ACNH-P023(034)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	1	24

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

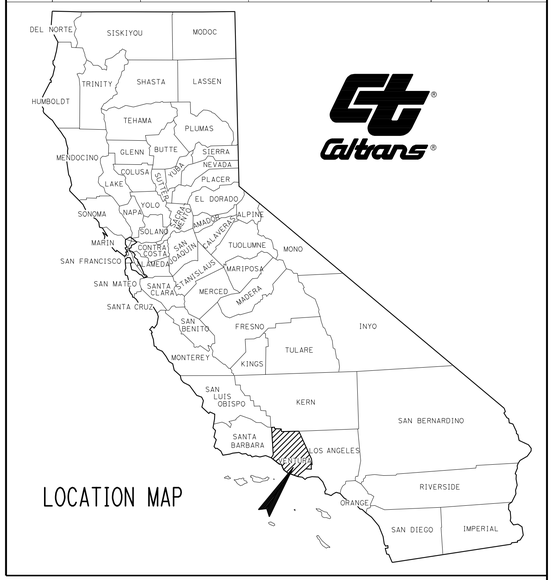
IN VENTURA COUNTY
IN THOUSAND OAKS AND MOORPARK
FROM THOUSAND OAKS BOULEVARD TO 0.2 MILE NORTH OF LOS ANGELES AVENUE UNDERCROSSING

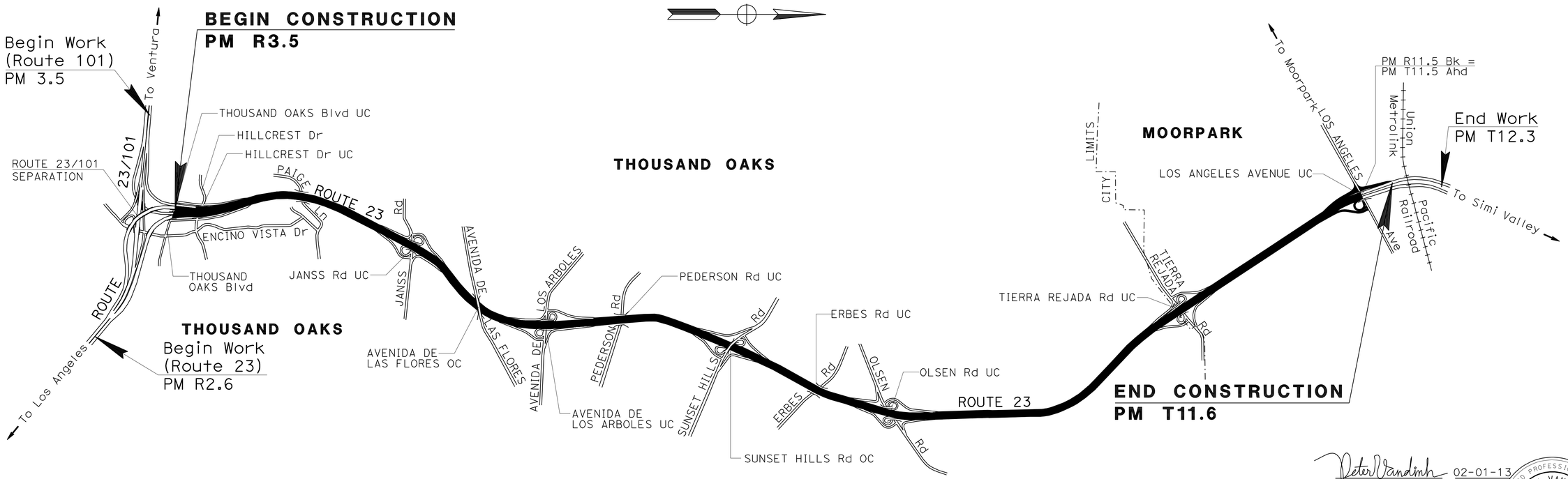
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2 - 3	TYPICAL CROSS SECTIONS
4 - 5	CONSTRUCTION DETAILS
6	CONSTRUCTION AREA SIGNS
7 - 10	TRAFFIC HANDLING DETAILS
11	PAVEMENT DELINEATION DETAILS
12	PAVEMENT DELINEATION QUANTITIES
13	SUMMARY OF QUANTITIES
14 - 15	ELECTRICAL PLANS
16 - 18	TRAFFIC CONTROL SYSTEM
19 - 24	REVISED STANDARD PLANS

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





NO SCALE

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

PROJECT MANAGER: GARY KEVORKIAN
DESIGN ENGINEER: PAUL CRISPI

Peter Vandinh 02-01-13
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

March 11, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

CONTRACT No.	07-4Y0404
PROJECT ID	0700020229

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:31

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	2	24

REGISTERED CIVIL ENGINEER 2-01-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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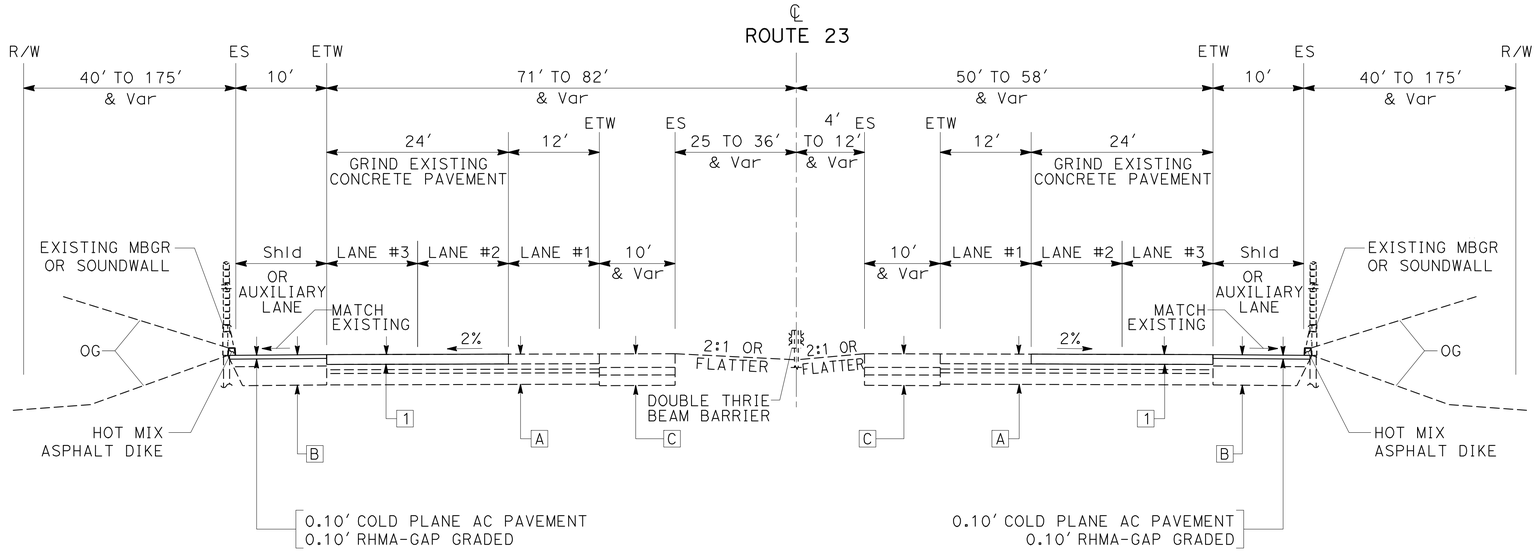
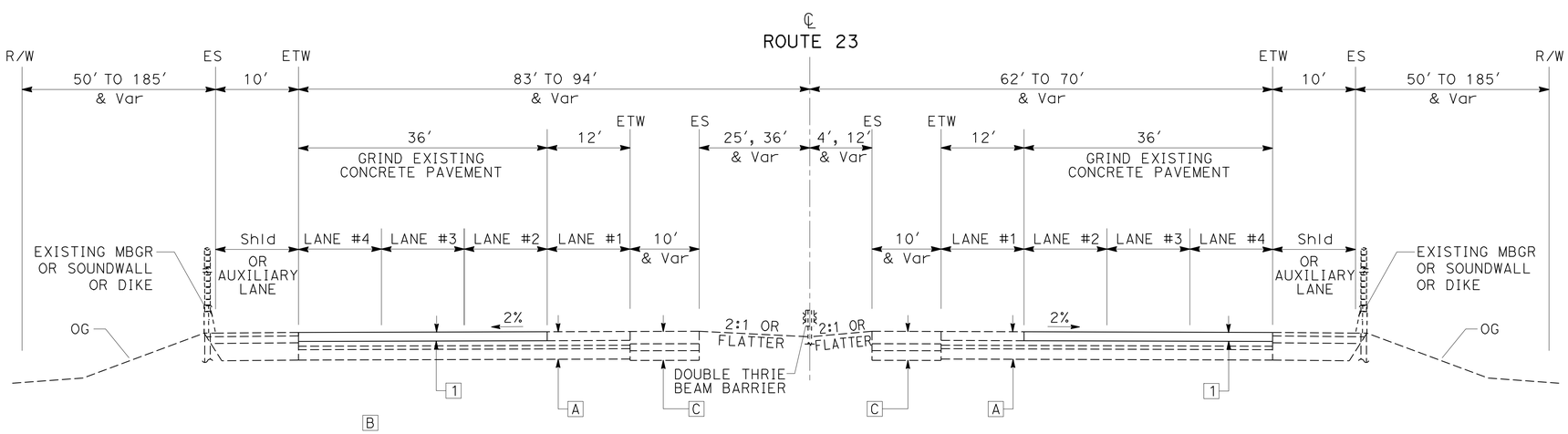


SOUTHBOUND NORTHBOUND

ROUTE 23
PM R4.8 TO R11.5



SOUTHBOUND NORTHBOUND

ROUTE 23
PM R3.3 TO R4.8

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE.
4. EXISTING UTILITY FACILITIES AND DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
5. SEE CONTRUCTION DETAILS AND QUANTITY SHEETS FOR LIMITS OF GRIND EXISTING CONCRETE PAVEMENT. THE ENGINEER DETERMINES EXACT LOCATIONS. APPROACH SLABS AND BRIDGE DECKS ARE EXCLUDED FROM GRINDING.
6. EXACT LOCATIONS AND TYPES OF DIKE AND CURB ARE SHOWN ON THE SUMMARY OF QUANTITIES SHEET.

ABBREVIATION:

RMCTB - ROAD MIXED CEMENT TREATED BASE

PROPOSED STRUCTURAL SECTION

1 — 0.65' INDIVIDUAL SLAB REPLACEMENT (RAPID STRENGTH CONCRETE)

EXISTING STRUCTURAL SECTION

A —
- 0.65' PCC
- 0.35' RMCTB (CLASS A)
- 0.25' CLASS 3 AB
- 0.75' CLASS 4 AS

B —
- 0.25' AC
- 0.50' CLASS 2 AB
- Var CLASS 4 AS

C —
- 0.90' PCC
- 0.50' LCB
- 0.70' CLASS 3 AB

D —
- 0.45' AC (TYPE B)
- 0.25' ATPB
- 0.65' CLASS 2 AB
- 0.85' CLASS 4 AS

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED
PETER DINH | PAUL CRISPI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: PAUL CRISPI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:31

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	3	24

REGISTERED CIVIL ENGINEER 2-01-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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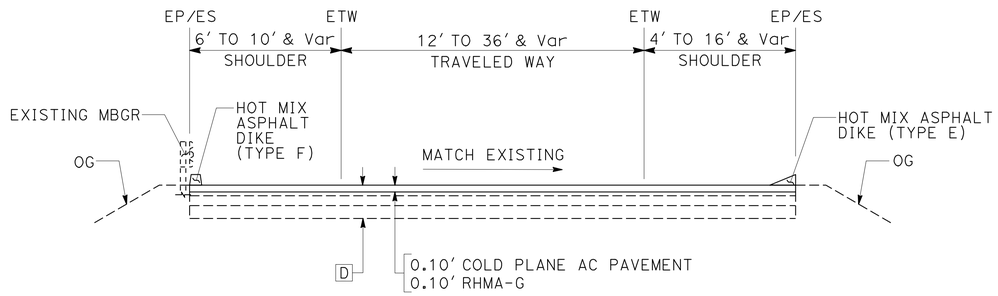
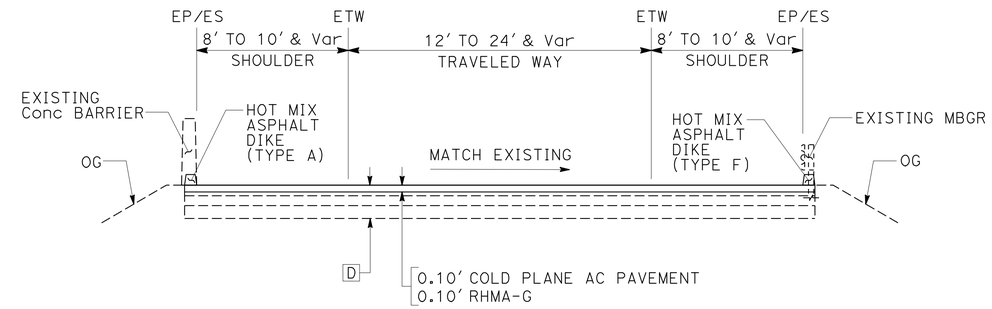


