

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-5	LAYOUTS
6	CONSTRUCTION DETAILS
7	CONSTRUCTION AREA SIGNS
8-12	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS AND QUANTITIES
13	SUMMARY OF QUANTITIES
14-32	REVISED AND NEW STANDARD PLANS

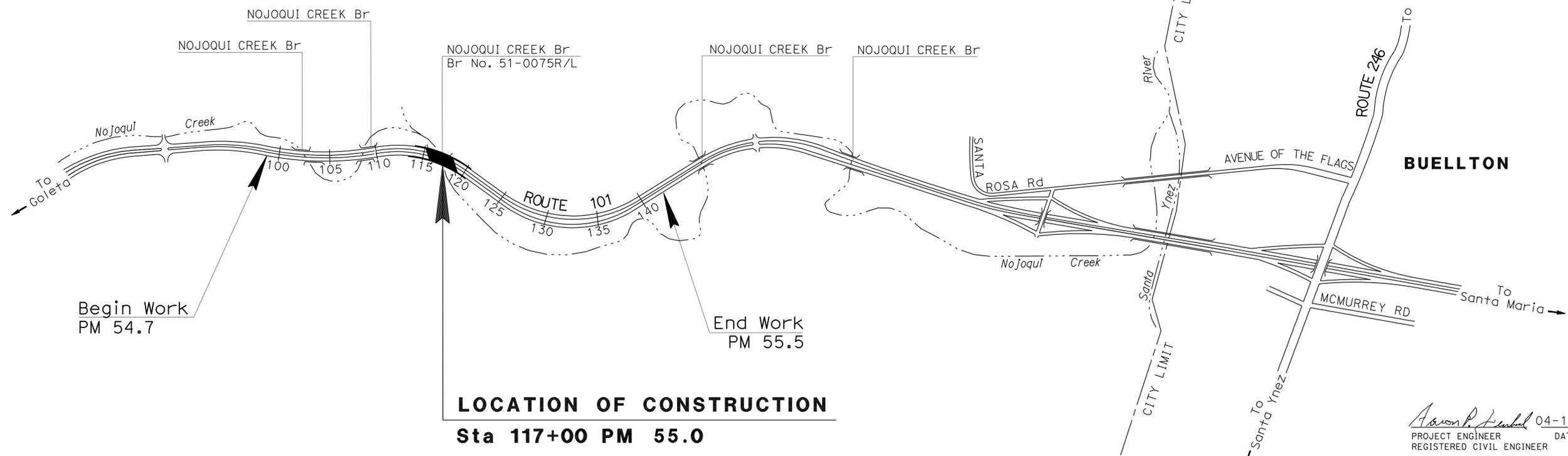
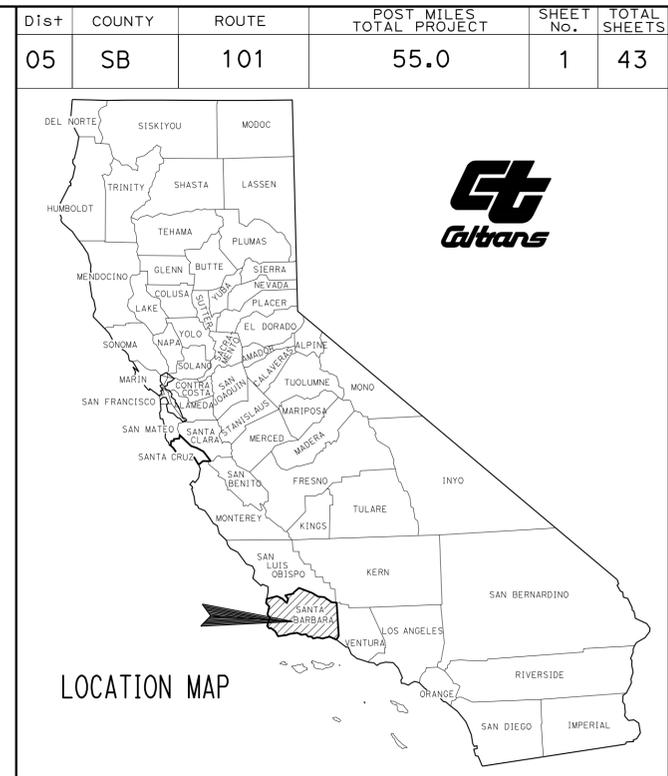
STRUCTURE PLANS

33-43 NOJOQUI CREEK (RAIL REPLACEMENT) Br No. 51-0075L/R

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**
**IN SANTA BARBARA COUNTY
NEAR BUELLTON AT NOJOQUI
CREEK BRIDGE
NO 51-75 R/L**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER
DAVID BEARD

DESIGN ENGINEER
JOHN FOUCHÉ

Aaron Henkel 04-13-12
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

April 30, 2012
PLANS APPROVAL DATE

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

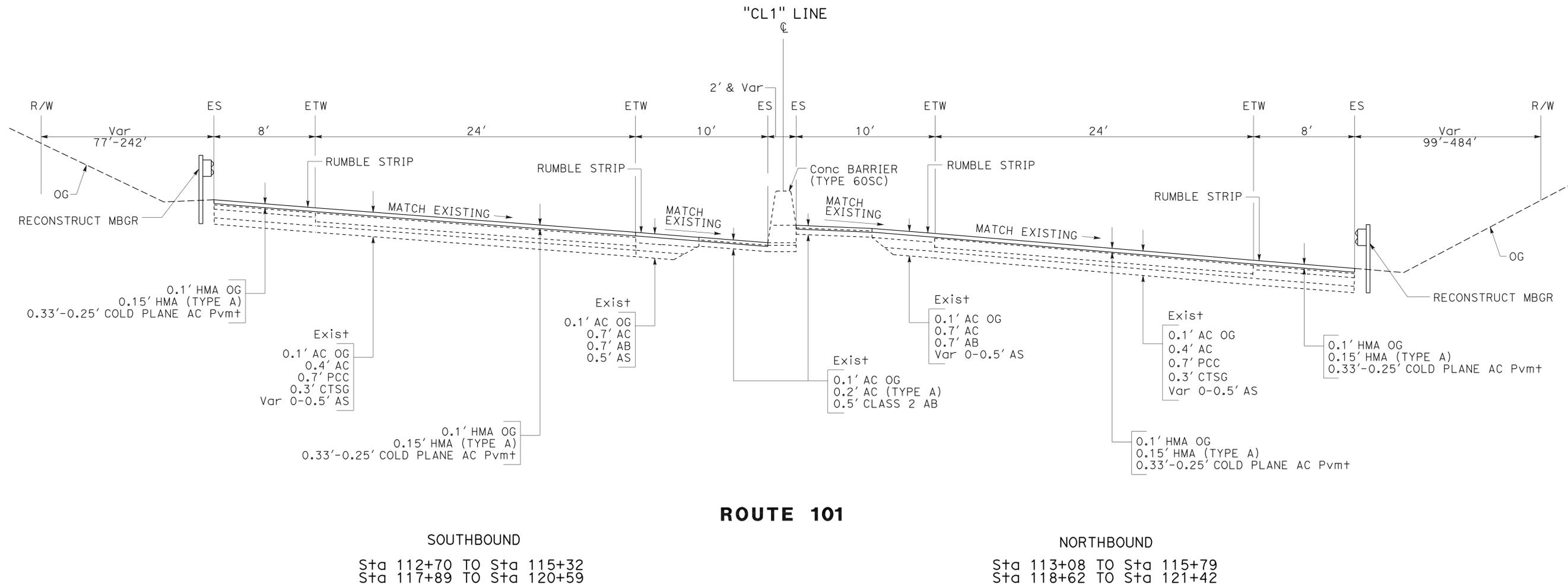
NO SCALE

DATE PLOTTED => 02-MAY-2012 TIME PLOTTED => 05:58

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	2	43
			04-13-12	REGISTERED CIVIL ENGINEER DATE	
			4-30-12	PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

NOTE:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



ROUTE 101

SOUTHBOUND

Sta 112+70 TO Sta 115+32
Sta 117+89 TO Sta 120+59

NORTHBOUND

Sta 113+08 TO Sta 115+79
Sta 118+62 TO Sta 121+42

TYPICAL CROSS SECTIONS
NO SCALE
X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 LILLIAN LIM
 AARON HENKEL
 JOHN FOUICHE
 RECONSTRUCT MBGR
 RECONSTRUCT MBGR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	3	43

Christopher L Baab 04-13-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 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
 CHRISTOPHER BAAB
 No. 67130
 Exp. 09-30-12
 CIVIL
 STATE OF CALIFORNIA

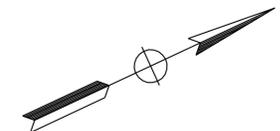
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

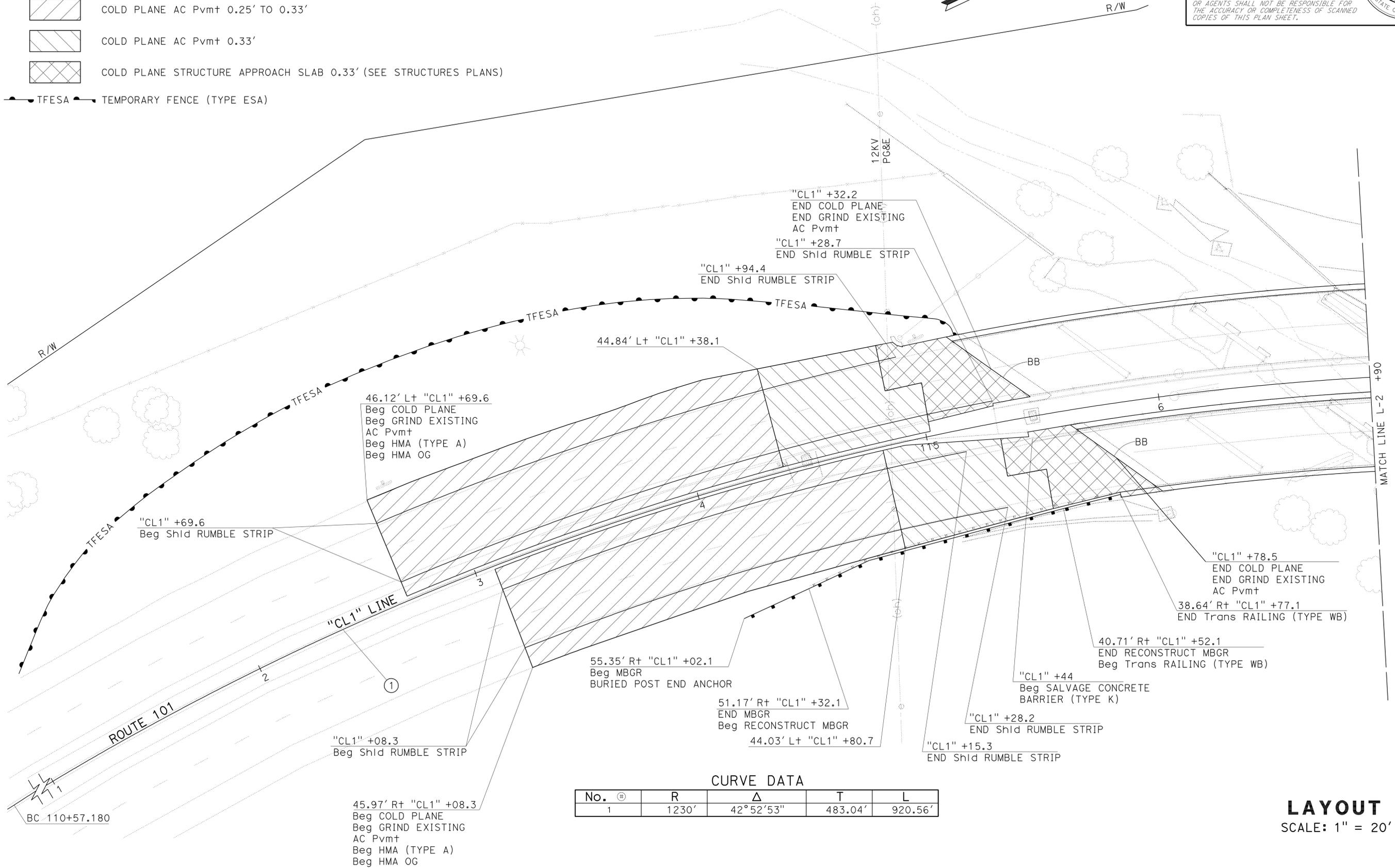
LEGEND:

-  COLD PLANE AC Pvm+ 0.25' TO 0.33'
-  COLD PLANE AC Pvm+ 0.33'
-  COLD PLANE STRUCTURE APPROACH SLAB 0.33' (SEE STRUCTURES PLANS)

 TFESA TEMPORARY FENCE (TYPE ESA)



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 Et Caltrans
 FUNCTIONAL SUPERVISOR JOHN FOUCHE
 CALCULATED/DESIGNED BY AARON HENKEL
 CHECKED BY
 REVISIONS BY CHRISTOPHER BAAB
 DATE REVISED AARON HENKEL
 REVISIONS BY
 DATE REVISED



CURVE DATA

No.	⊕	R	Δ	T	L
1		1230'	42°52'53"	483.04'	920.56'

LAYOUT
SCALE: 1" = 20'
L-1

LAST REVISION DATE PLOTTED => 01-MAY-2012
 04-12-12 TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	4	43

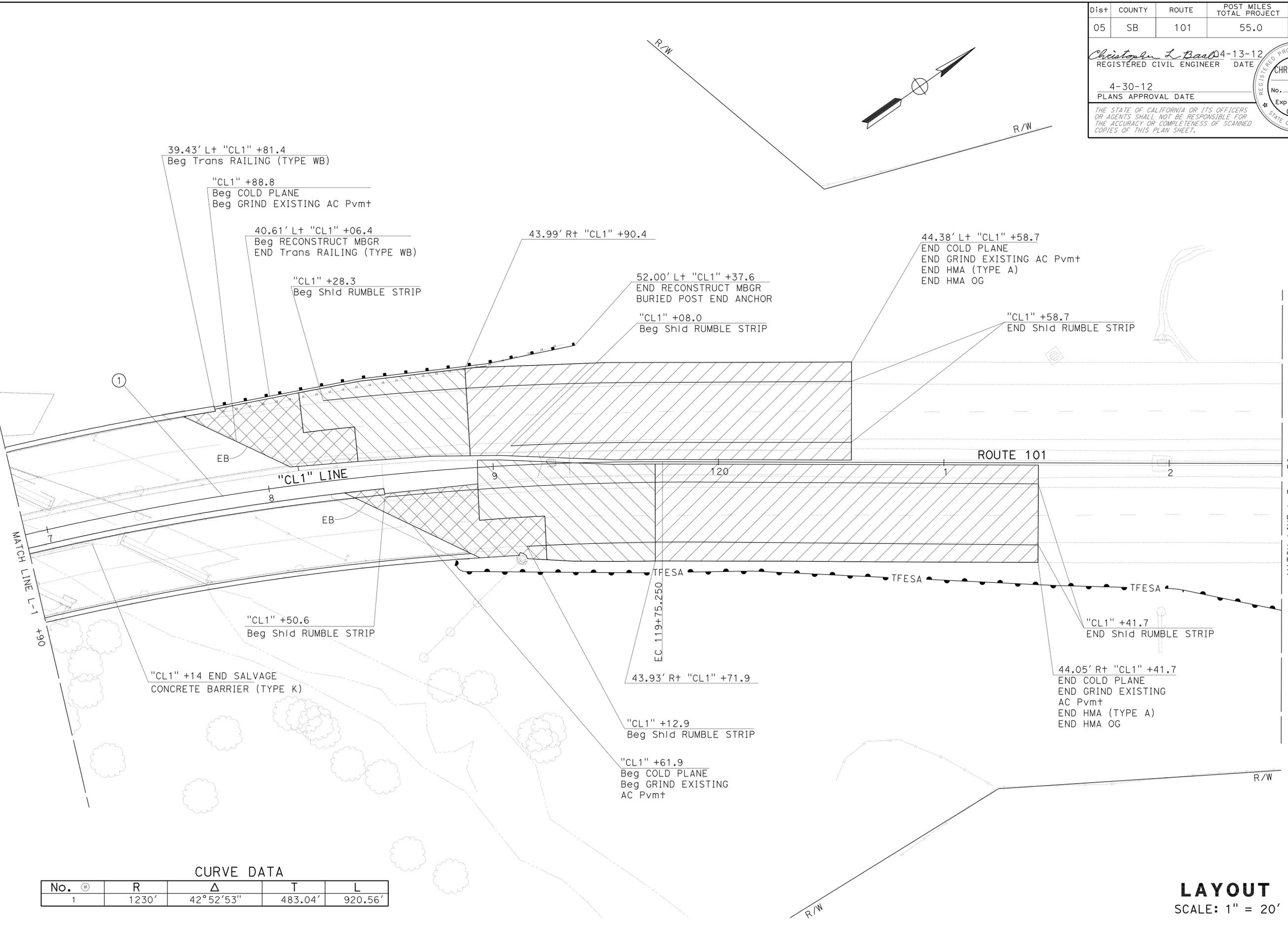
Christopher L Baab 04-13-12
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 4-30-12
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 CHRISTOPHER BAAB
 No. 67130
 Exp. 09-30-12
 CIVIL
 STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: JOHN FOUCHE
 CALCULATED/DESIGNED BY: AARON HENKEL
 CHECKED BY: CHRISTOPHER BAAB
 REVISED BY: AARON HENKEL
 DATE REVISED:



CURVE DATA

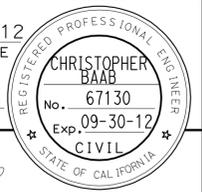
No.	+	R	Δ	T	L
1		1230'	42°52'53"	483.04'	920.56'

LAYOUT
 SCALE: 1" = 20'
L-2

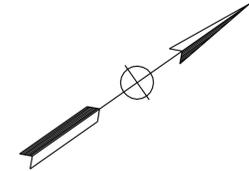
LAST REVISION: DATE PLOTTED => 01-MAY-2012
 04-12-12 TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	5	43

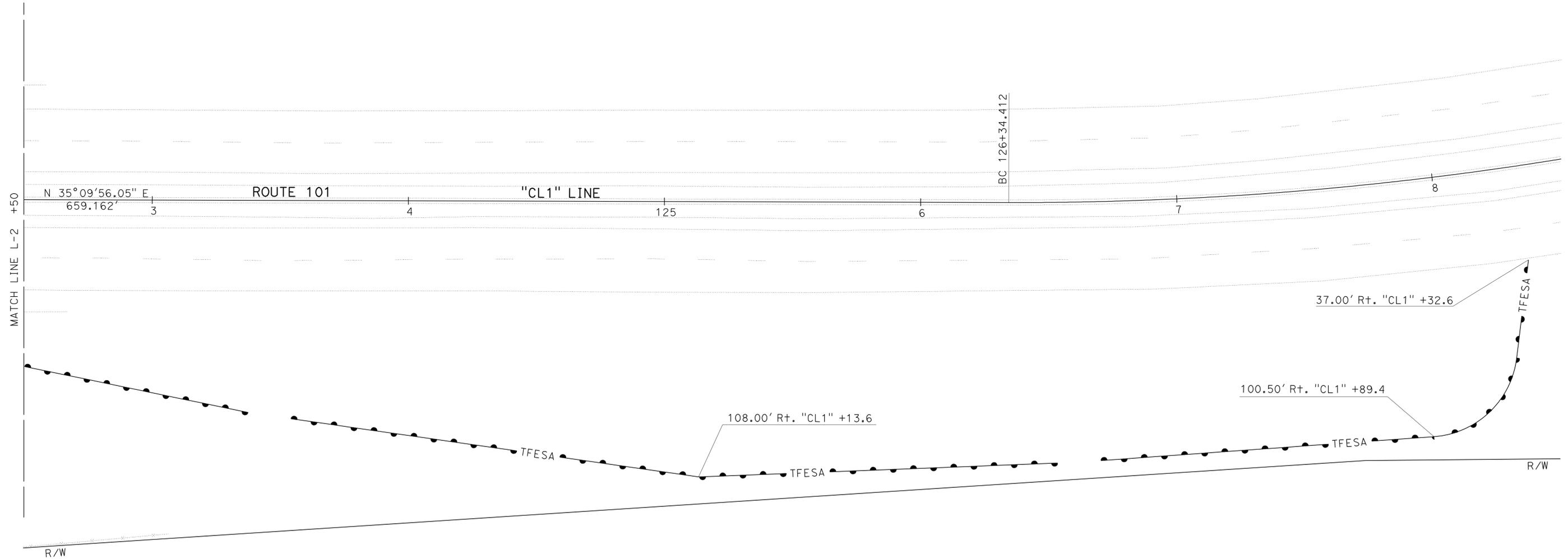
Christopher L Baab 04-13-12
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 4-30-12
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	JOHN FOUCHE	CHRISTOPHER BAAB	CHRISTOPHER BAAB
DESIGN		CHECKED BY	DATE REVISED
		AARON HENKEL	



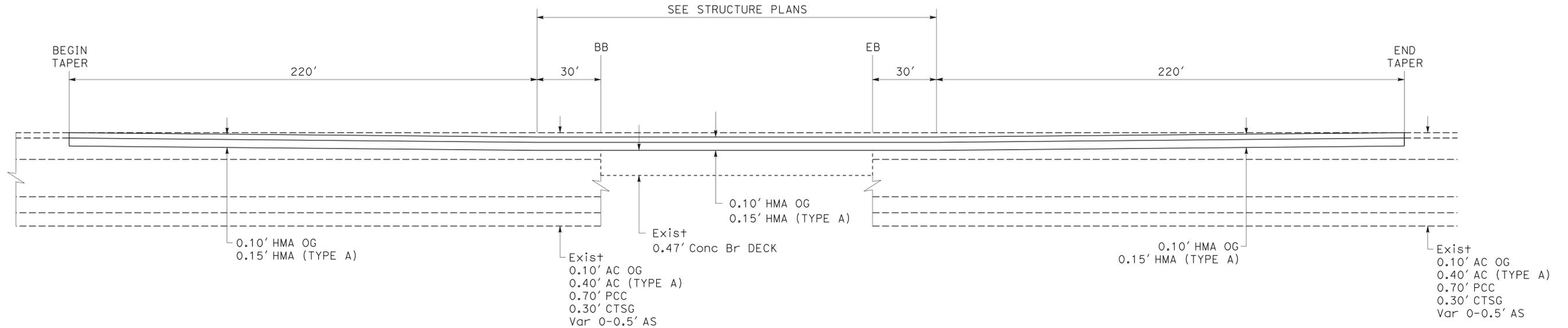
LAYOUT
 SCALE: 1" = 20'
L-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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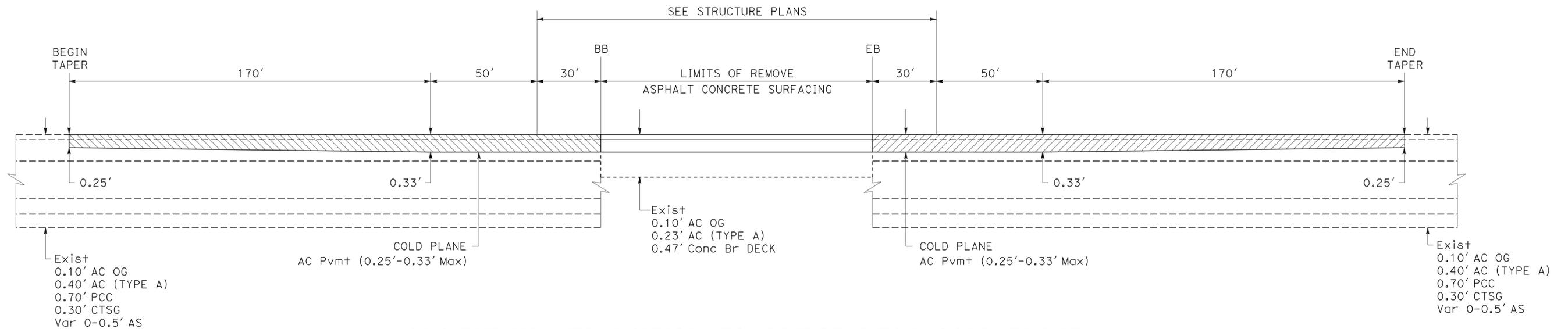
Christopher L. Baab 04-13-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE
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NOTE:
HORIZONTAL DIMENSIONS ARE APPROXIMATE.

LEGEND
 COLD PLANE AC PAVEMENT



LONGITUDINAL TRANSITION TO BRIDGE DECK PAVING



LONGITUDINAL TRANSITION TO BRIDGE DECK COLD PLANE

CONSTRUCTION DETAILS
NO SCALE **C-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	7	43

Christopher L Baal 04-13-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 CHRISTOPHER BAAL
 No. 67130
 Exp. 09-30-12
 CIVIL
 STATE OF CALIFORNIA

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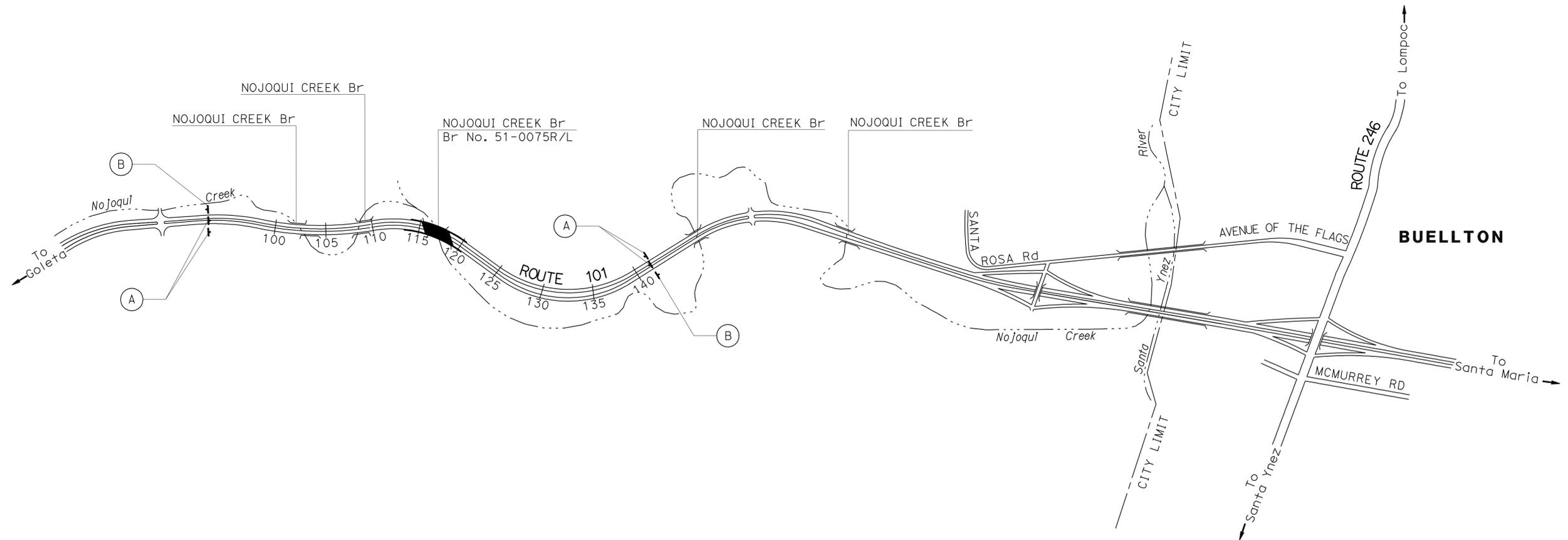
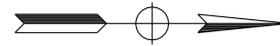
NOTE:

SIGN LOCATIONS SHOWN ARE APPROXIMATE.
 EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE STAGE
 CONSTRUCTION AND TRAFFIC HANDLING PLANS.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	W20-1	C18	60" x 60"	ROAD WORK AHEAD	2 - 6" x 6"	4
(B)	G20-2	C13	36" x 18"	END ROAD WORK	1 - 4" x 4"	2

FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET SCQ-1



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	8	43

		04-13-12
REGISTERED CIVIL ENGINEER	DATE	
4-30-12		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER No. 76644 Exp. 12/31/12 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.

