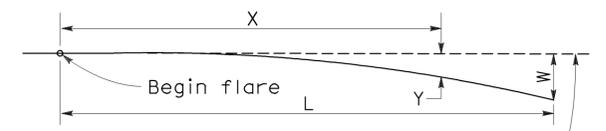


**TYPE 11C LAYOUT**

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING) See Notes 6 and 12



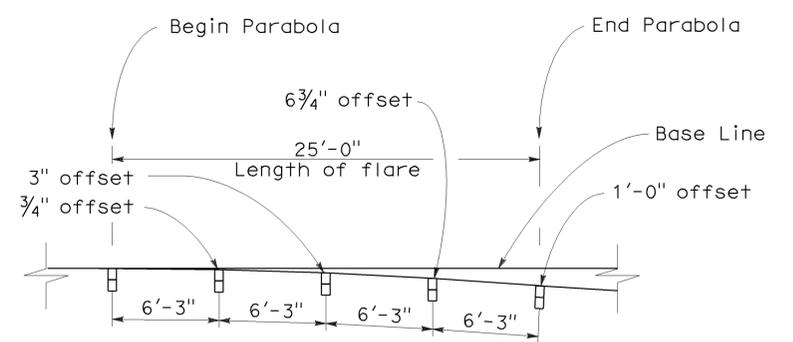
**TYPICAL PARABOLIC LAYOUT**



Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$Y = \frac{WX^2}{L^2}$   
 Y = Offset from base line  
 W = Maximum offset  
 X = Distance along base line  
 L = Length of flare

**PARABOLIC FLARE OFFSETS**



**TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET**

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING**  
**TYPICAL LAYOUTS FOR EMBANKMENTS**  
NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1 DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77E1**

2006 REVISED STANDARD PLAN RSP A77E1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5, 50, 51, 65, 80, etc.	Var	57	70

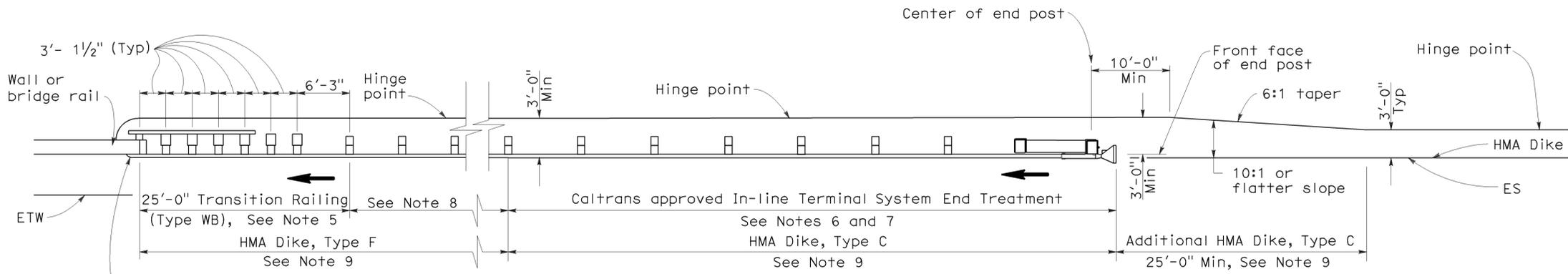
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

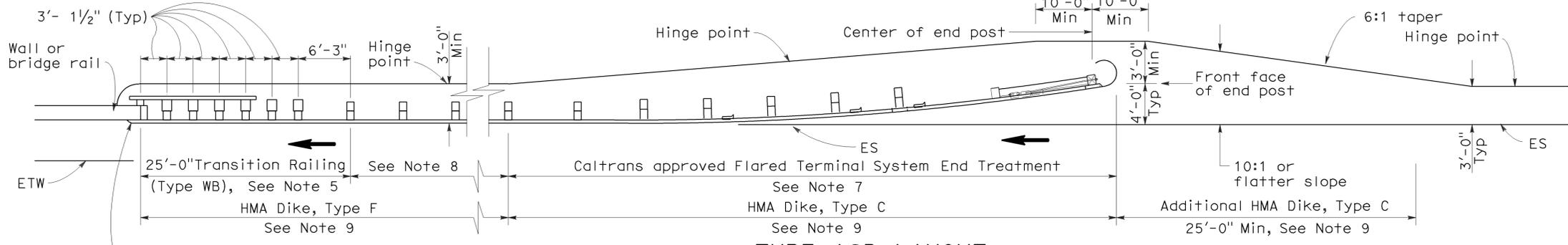
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To accompany plans dated 4-21-11



**TYPE 12A LAYOUT**

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 10



**TYPE 12B LAYOUT**

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 10

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment.

- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
  - To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
  - To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
  - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
  - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- See Revised Standard Plan RSP A77F3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.

- For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77J1 and RSP A77J2 and Connection Detail FF on Standard Plans A77K1 and A77K2.
- For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL LAYOUTS FOR  
STRUCTURE APPROACH**

NO SCALE

RSP A77F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F1  
DATED MAY 1, 2006 - PAGE 54 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77F1**

2006 REVISED STANDARD PLAN RSP A77F1

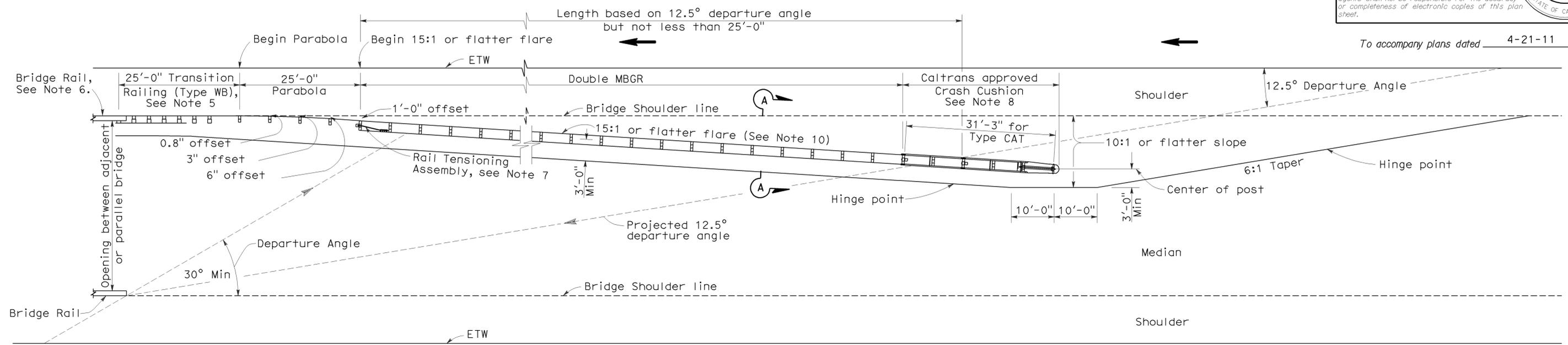
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	58	70

Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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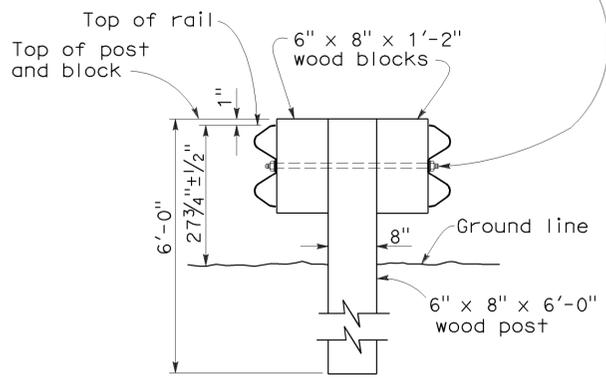
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA



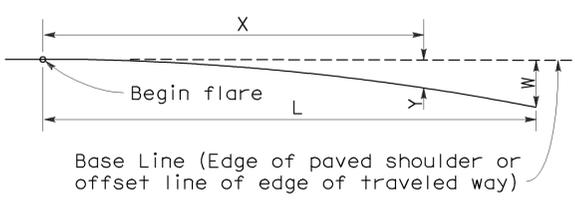
To accompany plans dated 4-21-11

**TYPE 12E LAYOUT**  
See Note 10

5/8" Ø Button head bolt with hex nut or 5/8" Ø Rod, threaded both ends, with hex nuts. 1/2" Max exposed threads after hex nut(s) tightened. No washer on rail faces for bolted connection to line post.



