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

PROJECT MANAGER	SHARAS BANGALORE
DESIGN MANAGER	KEVIN KWAN

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

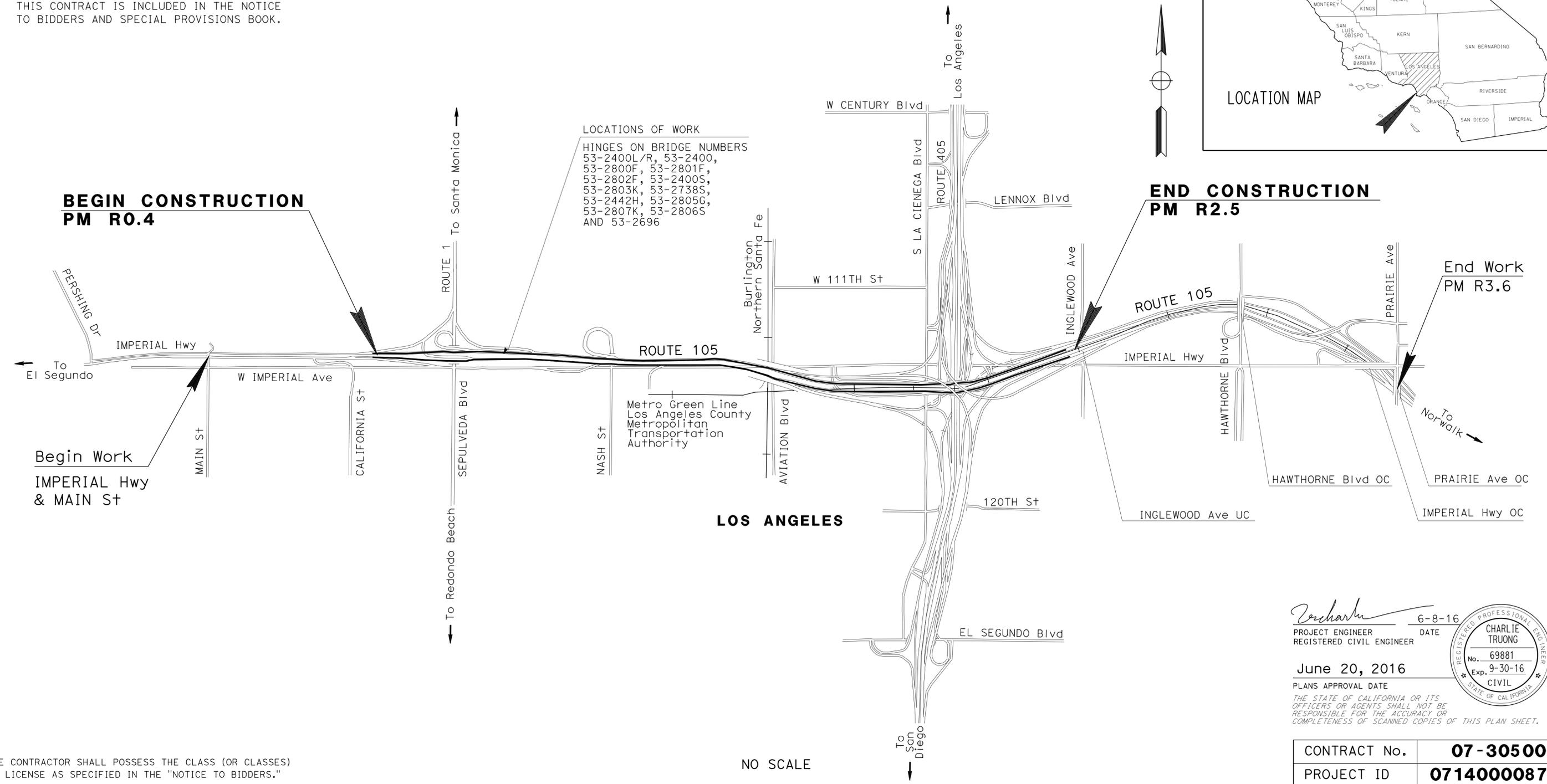
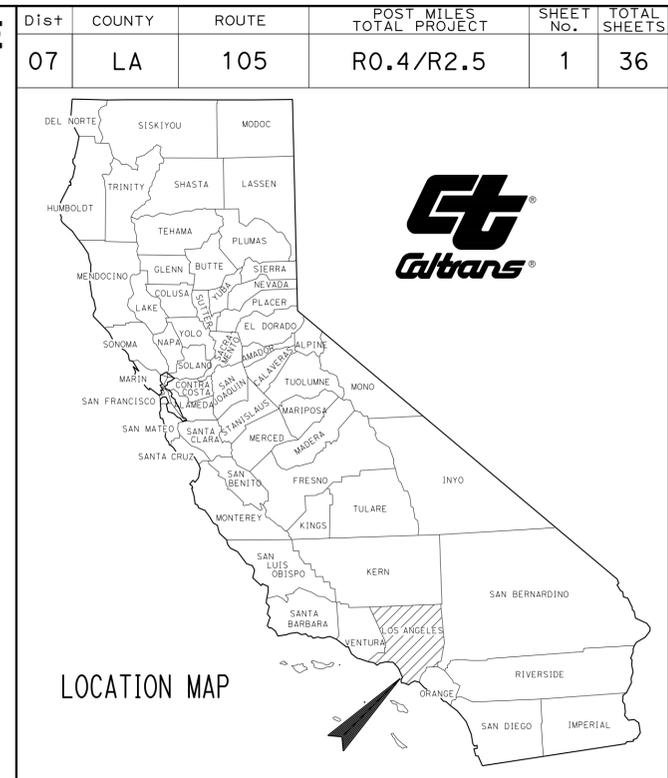
STATE OF CALIFORNIA

ACIM-105-3(005)E

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
**STATE HIGHWAY**  
**IN LOS ANGELES COUNTY**  
**IN LOS ANGELES**  
**FROM 0.1 MILE WEST OF W105-S1 CONNECTOR**  
**OVERCROSSING TO INGLEWOOD AVENUE UNDERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF WORK  
 HINGES ON BRIDGE NUMBERS  
 53-2400L/R, 53-2400,  
 53-2800F, 53-2801F,  
 53-2802F, 53-2400S,  
 53-2803K, 53-2738S,  
 53-2442H, 53-2805G,  
 53-2807K, 53-2806S  
 AND 53-2696

*Charlie Truong*  
 PROJECT ENGINEER  
 REGISTERED CIVIL ENGINEER  
 DATE 6-8-16



June 20, 2016  
 PLANS APPROVAL DATE

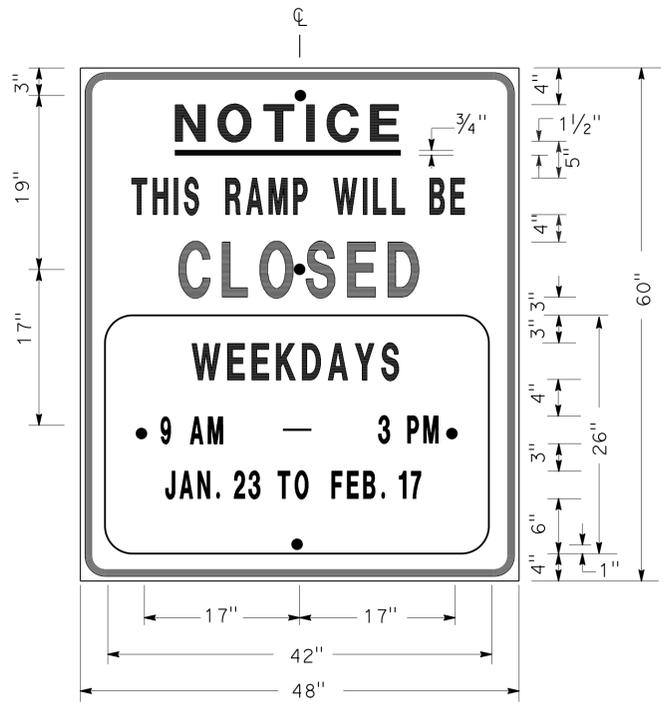
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CONTRACT No.	<b>07-305004</b>
PROJECT ID	<b>0714000087</b>

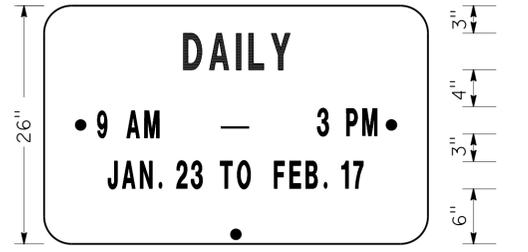
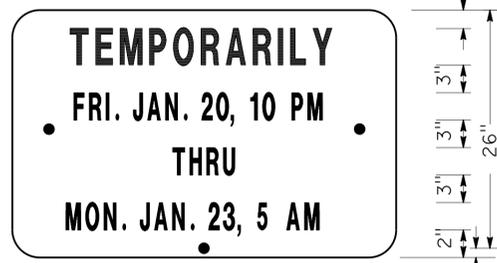
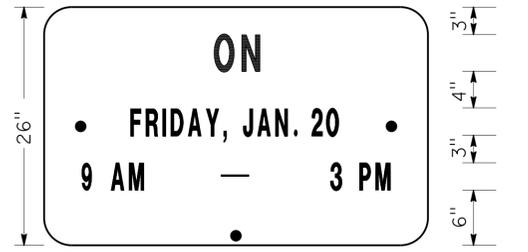


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	3	36

REGISTERED CIVIL ENGINEER: JOCELYN C CHIANG  
 No. 62742  
 Exp 6-30-16  
 CIVIL  
 DATE: 6-6-16  
 PLANS APPROVAL DATE: 6-20-16  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



SIGN SP-1



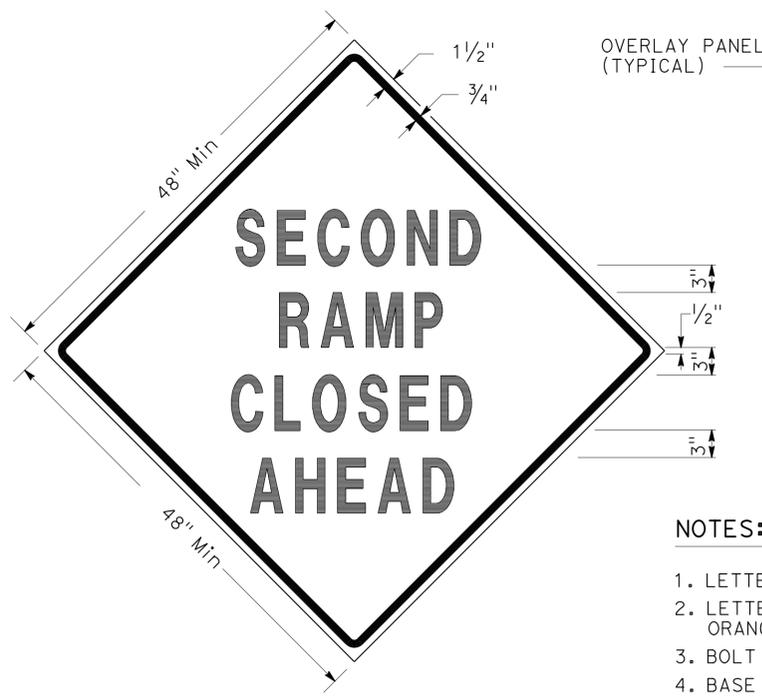
ALTERNATE OVERLAY PANELS (TYPICAL)

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

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

\* CONDENSED SPACING IF NECESSARY

**SPECIAL ADVANCE NOTICE PUBLICITY SIGN**



SIGN SP-3



SIGN SP-5

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

**SPECIAL SIGNS FOR EXIT RAMP CLOSURES**



SIGN SP-4

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

**SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES**

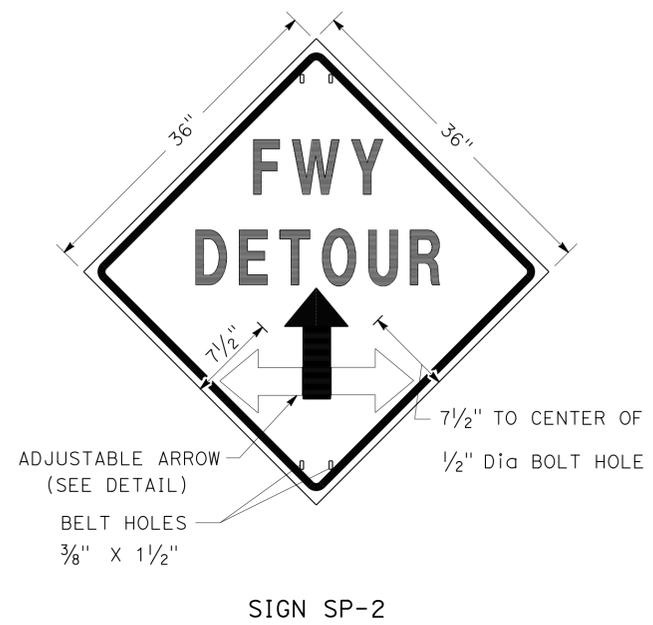
**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURES, DETOUR SIGNS,  
 AND MISCELLANEOUS DETAILS**

SHEET 1 OF 2

NO SCALE

**THD-1**

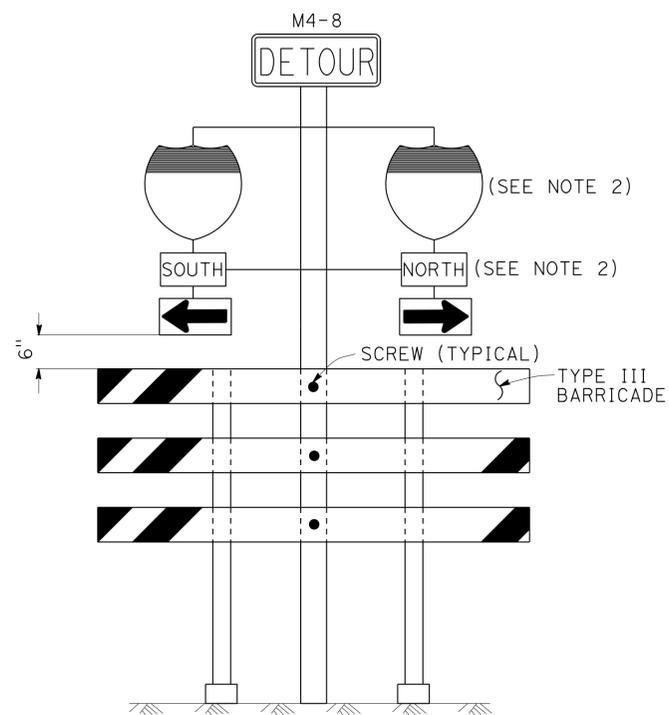
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans®  
 DTM  
 FUNCTIONAL SUPERVISOR: SAM ESQUENAZI  
 CHECKED BY: JOCELYN C CHIANG  
 DESIGNED BY: ALBERT K YU  
 REVISIONS: JC 2/14  
 REVISIONS: DATE REVISION



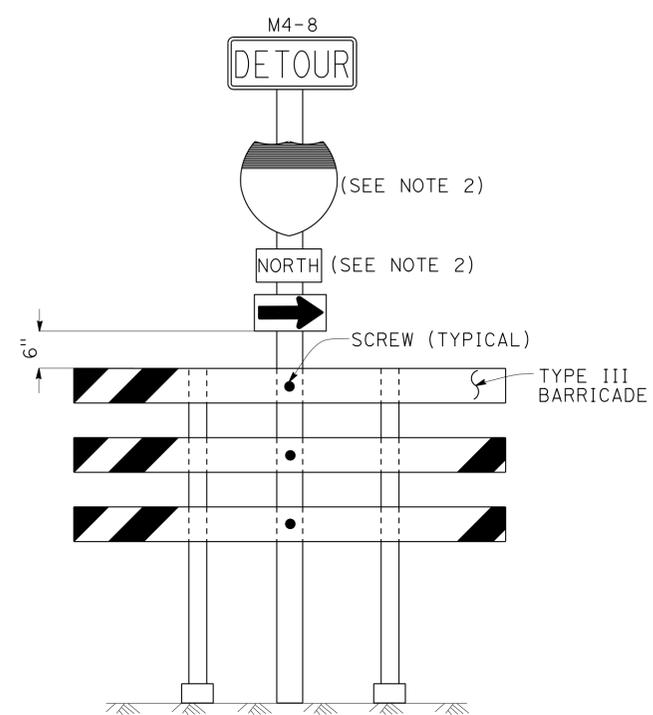
- NOTES:** SIGN SP-2
- LETTERS - 6" SERIES E.
  - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
  - BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
  - BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
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

**ABBREVIATION**

(CA) CALIFORNIA CODE



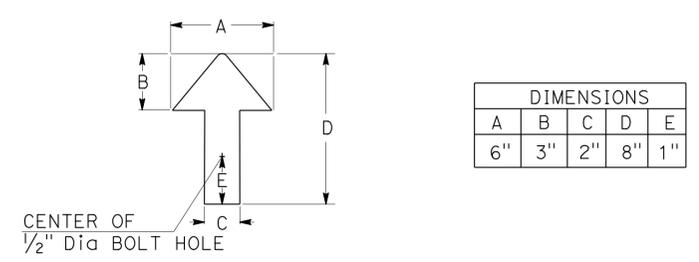
**SIGN SP-6 (SEE NOTE 1)**



**SIGN SP-7 (SEE NOTE 1)**

- 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**

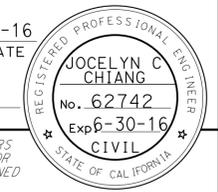


**ADJUSTABLE ARROW DETAIL**

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

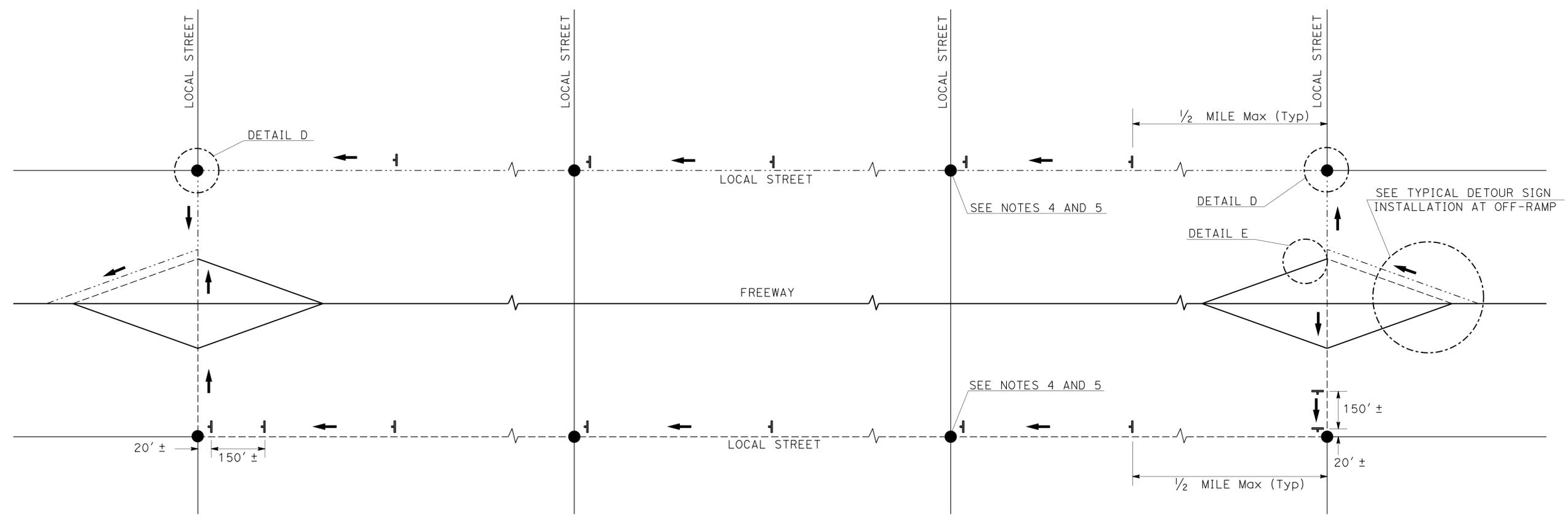
**THD-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	5	36
			6-6-16	DATE	
REGISTERED CIVIL ENGINEER			DATE		
6-20-16			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



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

- NOTES:**
- SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
  - SP-2 SIGNS MUST NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
  - SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
  - SP-2 SIGNS MUST BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
  - 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.
  - EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS MUST BE PLACED AS SHOWN ON THIS PLAN.



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

**TRAFFIC HANDLING DETAILS  
TRAFFIC CONTROL SYSTEM  
FOR DETOUR SIGN INSTALLATION  
ALONG DESIGNATED DETOUR ROUTE  
SHEET 1 OF 2**

NO SCALE

**THD-3**

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



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	7	36

6-6-16  
REGISTERED CIVIL ENGINEER DATE

6-20-16  
PLANS APPROVAL DATE

JOCELYN C. CHIANG  
No. 62742  
Exp. 6-30-16  
CIVIL

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**NOTES:**

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

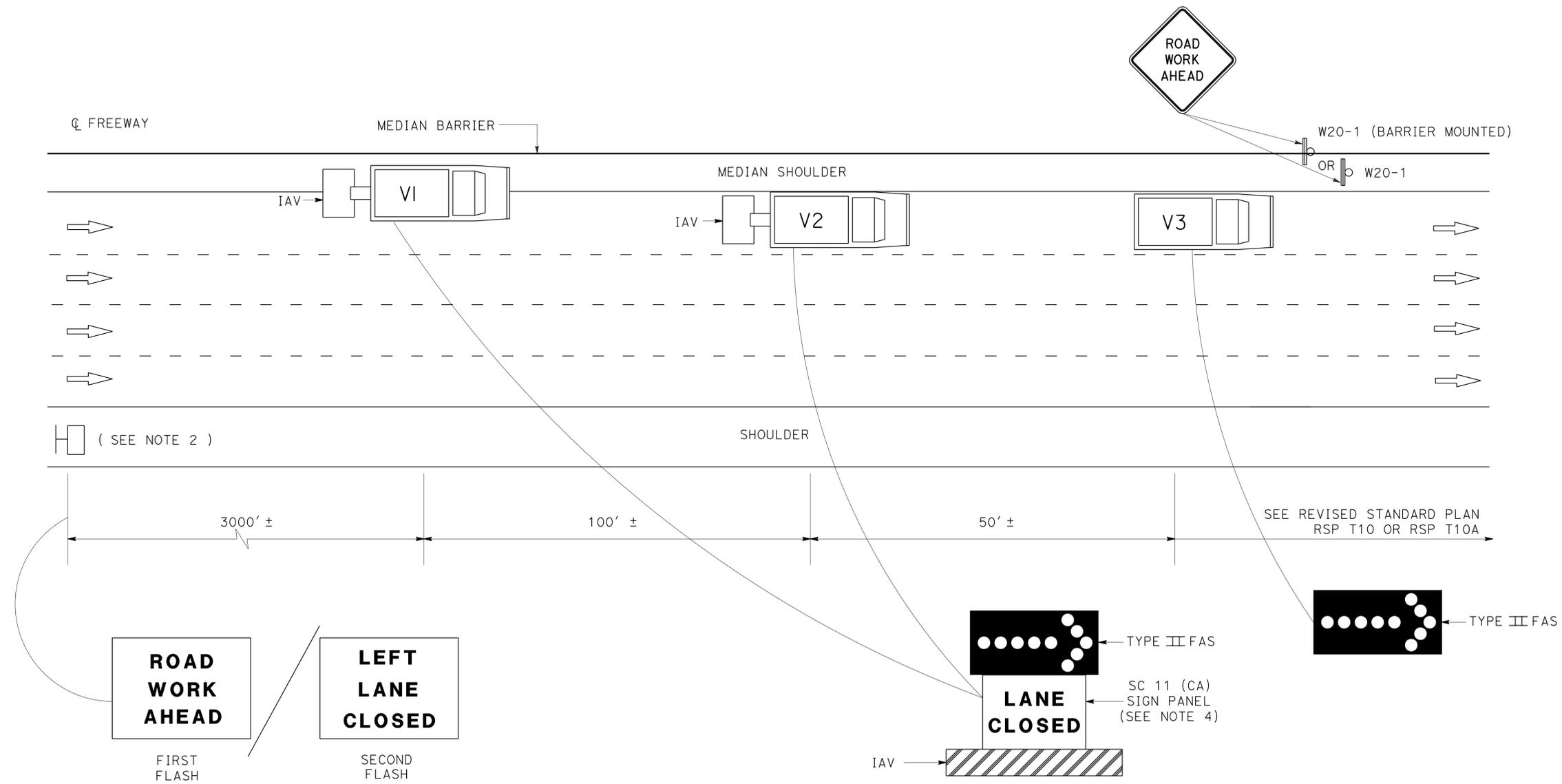
**LEGEND**

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

**ABBREVIATIONS**

- IAV IMPACT ATTENUATOR VEHICLE
- (CA) CALIFORNIA CODE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DT  
 M  
 FUNCTIONAL SUPERVISOR  
 SAM ESQUENAZI  
 CHECKED BY  
 JOCELYN C CHIANG  
 REVISOR BY  
 JC  
 DATE REVISOR  
 2/14



**PCMS OR TRUCK MOUNTED CMS MESSAGE**

**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR MEDIAN SHOULDERS LESS THAN 8 FEET**  
 NO SCALE

**THD-5**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	8	36

REGISTERED CIVIL ENGINEER	DATE	6-6-16
6-20-16	PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	JOCELYN C CHIANG
No. 62742	Exp 6-30-16
CIVIL	STATE OF CALIFORNIA

