

INDEX OF PLANS

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STRUCTURE PLANS

26-45	ROUTE 110, 118, 134, 210, 710 BRIDGES
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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

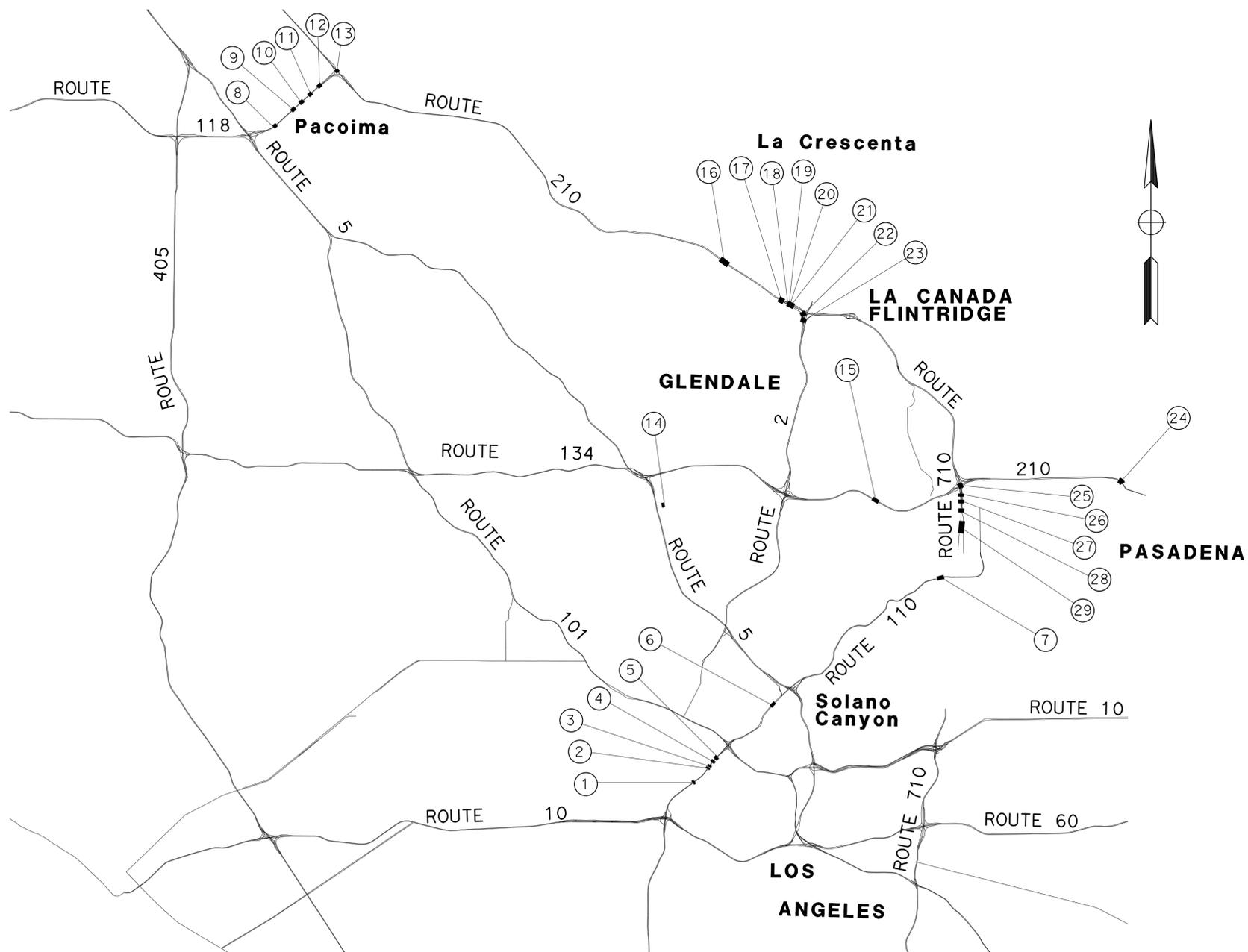
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
AT VARIOUS LOCATIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	1	45



LOCATION MAP





PROJECT MANAGER
CHRISTIAN SAM
 DESIGN ENGINEER
BIPIN PATEL

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

NO SCALE


 PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER

DATE 2-22-13
 March 4, 2013
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER

BIPIN PATEL

No. C60082
Exp. 6-30-14
CIVIL

STATE OF CALIFORNIA

CONTRACT No.	07-1W3404
PROJECT ID	0700021256

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	2	45

 2-22-13
 REGISTERED CIVIL ENGINEER DATE

3-4-13
 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.



LOCATIONS OF CONSTRUCTION

Loc No. ①	ROUTE	PM	BRIDGE No.	STRUCTURE NAME
1	110	22.44	53-0750	8TH St UC
2	110	22.80	53-0746	6TH St OC
3	110	22.83	53-0685	5TH St OC
4	110	22.91	53-0686S	5TH St NB ON-RAMP OC
5	110	23.00	53-0787	4TH St OC (SOUTH)
6	110	24.90 25.28	53-0199R 53-0201R	FIGUEROA St TUNNEL
7	110	30.30	53-0433	ARROYO DRIVE
8	118	R12.13	53-2337	TELFAIR Ave UC
9	118	R12.68	53-2352	BRADLEY Ave UC
10	118	R12.94	53-2356	HERRICK Ave UC
11	118	R13.18	53-2130	GLENOAKS Blvd UC
12	118	R13.44	53-2119	BORDEN Ave UC
13	118	R13.94	53-2102G	E118-W210 CONNECTOR OC
14	134	L5.06	53-1106	SAN FERNANDO Rd OC
15	134	R10.97	53-2026R	ARBOR DEL-HILLMONT UC

LOCATIONS OF CONSTRUCTION

Loc No. ①	ROUTE	PM	BRIDGE No.	STRUCTURE NAME
16	210	R16.77	53-2310	PENNSYLVANIA Ave UC
17	210	R18.22	53-2312	OCEAN VIEW Blvd OC
18	210	R18.53	53-2219K	WALTONIA DRIVE UC
19	210	R18.53	53-2219	WALTONIA DRIVE UC
20	210	R18.57	53-2221S	WALTONIA DRIVE UC
21	210	R18.53	53-2219G	E210-W2 CONNECTOR
22	210	R18.77	53-2220F	W210-W2 CONNECTOR OC
23	210	R18.91	53-2199	W210-W2 CONNECTOR UC
24	210	R28.46	53-2279R	SIERRA MADRE Blvd UC
25	710	R32.69	53-2258	WALNUT STREET/N710-E210 OC
26	710	R32.51	53-2537	UNION St OC
27	710	R32.45	53-2264	COLORADO Blvd OC
28	710	R32.37	53-2263	GREEN St OC
29	710	T32.11	53-2262	DEL MAR Blvd OC

LOCATIONS OF CONSTRUCTION
LC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: BIPIN PATEL
 CALCULATED/DESIGNED BY: DINESH BHAVSAR
 CHECKED BY: JOHN ZAKI
 REVISED BY: [] DATE: []
 REVISIONS: []

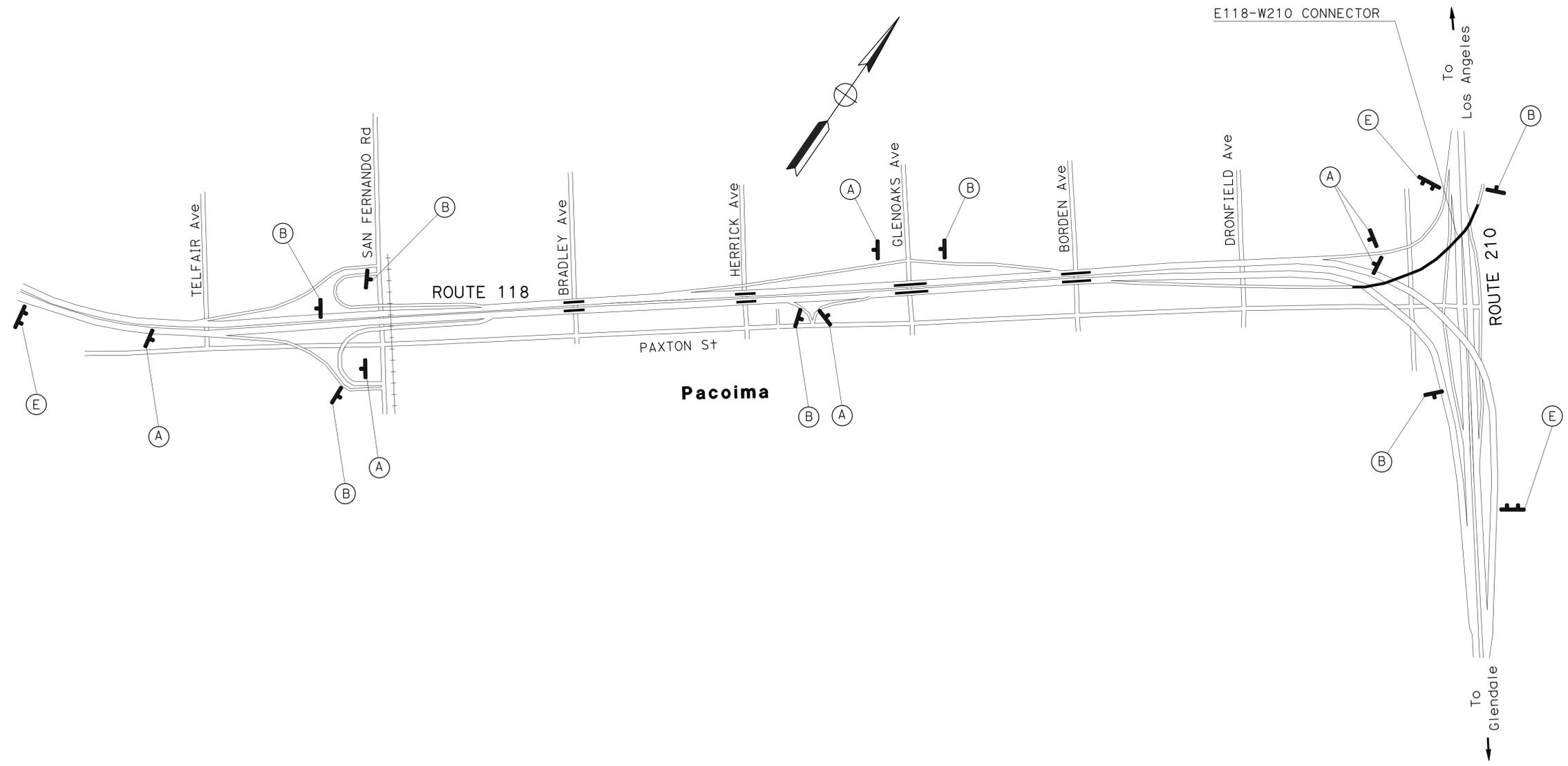
NOTES:

- "TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES" SIGNS MUST BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF "ROAD WORK AHEAD" SIGNS OR AS DETERMINED BY THE ENGINEER.
- LOCATIONS OF CONSTRUCTION AREA SIGNS AS SHOWN ARE APPROXIMATE. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THIS PLAN.

CONSTRUCTION AREA SIGNS

SIGN No. (X)	FEDERAL	CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
A	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	20*
B	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	27*
C	W20-1		36" x 36"	ROAD WORK AHEAD	MOUNTED ON BARRICADE	27
D	G20-2		36" x 18"	END ROAD WORK	MOUNTED ON BARRICADE	31
E		C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 8"	10*

* STATIONARY MOUNTED CONSTRUCTION AREA SIGNS



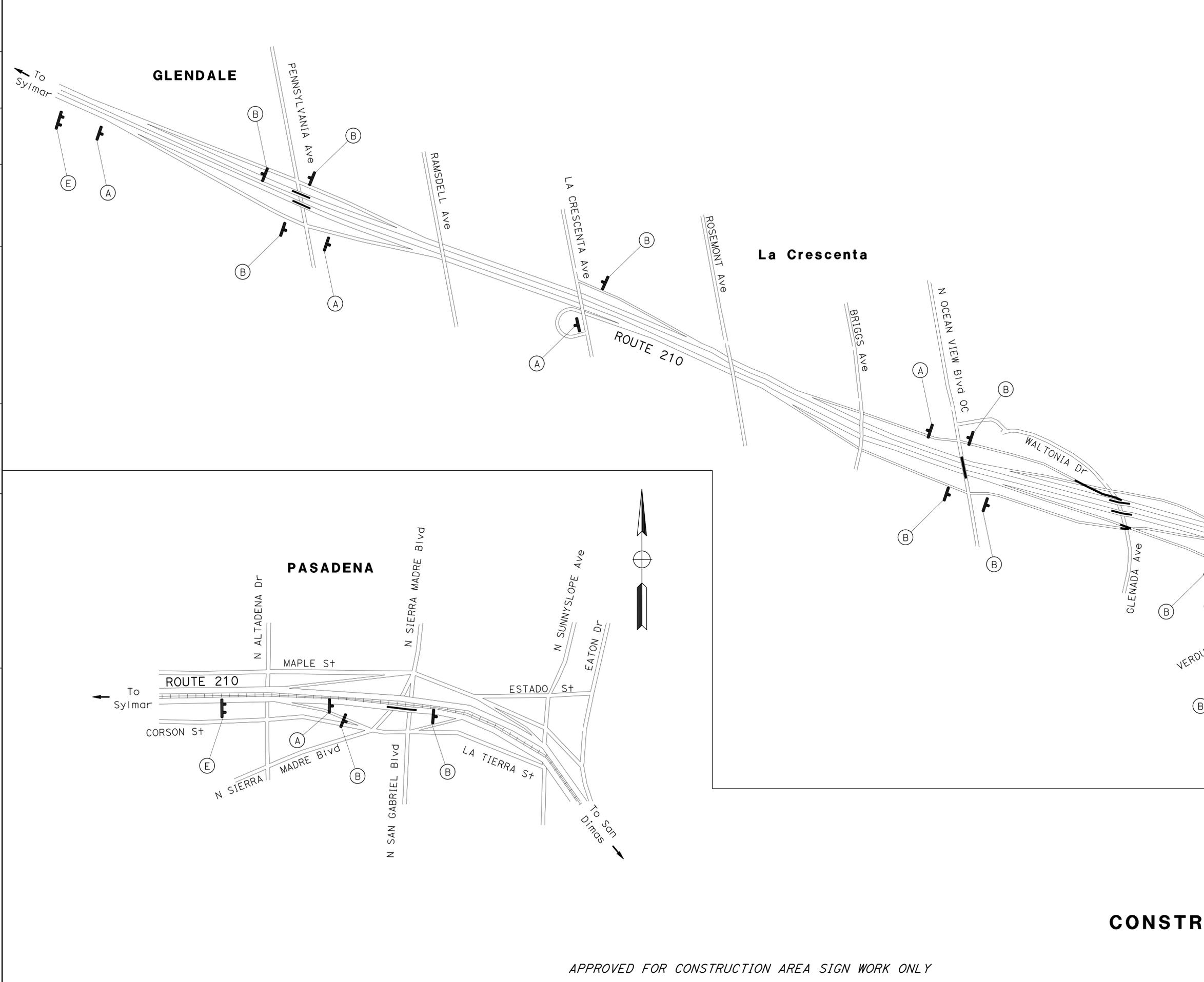
CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: BIPIN PATEL
 CALCULATED/DESIGNED BY: BIPIN PATEL
 CHECKED BY: JOHN ZAKI
 REVISED BY: DINESH BHAVSAR
 DATE REVISED:

LAST REVISION: DATE PLOTTED => 01-MAR-2013 TIME PLOTTED => 13:26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: BIPIN PATEL
 REVISIONS: [Grid of X's]



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	4	45

2-22-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

BIPIN PATEL
 No. C60082
 Exp. 6-30-14
 CIVIL

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CONSTRUCTION AREA SIGNS
 NO SCALE
CS-2

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

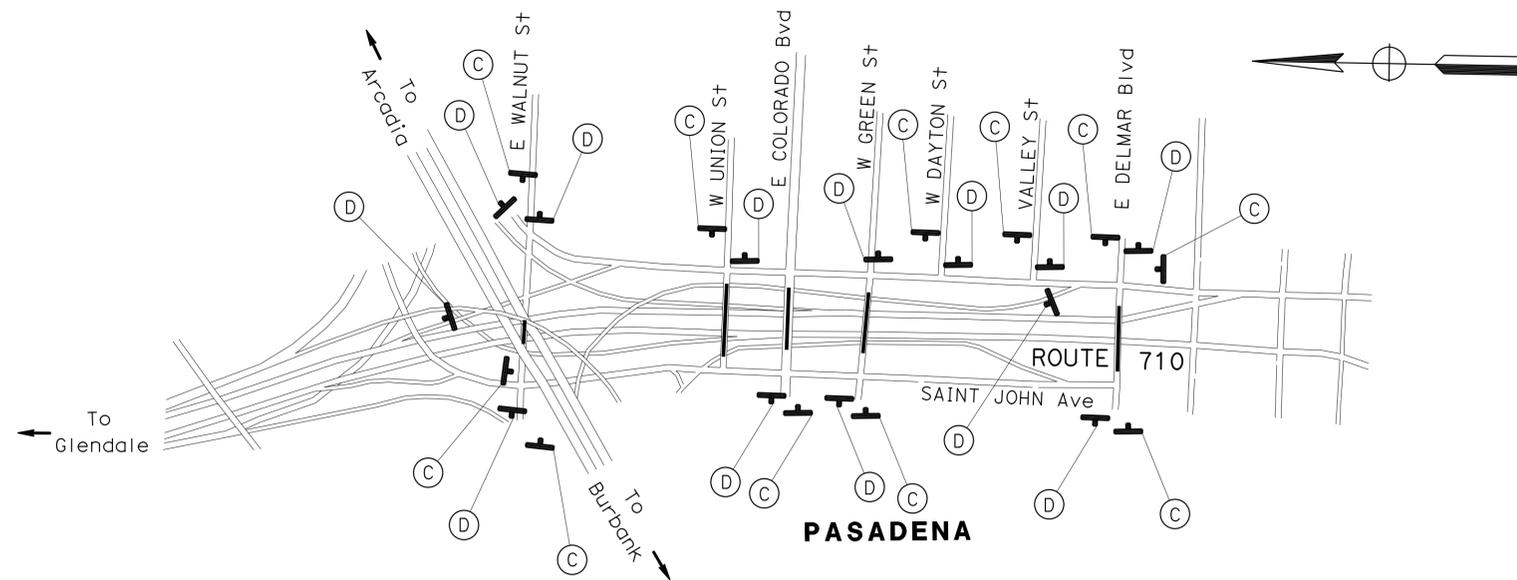
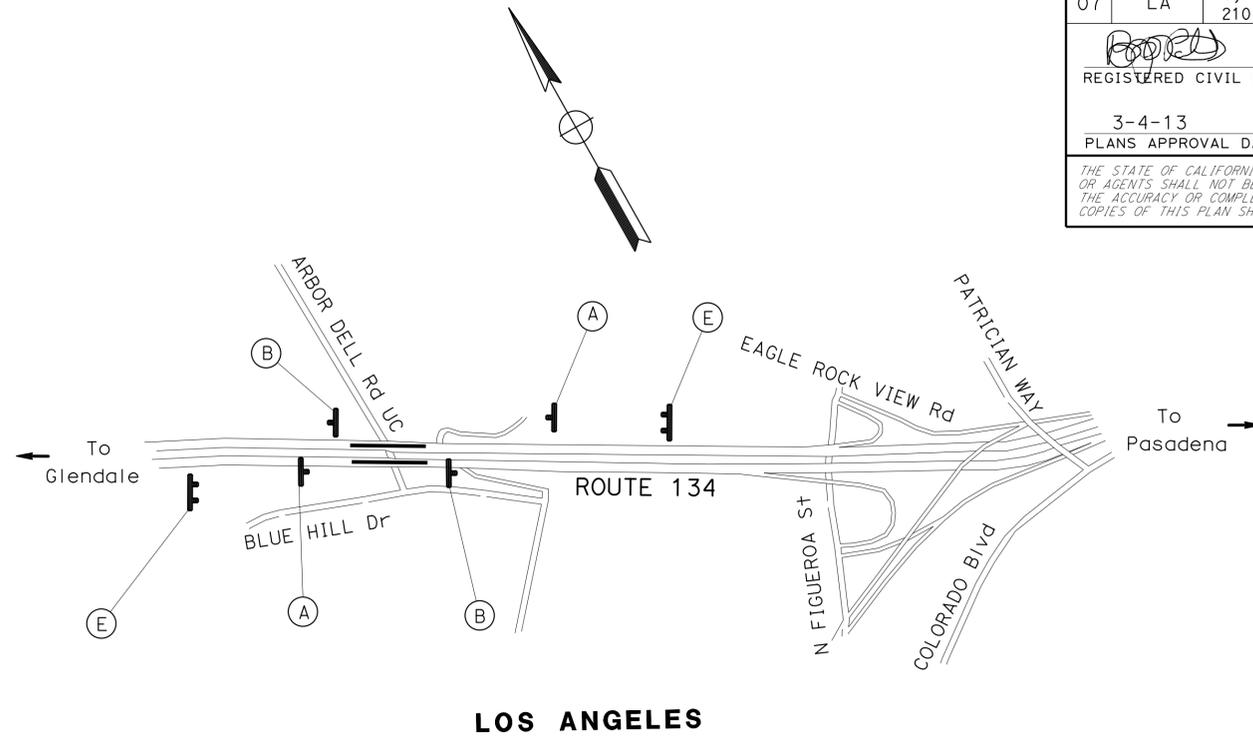
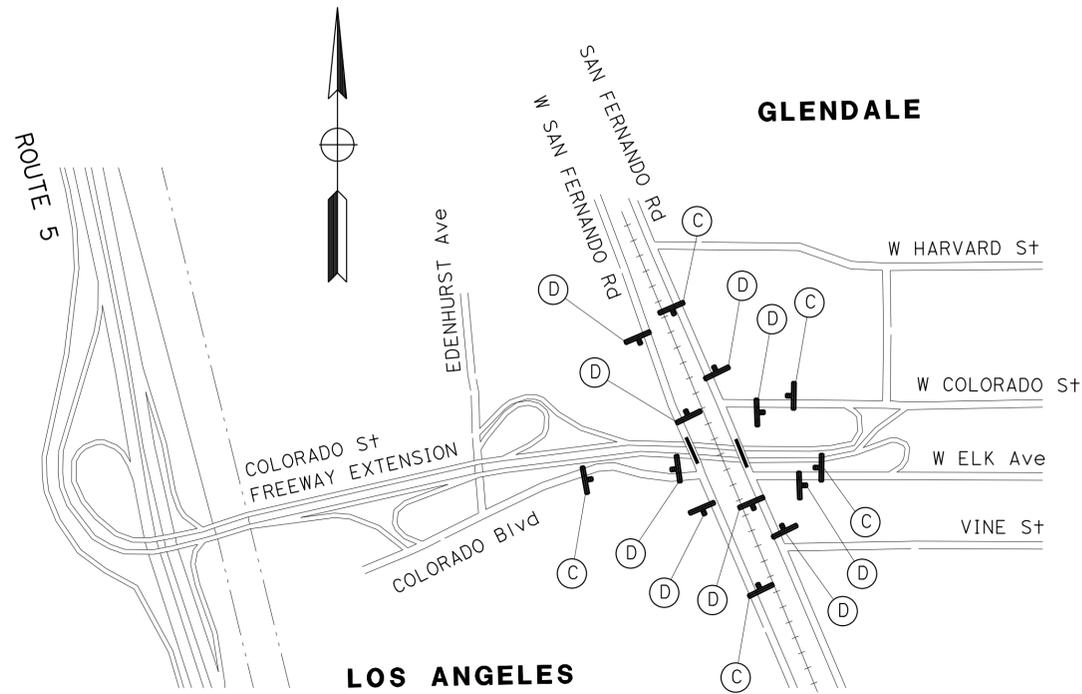
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 02-08-11 TIME PLOTTED => 13:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	5	45

2-22-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIPIN PATEL
 No. C60082
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

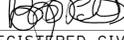
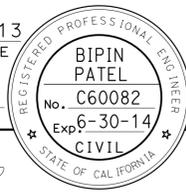
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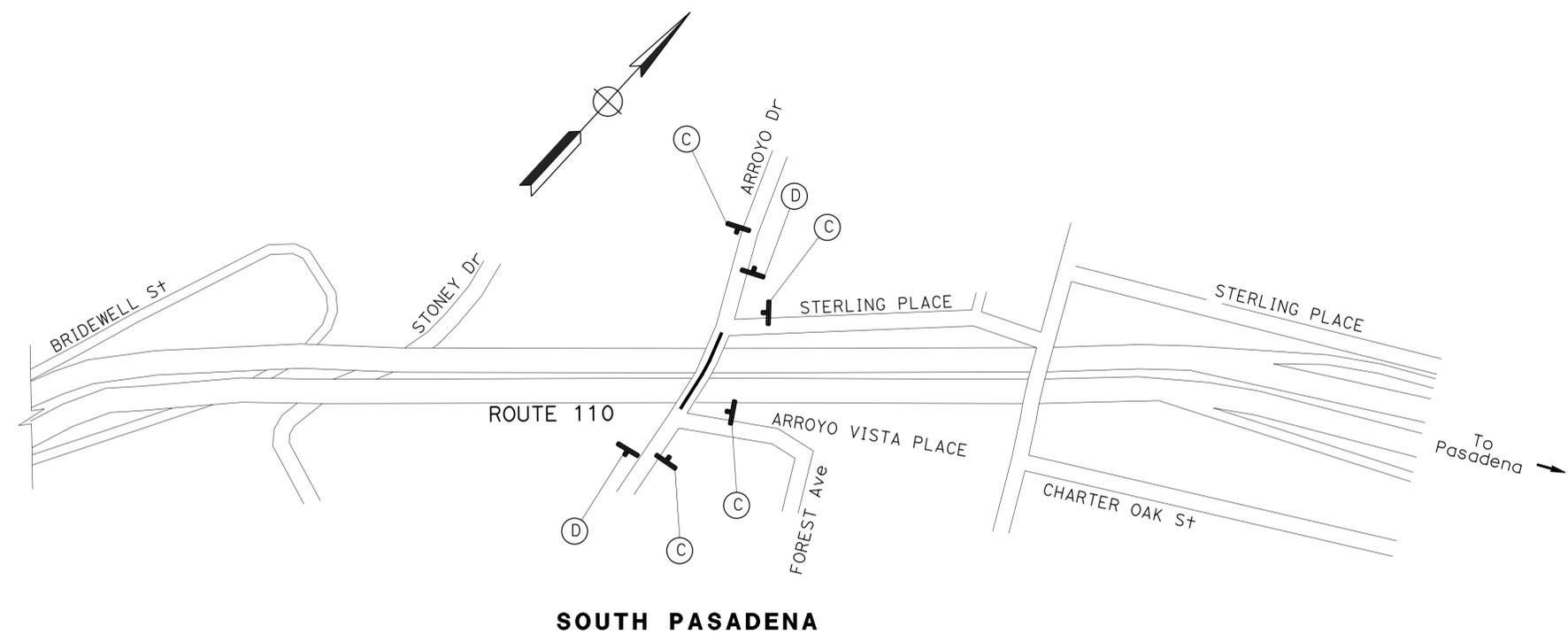
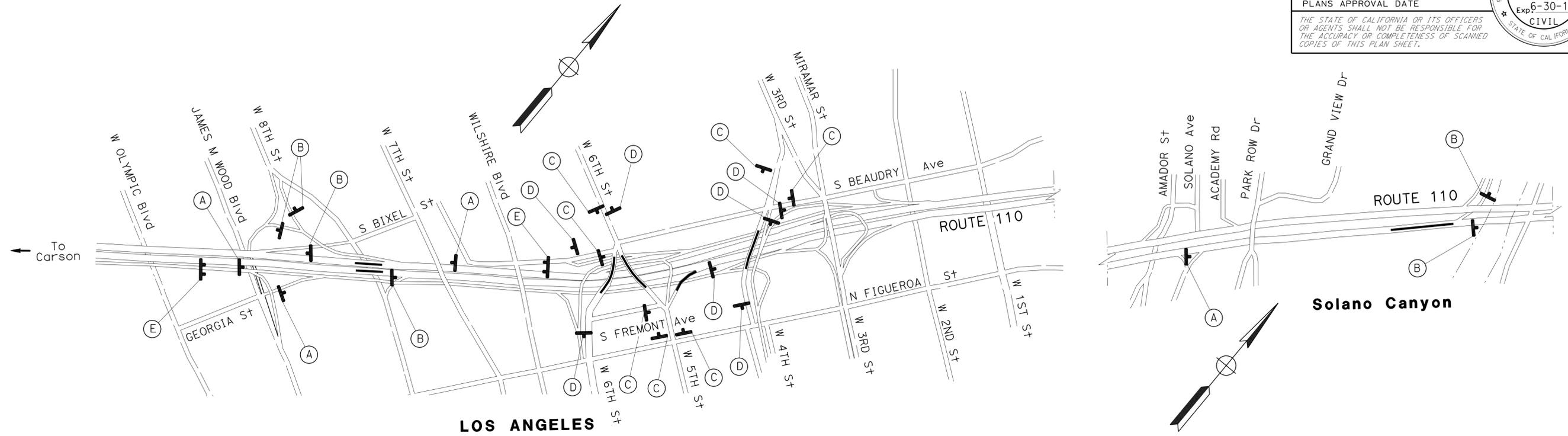


CONSTRUCTION AREA SIGNS
NO SCALE
CS-3

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	BIPIN PATEL	DINESH BHAVSAR	JOHN ZAKI
		CALCULATED/DESIGNED BY	CHECKED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	6	45
			2-22-13	DATE	
REGISTERED CIVIL ENGINEER					
3-4-13			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
					



CONSTRUCTION AREA SIGNS
NO SCALE
CS-4

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	BIPIN PATEL	DINESH BHAVSAR	
		JOHN ZAKI	

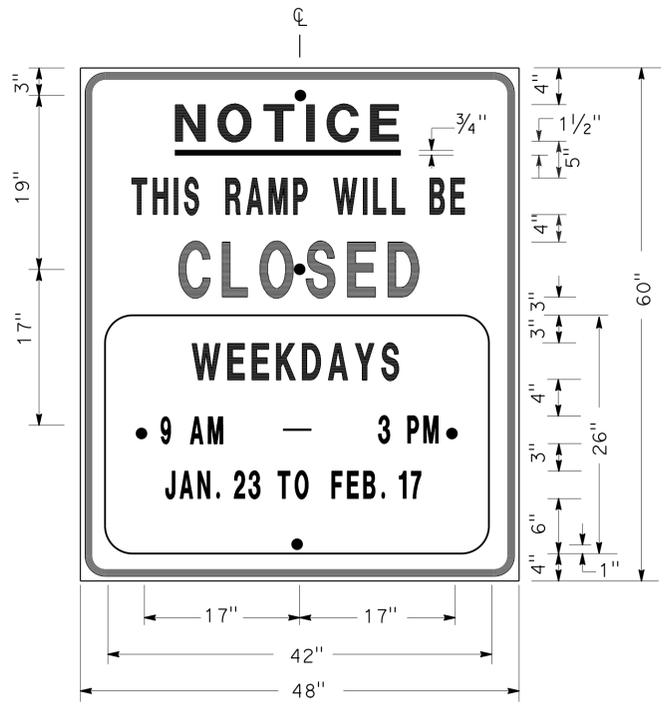
LAST REVISION: DATE PLOTTED => 01-MAR-2013
02-08-11 TIME PLOTTED => 13:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	7	45

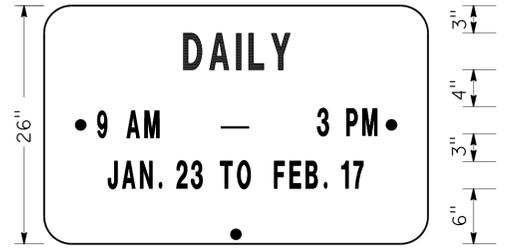
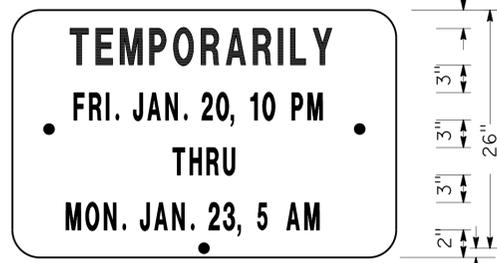
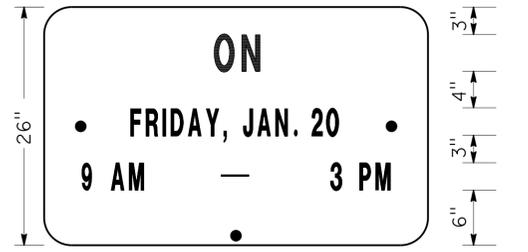
REGISTERED CIVIL ENGINEER
 DATE: 1-24-13
 3-4-13
 PLANS APPROVAL DATE