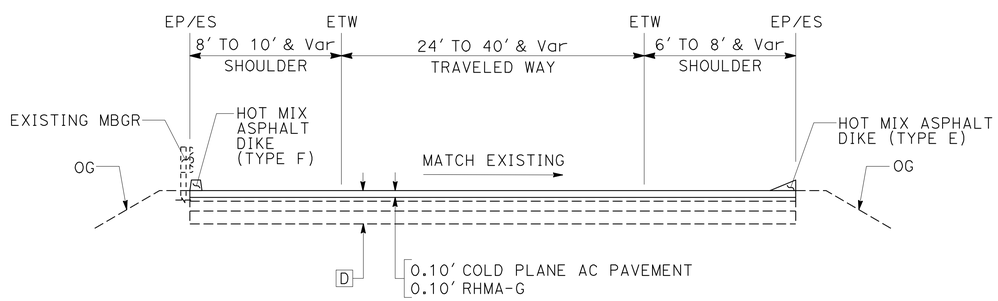
RAMP

NB OFF-RAMP TO LOS ANGELES AVENUE



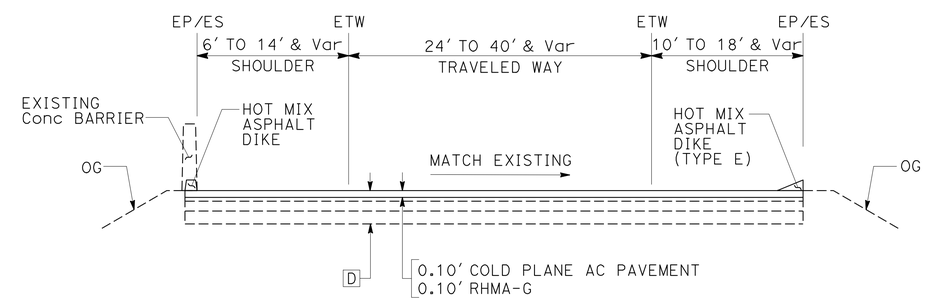
RAMP

SB OFF-RAMP TO LOS ANGELES AVENUE



RAMP

NB ON-RAMP FROM LOS ANGELES AVENUE



RAMP

SB ON-RAMP FROM LOS ANGELES AVENUE

TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: PETER DINH
CHECKED BY: PAUL CRISPI
REVISED BY
DATE REVISED

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	4	24

REGISTERED CIVIL ENGINEER 2-01-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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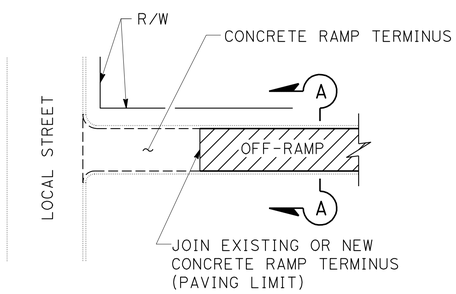
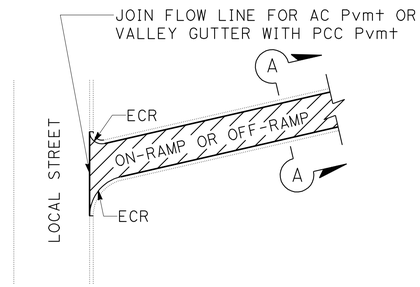


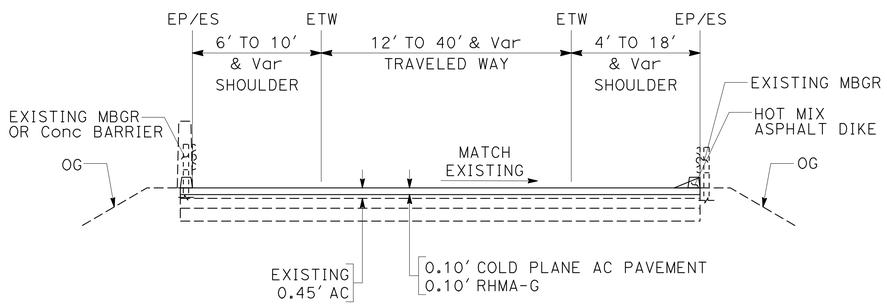
OFF-RAMP



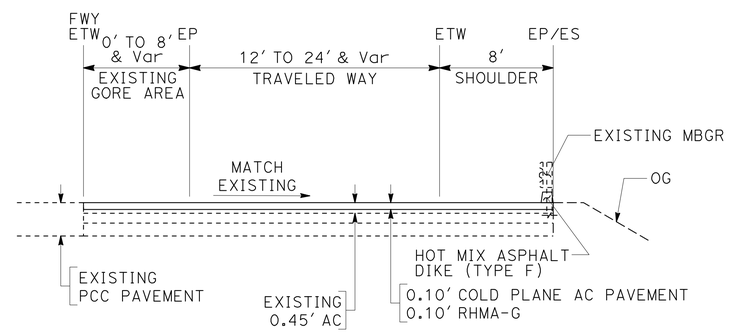
ON-RAMP OR OFF-RAMP

NOTES:

1. EXISTING UTILITY FACILITIES AND DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
2. THE ENGINEER DETERMINES EXACT PAVING LIMITS.
3. OMIT COLD PLANING AND AC ON BRIDGE DECKS, PCC RAMP TERMINI AND PCC PAVEMENT.



SECTION A-A



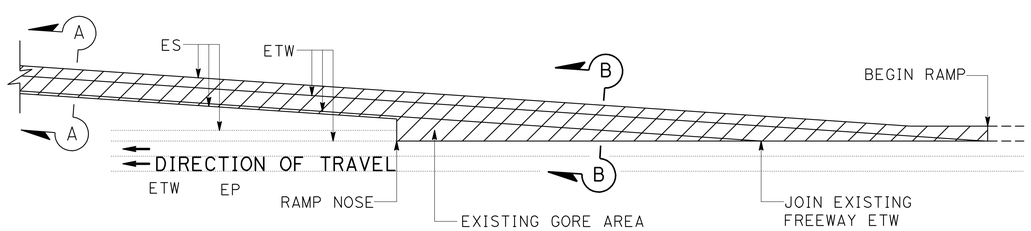
SECTION B-B

ABBREVIATION:

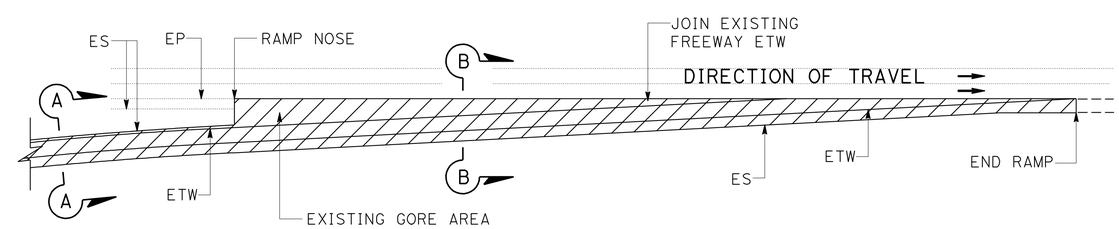
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

LEGEND:

0.10' COLD PLANE AC PAVEMENT
0.10' RHMA-G



OFF-RAMP



ON-RAMP

TYPICAL RAMP PAVING DETAILS

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY	DATE REVISED
PETER DINH	PAUL CRISPI

CALCULATED-DESIGNED BY	CHECKED BY

FUNCTIONAL SUPERVISOR: PAUL CRISPI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	5	24

REGISTERED CIVIL ENGINEER DATE 2-01-12

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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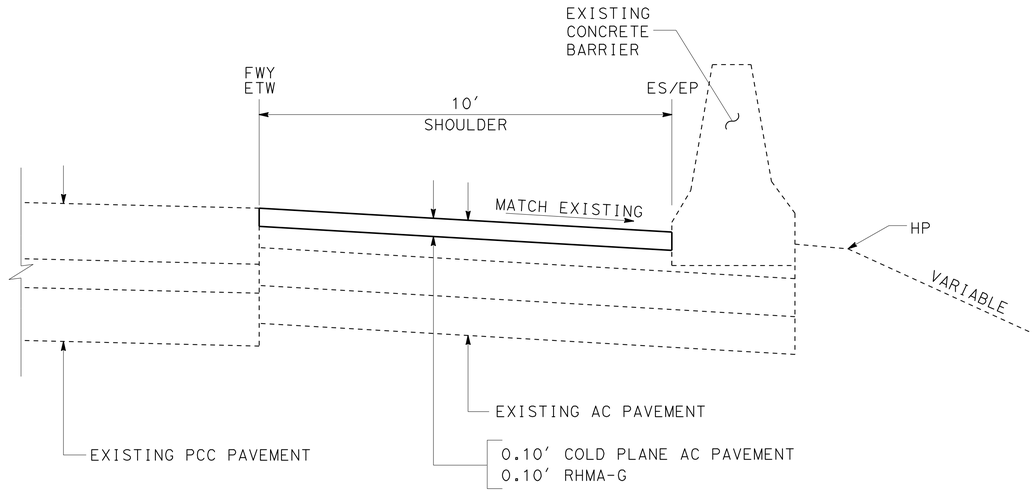
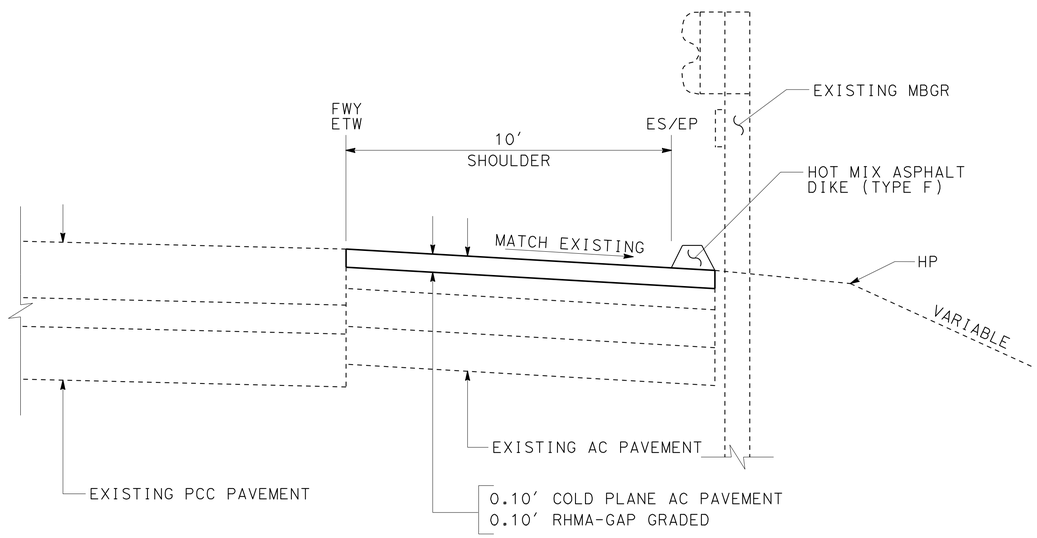


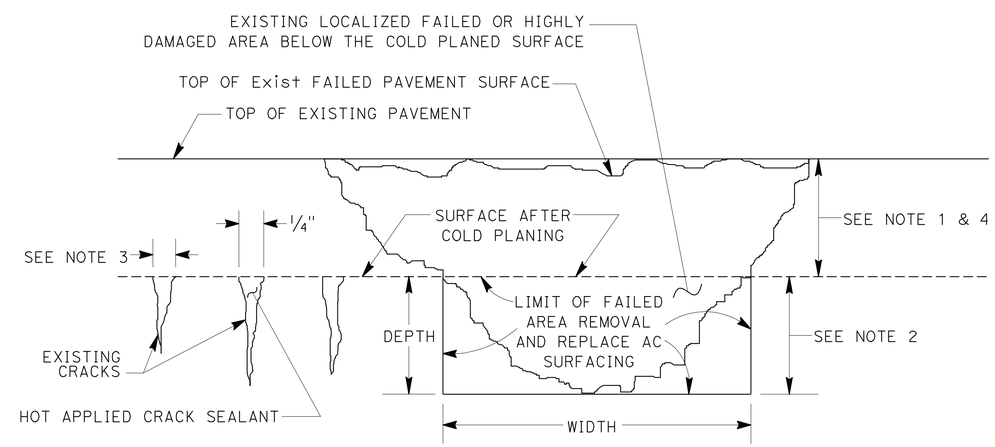
TYPICAL AT CONCRETE BARRIER OR SOUND WALL

NOTES:

1. COLD PLANE THE PLANNED THICKNESS OF EXISTING AC PAVEMENT.
2. REMOVE LOCALIZED FAILED AREAS AND REPLACE WITH MINIMUM 0.15′ (2") HMA-(TYPE A).
3. SEAL CRACKS GREATER THAN 1/4", 1 1/4" Max, WITH HOT APPLIED CRACK SEALANT.
4. PLACE THE PLANNED THICKNESS OF HMA OR RHMA-G AFTER CRACK SEALANT HAS BEEN APPLIED TO THE EXISTING CRACKS AND LOCALIZED FAILED AREAS HAVE BEEN REPAIRED.
5. EXISTING UTILITY FACILITIES AND DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.