LEGEND:

-  CONSTRUCTION THIS STAGE
-  CONSTRUCTED PREVIOUS STAGE
-  TRAFFIC DIRECTION
-  Temp A1+ CRASH CUSHION
-  Temp RAILING (TYPE K)
-  CHANNELIZER (SURFACE MOUNTED)
-  SIGN NUMBER
-  PLACE Temp TRAFFIC STRIPE (PAINT)
-  REMOVE PAINTED TRAFFIC STRIPE

ABBREVIATION:

OC ON CENTER

PRIOR TO STAGE 1:

1. COLD PLANE HOT MIX ASPHALT
2. GRIND EXISTING CONCRETE PAVEMENT
3. CONSTRUCT APPROACH SLAB

STAGE 1:

1. CONSTRUCT INSIDE BRIDGE RAILING

STAGE 2:

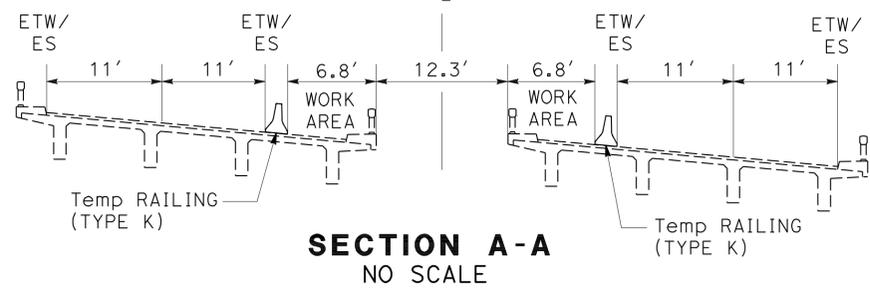
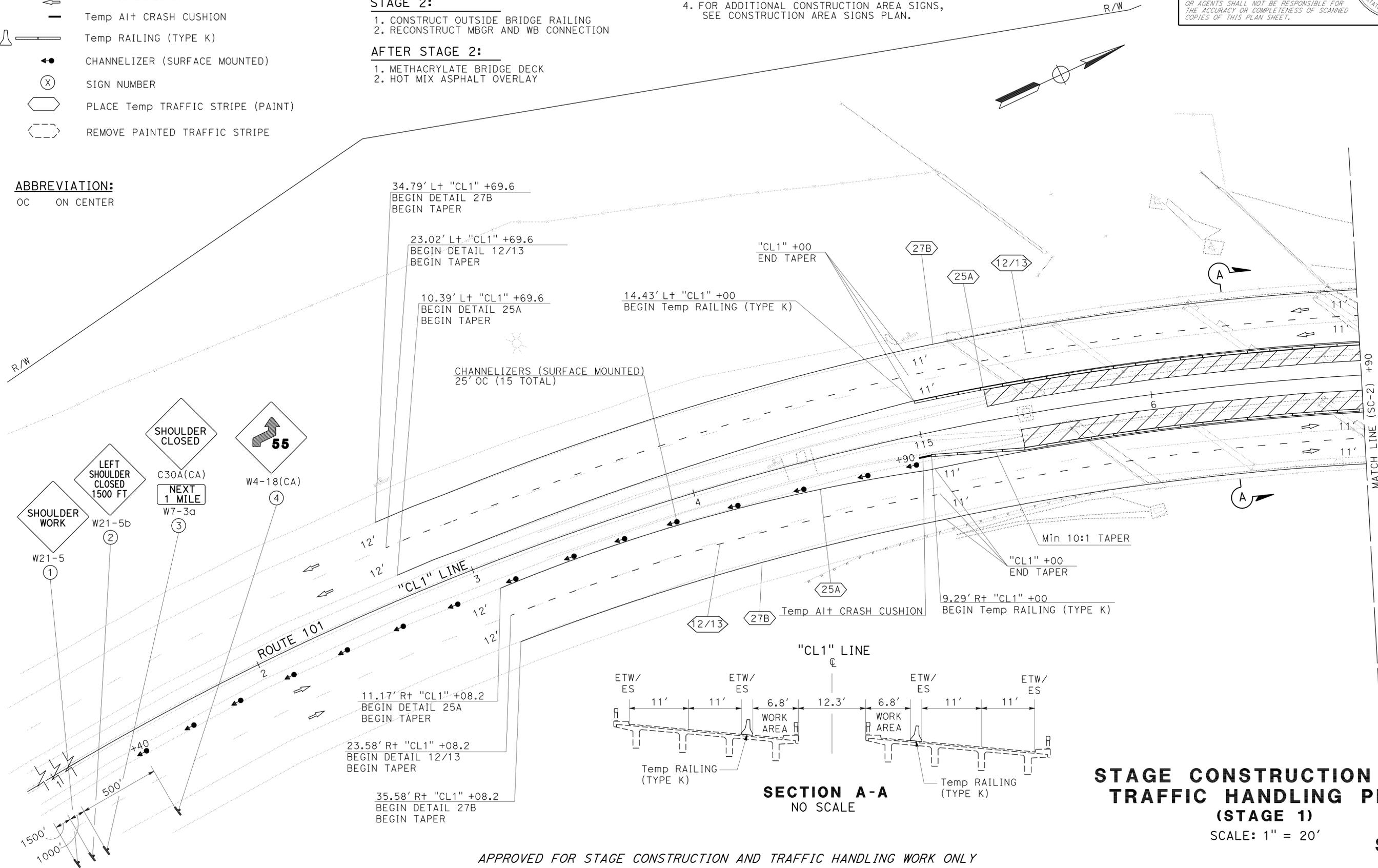
1. CONSTRUCT OUTSIDE BRIDGE RAILING
2. RECONSTRUCT MBGR AND WB CONNECTION

AFTER STAGE 2:

1. METHACRYLATE BRIDGE DECK
2. HOT MIX ASPHALT OVERLAY

TRAFFIC HANDLING:

1. THE LENGTH AND OFFSET DIMENSIONS MAY BE ADJUSTED TO CONFORM TO ACTUAL SITE CONDITIONS WHEN NECESSARY.
2. IF REQUIRED BY THE WORK AREA CONDITIONS, THE Temp RAILING (TYPE K) SHALL BE CONTINUED TO THE END OF THE WORK.
3. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS WILL BE DETERMINED BY THE ENGINEER.
4. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE CONSTRUCTION AREA SIGNS PLAN.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 1)
 SCALE: 1" = 20'
SC-1

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	JOHN FOUCHE
CALCULATED/DESIGNED BY	CHECKED BY
LILLIAN LIM	AARON HENKEL
REVISOR	DATE

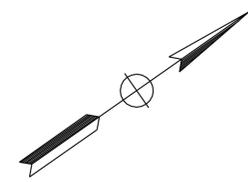
LAST REVISION DATE PLOTTED => 01-MAY-2012 04-12-12 TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	11	43

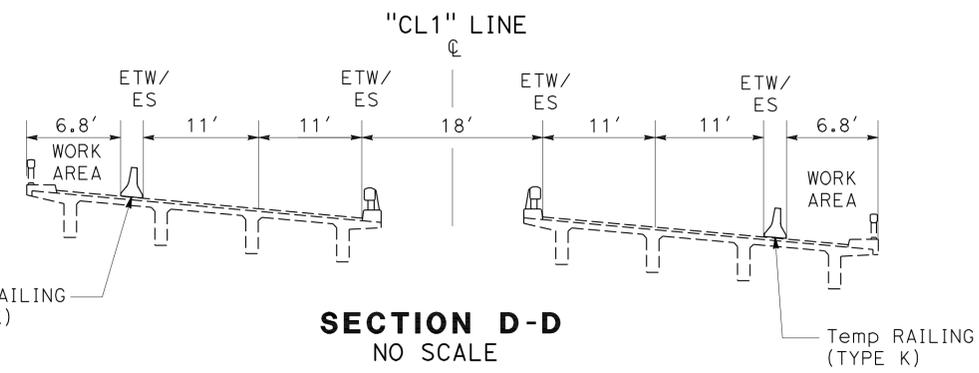
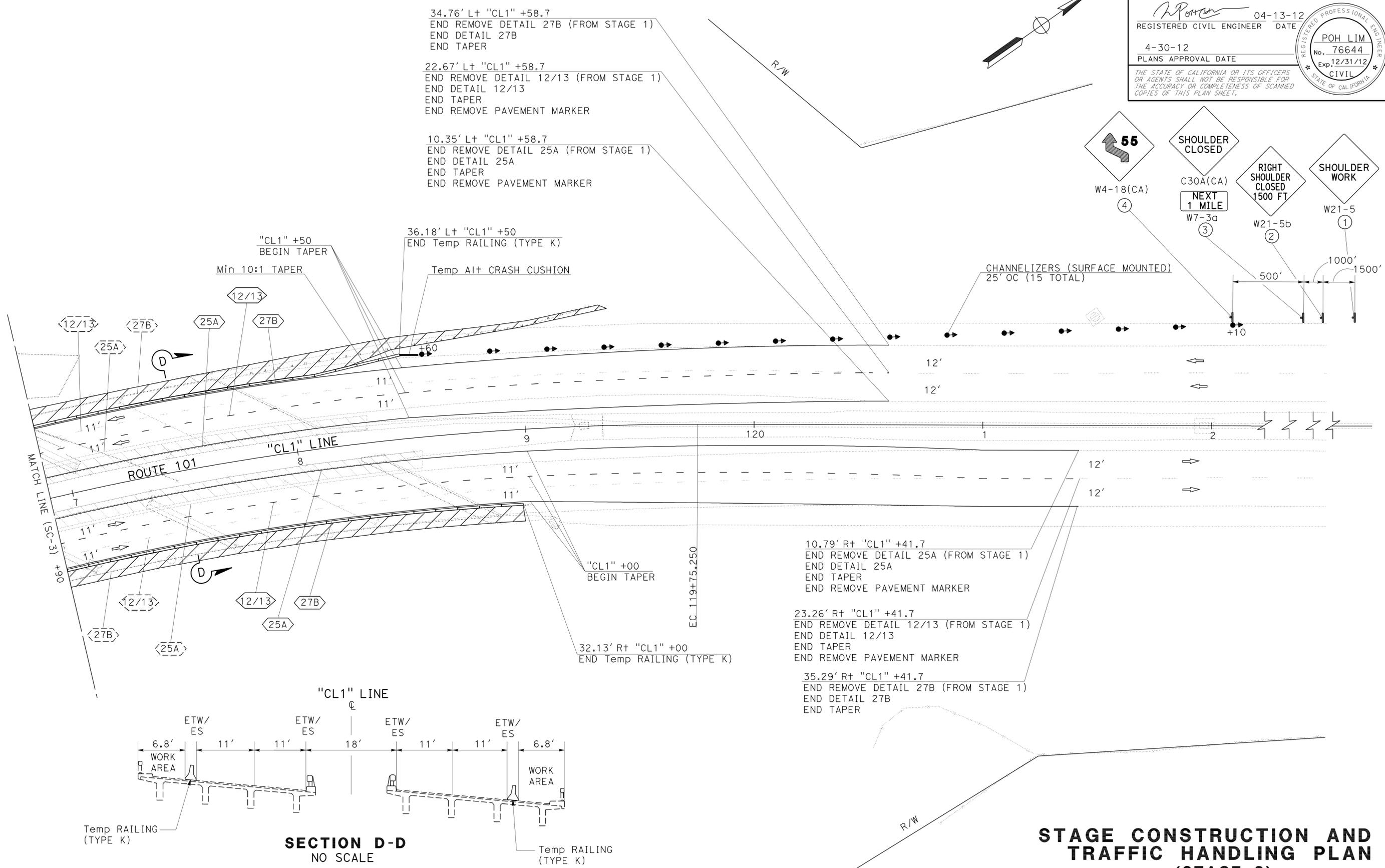
<i>R. P. ...</i>	04-13-12
REGISTERED CIVIL ENGINEER	DATE
4-30-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	POH LIM
No. 76644	
Exp. 12/31/12	
CIVIL	

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Caltrans	
FUNCTIONAL SUPERVISOR	JOHN FOUCHE
CALCULATED/DESIGNED BY	
CHECKED BY	
LILLIAN LIM	AARON HENKEL
REVISOR	DATE



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN (STAGE 2)

SCALE: 1" = 20' **SC-4**

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 01-MAY-2012 04-12-12 TIME PLOTTED => 15:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	12	43

04-13-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 POH LIM
 No. 76644
 Exp. 12/31/12
 CIVIL
 STATE OF CALIFORNIA

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CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SIGN No.	SIGN CODE		PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				
①	W21-5		36" x 36"	SHOULDER WORK	1 - 4" x 6"	4
②	W21-5b		36" x 36"	LEFT/RIGHT SHOULDER CLOSED 1500 FT	1 - 4" x 6"	4
③		C30A(CA)	36" x 36"	SHOULDER CLOSED	1 - 4" x 6"	4
	W7-3a		24" x 18"	NEXT 1 MILE		
④		W4-18(CA)	36" x 36"	55 MPH	1 - 4" x 6"	4

FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.

TEMPORARY RAILING (TYPE K)

SHEET No.	LOCATION	DIRECTION	TEMPORARY RAILING (TYPE K)	SALVAGE CONCRETE BARRIER (TYPE K)
			LF	EA
SC-1,2	"CL1" STA 115+00 TO STA 118+50	SB	360	
	"CL1" STA 115+00 TO STA 119+00	NB	400	170
SC-3,4	"CL1" STA 115+00 TO STA 118+50	SB	360	
	"CL1" STA 115+20 TO STA 119+00	NB	380	
TOTAL			1500	170

TEMPORARY ALTERNATIVE CRASH CUSHION

SHEET No.	EA
SC-1	1
SC-2	1
SC-3	1
SC-4	1
TOTAL	4

CHANNELIZER (SURFACE MOUNTED)

SHEET No.	EA
SC-1	15
SC-2	15
SC-3	15
SC-4	15
TOTAL	60

PAVEMENT DELINEATION QUANTITIES

SHEET No.	STATION	DIRECTION	DETAIL No.	PLACE/REMOVE	TEMPORARY TRAFFIC STRIPE (PAINT)		REMOVE PAINTED TRAFFIC STRIPE		PAVEMENT MARKER (RETROREFLECTIVE)		PAVEMENT MARKER (NON-REFLECTIVE)	REMOVE PAVEMENT MARKER	
					WHITE	YELLOW	WHITE	YELLOW	TYPE G	TYPE H			TYPE A
					LF	LF	LF	LF	EA	EA			EA
SC-1,2	"CL1" 112+69.6 TO 120+58.7	SB	27B	PLACE	810								
			12/13	PLACE	804			18		68			
			25A	PLACE		798		35					
SC-1,2	"CL1" 113+08.2 TO 121+41.7	NB	27B	PLACE	814								
			12/13	PLACE	820			19		72			
			25A	PLACE		827		36					
SC-3,4	"CL1" 112+69.6 TO 120+58.7	SB	27B	REMOVE			810						
			12/13	REMOVE			804					86	
			25A	REMOVE		798					35		
SC-3,4	"CL1" 112+69.6 TO 120+58.7	SB	27B	PLACE	808								
			12/13	PLACE	802			18		68			
			25A	PLACE		795		35					
SC-3,4	"CL1" 113+08.2 TO 121+41.7	NB	27B	REMOVE			814						
			12/13	REMOVE			820					91	
			25A	REMOVE		827					36		
SC-3,4	"CL1" 113+08.2 TO 121+41.7	NB	27B	PLACE	816								
			12/13	PLACE	822			19		72			
			25A	PLACE		829		36					
SC-3,4	"CL1" 112+69.6 TO 120+58.7	SB		REMOVE							121		
SC-3,4	"CL1" 113+08.2 TO 121+41.7	NB		REMOVE							127		
SUBTOTAL					6496	3249	3248	1625	74	142	280		
TOTAL						9745		4873				496	

STAGE CONSTRUCTION QUANTITIES

NO SCALE **SCQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: JOHN FOUCHÉ
 CALCULATED/DESIGNED BY: LILLIAN LIM
 CHECKED BY: AARON HENKEL
 REVISED BY: DATE REVISÉ

LAST REVISION DATE PLOTTED => 01-MAY-2012
 04-12-12 TIME PLOTTED => 15:20

PAVEMENT STRUCTURE QUANTITIES

STATION	HMA (OPEN GRADED)	HOT MIX ASPHALT (TYPE A)	TACK COAT	COLD PLANE ASPHALT CONCRETE PAVEMENT	GRIND EXISTING CONCRETE PAVEMENT	REMARKS
	TON	TON	TON	SQYD	SQYD	
"CL1" 112+69.6 TO 115+32.2	87	130	0.64	1281	1281	SB DIRECTION AND APPROACH SLABS
"CL1" 113+08.3 TO 115+78.5	82	123	0.60	1210	1210	NB DIRECTION AND APPROACH SLABS
"CL1" 115+32.2 TO 117+88.8	58	86	0.42			SB BRIDGE
"CL1" 115+78.5 TO 118+61.9	61	92	0.46			NB BRIDGE
"CL1" 117+88.8 TO 120+58.7	81	121	0.60	1193	1193	SB DIRECTION AND APPROACH SLABS
"CL1" 118+61.9 TO 121+41.7	88	131	0.64	1290	1290	NB DIRECTION AND APPROACH SLABS
TOTAL	457	683	3.36	4974	4974	

SHOULDER RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS)

STATION	DIRECTION	SHOULDER LENGTH
		Sta
"CL1" 112+69.6 TO 114+94.4	SB	2.3
"CL1" 112+69.6 TO 115+28.7	SB	2.6
"CL1" 113+08.3 TO 115+15.3	NB	2.1
"CL1" 113+08.3 TO 115+28.2	NB	2.1
"CL1" 118+28.3 TO 120+58.7	SB	2.3
"CL1" 119+08.0 TO 120+58.7	SB	1.5
"CL1" 118+50.6 TO 121+41.7	NB	2.9
"CL1" 119+12.9 TO 121+41.7	NB	2.3
TOTAL		18.1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	13	43

Christopher L Baab 04-13-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE

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PAVEMENT DELINEATION QUANTITIES

STATION	DIRECTION	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)		PAVEMENT MARKER (RETROREFLECTIVE)		PAVEMENT MARKER (NON-REFLECTIVE)
			4" YELLOW	4" WHITE	TYPE G	TYPE H	TYPE A
			LF	LF	EA	EA	EA
"CL1" 112+69.6 TO 120+58.7	SB	25	796			18	
"CL1" 112+69.6 TO 120+58.7	SB	12/13		803	18		68
"CL1" 112+69.6 TO 120+58.7	SB	27B		810			
"CL1" 113+08.2 TO 121+41.7	NB	25	828			19	
"CL1" 113+08.2 TO 121+41.7	NB	12/13		821	19		72
"CL1" 113+08.2 TO 121+41.7	NB	27B		815			
FROM STAGE CONSTRUCTION					74	142	280
SUB TOTAL			1624	3249	111	179	420
TOTAL			4873		290		420

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

STATION	DIRECTION	TEMPORARY FENCE (TYPE ESA)	TEMPORARY DRAINAGE INLET PROTECTION
		LF	EA
		"CL1" 111+10.5 TO 115+19.8	SB
"CL1" 118+80.8 TO 128+32.6	NB	1012	
SEE STRUCTURE PLANS		SB/NB	6
TOTAL		1472	6

METAL BEAM GUARD RAILING

STATION	DIRECTION	MBGR	RECONSTRUCT MBGR	TRANSITION RAILING (TYPE WB)
		LF	LF	EA
"CL1" 114+02.1 TO 114+32.1	NB	30.0		
"CL1" 114+32.1 TO 115+52.1	NB		116.4	
"CL1" 115+52.1 TO 115+77.1	NB			1
"CL1" 117+81.4 TO 118+06.4	SB			1
"CL1" 118+06.4 TO 119+37.6	SB		137.4	
TOTAL		30.0	253.8	2

SUMMARY OF QUANTITIES

NO SCALE

Q-1



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	14	43

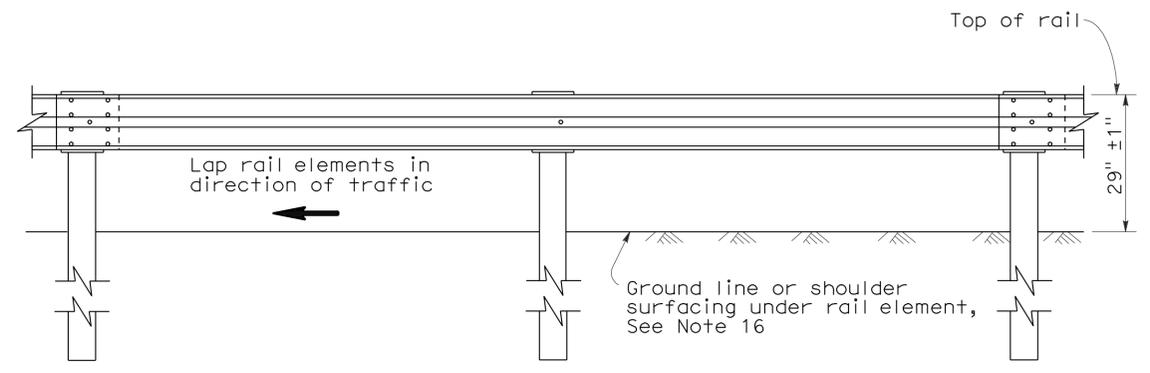
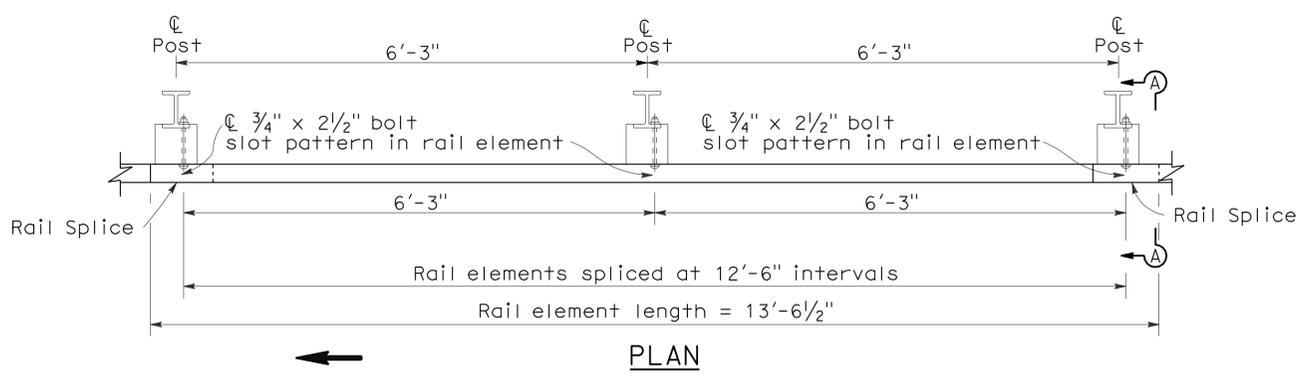
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May 20, 2011
PLANS APPROVAL DATE

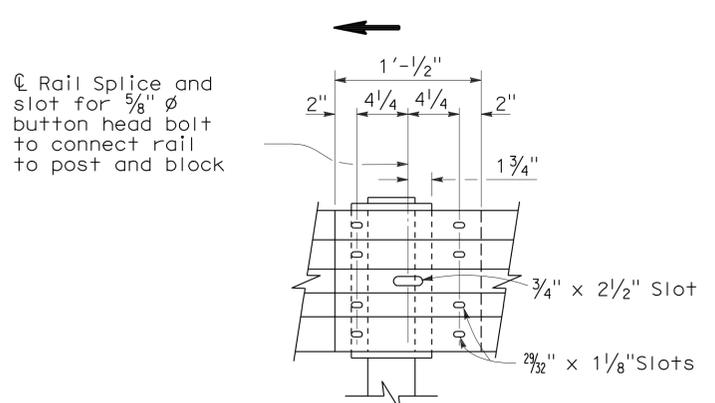
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To accompany plans dated 4-30-12

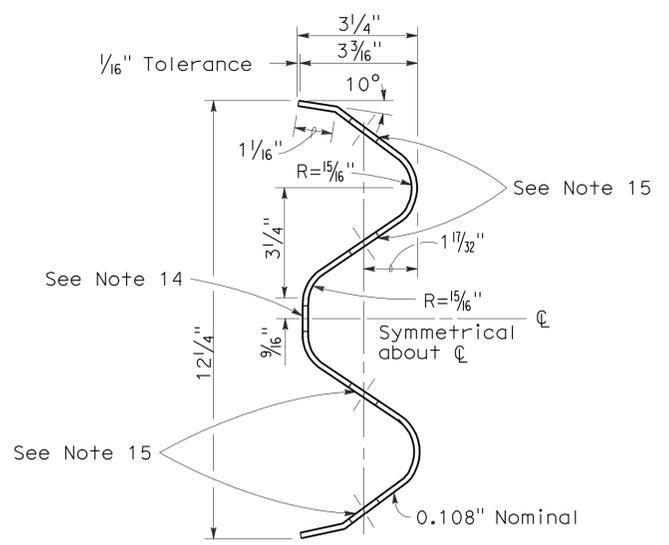


METAL BEAM GUARD RAILING WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS

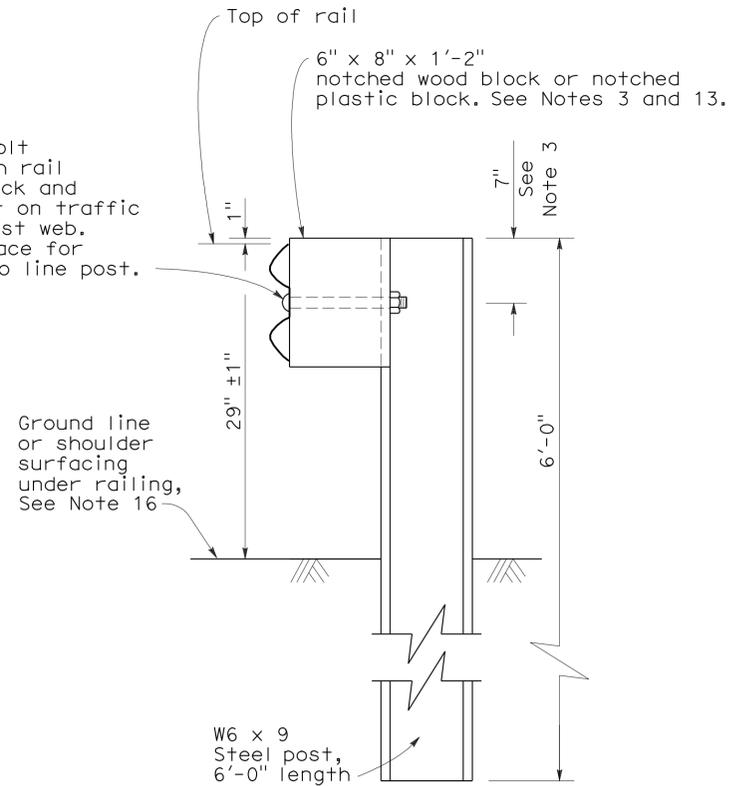


ELEVATION RAIL ELEMENT SPLICE DETAIL

- Connect the overlapped end of the rail elements with $\frac{5}{8}$ " ϕ x $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{29}{32}$ " x $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION THRU RAIL ELEMENT



SECTION A-A TYPICAL STEEL LINE POST INSTALLATION

See Note 4

NOTES:

- For details of wood post installations, see Standard Plan A77A1.
- For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- For details of steel posts and notched wood blocks used to construct guard railing, see Standard Plan A77C2.
- For additional installation details, see Standard Plan A77C3.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- For guard railing typical layouts, see the A77E, A77F and A77G Series of Standard Plans.
- For terminal system end treatment details, see the A77L Series of Standard Plans. To connect railing to terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
- For guard railing end anchor details, see Standard Plans A77H1 and A77I2.
- For details of guard railing transition to bridge railing, see Standard Plan A77J4.
- For additional details of guard railing connection to bridge railings, see Standard Plans A77J1, A77J2 and A77K1.
- For dike positioning and guard railing delineation details, see Standard Plan A77C4.
- Direction of adjacent traffic indicated by \rightarrow .
- Notched face of block faces steel post.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Install posts in soil.

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METAL BEAM GUARD RAILING STANDARD RAILING SECTION (STEEL POST WITH NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCK)

NO SCALE

RSP A77A2 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77A2 DATED MAY 1, 2006 - PAGE 42 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77A2

2006 REVISED STANDARD PLAN RSP A77A2

To accompany plans dated 4-30-12

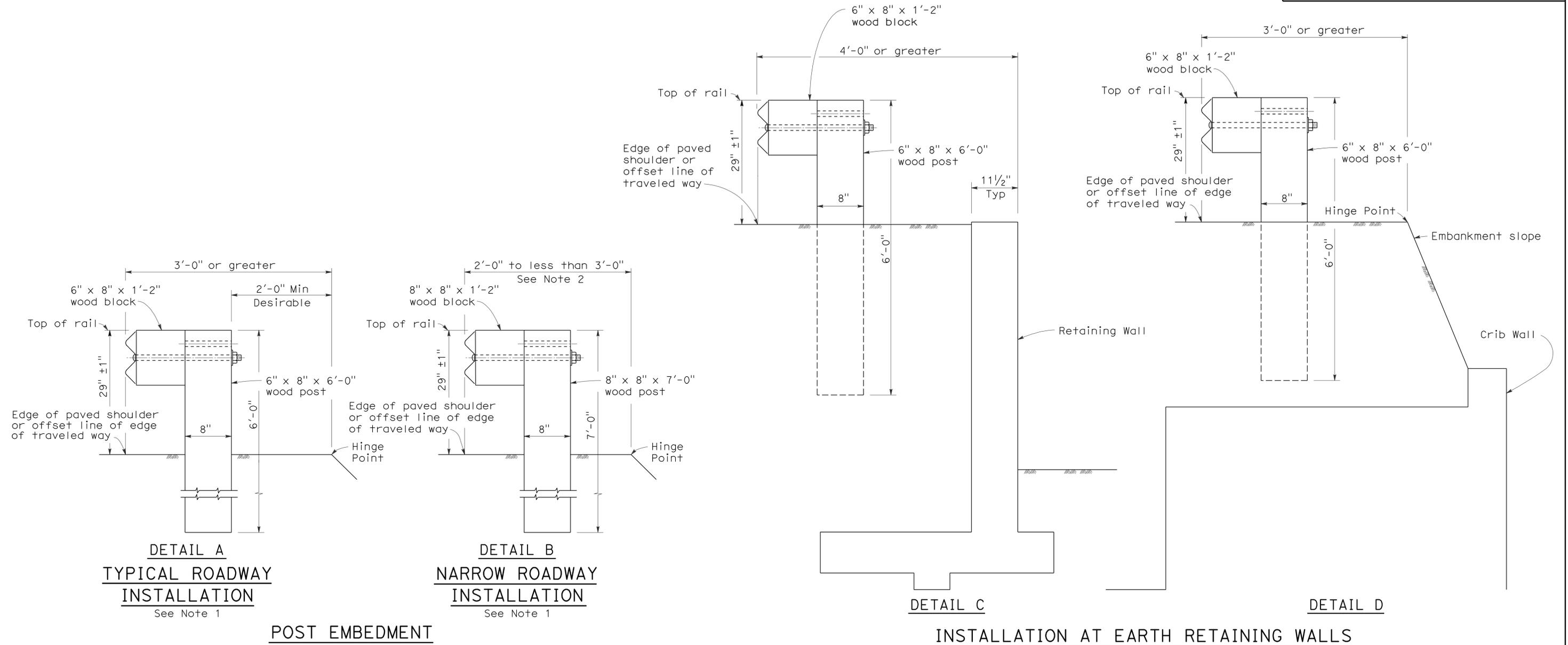
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	15	43

Randell D. Hiatt
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May 20, 2011
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NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 9 steel post, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 9 steel post, 7'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Standard Plans A77A1 and A77A2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-0", see the Project Plans for special details.
3. For dike positioning with guard railing installations, see Standard Plan A77C4.

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**METAL BEAM GUARD RAILING
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS**

NO SCALE

RSP A77C3 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77C3
DATED MAY 1, 2006 - PAGE 46 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C3

2006 REVISED STANDARD PLAN RSP A77C3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	16	43

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May 20, 2011
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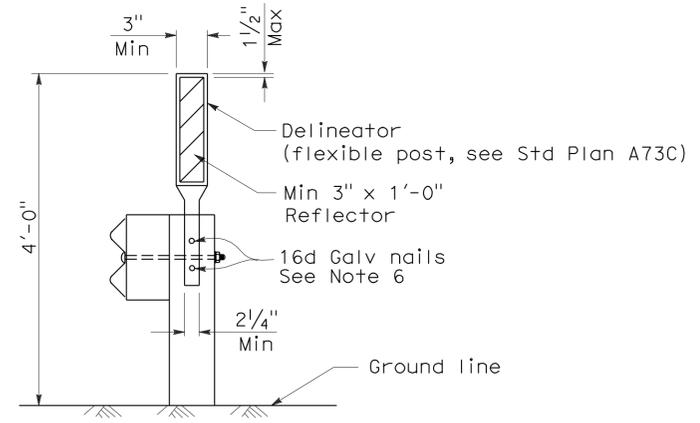
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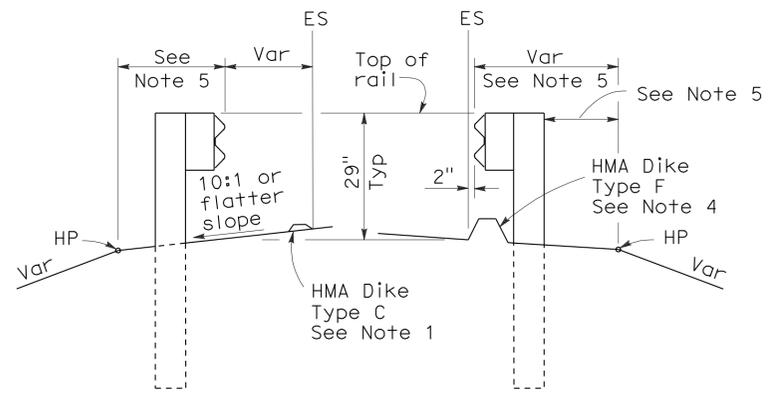
To accompany plans dated 4-30-12

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 Standard Plans A87A and A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

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

NO SCALE

RSP A77C4 DATED MAY 20, 2011 SUPERSEDES RSP A77C4 DATED JUNE 6, 2008 AND 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
05	SB	101	55.0	17	43

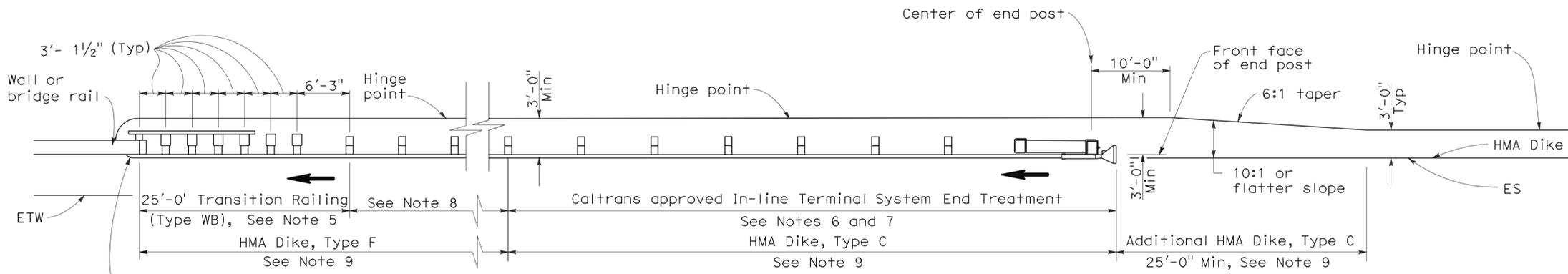
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June 6, 2008
PLANS APPROVAL DATE

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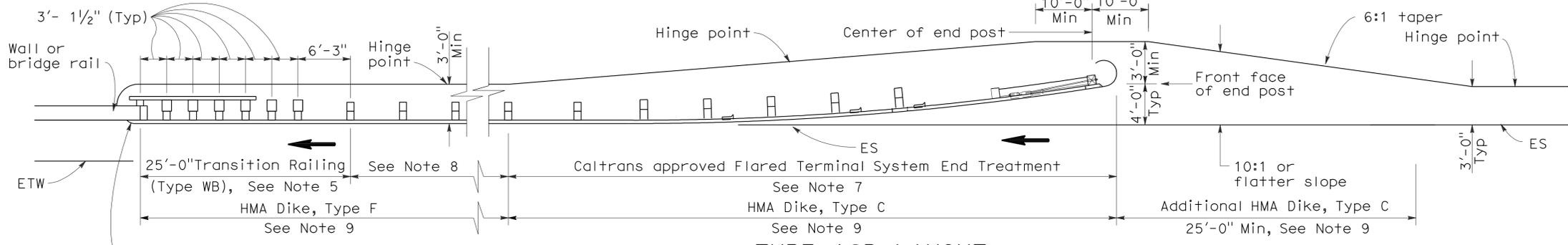
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To accompany plans dated 4-30-12



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 →.
- 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.