MARTIN OREGEL
 No. 56816
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

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SIGN SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

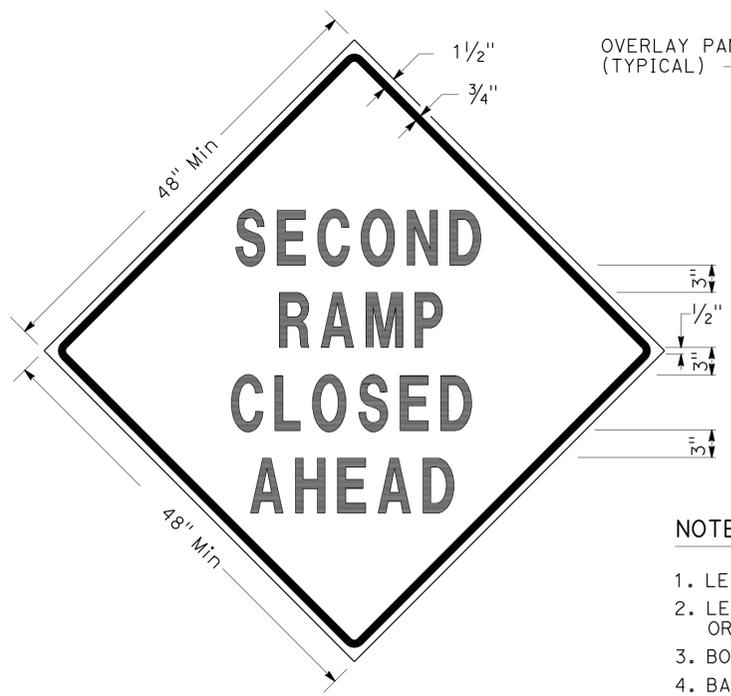
NOTES: SIGN SP-1

- LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
- BOLT HOLES SHALL BE 3/8" DIAMETER.
- BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
- SIGNS SHALL 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

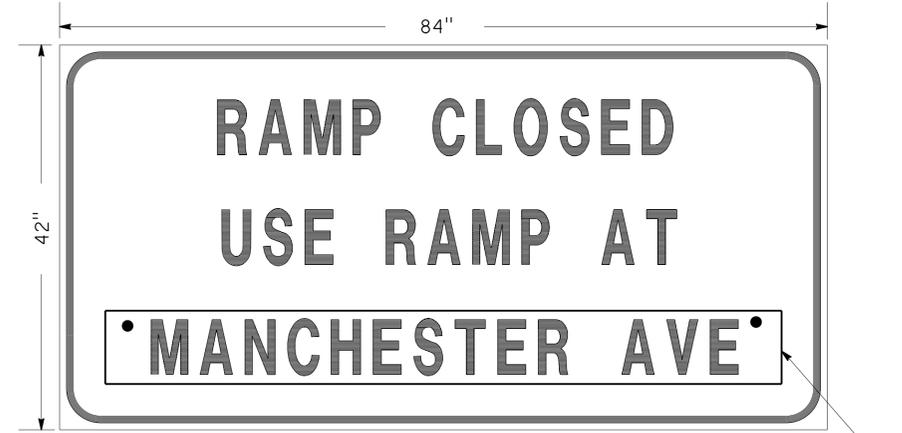


SIGN SP-5

NOTES: SIGNS SP-3 & SP-5

- LETTERS - 6" SERIES D.
- LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
- BOLT HOLES SHALL BE 3/8" DIAMETER.
- BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
- SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
- SIGN SP-5 SHALL 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 SHALL BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
- BOLT HOLES SHALL BE 3/8" DIAMETER.
- BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
- SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH SHEET TCS-5.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

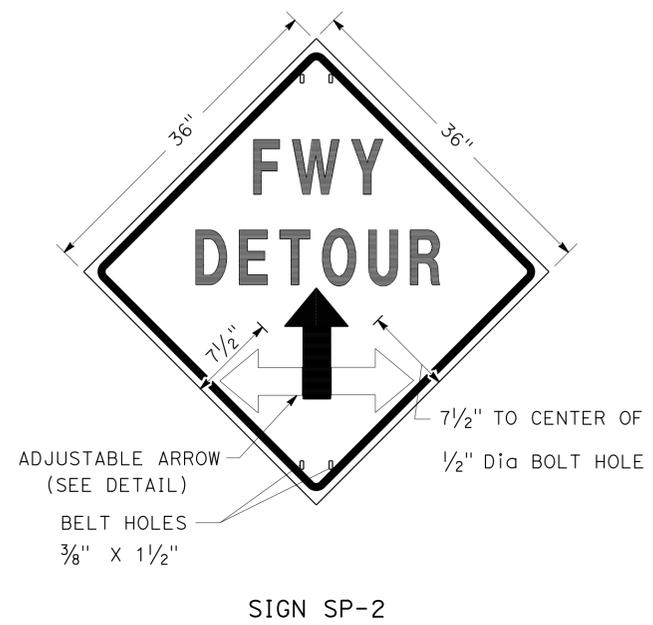
TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURES, DETOUR SIGNS,
 AND MISCELLANEOUS DETAILS

SHEET 1 OF 2

NO SCALE

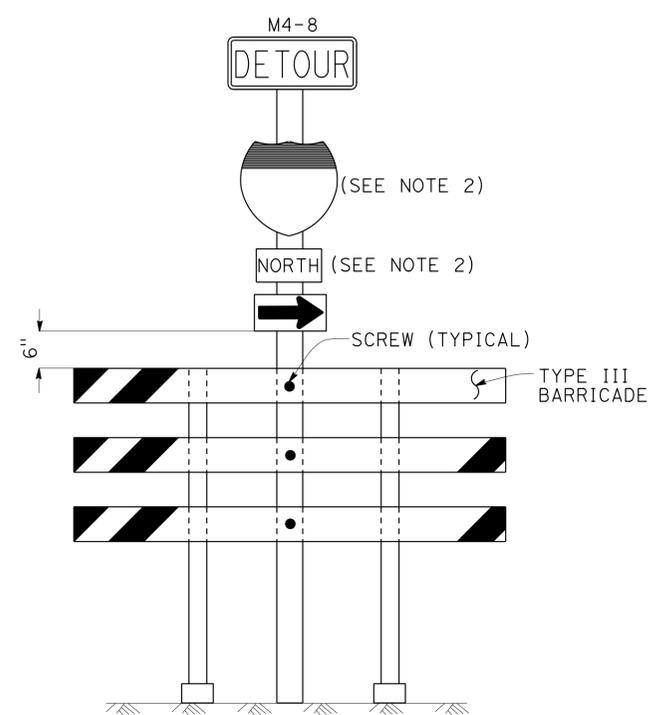
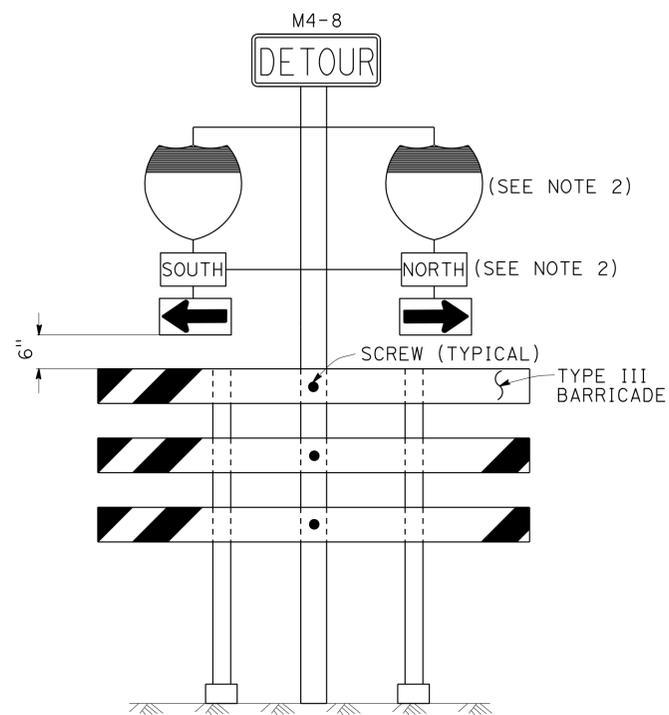
THD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DTM
 FUNCTIONAL SUPERVISOR
 MARTIN OREGEL
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISOR BY
 DATE REVISOR
 JC
 3/12
 ALBERT K YU
 JOCELYN C CHIANG



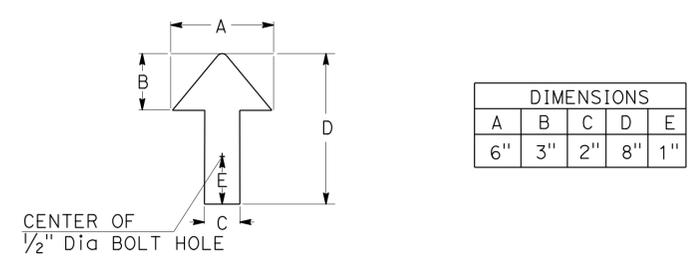
- NOTES: SIGN SP-2**
- LETTERS - 6" SERIES E.
 - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL FOR SIGNS AND ARROWS SHALL BE ALUMINUM (MINIMUM 0.06").
 - BELTS (LUGGAGE STRAPS) SHALL BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
 - SIGNS SHALL 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

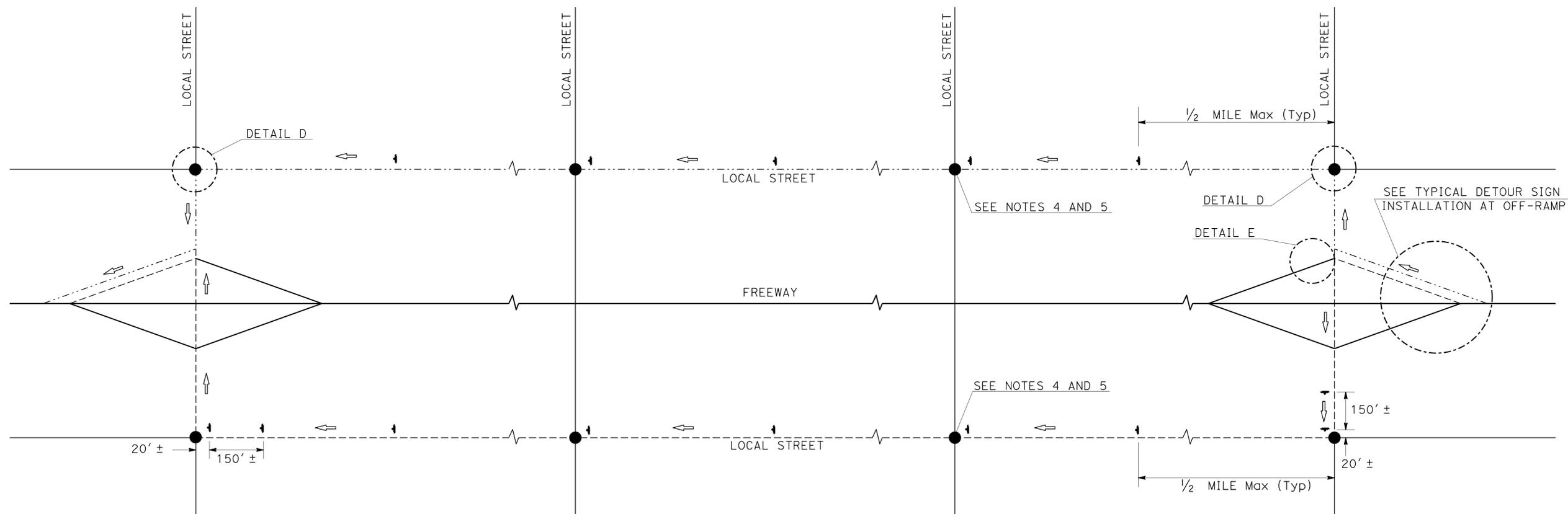
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	9	45
<i>Martin Oregel</i> REGISTERED CIVIL ENGINEER DATE 1-24-13			3-4-13 PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

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 SHALL 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 SHALL 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 SHALL 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

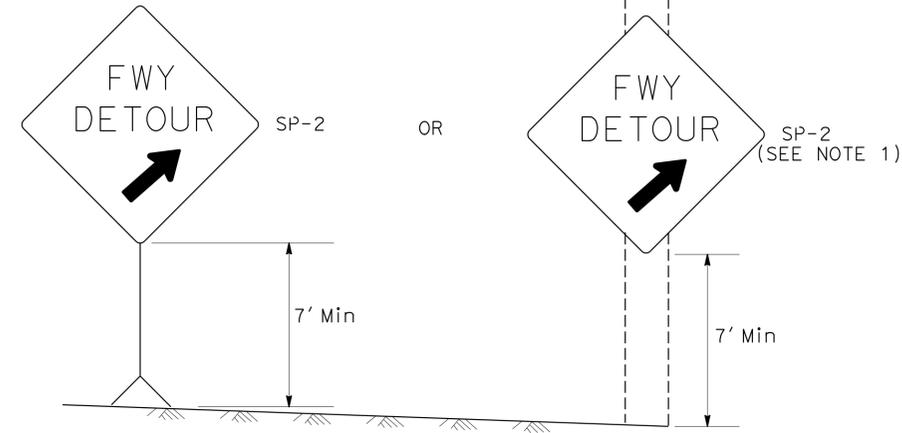
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR
 MARTIN OREGEL
 CALCULATED/DESIGNED BY
 CHECKED BY
 JOCELYN C CHIANG
 REVISED BY
 DATE REVISED
 3/12
 JC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	10	45

1-24-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

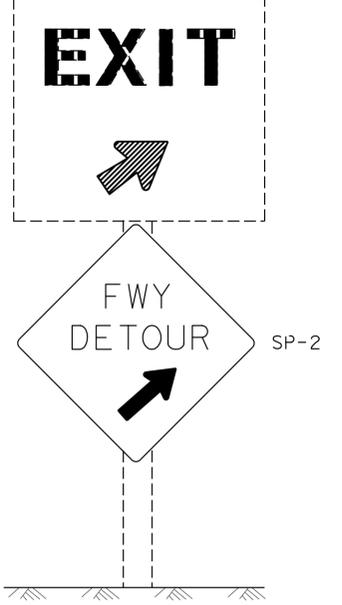
REGISTERED PROFESSIONAL ENGINEER
 MARTIN OREGEL
 No. 56816
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

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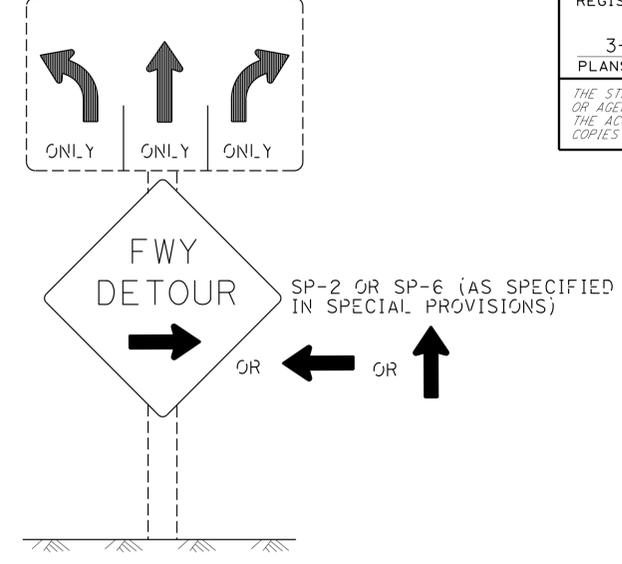
DETAIL A (SEE NOTE 3)

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

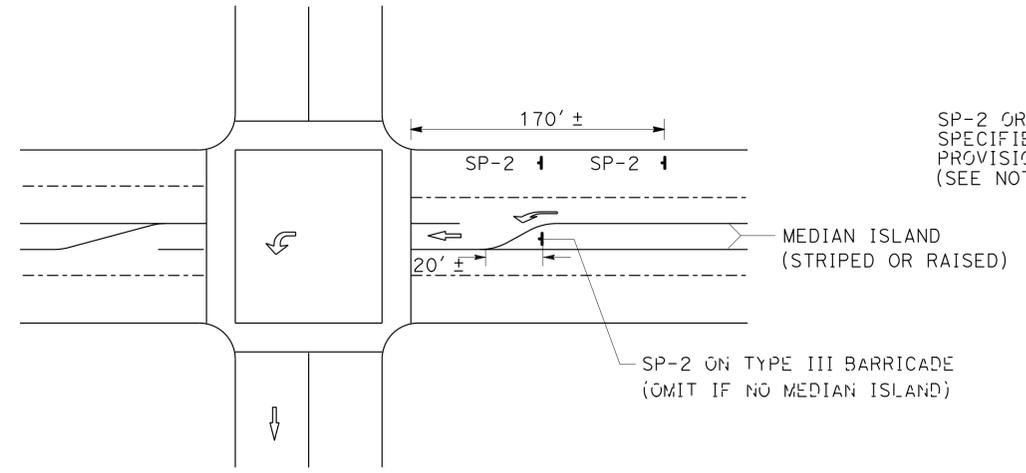


DETAIL B (SEE NOTE 3)

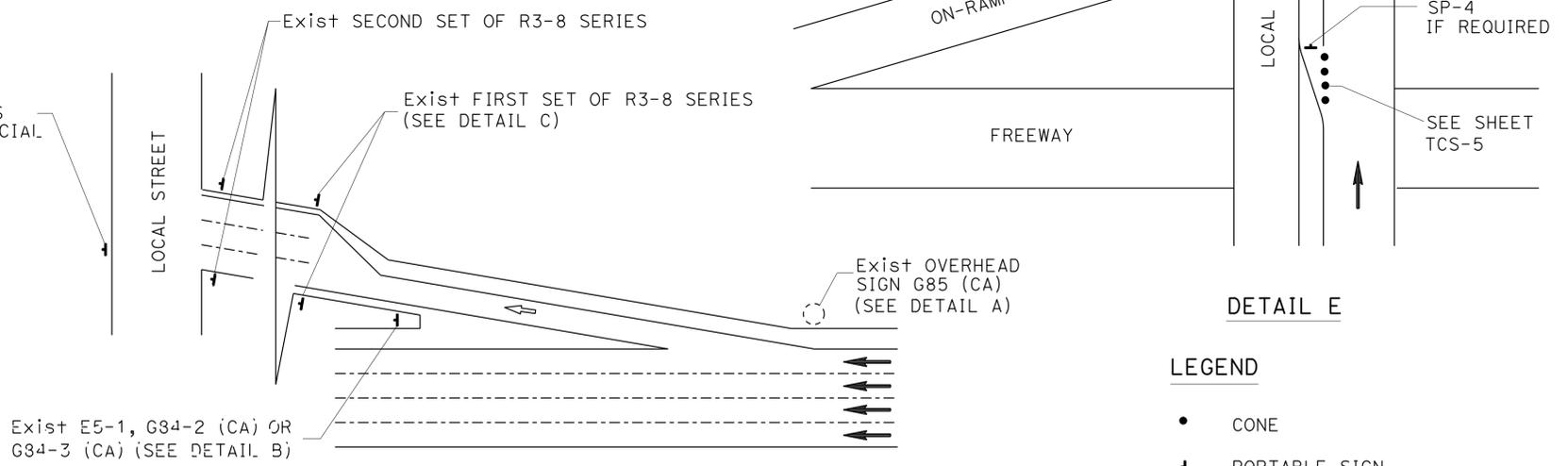
Exist R3-8 SERIES



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



DETAIL D



DETAIL E

- LEGEND**
- CONE
 - ↑ PORTABLE SIGN
 - ➔ DIRECTION OF TRAVEL
 - ➞ 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

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

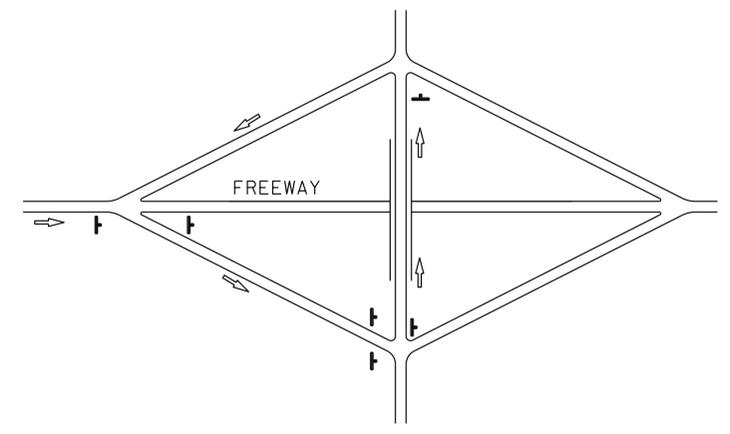
NO SCALE **THD-4**

NOTES: SIGN SP-2

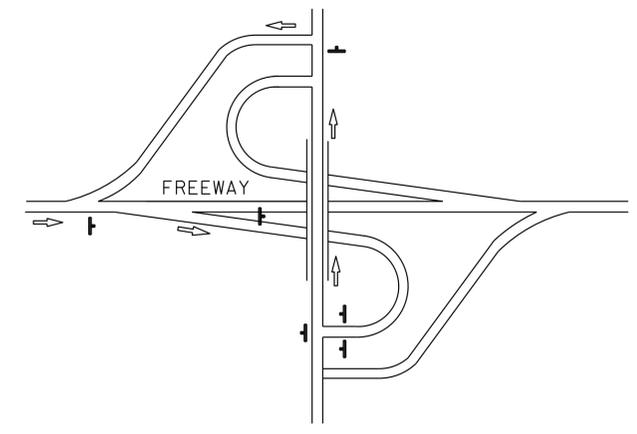
1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND 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 SHALL 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 DATE REVISED: 3/12
 REVISIONS: JC

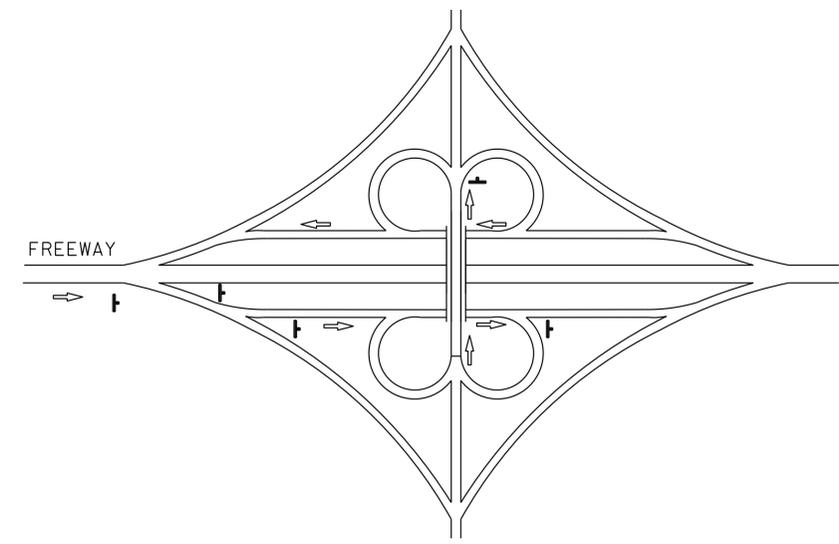
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 REVISIONS: JC 3/12
 ALBERT K YU
 JOCELYN C CHIANG
 CALCULATED/DESIGNED BY: MARTIN OREGEL
 CHECKED BY:



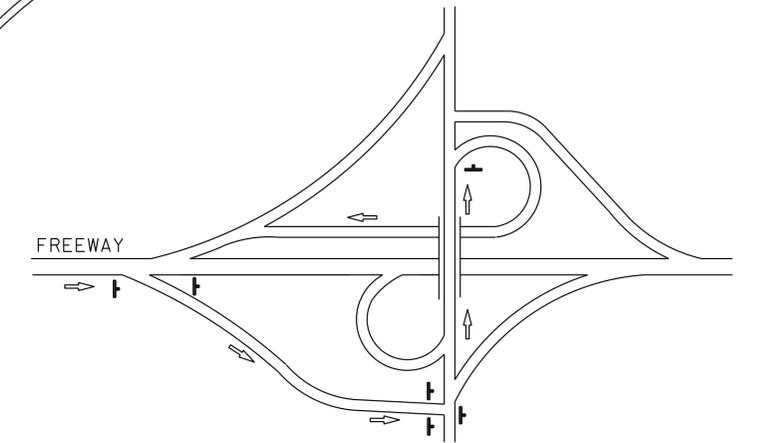
TYPE I



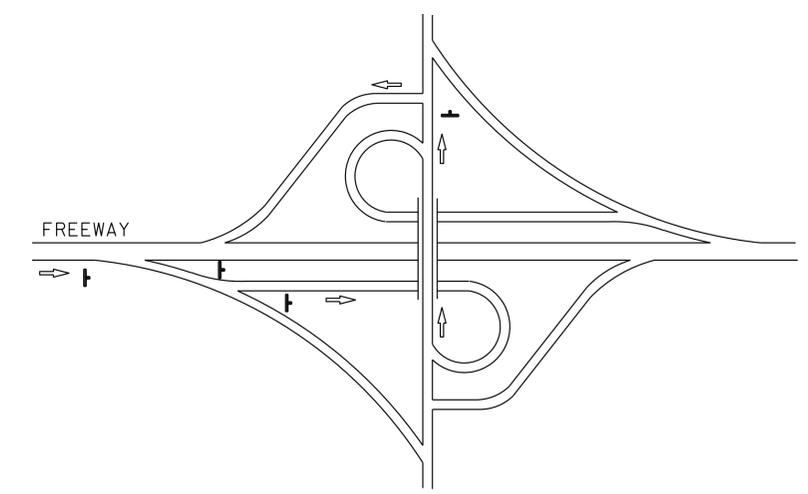
TYPE II



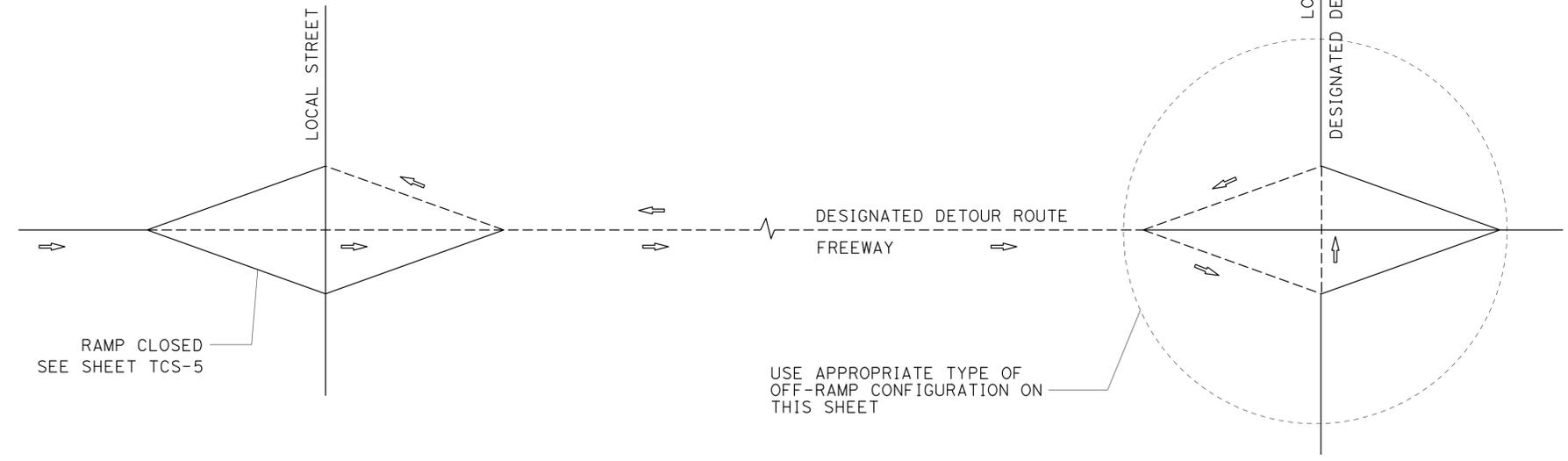
TYPE III



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 SHALL 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.

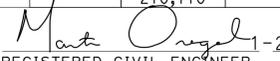
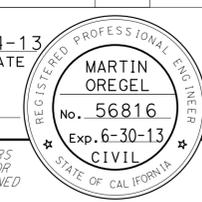
LEGEND

- 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	110,118,134 210,710	Var	13	45
 REGISTERED CIVIL ENGINEER DATE 1-24-13					
3-4-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

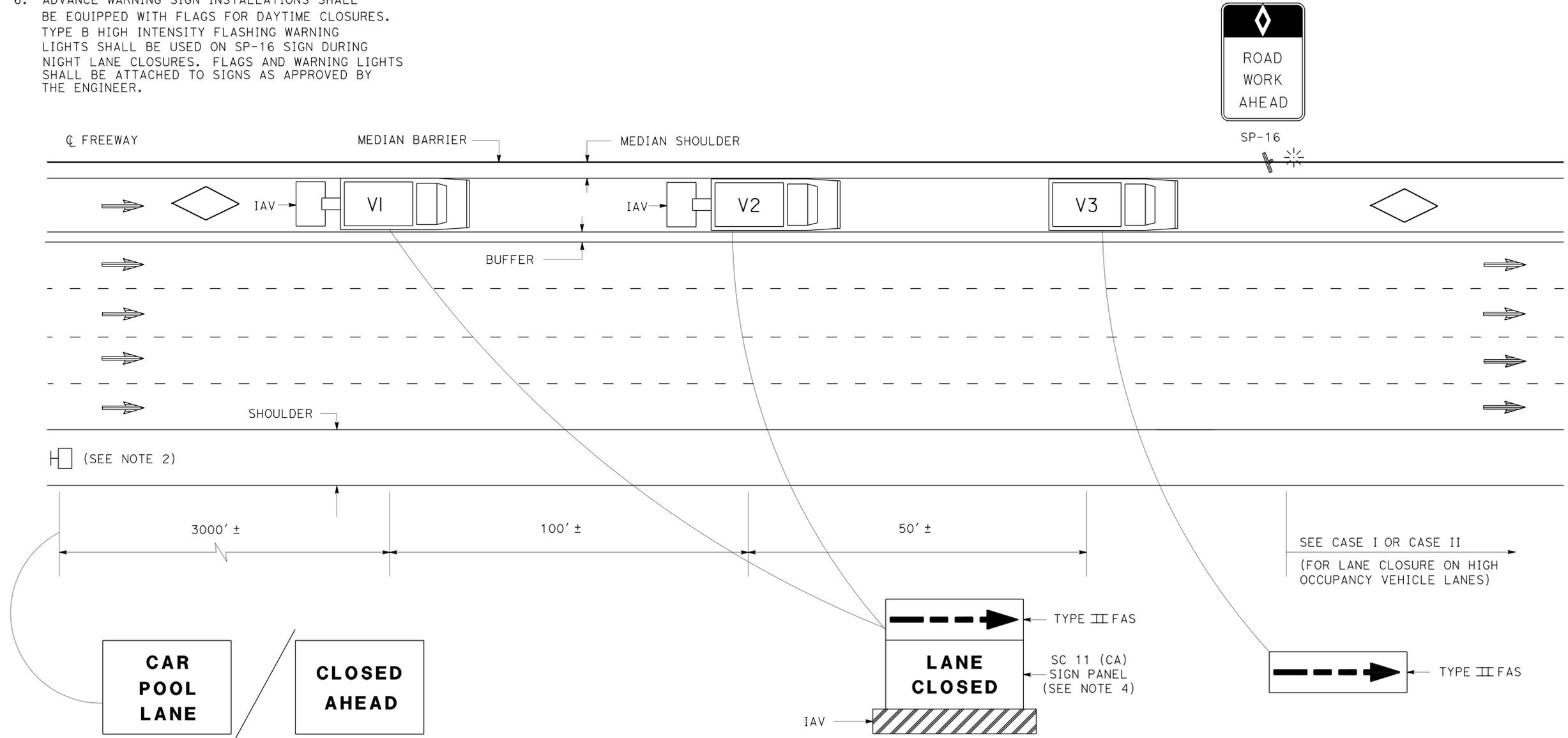
- LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
- PCMS SHALL BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
- A MINIMUM SIGHT DISTANCE OF 1500' SHALL BE PROVIDED IN ADVANCE OF PCMS.
- VEHICLE-MOUNTED SIGN PANELS SHALL BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.
- PLACE PCMS ON THE MEDIAN SHOULDER WHERE SUFFICIENT ROOM (SUCH AS CHP ENFORCEMENT AREAS) EXISTS.
- ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS SHALL BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.

