

INDEX OF PLANS

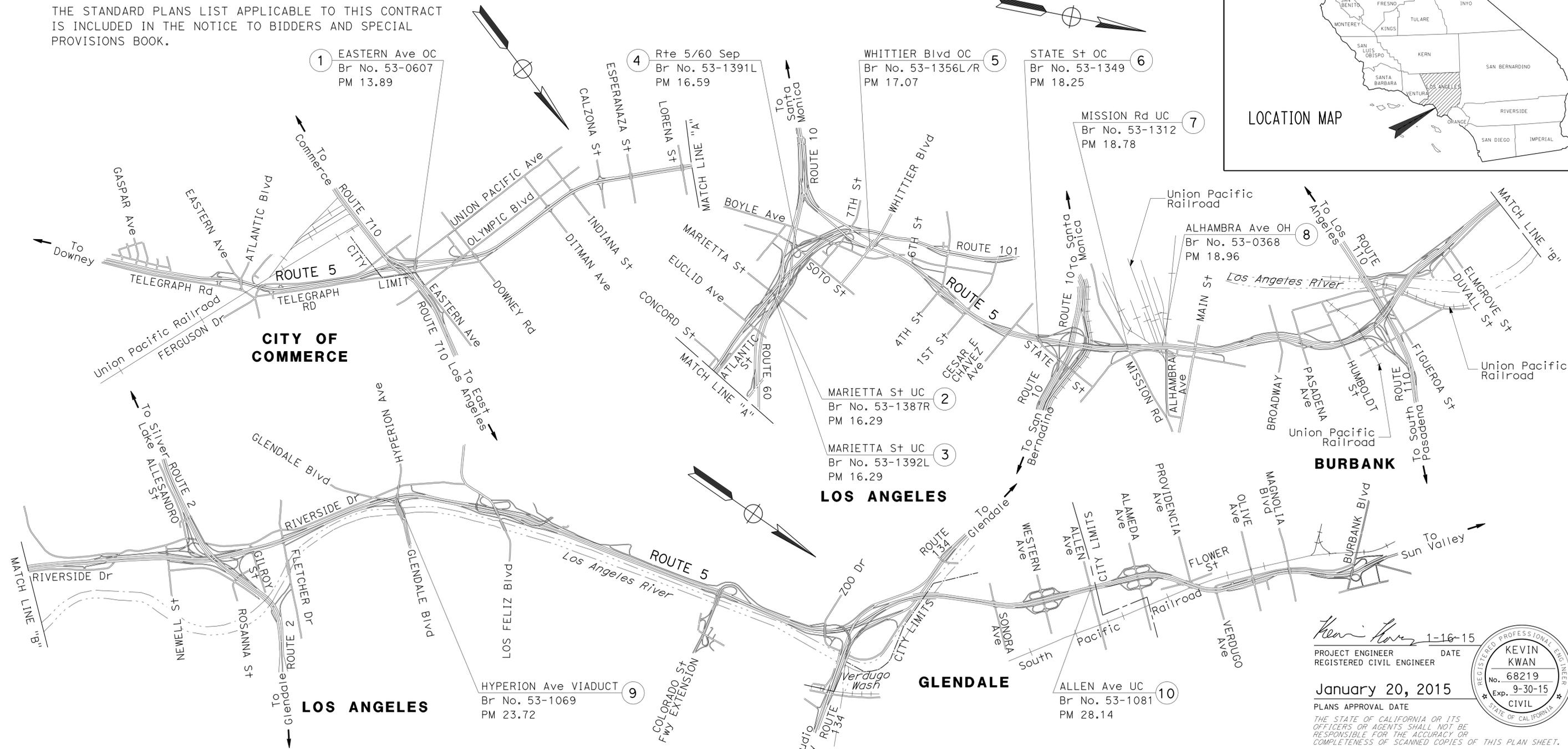
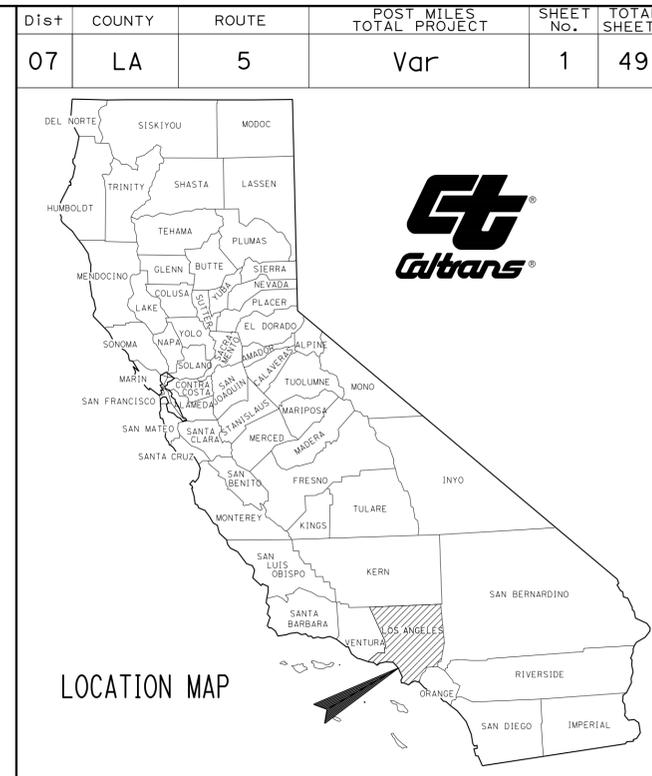
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	CONSTRUCTION AREA SIGNS
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STRUCTURE PLANS  
33-49 ROUTE 5 BRIDGES

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 LOS ANGELES COUNTY**  
**AT VARIOUS LOCATIONS**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



NO SCALE

PROJECT MANAGER	CHRISTIAN SAM
DESIGN MANAGER	HAMID SADATNEJADI

Kevin Kwan 1-16-15  
PROJECT ENGINEER DATE  
REGISTERED CIVIL ENGINEER

January 20, 2015  
PLANS APPROVAL DATE

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

CONTRACT No.	<b>07-2W6904</b>
PROJECT ID	<b>0713000439</b>

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	2	49

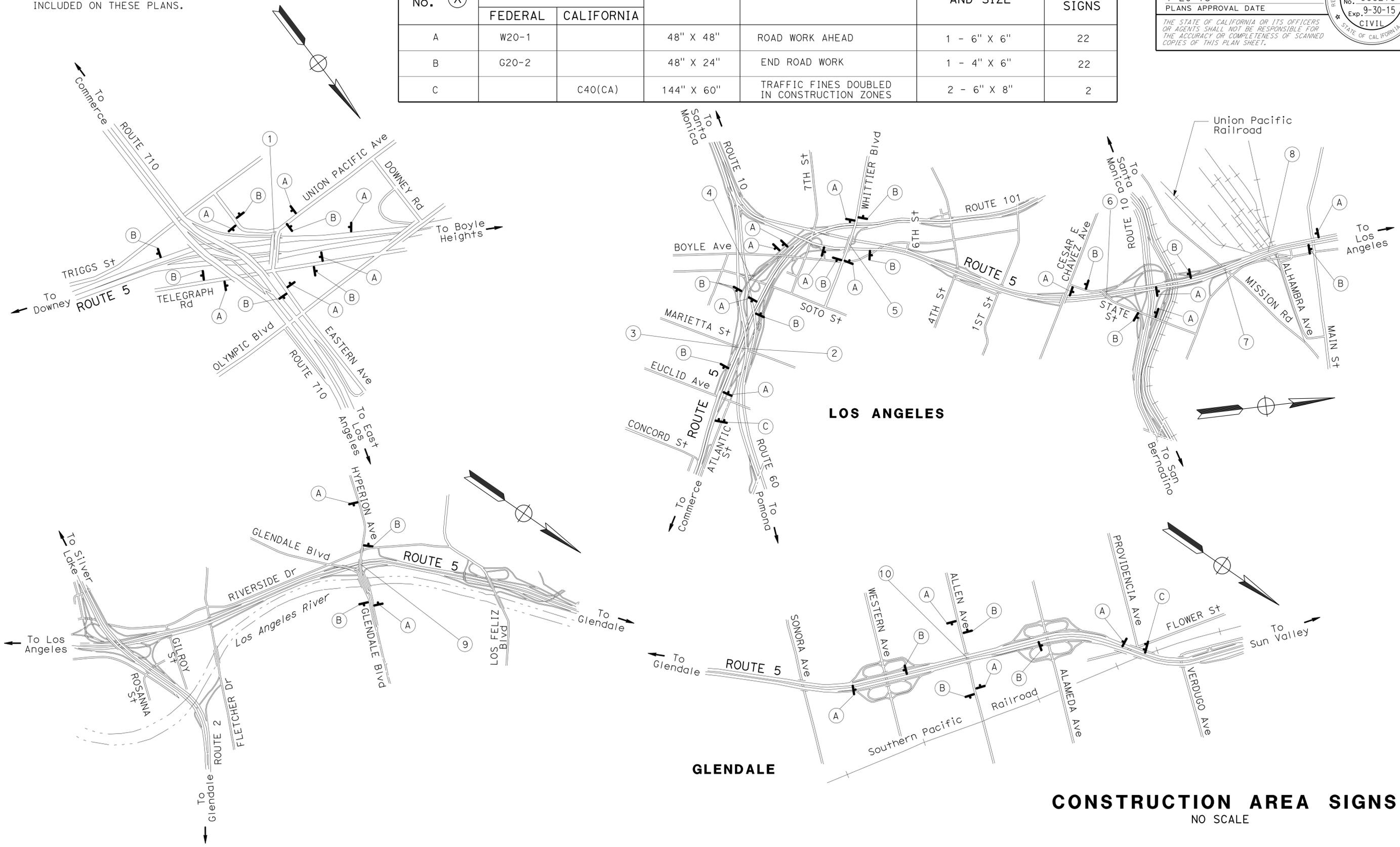
1-16-15  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 KEVIN KWAN  
 No. C68219  
 Exp. 9-30-15  
 CIVIL  
 STATE OF CALIFORNIA

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

- NOTES:**
- EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.
  - EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	W20-1		48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	22
B	G20-2		48" X 24"	END ROAD WORK	1 - 4" X 6"	22
C		C40(CA)	144" X 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" X 8"	2



**CONSTRUCTION AREA SIGNS**  
NO SCALE

**CS-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE ENGINEERING  
 FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI  
 CALCULATED/DESIGNED BY: KEVIN KWAN  
 CHECKED BY: HOALU NGUYEN  
 REVISOR: KEVIN KWAN  
 DATE REVISOR: KEVIN KWAN

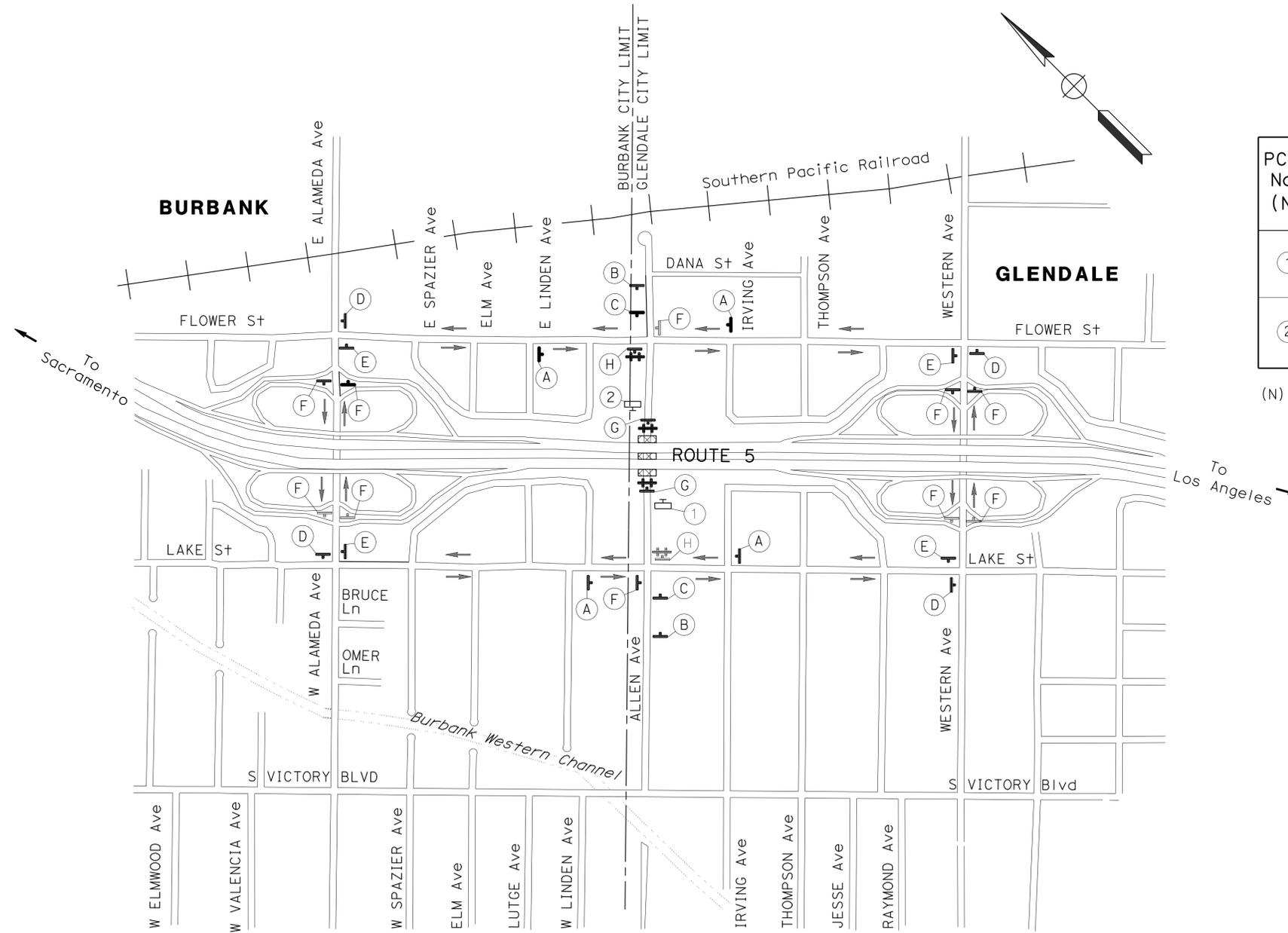
APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

**NOTES:**

1. PCMS AND CONSTRUCTION AREA SIGNS LOCATION SHOWN ARE APPROXIMATE. THE ENGINEER DETERMINES THE EXACT LOCATIONS.
2. SEE CONSTRUCTION AREA SIGNS PLAN AND TRAFFIC HANDLING PLAN FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
3. REMOVE OR COVER EXISTING CONFLICTING SIGNS DURING CONSTRUCTION AS THE ENGINEER DIRECTS.
4. SIGNS MAY BE ATTACHED TO EXISTING UTILITY POSTS BY STRAP AND SADDLE METHOD UPON APPROVAL OF LOCAL AGENCIES.
5. MOUNT SIGN BOTTOMS A MINIMUM OF 7 FEET ABOVE GROUND.
6. FOR ADDITIONAL SIGN DETAILS, SEE SHEET MID-1.

**LEGEND:**

- ⚡ TYPE III BARRICADE
- ⏏ PCMS
- ▨ LIMIT OF CONSTRUCTION



PCMS No. (N)	LOCATION	PRIMARY MESSAGE		SECONDARY MESSAGE		DURATION
		FIRST FLASH	SECOND FLASH	FIRST FLASH	SECOND FLASH	
①	NB ALLEN Ave ON THE RIGHT SHOULDER JUST SOUTH OF Rte 5	ROAD WILL BE CLOSED	MM-DD TO MM-DD	ROAD CLOSED	UNTIL MM-DD	TWO WEEKS PRIOR TO CLOSURE, USE PRIMARY MESSAGE.
②	SB ALLEN Ave ON THE RIGHT SHOULDER JUST NORTH OF Rte 5	ROAD WILL BE CLOSED	MM-DD TO MM-DD	ROAD CLOSED	UNTIL MM-DD	DURING CLOSURE, USE SECONDARY MESSAGE.

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DTM  
 FUNCTIONAL SUPERVISOR DENIS KATAYAMA  
 CALCULATED/DESIGNED BY CHECKED BY  
 JULIO VALDEZ DENIS KATAYAMA  
 REVISED BY DATE REVISED

**MOTORIST INFORMATION PLAN**  
**(PCMS LOCATIONS AND DETOUR SIGNING)**  
**ALLEN Ave CLOSURE**  
 NO SCALE

**MI-1**

APPROVED FOR MOTORIST INFORMATION WORK ONLY

SIGN	SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
				LINE 1	LINE 2 *	LINE 3	LINE 4	LINE 5 *	
SPECIAL (A)	42" X 60"	1 1/4"	3/4"	4E	4D	6E	4D	4D	3"
* CONDENSED SPACING IF NECESSARY									



SPECIAL (A)



SIGN (B)  
C19 (CA)



SIGN (C)  
W20-2



SIGN (D)  
D3-1  
M4-9 (L+)



SIGN (E)  
D3-1  
M4-9 (R+)



SIGN (F)  
D3-1  
M4-9



SIGN (G)  
C2 (CA)



SIGN (H)  
R11-4  
M4-10 (R+)

**MOTORIST INFORMATION DETAILS  
(SIGN DETAILS)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
Caltrans

FUNCTIONAL SUPERVISOR: DENIS KATAYAMA  
DESIGNED BY: DENIS KATAYAMA  
CHECKED BY: DENIS KATAYAMA  
REVISOR: JULIO VALDEZ  
DATE: 7/2/2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	5	49

*Denis Katayama* 1-16-15  
 REGISTERED CIVIL ENGINEER DATE

1-20-15  
 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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DTM**  
 FUNCTIONAL SUPERVISOR  
 DENIS KATAYAMA  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 JULIO VALDEZ  
 DENIS KATAYAMA  
 REVISED BY  
 DATE REVISED

MOTORIST INFORMATION SIGN QUANTITIES						
SIGN No.	PANEL SIZE (IN x IN)	SIGN MESSAGE	POST SIZE (IN x IN)	No. OF POST EA	SIGN QUANTITY EA (N)	REMARKS
SPECIAL (A)			6" x 6"	1	4	
	42" x 60"	ALLEN AVE CLOSED AT ROUTE 5				BLACK ON ORANGE
SIGN (B)			4" x 4"	1	2	
C19 (CA)	36" x 36"	ROAD CLOSED AHEAD				BLACK ON ORANGE
SIGN (C)			4" x 4"	1	2	
W20-2	36" x 36"	DETOUR AHEAD				BLACK ON ORANGE
SIGN (D)			4" x 6"	1	4	
D3-1	60" x 18"	ALLEN AVE				BLACK ON ORANGE
M4-9 (L+)	30" x 24"	DETOUR				BLACK ON ORANGE
SIGN (E)			4" x 6"	1	4	
D3-1	60" x 18"	ALLEN AVE				BLACK ON ORANGE
M4-9 (R+)	30" x 24"	DETOUR				BLACK ON ORANGE
SIGN (F)			4" x 6"	1	10	
D3-1	60" x 18"	ALLEN AVE				BLACK ON ORANGE
M4-9	30" x 24"	DETOUR				BLACK ON ORANGE
SIGN (G)					2	
C2 (CA)	48" x 30"	ROAD CLOSED				BLACK ON WHITE
SIGN (H)					2	
R11-4	60" x 30"	ROAD CLOSED TO THRU TRAFFIC				BLACK ON WHITE
M4-10 (R+)	48" x 18"	DETOUR				BLACK ON ORANGE
SHEET TOTAL					30	

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

## MOTORIST INFORMATION QUANTITIES

**MIQ-1**

LAST REVISION | DATE PLOTTED => 04-FEB-2015  
 01-20-15 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	6	49

1-16-15  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE

KEVIN KWAN  
 No. C68219  
 Exp. 9-30-15  
 CIVIL

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

**NOTES:**

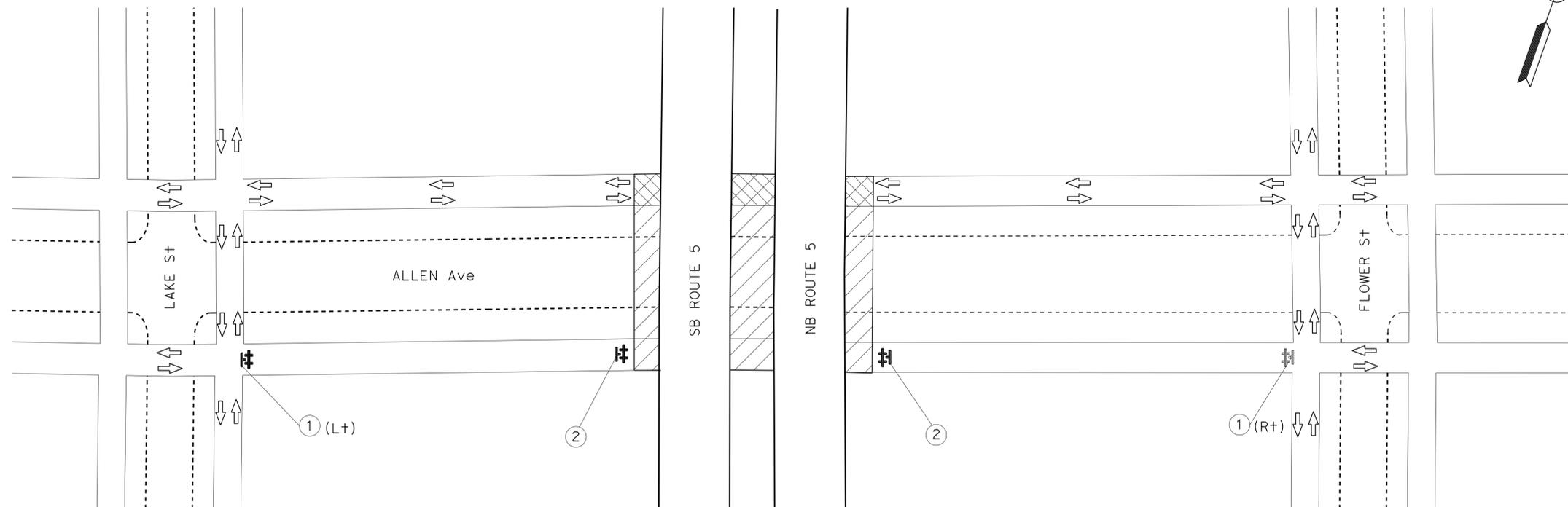
1. MOUNT SIGNS ① AND ② ON TYPE III BARRICADES.
2. SEE CONSTRUCTION AREA SIGNS PLAN AND MOTORIST INFORMATION PLAN FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
3. CONSTRUCTION AREA SIGNS LOCATION SHOWN ARE APPROXIMATE. THE ENGINEER DETERMINES THE EXACT LOCATION.

**LEGEND:**

-  PEDESTRIAN TRAFFIC
-  TEMPORARY PEDESTRIAN FACILITY WITH PROTECTIVE OVERHEAD COVERING
-  WORK AREA
-  TYPE III BARRICADE

SIGN No. ⊗	SIGN CODE	PANEL SIZE (in x in)	SIGN MESSAGE	No. OF SIGNS EA (N)
1	R9-11 (Rt or Lt)	24 x 18	SIDEWALK CLOSED AHEAD, CROSS HERE	2
2	R9-9	24 x 12	SIDEWALK CLOSED	2

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



**TRAFFIC HANDLING PLAN  
(PEDESTRIAN DETOUR SIGNING)**

NO SCALE

**TH-1**

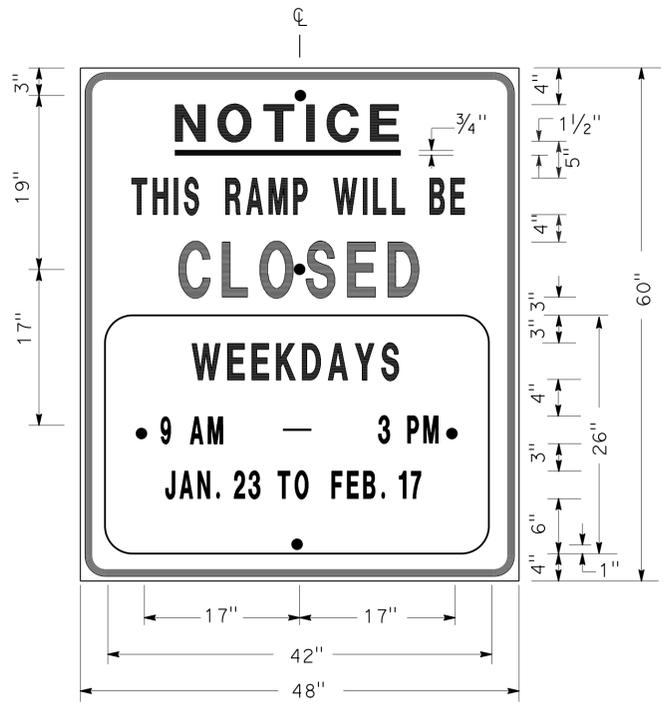
APPROVED FOR TRAFFIC HANDLING WORK ONLY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	7	49

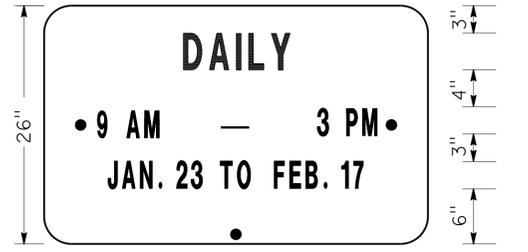
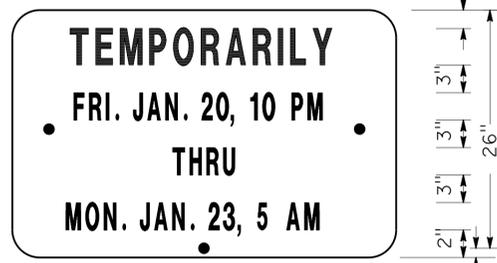
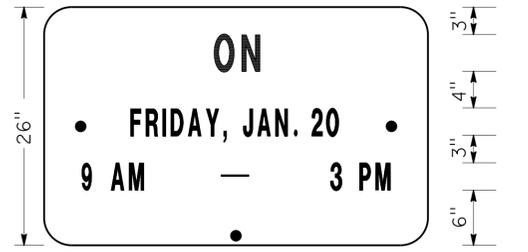
REGISTERED CIVIL ENGINEER  
*Dennis Katsuyama* 1-16-15  
 DATE 1-20-15  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 D.S. KATAYAMA  
 No. C50648  
 Exp. 9-30-15  
 CIVIL  
 STATE OF CALIFORNIA

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SIGN SP-1



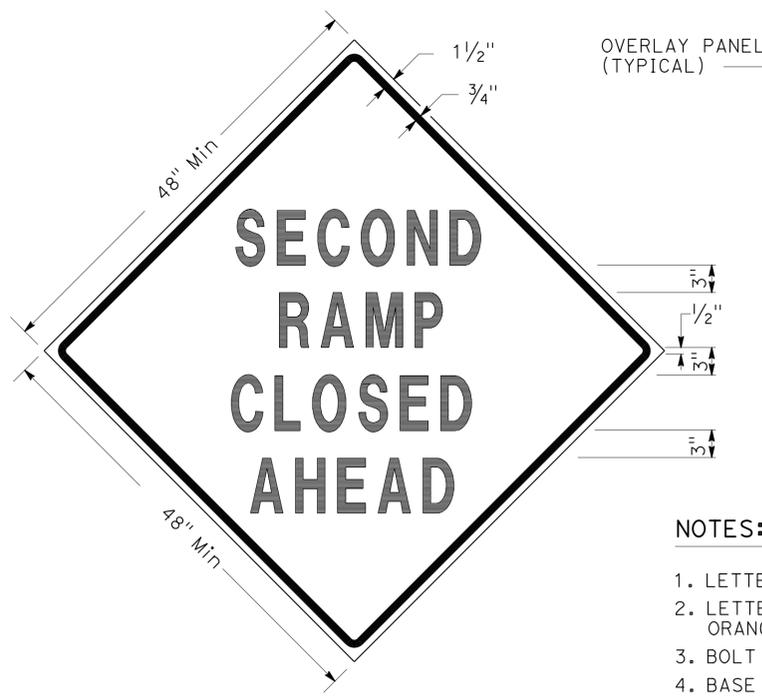
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: SIGN SP-1
- LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
  - BOLT HOLES MUST BE 3/8" DIAMETER.
  - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
  - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"

\* CONDENSED SPACING IF NECESSARY

**SPECIAL ADVANCE NOTICE PUBLICITY SIGN**



SIGN SP-3



SIGN SP-5

- NOTES: SIGNS SP-3 & SP-5
- LETTERS - 6" SERIES D.
  - LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
  - BOLT HOLES MUST BE 3/8" DIAMETER.
  - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
  - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
  - SIGN SP-5 MUST BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

**SPECIAL SIGNS FOR EXIT RAMP CLOSURES**



SIGN SP-4

- NOTES: SIGN SP-4
- LETTERS - 6" SERIES C.
  - LETTERS AND BORDER MUST BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
  - BOLT HOLES MUST BE 3/8" DIAMETER.
  - BASE MATERIAL MUST BE ALUMINUM (MINIMUM 0.06").
  - SIGNS MUST BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH REVISED STANDARD PLAN RSP T14.

**SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES**

**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURES, DETOUR SIGNS,  
 AND MISCELLANEOUS DETAILS**

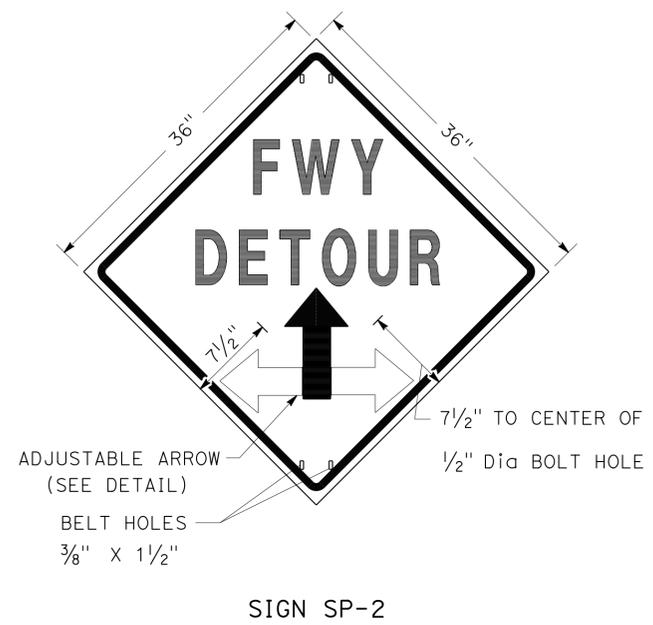
SHEET 1 OF 2

NO SCALE

THD-1

LAST REVISION DATE PLOTTED => 04-FEB-2015 01-20-15 TIME PLOTTED => 09:53

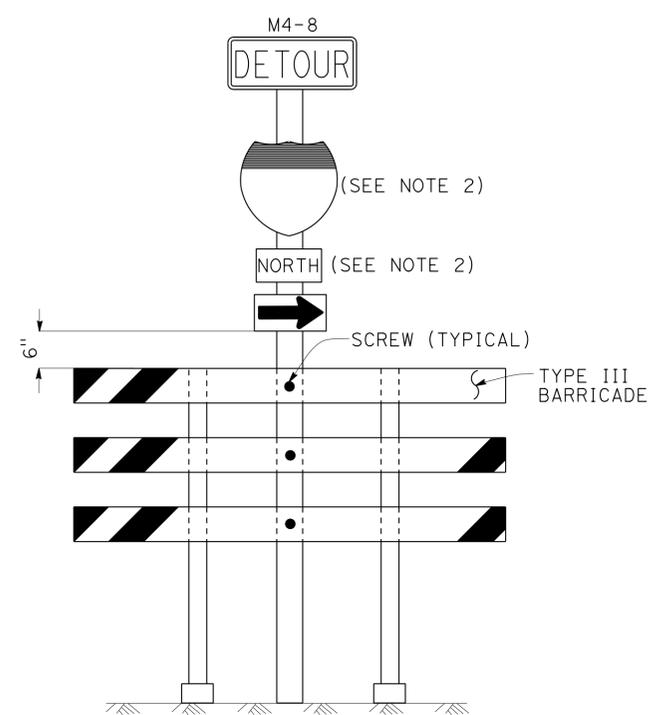
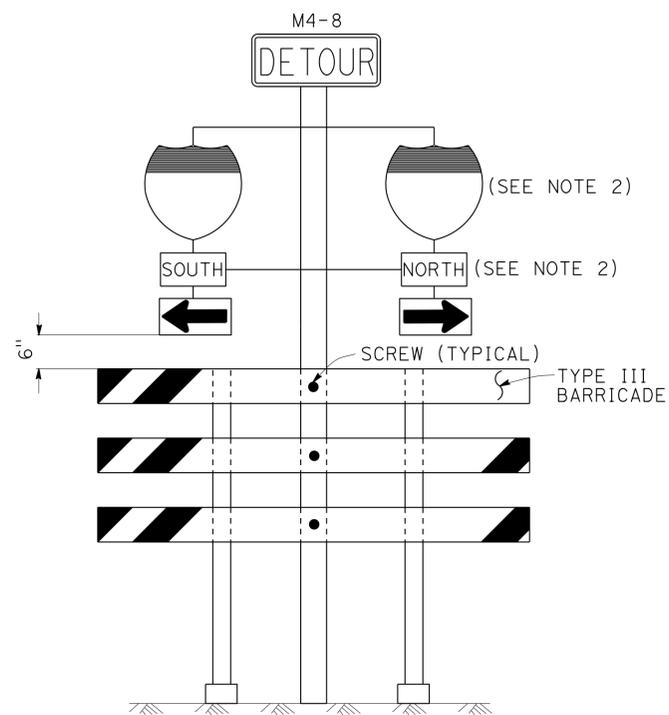
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DTM  
 FUNCTIONAL SUPERVISOR  
 SAMUEL ESQUENAZI  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 JOCELYN C CHIANG  
 REVISED BY  
 DATE REVISED  
 2/14  
 JC



- NOTES:** SIGN SP-2
- LETTERS - 6" SERIES E.
  - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
  - BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
  - BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
  - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

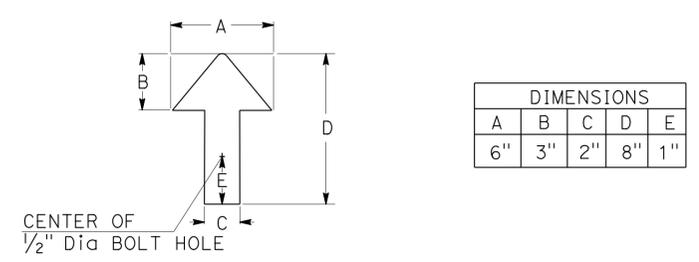
**ABBREVIATION**

(CA) CALIFORNIA CODE



- NOTES:** SIGNS SP-6 & SP-7
- IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
  - USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

**SPECIAL PORTABLE FREEWAY DETOUR SIGNS**



**ADJUSTABLE ARROW DETAIL**

**TRAFFIC HANDLING DETAILS**  
**TRAFFIC CONTROL SYSTEM**  
**FOR RAMP CLOSURES, DETOUR SIGNS,**  
**AND MISCELLANEOUS DETAILS**  
**SHEET 2 OF 2**  
 NO SCALE

**THD-2**

LAST REVISION | DATE PLOTTED => 04-FEB-2015  
 01-20-15 TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	9	49

*Demetri Katayama* 1-16-15  
 REGISTERED CIVIL ENGINEER DATE

1-20-15  
 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.