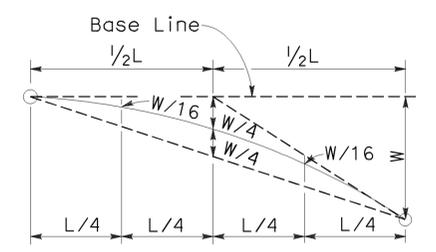
**SECTION A-A**  
**TYPICAL DOUBLE METAL BEAM GUARD RAILING**



$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line  
W = Maximum offset  
X = Distance along base line  
L = Length of flare

**PARABOLIC FLARE OFFSETS**



**TYPICAL PARABOLIC LAYOUT**

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For Transition Railing (Type WB) details, see Standard Plan A77J4.
- For additional details of a typical connection to bridge rail, see Connection Detail AA on Revised Standard Plan RSP A77J1.
- For Rail Tensioning Assembly details, see Standard Plan A77H2.
- The type of Crash Cushion to be used will be shown on the Project Plans.
- Type 12E Layout is typically used left of approaching traffic at the end of each structure on multilane freeways or expressways where a median type barrier is not constructed between separated roadbeds.
- The 15:1 or flatter flare is measured off of the edge of traveled way.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING**  
**TYPICAL LAYOUTS FOR**  
**STRUCTURE APPROACH**

NO SCALE  
RSP A77F3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F3  
DATED MAY 1, 2006 - PAGE 56 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77F3

**NOTES:**

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing section with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by  $\rightarrow$ .

6. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
7. Type of crash cushion to be used will be shown on the Project Plans.
8. Type 15A layout is typically used on multilane freeways or expressways to shield fixed objects in the area between separated one-way roadbeds.
9. For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
10. The 15:1 or flatter flare is measured off of the edge of the traveled way.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

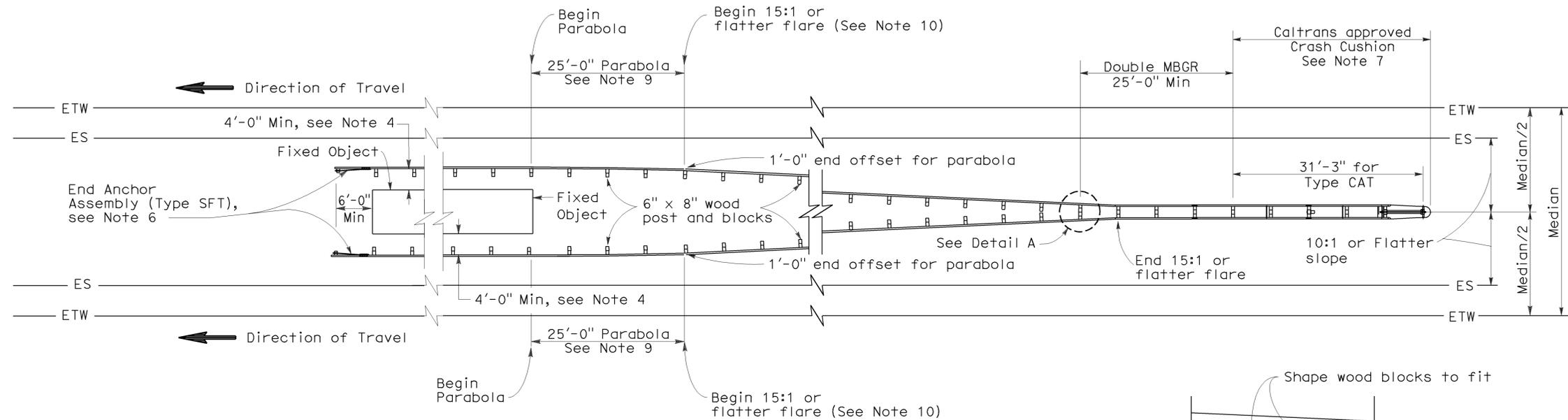
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	59	70

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

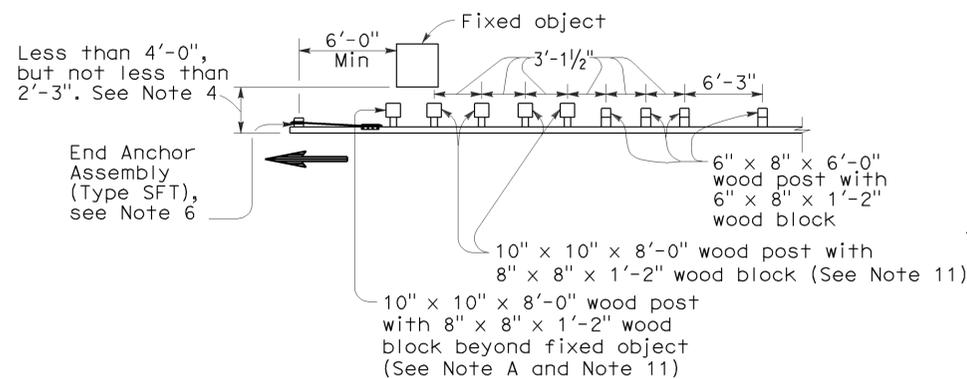
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To accompany plans dated 4-21-11



**TYPE 15A LAYOUT**

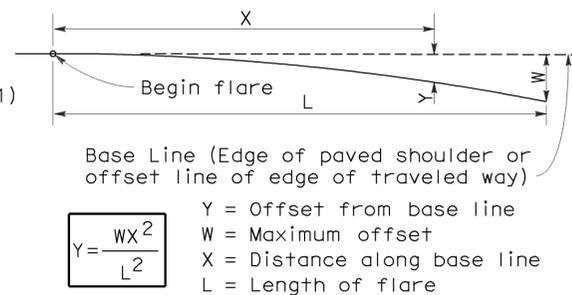
See Note 9



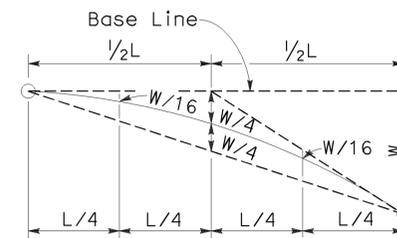
**NOTE A:** For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1/2" center to center spacing are to be used between fixed objects.

**STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT**

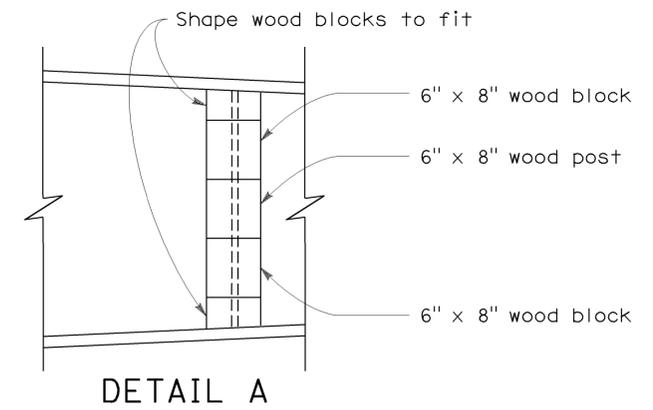
Use strengthened railing sections with Type 15A layout where minimum clearance between the face of the guard railing and the fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



**PARABOLIC FLARE OFFSETS**



**TYPICAL PARABOLIC LAYOUT**



**DETAIL A**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING  
TYPICAL LAYOUTS FOR  
FIXED OBJECTS  
BETWEEN SEPARATE ROADBEDS  
(ONE-WAY TRAFFIC)**

NO SCALE

RSP A77G2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G2  
DATED MAY 1, 2006 - PAGE 60 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77G2**

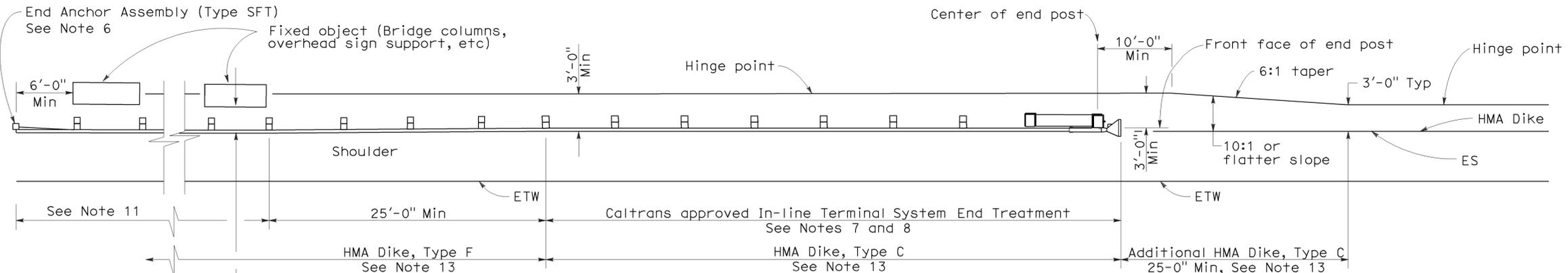
2006 REVISED STANDARD PLAN RSP A77G2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	60	70

