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

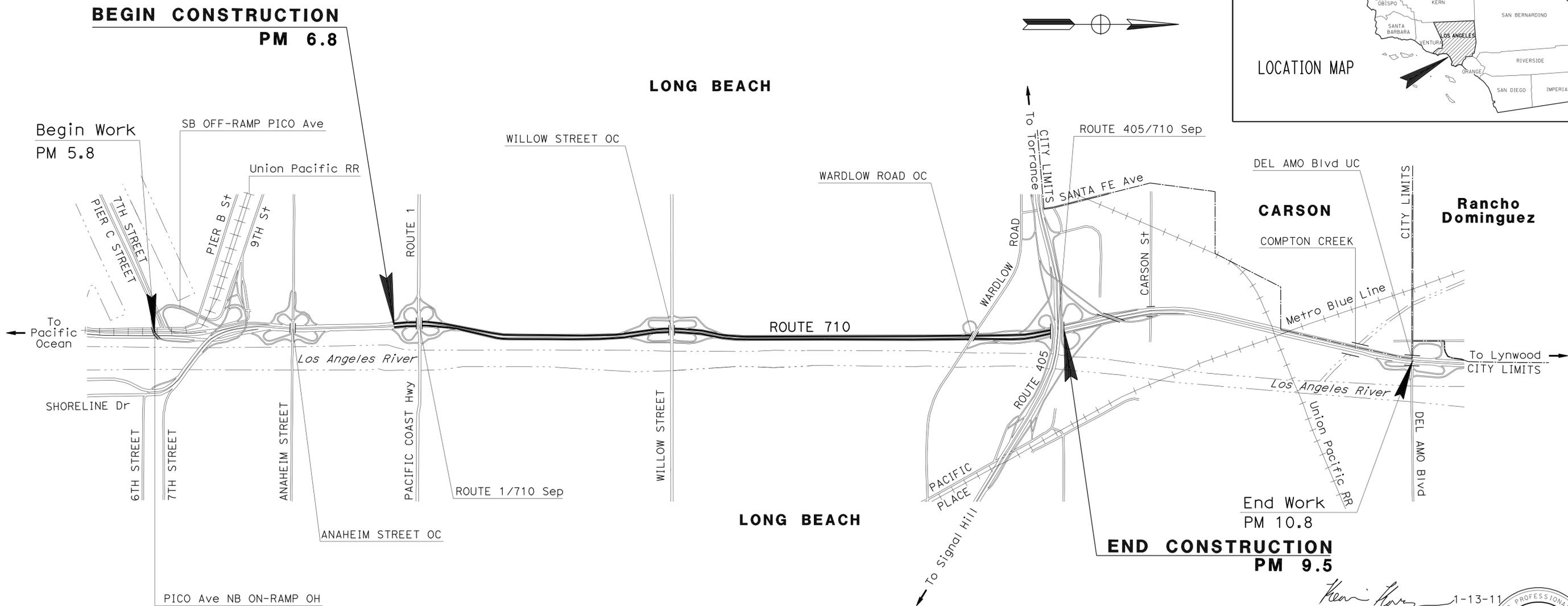
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN LONG BEACH
FROM 0.1 MILE SOUTH OF ROUTE 1/710 SEPARATION
TO ROUTE 405/710 SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	1	25

Caltrans



NO SCALE

PROJECT MANAGER	GARY KEYORKIAN
DESIGN ENGINEER	HAMID SAADATNEJADI

Kevin Kwan 1-13-11
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

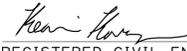
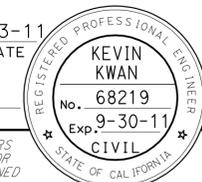
January 31, 2011
PLANS APPROVAL DATE

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

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

CONTRACT No.	07-4Y7204
PROJECT ID	0700001893

DATE PLOTTED => 31-JAN-2011
TIME PLOTTED => 13:05
LAST REVISION 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	2	25
			1-13-11		
REGISTERED CIVIL ENGINEER			DATE		
1-31-11			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

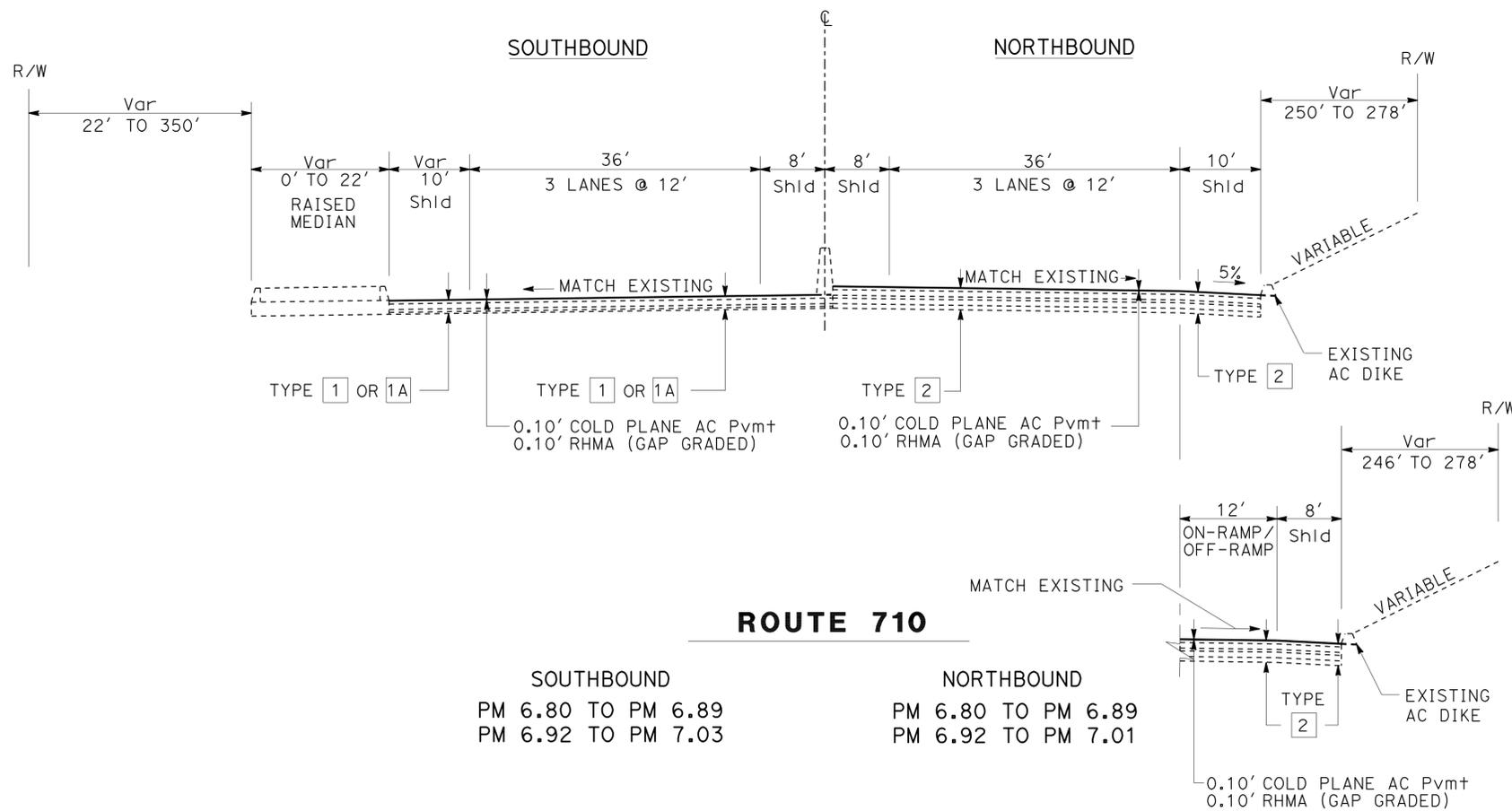
NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPER ELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- FOR COMPLETE RIGHT-OF-WAY DATA, CONTACT RIGHT-OF-WAY ENGINEERING AT THE DISTRICT OFFICE.
- OMIT COLD PLANING AND RUBBERIZED HOT MIX ASPHALT SURFACING ON PCC PAVEMENT, BRIDGE DECKS, AND APPROACH AND DEPARTURE SLABS.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:

RHMA = RUBBERIZED HOT MIX ASPHALT

- | | | | |
|--|---|---|---|
| <p>TYPE 1</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.50' AC (TYPE A) (AR 8000)
0.25' AC (TYPE A) (AR 8000) (RICH BOTTOM)</p> | <p>TYPE 1A</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.50' AC (TYPE A) (AR 8000)
0.25' AC (TYPE A) (AR 8000) (RICH BOTTOM)
0.16' AC (TYPE A) (AR 8000) (WORKING PLATFORM)</p> | <p>TYPE 2</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.50' AC (TYPE A) (AR 8000)
0.25' AC (TYPE A) (AR 8000) (RICH BOTTOM)
0.50' CI 2 AGGREGATE BASE</p> | <p>TYPE 4A</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.28' AC (TYPE A) (AR 8000)
PAVEMENT REINFORCING FABRIC
0.15' AC (TYPE A) (AR 8000)
0.51' AC (TYPE A) (AR 8000)
Var CEMENT TREATED SUBGRADE
Var AGGREGATE BASE
Var IMPORTED SUBBASE MATERIAL</p> |
| <p>TYPE 2A</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.50' AC (TYPE A) (AR 8000)
0.25' AC (TYPE A) (AR 8000) (RICH BOTTOM)
0.50' CI 2 AGGREGATE BASE
Var IMPORTED SUBBASE MATERIAL</p> | <p>TYPE 3</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.28' AC (TYPE A) (AR 8000)
PAVEMENT REINFORCING FABRIC
0.15' AC (TYPE A) (AR 8000)
0.66' PCC PAVEMENT
0.33' CEMENT TREATED SUBGRADE
0.33' AGGREGATE BASE
0.66' IMPORT SUBBASE MATERIAL</p> | <p>TYPE 4</p> <p>EXISTING
0.10' RUBBERIZED AC (TYPE O)
0.25' AC (TYPE A) (PBA-6A (Mod))
0.28' AC (TYPE A) (AR 8000)
PAVEMENT REINFORCING FABRIC
0.15' AC (TYPE A) (AR 8000)
0.51' AC (TYPE A) (AR 8000)
0.50' ROADWAY EXCAVATION MATERIAL
WITH AERIALY DEPOSITED LEAD (TYPE Y)
Var AGGREGATE BASE
Var IMPORTED SUBBASE MATERIAL</p> | |



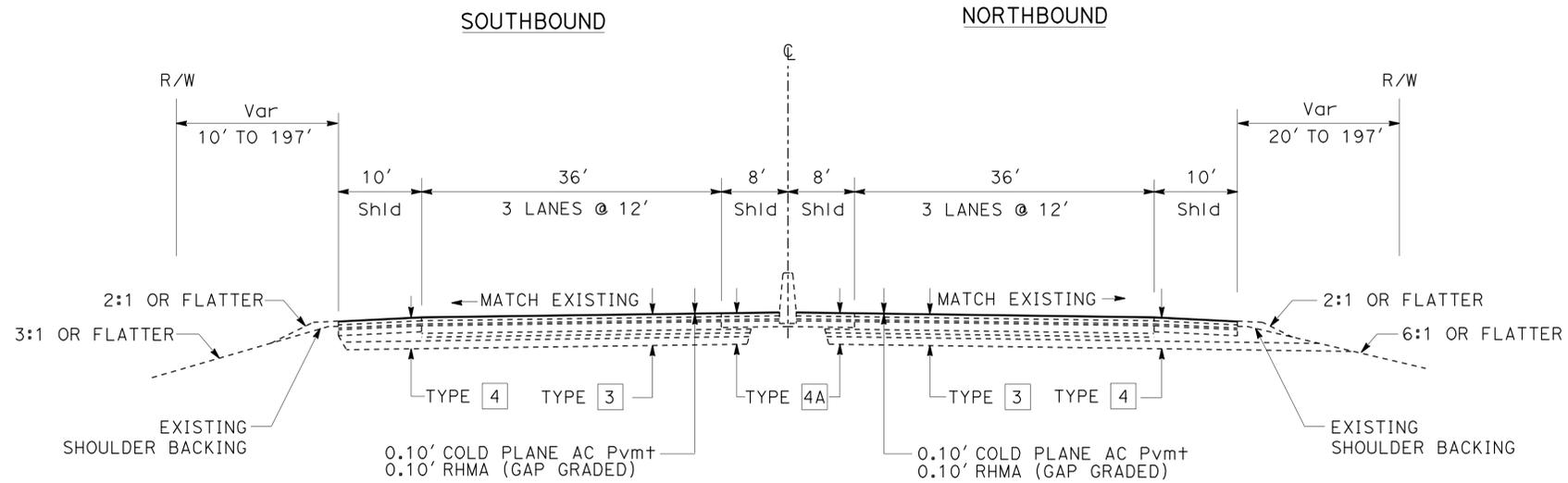
TYPICAL CROSS SECTIONS
NO SCALE **X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
 REVISIONS: KEVIN KWAN, HAMID SAADATNEJADI
 CALCULATED/DESIGNED BY: KEVIN KWAN
 CHECKED BY: HAMID SAADATNEJADI
 REVISOR: KEVIN KWAN
 DATE: 1-31-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	3	25