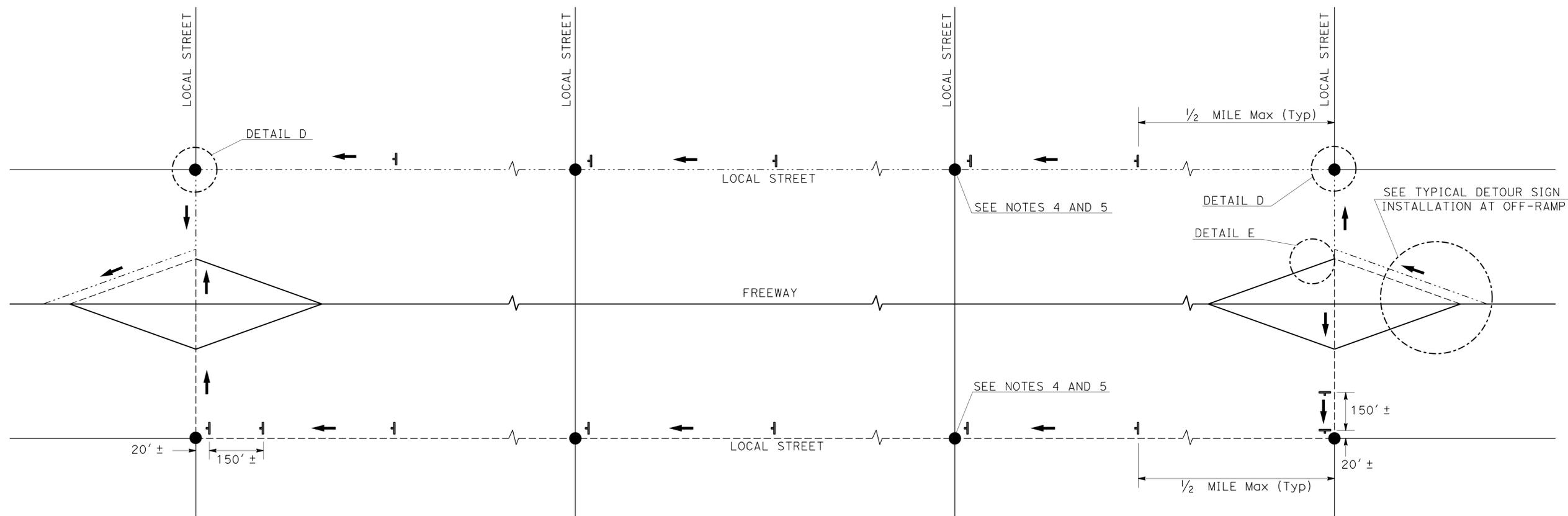
REGISTERED PROFESSIONAL ENGINEER  
**D.S. KATAYAMA**  
 No. C50648  
 Exp. 9-30-15  
 CIVIL  
 STATE OF CALIFORNIA

**LEGEND**

- ↓ SIGN SP-2
- AND/OR DESIGNATED DETOUR ROUTE
- DETOUR DIRECTION
- CONTROLLED INTERSECTION

**NOTES:**

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
4. SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
5. UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
6. EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS MUST BE PLACED AS SHOWN ON THIS PLAN.



**TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE**

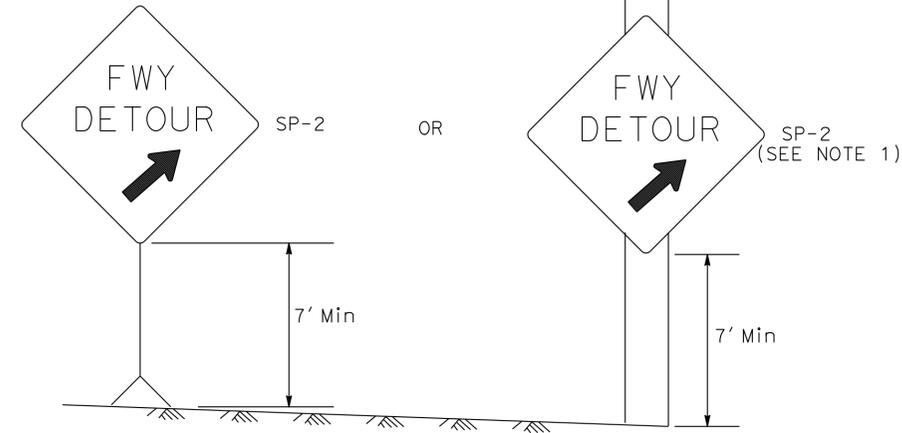
**TRAFFIC HANDLING DETAILS**  
**TRAFFIC CONTROL SYSTEM**  
**FOR DETOUR SIGN INSTALLATION**  
**ALONG DESIGNATED DETOUR ROUTE**  
**SHEET 1 OF 3**  
 NO SCALE **THD-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DT M  
 FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
 CALCULATED/DESIGNED BY: ALBERT K YU  
 CHECKED BY: JOCELYN C CHIANG  
 REVISED BY: JC  
 DATE REVISED: 2/14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	10	49

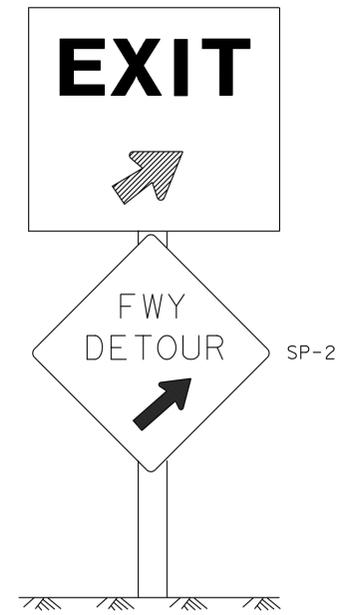
*Denise Katayama* 1-16-15  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 D.S. KATAYAMA  
 No. C50648  
 Exp. 9-30-15  
 CIVIL  
 STATE OF CALIFORNIA



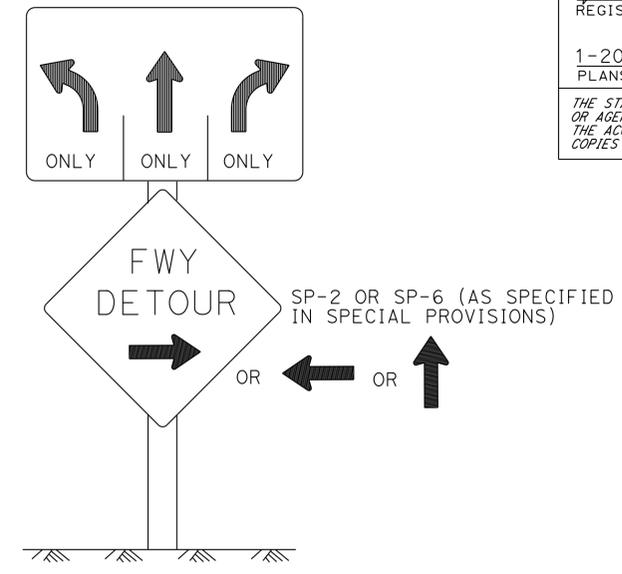
DETAIL A (SEE NOTE 3)

Exist E5-1, G84-2 (CA) OR G84-3 (CA)

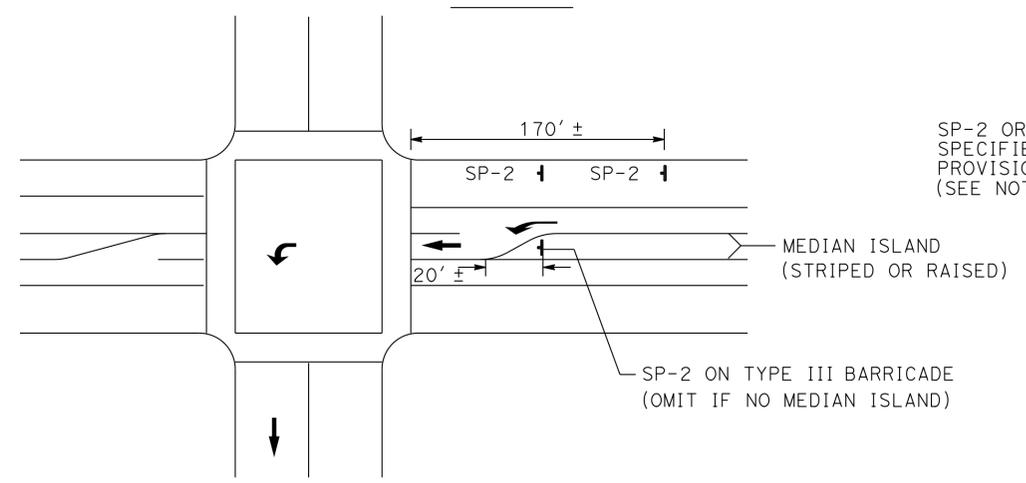


DETAIL B (SEE NOTE 3)

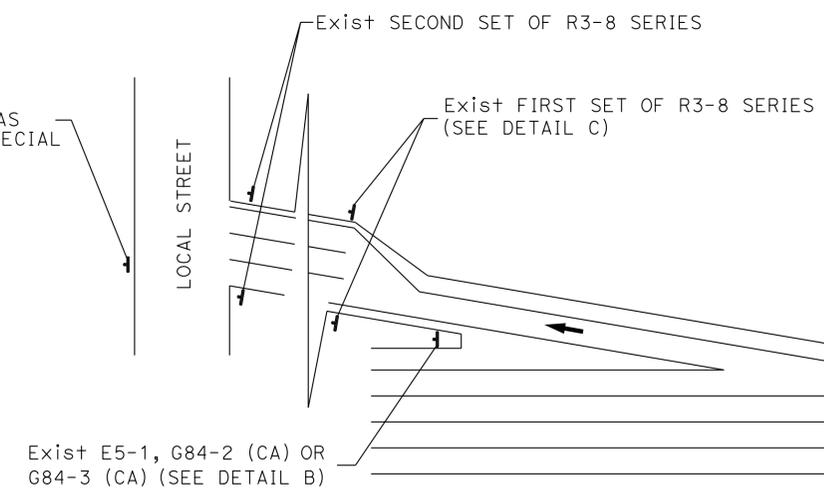
Exist R3-8 SERIES



DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL D



DETAIL E

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ➔ DETOUR DIRECTION
- EXISTING OVERHEAD SIGN

TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

SIGN CODE LEGEND

XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)  
 XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

NOTES: SIGN SP-2

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
5. IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS MUST BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
6. EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

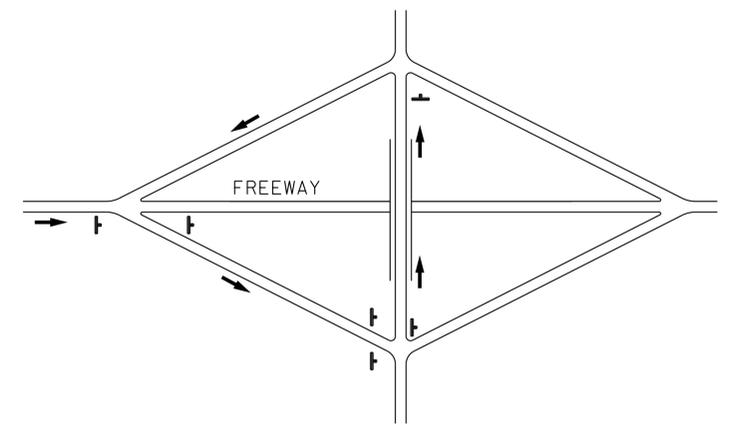
TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR DETOUR SIGN INSTALLATION  
 ALONG DESIGNATED DETOUR ROUTE  
 SHEET 2 OF 3

NO SCALE

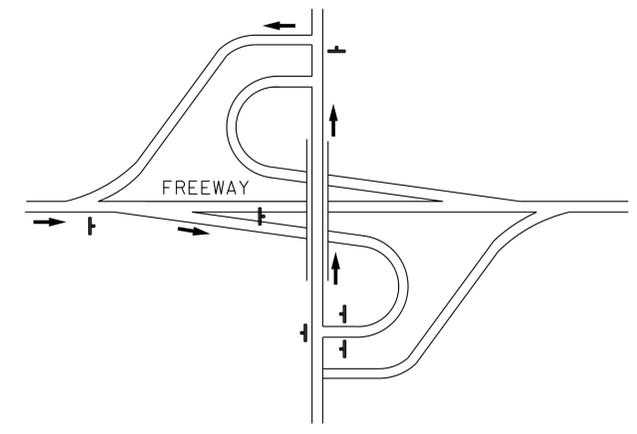
THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DTM  
 EtCaltrans®  
 FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 REVISOR: ALBERT K YU, JOCELYN C CHIANG  
 DATE: 2/14  
 REVISIONS: JC

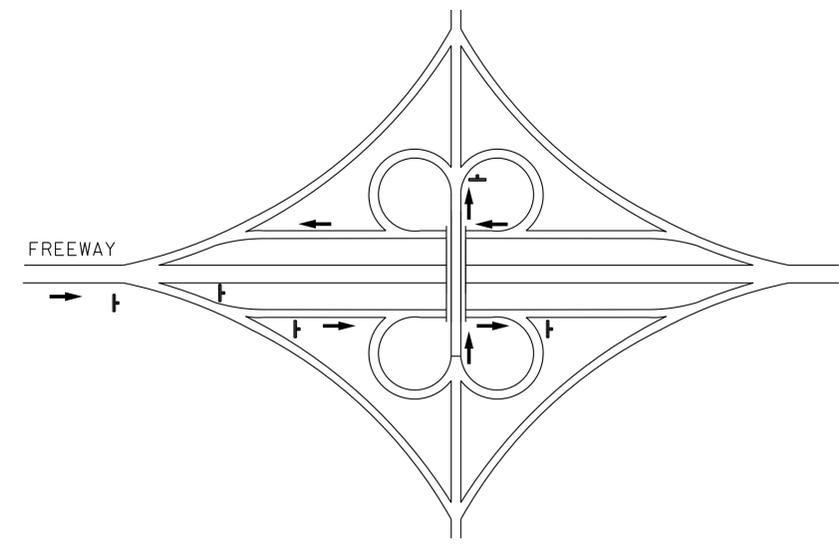
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DTM**  
 FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 REVISED BY: ALBERT K YU, JOCELYN C CHIANG, JC  
 DATE REVISED: 2/14



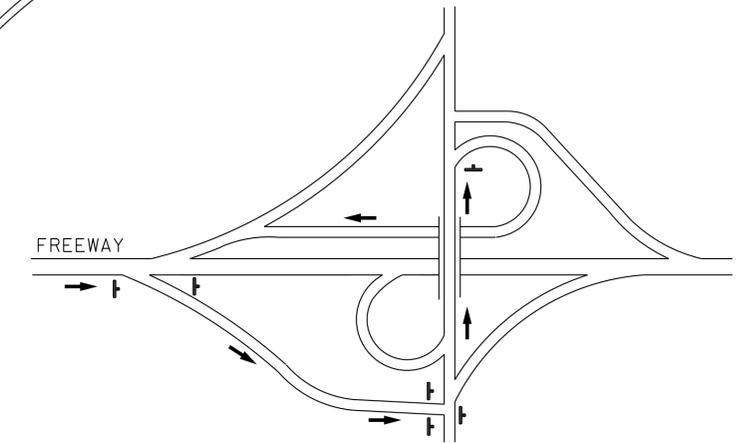
TYPE I



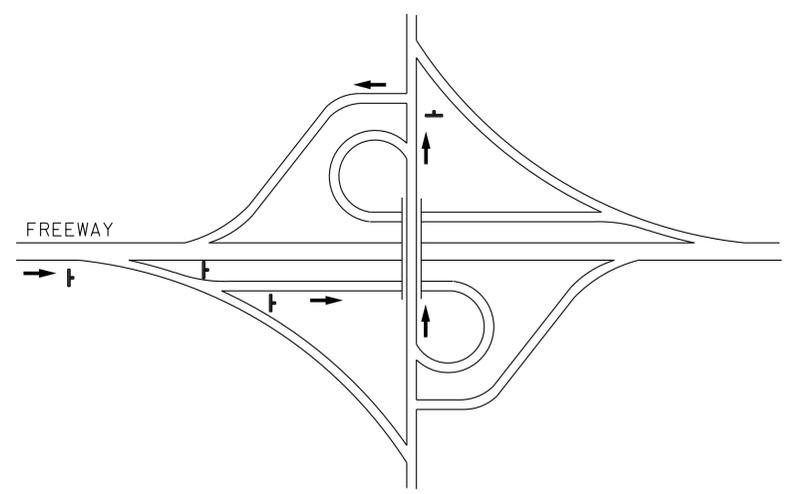
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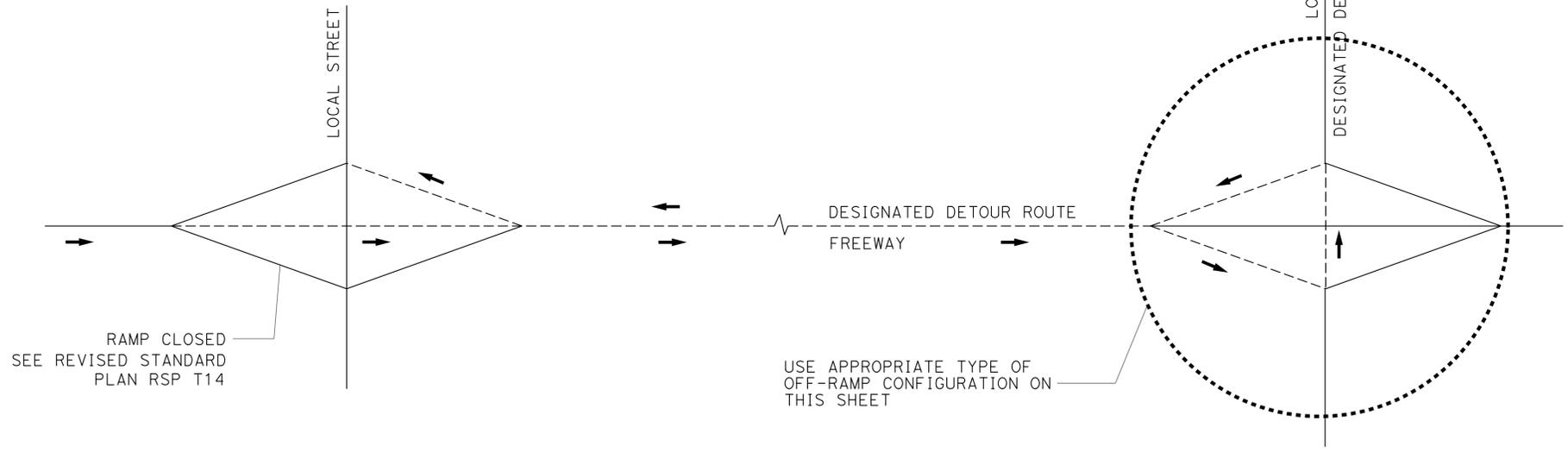
TYPE III



TYPE IV



TYPE V



TYPE OF OFF-RAMP CONFIGURATION	MINIMUM No. OF SP-2
TYPE I	6
TYPE II	6
TYPE III	5
TYPE IV	6
TYPE V	4

**TYPICAL DETOUR SIGN INSTALLATION FOR OFF-RAMP CLOSURE**

**NOTES:**

- FOR RAMP CONFIGURATIONS NOT SHOWN, THE EXACT LOCATIONS AND MINIMUM NUMBER OF SP-2 SIGNS MUST BE DETERMINED BY THE ENGINEER.
- SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-2 SIGN DETAILS.

**LEGEND**

- SIGN SP-2
- DETOUR DIRECTION
- DESIGNATED DETOUR ROUTE

**TRAFFIC HANDLING DETAILS  
TRAFFIC CONTROL SYSTEM  
FOR DETOUR SIGN INSTALLATION  
ALONG DESIGNATED DETOUR ROUTE  
SHEET 3 OF 3**

NO SCALE

**THD-5**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	12	49

REGISTERED CIVIL ENGINEER	DATE
<i>Senju Katayama</i>	1-16-15
PLANS APPROVAL DATE	
	1-20-15

REGISTERED PROFESSIONAL ENGINEER
D.S. KATAYAMA
No. C50648
Exp. 9-30-15
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.

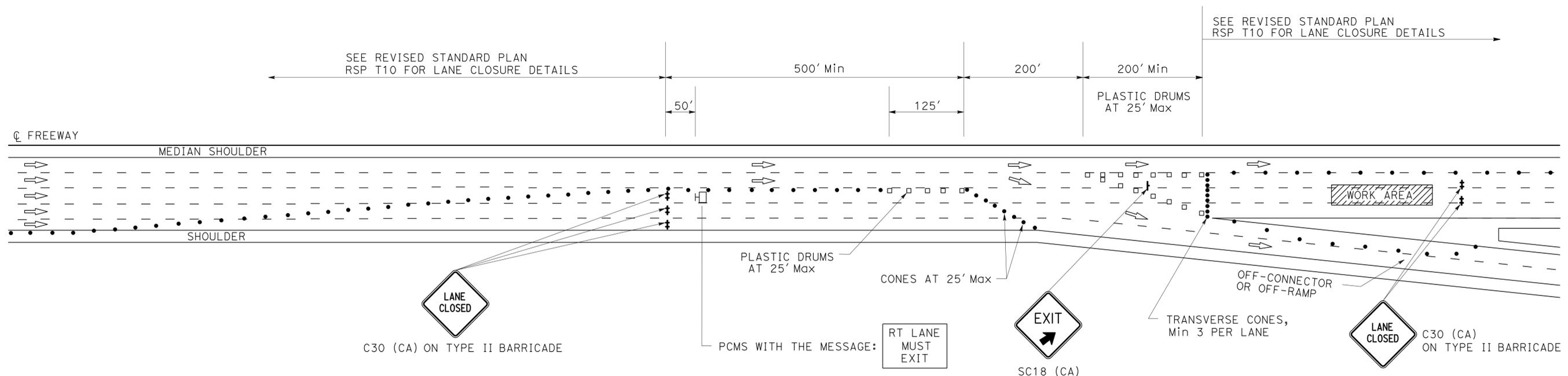
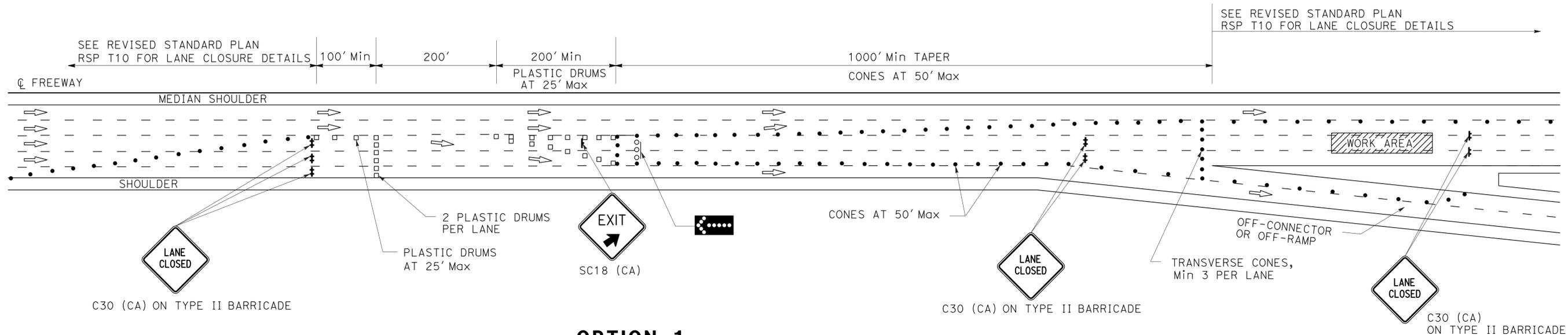
**LEGEND**

- TRAFFIC CONE
- TRAFFIC PLASTIC DRUM
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ BARRICADES
- ☐ PCMS
- ⬇️ FLASHING ARROW SIGN (FAS)
- ⊖ FAS SUPPORT OR TRAILER

**ABBREVIATIONS**

(CA) CALIFORNIA CODE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DT  
 FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
 CALCULATED/DESIGNED BY: ALBERT K YU  
 CHECKED BY: JOCELYN C CHIANG  
 REVISIONS: JC 2/14  
 REVISIONS: DATE REVISED



**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR SLIP-RAMP AT  
 OFF-CONNECTOR OR OFF-RAMP**

NO SCALE

**THD-6**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	13	49

*Denise Katayama* 1-16-15  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
- PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
- A MINIMUM SIGHT DISTANCE OF 1500' MUST BE PROVIDED IN ADVANCE OF PCMS.
- VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.

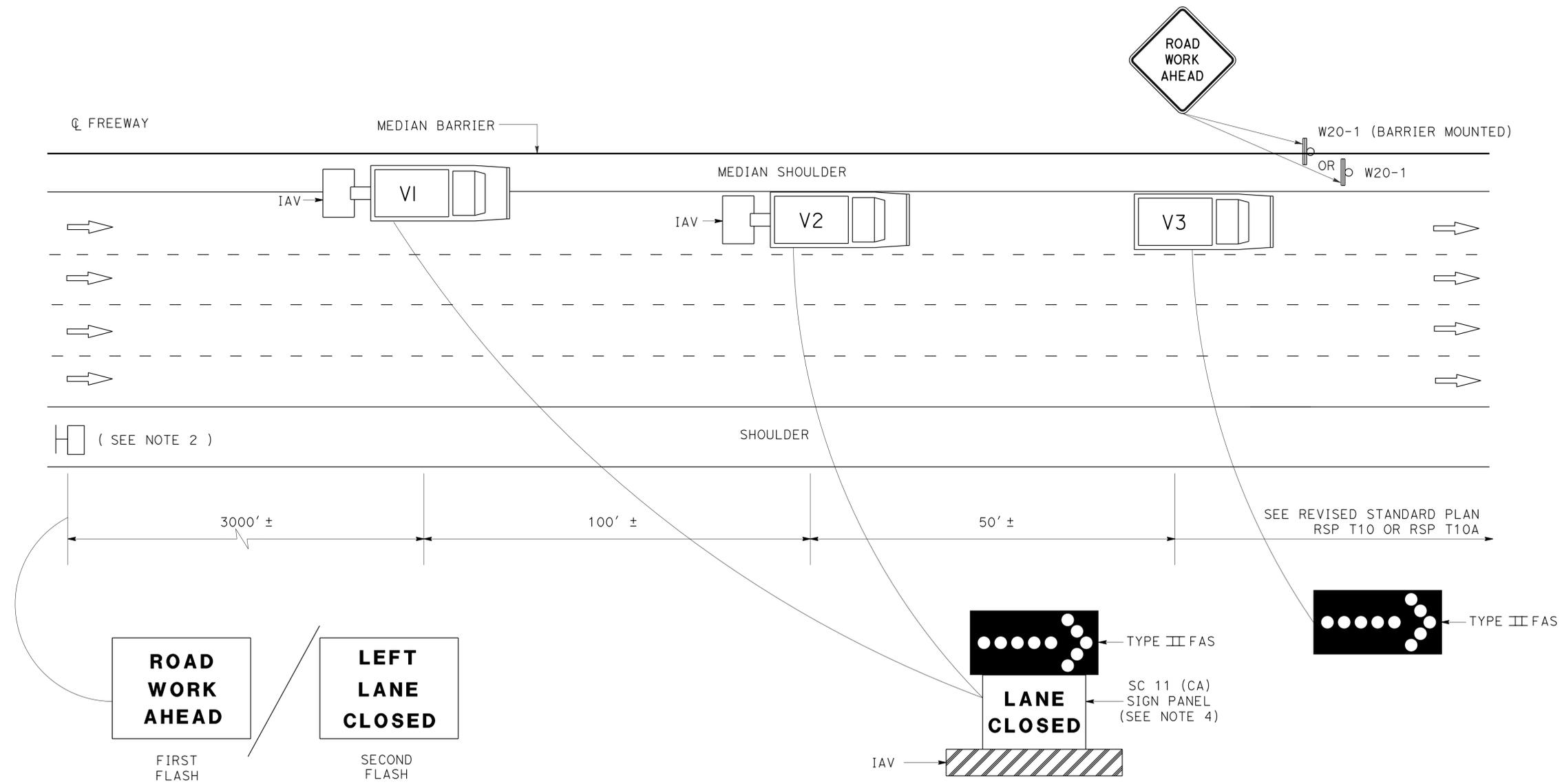
**LEGEND**

- V1, V2 SHADOW VEHICLES
- V3 WORK/APPLICATION VEHICLE
- PCMS
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)

**ABBREVIATIONS**

- IAV IMPACT ATTENUATOR VEHICLE
- (CA) CALIFORNIA CODE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DTMM  
 FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
 CHECKED BY: JOCELYN C CHIANG  
 REVISIONS: JC 2/14  
 REVISIONS: ALBERT K YU, JOCELYN C CHIANG



**PCMS OR TRUCK MOUNTED CMS MESSAGE**

**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR MEDIAN SHOULDERS LESS THAN 8 FEET**

NO SCALE

**THD-7**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	14	49

*Denise Katayama* 1-16-15  
REGISTERED CIVIL ENGINEER DATE

1-20-15  
PLANS APPROVAL DATE

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

**NOTES:**

- EXACT LOCATION OF PCMS WILL BE DETERMINED BY THE ENGINEER TO PROVIDE ADEQUATE VISIBILITY.
- PCMS MESSAGE DISPLAYED WILL BE APPROVED BY THE ENGINEER.
- PCMS MESSAGE MUST BE CHANGED AT THE BEGINNING OF CURE PERIOD TO REFLECT NUMBER OF CLOSED LANES.