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**NOTES:**

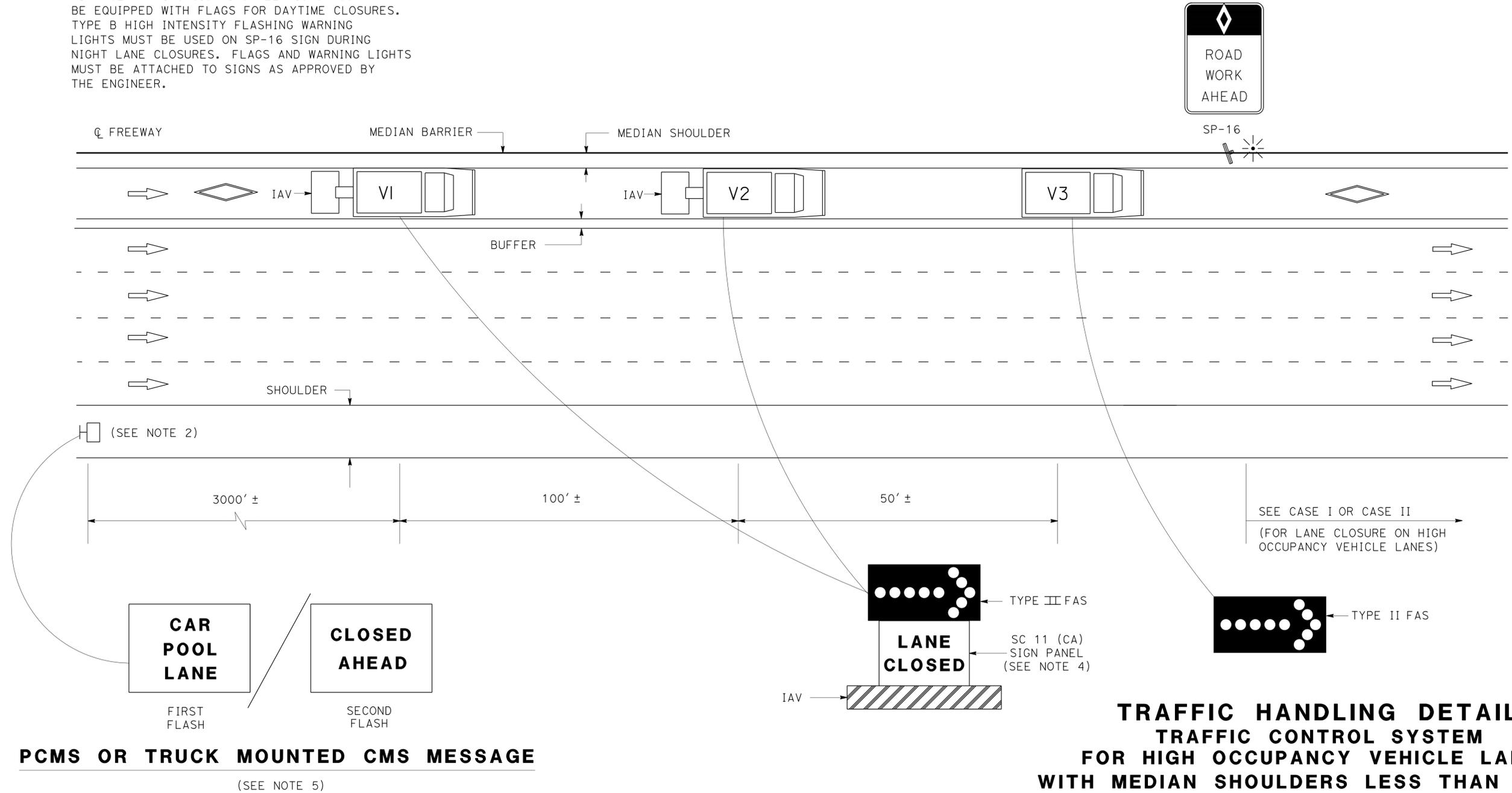
- LANE CLOSURES MUST NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
- PCMS MUST BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE HOV LANE.
- A MINIMUM SIGHT DISTANCE OF 1500' MUST BE PROVIDED IN ADVANCE OF PCMS.
- VEHICLE-MOUNTED SIGN PANELS MUST BE TYPE III OR IV RETROREFLECTORIZED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

**LEGEND**

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

**ABBREVIATIONS**

- IAV IMPACT ATTENUATOR VEHICLE
- (CA) CALIFORNIA CODE
- CHP CALIFORNIA HIGHWAY PATROL



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

NO SCALE

**PCMS OR TRUCK MOUNTED CMS MESSAGE**

(SEE NOTE 5)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
DTM  
Caltrans

ALBERT K YU  
JOCELYN C CHIANG  
SAM ESQUENAZI

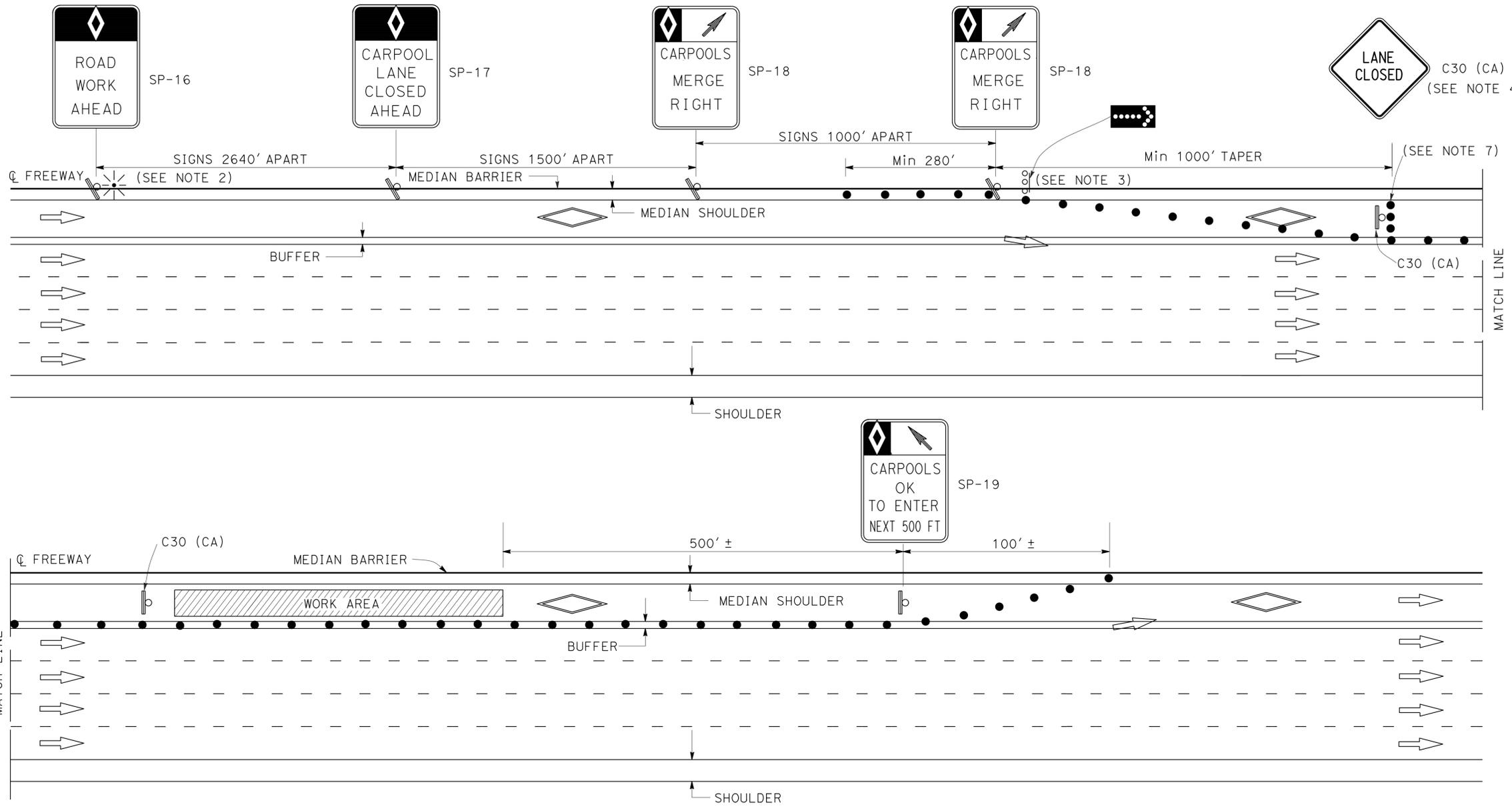
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	9	36

6-6-16  
REGISTERED CIVIL ENGINEER DATE

6-20-16  
PLANS APPROVAL DATE

JOCELYN C CHIANG  
No. 62742  
Exp 6-30-16  
CIVIL  
STATE OF CALIFORNIA

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- LEGEND**
- TRAFFIC CONE
  - ☼ PORTABLE FLASHING BEACON
  - ⏏ TEMPORARY TRAFFIC CONTROL SIGN
  - ⦿ FLASHING ARROW SIGN (FAS)
  - ⦿ FAS SUPPORT OR TRAILER

**ABBREVIATIONS**

(CA) CALIFORNIA CODE

**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 MUST 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 MUST BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES. TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS MUST BE USED ON SP-16 SIGN DURING NIGHT LANE CLOSURES. FLAGS AND WARNING LIGHTS MUST BE ATTACHED TO SIGNS AS APPROVED BY THE ENGINEER.
3. THE FLASHING ARROW SIGN MUST BE TYPE I.
4. PLACE C30 (CA) SIGNS EVERY 2000' THROUGHOUT THE LENGTH OF LANE CLOSURE.
5. A MINIMUM 1500' OF SIGHT DISTANCE MUST BE PROVIDED WHERE POSSIBLE FOR VEHICLES APPROACHING THE FLASHING ARROW SIGN. LANE CLOSURES MUST 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 MUST 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 MUST 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) MUST BE BLACK ON ORANGE BACKGROUND. SIGN SP-19 MUST BE BLACK ON WHITE BACKGROUND. DIAMONDS ON SIGNS MUST BE WHITE.
11. FOR CLOSURE OF LANE(S) ADJACENT TO HOV LANES, SEE CASE II.
12. THE MAXIMUM SPACING BETWEEN CONES MUST 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-7**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
DTM  
Caltrans

ALBERT K YU  
JOCELYN C CHIANG  
SAM ESQUENAZI

FUNCTIONAL SUPERVISOR  
SAM ESQUENAZI

REVISOR  
JC  
DATE  
2/14

CHECKED BY  
JOCELYN C CHIANG

DESIGNED BY  
ALBERT K YU

CALCULATED BY  
JOCELYN C CHIANG

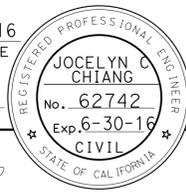
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	10	36

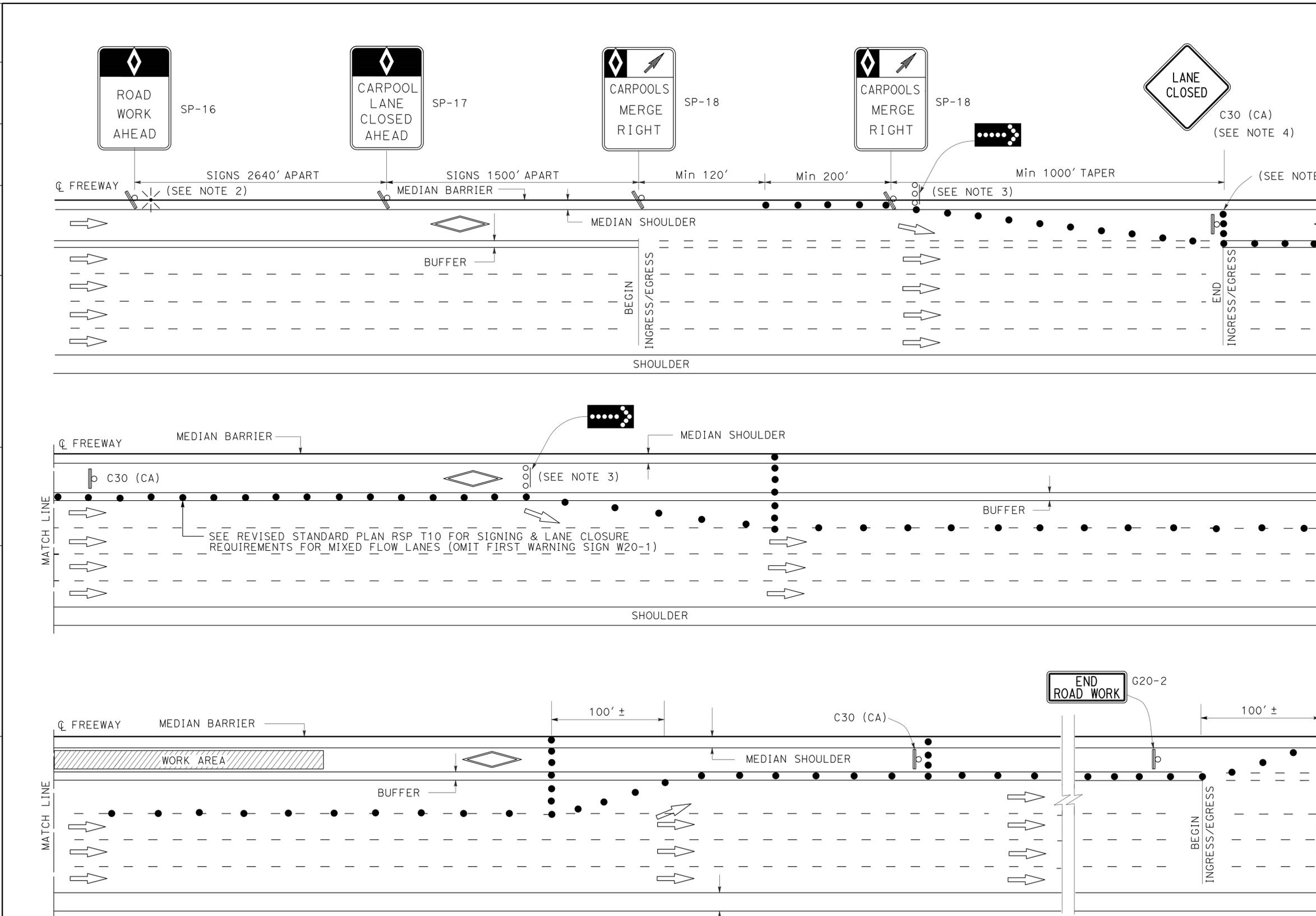
REGISTERED CIVIL ENGINEER	DATE
6-6-16	
PLANS APPROVAL DATE	
6-20-16	

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



- 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-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	11	36

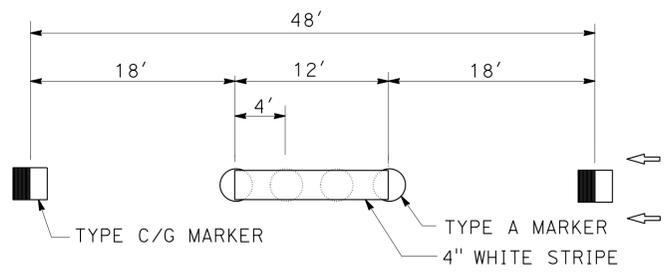
6-8-16  
 REGISTERED CIVIL ENGINEER DATE  
 6-20-16  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
**CHARLIE TRUONG**  
 No. 69881  
 Exp. 9-30-16  
 CIVIL  
 STATE OF CALIFORNIA

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**NOTES:**

- STRIPING CONSISTS OF DETAIL 13/14 WITH THE ADDITION OF A 4" WIDE THERMOPLASTIC STRIPE 12' LONG ON TOP OF TYPE A NON-REFLECTIVE MARKERS.
- TEMPORARY PAVEMENT DELINEATION MUST BE PAINT (1-COAT)



**DETAIL 13/14 (MODIFIED)**  
NO SCALE

**PAVEMENT DELINEATION QUANTITIES**

FROM	TO	DIRECTION/DESCRIPTION	THERMOPLASTIC TRAFFIC STRIPE									THERMOPLASTIC PAVEMENT MARKING				PAVEMENT MARKER			REMOVE						
			Det 13/14 (Mod)	Det 25	Det 27B	HOV		Det 36	Det 36B	Det 38B	Det 37	DIAGONAL (1')	DIAMOND SYMBOL	WORDS (CAR POOL ONLY)	ARROW (TYPE VI)	TYPE A (NON-REFLECTIVE)	TYPE C/G (RETROREFLECTIVE)	TYPE H (RETROREFLECTIVE)	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING	PAVEMENT MARKER	TEMPORARY TRAFFIC STRIPE (PAINT)	TEMPORARY PAVEMENT MARKING (PAINT)	
			4" WHITE (BROKEN 36-12)	4" YELLOW	4" WHITE	4" YELLOW	4" WHITE	8" WHITE (BROKEN 36-12)	8" WHITE	8" WHITE	8" WHITE														8" WHITE (BROKEN 12-3)
R0.39	R0.60	WB	1,100	1,100	1,100										92	29	24	1,100	1,375		197	3,300			
R0.60	R0.80	WB	1,050	1,050	1,050			550		295	500	129			88	132	23	1,050	3,203	129	397	4,495	129		
R0.80	R1.04	WB	1,280	1,280	1,280			765		390	410	646			107	156	28	1,280	4,074	646	475	5,405	646		
R1.04	R1.69	WB	9,130	3,420	3,420			895	430	320	810	124			126	2,283	351	72	3,420	9,317	250	3,130	18,425	250	
R1.69	R2.02	WB	3,480	1,740	1,740										84	580	79	37	1,740	2,610	84	812	6,960	84	
R2.02	R2.53	WB	7,800	2,600	2,600	640	160		600						42	1,950	219	166	3,240	5,910	42	2,719	14,400	42	
R0.39	R0.56	EB	900	900	900										42	75	25	24	900	1,125	42	172	2,700	42	
R0.56	R0.98	EB	4,400	2,200	2,200					390					84	733	98	51	2,200	4,080	84	1,030	9,190	84	
R0.98	R1.19	EB	2,200	1,100	1,100					330					367	52	28	1,100	2,310		526	4,730			
R1.19	R1.68	EB	3,665	2,600	2,600			800	200	310	1,535				611	277	59	2,600	6,750		1,284	11,710			
R1.68	R2.53	EB	8,800	4,400	4,400	920	230	3,140		685			110	124	1,467	189	250	5,320	9,770	234	2,345	22,575	234		
SUBTOTAL			43,805	22,390	22,390	1,560	390	3,140	3,610	2,035	1,315	3,255	899	110	124	378	8,353	1,607	762	23,950	50,524	1,511	13,087	103,890	1,511
TOTAL			43,805	46,730			3,140	6,960			3,255	1,511			8,353	2,369			23,950	50,524	1,511	13,087	103,890	1,511	

**PAVEMENT DELINEATION QUANTITIES**  
**PDQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE ENGINEERING  
 CHARLIE TRUONG  
 KEVIN KWAN  
 KEVIN KWAN  
 REVISOR BY DATE  
 REVISOR BY DATE

LAST REVISION | DATE PLOTTED => 11-JUL-2016  
 06-20-16 | TIME PLOTTED => 12:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	12	36

*Grace M. Tsushima*  
REGISTERED CIVIL ENGINEER

July 19, 2013  
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 6-20-16

**UNIT OF MEASUREMENT SYMBOLS:**

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

**TABLE A**

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

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

**TABLE B**

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

\* For use on a sign panel only

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS  
(SHEET 2 OF 2)**

NO SCALE

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

**REVISED STANDARD PLAN RSP A10B**

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

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

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

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

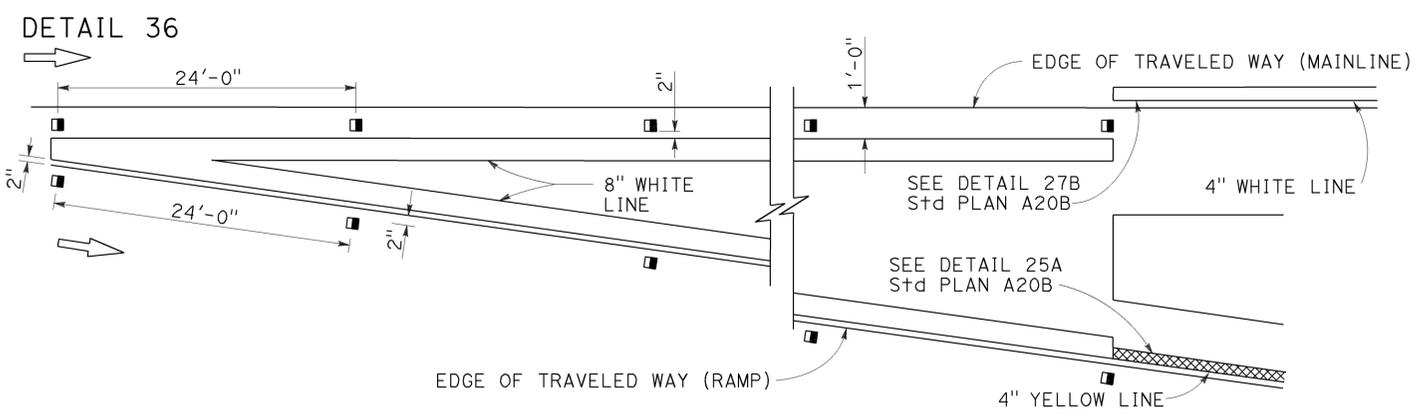
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	13	36

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

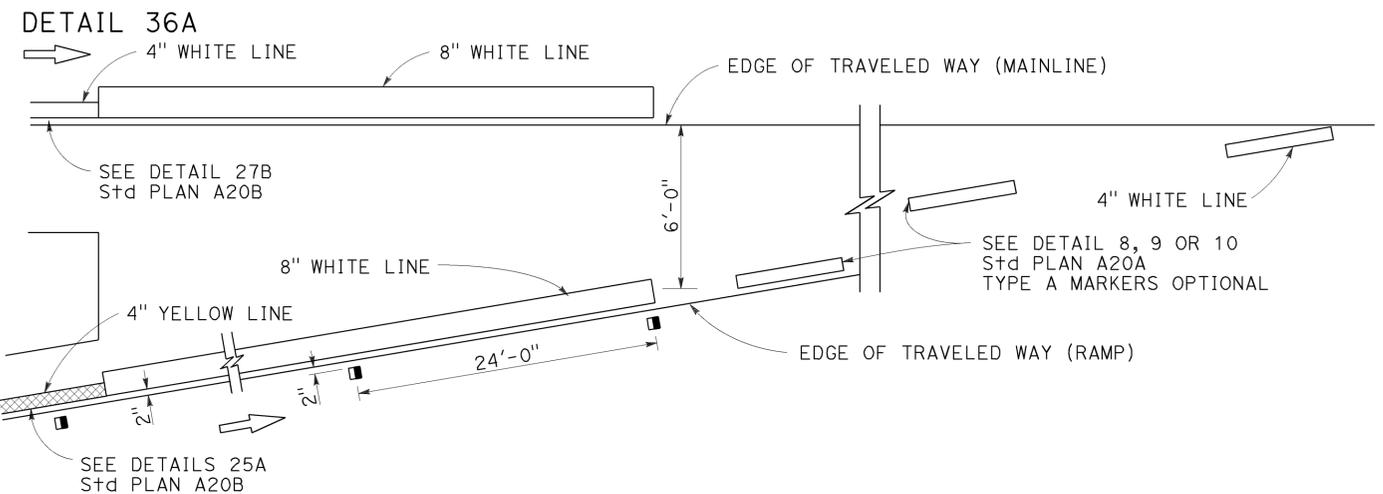
July 19, 2013  
 PLANS APPROVAL DATE

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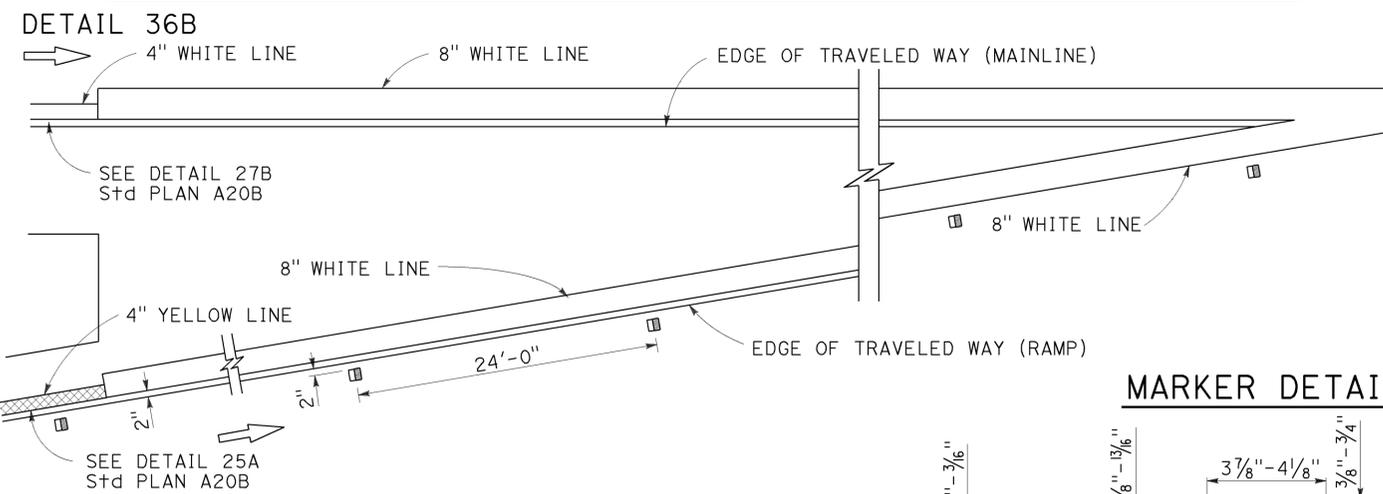
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