TYPICAL AT METAL BEAM GUARD RAILING



TYPICAL DETAIL FOR SEAL RANDOM CRACKS AND REPLACE AC SURFACING

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: PETER DINH
CHECKED BY: PAUL CRISPI
REVISED BY
DATE REVISED

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	6	24

REGISTERED CIVIL ENGINEER DATE 2-01-12

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

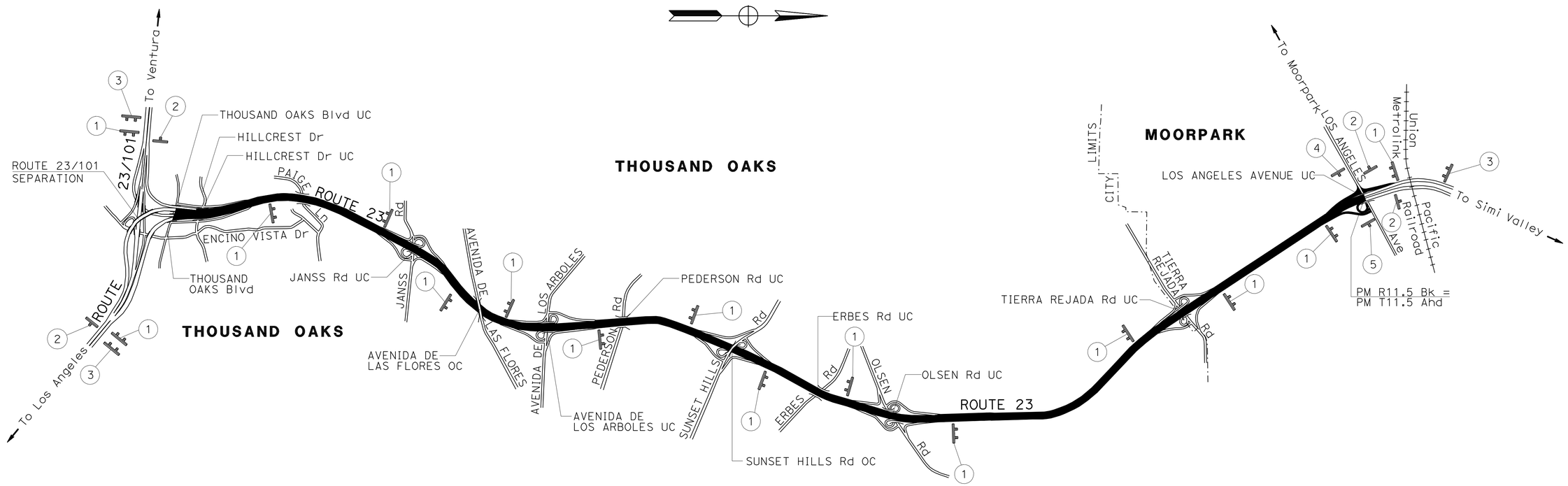
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

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

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	CODE	DESCRIPTION	PANEL SIZE	NUMBER OF POSTS & SIZE	NUMBER OF SIGNS
1	W20-1	ROAD WORK AHEAD	60"x60"	2 - 6" x 6"	15
2	G20-2	END ROAD WORK	48"x24"	1 - 4" x 6"	4
3	C40 (CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144"x60"	2 - 6" x 8"	3
4	W20-1	ROAD WORK AHEAD	36"x36"	1 - 4" x 6"	1
5	G20-2	END ROAD WORK	36"x18"	1 - 4" x 4"	1



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: PETER DINH
CHECKED BY: PAUL CRISPI
REVISED BY
DATE REVISED

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	7	24

REGISTERED CIVIL ENGINEER 9-18-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALBERT K. YU No. 43220 Exp. 3/31/14 CIVIL STATE OF CALIFORNIA

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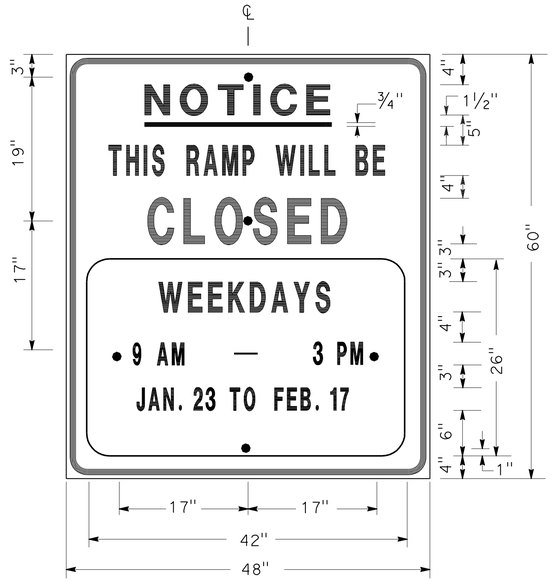
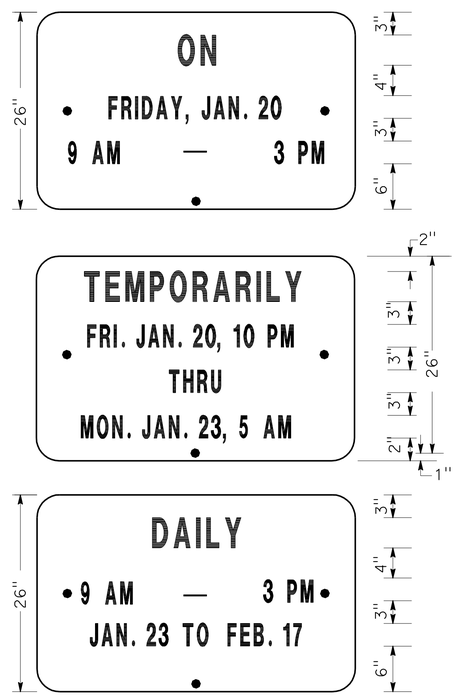


SIGN SP-1



ALTERNATE OVERLAY PANELS (TYPICAL)

SPECIAL ADVANCE NOTICE PUBLICITY SIGN

NOTES: (SIGN SP-1)

1. LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
2. BOLT HOLES SHALL BE 3/8" DIAMETER.
3. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
4. SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

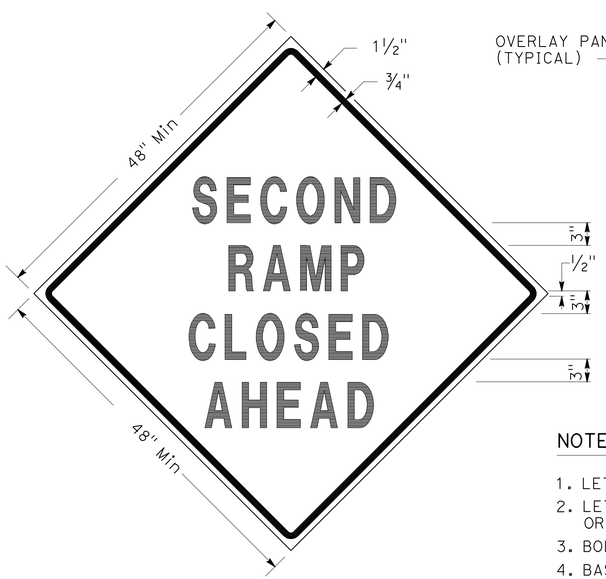
SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"
* CONDENSED SPACING IF NECESSARY								

SIGN SP-4

NOTES: (SIGN SP-4)

1. LETTERS - 6" SERIES C.
2. LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
3. BOLT HOLES SHALL BE 3/8" DIAMETER.
4. BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
5. SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH TCS-3.

SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES



SIGN SP-3

SIGN SP-5

NOTES: (SIGNS SP-3 & SP-5)

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

SPECIAL SIGNS FOR EXIT 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: JOHN YANG
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 6:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	8	24

REGISTERED CIVIL ENGINEER 9-18-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALBERT K. YU No. 43220 Exp. 3/31/14 CIVIL STATE OF CALIFORNIA

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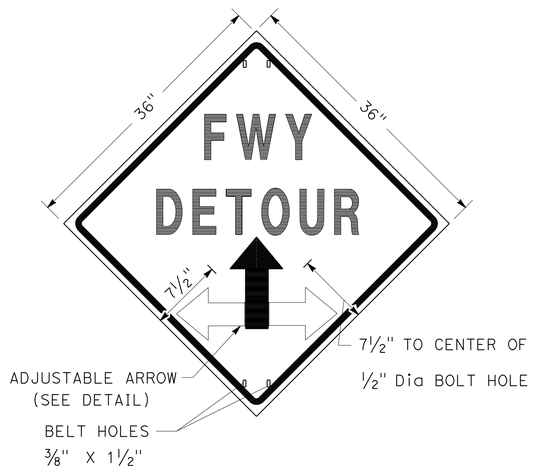
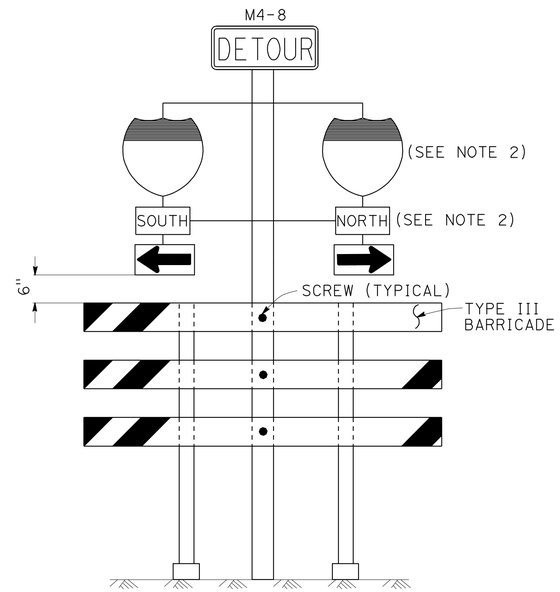
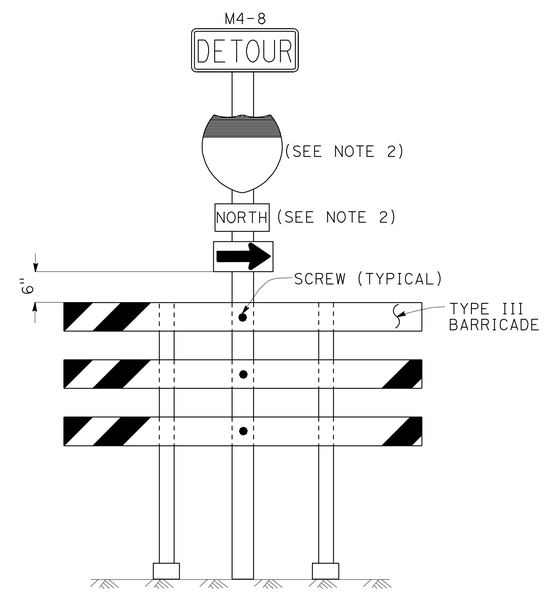


SIGN SP-2



SIGN SP-6 (SEE NOTE 1)



SIGN SP-7 (SEE NOTE 1)

