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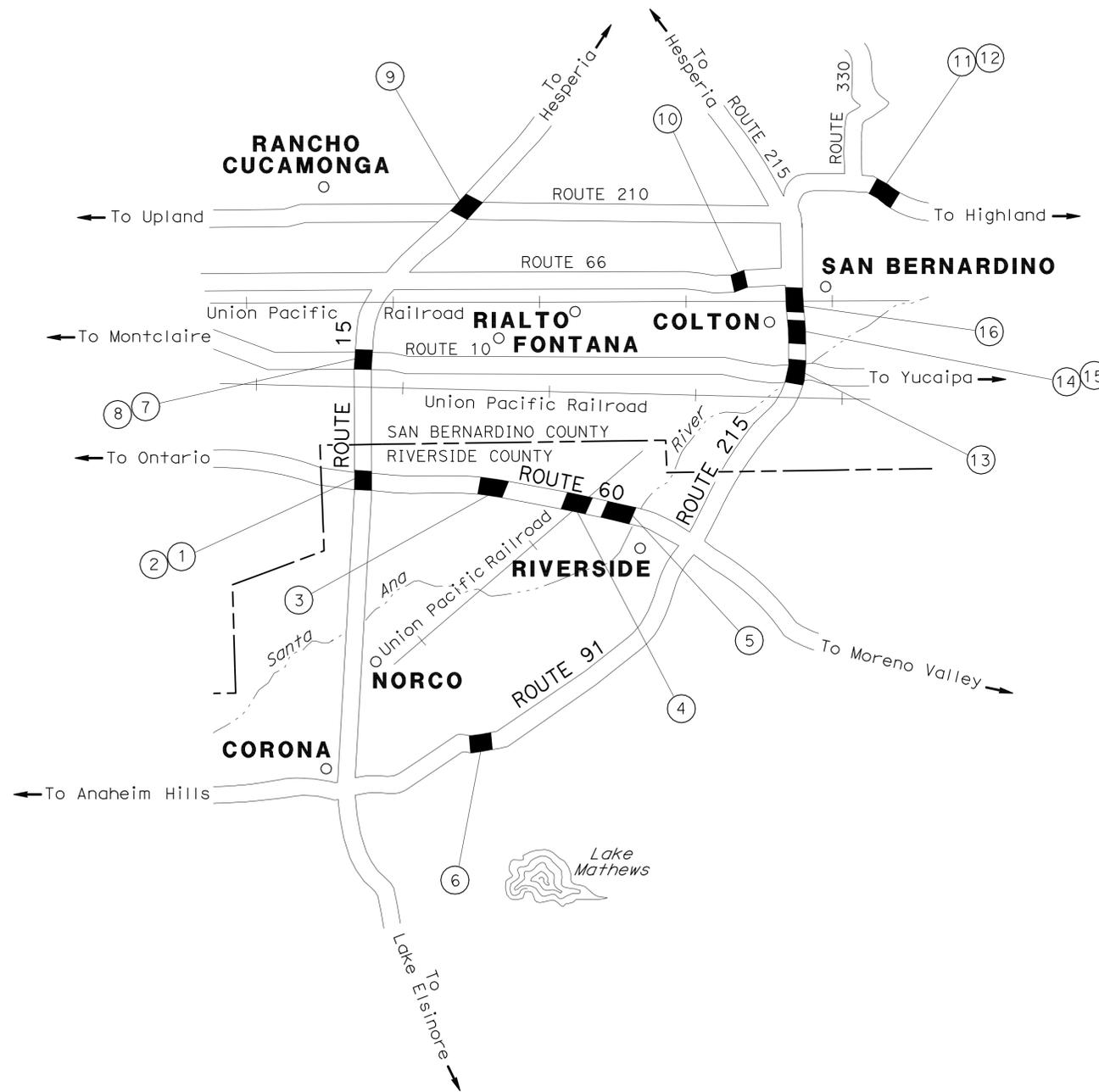
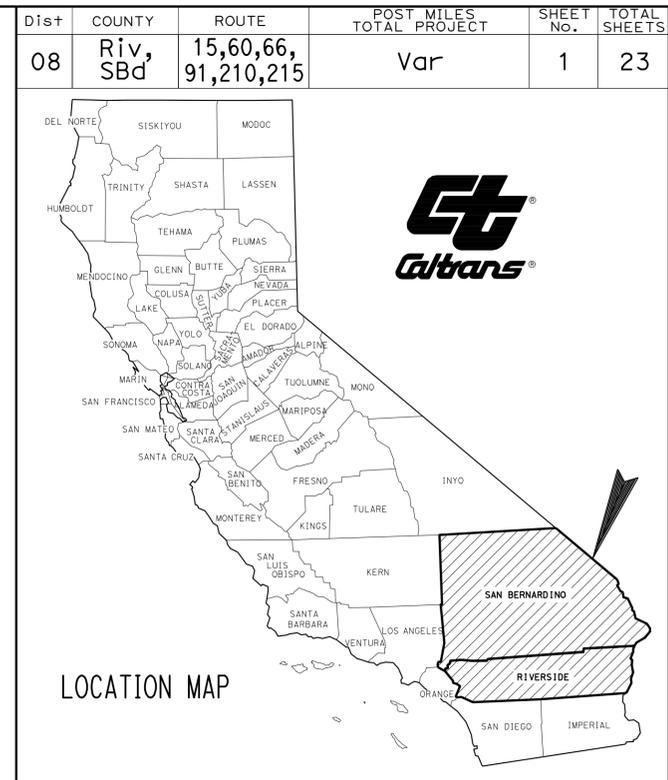
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY

IN RIVERSIDE AND SAN BERNARDINO COUNTIES  
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2010



LOCATIONS OF CONSTRUCTION

Loc No. ④	COUNTY	ROUTE	PM	BRIDGE NAME	BRIDGE No.
1	Riv	60	R0.15	E60-N & S15 CONNECTOR OC	56 0685G
2	Riv	60	R0.54	W60-S15 CONNECTOR OC	56 0690F
3	Riv	60	R6.31	CAMINO REAL UC	56 0661
4	Riv	60	7.93	SUNNYSLOPE OVERHEAD	56 0423
5	Riv	60	9.54	RUBIDOUX Blvd OC	56 0414
6	Riv	91	10.81	PIERCE STREET UC	56 0369
7	SBd	15	2.37	N15-W10 CONNECTOR OC	54 0908G
8	SBd	15	2.41	S15-E10 CONNECTOR OC	54 0910F
9	SBd	15	8.30	S15-E210 CONNECTOR SEPARATION	54 0967F
10	SBd	66	21.51	EAST BRANCH LYTLE CREEK	54 1043
11	SBd	210	R24.76	EAST TWIN CREEK CHANNEL	54 0769L
12	SBd	210	R24.76	EAST TWIN CREEK CHANNEL	54 0769R
13	SBd	215	4.03	INTERSTATE 215/10 SEPARATION	54 0479L
14	SBd	215	4.21	SANTA ANA RIVER	54 0471L
15	SBd	215	4.21	SANTA ANA RIVER	54 0471R
16	SBd	215	6.59	REDLANDS LOOP OVERHEAD	54 0489

PROJECT MANAGER  
CATALINO PINING

DESIGN ENGINEER  
PHILLIP T. PHAN

PHILLIP T. PHAN  
REGISTERED CIVIL ENGINEER  
No. 76425  
Exp. 12-31-14  
CIVIL

2-19-13  
DATE

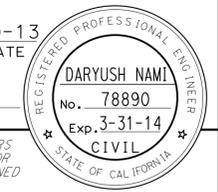
March 18, 2013  
PLANS APPROVAL DATE

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

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

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	2	23
<i>Daryush Nami</i> 2-19-13 REGISTERED CIVIL ENGINEER DATE					
3-18-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

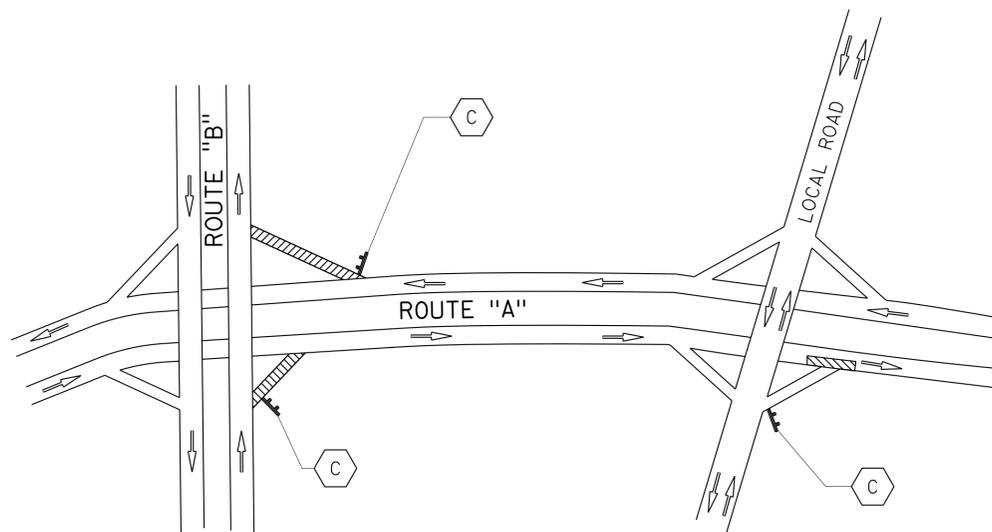


**NOTES:**

1. LOCATIONS OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. FOR TRAFFIC CONTROL REQUIREMENT REFER TO STANDARD PLANS T10, T11, T12. AT ALL CONNECTORS, AND RAMPS-(WORK LOCATIONS #1, #2, #7, #8, #9, & #16), LISTED ON TITLE SHEET REFER TO STANDARD PLAN T14.
3. REFER TO STANDARD PLAN T10A FOR LANE CLOSURES AT ENTRANCE AND EXIT RAMPS, AND SHOULDER CLOSURE ONLY.
4. ADDITIONAL CONSTRUCTION AREA SIGNS TO BE SHOWN ON OTHER PLANS.(SEE MI PLAN SHEETS)

**LEGEND:**

- CONSTRUCTION AREA SIGN (TWO POST)
- CONSTRUCTION AREA SIGN
- CONSTRUCTION AREA



**TYPICAL STATIONARY CONSTRUCTION AREA SIGN PLACEMENT**

**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE
	CALIFORNIA			
C	SC6-4(CA)	60" X 48"	RAMP CLOSED DATE AND TIME	2 - 4" X 6"

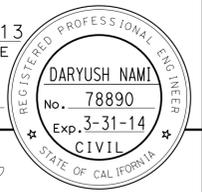
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: BILL WASSER  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 DARYUSH NAMI: TRAN HOANG  
 REVISED BY: [blank] DATE REVISED: [blank]

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

**CONSTRUCTION AREA SIGNS**  
NO SCALE  
**CS-1**

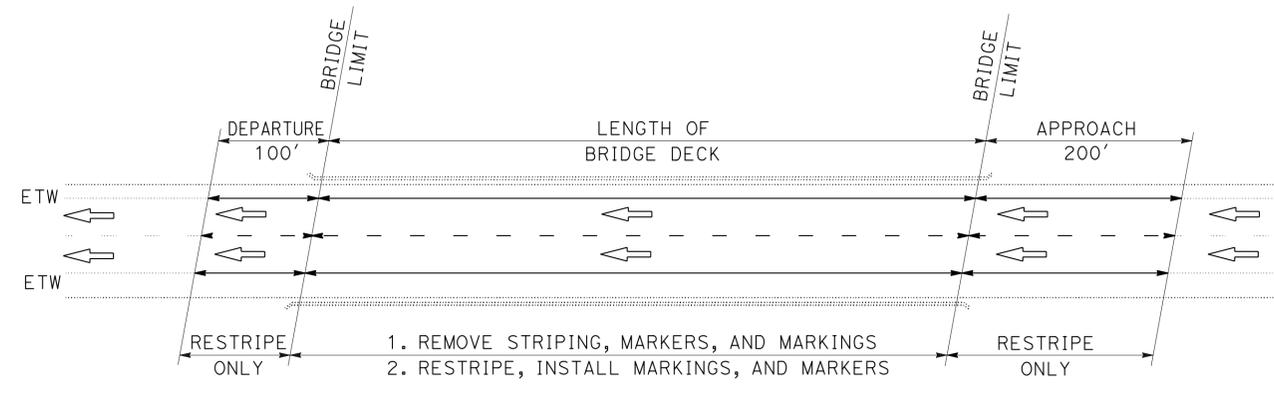


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, SBd	15,60,66, 91,210,215	Var	3	23
<i>Daryush Nami</i> 2-19-13 REGISTERED CIVIL ENGINEER DATE					
3-18-13 PLANS APPROVAL DATE					
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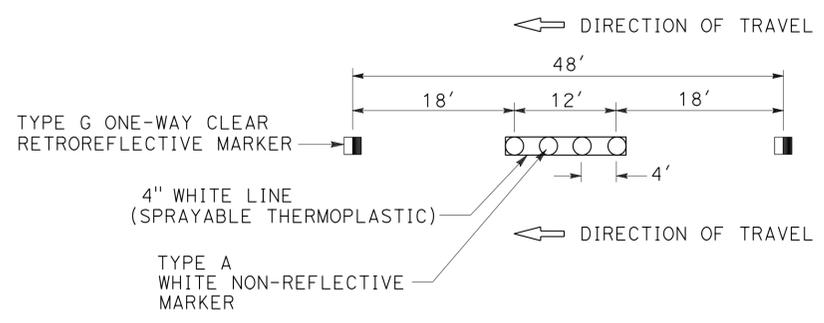


**LEGEND:**

- ▲ STRIPING TERMINATION
- ⇐ DIRECTION OF TRAVEL



**TYPICAL PAVEMENT DELINEATION WORK**



**DETAIL 13 MODIFIED (13M)**

INSTALL TYPE A NON-REFLECTIVE MARKER WITH STRIPING DETAIL 13M  
 INSTALL TYPE A MARKER BEFORE STRIPING TO GET THE PROPER BONDING

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: BILL WASSER  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 DARYUSH NAMI  
 TRAN HOANG  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

**PAVEMENT DELINEATION DETAILS**  
 NO SCALE  
**PDD-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, SBd	15,60,66, 91,210,215	Var	4	23

*Daryush Nami* 2-19-13  
REGISTERED CIVIL ENGINEER DATE

3-18-13  
PLANS APPROVAL DATE

**DARYUSH NAMI**  
No. 78890  
Exp. 3-31-14  
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.

**PAVEMENT DELINEATION QUANTITIES**

LOCATION No.	ROUTE	PM	LOCATION BRIDGE NAME	DIRECTION	DETAIL No. OR PAVEMENT MARKING	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) LF	REMOVE THERMOPLASTIC TRAFFIC STRIPE LF	REMOVE THERMOPLASTIC PAVEMENT MARKING SQFT	REMOVE PAVEMENT MARKER EA	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				PAVEMENT MARKER				THERMOPLASTIC PAVEMENT MARKING SQFT								
										4" YELLOW		4" WHITE		8" WHITE		NON-REFLECTIVE	RETROREFLECTIVE									
										LF	LF	LF	EA	EA	EA	EA	EA		EA							
1	Riv 60	R0.15	E60 - N/S15 CONNECTOR OC 56-0685G	EB	27B		391																			
					13M		98			45																
					25A	391				17		691			60			15				29				
2	Riv 60	R0.54	W60-S15 CONNECTOR 56-0690F	WB	13M		400		170						160											
					27B		1,598					1,898						40								
					25A	1,598				67		1,898										80				
					TYPE VI				198														84			
3	Riv 60	R6.31	CAMINO REAL UC 56-0661	WB	27B		306																			
					25	153			4		453											10				
					13M		120		50		1,359			116												
					22	306			14		453					38										
				EB	27B		306																			
					25	153			4		453													10		
					13M		84		7		906			76												
					22	306			14		453					38										
			37B			54		12																		
			DIAMOND					39													11					
5	Riv 60	9.54	RUBIDOUX Blvd OC 56-0414  (Length of Intersection only - Stripe Rubidoux Blvd between exit ramps termini)	WB	12		120		10																	
					22	556			24		498															
				EB	38		315		10																	
					TYPE IV (L) 4" WHITE LIMIT LINE																					
9	SBd 15	8.3	S15-E210 CONNECTOR SEPARATION 54-0967F	SB	27B		2,564																			
					13M		648																			
					25A	2,564			270		2,864			240												
			TYPE VI					297														126				
10	SBd 66	21.51	EAST BRANCH LYTLE CREEK 54-1043	WB	12		120		10																	
				EB	32	528			24		1,008						54									
11	SBd 210	R24.76	EAST TWIN CREEK CHANNEL 54-0769L	WB	27B		80																			
					13M		24																			
					25	80			2		380															
12	SBd 210	R24.76	EAST TWIN CREEK CHANNEL 54-0769R	EB	27B		80																			
					13M		24																			
					25	80			2		380															
13	SBd 215	4.03	I-215/1-10 SEPARATION 54-0479L	SB	27B		261																			
					13M		144																			
					25	261			60		561			96												
16	SBd 215	6.59	REDLANDS LOOP OVERHEAD 54-0489	NB	27B		114																			
					13M		36																			
				SB	25	114			3		414															
					27B		114																			
					13M		36																			
			37B			36		3																		
SUBTOTAL										10,920	21,801	1,172		130	333	277										
TOTAL						7,204	8,178	904	902		33893			884	740						693					