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**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.

2006 REVISED STANDARD PLAN RSP A77F1

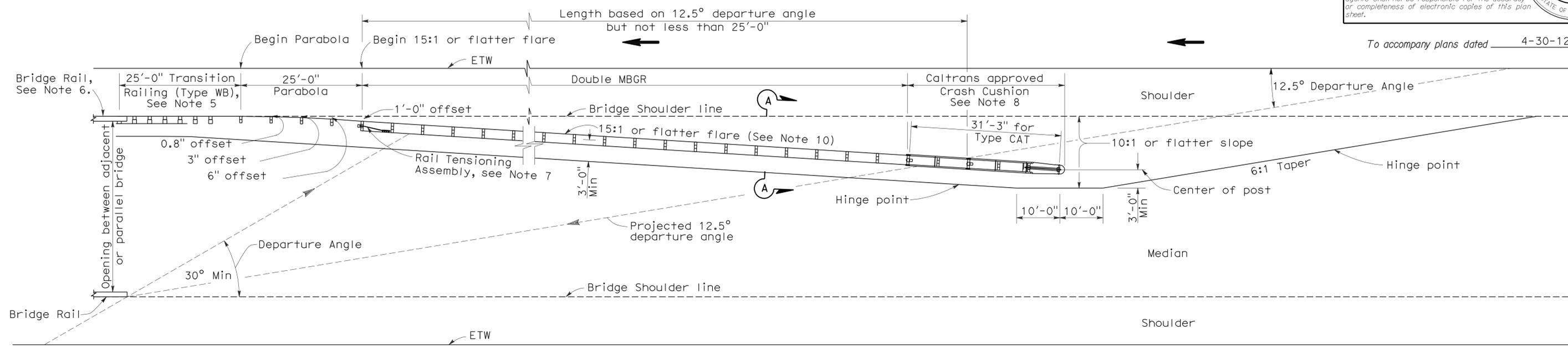
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	18	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

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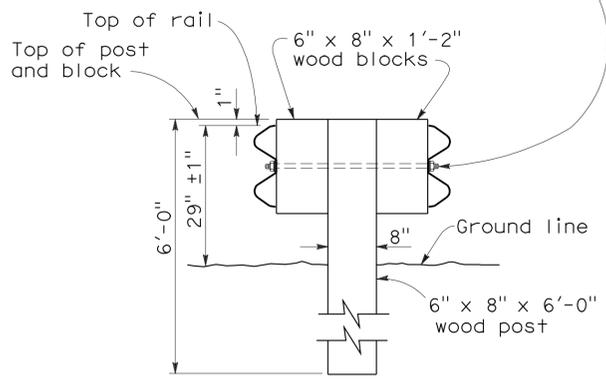


To accompany plans dated 4-30-12

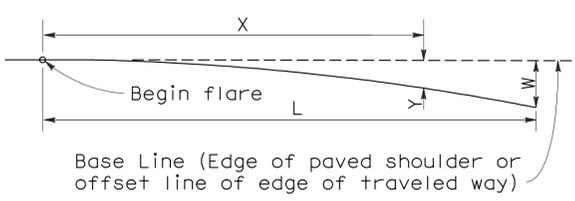
TYPE 12E LAYOUT

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.



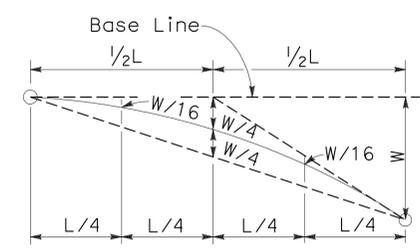
SECTION A-A
TYPICAL DOUBLE METAL BEAM GUARD RAILING



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

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.

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METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH

NO SCALE
RSP A77F3 DATED MAY 20, 2011 SUPERSEDES RSP A77F3 DATED JUNE 6, 2008 AND STANDARD PLAN A77F3 DATED MAY 1, 2006 - PAGE 56 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77F3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	19	43

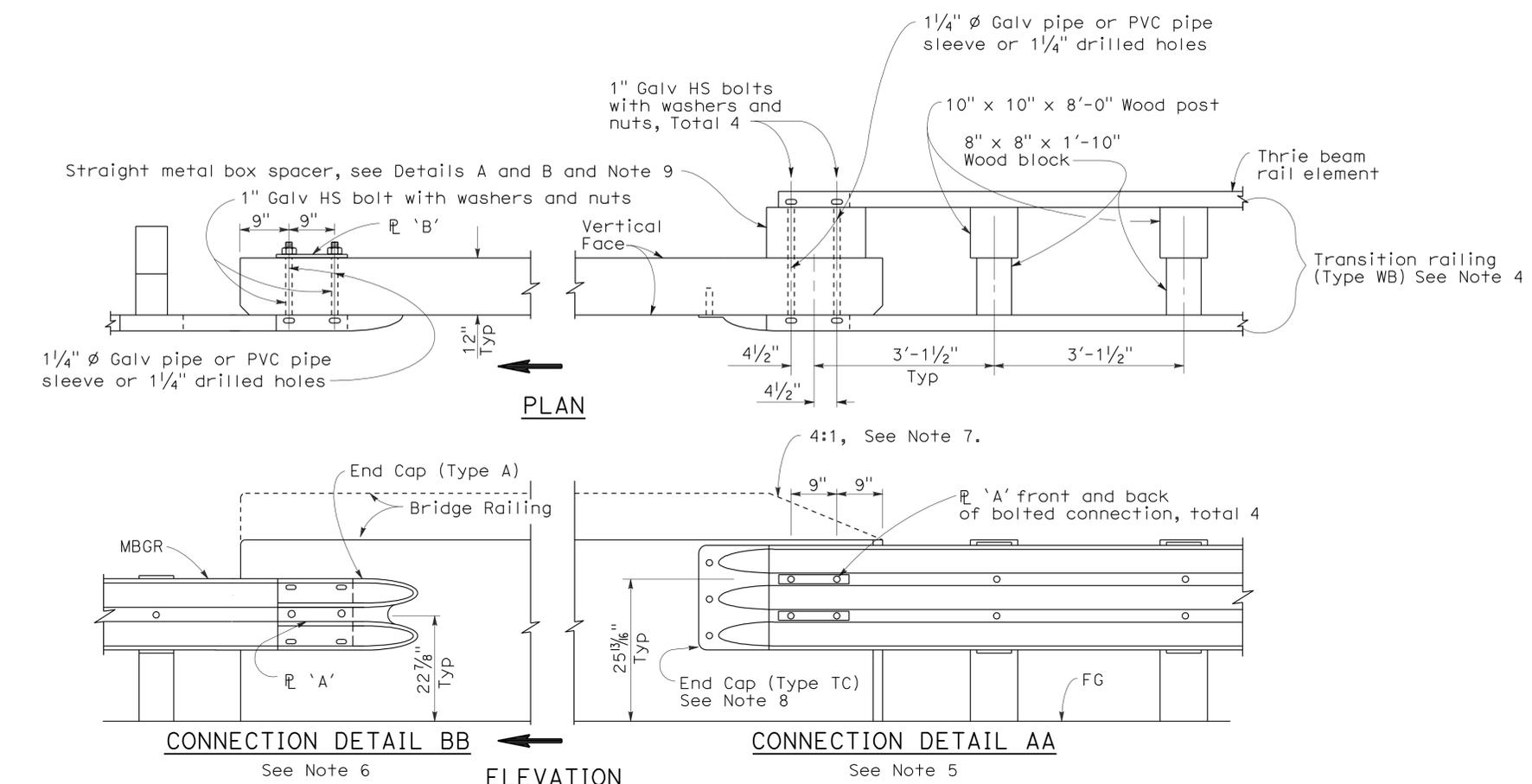
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REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

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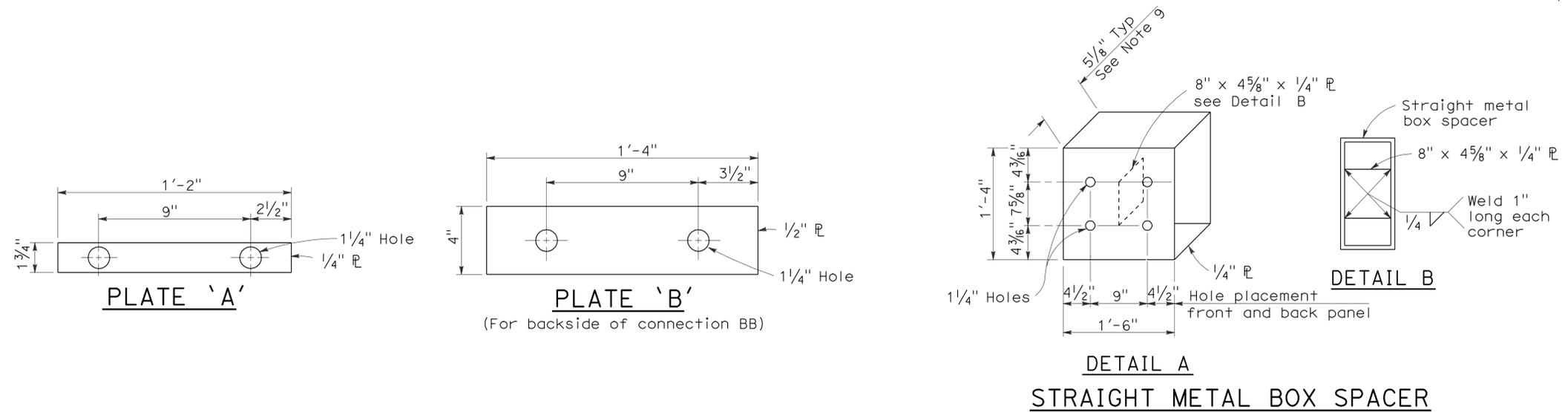
To accompany plans dated 4-30-12



NOTES:

1. See Revised Standard Plan RSP A77J2 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 \rightarrow .
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 BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD 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, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
8. For details of End Cap (Type TC), see Standard Plan A77J4.
9. 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 MAY 20, 2011 SUPERSEDES RSP A77J1 DATED JUNE 6, 2008 AND 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
05	SB	101	55.0	20	43

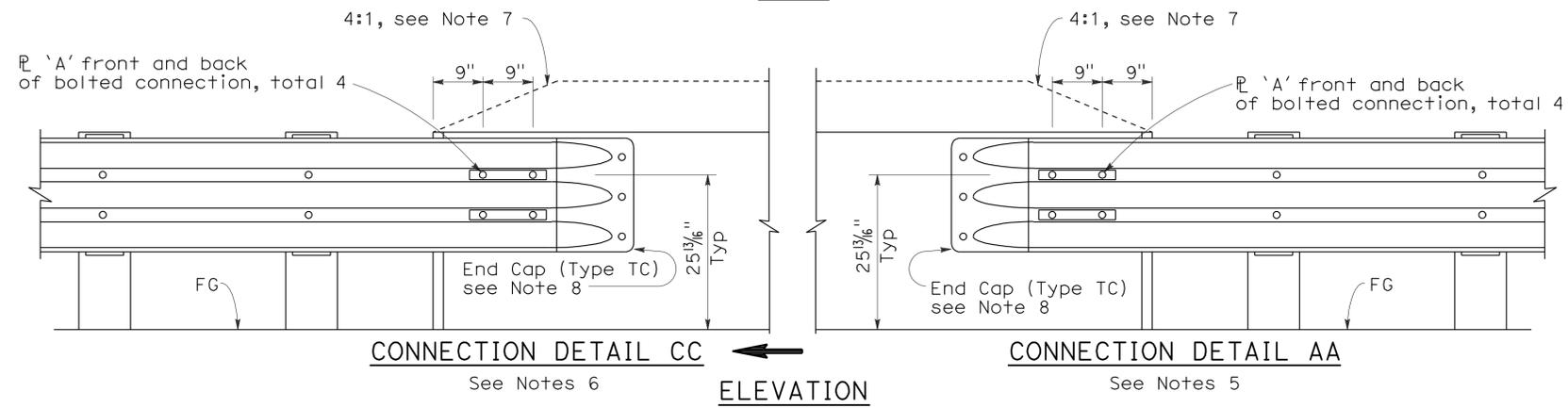
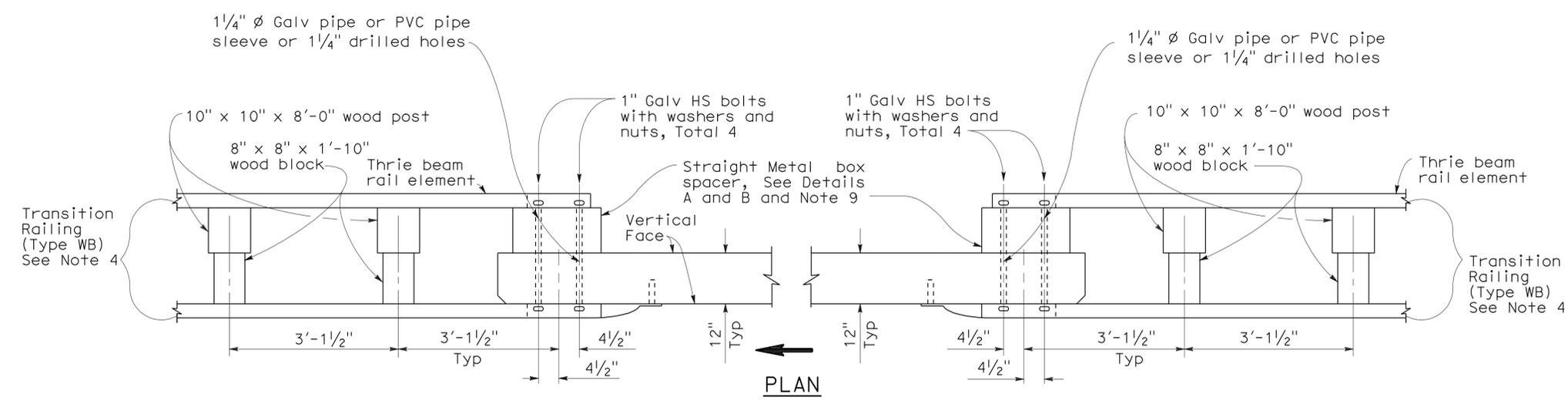
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June 6, 2008
PLANS APPROVAL DATE

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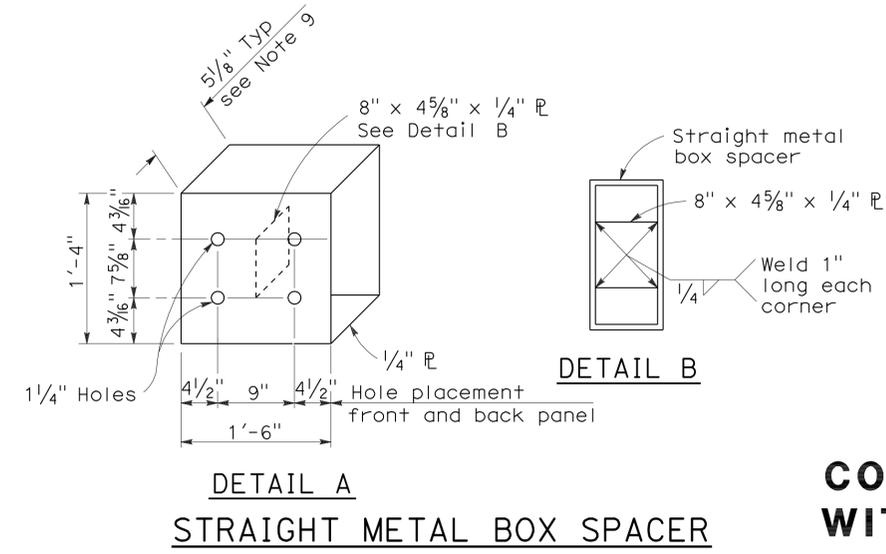
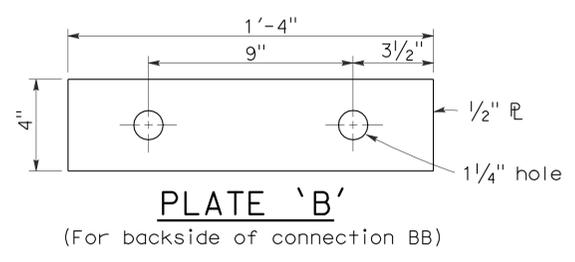
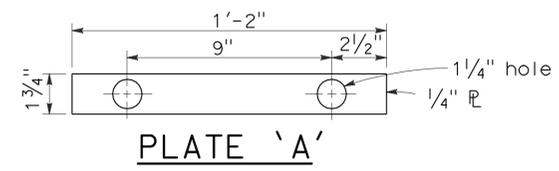
To accompany plans dated 4-30-12



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.



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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

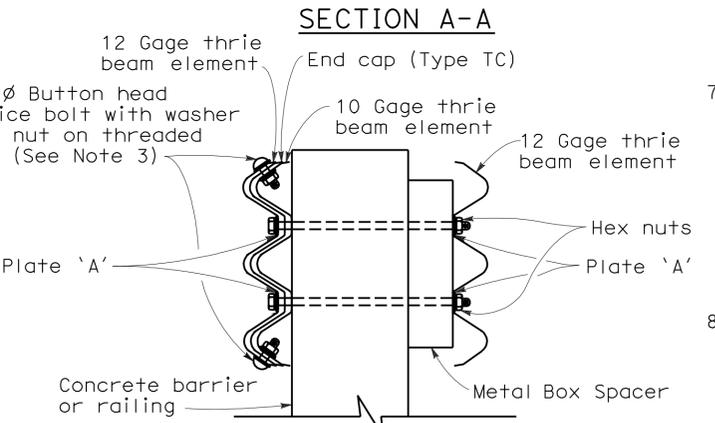
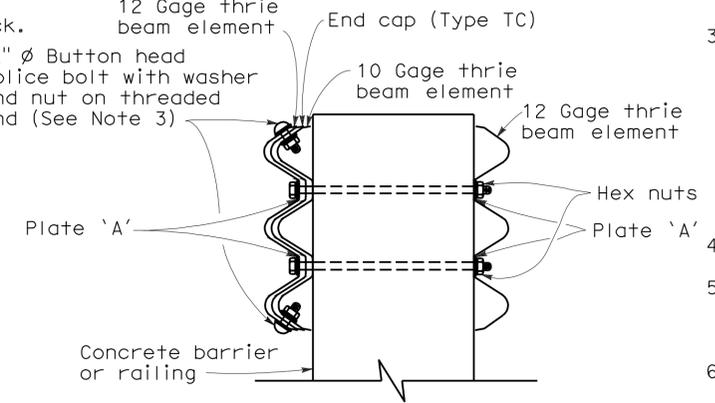
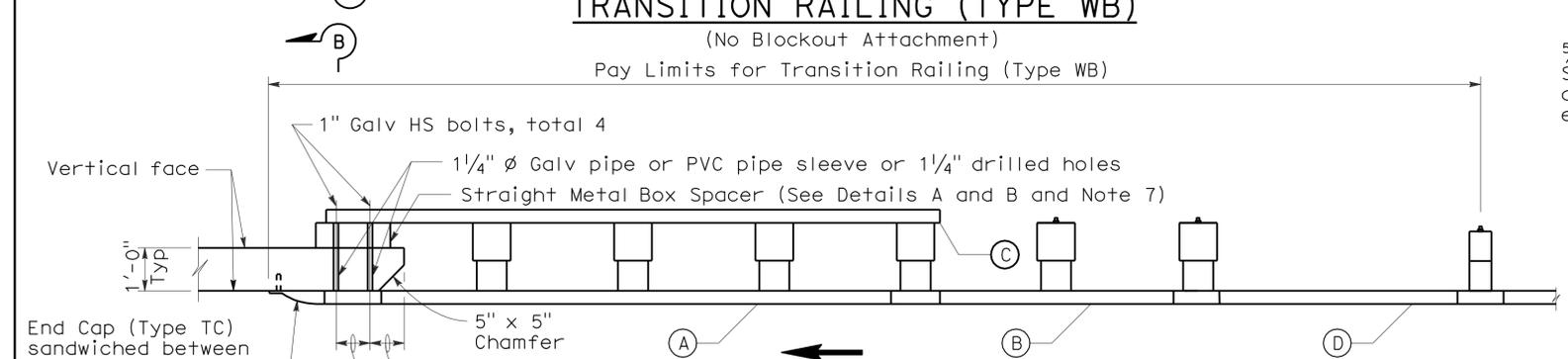
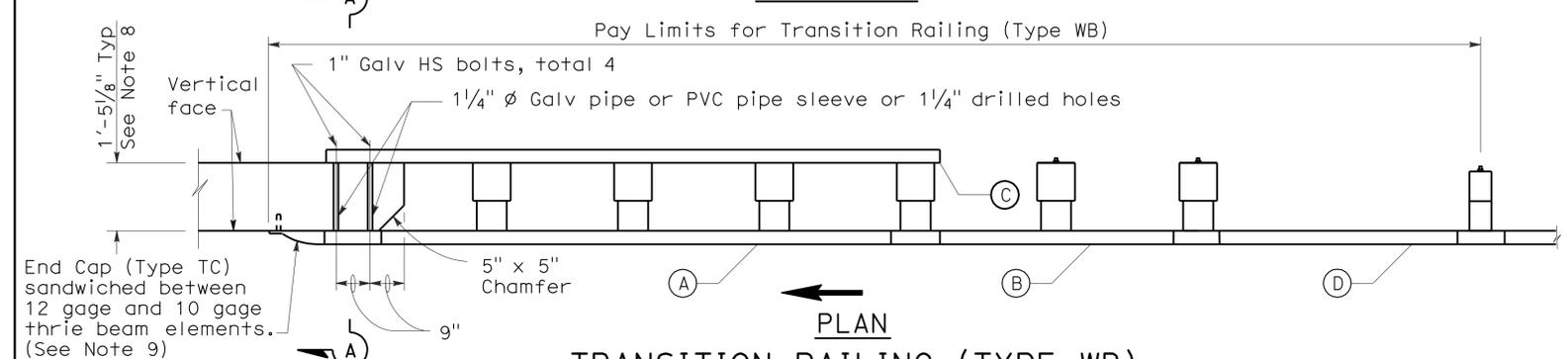
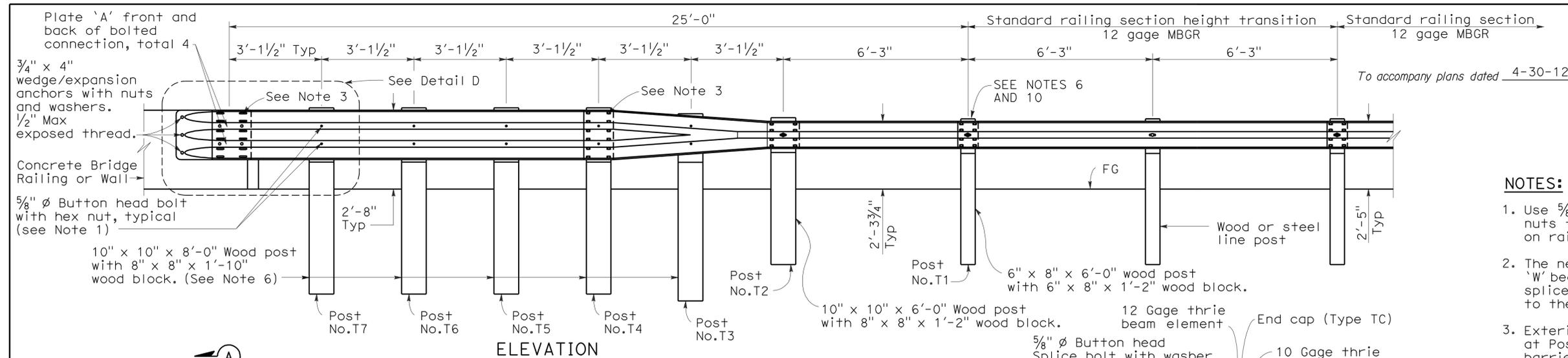
2006 REVISED STANDARD PLAN RSP A77J2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	21	43

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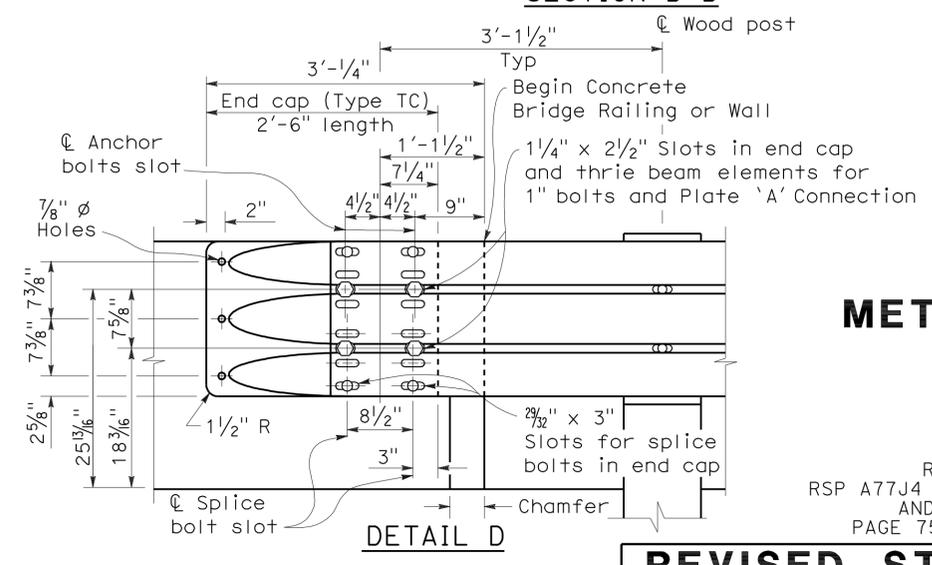
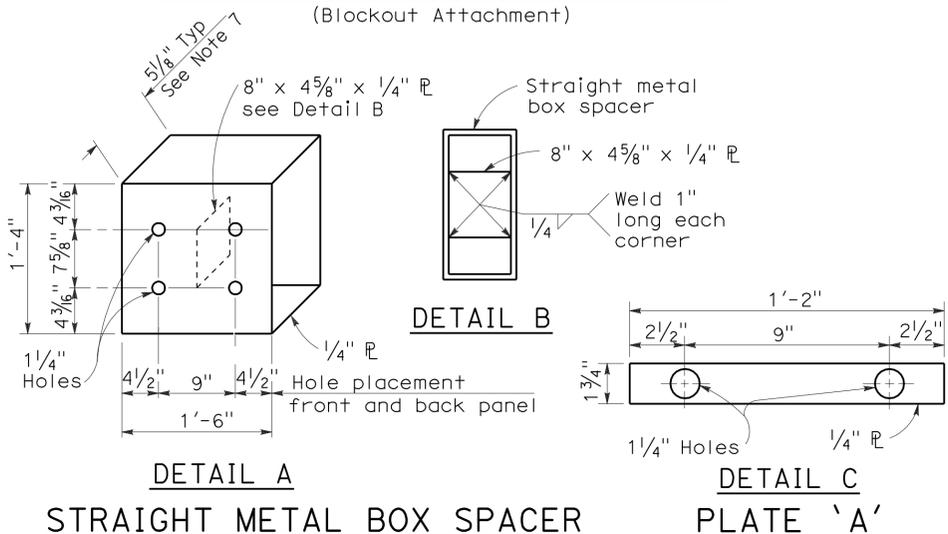
May 20, 2011
 PLANS APPROVAL DATE

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- NOTES:**
- Use 5/8" ϕ Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
 - The nested rail elements, end cap, and "W" beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
 - Exterior splice bolt holes for rail element splices at Post No. T4 and the connection to the concrete barrier or railing shall be the standard 7/32" x 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" ϕ . Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No. T4 and the connection to the concrete barrier or railing.
 - Direction of adjacent traffic indicated by \rightarrow .
 - The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
 - Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing with height transition ratio of 120:1 or an approved Caltrans end treatment attached to Post No. T1.
 - The depth of the metal box spacer varies from the 5/8" to 1/2" and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1/2", metal plates similar to Plate 'A' are to be used as spacers.
 - Where the width of the concrete railing or wall is greater than 17/8", wood blocks are to be used to fill the space created between the backside of Posts No. T4 through No. T7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
 - End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.
 - Conform standard railing section height to 2'-3 3/4" at Post No. T1 using height transition ratio of 120:1.