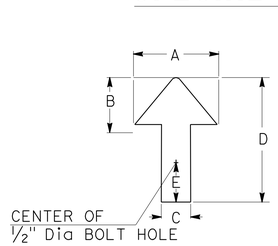
NOTES: SIGN SP-2

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

NOTES: (SIGNS SP-6 & SP-7)

1. IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
2. 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



DIMENSIONS				
A	B	C	D	E
6"	3"	2"	8"	1"

ADJUSTABLE ARROW DETAIL

ABBREVIATION

(CA) CALIFORNIA CODE

TRAFFIC HANDLING DETAILS

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

SHEET 2 OF 2

NO SCALE

THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: JOHN YANG
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	9	24

REGISTERED CIVIL ENGINEER 9-18-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALBERT K YU No. 43220 Exp. 3/31/14 CIVIL STATE OF CALIFORNIA

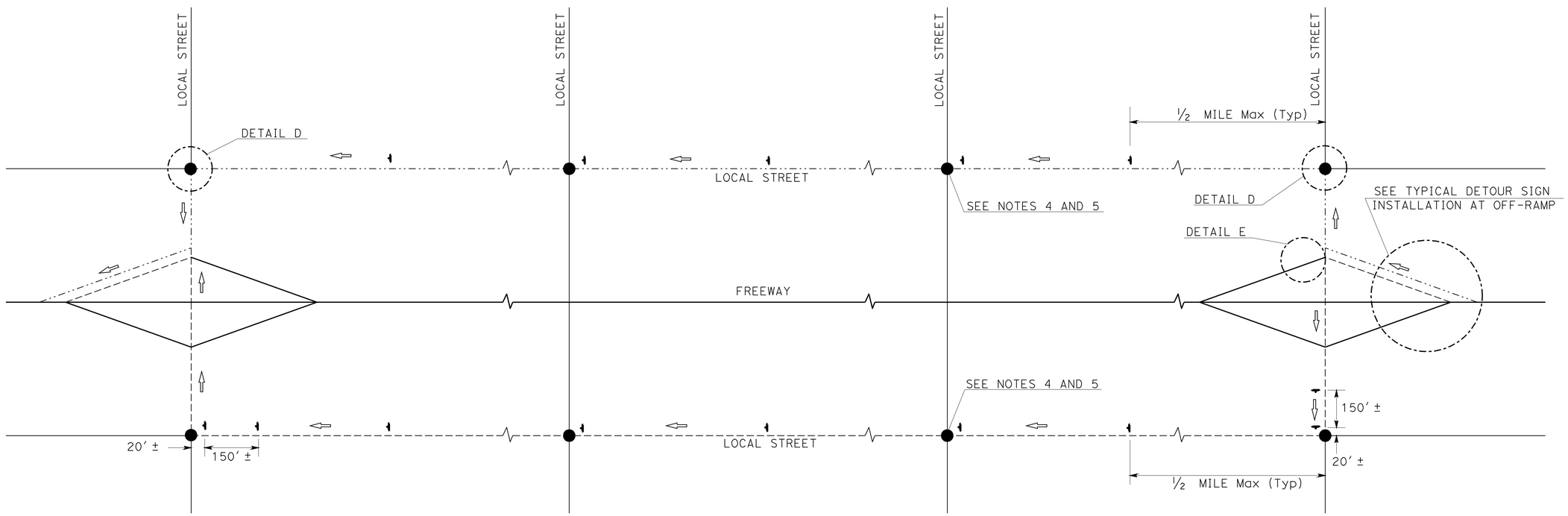
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

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

NOTES:

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



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

TRAFFIC HANDLING DETAILS

TRAFFIC CONTROL SYSTEM FOR DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

SHEET 1 OF 2

NO SCALE

THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR: JOHN YANG
CALCULATED-DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 3/12

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:32

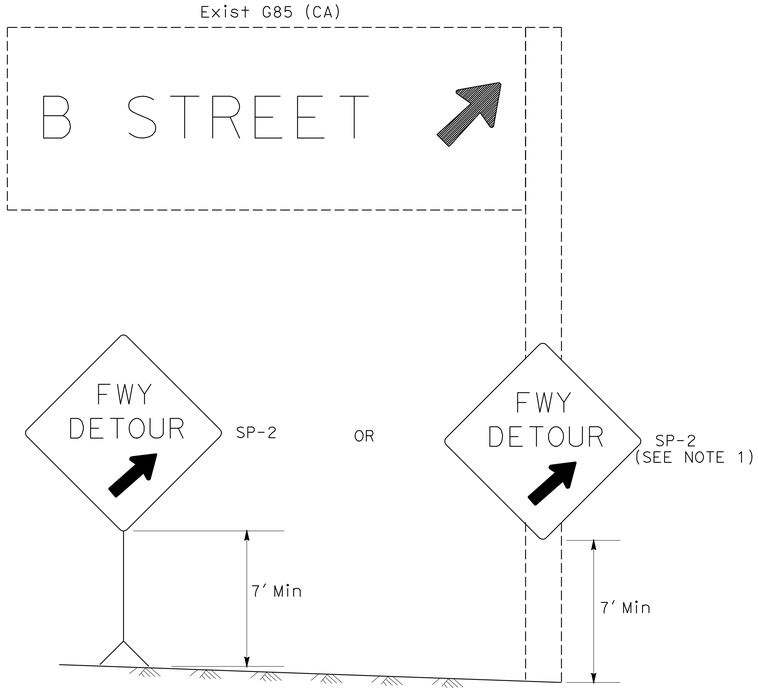
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	10	24

REGISTERED CIVIL ENGINEER 9-18-12 DATE

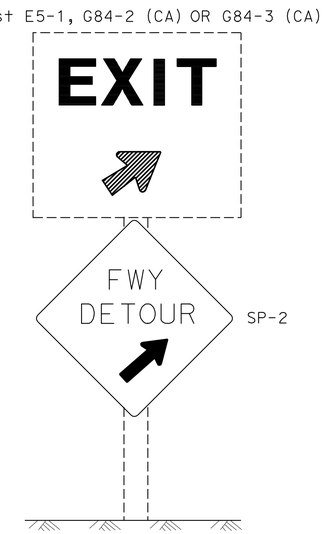
3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ALBERT K. YU No. 43220 Exp. 3/31/14 CIVIL STATE OF CALIFORNIA

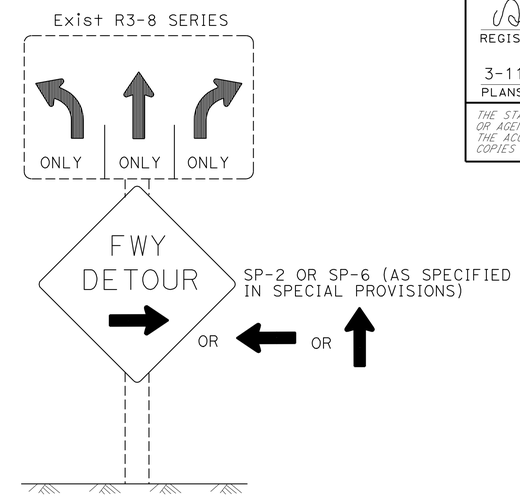
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



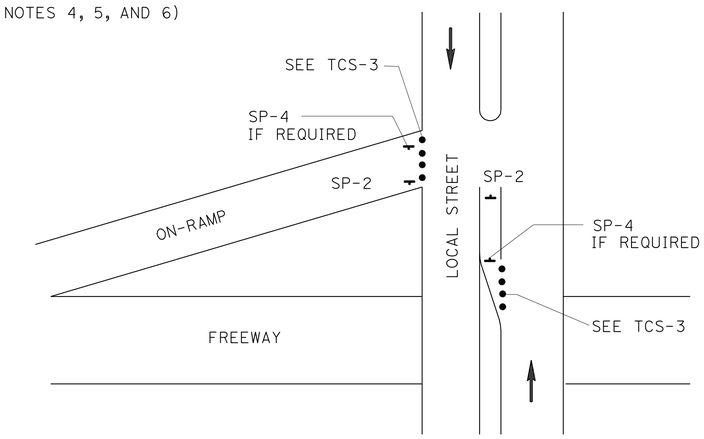
DETAIL A (SEE NOTE 3)



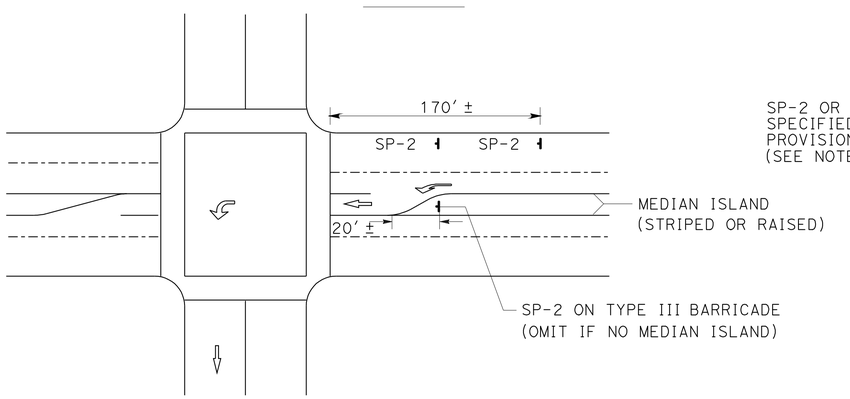
DETAIL B (SEE NOTE 3)



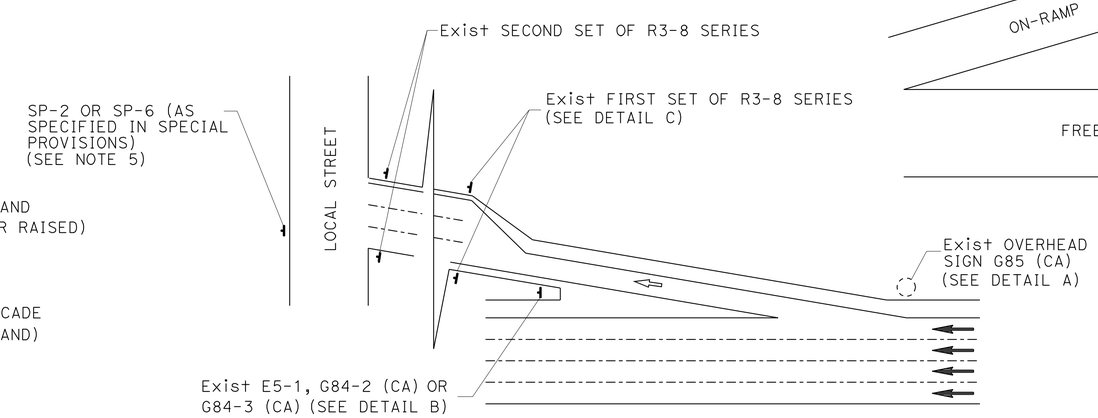
DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL E



DETAIL D



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

LEGEND

- CONE
- PORTABLE SIGN
- DIRECTION OF TRAVEL
- DETOUR DIRECTION
- EXISTING OVERHEAD SIGN

NOTES: SIGN SP-2

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

SIGN CODE LEGEND

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

XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

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

NO SCALE

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DTM

FUNCTIONAL SUPERVISOR	REVISED BY	CALCULATED-DESIGNED BY	CHECKED BY
JOHN YANG	JC	ALBERT K YU	JOCELYN C CHIANG
	3/12		
	DATE REVISED		

LAST REVISION 03-11-13 DATE PLOTTED => 19-MAR-2013 TIME PLOTTED => 16:32

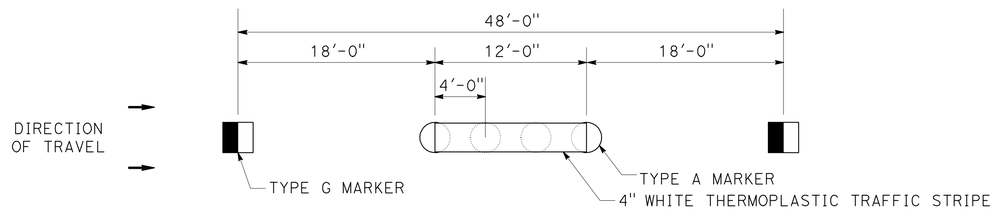
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	11	24

REGISTERED CIVIL ENGINEER DATE 2-01-12

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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



DETAIL 13 (MODIFIED)

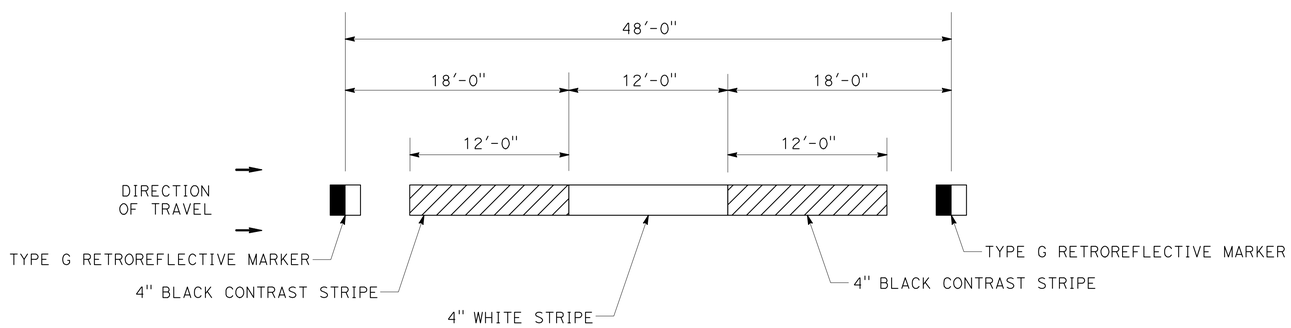
NOTE: APPLY 4" WIDE WHITE THERMOPLASTIC TRAFFIC STRIPE ON TOP OF TYPE A NON-REFLECTIVE MARKERS.