**PAVEMENT DELINEATION QUANTITIES  
PDQ-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66,91,210,215	Var	5	23

*Daryush Nami* 2-19-13  
REGISTERED CIVIL ENGINEER DATE

3-18-13  
PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: BILL WASSER  
 CALCULATED/DESIGNED BY: DARYUSH NAMI  
 CHECKED BY: TRAN HOANG  
 REVISED BY: DATE  
 REVISIONS: x, x, x, x

G11-5<CA> Riv 60, FEBT

1.5" Rad., 0.375" Border, Black on White;  
[E60-N&S 15] 4"C; [CONNECTOR OC] 4"C;  
[BRIDGE 56-0685G] 1 3/4" D; [60 Riv 0.15] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 1

G11-5<CA> Riv 60, FWBT

1.5" Rad., 0.375" Border, Black on White;  
[W60-S15 CONNECTOR] 4"B 50% SPACING;  
[OVERCROSSING] 4"B 50% SPACING;  
[BRIDGE 56-0690F] 1 3/4" D; [60 Riv 0.54] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 2

G11-5<CA> Riv 60, FWBT

1.5" Rad., 0.375" Border, Black on White;  
[Camino Real] 4"C; \* [UNDERCROSSING] 4"C;  
[BRIDGE 56-0661] 1 3/4" D; [60 Riv R6.31] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 3

G11-5<CA> Riv 60, FEBT

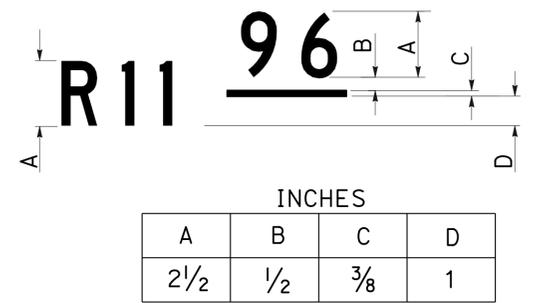
1.5" Rad., 0.375" Border, Black on White;  
[Camino Real] 4"C; \* [UNDERCROSSING] 4"C;  
[BRIDGE 56-0661] 1 3/4" D; [60 Riv R6.31] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 3

G11-5<CA> Sbd 15, FNBT

1.5" Rad., 0.375" Border, Black on White;  
[N15-W10 CONNECTOR] 4"B 50% SPACING;  
[OVERCROSSING] 4"B 50% SPACING;  
[BRIDGE 54-0908G] 1 3/4" D; [15 Sbd 2.37] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 7



**TYPICAL DIMENSIONING FOR POSTMILE VALUE**

G11-5<CA> Sbd 15, FSBT

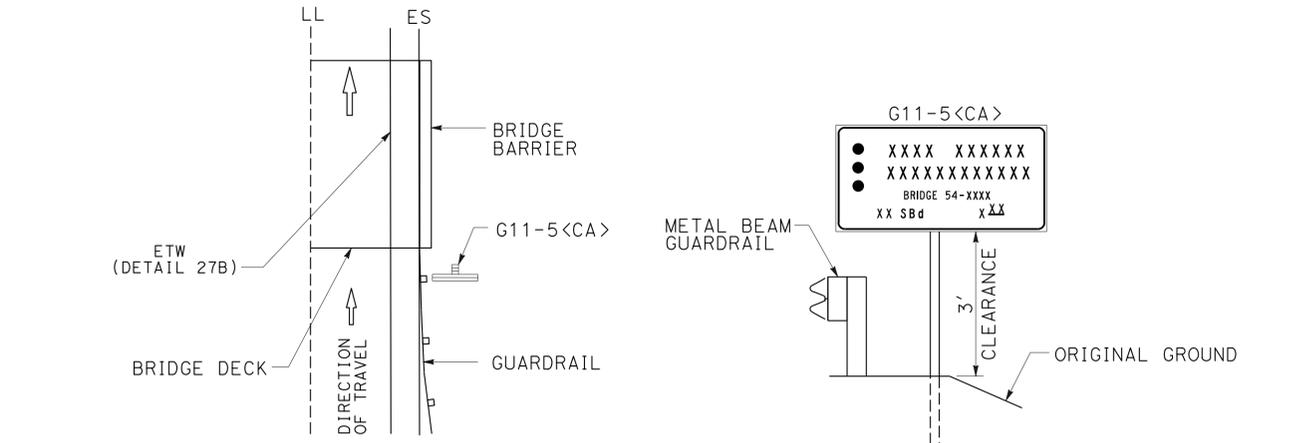
1.5" Rad., 0.375" Border, Black on White;  
[S15-E10 CONNECTOR] 4"B 50% SPACING;  
[OVERCROSSING] 4"B 50% SPACING;  
[BRIDGE 54-0910F] 1 3/4" D; [15 Sbd 2.41] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 8

G11-5<CA> Sbd 15, FSBT

1.5" Rad., 0.375" Border, Black on White;  
[S15-E210 CONNECTOR] 4"B 50% SPACING;  
[SEPARATION] 4"B 50% SPACING;  
[BRIDGE 54-0967F] 1 3/4" D; [15 Sbd 8.30] 2 1/2" D  
INSTALL ROADSIDE SIGN (ONE POST)

LOCATION 9



**TYPICAL LOCATION AND INSTALLATION OF G11-5(CA) SIGN**

LAST REVISION DATE PLOTTED => 18-MAR-2013  
 02-19-13 TIME PLOTTED => 13:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	6	23

*Daryush Nami* 2-19-13  
REGISTERED CIVIL ENGINEER DATE

3-18-13  
PLANS APPROVAL DATE

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**NOTE:**

1. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS BEFORE SIGN FABRICATION AND SIGN INSTALLATION.

**SIGN PANEL MATERIAL SUMMARY**

LOCATION	ROUTE	PM	BRIDGE NUMBER	DIRECTION	SIGN CODE		PANEL SIZE L x D	SINGLE FACED	SIGN FACING MATERIAL					FURNISH SINGLE SHEET ALUMINUM SIGN	NAME OF BRIDGE
									BACKGROUND		LEGEND		PRO-TECTIVE FILM		
									SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE			
													FEDERAL		
1	60	RO.15	56-0685G	EB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	E60-N & S 15 CONNECTOR OC
2	60	RO.54	56-0690F	WB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	W60-S15 CONNECTOR OVERCROSSING
3	60	R6.31	56-0661	WB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	CAMINO REAL UNDERCROSSING
3	60	R6.31	56-0661	EB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	CAMINO REAL UNDERCROSSING
7	15	2.37	54-0908G	NB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	N15-W10 CONNECTOR OVERCROSSING
8	15	2.41	54-0910F	SB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	S15-E10 CONNECTOR OVERCROSSING
9	15	8.30	54-0967F	SB		G11-5<CA>	44" X 24"	X	WHITE	IV	BLACK		X	7.3	S15-E210 CONNECTOR SEPARATION
<b>TOTAL</b>												51.10			

**SIGN PANEL MATERIAL SUMMARY**

LOCATION	ROUTE	PM	BRIDGE NUMBER	DIRECTION	SIGN CODE		PANEL SIZE L x D	POST SIZE AND LENGTH	ROADSIDE SIGN	NAME OF BRIDGE
								4" x 4"	ONE POST	
								LF	EACH	
1	60	RO.15	56-0685G	EB		G11-5<CA>	44" X 24"	7.5	1	E60-N & S 15 CONNECTOR OC
2	60	RO.54	56-0690F	WB		G11-5<CA>	44" X 24"	7.5	1	W60-S15 CONNECTOR OVERCROSSING
3	60	R6.31	56-0661	WB		G11-5<CA>	44" X 24"	7.5	1	CAMINO REAL UNDERCROSSING
3	60	R6.31	56-0661	EB		G11-5<CA>	44" X 24"	7.5	1	CAMINO REAL UNDERCROSSING
7	15	2.37	54-0908G	NB		G11-5<CA>	44" X 24"	7.5	1	N15-W10 CONNECTOR OVERCROSSING
8	15	2.41	54-0910F	SB		G11-5<CA>	44" X 24"	7.5	1	S15-E10 CONNECTOR OVERCROSSING
9	15	8.30	54-0967F	SB		G11-5<CA>	44" X 24"	7.5	1	S15-E210 CONNECTOR SEPARATION
<b>TOTAL</b>									7	

**SIGN QUANTITIES  
SQ-1**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR  
 KEVIN CHEN

CALCULATED/DESIGNED BY  
 CHECKED BY

PHILLIP T. PHAN  
 KEVIN CHEN

REVISED BY  
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	7	23

 2-19-13  
 REGISTERED CIVIL ENGINEER DATE

3-18-13  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 PHILLIP T. PHAN  
 No. 76425  
 Exp. 12-31-14  
 CIVIL  
 STATE OF CALIFORNIA

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**NOTE:**  
 1. DETAILS SHOWN APPLY ONLY AT THE FOLLOWING LOCATION.

**SUMMARY OF QUANTITIES**

NAME	BRIDGE No.	DIRECTION	WIDTH	DEPTH	LENGTH	STRUCTURE BACKFILL (BRIDGE)
						VOLUME (CY)
RUBIDOUX Blvd OC	56-0414	NORTHEAST	1'	1'	40'	1.50
		SOUTHWEST	8'	6'	72'	128
TOTAL						129.5

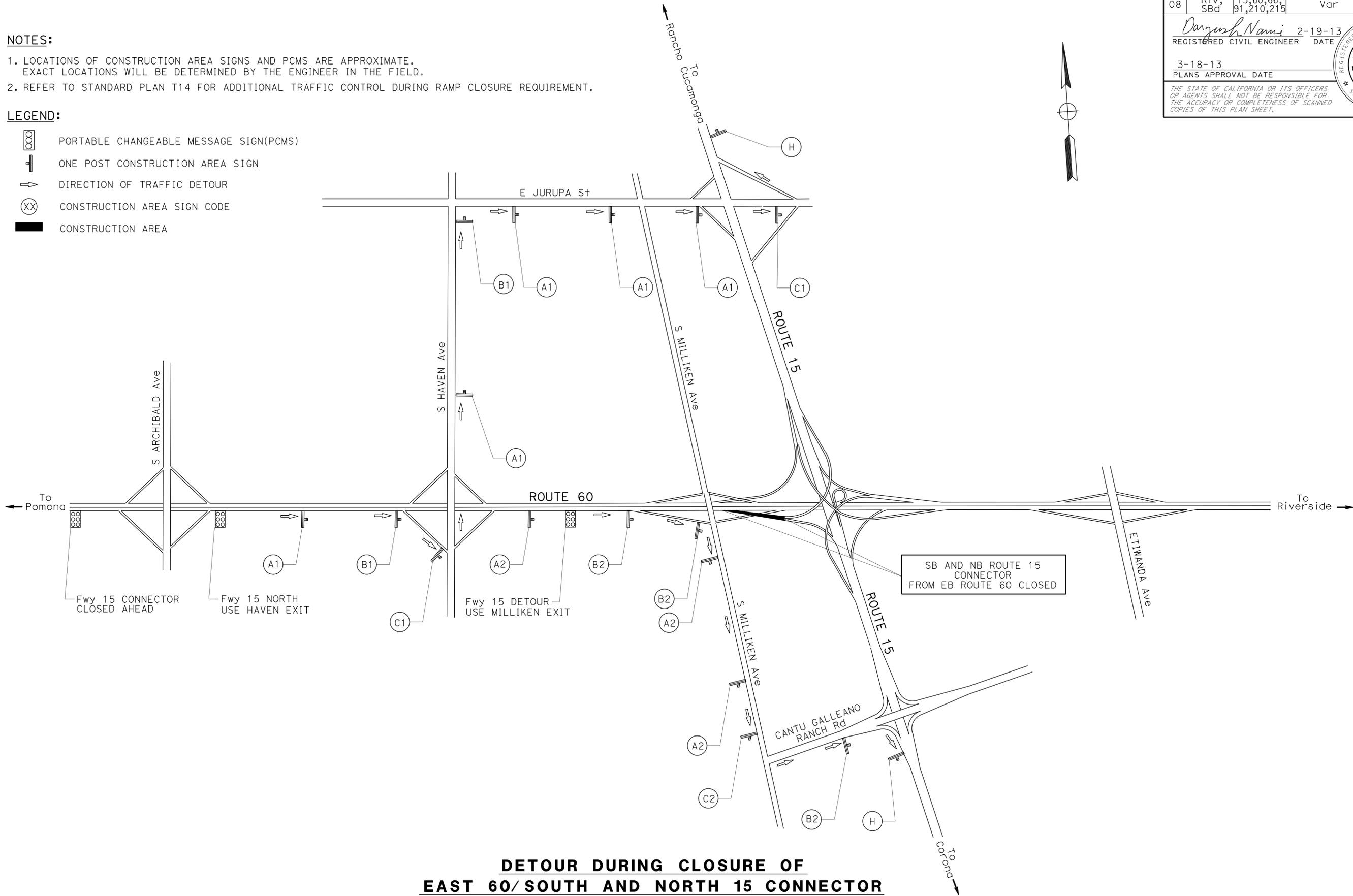
**SUMMARY OF QUANTITIES  
 Q-1**

LAST REVISION | DATE PLOTTED => 18-MAR-2013  
 02-19-13 | TIME PLOTTED => 13:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, SBd	15,60,66, 91,210,215	Var	8	23
<p><i>Daryush Nami</i> 2-19-13  REGISTERED CIVIL ENGINEER DATE</p> <p>3-18-13  PLANS APPROVAL DATE</p> <p>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.</p>					

- NOTES:**
1. LOCATIONS OF CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
  2. REFER TO STANDARD PLAN T14 FOR ADDITIONAL TRAFFIC CONTROL DURING RAMP CLOSURE REQUIREMENT.

- LEGEND:**
- PORTABLE CHANGEABLE MESSAGE SIGN(PCMS)
  - ONE POST CONSTRUCTION AREA SIGN
  - DIRECTION OF TRAFFIC DETOUR
  - CONSTRUCTION AREA SIGN CODE
  - CONSTRUCTION AREA



**DETOUR DURING CLOSURE OF  
EAST 60/SOUTH AND NORTH 15 CONNECTOR  
FOR CONSTRUCTION AT LOCATION 1**

**MOTORIST INFORMATION PLAN**  
NO SCALE  
**MI-1**

APPROVED FOR MOTORIST INFORMATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b> TRAFFIC DESIGN	BILL WASSER	DARYUSH NAMI	
	CALCULATED/DESIGNED BY	TRAN HOANG	
	CHECKED BY		

LAST REVISION | DATE PLOTTED => 18-MAR-2013 02-19-13 | TIME PLOTTED => 13:42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: BILL WASSER  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 DARYUSH NAMI TRAN HOANG  
 REVISED BY: [blank] DATE REVISED: [blank]

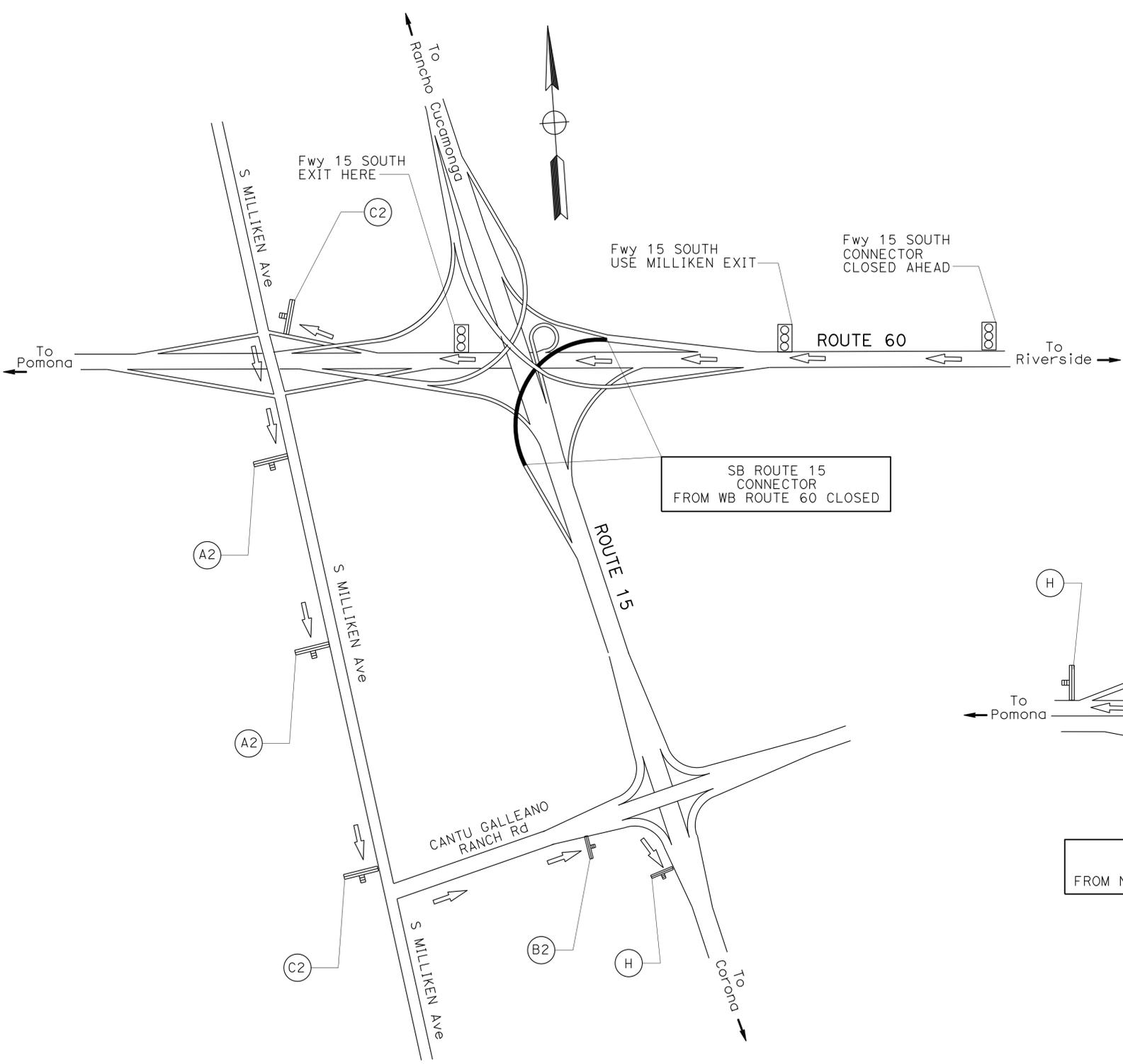
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, SBD	15,60,66, 91,210,215	Var	9	23