- LEGEND**
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
 - (B) One 10 gage "W" beam to thrie beam element.
 - (C) One 12 gage thrie beam element.
 - (D) One 10 gage "W" beam rail element (7'-3 1/2" length)
- 10 gage = 0.135" thick
12 gage = 0.108" thick



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
 TRANSITION RAILING
 (TYPE WB)**
 NO SCALE

RSP A77J4 DATED MAY 20, 2011 SUPERSEDES
 RSP A77J4 DATED JUNE 5, 2009, RSP A77J4 DATED JUNE 6, 2008
 AND STANDARD PLAN A77J4 DATED MAY 1, 2006 -
 PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	22	43

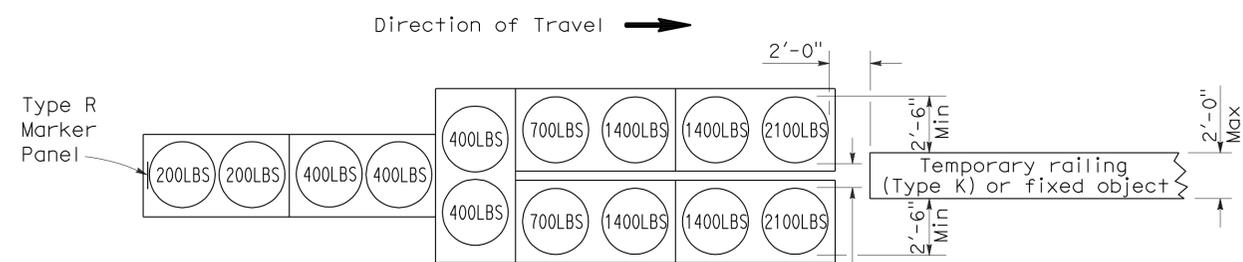
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

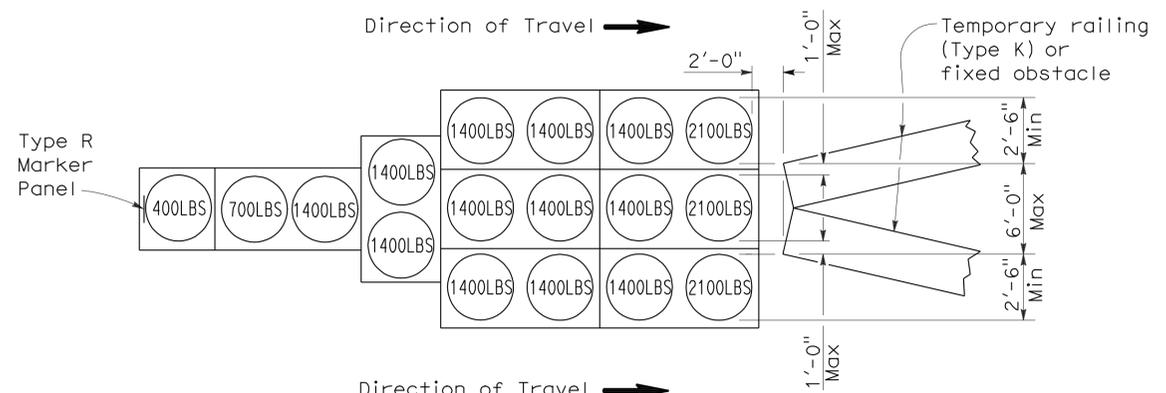
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-30-12



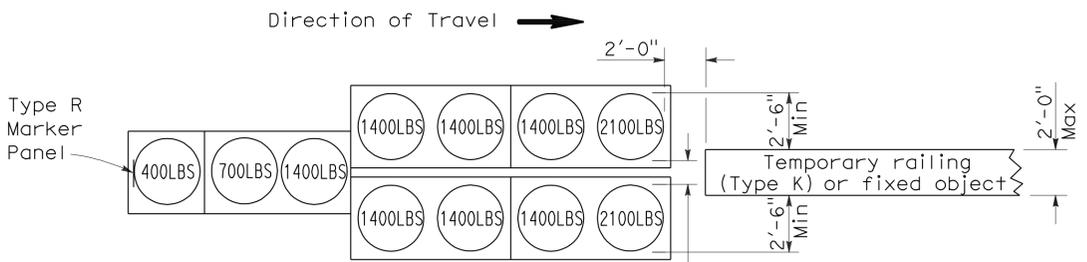
ARRAY 'TU14'

Approach speed 45 mph or more



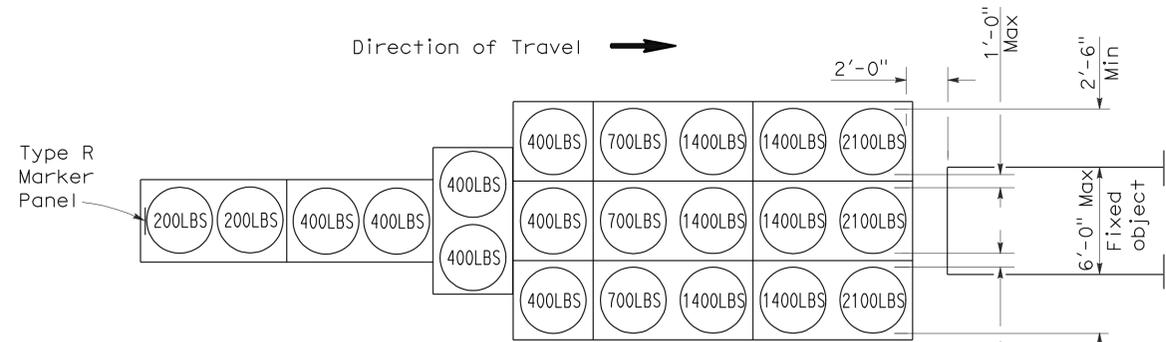
ARRAY 'TU17'

Approach speed less than 45 mph



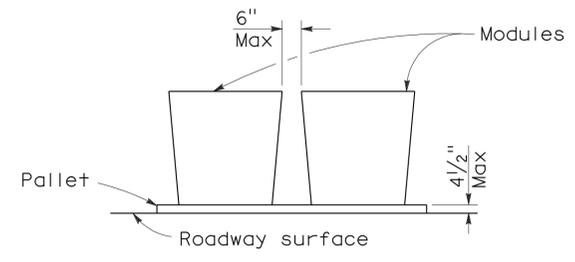
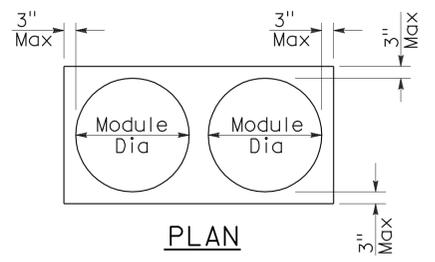
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more



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

2006 REVISED STANDARD PLAN RSP T1A

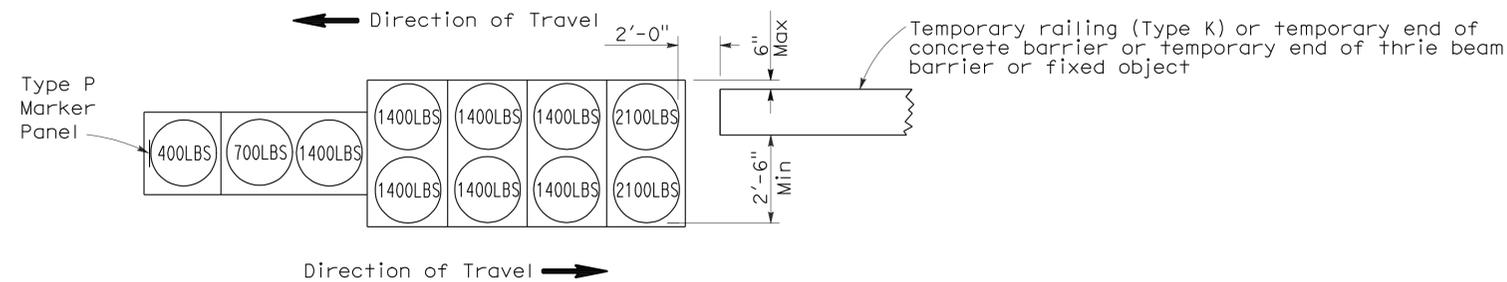
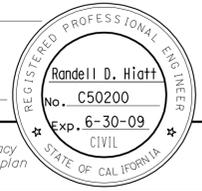
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	23	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

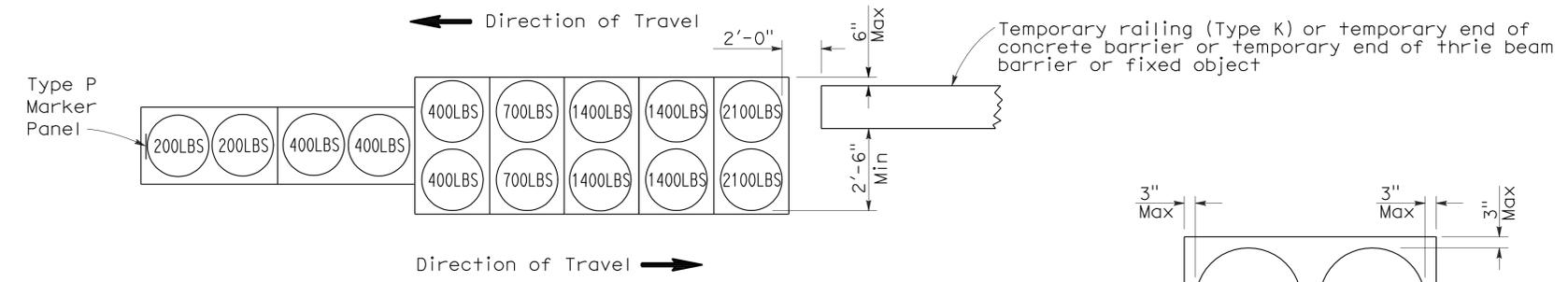
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-30-12



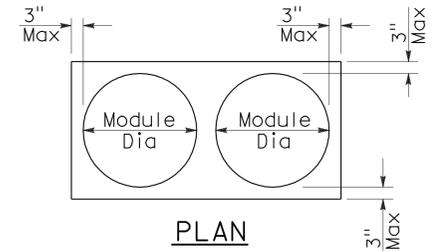
ARRAY 'TB11'

Approach speed less than 45 mph

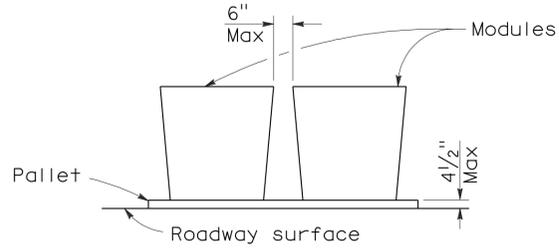


ARRAY 'TB14'

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 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

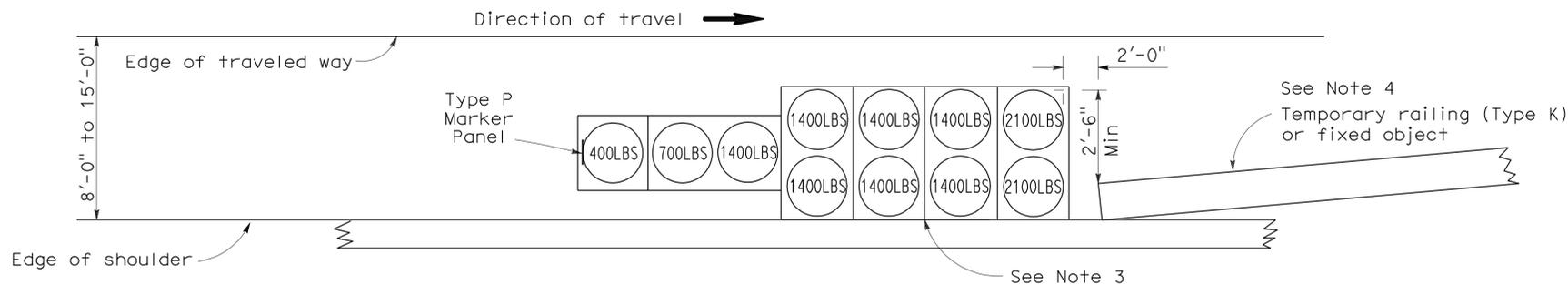
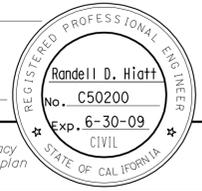
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	24	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

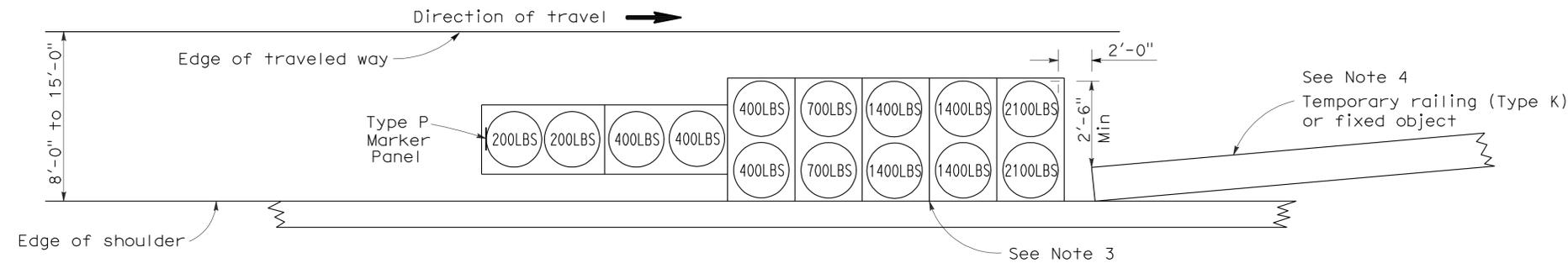
June 6, 2008
PLANS APPROVAL DATE

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.

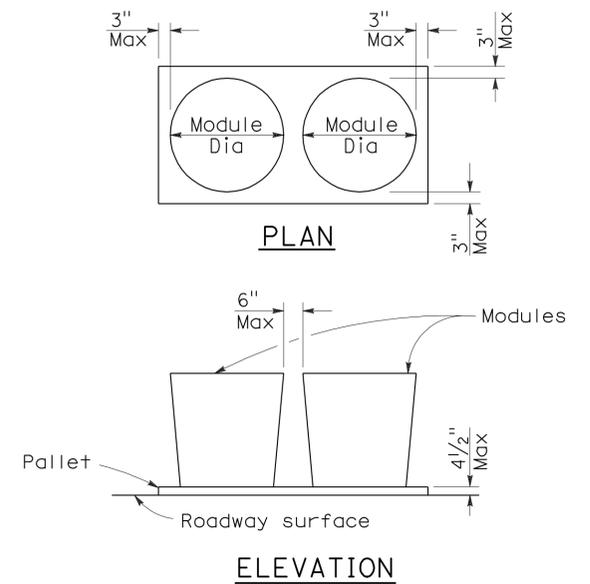
To accompany plans dated 4-30-12



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

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. 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.
4. 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.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. 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.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. Use of pallets is optional.

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

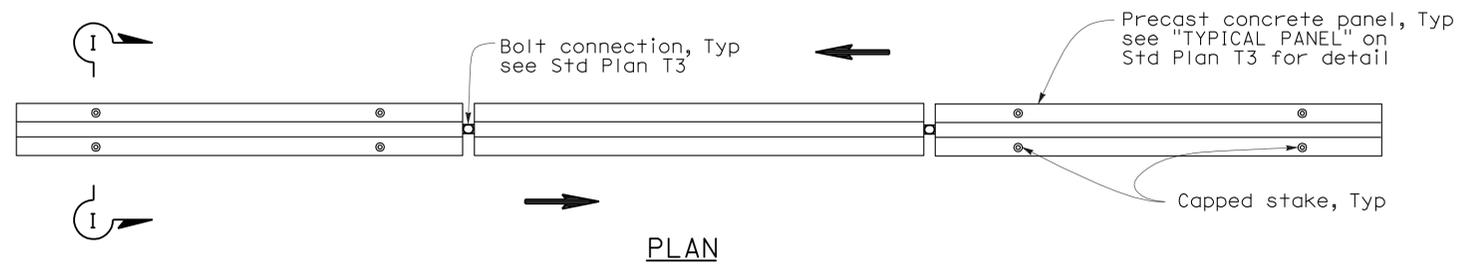
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	25	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

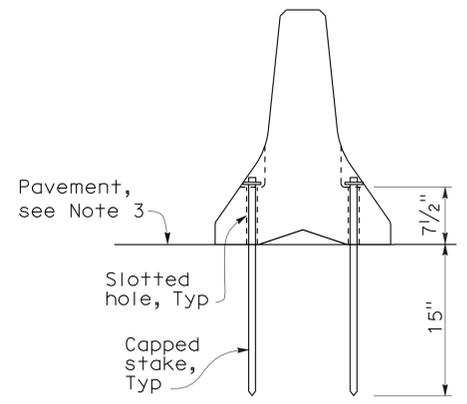
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 4-30-12



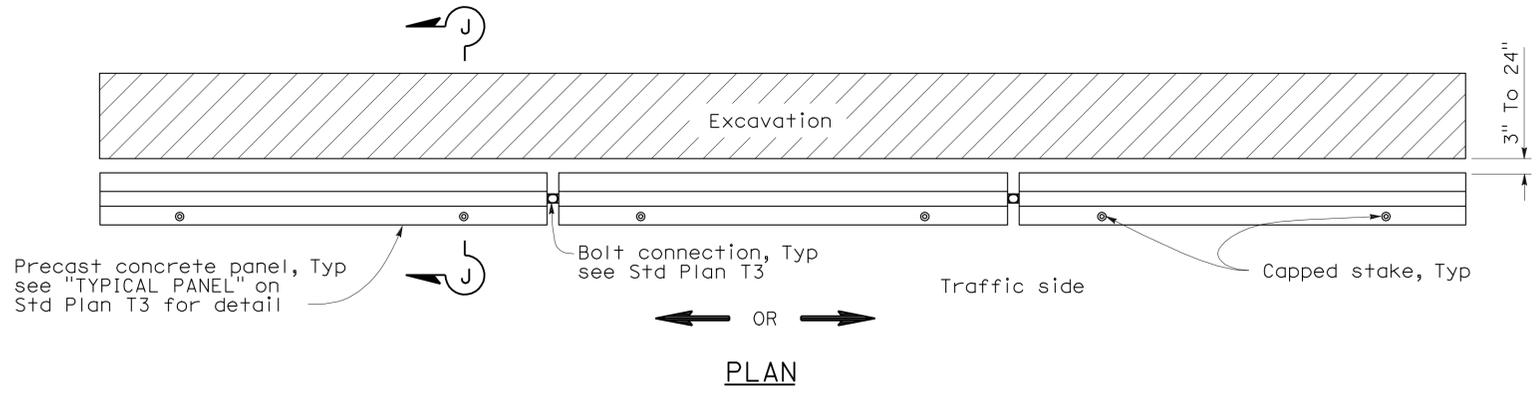
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



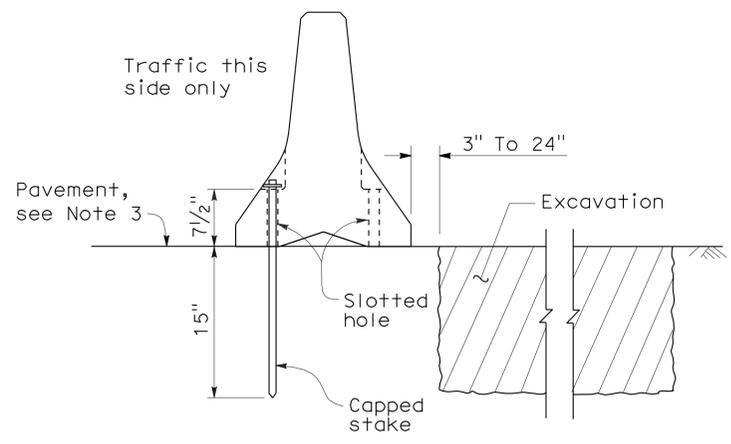
SECTION I-I

NOTES:

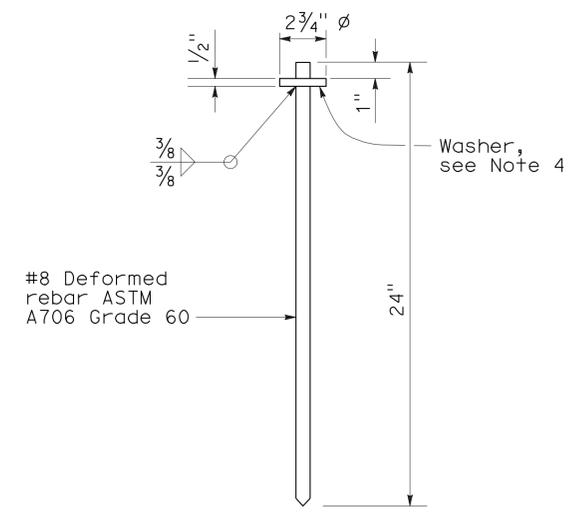
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

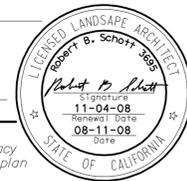
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY RAILING
(TYPE K)**
NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

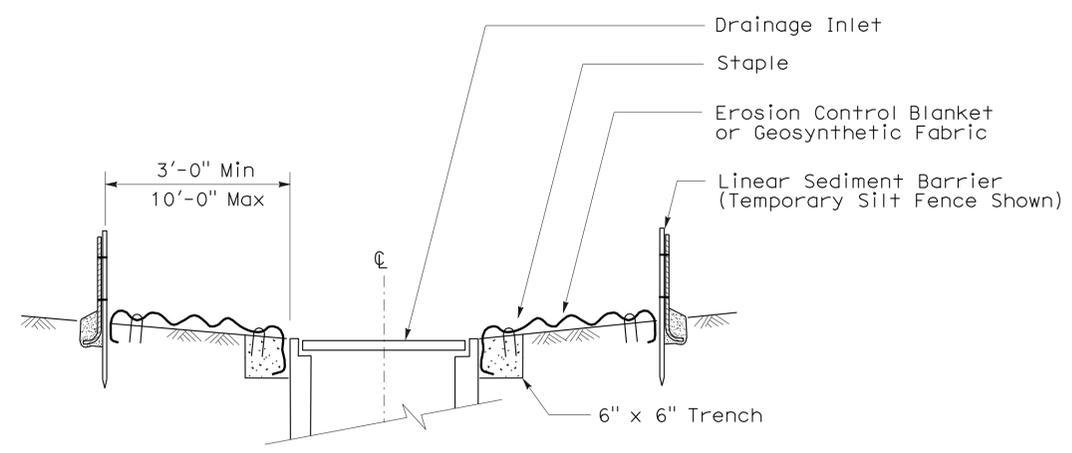
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	27	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
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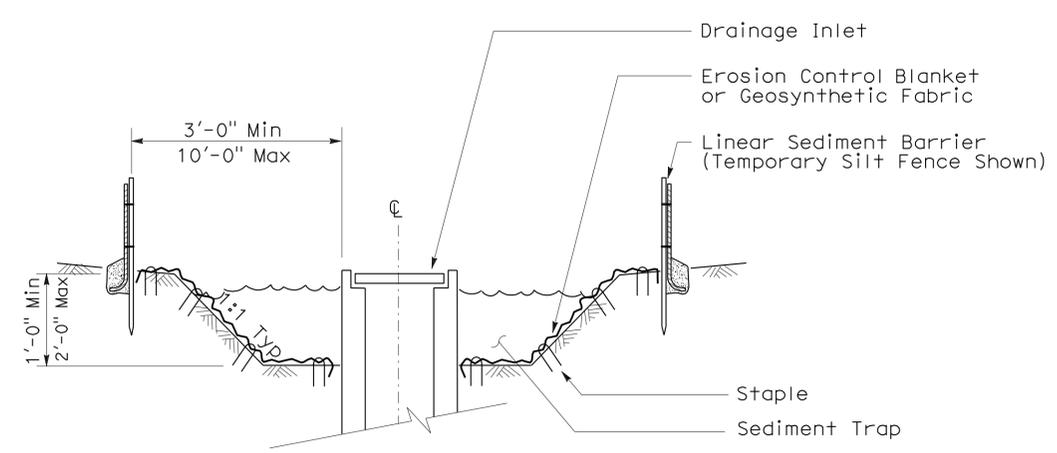


To accompany plans dated 4-30-12

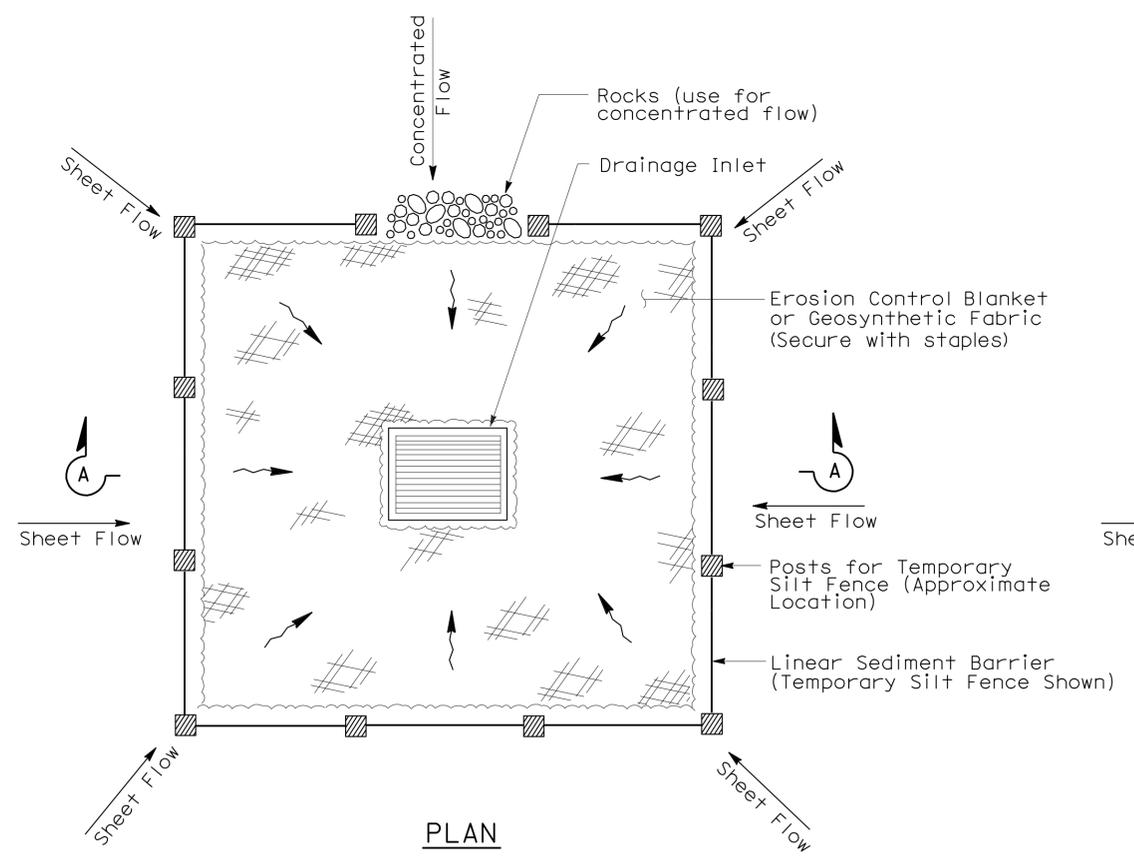
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



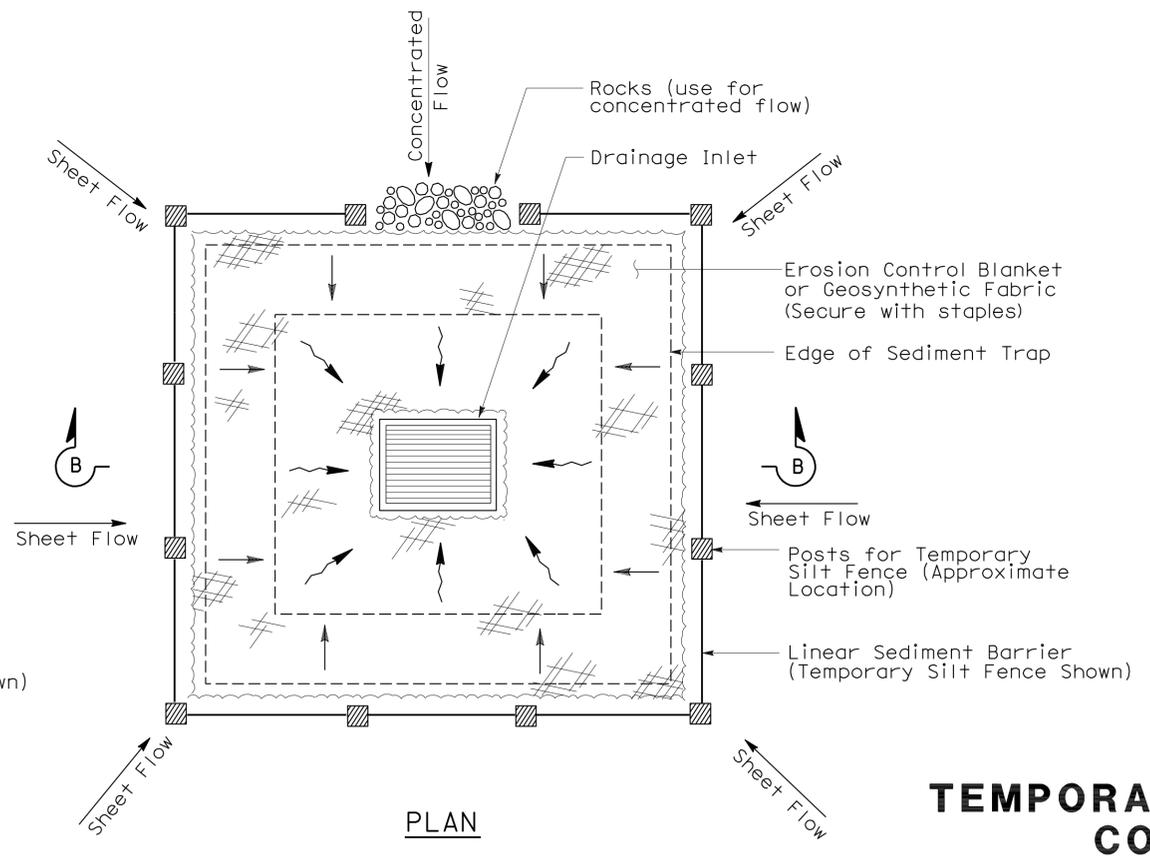
SECTION A-A



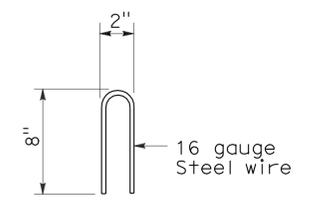
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)

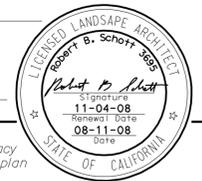


STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T61

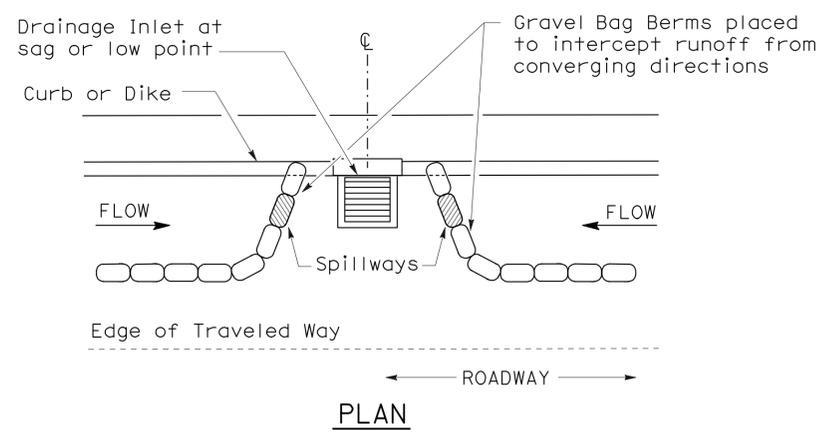


To accompany plans dated 4-30-12

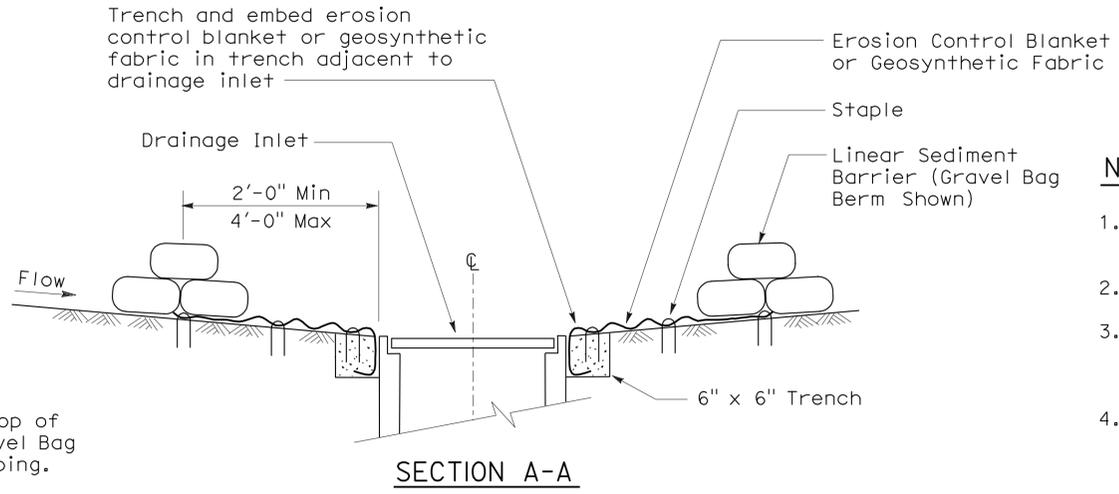
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



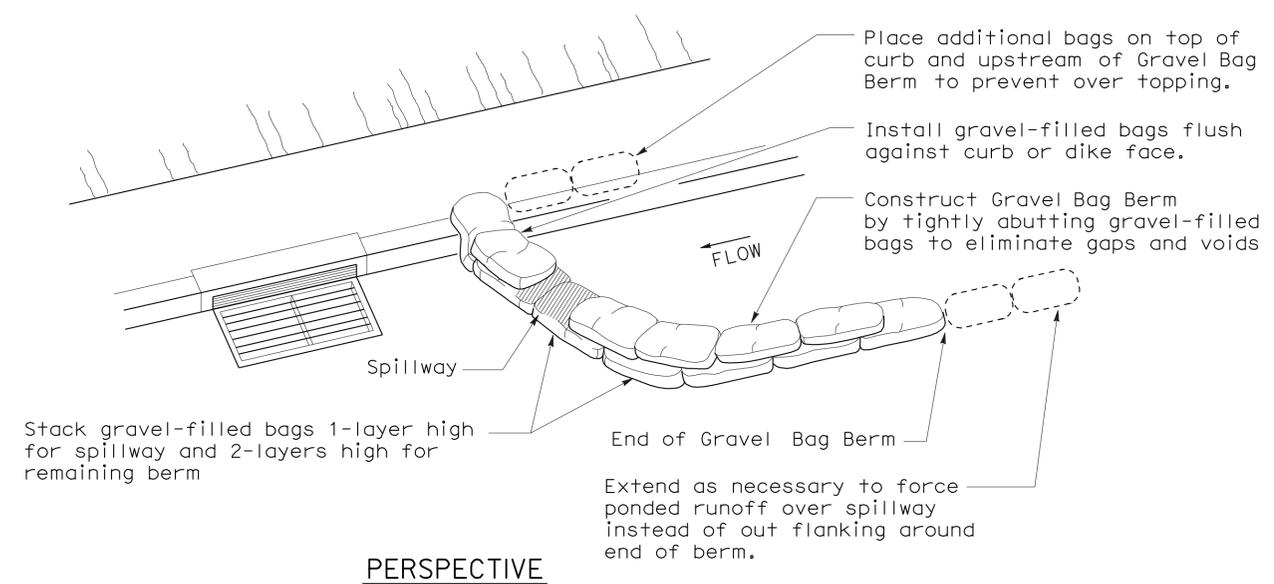
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