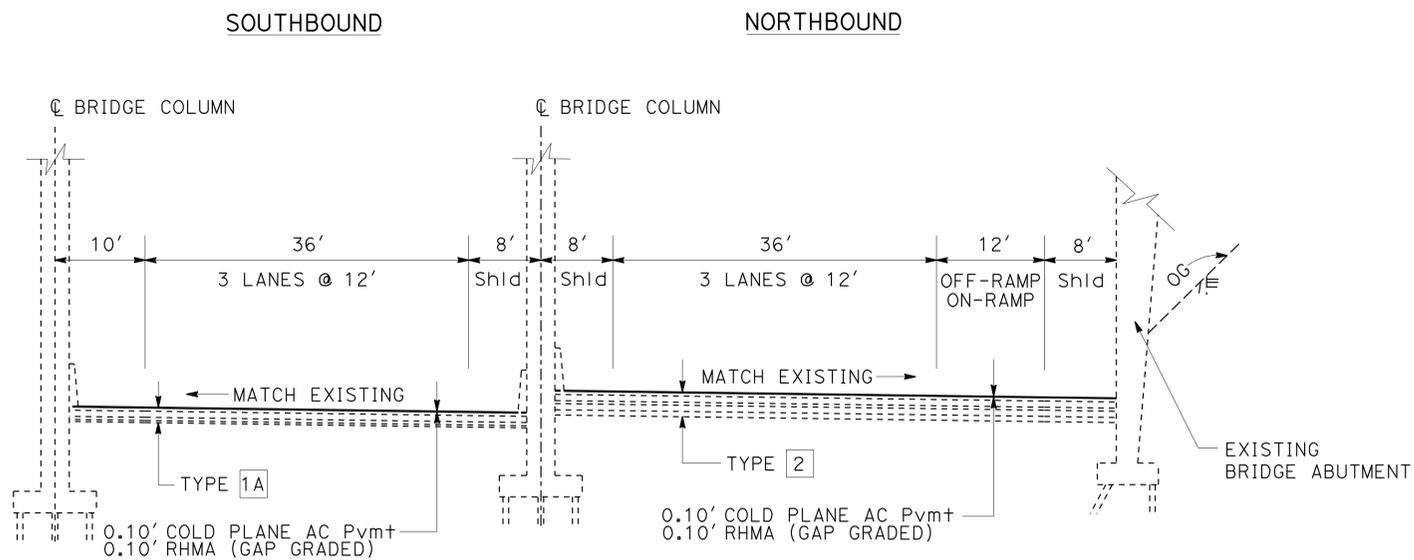
<i>Kevin Kwan</i>	1-13-11
REGISTERED CIVIL ENGINEER	DATE
1-31-11	
PLANS APPROVAL DATE	

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ROUTE 710

SOUTHBOUND	NORTHBOUND
PM 7.03 TO PM 7.81	PM 7.01 TO PM 7.81
PM 8.06 TO PM 9.00	PM 7.98 TO PM 9.00



**ROUTE 710
AT ROUTE 1/710 SEPARATION**

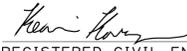
PM 6.89 TO PM 6.92

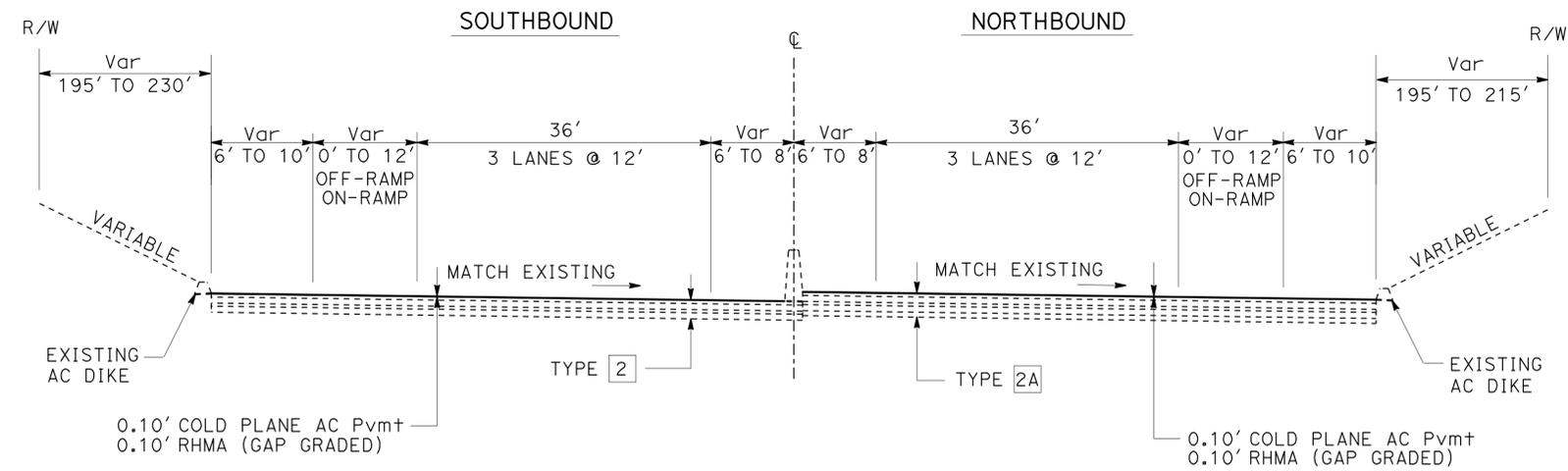
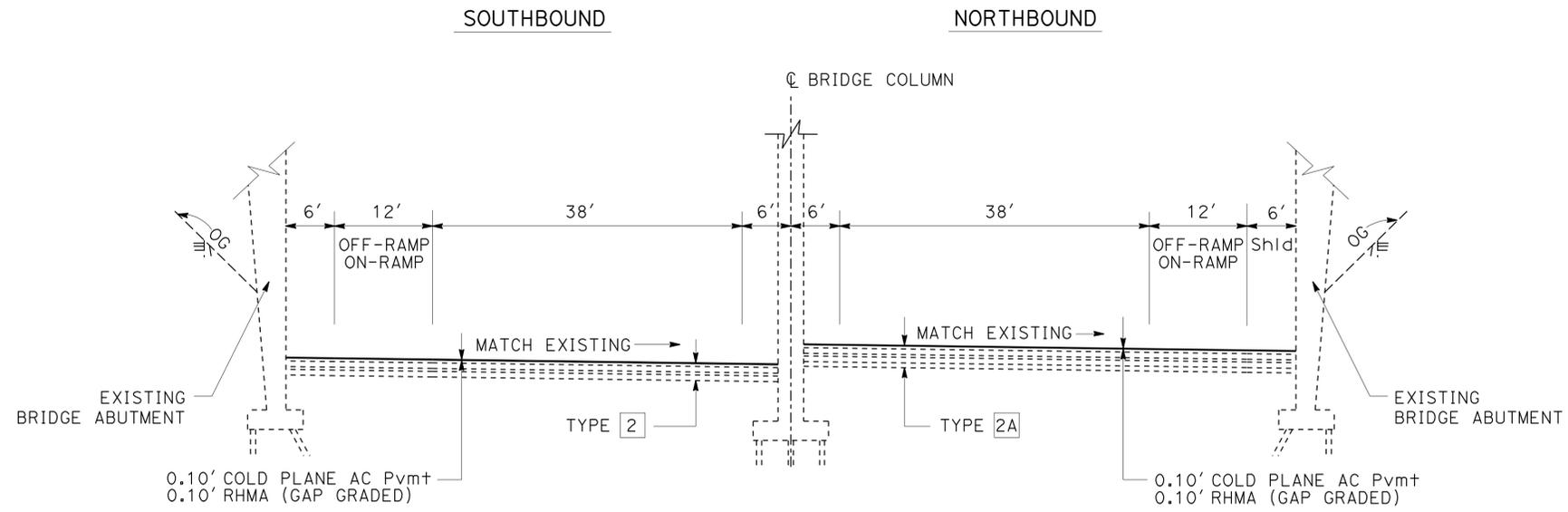
TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	HAMID SAADATNEJADI	KEVIN KWAN	
		HAMID SAADATNEJADI	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	4	25
			12-24-10		
REGISTERED CIVIL ENGINEER			DATE		
1-31-11			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



TYPICAL CROSS SECTIONS
NO SCALE
X-3

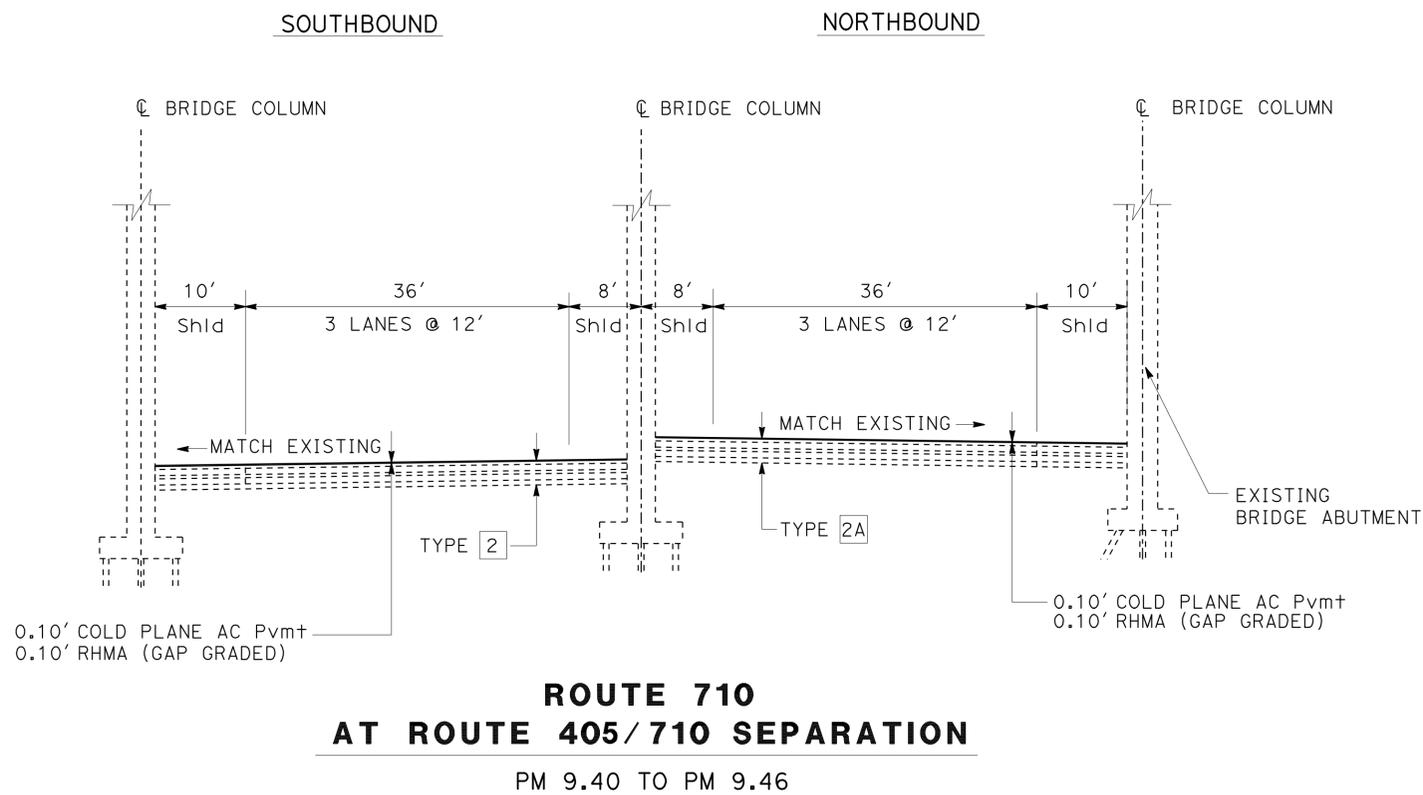
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans MAINTENANCE ENGINEERING	HAMID SAADATNEJADI	KEVIN KWAN	KEVIN KWAN
		CHECKED BY	DATE REVISED
		HAMID SAADATNEJADI	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	6	25

<i>Kevin Kwan</i>	1-13-11	REGISTERED CIVIL ENGINEER	DATE
1-31-11		PLANS APPROVAL DATE	

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

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



TYPICAL CROSS SECTIONS
NO SCALE **X-5**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	7	25

<i>Kevin Kwan</i>	1-13-11
REGISTERED CIVIL ENGINEER	DATE
1-31-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
KEVIN KWAN
No. 68219
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

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NOTES:

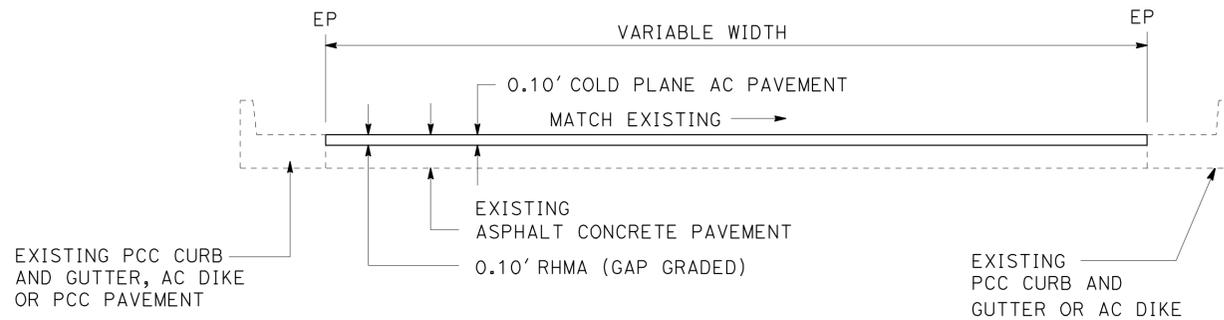
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPER ELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- OMIT COLD PLANING AND RESURFACING ON PCC PAVEMENT, BRIDGE DECKS, AND APPROACH AND DEPARTURE SLABS.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:

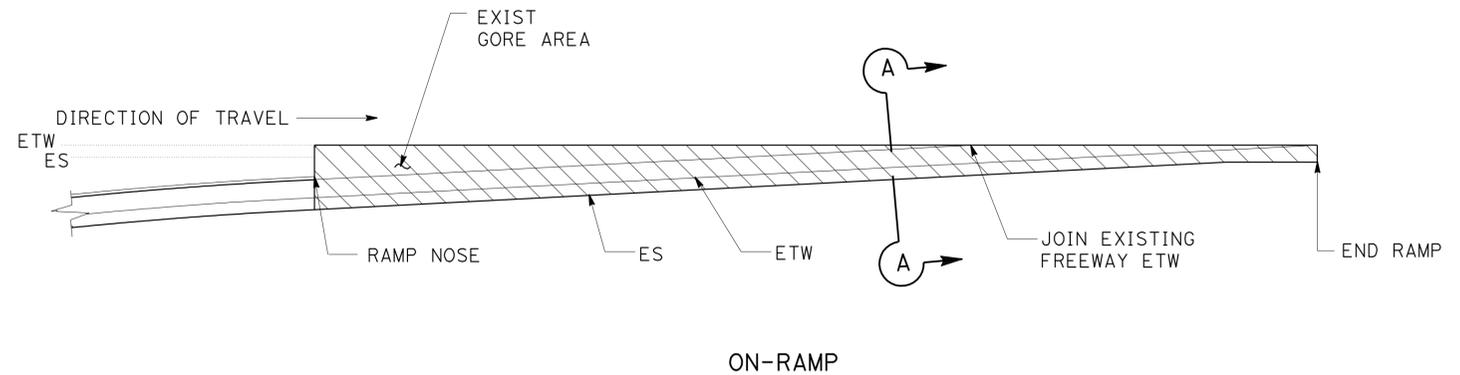
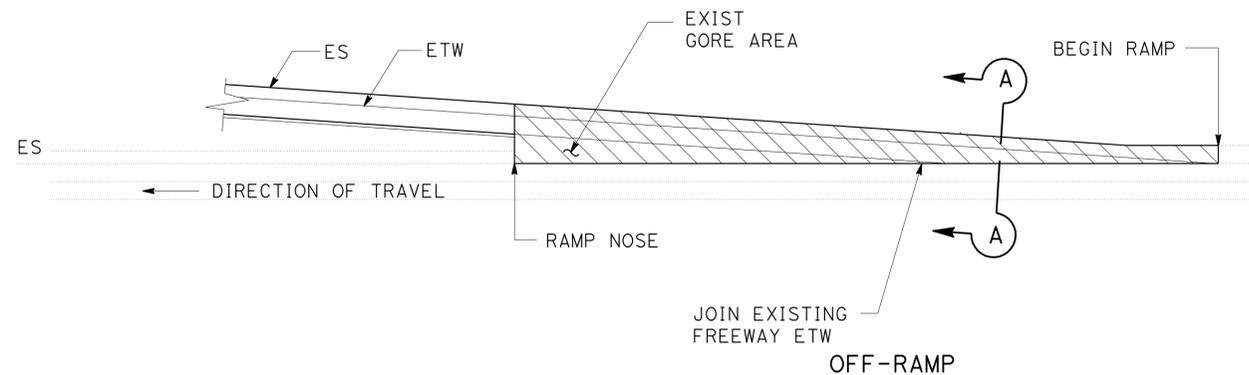
 COLD PLANE AC PAVEMENT AND PLACE RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

ABBREVIATION:

RHMA = RUBBERIZED HOT MIX ASPHALT



TYPICAL A-A CROSS SECTION



TYPICAL PAVING DETAILS

CONSTRUCTION DETAILS
NO SCALE
C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
 CALCULATED/DESIGNED BY: KEVIN KWAN
 CHECKED BY: HAMID SAADATNEJADI
 REVISIONS: 00-00-00 DATE PLOTTED => 31-JAN-2011 TIME PLOTTED => 13:06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

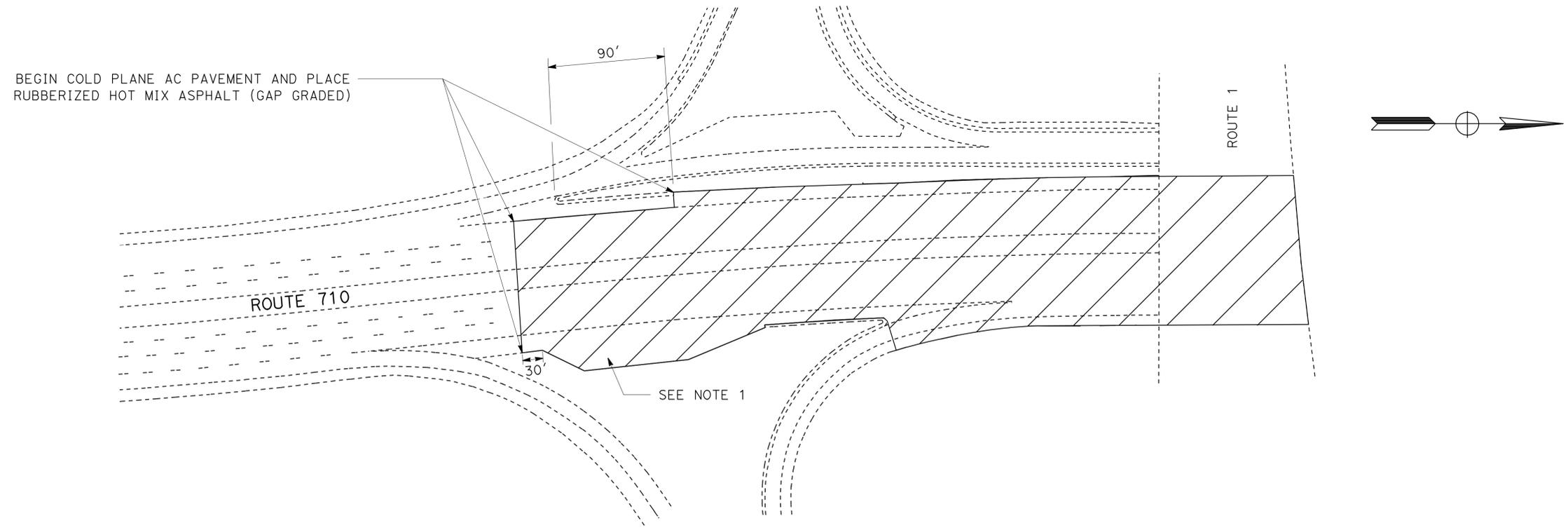
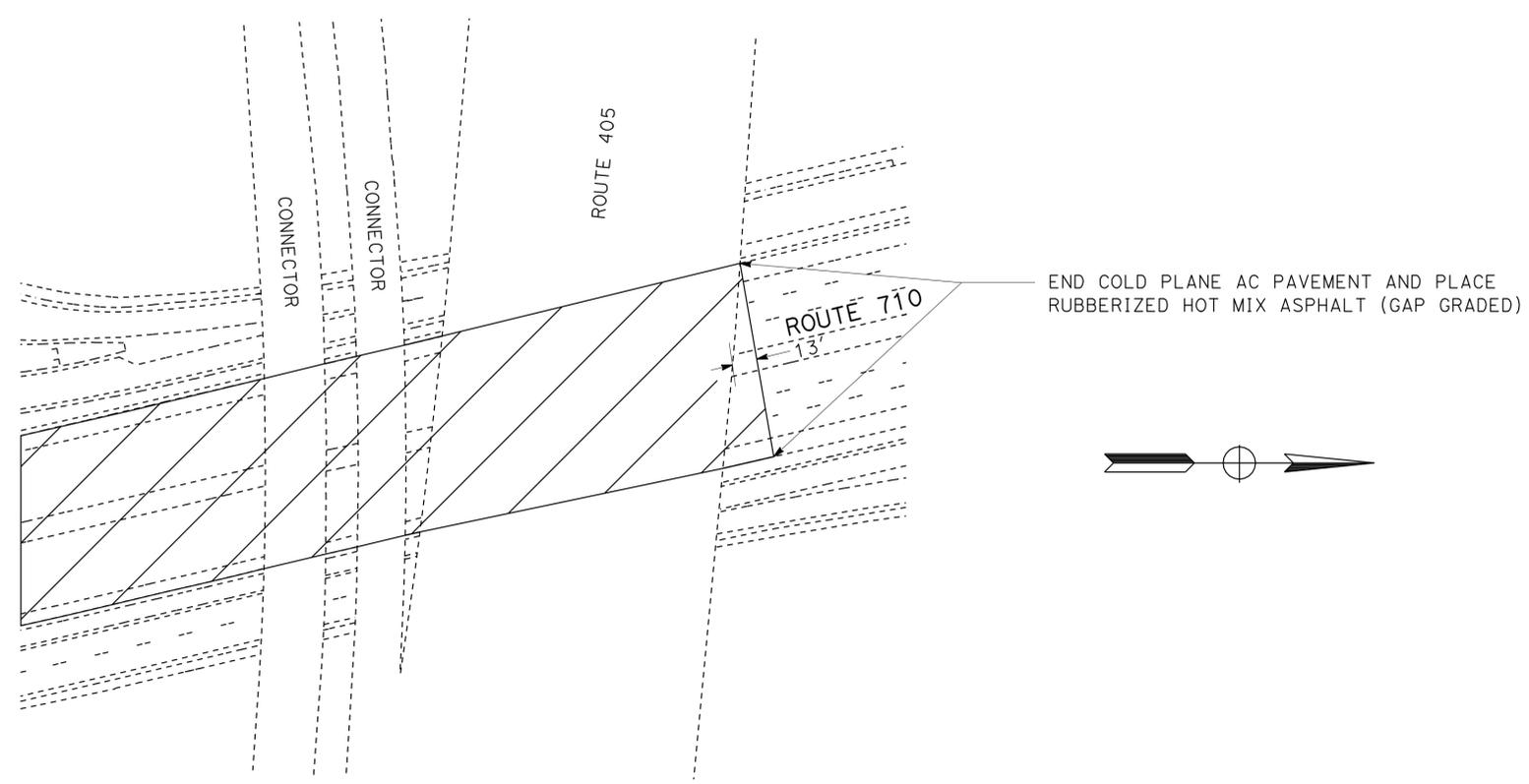
FUNCTIONAL SUPERVISOR
 HAMID SAADATNEJADI

DESIGNED BY
 KEVIN KWAN

CHECKED BY
 HAMID SAADATNEJADI

NOTE:
 1. COLD PLANE AND RESURFACE PULLOUT AREAS ALONG MAINLINE FREEWAY.

LEGEND:
 COLD PLANE AC PAVEMENT AND PLACE RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

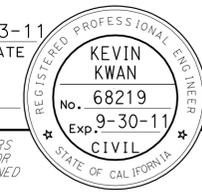


COLD PLANE AND PAVING LIMITS

CONSTRUCTION DETAILS
 NO SCALE
C-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	8	25

1-13-11
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	9	25

1-13-11
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

KEVIN KWAN
 No. 68219
 Exp. 9-30-11
 CIVIL
 STATE OF CALIFORNIA

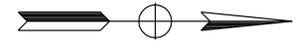
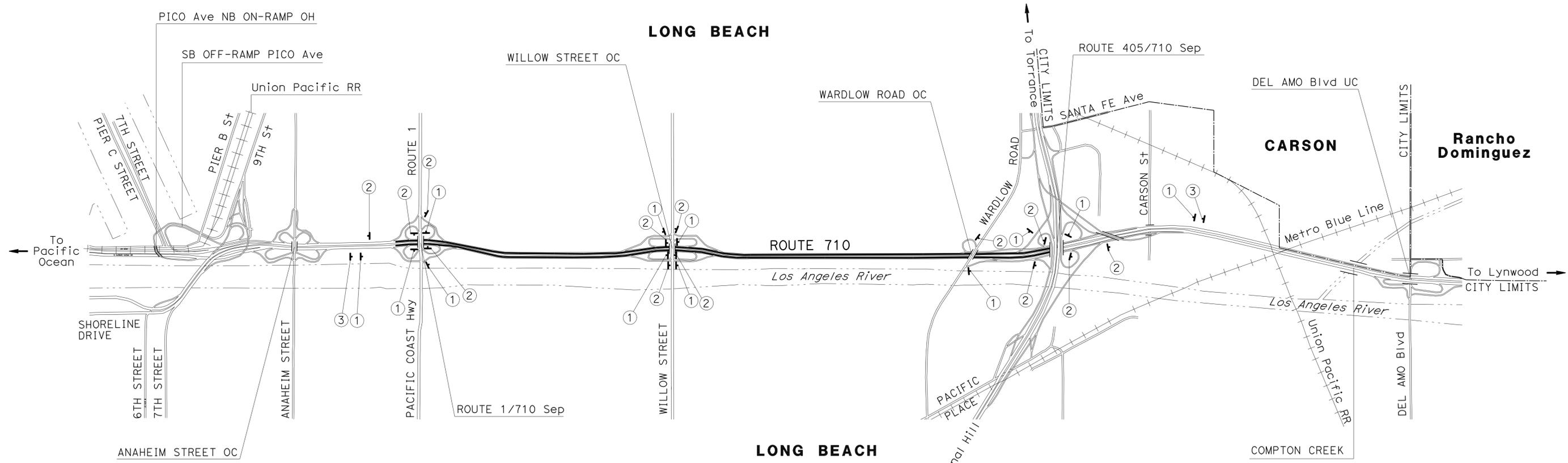
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. "TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES" SIGNS SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF "ROAD CONSTRUCTION AHEAD" SIGNS OR AS DETERMINED BY THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SIGN NUMBER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
①	W20-1	48" X 48"	ROAD WORK AHEAD	1-6" x 6"	12
②	G20-2	48" X 24"	END ROAD WORK	1-4" x 6"	13
③	C40 (CA)	72" X 36"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	1-6" x 6"	2



CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI
 CALCULATED/DESIGNED BY: KEVIN KWAN
 CHECKED BY: HAMID SAADATNEJADI
 REVISOR: KEVIN KWAN
 DATE: 1-13-11
 REVISOR: HAMID SAADATNEJADI
 DATE: 1-31-11

LAST REVISION: 00-00-00
 DATE PLOTTED => 31-JAN-2011
 TIME PLOTTED => 13:06

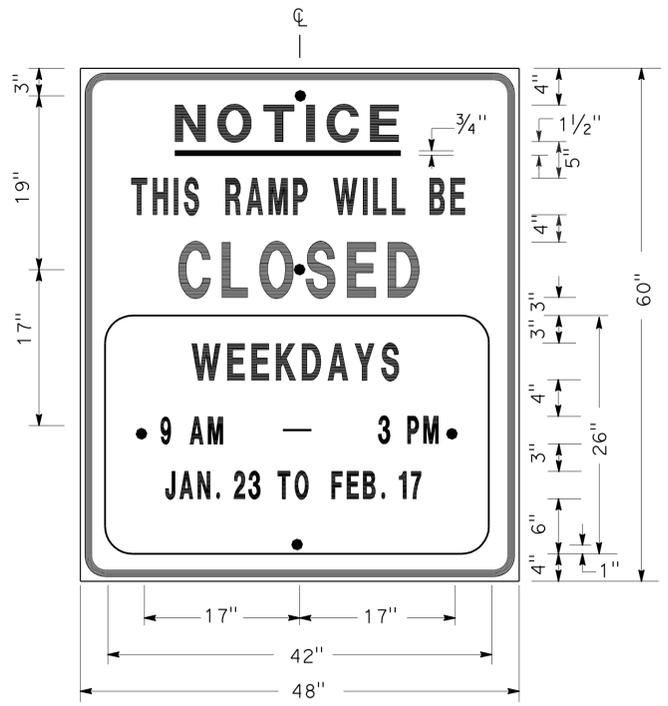
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	10	25