LEGEND:

- PAINTED WHITE STRIPE
- PAINTED BLACK CONTRAST STRIPE
- 2-TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKERS
- DIRECTION OF TRAVEL

ABBREVIATION:

Mod - MODIFIED



TEMPORARY TRAFFIC STRIPE

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: PAUL CRISPI
CALCULATED-DESIGNED BY: PETER DINH
CHECKED BY: PAUL CRISPI
REVISED BY
DATE REVISED

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	12	24

REGISTERED CIVIL ENGINEER DATE 2-01-12

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

PAVEMENT DELINEATION QUANTITIES

LOCATION	4" TEMPORARY TRAFFIC STRIPE (PAINT)	PAVEMENT MARKER (NON-REFLECTIVE) TYPE A	PAVEMENT MARKER (RETROREFLECTIVE) TYPE G	PAVEMENT MARKER (RETROREFLECTIVE) TYPE H	THERMOPLASTIC TRAFFIC STRIPE 4" (BROKEN 17-7) DETAIL 9	THERMOPLASTIC TRAFFIC STRIPE 4" (BROKEN 36-12) DETAIL 13 (Mod)	THERMOPLASTIC TRAFFIC STRIPE 4" SOLID YELLOW DETAIL 25A	THERMOPLASTIC TRAFFIC STRIPE 4" SOLID WHITE DETAIL 27B	THERMOPLASTIC TRAFFIC STRIPE 8" SOLID WHITE DETAIL 36	THERMOPLASTIC TRAFFIC STRIPE 8" SOLID WHITE DETAIL 36A	THERMOPLASTIC PAVEMENT MARKING CROSSWALKS AND LIMIT LINES	THERMOPLASTIC PAVEMENT MARKING WORDS AND SYMBOLS	THERMOPLASTIC PAVEMENT MARKING ARROWS	REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE PAVEMENT MARKER	REMOVE THERMOPLASTIC PAVEMENT MARKING
	LF	EA	EA	EA	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	LF	EA	SQFT
NB ROUTE 23 TO EB LOS ANGELES AVENUE			10	50	300		1100	1,110			110	130	100	1,120	55	340
EB LOS ANGELES AVENUE TO NB ROUTE 23			40	30	730		690	730		420	60		50	1,610	70	110
SB ROUTE 23 TO WB LOS ANGELES AVENUE			60	30			720	1,330	1300		20	60	60	3,930	90	140
EB LOS ANGELES AVENUE TO NB ROUTE 23			45	45	1130		1040	1,330		330	110		100	2,040	90	210
PM R3.34 - R5.06	32,100	3,030	680	340		32,100		16,050						24,080	3,690	
PM R5.06 - R6.03	20,490	1,710	440	220		20,490		10,240						15,370	2,360	
PM R6.03 - R7.16	23,870	1,990	510	250		23,870		11,930						17,900	2,750	
PM R7.16 - R8.21	22,180	1,850	470	240		22,180		11,090						16,640	2,550	640
PM R8.21 - R10.16	41,180	3,430	870	440		41,180		20,590				360	280	30,890	4,740	
PM R10.16 - R11.51	28,510	2,380		300		28,510		14,260						21,390	3,280	
TOTAL	168,330	14,390	5070		2160	168,330	92,210		2050		1440			134,970	19,675	1440

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

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
PETER DINH | PAUL CRISPI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
PAUL CRISPI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	13	24

REGISTERED CIVIL ENGINEER 2-01-12 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER PETER VAN DINH No. C62666 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

NOTE: SLAB LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

LEGEND: ☒ - NO LANE AT THIS LOCATION

SUMMARY OF QUANTITIES

LOCATION	DIRECTION NB	DIRECTION SB	NUMBER OF SLABS (N) SLAB NUMBER 1	2	3	4	INDIVIDUAL SLAB REPLACEMENT(RSC)	LEAN CONCRETE BASE RAPID SETTING	DOWEL BAR (DRILL AND BOND)	TIE BAR (DRILL AND BOND)	GRIND EXISTING CONCRETE PAVEMENT	SEAL PAVEMENT JOINT	SEAL ISOLATION JOINT	REPAIR SPALLED JOINTS (POLYESTER GROUT)	COLD PLANE ASPHALT CONCRETE PAVEMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	HMA (TYPE A)	REMOVE ASPHALT CONCRETE DIKE	PLACE HMA (TYPE A)	PLACE HMA (TYPE E)	PLACE HMA (TYPE F)	TACK COAT	REPLACE AC SURFACING	CRACK TREATMENT
	NB	SB	1	2	3	4	CY	CY	EA	EA	SQYD	LF	LF	SQYD	SQYD	TON	TON	LF	LF	LF	LF	TON	TON	LNMI
PM R3.54 TO R11.51	X																							35
PM R3.54 TO R11.51		X																						35
PM R3.54 - R5.06	X			16	14	8	170	4	460	230	32,330	30,840	1,050	14	1,530	90	14	520	520			2		
		X		8	18	13	170	4	470	240	32,320	25,990	1,100	15	1,530	90	4	45	45			2		
PM R5.06 - R6.03	X			3	16	☒	90	2	230	120	16,330	9,650	520	8	6,810	200	26	920	920			7		
		X		7	16	☒	100	2	280	140	16,330	9,500	630	8	6,810	200	45	1,570	1,570			7		
PM R6.03 - R7.16	X			3	16	☒	90	2	230	120	15,920	11,420	520	10	6,630	215	45	1,575	1,575			7		
		X		2	18	☒	90	2	240	120	15,920	11,420	540	10	6,630	215	20	700	700			7		
PM R7.16 - R8.21	X			1	9	☒	50	1	120	60	14,790	10,860	270	9	6,160	215	41	1,440	1,440			6		
		X		2	15	☒	80	2	210	110	14,790	10,730	460	9	6,160	215	38	1,380	1,380			6		
PM R8.21 - R10.16	X			6	22	☒	130	3	340	170	27,460	19,700	760	17	11,440	640	89	4,110	4,110			11		
		X		6	23	☒	130	3	350	180	27,460	19,660	790	17	11,440	640	145	6,690	6,690			11		
PM R10.16 - R11.51	X			5	11	☒	70	2	200	100	19,010	13,820	440	12	7,920	345	99	3,665	3,665			8		
		X		12	17	☒	130	3	350	180	19,010	13,450	790	11	7,920	345	115	4,225	4,225			8		
NB OFF-RAMP TO LOS ANGELES AVENUE	X														3,900	260	22	840		840		11	10	
NB ON-RAMP FROM LOS ANGELES AVENUE	X														3,900	260	30	720		565	150	11	10	
SB OFF-RAMP TO LOS ANGELES AVENUE		X													4,800	320	32	730	80		650	8	10	
SB ON-RAMP FROM LOS ANGELES AVENUE		X													5,600	380	20	1,070	630	440		8	10	
TOTAL			287				1300	30	3480	1770	251,670	187,040	7,870	140	99,180	4630	785	30,200	27,550	1845	800	120	40	70

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

SUMMARY OF QUANTITIES

Q-1

REVISED BY | DATE REVISED
PETER DINH | PAUL CRISPI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
PAUL CRISPI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

LAST REVISION 03-11-13 | DATE PLOTTED => 19-MAR-2013 | TIME PLOTTED => 16:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	14	24

REGISTERED ELECTRICAL ENGINEER 1-28-13 DATE

3-11-13
PLANS APPROVAL DATE

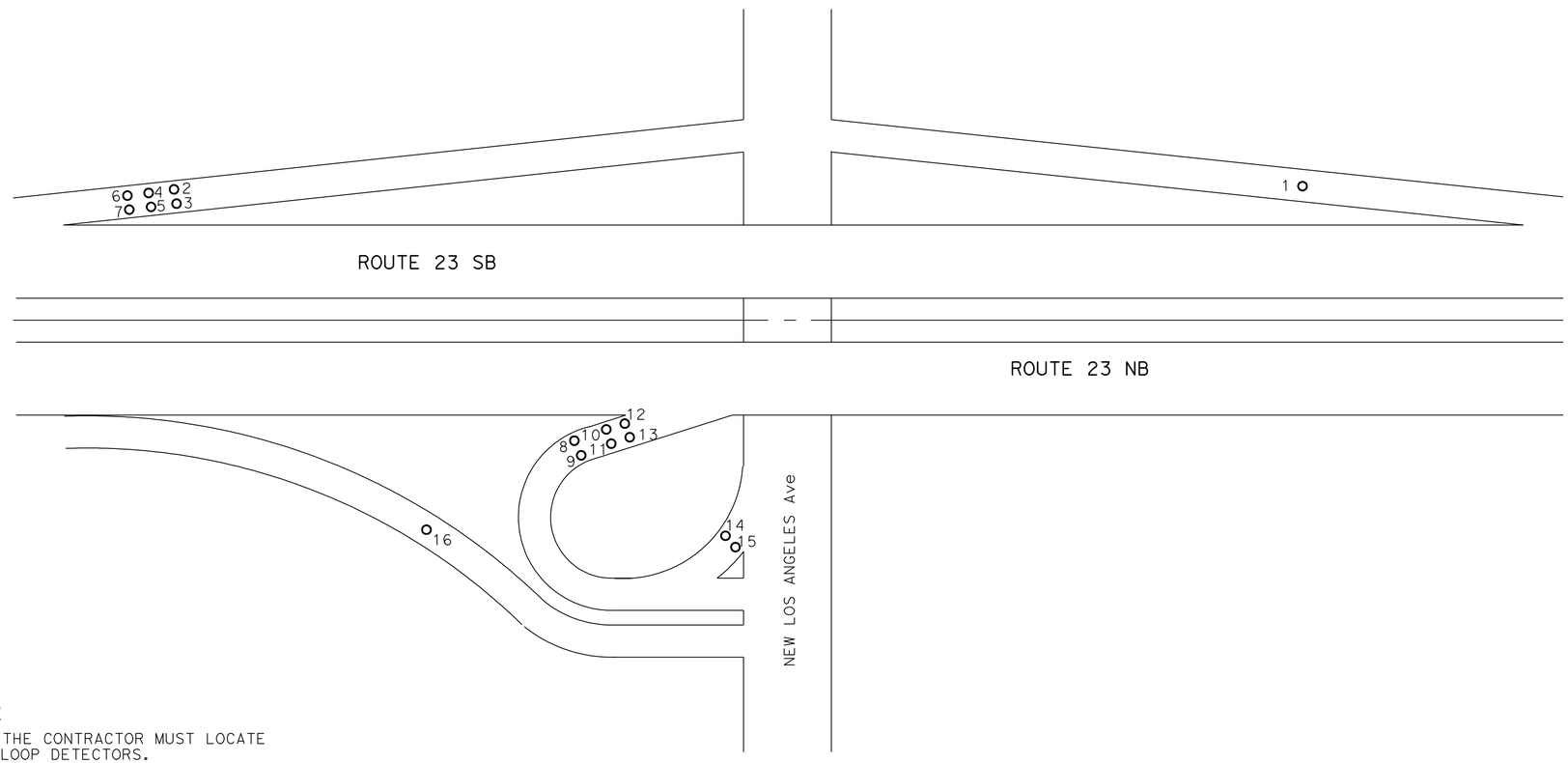
REGISTERED PROFESSIONAL ENGINEER G.S. TOOR No. E15613 Exp. 12-31-13 ELECTRICAL STATE OF CALIFORNIA

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.