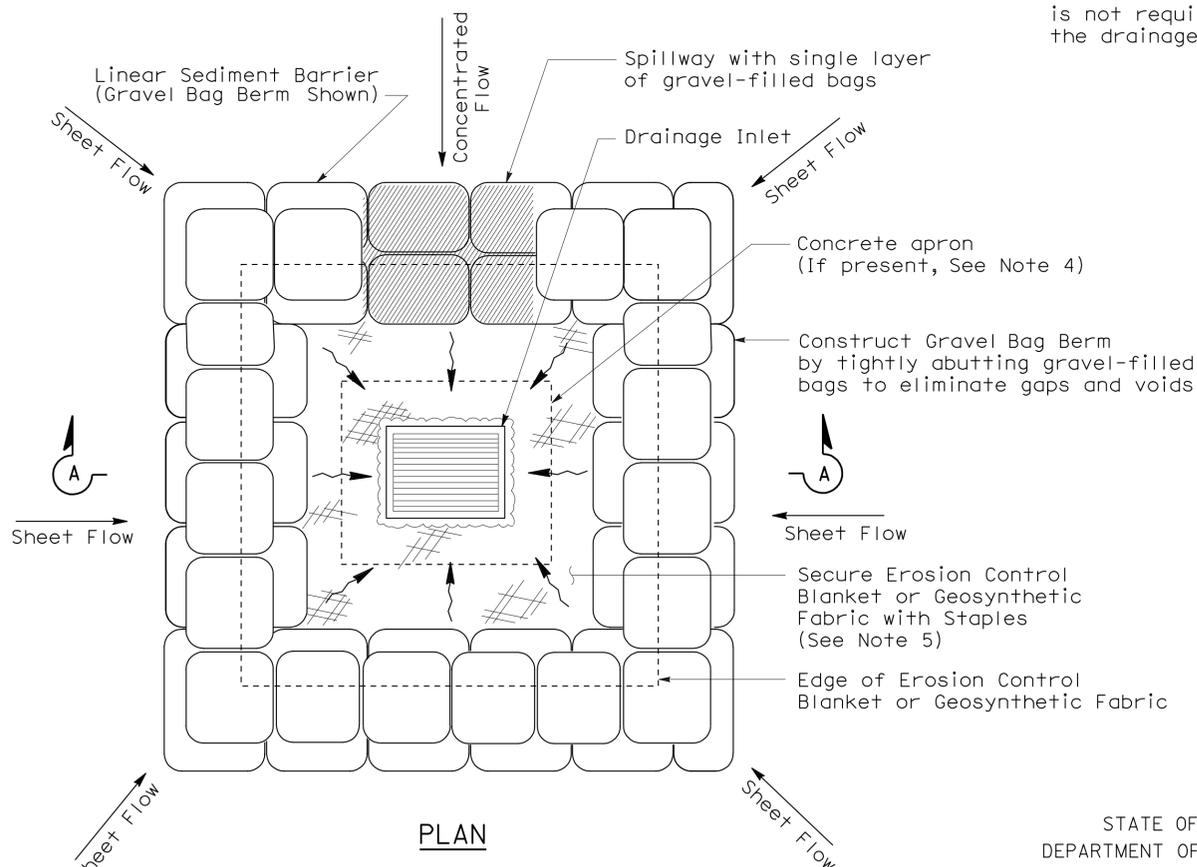
SECTION A-A

NOTES:

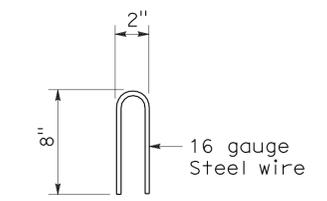
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



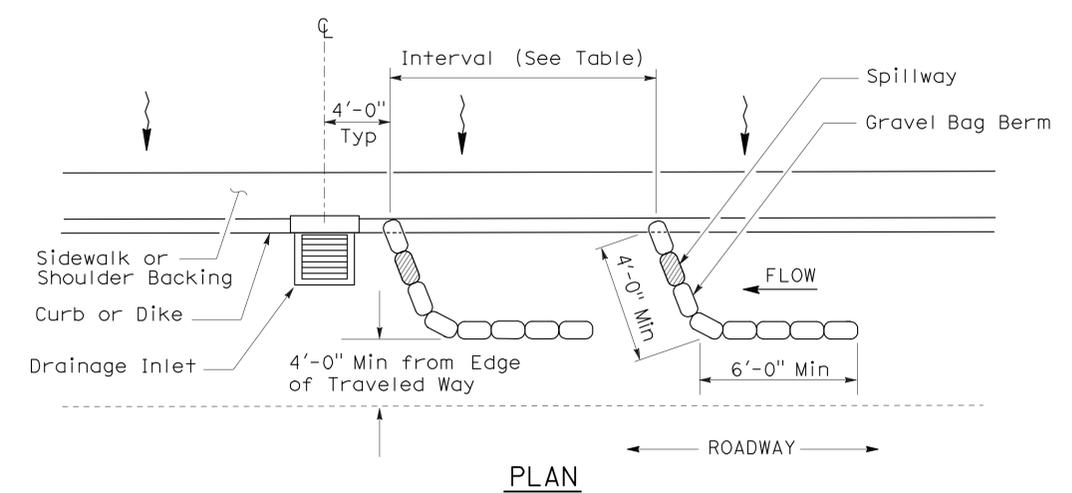
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3A)
(GRAVEL BAG BERM)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T62

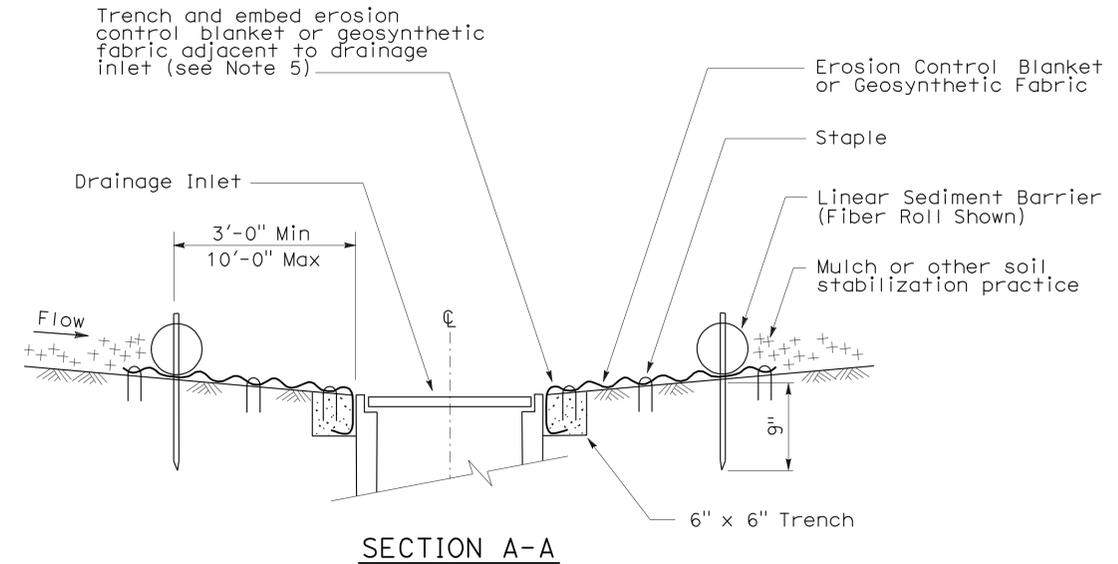
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	29	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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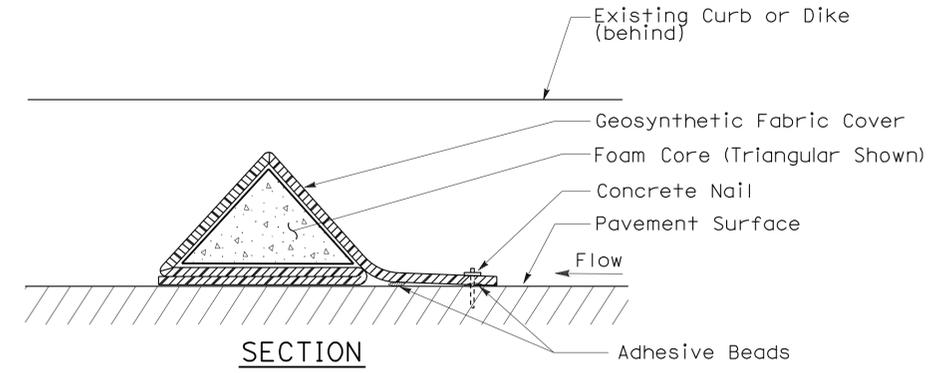
To accompany plans dated 4-30-12

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



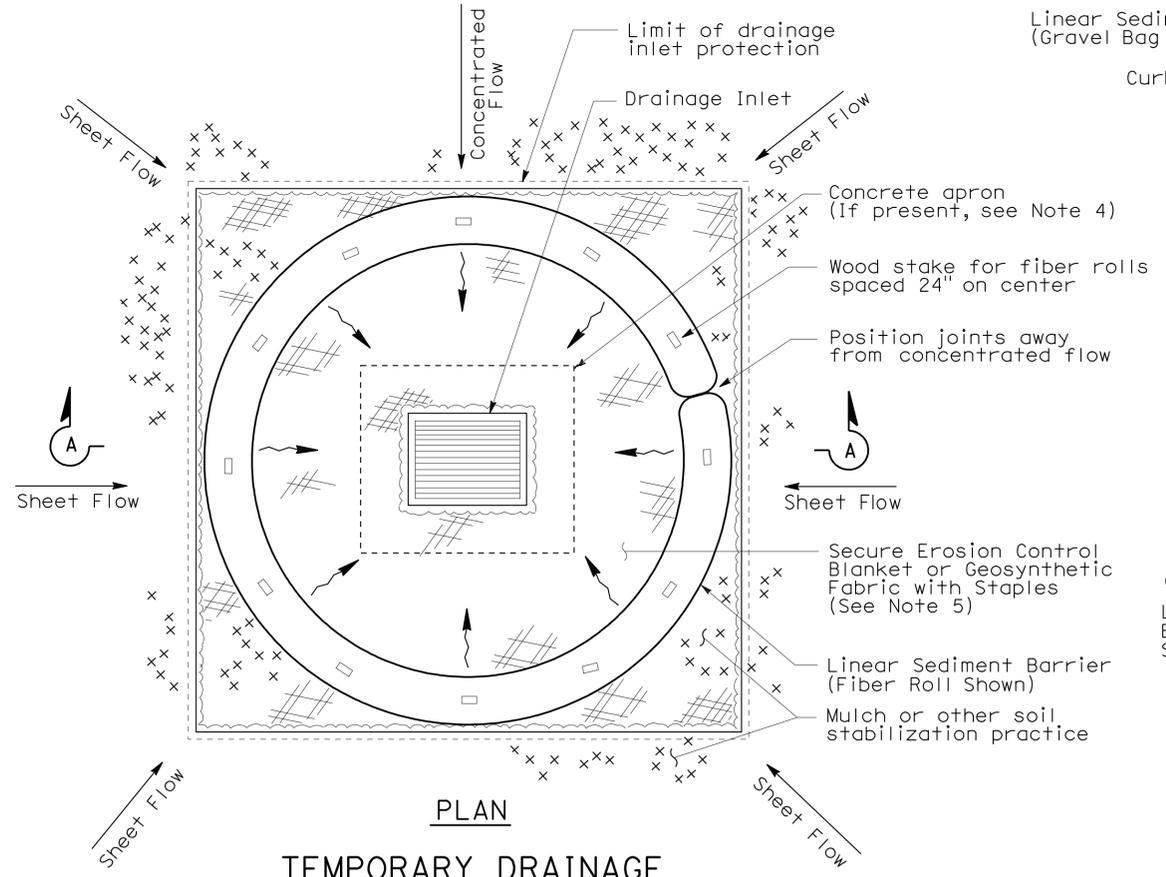
SECTION A-A



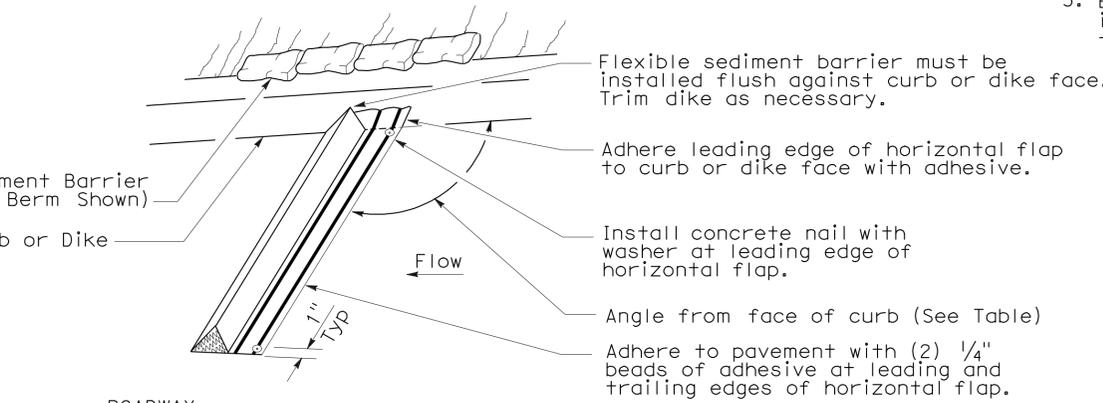
SECTION FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

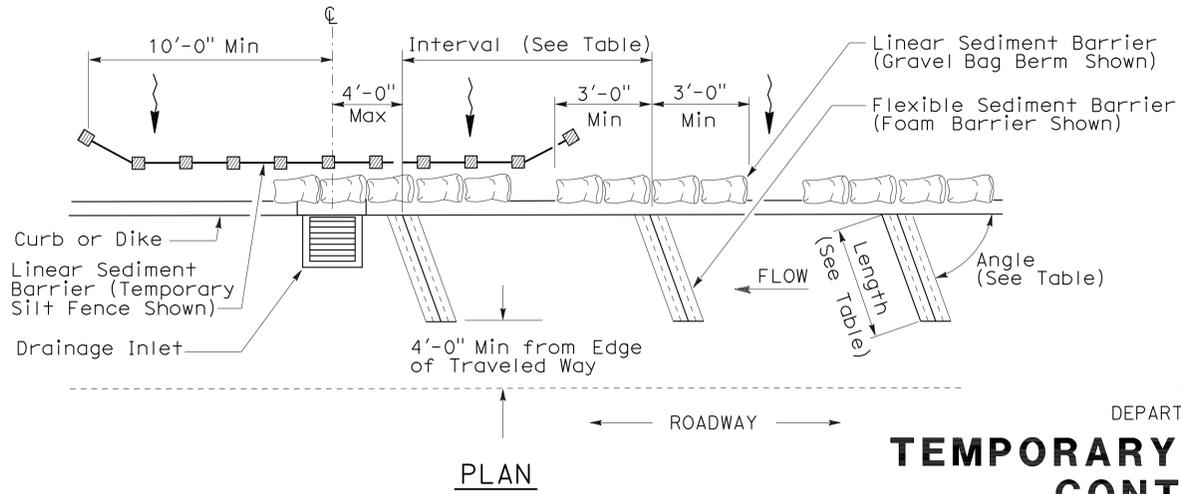
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



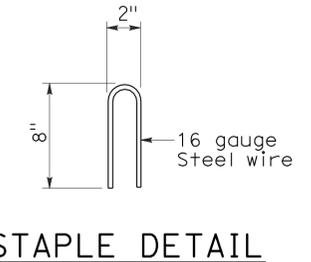
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T63

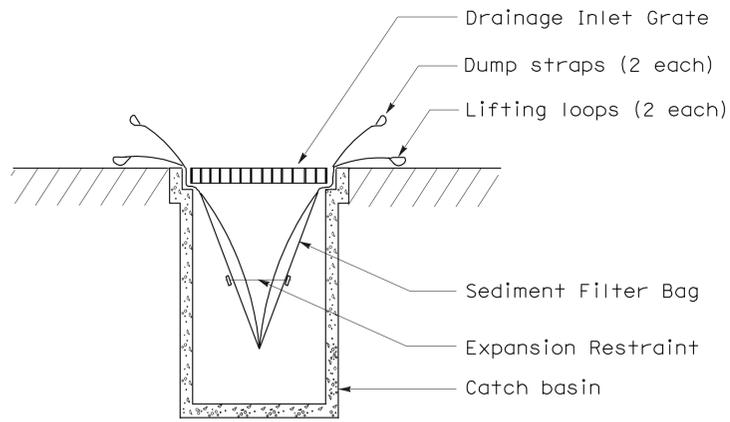
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	30	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

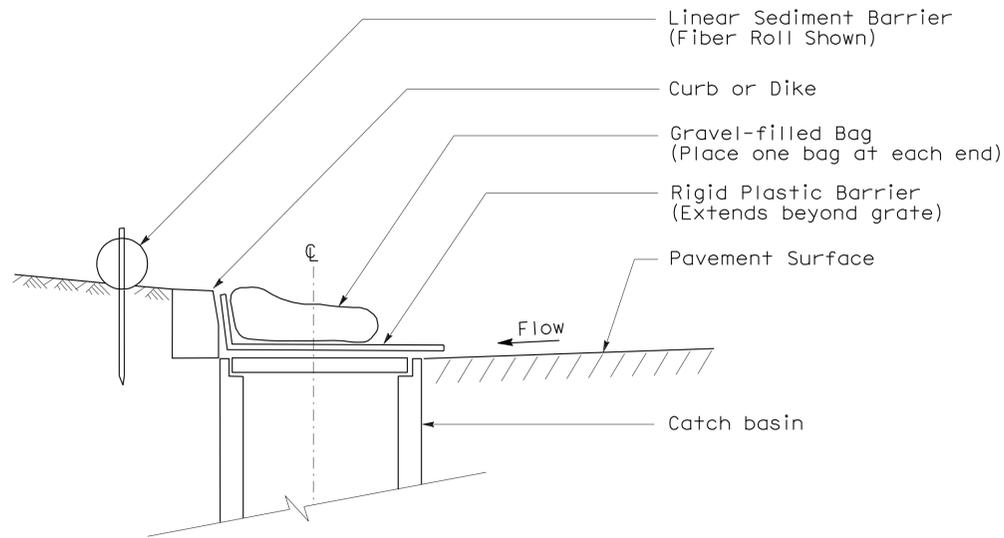
August 15, 2008
 PLANS APPROVAL DATE

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 Signature
 11-04-08
 Renewal Date
 08-11-08
 Date

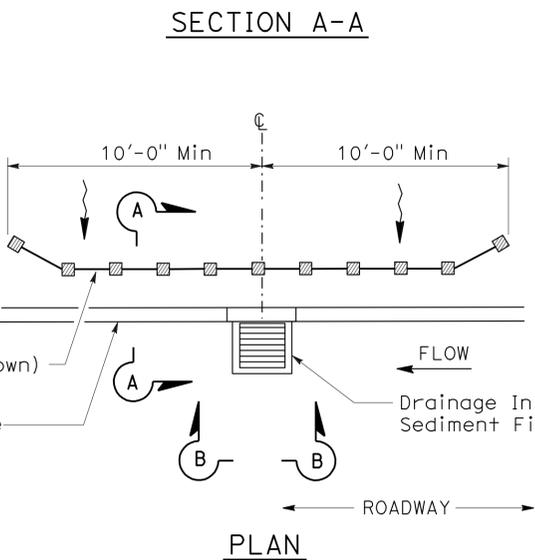
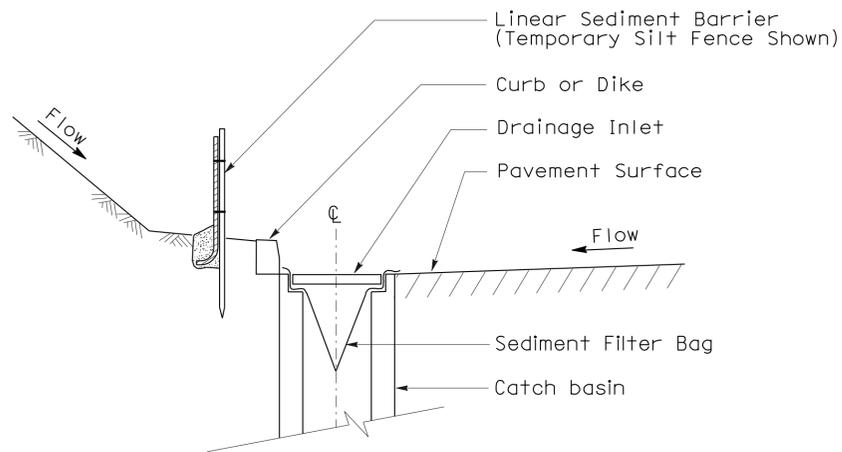
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



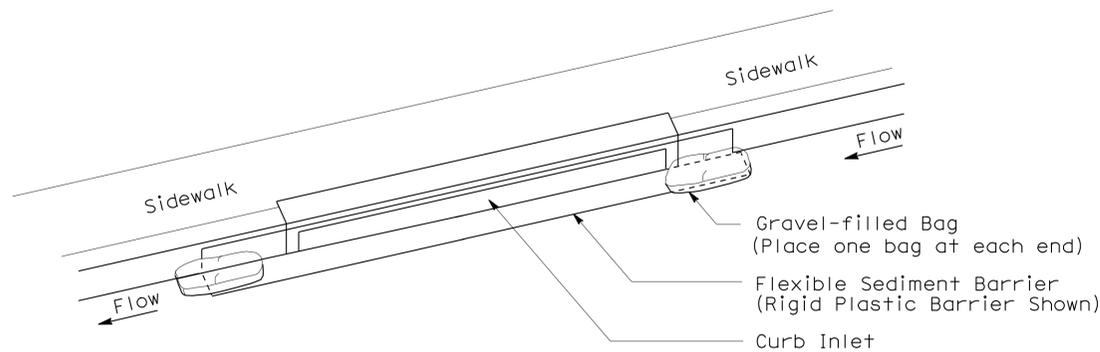
SECTION B-B
SEDIMENT FILTER BAG DETAIL



SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

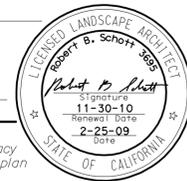
To accompany plans dated 4-30-12

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY WATER POLLUTION
CONTROL DETAILS
(TEMPORARY DRAINAGE
INLET PROTECTION)**

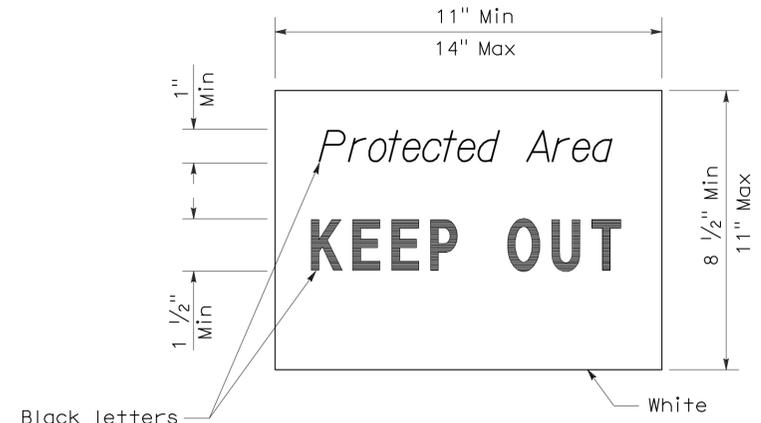
NO SCALE
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	55.0	31	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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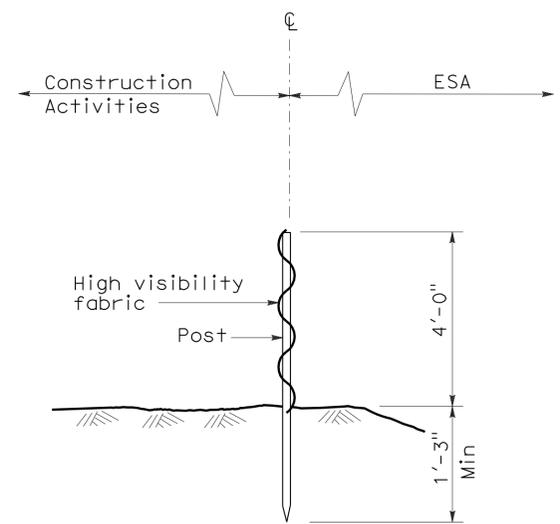
To accompany plans dated 4-30-12



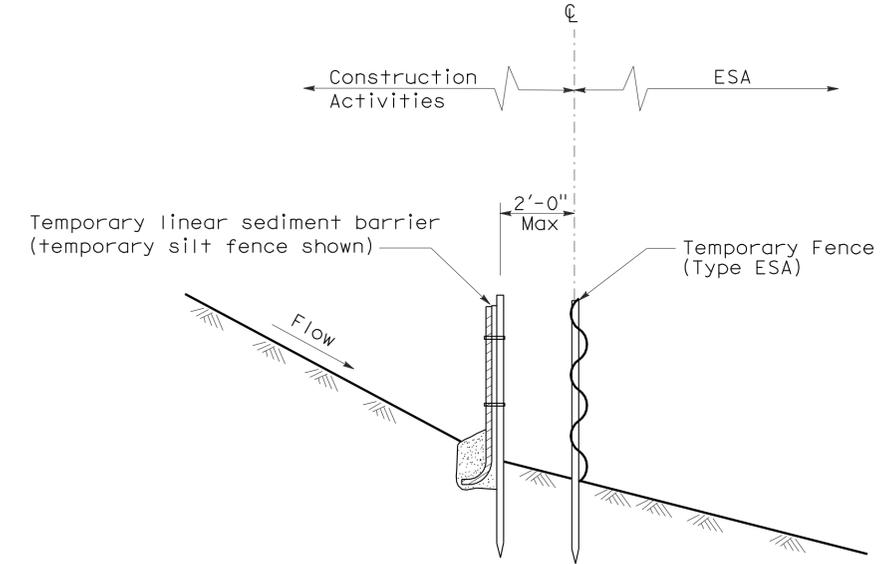
SIGN DETAIL

NOTE:

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

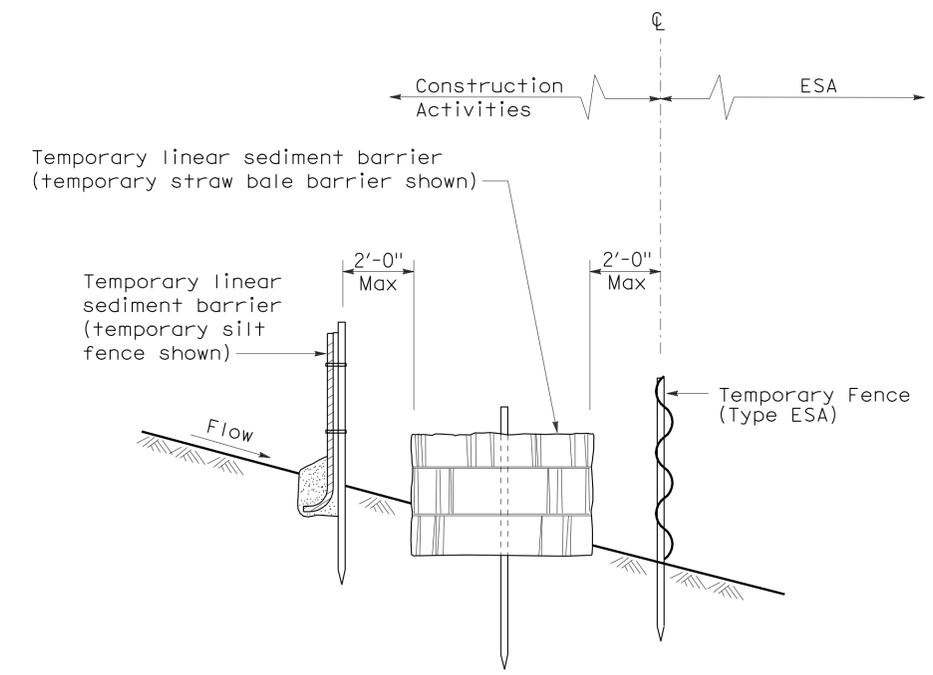


SECTION TEMPORARY FENCE (TYPE ESA)



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.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	33	43

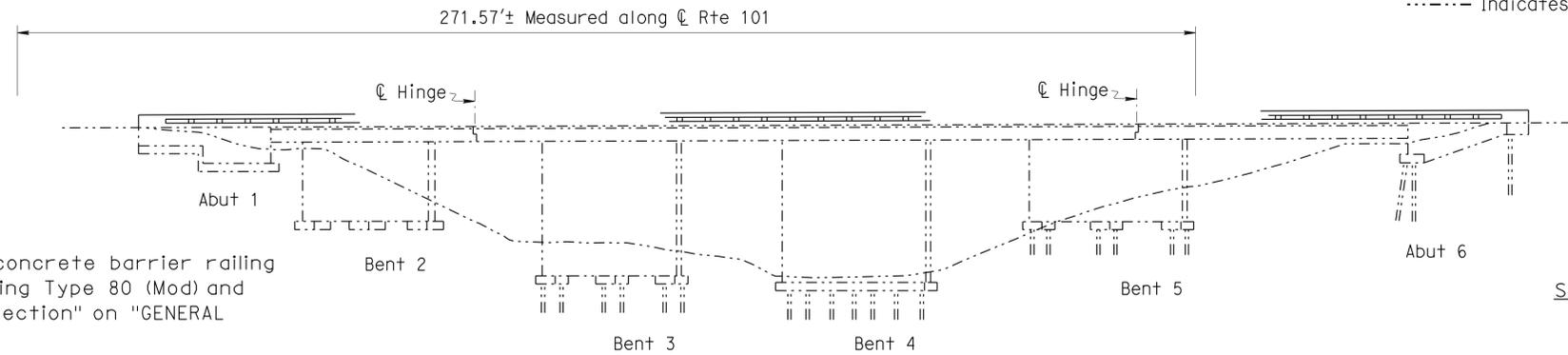
NOTE: (APPLY TO ALL SHEETS)
 ----- Indicates existing.

Tim Campbell 3-14-12
 REGISTERED CIVIL ENGINEER DATE

4-30-12
 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
 No. 63268
 Exp. 06-30-12
 CIVIL
 STATE OF CALIFORNIA



ELEVATION
1" = 20'

NOJOQUI CREEK BRIDGE NO. 51-0075 L/R

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	15,000	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	15,800	SQFT
BRIDGE REMOVAL (PORTION)	LUMP	SUM
AGGREGATE BASE (APPROACH SLAB)	18	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R MODIFIED)	170	CY
MINOR CONCRETE (MINOR STRUCTURE)	11	CY
CLEAN EXPANSION JOINT	185	LF
JOINT SEAL (ASPHALTIC PLUG)	382	LF
CARBON FIBER REINFORCED POLYMER STRIPS	5,500	LF
TREAT BRIDGE DECK	15,800	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	175	GAL
MISCELLANEOUS METAL (BRIDGE)	200	LB
TUBULAR BICYCLE RAILING	614	LF
CONCRETE BARRIER (TYPE 80 MODIFIED)	1,224	LF

NOTES: (APPLY TO THIS SHEET ONLY)

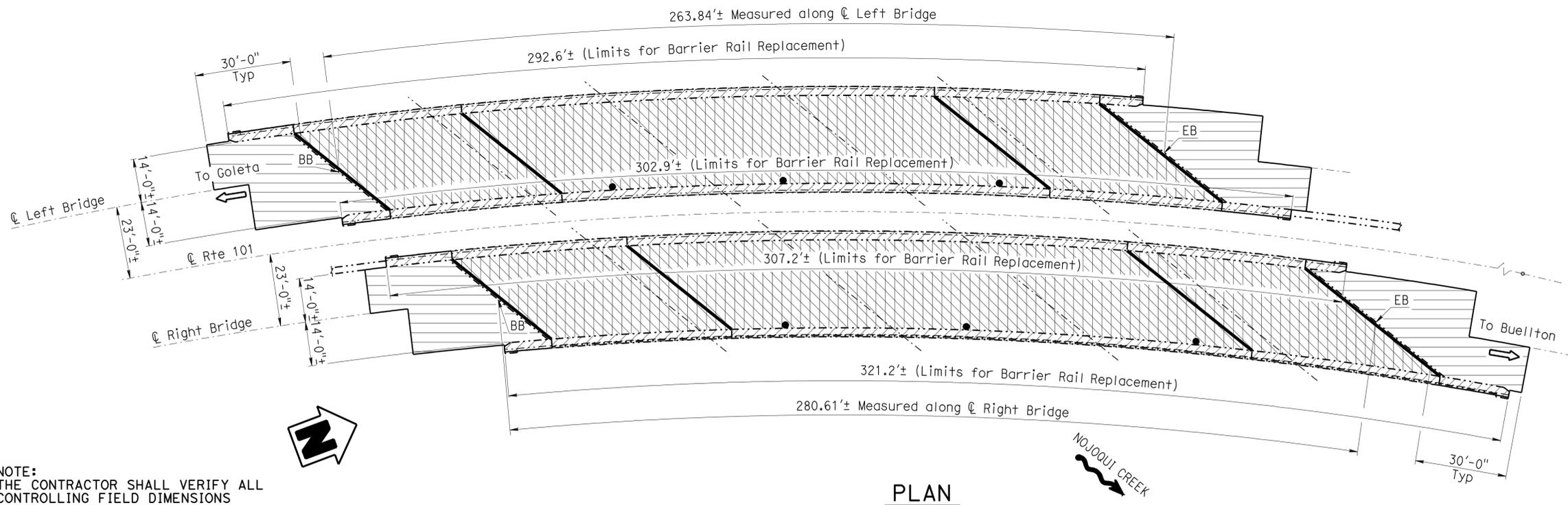
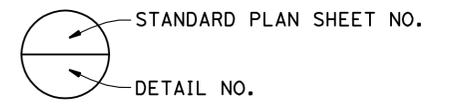
- Indicates limits of remove existing concrete barrier railing and place new Concrete Barrier Railing Type 80 (Mod) and tubular bicycle railing. See "Typical Section" on "GENERAL PLAN NO. 2" sheet.
- Indicates limits of prepare and treat bridge deck with high molecular weight methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete. See "Deck Repair Detail" on "GENERAL PLAN NO. 2" sheet.
- Indicates limits of remove existing 3/2"± depth AC overlay. Place new 0.15' HMA (Type A) and 0.1' HMA OG overlay. See "Road Plans" for HMA overlay placement details.
- Indicates limits of place new Structure Approach Type R(30S) Modified. See "Road Plans" for HMA overlay placement details.
- Indicates location of remove existing asphaltic plug joint seal and place new asphaltic plug joint seal. For details, see "Asphaltic Plug Detail" on "DETAILS NO. 7" sheet.
- Indicates approximate location of existing deck drains. For "Deck Drain Details", see "GENERAL PLAN NO. 2" sheet.