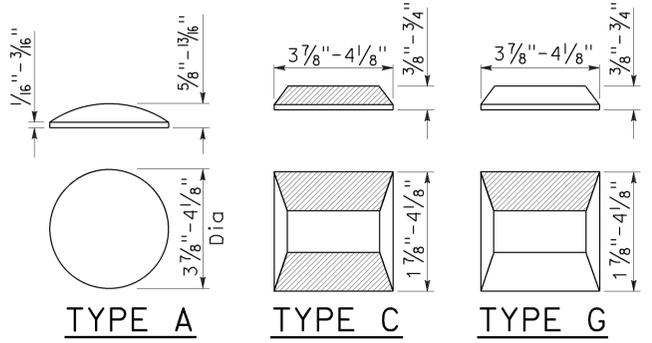


### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



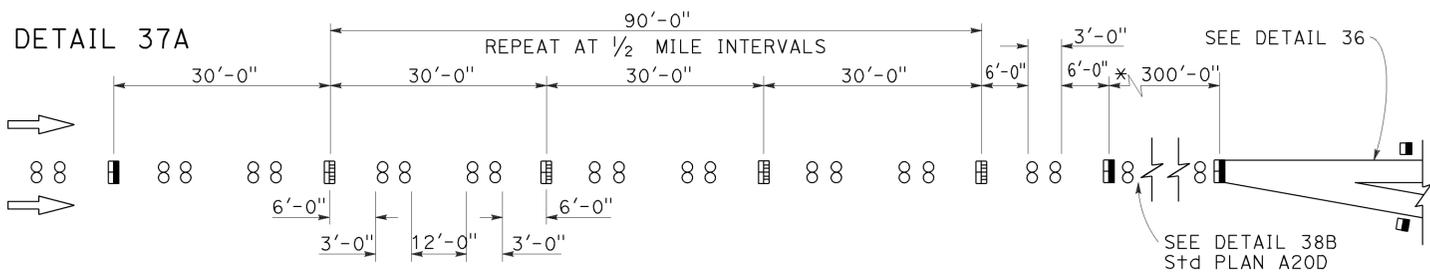
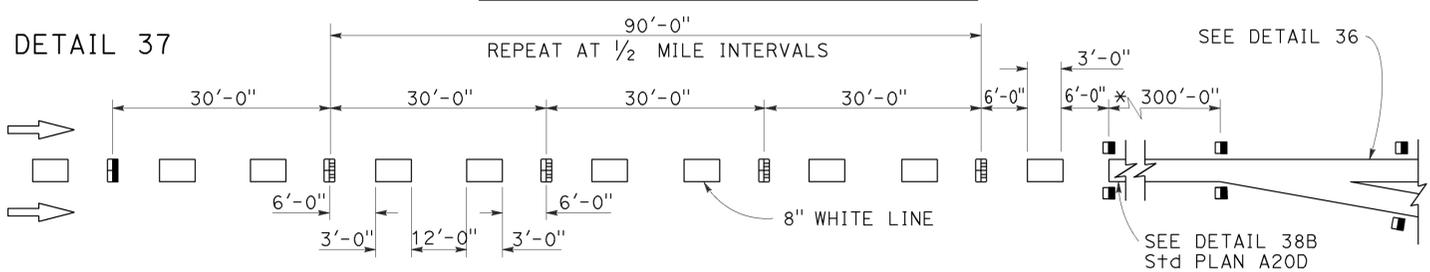
### MARKER DETAILS

- LEGEND:**
- MARKERS
- TYPE A WHITE NON-REFLECTIVE
  - ◻ TYPE C RED-CLEAR RETROREFLECTIVE
  - TYPE G ONE-WAY CLEAR RETROREFLECTIVE



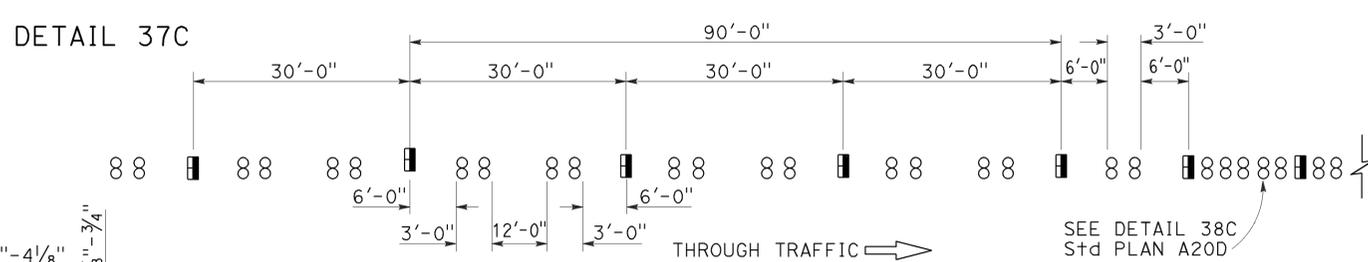
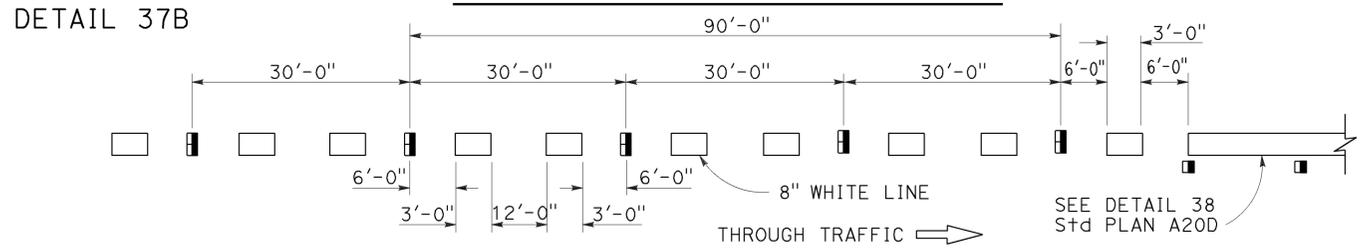
RETROREFLECTIVE FACE

### LANE DROP AT EXIT RAMP



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

### LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS**

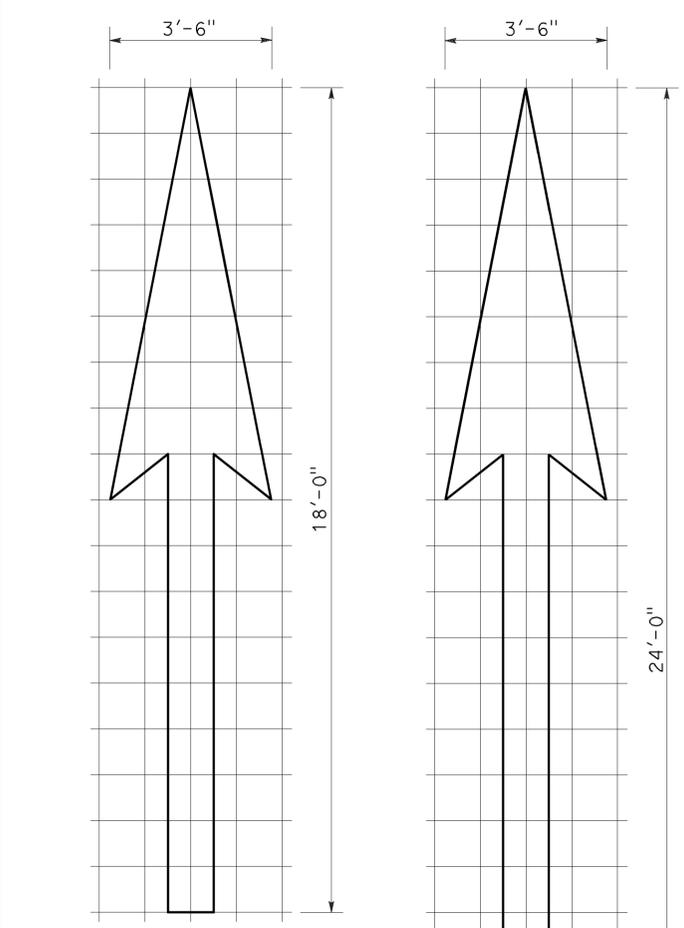
NO SCALE

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

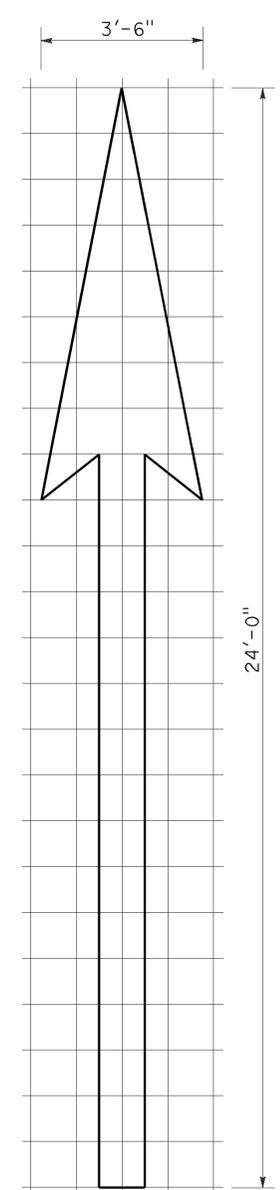
### REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

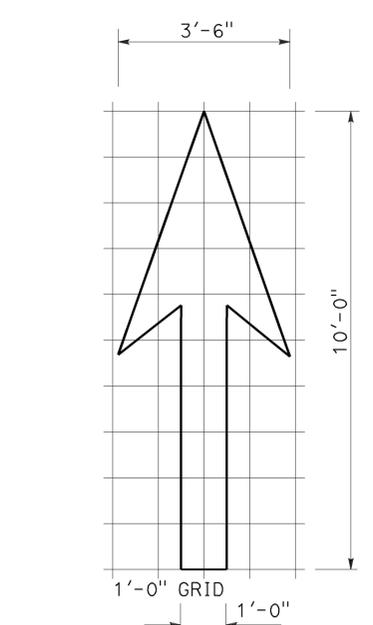
TO ACCOMPANY PLANS DATED 6-20-16



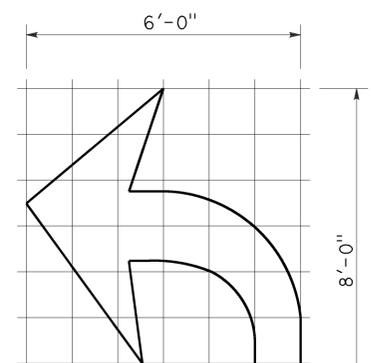
A=25 ft<sup>2</sup>  
**TYPE I 18'-0" ARROW**



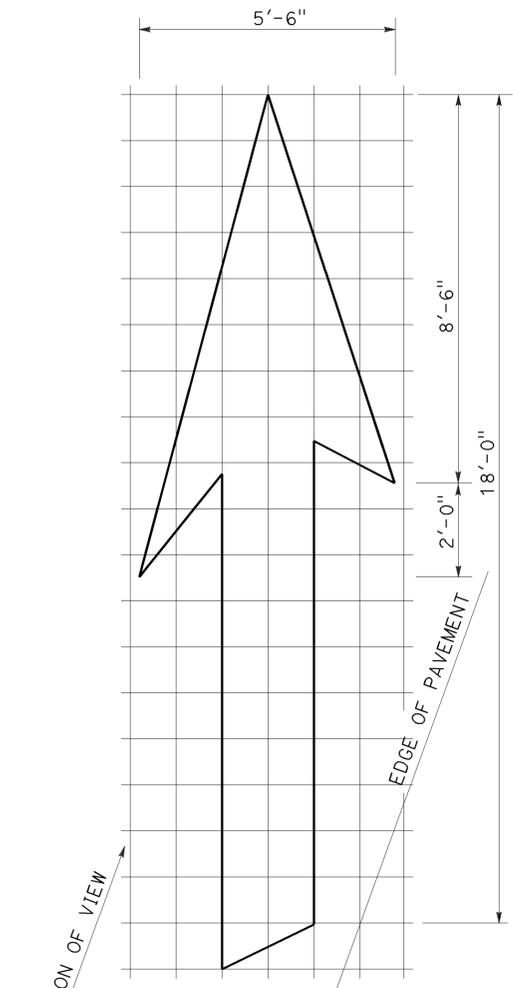
A=31 ft<sup>2</sup>  
**TYPE I 24'-0" ARROW**



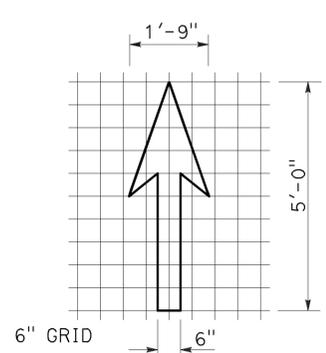
A=14 ft<sup>2</sup>  
**TYPE I 10'-0" ARROW**



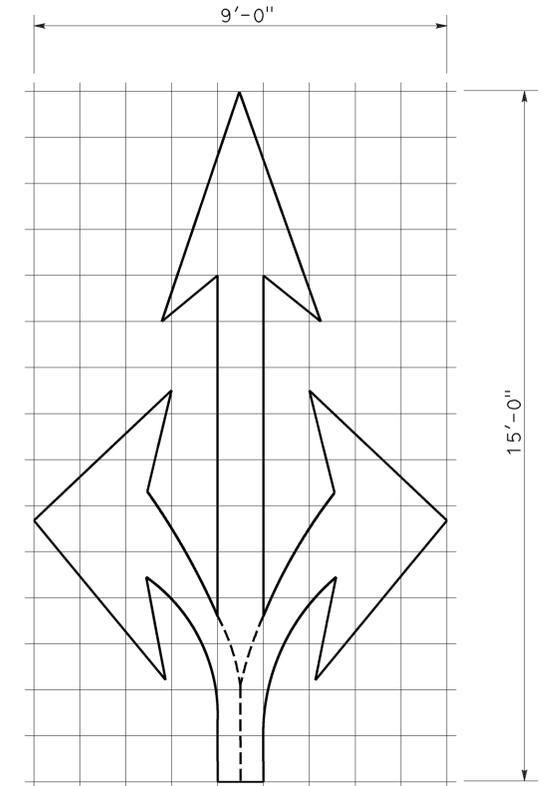
A=15 ft<sup>2</sup>  
**TYPE IV (L) ARROW**  
 (For Type IV (R) arrow, use mirror image)



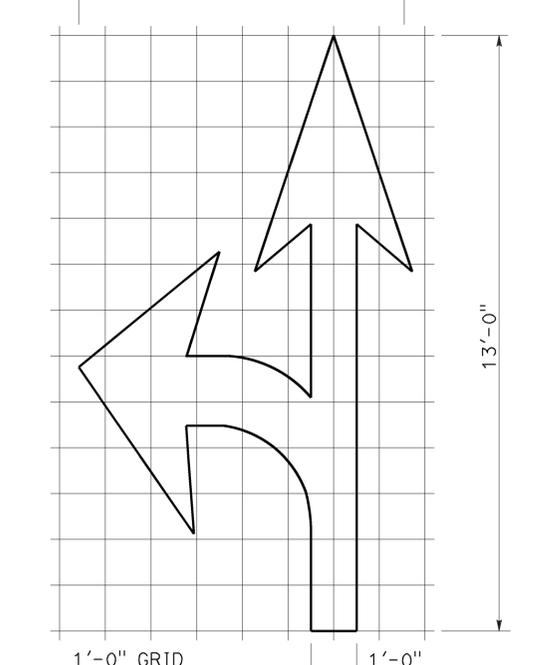
A=42 ft<sup>2</sup>  
**TYPE VI ARROW**  
 Right lane drop arrow  
 (For left lane, use mirror image)



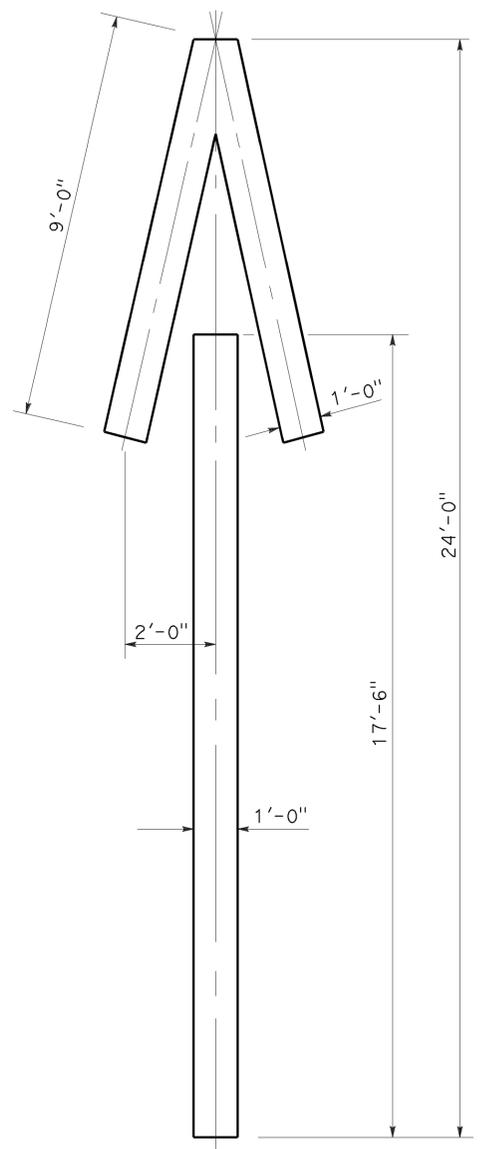
A=3.5 ft<sup>2</sup>  
**BIKE LANE ARROW**



A=36 ft<sup>2</sup>  
**TYPE VIII ARROW**



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



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

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

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

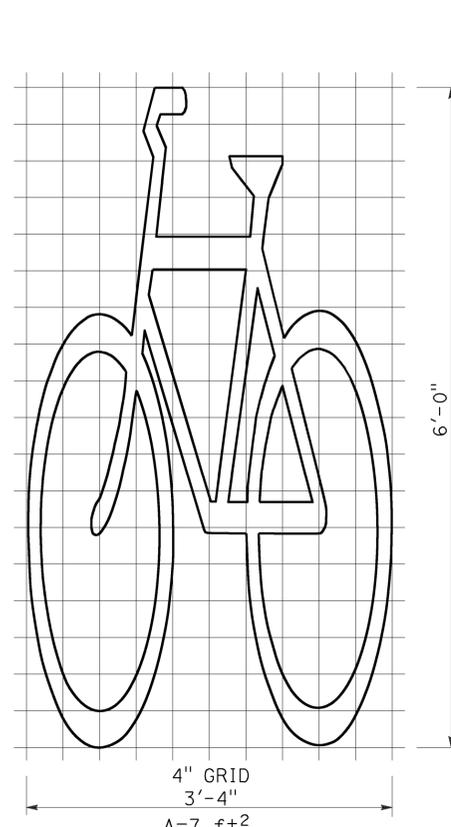
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24A

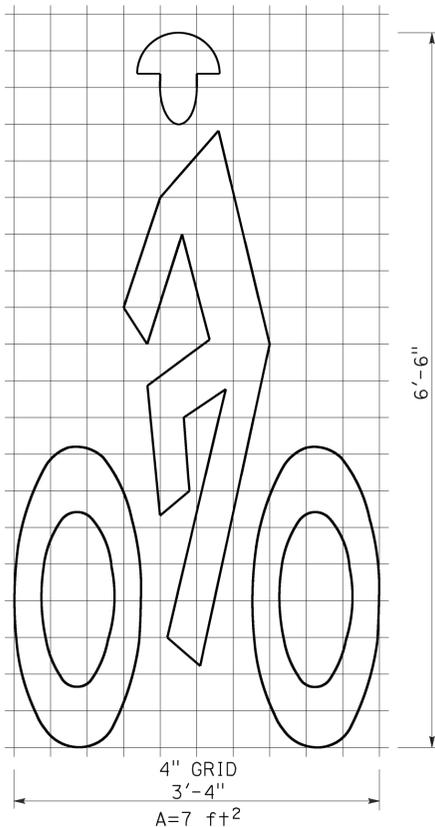
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	15	36

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

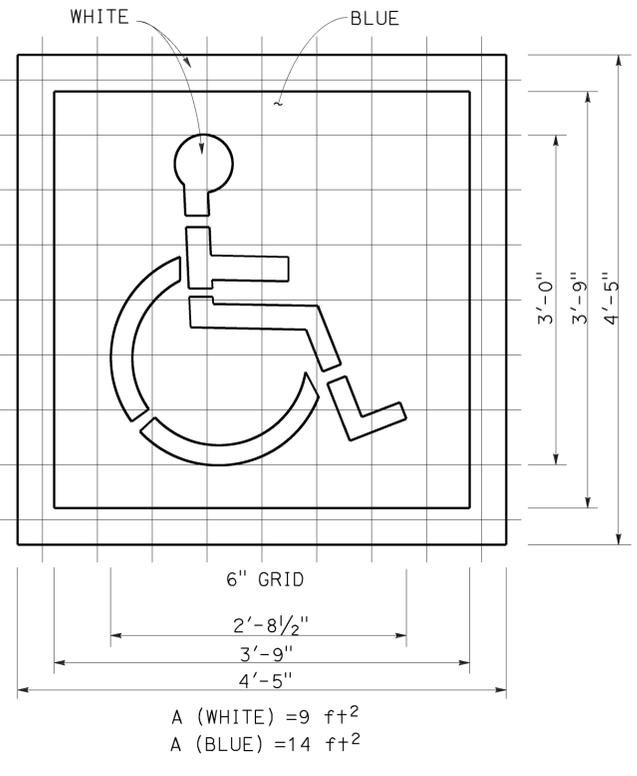
October 19, 2012  
 PLANS APPROVAL DATE  
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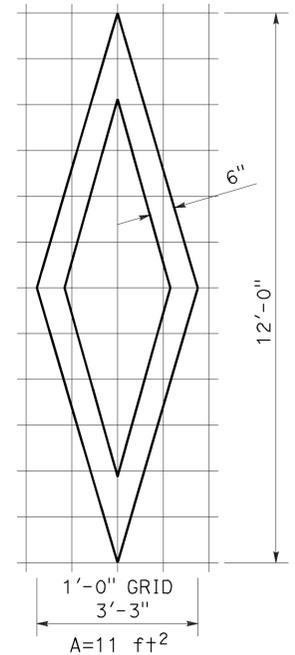
**BIKE LANE SYMBOL  
WITHOUT PERSON**



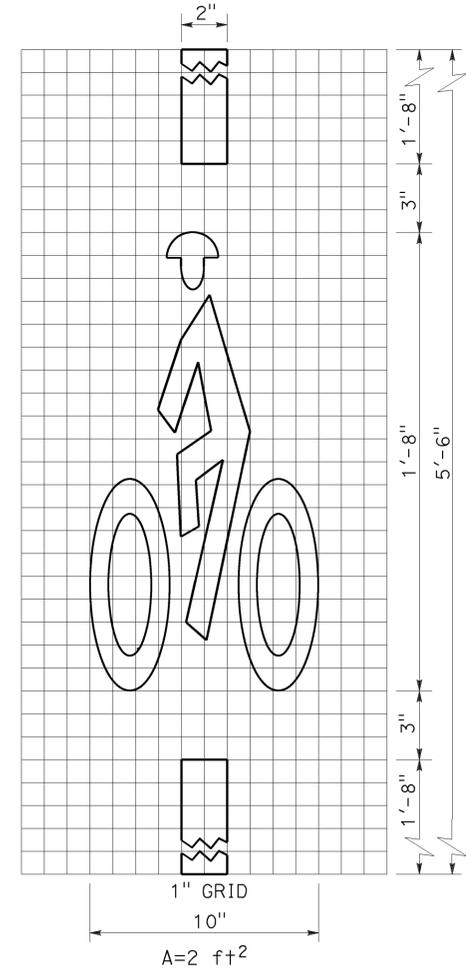
**BIKE LANE SYMBOL  
WITH PERSON**



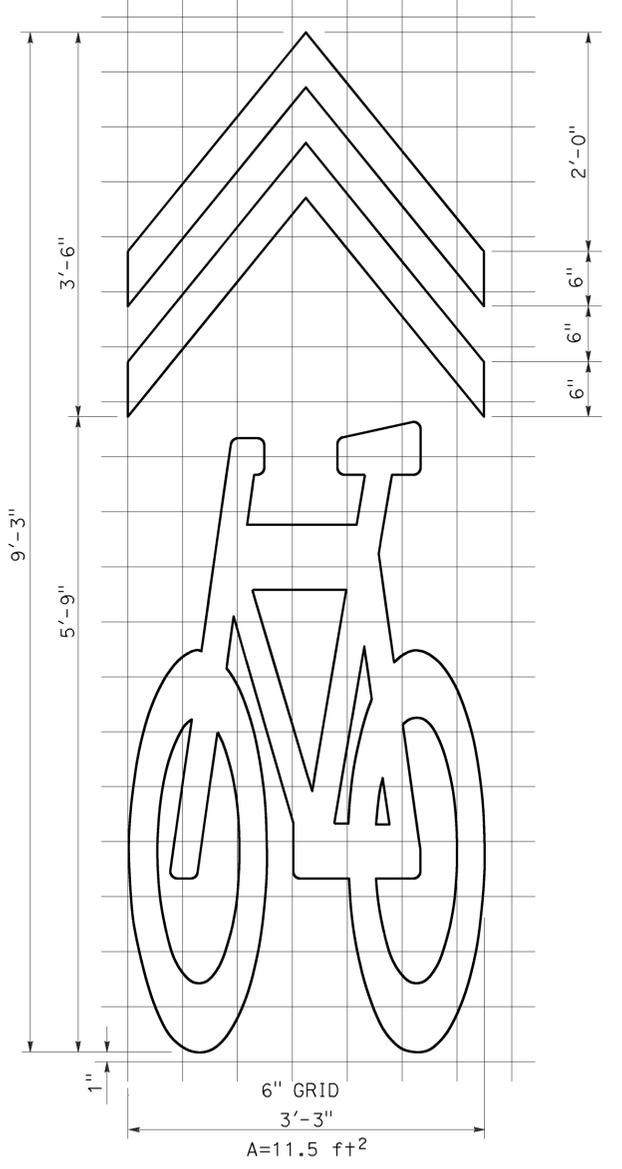
**INTERNATIONAL SYMBOL  
OF ACCESSIBILITY (ISA) MARKING**