LEGEND

- V1, V2 SHADOW VEHICLES
- V3 WORK/APPLICATION VEHICLE
-  PCMS
-  DIRECTION OF TRAVEL
-  HOV LANE
-  FLASHING BEACON

ABBREVIATIONS

- FAS FLASHING ARROW SIGN
- IAV IMPACT ATTENUATOR VEHICLE
- CMS CHANGEABLE MESSAGE SIGN
- (CA) CALIFORNIA CODE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- HOV HIGH OCCUPANCY VEHICLE
- CHP CALIFORNIA HIGHWAY PATROL



PCMS OR TRUCK MOUNTED CMS MESSAGE

(SEE NOTE 5)

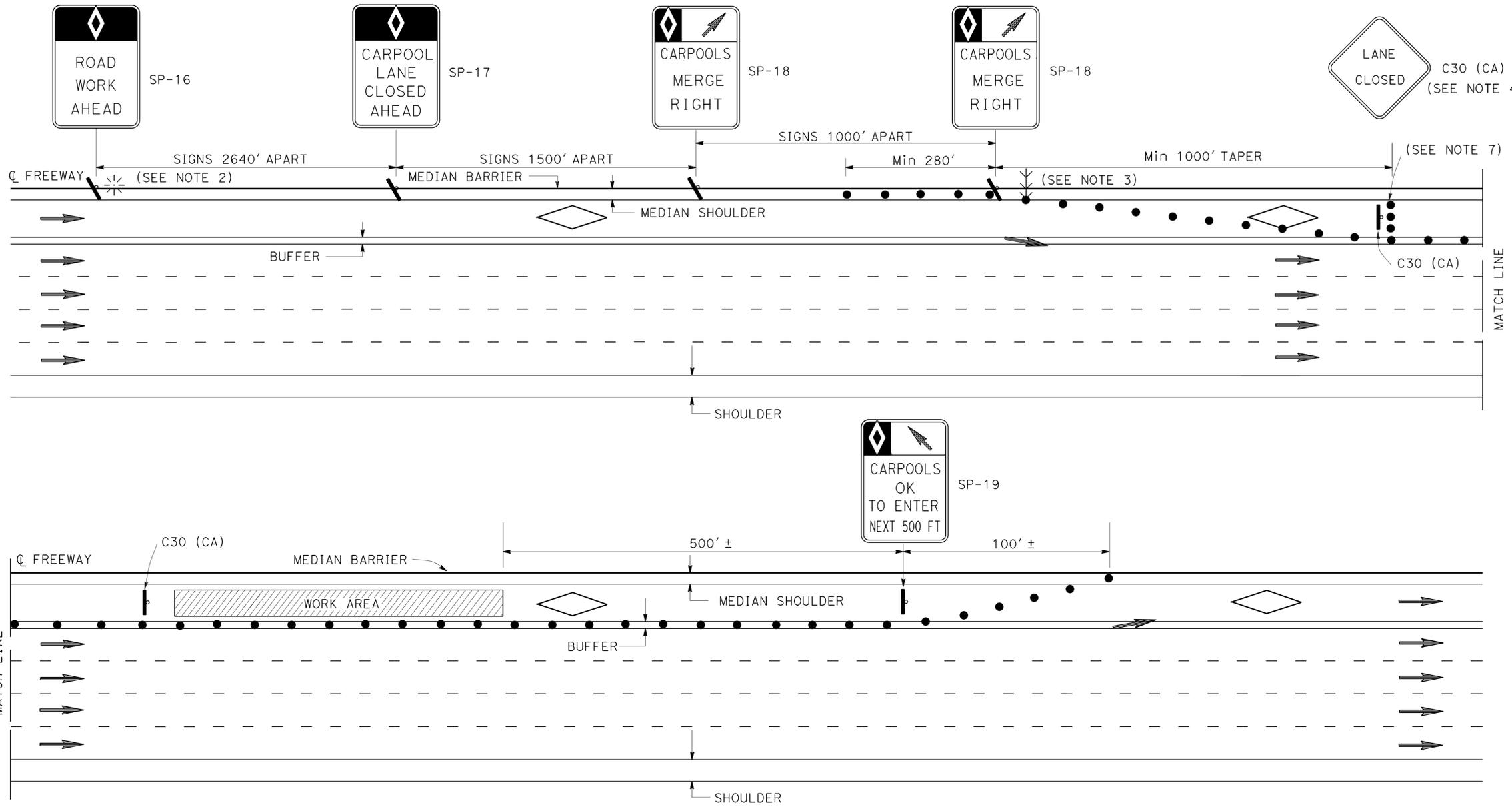
**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR HIGH OCCUPANCY VEHICLE LANES
WITH MEDIAN SHOULDERS LESS THAN 8 FEET**

NO SCALE

THD-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DT M
 FUNCTIONAL SUPERVISOR
 MARTIN OREGEL
 CHECKED BY
 JOCELYN C CHIANG
 REVISIONS BY
 ALBERT K YU
 DATE REVISION
 3/12
 JC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	14	45
<i>Martin Oregel</i> - 24-13 REGISTERED CIVIL ENGINEER DATE 3-4-13 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.					



LEGEND

- CONE
- ⚡ FLASHING BEACON
- ◇ HOV LANE
- ←←← FLASHING ARROW SIGN
- ⌄ PORTABLE SIGN
- DIRECTION OF TRAVEL

ABBREVIATIONS

- (CA) CALIFORNIA CODE
- HOV HIGH OCCUPANCY VEHICLE

SIGN PANEL SIZE (MIN)

- SP-16 36" X 54"
- SP-17 36" X 54"
- SP-18 36" X 48"
- SP-19 36" X 60"
- C30 (CA) 30" X 30"
- G20-2 48" X 24"

NOTES: FOR CASE I AND CASE II

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON NIGHT LANE CLOSURES OR DAY-TIME CLOSURES EXCEEDING 1 MILE LENGTH, INCLUDING TAPERS.
2. ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS SHALL BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.
3. THE FLASHING ARROW SIGN SHALL BE TYPE I.
4. PLACE C30 (CA) SIGNS EVERY 2000' THROUGHOUT THE LENGTH OF LANE CLOSURE.
5. A MINIMUM 1500' OF SIGHT DISTANCE SHALL BE PROVIDED WHERE POSSIBLE FOR VEHICLES APPROACHING THE FLASHING ARROW SIGN. LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
6. PORTABLE DELINEATORS PLACED AT ONE-HALF THE SPACING INDICATED FOR TRAFFIC CONES MAY BE USED INSTEAD OF CONES FOR DAYTIME CLOSURES.
7. A MINIMUM OF 3 CONES SHALL BE PLACED TRANSVERSELY ACROSS CLOSED LANES WHERE TAPERS END AND EVERY 2000'. TWO TYPE II BARRICADES MAY BE USED INSTEAD OF 3 CONES. THE ALIGNMENT OF CONES OR BARRICADES MAY BE SHIFTED FROM THE TRANSVERSE ALIGNMENT TO PROVIDE ACCESS TO WORK.
8. IF AN INGRESS/EGRESS AREA IS WITHIN 5250' UPSTREAM OR DOWNSTREAM OF THE WORK AREA, LANE CLOSURES SHALL BE EXTENDED TO THAT AREA AS SHOWN IN CASE II.
9. SIGNS SP-16, 17, 18, AND 19 MAY BE OVERLAID ON EXISTING CARPOOL SIGNS IN MEDIANS AS APPROVED BY THE ENGINEER.
10. SIGNS SP-16, 17, 18, AND C30 (CA) SHALL BE BLACK ON ORANGE BACKGROUND. SIGN SP-19 SHALL BE BLACK ON WHITE BACKGROUND. DIAMONDS ON SIGNS SHALL BE WHITE.
11. FOR CLOSURE OF LANE(S) ADJACENT TO HOV LANES, SEE CASE II.
12. THE MAXIMUM SPACING BETWEEN CONES SHALL BE APPROXIMATELY 50' IN TAPERS AND 100' ON TANGENTS.

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR HIGH OCCUPANCY VEHICLE LANES
AT NON-INGRESS/EGRESS AREAS
CASE I**

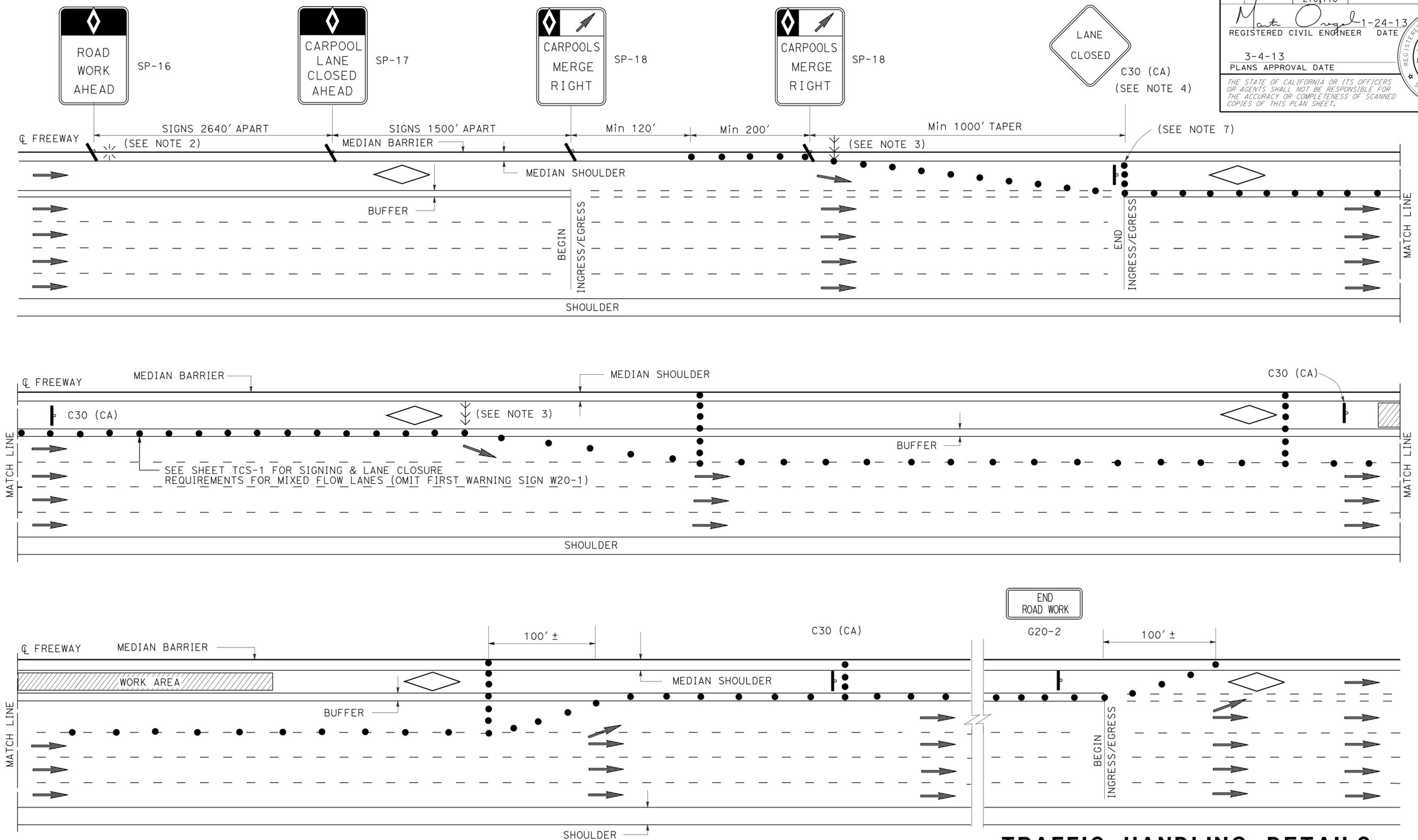
NO SCALE

THD-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 REVISIONS: 3/12
 DESIGNED BY: ALBERT K YU
 DATE: 3/12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	15	45
<i>Martin Oregel</i> REGISTERED CIVIL ENGINEER DATE 1-24-13			3-4-13 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 MARTIN OREGEL No. 56816 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 REVISIONS: 3/12
 DESIGNED BY: ALBERT K YU



- NOTES:**
- SEE CASE I FOR NOTES, LEGEND, SIGN PANEL, AND ABBREVIATIONS FOR THIS SHEET.
 - CLOSURES OF ONE MIXED FLOW TRAFFIC LANE ADJACENT TO HOV LANE SHOWN ON THIS SHEET. MULTIPLE MIXED FLOW LANE CLOSURES ARE SIMILAR.

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR HIGH OCCUPANCY
 VEHICLE LANES AND ADJACENT FREEWAY LANES
 BETWEEN INGRESS/EGRESS AREAS
 CASE II
 NO SCALE
 THD-9**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	16	45
<i>Martin Oregel</i> REGISTERED CIVIL ENGINEER DATE 1-24-13					
3-4-13			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

- 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 SHALL BE CHANGED AT THE BEGINNING OF CURE PERIOD TO REFLECT NUMBER OF CLOSED LANES.

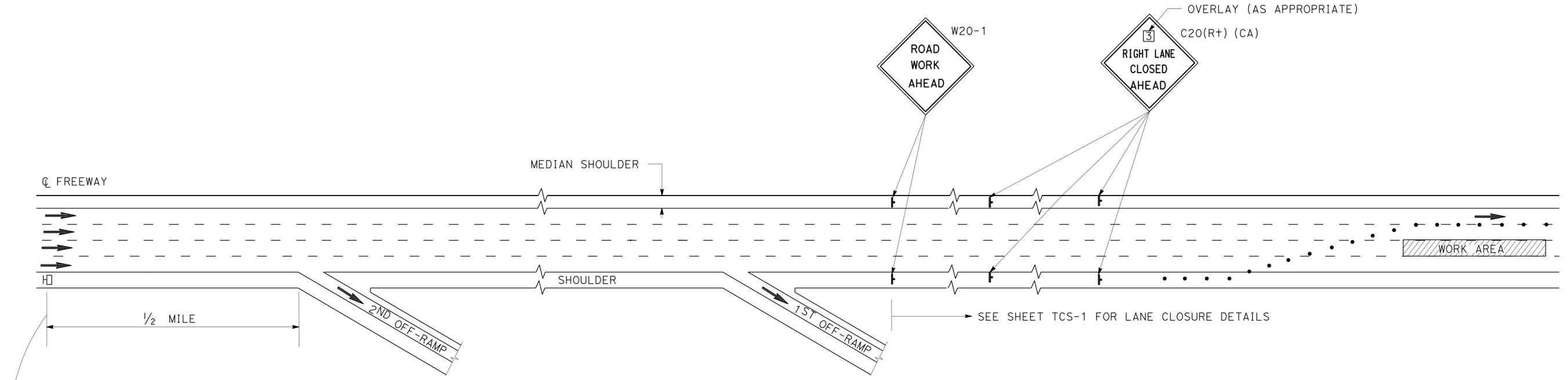
ABBREVIATIONS

PCMS PORTABLE CHANGEABLE MESSAGE SIGN
(CA) CALIFORNIA CODE

LEGEND

- CONE
- ⊥ PORTABLE SIGN
- ➔ DIRECTION OF TRAVEL
- ☐ PCMS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR MARTIN OREGEL
 CHECKED BY JOCELYN C CHIANG
 REVISIONS BY ALBERT K YU
 DATE REVISED 3/12
 JC



FIRST FLASH	X (NO OF LANES) RIGHT / LEFT	← 1ST LINE (TYPICAL)
	LANES	← 2ND LINE (TYPICAL)
	CLOSED	← 3RD LINE (TYPICAL)
SECOND FLASH	A ST	← LIMIT OF CLOSURE (TYPICAL)
	TO B DR	← 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-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

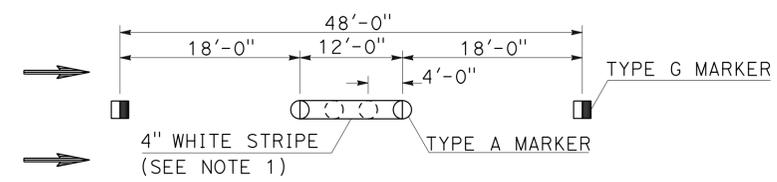
FUNCTIONAL SUPERVISOR
 BIPIN PATEL

CALCULATED/DESIGNED BY
 CHECKED BY

DINESH BHAVSAR
 JOHN ZAKI

REVISED BY
 DATE REVISED

NOTE:
 1. APPLY A 4" WIDE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.



DETAIL 13 (MODIFIED)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	17	45

2-22-13
 REGISTERED CIVIL ENGINEER DATE

3-4-13
 PLANS APPROVAL DATE

BIPIN PATEL
 No. C60082
 Exp. 6-30-14
 CIVIL

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

PAVEMENT DELINEATION QUANTITIES

LOCATION	ROUTE	PM	BRIDGE No.	BRIDGE NAME	THERMOPLASTIC TRAFFIC STRIPE				PAVEMENT MARKER			THERMOPLASTIC PAVEMENT MARKING (DIAGONALS, SYMBOLS, WORDS)	REMOVE					
					DIRECTION	DETAIL 22, 25	DETAIL 27B	DETAIL 13 (Mod)	DETAIL 2	DETAIL 13 (Mod)	DETAIL 2, 22		TYPE H	PAVEMENT MARKER	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING (DIAGONALS, SYMBOLS, WORDS)	
						4" SOLID YELLOW	4" SOLID WHITE	4" BROKEN WHITE (36 - 12)	4" BROKEN WHITE (36 - 12)									TYPE A NON-REFLECTIVE
1	110	22.44	53-0750	8TH S+ UC	NB	220	110	220		20	6		6		32	220	165	
					SB	220	110	440		40	6		6		52	220	220	
2	110	22.80	53-0746	6TH S+ OC		310	310	310		26	8		8		42	310	388	
3	110	22.83	53-0685	5TH S+ OC		350	350	350		30	9		9	180	48	350	438	180
4	110	22.91	53-0686S	5TH S+ NB ON RAMP OC		220	220						6	222	6	220	220	222
5	110	23.00	53-0787	4TH S+ OC SOUTH		300	300	600		26	8		8		42	300	450	
7	110	30.30	53-0433	ARROYO Drive					150				4					
14	134	L5.06	53-1106	SAN FERNANDO Rd OC	EB	300	100	150		10	3		8	42	21	300	138	42
					WB	250	150	150		13	4		7	84	24	250	188	84
15	134	R10.97	53-2026R	ARBOR DEL-HILLMONT UC	EB	60	60	180		16	2		2		20	60	105	
SUB TOTAL						2,230	1,710	2,400	150	181	46	4	60	528	287	2,230	2,312	528
SHEET TOTAL						3,940		2,550		181	110			528	287	2,230	2,312	528

PAVEMENT DELINEATION QUANTITIES PDQ-1

LAST REVISION DATE PLOTTED => 01-MAR-2013
 02-08-11 TIME PLOTTED => 13:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	18	45

 2-22-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 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

LOCATION	ROUTE	PM	BRIDGE No.	BRIDGE NAME	DIRECTION	THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER			REMOVE	REMOVE				
						4" SOLID YELLOW	4" SOLID WHITE	4" BROKEN WHITE (36 - 12)	TYPE A NON-REFLECTIVE	TYPE C RETRO-REFLECTIVE	PAVEMENT MARKER RETRO-REFLECTIVE		THERMOPLASTIC PAVEMENT MARKING	PAVEMENT MARKER	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING
16	210	R16.77	53-2310	PENNSYLVANIA Ave UC	EB	180	180	720	60	5	5		70	180	360		
					WB	180	180	240	46	5	5		56	180	335		
17	210	R18.22	53-2312	OCEAN VIEW Blvd OC	NB	558	565	165	15	5	13	192	33	558	607	192	
					SB		720	470	44	11		42	55		840	42	
18	210	R18.53	53-2219K	WALTONIA Dr UC		920	920					12	342	12	920	920	342
20	210	R18.57	53-2221S	WALTONIA Dr UC		150	150					5		5	150	150	
21	210	R18.53	53-2219G	E210-W2 CONNECTOR	EB	520	520	1040	88	24	12		124	520	780		
22	210	R18.77	53-2220F	W210-W2 CONNECTOR OC	SB	220	220	220	20	6	6		32	220	275		
23	210	R18.91	53-2199	W210-W2 CONNECTOR UC	EB	180	180	540	52	13	5		70	180	335		
					WB	180	180	540	52	13	5		70	180	335		
24	210	R28.46	53-2279R	SIERRA MADRE Blvd UC				110	16	4			20		28		
26	710	R32.51	53-2537	UNION St OC	EB			60	8	2			10		15		
					WB			60	8	2			10		15		
27	710	R32.45	53-2264	COLORADO Blvd OC	EB	420	350	420	40	10	10	84	80	420	455	84	
					WB	420	350	420	40	10	10	42	60	420	455	42	
29	710	T32.11	53-2262	DEL MAR Blvd OC	EB	1100	990	360				168		1100		168	
					WB		840										
SUBTOTAL						5,028	6,345	5,365	489	110	88	870	707	5,028	5,905	870	
SHEET TOTAL						11,373		5,365	489	198		870	707	5,028	5,905	870	
SHEET TOTAL FROM PDQ-1						3,940		2,550	181	110		528	287	2,230	2,312	528	
TOTAL						15,313		7,915	670	308		1,398	994	7,258	8,217	1,398	

**PAVEMENT DELINEATION QUANTITIES
PDQ-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: BIPIN PATEL
 CALCULATED/DESIGNED BY: DINESH BHAVSAR
 CHECKED BY: JOHN ZAKI
 REVISED BY: DATE REVISION

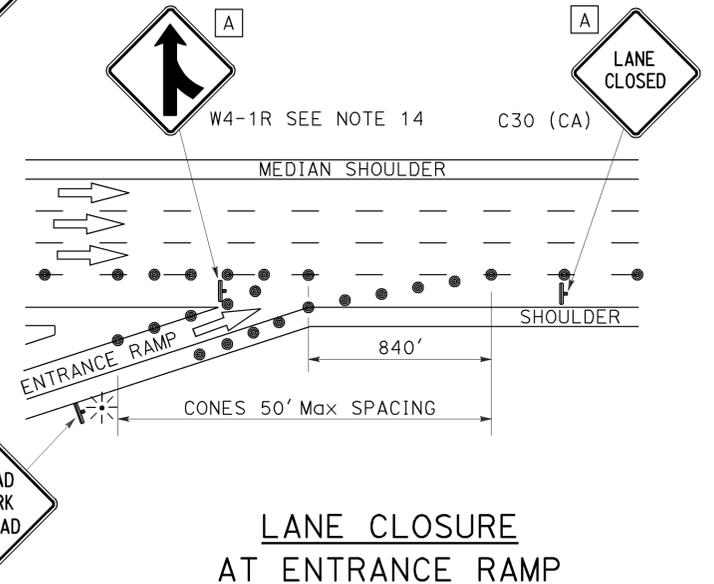
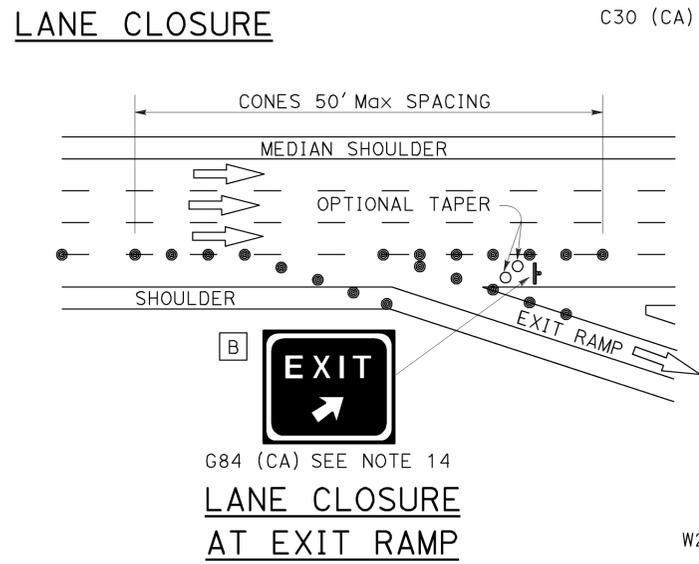
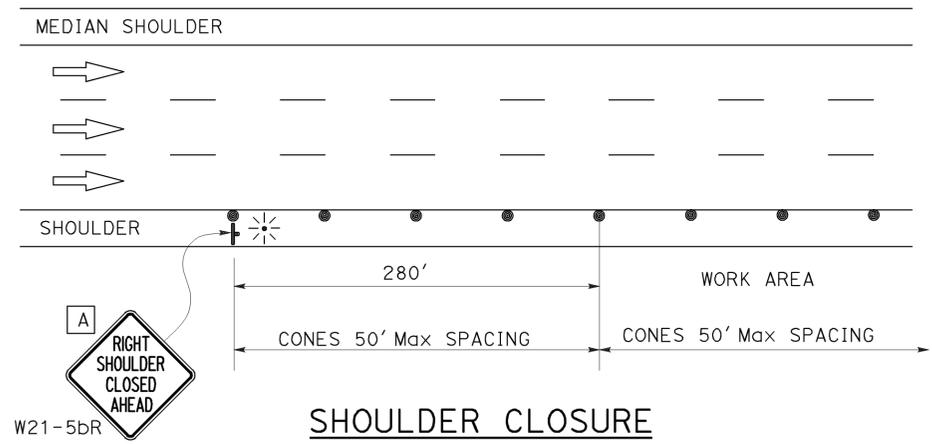
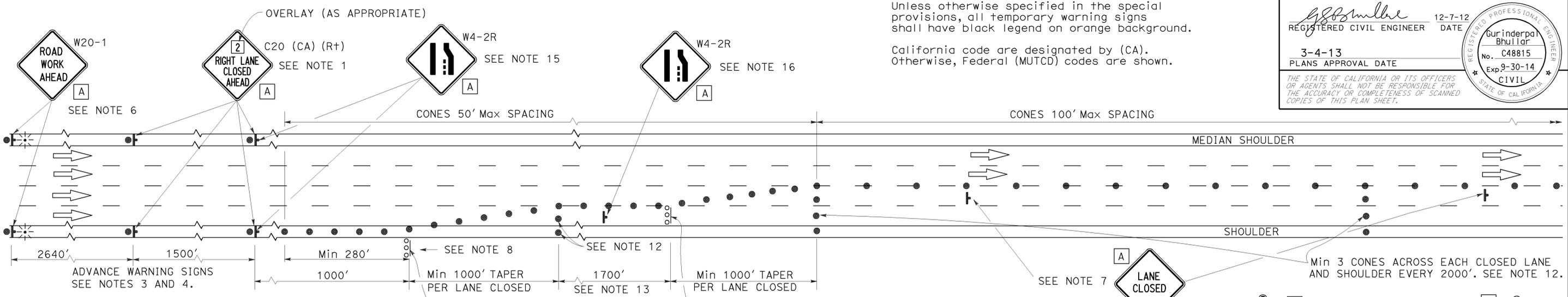
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	19	45

<i>ggsmlbr</i>	12-7-12
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

Gurinderpal Bhuillar
No. C48815
Exp. 9-30-14
CIVIL

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

NOTES:
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



- NOTES:**
- Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (Lt) signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - 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 C14 (CA) "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 C11 (CA) "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 first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
 - 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.
 - 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" 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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
 - Unless otherwise specified in the special provisions, the G84 (CA) and W4-1 signs shall be used as shown.
 - When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.
 - The W4-2 "LANE ENDS" symbol sign shown at this location is to be used where the W4-2 sign is used as advance warning as described in Note 15.

SIGN PANEL SIZE (Min)

A	48" x 48"
B	54" x 48"

LEGEND

●	TRAFFIC CONE
○	TRAFFIC CONE (OPTIONAL TAPER)
↑	TEMPORARY SIGN
⚡	FLASHING ARROW SIGN (FAS)
⊞	FAS SUPPORT OR TRAILER
⚡	PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**

NO SCALE

TCS-1

REVISOR: _____ DATE: _____
 CALCULATED BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 FUNCTIONAL SUPERVISOR: _____

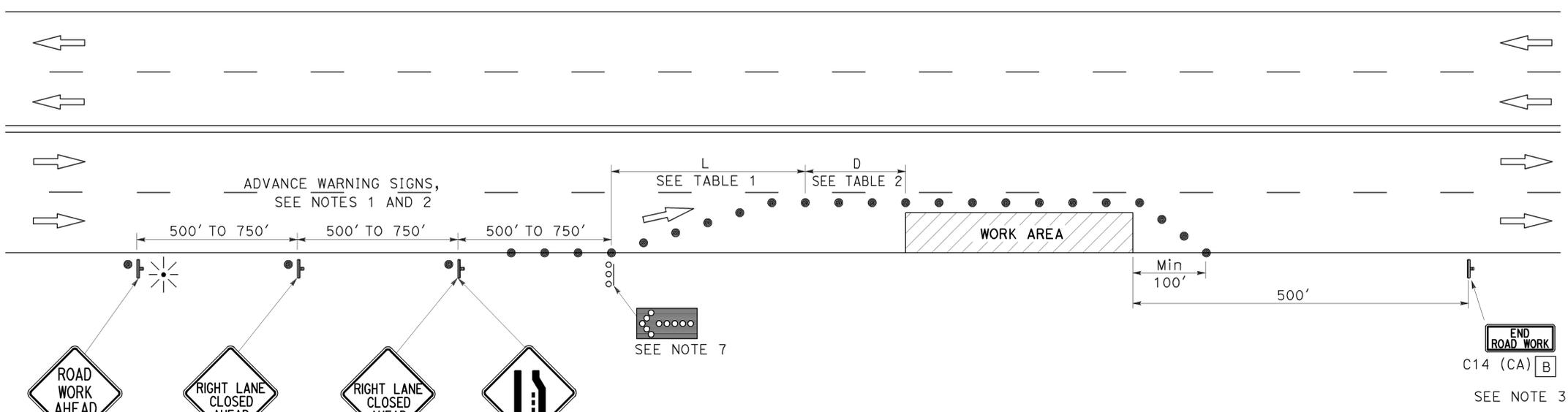
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	21	45

REGISTERED CIVIL ENGINEER
 12-7-12 DATE
 3-4-13
 PLANS APPROVAL DATE

Gurinderpal Bhuillar
 No. C48815
 Exp. 9-30-14
 CIVIL

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

TYPICAL LANE CLOSURE



NOTES:

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

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

W20-1 [A] SEE NOTE 4
 C20 (CA) (R+) [A]
 C20 (CA) (R+) [A]
 W4-2R [A] SEE NOTE 10

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 AND BELOW	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
Over 50	SEE NOTE 9	
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.		
** SEE NOTE 8.		

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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
OVER 50	SEE NOTE 9			
* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.				