10-20-10
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

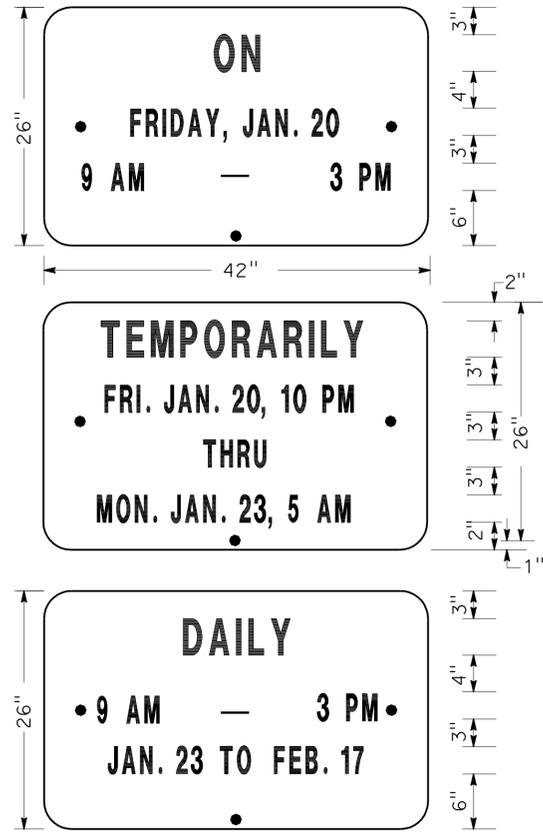
Dennis Katayama
 No. C50648
 Exp. 9-30-11
 CIVIL

REGISTERED PROFESSIONAL ENGINEER
 D.S. KATAYAMA
 STATE OF CALIFORNIA

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SIGN SP-1



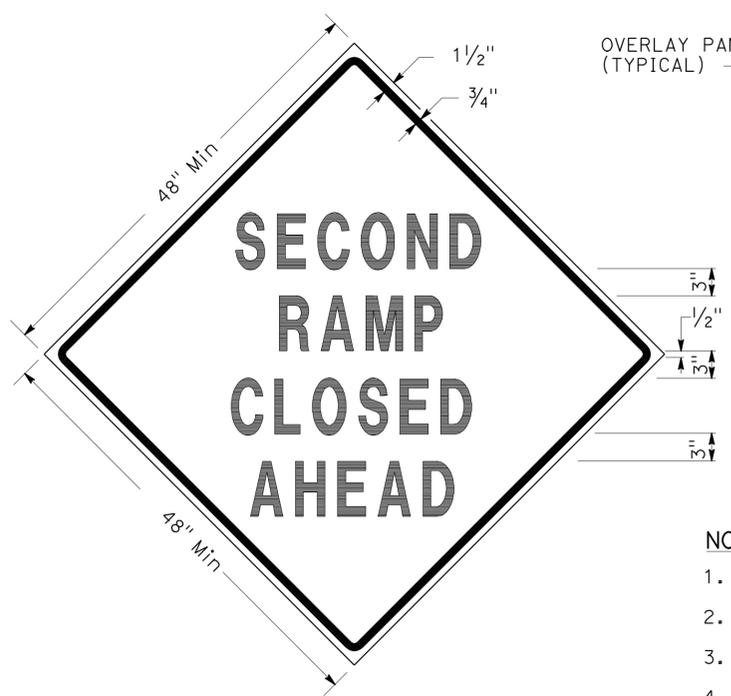
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: (SIGN SP-1)
- SIGNS SHALL HAVE ORANGE RETROREFLECTORIZED BACKGROUND WITH BLACK BORDER AND LETTERS.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.

SIZE	BORDER	MARGIN	LETTER SIZE					CORNER RADIUS
	WIDTH	WIDTH	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

SPECIAL SIGN FOR EXIT RAMP CLOSURES

- NOTES: (SIGNS SP-3 & SP-5)
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.



SIGN SP-5



SIGN SP-4

- NOTES: (SIGN SP-4)
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED WHITE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

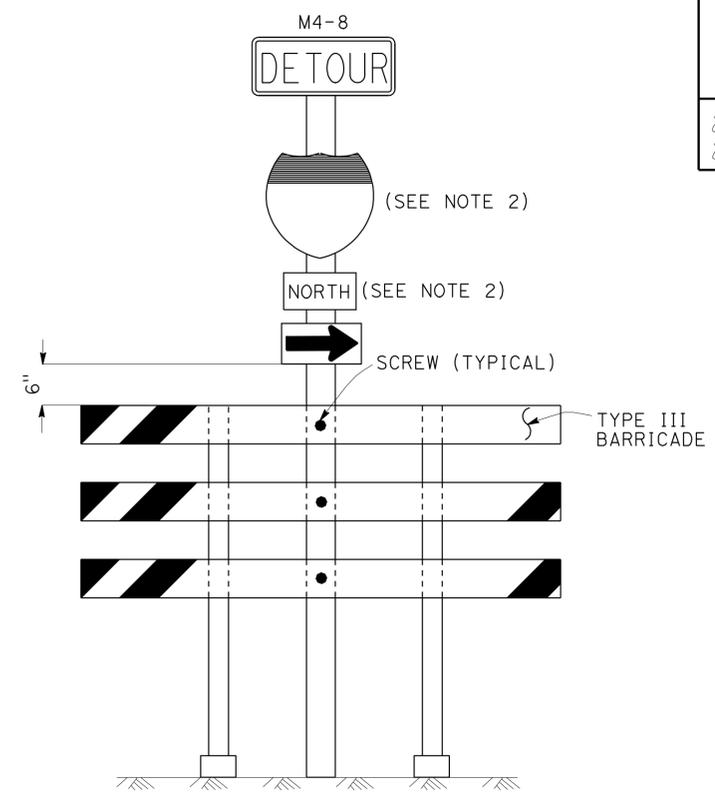
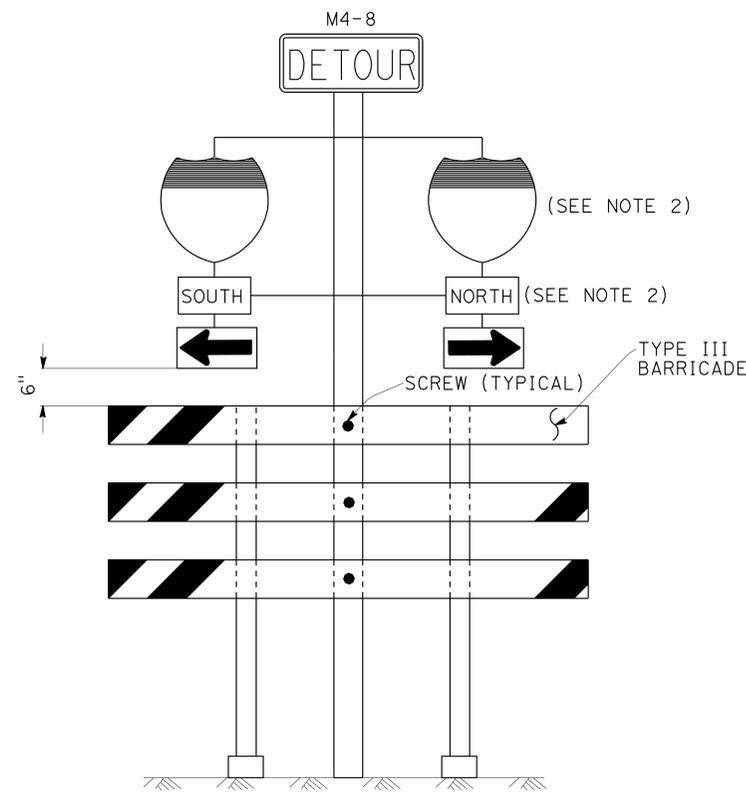
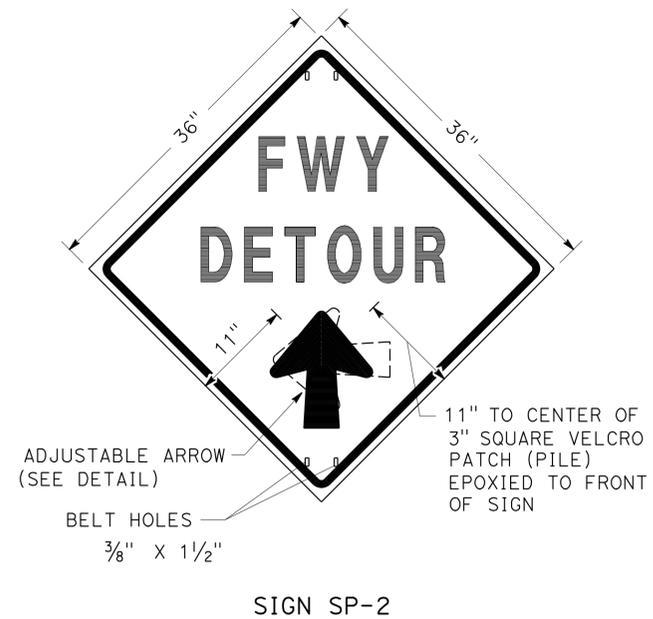
SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

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

SHEET 1 OF 2

NO SCALE

THD-1

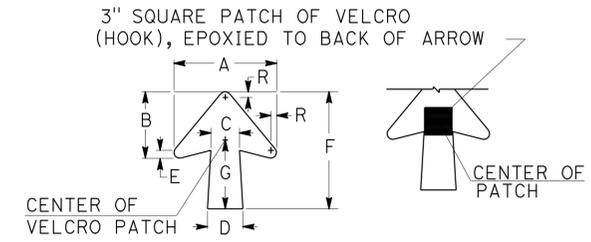


- NOTES:** (SIGN SP-2)
- LETTERS -6" SERIES E.
 - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL FOR SIGNS AND ARROWS SHALL BE ALUMINUM (MINIMUM 0.06").
 - BELTS (LUGGAGE STRAPS) SHALL BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
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

ABBREVIATION
(CA) CALIFORNIA CODE

- NOTES:** (SIGNS SP-6 & SP-7)
- IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
 - USE APPROPRIATE ROUTE SHIELD [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



DIMENSIONS							
A	B	C	D	E	F	G	R
11 1/4"	7 1/4"	3 3/8"	4"	7/8"	13"	7 1/2"	5/8"

SPECIAL PORTABLE FREEWAY DETOUR SIGN

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

ADJUSTABLE ARROW DETAIL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
 FUNCTIONAL SUPERVISOR JOHN YANG
 CHECKED BY
 CALCULATED/DESIGNED BY
 REVISOR BY JC DATE REVISED 7/10
 DESIGNED BY ALBERT K YU JOCELYN C CHIANG

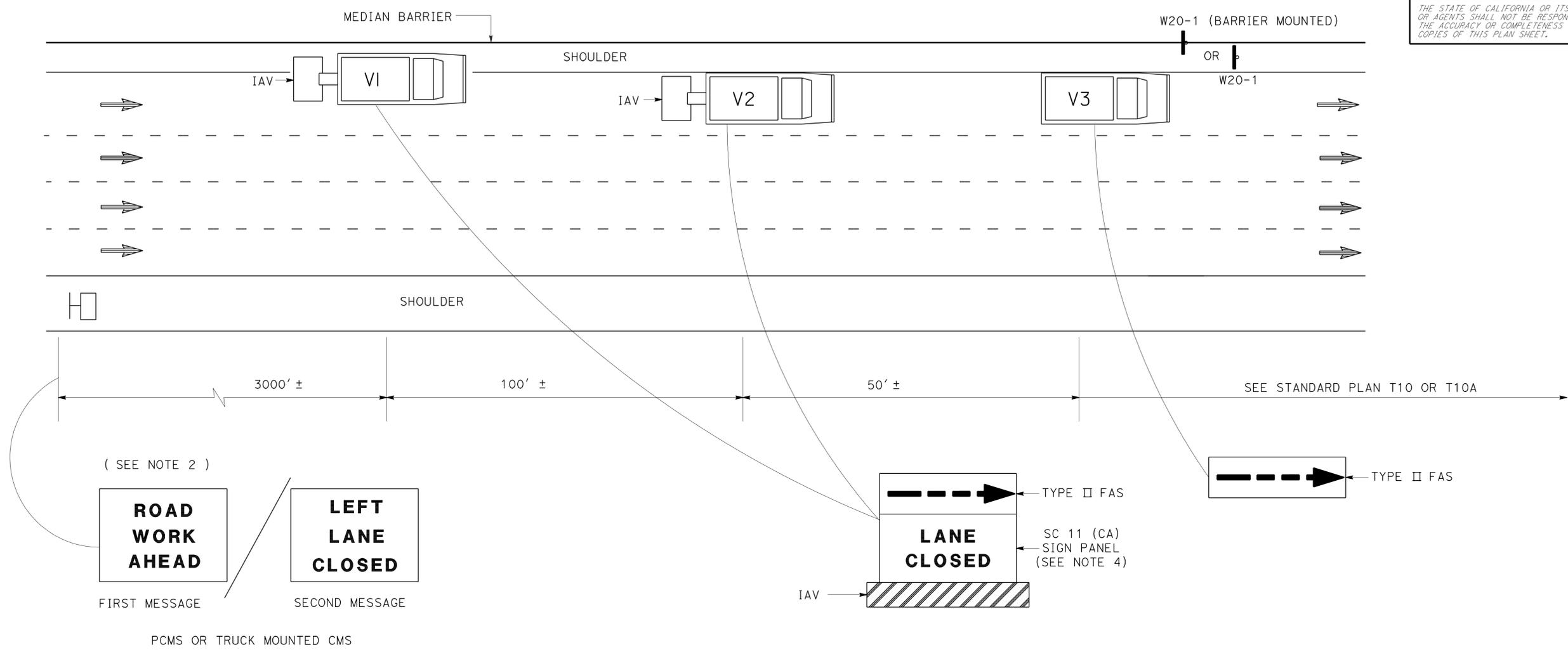
LAST REVISION DATE PLOTTED => 31-JAN-2011
 00-00-00 TIME PLOTTED => 13:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	12	25

Dennis Katayama 10-20-10
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER
D.S. KATAYAMA
 No. C50648
 Exp. 9-30-11
 CIVIL
 STATE OF CALIFORNIA