**ABBREVIATIONS**

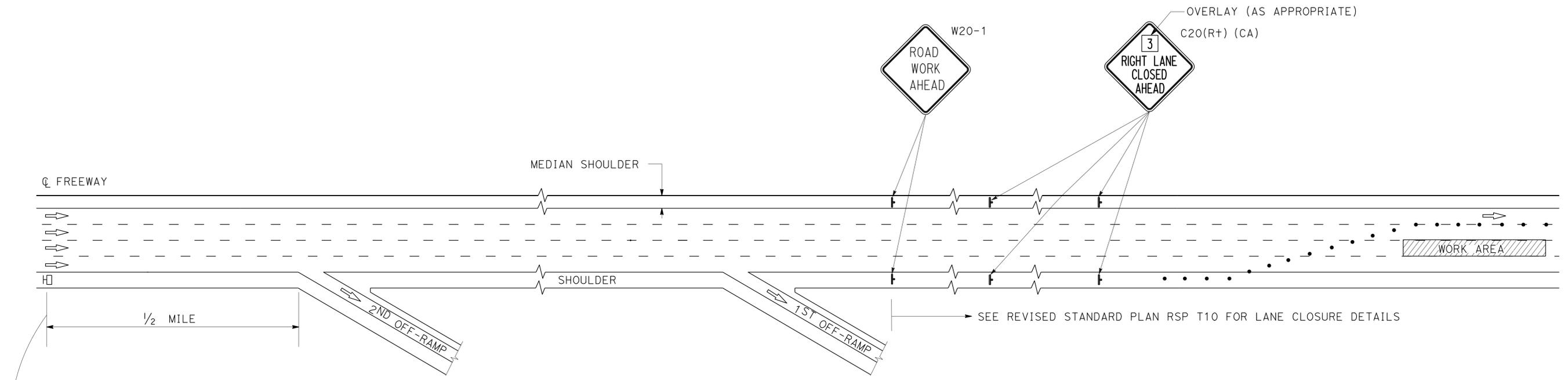
(CA) CALIFORNIA CODE

**LEGEND**

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- PCMS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
*Caltrans*  
DTM

FUNCTIONAL SUPERVISOR: SAMUEL ESQUENAZI  
CHECKED BY: JOCELYN C CHIANG  
REVISOR: ALBERT K YU  
DATE: 2/14



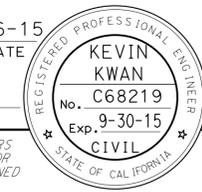
FIRST FLASH	<b>X (NO OF LANES) RIGHT / LEFT</b>	← 1ST LINE (TYPICAL)
	<b>LANES</b>	← 2ND LINE (TYPICAL)
	<b>CLOSED</b>	← 3RD LINE (TYPICAL)
SECOND FLASH	<b>A ST</b>	← LIMIT OF CLOSURE (TYPICAL)
	<b>TO B DR</b>	← LIMIT OF CLOSURE (TYPICAL)

**WORDING FORMAT FOR PCMS MESSAGE**

**TRAFFIC HANDLING DETAILS  
TRAFFIC CONTROL SYSTEM  
FOR CONCRETE PAVEMENT AND  
APPROACH SLAB REPLACEMENT**

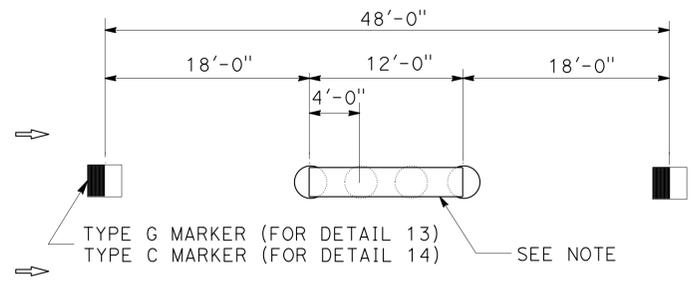
NO SCALE

**THD-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	15	49
				1-16-15	DATE
REGISTERED CIVIL ENGINEER				KEVIN KWAN	
1-20-15				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>					

**LEGEND:**

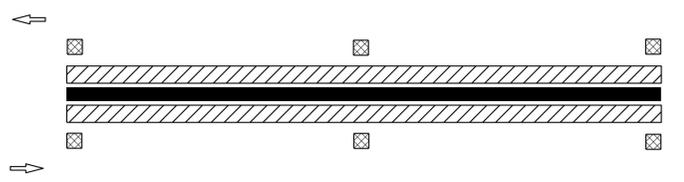
-  TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER
-  4" WHITE STRIPE (THERMOPLASTIC)
-  4" YELLOW STRIPE (THERMOPLASTIC)
-  PAINT TRAFFIC STRIPE (2-COAT)  
3" SOLID BLACK



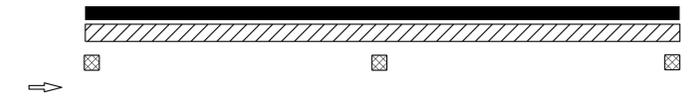
**NOTE:**

PLACE 4" WIDE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.

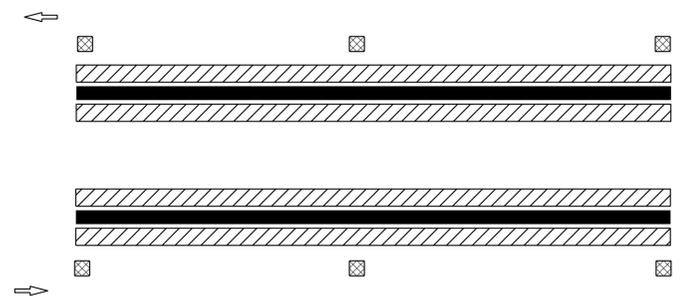
**DETAIL 13/14 (MODIFIED)**



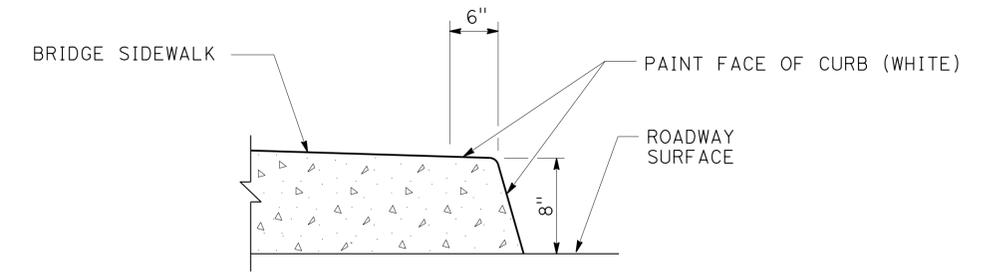
**DETAIL 21/22 (WITH BLACK CONTRAST)**



**DETAIL 25A (WITH BLACK CONTRAST)**



**DETAIL 29 (WITH BLACK CONTRAST)**



**PAINT CURB (2-COAT)**

**PAVEMENT DELINEATION DETAILS**  
NO SCALE

**PDD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE ENGINEERING  
 FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 HOALU NGUYEN KEVIN KWAN  
 REVISED BY: DATE: REVISOR: DATE:





Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	17	49

*Kevin Kwan* 1-16-15  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 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.

### PAVEMENT DELINEATION QUANTITIES

Loc No. (X)	PM	BRIDGE NAME	BRIDGE No.	PAINT CURB (2 COAT) WHITE SQFT	PAINT TRAFFIC STRIPE (2-COAT) 3" SOLID BLACK	THERMOPLASTIC TRAFFIC STRIPE								THERMOPLASTIC PAVEMENT MARKING		PAVEMENT MARKER								
						DETAIL 29 4" YELLOW	DETAIL 27B 4" WHITE	DETAIL 25A 4" YELLOW	DETAIL 22 4" YELLOW	DETAIL 21 4" YELLOW	DETAIL 38B 8" WHITE	DETAIL 36/36A/36B 8" WHITE	DETAIL 9 4" WHITE BROKEN (17-7)	DETAIL 13/14 MODIFIED 4" WHITE BROKEN (18-12)	ARROWS SQFT	WORDS SQFT	Det 22, Det 29	Det 25A	Det 9, Det 36/36A, Det 38B	Det 13/14 (MODIFIED)				
																	TYPE D TWO-WAY YELLOW RETROREFLECTIVE	TYPE H ONE-WAY YELLOW RETROREFLECTIVE	TYPE G ONE-WAY CLEAR RETROREFLECTIVE	TYPE C/G RETROREFLECTIVE	TYPE A NON-REFLECTIVE			
1	13.89	EASTERN AVENUE OC	53-0607	654	280					560					53									
2	16.29	MARIETTA STREET UC	53-1387R		194		194	194				30		150				10		4		6	12	
3	16.29	MARIETTA STREET UC	53-1392L		187		187	187						187				9				6	16	
4	16.59	ROUTE 5/60 SEPARATION	53-1391L		488		893	727				167		488				32		9		12	40	
5	17.07	WHITTIER BOULEVARD OC	53-1356L/R		190	52			328		230		354		30		20				10			
6	18.25	STATE STREET OC	53-1349		478	956					25		478				42				11			
7	18.78	MISSION ROAD UC	53-1312		234		234	234				234		936				11		12		28	80	
8	18.96	ALHAMBRA AVENUE OH	53-0368				821	821						2,872				36				68	240	
9	23.72	HYPERION AVENUE VIADUCT	53-1069			636							318				29				8			
10	28.14	ALLEN AVENUE UC	53-1081											120								6	12	
SUBTOTAL				654	1,676	1,644	2,329	2,163	328	560	255	431	1,150	4,753	53	30	91	98	54	126	400			
TOTAL				654	1,676	7,024					686	1,150	4,753	83			369			400				

### PAVEMENT DELINEATION QUANTITIES

PDQ-2



	<b>M</b>	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	<b>N</b>	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	<b>O</b>	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	<b>P</b>	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	<b>P continued</b>	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
P, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	<b>Q</b>	
Qty	QUANTITY	
	<b>R</b>	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	<b>S</b>	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
£	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	<b>T</b>	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
TeI	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	<b>T continued</b>	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	<b>U</b>
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	<b>V</b>
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	<b>W</b>
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWLOL	WINGWALL LAYOUT LINE	<b>X</b>
X Sec	CROSS SECTION	
Xing	CROSSING	<b>Y</b>
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	18	49

*Grace M. Tsushima*  
REGISTERED CIVIL ENGINEER

July 19, 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.

TO ACCOMPANY PLANS DATED 1-20-15

**UNIT OF MEASUREMENT SYMBOLS:**  
Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

**TABLE A**

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

**TABLE B**

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft <sup>3</sup> , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

\* For use on a sign panel only

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

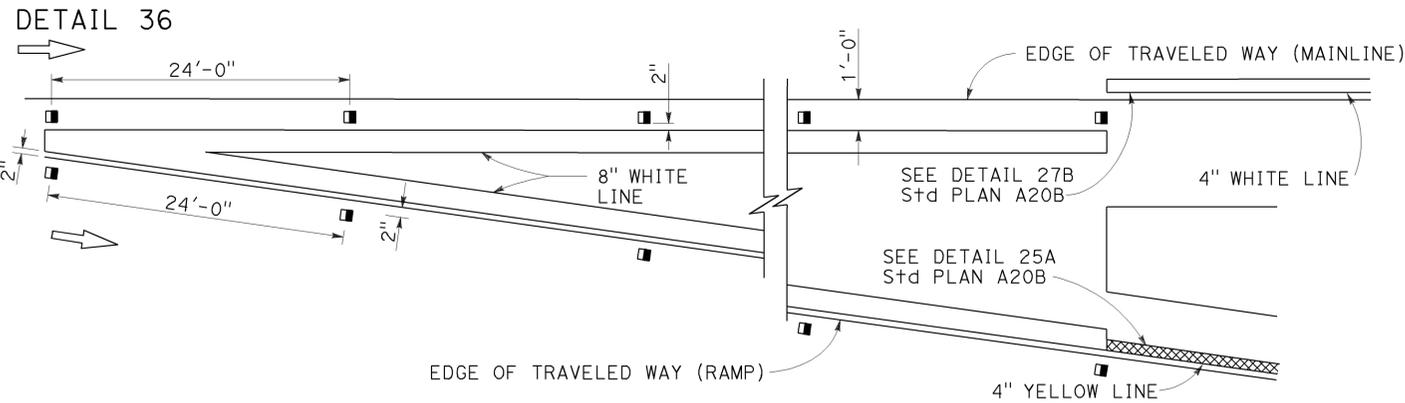
**ABBREVIATIONS  
(SHEET 2 OF 2)**

NO SCALE

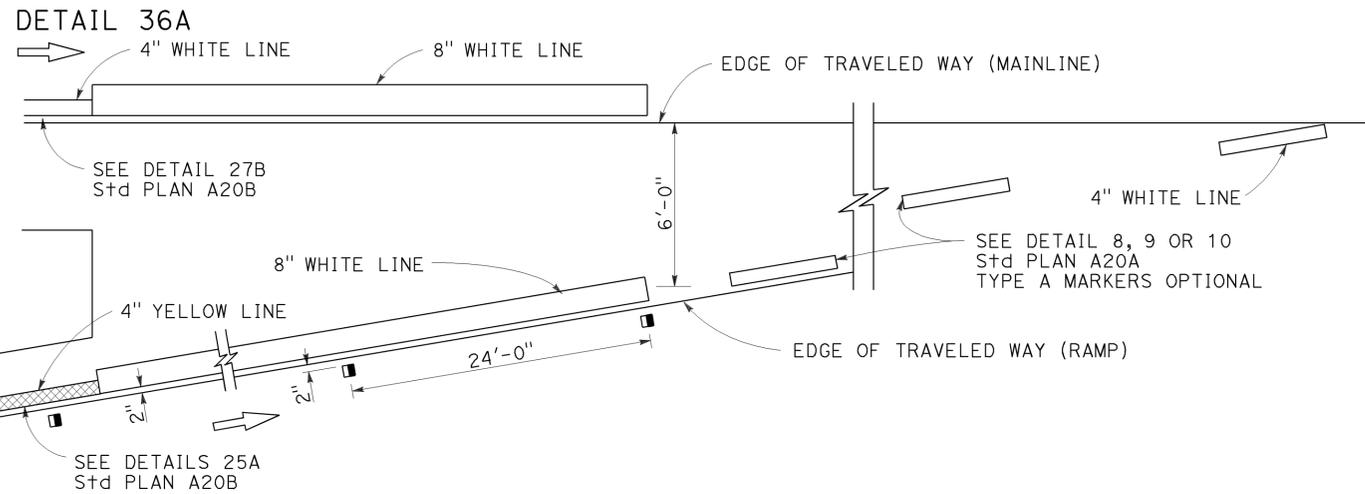
RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B  
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A10B

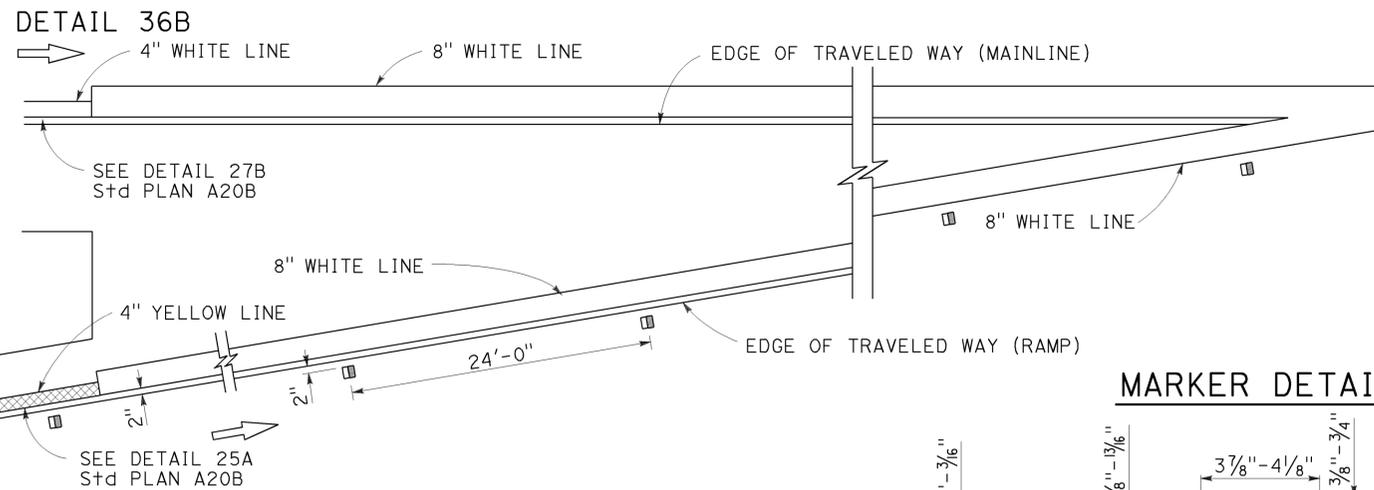
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

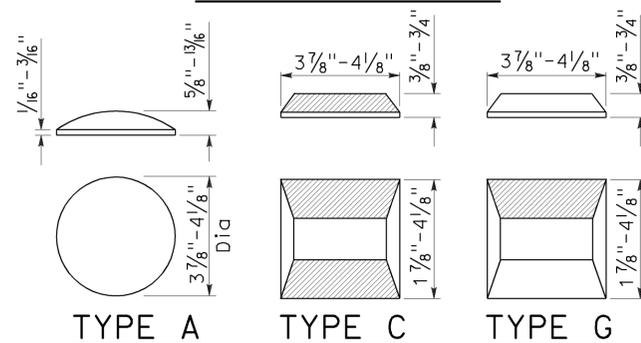


### MARKER DETAILS

#### LEGEND:

#### MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ◻ TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE



RETROREFLECTIVE FACE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	19	49

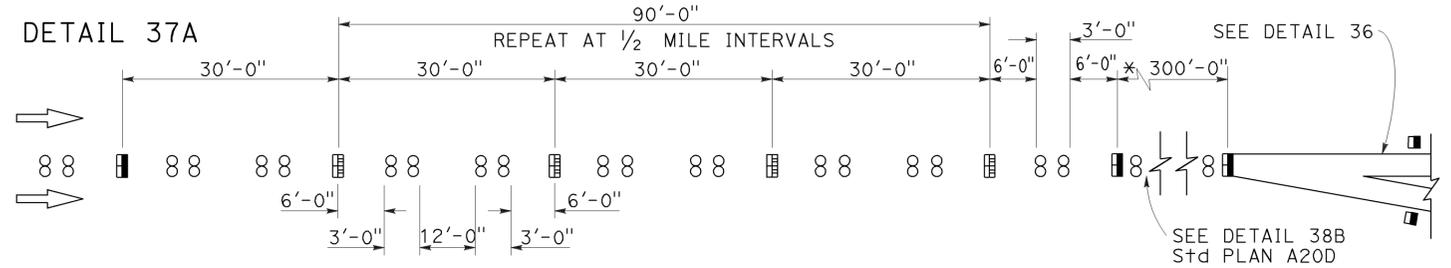
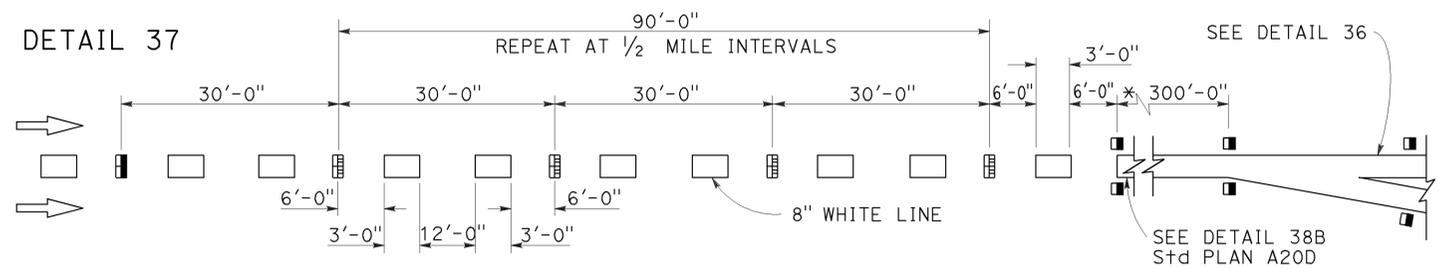
*Roberta L. McLaughlin*  
 REGISTERED CIVIL ENGINEER  
 No. C40375  
 Exp. 3-31-15  
 CIVIL  
 STATE OF CALIFORNIA

July 19, 2013  
 PLANS APPROVAL DATE

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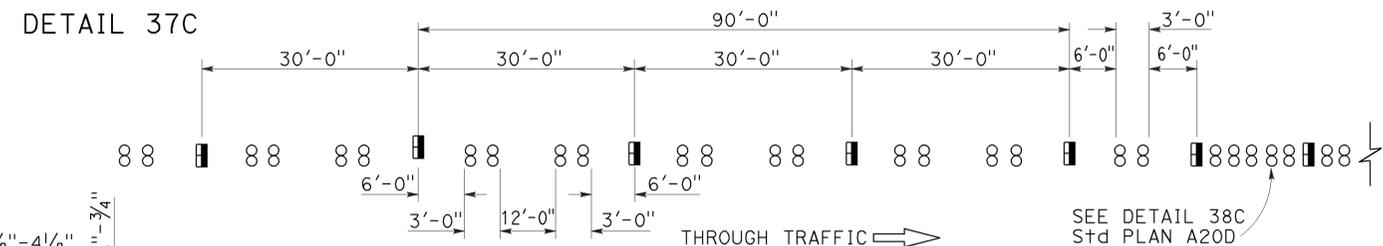
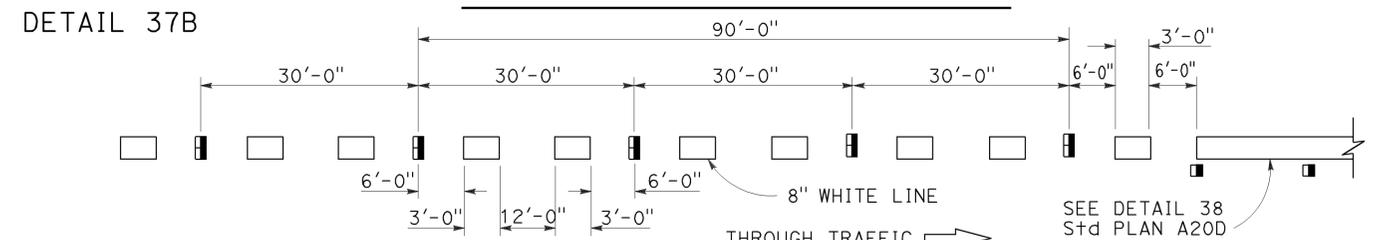
TO ACCOMPANY PLANS DATED 1-20-15

### LANE DROP AT EXIT RAMP



\* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

### LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

## REVISED STANDARD PLAN RSP A20C

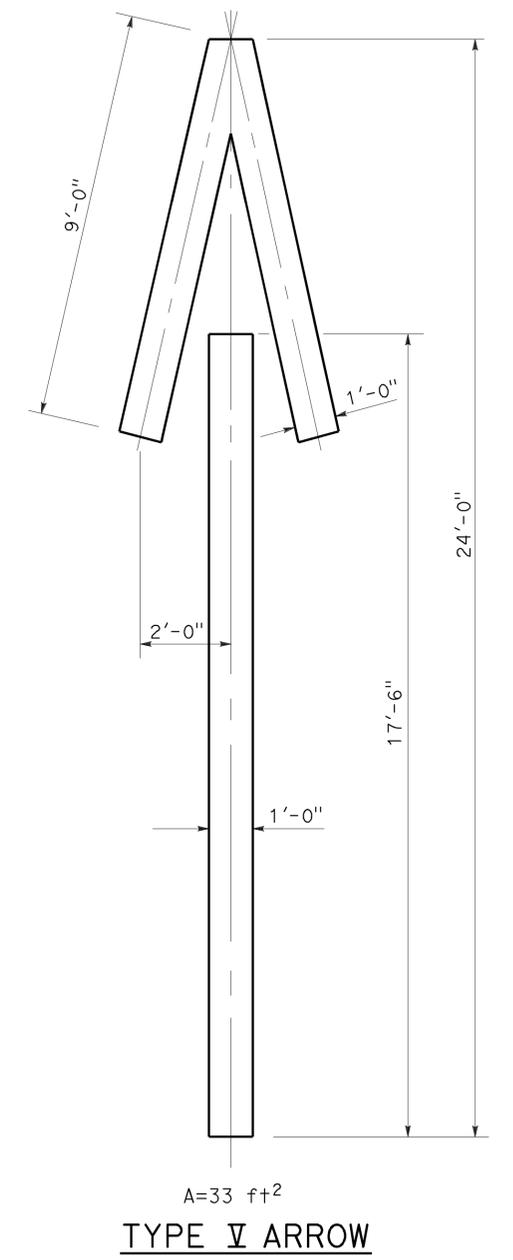
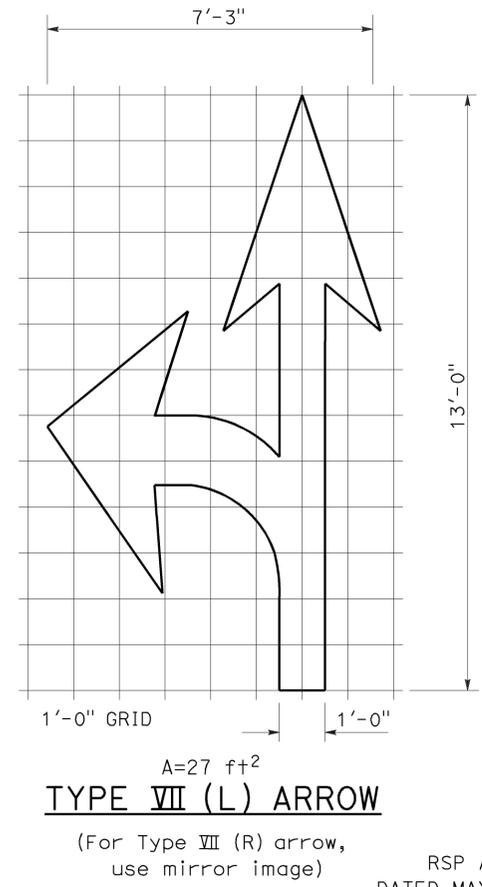
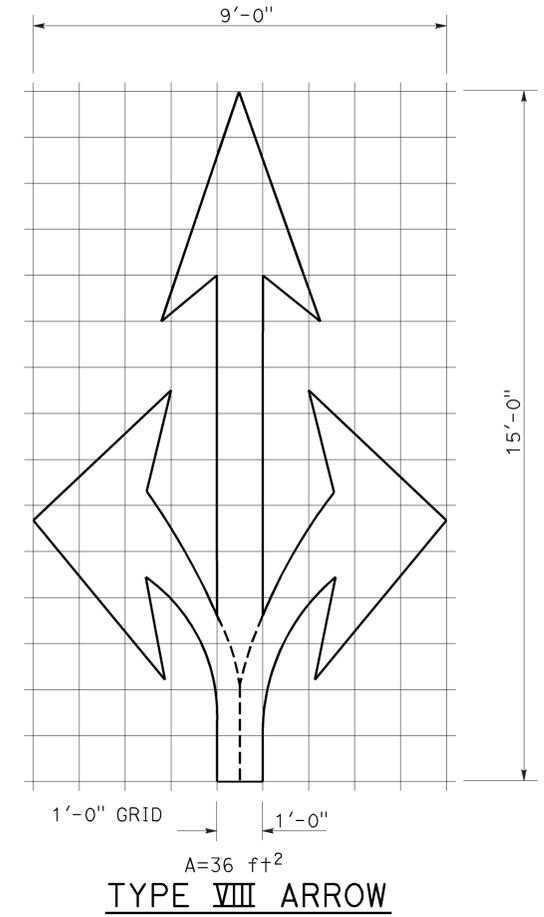
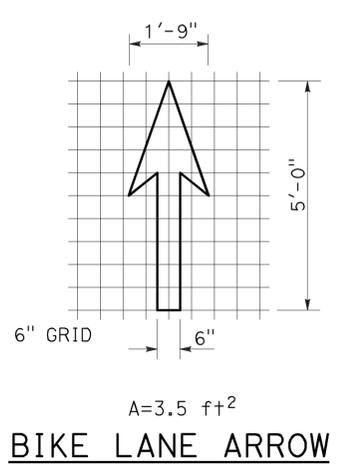
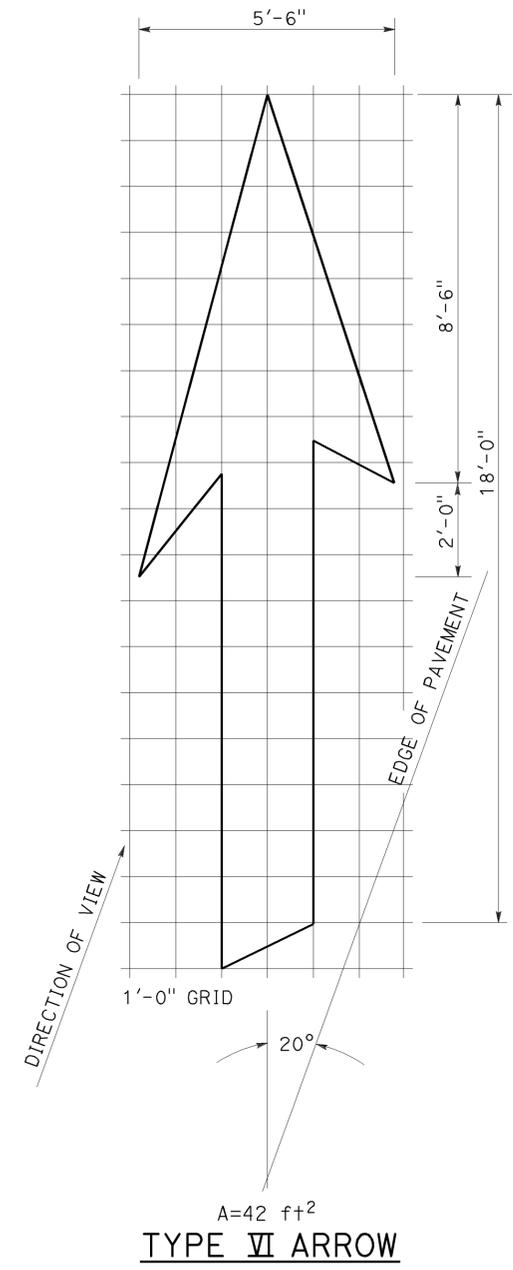
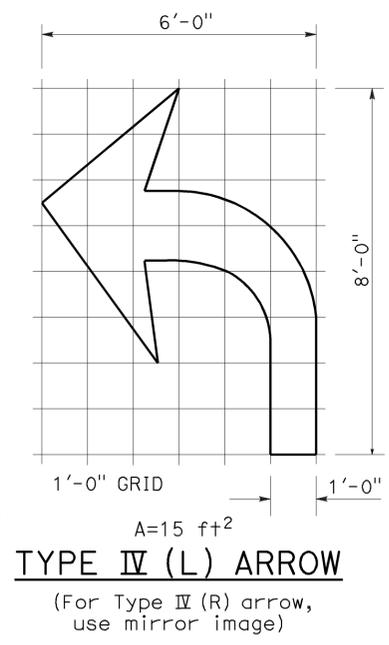
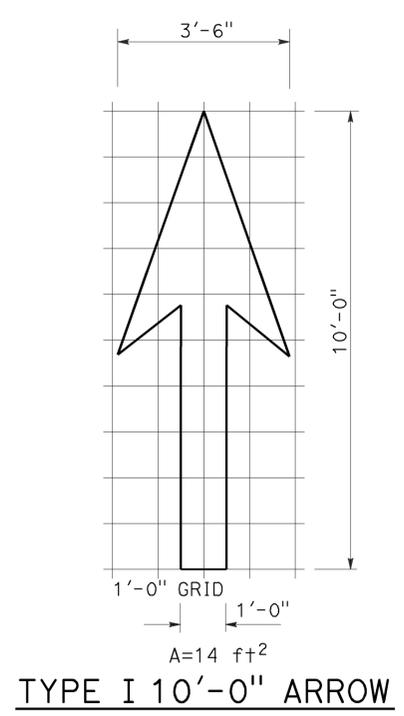
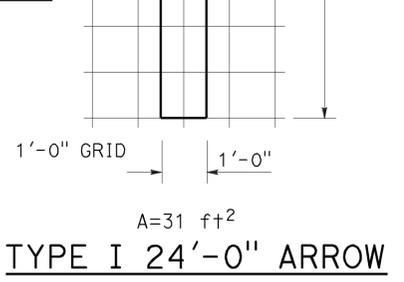
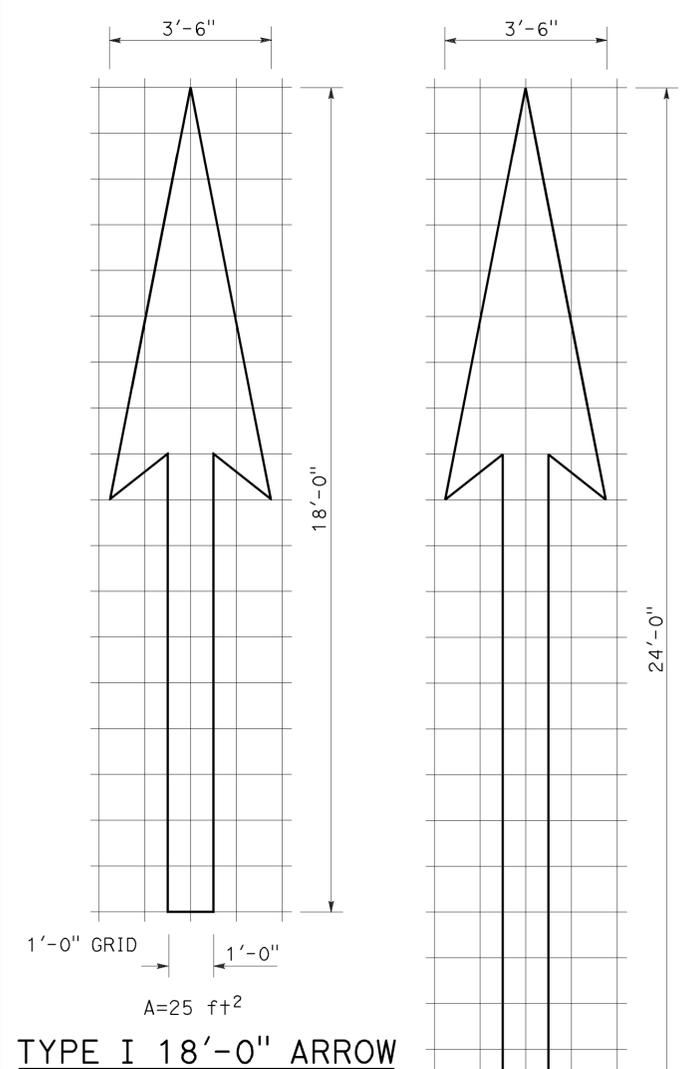
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	20	49