- LEGEND**
- TRAFFIC CONE
 - ⊥ TEMPORARY SIGN
 - ⦿ FLASHING ARROW SIGN (FAS)
 - FAS SUPPORT OR TRAILER
 - ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

[A] 36" x 36"

[B] 36" x 18"

- NOTES:**
- Where approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
 - 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 C14 (CA) "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 C11 (CA) "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.
 - The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
 - 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.
 - When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

TCS-3

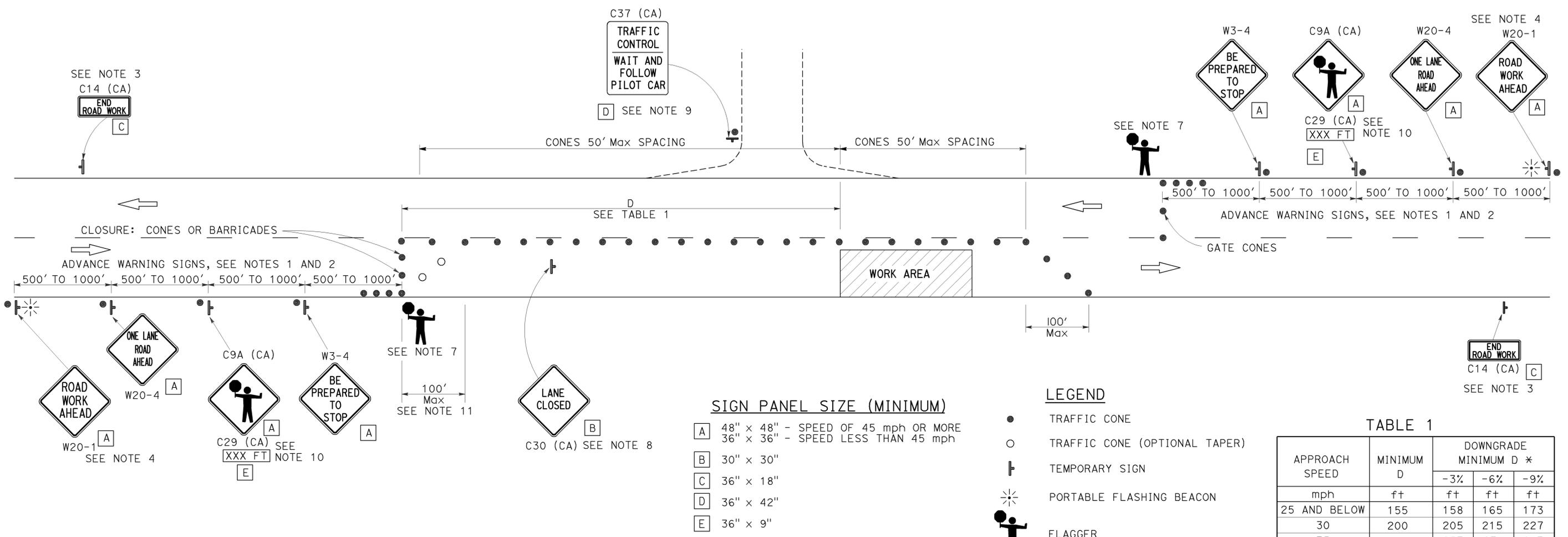
REVISIONS: 00-00-00 TIME PLOTTED => 09:45
 00-00-00 DATE PLOTTED => 10-DEC-2012
 DEPARTMENT OF TRANSPORTATION
 STATE OF CALIFORNIA
 Caltrans®
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 CALCULATED/DESIGNED BY
 REVISOR BY
 DATE REVISOR

NOTES:

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

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (MINIMUM)

A	48" x 48" - SPEED OF 45 mph OR MORE 36" x 36" - SPEED LESS THAN 45 mph
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	36" x 9"

TABLE 1

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

- NOTES:**
- Where approach speeds are low, advance warning signs may be placed at 300' spacing, and closer in urban areas.
 - 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 C14 (CA) "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 C11 (CA) "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 at all intersections within traffic control area. Signs shall be clean and visible at all times.
- An optional C29 (CA) sign may be placed below the C9A (CA) sign.
- Traffic cones or barricades may be placed on the optional taper as shown, barricades shall be Type I, II, or III.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

TCS-4

REVISOR: [] DATE: []

CALCULATED/DESIGNED BY: [] CHECKED BY: []

FUNCTIONAL SUPERVISOR: []

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 30" x 30"
- D 48" x 48" - SPEED OF 50 mph OR MORE
36" x 36" - SPEED LESS THAN 50 mph
- E 48" x 36"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	23	45

REGISTERED CIVIL ENGINEER
 12-7-12 DATE
 3-4-13 PLANS APPROVAL DATE
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

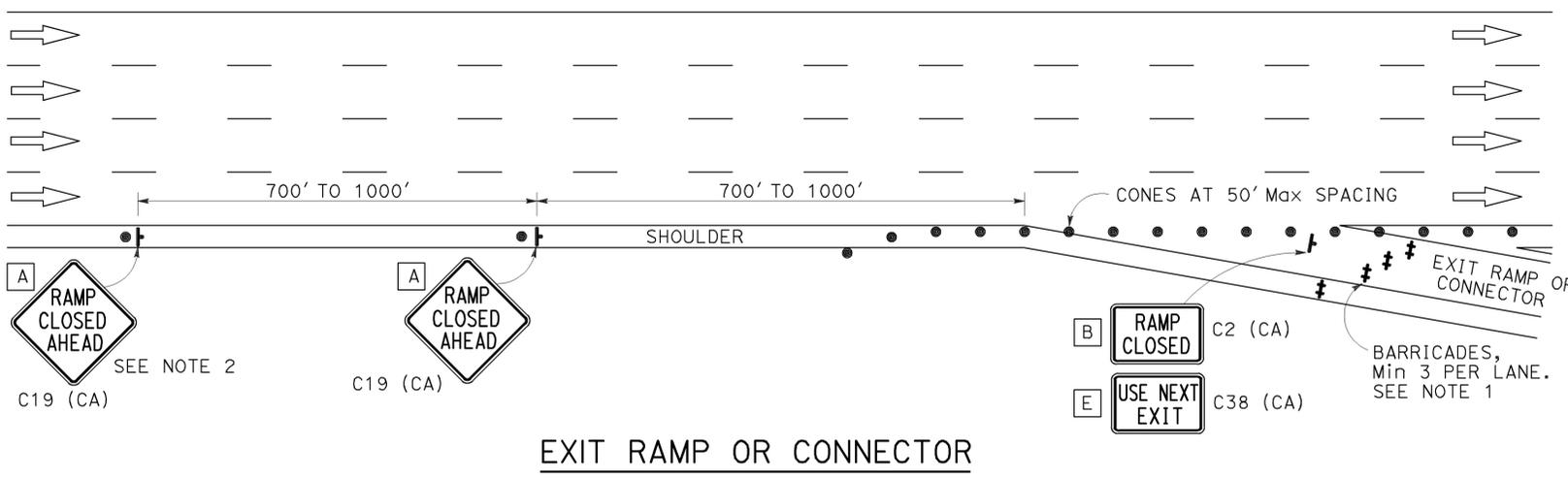
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

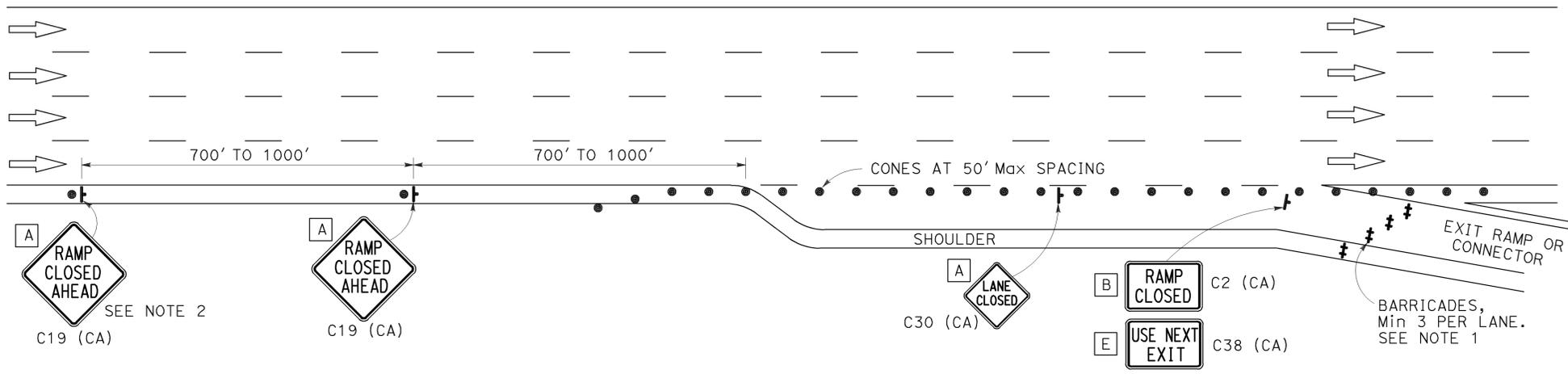
- TRAFFIC CONE
- † TEMPORARY SIGN
- ‡ BARRICADES

NOTES:

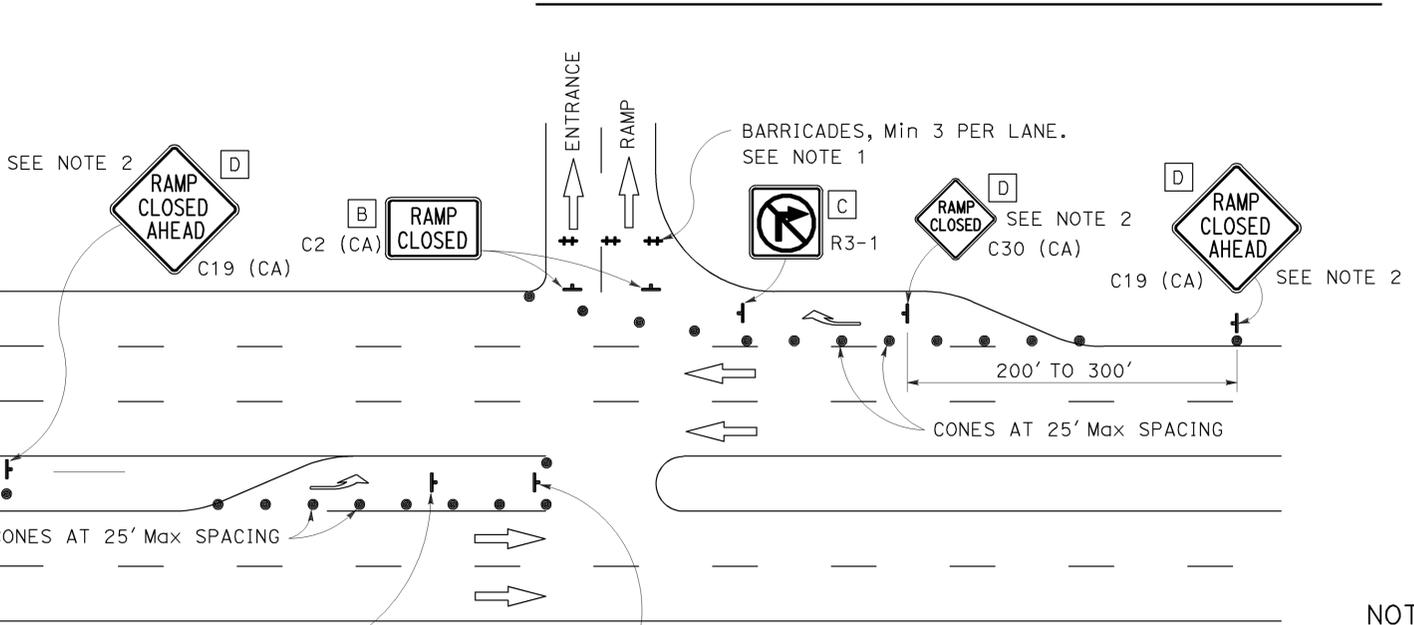
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19 (CA) "RAMP CLOSED AHEAD" and C30 (CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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.
- 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.
- All cones used for ramp 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 ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" sign in the gore area shall be covered during ramp closures.



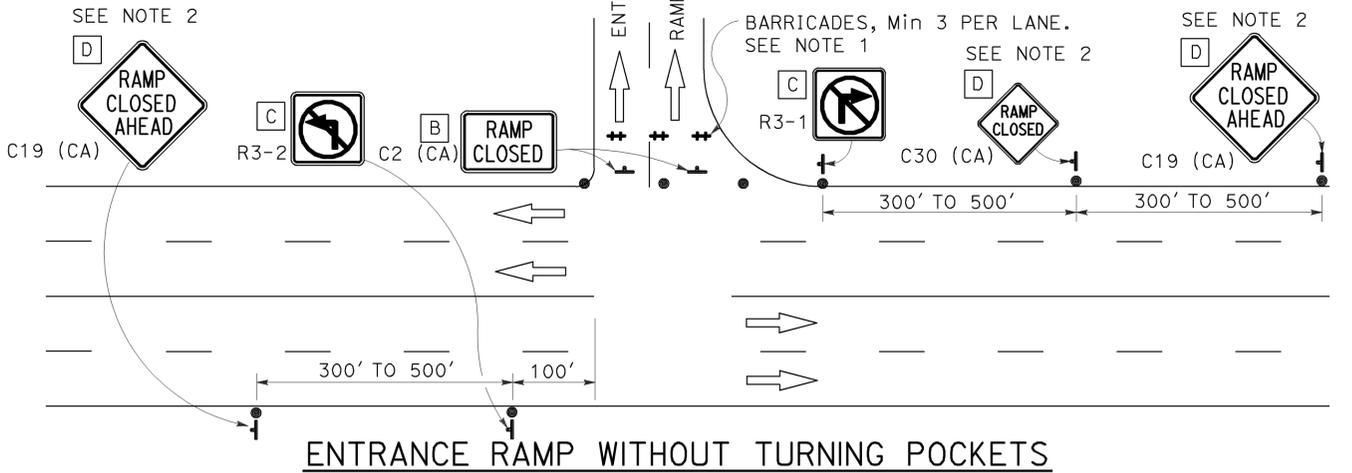
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
- California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

TCS-5

REVISOR BY
DATE

CALCULATED BY
DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR

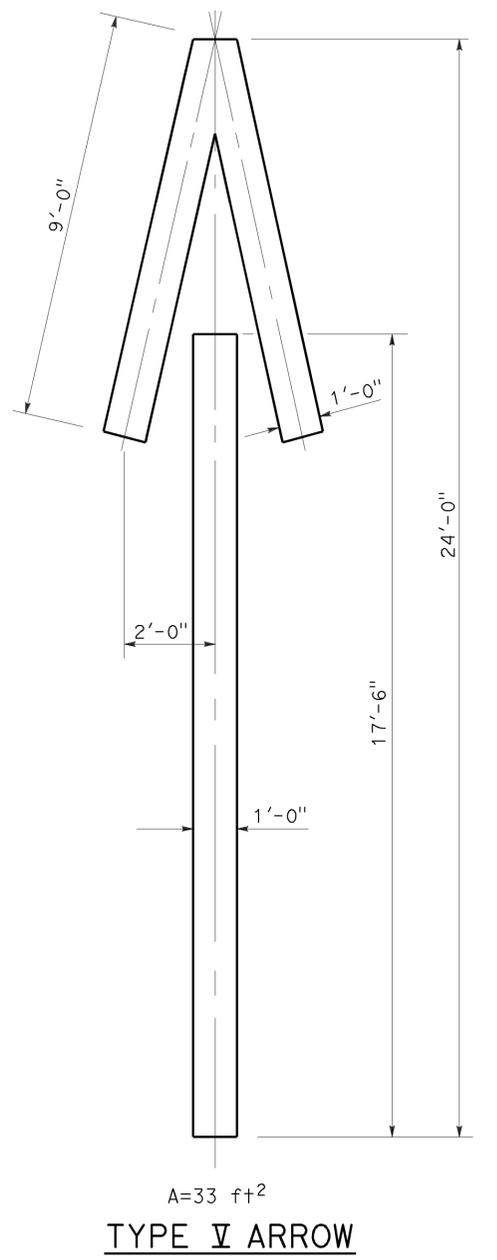
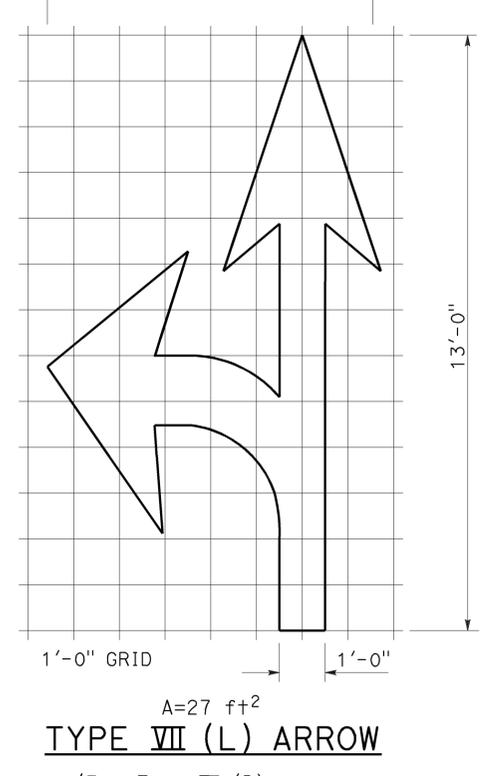
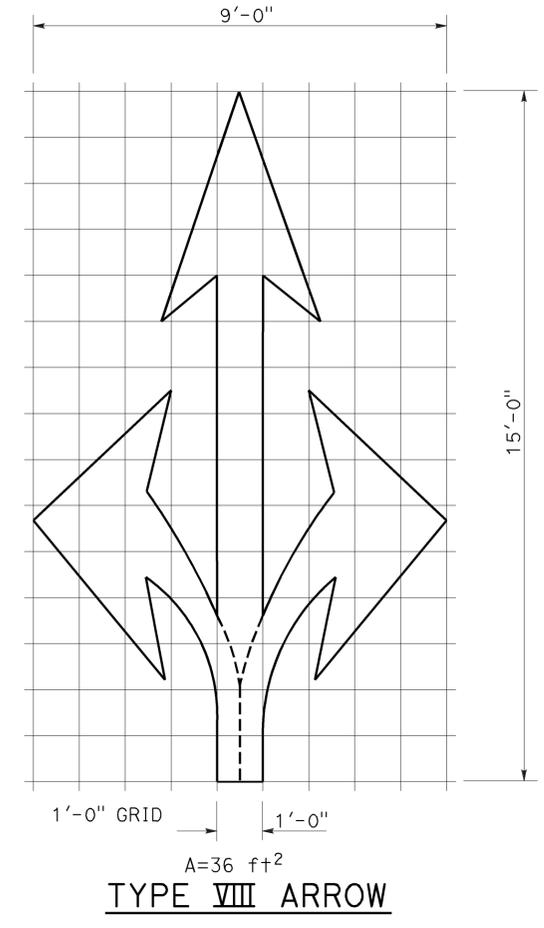
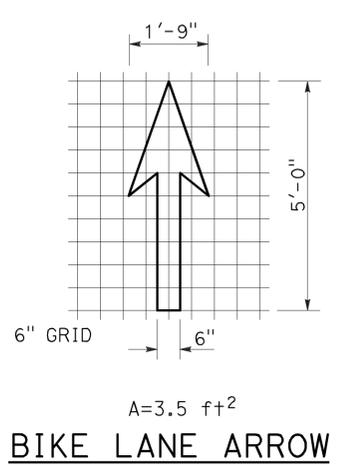
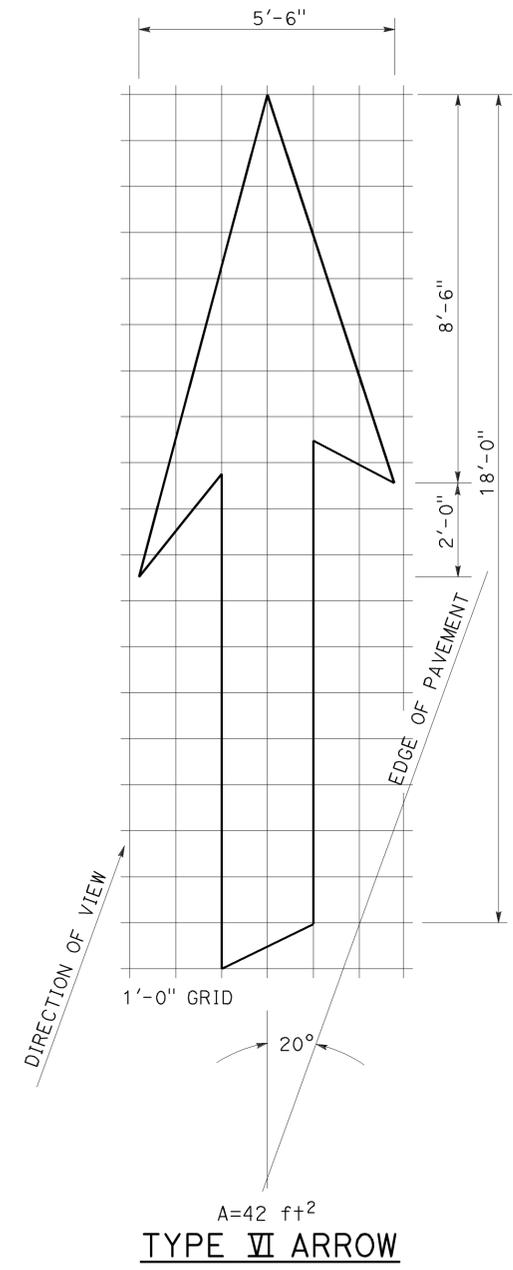
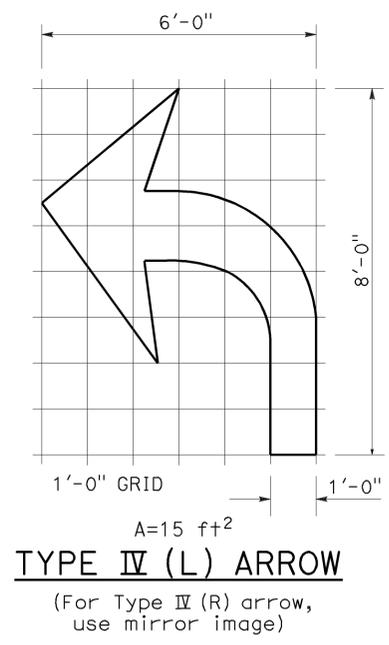
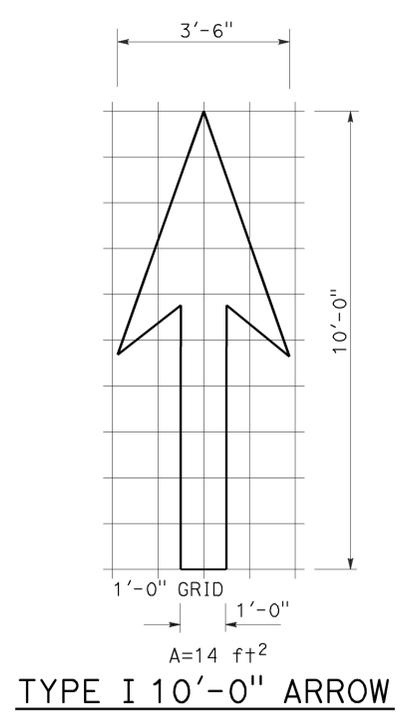
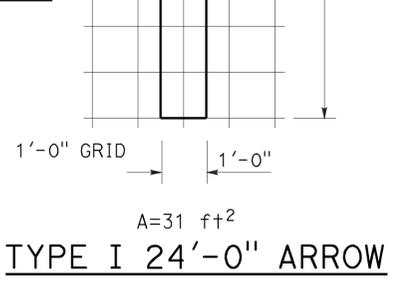
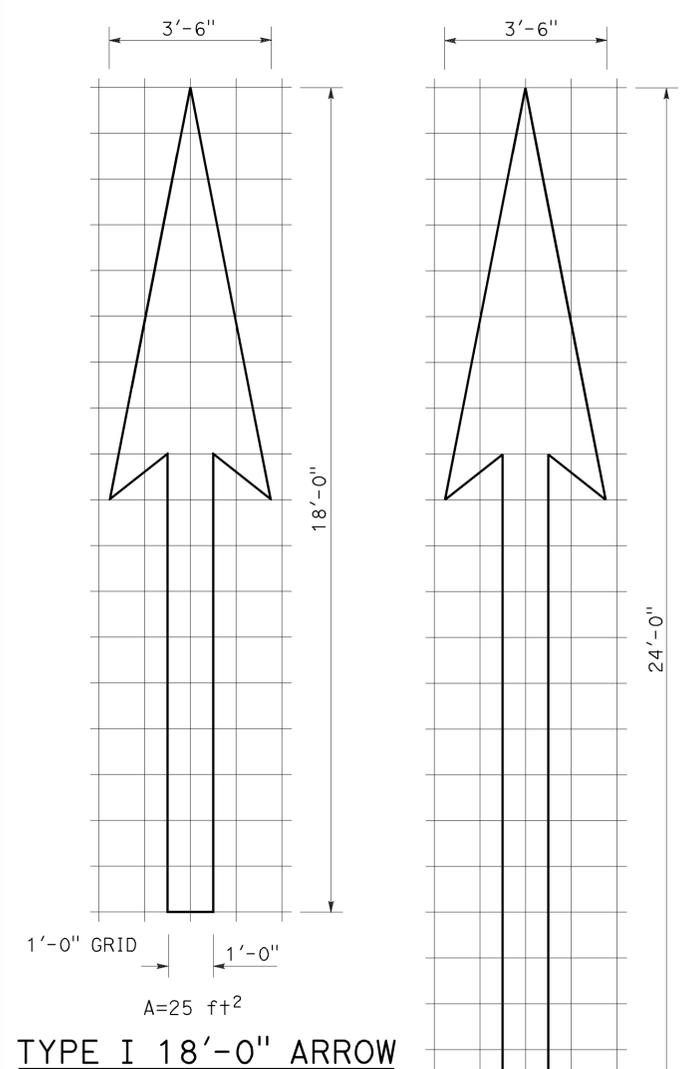
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	24	45

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 3-4-13



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

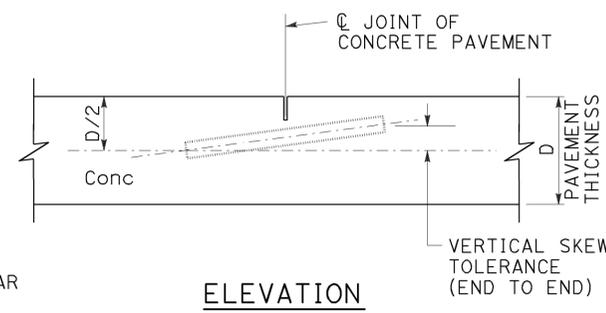
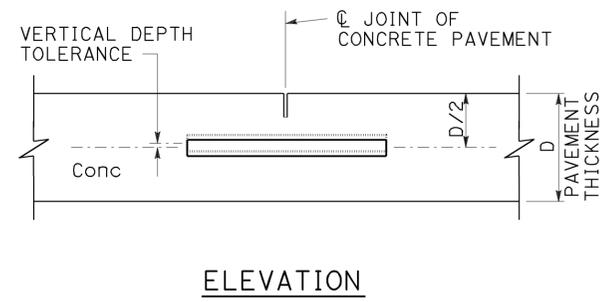
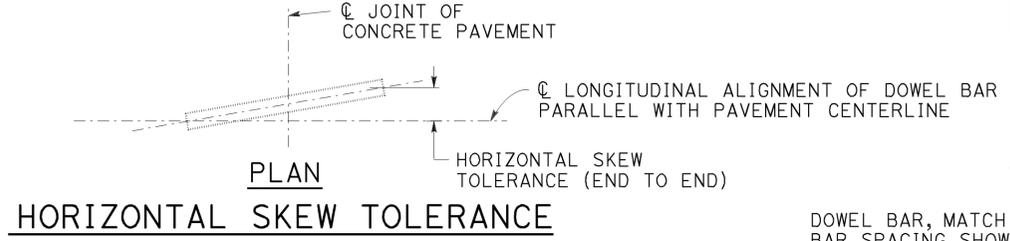
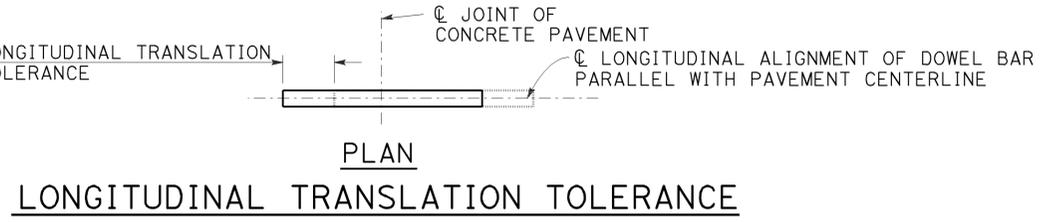
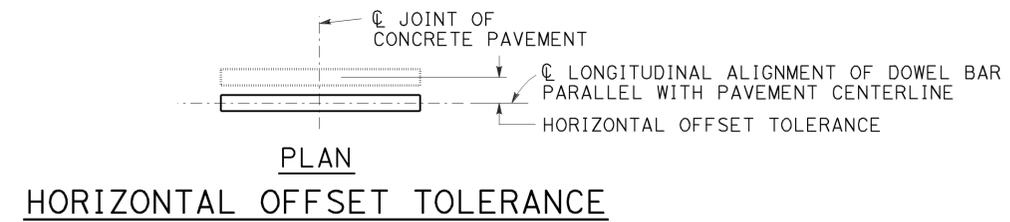
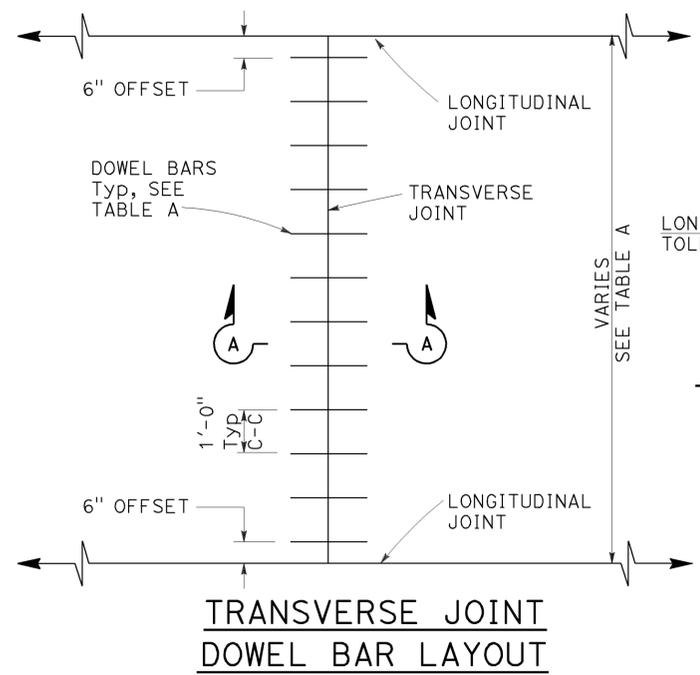
NOTE:
Minor variations in dimensions may be accepted by the Engineer.

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

2010 REVISED STANDARD PLAN RSP P10



- TO ACCOMPANY PLANS DATED 3-4-13
- NOTES:**
- See Standard Plan P1 for typical dowel bar placement and locations.
 - 1/2" Dia dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1/4" Dia dowel bars.
 - For widths not shown, see Project Plans.
 - If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the 1/4" radius, as shown.
 - 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.