RANDALL D. HIATT  
 REGISTERED CIVIL ENGINEER  
 No. C50200  
 Exp. 6-30-09  
 CIVIL  
 STATE OF CALIFORNIA

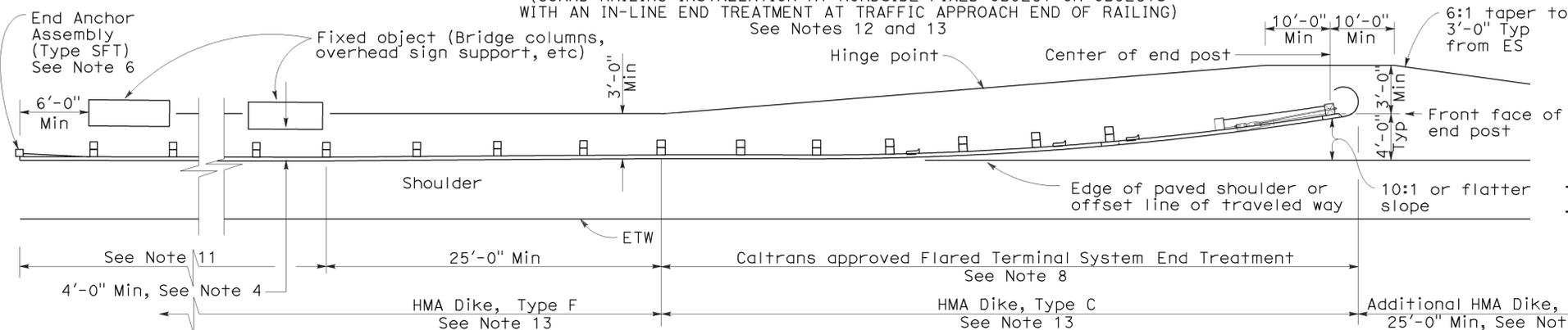
June 6, 2008  
 PLANS APPROVAL DATE

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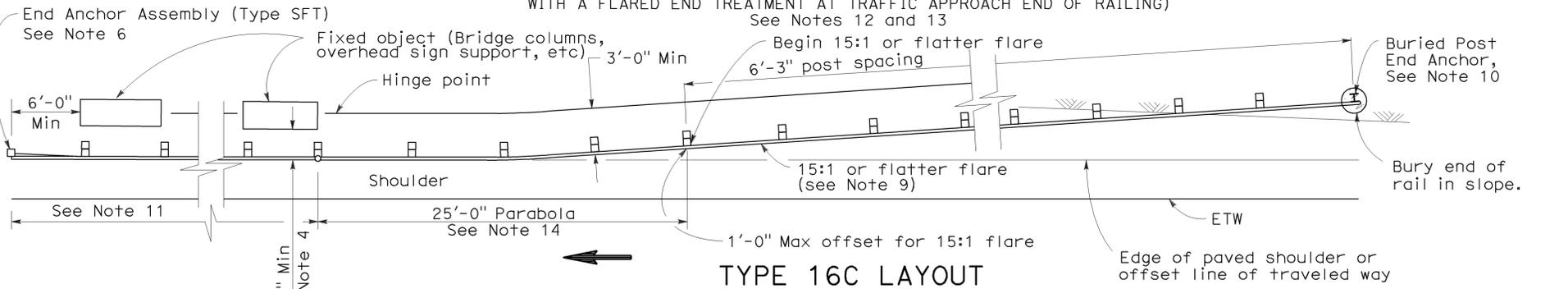
**TYPE 16A LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13



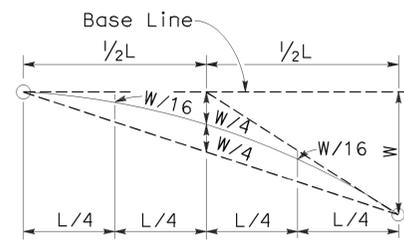
**TYPE 16B LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13

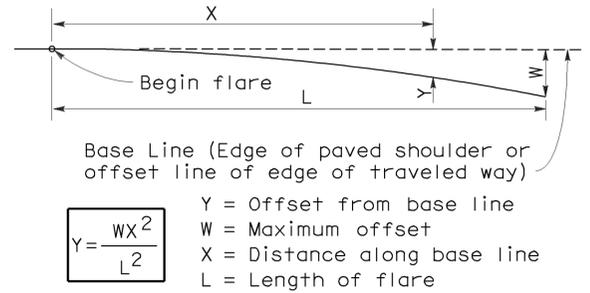


**TYPE 16C LAYOUT**

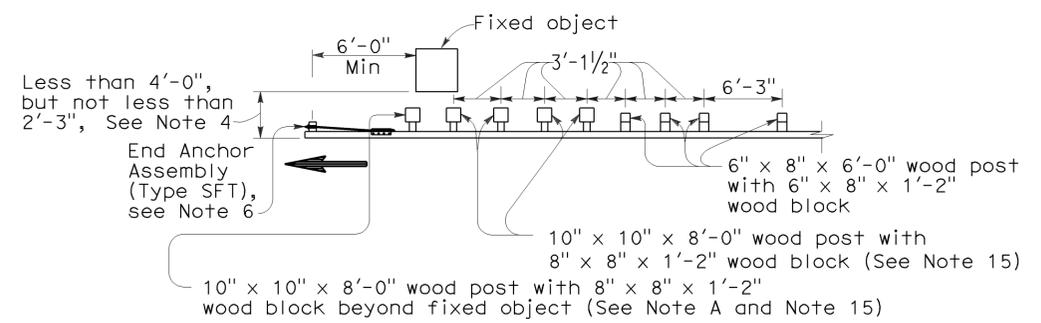
(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13



**TYPICAL PARABOLIC LAYOUT**



**PARABOLIC FLARE OFFSETS**



**NOTE A:** For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1/2" center to center spacing are to be used between fixed objects.

**STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT**

Use strengthened railing sections with Types 16A, 16B or 16C Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4

**NOTES:**

- Line post, blocks and hardware to be used are shown on Revised Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system to be used will be shown on the Project Plans.
- The 15:1 or flatter flare used with Type 16C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Standard Plan A77I2.
- As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
- Layout Types 16A, 16B or 16C are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for only one direction of traffic.
- Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING  
TYPICAL LAYOUTS FOR  
ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77G3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G3  
DATED MAY 1, 2006 - PAGE 61 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77G3**