NOTES:

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

LEGEND

- V1, V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- DIRECTION OF TRAVEL
- ▬ CONSTRUCTION AREA SIGN

ABBREVIATIONS

- FAS FLASHING ARROW SIGN
- IAV IMPACT ATTENUATOR VEHICLE
- CMS CHANGEABLE MESSAGE SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- (CA) CALIFORNIA CODE

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

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR JOHN YANG
 CHECKED BY JOCELYN C CHIANG
 REVISIONS BY ALBERT K YU
 DATE REVISED 7/10
 DESIGNED BY JC
 CHECKED BY JOCELYN C CHIANG

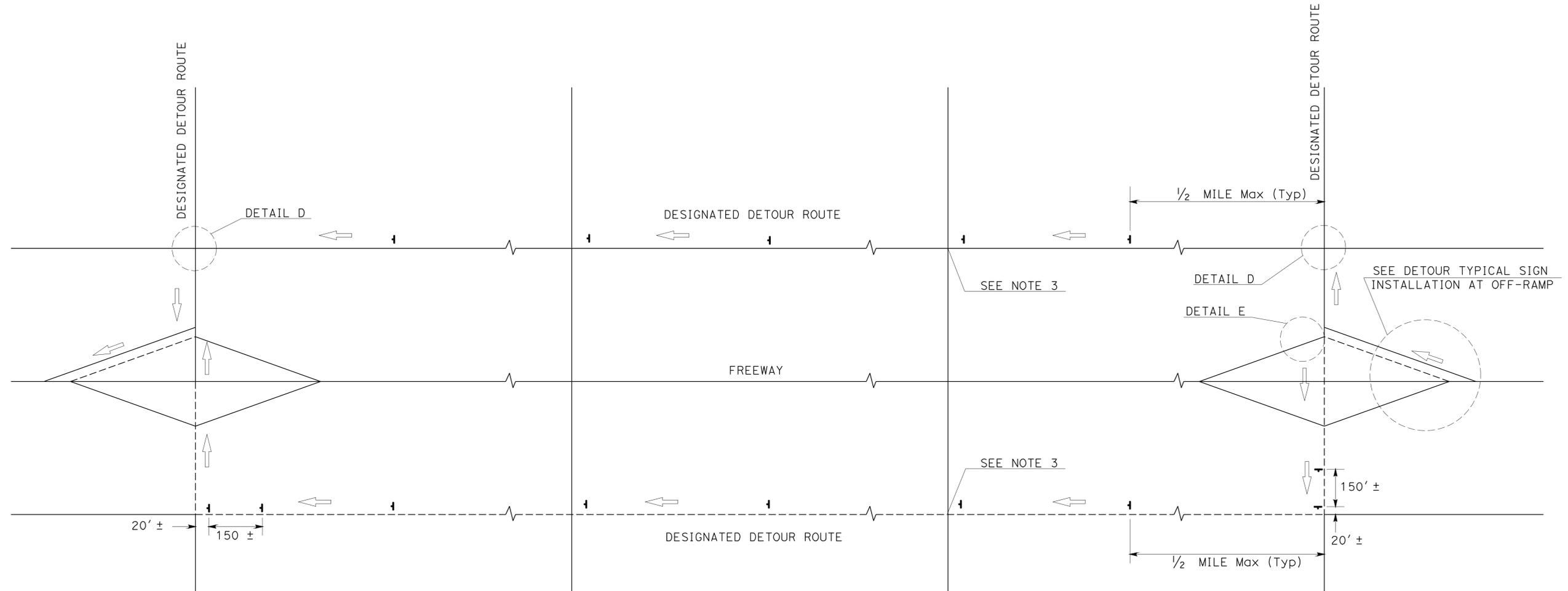
LAST REVISION DATE PLOTTED => 31-JAN-2011
 00-00-00 TIME PLOTTED => 13:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	13	25

Senju Katayama 10-20-10
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DTM
 FUNCTIONAL SUPERVISOR: JOHN YANG
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 REVISIONS: JC 7/10



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

LEGEND

- TEMPORARY SIGN (SP-2)
- AND/OR DESIGNATED DETOUR ROUTE
-
- DIRECTION OF TRAVEL

NOTES:

1. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
3. SP-2 SIGNS SHALL BE POSTED AT SIGNALIZED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE OR 1/2 MILE MAXIMUM APART.

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 1 OF 2
 NO SCALE

THD-4

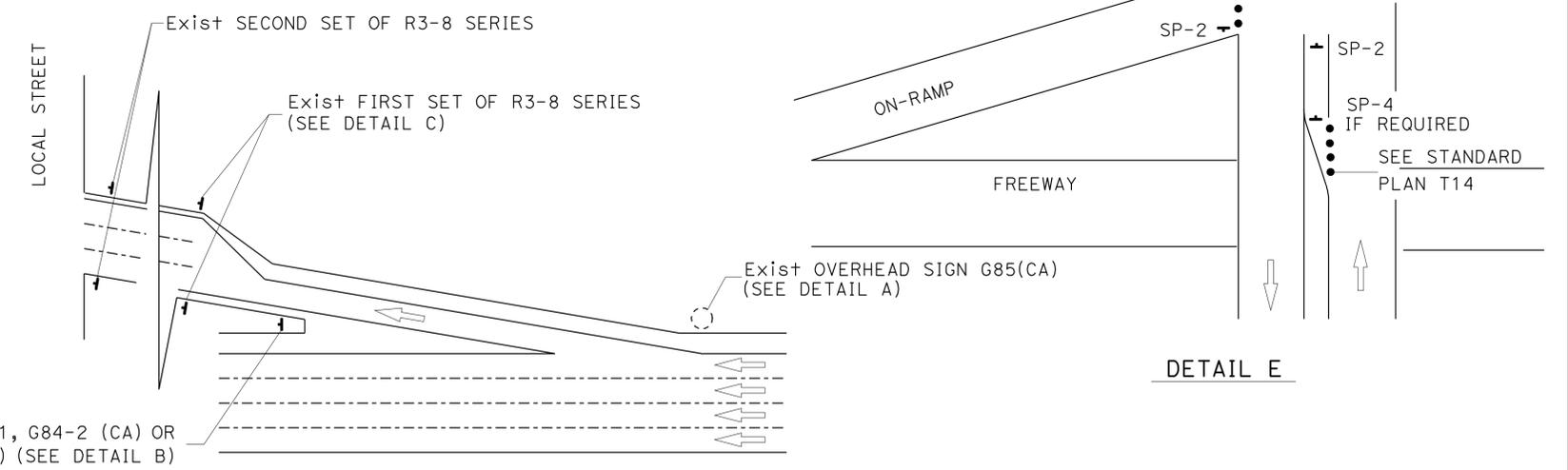
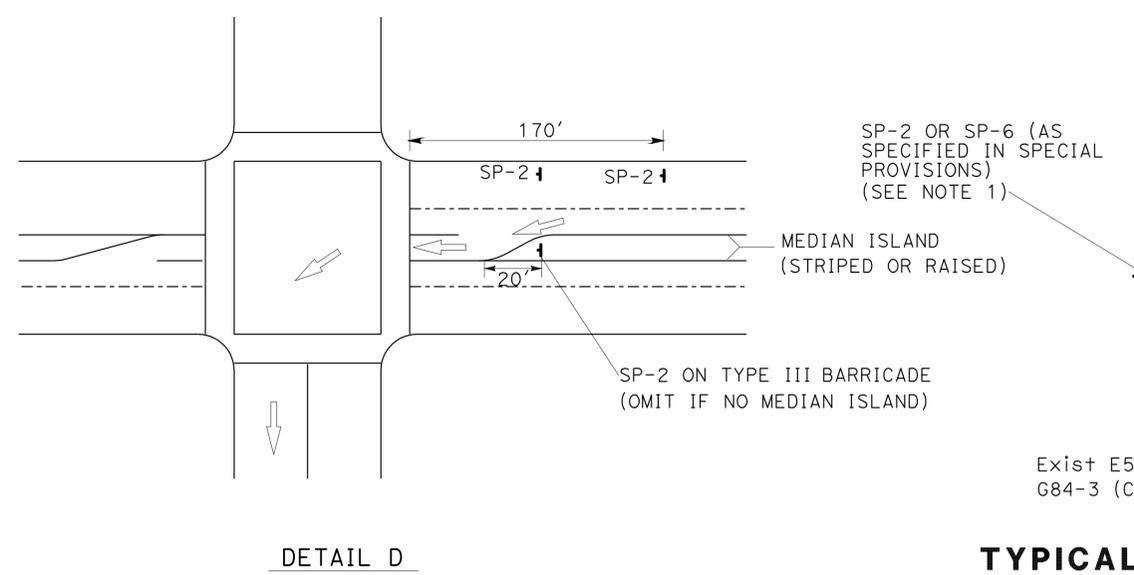
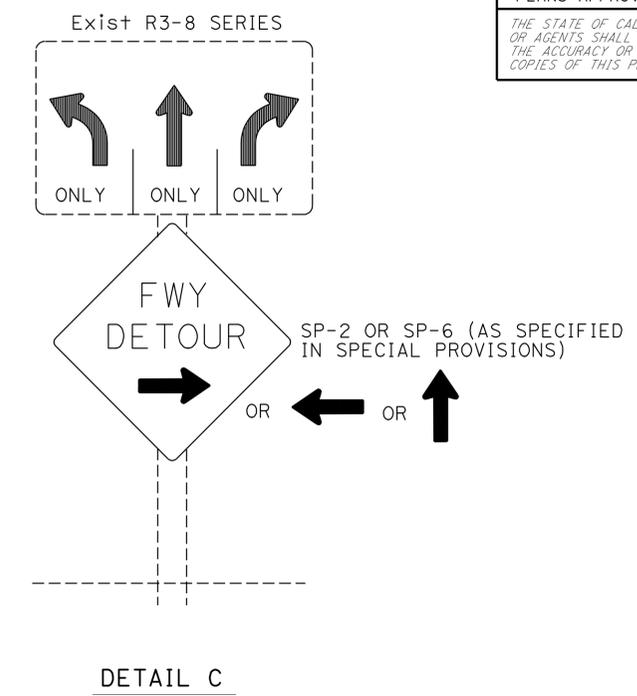
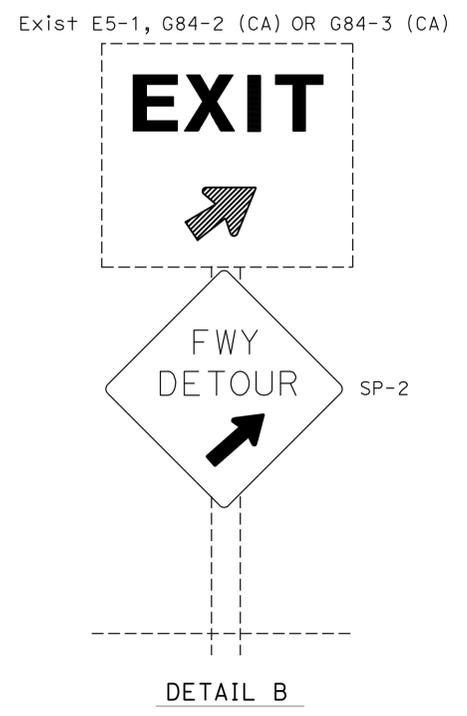
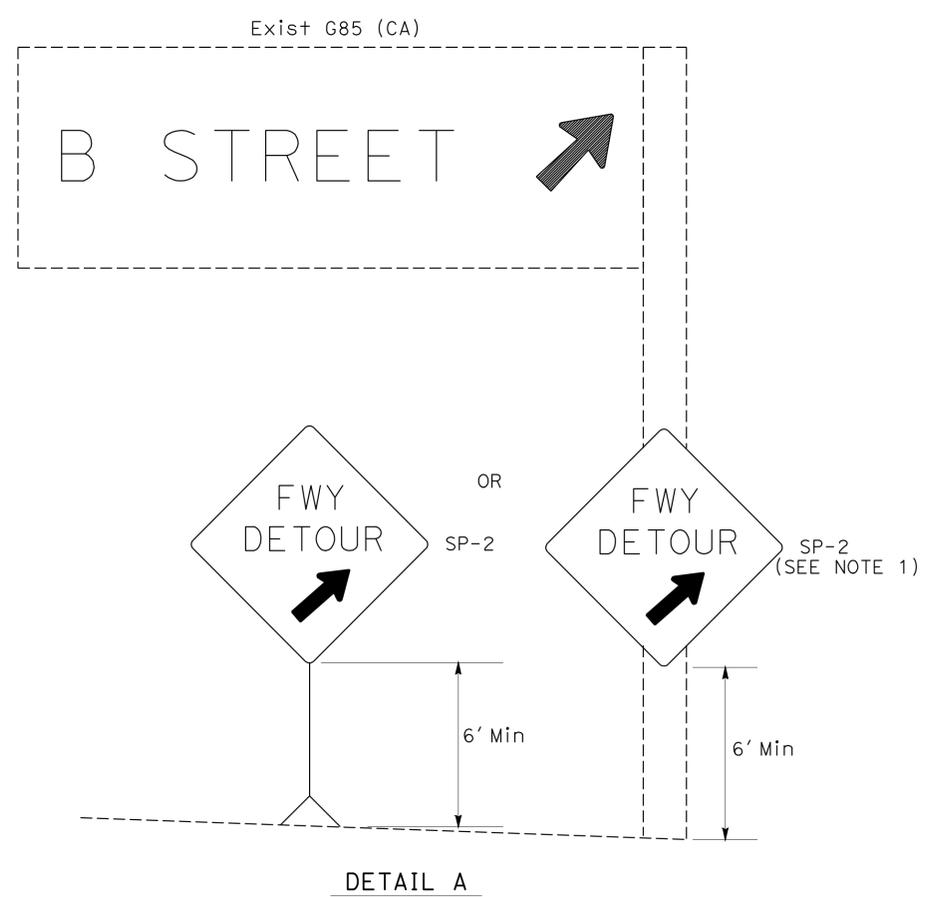


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	14	25

Dennis Katayama 10-20-10
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

D.S. KATAYAMA
 No. C50648
 Exp. 9-30-11
 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.