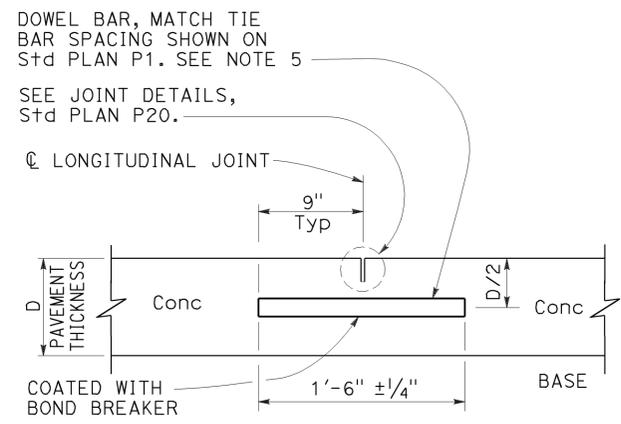
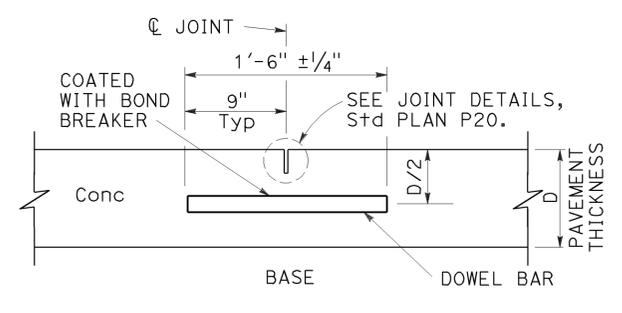
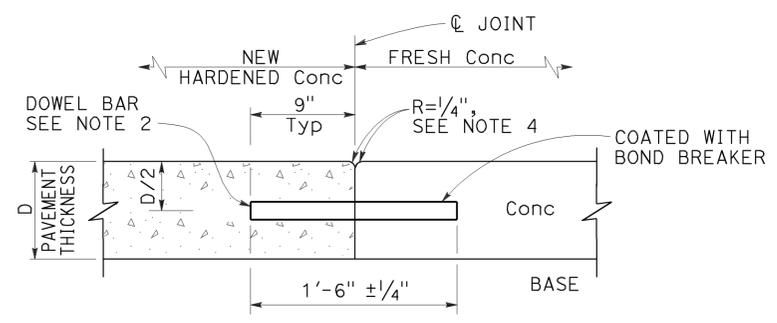


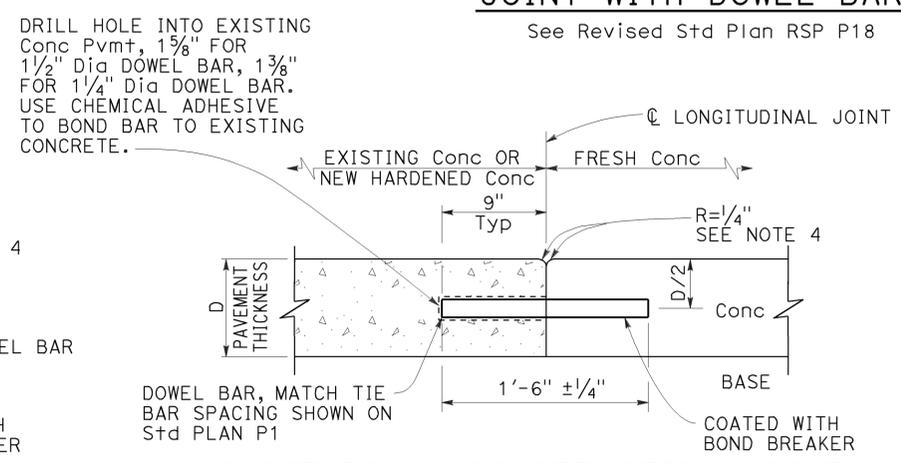
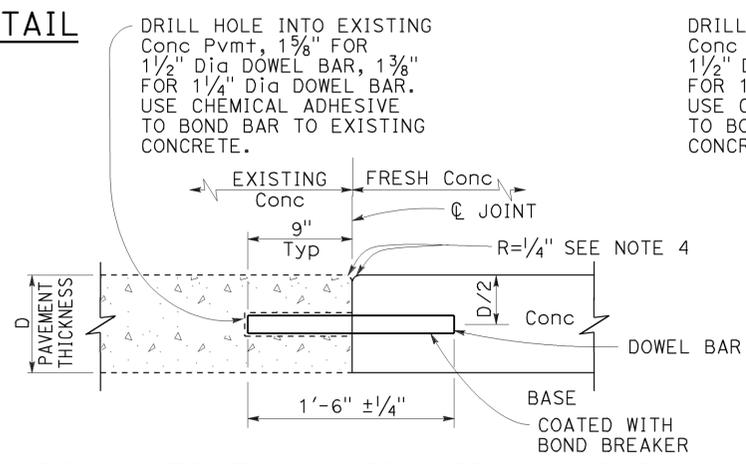
TABLE A (See Note 3)

DOWEL BAR TRANSVERSE SPACING TABLE	
WIDTH BETWEEN LONGITUDINAL JOINTS	NUMBER OF DOWELS BETWEEN LONGITUDINAL JOINTS
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4

SECTION A-A
TRANSVERSE
CONSTRUCTION JOINT DETAIL

TRANSVERSE CONTRACTION JOINT

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



TRANSVERSE CONSTRUCTION JOINT
FOR EXISTING CONCRETE PAVEMENT
Drill and bond locations

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

REVISED STANDARD PLAN RSP P10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	26	45

Edward Li 12/14/12
REGISTERED CIVIL ENGINEER DATE

3-4-13
PLANS APPROVAL DATE

REG. NO. C56706
Exp. 06/30/13
CIVIL
STATE OF CALIFORNIA

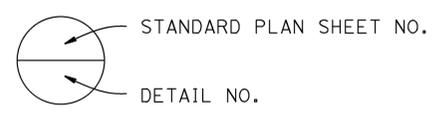
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INDEX TO PLANS

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	GENERAL PLAN NO. 8
9	GENERAL PLAN NO. 9
10	GENERAL PLAN NO. 10
11	GENERAL PLAN NO. 11
12	GENERAL PLAN NO. 12
13	GENERAL PLAN NO. 13
14	GENERAL PLAN NO. 14
15	GENERAL PLAN NO. 15
16	GENERAL PLAN NO. 16
17	MISCELLANEOUS DETAILS NO. 1
18	MISCELLANEOUS DETAILS NO. 2
19	SOFFIT ACCESS OPENINGS
20	STRUCTURE APPROACH SLAB TYPE R(30D)

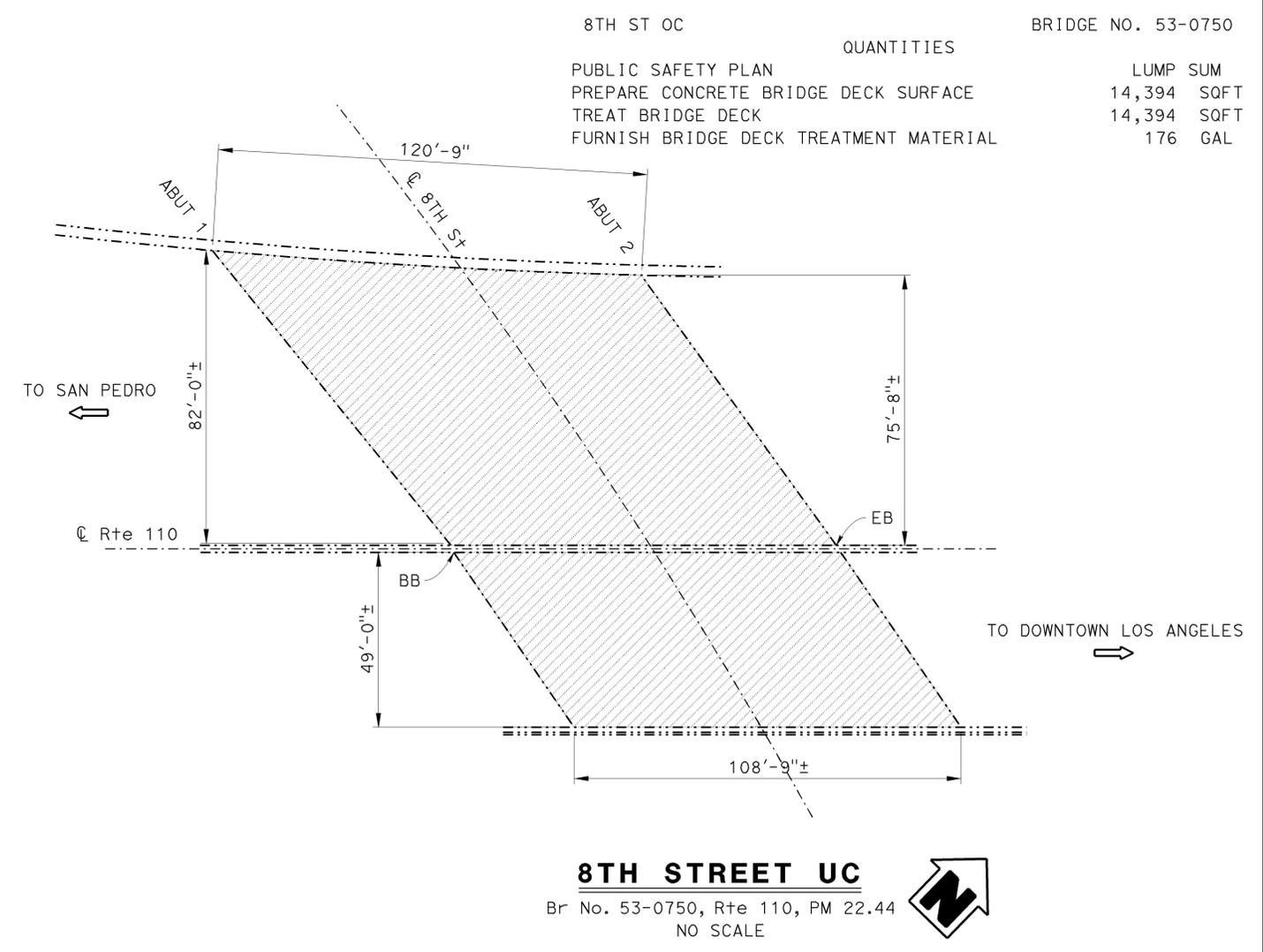
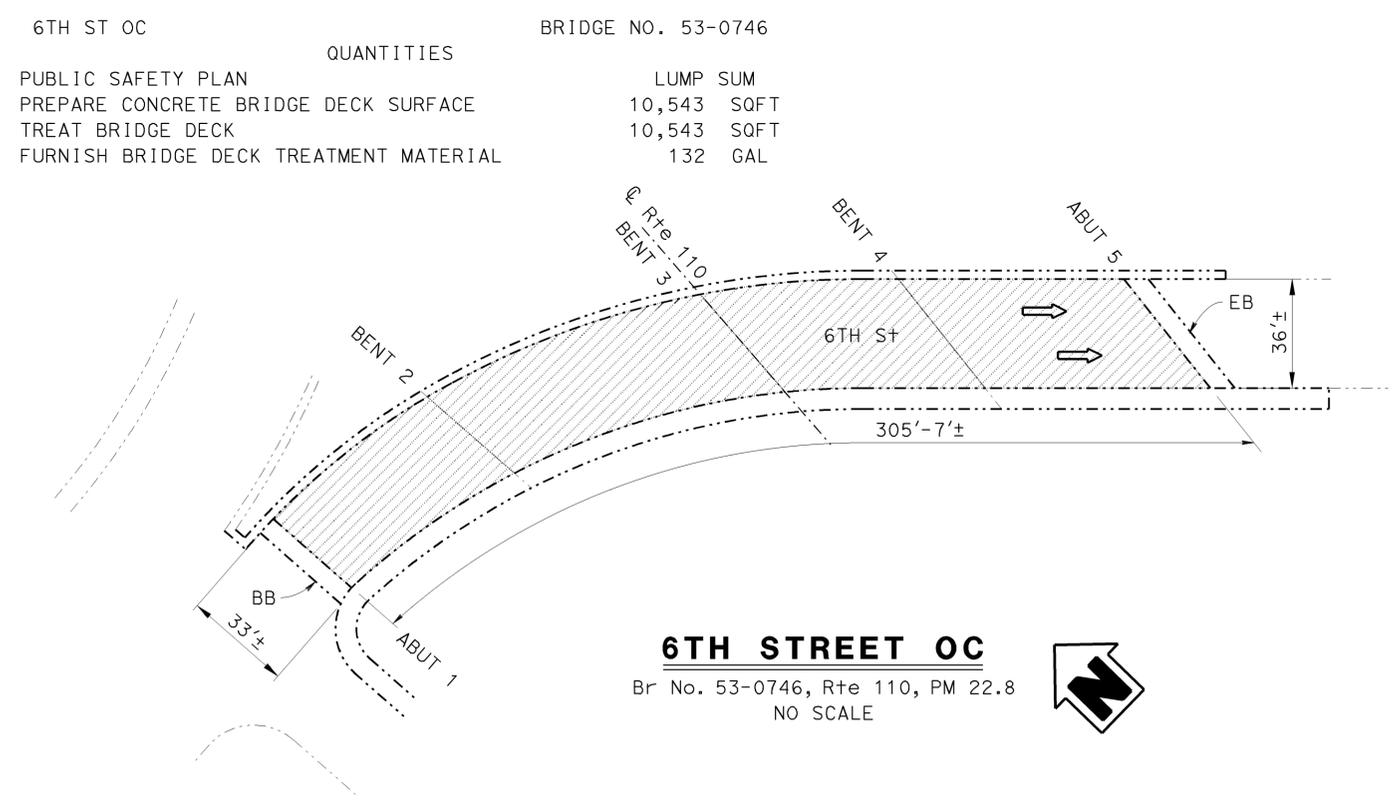
STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
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 SEAL (MAXIMUM MOVEMENT RATING = 2")



LEGEND:

- Indicates existing.
- ⇒ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	BY Tom Dang	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110, 118, 134, 210, 710 BRIDGES GENERAL PLAN NO. 1
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang			POST MILE	
	QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert			VARIES	
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3489	PROJECT NUMBER & PHASE: 0700021256	CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES
								REVISION DATES	SHEET 01 OF 20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	27	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
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LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.

5TH ST OC

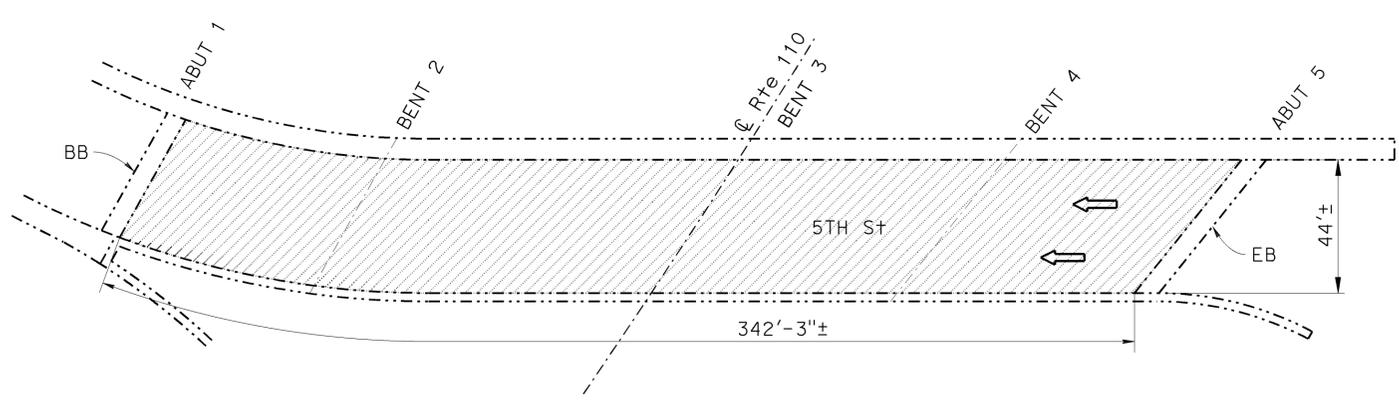
QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	
PREPARE CONCRETE BRIDGE DECK SURFACE	15,695 SQFT
TREAT BRIDGE DECK	15,695 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	196 GAL

BRIDGE NO. 53-0685

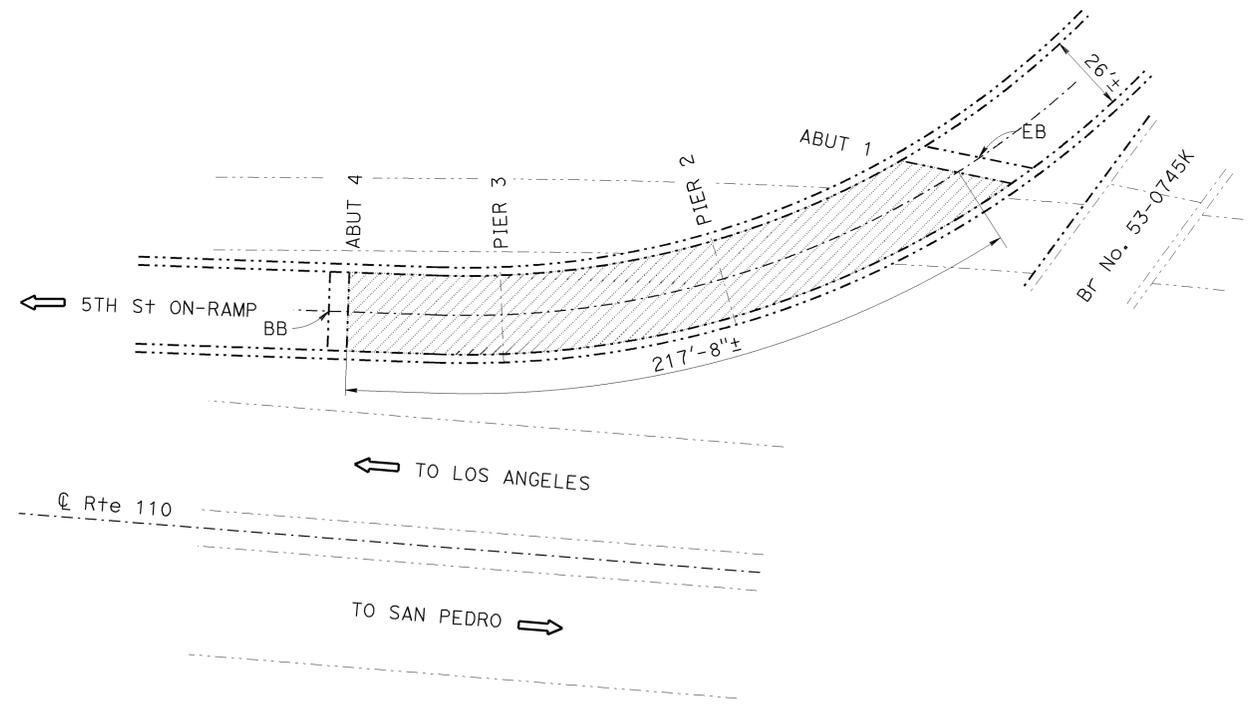
5TH ST NB ON RAMP OC

QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	
PREPARE CONCRETE BRIDGE DECK SURFACE	5,660 SQFT
TREAT BRIDGE DECK	5,660 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	71 GAL

BRIDGE NO. 53-0686S



5TH STREET OC
 Br No. 53-0685, Rte 110, PM 22.83
 NO SCALE



5TH STREET NB ON-RAMP OC
 Br No. 53-0686S, Rte 110, PM 22.91
 NO SCALE

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN ENGINEER TONY D. BRAKE	DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

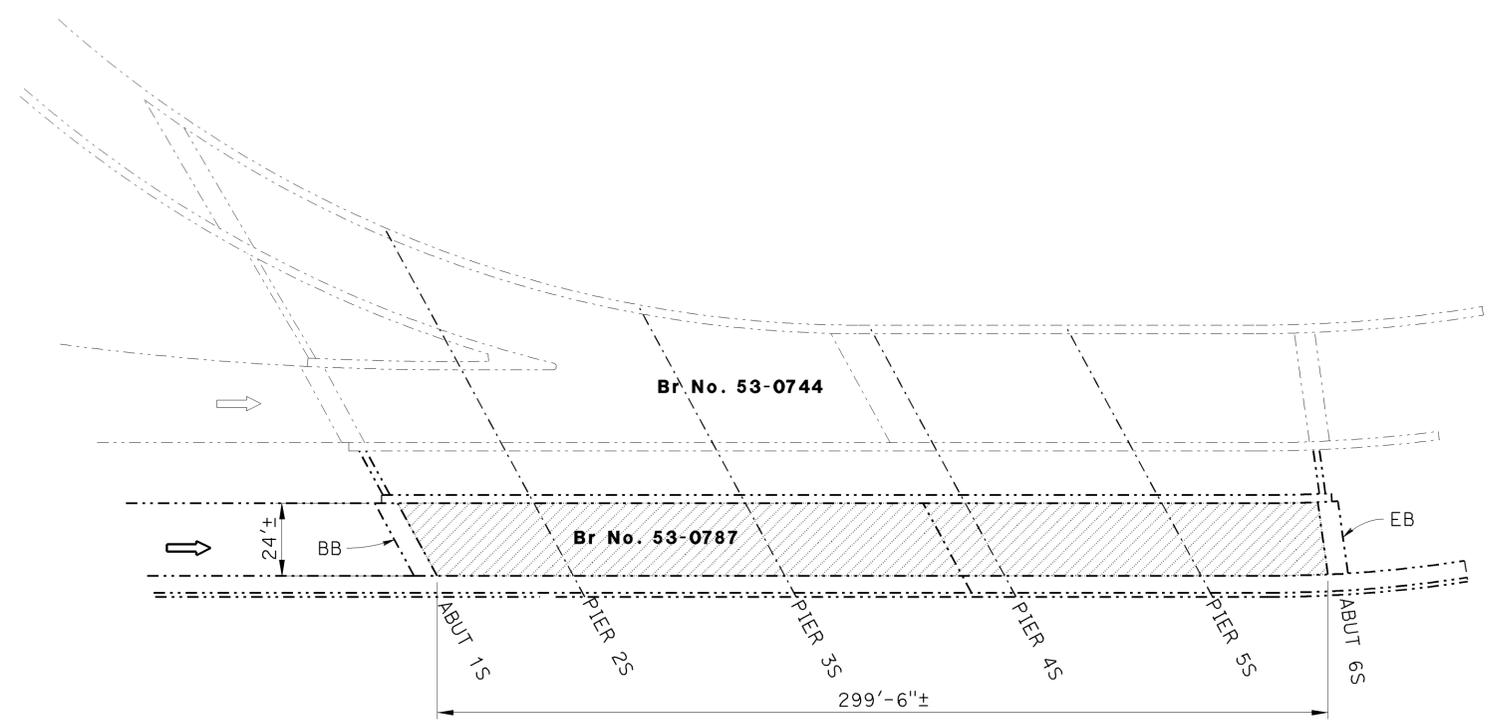
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. Various	ROUTE 110, 118, 134, 210, 710 BRIDGES GENERAL PLAN NO. 2
		POST MILE Varies	

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	28	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.



4TH STREET OC (SOUTH)
 Br No. 53-0787, Rte 110, PM 23
 NO SCALE



4TH ST OC (SOUTH)	QUANTITIES	BRIDGE NO. 53-0787
PUBLIC SAFETY PLAN		LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE		7,267 SQFT
TREAT BRIDGE DECK		7,267 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL		90 GAL

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

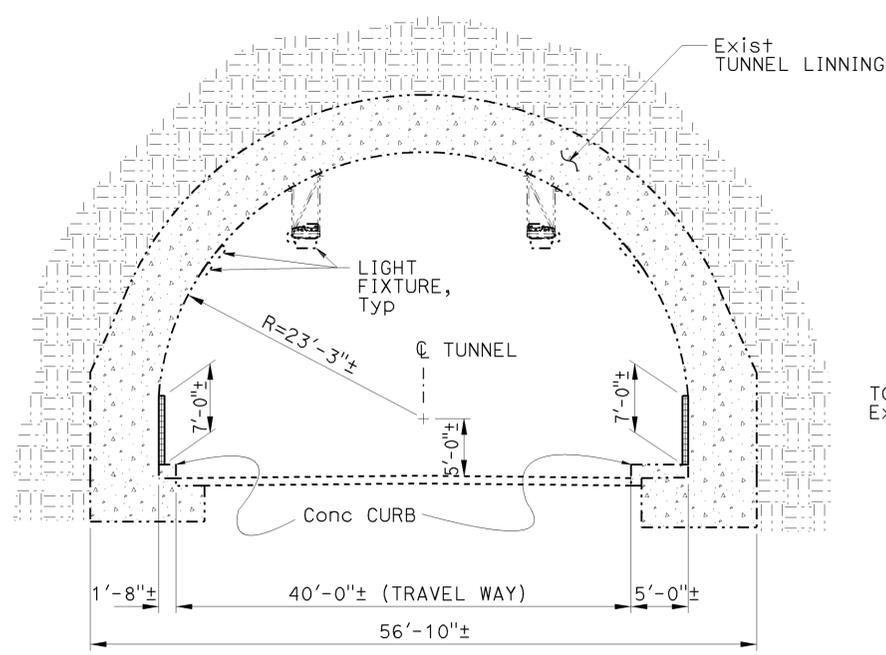
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

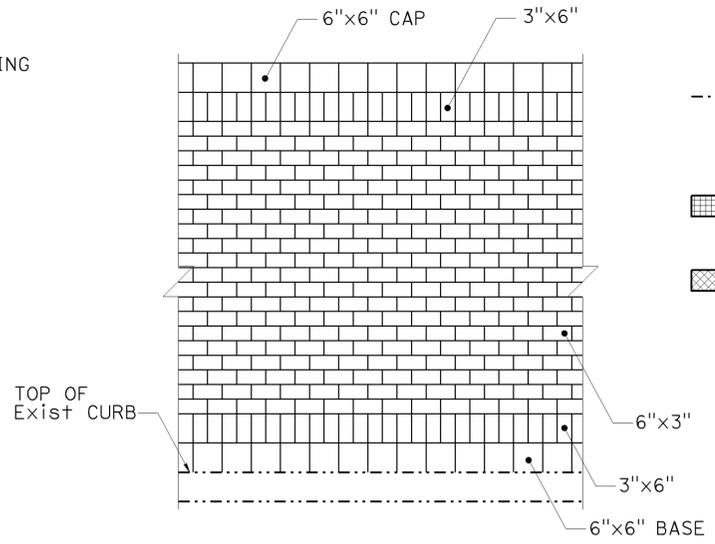
BRIDGE NO. Various
 POST MILE Varies
ROUTE 110,118,134,210,710 BRIDGES
GENERAL PLAN NO. 3

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	29	45
Edward Li REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



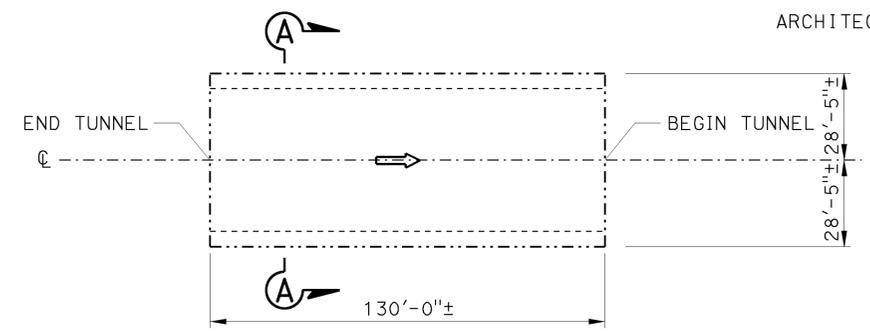
SECTION A-A
NO SCALE



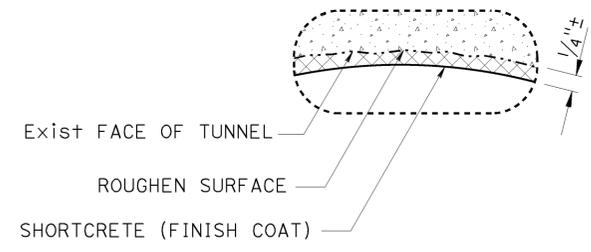
EXISTING TILE PATTERN
NO SCALE

- LEGEND:**
- Indicates existing.
 - Indicates direction of traffic.
 - [Hatched Pattern] Indicates existing tile surface. Replace missing and unsounded tiles, match existing tile size and color as directed by the Engineer.
 - [Cross-hatched Pattern] Indicates limits of new shotcrete.

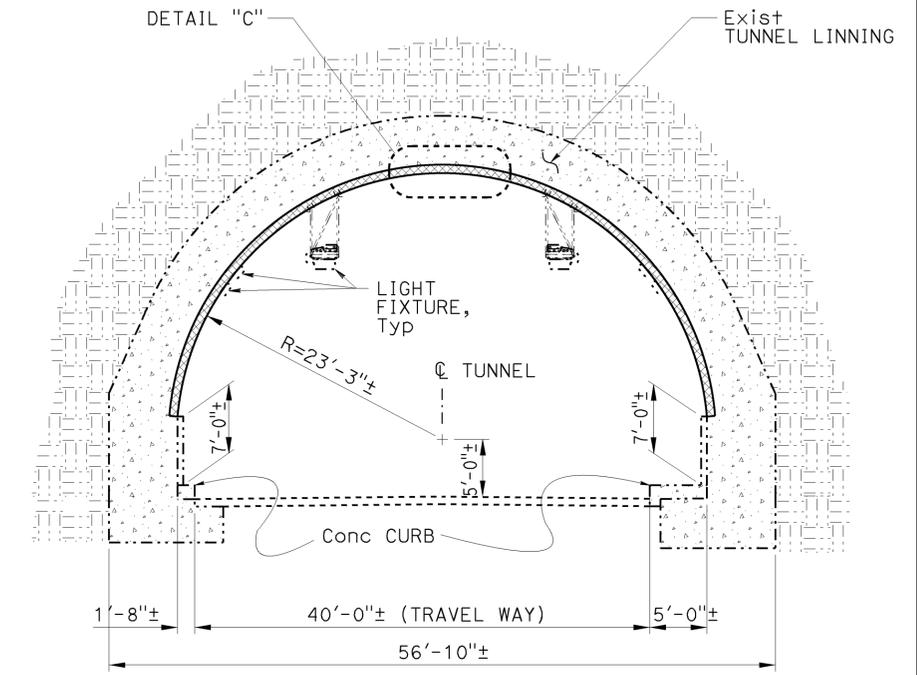
FIGUEROA ST TUNNEL
 ARCHITECTURAL TREATMENT (TILES) QUANTITIES 364 SQFT
 BRIDGE NO. 53-0201R



FIGUEROA STREET TUNNEL
 Br No. 53-0201R, Rte 110, PM 25.28
 1" = 30'

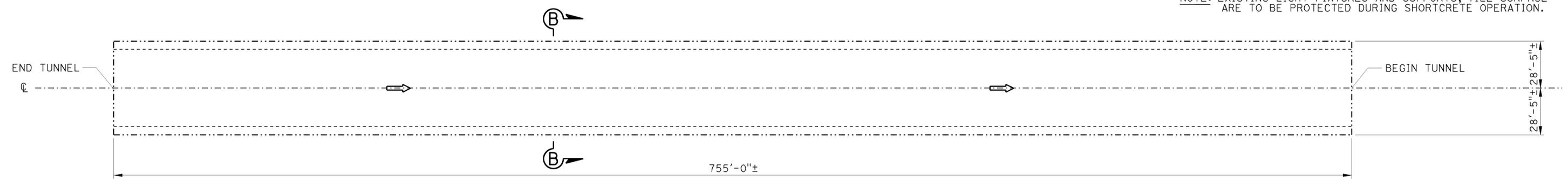


DETAIL "C"



SECTION B-B
NO SCALE

NOTE: EXISTING LIGHT FIXTURES AND SUPPORTS, TILE SURFACE ARE TO BE PROTECTED DURING SHORTCRETE OPERATION.



FIGUEROA STREET TUNNEL
 Br No. 53-0199R, Rte 110, PM 24.9
 1" = 30'

FIGUEROA ST TUNNEL
 BRIDGE NO. 53-0199R
 BRIDGE REMOVAL (PORTION) QUANTITIES
 SHOTCRETE LUMP SUM 43 CY

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	BY Tom Dang	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES GENERAL PLAN NO. 4	
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		POST MILE		
	QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert		VARIES		
LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD				PLANS AND SPECS COMPARED Steven Seifert		DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN		SHEET 04 OF 20	
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3489 PROJECT NUMBER & PHASE: 0700021256 CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES

USERNAME => s129239 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 14:00

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	30	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
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LEGEND:

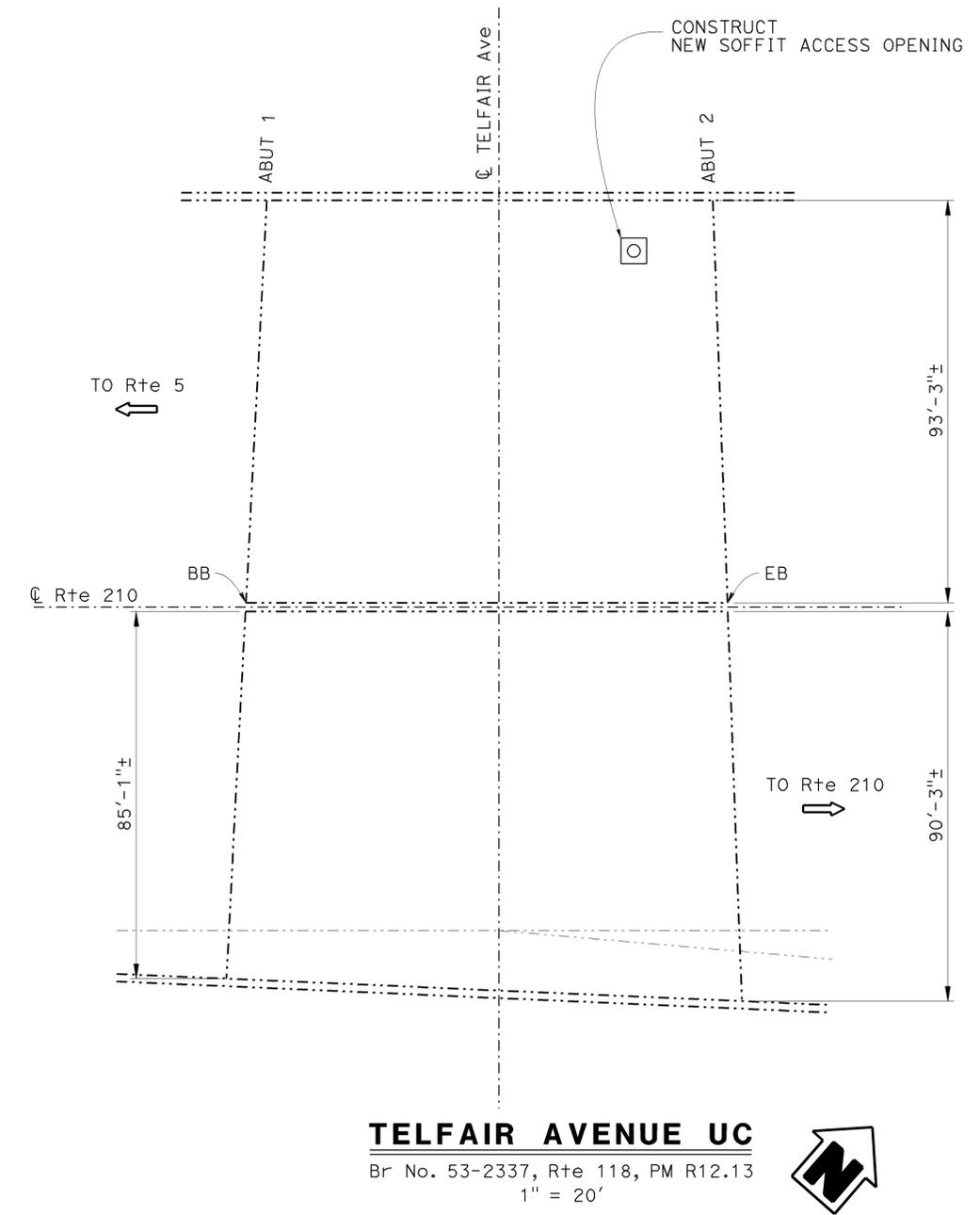
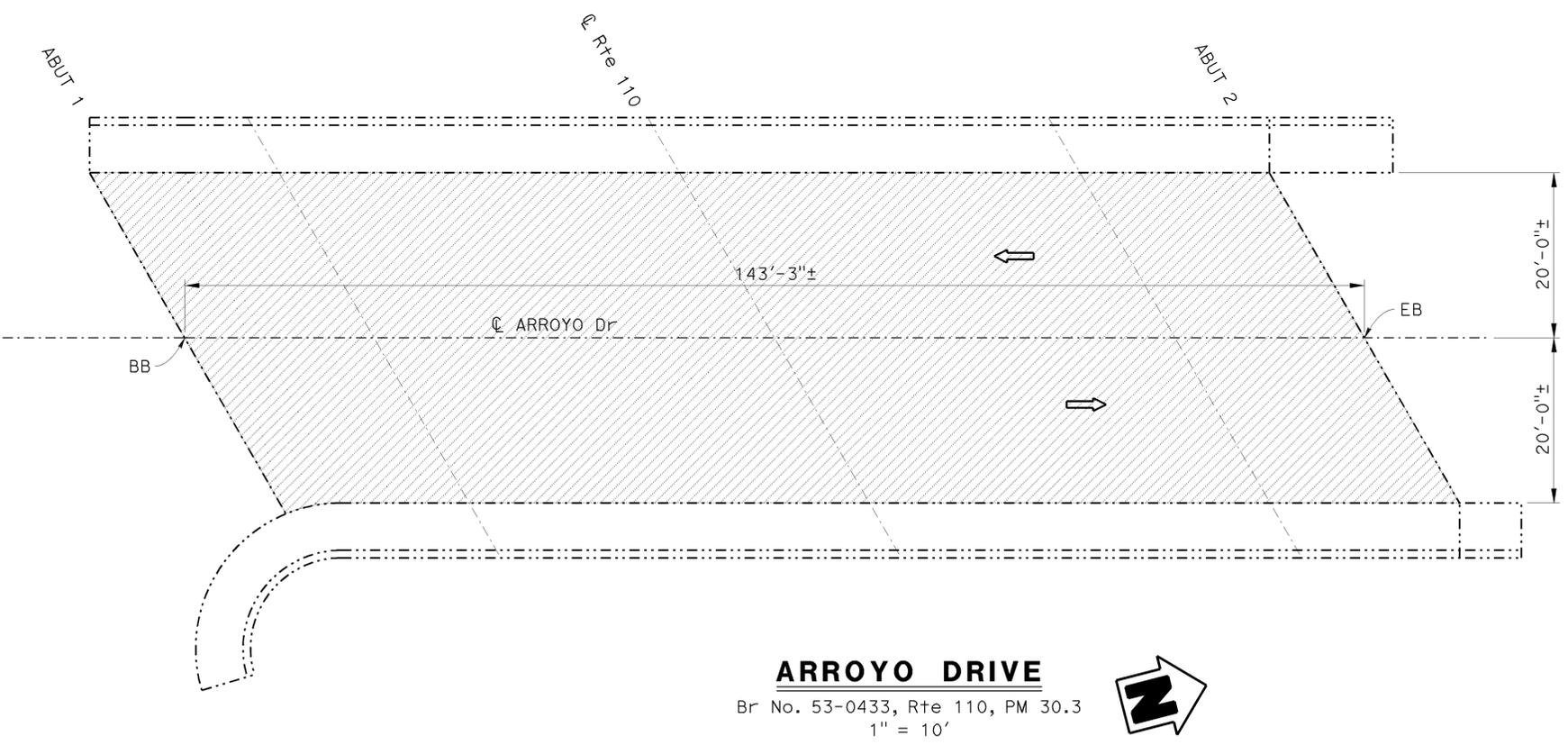
- Indicates existing.
- Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.
- ⊠ Indicates location of install soffit access door at existing 2' diameter soffit opening, see "SOFFIT ACCESS OPENINGS" sheet.