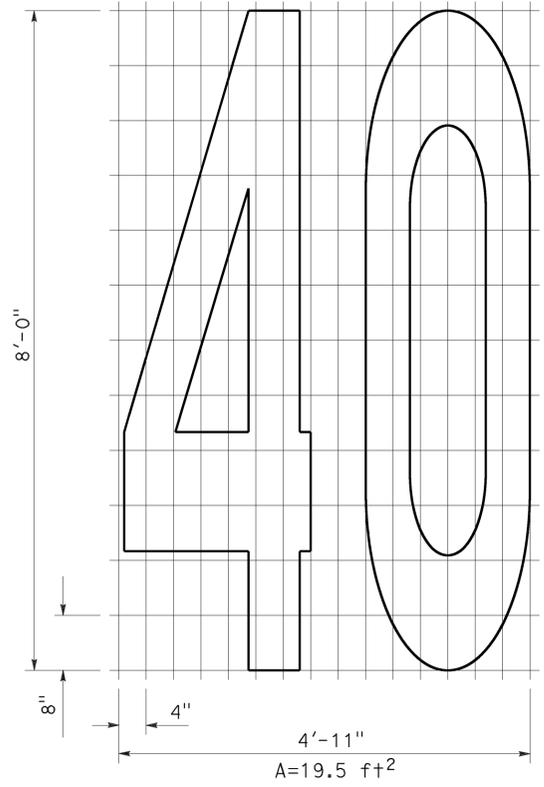
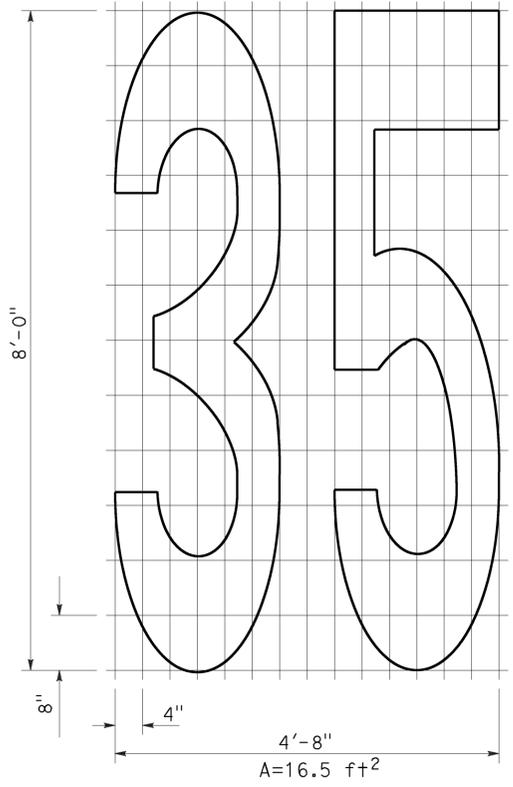
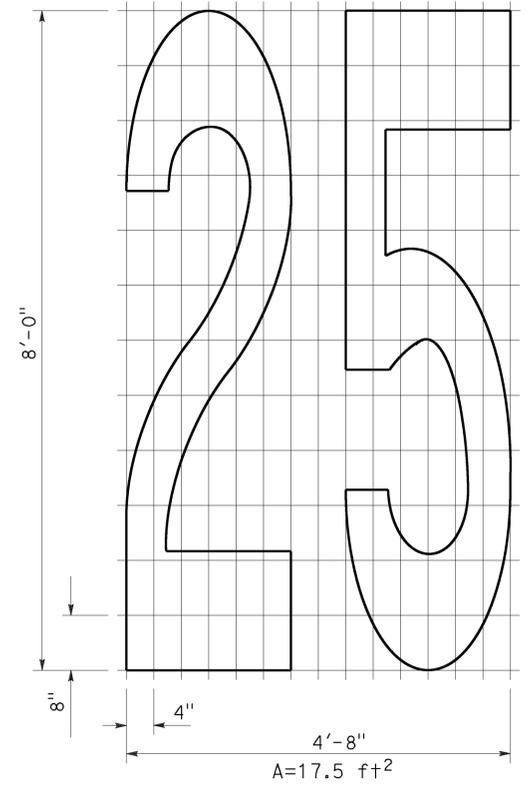
**DIAMOND SYMBOL**



**BICYCLE LOOP  
DETECTOR SYMBOL**



**SHARED ROADWAY BICYCLE MARKING**



**NUMERALS**

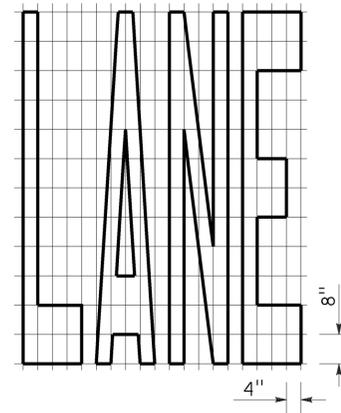
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
 SYMBOLS AND NUMERALS**  
 NO SCALE

RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

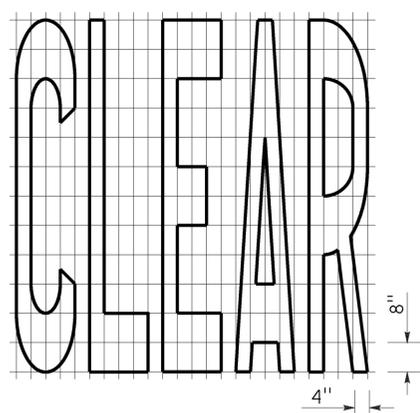
**REVISED STANDARD PLAN RSP A24C**

**2010 REVISED STANDARD PLAN RSP A24C**

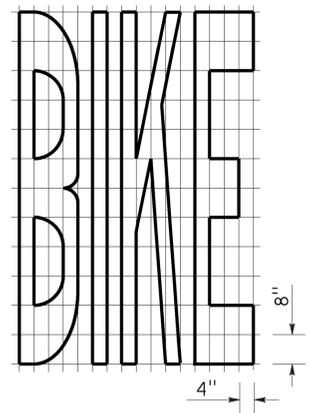
TO ACCOMPANY PLANS DATED 6-20-16



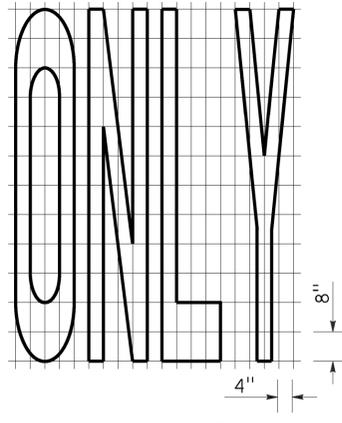
A=24 ft<sup>2</sup>



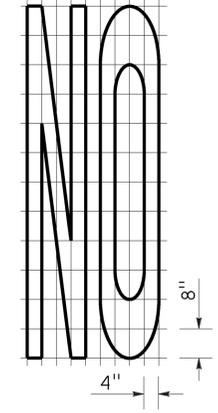
A=27 ft<sup>2</sup>



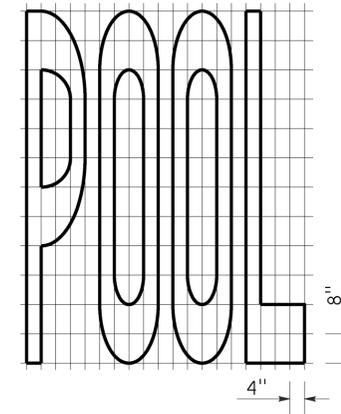
A=21 ft<sup>2</sup>



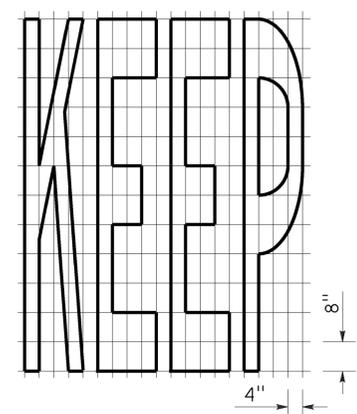
A=22 ft<sup>2</sup>



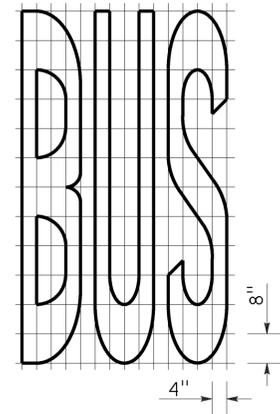
A=14 ft<sup>2</sup>



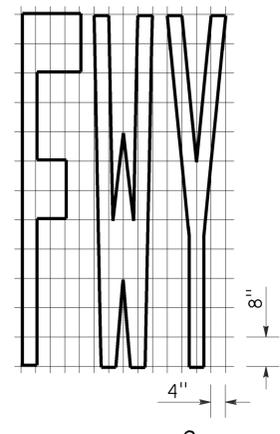
A=23 ft<sup>2</sup>



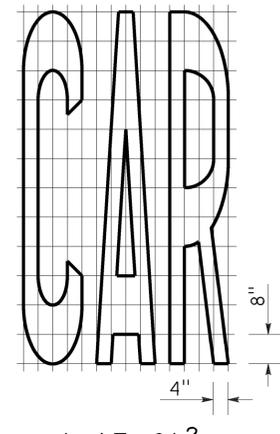
A=24 ft<sup>2</sup>



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

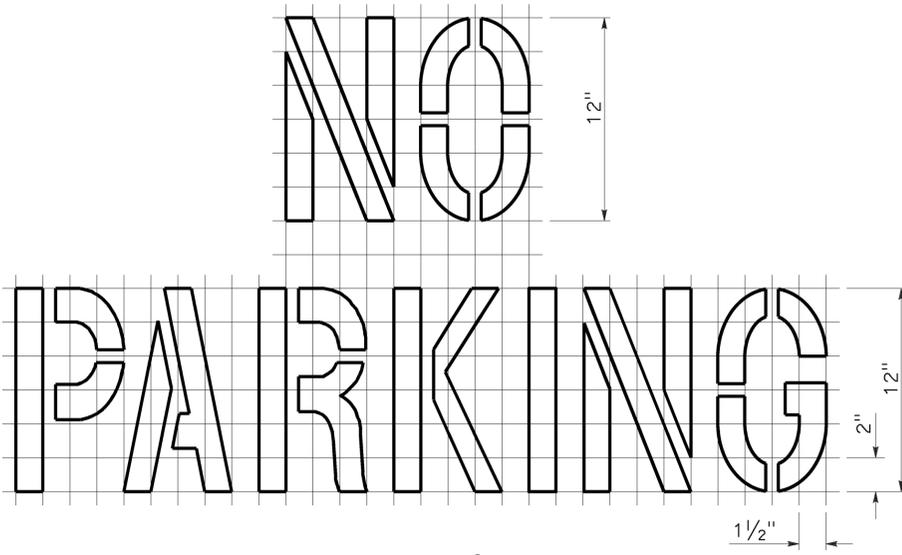


A=16 ft<sup>2</sup>

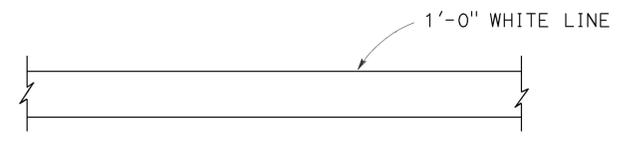


A=17 ft<sup>2</sup>

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



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



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL  
YIELD LINE

**NOTES:**

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

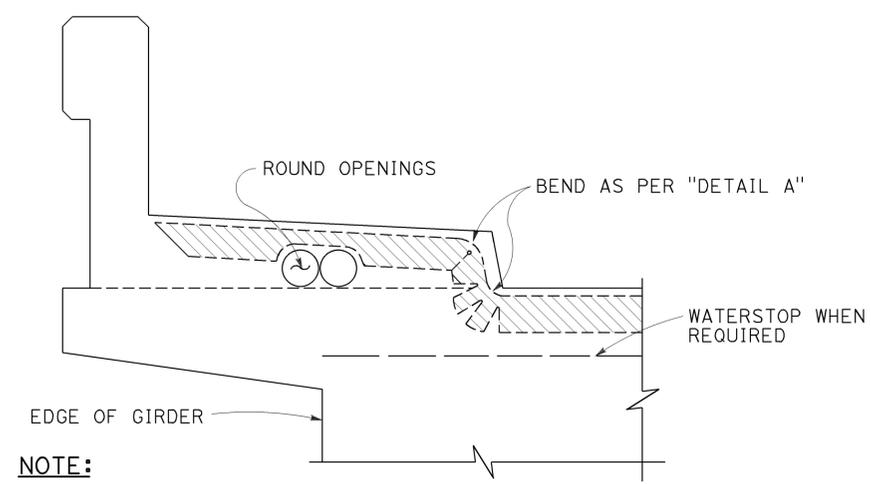
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**  
NO SCALE

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

2010 REVISED STANDARD PLAN RSP A24E

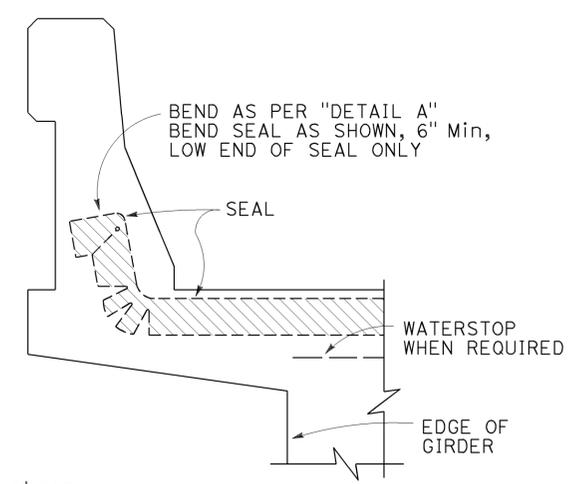
TO ACCOMPANY PLANS DATED 6-20-16

**NOTE:**  
 The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

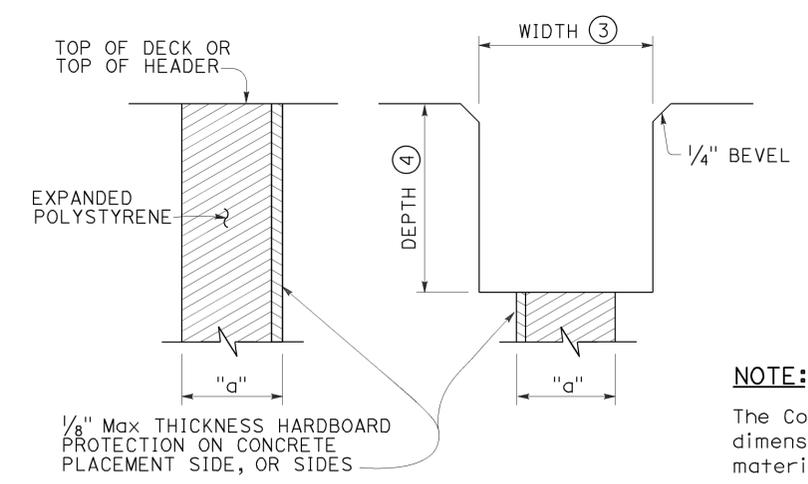


**NOTE:**  
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

**CONCRETE BARRIER AND SIDEWALK**

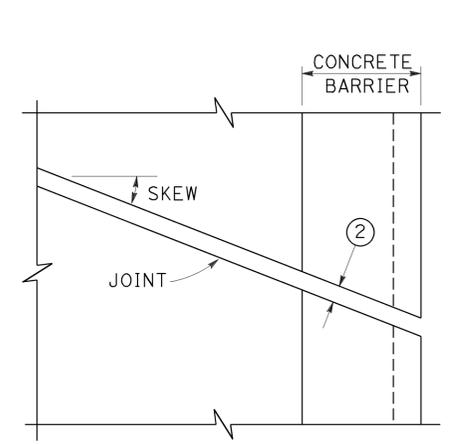


**CONCRETE BARRIER**



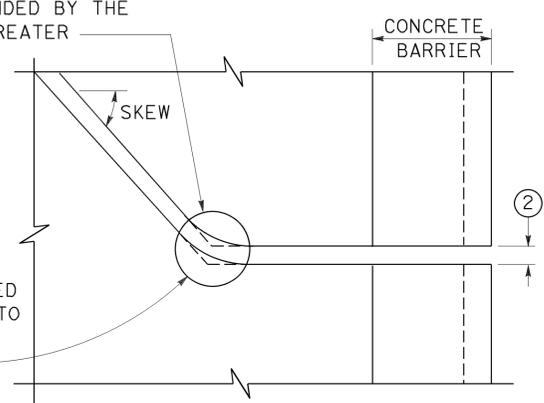
**FORMING DETAIL SAWCUT DETAIL**

**JOINT SEALS DETAILS**



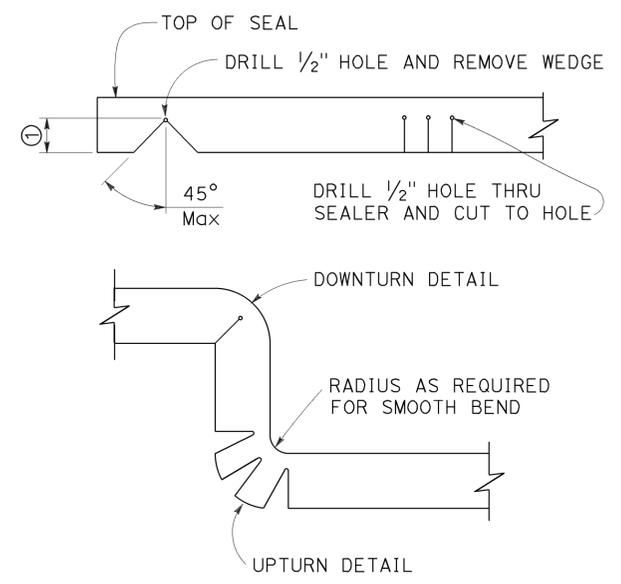
**PLAN OF JOINT (SKEW ≤ 20°)**

Min  $\phi$  RADIUS TO BE 4 TIMES UNCOMPRESSED WIDTH OF SEAL OR AS RECOMMENDED BY THE MANUFACTURER, WHICHEVER IS GREATER



**PLAN OF JOINT (SKEW > 20°)**

IN LIEU OF SAW CUTTING, THIS AREA MAY BE BLOCKED OUT AND RECONSTRUCTED TO MATCH SAW CUTTING ON BOTH SIDES.

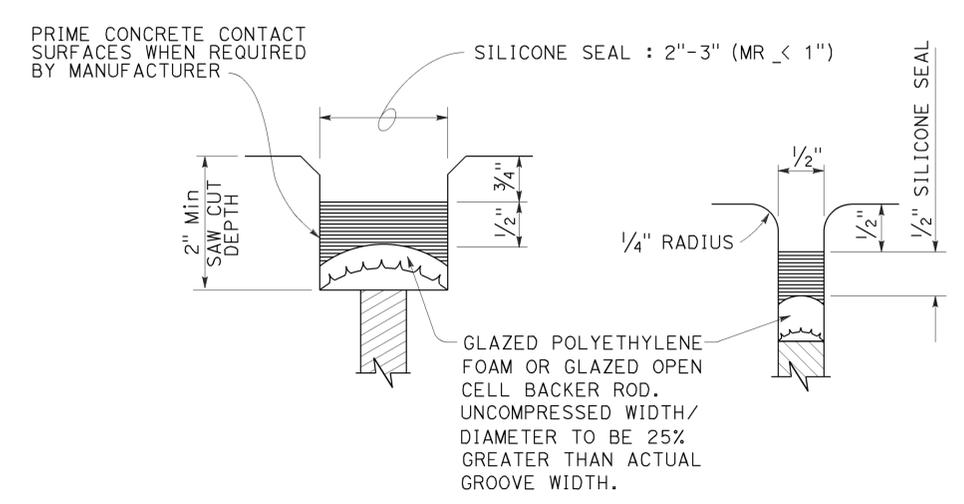


**DETAIL A**

- NOTES:**
- Make smooth cuts from the bottom of seal to 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
  - Opening in barrier to match width of sawn deck joint.
  - Sawcut groove widths shall be as ordered by the Engineer.
  - Depth of sawcut: Type A - Depth to be 2" minimum.  
Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W<sub>2</sub>) plus dimensions shown.
  - MR (movement rating) as shown on other plan sheets.
  - Other depths must be approved by the Engineer.
  - A sidewalk joint shall be covered by an expansion joint armor.

**DIMENSIONS "a" OF JOINT REQUIRED**

MOVEMENT RATING (MR) (5)	BRIDGE TYPE	"a" DIMENSION		
		DECK CONCRETE PLACED		
		WINTER	FALL-SPRING	SUMMER
2"	ALL EXCEPT CIP/PS	1 1/2"	1 1/4"	3/4"
	CIP/PS	1 1/4"	1"	1/2"
1 1/2"	ALL EXCEPT CIP/PS	1 1/4"	1"	1/2"
	CIP/PS	1"	3/4"	1/2"
1"	ALL EXCEPT CIP/PS	1"	3/4"	1/2"
	CIP/PS	3/4"	1/2"	1/2"
1/2"	ALL EXCEPT CIP/PS	3/4"	3/4"	1/2"
	CIP/PS	1/2"	1/2"	1/2"

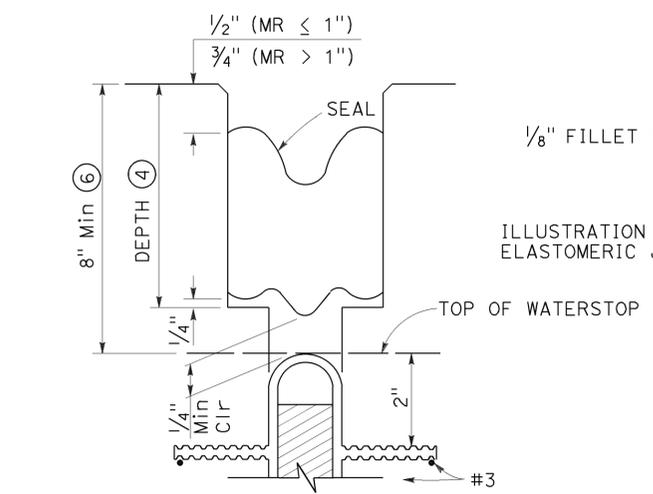


**TYPE A SEAL**

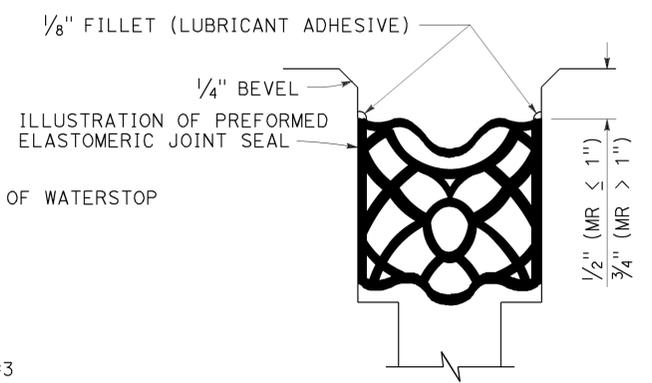
Movement rating : Silicone = 1" Max

**TYPE AL SEAL**

Longitudinal joints only



**TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W<sub>2</sub>)**



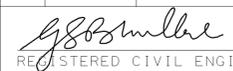
**TYPE B SEAL**

Movement Rating ≤ 2"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**JOINT SEALS**  
**(MAXIMUM MOVEMENT RATING = 2")**

NO SCALE  
 RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES  
 STANDARD PLAN B6-21 DATED MAY 20, 2011 -  
 PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	18	36

  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 6-20-16

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

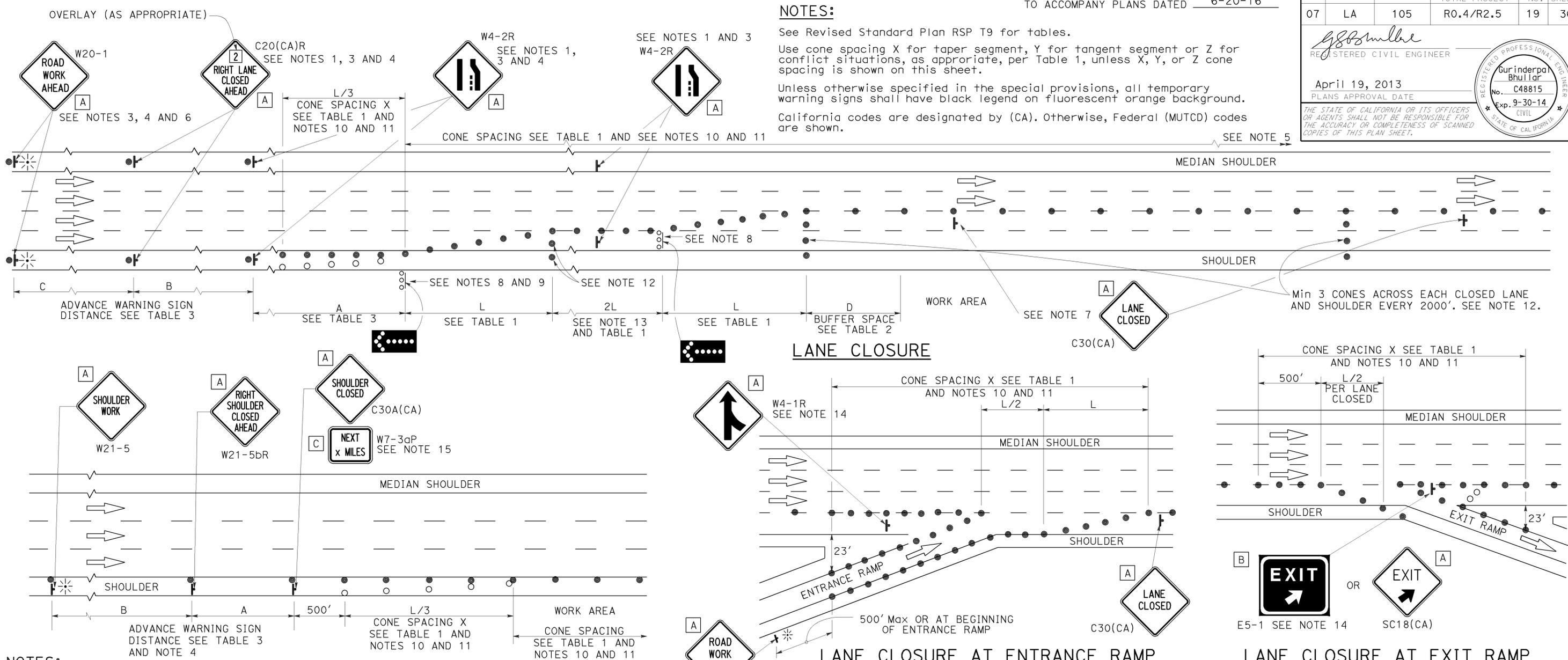
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	19	36

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

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

2010 REVISED STANDARD PLAN RSP T10



- NOTES:**
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
  - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane 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 G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA)L and W4-2L signs shall be used.
  - Place a C30(CA) sign every 2000' throughout length of lane closure.
  - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
  - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at 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.