INDUCTIVE LOOP DETECTOR

PM	LOCATION	TYPICAL LOCATION OF LOOP DETECTORS																No. OF STUBOUTS (REPLACE)
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
11.5	ROUTE 23 AND NEW LOS ANGELES Ave	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5

X- ABANDON EXISTING INDUCTIVE LOOP DETECTOR, INSTALL NEW TYPE E INDUCTIVE LOOP DETECTOR AT SAME LOCATION.



NOTES: (THIS SHEET)

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST LOCATE ALL EXISTING INDUCTIVE LOOP DETECTORS.
2. ABANDON INDUCTIVE LOOP DETECTORS. INSTALL NEW INDUCTIVE LOOP DETECTORS AT THE SAME LOCATION.
3. SPLICE LOOP DETECTOR CONDUCTORS TO EXISTING dlc IN ADJACENT PULL BOX.
4. ABANDON STUBOUTS. INSTALL NEW 1½" STUBOUT FOR INDUCTIVE LOOP DETECTORS.
5. TAG EXISTING dlc IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.

INDUCTIVE LOOP DETECTOR
NO SCALE

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: OSWALD ELIZONDO
CALCULATED-DESIGNED BY: FARID REKABI
CHECKED BY: GARY TOOR
REVISED BY
DATE REVISED

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	15	24

REGISTERED ELECTRICAL ENGINEER 1-28-13 DATE

3-11-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
G.S. TOOR
No. E15613
Exp. 12-31-13
ELECTRICAL
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.

INDUCTIVE LOOP DETECTOR

SHEET No.	LOOP TYPE 'E' (N)	STUB-OUT (N)
	EA	EA
E-1	16	5

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

ELECTRICAL QUANTITIES

E-2

REVISED BY
DATE REVISED

FARID REKABI
GARY TOOR

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
OSWALD ELIZONDO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

LAST REVISION 03-11-13
DATE PLOTTED => 19-MAR-2013
TIME PLOTTED => 16:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	16	24

REGISTERED CIVIL ENGINEER 12-7-12 DATE

3-11-13
PLANS APPROVAL DATE

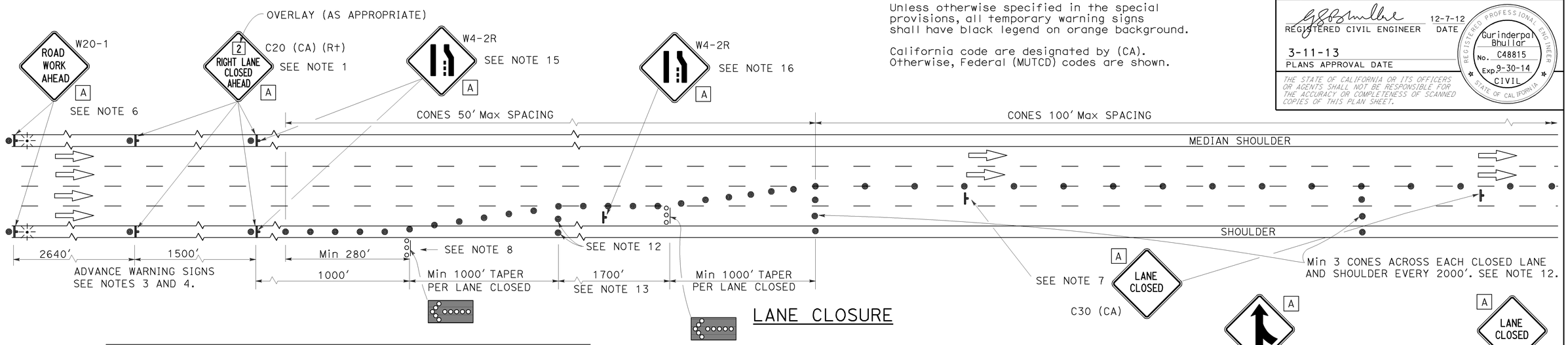
REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

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

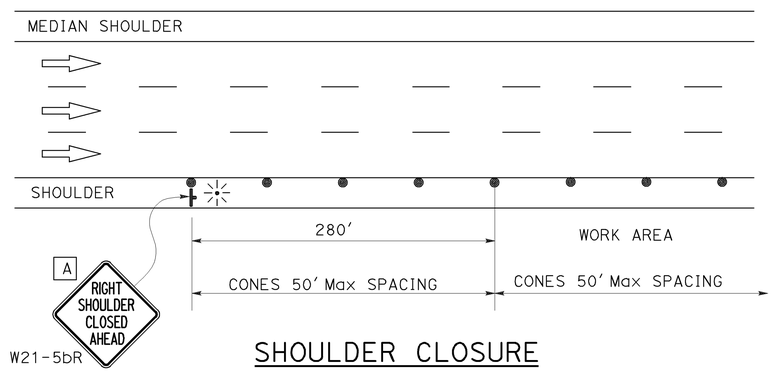
NOTES:

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

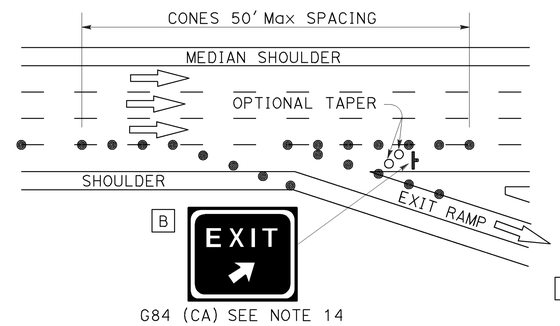
California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



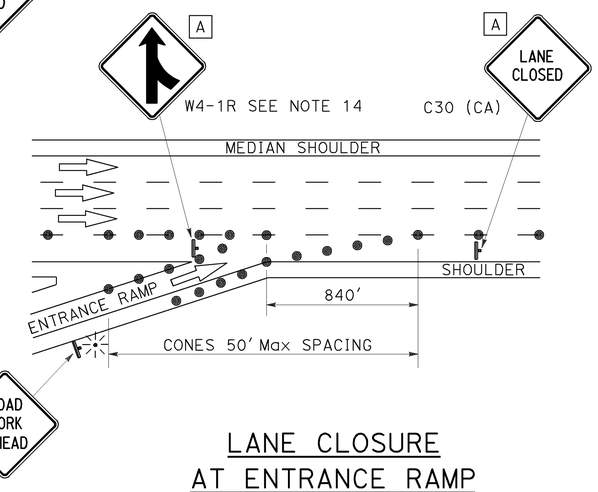
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT EXIT RAMP



LANE CLOSURE AT ENTRANCE RAMP

NOTES:

1. Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (Lt) signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
5. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a C20 (CA) sign for the first advance warning sign.
7. Place a C30 (CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the G84 (CA) and W4-1 signs shall be used as shown.
15. When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.
16. The W4-2 "LANE ENDS" symbol sign shown at this location is to be used where the W4-2 sign is used as advance warning as described in Note 15.

SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

TCS-1

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 03-11-13 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	17	24

REGISTERED CIVIL ENGINEER 12-7-12 DATE

3-11-13
PLANS APPROVAL DATE

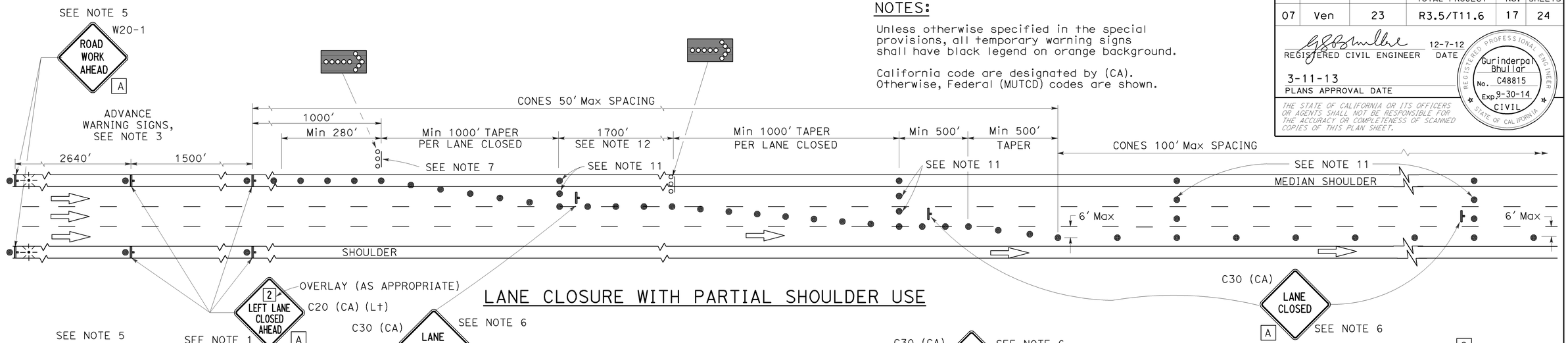
REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

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

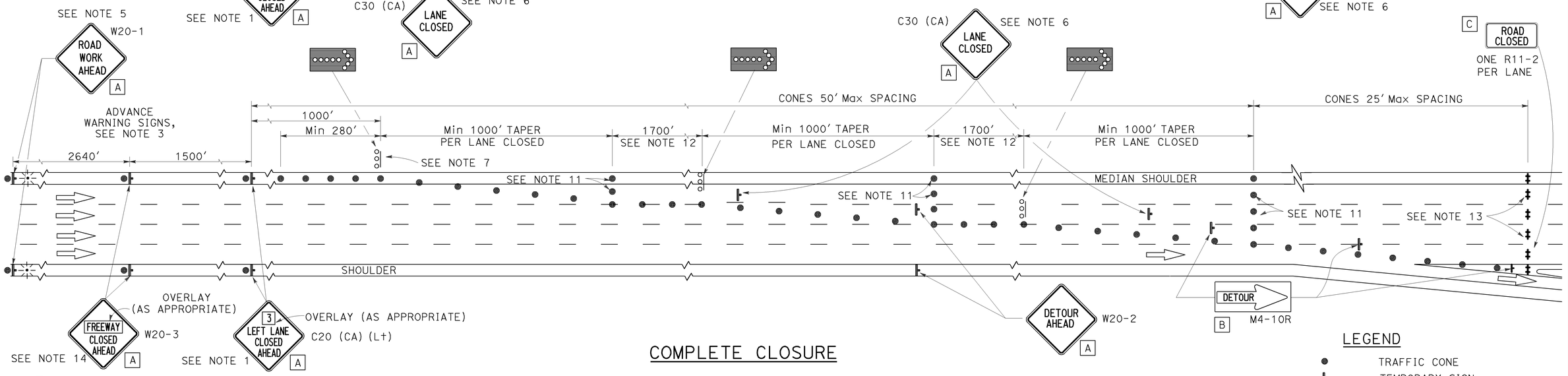
NOTES:

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

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



LANE CLOSURE WITH PARTIAL SHOULDER USE



COMPLETE CLOSURE

LEGEND

- TRAFFIC CONE
- TEMPORARY SIGN
- BARRICADE
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

NOTES:

1. Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details for inside lane closure except that C20 (CA) (Rt) signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. 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.
4. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
5. If the W20-1 sign would follow within 2000′ of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT ___ MILES", use a C20 (CA) sign for the first advance warning sign.
6. Place a C30 (CA) sign every 2000′ throughout length of lane closure.
7. One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
8. 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.
9. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
10. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
11. 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.
12. Unless otherwise specified in the special provisions, the 1700′ tangent shown along lane lines shall be used between the 1000′ tapers required for each closed traffic lane.
13. A minimum of Two Type II 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.
14. 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" × 48"
B	48" × 18"
C	48" × 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

TCS-2

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 03-11-13 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	18	24