TELFAIR AVE UC
ACCESS OPENING, SOFFIT

BRIDGE NO. 53-2337
QUANTITIES
1 EA

ARROYO DR BRIDGE NO. 53-0433

QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	5,730 SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	5,730 SQFT
TREAT BRIDGE DECK	72 GAL
FURNISH BRIDGE DECK TREATMENT MATERIAL	



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES GENERAL PLAN NO. 5					
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		POST MILE		Varies				
	QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert		PLANS AND SPECS COMPARED		Steven Seifert	Varies			
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489	PROJECT NUMBER & PHASE: 0700021256	CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 05	OF 20

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	31	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
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LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.

BRADLEY AVE UC
 CLEAN EXPANSION JOINT
 JOINT SEAL (MR 1 1/2")

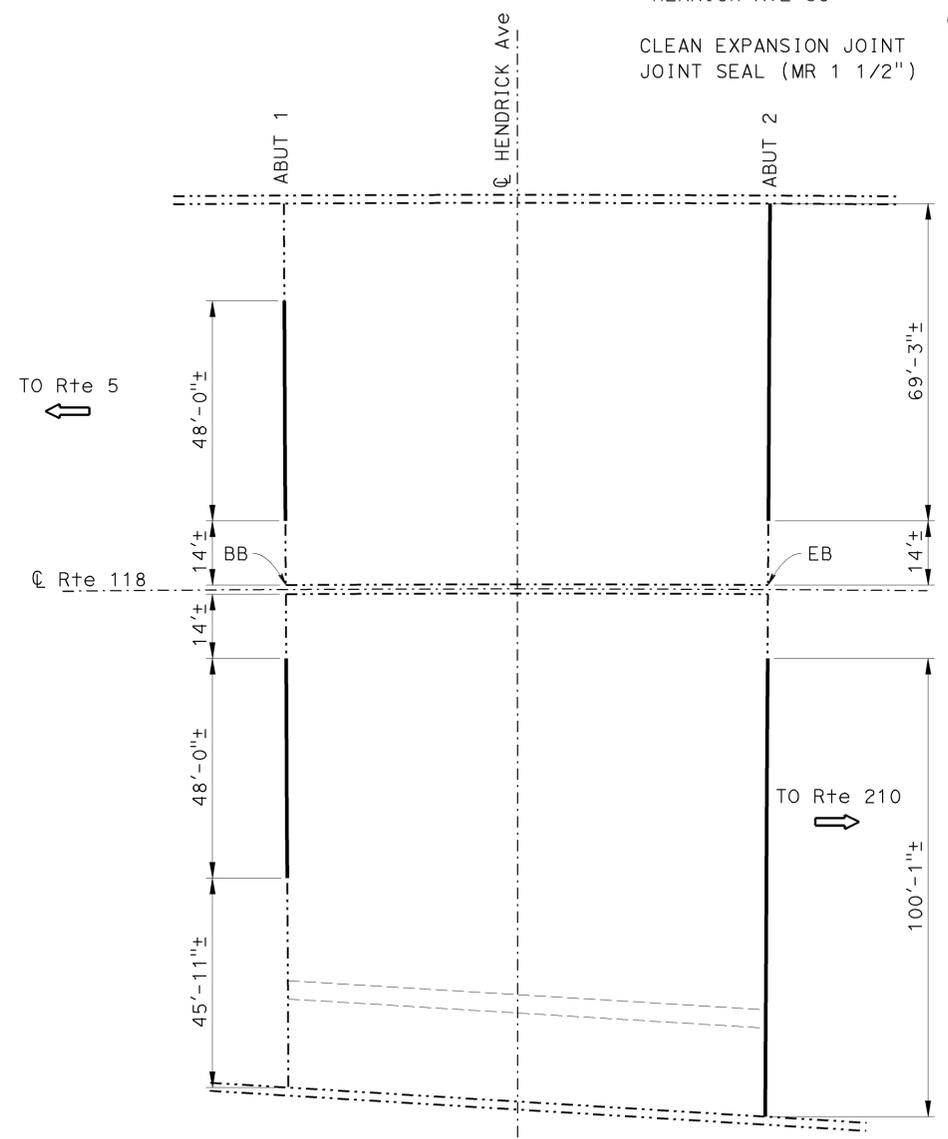
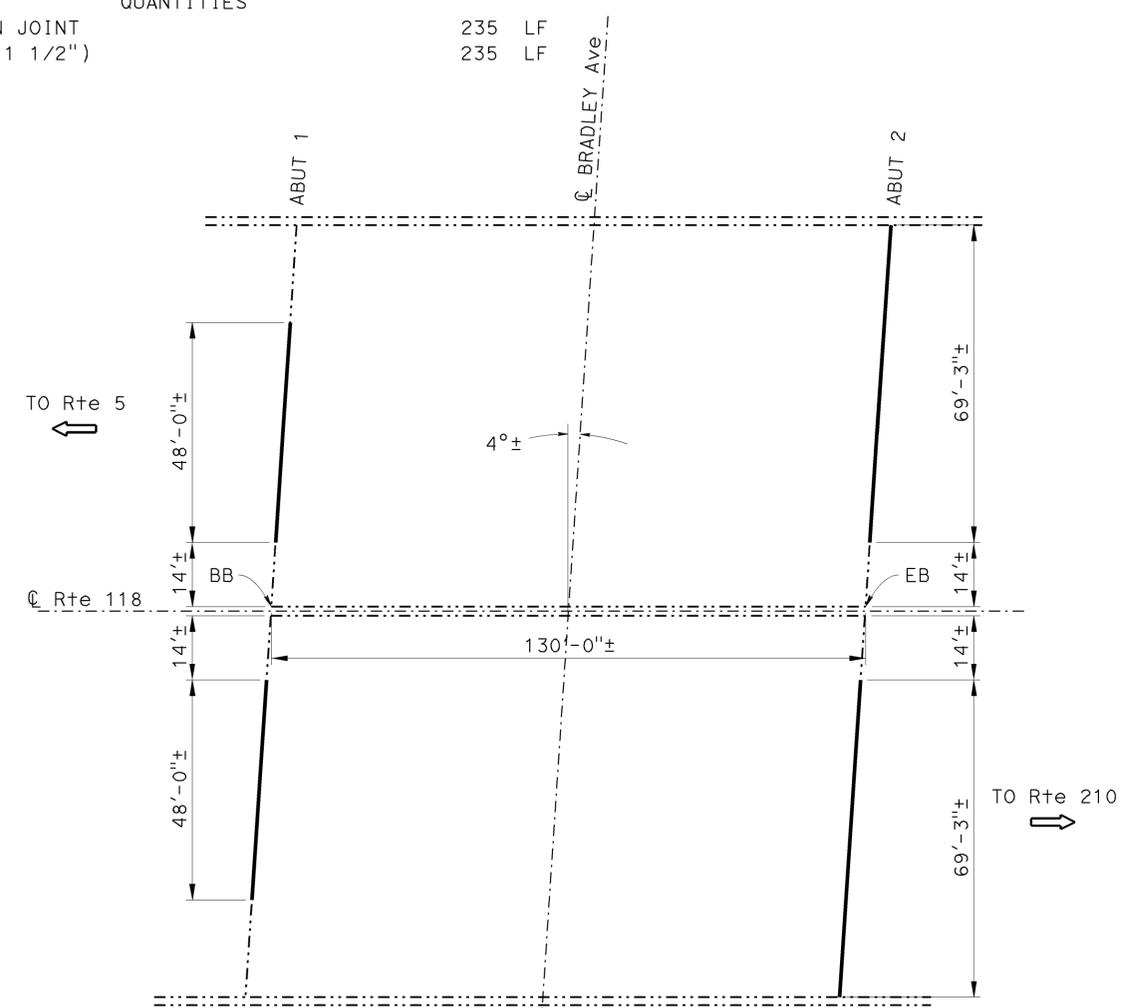
BRIDGE NO. 53-2352

QUANTITIES
 235 LF
 235 LF

HERRICK AVE UC
 CLEAN EXPANSION JOINT
 JOINT SEAL (MR 1 1/2")

BRIDGE NO. 53-2356

QUANTITIES
 266 LF
 266 LF



BRADLEY AVENUE UC
 Br No. 53-2352, Rte 118, PM R12.68
 1" = 20'

HERRICK AVENUE UC
 Br No. 53-2356, Rte 118, PM R12.94
 1" = 20'

NOTE:
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DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Varies

ROUTE 110, 118, 134, 210, 710 BRIDGES
GENERAL PLAN NO. 6

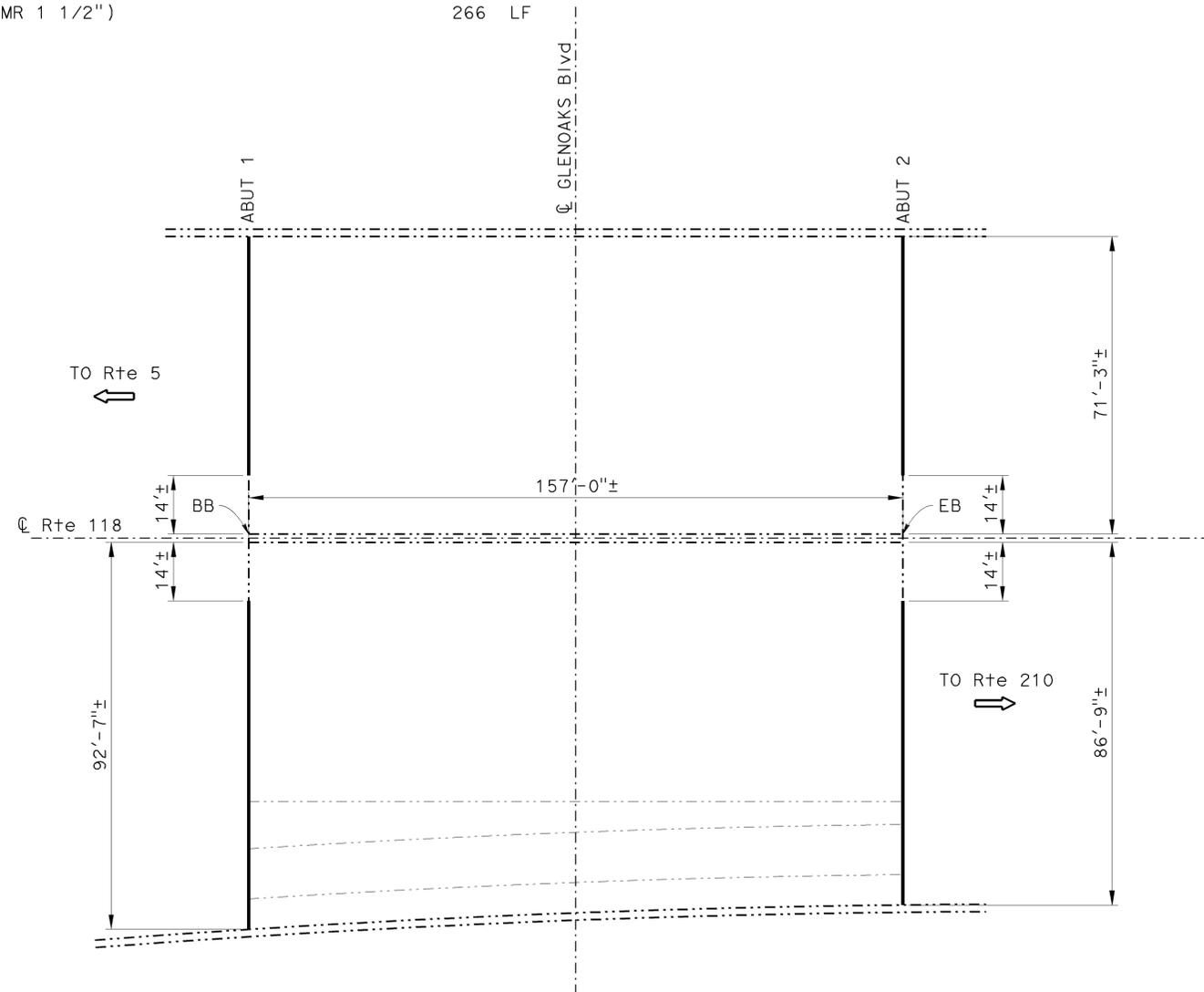
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	32	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			DATE	12/14/12	
3-4-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

- Indicates existing.
- ⇒ Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.

GLENOAKS BLVD UC
 CLEAN EXPANSION JOINT 266 LF
 JOINT SEAL (MR 1 1/2") 266 LF

BRIDGE NO. 53-2130



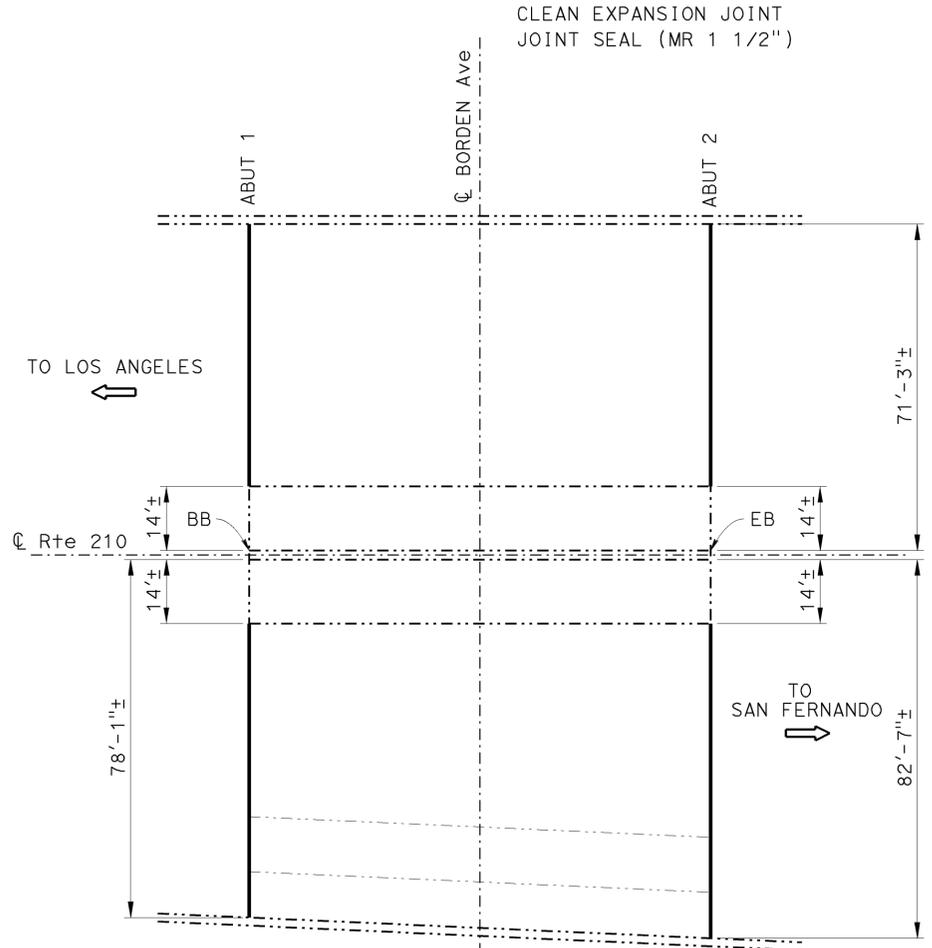
GLENOAKS BLVD UC

Br No. 53-2130, Rte 118, PM R13.18
 1" = 20'



BORDEN AVE UC
 CLEAN EXPANSION JOINT 248 LF
 JOINT SEAL (MR 1 1/2") 248 LF

BRIDGE NO. 53-2119



BORDEN AVENUE UC

Br No. 53-2119, Rte 118, PM R13.44
 1" = 20'



NOTE:
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DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert
				CHECKED Edward Li
				PLANS AND SPECS COMPARED Steven Seifert

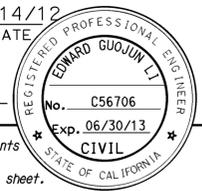
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Varies

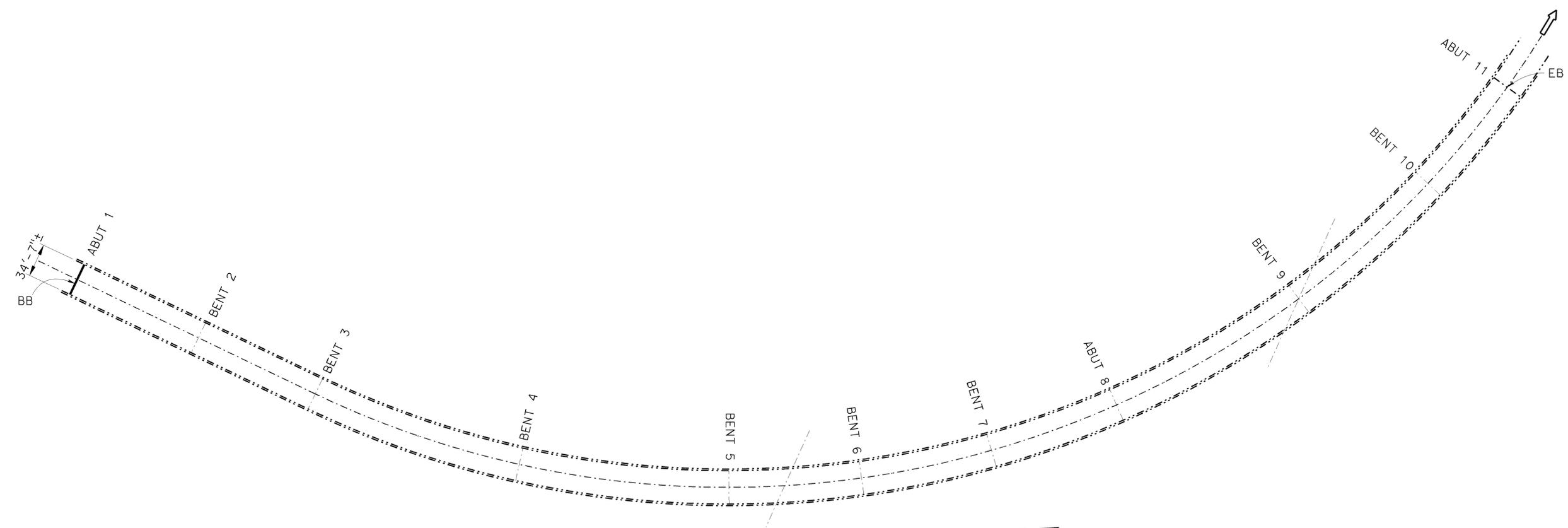
ROUTE 110, 118, 134, 210, 710 BRIDGES
GENERAL PLAN NO. 7

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	33	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

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- Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.



E118-W210 CONNECTOR OC
 Br No. 53-2102G, Rte 118, PM R13.94
 1" = 60'

E118-W210 CONNECTOR OC	BRIDGE NO. 53-2102G
CLEAN EXPANSION JOINT	QUANTITIES 35 LF
JOINT SEAL (MR 1")	35 LF

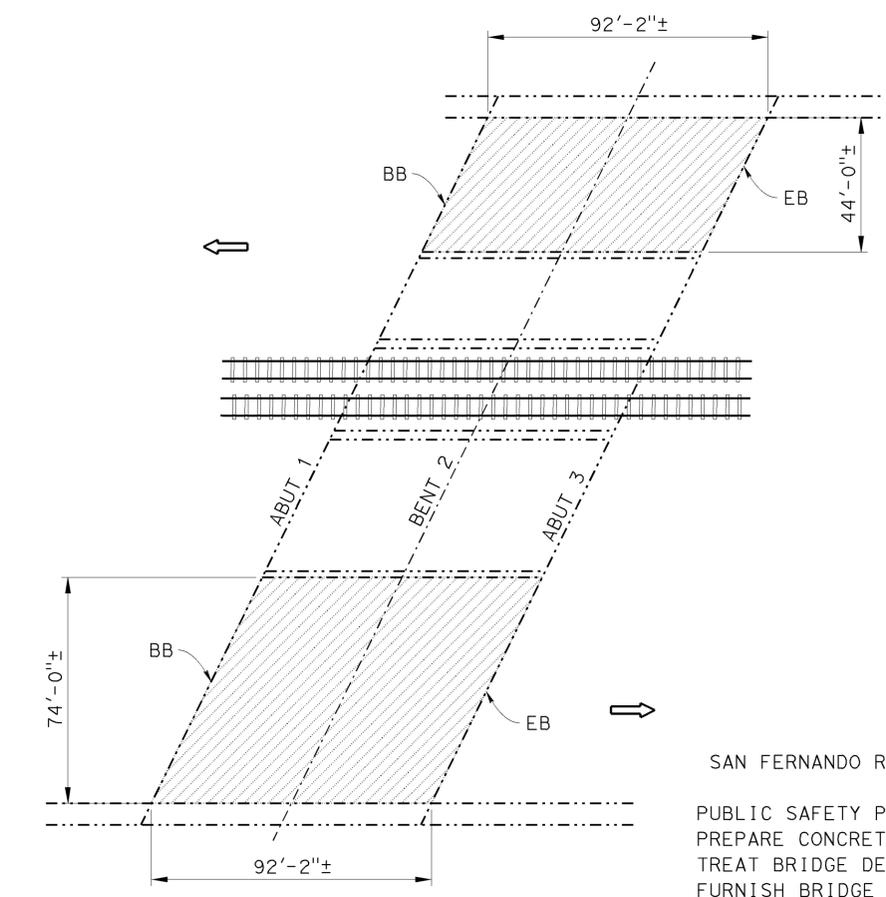
NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES GENERAL PLAN NO. 8			
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang		CHECKED Edward Li	STRUCTURE MAINTENANCE DESIGN		Various		
	QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert	CHECKED Steven Seifert		Varies				
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3489 PROJECT NUMBER & PHASE: 0700021256	CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 08 OF 20

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	34	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
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LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.
- ▨ Indicates limits of remove AC roadway and construct new structure approach slabs with paving notch extension.
- ⊖ Indicates location of placement of new joint seal.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.

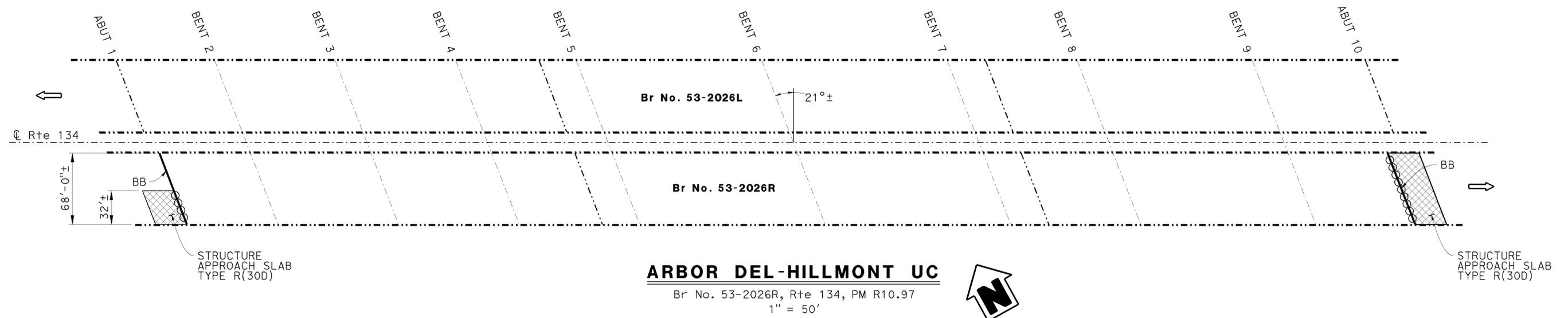
SAN FERNANDO RD OC BRIDGE NO. 53-1106

QUANTITIES	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	10,876 SQFT
TREAT BRIDGE DECK	10,876 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	136 GAL

SAN FERNANDO ROAD OC
 Br No. 53-1106, Rte 134, PM L5.06
 1" = 30'

ARBOR DEL-HILLMONT UC BRIDGE NO. 53-2026R

QUANTITIES	
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	134 CY
PAVING NOTCH EXTENSION	81 CF
CLEAN EXPANSION JOINT	40 LF
JOINT SEAL (MR 1 1/2")	146 LF



ARBOR DEL-HILLMONT UC
 Br No. 53-2026R, Rte 134, PM R10.97
 1" = 50'

NOTE:
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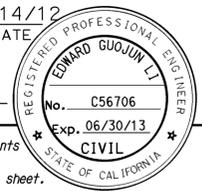
DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	BY Tom Dang	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang	CHECKED Edward Li
QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert	PLANS AND SPECS COMPARED Steven Seifert

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Various

ROUTE 110,118,134,210,710 BRIDGES
GENERAL PLAN NO. 9

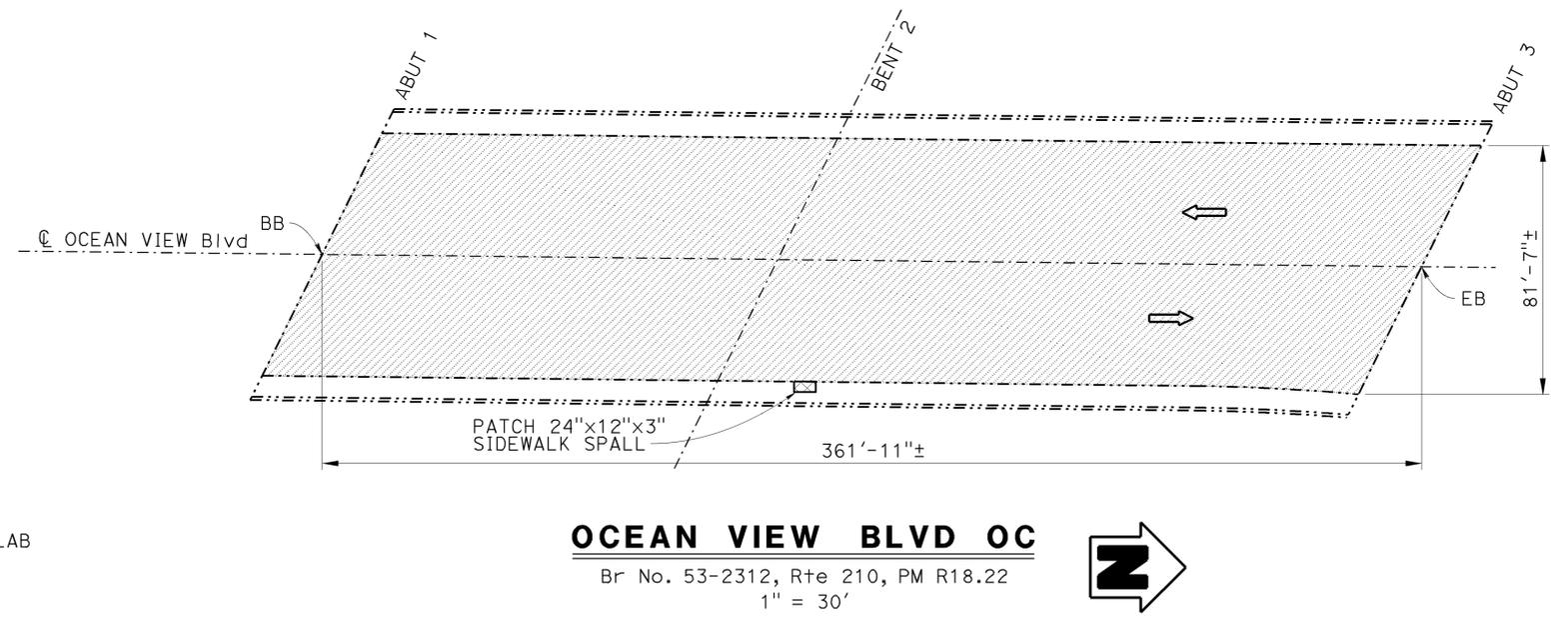
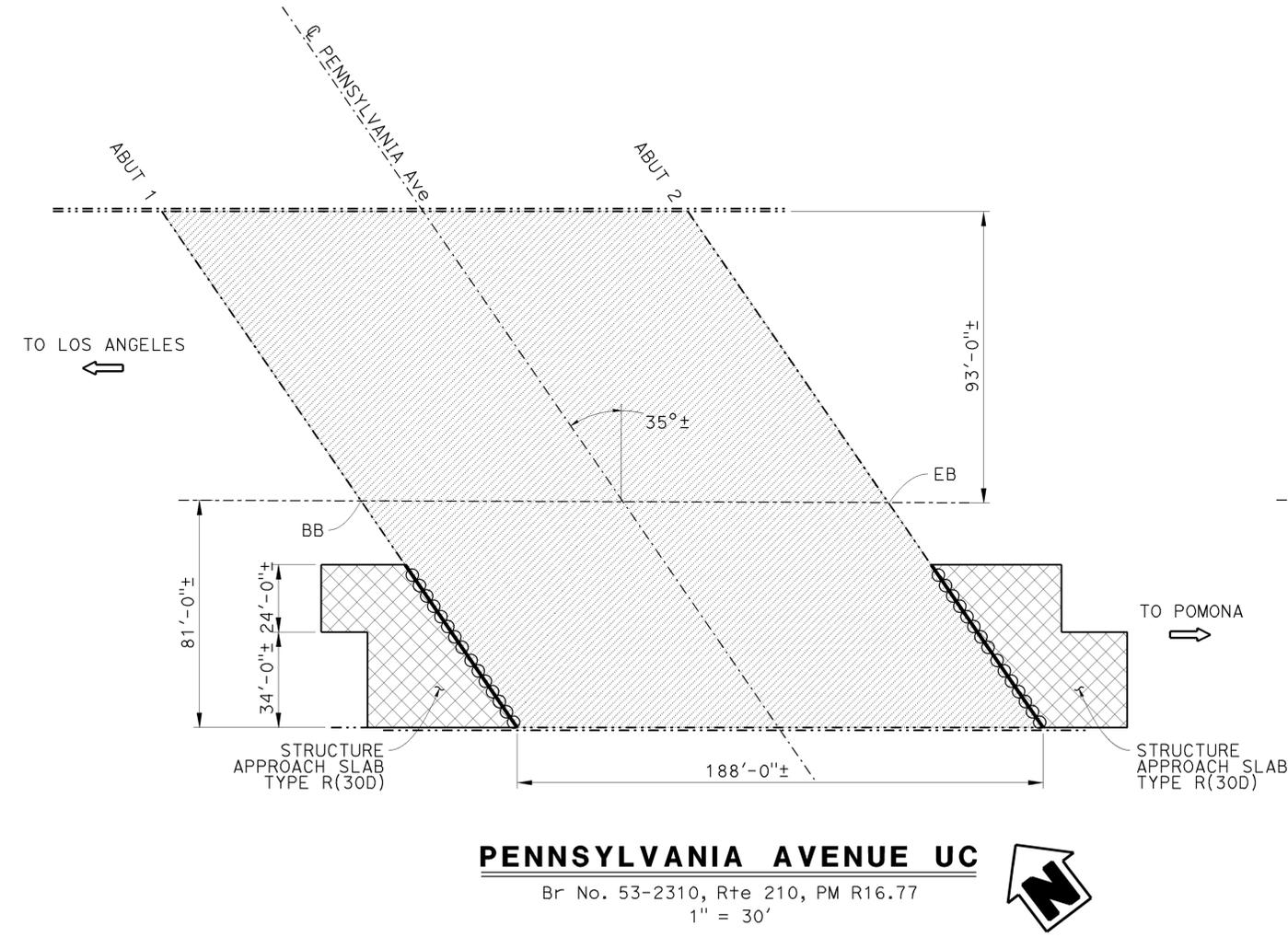
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	35	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
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LEGEND:

- Indicates existing.
- Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.
-  Indicates location of placement of new joint seal.
-  Indicates limits of remove AC roadway and construct new structure approach slabs with paving notch extension.