Robert 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  
 Roberta L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 1-20-15



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

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

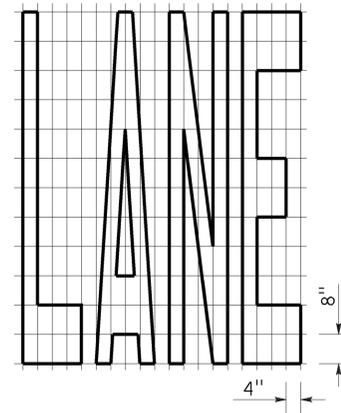
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24A**

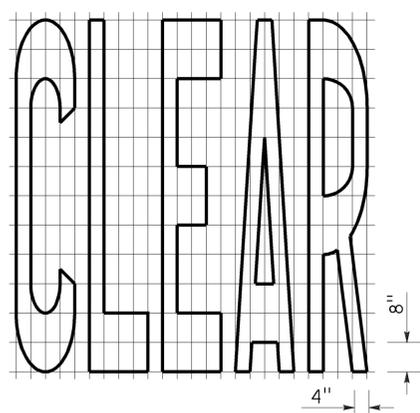
2010 REVISED STANDARD PLAN RSP A24A

TO ACCOMPANY PLANS DATED 1-20-15

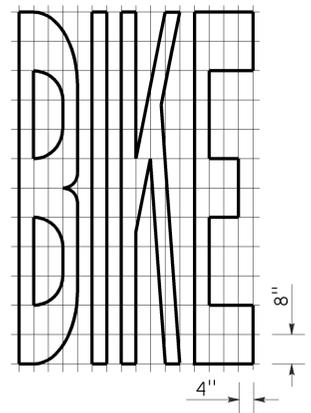
2010 REVISED STANDARD PLAN RSP A24E



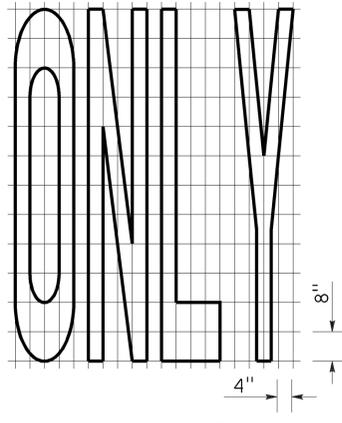
A=24 ft<sup>2</sup>



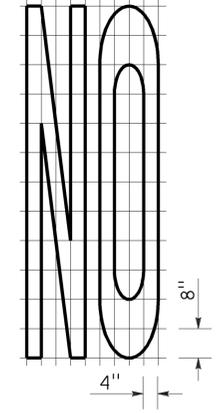
A=27 ft<sup>2</sup>



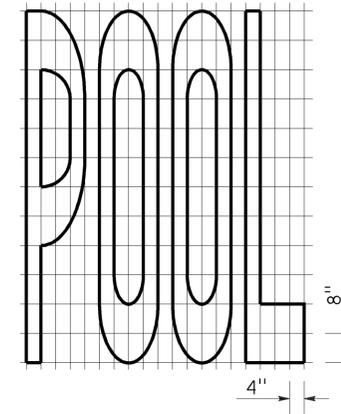
A=21 ft<sup>2</sup>



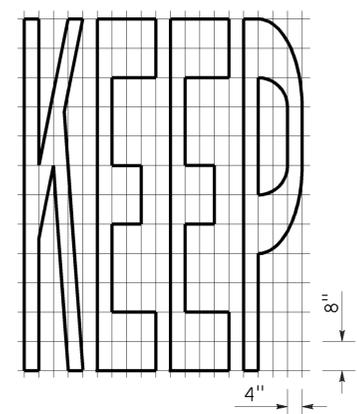
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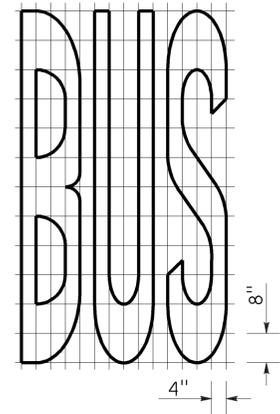
A=14 ft<sup>2</sup>



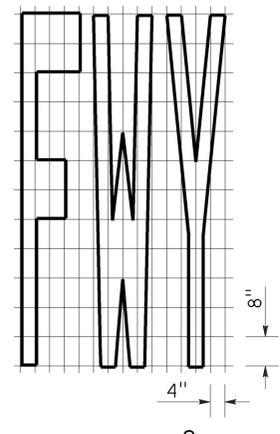
A=23 ft<sup>2</sup>



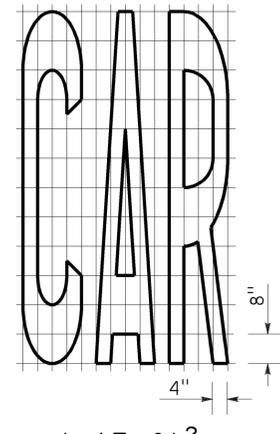
A=24 ft<sup>2</sup>



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

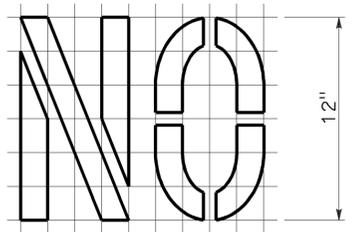


A=16 ft<sup>2</sup>



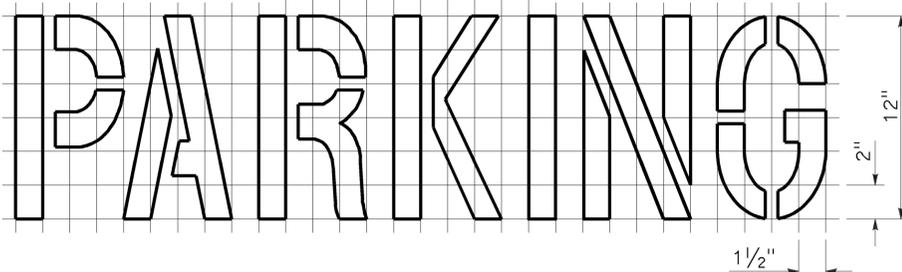
A=17 ft<sup>2</sup>

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



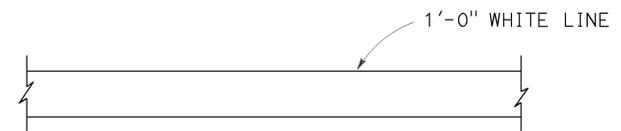
A=2 ft<sup>2</sup>

See Notes 6 and 7



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.

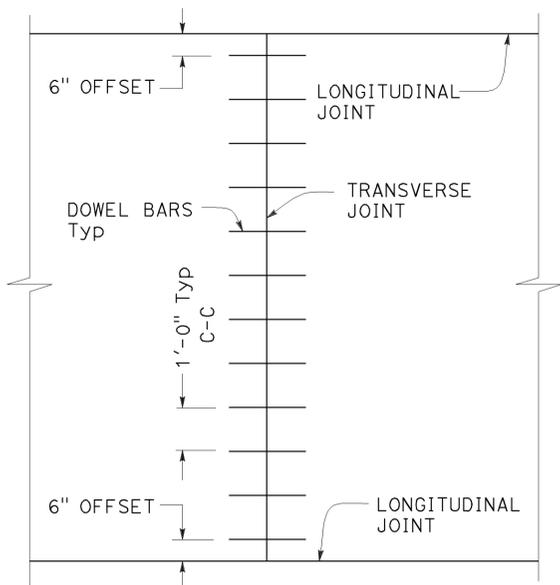
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**

NO SCALE

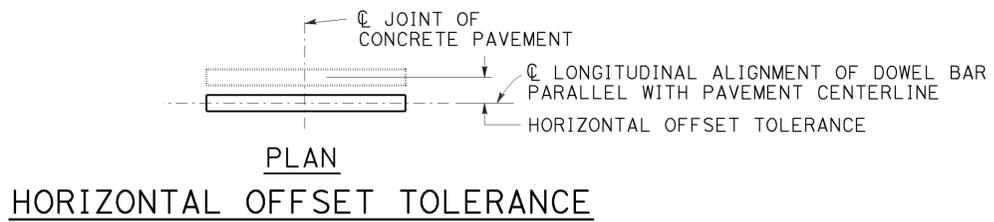
RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E  
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

TO ACCOMPANY PLANS DATED 1-20-15

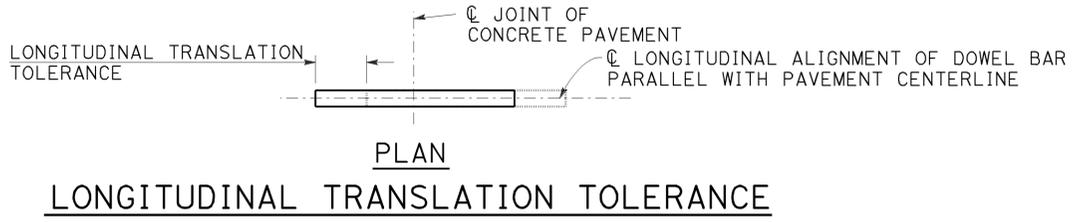
- NOTES:**
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
  - Where fresh concrete pavement is placed against new concrete or existing concrete pavement, rounding the corner of the existing concrete pavement is not required.
  - May also use 3/4" Dia dowel bars 2'-4" ± 1/4" in length. Center the length of dowel bars at the centerline of longitudinal joint.



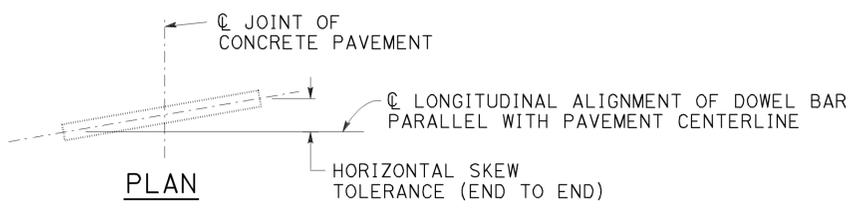
**TRANSVERSE JOINT  
DOWEL BAR LAYOUT**



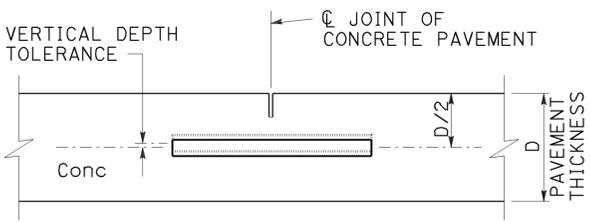
**PLAN  
HORIZONTAL OFFSET TOLERANCE**



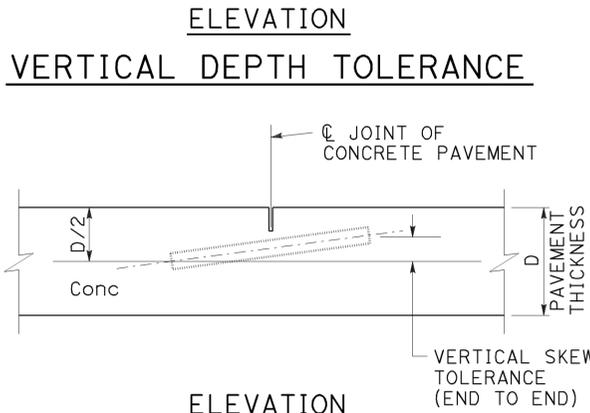
**PLAN  
LONGITUDINAL TRANSLATION TOLERANCE**



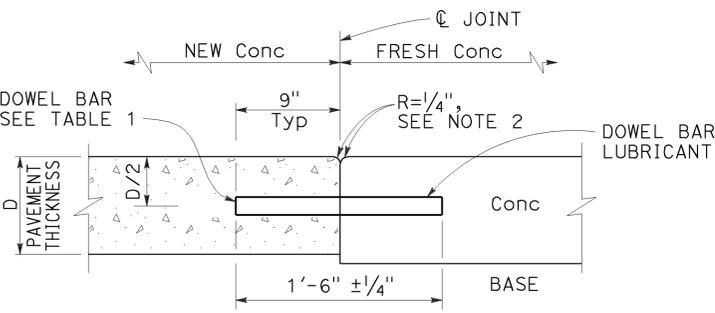
**PLAN  
HORIZONTAL SKEW TOLERANCE**



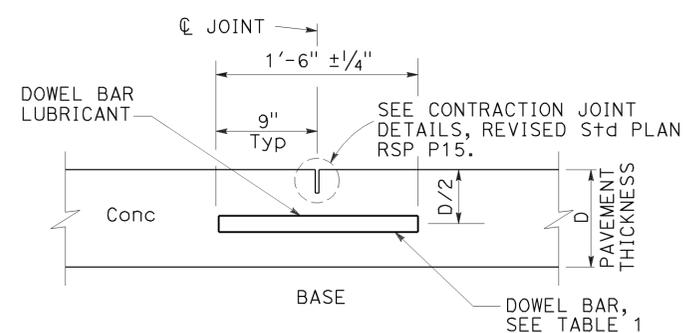
**ELEVATION  
VERTICAL DEPTH TOLERANCE**



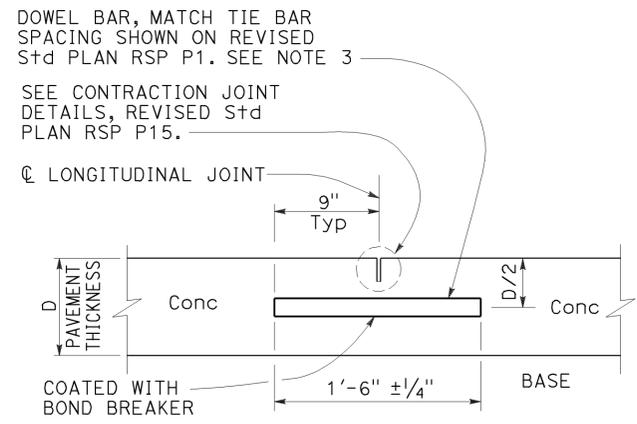
**ELEVATION  
VERTICAL SKEW TOLERANCE**



**TRANSVERSE  
CONSTRUCTION JOINT DETAIL**



**TRANSVERSE CONTRACTION JOINT**

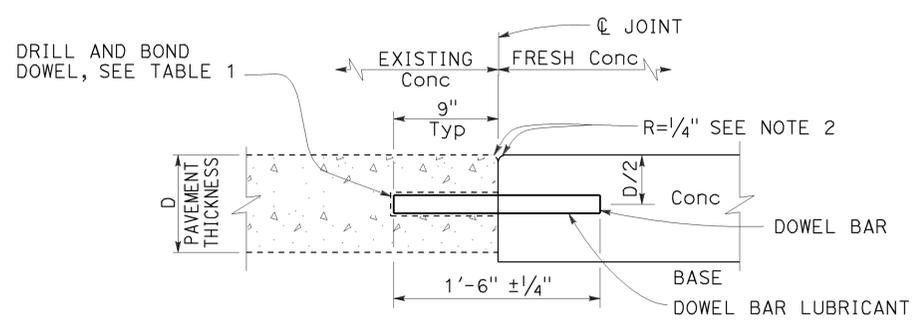


**LONGITUDINAL CONTRACTION  
JOINT WITH DOWEL BARS**  
See Revised Std Plan RSP P18

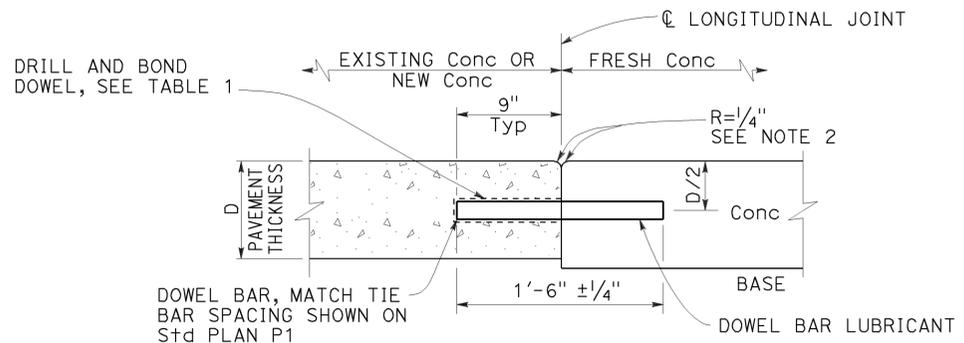
**TABLE 1  
DOWEL BAR DIAMETER TABLE**

PAVEMENT THICKNESS	0.65'	> 0.65' - 0.85'	> 0.85'
MINIMUM DOWEL * BAR DIAMETER	1"	1 1/4"	1 1/2"

\* The drilled hole diameter must be 1/8" to 3/16" larger than the bar diameter.



**TRANSVERSE CONSTRUCTION JOINT  
FOR EXISTING CONCRETE PAVEMENT**



**LONGITUDINAL CONSTRUCTION JOINT  
WITH DOWEL BARS**  
See Revised Std Plan RSP P18

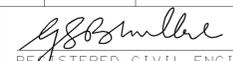
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT  
DOWEL BAR  
DETAILS**

NO SCALE

RSP P10 DATED JULY 19, 2013 SUPERSEDES RSP P10 DATED APRIL 20, 2012 AND STANDARD PLAN P10 DATED MAY 20, 2011 - PAGE 131 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP P10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	23	49

  
 REGISTERED CIVIL ENGINEER  
 July 19, 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.

TO ACCOMPANY PLANS DATED 1-20-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

\* - For other offsets, use the following merging taper length formula for L:  
 For speed of 40 mph or less,  $L = WS^2/60$   
 For speed of 45 mph or more,  $L = WS$

Where: L = Taper length in feet  
 W = Width of offset in feet  
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

\*\* - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

\* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph  
 \*\* - Longitudinal buffer space or flagger station spacing  
 \*\*\* - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

\* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM TABLES  
 FOR LANE AND RAMP CLOSURES**

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T9**

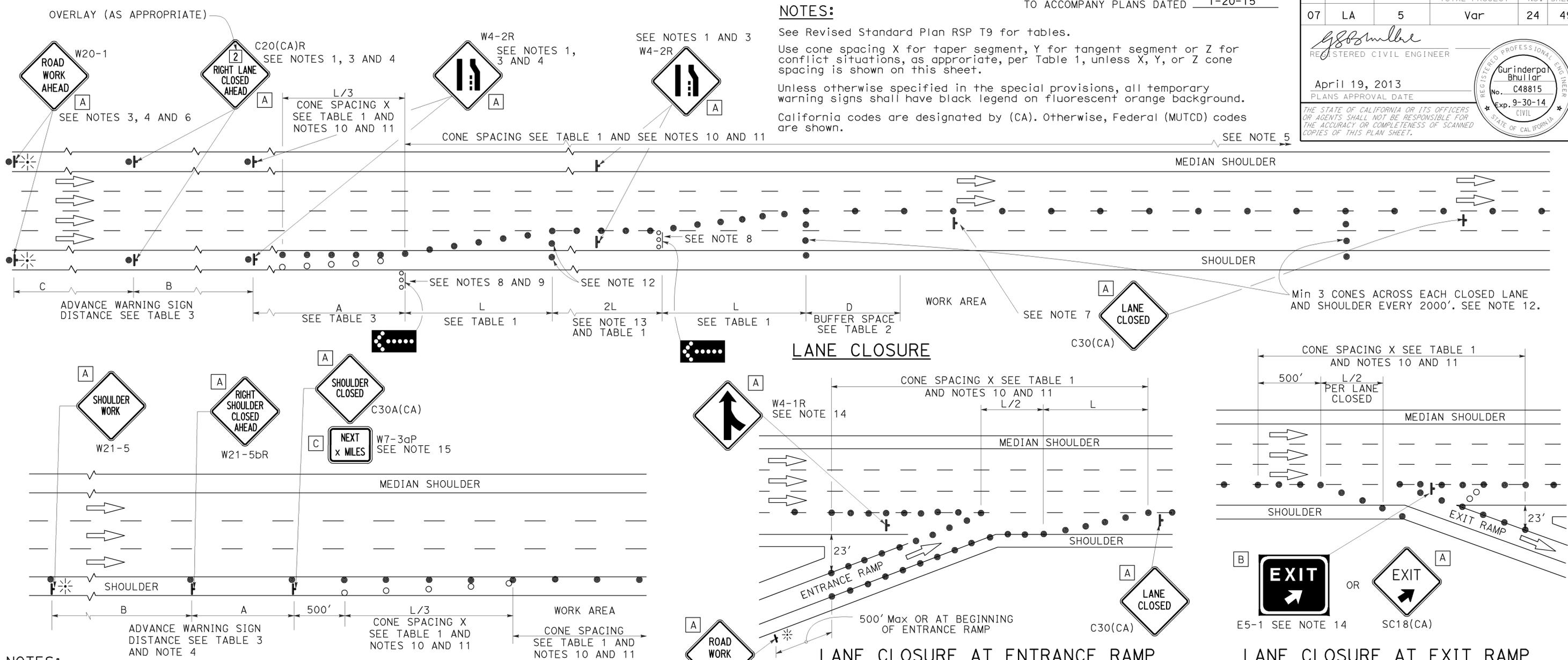
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	24	49

REGISTERED CIVIL ENGINEER  
 April 19, 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.

REGISTERED PROFESSIONAL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA



- NOTES:**
1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
  2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
  3. Duplicate sign installations are not required:
    - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
    - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
  4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
  5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA)L and W4-2L signs shall be used.
  7. Place a C30(CA) sign every 2000' throughout length of lane closure.
  8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
  9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
  10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- LANE CLOSURE AT ENTRANCE RAMP**
- LANE CLOSURE AT EXIT RAMP**
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
  13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
  14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
  15. A W7-3aP "NEXT \_\_\_\_\_ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

**LEGEND**

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⬢ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

**SIGN PANEL SIZE (Min)**

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

**TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS**

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T10**

2010 REVISED STANDARD PLAN RSP T10

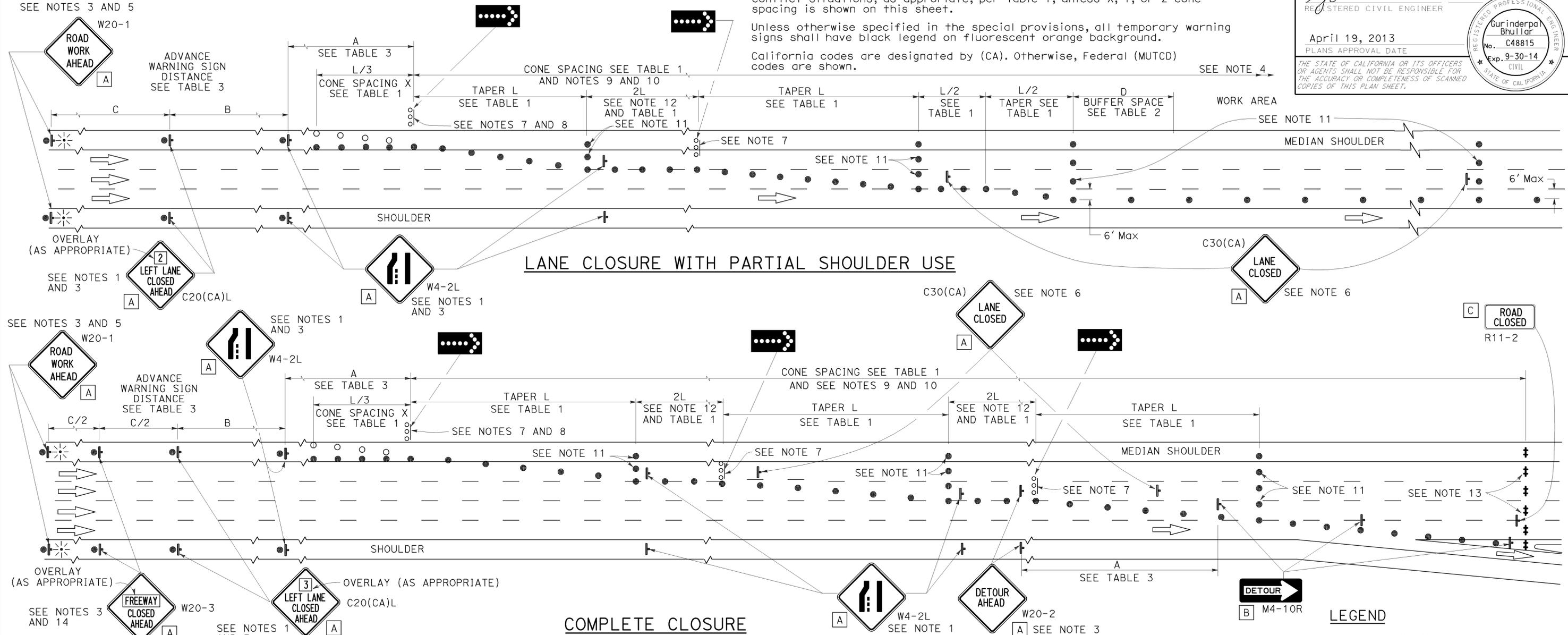
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	25	49

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

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

**NOTES:** See Revised Standard Plan RSP T9 for tables.  
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.  
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.  
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



- NOTES:**
- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
  - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
  - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
  - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
  - If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
  - Place a C30(CA) sign every 2000' throughout length of lane closure.

- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

**SIGN PANEL SIZE (Min)**

A	48" x 48"
B	48" x 18"
C	48" x 30"

**LEGEND**

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## TRAFFIC CONTROL SYSTEM FOR LANE CLOSURES ON FREEWAYS AND EXPRESSWAYS

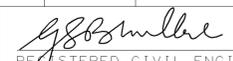
NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

### REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

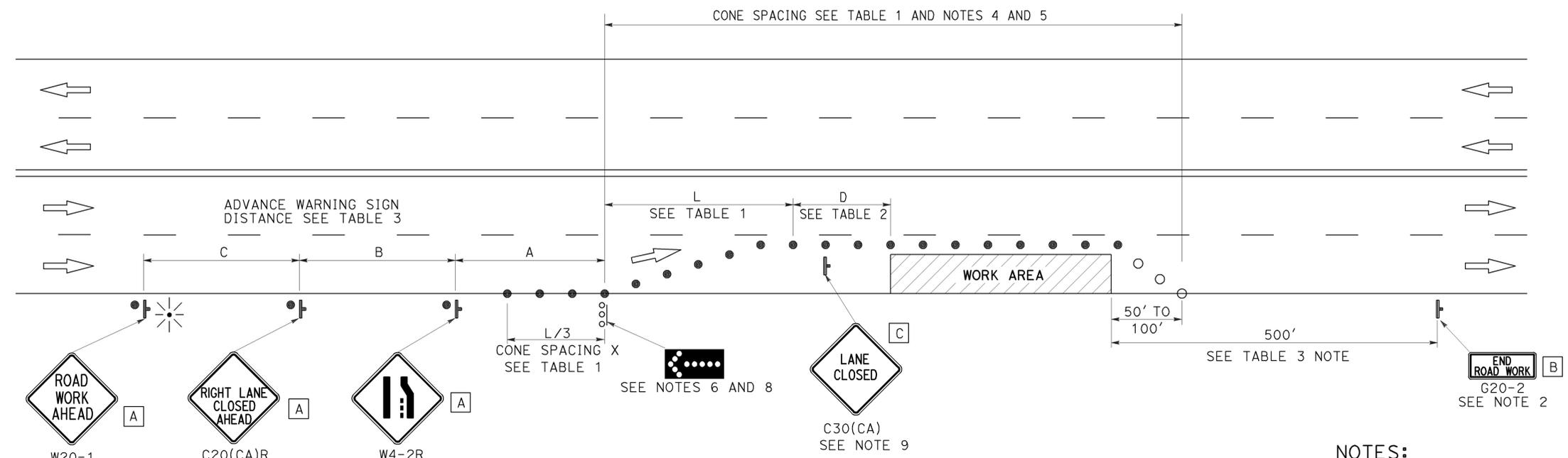
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	26	49

  
 REGISTERED CIVIL ENGINEER  
 April 19, 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.

TO ACCOMPANY PLANS DATED 1-20-15



TYPICAL LANE CLOSURE

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

- Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
-  FLASHING ARROW SIGN (FAS)
-  FAS SUPPORT OR TRAILER
-  PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURE ON  
 MULTILANE CONVENTIONAL  
 HIGHWAYS**

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11  
 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T11**

2010 REVISED STANDARD PLAN RSP T11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	27	49

April 19, 2013  
 PLANS APPROVAL DATE

Gurinderpal Bhullar  
 REGISTERED CIVIL ENGINEER  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

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**LEGEND**

- TRAFFIC CONE
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⦿ FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

**SIGN PANEL SIZE (Min)**

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

**NOTES:**

See Revised Standard Plan RSP T9 for tables.

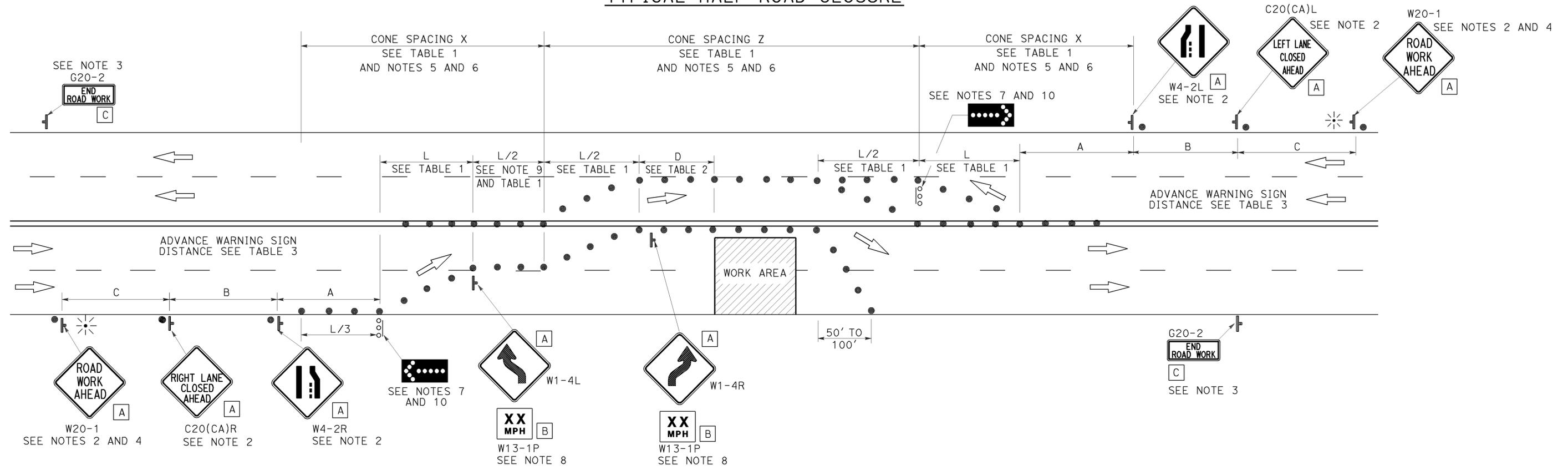
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

TO ACCOMPANY PLANS DATED 1-20-15

**TYPICAL HALF ROAD CLOSURE**



**NOTES:**

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
FOR HALF ROAD CLOSURE ON  
MULTILANE CONVENTIONAL  
HIGHWAYS AND EXPRESSWAYS**

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12  
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T12**

2010 REVISED STANDARD PLAN RSP T12

**NOTES:**

See Revised Standard Plan RSP T9 for tables.

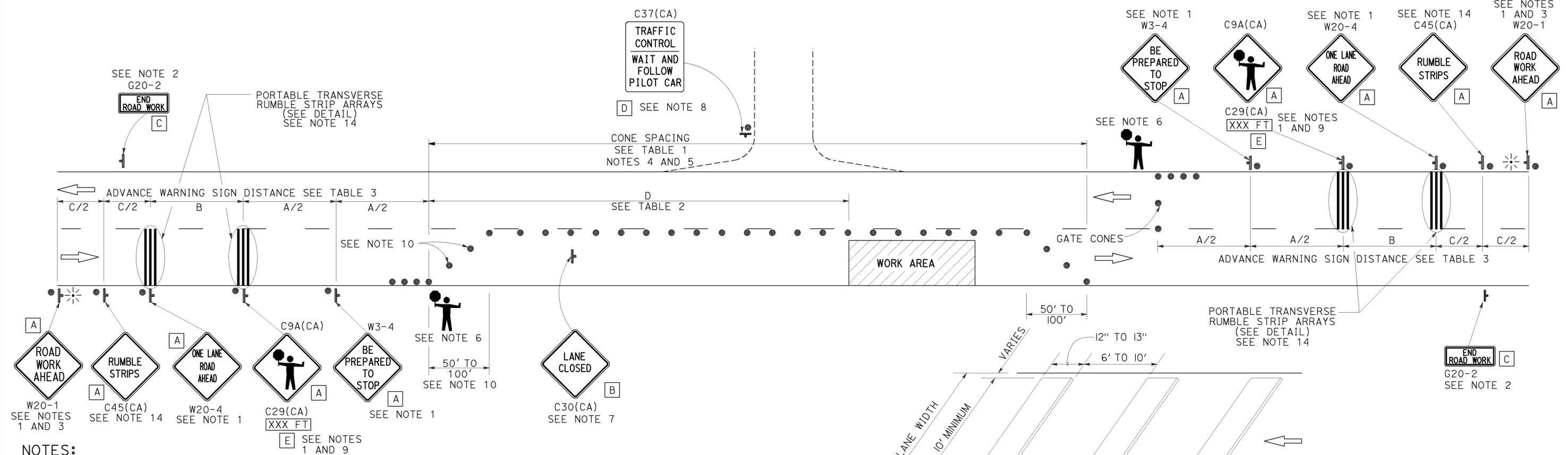
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

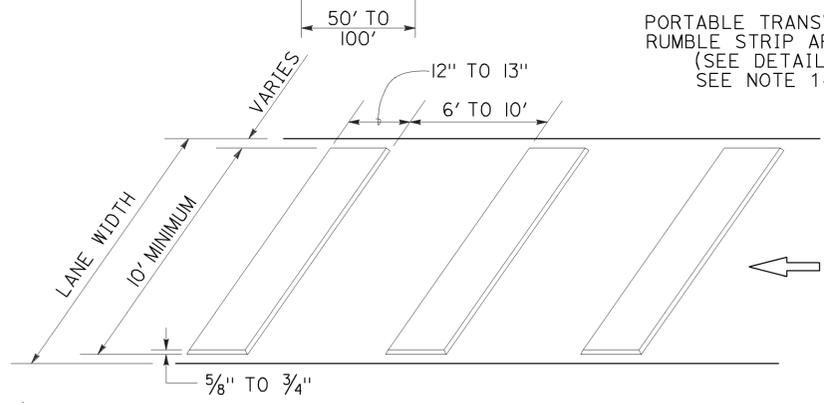
**TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL**

TO ACCOMPANY PLANS DATED 1-20-15



- NOTES:**
- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
  - A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
  - If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a W20-4 sign for the first advance warning sign.
  - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  - Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
  - Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.

- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
  - Work duration occupies a location for four hours or less
  - Posted speed limit is below 45 MPH
  - Work is of emergency nature
  - Work zone is in snow or icy weather conditions



**SIGN PANEL SIZE (Min)**

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

**LEGEND**

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
FOR LANE CLOSURE ON  
TWO LANE CONVENTIONAL  
HIGHWAYS**

NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES RSP T13 DATED JULY 18, 2014  
AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED  
MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP T13

# TYPICAL RAMP CLOSURES

## SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

## LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

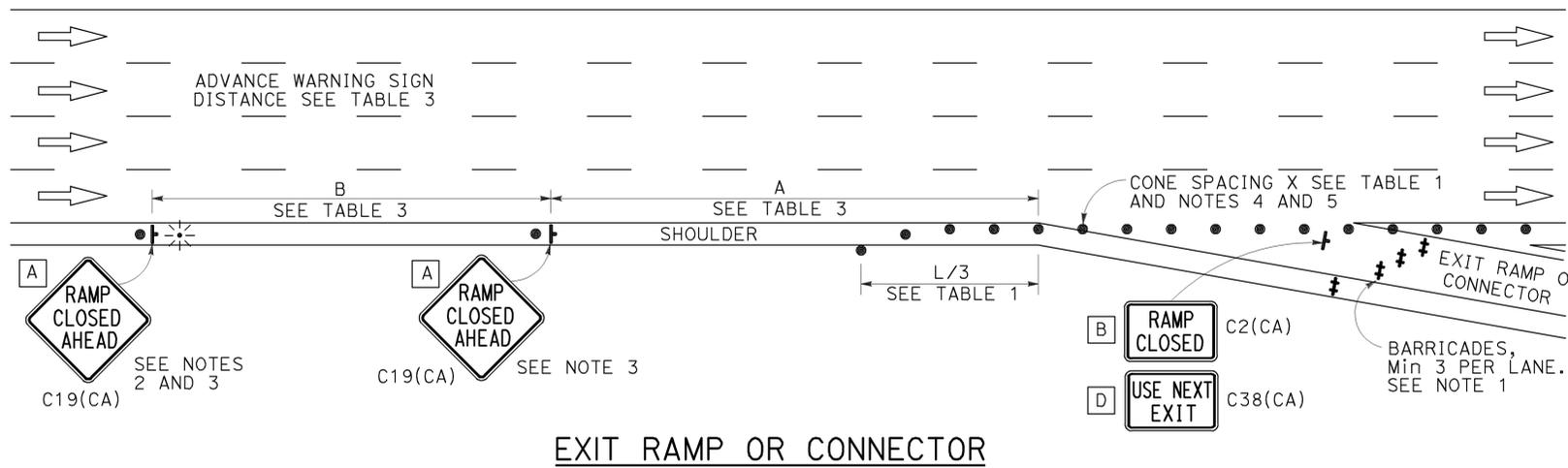
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	29	49

*Gurinderpal Bhullar*  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

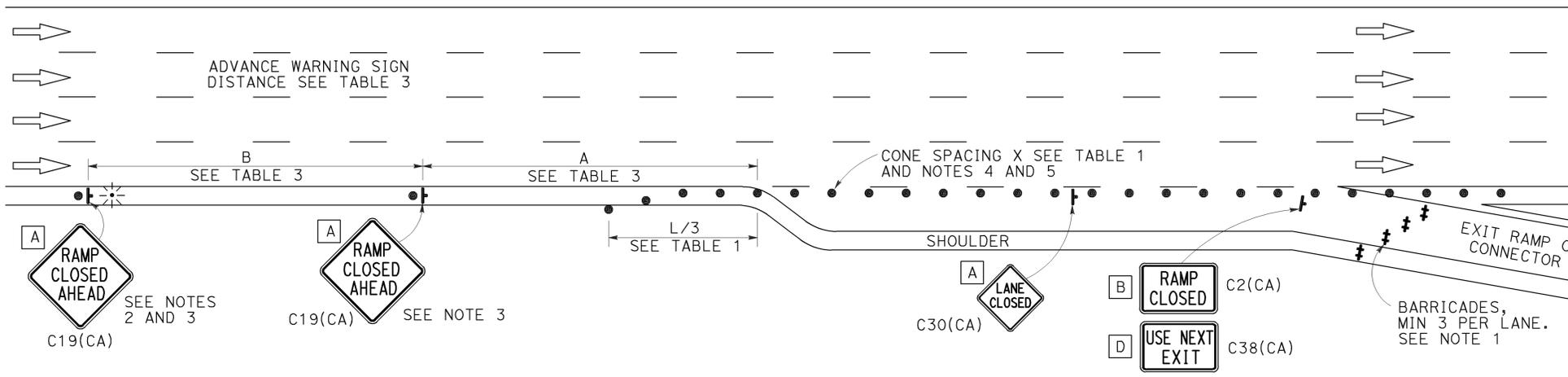
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REGISTERED PROFESSIONAL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

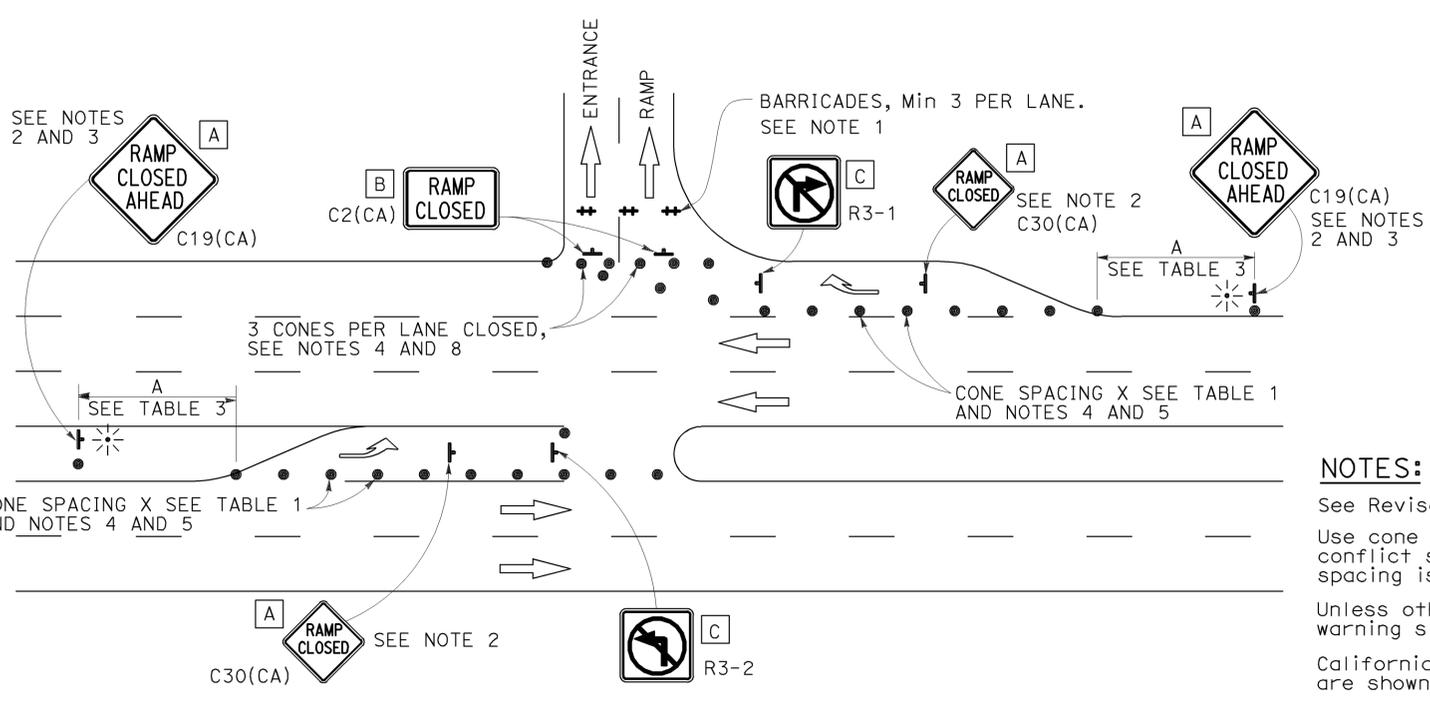
TO ACCOMPANY PLANS DATED 1-20-15



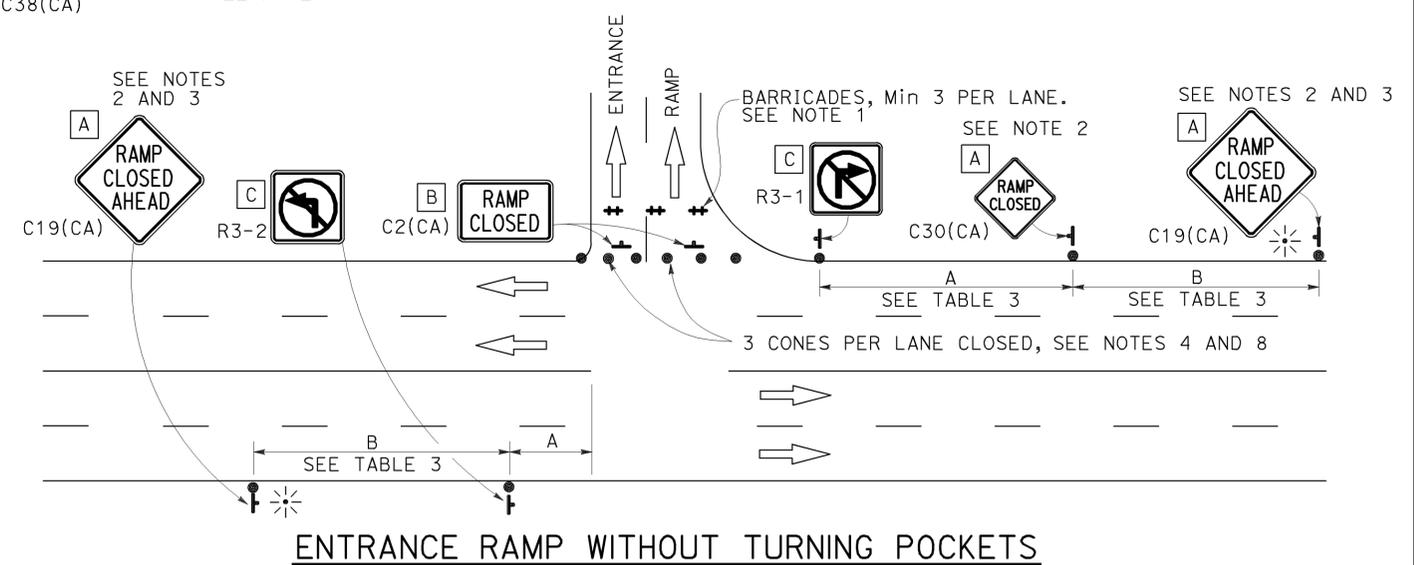
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

1. See Revised Standard Plan RSP T9 for tables.
2. Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
3. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
4. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

## NOTES:

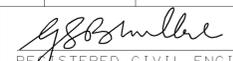
1. Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
2. In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
3. Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURE**  
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14  
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.  
**REVISED STANDARD PLAN RSP T14**

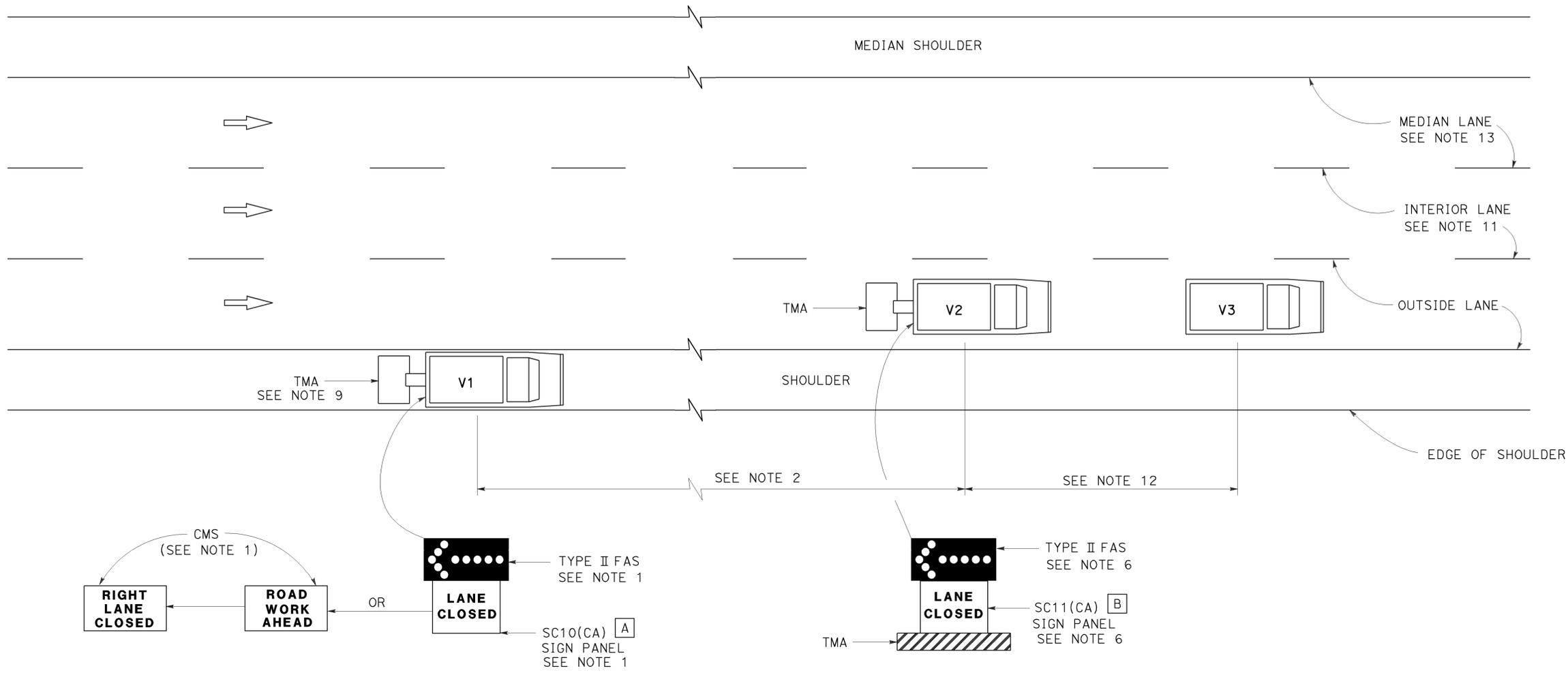
2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	30	49

  
 REGISTERED CIVIL ENGINEER  
 April 19, 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.

REGISTERED PROFESSIONAL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 1-20-15



**SIGN PANEL SIZE (Min)**

- A 66" x 36"
- B 54" x 42"

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
-  FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON MEDIAN LANE OR  
OUTSIDE LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
FOR MOVING LANE CLOSURE  
ON MULTILANE HIGHWAYS**

NO SCALE

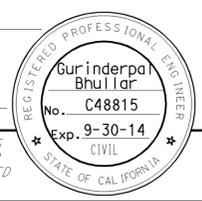
RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15  
DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T15**

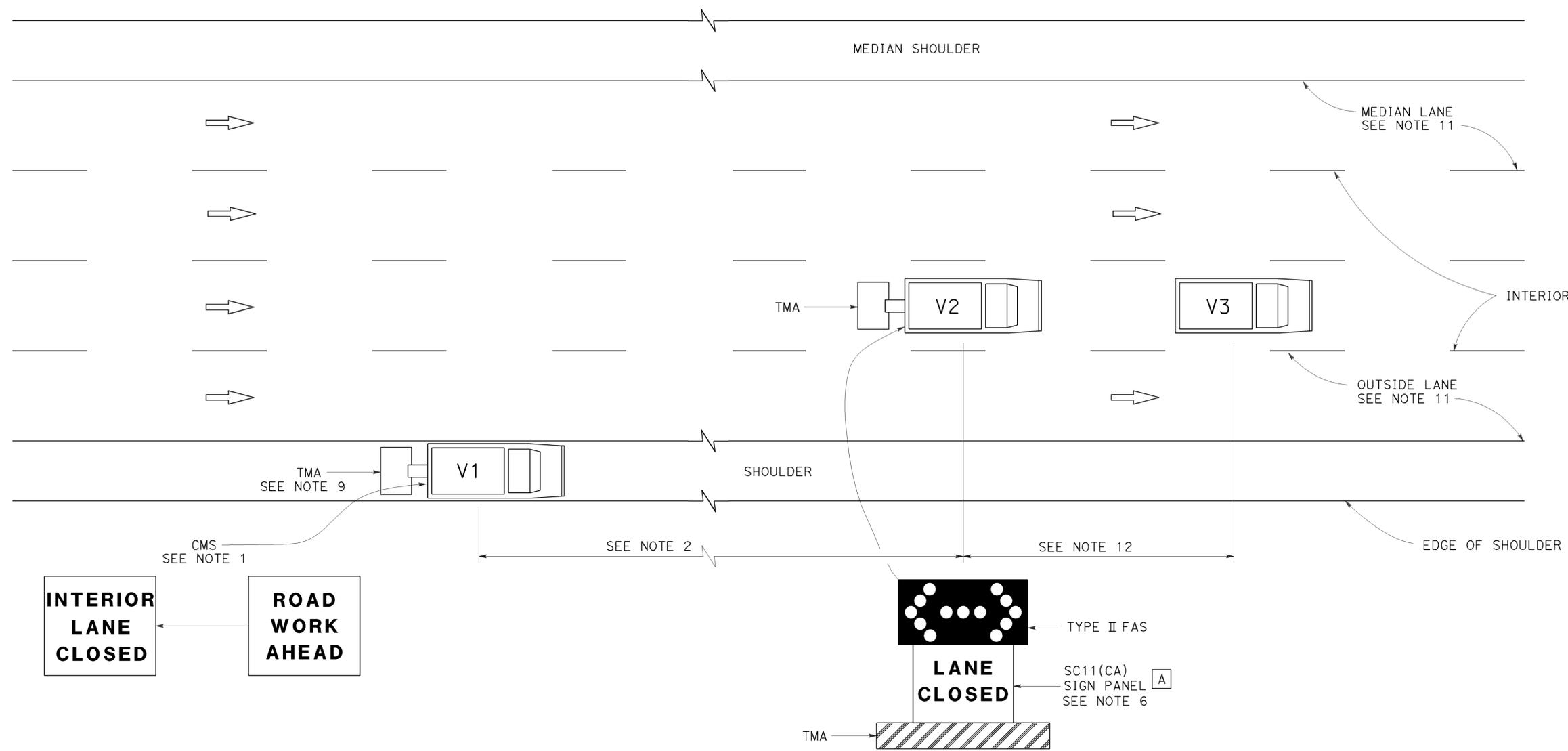
2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	31	49

Registered Civil Engineer  
 April 19, 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.



TO ACCOMPANY PLANS DATED 1-20-15



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS) IN FLASHING DOUBLE ARROW MODE
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

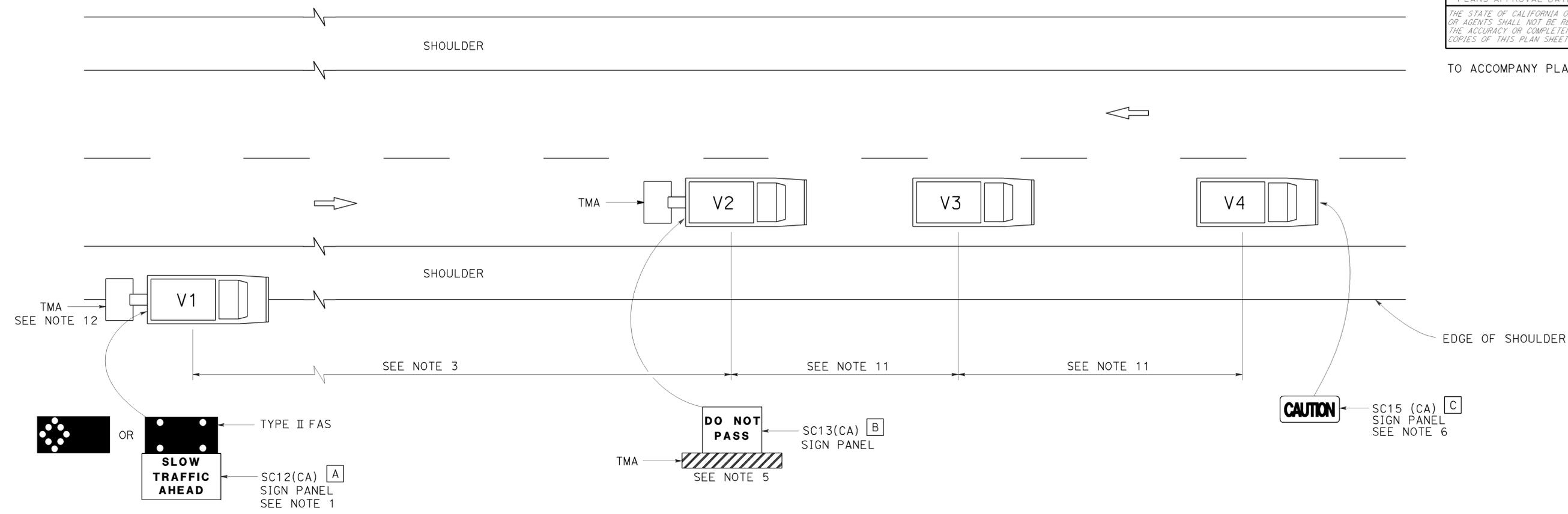
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON MULTILANE HIGHWAYS**  
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T16**

2010 REVISED STANDARD PLAN RSP T16

TO ACCOMPANY PLANS DATED 1-20-15



**NOTES:**

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.

7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
- FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
- FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

**SIGN PANEL SIZE (Min)**

- A 72" x 42"
- B 54" x 42"
- C 54" x 24"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON TWO LANE HIGHWAYS**

NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17 DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T17**

2010 REVISED STANDARD PLAN RSP T17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	33	49

08/12/14  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
 No. C66900  
 Exp. 09/30/16  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
 EDWARD J. NAHM

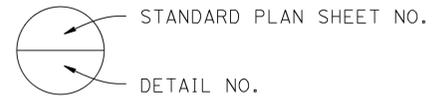
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.*

### INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	GENERAL PLAN NO. 5
6	GENERAL PLAN NO. 6
7	GENERAL PLAN NO. 7
8	SLAB REPAIR DETAILS
9	JOINT SEAL REPLACEMENT DETAILS
10	STRUCTURE APPROACH TYPE R(30D)
11	STRUCTURE APPROACH TYPE R(30S)
12	MISCELLANEOUS DETAILS NO. 1
13	MISCELLANEOUS DETAILS NO. 2
14	MISCELLANEOUS DETAILS NO. 3
15	MISCELLANEOUS DETAILS NO. 4
16	MISCELLANEOUS DETAILS NO. 5
17	MISCELLANEOUS DETAILS NO. 6

### STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")



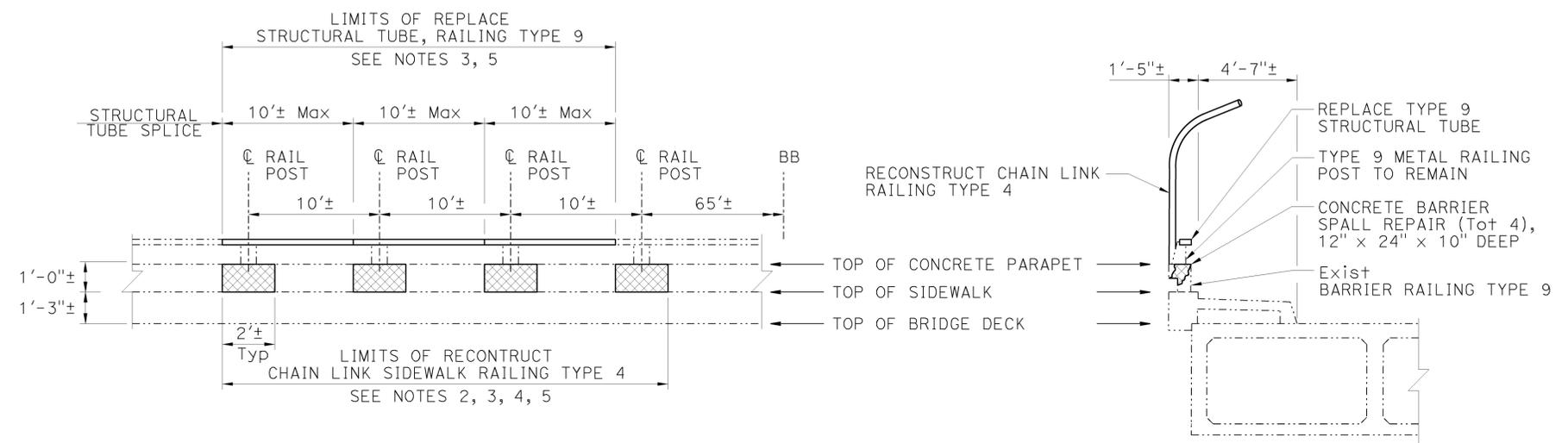
### LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- ▩ Indicates removal of unsound concrete and place Structural Concrete (Bridge).

EASTERN AVENUE OC (53-0607)  
 QUANTITIES

PUBLIC SAFETY PLAN	
RECONSTRUCT CHAIN LINK RAILING (TYPE 4)	
REMOVE UNSOUND CONCRETE	
PREPARE CONCRETE BRIDGE DECK SURFACE	
TREAT BRIDGE DECK	
FURNISH BRIDGE DECK TREATMENT MATERIAL	
RECONSTRUCT METAL RAILING (BRIDGE)	
STRUCTURAL CONCRETE, BRIDGE	

LUMP	SUM	LF	CF	SQFT	GAL	LF	CY
32							
7							
11,147							
11,147							
139							
30							
0.3							



### SECTION B-B

NO SCALE

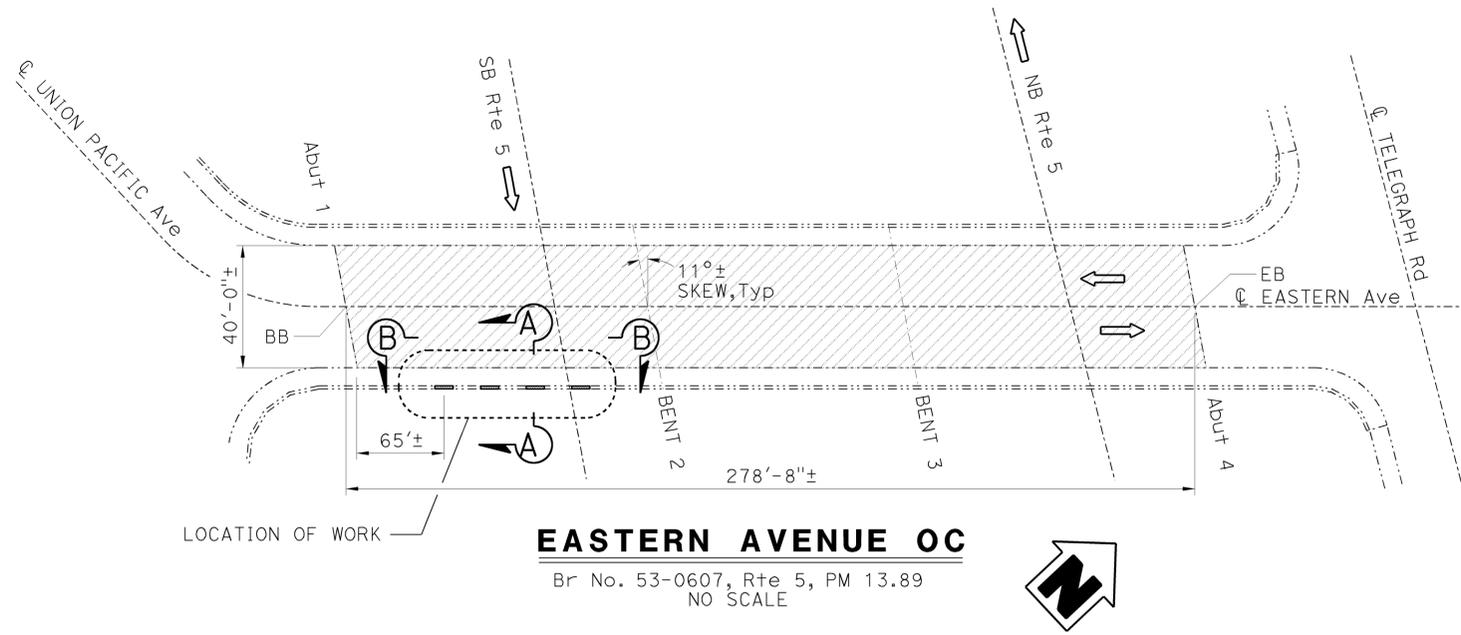
### SECTION A-A

NO SCALE

### NOTES:

Location of work consists of:

- Prior to concrete barrier spall repair at specified location (Tot 4) of Barrier Railing Type 9, new anchor bolts must be in place. Existing reinforcement shall be protected in place during concrete removal and patch. For embedment of anchor bolt details, see "MISCELLANEOUS DETAILS NO. 4" sheet.
- Replace galvaized 3/4" Dia x 8" (Tot 4) and 1" Dia x 12" (Tot 4) HS tensile bolts, hex nut and washer at Type 9 metal railing post. For details, see "MISCELLANEOUS DETAILS NO. 4" and "MISCELLANEOUS DETAILS NO. 5" sheets.
- Replace damaged 6" x 2" x 1/4" structural tube between existing tube splices at Type 9 metal railing. For details, see "MISCELLANEOUS DETAILS NO. 4" and "MISCELLANEOUS DETAILS NO. 5" sheets.
- Replace Chain Link Railing Type 4. New chain link fence fabric must be spliced with existing chain link fence fabric per Manufacturer's recommendations. For details, see "MISCELLANEOUS DETAILS NO. 3" sheet.
- Sidewalk at location of work must be closed during reconstruct metal railing and chain link railing.