*Daryush Nami* 2-19-13  
 REGISTERED CIVIL ENGINEER DATE

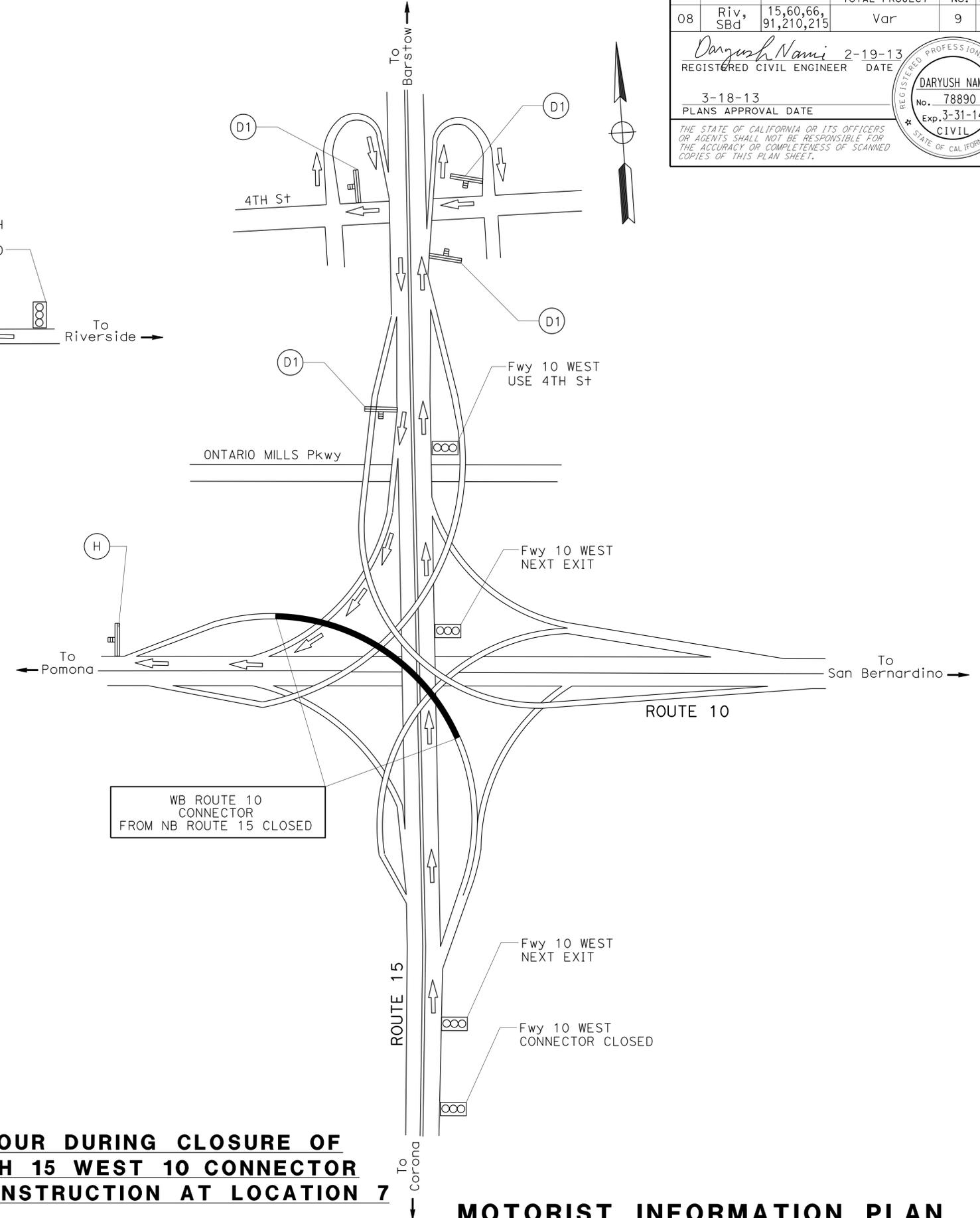
3-18-13  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 DARYUSH NAMI  
 No. 78890  
 Exp. 3-31-14  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR DURING CLOSURE OF WEST 60/SOUTH 15 CONNECTOR FOR CONSTRUCTION AT LOCATION 2**



**DETOUR DURING CLOSURE OF NORTH 15 WEST 10 CONNECTOR FOR CONSTRUCTION AT LOCATION 7**

**MOTORIST INFORMATION PLAN**  
 NO SCALE  
**MI-2**

APPROVED FOR MOTORIST INFORMATION WORK ONLY

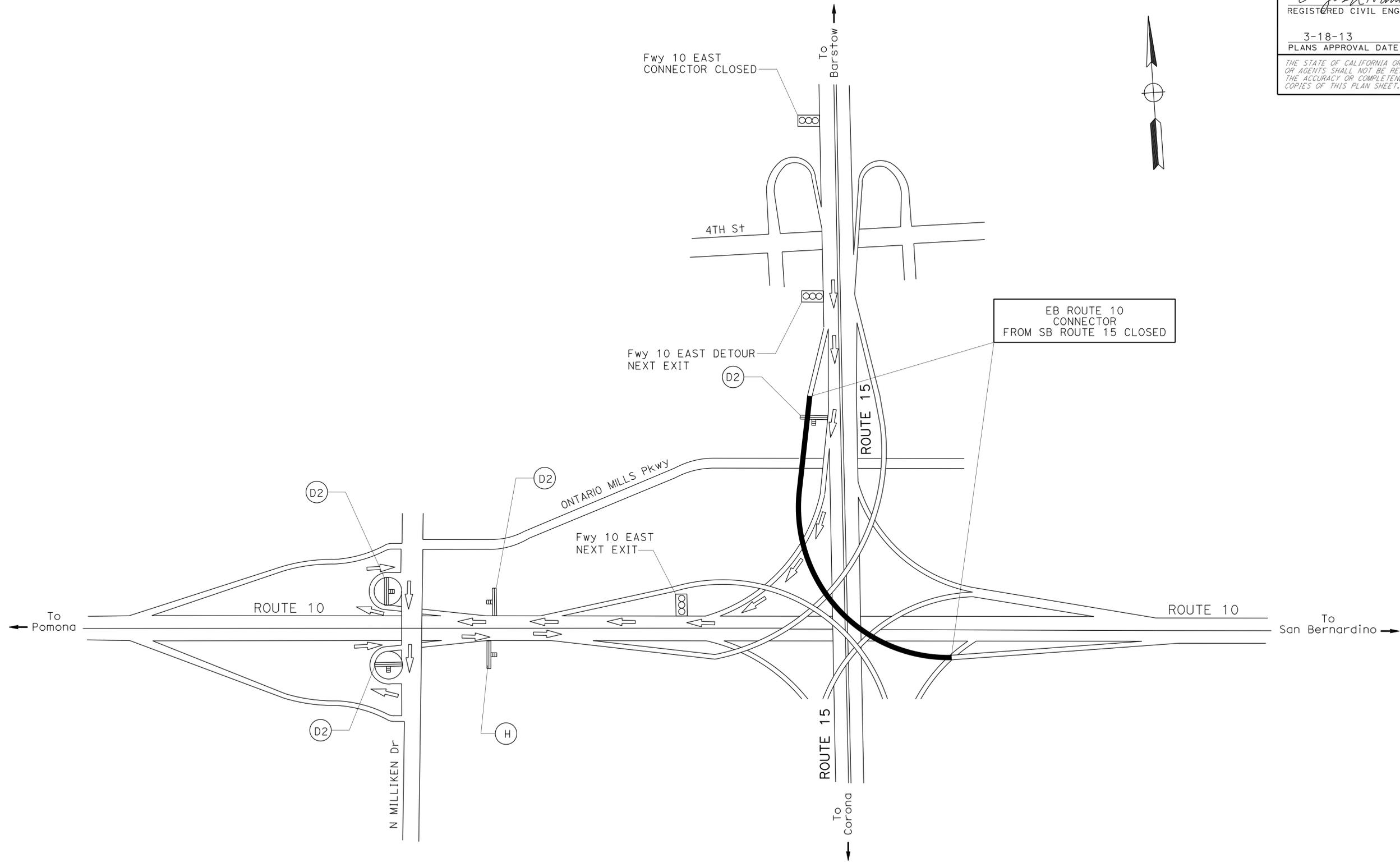
LAST REVISION | DATE PLOTTED => 18-MAR-2013 02-19-13 | TIME PLOTTED => 13:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	10	23

*Daryush Nami* 2-19-13  
 REGISTERED CIVIL ENGINEER DATE  
 3-18-13  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
**DARYUSH NAMI**  
 No. 78890  
 Exp. 3-31-14  
 CIVIL  
 STATE OF CALIFORNIA

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



**DETOUR DURING CLOSURE OF  
SOUTH 15/EAST 10 CONNECTOR  
FOR CONSTRUCTION AT LOCATION 8**

**MOTORIST INFORMATION PLAN**  
NO SCALE **MI-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b> TRAFFIC DESIGN	BILL WASSER	DARYUSH NAMI	2-19-13
		TRAN HOANG	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	11	23

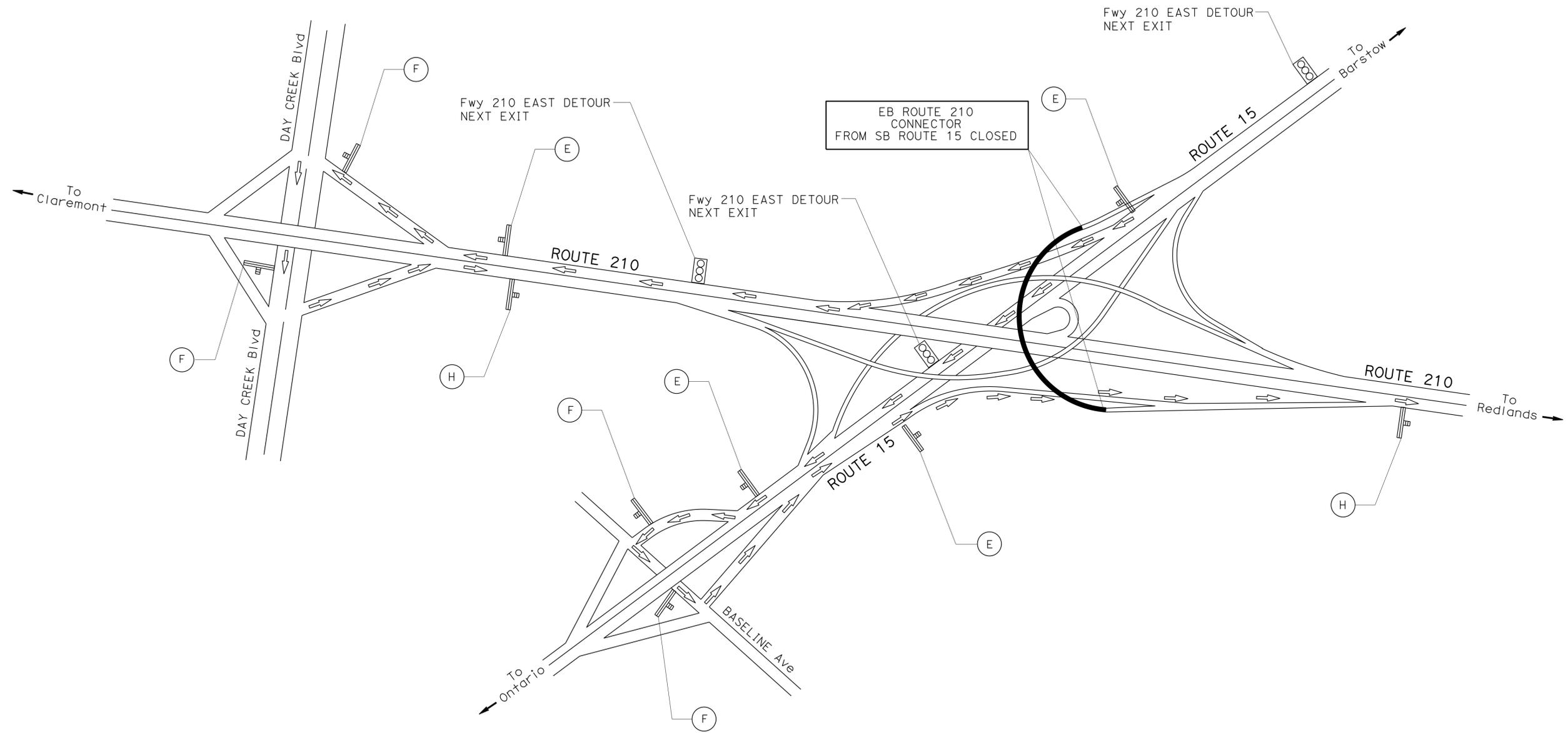
  

<i>Daryush Nami</i>	2-19-13
REGISTERED CIVIL ENGINEER	DATE
3-18-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
<b>DARYUSH NAMI</b>
No. 78890
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

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**DETOUR DURING CLOSURE OF  
SOUTH 15/EAST 210 CONNECTOR  
FOR CONSTRUCTION AT LOCATION 9**

**MOTORIST INFORMATION PLAN**  
NO SCALE **MI-4**

APPROVED FOR MOTORIST INFORMATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	DARYUSH NAMI	REVISED BY
<b>Caltrans</b> TRAFFIC DESIGN	BILL WASSER	CHECKED BY	TRAN HOANG	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	12	23

*Daryush Nami* 2-19-13  
REGISTERED CIVIL ENGINEER DATE

3-18-13  
PLANS APPROVAL DATE

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### STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS				TOTAL
	CALIFORNIA	FEDERAL				SHEET NUMBER				
						MI-1	MI-2	MI-3	MI-4	
A1	SC9(CA)		36" X 36"	FWY DETOUR/ARROW NORTH 	1 - 6" X 6"	5				5
	G27-2(CA)-15	M3-1	30" X 15"							
A2	SC9(CA)		36" X 36"	FWY DETOUR/ARROW SOUTH 	1 - 6" X 6"	3	2			5
	G27-2(CA)-15	M3-3	30" X 15"							
B1	SC9(CA) RIGHT		36" X 36"	FWY DETOUR/ARROW(R) NORTH 	1 - 6" X 6"	2				2
	G27-2(CA)-15	M3-1	30" X 15"							
B2	SC9(CA) RIGHT		36" X 36"	FWY DETOUR/ARROW(R) SOUTH 	1 - 6" X 6"	3	1			4
	G27-2(CA)-15	M3-3	30" X 15"							
C1	SC9(CA) LEFT		36" X 36"	FWY DETOUR/ARROW(L) NORTH 	1 - 6" X 6"	2				2
	G27-2(CA)-15	M3-1	30" X 15"							
C2	SC9(CA) LEFT		36" X 36"	FWY DETOUR/ARROW(L) SOUTH 	1 - 6" X 6"	1	2			3
	G27-2(CA)-15	M3-3	30" X 15"							
D1	SC9(CA) RIGHT		36" X 36"	FWY DETOUR/ARROW(R) WEST 	1 - 6" X 6"		4			4
	G27-2(CA)-10	M3-4	30" X 15"							
D2	SC9(CA) RIGHT		36" X 36"	FWY DETOUR/ARROW(R) EAST 	1 - 6" X 6"			4		4
	G27-2(CA)-10	M3-2	30" X 15"							
E	SC9(CA) RIGHT		36" X 36"	FWY DETOUR/ARROW(R) EAST 	1 - 6" X 6"				4	4
	G27-2(CA)-210	M3-2	42" X 36"							
F	SC9(CA) LEFT		36" X 36"	FWY DETOUR/ARROW(L) EAST 	1 - 6" X 6"				4	4
	G27-2(CA)-210	M3-2	42" X 36"							
H		M4-8a	24" X 18"	END DETOUR	1 - 4" X 4"	2	2	1	2	7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: BILL WASSER  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 DARYUSH NAMI TRAN HOANG  
 REVISED BY: DATE REVISED:

## MOTORIST INFORMATION QUANTITIES

**MIQ-1**

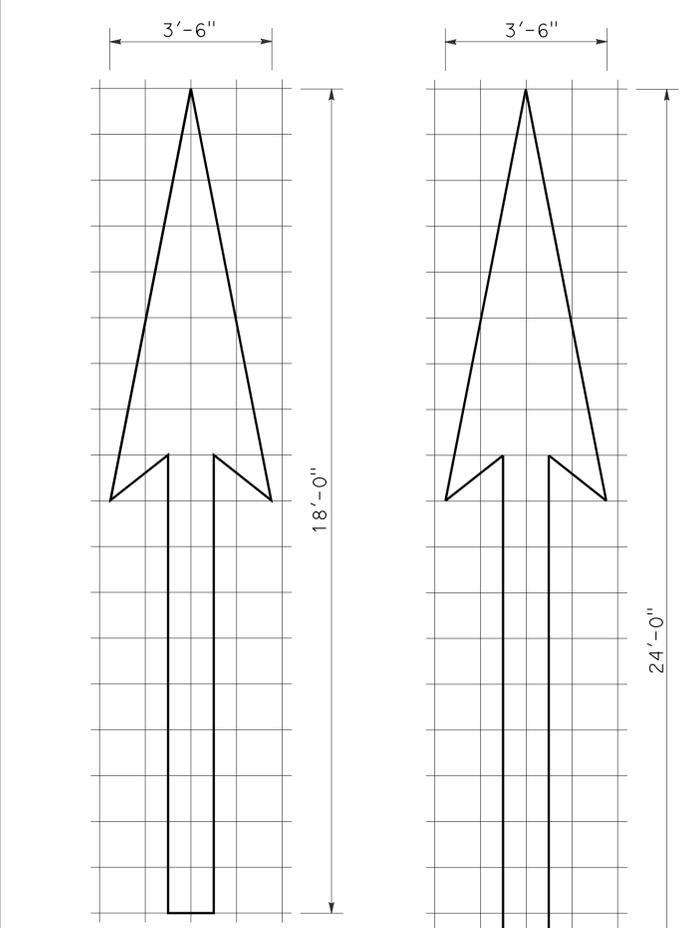


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	13	23

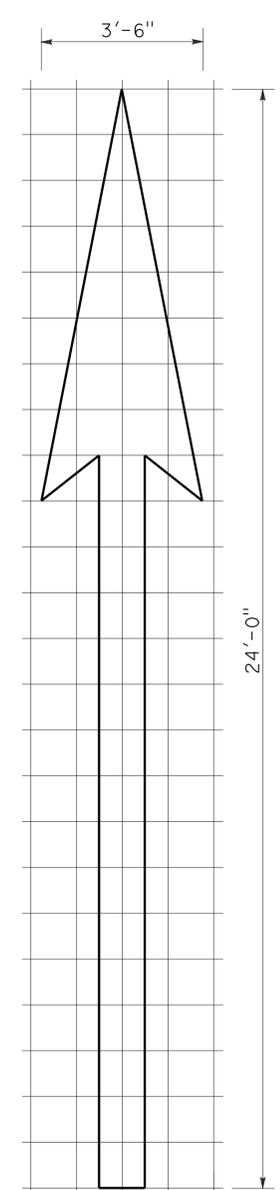
Roberto L. McLaughlin  
 REGISTERED CIVIL ENGINEER  
 April 20, 2012  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 Roberto L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

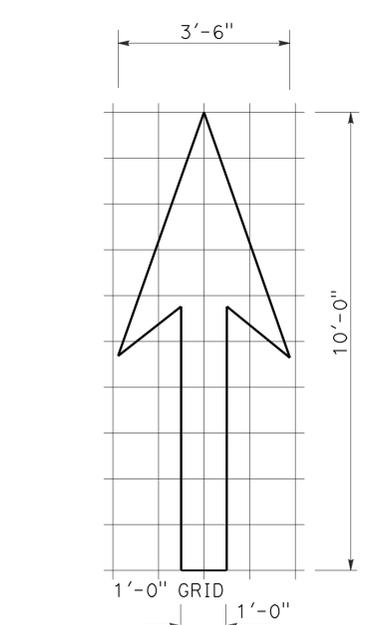
TO ACCOMPANY PLANS DATED 3-18-13



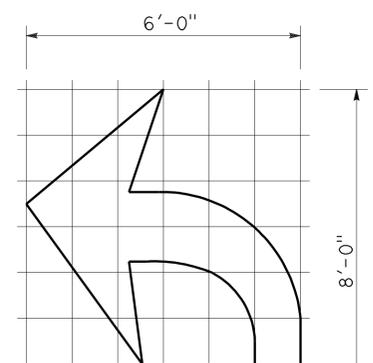
1'-0" GRID 1'-0"  
A=25 ft<sup>2</sup>  
**TYPE I 18'-0" ARROW**



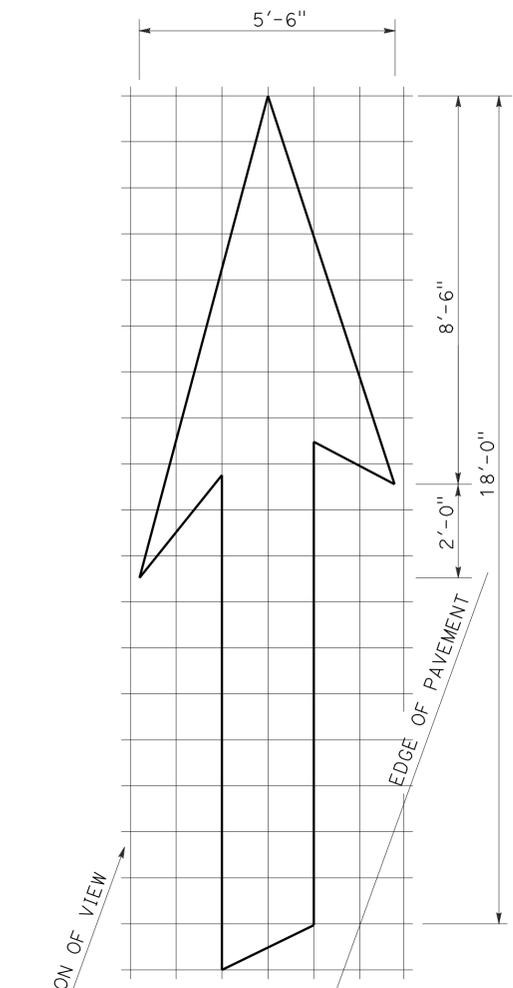
1'-0" GRID 1'-0"  
A=31 ft<sup>2</sup>  
**TYPE I 24'-0" ARROW**



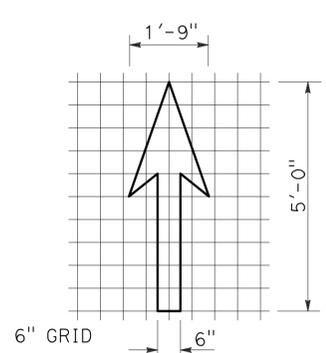
1'-0" GRID 1'-0"  
A=14 ft<sup>2</sup>  
**TYPE I 10'-0" ARROW**



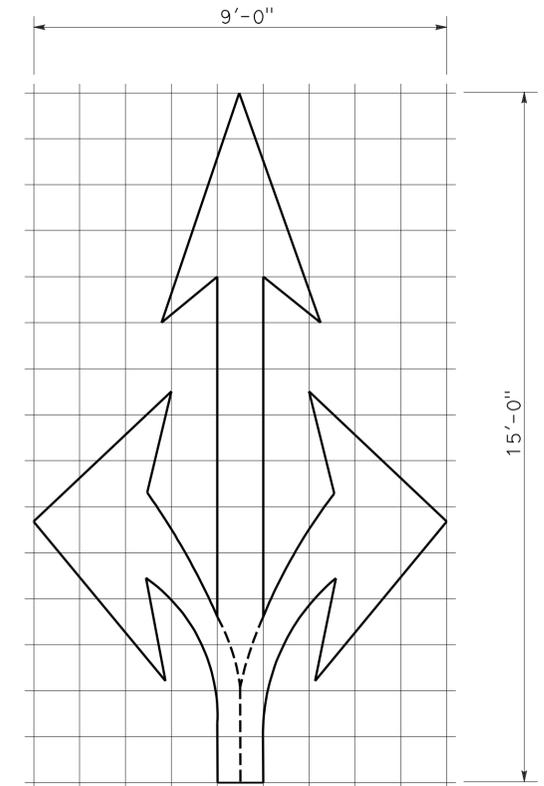
1'-0" GRID 1'-0"  
A=15 ft<sup>2</sup>  
**TYPE IV (L) ARROW**  
(For Type IV (R) arrow, use mirror image)



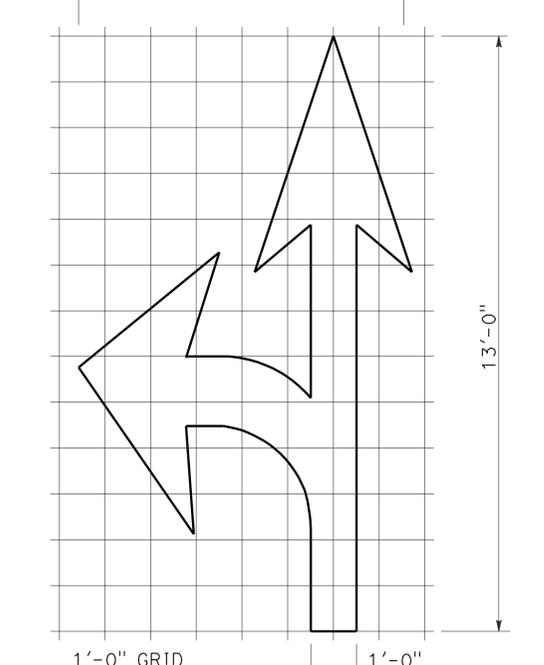
1'-0" GRID 20°  
A=42 ft<sup>2</sup>  
**TYPE VI ARROW**  
Right lane drop arrow  
(For left lane, use mirror image)



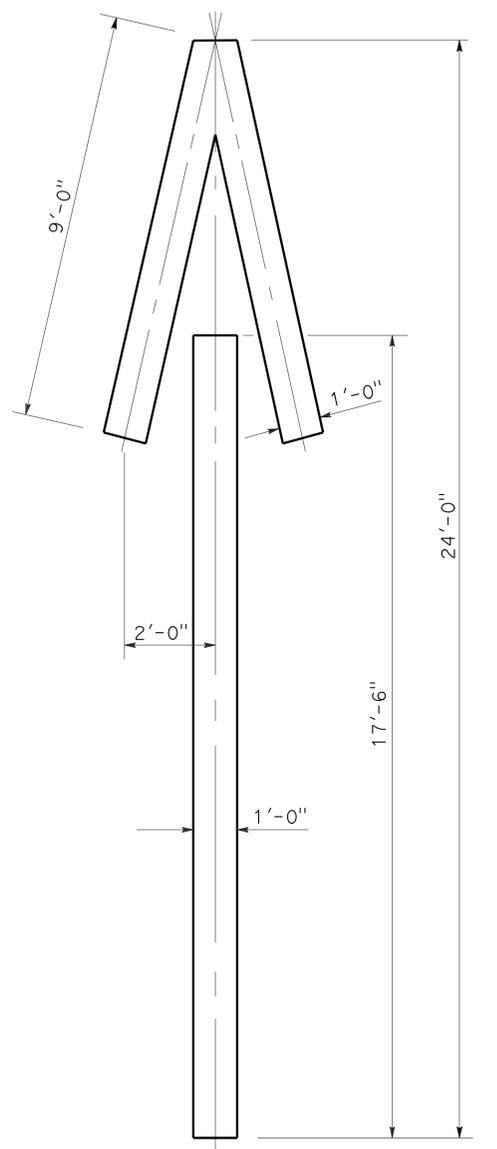
6" GRID 6"  
A=3.5 ft<sup>2</sup>  
**BIKE LANE ARROW**



1'-0" GRID 1'-0"  
A=36 ft<sup>2</sup>  
**TYPE VIII ARROW**



1'-0" GRID 1'-0"  
A=27 ft<sup>2</sup>  
**TYPE VII (L) ARROW**  
(For Type VII (R) arrow, use mirror image)



A=33 ft<sup>2</sup>  
**TYPE V ARROW**

**NOTE:**  
Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
ARROWS**  
NO SCALE

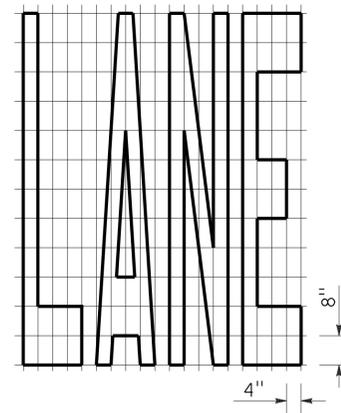
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24A**