- LANE CLOSURE AT ENTRANCE RAMP**
- 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 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
  - Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
  - A W7-3aP "NEXT \_\_\_\_\_ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T10**

**NOTES:**

See Revised Standard Plan RSP T9 for tables.

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

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

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

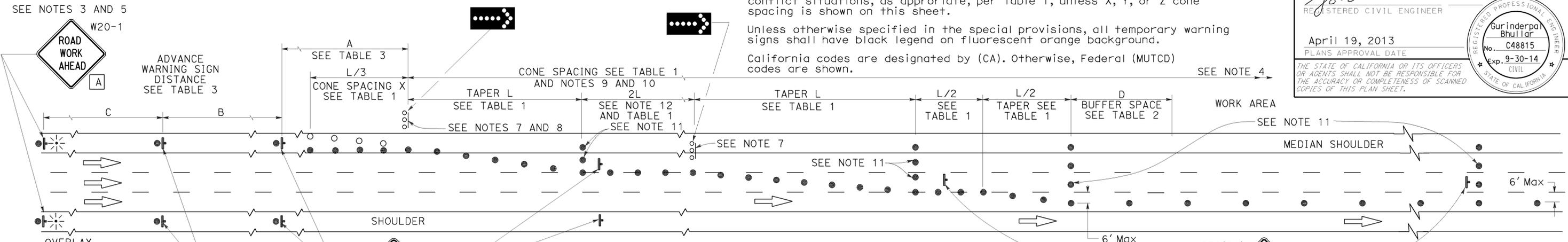
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	20	36

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

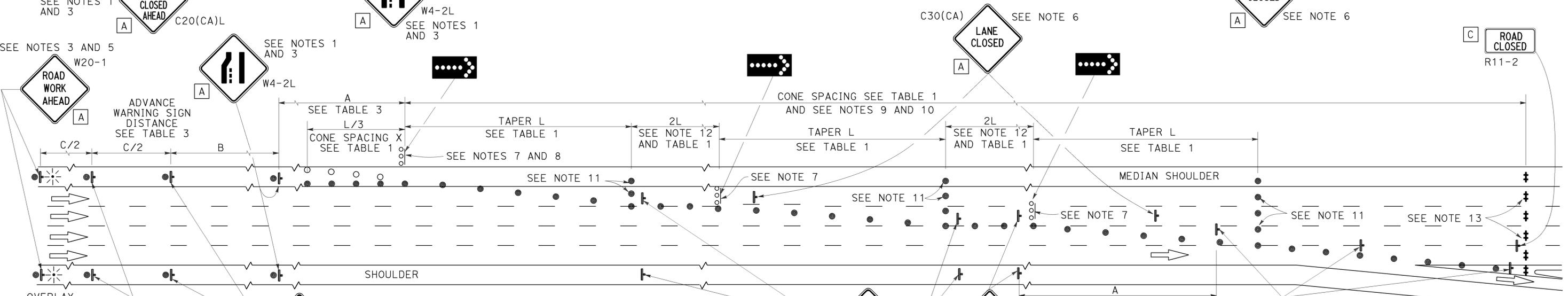
April 19, 2013  
 PLANS APPROVAL DATE

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

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



**LANE CLOSURE WITH PARTIAL SHOULDER USE**



**COMPLETE CLOSURE**

**NOTES:**

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

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

**SIGN PANEL SIZE (Min)**

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

**LEGEND**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURES ON  
 FREEWAYS AND EXPRESSWAYS**  
 NO SCALE

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

**REVISED STANDARD PLAN RSP T10A**

2010 REVISED STANDARD PLAN RSP T10A

# TYPICAL RAMP CLOSURES

## SIGN PANEL SIZE (Min)

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

## LEGEND

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	21	36

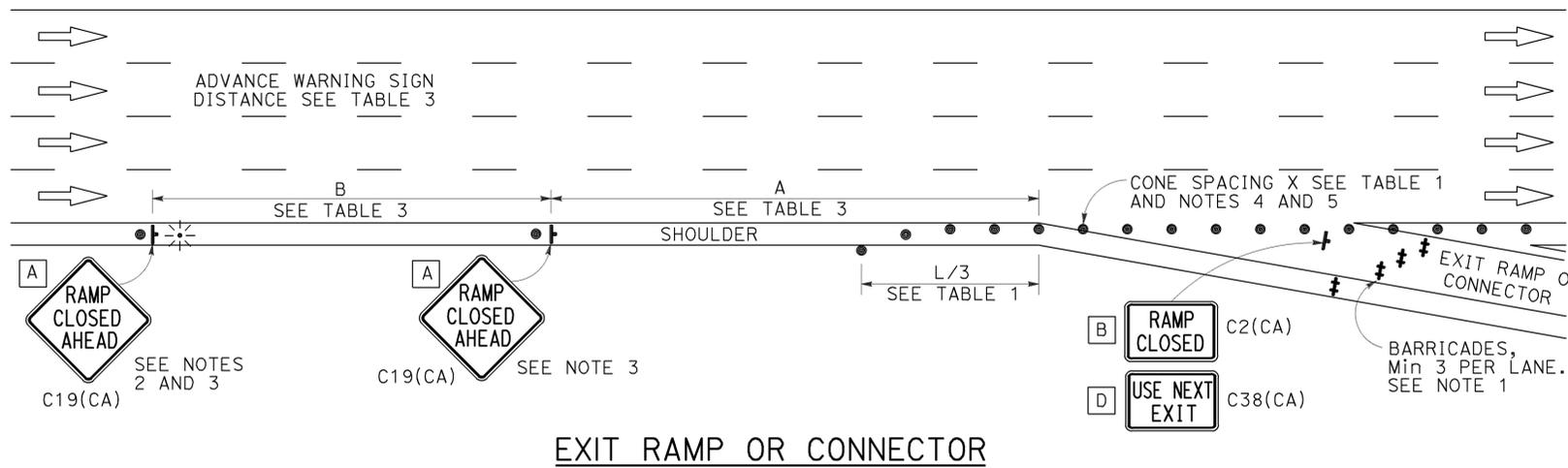
*Gurinderpal Bhullar*  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

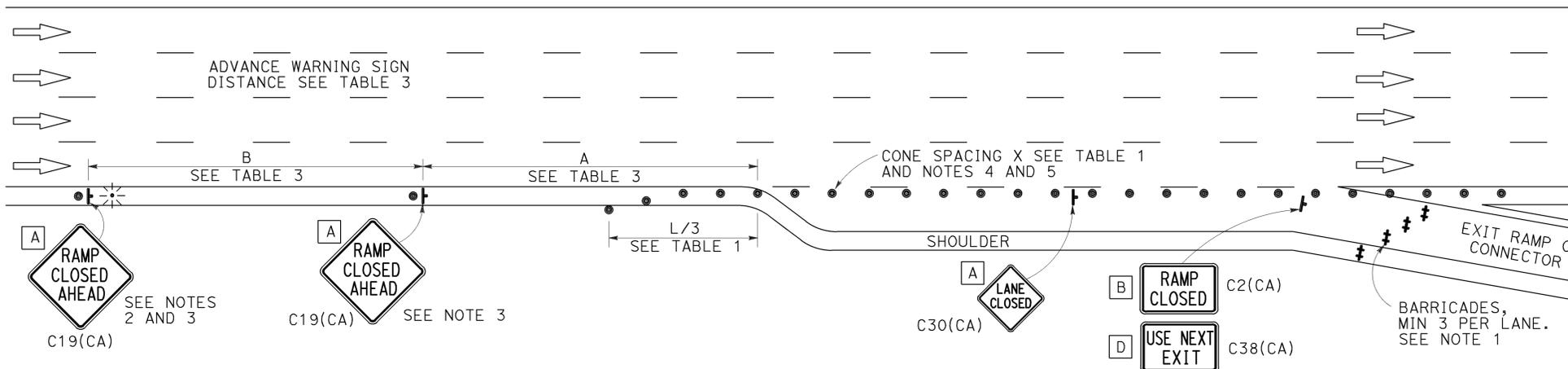
TO ACCOMPANY PLANS DATED 6-20-16

## NOTES:

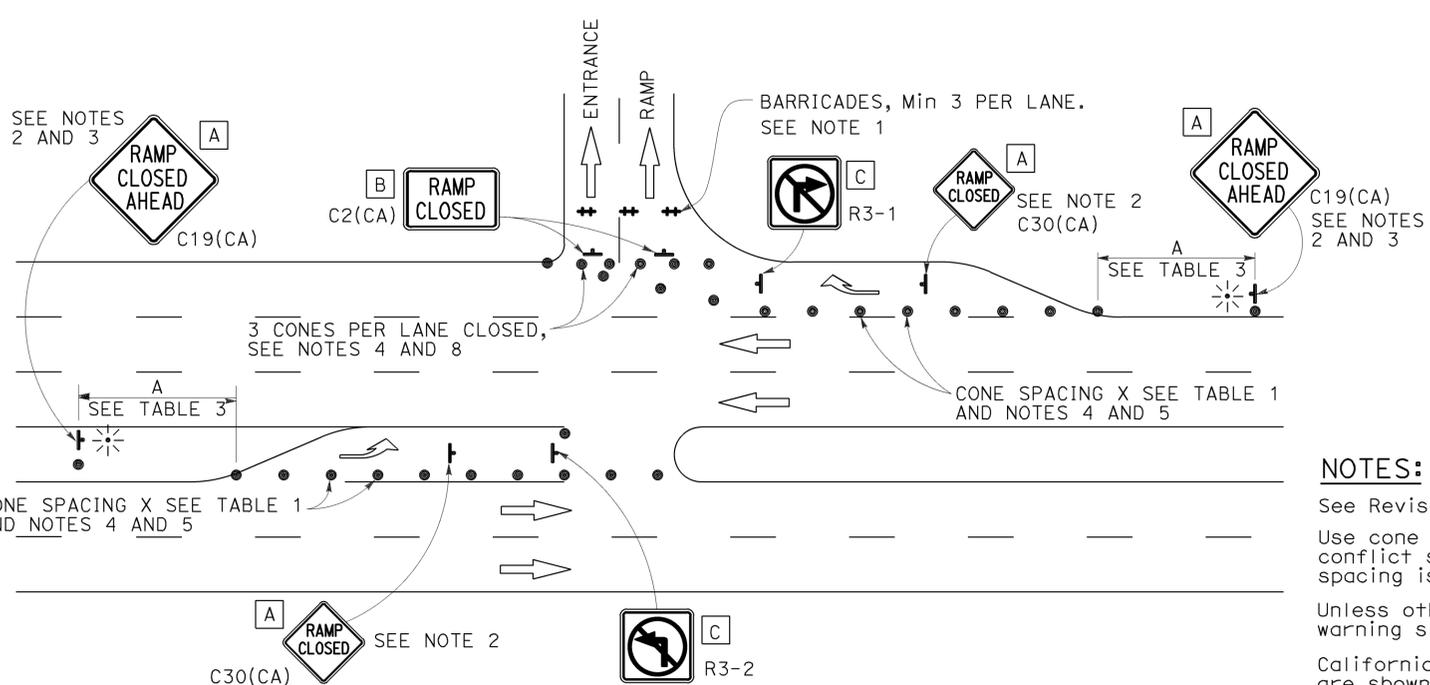
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- 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" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



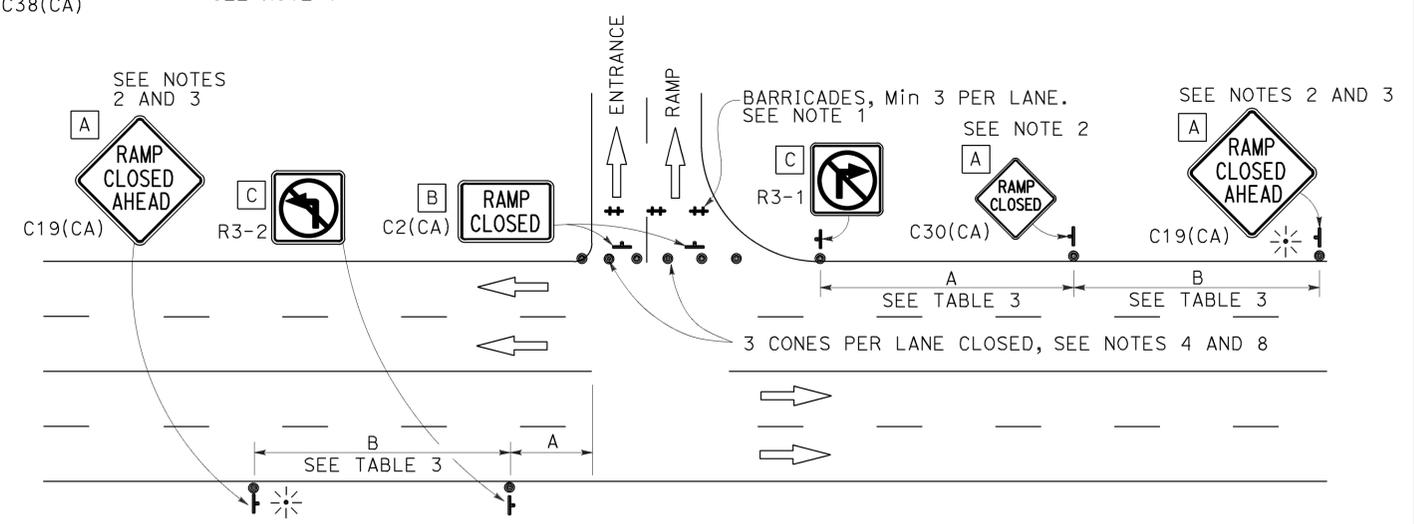
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

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

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

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

2010 REVISED STANDARD PLAN RSP T14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	22	36
			5-24-16	DATE	
			6-20-16	PLANS APPROVAL DATE	

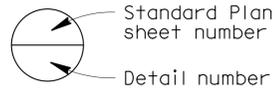
**NOTE:**  
 For limits of clean and treat bridge deck with high molecular weight methacrylate, locations of remove existing joint seals and place new joint seals, and deck concrete repair locations, see "STRUCTURE PLAN NO. 1" thru "STRUCTURE PLAN NO. 10" sheets.

**INDEX TO PLANS**

SHEET NO.	TITLE
1	GENERAL PLAN
2	STRUCTURE PLAN NO.1
3	STRUCTURE PLAN NO.2
4	STRUCTURE PLAN NO.3
5	STRUCTURE PLAN NO.4
6	STRUCTURE PLAN NO.5
7	STRUCTURE PLAN NO.6
8	STRUCTURE PLAN NO.7
9	STRUCTURE PLAN NO.8
10	STRUCTURE PLAN NO.9
11	STRUCTURE PLAN NO.10
12	MISCELLANEOUS DETAILS NO. 1
13	MISCELLANEOUS DETAILS NO. 2
14	MISCELLANEOUS DETAILS NO. 3
15	STRIP JOINT SEAL ASSEMBLY MAXIMUM MOVEMENT RATING = 4"

**STANDARD PLANS DATED 2010**

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
A10B	ABBREVIATIONS (SHEET 2 OF 2)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING=2")



AIRPORT VIADUCT QUANTITIES BR NO 53-2400R

DESCRIPTION	QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN		
RAPID SETTING CONCRETE (PATCH)	346 CF	
REMOVE UNSOUND CONCRETE	346 CF	
PREPARE CONCRETE BRIDGE DECK SURFACE	553,835 SQFT	
TREAT BRIDGE DECK	553,835 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	6,154 GAL	
CLEAN EXPANSION JOINT	1,230 LF	
JOINT SEAL (MR 1")	44 LF	
JOINT SEAL (MR 2")	101 LF	
REPLACE NEOPRENE GLAND (SE-300)	723 LF	
REPLACE NEOPRENE GLAND (SE-500)	908 LF	

AIRPORT VIADUCT QUANTITIES BR NO 53-2400

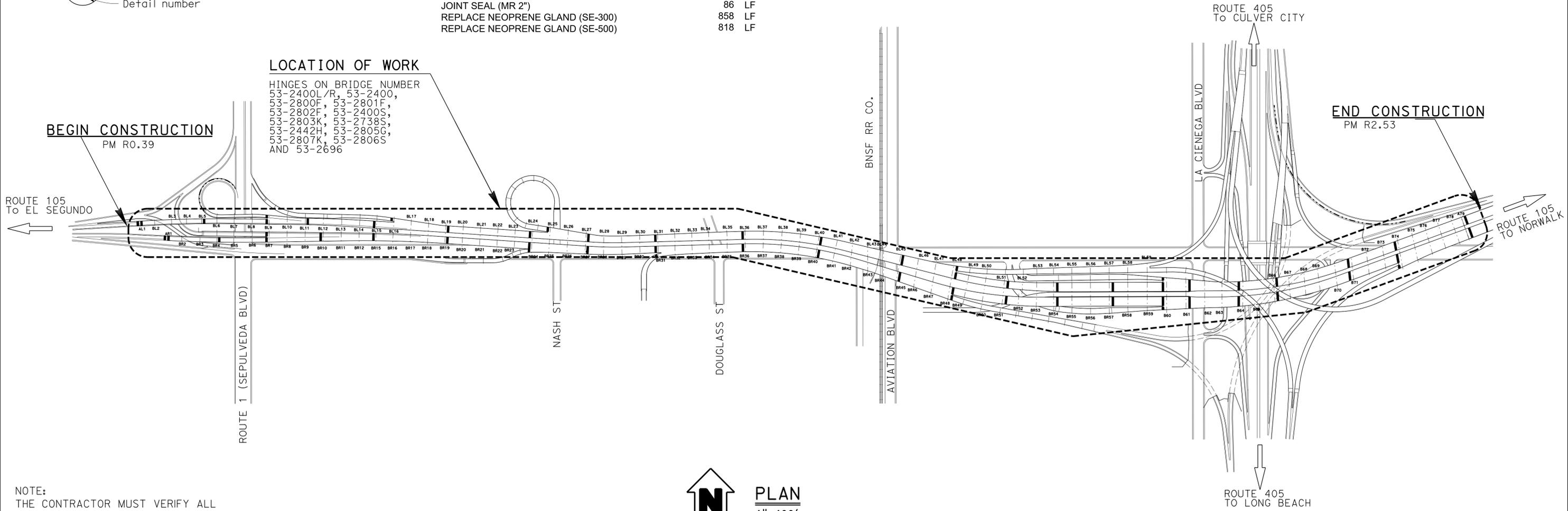
DESCRIPTION	QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN		
RAPID SETTING CONCRETE (PATCH)	235 CF	
REMOVE UNSOUND CONCRETE	235 CF	
PREPARE CONCRETE BRIDGE DECK SURFACE	376,367 SQFT	
TREAT BRIDGE DECK	376,367 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	4,182 GAL	
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP SUM	
TEMPORARY DECKING	LUMP SUM	
STRUCTURAL CONCRETE, BRIDGE	12 CY	
CLEAN EXPANSION JOINT	703 LF	
JOINT SEAL ASSEMBLY (MR 4")	75 LF	
REPLACE NEOPRENE GLAND (SE-300)	1,416 LF	
REPLACE NEOPRENE GLAND (SE-500)	231 LF	

AIRPORT VIADUCT QUANTITIES BR NO 53-2400L

DESCRIPTION	QUANTITIES	LUMP SUM
PUBLIC SAFETY PLAN		
RAPID SETTING CONCRETE (PATCH)	362 CF	
REMOVE UNSOUND CONCRETE	362 CF	
PREPARE CONCRETE BRIDGE DECK SURFACE	578,740 SQFT	
TREAT BRIDGE DECK	578,740 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	6,430 GAL	
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP SUM	
TEMPORARY DECKING	LUMP SUM	
STRUCTURAL CONCRETE, BRIDGE	8 CY	
CLEAN EXPANSION JOINT	1,205 LF	
JOINT SEAL (MR 1")	42 LF	
JOINT SEAL ASSEMBLY (MR 4")	55 LF	
JOINT SEAL (MR 2")	86 LF	
REPLACE NEOPRENE GLAND (SE-300)	858 LF	
REPLACE NEOPRENE GLAND (SE-500)	818 LF	

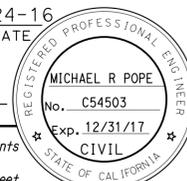
**LOCATION OF WORK**

HINGES ON BRIDGE NUMBER  
 53-2400L/R, 53-2400,  
 53-2800F, 53-2801F,  
 53-2802F, 53-2400S,  
 53-2803K, 53-2738S,  
 53-2442H, 53-2805G,  
 53-2807K, 53-2806S  
 AND 53-2696



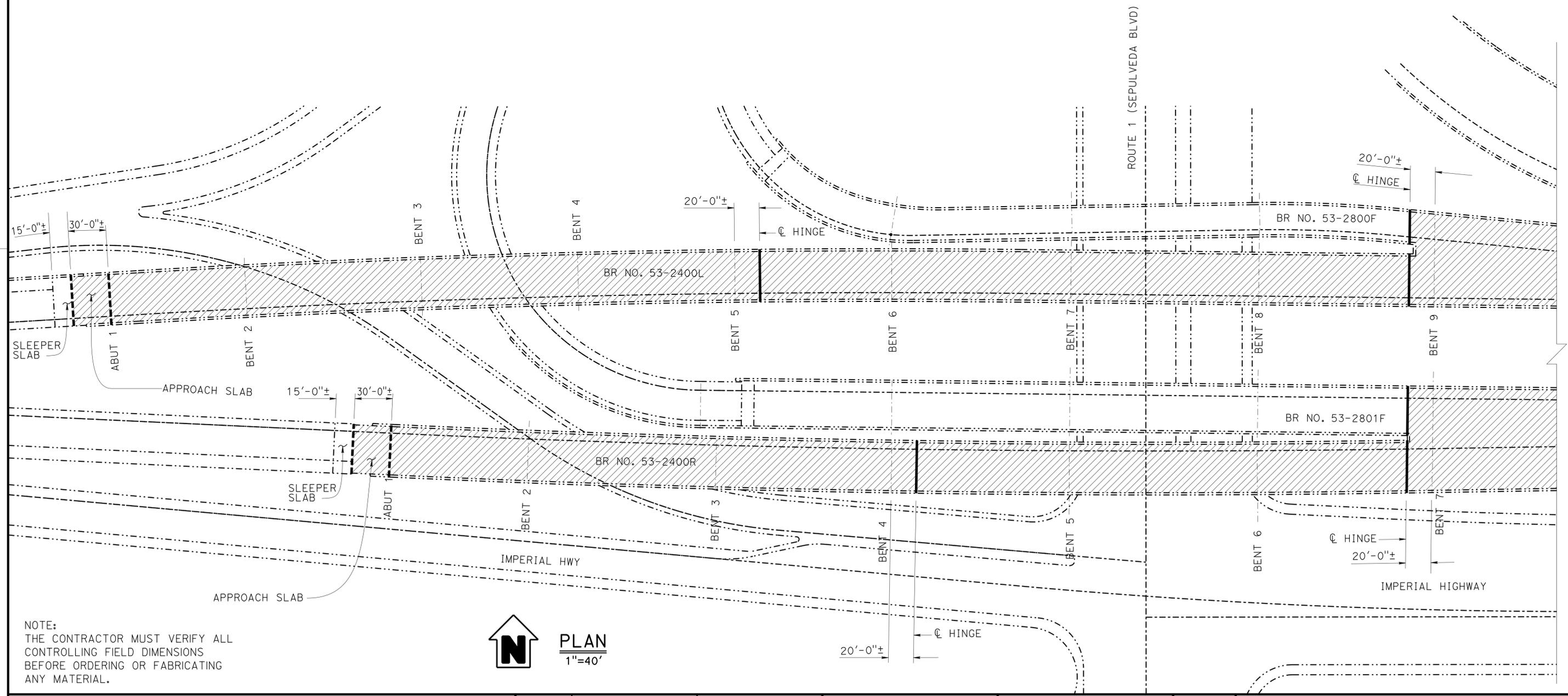
**NOTE:**  
 THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

<b>MIKE POPE</b> DESIGN ENGINEER	DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 18</b>	BRIDGE NO.	<b>AIRPORT VIADUCT</b> <b>GENERAL PLAN</b>	
	DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA	LAYOUT	BY MINH TRAN			CHECKED ARMANDO JOSE		VARIOUS
	QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE	SPECIFICATIONS	BY KEVIN ELLINGSON			CHECKED X		POST MILE
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3603 PROJECT NUMBER & PHASE: 0714000087 1		CONTRACT NO.: 07-305004		
DISREGARD PRINTS BEARING EARLIER REVISION DATES								REVISION DATES: 11/15/15, 03/28/16, 05/24/16		
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10)								SHEET 1 OF 15		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	23	36
 REGISTERED CIVIL ENGINEER			5-24-16	DATE	
6-20-16			PLANS APPROVAL DATE		
					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					

**NOTE:**  
For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.

- LEGEND:**
- Indicates Existing Structure
  - - - - - Indicates location of clean expansion joint and place new joint seal.
  - Indicates limits of replace neoprene strip seal gland
  -  Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.