### EASTERN AVENUE OC

Br No. 53-0607, Rte 5, PM 13.89  
 NO SCALE

NOTE:  
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN ENGINEER Tony Brake	DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	53-0607	ROUTE 5 BRIDGES GENERAL PLAN NO. 1
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		POST MILE	13.89	
	QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson		PLANS AND SPECS COMPARED Kevin Ellingson		

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

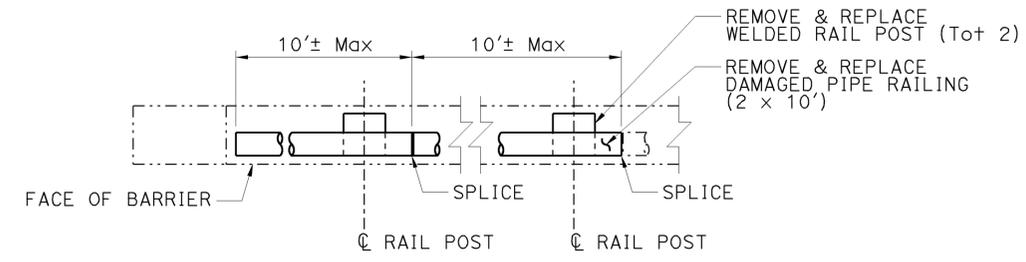
UNIT: 3489 PROJECT NUMBER & PHASE: 0713000439-1 CONTRACT NO.: 07-2W6904

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
4-09-14 8-10-14	01	17

FILE => 07-2W6904-a-gp01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	34	49
			08/12/14		
			REGISTERED CIVIL ENGINEER	DATE	
			1-20-15	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>					



**PARTIAL PLAN (RECONSTRUCT METAL BRIDGE RAILING)**

Br No. 53-1392L, Rte 5, PM 16.29  
NO SCALE  
(SEE NOTE 1 & 2)

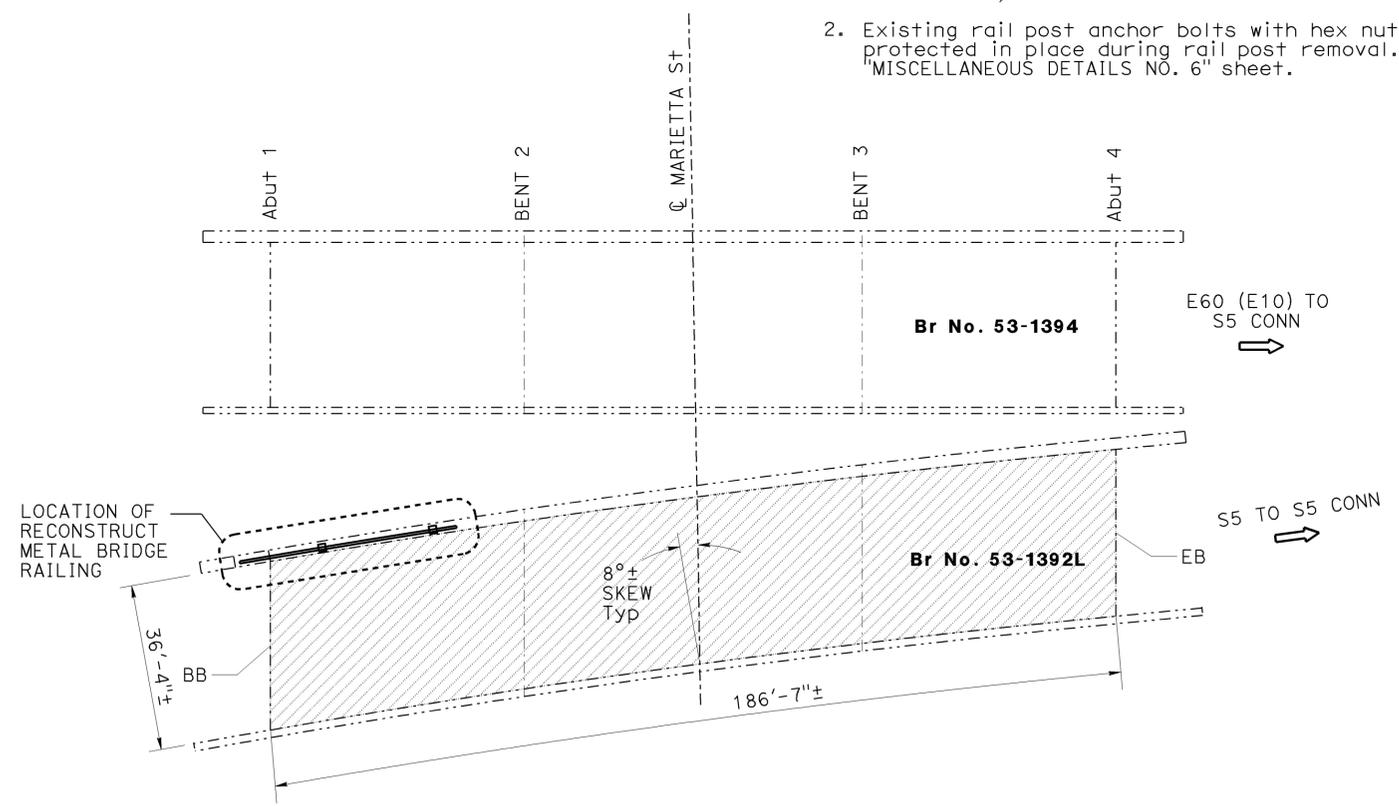
**NOTES:**

Location of work consists of:

1. Replace welded rail post (Tot 2) and pipe railing (20 feet). For details, see "MISCELLANEOUS DETAILS NO. 6" sheet.
2. Existing rail post anchor bolts with hex nut & washer must be protected in place during rail post removal. For details, see "MISCELLANEOUS DETAILS NO. 6" sheet.

**LEGEND:**

- Indicates existing.
- ⇒ Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- Indicates location of clean expansion joint and placement of new joint seal.
-  Indicates location of placement of new joint seal.
- ✕ Indicates limits of paving notch extension.
-  Indicates limits of remove existing PCC and AC approach and place new Structure Approach Type R(30D). For details, see "STRUCTURE APPROACH TYPE R(30D)" sheet.



**MARIETTA STREET UC**

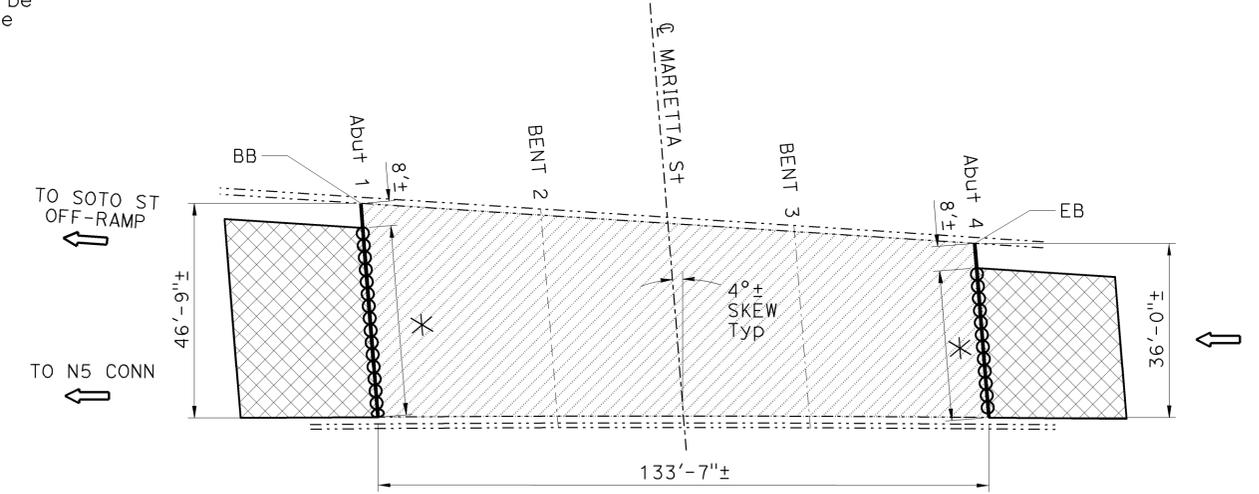
Br No. 53-1392L, Rte 5, PM 16.29  
1" = 20'



MARIETTA STREET UC (53-1392L)  
QUANTITIES

- PUBLIC SAFETY PLAN
- PREPARE CONCRETE BRIDGE DECK SURFACE
- TREAT BRIDGE DECK
- FURNISH BRIDGE DECK TREATMENT MATERIAL
- RECONSTRUCT METAL RAILING (BRIDGE)

LUMP	SUM
6,779	SOFT
6,779	SOFT
85	GAL
20	LF



**MARIETTA STREET UC**

Br No. 53-1387R, Rte 5, PM 16.29  
1" = 20'



MARIETTA STREET UC (53-1387R)  
QUANTITIES

- PUBLIC SAFETY PLAN
- PREPARE CONCRETE BRIDGE DECK SURFACE
- TREAT BRIDGE DECK
- FURNISH BRIDGE DECK TREATMENT MATERIAL
- STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)
- PAVING NOTCH EXTENSION
- CLEAN EXPANSION JOINT
- JOINT SEAL (MR 1/2")

LUMP	SUM
5,527	SOFT
5,527	SOFT
69	GAL
93	CY
50	CF
16	LF
83	LF

NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS  
POST MILE VARIES

**ROUTE 5 BRIDGES  
GENERAL PLAN NO. 2**

TIME PLOTTED => 10:11 USERNAME => s129239 DATE PLOTTED => 02-DEC-2014

ROUTE 5/60 SEPARATION (53-1391L)  
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	25,461	SQFT
TREAT BRIDGE DECK	25,461	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	318	GAL
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE	1	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	61	CY
DRILL AND BOND DOWEL	32	LF
CLEAN EXPANSION JOINT	58	LF
JOINT SEAL (MR 1/2")	104	LF
BAR REINFORCING STEEL (BRIDGE)	80	LB

WHITTIER Blvd OC (53-1356L/R)  
QUANTITIES

PUBLIC SAFETY PLAN	LUMP	SUM
REPAIR SPALLED SURFACE AREA	90	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	11,662	SQFT
TREAT BRIDGE DECK	11,662	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	146	GAL

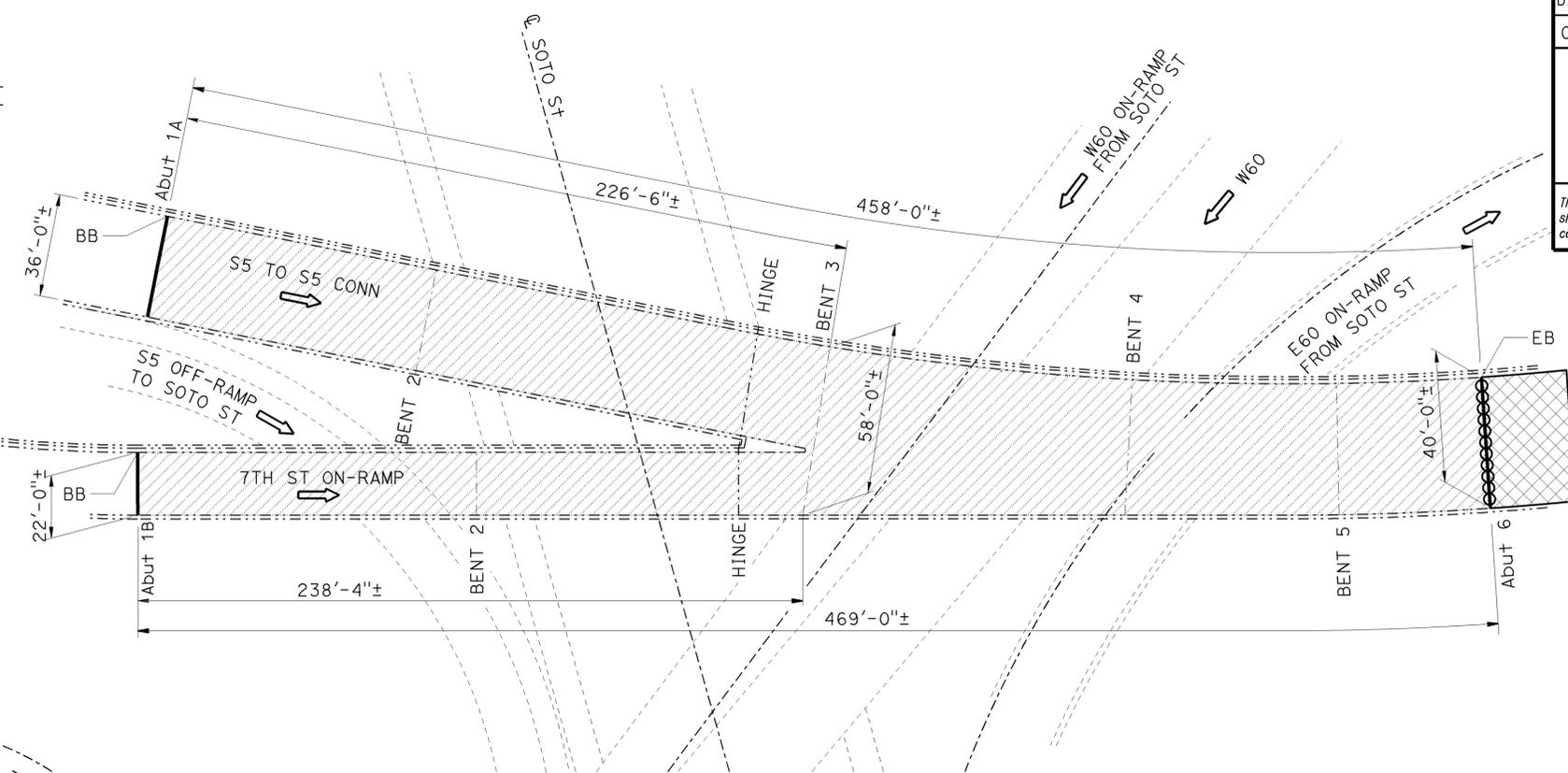
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	35	49

08/12/14  
REGISTERED CIVIL ENGINEER DATE

1-20-15  
PLANS APPROVAL DATE

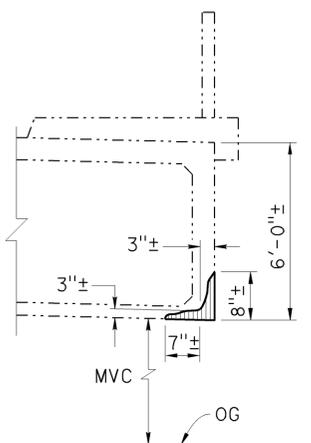
EDWARD J. NAHM  
No. C66900  
Exp. 09/30/16  
CIVIL  
STATE OF CALIFORNIA

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**ROUTE 5/60 SEPARATION**

Br No. 53-1391L, Rte 5, PM 16.59  
1" = 30'

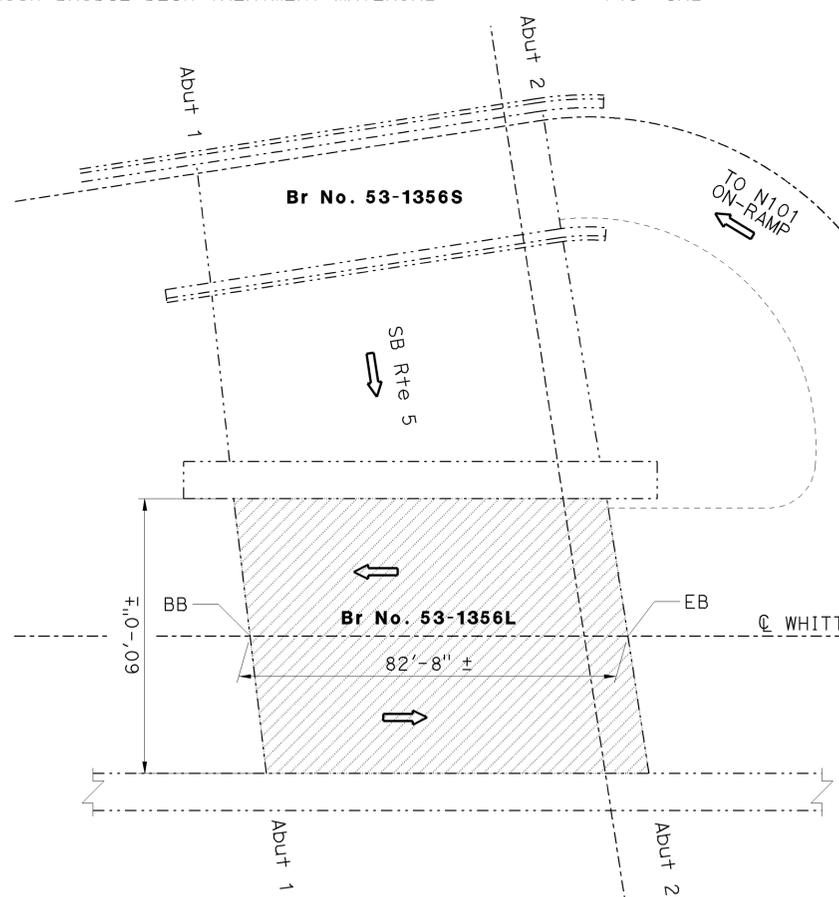


**SECTION C-C**

NO SCALE

**LEGEND:**

- Indicates existing.
- Indicates direction of traffic.
- [Hatched Box] Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- Indicates location of clean expansion joint and placement of new joint seal.
- [Circle with Dashed Line] Indicates location of existing expansion joint reconstruction and replacement with new joint seal. For details, see "JOINT SEAL REPLACEMENT DETAILS" sheet.
- [Cross-hatched Box] Indicates limits of remove existing PCC and AC approach and place new Structure Approach Type R(30S). For details, see "STRUCTURE APPROACH TYPE R(30S)" sheet.
- [Vertical Line Hatched Box] Indicates limits of repair spalled surface area.
- MVC Minimum vertical clearance, 15'-2"±



**WHITTIER Blvd OC**

Br No. 53-1356L/R, Rte 5, PM 17.07  
1" = 20'



- 8" x 36'-0" x 3" DEEP SPALL
- 7" x 36'-0" x 3" DEEP SPALL
- 8" x 24'-0" x 3" DEEP SPALL
- 7" x 24'-0" x 3" DEEP SPALL
- 8" x 6'-0" x 3" DEEP SPALL (Tot 2)
- 7" x 6'-0" x 3" DEEP SPALL (Tot 2)

NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA	DIVISION OF MAINTENANCE	BRIDGE NO.	ROUTE 5 BRIDGES GENERAL PLAN NO. 3				
DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang	DEPARTMENT OF TRANSPORTATION	STRUCTURE MAINTENANCE DESIGN	VARIOUS					
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson	PLANS AND SPECS COMPARED	Kevin Ellingson	POST MILE					
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0713000439-1	CONTRACT NO.: 07-2W6904	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 03	OF 17

USERNAME => s129239 DATE PLOTTED => 02-DEC-2014 TIME PLOTTED => 10:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	36	49

08/12/14  
DATE

REGISTERED CIVIL ENGINEER

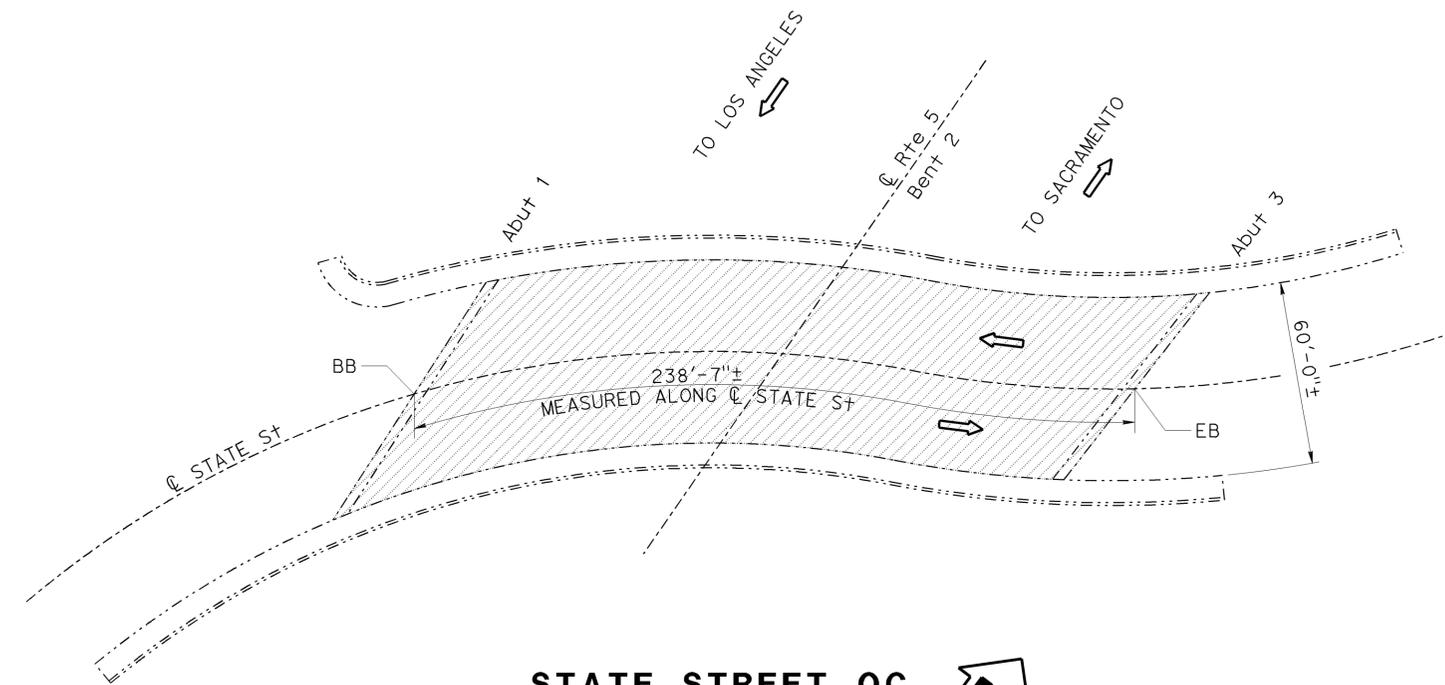
1-20-15  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
EDWARD J. NAHM  
No. C66900  
Exp. 09/30/16  
CIVIL  
STATE OF CALIFORNIA

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**LEGEND:**

- Indicates existing.
- ➔ Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- Indicates limits of repair spalled surface area.
- MVC Minimum vertical clearance, 14'-10"±

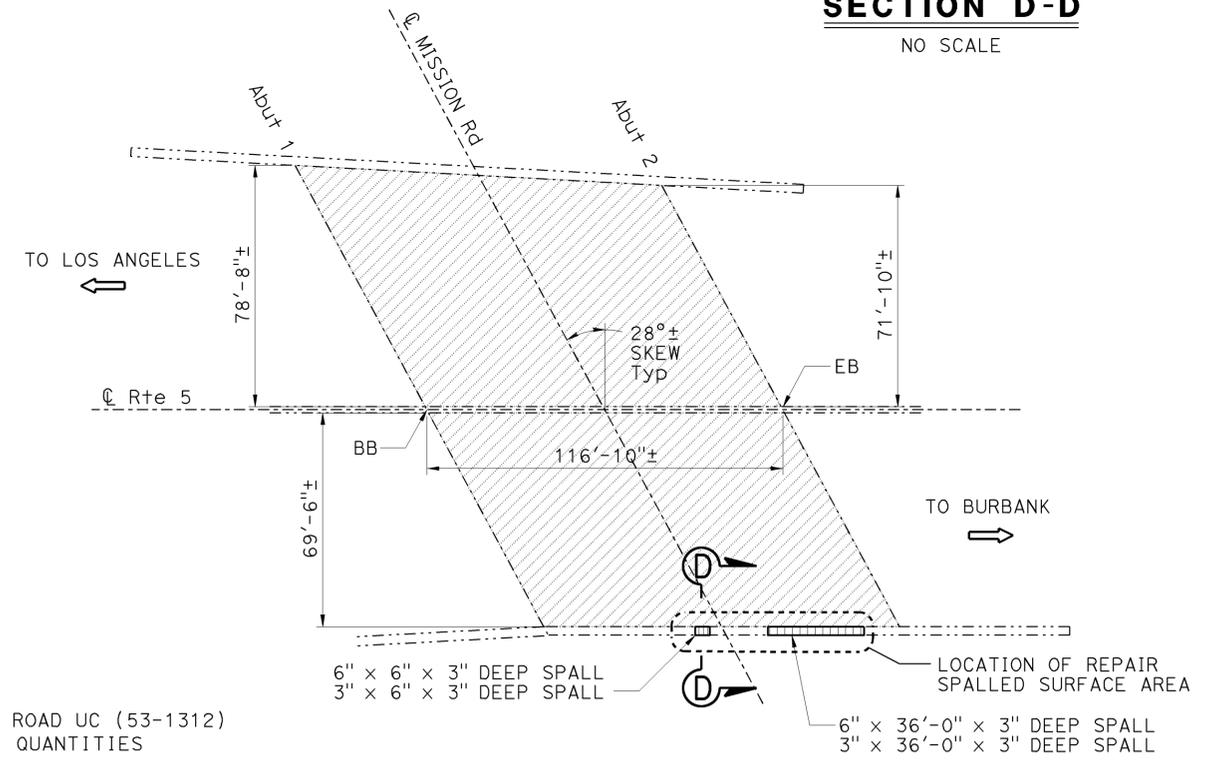


**STATE STREET OC**  
Br No. 53-1349, Rte 5, PM 18.25  
1" = 30'



STATE STREET OC (53-1349)  
QUANTITIES

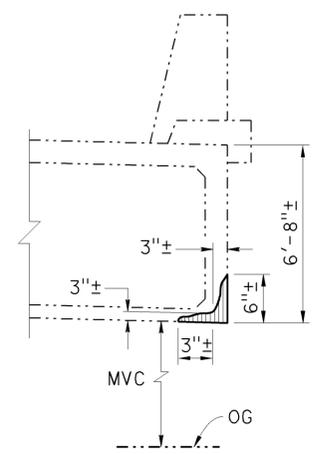
PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	14,315	SQFT
TREAT BRIDGE DECK	14,315	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	179	GAL



**MISSION ROAD UC (53-1312)**  
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
REPAIR SPALLED SURFACE AREA	28	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	16,912	SQFT
TREAT BRIDGE DECK	16,912	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	211	GAL

**MISSION ROAD UC**  
Br No. 53-1312, Rte 5, PM 18.78  
1" = 30'



**SECTION D-D**  
NO SCALE

NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

	DESIGN BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	
	DETAILS BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang	CHECKED Edward Nahm
	QUANTITIES BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson	PLANS AND SPECS COMPARED Kevin Ellingson

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

**DIVISION OF MAINTENANCE**  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS  
POST MILE VARIES

**ROUTE 5 BRIDGES**  
GENERAL PLAN NO. 4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	37	49

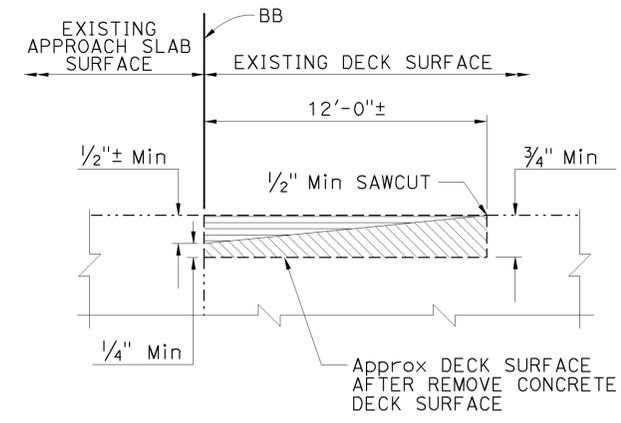
08/12/14  
DATE

REGISTERED CIVIL ENGINEER

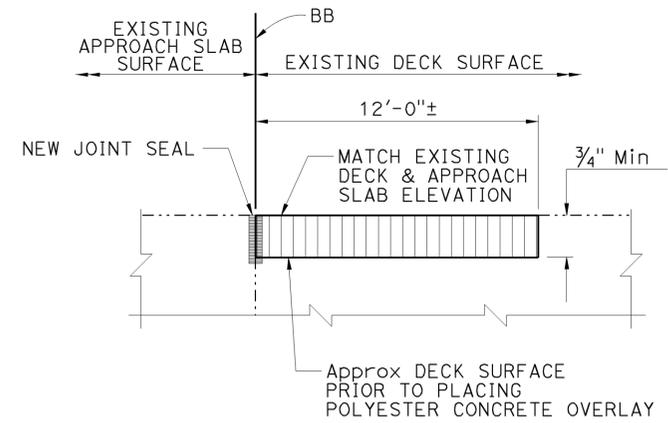
1-20-15  
PLANS APPROVAL DATE

No. C66900  
Exp. 09/30/16  
CIVIL

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**EXISTING**



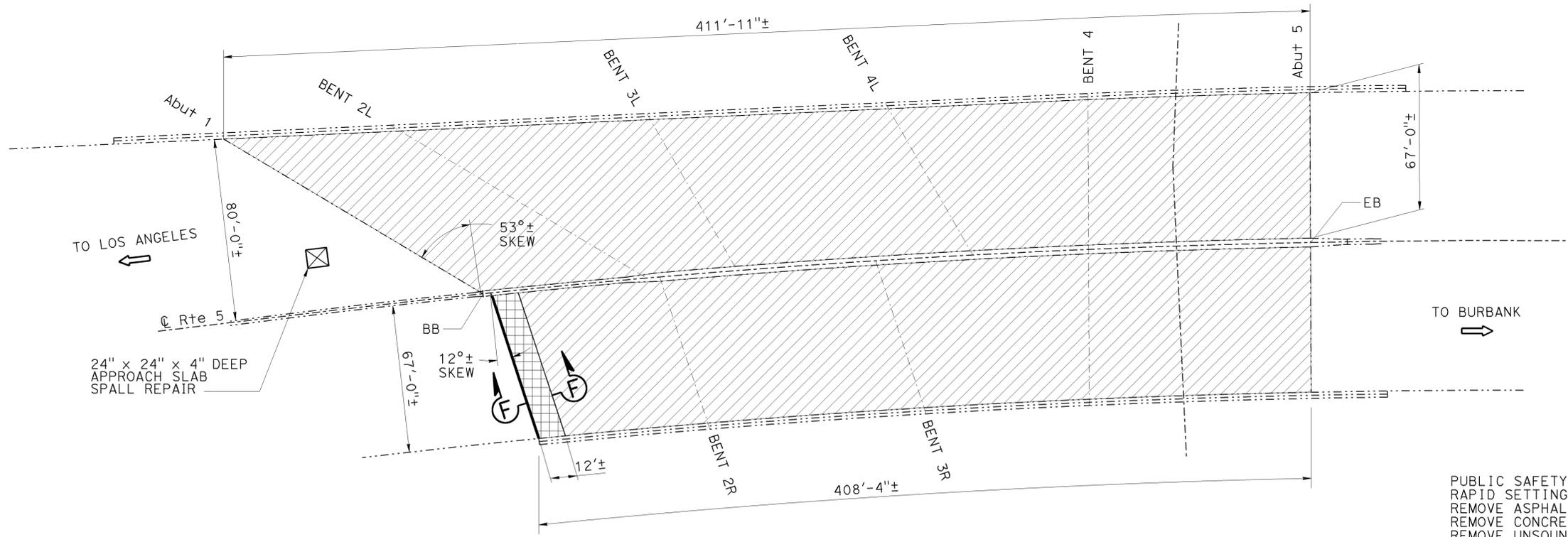
**RECONSTRUCTION**

**SECTION F-F**

NO SCALE

**LEGEND:**

- Indicates existing.
- Indicates direction of traffic.
- [Diagonal Hatching] Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- [Diagonal Hatching] Indicates limits of remove concrete deck surface 1/4" thick Min and varies.
- [Horizontal Hatching] Indicates limits of remove asphalt concrete surfacing.
- [Vertical Hatching] Indicates limits of prepare concrete bridge deck surface, furnish and place new 3/4" thick Min and varies polyester concrete overlay.
- [Cross-hatching] Indicates removal of unsound concrete and place rapid setting concrete (patch). See "DECK DAMAGE REPAIR DETAIL" on "MISCELLANEOUS DETAILS NO. 2" sheet.
- or [Vertical Line] Indicates location of clean expansion joint and placement of new joint seal.



**ALHAMBRA AVENUE OH**

Br No. 53-0368, Rte 5, PM 18.96  
1" = 30'



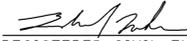
ALHAMBRA AVENUE OH (53-0368)  
QUANTITIES

DESCRIPTION	QUANTITY	UNIT	LUMP SUM
PUBLIC SAFETY PLAN	2	CF	
RAPID SETTING CONCRETE (PATCH)	804	SQFT	
REMOVE ASPHALT CONCRETE SURFACING	804	SQFT	
REMOVE CONCRETE DECK SURFACE	2	CF	
REMOVE UNSOUND CONCRETE	58,349	SQFT	
PREPARE CONCRETE BRIDGE DECK SURFACE	60	CF	
FURNISH POLYESTER CONCRETE OVERLAY	804	SQFT	
PLACE POLYESTER CONCRETE OVERLAY	57,545	SQFT	
TREAT BRIDGE DECK	719	GAL	
FURNISH BRIDGE DECK TREATMENT MATERIAL	69	LF	
CLEAN EXPANSION JOINT	69	LF	
JOINT SEAL (MR 1/2")	69	LF	

NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

Tony Brake DESIGN ENGINEER	DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	<b>ROUTE 5 BRIDGES</b> <b>GENERAL PLAN NO. 5</b>					
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		POST MILE						
	QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson		18.96						
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0713000439-1	CONTRACT NO.: 07-2W6904	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 05	OF 17

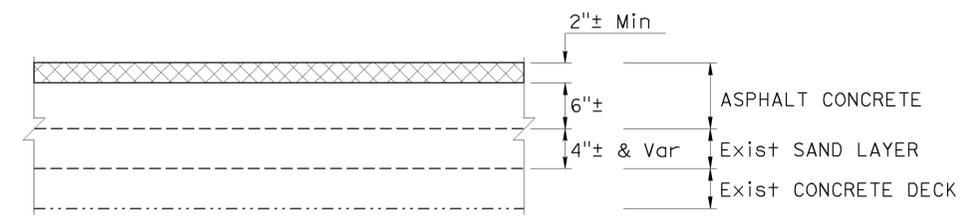
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	38	49

 08/12/14  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  


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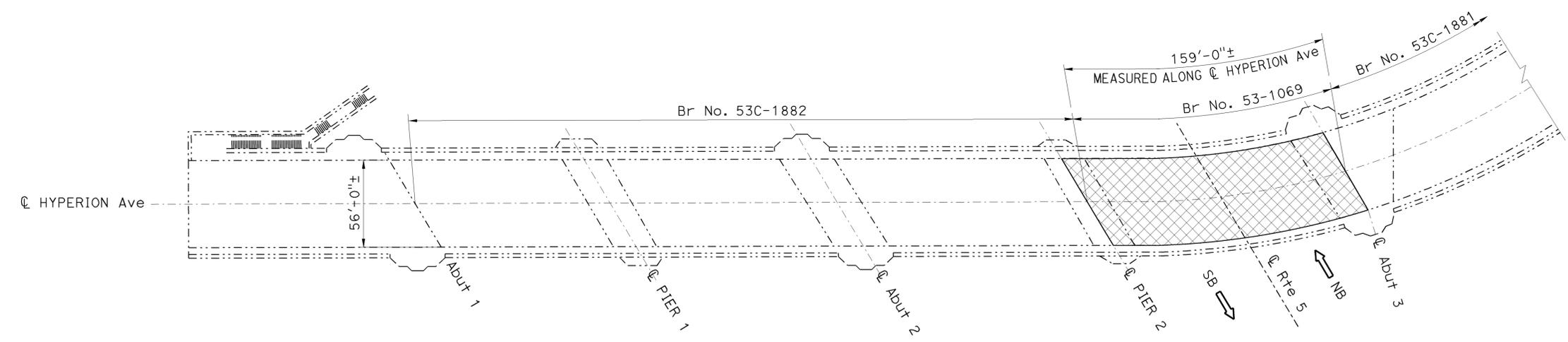
**LEGEND:**

- Indicates existing.
- ➔ Indicates direction of traffic.
-  Indicates limits of remove Asphalt Concrete surfacing 2"± thick.
-  Indicates limits of place Type A HMA, 2" thick.