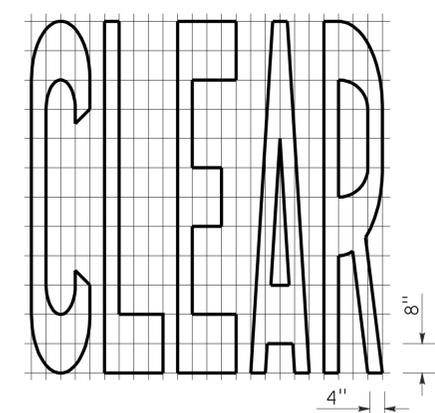
2010 REVISED STANDARD PLAN RSP A24A

TO ACCOMPANY PLANS DATED 3-18-13

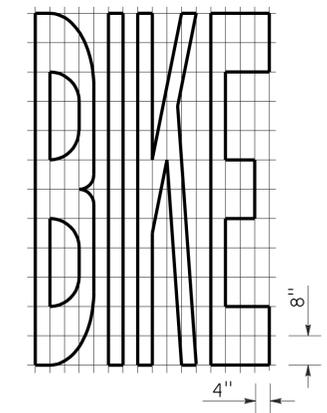
2010 REVISED STANDARD PLAN RSP A24E



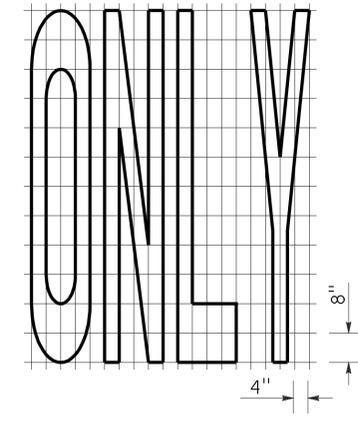
A=24 ft<sup>2</sup>



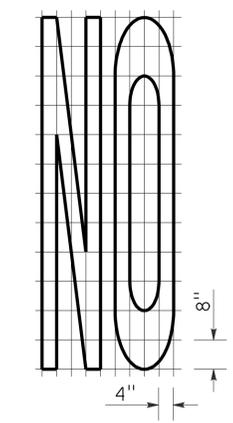
A=27 ft<sup>2</sup>



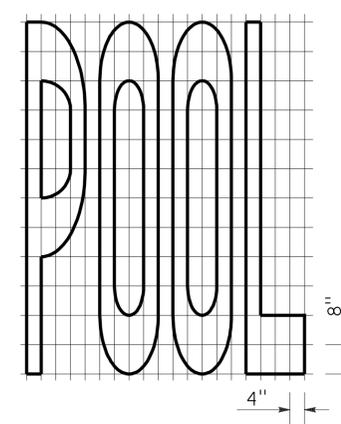
A=21 ft<sup>2</sup>



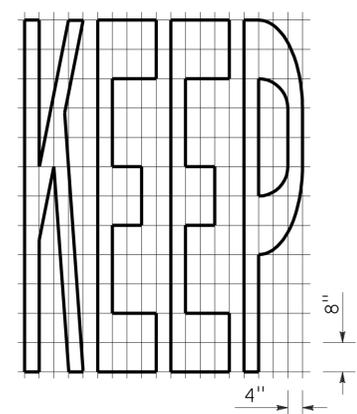
A=22 ft<sup>2</sup>



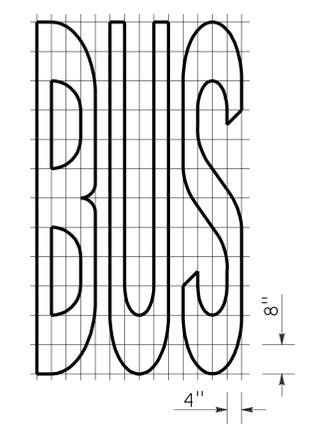
A=14 ft<sup>2</sup>



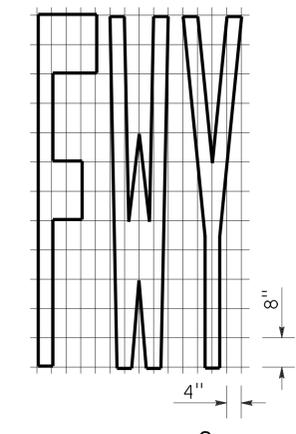
A=23 ft<sup>2</sup>



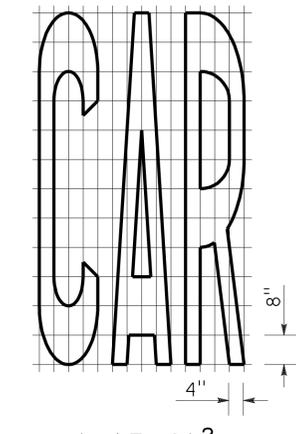
A=24 ft<sup>2</sup>



A=20 ft<sup>2</sup>

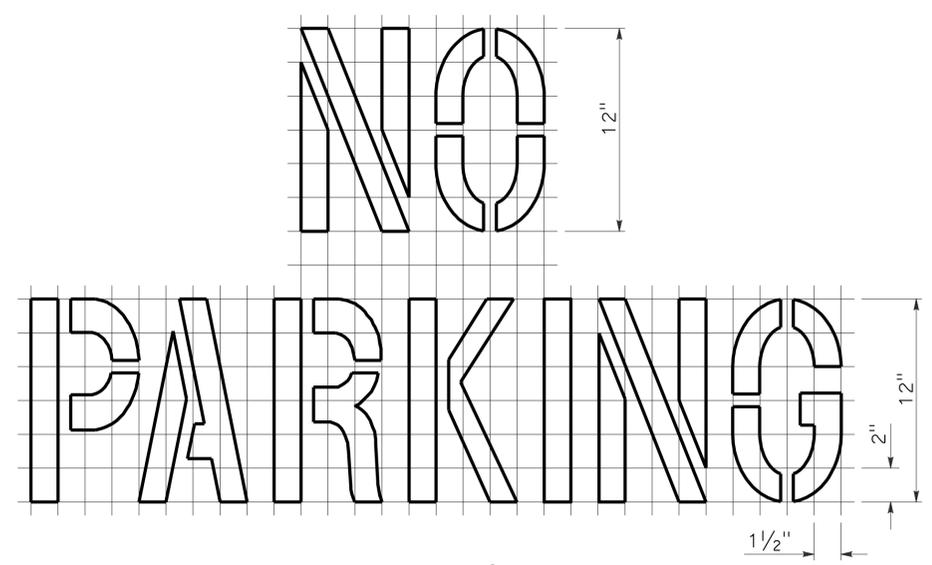


A=16 ft<sup>2</sup>

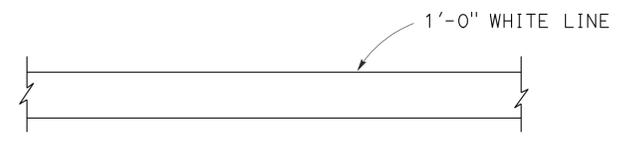


A=17 ft<sup>2</sup>

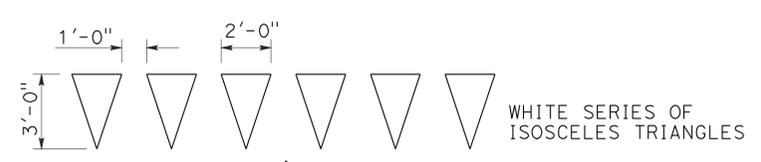
WORD MARKINGS			
ITEM	ft <sup>2</sup>	ITEM	ft <sup>2</sup>
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft<sup>2</sup>  
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

**NOTES:**

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**

NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E  
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv. Sbd	15,60,66, 91,210,215	Var	15	23

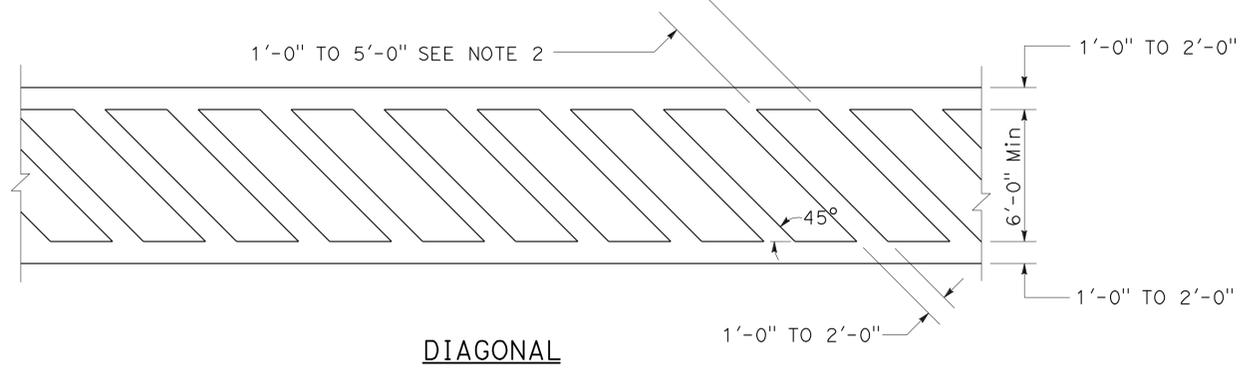
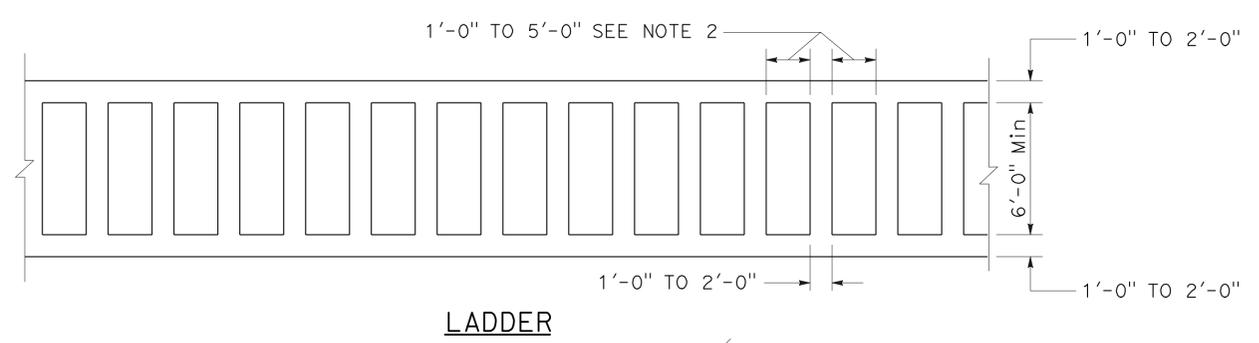
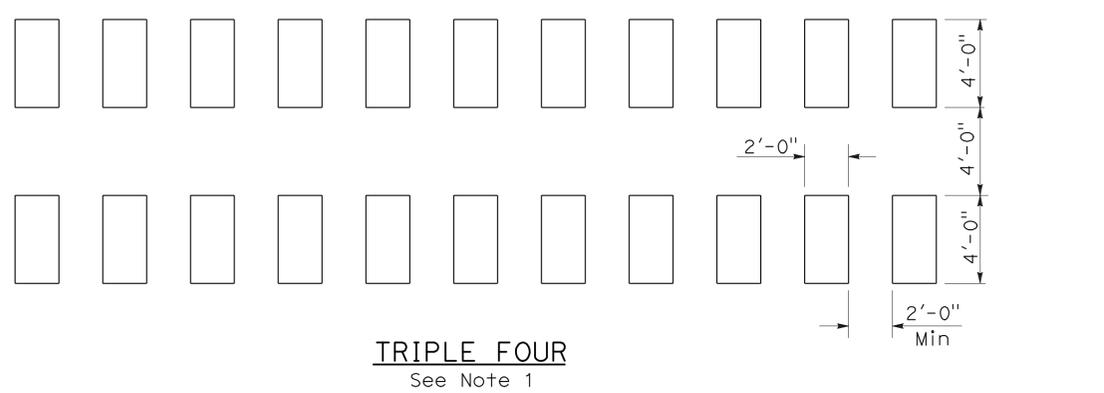
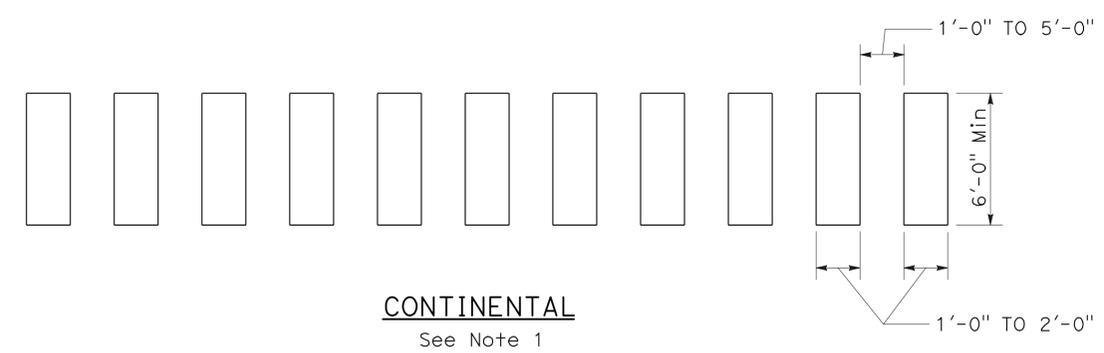
Registered Professional Engineer  
 Roberto L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

July 20, 2012  
 PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 3-18-13

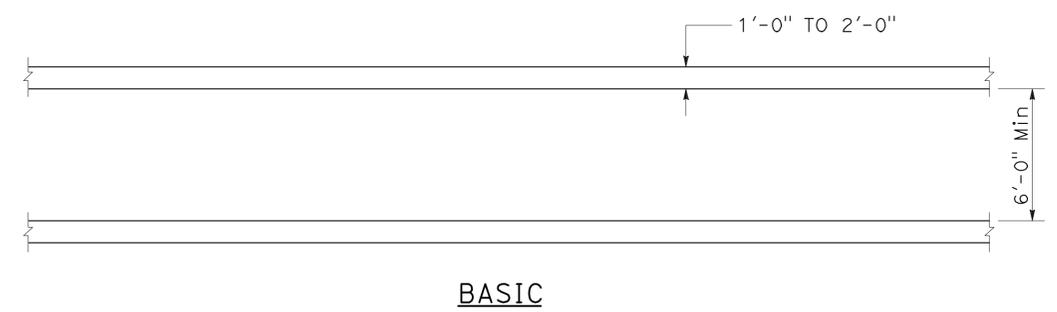
2010 REVISED STANDARD PLAN RSP A24F



**HIGHER VISIBILITY CROSSWALKS**

**NOTES:**

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
CROSSWALKS**  
NO SCALE

RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24F**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	RIV, Sbd	15,60,66, 91,210,215	Var	16	23

Registered Professional Engineer  
 REYNALDO J. CASTRO  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA

10-30-12  
 REGISTERED CIVIL ENGINEER DATE  
 3-18-13  
 PLANS APPROVAL DATE

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## INDEX TO PLANS

SHEET No.	TITLE
1	GENERAL PLAN 1
2	GENERAL PLAN 2
3	GENERAL PLAN 3
4	GENERAL PLAN 4
5	JOINT SEAL TABLE AND DETAILS
6	STRUCTURE APPROACH TYPE R(30S)
7	STRUCTURE APPROACH TYPE R(30D)
8	QUANTITIES

### GENERAL NOTES:

Structural Concrete:

f'c = 3600 psi

Reinforcing Bar: fy = 60,000 psi

ASTM A706, Grade 60

### NOTES:

- ① Prepare concrete bridge deck surface and treat bridge deck with high molecular weight methacrylate. Prior to preparing bridge deck surface, remove unsound concrete and patch with rapid setting concrete, as directed by the Engineer.
- ② Paint the bridge name and number on bridge rail at locations to be determined by the Engineer.
- ③ Remove existing approach slab full width and replace with new approach slab. See "STRUCTURE APPROACH TYPE R(30S)" sheet for details.
- ④ Remove existing approach slab full width and replace with new approach slab. See "STRUCTURE APPROACH TYPE R(30D)" sheet for details.
- ⑤ See "JOINT SEAL TABLE AND DETAILS" sheet for joint work.
- ⑥ Repair spalled surface area, as directed by the Engineer: concrete barrier spalls.
- ⑦ Repair spalled surface area, as directed by the Engineer: high load hit spalls.
- ⑧ Reconstruct longitudinal joint and install new joint seal as shown on "GENERAL PLAN 3" sheet.

## STANDARD PLANS 2010

SHEET No.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
B0-5	BRIDGE DETAILS
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

DESCRIPTION										QUANTITIES									
LOCATION	COUNTY	ROUTE	BRIDGE NAME	BRIDGE NUMBER	POST MILE	BRIDGE LENGTH (FT)	BRIDGE NET WIDTH (FT)	SKEW	DESCRIPTION OF WORK	PREPARE CONCRETE BRIDGE DECK SURFACE (SF)	FURNISH BRIDGE DECK TREATMENT MATERIAL (GAL)	TREAT BRIDGE DECK (SF)	STRUCTURAL CONCRETE APPROACH SLAB (TYPE R) (CY)	PAVING NOTCH EXTENSION (CF)	AGGREGATE BASE APPROACH SLAB (CY)	BRIDGE REMOVAL (PORTION) (CF)	STRUCTURAL CONCRETE, BRIDGE (CY)	BAR REINFORCING STEEL (BRIDGE) (LB)	PAINT BRIDGE NAME AND NUMBER (EA)
①	RIV	60	E60 - N&S15 CONNECTOR OC	56-0685G	R0.15	391	39	*	①②③⑤	15249	169	15249	87		9				1
②	RIV	60	W60 - S15 CONNECTOR OC	56-0690F	R0.54	1598	34	99	①②	55141	613	55141							1
③	RIV	60	CAMINO REAL UC	56-0661	R6.31	145	161	4-BB 17-EB	①②	23345	259	23345							2
④	RIV	60	SUNNYSLOPE OH	56-0423	7.93	230	110	53	②⑤										2
⑤	RIV	60	RUBIDOUX BLVD OC	56-0414	9.54	278	64	42	①②⑥⑦	17792	198	17792							2
⑥	RIV	91	PIERCE STREET UC	56-0369	10.81	90	134	25	②⑤⑦⑧							LS	3	626	2
⑦	Sbd	15	N15 - W10 CONNECTOR OC	54-0908G	2.37	1410	36	99	⑤										
⑧	Sbd	15	S15 - E10 CONNECTOR OC	54-0910F	2.41	2269	36	*	②⑤										1

\* NO SKEW

### NOTE:

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

REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS

ROUTE 15, 60, 66, 91, 210 & 215

GENERAL PLAN 1

 DESIGN ENGINEER 10-30-12	DESIGN	BY R. Castro	CHECKED C. Lee	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO.	VARIOUS	
	DETAILS	BY B. Ballesteros	CHECKED R. Castro	LAYOUT	BY B. Ballesteros			CHECKED R. Castro	POST MILE	VARIES
	QUANTITIES	BY R. Castro	CHECKED C. Lee	SPECIFICATIONS	BY B. Nagid			PLANS AND SPECS COMPARED K. Meier		

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 608  
PROJECT NUMBER & PHASE: 0812000131

CONTRACT NO.: 08-0R6601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10-04-12	1	8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv, SBd	15,60,66, 91,210,215	Var	17	23

*Reynaldo J. Castro* 10-30-12  
 REGISTERED CIVIL ENGINEER DATE

3-18-13  
 APPROVAL DATE

REYNALDO J. CASTRO  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA

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NOTES:

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- ⑤ See "JOINT SEAL TABLE AND DETAILS" sheet for joint work.
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- ⑦ Repair spalled surface area, as directed by the Engineer: high load hit spalls.
- ⑧ Reconstruct longitudinal joint and install new joint seal as shown on "GENERAL PLAN 3" sheet.