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

- NOTES:**
1. TEMPORARY SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POSTS, OR SIGN POSTS.
 2. OMIT DETAIL A AND DETAIL B FOR FULL FREEWAY CLOSURES.
 3. SEE TRAFFIC HANDLING DETAILS PLAN-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS AND MISCELLANEOUS DETAILS SHEET 2 OF 2 FOR SP-6.

ABBREVIATIONS

(CA) CALIFORNIA CODE

- LEGENDS**
- TRAFFIC CONE
 - ⚡ TEMPORARY SIGN
 - ➡ DIRECTION OF TRAVEL
 - ⊙ EXISTING OVERHEAD SIGN

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 2
NO SCALE**

THD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
FUNCTIONAL SUPERVISOR JOHN YANG
CALCULATED/DESIGNED BY ALBERT K YU
CHECKED BY JOCELYN C CHIANG
REVISOR JC
DATE REVISED 8/10

USERNAME => s126987
DGN FILE => 74y720me005.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 1882

PROJECT NUMBER & PHASE

07000018931

LAST REVISION DATE PLOTTED => 31-JAN-2011
00-00-00 TIME PLOTTED => 13:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	15	25

1-13-11
 REGISTERED CIVIL ENGINEER DATE
 1-31-11
 PLANS APPROVAL DATE

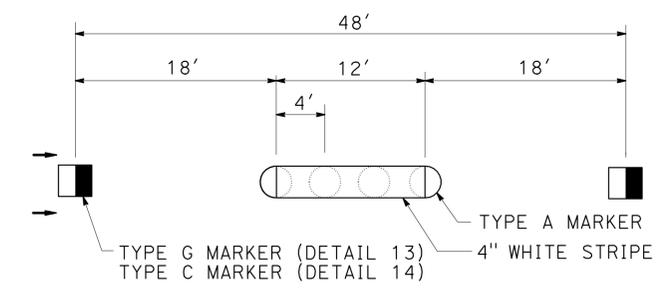
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR DETAIL 13/14 (MODIFIED), PLACE 4" WIDE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.

LEGEND:

➔ DIRECTION OF TRAVEL



DETAIL 13/14 (MODIFIED)

PAVEMENT DELINEATION QUANTITIES

DIRECTION	DESCRIPTION	LOCATION		THERMOPLASTIC TRAFFIC STRIPE								PAVEMENT MARKER						
												RETROREFLECTIVE						
				DETAIL 8	DETAIL 13/14 (Mod)	DETAIL 25	DETAIL 27B	DETAIL 36	DETAIL 36A	DETAIL 38B	DETAIL 37	DETAIL 13/14 (Mod)	DETAIL 25	DETAIL 36	DETAIL 36A	DETAIL 38B	DETAIL 37	
				4" (BROKEN 17-7)	4" (BROKEN 36-12)	4" (YELLOW)	4" (WHITE)	8" (WHITE)	8" (WHITE)	8" (WHITE)	8" (BROKEN 12-3)	TYPE C/G	TYPE H	TYPE G	TYPE G	TYPE G	TYPE C/G	DETAIL 13/14 (Mod) TYPE A (NON-REFLECTIVE)
FROM	TO	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA			
NB	POST MILE 6.8 TO ROUTE 1/710 SEPARATION	6.80	6.91		1,134	567	593				240	24	12				18	94
SB	POST MILE 6.8 TO ROUTE 1/710 SEPARATION	6.80	6.91		1,134	567	567					24	12					94
NB	ROUTE 1/710 SEPARATION TO WILLOW STREET OC	6.91	7.91	149	10,624	5,312	5,312	577	128		809	222	112	25	6		70	885
SB	ROUTE 1/710 SEPARATION TO WILLOW STREET OC	6.91	7.91	145	10,624	5,312	5,312	892	57		135	222	112	38	4		12	885
NB	WILLOW STREET OC TO WARDLOW ROAD OC	7.91	9.10		12,884	6,260	6,260	391	50	305	1,405	268	131	17	3	14	120	1,074
SB	WILLOW STREET OC TO WARDLOW ROAD OC	7.91	9.10	276	12,520	6,260	6,387	484	191		305	262	131	21	8		28	1,044
NB	WARDLOW ROAD OC TO ROUTE 405/710 SEPARATION	9.10	9.44		3,777	1,785	1,785	404		332		80	38	17				315
SB	WARDLOW ROAD OC TO ROUTE 405/710 SEPARATION	9.10	9.44	110	3,570	1,785	1,873			88		75	38		5	16		298
NB	ROUTE 405/710 SEPARATION TO POST MILE 9.46	9.44	9.46		250	125	125					6	4					20
SB	ROUTE 405/710 SEPARATION TO POST MILE 9.46	9.44	9.46		250	125	125					6	4					20
SUBTOTAL				680	56,767	28,098	28,339	2,748	514	637	2,894	1,189	594	118	26	30	248	4,729
SHEET TOTAL				680	56,767	56,437		3,899			2,894			2,205				4,729

PAVEMENT DELINEATION DETAILS AND QUANTITIES

NO SCALE

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: HAMID SAADATNEJADI

DESIGNED BY: KEVIN KWAN

CHECKED BY: HAMID SAADATNEJADI

REVISOR: KEVIN KWAN

DATE: 7/2/2010

LAST REVISION: 00-00-00
 DATE PLOTTED => 31-JAN-2011
 TIME PLOTTED => 13:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	710	6.8/9.5	16	25

Kevin Kwan 1-13-11
 REGISTERED CIVIL ENGINEER DATE

1-31-11
 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.

ROADWAY QUANTITIES

DESCRIPTION	LOCATION		COLD PLANE AC PAVEMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
	FROM	TO			
	PM	PM			
POST MILE 6.8 TO ROUTE 1/710 SEPARATION	6.80	6.91	7,302	512	3.4
ROUTE 1/710 SEPARATION TO WILLOW STREET OC	6.91	7.91	68,533	4,811	31.4
WILLOW STREET OC TO WARDLOW ROAD OC	7.91	9.10	81,961	5,754	37.6
WARDLOW ROAD OC TO ROUTE 405/710 SEPARATION	9.10	9.44	23,934	1,680	11.0
ROUTE 405/710 SEPARATION TO POST MILE 9.46	9.44	9.46	1,500	106	0.7
SUBTOTAL			183,230	12,863	84.1
SHEET TOTAL			183,230	12,863	84.1

SUMMARY OF QUANTITIES

NO SCALE

Q-1

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

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

PROJECT NOTES:(THIS SHEET)

- 1 INSTALL 3 INDUCTIVE LOOP DETECTORS, 6 PIEZOELECTRIC AXLE SENSORS. SEE SHEET E-2 FOR INSTALLATION DETAILS.
- 2 INSTALL 2" C STUBOUT FOR INDUCTIVE LOOP DETECTORS AND PIEZOELECTRIC AXLE SENSORS.
- 3 INSTALL 2" C STUBOUT FOR LOOP DETECTOR.
- 4 RC EXISTING CONDUCTORS. INSTALL NEW CONDUCTORS, SEE CONDUIT AND CONDUCTOR SCHEDULE ON THIS SHEET.
- 5 RC EXISTING CONDUCTORS. REUSE EXISTING TELEPHONE CABLE. INSTALL NEW CONDUCTORS, SEE CONDUIT AND CONDUCTOR SCHEDULE ON THIS SHEET.
- 6 SC FOR INDUCTIVE LOOP DETECTOR AND DLC ONLY.

GENERAL NOTE: (THIS SHEET)

1. TAG DLC IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.

LEGEND

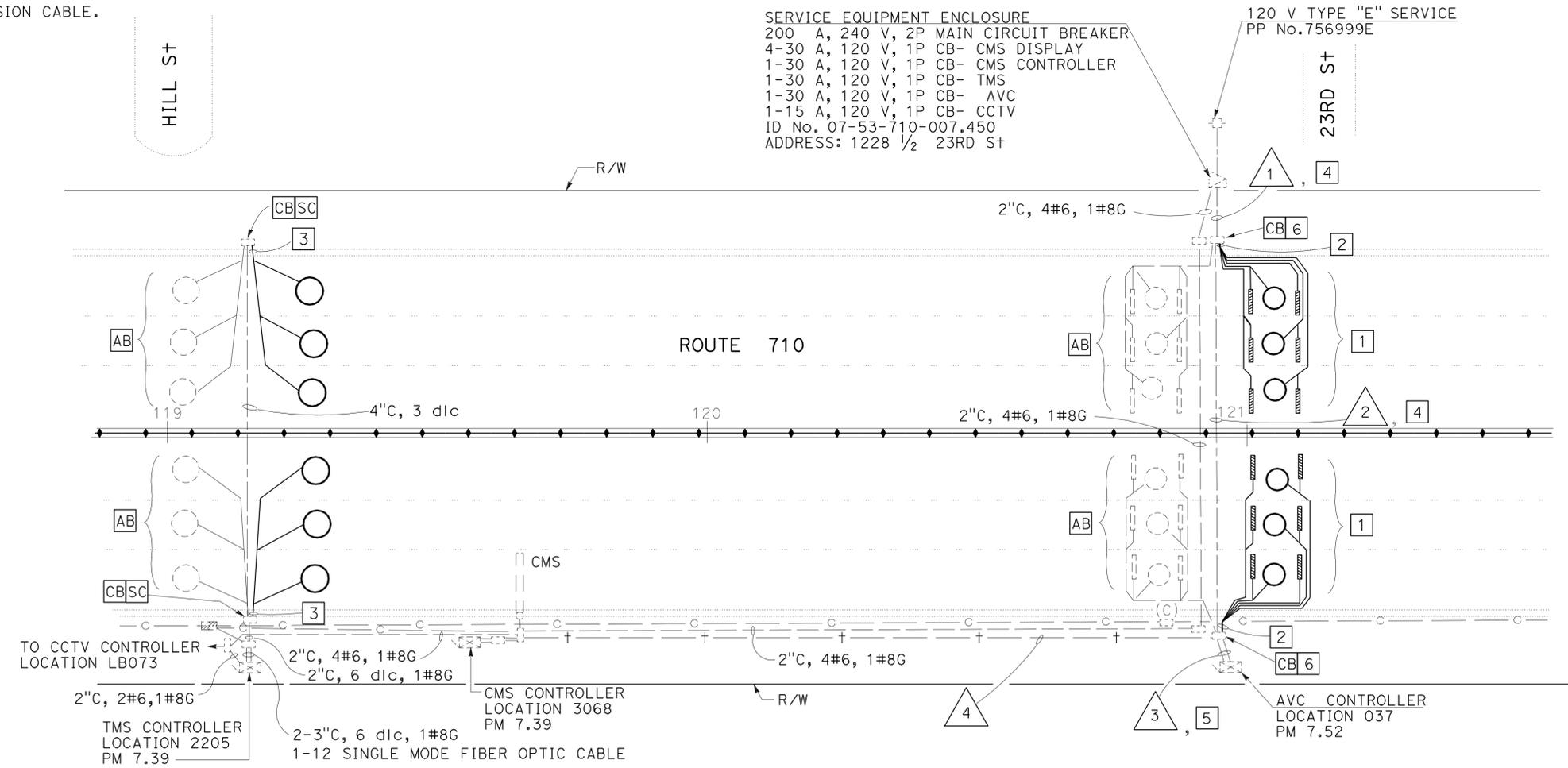
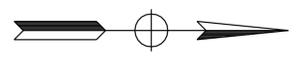
EXISTING COMMUNICATION SPLICE VAULT.

ABBREVIATION

STC - SCREENED TRANSMISSION CABLE.

CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4
DLC	NB LOOP DETECTORS	-	3	3	-
	SB LOOP DETECTORS	-	-	3	-
STC	NB AXLE SENSORS	-	6	6	-
	SB AXLE SENSORS	-	-	6	-
#8	SERVICE	2	2	2	-
#8	GROUNDING	8	8	8	-
4#18	TELEPHONE	-	-	1 (E)	1 (E)
CONDUIT		2" (E)	2" (E)	2-3" (E)	2" (E)



MODIFY AUTOMATIC VEHICLE CLASSIFICATION STATION INDUCTIVE LOOP DETECTOR (REPLACEMENT)
 NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

LAST REVISION DATE PLOTTED => 31-JAN-2011 00-00-00 TIME PLOTTED => 13:07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	19	25

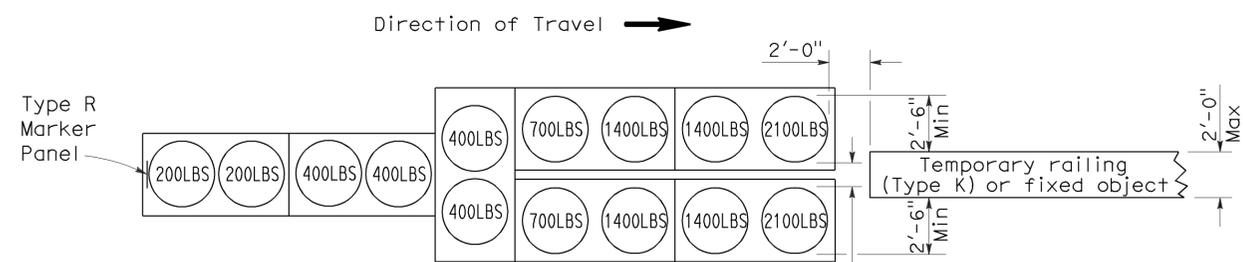
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

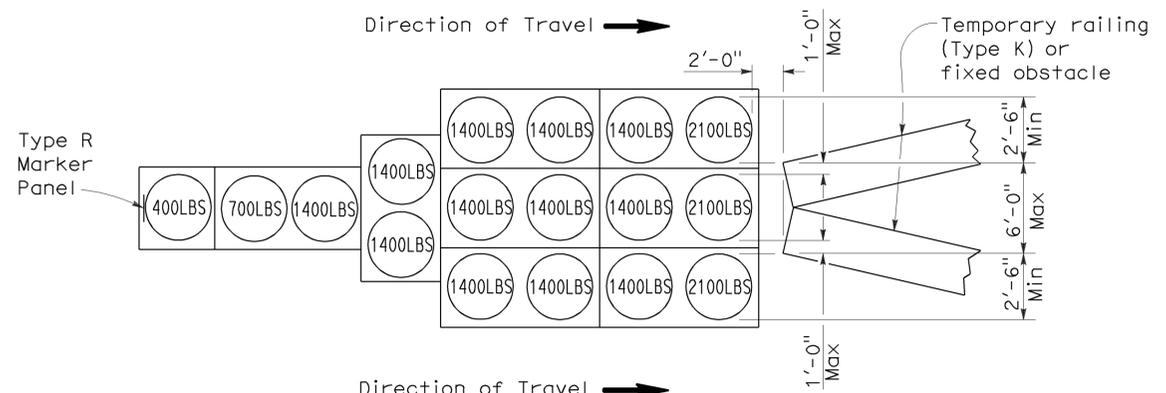
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 1-31-11