**DECK TYPICAL SECTION - PORTION**

NO SCALE



**HYPERION AVENUE VIADUCT (53-1069)  
QUANTITIES**

REMOVE ASPHALT CONCRETE SURFACING	8,904	SQFT
HOT MIX ASPHALT (BRIDGE)	104	TON

**HYPERION AVENUE VIADUCT**

Br No. 53-1069, Rte 5, PM 23.72  
NO SCALE

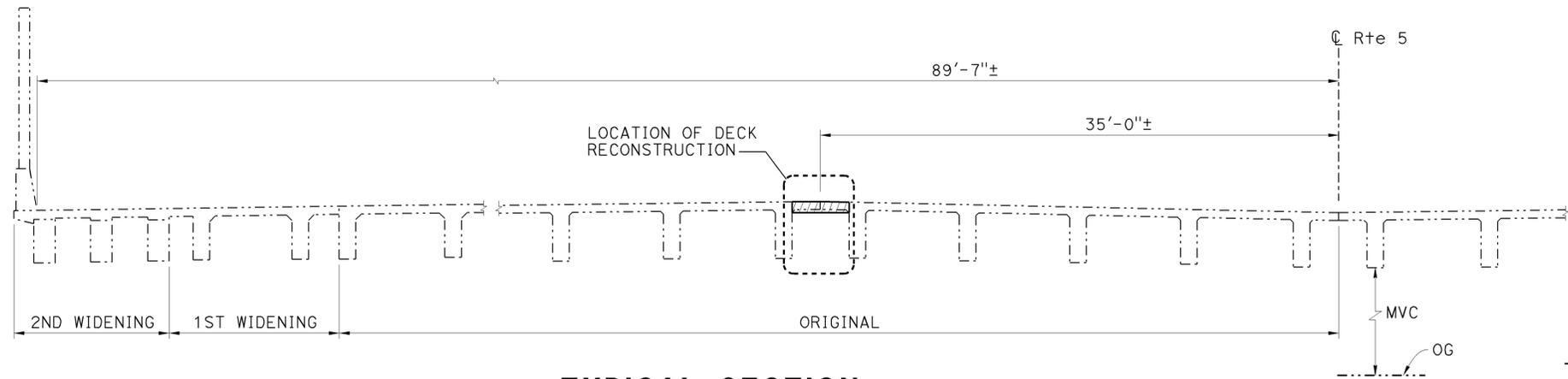


NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN ENGINEER Tony Brake	DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 5 BRIDGES GENERAL PLAN NO. 6			
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang			CHECKED Edward Nahm		53-1069		
	QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson	PLANS AND SPECS COMPARED	Kevin Ellingson	POST MILE				
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0713000439-1	CONTRACT NO.: 07-2W6904	REVISION DATES	SHEET 06	OF 17

USERNAME => s129239 DATE PLOTTED => 02-DEC-2014 TIME PLOTTED => 10:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	39	49
			08/12/14		
REGISTERED CIVIL ENGINEER			DATE		
1-20-15					
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>					



**TYPICAL SECTION**  
NO SCALE

**LEGEND:**

- Indicates existing.
- ⇒ Indicates direction of traffic.
- Indicates location of deck reconstruction.
- Indicates limits of temporary covered Pedestrian Walkway underneath structure along Allen Avenue.
- Indicates location of placement of new joint seal.
- MVC Minimum vertical clearance, 14'-11"±

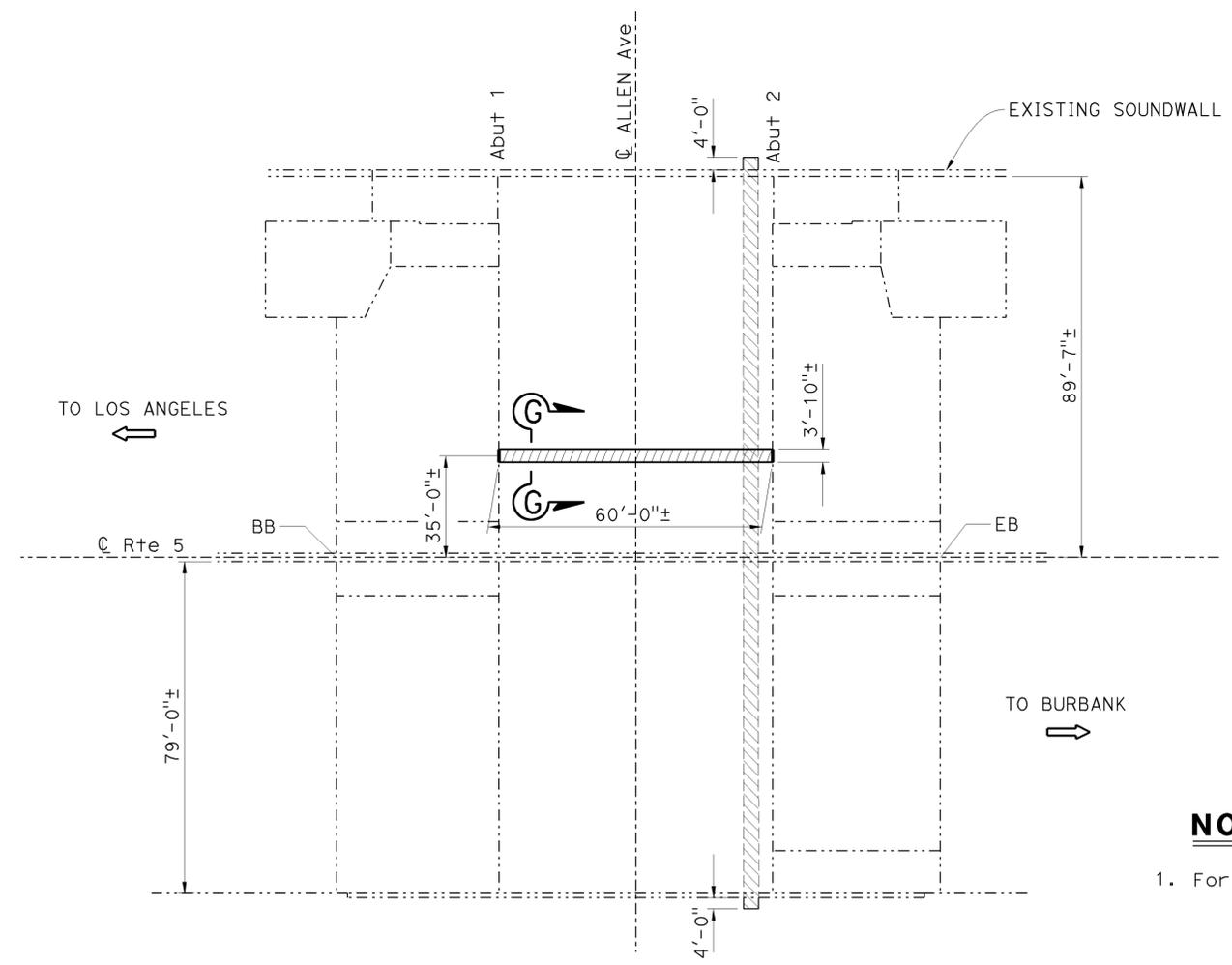
**GENERAL NOTES**  
**LOAD FACTOR DESIGN**

DESIGN:  
CALTRANS BRIDGE DESIGN SPECIFICATIONS  
APRIL 2000 (LFD) (1996 AASHTO with INTERIMS and REVISIONS by Caltrans)

DEAD LOAD:  
Includes 35 psf for future wearing surface.

LIVE LOADING:  
HS20-44 and Alternative and Permit Design Load

REINFORCED CONCRETE:  
f<sub>y</sub> = 60,000 psi  
f'c = 3,600 psi  
Transverse Deck Slabs (Working Stress):  
f<sub>s</sub> = 20,000 psi  
f<sub>c</sub> = 12,000 psi  
n = 10



**NOTE:**

1. For SECTION G-G, see "SLAB REPAIR DETAILS" sheet.

ALLEN AVENUE UC (53-1081)  
QUANTITIES

CORE CONCRETE (4")	9	LF
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE	11	CY
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	180	EA
JOINT SEAL (MR 1/2")	8	LF
BAR REINFORCING STEEL (BRIDGE)	1,055	LB

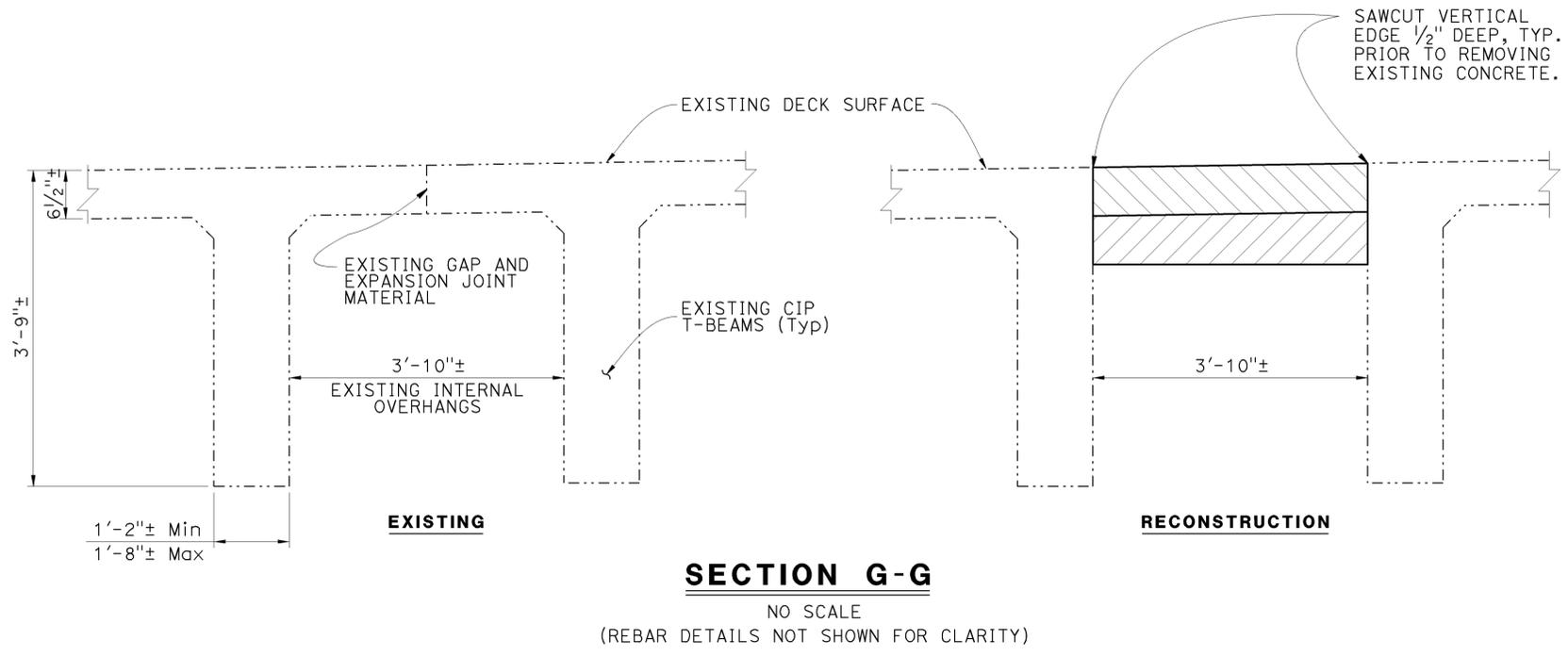
**ALLEN AVENUE UC**

Br No. 53-1081, Rte 5, PM 28.14  
NO SCALE

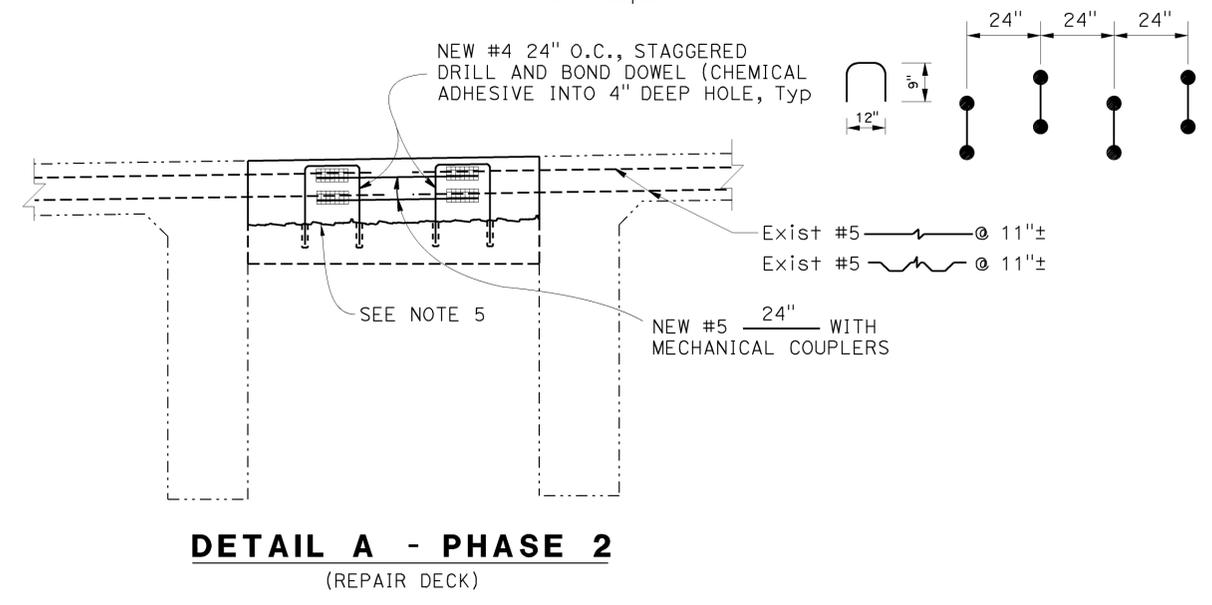
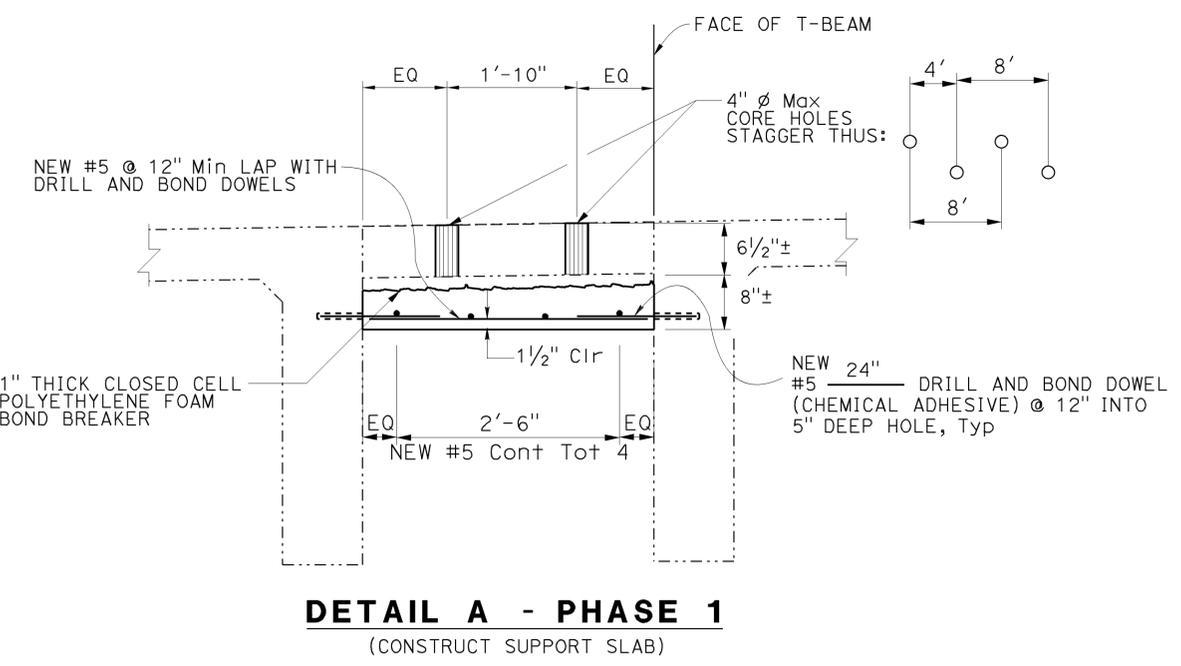
NOTE:  
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

Tony Brake DESIGN ENGINEER	DESIGN	BY Edward Nahm	CHECKED Tony Brake	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	<b>ROUTE 5 BRIDGES</b> <b>GENERAL PLAN NO. 7</b>					
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		CHECKED Edward Nahm			53-1081			
	QUANTITIES	BY Edward Nahm	CHECKED Tony Brake	SPECIFICATIONS	BY Kevin Ellingson		CHECKED Kevin Ellingson			28.14			
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0713000439-1	CONTRACT NO.: 07-2W6904	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 07	OF 17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	40	49
			08/12/14		
			REGISTERED CIVIL ENGINEER	DATE	
			1-20-15	PLANS APPROVAL DATE	
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- LEGEND:**
- Indicates existing structure.
  - Indicates new structure.
  - Indicates new structural concrete, bridge. For reinforcement detail, see DETAIL A - PHASE 1.
  - Indicates remove existing concrete and fill with RSC for bridge deck. For reinforcement details, see DETAIL A - PHASE 2.
  - Indicates deck core holes, see Note 1.
  - Indicates existing reinforcement, preserve all existing that is intact.
  - or • Indicates new reinforcement.
  - Indicates mechanical end couplers.
- NOTES:**
- Core holes in existing overhangs for the convenience of the concrete support slab pour. Backfill with Rapid Strength Concrete.
  - The support slab shall provided a 1 inch gap at expansion joints to accomodate expansion and contraction.
  - Removed concrete must be replaced prior to opening lane to traffic.
  - Concrete removal must be performed after constructing support slab. The method of concrete removal shall prevent damaging support slab.
  - After remove bondbreaker, clean and roughen support slab surface prior to place RSC for bridge deck.
  - For location of SECTION G-G, see GENERAL PLAN NO. 7.
  - EQ = Equal



NOTE:  
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DESIGN	BY Edward Nahm	CHECKED Tony Brake
DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

**DIVISION OF MAINTENANCE**  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	53-1081
POST MILE	28.14

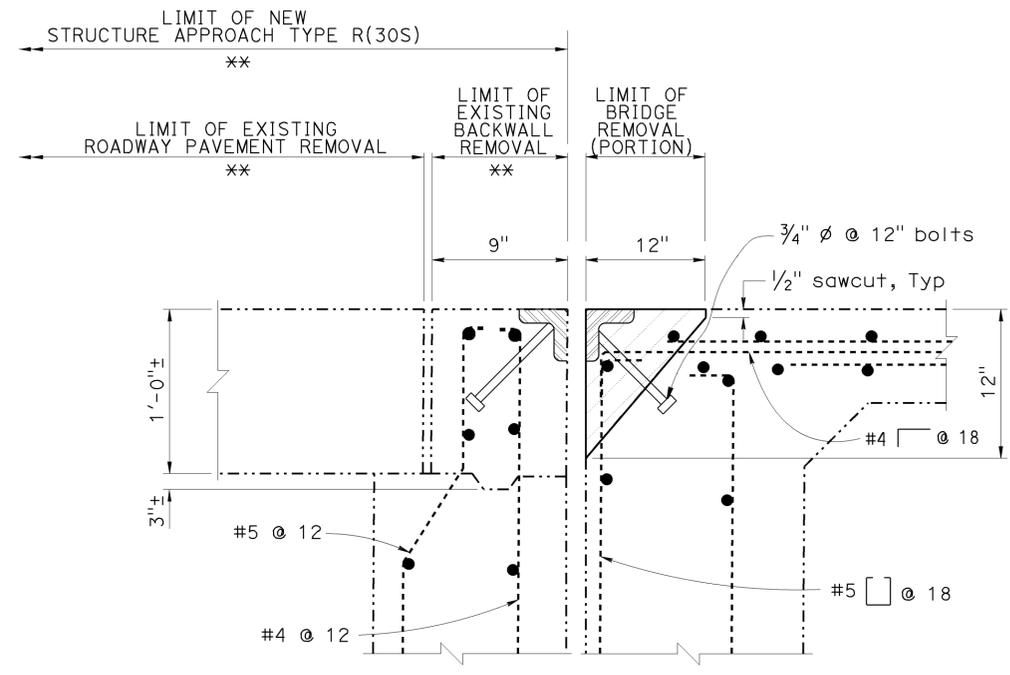
**ROUTE 5 BRIDGES**  
**SLAB REPAIR DETAILS**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	41	49
			08/12/14		
			REGISTERED CIVIL ENGINEER		
			1-20-15		
			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

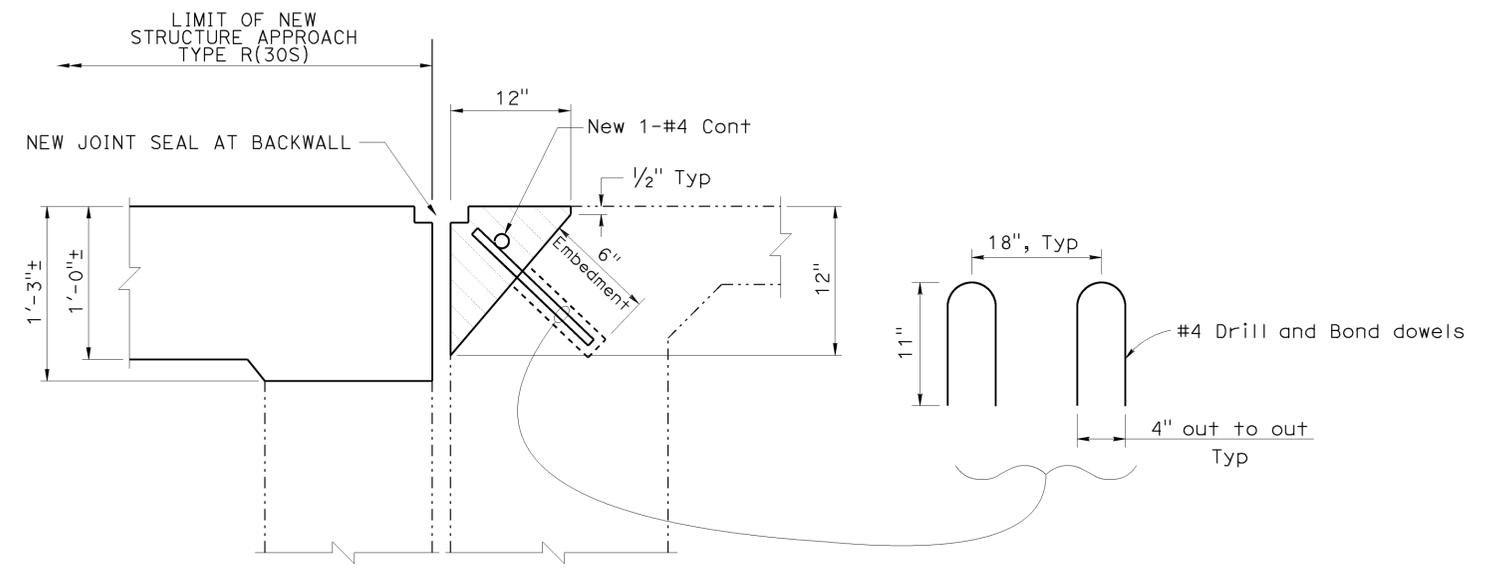


**LEGEND:**

- Indicates existing.
- Indicates new structure.
- Indicates limit of Bridge Removal (Portion). Preserve existing reinforcement, cut off existing anchor studs.
- Indicates Rapid Strength Concrete for bridge deck.
- or ● Indicates existing reinforcement, preserve all existing that is intact.



**EXISTING**



**RECONSTRUCTION**

**JOINT SEAL RECONSTRUCTION - ABUT 6**

Br No. 53-1391L, Rte 5, PM 16.59  
 NO SCALE  
 \*\* SEE "STRUCTURE APPROACH TYPE R(30S)"  
 (EXISTING REBARS NOT SHOWN FOR CLARITY)

**NOTE:**

- For location of joint seal reconstruction at abutment, see "GENERAL PLAN NO. 3".

NOTE: THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

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DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	53-1391L
POST MILE	16.59

ROUTE 5 BRIDGES  
**JOINT SEAL REPLACEMENT DETAILS**

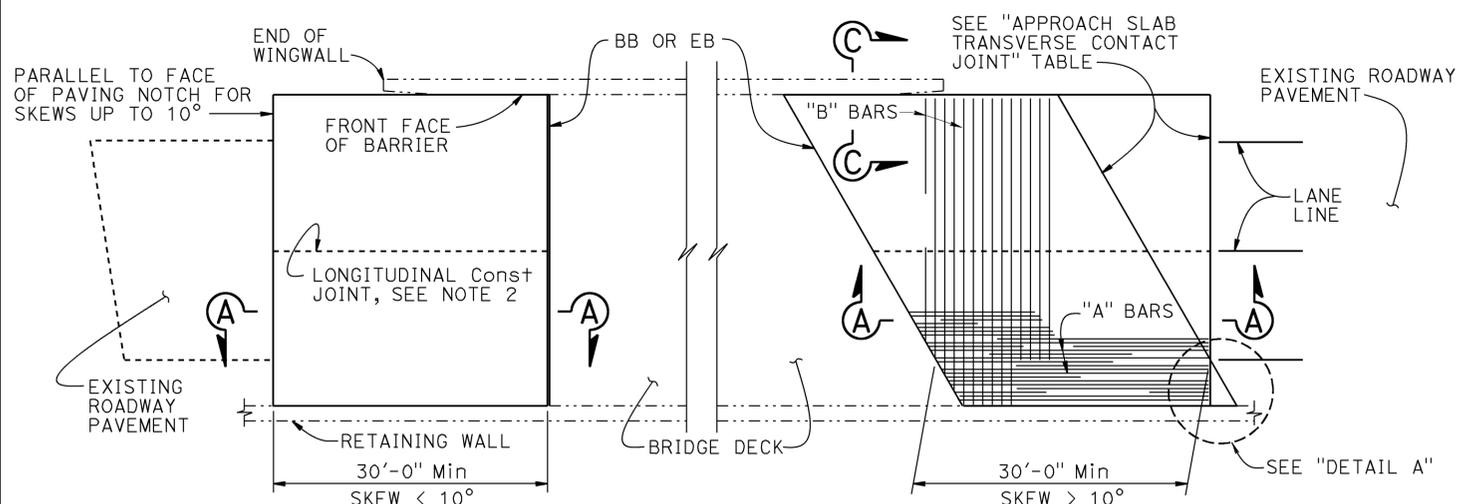
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 USERNAME => s1292939



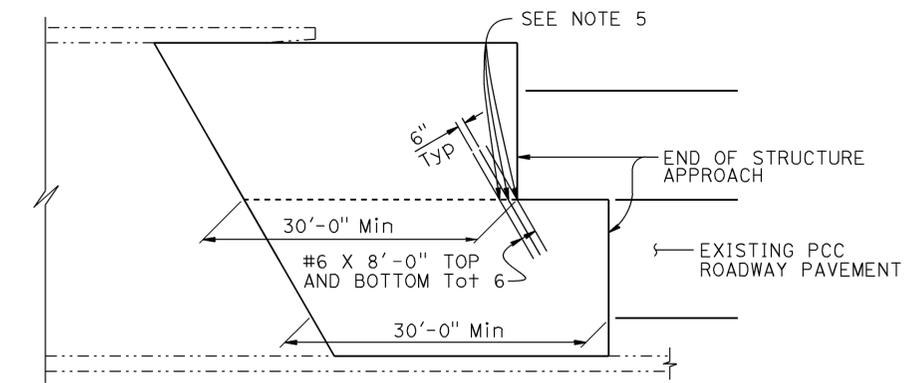
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	43	49

08/12/14  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
 No. C66900  
 Exp. 09/30/16  
 CIVIL  
 STATE OF CALIFORNIA

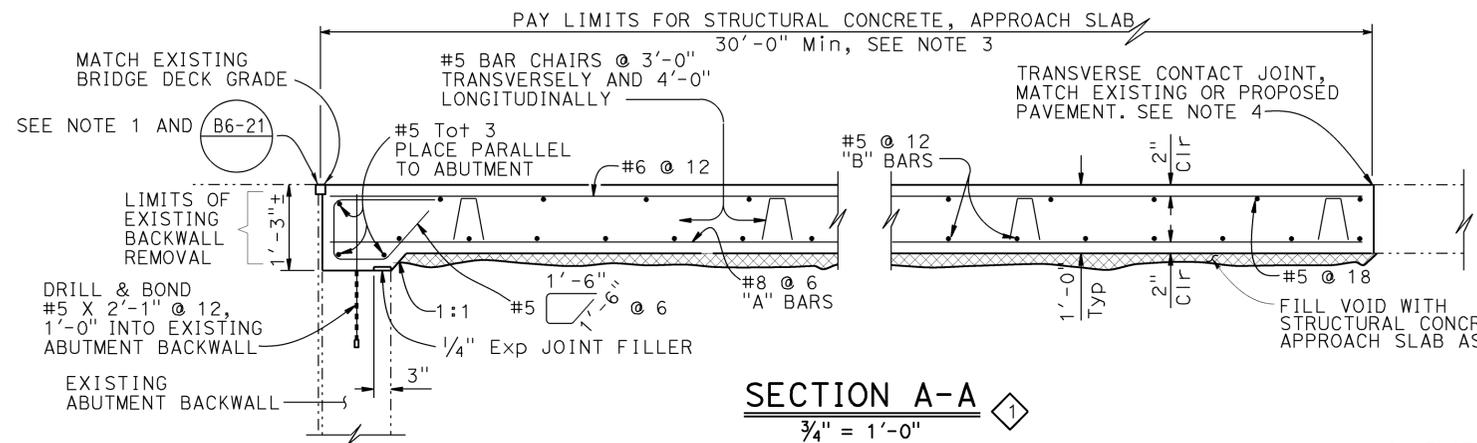
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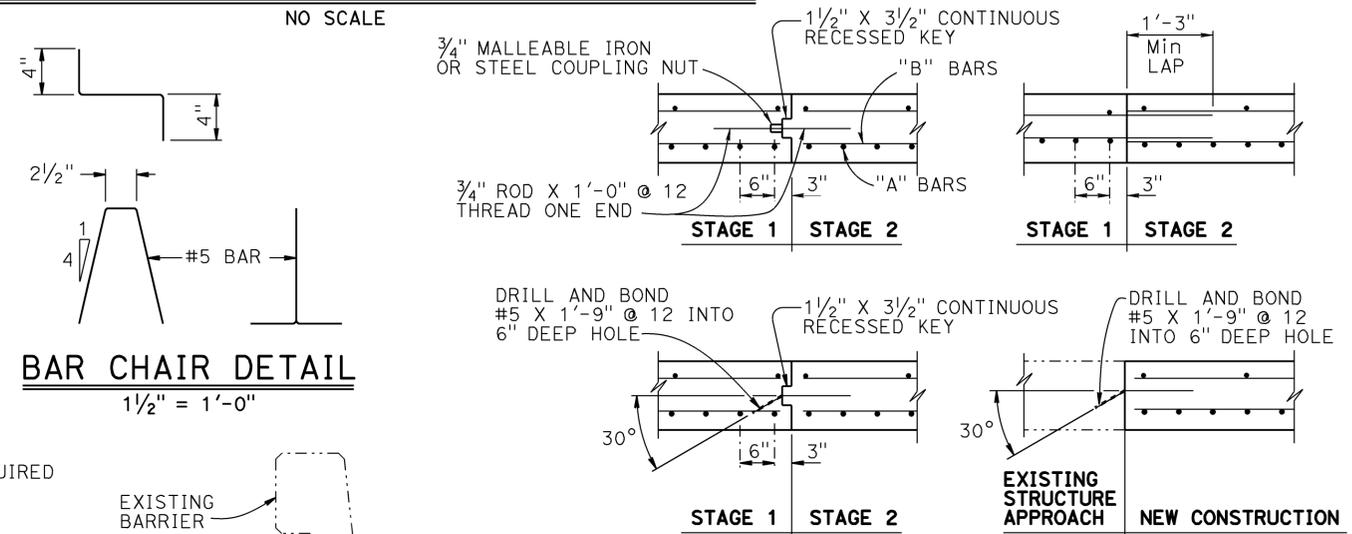
**PLAN**  
1" = 10'