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

 **PLAN**  
1"=40'

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT  
STRUCTURE PLAN NO. 1**

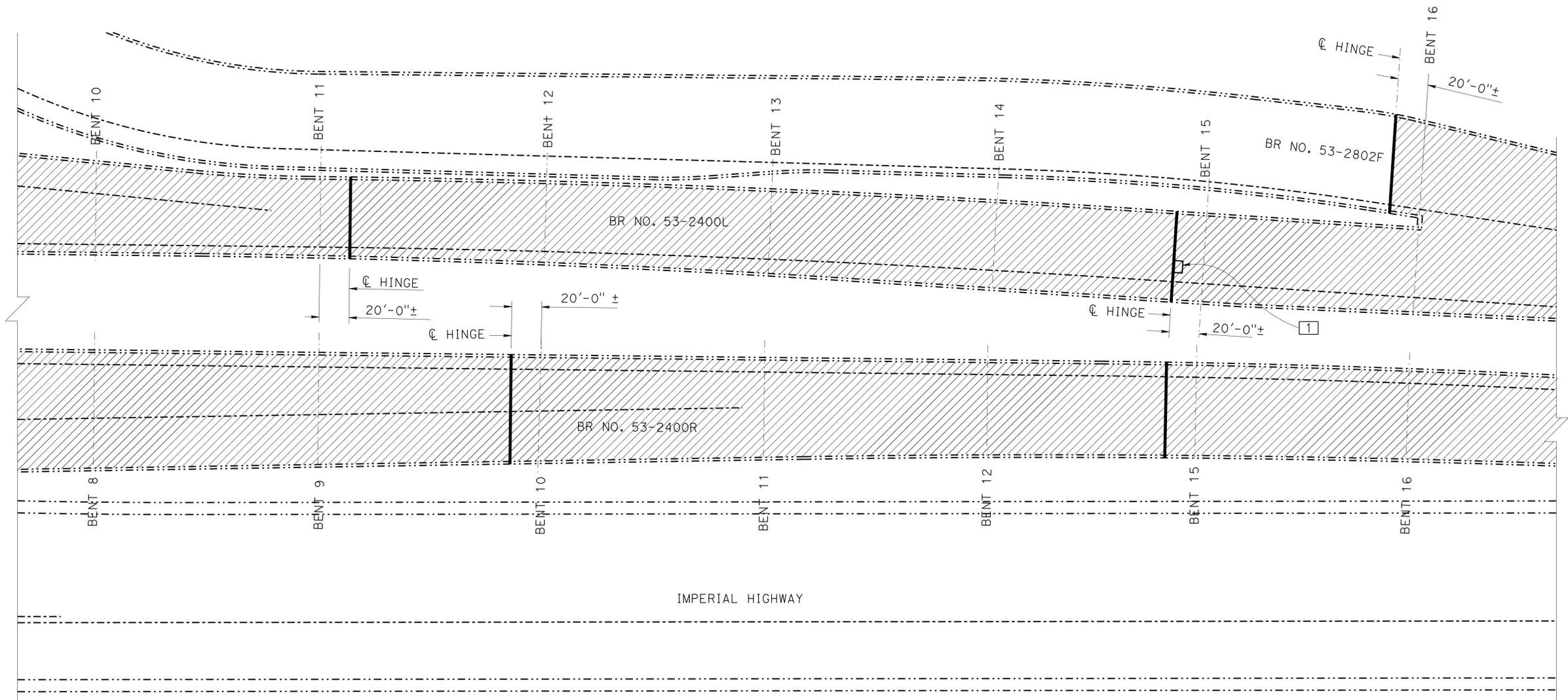
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	24	36

REGISTERED CIVIL ENGINEER *Michael R. Pope* DATE 5-24-16  
 PLANS APPROVAL DATE 6-20-16  
 No. C54503  
 Exp. 12/31/17  
 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:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealglad
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - ① Indicates limits of remove 10"x36"x3" deep unsound concrete spall and patch with rapid setting concrete.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



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



DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 2**

USERNAME => s122436 DATE PLOTTED => 11-JUL-2016 TIME PLOTTED => 12:50

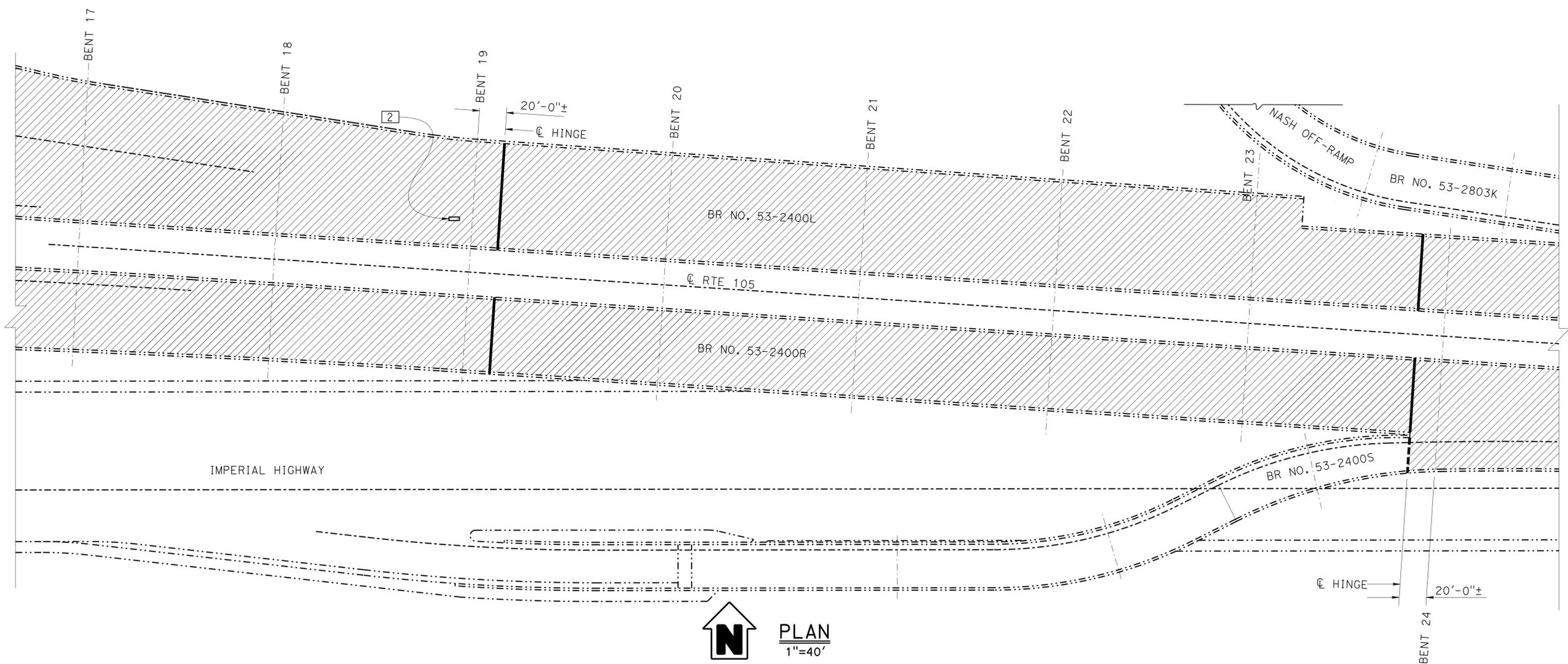
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	25	36

REGISTERED CIVIL ENGINEER *Michael R. Pope* DATE 5-24-16  
 PLANS APPROVAL DATE 6-20-16  
 No. C54503  
 Exp. 12/31/17  
 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:**
- Indicates Existing Structure
  - - - - - Indicates location of clean expansion joint and place new joint seal.
  - Indicates limits of replace neoprene strip seal gland
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - ② Indicates limits of remove 24"x3"x3" deep unsound concrete and patch with rapid setting concrete.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.




**PLAN**  
 1"=40'

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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 3**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3603  
 PROJECT NUMBER & PHASE: 0714000087 1  
 CONTRACT NO.: 07-305004

REVISION DATES	SHEET	OF
11/19/15 05/24/16	4	15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	26	36

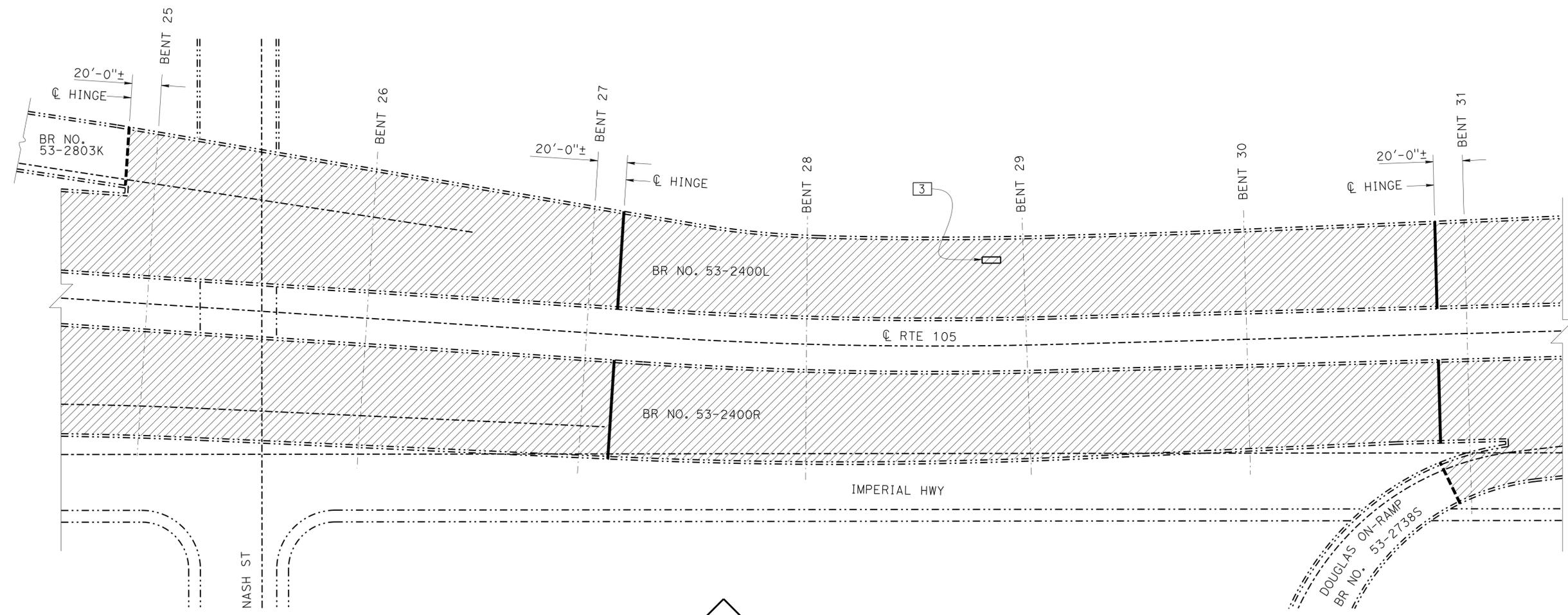
Michael R. Pope 5-24-16  
 REGISTERED CIVIL ENGINEER DATE  
 6-20-16  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 MICHAEL R. POPE  
 No. C54503  
 Exp. 12/31/17  
 CIVIL  
 STATE OF CALIFORNIA

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- LEGENDS:**
- Indicates Existing Structure
  - - - - - Indicates location of clean expansion joint and place new joint seal.
  - Indicates limits of replace neoprene strip seal gland
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - ③ Indicates limits of remove 24"x3"x3" deep unsound concrete and patch with rapid setting concrete.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



**PLAN**  
 1"=40'

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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 4**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3603  
 PROJECT NUMBER & PHASE: 0714000087 1

CONTRACT NO.: 07-305004

DISREGARD PRINTS BEARING EARLIER REVISION DATES

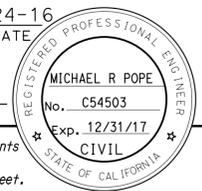
REVISION DATES	SHEET	OF
11/15/15 05/24/16	5	15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R0.4/R2.5	27	36

 5-24-16  
 REGISTERED CIVIL ENGINEER DATE

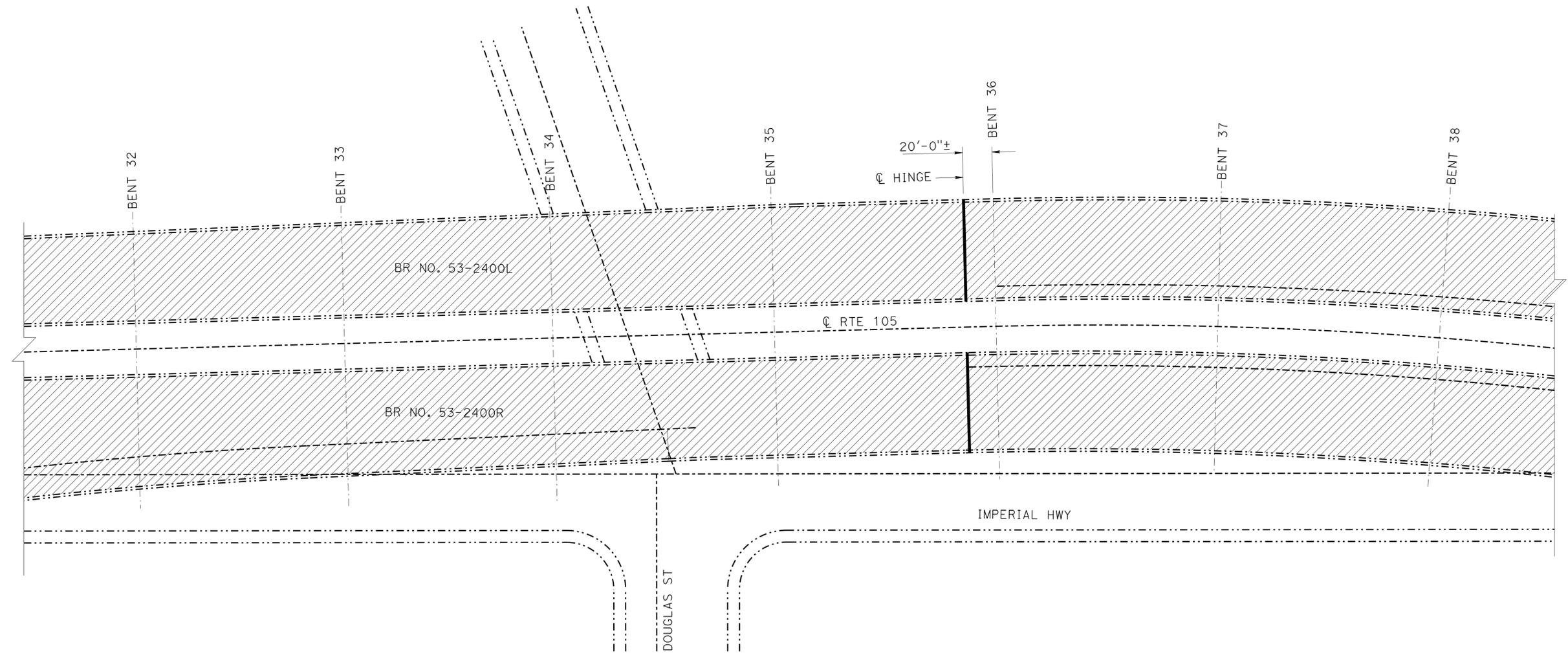
6-20-16  
 PLANS APPROVAL DATE

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- LEGEND:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealgland
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



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



DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 5**



REVISION DATES	SHEET	OF
11/15/15 05/24/16	6	15

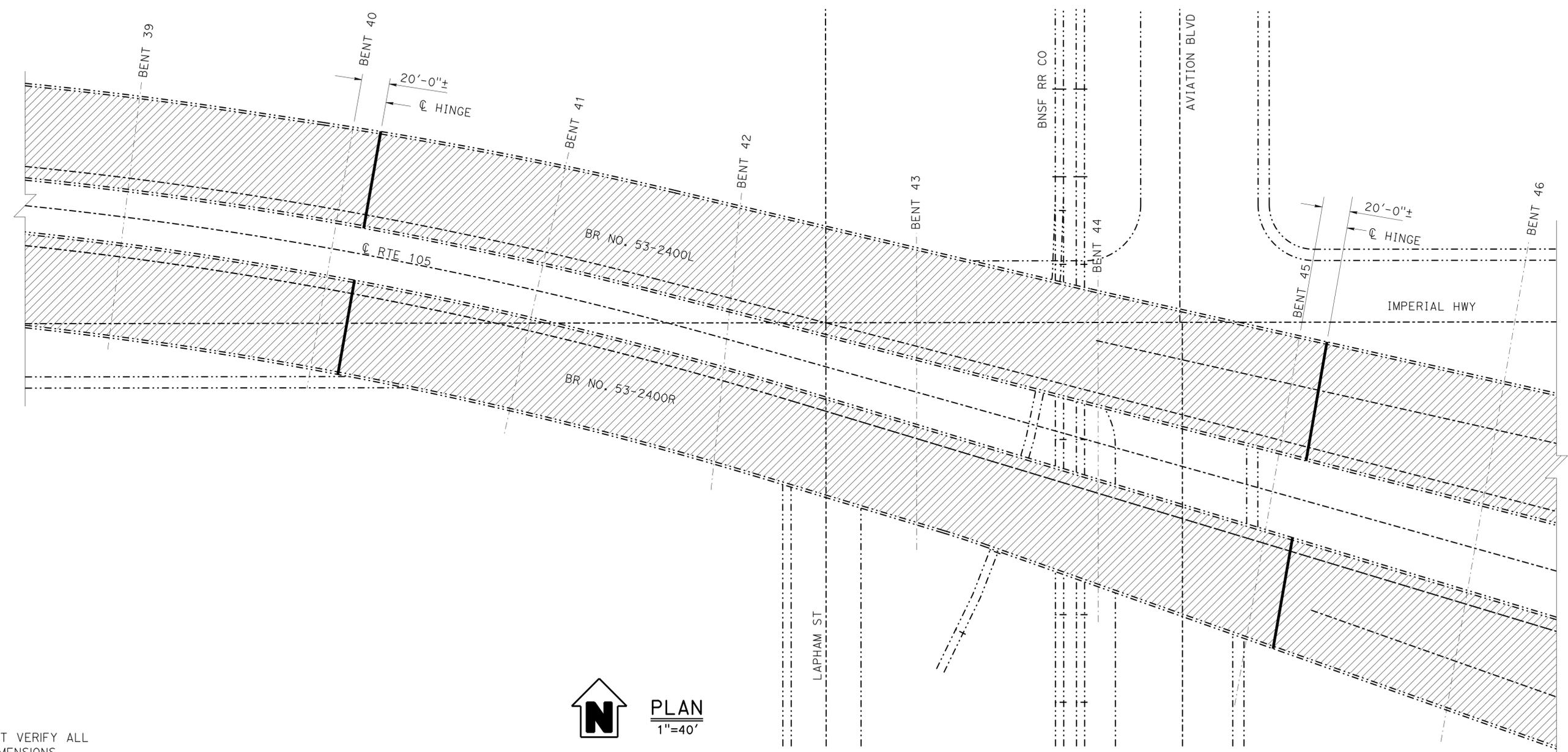
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	28	36

REGISTERED CIVIL ENGINEER DATE 5-24-16  
 REGISTERED CIVIL ENGINEER DATE 6-20-16  
 No. C54503  
 Exp. 12/31/17  
 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:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealgland
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



**PLAN**  
 1"=40'

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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 6**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	29	36

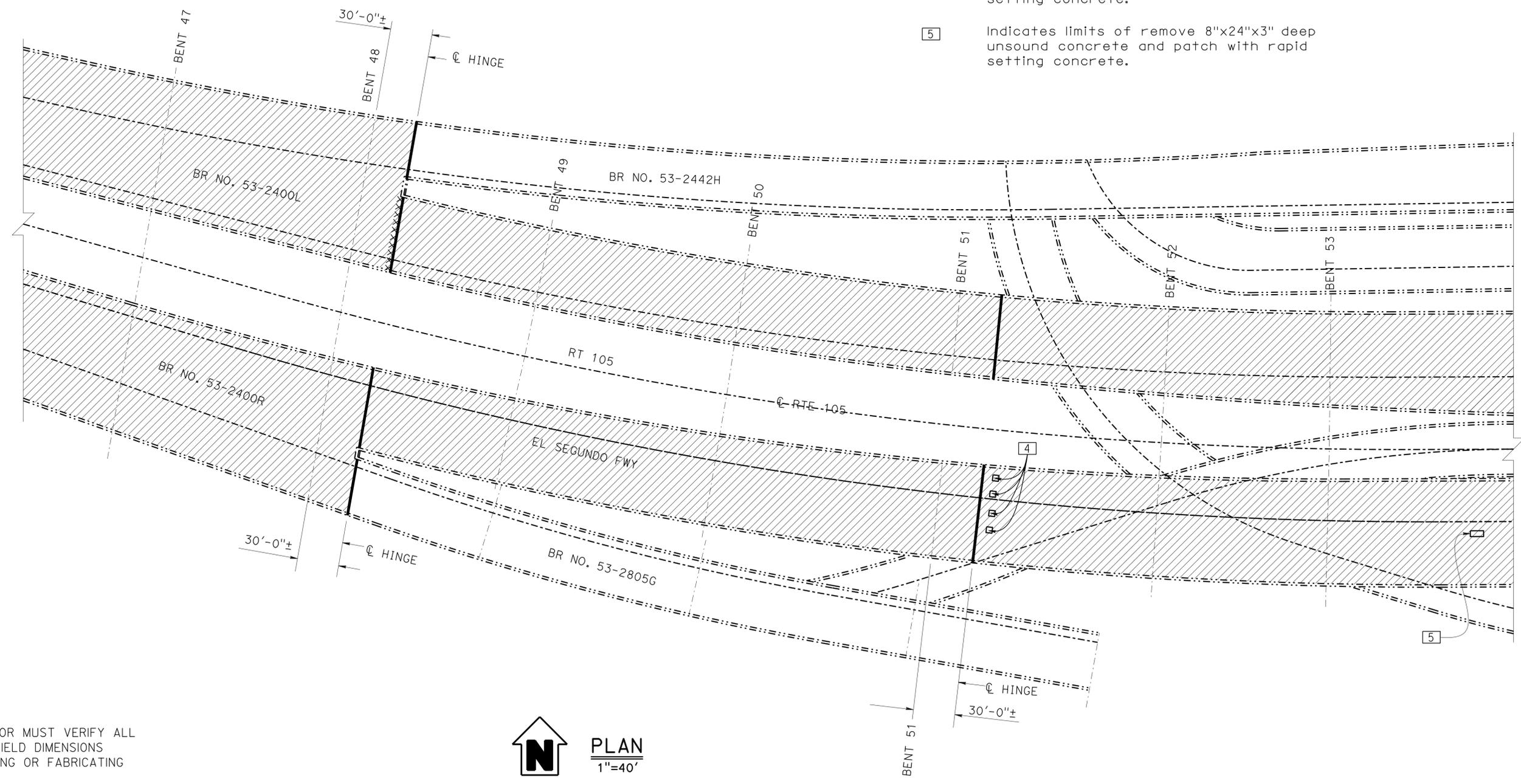
Michael R. Pope  
 REGISTERED CIVIL ENGINEER DATE 5-24-16  
 6-20-16  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 MICHAEL R. POPE  
 No. C54503  
 Exp. 12/31/17  
 CIVIL  
 STATE OF CALIFORNIA

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- LEGEND:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealgland
  - xxxxx Indicates location of removal of existing joint seal assembly and replacement with new strip joint seal assembly.
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - 4 Indicates limits of remove 1"x1"x3" deep unsound concrete and patch with rapid setting concrete.
  - 5 Indicates limits of remove 8"x24"x3" deep unsound concrete and patch with rapid setting concrete.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



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



DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

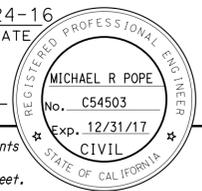
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

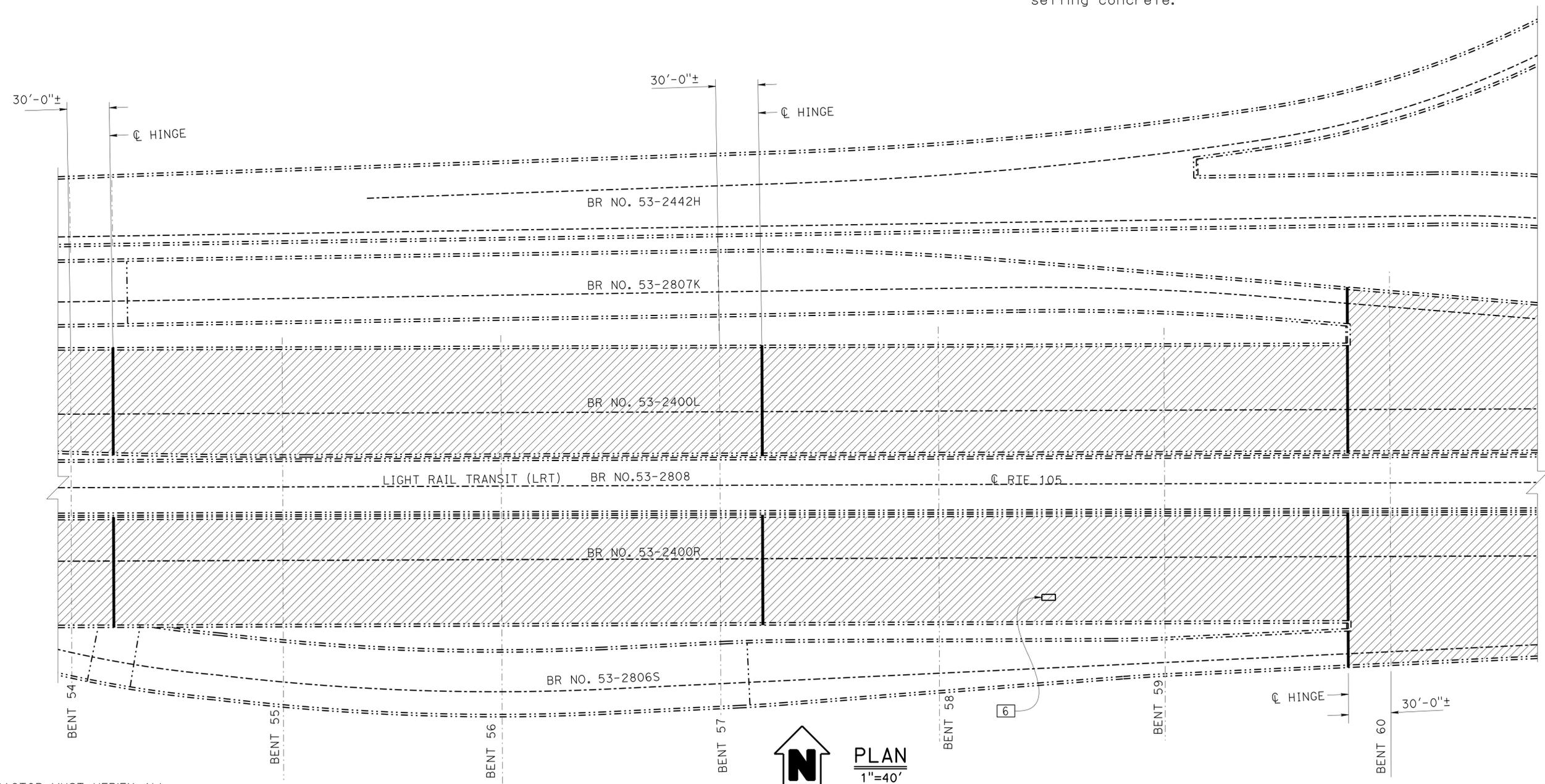
**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 7**

USERNAME => s122436 DATE PLOTTED => 11-JUL-2016 TIME PLOTTED => 12:50

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	30	36
 REGISTERED CIVIL ENGINEER			5-24-16	DATE	
6-20-16 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.