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	DETAILS NO. 1
4	DETAILS NO. 2
5	DETAILS NO. 3
6	DETAILS NO. 4
7	DETAILS NO. 5
8	DETAILS NO. 6
9	DETAILS NO. 7
10	STRUCTURE APPROACH TYPE R(30S) MODIFIED
11	TUBULAR BICYCLE RAILING DETAILS

STANDARD PLANS DATED MAY 2006

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
RSP B11-60	CONCRETE BARRIER TYPE 80 (SHEET 1 OF 2)



PLAN
1" = 20'

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

LOCATION		SKEW
LEFT BRIDGE	Abut 1	44°±
	Hinge near Bent 2	46.5°±
	Hinge near Bent 5	53.5°±
RIGHT BRIDGE	Abut 6	56°±
	Abut 1	46°±
	Hinge near Bent 2	49°±
	Hinge near Bent 5	56.7°±
	Abut 6	59.5°±

Matthew Collee 3-14-12
DESIGN ENGINEER

DESIGN	BY T. Campbell	CHECKED Tim Powell	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Dale Kubochi	CHECKED Tim Powell	LAYOUT	BY Dale Kubochi
QUANTITIES	BY T. Campbell	CHECKED Tim Powell	SPECIFICATIONS	BY Jim Corrado

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 51-0075L/R
POST MILE 55.00
NOJOQUI CREEK (RAIL REPLACEMENT)
GENERAL PLAN NO. 1

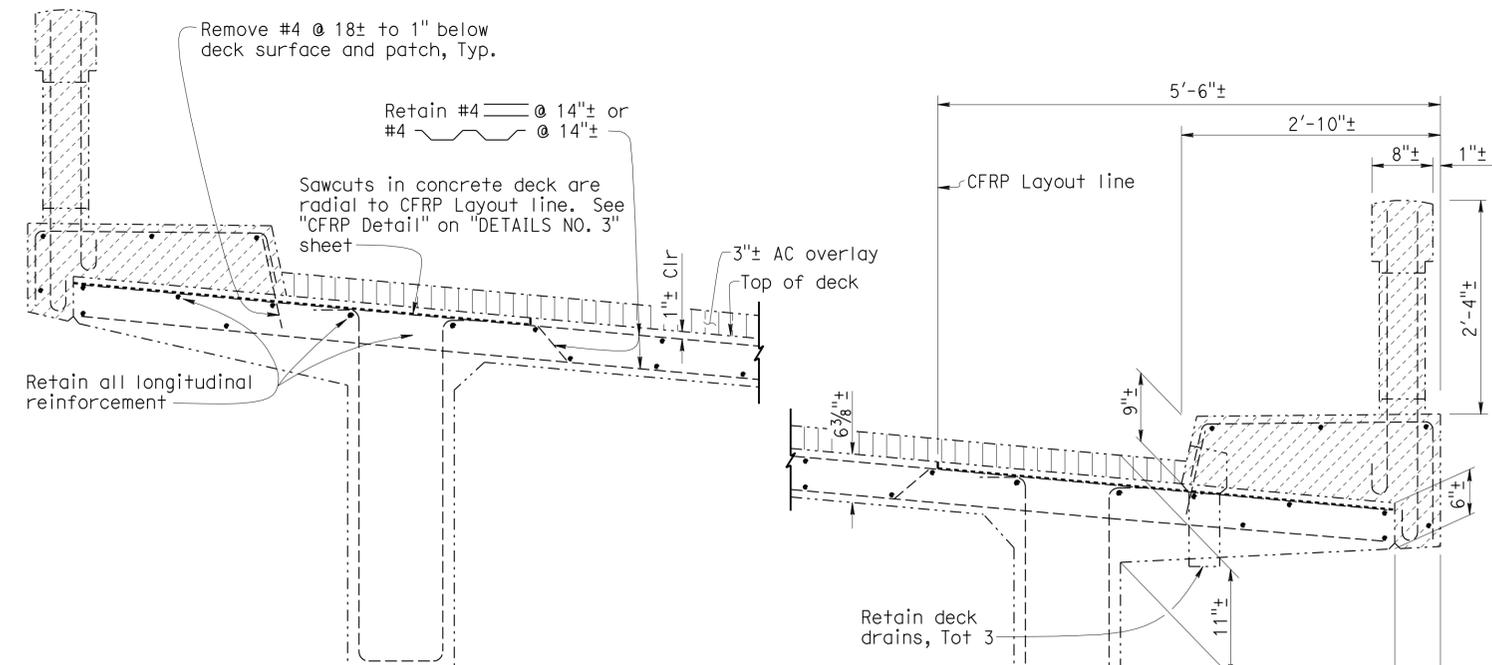
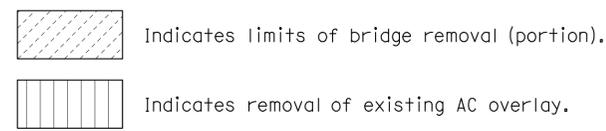
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	35	43

<i>Tim Campbell</i>		3-14-12
REGISTERED CIVIL ENGINEER	DATE	
4-30-12		
PLANS APPROVAL DATE		

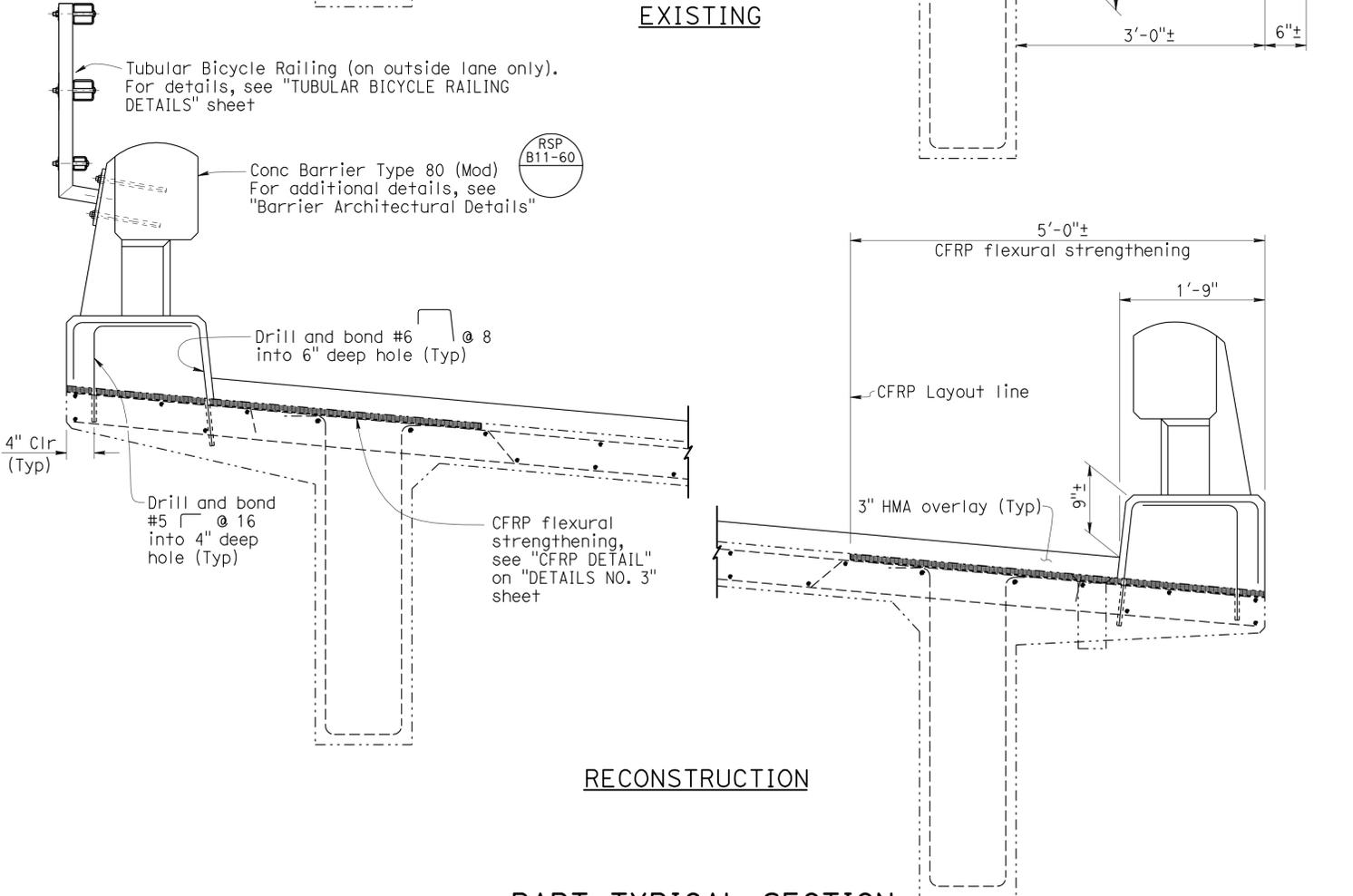
REGISTERED PROFESSIONAL ENGINEER No. 63268 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA	
--	--

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NOTES: (APPLY TO THIS SHEET ONLY)



EXISTING



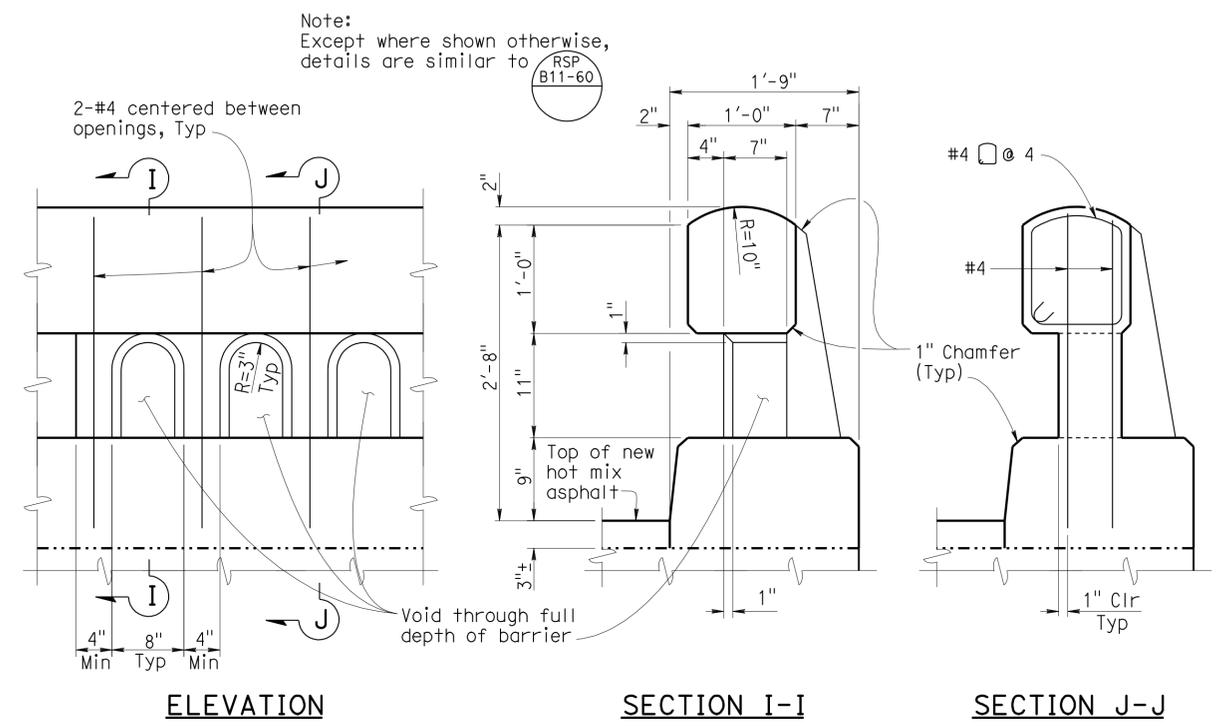
RECONSTRUCTION

PART TYPICAL SECTION

1" = 1'-0"

Note: Left Bridge shown, Right Bridge similar.

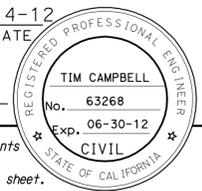
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

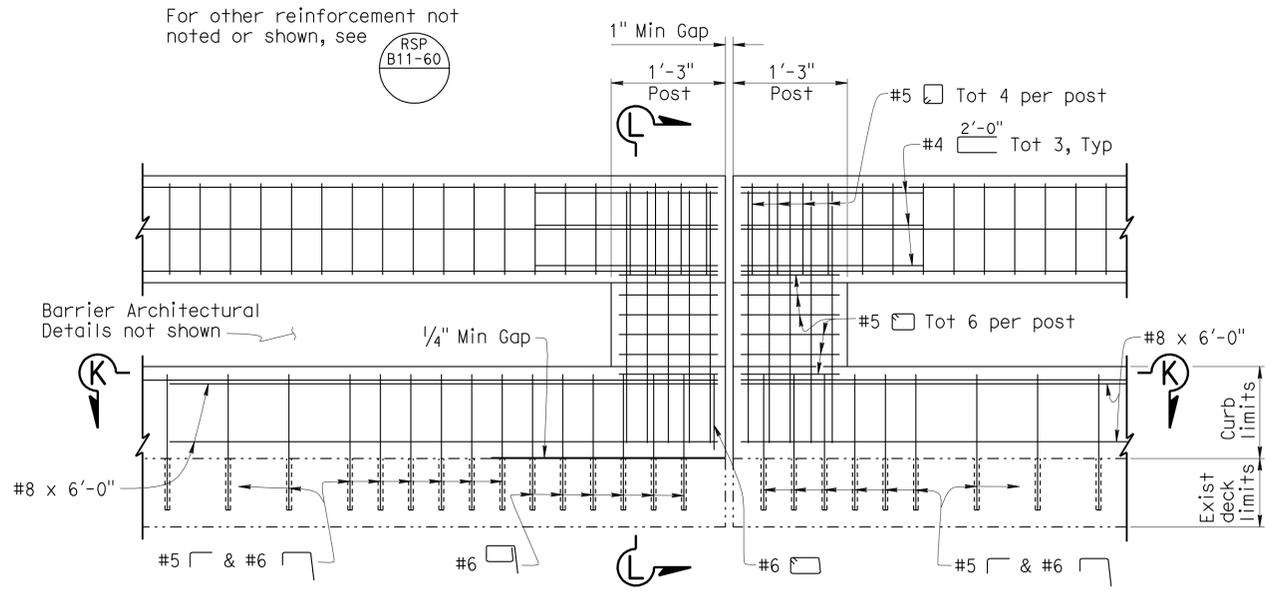


BARRIER ARCHITECTURAL DETAILS

TUBULAR BICYCLE RAILING NOT SHOWN
No Scale

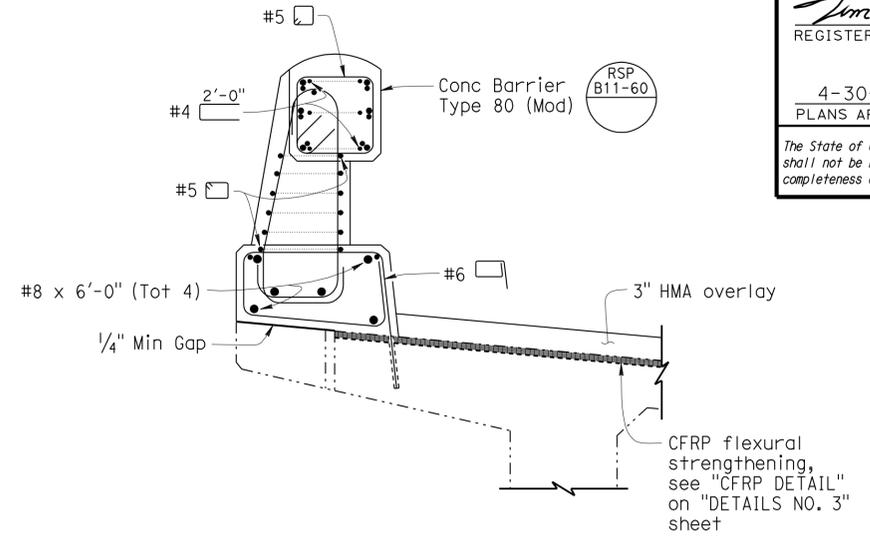
DESIGN	BY T. Campbell	CHECKED Tim Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	NOJOQUI CREEK (RAIL REPLACEMENT) DETAILS NO. 1
DETAILS	BY Dale Kubochi	CHECKED Tim Powell		51-0075L/R	
QUANTITIES	BY T. Campbell	CHECKED Tim Powell		POST MILE 55.0	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	36	43
 REGISTERED CIVIL ENGINEER			3-14-12	DATE	
4-30-12			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.					



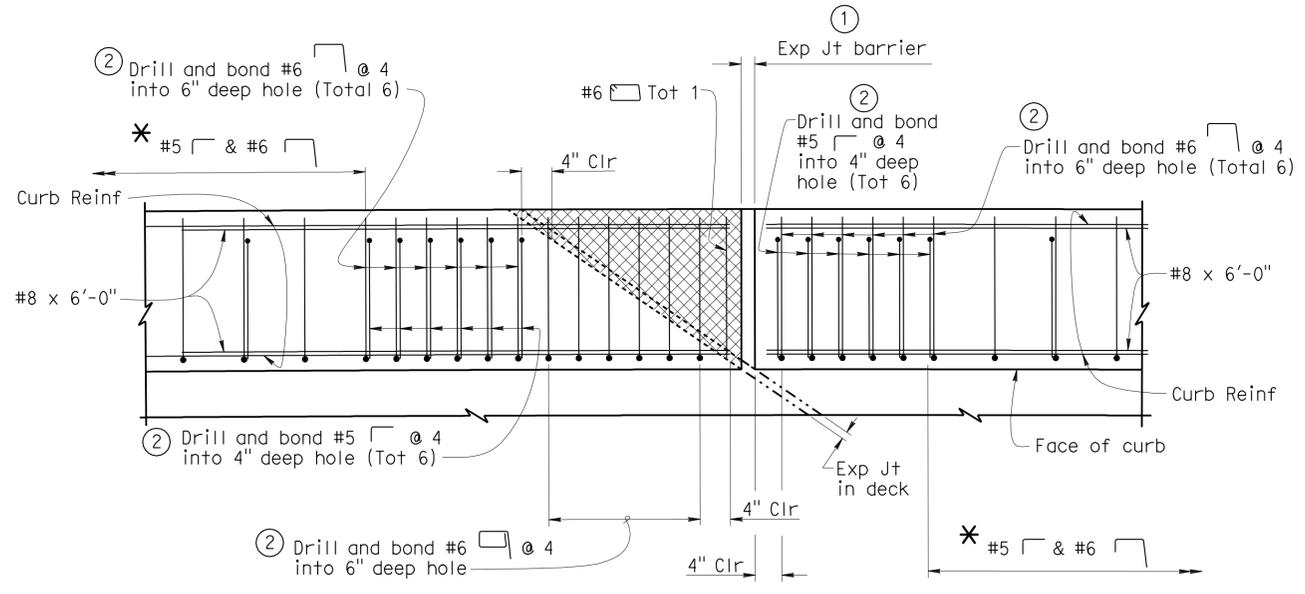
EXPANSION JOINT AT HINGE (CONCRETE BARRIER)

1" = 1'-0"



SECTION L-L

1" = 1'-0"



SECTION K-K

1" = 1'-0"

Notes:

- ① - Gap in barrier to match gap in deck, measured along face of curb. Joint placed normal to face of curb.
- ② - Reinforcement may be adjusted to clear CFRP flexural strengthening as determined by the Engineer.

* - See "Part Typical Section" on "DETAILS NO. 1" sheet

▨ Indicates limits for 1/4" minimum gap

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

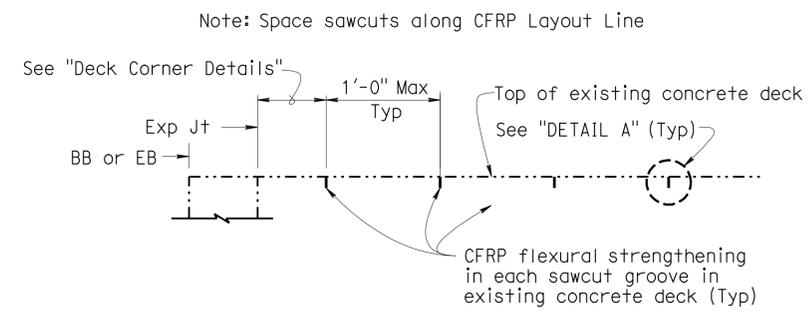
DESIGN	BY	T. Campbell	CHECKED	Tim Powell	BRIDGE NO. 51-0075L/R	NOJOQUI CREEK (RAIL REPLACEMENT)	
	DETAILS	BY	Dale Kubochi	CHECKED			Tim Powell
	QUANTITIES	BY	T. Campbell	CHECKED			Tim Powell
STATE OF CALIFORNIA			DIVISION OF MAINTENANCE		POST MILE	DETAILS NO. 2	
DEPARTMENT OF TRANSPORTATION			STRUCTURE MAINTENANCE DESIGN		55.0		
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3488	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
			PROJECT NUMBER & PHASE: 0512000046		CONTRACT NO.: 05-1A9701	REVISION DATES	
						3-7-12 3-14-12 3-16-12	
						SHEET 4 OF 11	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	37	43

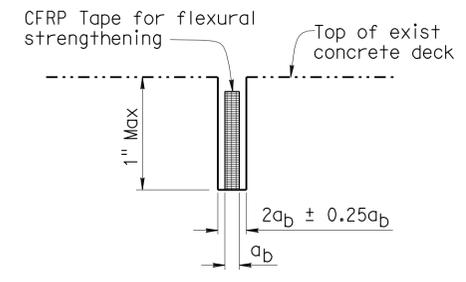
<i>Tim Campbell</i>		3-14-12
REGISTERED CIVIL ENGINEER	DATE	
4-30-12		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER	TIM CAMPBELL
No.	63268
Exp.	06-30-12
CIVIL	

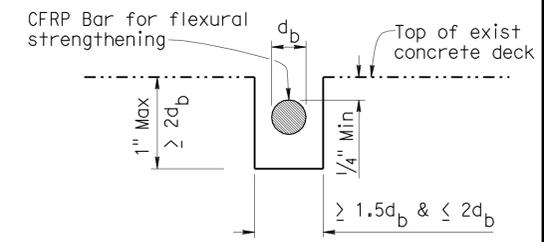
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



CFRP DETAIL
No Scale

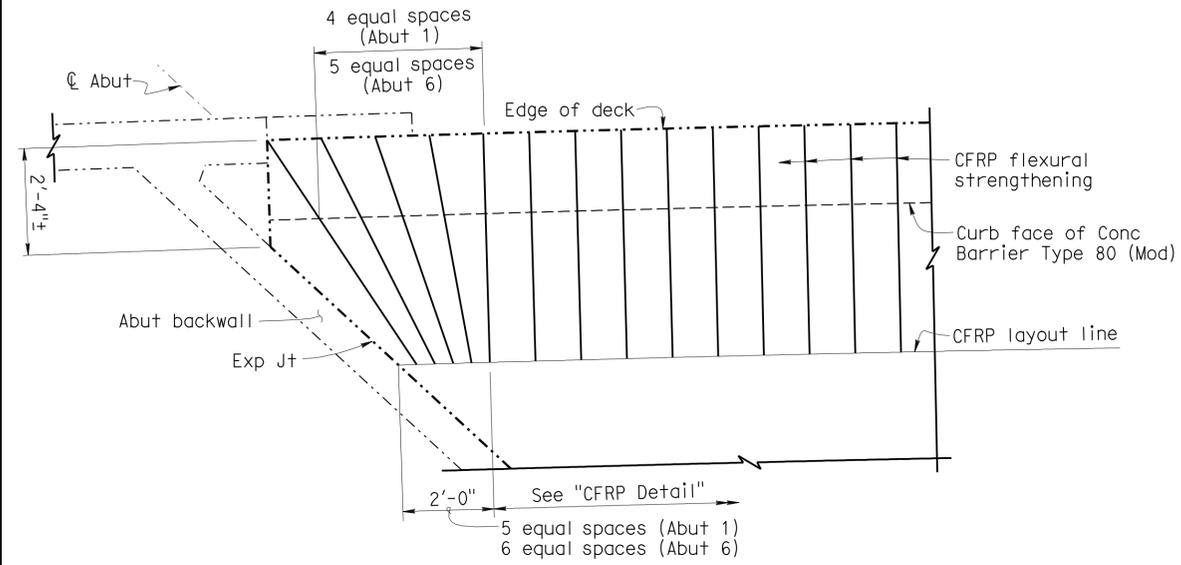


RECTANGULAR TAPE

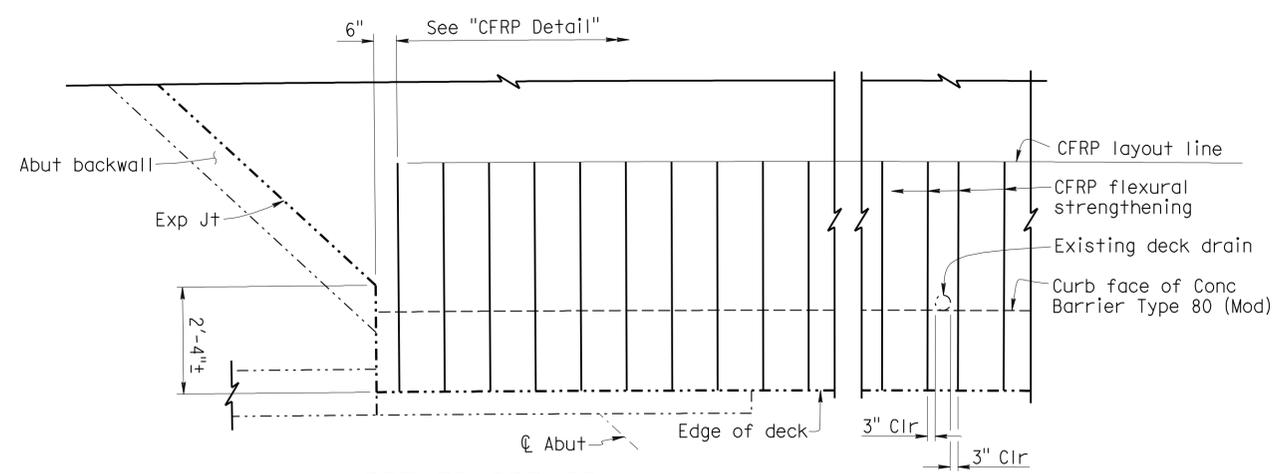


ROUND BAR

DETAIL A
No Scale



ACUTE CORNER



OBTUSE CORNER

DECK CORNER DETAILS

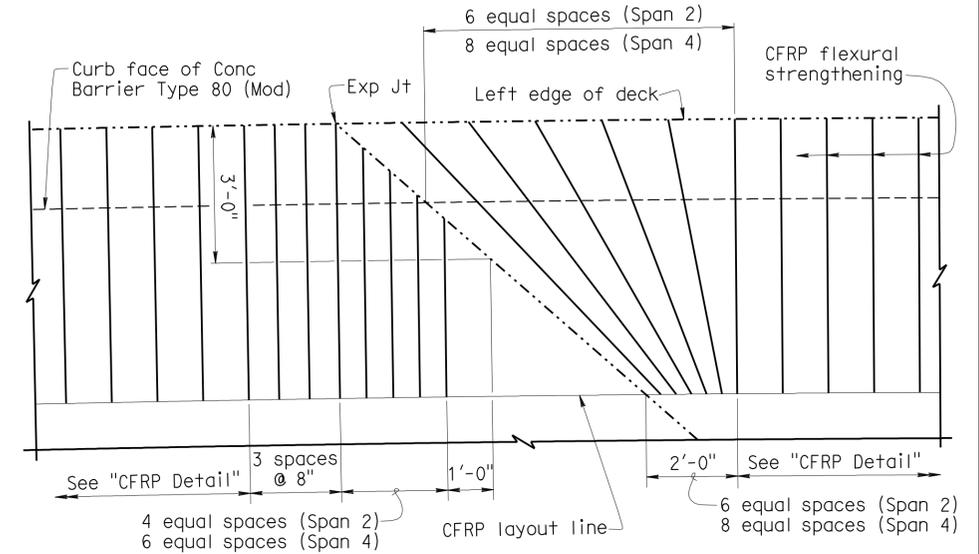
1/2" = 1'-0"
(Abutment 1 shown, Abutment 6 similar)

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

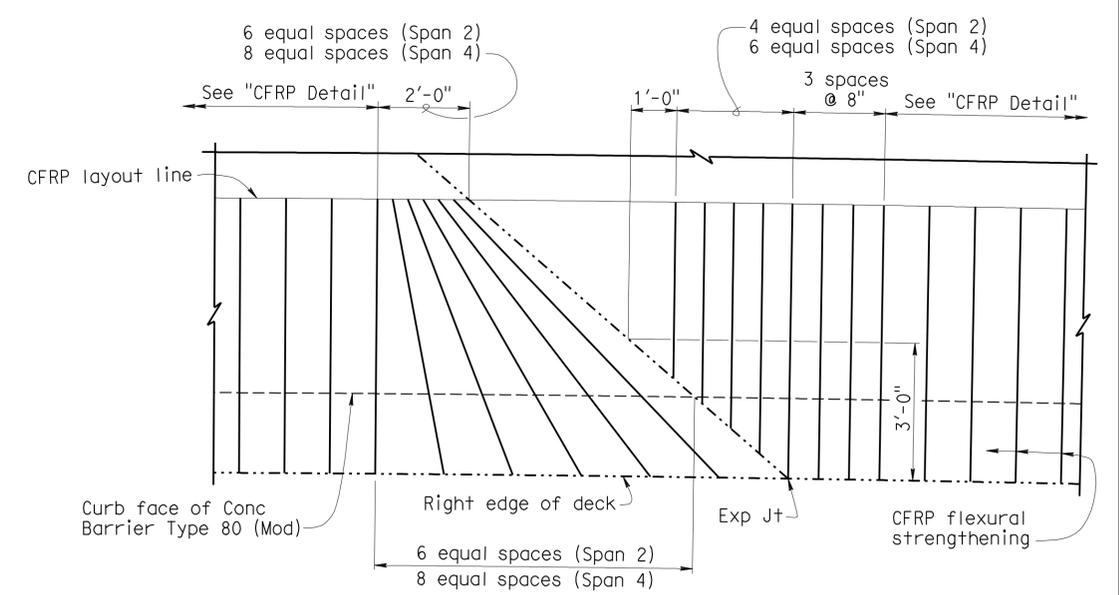
GENERAL NOTES
LOAD FACTOR DESIGN

DESIGN: BRIDGE DESIGN SPECIFICATIONS (1996 AASHTO with Interims and Revisions by CALTRANS)

LIVE LOADING: HS20-44 and alternative and permit design load.