**STRUCTURE APPROACH - END STAGGER DETAIL**  
NO SCALE

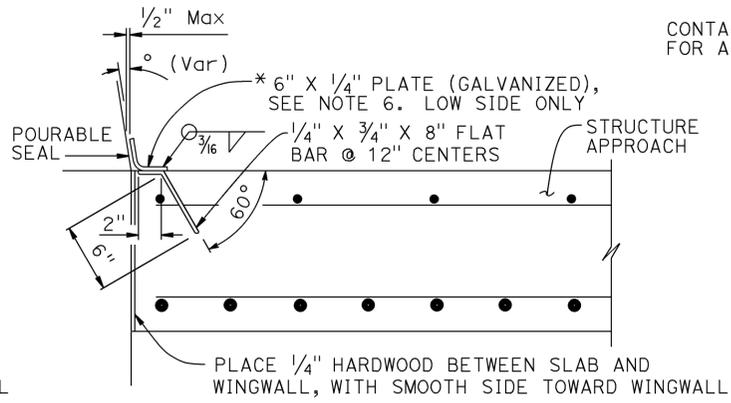
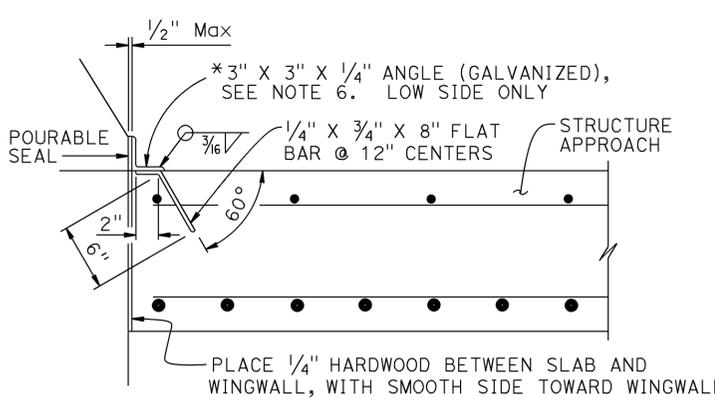


**SECTION A-A**  
3/4" = 1'-0"

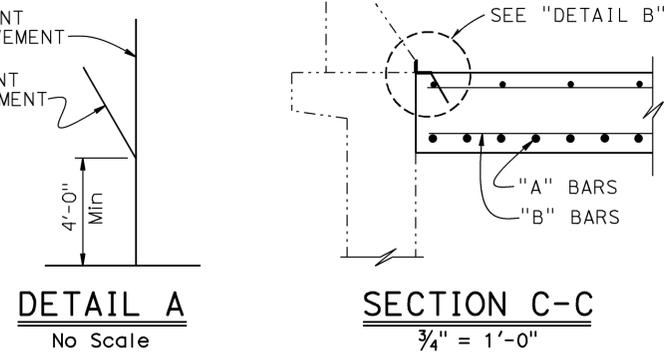


**BAR CHAIR DETAIL**  
1 1/2" = 1'-0"

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



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



**DETAIL A**  
No Scale

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

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 Revised Standard Plan RSP 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

NOTE:  
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REVISED STANDARD DRAWING

FILE NO. **xs3-130**

APPROVAL DATE July 2011

- 1 REVISED DETAIL
- 2 REVISED NOTE

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. Various  
 POST MILE Varies

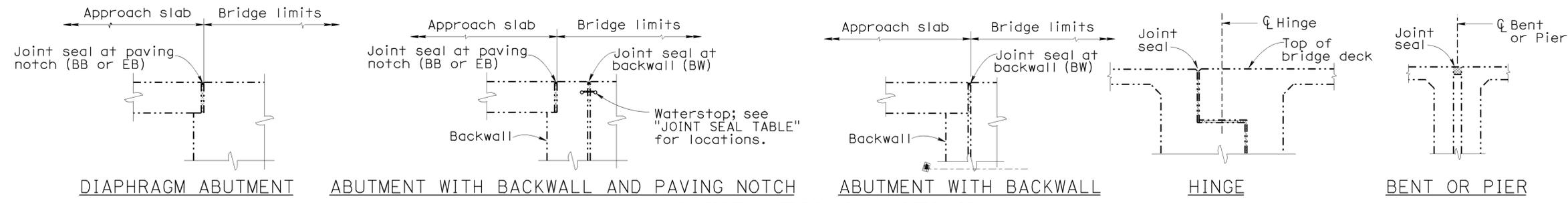
**SPECIAL DETAILS**

**ROUTE 5 BRIDGES**

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	44	49

08/12/14  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
 No. C66900  
 Exp. 09/30/16  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
 EDWARD J. NAHM  
 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 LOCATION**

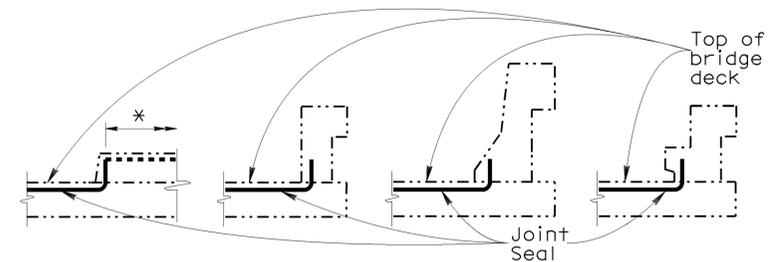
NO SCALE  
 Abutment joint seal is not required with AC roadway pavement transverse contact joint.

**NOTES:**

- The following notes apply to JOINT SEAL TYPE A:
- Install Joint Seal (MR = 1/2") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.
  - For details not shown see B6-21 sheet.
- 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 recalculated by the Engineer.
  - 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 3.0 PSI.
  - Bend Type B joint seal 6 inches up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.
- For details not shown see B6-21 sheet.

JOINT SEAL TABLE								
BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROX LENGTH (LF)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)	LENGTH TO CLEAN EXP JOINT (LF)
		ABUT	PN					
MARIETTA STREET UC	53-1387R	ABUT 1	PN	1/2	47	NO	12	8
		ABUT 4	PN	1/2	36	NO	12	8
ROUTE 5/60 SEPARATION	53-1391L	ABUT 1A	BW	1/2	36	NO	12	36
		ABUT 1B	BW	1/2	22	NO	12	22
		ABUT 6	BW	1/2	46	NO	--	--
ALHAMBRA AVENUE OH	53-0368	ABUT 1	PN	1/2	69	NO	12	69
ALLEN AVENUE UC	53-1081	ABUT 1	PN	1/2	4	NO	--	--
		ABUT 2	PN	1/2	4	NO	--	--

PN = PAVING NOTCH  
 BW = BACKWALL



**JOINT SEAL AT LOW SIDE OF DECK**

Note: Details shown for illustration purposes only.  
 For use only where deck joint matches the sidewalk, curb or barrier rail joint.  
 \* Extension of joint seal will be determined by the Engineer if necessary.

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DESIGN	BY Edward Nahm	CHECKED Tony Brake
DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

ROUTE 5 BRIDGES  
 MISCELLANEOUS DETAILS NO. 1

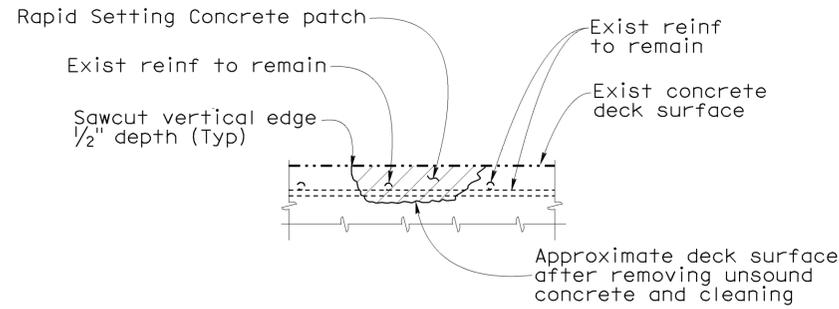
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	45	49

<i>Edward J. Nahm</i>	08/12/14
REGISTERED CIVIL ENGINEER	DATE
1-20-15	
PLANS APPROVAL DATE	

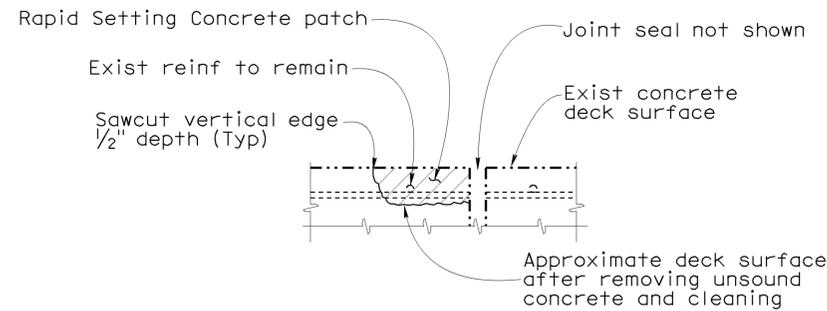
REGISTERED PROFESSIONAL ENGINEER  
 EDWARD J. NAHM  
 No. C66900  
 Exp. 09/30/16  
 CIVIL  
 STATE OF CALIFORNIA

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**DECK DAMAGE REPAIR DETAIL**

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

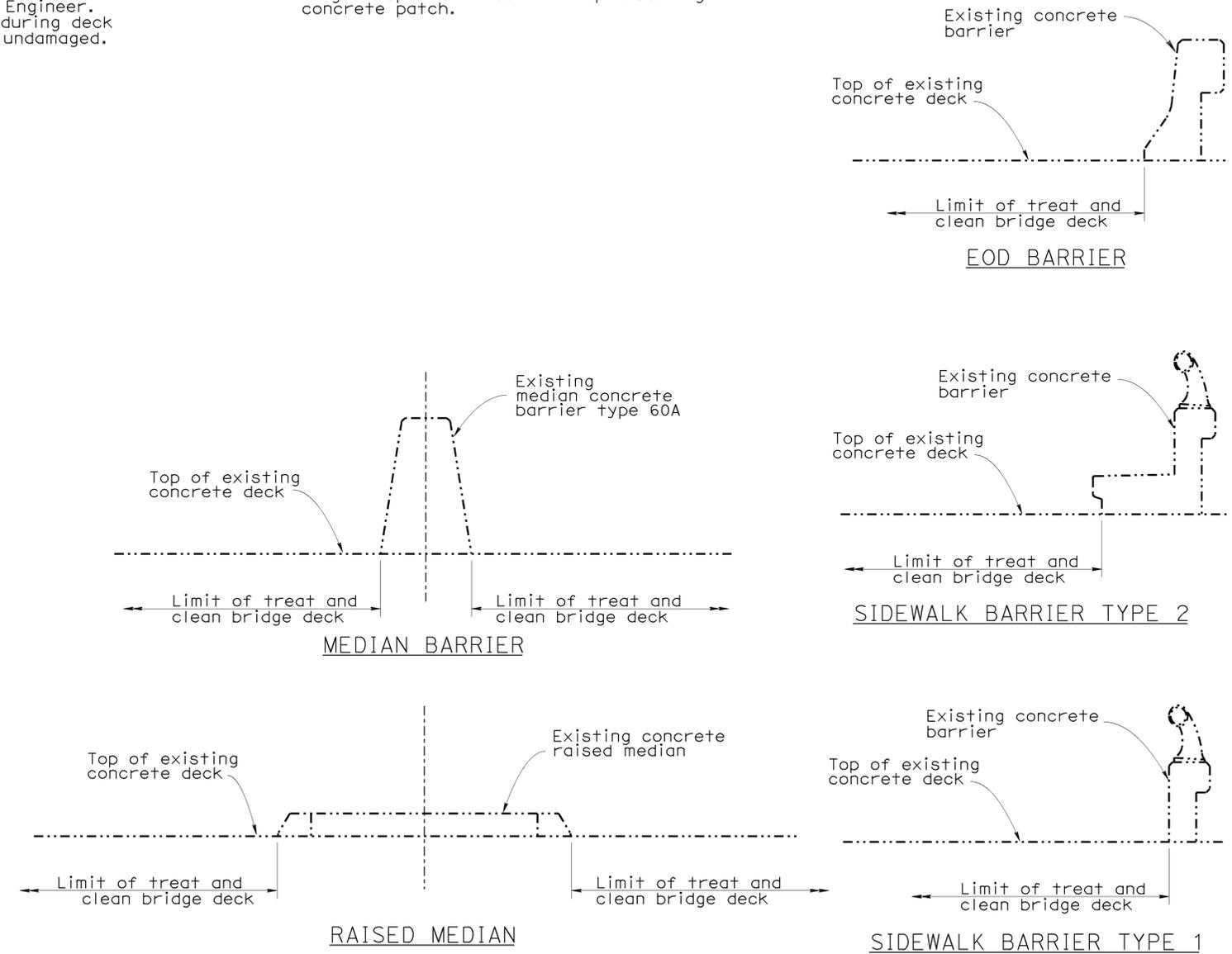


**JOINT REPAIR DETAIL**

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

**CONSTRUCTION NOTES:**

- Existing reinforcement must be protected in place during unsound concrete removal and patching operations.
- It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
- When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
- The saw cut depth must not exceed 1/2 inch or the concrete cover over the top steel reinforcing bars, whichever is less.
- Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original spall surface with rapid setting concrete patch.



**TYPICAL LIMITS OF DECK WORK**

NO SCALE

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DETAILS	BY Tom Dang	CHECKED Edward Nahm
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STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

ROUTE 5 BRIDGES  
MISCELLANEOUS DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	46	49

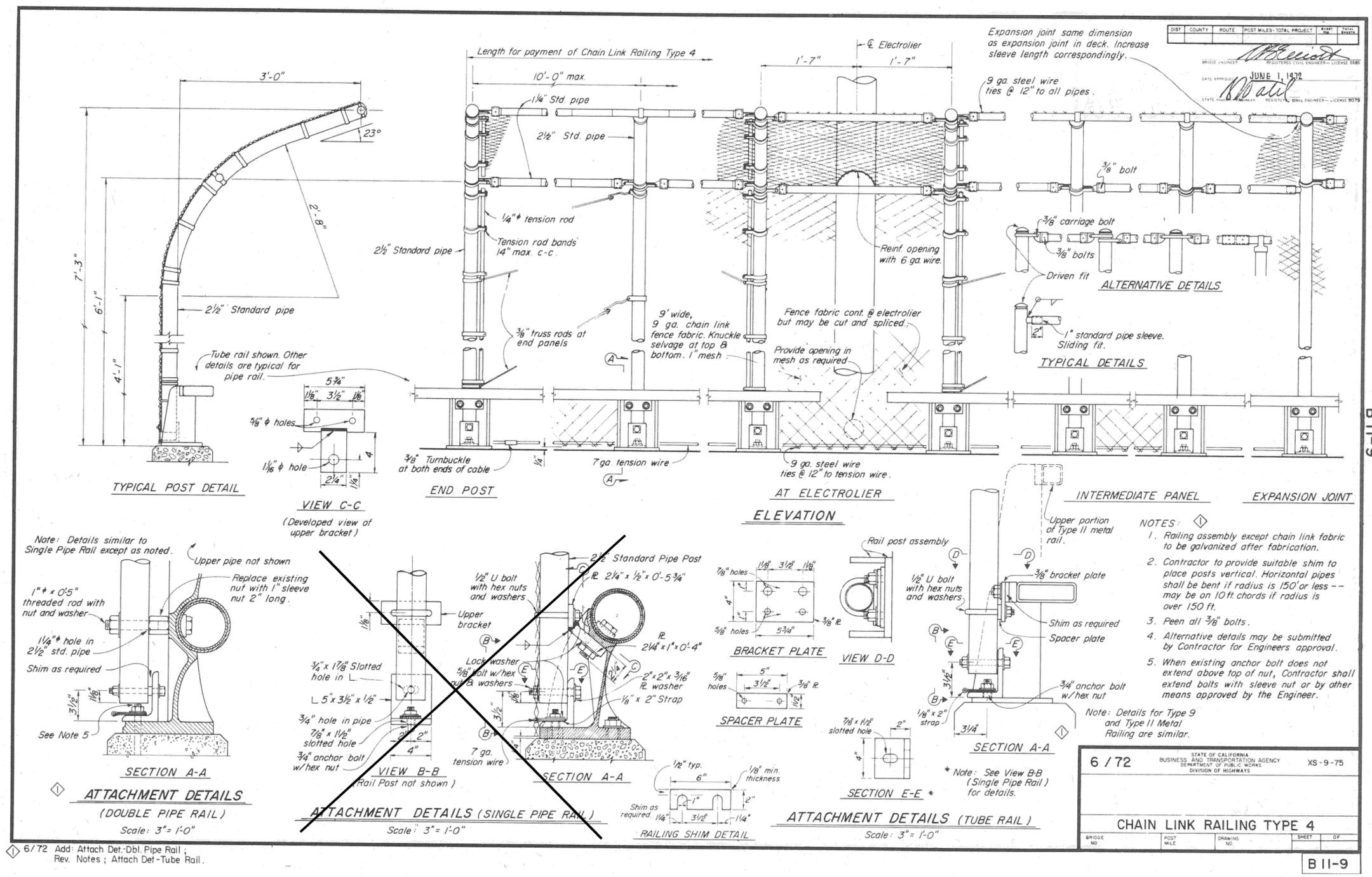
08/12/14  
DATE

REGISTERED CIVIL ENGINEER

EDWARD J. NAHM  
No. C66900  
Exp. 09/30/16  
CIVIL

1-20-15  
PLANS APPROVAL DATE

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**EASTERN AVENUE OC**  
Br No. 53-0607, Rte 5, PM 13.89

**FOR INFORMATIONAL USE ONLY**

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DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE	BRIDGE NO.
STRUCTURE MAINTENANCE DESIGN	53-0607
	POST MILE
	13.89

ROUTE 5 BRIDGES  
MISCELLANEOUS DETAILS NO. 3

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489  
PROJECT NUMBER & PHASE: 0713000439-1

CONTRACT NO.: 07-2W6904

DISREGARD PRINTS BEARING EARLIER REVISION DATES

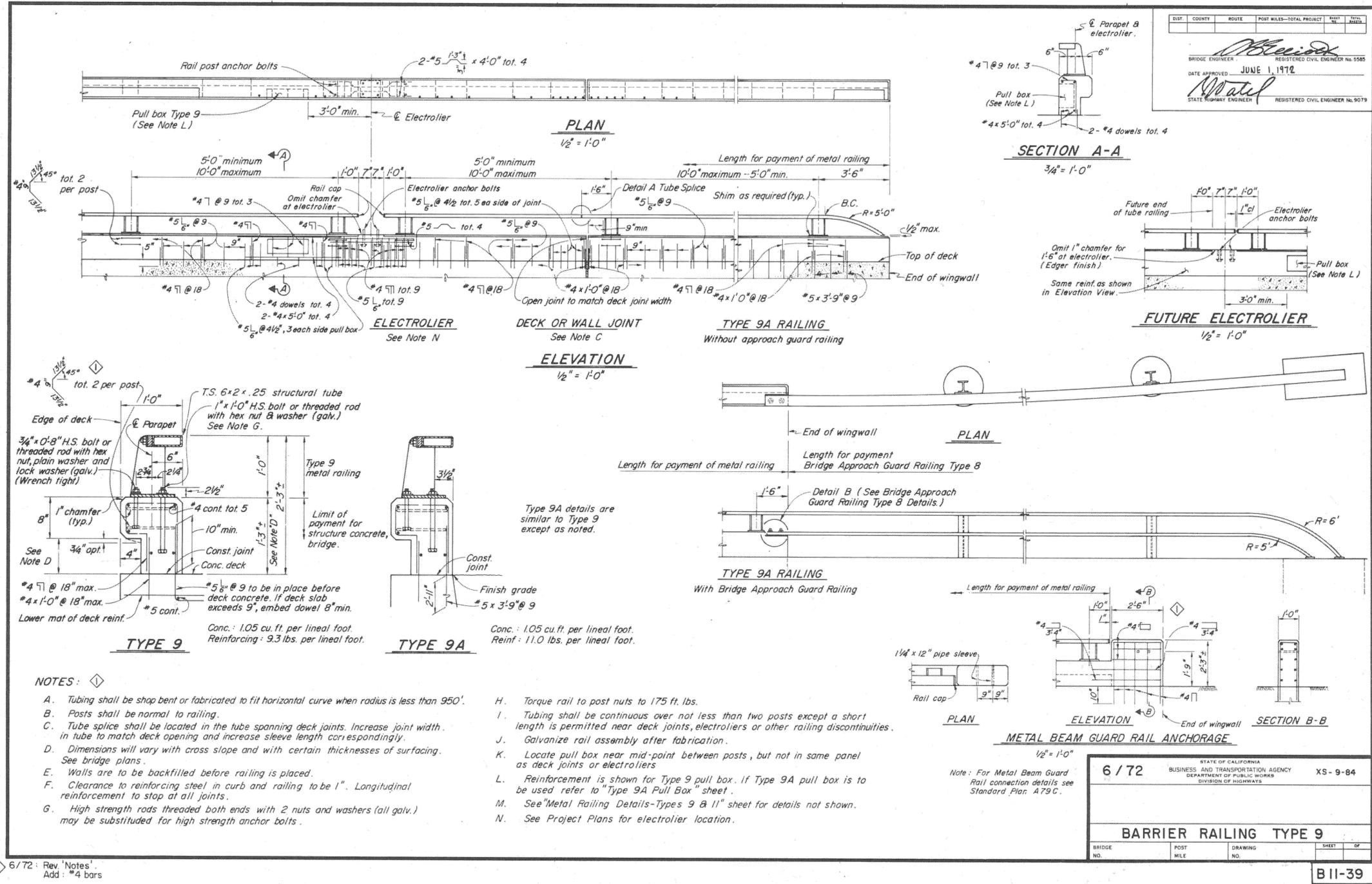
REVISION DATES	SHEET	OF
	14	17

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USERNAME: s1292939 DATE PLOTTED: 02-DEC-2014 10:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	47	49

08/12/14  
 REGISTERED CIVIL ENGINEER DATE  
 1-20-15  
 PLANS APPROVAL DATE  
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BRIDGE ENGINEER  
 REGISTERED CIVIL ENGINEER No. 5585  
 DATE APPROVED: JUNE 1, 1972  
 STATE HIGHWAY ENGINEER  
 REGISTERED CIVIL ENGINEER No. 9079

B11-39

6/72		STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS		XS-9-84	
<b>BARRIER RAILING TYPE 9</b>					
BRIDGE NO.	POST MILE	DRAWING NO.	SHEET	OF	

B11-39

**EASTERN AVENUE OC**

Br No. 53-0607, Rte 5, PM 13.89

**FOR INFORMATIONAL USE ONLY**

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DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	53-0607
POST MILE	13.89

ROUTE 5 BRIDGES  
 MISCELLANEOUS DETAILS NO. 4

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

UNIT: 3489  
 PROJECT NUMBER & PHASE: 0713000439-1

CONTRACT NO.: 07-2W6904

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
	15	17

FILE => 07-2W6904-e-miscd1104.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	Var	48	49

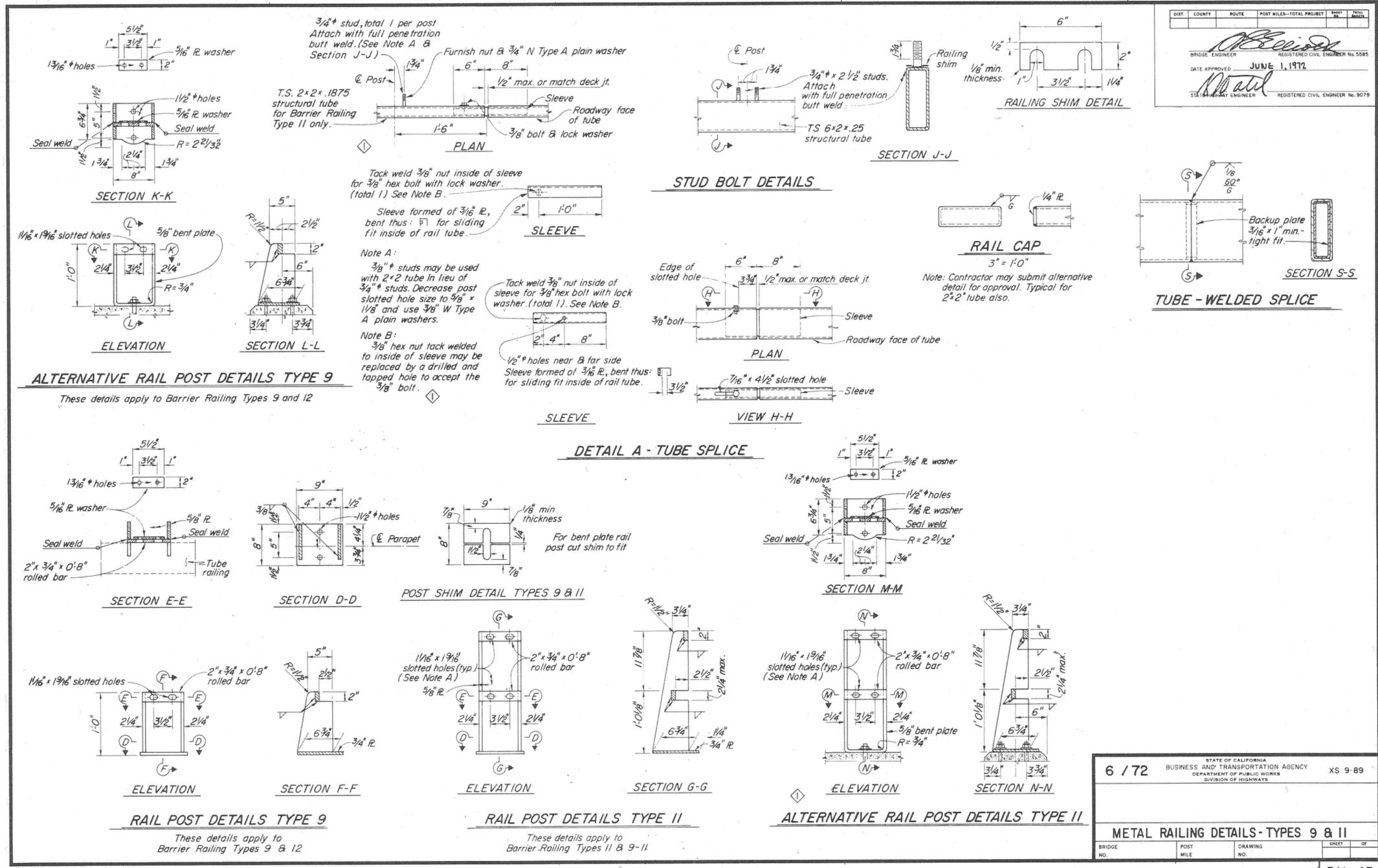
08/12/14  
DATE

REGISTERED CIVIL ENGINEER

1-20-15  
PLANS APPROVAL DATE

No. C66900  
Exp. 09/30/16  
CIVIL  
STATE OF CALIFORNIA

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6/72 Rev. Tube Details  
Add: Note A, B, & Alt. Rail Post Type II

B11-43

**EASTERN AVENUE OC**  
Br No. 53-0607, Rte 5, PM 13.89

**FOR INFORMATIONAL USE ONLY**

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DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE	BRIDGE NO.
STRUCTURE MAINTENANCE DESIGN	53-0607
	POST MILE
	13.89

ROUTE 5 BRIDGES  
MISCELLANEOUS DETAILS NO. 5

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489  
PROJECT NUMBER & PHASE: 0713000439-1  
CONTRACT NO.: 07-2W6904

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
	16	17

DATE PLOTTED => 10:12  
USER NAME => s129239

08/12/14  
 REGISTERED CIVIL ENGINEER DATE

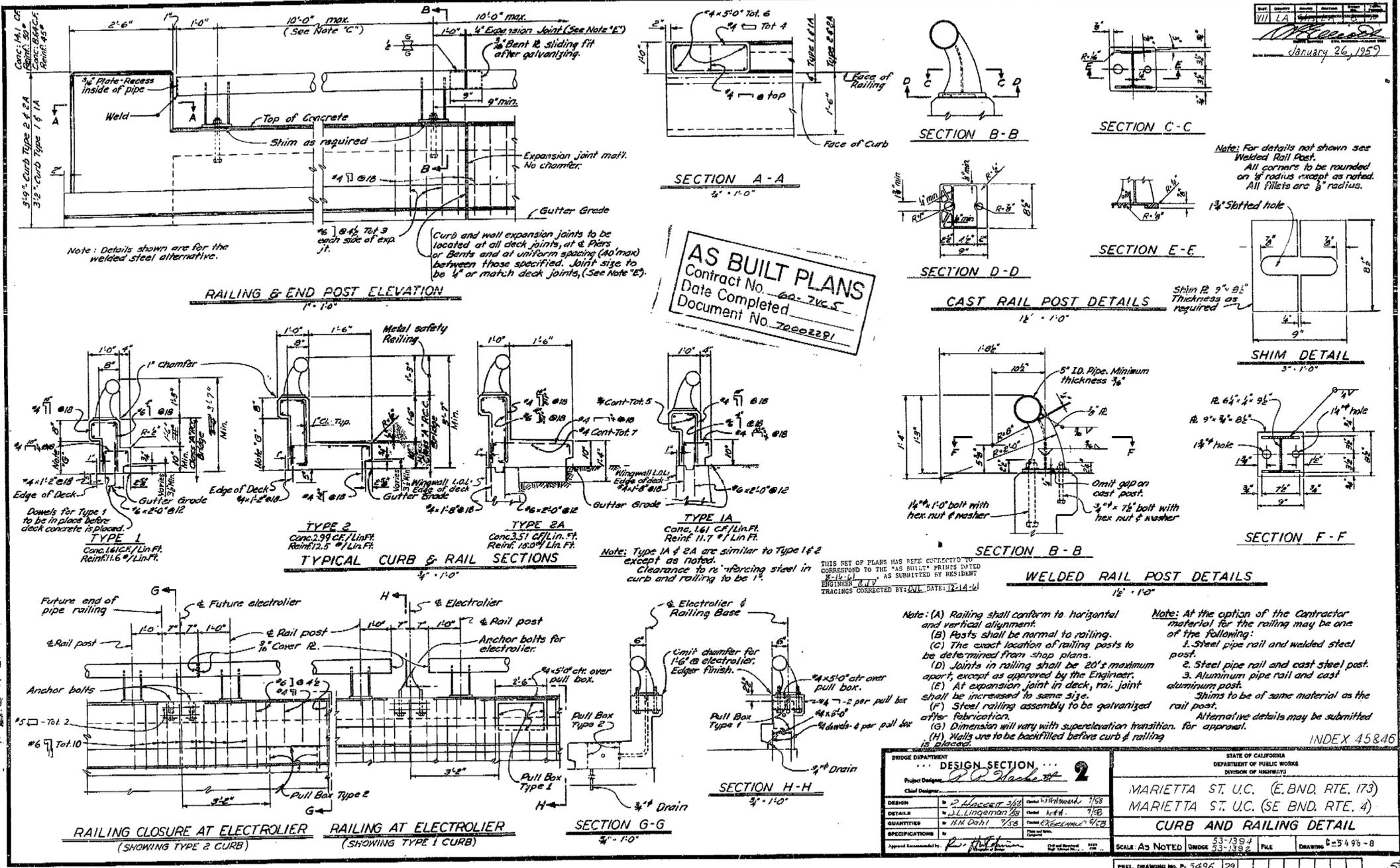
1-20-15  
 PLANS APPROVAL DATE

No. C66900  
 Exp. 09/30/16  
 CIVIL

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I-081-3 (7)

January 26, 1959



**AS BUILT PLANS**  
 Contract No. 60-7W65  
 Date Completed  
 Document No. 70002281

BRIDGE DEPARTMENT DESIGN SECTION		DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Project Designer: <i>R. C. Shaker</i>		MARIETTA ST. U.C. (E. BND. RTE. 173)	
Chief Designer:		MARIETTA ST. U.C. (SE BND. RTE. 4)	
DESIGN: <i>P. H. Haggart</i> 3/58		<b>CURB AND RAILING DETAIL</b>	
DETAILS: <i>J. L. Lingeman</i> 4/58		SCALE: AS NOTED	
QUANTITIES: <i>H. M. Dahl</i> 7/58		BRIDGE 53-1392L	
SPECIFICATIONS: <i>P. H. Haggart</i>		POST MILE 16.29	
Approved Recommended by: <i>P. H. Haggart</i>		DRAWING 0-5496-8	
PREL. DRAWING NO. P. 5496 29			

**MARIETTA STREET UC**  
 Br No. 53-1392L, Rte 5, PM 16.29

**FOR INFORMATIONAL USE ONLY**

NOTE: THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

DESIGN	BY Edward Nahm	CHECKED Tony Brake
DETAILS	BY Tom Dang	CHECKED Edward Nahm
QUANTITIES	BY Edward Nahm	CHECKED Tony Brake

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

**DIVISION OF MAINTENANCE**  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.  
53-1392L  
 POST MILE  
16.29

**ROUTE 5 BRIDGES**  
**MISCELLANEOUS DETAILS NO. 6**