DESCRIPTION										QUANTITIES									
LOCATION	COUNTY	ROUTE	BRIDGE NAME	BRIDGE NUMBER	POST MILE	BRIDGE LENGTH (FT)	BRIDGE NET WIDTH (FT)	SKEW	DESCRIPTION OF WORK	PREPARE CONCRETE BRIDGE DECK SURFACE (SF)	FURNISH BRIDGE DECK TREATMENT MATERIAL (GAL)	TREAT BRIDGE DECK (SF)	STRUCTURAL CONCRETE APPROACH SLAB (TYPE R) (CY)	PAVING NOTCH EXTENSION (CF)	AGGREGATE BASE APPROACH SLAB (CY)	BRIDGE REMOVAL (PORTION) (CF)	STRUCTURAL CONCRETE, BRIDGE (CY)	BAR REINFORCING STEEL (BRIDGE) (LB)	PAINT BRIDGE NAME AND NUMBER (EA)
⑨	SBd	15	S15 - E210 CONNECTOR SEPARATION	54-0967F	8.3	2564	36	99	①	92304	1026	92304							
⑩	SBd	66	EAST BRANCH LYTLE CREEK	54-1043	21.51	204	65	29	①	13260	147	13260							
⑪	SBd	210	EAST TWIN CREEK CHANNEL	54-0769L	R24.76	80	51	3	①⑤	4080	45	4080							
⑫	SBd	210	EAST TWIN CREEK CHANNEL	54-0769R	R24.76	80	51	3	①⑤⑥	4080	45	4080							
⑬	SBd	215	INTERSTATE 215/10 SEPARATION	54-0479L	4.03	260	51	*	①②④⑤	13260	147	13260	113	78	12				1
⑭	SBd	215	SANTA ANA RIVER	54-0471L	4.21	736	51	99	②⑤										1
⑮	SBd	215	SANTA ANA RIVER	54-0471R	4.21	709	52	99	②⑤										1
⑯	SBd	215	REDLANDS LOOP OH	54-0489	6.59	113	144	22	①⑤	16272	181	16272							

\* NO SKEW

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

**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**  
**ROUTE 15, 60, 66, 91, 210 & 215**  
**GENERAL PLAN 2**

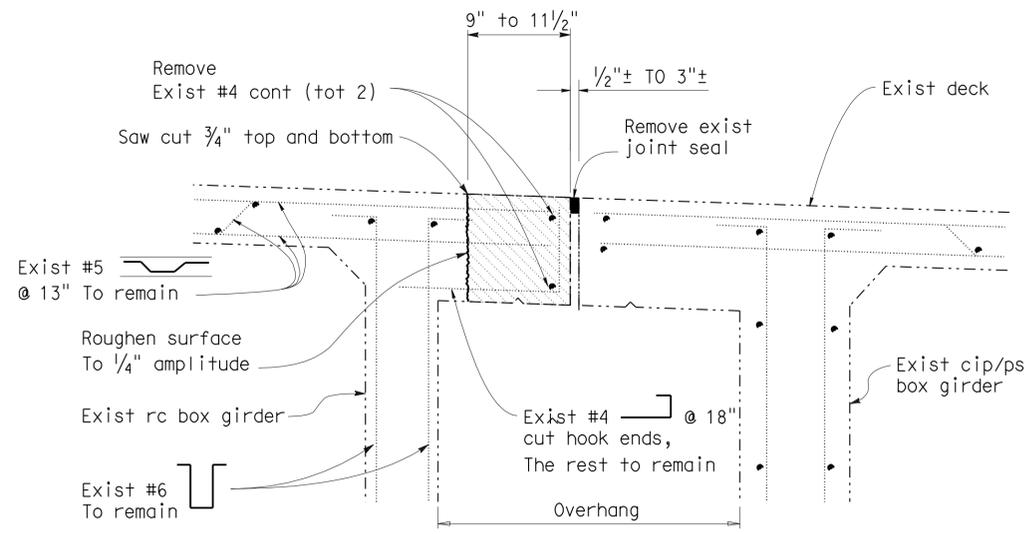
DESIGN	BY R. Castro	CHECKED C. Lee	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF MAINTENANCE</b> <b>STRUCTURE MAINTENANCE AND INVESTIGATIONS</b>	BRIDGE NO.	<b>ROUTE 15, 60, 66, 91, 210 &amp; 215</b> <b>GENERAL PLAN 2</b>	
DETAILS	BY B. Ballesteros	CHECKED R. Castro	LAYOUT	BY B. Ballesteros			CHECKED R. Castro		VARIOUS
QUANTITIES	BY R. Castro	CHECKED C. Lee	SPECIFICATIONS	BY B. Nagid			PLANS AND SPECS COMPARED K. Meier		VARIES

USERNAME => s114640 DATE PLOTTED => 18-MAR-2013 TIME PLOTTED => 13:59

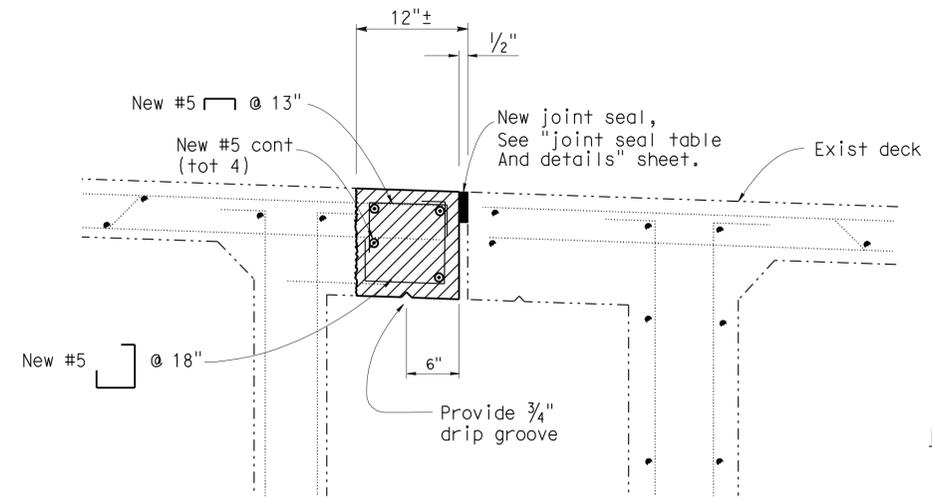
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	18	23

Registered Professional Engineer  
 REYNALDO J. CASTRO  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA

10-30-12 DATE  
 3-18-13 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



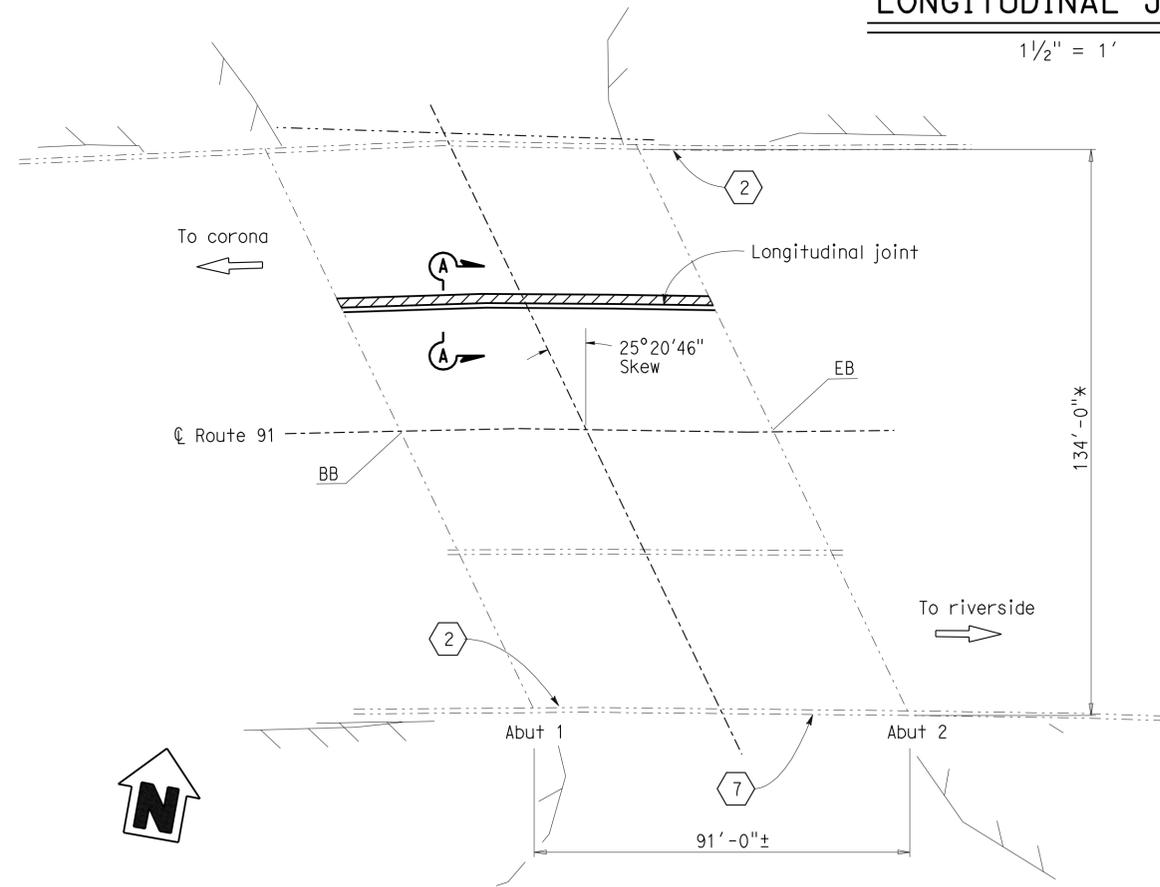
**EXISTING JOINT**



**RECONSTRUCT JOINT**

**SECTION A-A  
LONGITUDINAL JOINT**

1 1/2" = 1'



**⑥ PIERCE STREET UNDERCROSSING**

BR NO. 56-0369, Riv, ROUTE 91, PM 10.81

**LEGEND:**

- Indicates existing structure
- Indicates direction of traffic
- Indicates location of existing joint Seal removal, reconstruct longitudinal Expansion joint and install new joint Seal. See "joint seal table and details" sheet.
- Indicates limit of remove existing Concrete and bar reinforcing steel where shown.
- Indicates limit of place new Concrete and bar reinforcing steel.
- ② Paint bridge name and number On the barrier rail.
- ⑦ Repair spalled surface area, As directed by engineer: high load hit spalls.
- Indicates bridge location, See "title" sheet.

TEMPORARY DECK PLATE LOAD CRITERIA		
Moment demand / foot (kips-ft/ft)	Bolt shear / foot (kips/ft)	Bolt tension (kips)
3.12	1.46	4.20

Plate thickness - 1" min.  
 Anchor bolt - 3/4" \* min.  
 Anchor bolt spacing - 48" max.

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

DESIGN ENGINEER  
 10-30-12

DESIGN	BY R. Castro	CHECKED C. Lee	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY B. Ballesteros	CHECKED R. Castro	LAYOUT	BY B. Ballesteros
QUANTITIES	BY R. Castro	CHECKED C. Lee	SPECIFICATIONS	BY B. Nagid

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

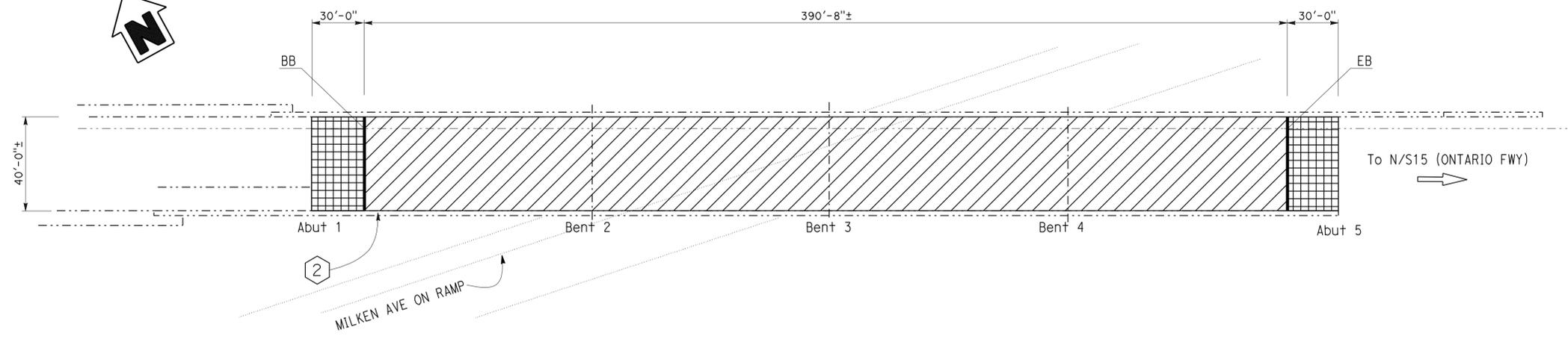
DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE AND INVESTIGATIONS

BRIDGE NO. 56-0369  
 POST MILE 10.81

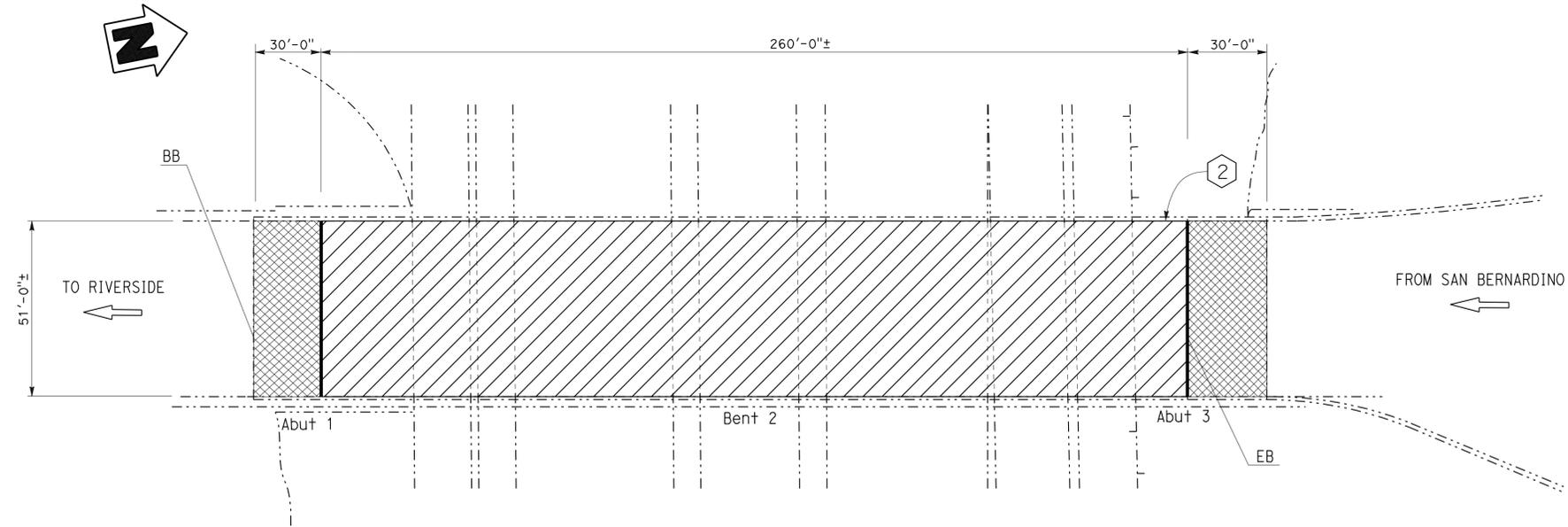
**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**  
**ROUTE 15, 60, 66, 91, 210 & 215**  
**GENERAL PLAN 3**

USERNAME => s114640 DATE PLOTTED => 18-MAR-2013 TIME PLOTTED => 13:59

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv, SBd	15,60,66, 91,210,215	Var	19	23
<i>Reynaldo J. Castro</i> REGISTERED CIVIL ENGINEER			10-30-12	DATE	
3-18-13			PLANS APPROVAL DATE		
REYNALDO J. CASTRO No. C36231 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA			REGISTERED PROFESSIONAL ENGINEER		
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① **E60 - N&S15 CONNECTOR OC**  
 BR NO. 56-0685G, Riv, ROUTE 60, PM R0.15



⑬ **INTERSTATE 215/10 SEPARATION**  
 BR NO. 54-0479L, Riv, ROUTE 215, PM 4.03

**LEGEND:**

- Indicates existing structure
- ➔ Indicates direction of traffic
- /— Indicates location of existing joint seal removal and placement of new joint seal, For details see "JOINT SEAL TABLE AND DETAILS" sheet.
- ▨ Indicates limits of prepare and treat bridge deck with high molecular weight methacrylate.
- ▧ Indicates limit of remove existing approach slab full-width and replace with new approach slab. See "STRUCTURE APPROACH TYPE R(30S)" sheet.
- ▩ Indicates limit of remove existing approach slab full-width and replace with new approach slab. See "STRUCTURE APPROACH TYPE R(30D)" sheet for details.
- Indicates bridge location, see "TITLE" sheet.
- ② Paint bridge name and number on the barrier rail.