2006 REVISED STANDARD PLAN RSP A77G3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	61	70

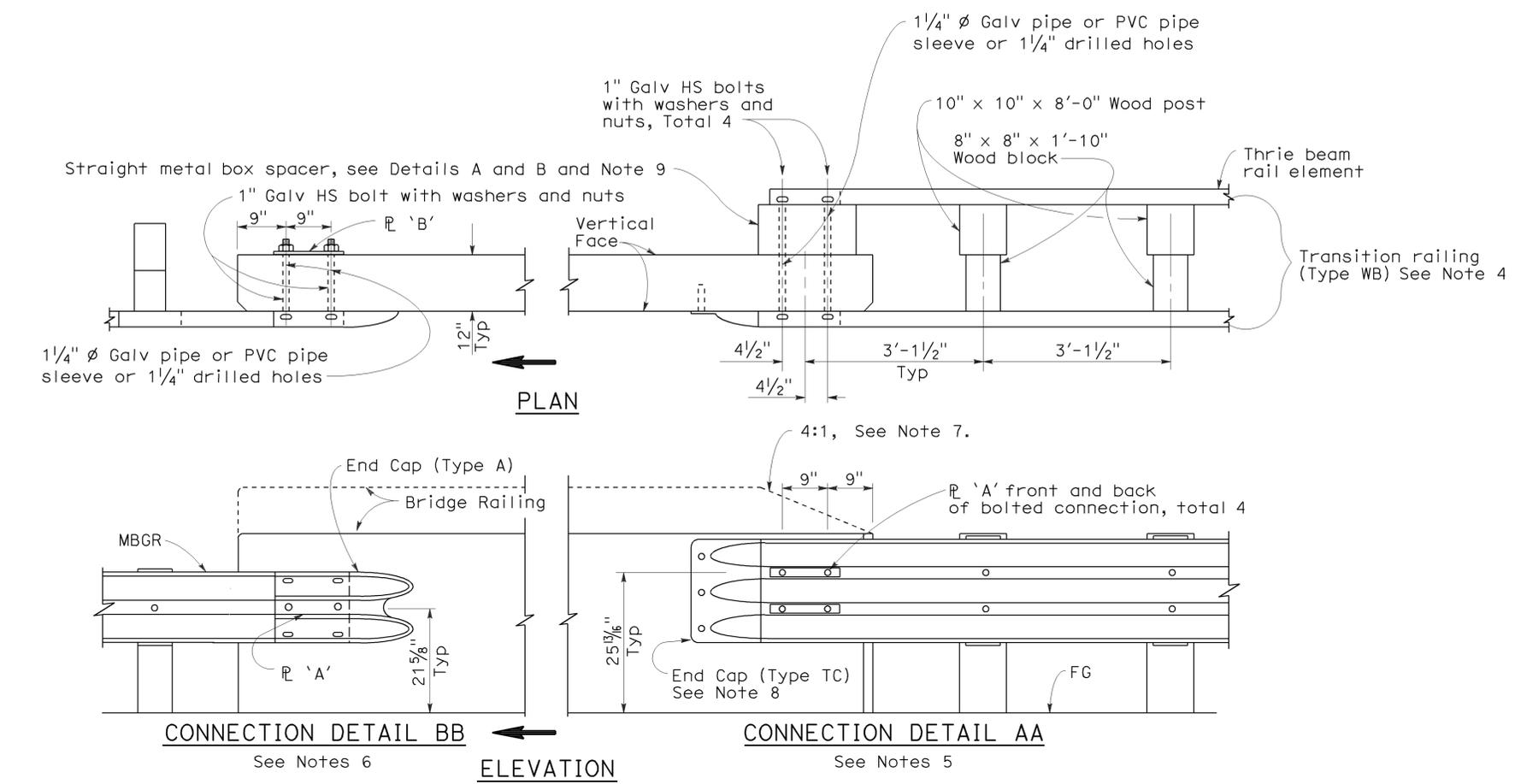
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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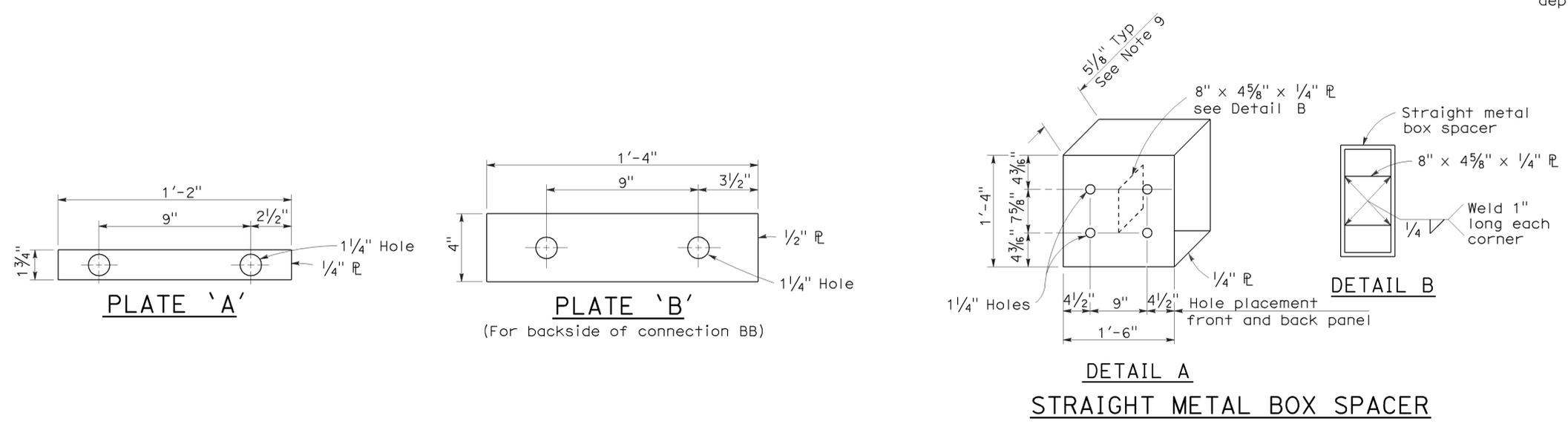
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 4-21-11



- NOTES:**
- See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
  - Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
  - Direction of adjacent traffic indicated by →.
  - For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
  - For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
  - For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD on Standard Plan A77F5.
  - Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
  - For details of End Cap (Type TC), see Standard Plan A77J4.
  - See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.

**GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK**



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.1**

NO SCALE

RSP A77J1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J1 DATED MAY 1, 2006 - PAGE 72 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77J1**

2006 REVISED STANDARD PLAN RSP A77J1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5,50,51, 65,80, etc.	Var	62	70

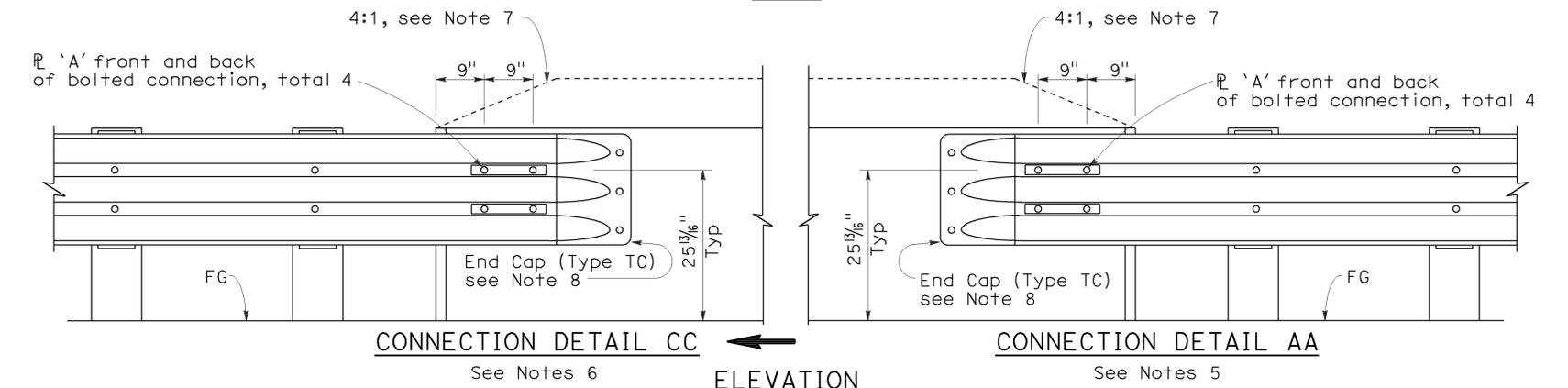
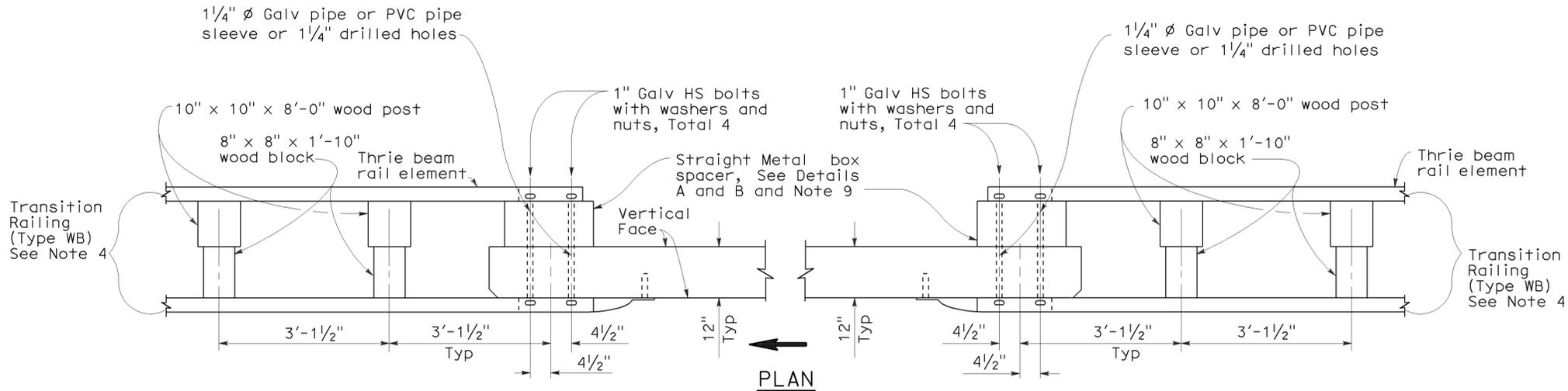
**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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No. C50200  
Exp. 6-30-09  
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STATE OF CALIFORNIA