PENNSYLVANIA AVE UC BRIDGE NO. 53-2310

QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	
PREPARE CONCRETE BRIDGE DECK SURFACE	32,712 SQFT
TREAT BRIDGE DECK	32,712 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	409 GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	209 CY
PAVING NOTCH EXTENSION	108 CF
JOINT SEAL (MR 1")	142 LF



OCEAN VIEW BLVD OC BRIDGE NO. 53-2312

QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	
RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	29,525 SQFT
TREAT BRIDGE DECK	29,525 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	369 GAL

NOTE:
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TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	BY Tom Dang	CHECKED Edward Li
	DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang	CHECKED Edward Li
	QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert	CHECKED Steven Seifert

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

ROUTE 110, 118, 134, 210, 710 BRIDGES
GENERAL PLAN NO. 10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	36	45

Edward Li 12/14/12
REGISTERED CIVIL ENGINEER DATE

3-4-13
PLANS APPROVAL DATE

No. C56706
Exp. 06/30/13
CIVIL

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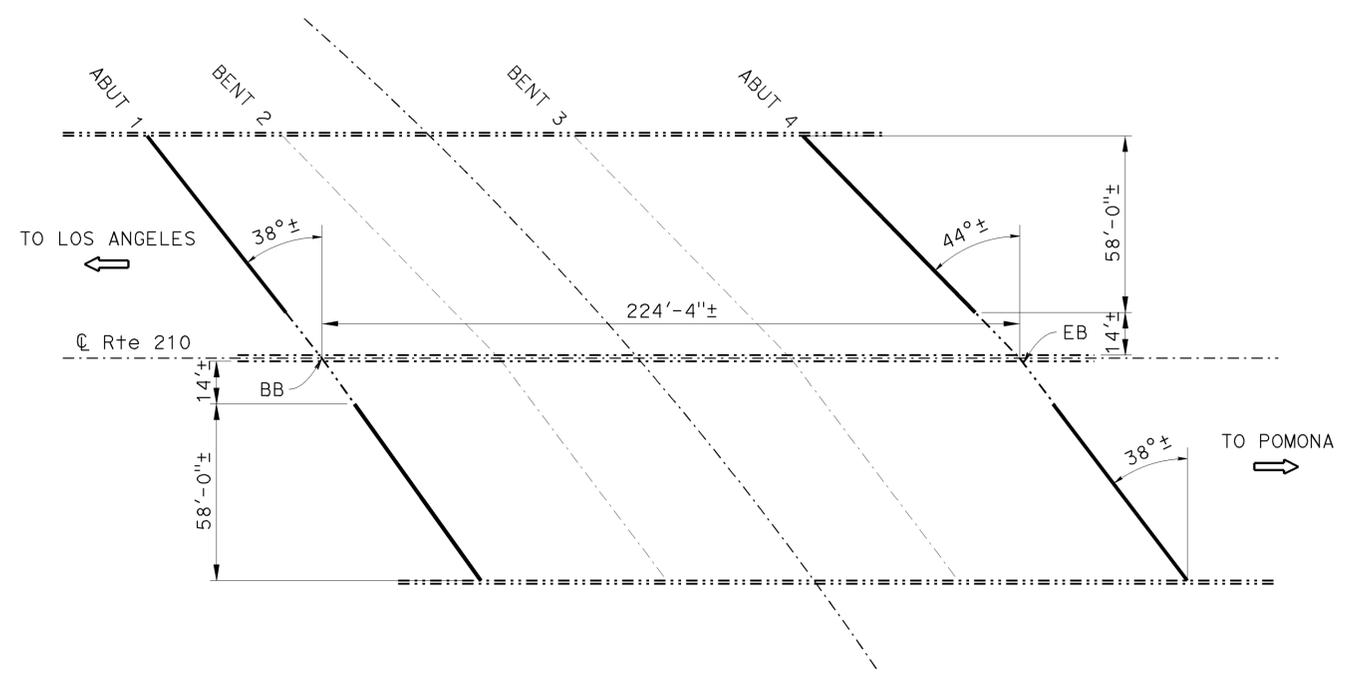
WALTONIA DR UC BRIDGE NO. 53-2219

QUANTITIES

CLEAN EXPANSION JOINT 310 LF

JOINT SEAL (MR 1 1/2") 310 LF

- LEGEND:**
- Indicates existing.
 - Indicates direction of traffic.
 - ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.
 - /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.



WALTONIA DRIVE UC

Br No. 53-2219, Rte 210, PM R18.53

1" = 30'

E210-W2 CONNECTOR BRIDGE NO. 53-2219G

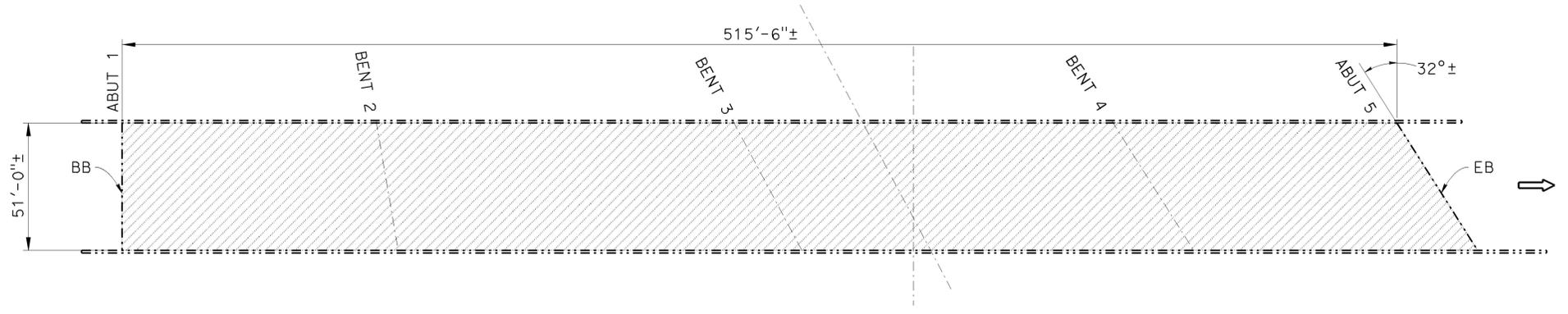
QUANTITIES

PUBLIC SAFETY PLAN LUMP SUM

PREPARE CONCRETE BRIDGE DECK SURFACE 27,104 SQFT

TREAT BRIDGE DECK 27,104 SQFT

FURNISH BRIDGE DECK TREATMENT MATERIAL 339 GAL



E210-W2 CONNECTOR

Br No. 53-2219G, Rte 210, PM R18.53

1" = 30'

NOTE:
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DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various

POST MILE Varies

ROUTE 110, 118, 134, 210, 710 BRIDGES

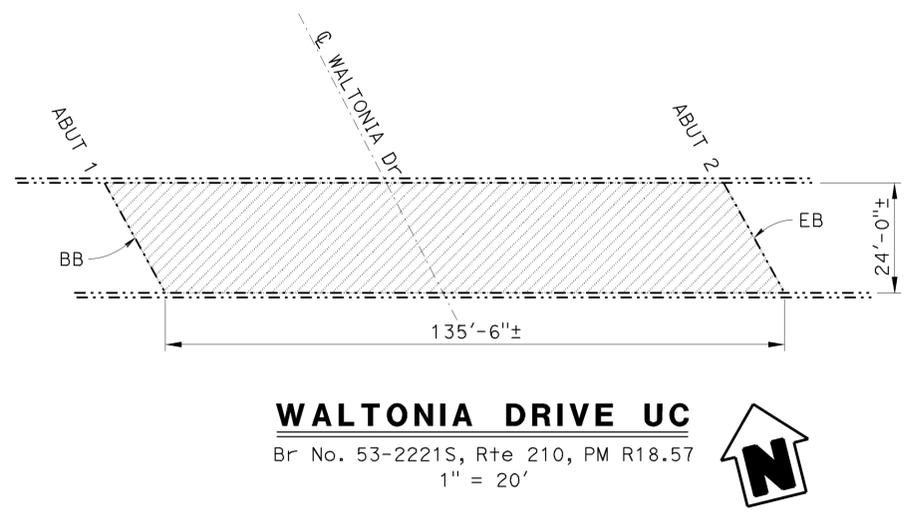
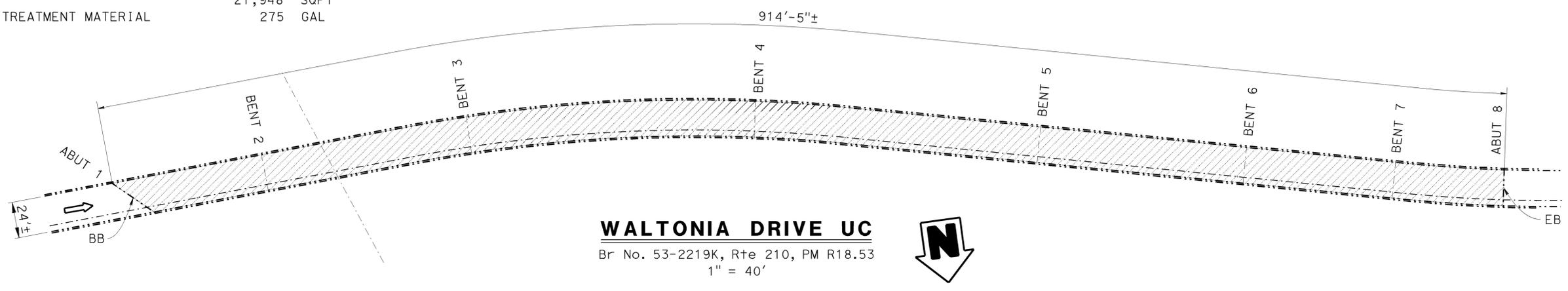
GENERAL PLAN NO. 11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	37	45
Edward Li			12/14/12	REGISTERED CIVIL ENGINEER DATE	
3-4-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER EDWARD GUOJUN LI No. C56706 Exp. 06/30/13 CIVIL STATE OF CALIFORNIA					
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LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.

WALTONIA DRIVE UC	BRIDGE NO. 53-2219K
PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	21,948 SQFT
TREAT BRIDGE DECK	21,948 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	275 GAL



WALTONIA DR UC	BRIDGE NO. 53-2221S
PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	3,252 SQFT
TREAT BRIDGE DECK	3,252 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	41 GAL

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN ENGINEER TONY D. BRAKE	DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

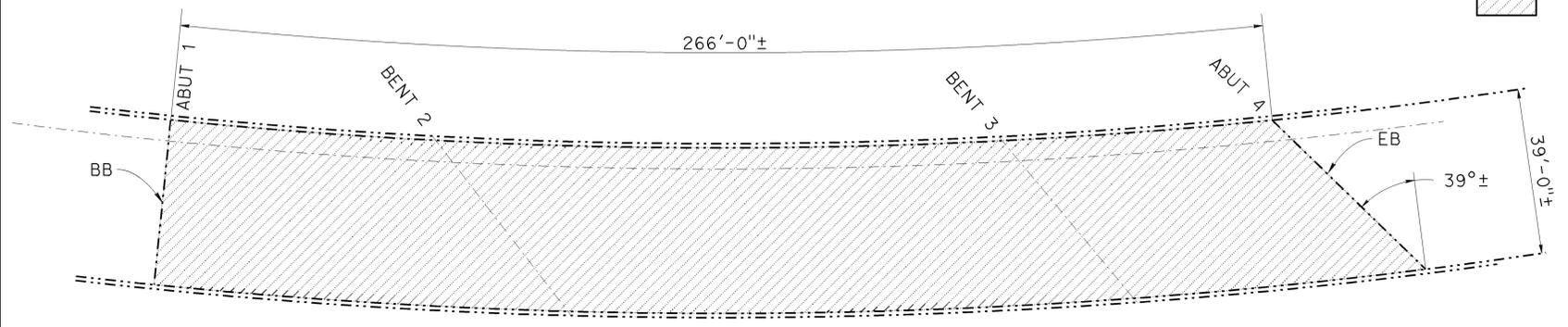
ROUTE 110, 118, 134, 210, 710 BRIDGES
GENERAL PLAN NO. 12

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	38	45
Edward Li			12/14/12	REGISTERED CIVIL ENGINEER DATE	
3-4-13			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

- Indicates existing.
- Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.
- ▨ Indicates limits of remove AC roadway and construct new structure approach slabs with paving notch extension.
- ⊖ Indicates location of placement of new joint seal.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.



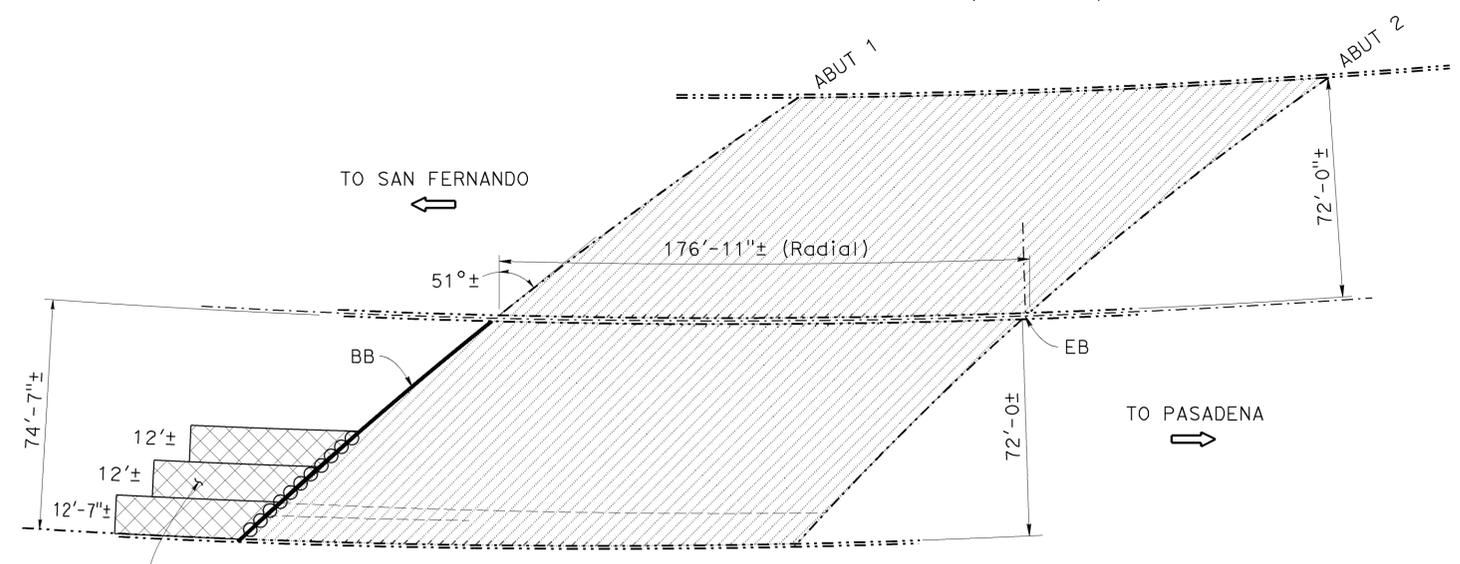
W210-W2 CONNECTOR OC

Br No. 53-2220F, Rte 210, PM R18.77
1" = 20'



W210-W2 CONN UC	QUANTITIES	BRIDGE NO. 53-2220F	LUMP SUM
PUBLIC SAFETY PLAN			
PREPARE CONCRETE BRIDGE DECK SURFACE			10,990 SQFT
TREAT BRIDGE DECK			10,990 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL			138 GAL

W210-W2 CONN UC	QUANTITIES	BRIDGE NO. 53-2199	LUMP SUM
PUBLIC SAFETY PLAN			
PREPARE CONCRETE BRIDGE DECK SURFACE			25,706 SQFT
TREAT BRIDGE DECK			25,706 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL			321 GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)			61 CY
PAVING NOTCH EXTENSION			54 CF
CLEAN EXPANSION JOINT			61 LF
JOINT SEAL (MR 1 1/2")			119 LF



W210-W2 CONNECTOR UC

Br No. 53-2199, Rte 210, PM R18.91
1" = 30'



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert
				CHECKED Edward Li
				PLANS AND SPECS COMPARED Steven Seifert

STATE OF CALIFORNIA	DIVISION OF MAINTENANCE	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES
DEPARTMENT OF TRANSPORTATION	STRUCTURE MAINTENANCE DESIGN	Various	
		POST MILE	
		Varies	GENERAL PLAN NO. 13

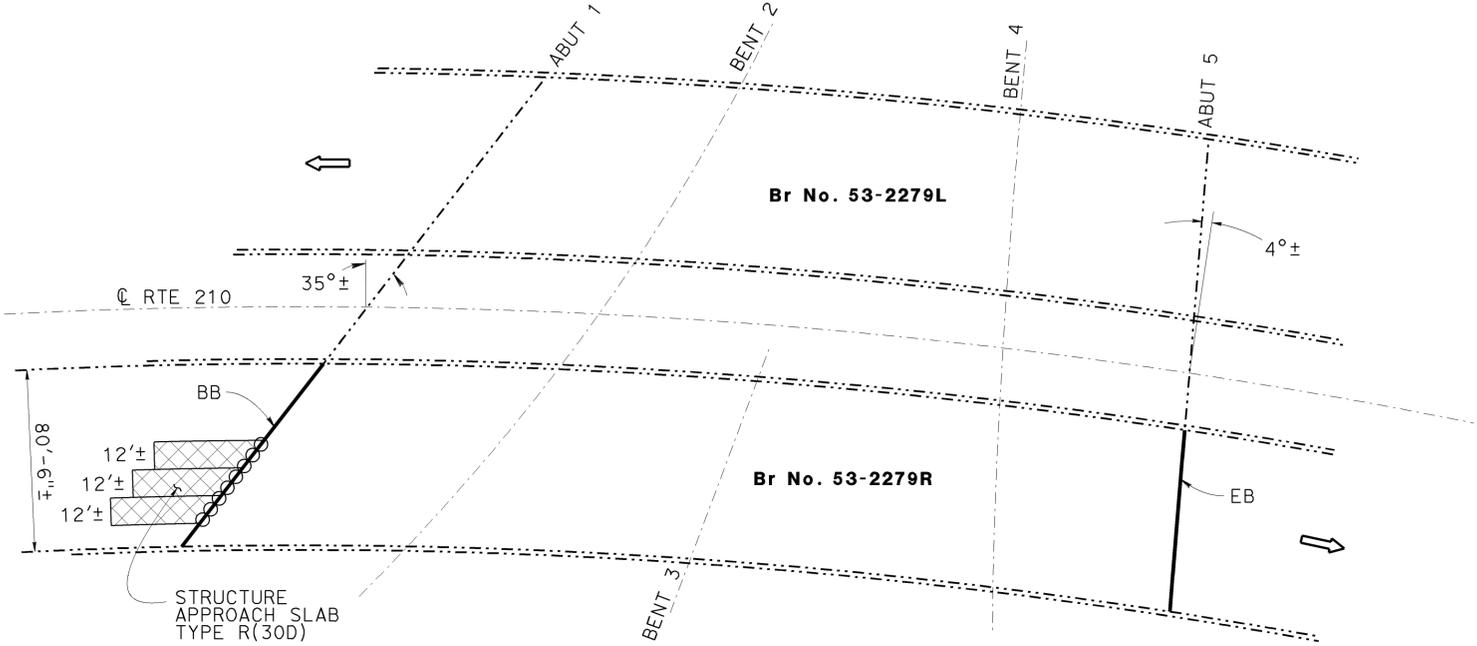
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	39	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
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SIERRA MADRE BLVD UC BRIDGE NO. 53-2279R

QUANTITIES	
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	55 CY
PAVING NOTCH EXTENSION	54 CF
CLEAN EXPANSION JOINT	136 LF
JOINT SEAL (MR 1 1/2")	180 LF



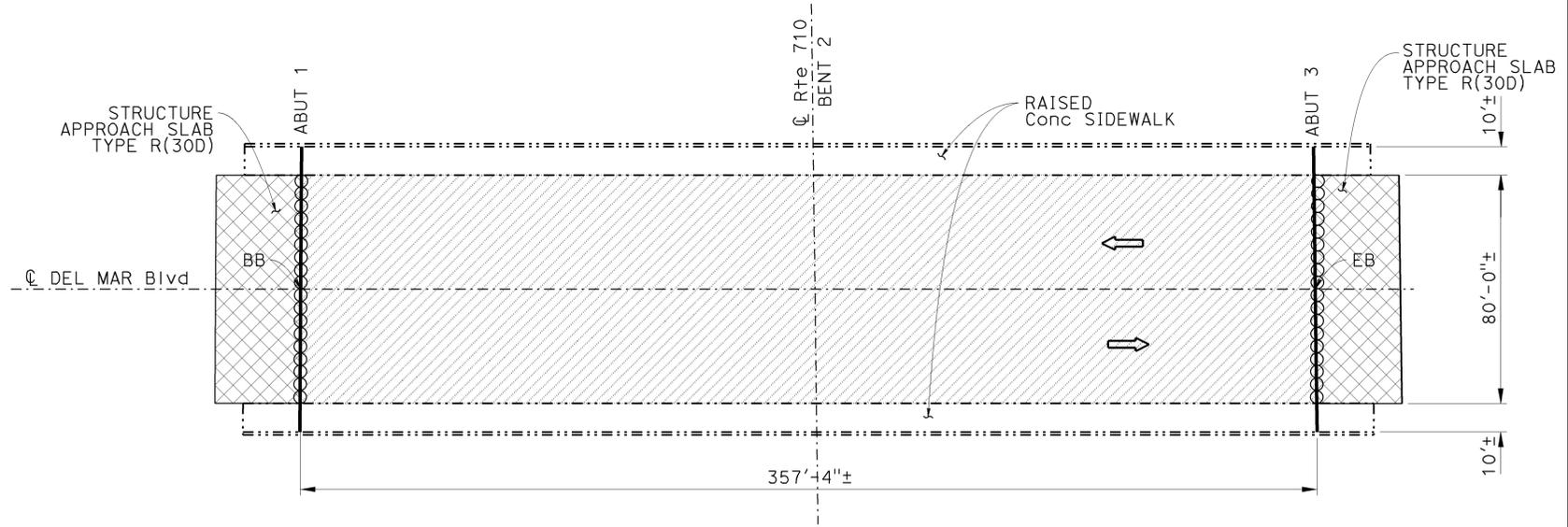
- LEGEND:**
- Indicates existing.
 - ➔ Indicates direction of traffic.
 - /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.
 - ▨ Indicates limits of remove AC roadway and construct new structure approach slabs with paving notch extension.
 - ⊖ Indicates location of placement of new joint seal.
 - ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.

SIERRA MADRE BLVD UC
 Br No. 53-2279R, Rte 210, PM R28.46
 NO SCALE



DEL MAR BLVD OC BRIDGE NO. 53-53-2262

QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN	28,580 SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	28,580 SQFT
TREAT BRIDGE DECK	358 GAL
FURNISH BRIDGE DECK TREATMENT MATERIAL	214 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	
PAVING NOTCH EXTENSION	135 CF
CLEAN EXPANSION JOINT	40 LF
JOINT SEAL (MR 1 1/2")	200 LF



DEL MAR BLVD OC
 Br No. 53-2262, Rte 710, PM T32.11
 1" = 30'



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DESIGN	BY Edward Li	CHECKED Edward Nahm	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 Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

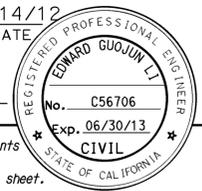
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Varies

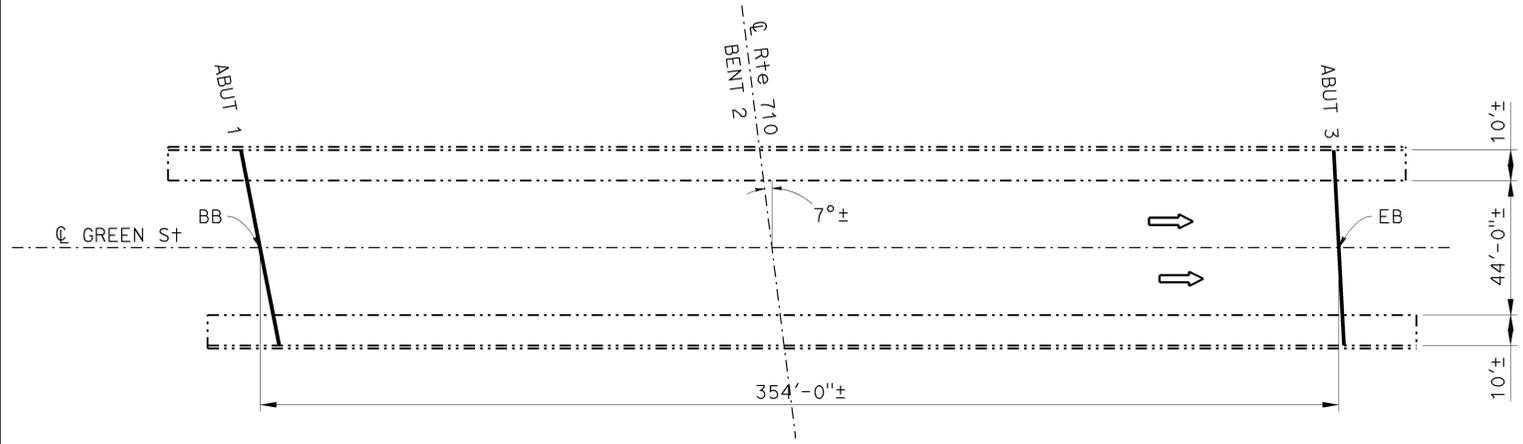
ROUTE 110,118,134,210,710 BRIDGES
GENERAL PLAN NO. 14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	40	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			DATE	12/14/12	
PLANS APPROVAL DATE			3-4-13		
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 direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and place high molecular weight methacrylate.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.