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

**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**  
**ROUTE 15, 60, 66, 91, 210 & 215**  
**GENERAL PLAN 4**

 DESIGN ENGINEER 10-30-12	DESIGN	BY R. Castro	CHECKED C. Lee	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO.	VARIOUS	
	DETAILS	BY B. Ballesteros	CHECKED R. Castro	LAYOUT	BY B. Ballesteros			CHECKED R. Castro	POST MILE	VARIES
	QUANTITIES	BY R. Castro	CHECKED C. Lee	SPECIFICATIONS	BY B. Nagid			PLANS AND SPECS COMPARED	K. Meier	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	20	23

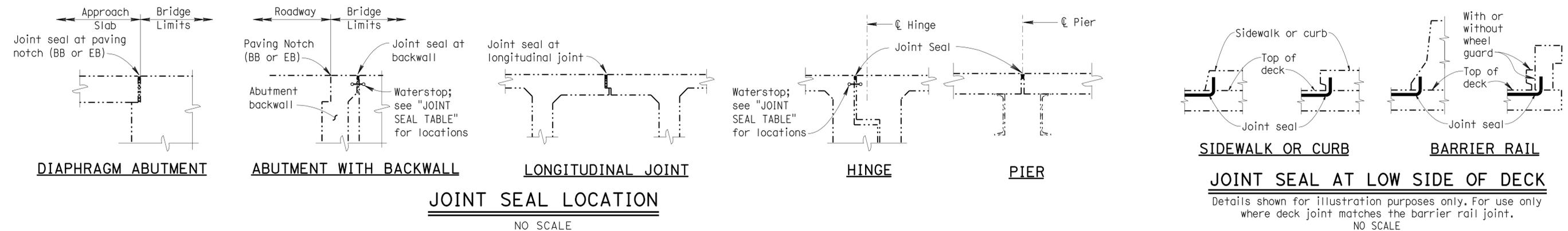
10-30-12  
 REGISTERED CIVIL ENGINEER DATE  
 3-18-13  
 PLANS APPROVAL DATE  
 REYNALDO J. CASTRO  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

## JOINT SEAL TABLE

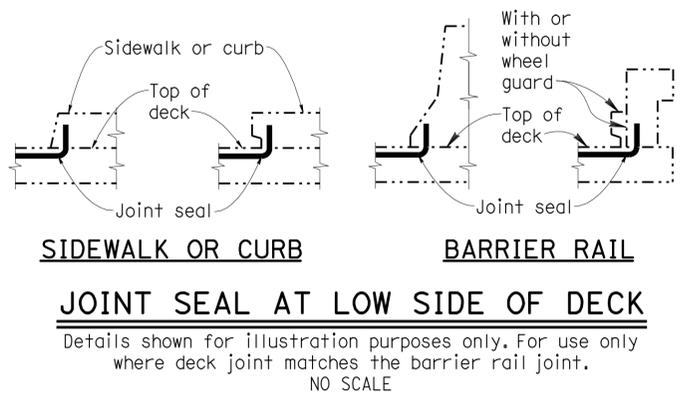
INDEX NUMBER	BRIDGE NAME	BRIDGE NUMBER	JOINT LOCATION ON BRIDGE		MINIMUM "MR" (IN)	APPROXIMATE LENGTH (FT)	EXISTING WATERSTOP	CLEAN EXPANSION JOINT (FT)	APPROXIMATE DEPTH TO CLEAN JOINT (IN)
①	E60 - N&S15 CONNECTOR OC	56-0685G	ABUT 1	Backwall	1 1/2	40	NO	-	60
			ABUT 5	Backwall	1 1/2	40	NO	-	60
④	SUNNYSLOPE OH	56-0423	ABUT 1	Backwall	1	186	NO	186	58
			ABUT 4	Backwall	1	186	NO	186	58
⑥	PIERCE STREET UC	56-0369	Longitudinal Joint Westbound - BB to EB		1/2	91	-	-	12
⑦	N15 - W10 CONNECTOR OC	54-0908G	ABUT 1	BB	2	36	-	36	12
			ABUT 10	EB	1 1/2	36	-	36	12
⑧	S15 - E10 CONNECTOR OC	54-0910F	ABUT 1	BB	1	36	-	36	12
			ABUT 16	EB	1 1/2	36	-	36	12
⑪	EAST TWIN CREEK CHANNEL	54-0769L	ABUT 1	BB	1/2	53	-	53	12
			ABUT 2	EB	1/2	53	-	53	12
⑫	EAST TWIN CREEK CHANNEL	54-0769R	ABUT 1	BB	1/2	53	-	53	12
			ABUT 2	EB	1/2	53	-	53	12
⑬	INTERSTATE 215/10 SEPARATION	54-0479L	ABUT 1	BB	1	52	-	-	12
			ABUT 3	EB	1	52	-	-	12
⑭	SANTA ANA RIVER	54-0471L	ABUT 1	BB	1	53	-	53	12
			HINGE 4	Span 4	2	53	NO	53	22
			HINGE 9	Span 9	2	53	NO	53	22
			ABUT 13	EB	1	53	-	53	12
⑮	SANTA ANA RIVER	54-0471R	ABUT 1	BB	1	53	-	53	12
			HINGE 4	Span 4	2	53	NO	53	22
			HINGE 9	Span 9	2	53	NO	53	22
			ABUT 13	EB	1	53	-	53	12
⑯	REDLANDS LOOP OH	54-0489	ABUT 1	BB	1/2	151	-	151	12
			ABUT 4	EB	1/2	151	-	151	12

### JOINT SEAL NOTES:

- The following note applies to **JOINT SEAL TYPE A:**
- Install Type A joint seal 3" up into curb or rail on the low side of the deck where joint matches sidewalk, curb, or barrier rail joint.
- The following notes apply to **JOINT SEAL TYPE B:**
- Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
  - Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be calculated by the Engineer.
    - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
    - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
  - W1 shall be the smaller of the values determined as follows:
    - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
    - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
  - Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches sidewalk, curb or barrier rail joint.



**NOTE:**  
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**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**

**ROUTE 15, 60, 66, 91, 210 & 215**

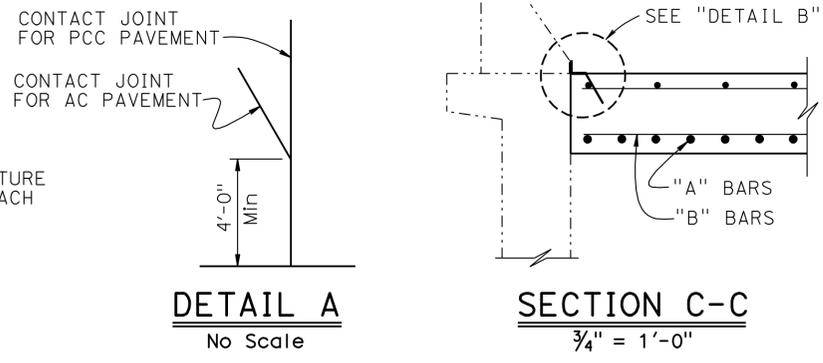
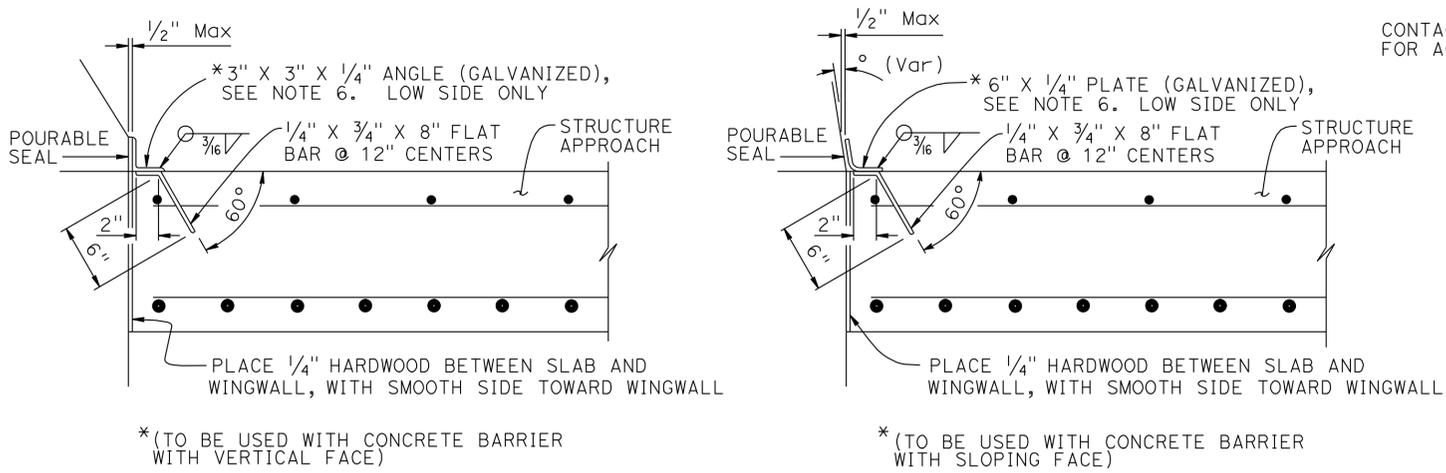
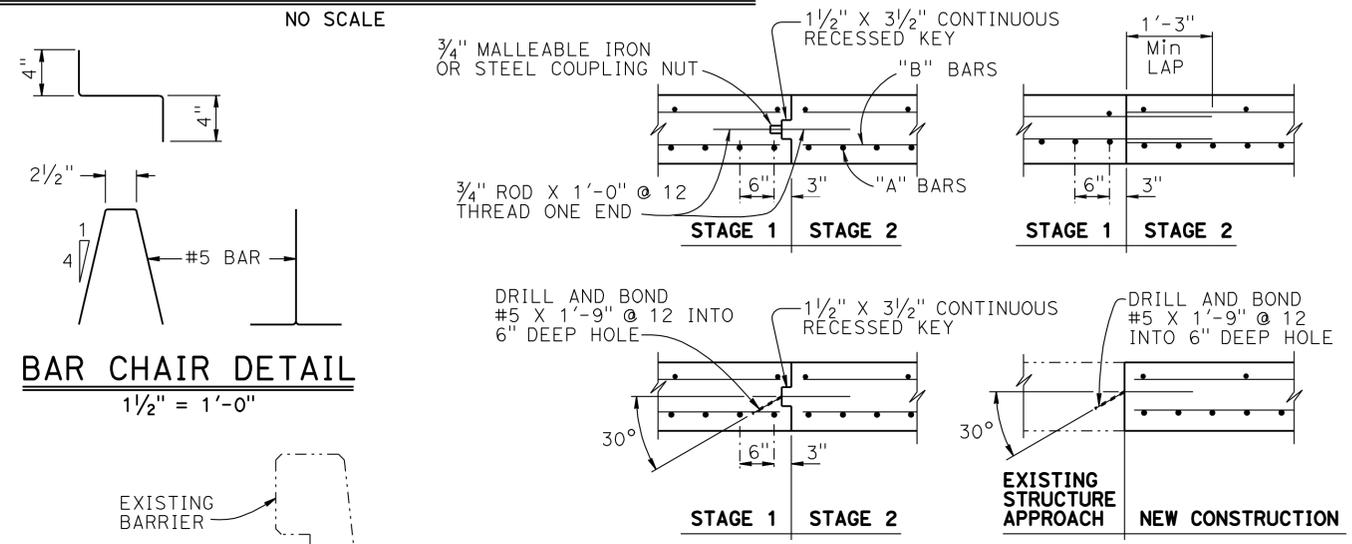
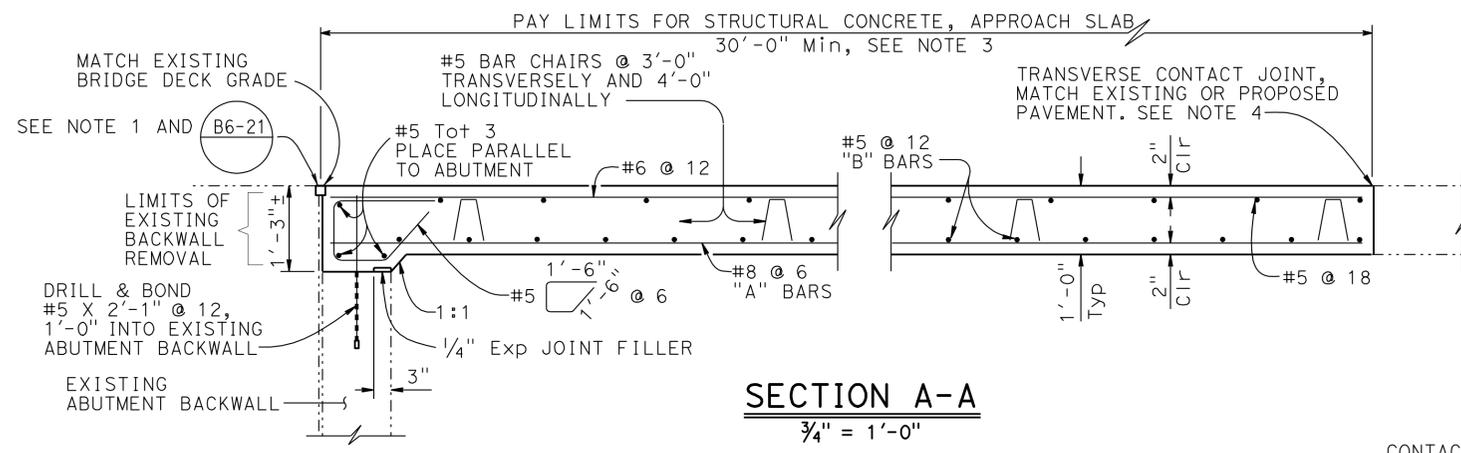
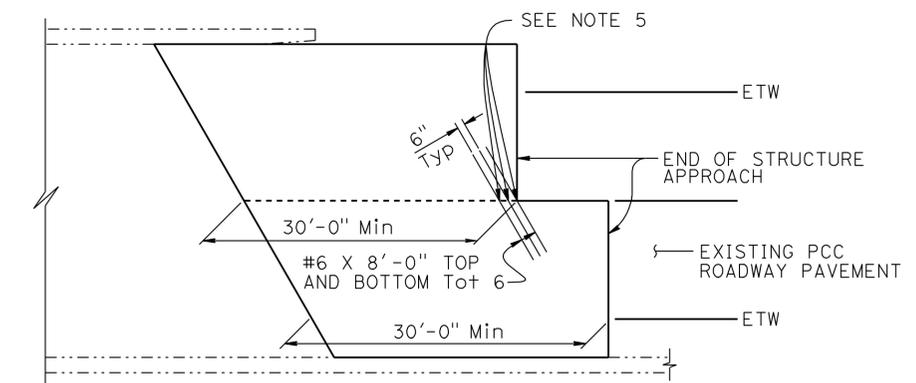
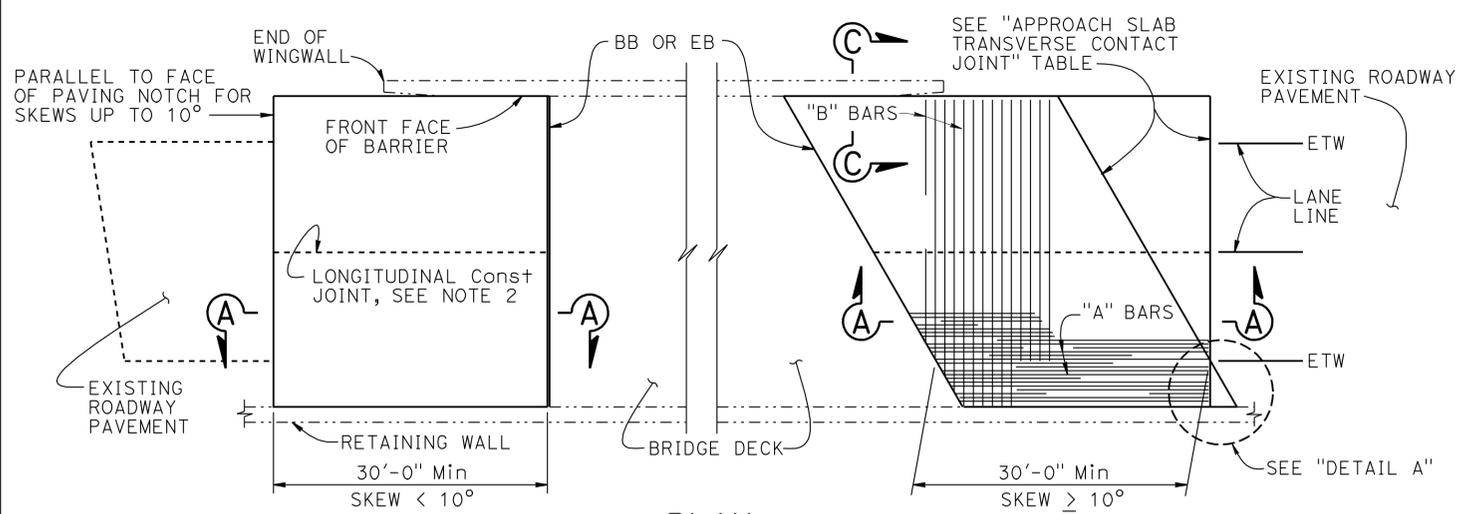
**JOINT SEAL TABLE AND DETAILS**

DESIGN	BY R. Castro	CHECKED C. Lee	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE AND INVESTIGATIONS	BRIDGE NO.	VARIOUS
DETAILS	BY B. Ballesteros	CHECKED R. Castro			POST MILE	VARIES
QUANTITIES	BY R. Castro	CHECKED C. Lee				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	21	23

REGISTERED CIVIL ENGINEER  
**Reynaldo J. Castro**  
 10-30-12 DATE  
 3-18-13 PLANS APPROVAL DATE  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA

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APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	PARALLEL TO FACE OF PN	PARALLEL TO FACE OF PN
10° - 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER LINES 24' TO 36' APART
> 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER AT EACH LANE LINE

- 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
  - For transverse contact joint with new PCC paving, refer to Standard Plan P10
  - 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