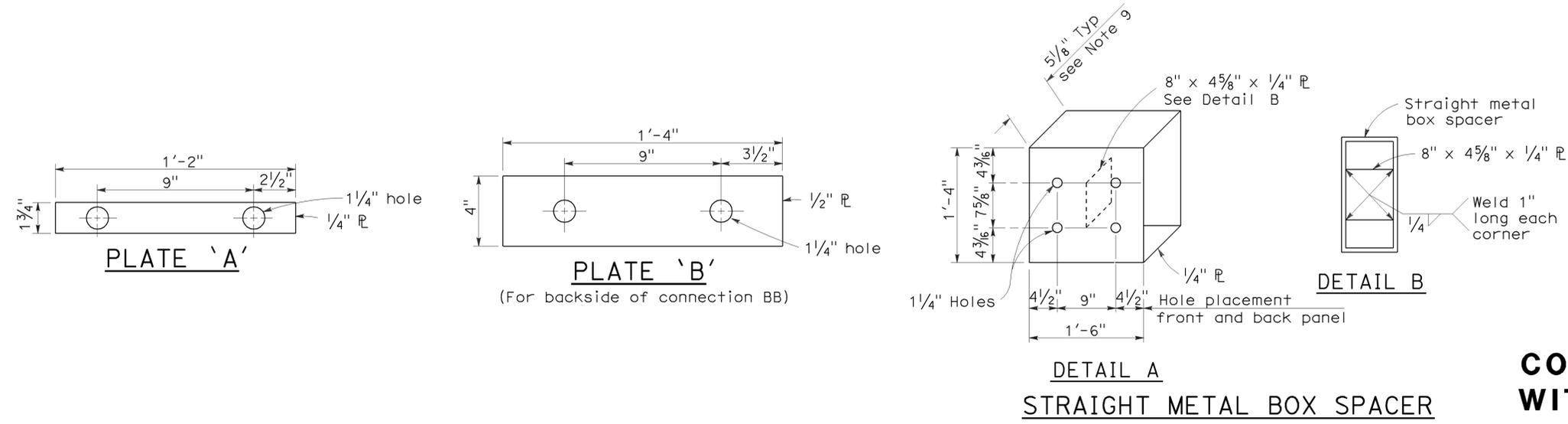
To accompany plans dated 4-21-11



**GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK**

**NOTES:**

1. See Revised Standard Plan RSP A77J1 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
3. Direction of adjacent traffic indicated by →.
4. For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
5. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
6. For typical use of Connection Detail CC, see Layout Types 12AA and 12BB on Standard Plan A77F4 and Layout Type 12CC on Standard Plan A77F5.
7. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA and connection Detail CC, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
8. For details of End Cap (Type TC), see Standard Plans A77J4.
9. See Standard Plans A77J4 for additional details regarding depth dimension for straight metal box spacer.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.2**

NO SCALE  
RSP A77J2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J2  
DATED MAY 1, 2006 - PAGE 73 OF THE STANDARD PLANS BOOK DATED MAY 2006.

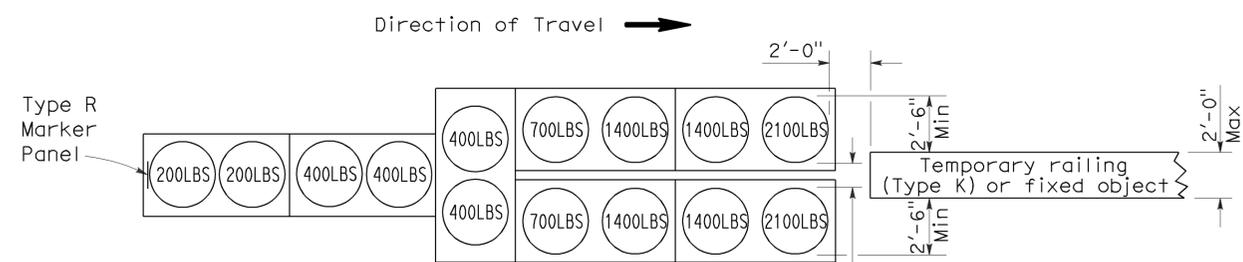
**REVISED STANDARD PLAN RSP A77J2**

2006 REVISED STANDARD PLAN RSP A77J2



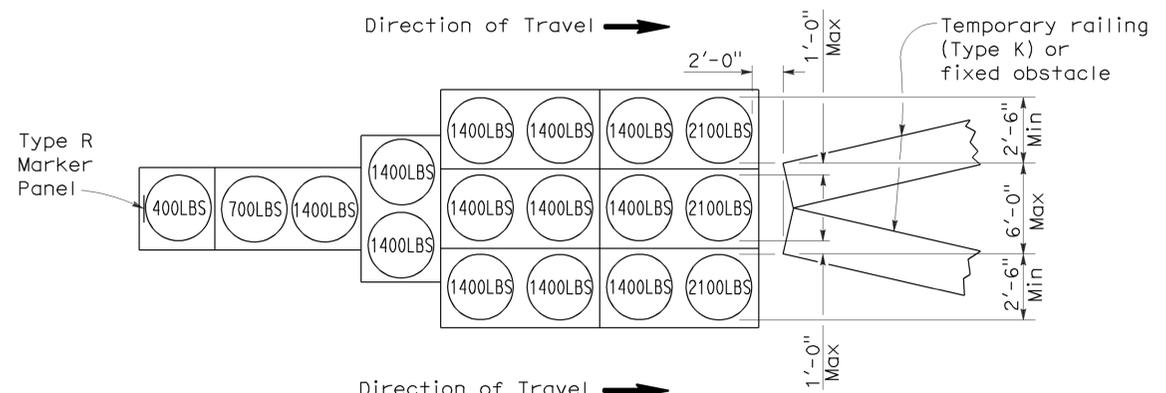
To accompany plans dated 4-21-11

2006 REVISED STANDARD PLAN RSP T1A



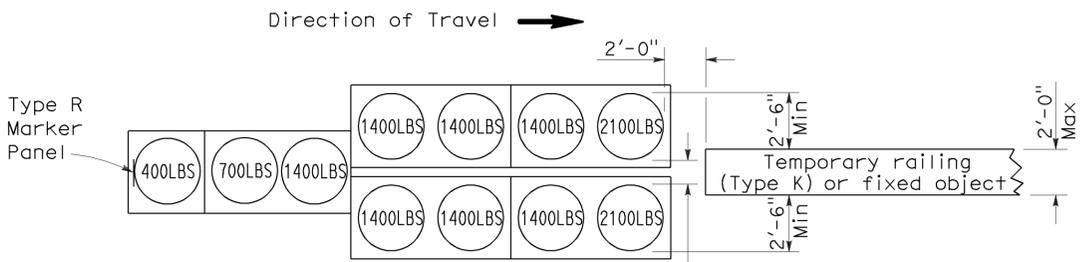
**ARRAY 'TU14'**

Approach speed 45 mph or more



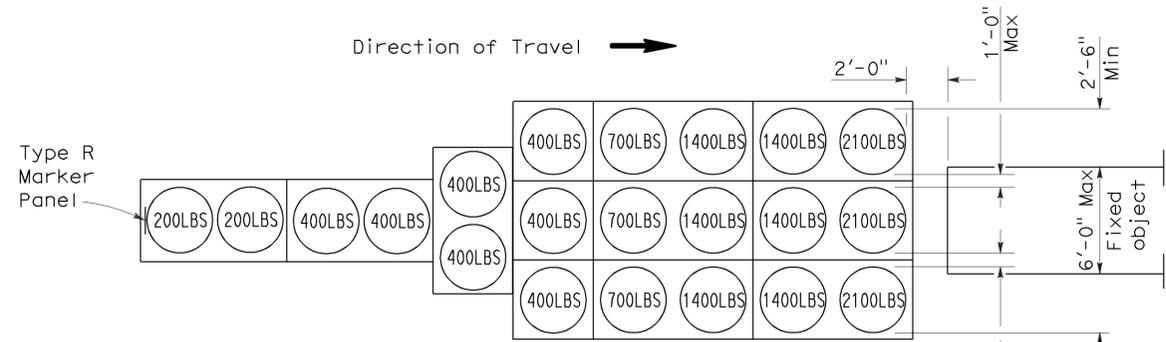
**ARRAY 'TU17'**

Approach speed less than 45 mph



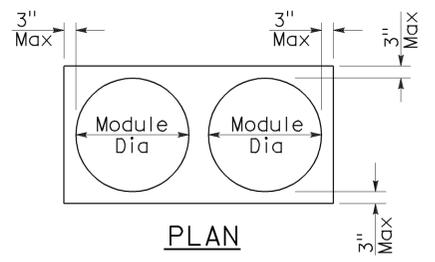
**ARRAY 'TU11'**

Approach speed less than 45 mph

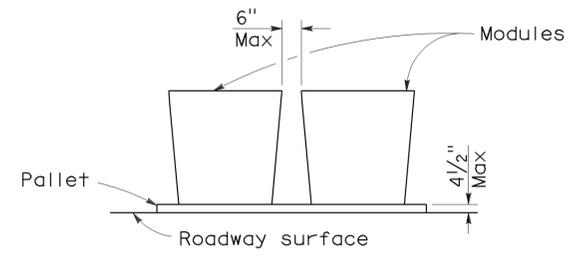


**ARRAY 'TU21'**

Approach speed 45 mph or more



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A  
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