REGISTERED CIVIL ENGINEER 12-7-12 DATE

3-11-13
PLANS APPROVAL DATE

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

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

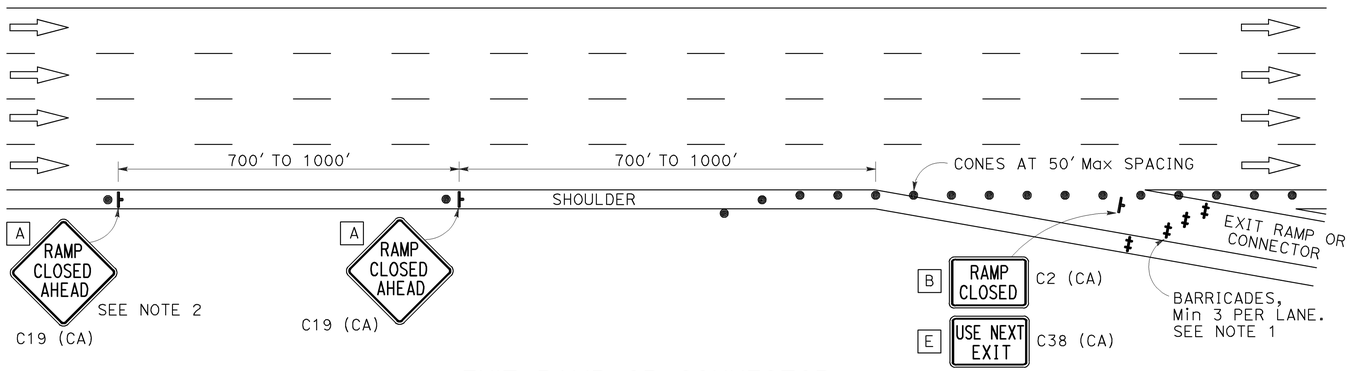
TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

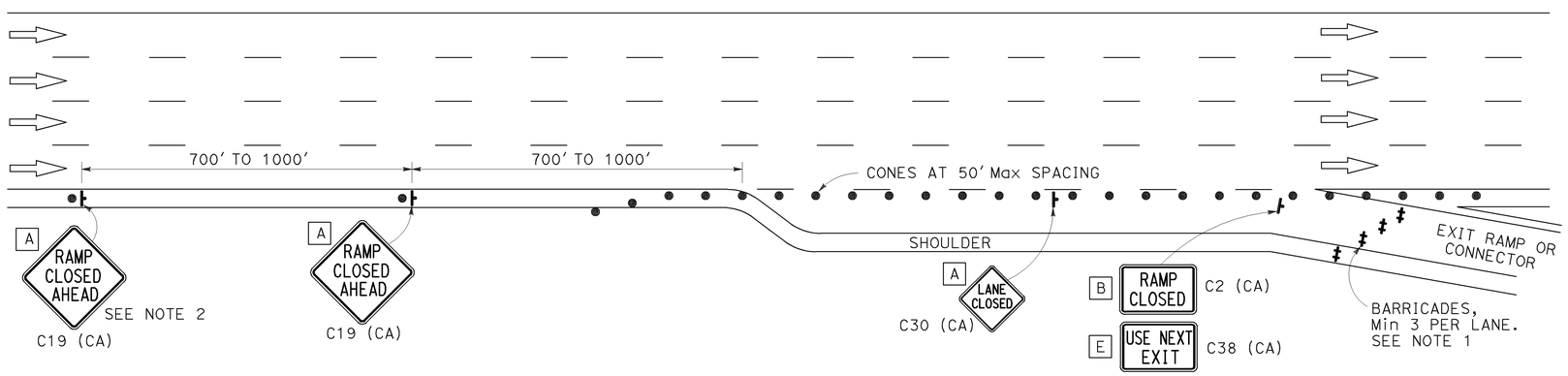
- A 48" x 48"
- B 48" x 30"
- C 30" x 30"
- D 48" x 48" - SPEED OF 50 mph OR MORE
  36" x 36" - SPEED LESS THAN 50 mph
- E 48" x 36"

LEGEND

- TRAFFIC CONE
- TEMPORARY SIGN
- BARRICADES



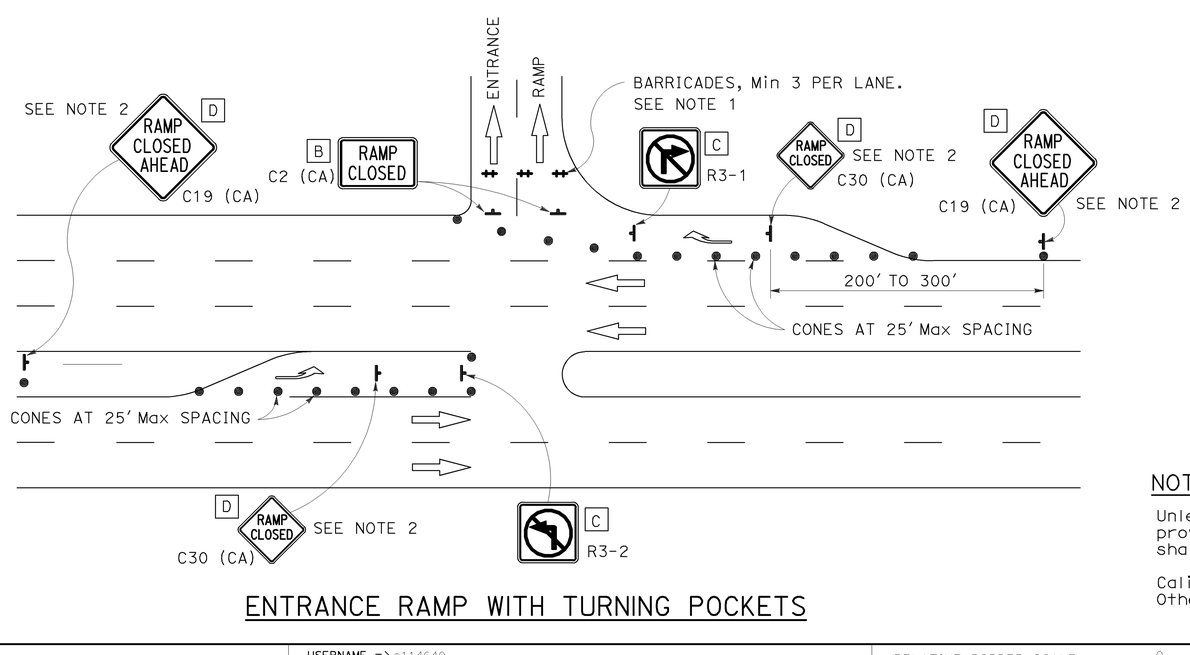
EXIT RAMP OR CONNECTOR



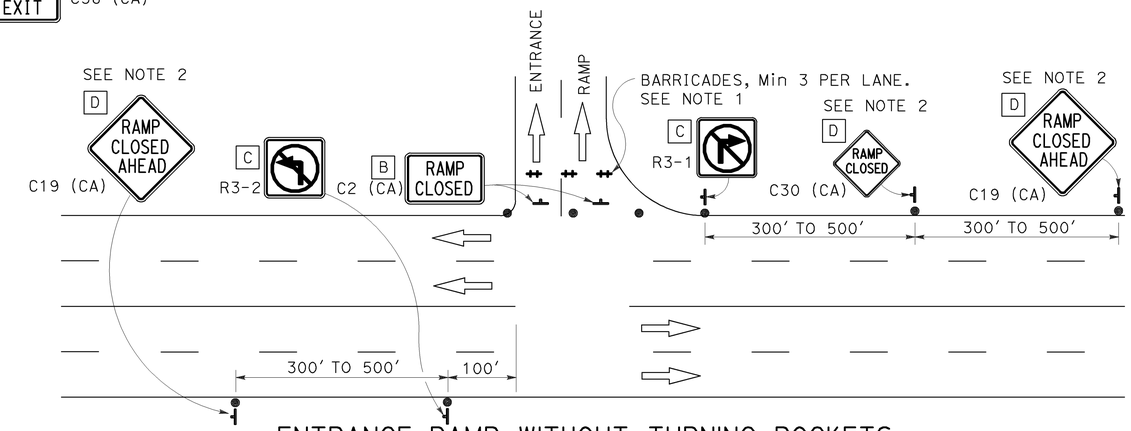
EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE

NOTES:

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



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

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

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

TCS-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED

LAST REVISION 03-11-13 | DATE PLOTTED => 10-DEC-2012 | TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	19	24

REGISTERED CIVIL ENGINEER

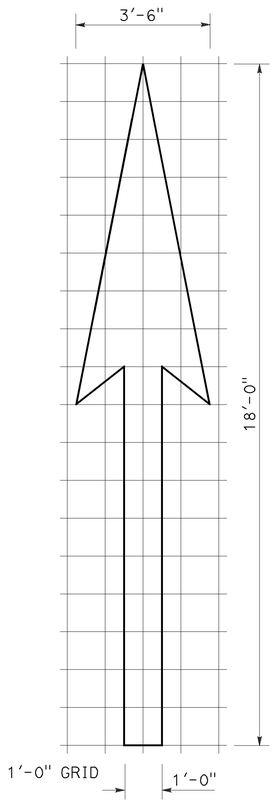
April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
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.

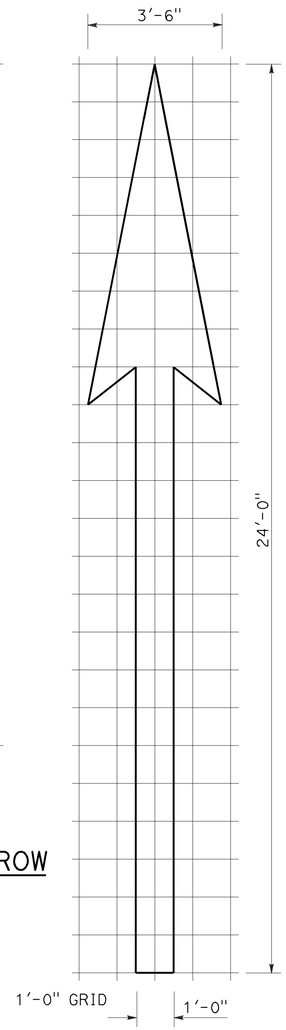
TO ACCOMPANY PLANS DATED 3-11-13

2010 REVISED STANDARD PLAN RSP A24A



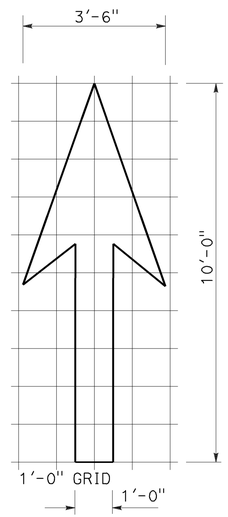
A=25 ft^2

TYPE I 18'-0" ARROW



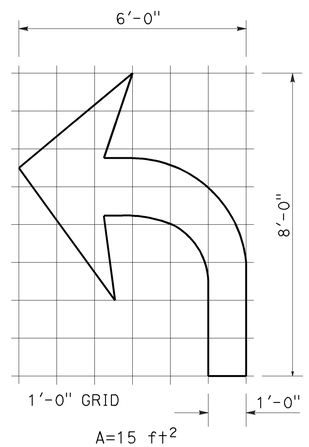
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

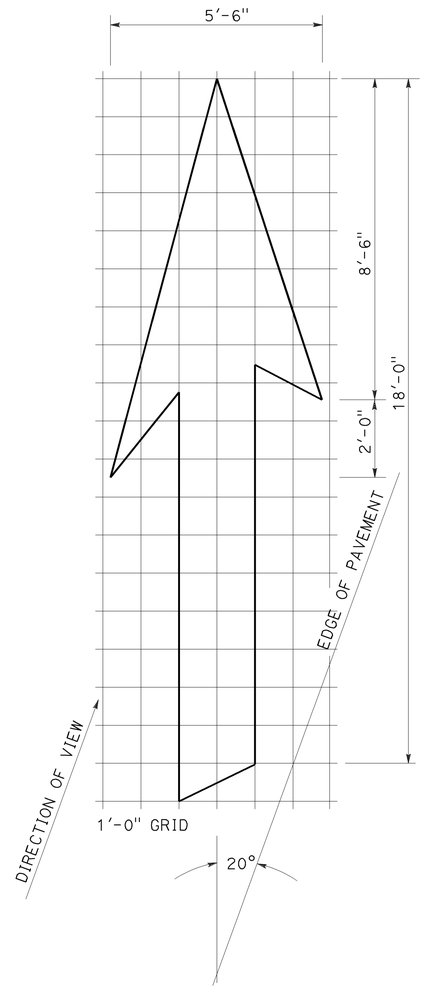
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

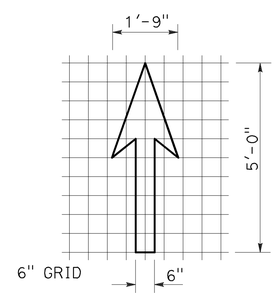
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