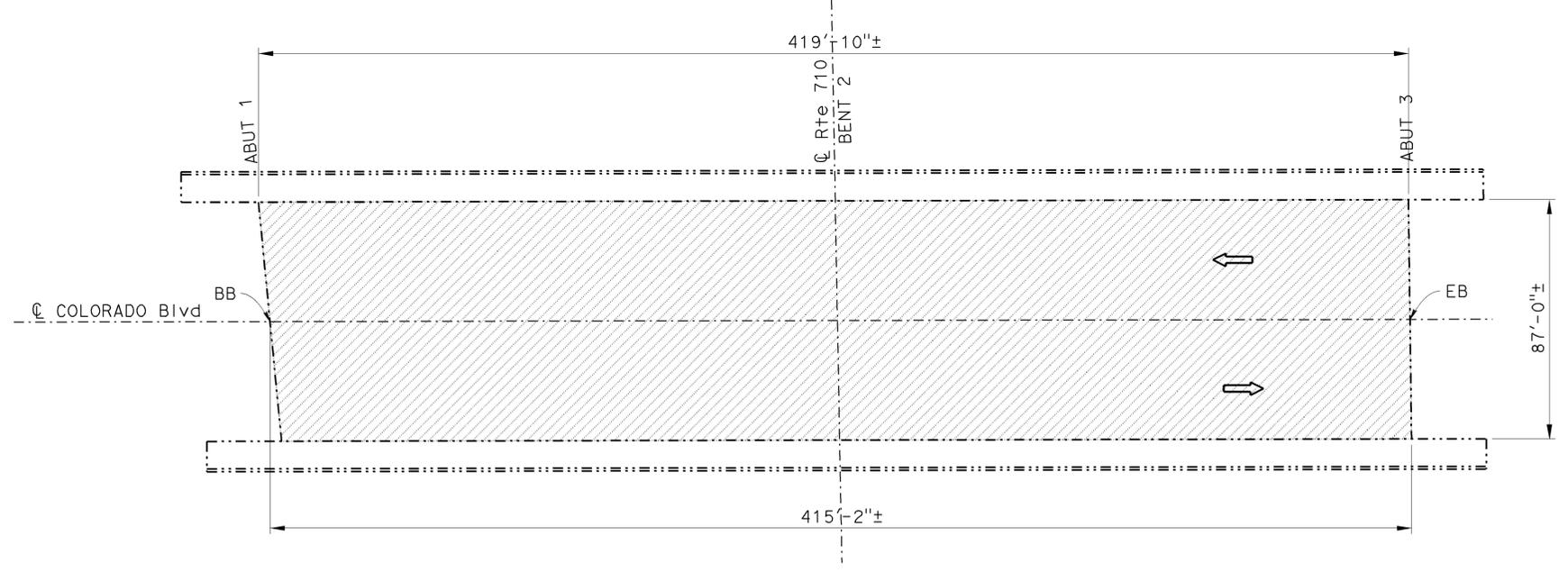


GREEN STREET OC
 Br No. 53-2263, Rte 710, PM R32.37
 1" = 30'



GREEN ST OC	BRIDGE NO. 53-2263
QUANTITIES	
CLEAN EXPANSION JOINT	130 LF
JOINT SEAL (MR 1 1/2")	130 LF

COLORADO BLVD OC	BRIDGE NO. 53-2264
QUANTITIES	
PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	36,120 SQFT
TREAT BRIDGE DECK	36,120 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	452 GAL



COLORADO BLVD OC
 Br No. 53-2264, Rte 710, PM R32.45
 1" = 30'



NOTE:
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DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

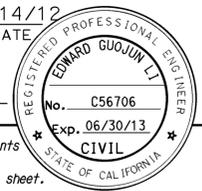
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Various

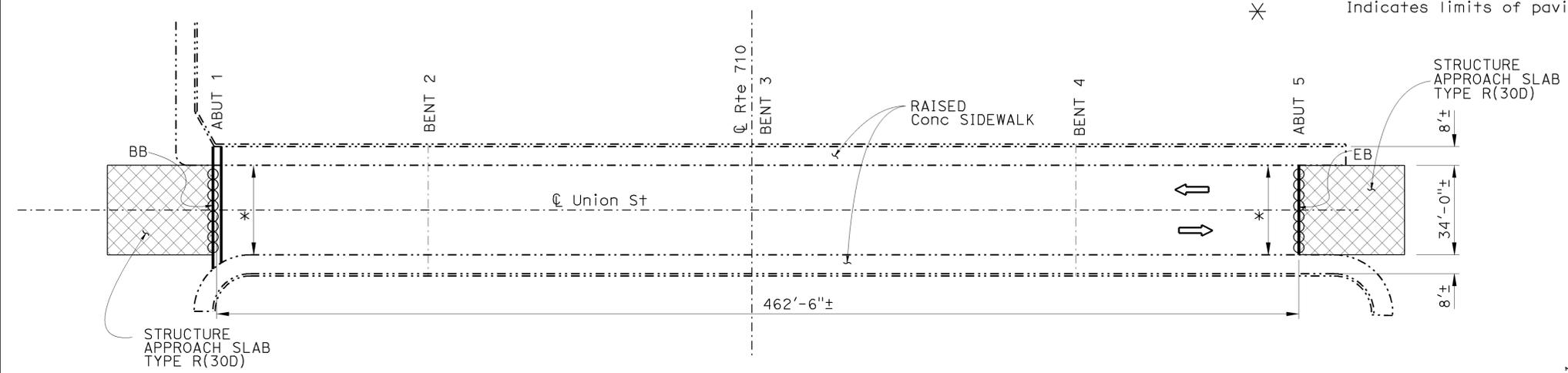
ROUTE 110, 118, 134, 210, 710 BRIDGES
 GENERAL PLAN NO. 15

USERNAME => s129239 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	41	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

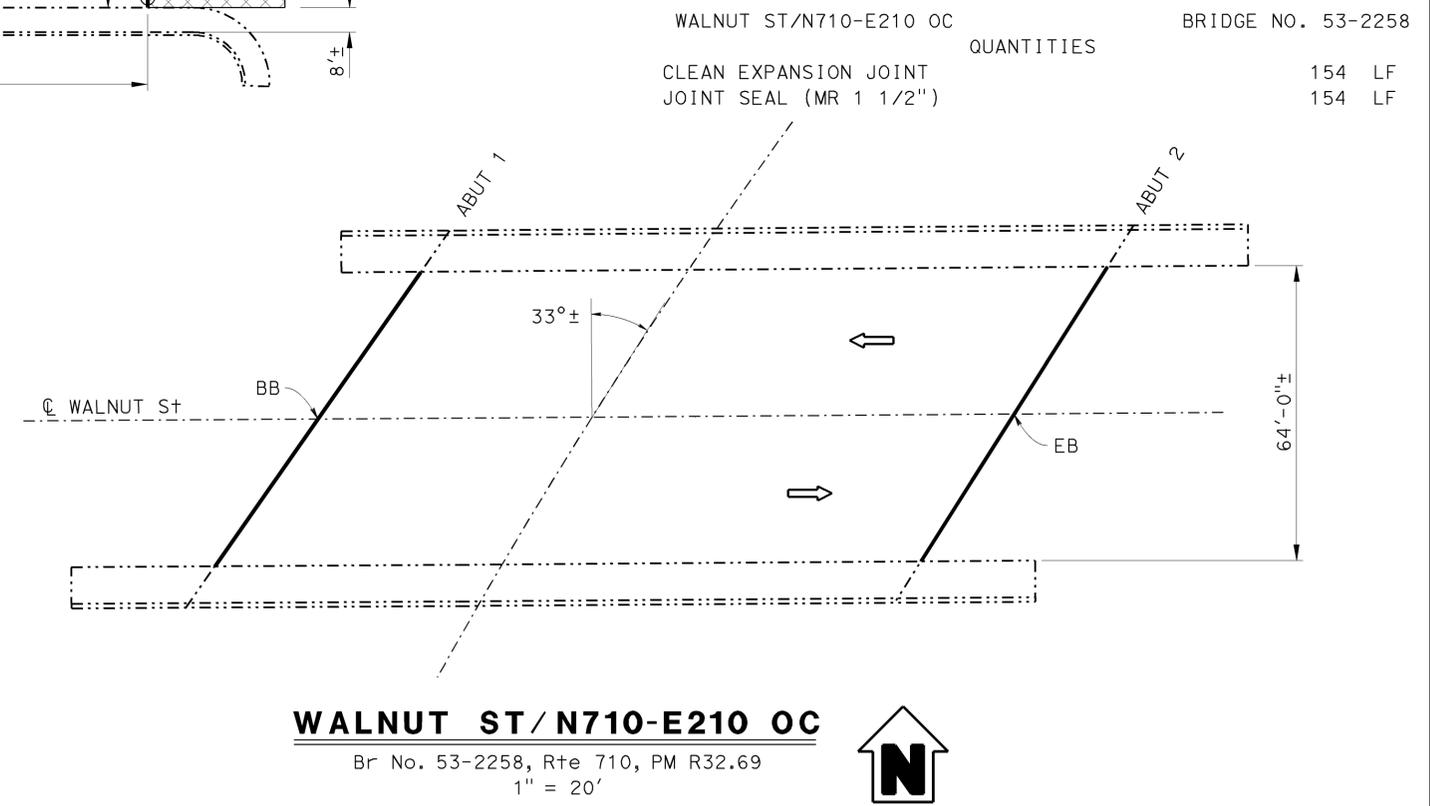
- Indicates existing.
- Indicates direction of traffic.
- /— Indicates location of clean expansion joint and placement of new joint seal. Prior to placement of new joint seal.
- ▨ Indicates limits of remove AC roadway and construct new structure approach slabs. For details see "STRUCTURE APPROACH TYPE R (30D)" sheet.
- ⊗ Indicates location of placement of new joint seal.
- ✱ Indicates limits of paving notch extension.



UNION STREET OC
 Br No. 53-2537, Rte 710, PM R32.51
 1" = 20'



UNION ST OC	QUANTITIES	BRIDGE NO. 53-2537
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	91 CY	
PAVING NOTCH EXTENSION	54 CF	
CLEAN EXPANSION JOINT JOINT SEAL (MR 1/2")	46 LF	
JOINT SEAL (MR 1 1/2")	80 LF	



WALNUT ST/N710-E210 OC
 Br No. 53-2258, Rte 710, PM R32.69
 1" = 20'



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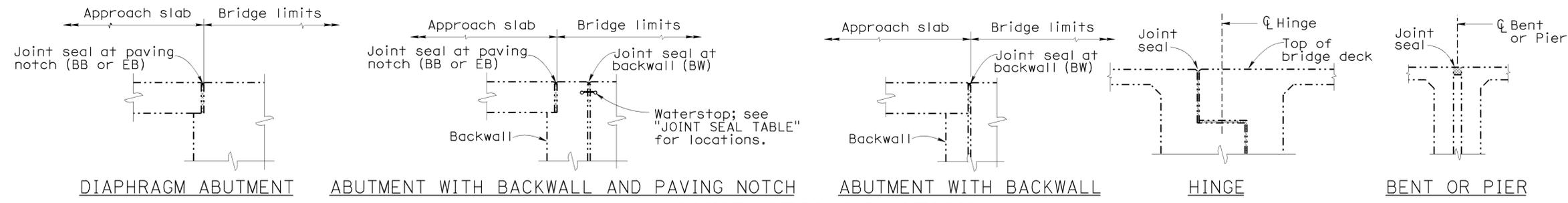
DESIGN	BY Edward Li	CHECKED Edward Nahm	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Edward Nahm	LAYOUT	BY Tom Dang
QUANTITIES	BY Edward Li	CHECKED Edward Nahm	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
 POST MILE Varies
ROUTE 110, 118, 134, 210, 710 BRIDGES
GENERAL PLAN NO. 16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	42	45

Edward Li 12/14/12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/13
 CIVIL
 STATE OF CALIFORNIA
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JOINT SEAL LOCATION

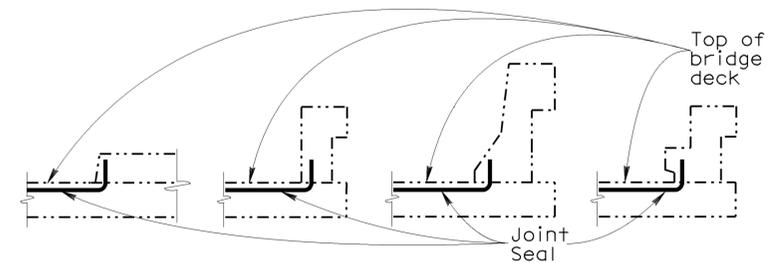
NO SCALE

JOINT SEAL TABLE								
BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCH)	APPROX LENGTH (LF)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCH)	LENGTH TO CLEAN EXP JOINT (INCH)
		ABUT	PN					
BRADLEY AVENUE UC	53-2352	ABUT 1	PN	1/2	96	NO	12	235
		ABUT 2	PN	1/2	139	NO	12	
HERRICK AVENUE UC	53-2356	ABUT 1	PN	1/2	96	NO	12	266
		ABUT 2	PN	1/2	170	NO	12	
GLENOAKS BLVD UC	53-2130	ABUT 1	PN	1/2	136	NO	12	266
		ABUT 2	PN	1/2	130	NO	12	
BORDEN AVENUE UC	53-2119	ABUT 1	PN	1/2	122	NO	12	248
		ABUT 2	PN	1/2	126	NO	12	
E118-W210 CONNECTOR OC	53-2102G	ABUT 1	PN	1	35	NO	12	35
ARBOR DEL-HILLMONT UC	53-2026R	ABUT 1	PN	1/2	73	NO	12	40
		ABUT 10	PN	1/2	73	NO	--	
PENNSYLVANIA AVENUE UC	53-2310	ABUT 1	PN	1	71	--	--	NONE
		ABUT 2	PN	1	71	--	--	
WALTONIA DRIVE UC	53-2219	ABUT 1	PN	1/2	148	NO	12	310
		ABUT 4	PN	1/2	162	NO	12	
W210-W2 CONNECTOR UC	53-2199	ABUT 1	PN	1/2	119	NO	12	61
SIERRA MADRE BLVD UC	53-2279R	ABUT 1	PN	1/2	99	NO	12	136
		ABUT 5	PN	1/2	81	NO	12	
DEL MAR BLVD OC	53-2262	ABUT 1	PN	1/2	100	--	--	40
		ABUT 3	PN	1/2	100	--	--	
GREEN STREET OC	53-2263	ABUT 1	PN	1/2	65	NO	12	130
		ABUT 3	PN	1/2	65	NO	12	
UNION STREET OC	53-2537	ABUT 1	PN	1/2	46	--	--	46
		ABUT 5	PN	1/2	34	--	--	
WALNUT STREET OC	53-2258	ABUT 1	PN	1/2	77	NO	12	154
		ABUT 2	PN	1/2	77	NO	12	

PN = PAVING NOTCH
BW = BACKWALL

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 RSP 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 RSP B6-21 sheet.



BARRIER RAIL

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.

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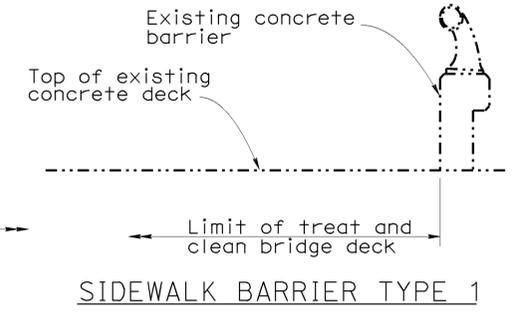
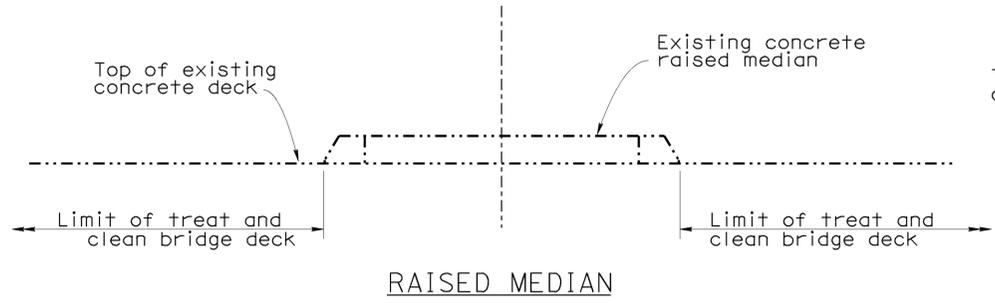
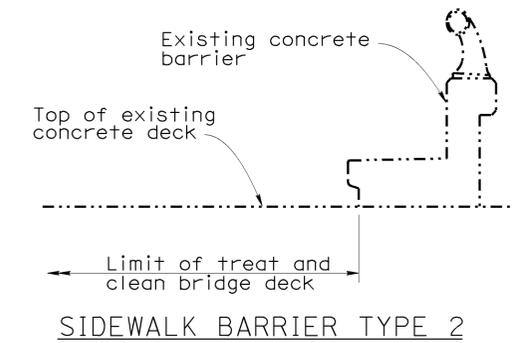
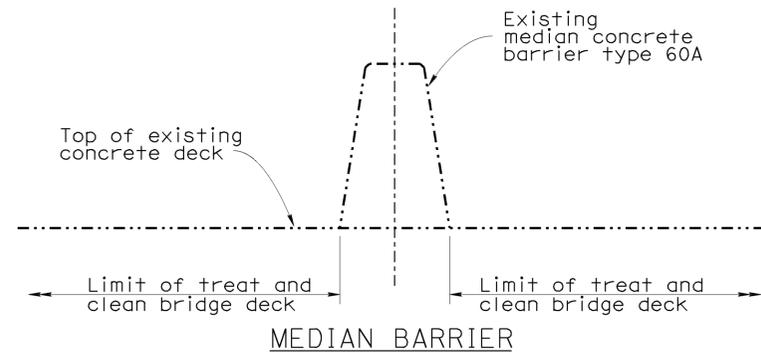
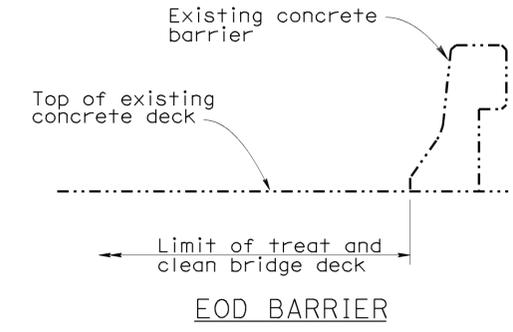
DESIGN	BY	Edward Li	CHECKED	Edward Nahm	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	Various	ROUTE 110,118,134,210,710 BRIDGES			
	DETAILS	BY	Tom Dang	CHECKED			Edward Nahm			POST MILE	Varies	MISCELLANEOUS DETAILS NO. 1
	QUANTITIES	BY	Edward LI	CHECKED			Edward Nahm			Varies		

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: 0700021256 CONTRACT NO.: 07-1W3401 DISREGARD PRINTS BEARING EARLIER REVISION DATES 11-26-12 SHEET 17 OF 20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	43	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
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NOTES:

- Existing reinforcement shall 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 shall not exceed $\frac{3}{4}$ 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 deck surface with rapid setting concrete patch.



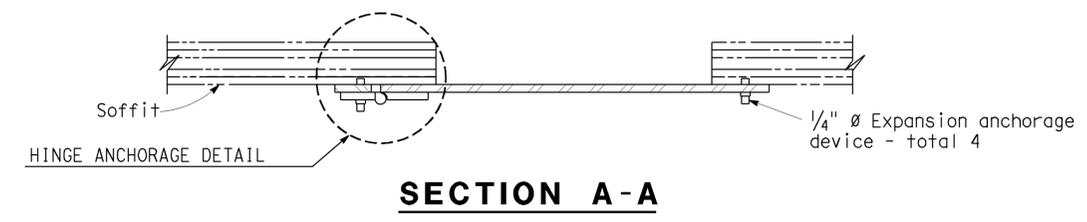
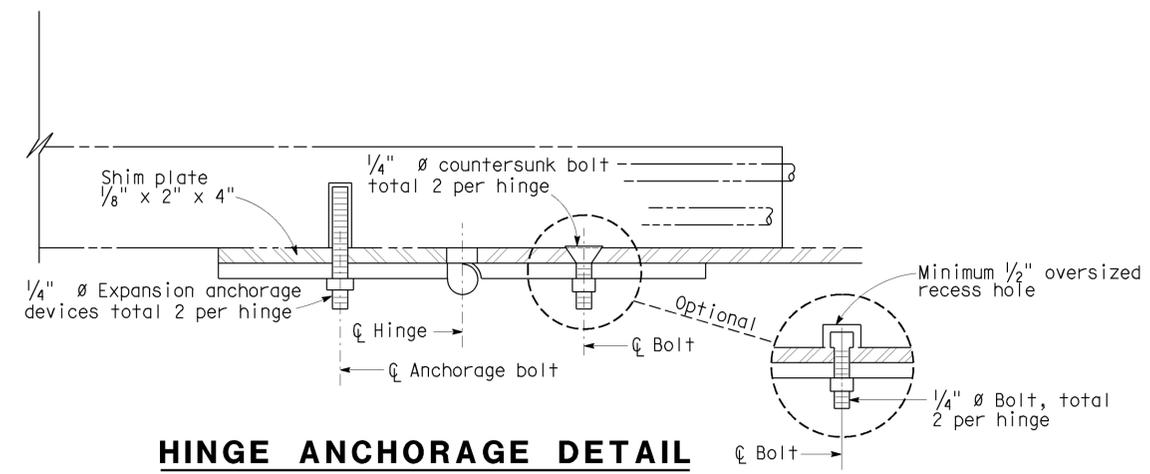
TYPICAL LIMITS OF DECK WORK

NO SCALE

NOTE:
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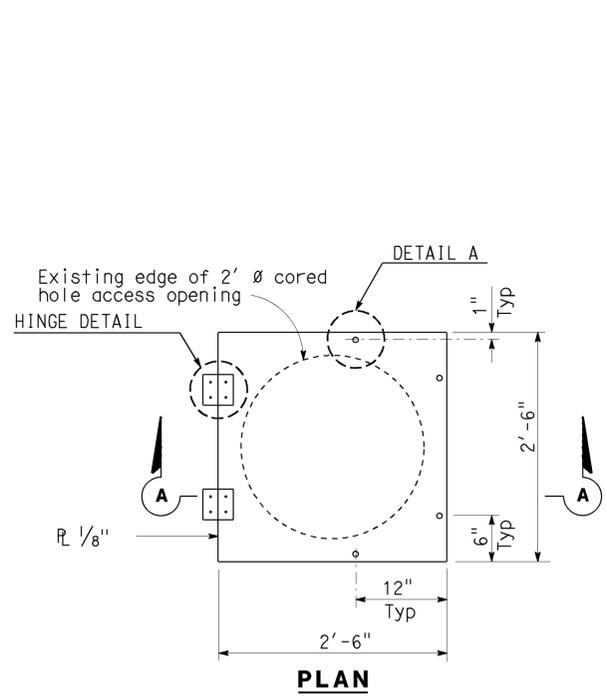
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Edward Li	CHECKED Edward Nahm	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES	
	DETAILS	BY Tom Dang	CHECKED Edward Nahm			VARIOUS		
	QUANTITIES	BY Edward LI	CHECKED Edward Nahm			VARIOUS		
				UNIT: 3489 PROJECT NUMBER & PHASE: 0700021256	CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 18 OF 20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	44	45
<i>Edward Li</i> REGISTERED CIVIL ENGINEER			12/14/12 DATE		
3-4-13 PLANS APPROVAL DATE					
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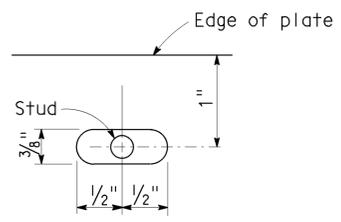
HINGE ANCHORAGE DETAIL

SECTION A-A

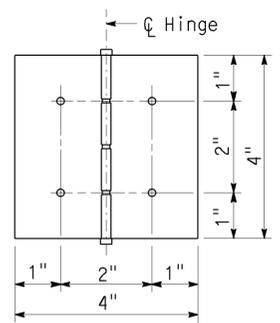


SOFFIT ACCESS DOOR ASSEMBLY

Note: Soffit access door opening direction to be determined by the Engineer



DETAIL A



HINGE DETAIL

NOTES:

1. Non-removable pin in hinge.
2. Hinge assembly to be galvanized, brass or stainless steel.
3. Use thread locking system for all hinge nuts.
4. Hinge assembly to be minimum 1/8" thick.

NOTE:
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STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Edward Li	CHECKED Edward Nahm	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 110,118,134,210,710 BRIDGES SOFFIT ACCESS OPENINGS	
	DETAILS	BY Tom Dang	CHECKED Edward Nahm			Various		
	QUANTITIES	BY Edward LI	CHECKED Edward Nahm			Varies		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3489 PROJECT NUMBER & PHASE: 0700021256	CONTRACT NO.: 07-1W3401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 19 OF 20

USERNAME => s1292939 DATE PLOTTED => 26-FEB-2013 TIME PLOTTED => 10:20

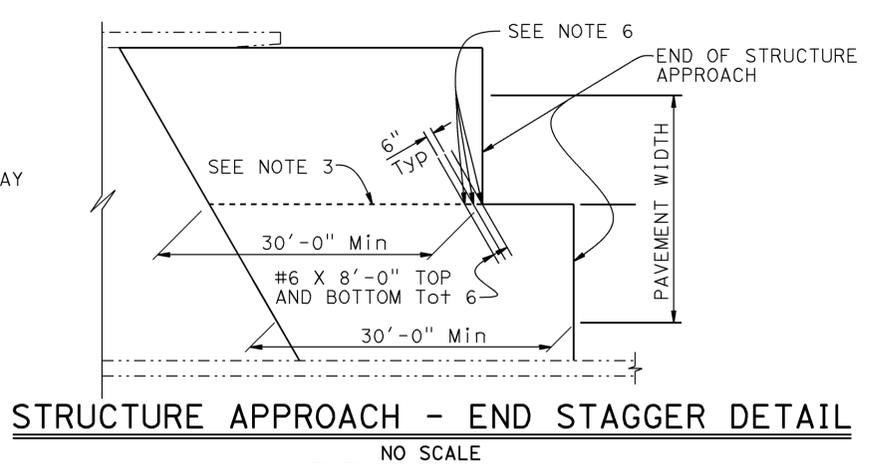
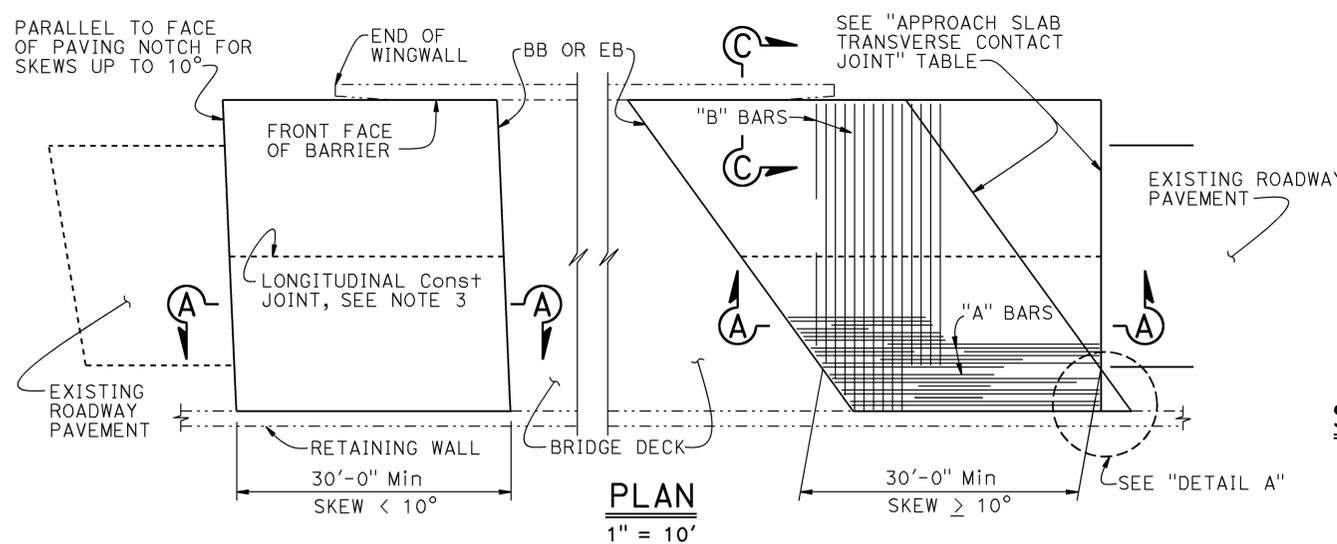
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110,118,134 210,710	Var	45	45

Edward Dr 12/14/12
REGISTERED CIVIL ENGINEER DATE

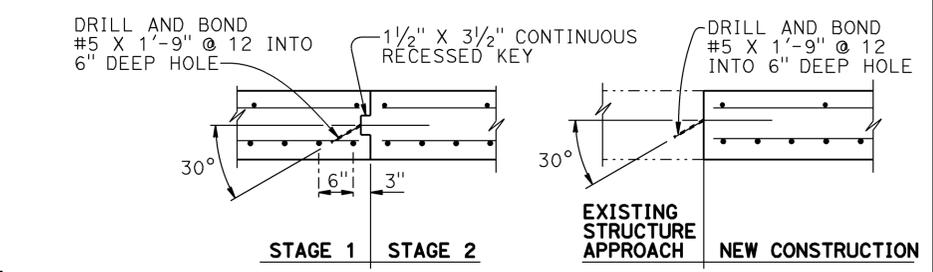
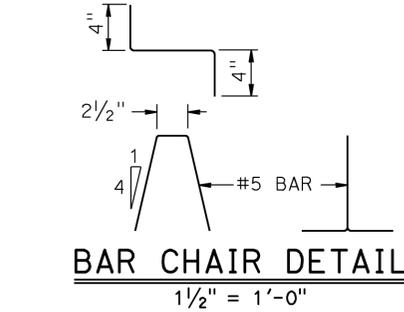
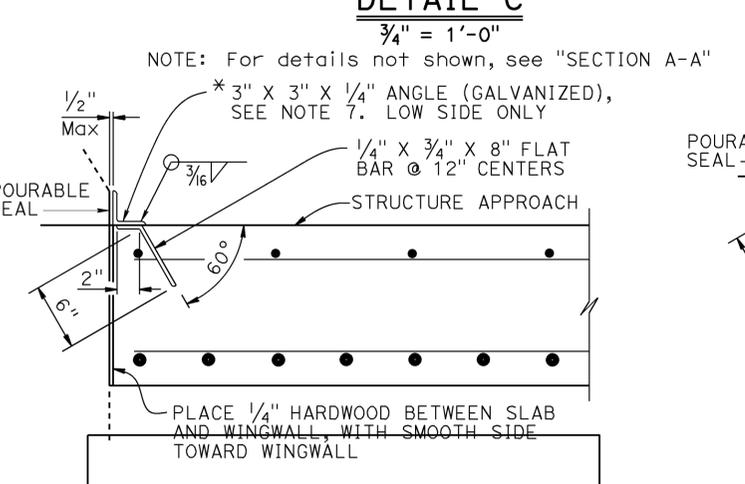
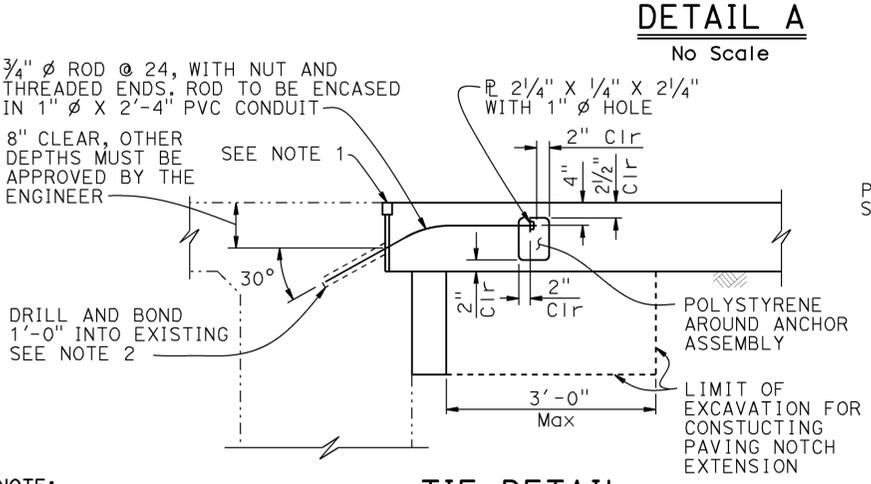
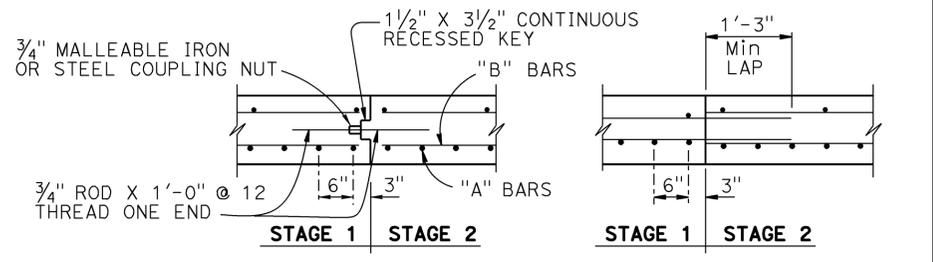
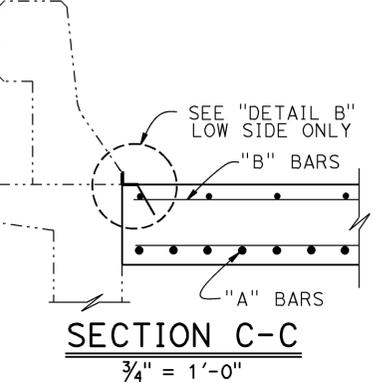
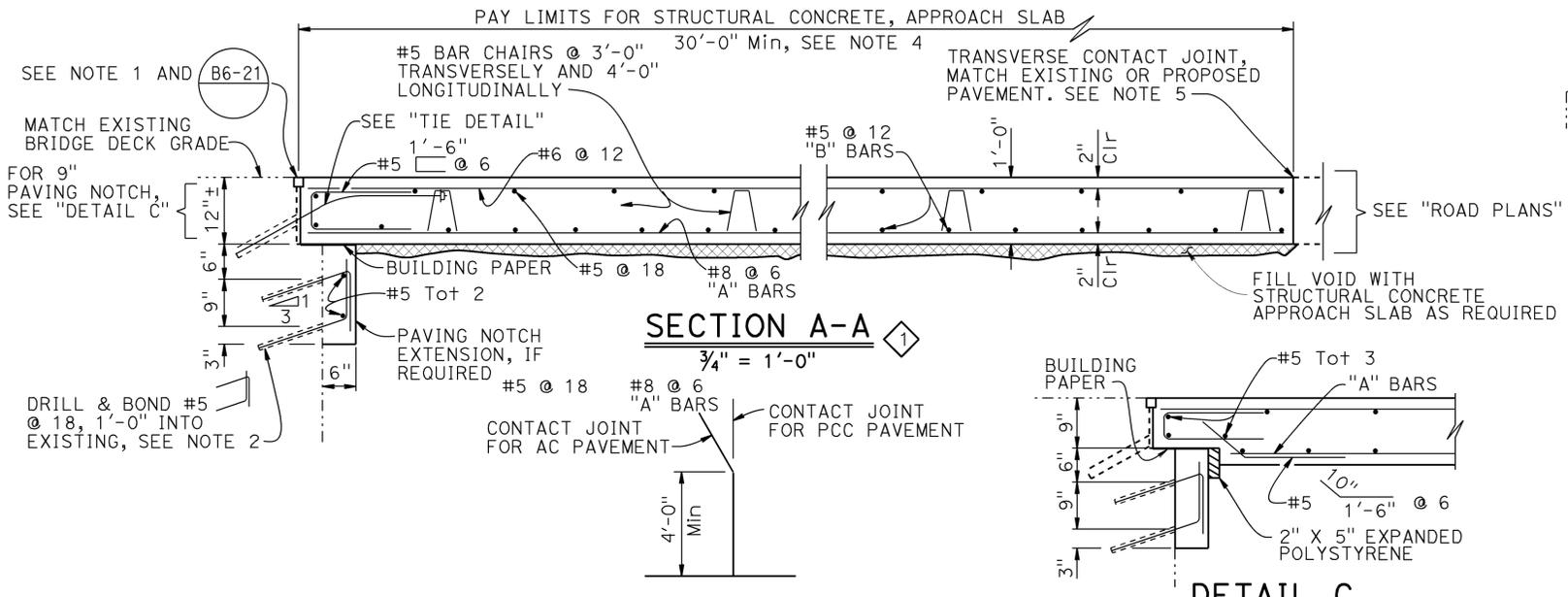
3-4-13
PLANS APPROVAL DATE

No. C56706
Exp. 06/30/13
CIVIL

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



- NOTES:
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required
 - Space to avoid existing prestress anchorages and main reinforcement
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint
 - For transverse contact joint with new PCC paving, refer to Standard Plan P10
 - Couplers are required for stage construction
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable

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

REVISED STANDARD DRAWING

FILE NO. **xs3-150**

APPROVAL DATE July 2011

REVISED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. Various

POST MILE Varies

ROUTE 110, 118, 134, 210, 710 BRIDGES

STRUCTURE APPROACH TYPE R(30D)