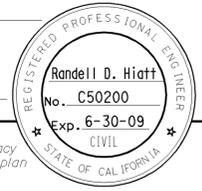
**REVISED STANDARD PLAN RSP T1A**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	65	70

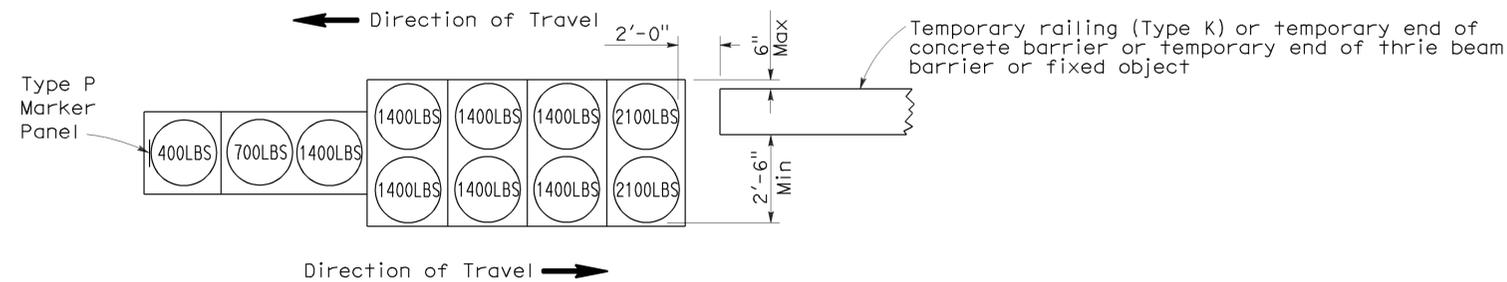
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

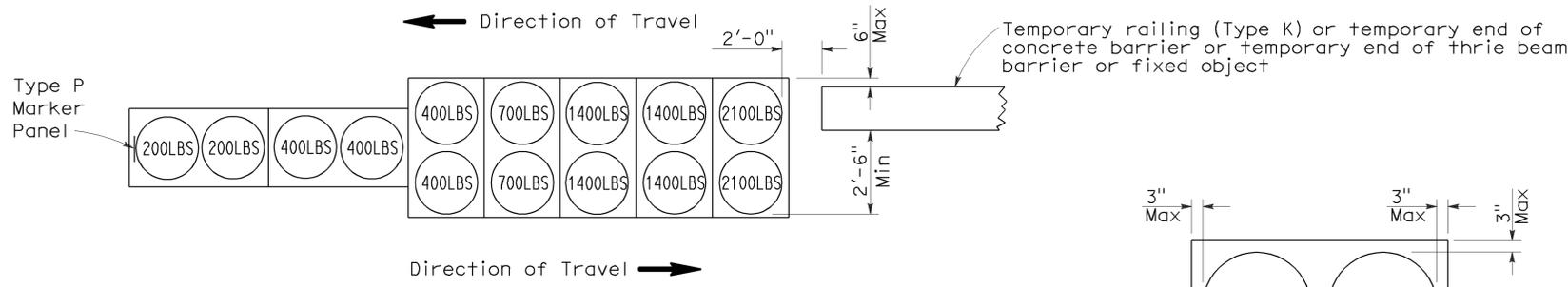
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*



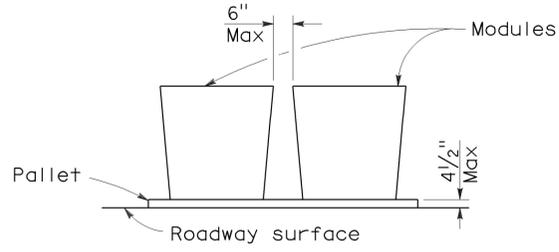
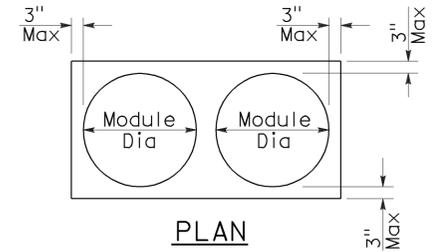
To accompany plans dated 4-21-11



**ARRAY 'TB11'**  
Approach speed less than 45 mph



**ARRAY 'TB14'**  
Approach speed 45 mph or more



**CRASH CUSHION PALLET DETAIL**  
See Note 7

**NOTES:**

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B  
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T1B**

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla, Sac, Yol, Yub	5, 50, 51, 65, 80, etc.	Var	66	70

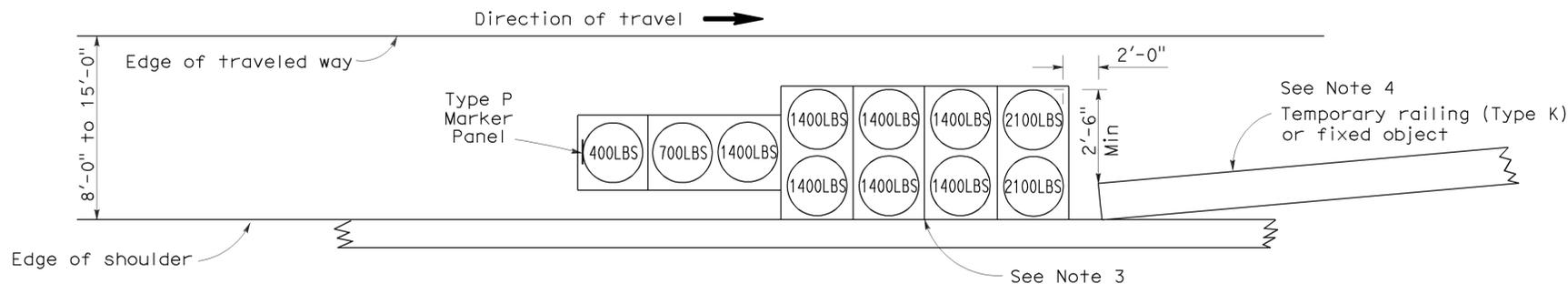
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

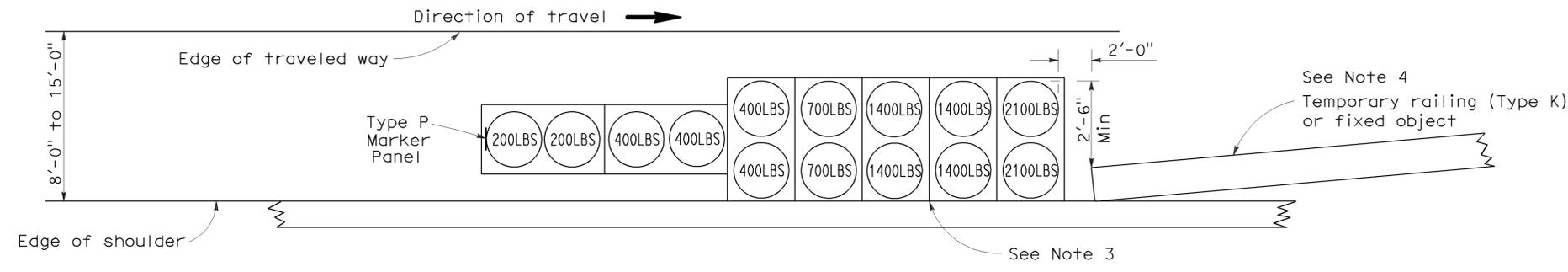
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated 4-21-11



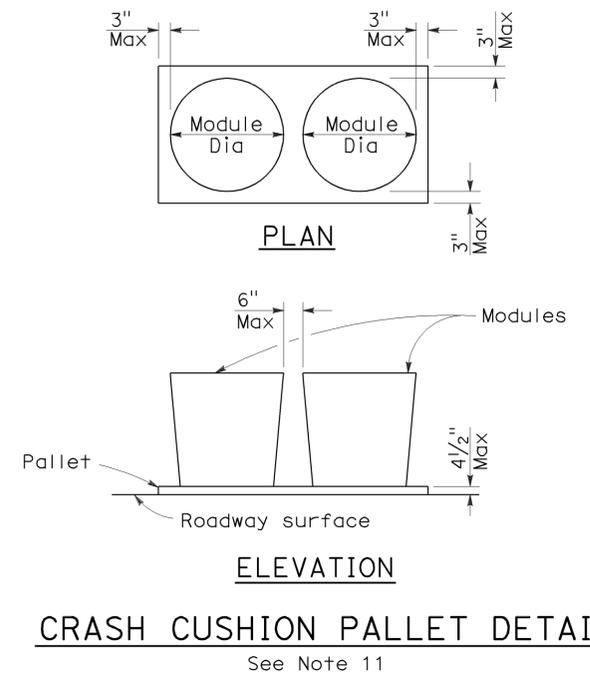
**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