- LEGEND:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealgland
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - 6 Indicates limits of remove 8"x18"x3" deep unsound concrete and patch with rapid setting concrete.



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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

**DIVISION OF ENGINEERING SERVICES**  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 8**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3603  
 PROJECT NUMBER & PHASE: 0714000087 1 CONTRACT NO.: 07-305004

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
11/25/15 05/24/16	9	15

USERNAME => s122436 DATE PLOTTED => 11-JUL-2016 TIME PLOTTED => 12:51

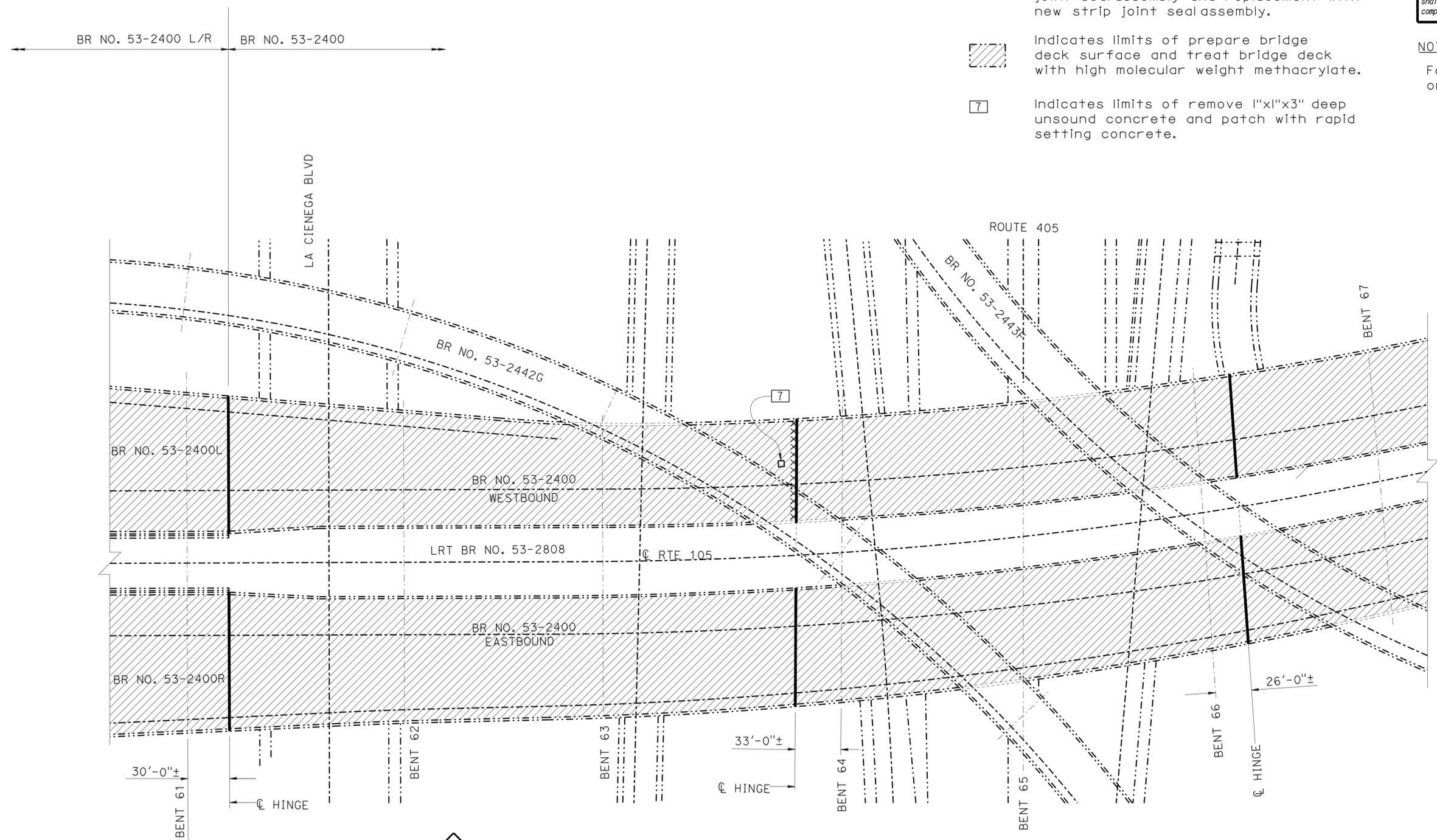
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	31	36

REGISTERED CIVIL ENGINEER *Michael R. Pope* DATE 5-24-16  
 PLANS APPROVAL DATE 6-20-16  
 No. C54503  
 Exp. 12/31/17  
 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:**
- Indicates Existing Structure
  - Indicates limits of replace neoprene strip sealglad
  - XXXXX Indicates location of removal of existing joint sealassembly and replacement with new strip joint sealassembly.
  - ▨ Indicates limits of prepare bridge deck surface and treat bridge deck with high molecular weight methacrylate.
  - 7 Indicates limits of remove 1"x1"x3" deep unsound concrete and patch with rapid setting concrete.

**NOTE:**  
 For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



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


**PLAN**  
 1"=40'

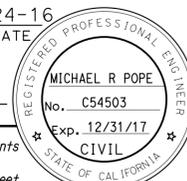
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DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

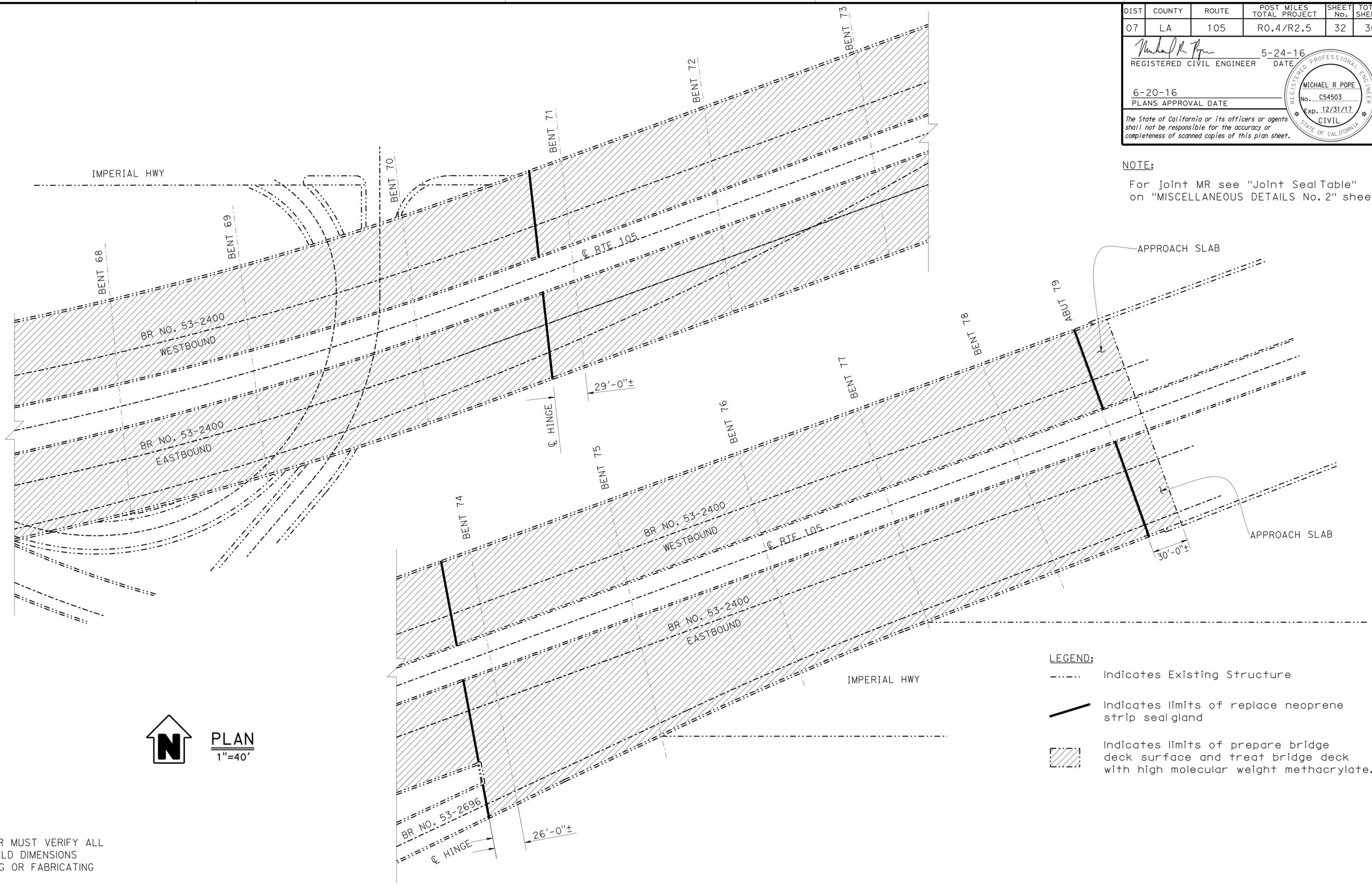
DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**STRUCTURE PLAN NO. 9**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	32	36
			5-24-16		
REGISTERED CIVIL ENGINEER			DATE		
6-20-16			PLANS APPROVAL DATE		
					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					

**NOTE:**  
For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

## AIRPORT VIADUCT STRUCTURE PLAN NO. 10



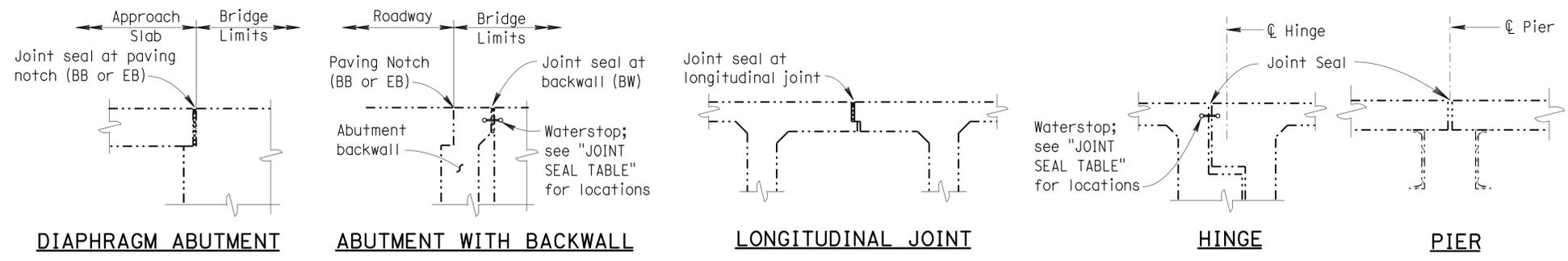
REVISION DATES	SHEET	OF
11/19/15 05/24/16	11	15

USERNAME => s122436 DATE PLOTTED => 11-JUL-2016 TIME PLOTTED => 12:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	33	36

REGISTERED CIVIL ENGINEER: *Michael R. Pope*  
 DATE: 5-24-16  
 PLANS APPROVAL DATE: 6-20-16  
 No. C54503  
 Exp. 12/31/17  
 CIVIL  
 STATE OF CALIFORNIA

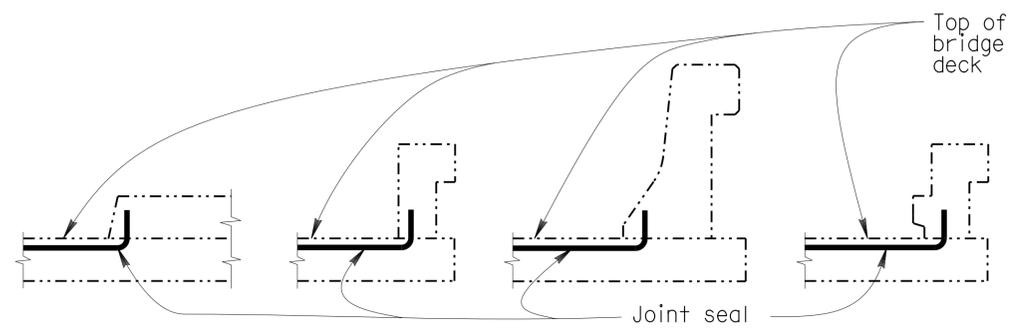
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.



**JOINT SEAL LOCATION**

NO SCALE

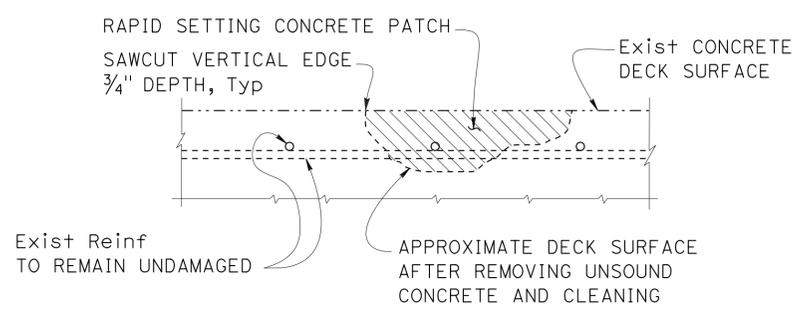
**NOTE:**  
For joint MR see "Joint Seal Table" on "MISCELLANEOUS DETAILS No. 2" sheet.



**BARRIER RAIL**

**JOINT SEAL AT LOW SIDE OF DECK**

Details shown for illustration purposes only. For use only where deck joint matches the barrier rail joint.  
NO SCALE



**DECK DAMAGE REPAIR DETAIL**

NO SCALE

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

**NOTES:**

The following notes apply to JOINT SEAL TYPE A:

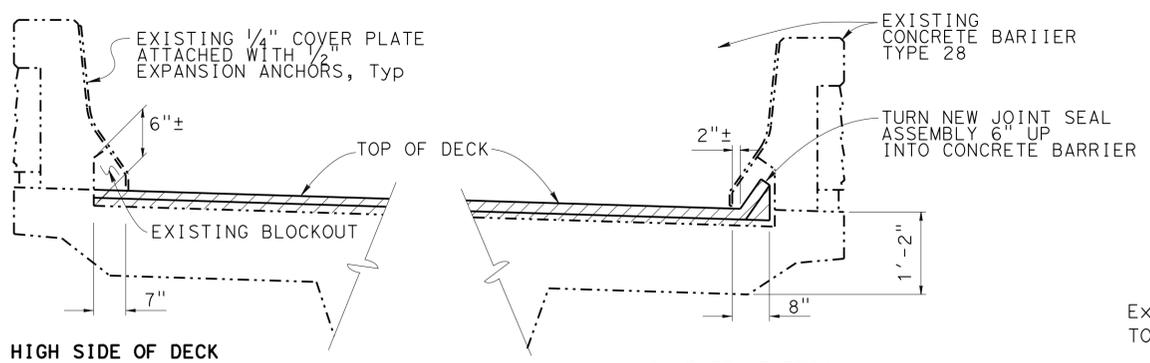
Install Joint Seal (MR = 1") or Silicon Joint Seal 3" up into the curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see B6-21 sheet.

The following notes apply to JOINT SEAL TYPE B:

- 1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
- 2) 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.
- 3) W1 shall be the smaller of the values determined as follows:
  - A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
  - B) 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.
- 4) Bend Type B joint seal 6 inches up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

For details not shown see B6-21 sheet.

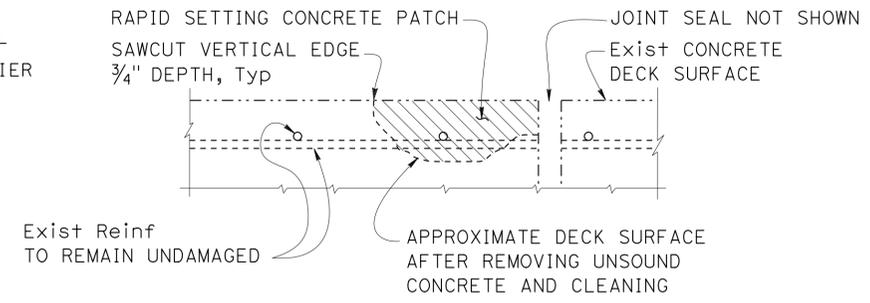


HIGH SIDE OF DECK

LOW SIDE OF DECK

**JOINT SEAL ASSEMBLY AT BARRIER RAILS**

NO SCALE



**JOINT SPALL REPAIR DETAIL**

NO SCALE

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

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

DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**MISCELLANEOUS DETAILS NO. 1**

JOINT SEAL TABLE

JOINT LOCATIONS	MINIMUM "MR" (INCHES)	APPROX LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JT (INCHES)
BR NO. 53-2400L				
SLEEPER SLAB	1.0	42	Y	8
ABUT I	2.0	42	Y	8
*SPAN 5 HINGE	4.0	43	Y	12
*SPAN 8 HINGE	3.0	42	Y	12
*WB SPAN 8 HINGE AT 53-2800F	3.0	28	Y	12
*SPAN 11 HINGE	3.0	55	Y	12
*SPAN 14 HINGE	4.0	61	Y	12
*WB SPAN 15 HINGE AT 53-2802F	4.0	48	Y	12
***SPAN 19 HINGE	6.0	55	N	36
**SPAN 23 HINGE	6.0	55	N	36
WB SPAN 24 AT 53-2803K	2.0	42	Y	12
*SPAN 27 HINGE	4.0	65	N	36
**SPAN 30 HINGE	6.0	58	N	36
**SPAN 35 HINGE	6.0	67	N	36
**SPAN 40 HINGE	6.0	68	N	36
***SPAN 45 HINGE	6.0	84	N	36
SEE NOTE SPAN 48 HINGE	4.0	55	N	24
*WB SPAN 48 HINGE AT 53-2442H	4.0	42	N	36
*SPAN 51 HINGE	3.0	62	N	36
*SPAN 54 HINGE	4.0	77	N	36
*SPAN 57 HINGE	3.0	78	N	36
*SPAN 59 HINGE	3.0	99	N	36
*WB SPAN 59 HINGE AT 53-2807K	4.0	28	N	36
*SPAN 61 HINGE	4.0	90	N	42

BR NO. 53-2400R

SLEEPER SLAB	1.0	44	Y	8
ABUT I	2.0	44	Y	8
*SPAN 4 HINGE	3.0	43	Y	12
*SPAN 6 HINGE	3.0	42	Y	12
*EB SPAN 6 HINGE AT 53-280IF	3.0	39	Y	12
*SPAN 9 HINGE	3.0	73	Y	12
*SPAN 12 HINGE	4.0	64	Y	12
**SPAN 19 HINGE	6.0	55	N	36
*SPAN 23 HINGE	4.0	55	N	36
EB SPAN 23 HINGE AT 53-2400S	2.0	26	Y	12
*SPAN 27 HINGE	4.0	66	N	36
**SPAN 30 HINGE	6.0	55	N	36
EB SPAN 30 HINGE AT 53-2738S	2.0	31	Y	12
**SPAN 35 HINGE	6.0	66	N	36
**SPAN 40 HINGE	6.0	67	N	36
***SPAN 45 HINGE	6.0	79	N	36
*SPAN 48 HINGE	4.0	61	N	36
*EB SPAN 48 HINGE AT 53-2805G	4.0	42	N	36
*SPAN 51 HINGE	3.0	72	N	36
*SPAN 54 HINGE	4.0	73	N	36
*SPAN 57 HINGE	3.0	78	N	36
*SPAN 59 HINGE	3.0	79	N	36
*EB SPAN 59 HINGE AT 53-2806S	3.0	28	N	36
*SPAN 61 HINGE	4.0	93	N	42

NOTE: Replace entire joint seal including metal and neoprene gland for span 48 hinge Br.No. 53-2400L and span 63 hinge Br.No. 53-2400 WB.

- \* Indicates one neoprene gland SE-500
- \*\* Indicates two neoprene gland SE-300
- \*\*\* Indicates three neoprene gland SE-300

JOINT SEAL TABLE

JOINT LOCATIONS	MINIMUM "MR" (INCHES)	APPROX LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JT (INCHES)
BR NO. 53-2400				
SEE NOTE WB SPAN 63 HINGE	4.0	75	N	30
***WB SPAN 66 HINGE	5.0	74	N	36
***WB SPAN 70 HINGE	5.5	73	N	36
***WB SPAN 73 HINGE	5.0	73	N	36
* WB ABUT 79	4.0	80	N	30
*EB SPAN 63 HINGE	4.0	71	N	42
***EB SPAN 66 HINGE	5.0	74	N	36
***EB SPAN 70 HINGE	5.5	73	N	36
***EB SPAN 73 HINGE	5.0	73	N	36
***EB SPAN 73 HINGE AT 53-2696	6.0	32	N	36
*EB ABUT 79	4.0	80	N	30

LEGEND:

- Indicates Existing Structure
- Indicates limits of bridge removal (portion)

NOTES:

- Dimension may be reduced at overhang as authorized.
- Existing reinforcement steel within blackout area to remain.
- Not all hinge reinforcement steel shown for clarity.