LEFT SIDE OF BRIDGE



RIGHT SIDE OF BRIDGE

DECK HINGE DETAILS

1/2" = 1'-0"
(Left Bridge shown, Right Bridge similar)

DESIGN	BY T. Campbell	CHECKED Tim Powell
DETAILS	BY Dale Kubochi	CHECKED Tim Powell
QUANTITIES	BY T. Campbell	CHECKED Tim Powell

STATE OF CALIFORNIA	
DEPARTMENT OF TRANSPORTATION	

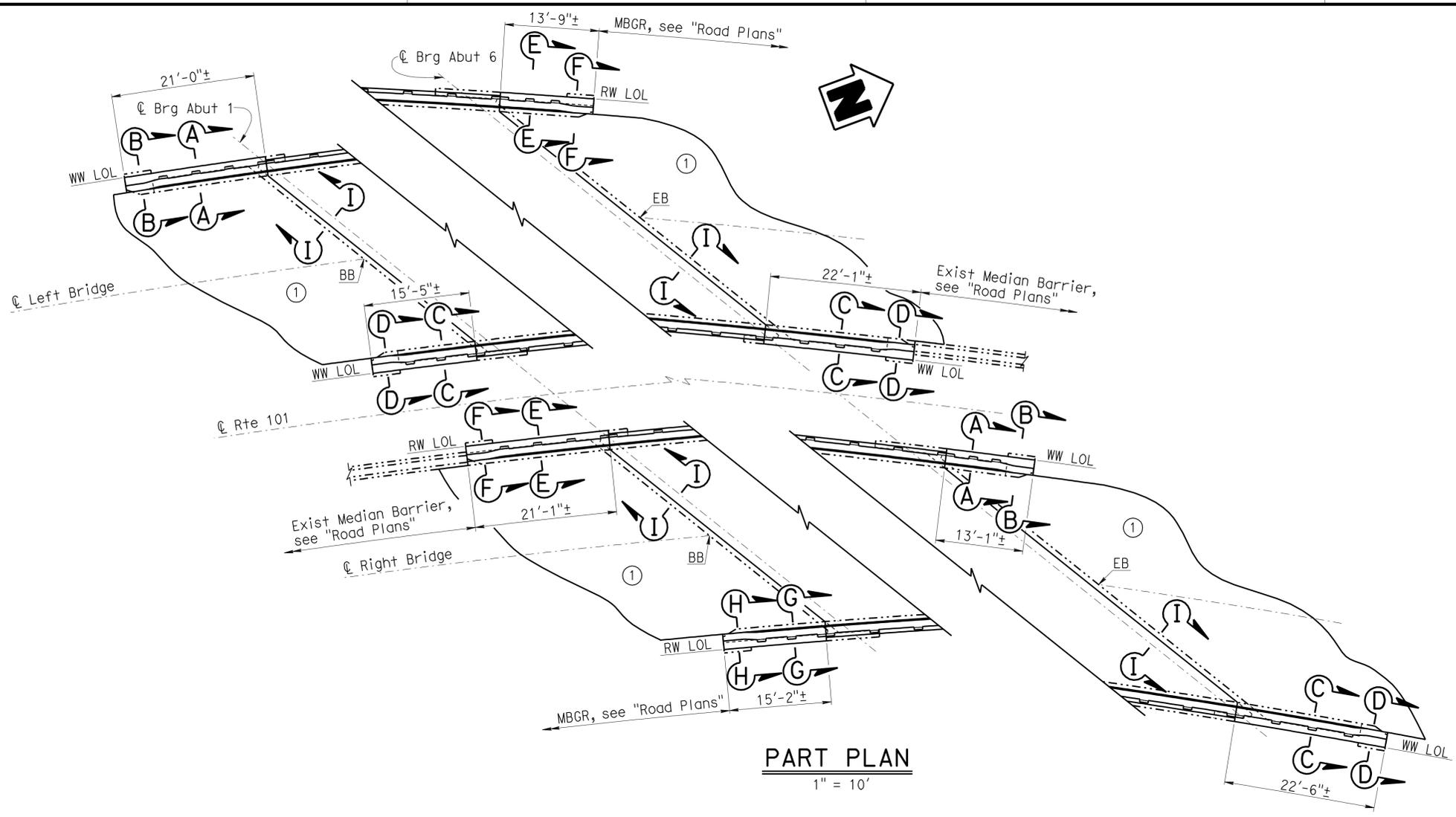
DIVISION OF MAINTENANCE	BRIDGE NO. 51-0075L/R
STRUCTURE MAINTENANCE DESIGN	POST MILE 55.0

NOJOQUI CREEK (RAIL REPLACEMENT)	
DETAILS NO. 3	

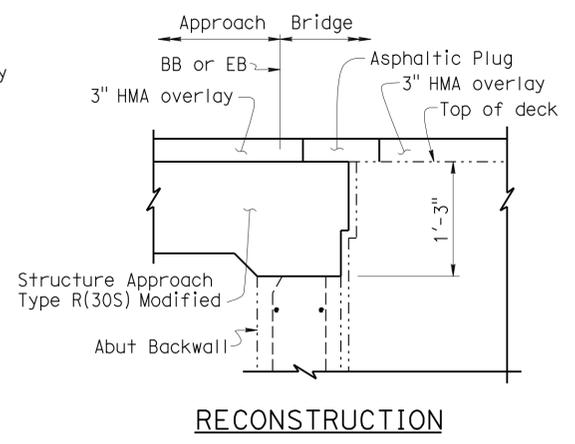
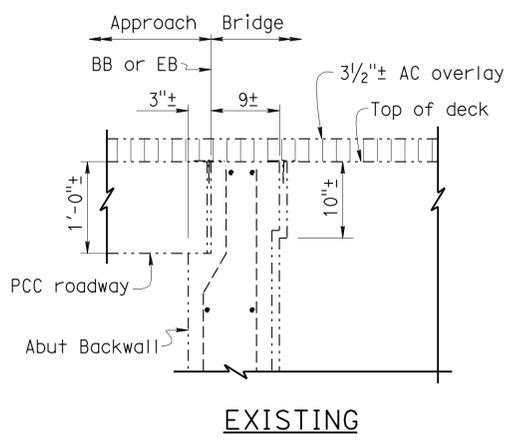
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	38	43

Tim Campbell 3-14-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE
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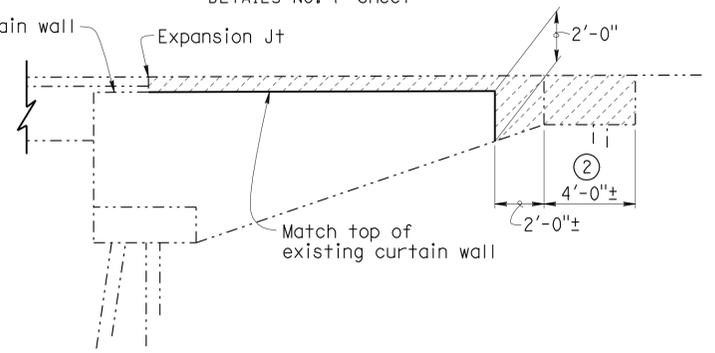
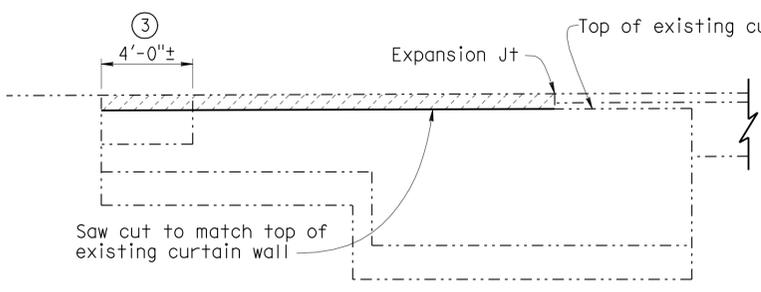
REGISTERED PROFESSIONAL ENGINEER
TIM CAMPBELL
No. 63268
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA



- NOTES: (APPLY TO THIS SHEET ONLY)
- Indicates limits of bridge removal (portion).
 - Indicates removal of existing AC overlay.
 - For "Section A-A", "Section B-B", "Section C-C" and "Section D-D", see "DETAILS NO. 5" sheet.
 - For "Section E-E", "Section F-F", "Section G-G" and "Section H-H", see "DETAILS NO. 6" sheet.
 - ① - Structure Approach Type R(30S) Modified
 - ② - Limits of "Section B-B" and "Section D-D".
 - ③ - Limits of "Section F-F" and "Section H-H".



SECTION I-I
1" = 1'-0"



ELEVATION
1" = 5'

- Notes:
- Existing barrier rail not shown
 - For additional information for Typical Wingwall, see "Wingwall Elevation" on "DETAILS NO. 7" sheet

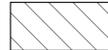
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN BY T. Campbell CHECKED Tim Powell DETAILS BY Dale Kubochi CHECKED Tim Powell QUANTITIES BY T. Campbell CHECKED Tim Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 51-0075L/R POST MILE 55.0 DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	NOJOQUI CREEK (RAIL REPLACEMENT) DETAILS NO. 4															
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3488 PROJECT NUMBER & PHASE: 0512000046 CONTRACT NO.: 05-1A9701															
		DISREGARD PRINTS BEARING EARLIER REVISION DATES	<table border="1" style="font-size: small;"> <tr> <th>REVISION DATES</th> <th>SHEET</th> <th>OF</th> </tr> <tr> <td>2-2-12</td> <td>6</td> <td>11</td> </tr> <tr> <td>2-2-12</td> <td></td> <td></td> </tr> <tr> <td>2-2-12</td> <td></td> <td></td> </tr> <tr> <td>3-16-12</td> <td></td> <td></td> </tr> </table>	REVISION DATES	SHEET	OF	2-2-12	6	11	2-2-12			2-2-12			3-16-12		
REVISION DATES	SHEET	OF																
2-2-12	6	11																
2-2-12																		
2-2-12																		
3-16-12																		

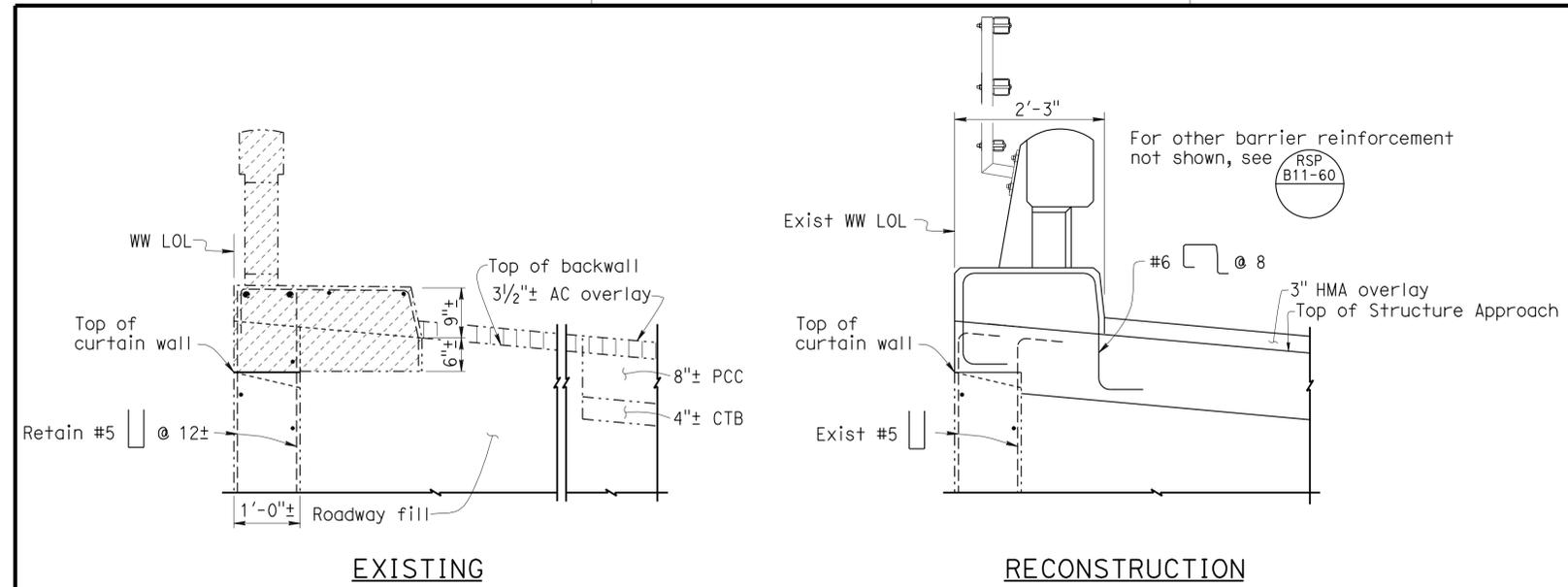
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	39	43

Tim Campbell 3-14-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE
 No. 63268
 Exp. 06-30-12
 CIVIL
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

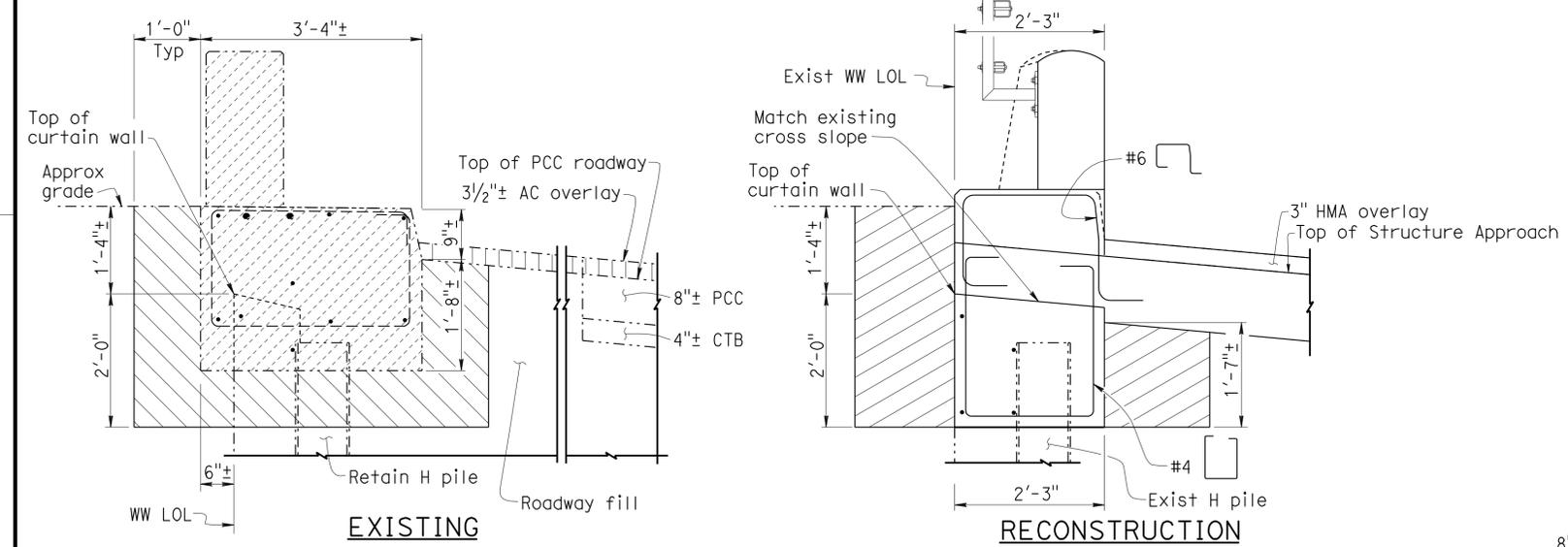
NOTES: (APPLY TO THIS SHEET ONLY)

-  Indicates limits of bridge removal (portion).
-  Indicates limits of structure excavation.
-  Indicates limits of structure backfill.
-  Indicates removal of existing AC overlay.

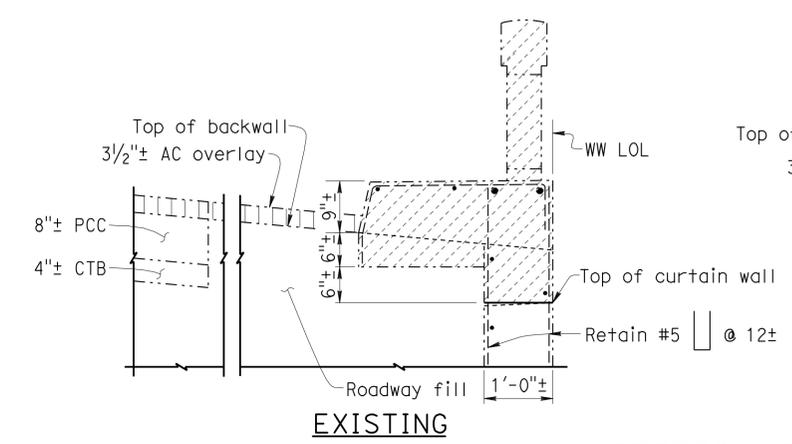
- For Structure Approach reinforcement not shown, see "STRUCTURE APPROACH TYPE R(30S) MODIFIED" sheet.



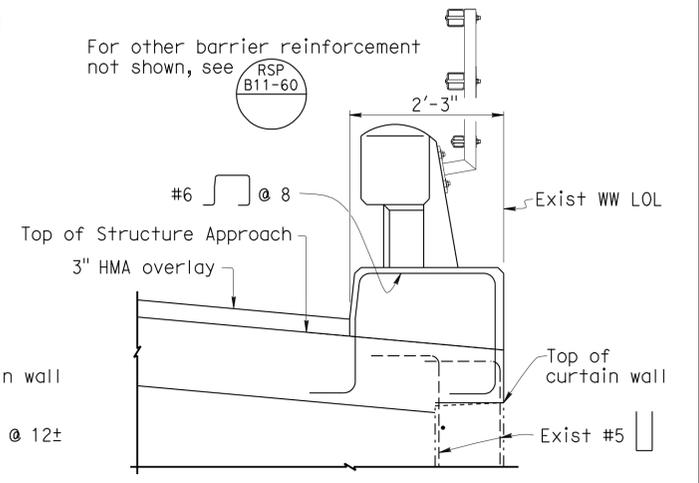
SECTION A-A
(HIGH SIDE BRIDGE)
3/4" = 1'-0"



SECTION B-B
(HIGH SIDE BRIDGE)
3/4" = 1'-0"

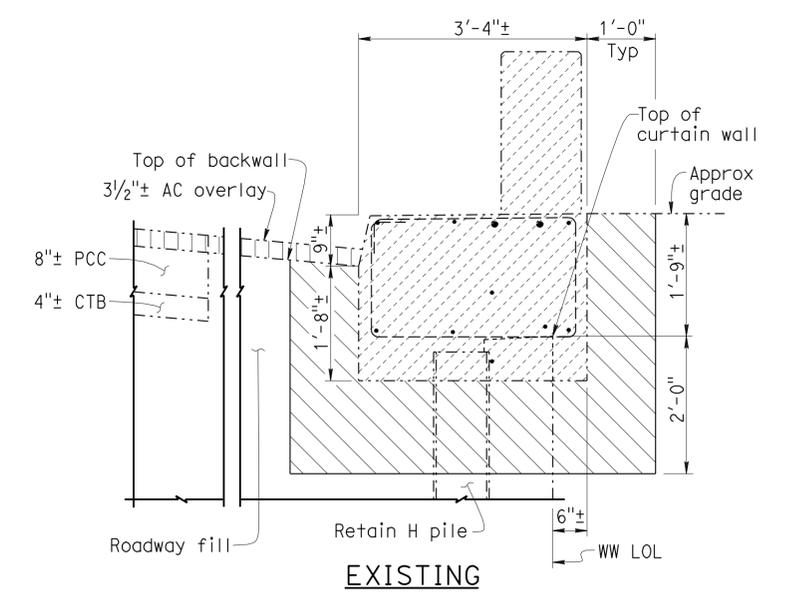


EXISTING

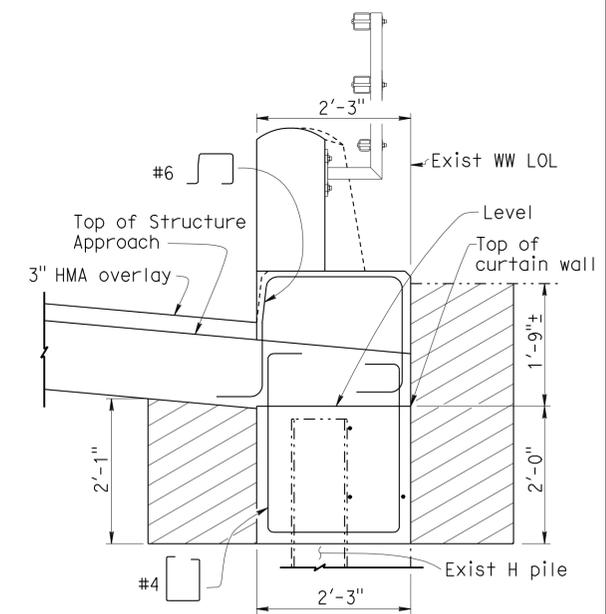


RECONSTRUCTION

SECTION C-C
(LOW SIDE BRIDGE)
3/4" = 1'-0"



EXISTING



RECONSTRUCTION

SECTION D-D
(LOW SIDE BRIDGE)
3/4" = 1'-0"

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

DESIGN	BY T. Campbell	CHECKED Tim Powell
DETAILS	BY Dale Kubochi	CHECKED Tim Powell
QUANTITIES	BY T. Campbell	CHECKED Tim Powell

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.
51-0075L/R
POST MILE
55.0

NOJOQUI CREEK (RAIL REPLACEMENT)
DETAILS NO. 5

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3488
PROJECT NUMBER & PHASE: 0512000046

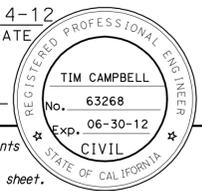
CONTRACT NO.: 05-1A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

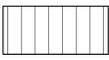
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2-2-12 2-2-12 2-2-12 3-16-12	7	11

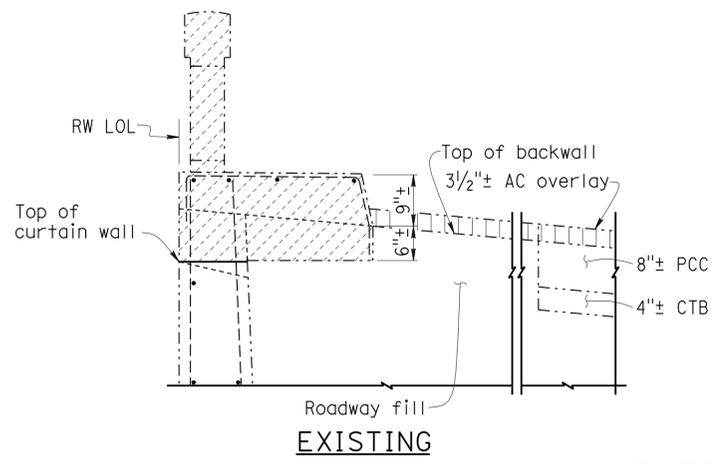
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USERNAME => 8114937 DATE PLOTTED => 01-MAY-2012 TIME PLOTTED => 15:28

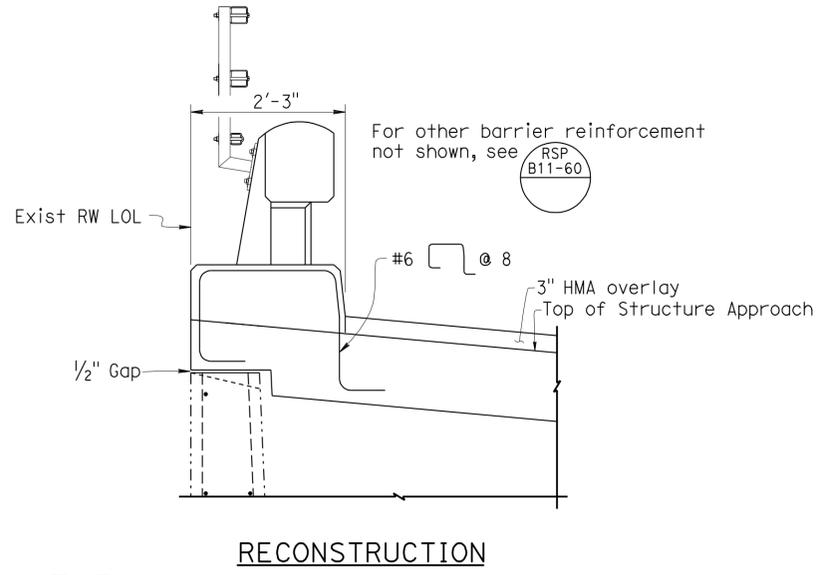
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	40	43
 REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			4-30-12		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

NOTES: (APPLY TO THIS SHEET ONLY)

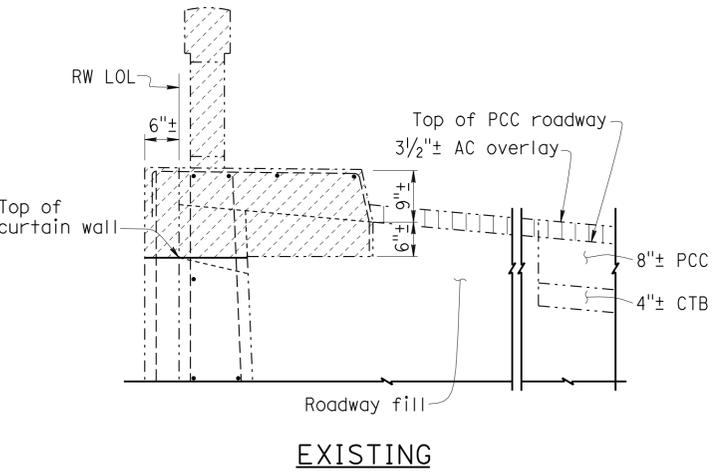
-  Indicates limits of bridge removal (portion).
-  Indicates removal of existing AC overlay.
- For Structure Approach reinforcement not shown, see "STRUCTURE APPROACH TYPE R(30S) MODIFIED" sheet.



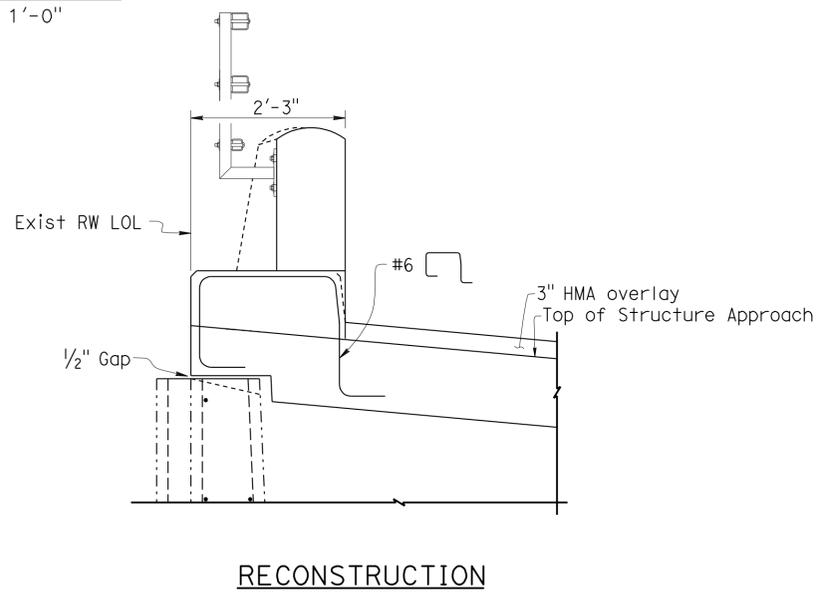
SECTION E-E
(HIGH SIDE BRIDGE)
3/4" = 1'-0"



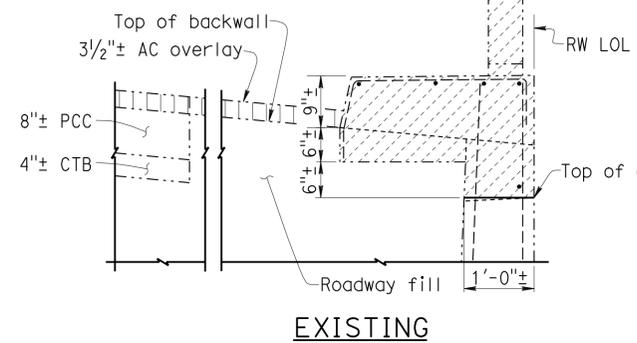
RECONSTRUCTION



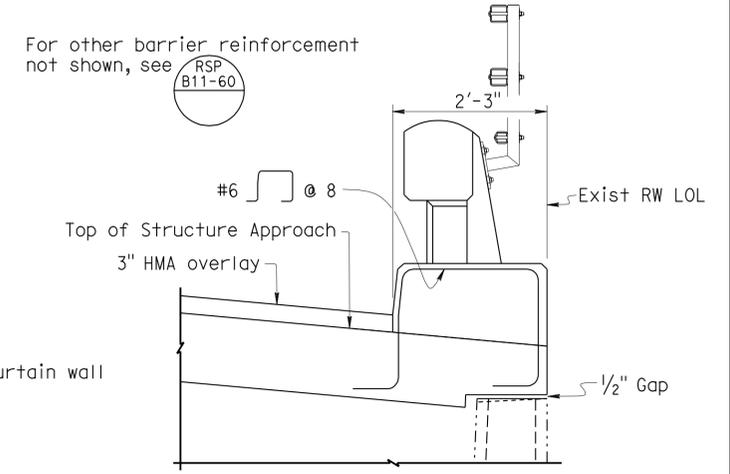
SECTION F-F
(HIGH SIDE BRIDGE)
3/4" = 1'-0"



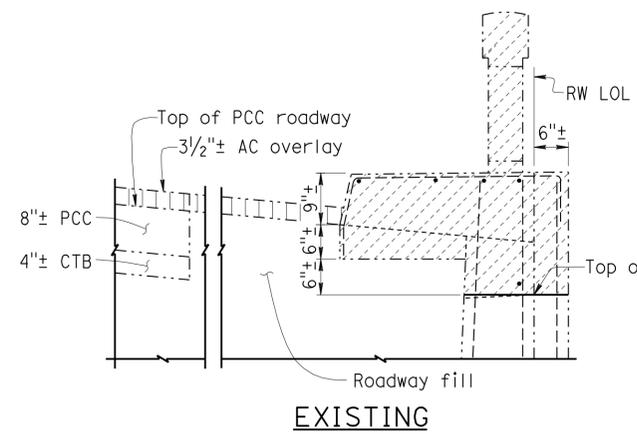
RECONSTRUCTION



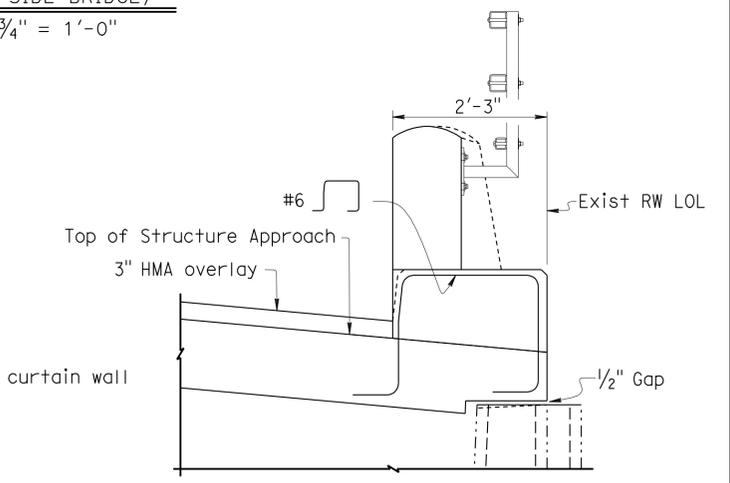
SECTION G-G
(LOW SIDE BRIDGE)
3/4" = 1'-0"



RECONSTRUCTION



SECTION H-H
(LOW SIDE BRIDGE)
3/4" = 1'-0"