**ARRAY 'TS14'**  
Approach speed 45 mph or more  
See Note 9

**NOTES:**

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



**CRASH CUSHION PALLET DETAIL**  
See Note 11

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(SHOULDER INSTALLATIONS)**  
NO SCALE

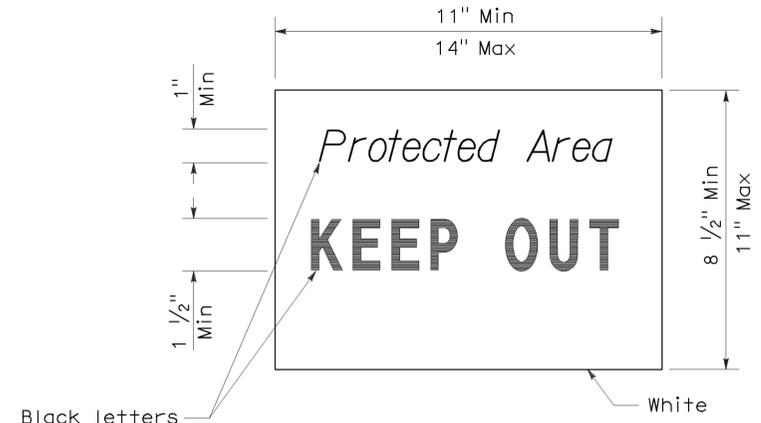
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2  
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T2**

2006 REVISED STANDARD PLAN RSP T2

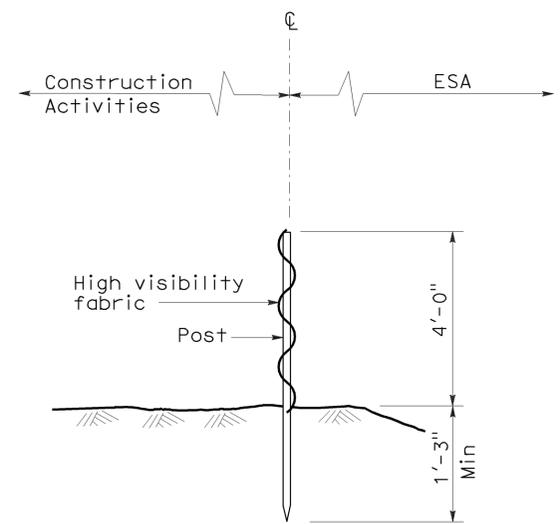
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	67	70

Robert B. Schott  
 LICENSED LANDSCAPE ARCHITECT  
 April 3, 2009  
 PLANS APPROVAL DATE  
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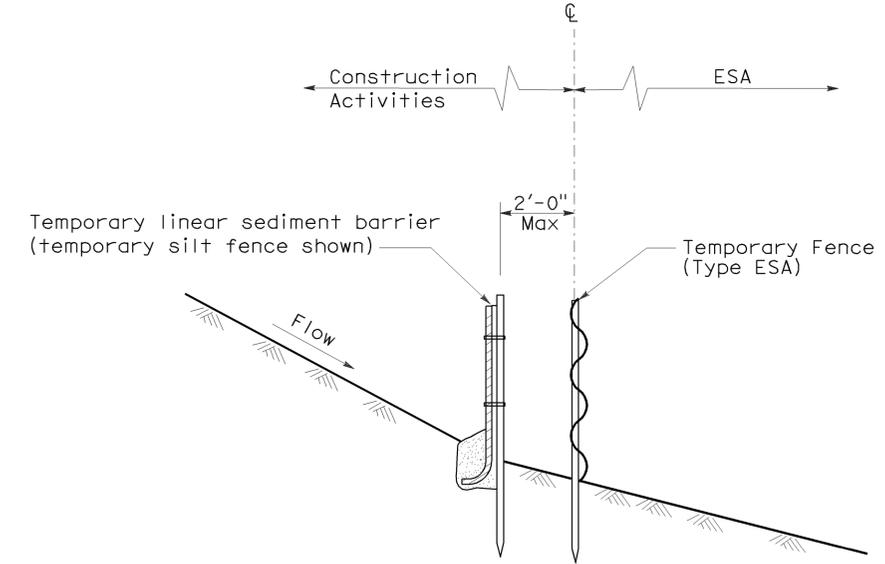


**SIGN DETAIL**

**NOTE:**  
 1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.

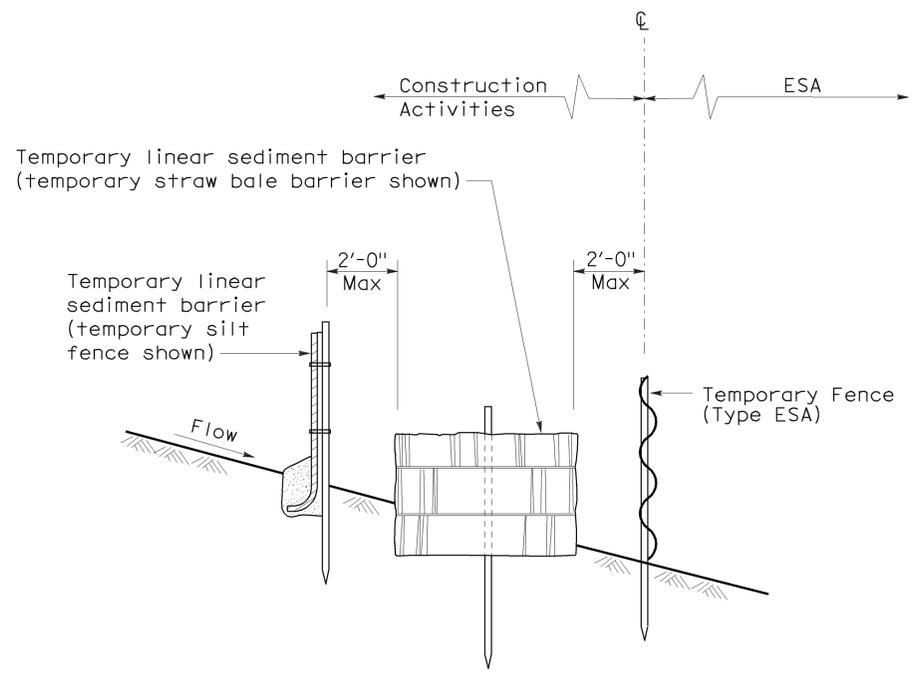


**SECTION TEMPORARY FENCE (TYPE ESA)**



**SECTION PLACEMENT DETAIL FOR TEMPORARY LINEAR SEDIMENT BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)**

(See Note 1 )



**SECTION PLACEMENT DETAIL FOR TEMPORARY SILT FENCE AND TEMPORARY STRAW BALE BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)**

(See Note 1 )

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TEMPORARY WATER POLLUTION CONTROL DETAILS**  
**[TEMPORARY FENCE (TYPE ESA)]**  
 NO SCALE

NSP T65 DATED APRIL 3, 2009 SUPPLEMENTS  
 THE STANDARD PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP T65**

2006 NEW STANDARD PLAN NSP T65

# ELECTROLIERS

STANDARD TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31	<b>NOTES:</b>	
32	1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.	
35	2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.	
36-20A	3. Variations noted adjacent to symbol on project plans.	