NOTE:  
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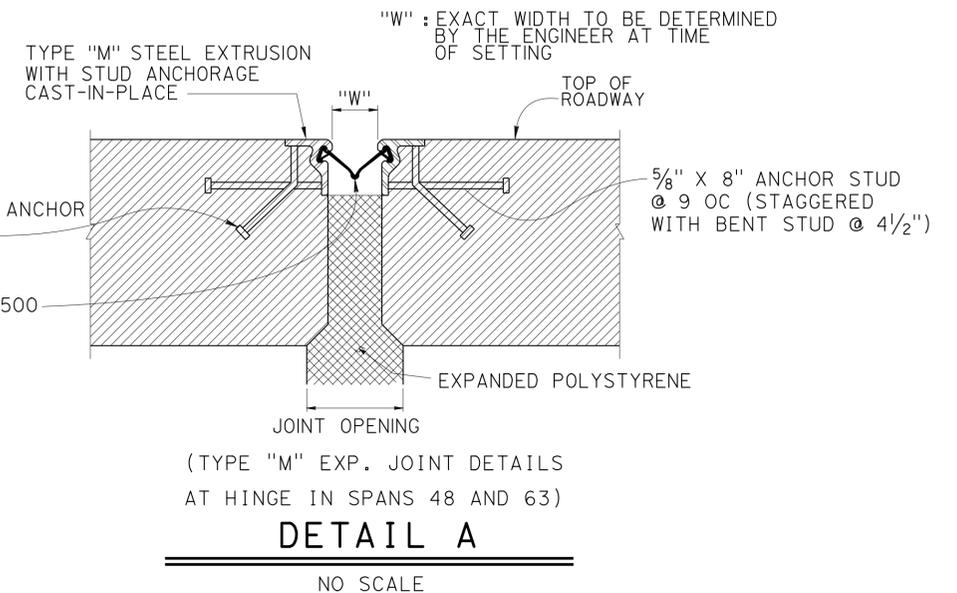
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	34	36

5-24-16  
REGISTERED CIVIL ENGINEER DATE

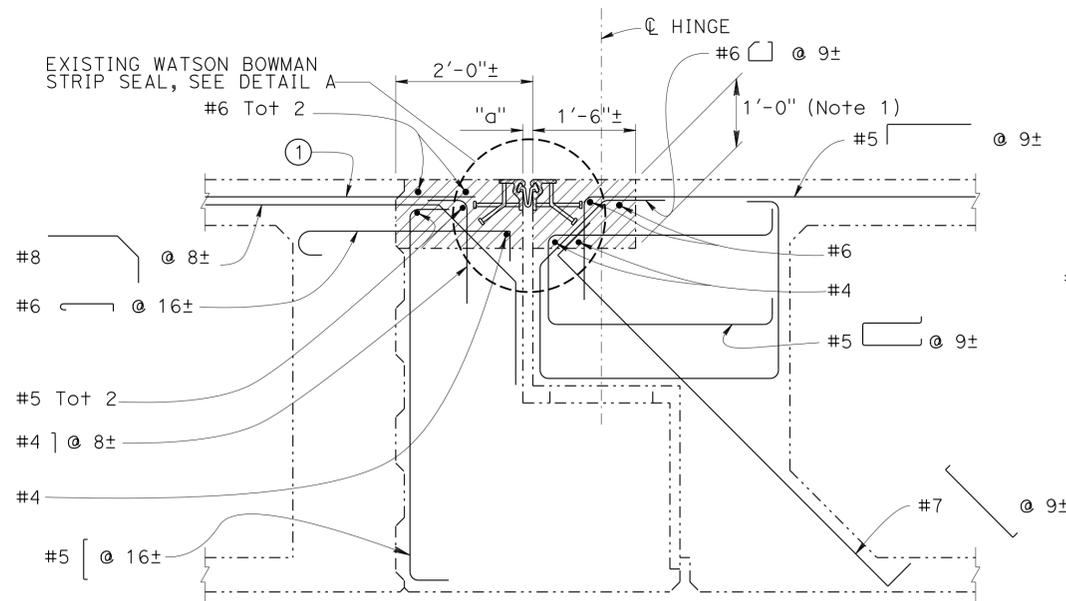
6-20-16  
PLANS APPROVAL DATE

MICHAEL R POPE  
No. C54503  
Exp. 12/31/17  
CIVIL  
STATE OF CALIFORNIA

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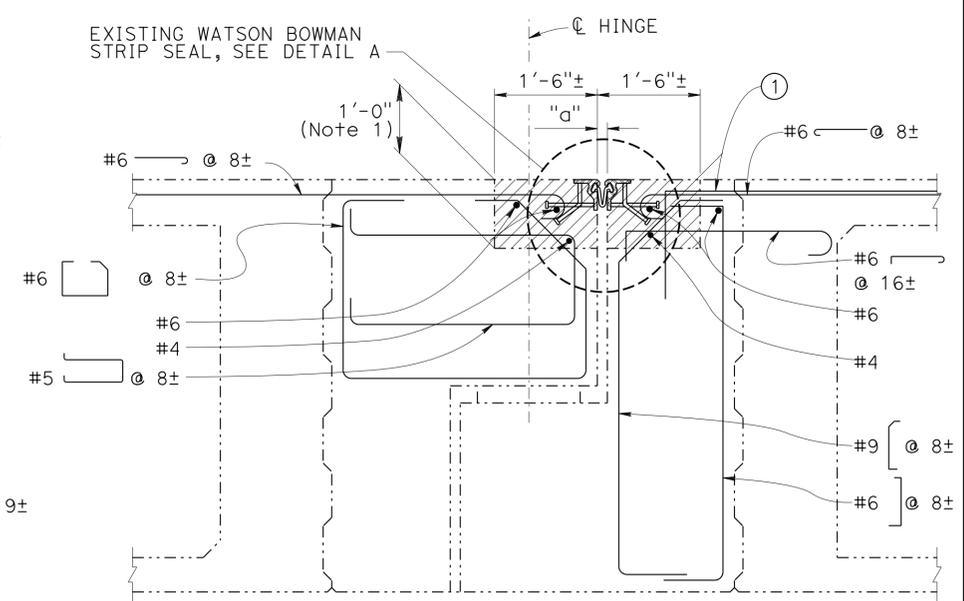


- ① #5 @ 18± between girders and in overhangs; #5 Tot 2 at each girder.



**HINGE DETAIL - SPAN 48**

3/4" = 1'-0"



**HINGE DETAIL - SPAN 63**

3/4" = 1'-0"

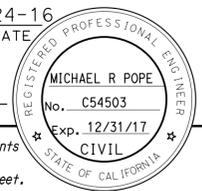
DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
QUANTITIES	BY ARMANDO JOSE	CHECKED MIKE POPE

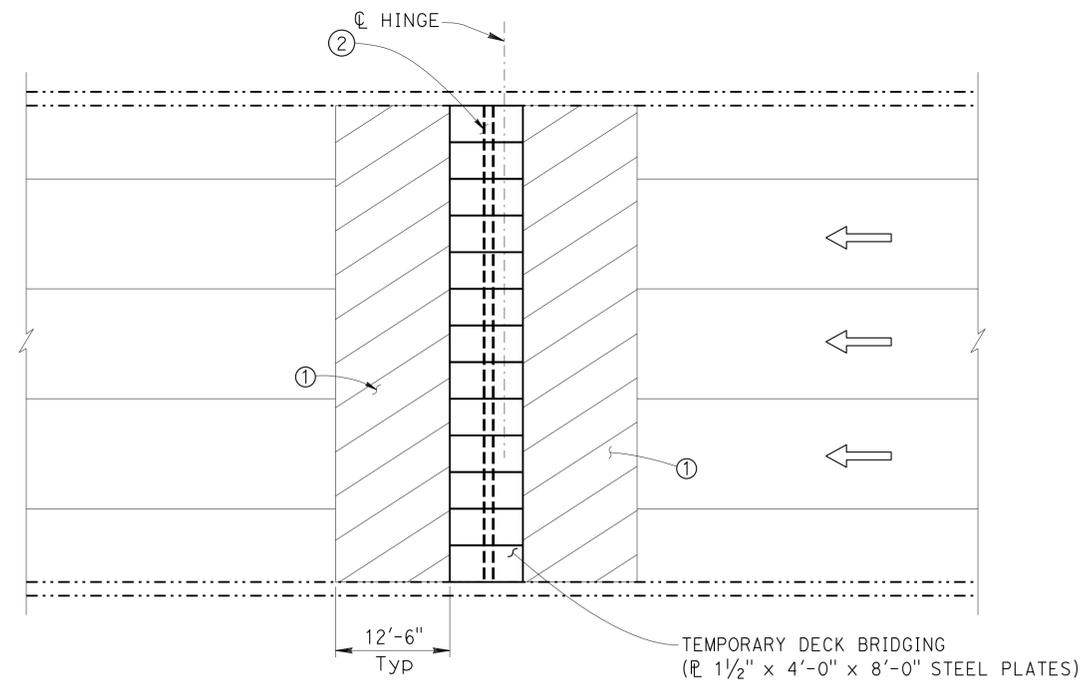
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DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 18**

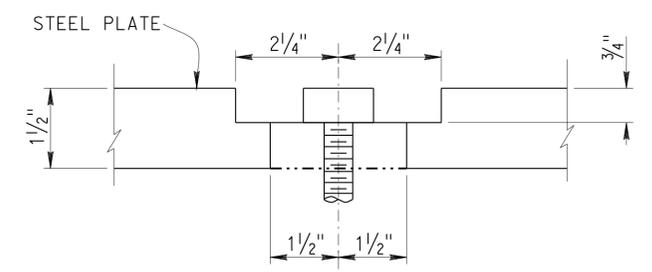
BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**MISCELLANEOUS DETAILS NO. 2**

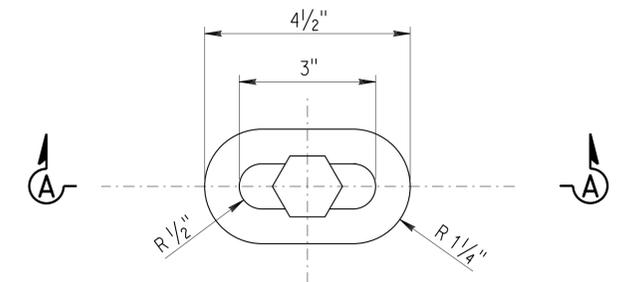
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	RO.4/R2.5	35	36
 REGISTERED CIVIL ENGINEER			5-24-16 DATE		
6-20-16 PLANS APPROVAL DATE					
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**CONCRETE TAPER DETAIL**  
1" = 10'



**SECTION A-A**

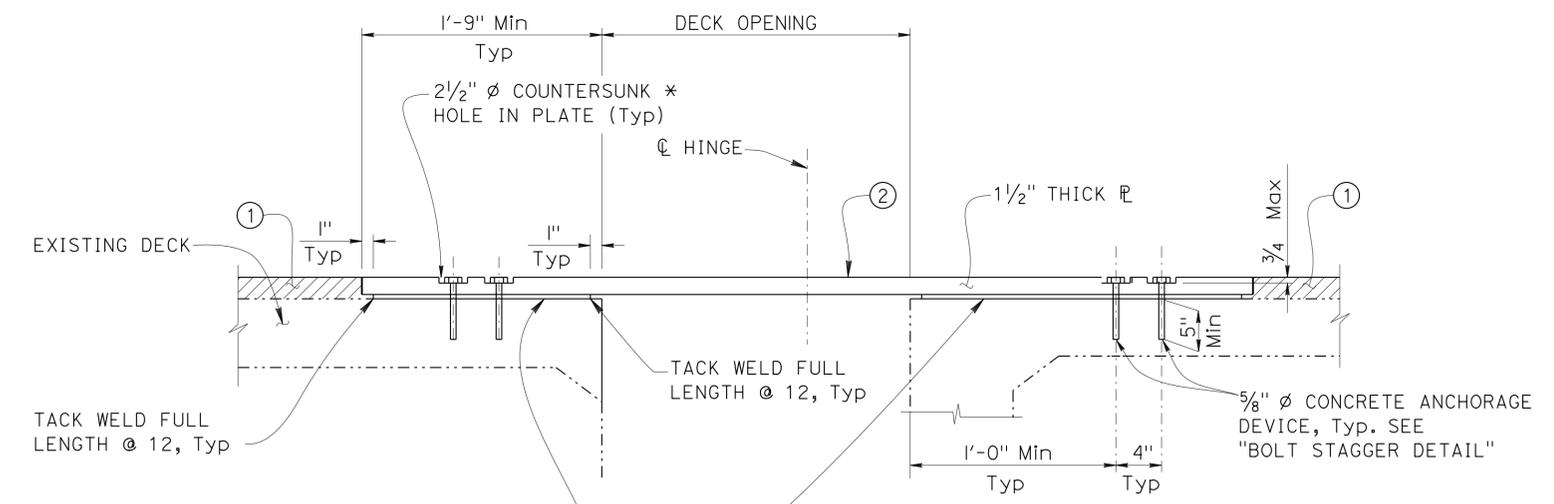


**PLAN**

**COUNTERSINK DETAIL**  
NO SCALE

NOTE:

\* Countersink bolt holes with slotted plate holes to allow for thermal expansion.

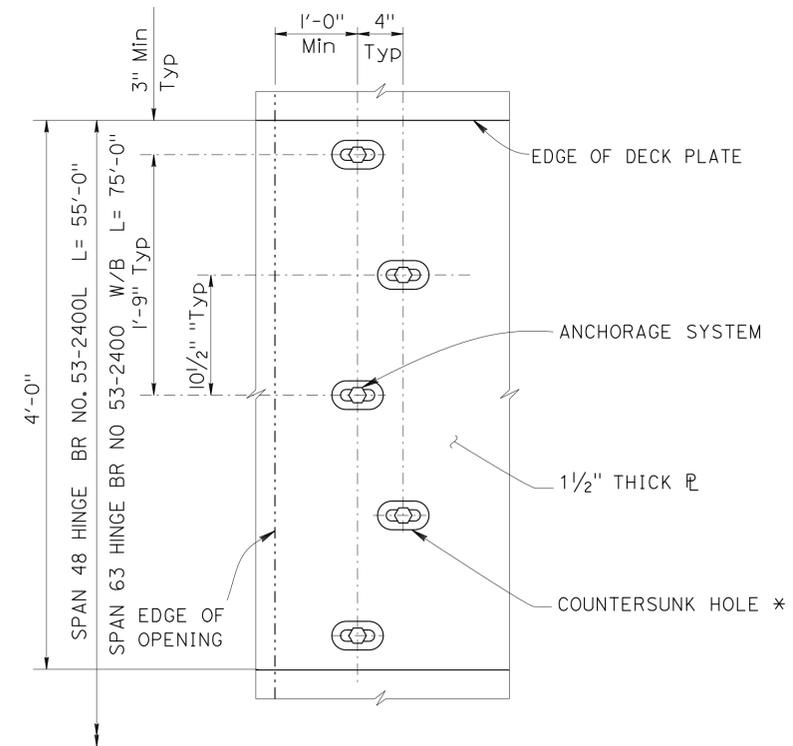


**TEMPORARY DECK PLATE CONNECTION**

1 1/2" = 1'-0"

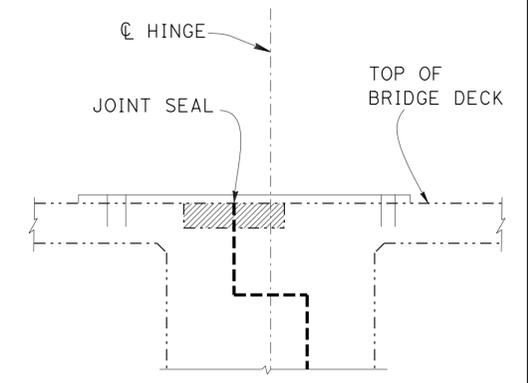
- NOTE:
- ① Place tapered 100:1 (leading/trailing edge = 1/2" thick Max) rapid setting concrete at approach and departure of construction.
  - ② Surface shall have a non-skid surface evenly applied over the entire plate.

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**BOLT STAGGER DETAIL**

1 1/2" = 1'-0"



**HINGE JOINT SEAL LOCATION**

NO SCALE

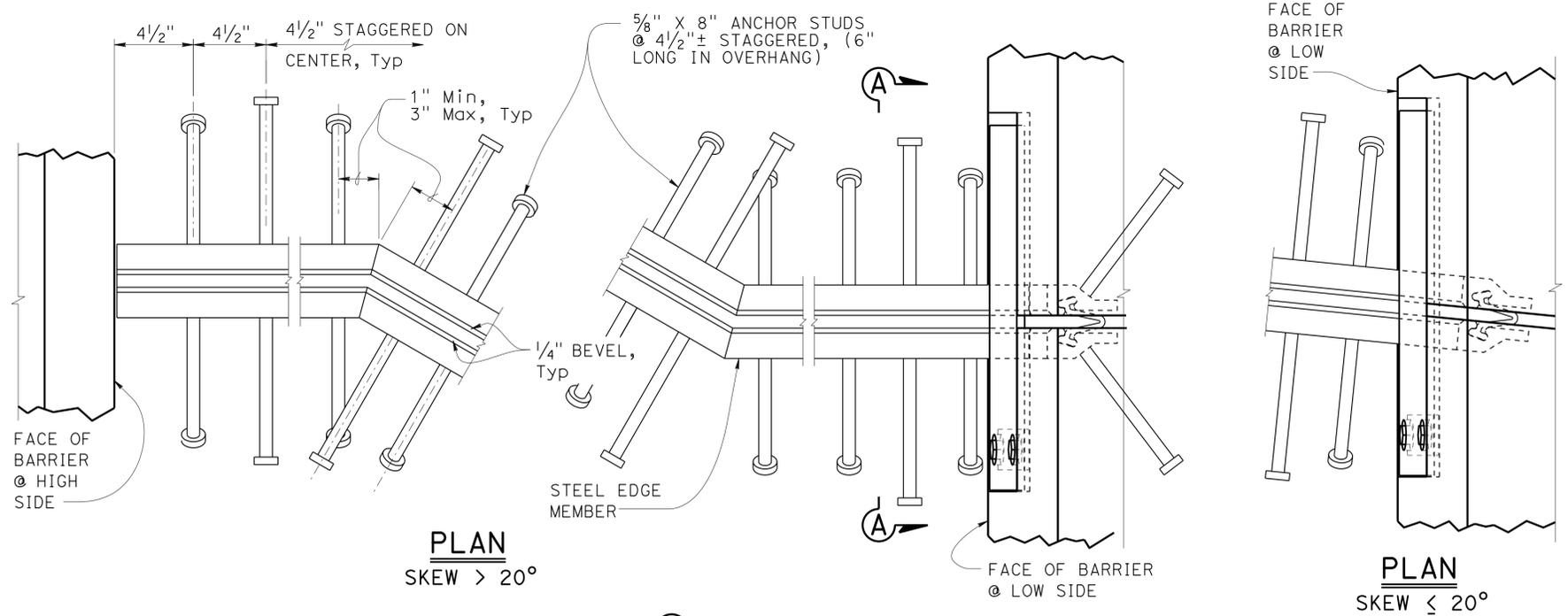
DESIGN	BY ARMANDO JOSE	CHECKED JORGE ESTRADA
DETAILS	BY MINH TRAN	CHECKED JORGE ESTRADA
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STATE OF CALIFORNIA  
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STRUCTURE DESIGN  
**DESIGN BRANCH 18**

BRIDGE NO.	VARIOUS
POST MILE	VARIOUS

**AIRPORT VIADUCT**  
**MISCELLANEOUS DETAILS NO. 3**



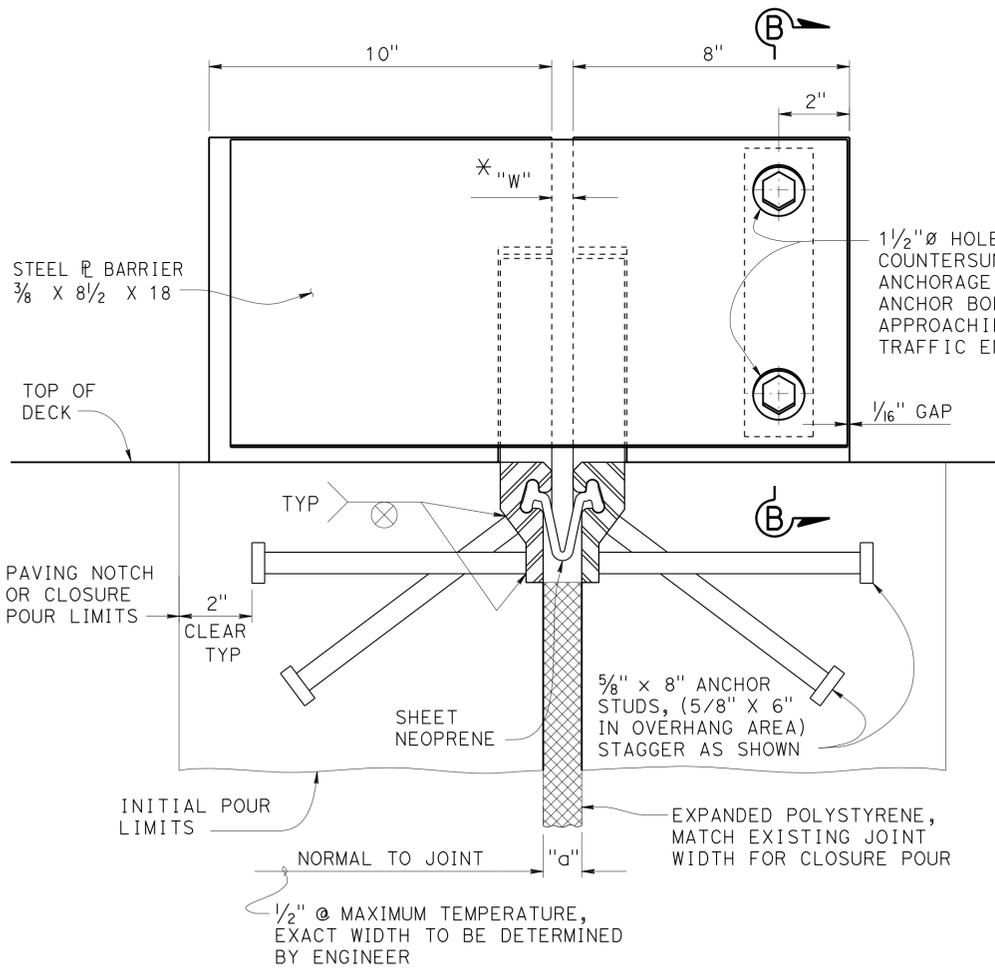
### SCHEMATIC STEEL EDGE MEMBER

- NOTES:
- Alternatively, fillet or complete penetration welds may be used at anchor studs.
  - Alternate types of anchor studs may be permitted subject to the authorization by the Engineer.
  - Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerances specified.
  - Use joint at crown of roadway, at any change in traverse slope in deck and at changes in horizontal direction. Place other joints at or near lanes. All metal parts to be painted or galvanized after fabrication.
  - Sheet Neoprene shall be fabricated in one continuous piece and shall be fabricated to bend around corners. Field splices of the neoprene are not allowed.
  - Insert assembly or expansion anchorage for 5/8" x 1 3/4" bolts. Use installation bolts extended 1/2" minimum past nut and coat with bond breaker, after concrete has cured, remove installation bolts, install HS bolts and sheet neoprene.
  - Sidewalk Detail similar to Barrier Detail on low side at both sides if the roadway is crowned or if the difference in elevation between the ends of the seal is 0.5' or less.
  - $a_c, a_s$ , are the thermal expansion coefficients for concrete and steel respectively.
  - Anchor studs shall conform to ASTM 108.

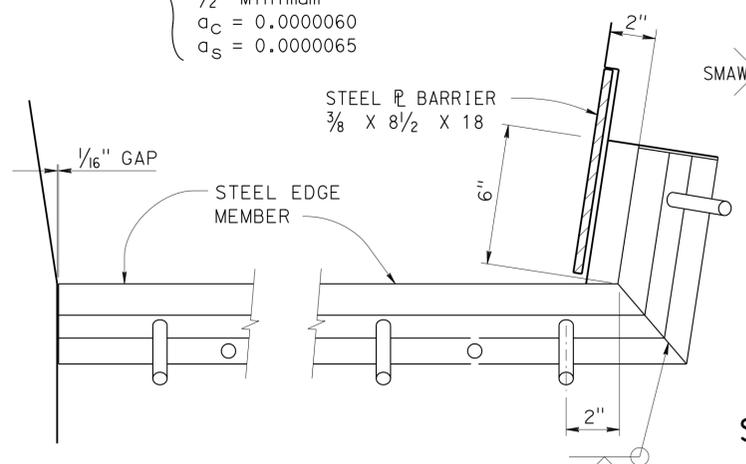
JOINT INFORMATION			"a" DIMENSIONS		
LOCATION	MOVEMENT RATING (MR)	SKEW	WINTER	SPRING & FALL	SUMMER
SPAN 48 HINGE BR. No. 53-2400L	4.0	4° ±	2 1/2"	2"	1 1/2"
WB SPAN 63 HINGE BR. No. 53-2400	4.0	4° ±	2 1/2"	2"	1 1/2"

\* TO SET MINIMUM JOINT OPENING "W"

$$"W" = \begin{cases} \frac{1}{2} + [(Max\ Str\ temperature\ in\ ^\circ F) - (actual\ Str\ temperature\ in\ ^\circ F)] * (a_c\ or\ a_s) * (12)(contributory\ L\ in\ feet) \\ \frac{1}{2} \text{ Minimum} \\ a_c = 0.0000060 \\ a_s = 0.0000065 \end{cases}$$

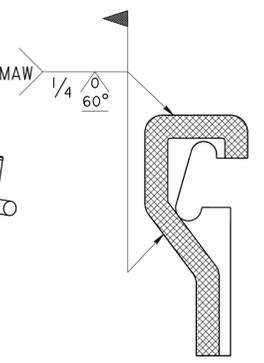


SECTION A-A

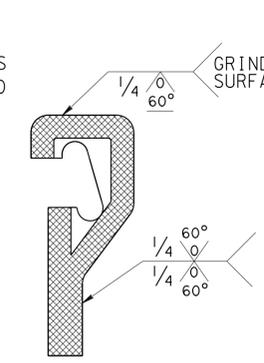


BARRIER DETAIL HIGH SIDE

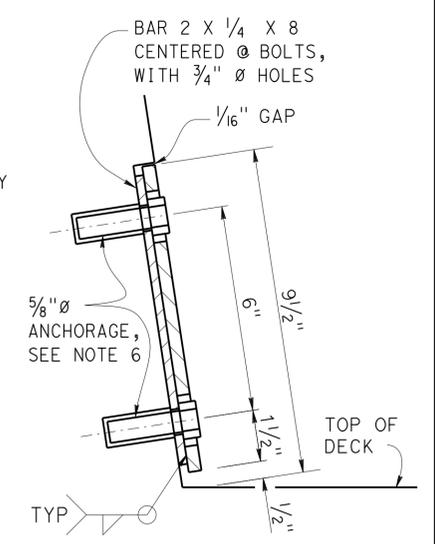
BARRIER DETAIL LOW SIDE



SCHEMATIC FIELD WELD DETAIL



SCHEMATIC SHOP WELD DETAIL



SECTION B-B

NO SCALE

## AIRPORT VIADUCT

### STRIP JOINT SEAL ASSEMBLY

MAXIMUM MOVEMENT RATING = 4"

STANDARD DRAWING

FILE NO. **xs8-010**

APPROVAL DATE July 2014

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. VARIOUS  
POST MILE VARIOUS