**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**

ROUTE 15, 60, 66, 91, 210 & 215

**STRUCTURE APPROACH TYPE R(30S)**

STANDARD DRAWING

FILE NO. **xs3-130**

APPROVAL DATE July 2011

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

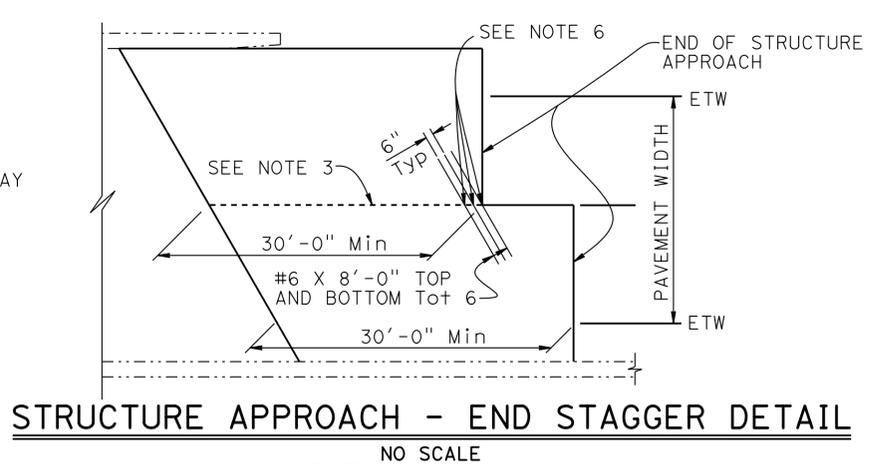
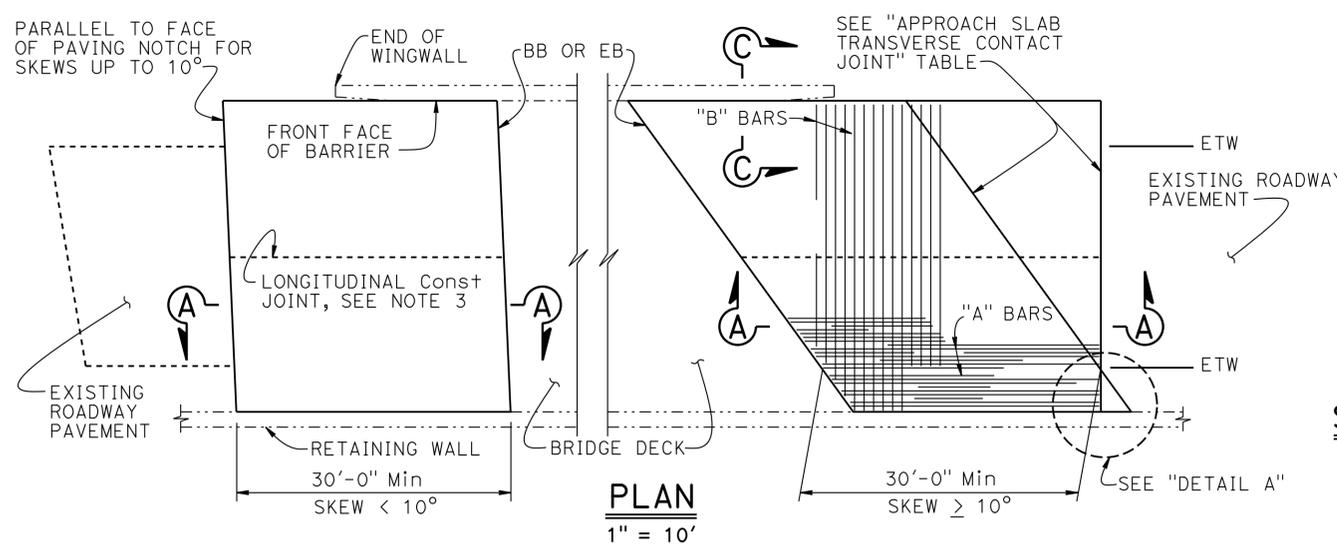
BRIDGE NO. VARIOUS  
 POST MILE VARIOUS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	22	23

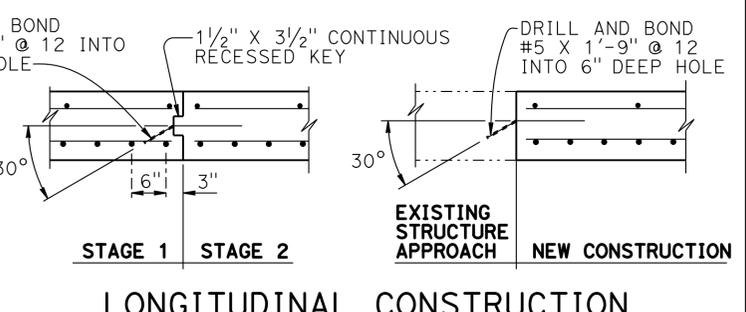
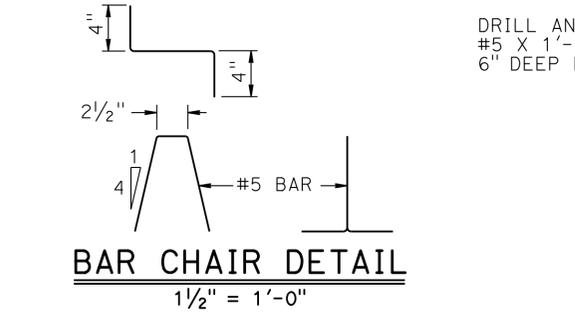
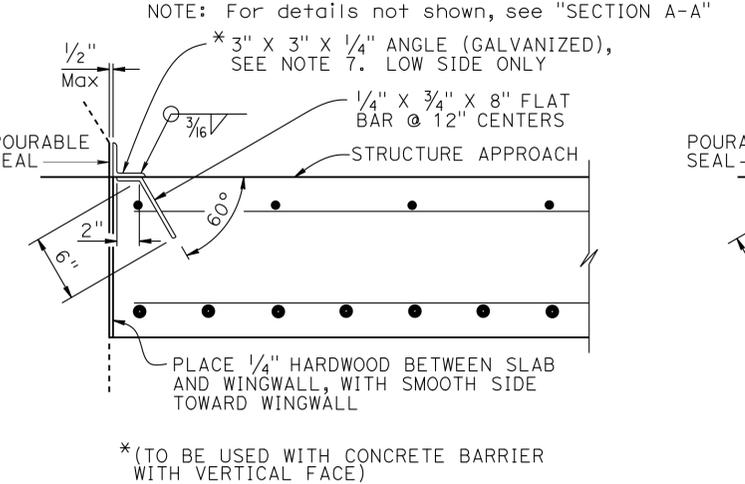
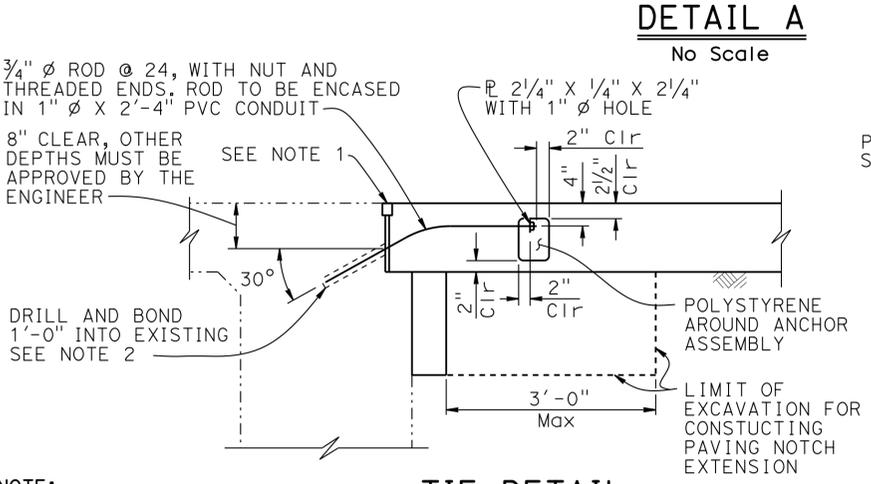
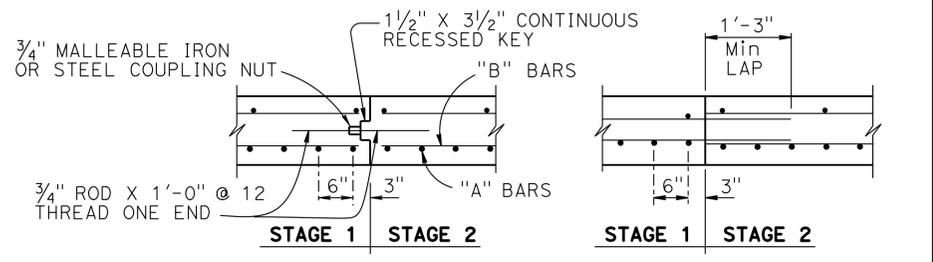
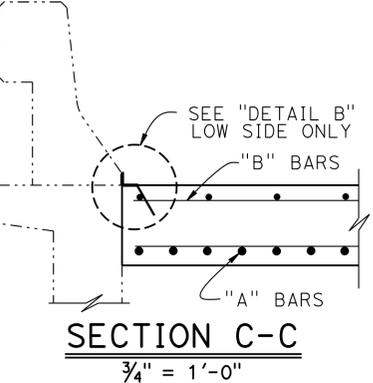
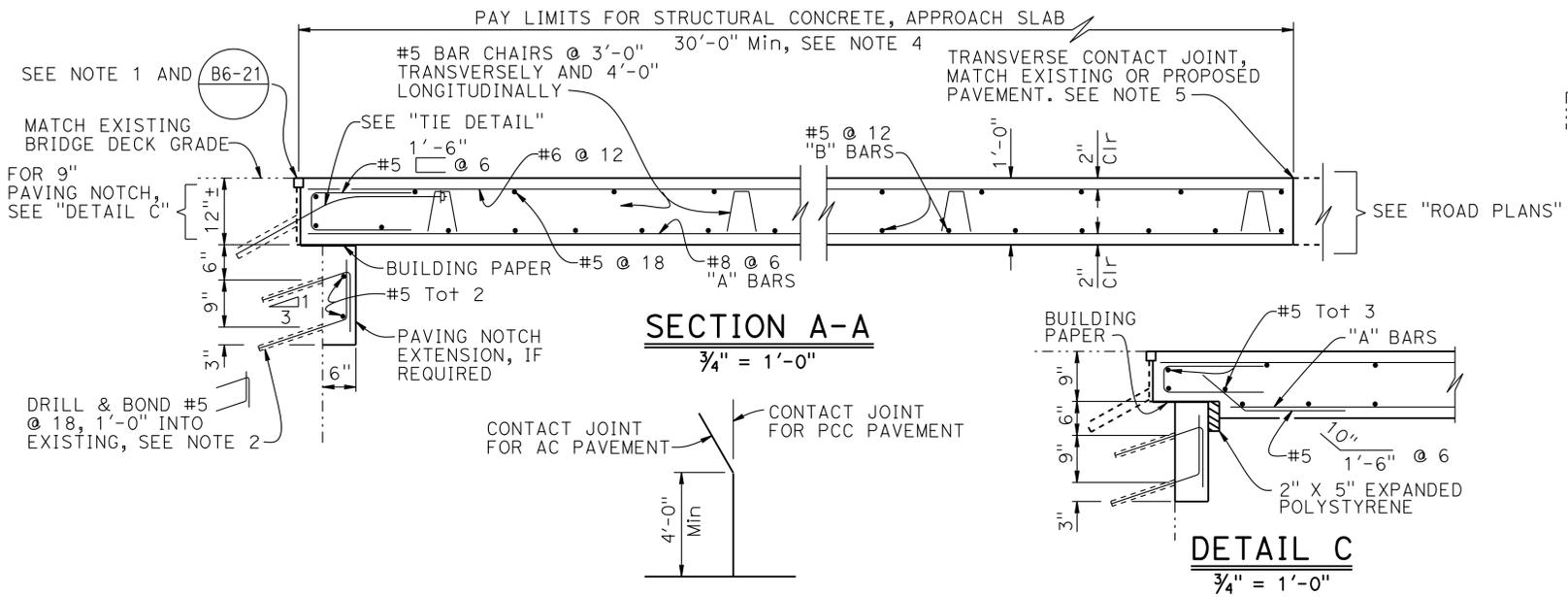
REGISTERED CIVIL ENGINEER  
**REYNALDO J. CASTRO**  
 No. C36231  
 Exp. 6-30-14  
 CIVIL  
 STATE OF CALIFORNIA

10-30-12 DATE  
 3-18-13 PLANS APPROVAL DATE

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APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	PARALLEL TO FACE OF PN	PARALLEL TO FACE OF PAVING NOTCH
10° - 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER LINES 24' TO 36' APART
> 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER AT EACH LANE LINE



- NOTES:
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required
  - Space to avoid existing prestress anchorages and main reinforcement
  - Longitudinal construction joints, when permitted by the 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
  - For transverse contact joint with new PCC paving, refer to Standard Plan P10
  - 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

**REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS**

ROUTE 15, 60, 66, 91, 210 & 215

**STRUCTURE APPROACH TYPE R(30D)**

STANDARD DRAWING

FILE NO. **xs3-150**

APPROVAL DATE July 2011

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE

STRUCTURE MAINTENANCE AND INVESTIGATIONS

BRIDGE NO. VARIOUS

POST MILE VARIES

CONTRACT NO.: 08-0R6601

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
9-25-07 12-04-07 12-11-07 08-09-12	7	8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv, Sbd	15,60,66, 91,210,215	Var	23	23
			10-30-12		
REGISTERED CIVIL ENGINEER			DATE		
3-18-13			PLANS APPROVAL DATE		
No. C36231			Exp. 6-30-12		
REYNALDO J. CASTRO			REGISTERED PROFESSIONAL ENGINEER		
CIVIL			STATE OF CALIFORNIA		
<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>					

01 - E60 N&S15CONNECTOR OC

BR NO 56-0685G

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 15,249 SQFT  
 AGGREGATE BASE (APPROACH SLAB) 9 CY  
 STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R) 87 CY  
 PAINT BRIDGE NAME AND NUMBER 1 EA  
 JOINT SEAL (MR 1 1/2") 80 LF  
 TREAT BRIDGE DECK 15,249 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 169 GAL

02 - W60-S15 CONNECTOR OC

BR NO 56-0690F

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 55,141 SQFT  
 PAINT BRIDGE NAME AND NUMBER 1 EA  
 TREAT BRIDGE DECK 55,141 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 613 GAL

03 - CAMINO REAL UC

BR NO 56-0661

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 23,345 SQFT  
 PAINT BRIDGE NAME AND NUMBER 2 EA  
 TREAT BRIDGE DECK 23,345 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 259 GAL

04 - SUNNYSLOPE OH

BR NO 56-0423

QUANTITIES

CLEAN EXPANSION JOINT 372 LF  
 PAINT BRIDGE NAME AND NUMBER 2 EA  
 JOINT SEAL (MR 1") 372 LF

05 - RUBIDOUX BLVD OC

BR NO 56-0414

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 17,792 SQFT  
 PAINT BRIDGE NAME AND NUMBER 2 EA  
 TREAT BRIDGE DECK 17,792 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 198 GAL

06 - PIERCE STREET UC

BR NO 56-0369

QUANTITIES

BRIDGE REMOVAL (PORTION) LUMP SUM  
 STRUCTURAL CONCRETE, BRIDGE 3 CY  
 PAINT BRIDGE NAME AND NUMBER 2 EA  
 JOINT SEAL (TYPE AL) 91 LF  
 BAR REINFORCING STEEL (BRIDGE) 626 LB

07 - N15-W10 CONNECTOR OC

BR NO 54-0908G

QUANTITIES

CLEAN EXPANSION JOINT 72 LF  
 JOINT SEAL (MR 1 1/2") 36 LF  
 JOINT SEAL (MR 2") 36 LF

08 - S15-E10 CONNECTOR OC

BR NO 54-0910G

QUANTITIES

CLEAN EXPANSION JOINT 72 LF  
 JOINT SEAL (MR 1") 36 LF  
 JOINT SEAL (MR 1 1/2") 36 LF  
 PAINT BRIDGE NAME AND NUMBER 1 EA

09 - S15-E10 CONNECTOR SEP

BR NO 54-0967F

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 92,304 SQFT  
 TREAT BRIDGE DECK 92,304 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 1,026 GAL

10 - EAST BRANCH LYTLE CREEK

BR NO 54-1043

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 13,260 SQFT  
 TREAT BRIDGE DECK 13,260 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 147 GAL

11 - EAST TWIN CREEK CHANNEL

BR NO 54-0769L

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 4,080 SQFT  
 CLEAN EXPANSION JOINT 106 LF  
 JOINT SEAL (MR 1/2") 106 LF  
 TREAT BRIDGE DECK 4,080 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 45 GAL

12 - EAST TWIN CREEK CHANNEL

BR NO 54-0769R

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 4,080 SQFT  
 CLEAN EXPANSION JOINT 106 LF  
 JOINT SEAL (MR 1/2") 106 LF  
 TREAT BRIDGE DECK 4,080 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 45 GAL

13 - INTERSTATE 215/10 SEPARATION

BR NO 54-0479L

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 13,260 SQFT  
 AGGREGATE BASE (APPROACH SLAB) 12 CY  
 STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R) 113 CY  
 PAVING NOTCH EXTENSION 78 CF  
 PAINT BRIDGE NAME AND NUMBER 1 EA  
 JOINT SEAL (MR 1") 104 LF  
 TREAT BRIDGE DECK 13,260 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 147 GAL

14 - SANTA ANA RIVER BRIDGE

BR NO 54-0471L

QUANTITIES

CLEAN EXPANSION JOINT 212 LF  
 PAINT BRIDGE NAME AND NUMBER 1 EA  
 JOINT SEAL (MR 1") 106 LF  
 JOINT SEAL (MR 2") 106 LF

15 - SANTA ANA RIVER BRIDGE

BR NO 54-0471R

QUANTITIES

CLEAN EXPANSION JOINT 212 LF  
 PAINT BRIDGE NAME AND NUMBER 1 EA  
 JOINT SEAL (MR 1") 106 LF  
 JOINT SEAL (MR 2") 106 LF

16 - REDLANDS LOOP OH

BR NO 54-0489

QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE 16,272 SQFT  
 CLEAN EXPANSION JOINT 302 LF  
 JOINT SEAL (MR 1/2") 302 LF  
 TREAT BRIDGE DECK 16,272 SQFT  
 FURNISH BRIDGE DECK TREATMENT MATERIAL 181 GAL

REPLACE JOINT SEALS, TREAT BRIDGE DECKS, AND REPLACE APPROACH SLABS

ROUTE 15, 60, 66, 91, 210 & 215

QUANTITIES

DESIGN	BY R. Castro	CHECKED C. Lee
DETAILS	BY B. Ballesteros	CHECKED R. Castro
QUANTITIES	BY R. Castro	CHECKED C. Lee

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE AND INVESTIGATIONS

BRIDGE NO.	VARIOUS
POST MILE	VARIES