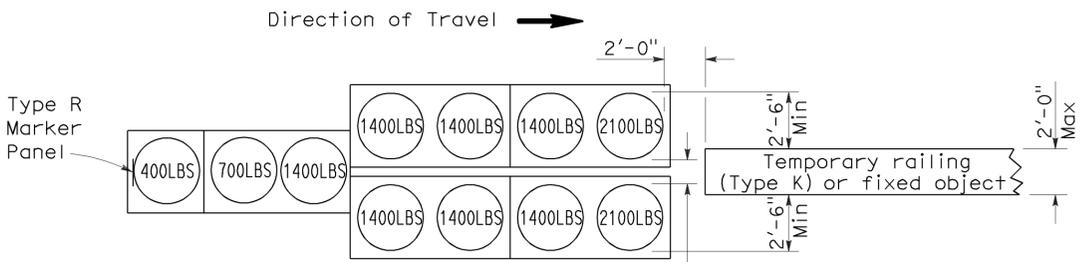
ARRAY 'TU14'

Approach speed 45 mph or more



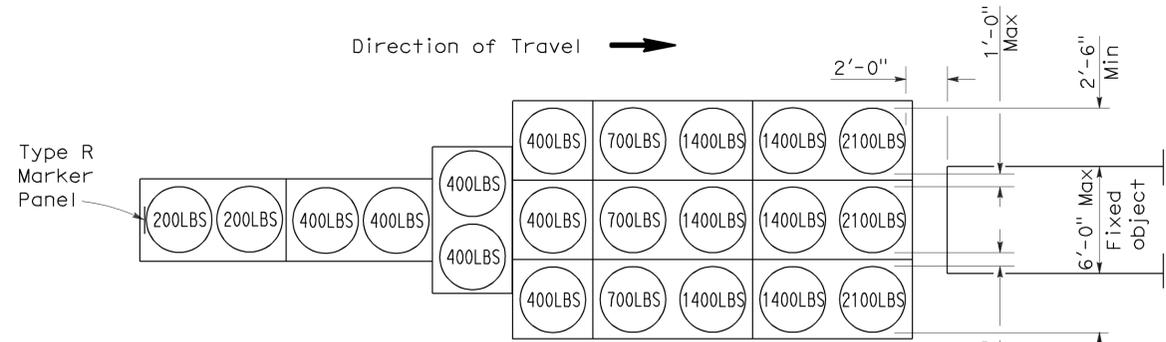
ARRAY 'TU17'

Approach speed less than 45 mph



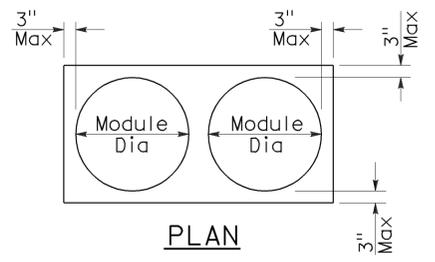
ARRAY 'TU11'

Approach speed less than 45 mph

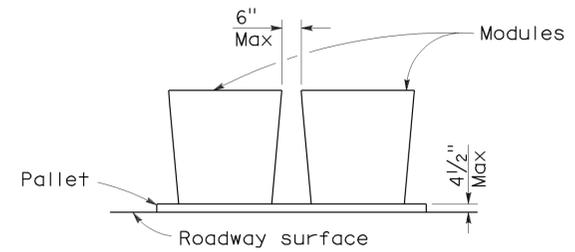


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	20	25

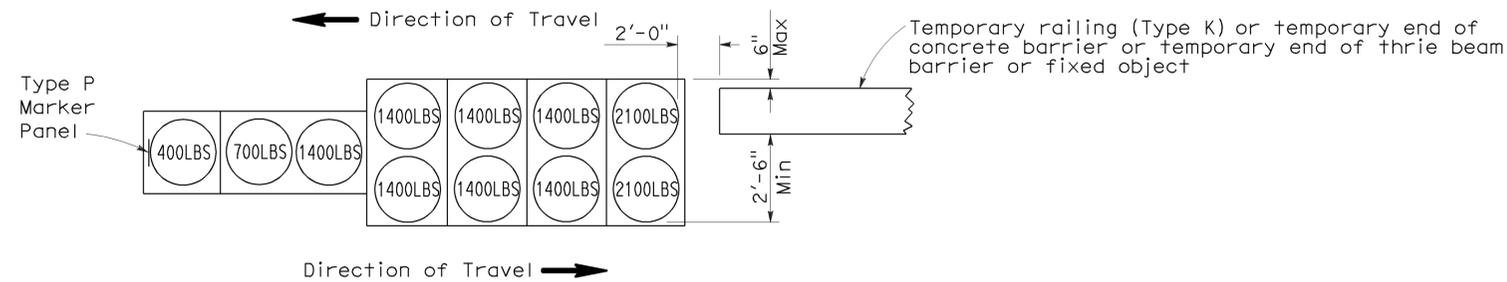
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

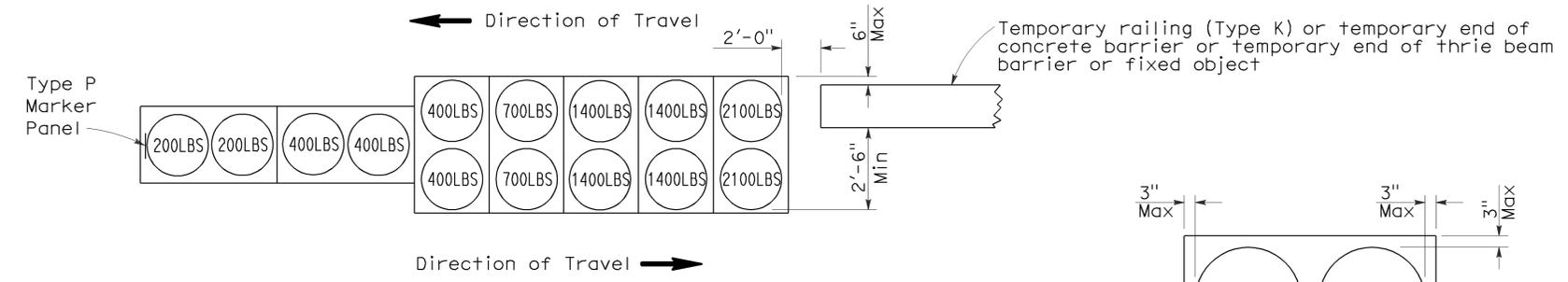
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-31-11



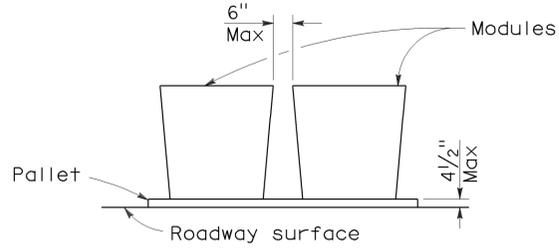
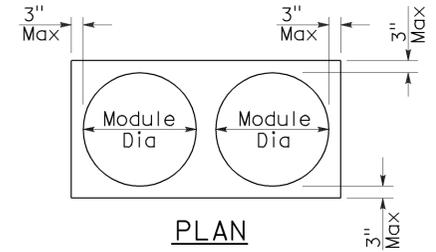
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

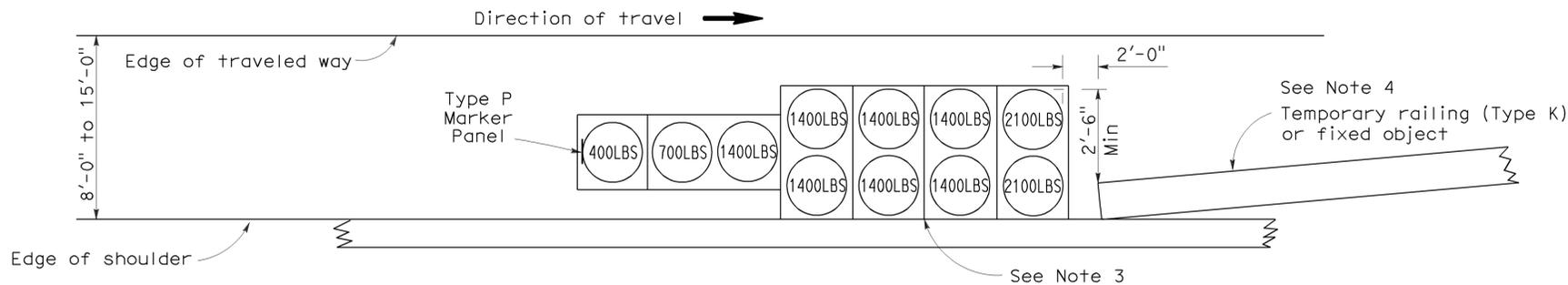
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	21	25

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

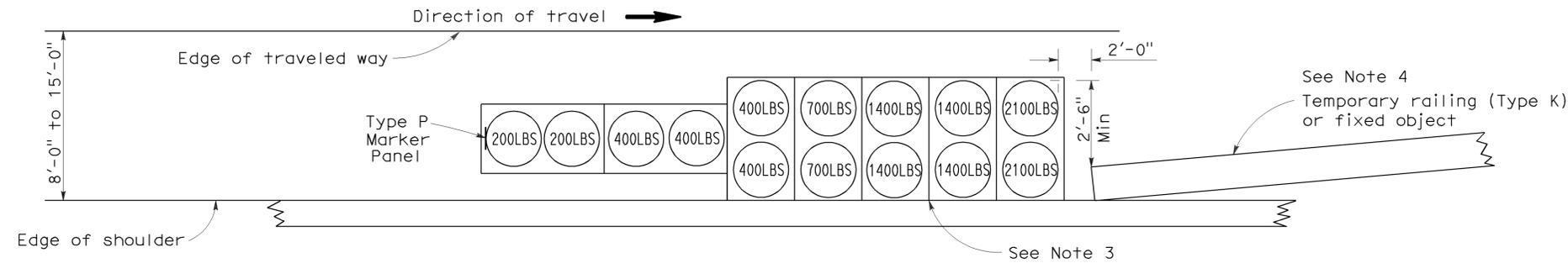
June 6, 2008
PLANS APPROVAL DATE

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

To accompany plans dated 1-31-11



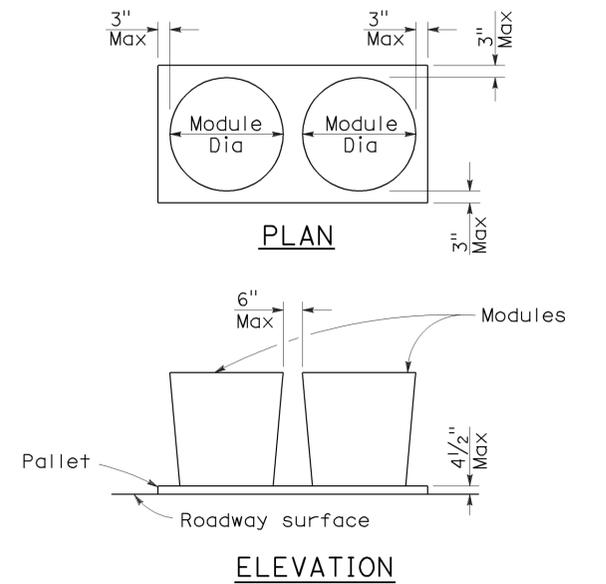
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

NOTES:

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

ELECTROLIERS

STANDARD TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		
32		
35		
36-20A		

NOTES:

- Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
N	N	Mercury vapor lighting fixture
NC	NC	Neutral (Grounded Conductor)
NO	NO	Normally closed
PB	pb	Normally open
PEC	pec	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL	rl	Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	22	25

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae
REGISTERED PROFESSIONAL ENGINEER
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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To accompany plans dated 1-31-11

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	23	25

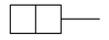
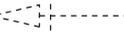
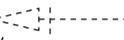
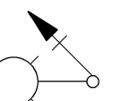
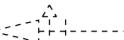
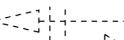
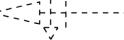
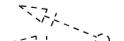
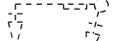
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination 
		Conduit riser in/on structure or service pole

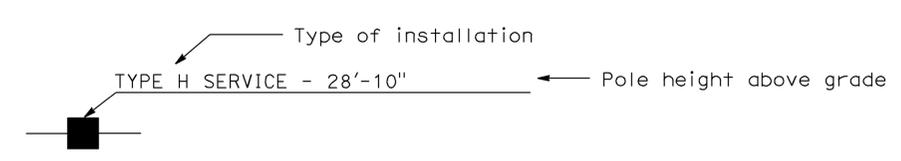
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign

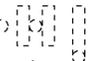
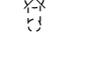
SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

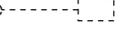
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

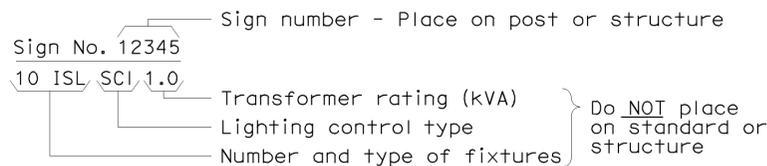
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

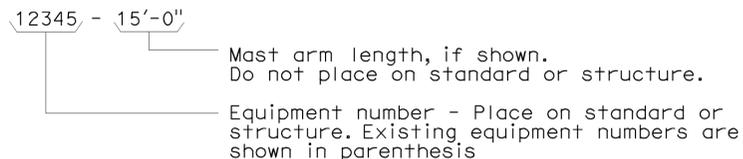
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