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

## STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

# ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

## PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	68	70

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
PLANS APPROVAL DATE

Jeffery G. McRae  
No. E14512  
Exp. 6-30-08  
ELECTRICAL  
STATE OF CALIFORNIA

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To accompany plans dated 4-21-11

## SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

### NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

# ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1A**

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Pla,Sac, Yol,Yub	5,50,51, 65,80,etc.	Var	69	70

*Jeffrey G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 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  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA

### CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination
		Conduit riser in/on structure or service pole

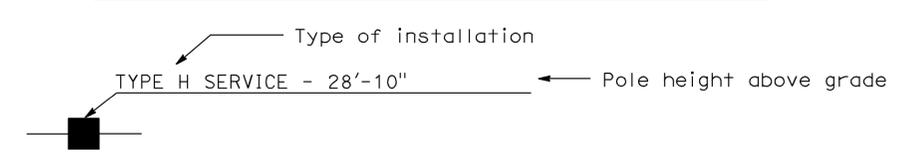
### SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" indicates all non-arrow sections louvered "LG" indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

### SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

### POLE-MOUNTED SERVICE DESIGNATION



### ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

### SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

### NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (SYMBOLS AND ABBREVIATIONS)**  
 NO SCALE

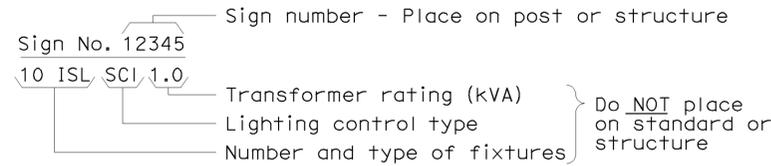
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

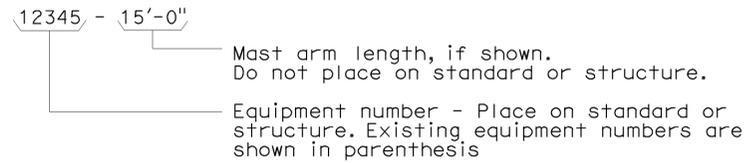
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

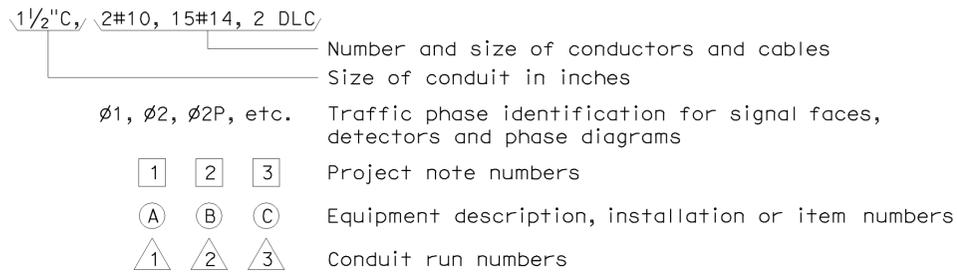
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



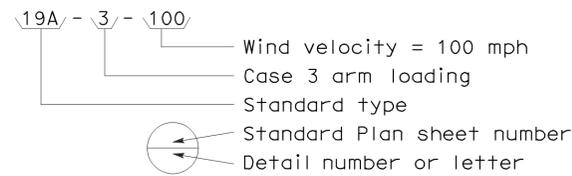
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



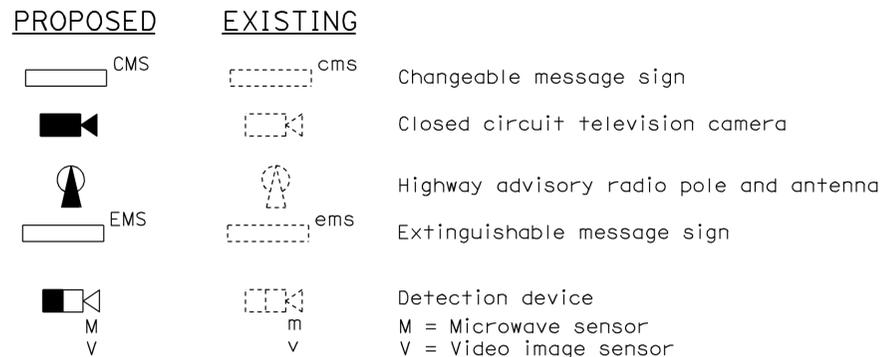
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



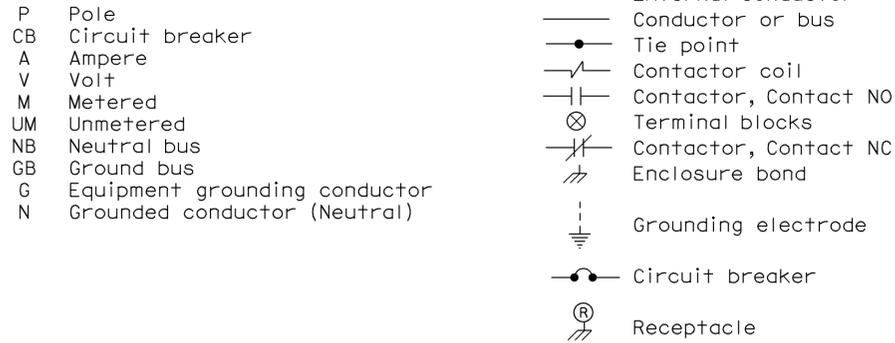
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



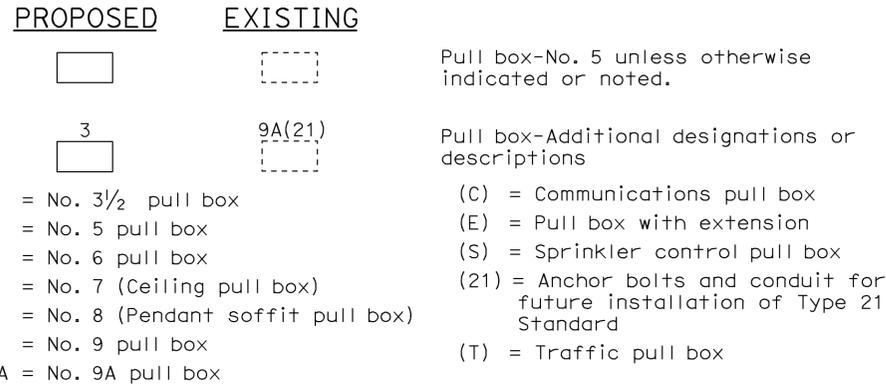
### MISCELLANEOUS EQUIPMENT



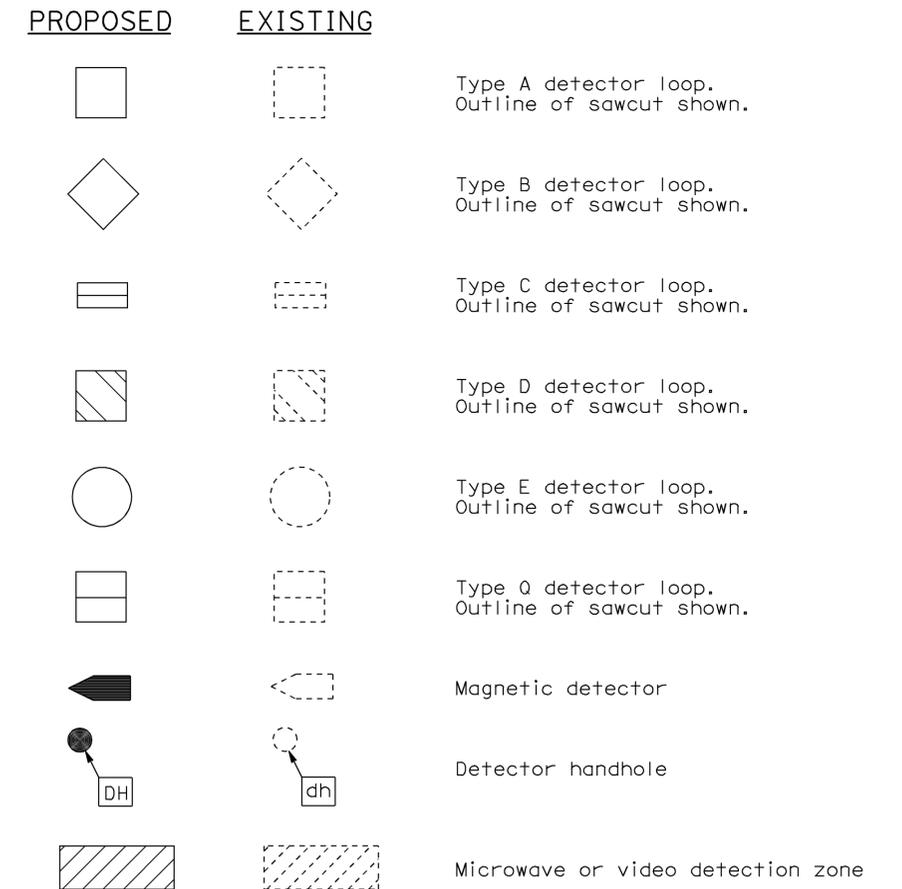
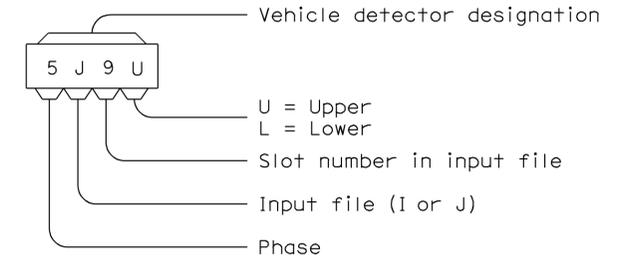
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C  
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.