RECONSTRUCTION

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

DESIGN	BY T. Campbell	CHECKED Tim Powell
DETAILS	BY Dale Kubochi	CHECKED Tim Powell
QUANTITIES	BY T. Campbell	CHECKED Tim Powell

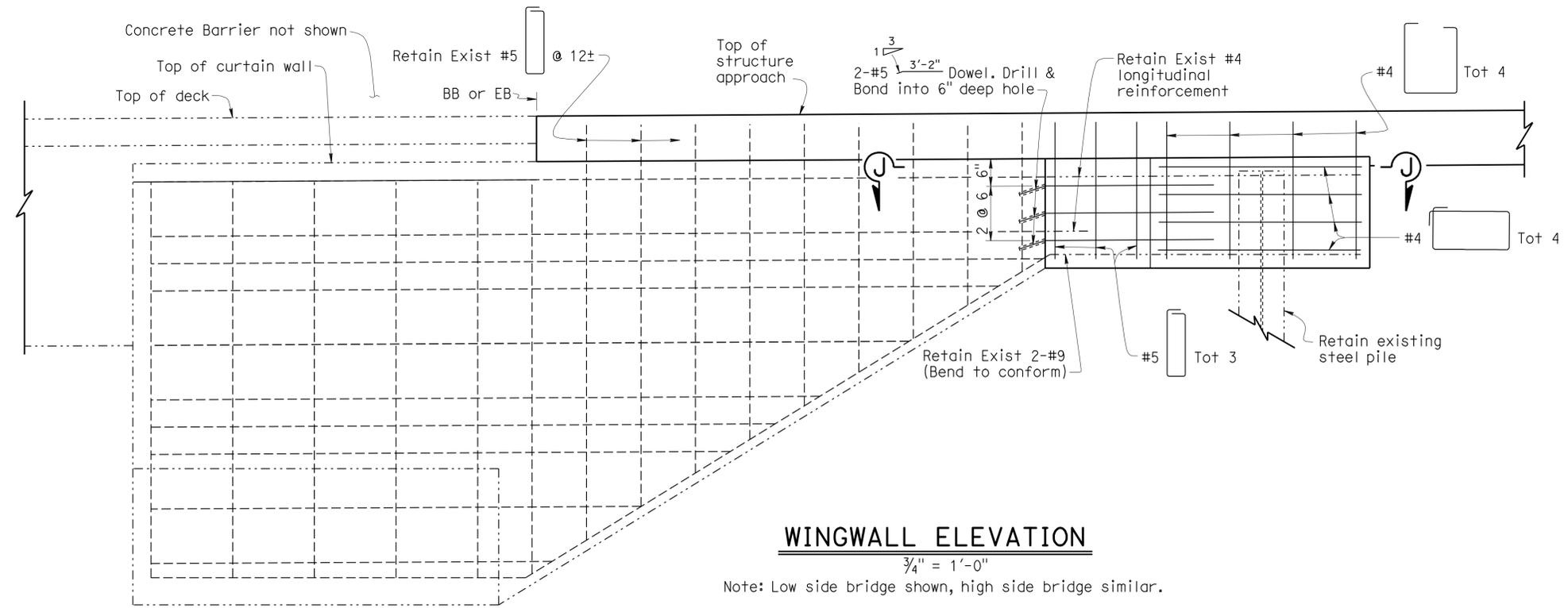
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.
51-0075L/R
POST MILE
55.0

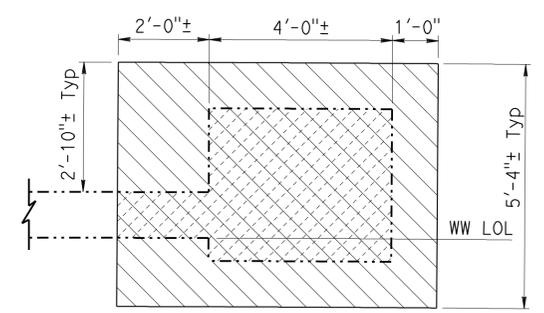
NOJOQUI CREEK (RAIL REPLACEMENT)
DETAILS NO. 6

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	41	43
			3-14-12 REGISTERED CIVIL ENGINEER DATE		
4-30-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

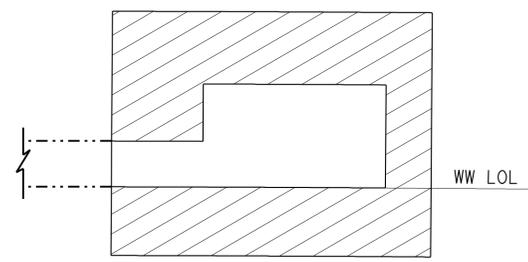


WINGWALL ELEVATION
 $\frac{3}{4}'' = 1'-0''$

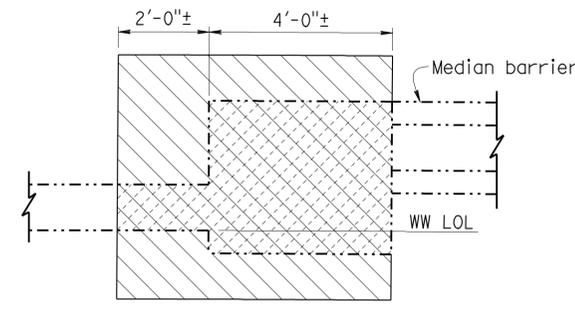
Note: Low side bridge shown, high side bridge similar.



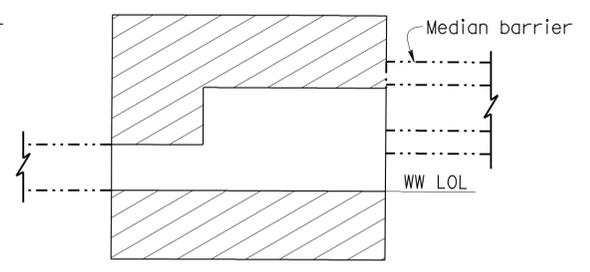
PLAN EXISTING



PLAN RECONSTRUCTION



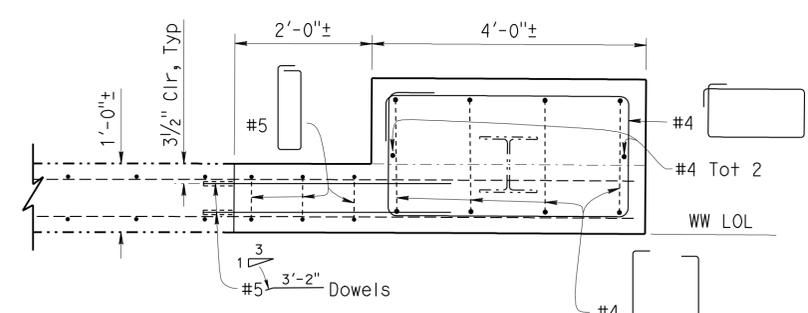
PLAN EXISTING



PLAN RECONSTRUCTION

EXCAVATION & BACKFILL WINGWALL
 $\frac{1}{2}'' = 1'-0''$

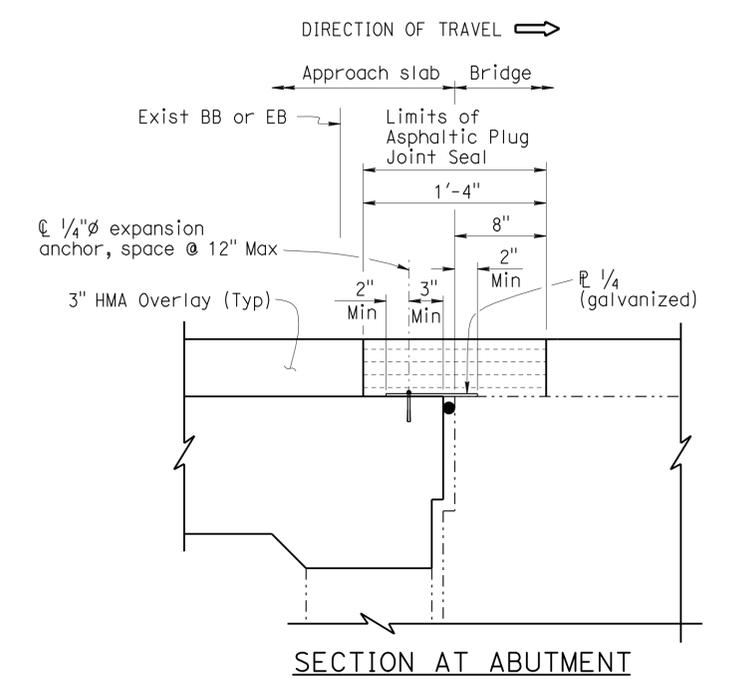
NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



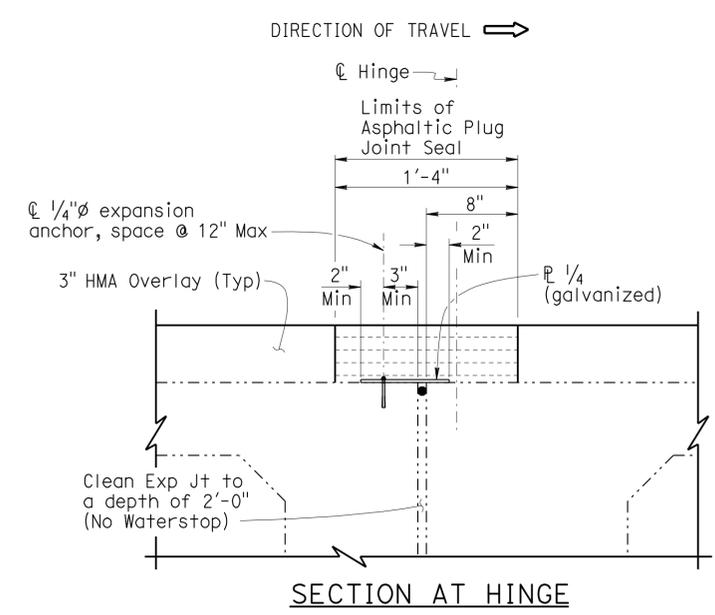
SECTION J-J
 $\frac{3}{4}'' = 1'-0''$

NOTES: (APPLY TO THIS SHEET ONLY)

- Indicates limits of bridge removal (portion).
- Indicates limits of structure excavation.
- Indicates limits of structure backfill.
- Indicates limits of place Asphaltic Plug Joint Seal.



SECTION AT ABUTMENT

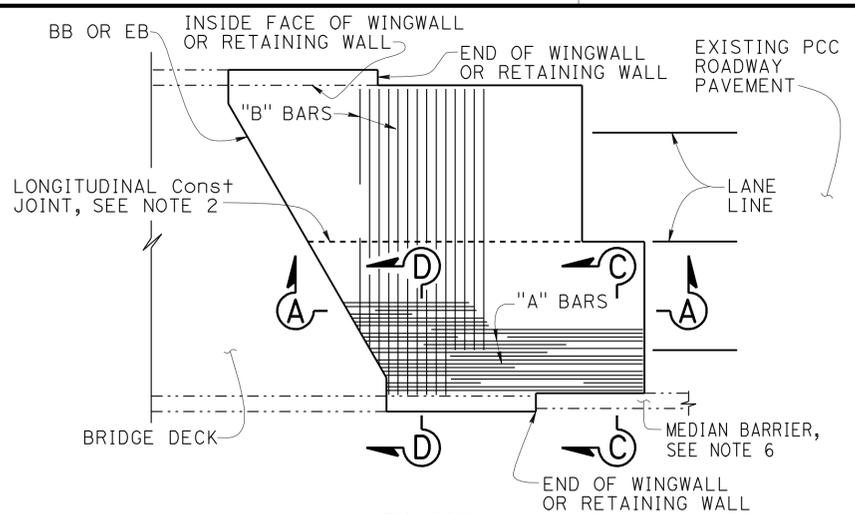


ASPHALTIC PLUG DETAIL
 $\frac{1}{2}'' = 1'-0''$

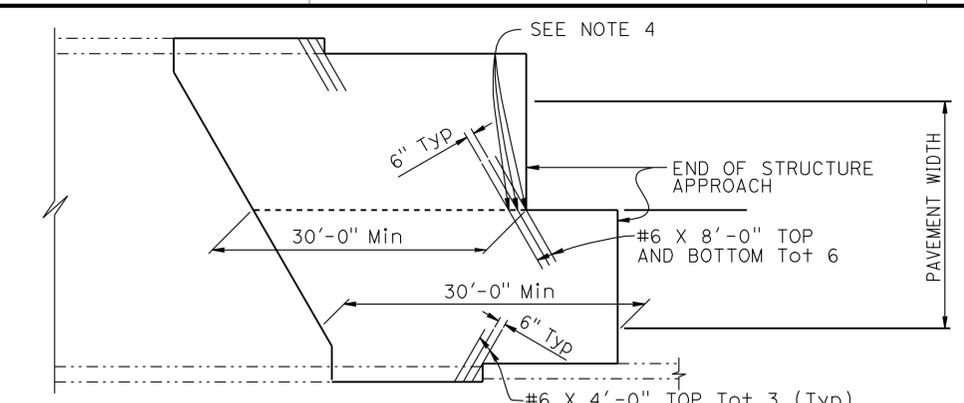
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY T. Campbell	CHECKED Tim Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 51-0075L/R POST MILE 55.0	NOJOQUI CREEK (RAIL REPLACEMENT) DETAILS NO. 7
	DETAILS	BY Dale Kubochi	CHECKED Tim Powell			
	QUANTITIES	BY T. Campbell	CHECKED Tim Powell			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3488 PROJECT NUMBER & PHASE: 0512000046	CONTRACT NO.: 05-1A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	REVISION DATES 2-12 3-16-12 3-14-12	SHEET 9 OF 11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	42	43

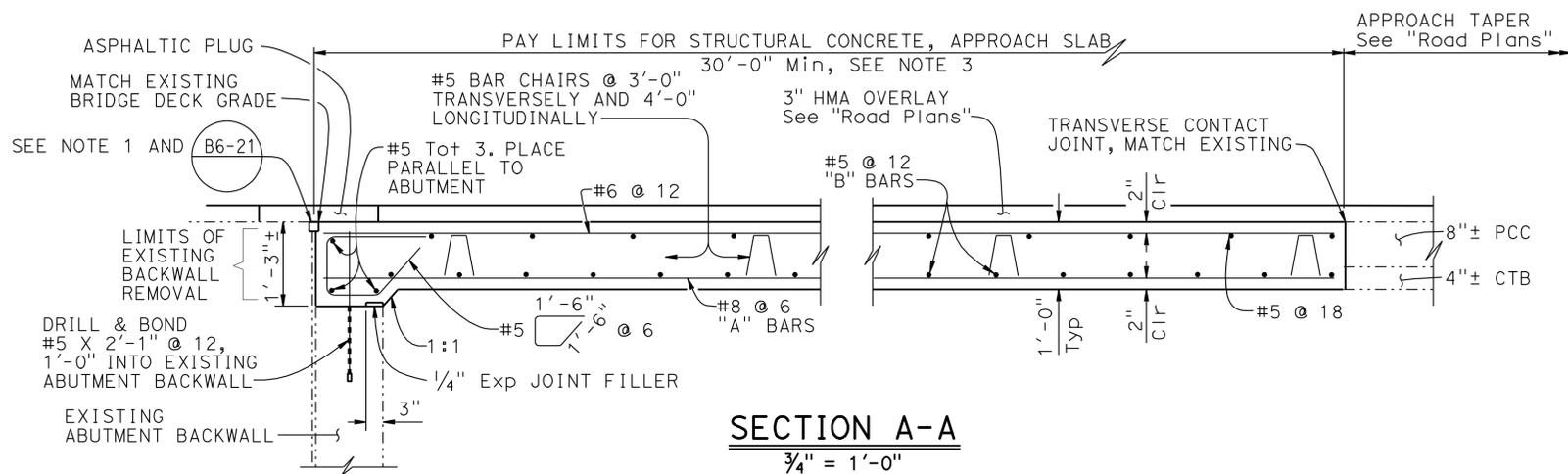
Tim Campbell 3-14-12
 REGISTERED CIVIL ENGINEER DATE
 4-30-12
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



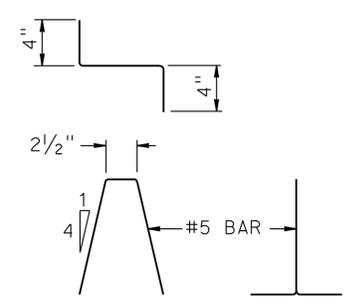
PLAN
1" = 10'



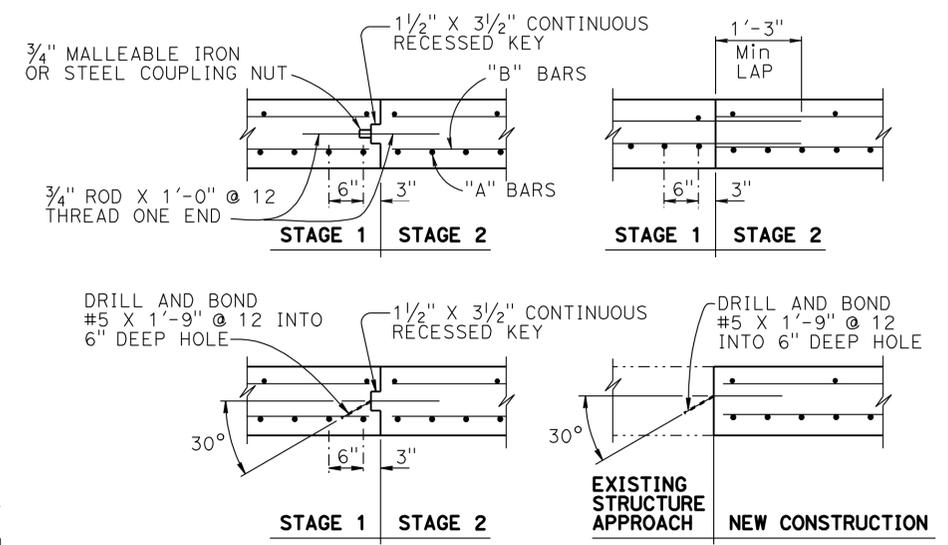
STRUCTURE APPROACH - END STAGGER DETAIL
NO SCALE



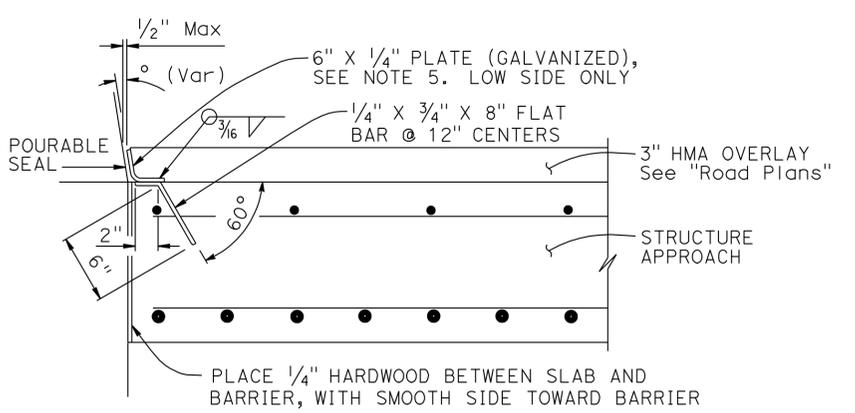
SECTION A-A
3/4" = 1'-0"



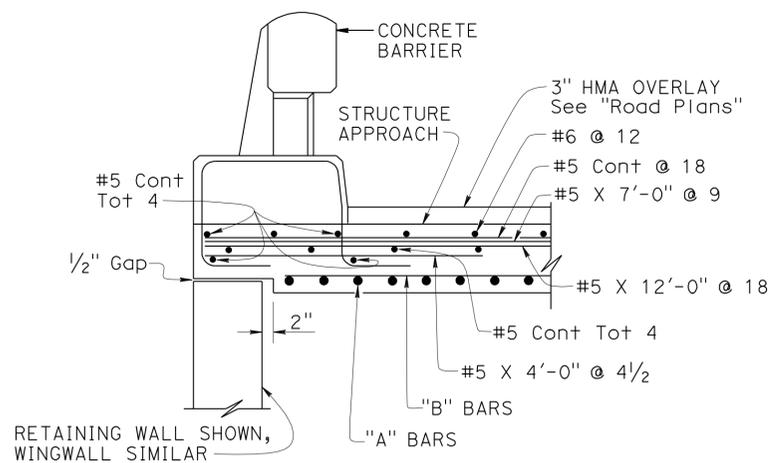
BAR CHAIR DETAIL
1/2" = 1'-0"



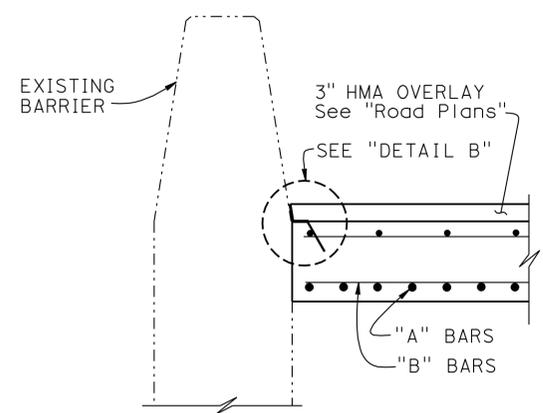
LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
3/4" = 1'-0"



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



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



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

- NOTES:
- Sealed joint, for MR see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required
 - Longitudinal construction joints, when permitted by Engineer, shall be located on lane lines
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint
 - Couplers are required for stage construction
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable
 - Existing median barrier at Abutment 1 (Right Bridge high side) and Abutment 6 (Left Bridge low side).

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

DESIGN	BY T. Campbell	CHECKED Tim Powell	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	NOJOQUI CREEK (RAIL REPLACEMENT) STRUCTURE APPROACH TYPE R(30S) MODIFIED
DETAILS	BY Dale Kubochi	CHECKED Tim Powell			51-0075L/R	
QUANTITIES	BY T. Campbell	CHECKED Tim Powell			POST MILE 55.0	

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 UNIT: 3488 PROJECT NUMBER & PHASE: 0512000046 CONTRACT NO.: 05-1A9701
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 2-7-12, 2-27-12, 3-16-12
 SHEET 10 OF 11

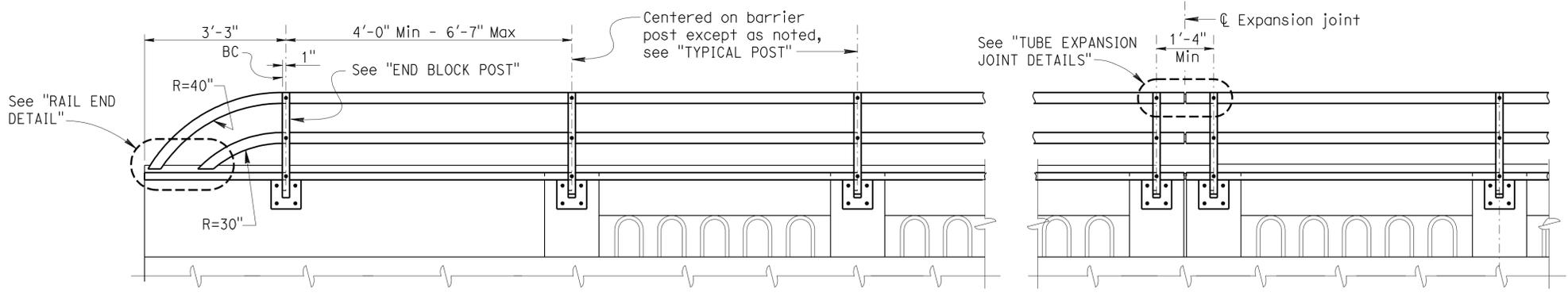
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	55.0	43	43

Tim Campbell 3-14-12
 REGISTERED CIVIL ENGINEER DATE

4-30-12
 PLANS APPROVAL DATE

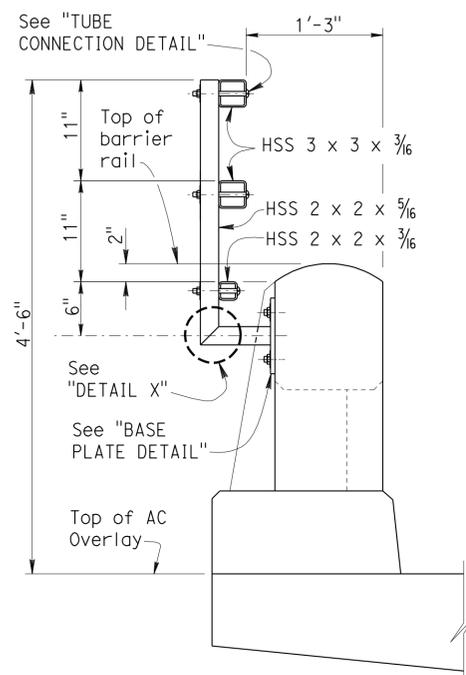
REGISTERED PROFESSIONAL ENGINEER
 No. 63268
 Exp. 06-30-12
 CIVIL
 STATE OF CALIFORNIA

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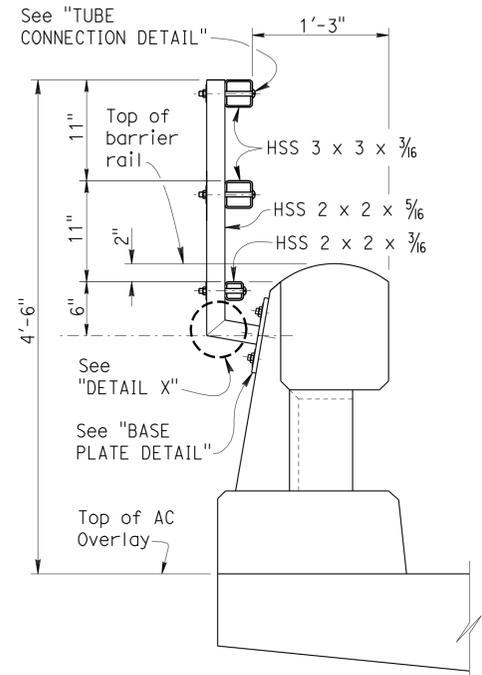
RAILING ELEVATION

NO SCALE



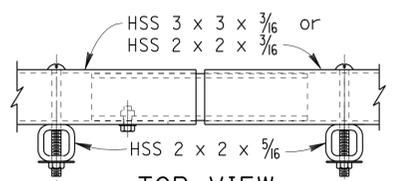
END BLOCK POST

NO SCALE

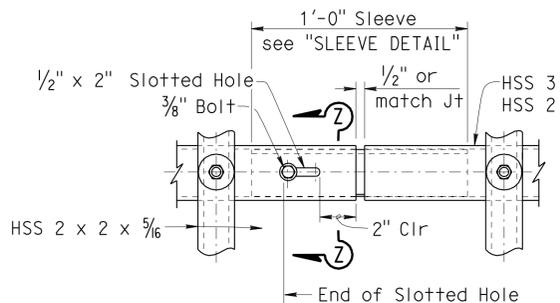


TYPICAL POST

NO SCALE



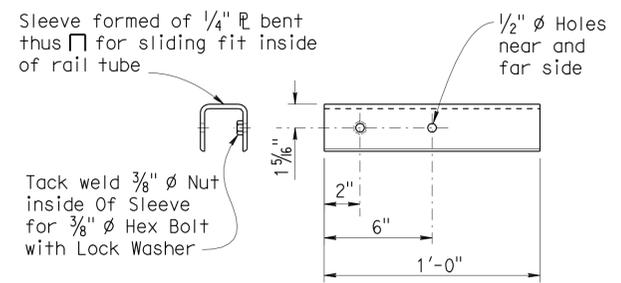
TOP VIEW



ELEVATION

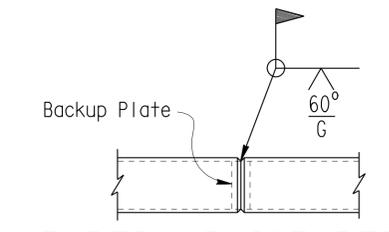
TUBE EXPANSION JOINT DETAILS

NO SCALE



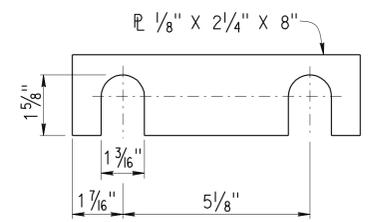
SLEEVE DETAIL

NO SCALE



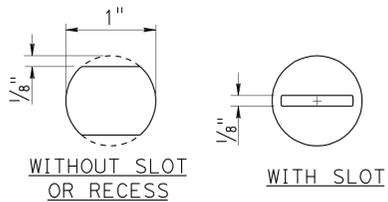
WELDED SPLICE DETAIL

NO SCALE

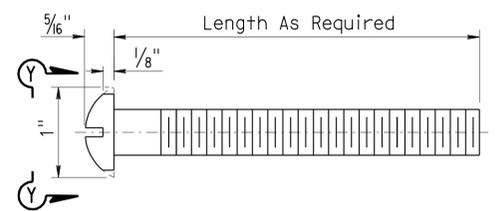


SHIM DETAILS

NO SCALE

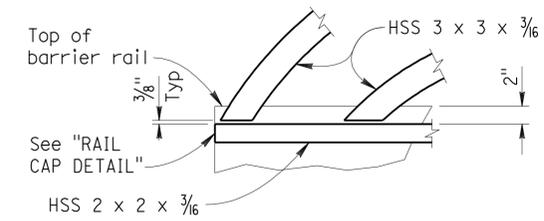


VIEW Y-Y



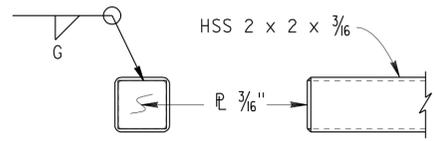
ROUND HEAD BOLT DETAIL

NO SCALE



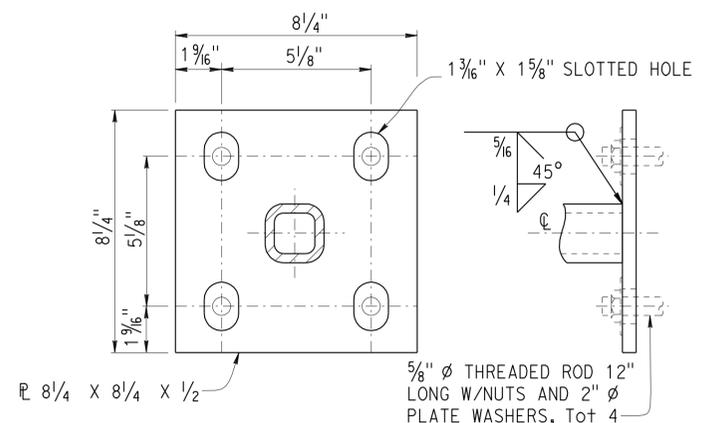
RAIL END DETAIL

NO SCALE



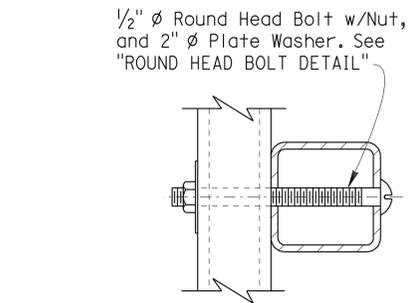
RAIL CAP DETAIL

NO SCALE



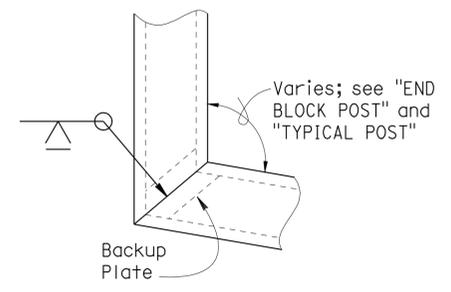
BASE PLATE DETAIL

NO SCALE



TUBE CONNECTION DETAIL

NO SCALE



DETAIL X

NO SCALE

DESIGN	BY T. Campbell	CHECKED Tim Powell
DETAILS	BY Dale Kubochi	CHECKED Tim Powell
QUANTITIES	BY T. Campbell	CHECKED Tim Powell

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. 51-0075L/R
 POST MILE 55.0

NOJOQUI CREEK (RAIL REPLACEMENT)
TUBULAR BICYCLE RAILING DETAILS

USERNAME => 8123631 DATE PLOTTED => 01-MAY-2012 TIME PLOTTED => 15:24