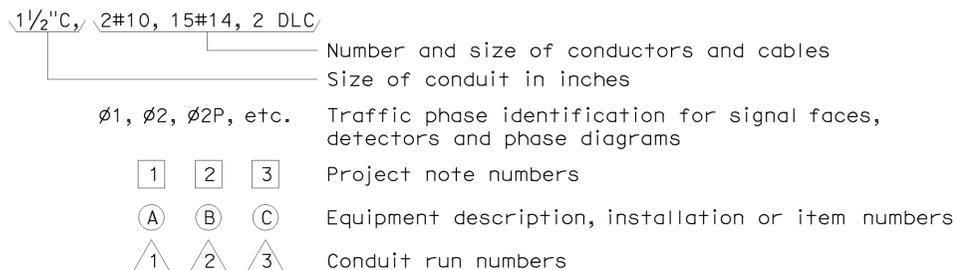
ILLUMINATED SIGN IDENTIFICATION NUMBER:



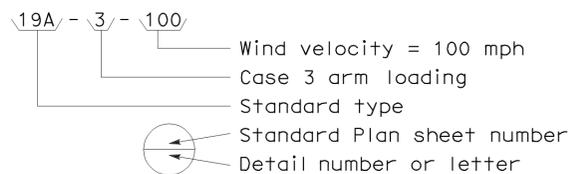
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



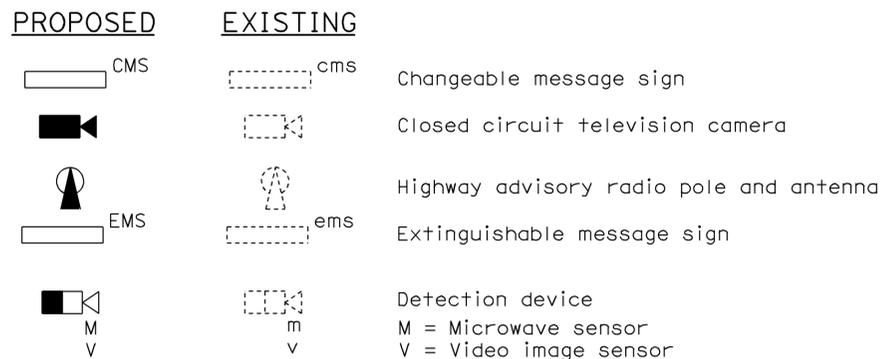
CONDUIT AND CONDUCTOR IDENTIFICATION:



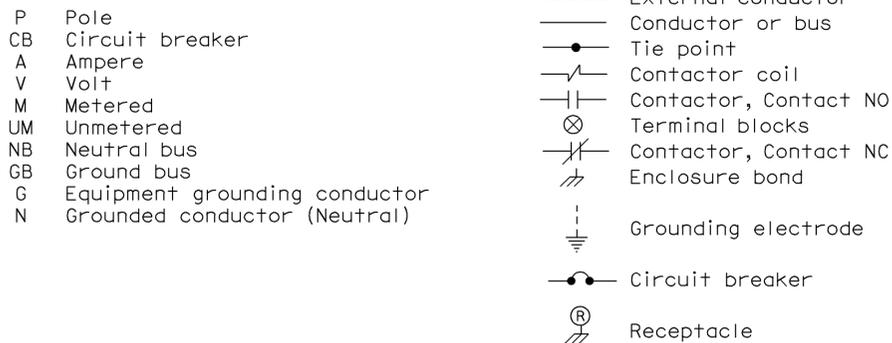
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



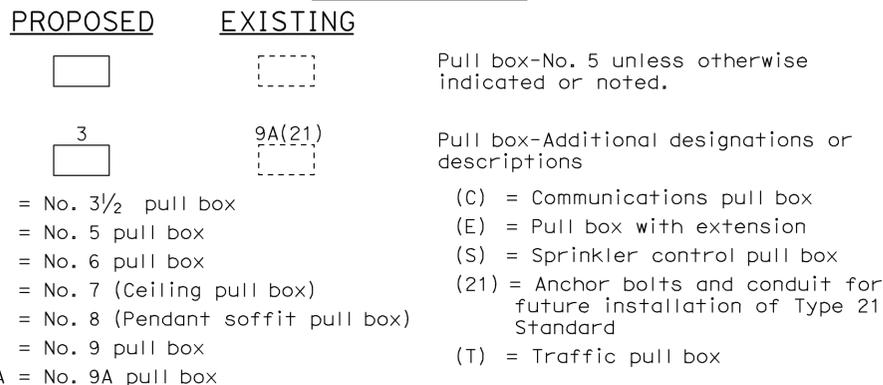
MISCELLANEOUS EQUIPMENT



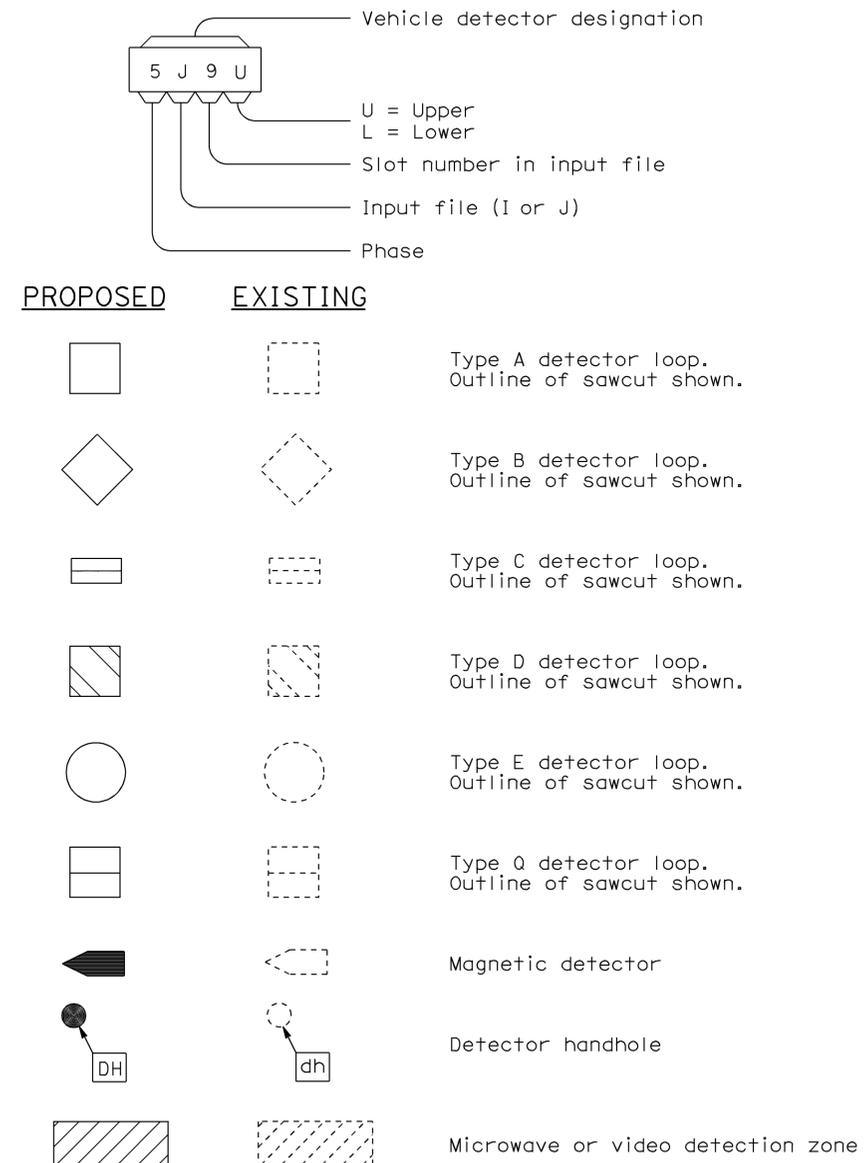
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

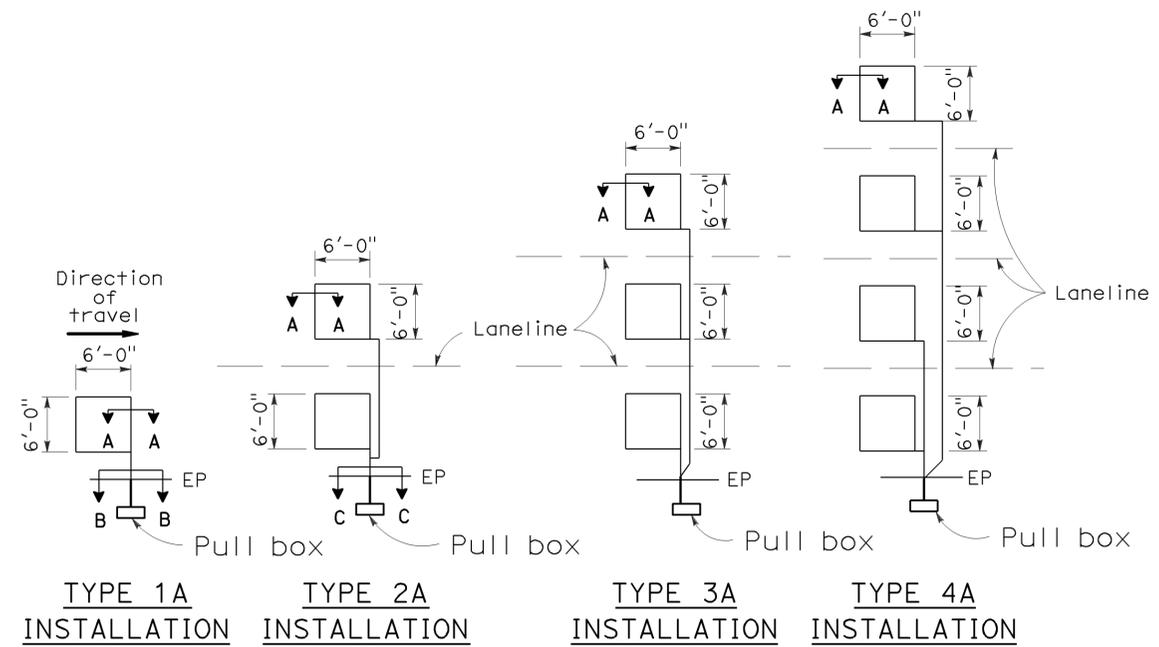
RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

LOOP INSTALLATION PROCEDURE

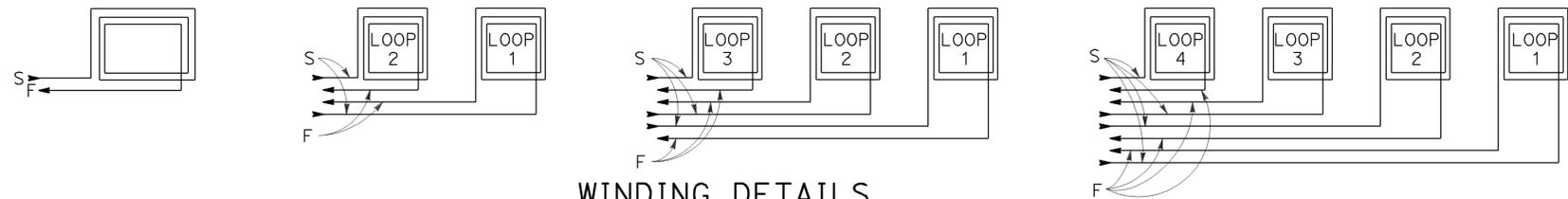
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



SAWCUT DETAILS

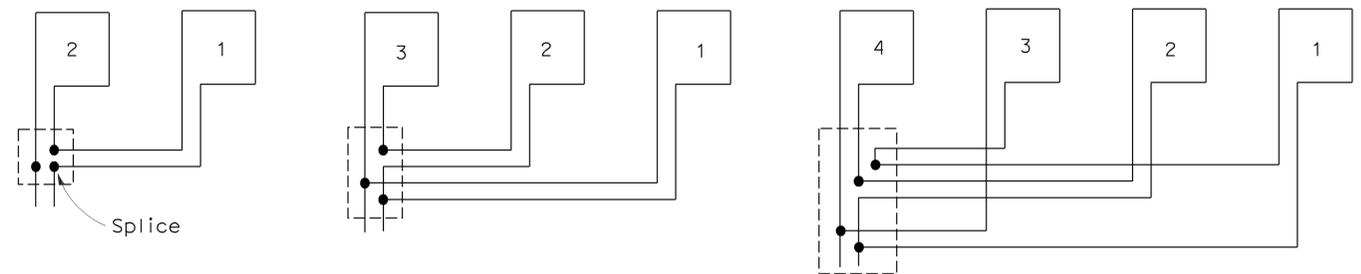
(Type A loop detector configurations illustrated)

- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



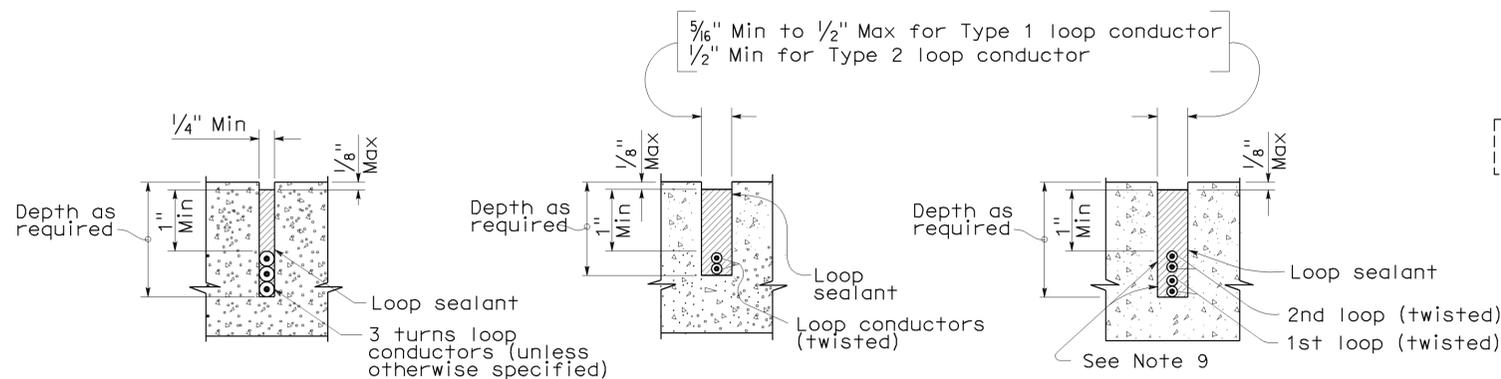
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	710	6.8/9.5	25	25

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated 1-31-11

2006 REVISED STANDARD PLAN RSP ES-5A