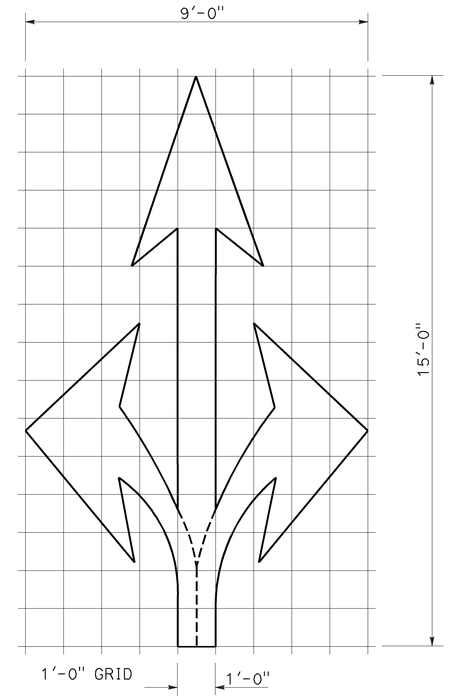
TYPE VI ARROW

Right lane drop arrow
(For left lane, use mirror image)



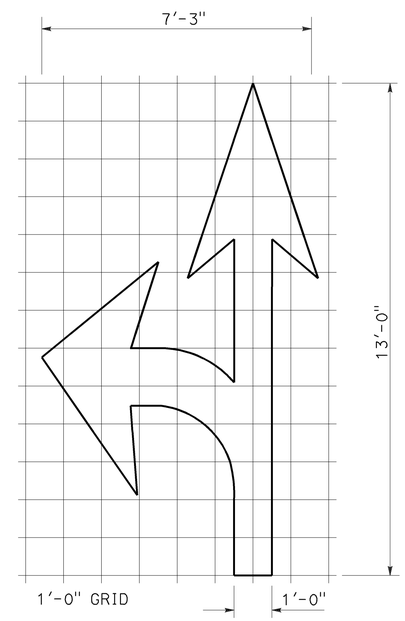
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

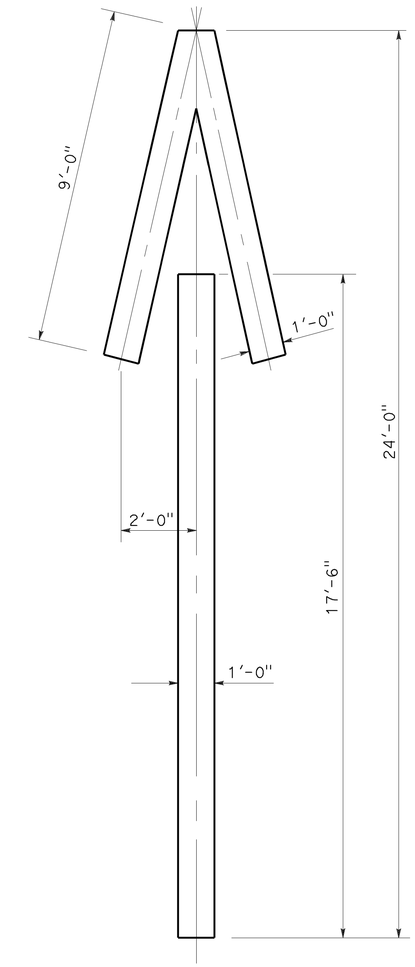
TYPE VIII ARROW



A=27 ft^2

TYPE VII (L) ARROW

(For Type VII (R) arrow, use mirror image)



A=33 ft^2

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

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

REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	20	24

REGISTERED CIVIL ENGINEER

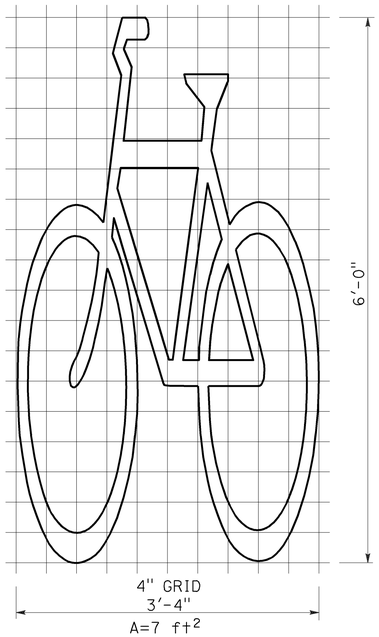
October 19, 2012
PLANS APPROVAL DATE

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

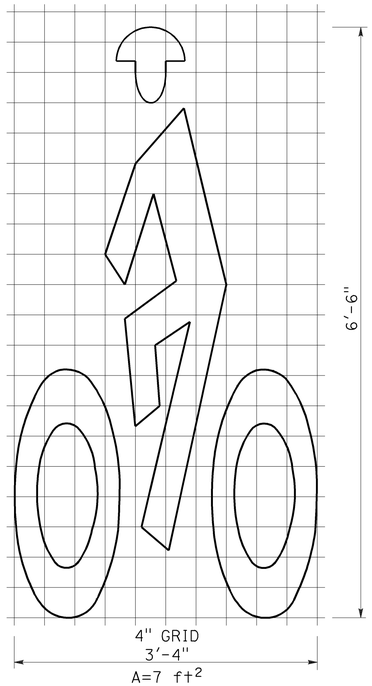
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE: TO ACCOMPANY PLANS DATED 3-11-13

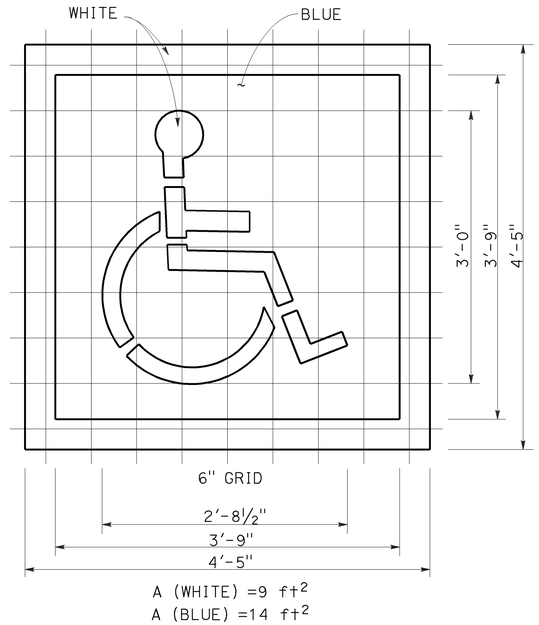
Minor variations in dimensions may be accepted by the Engineer.



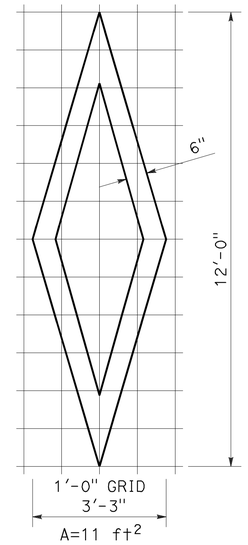
BIKE LANE SYMBOL WITHOUT PERSON



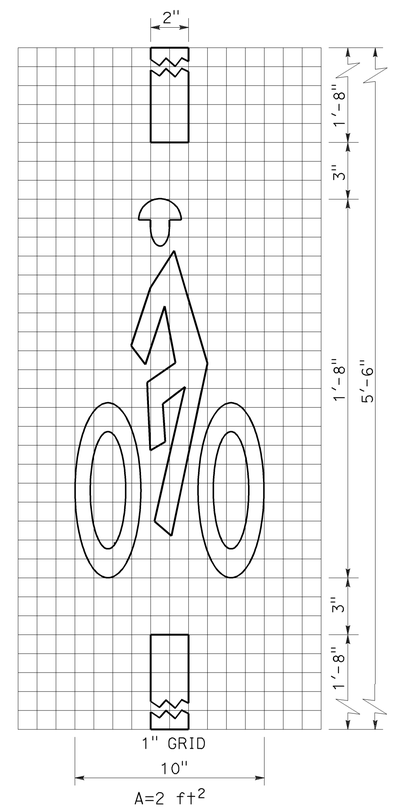
BIKE LANE SYMBOL WITH PERSON



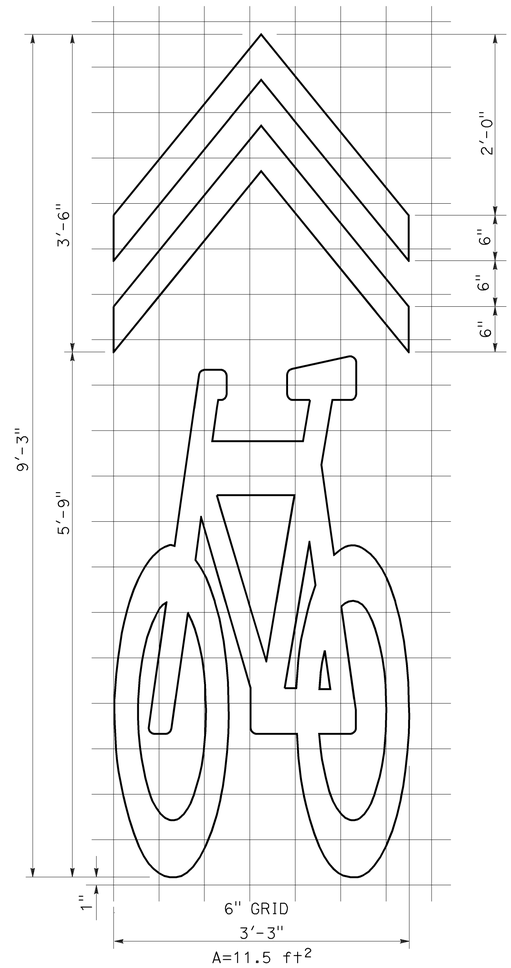
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



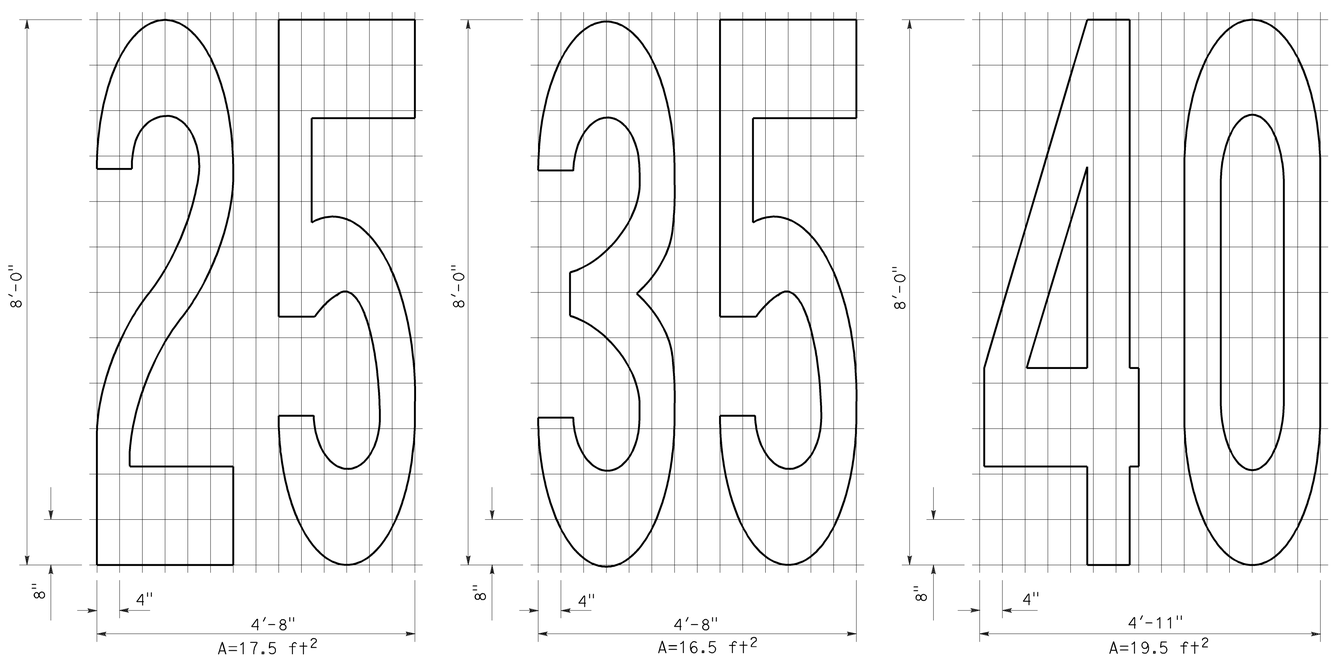
DIAMOND SYMBOL



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

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	21	24

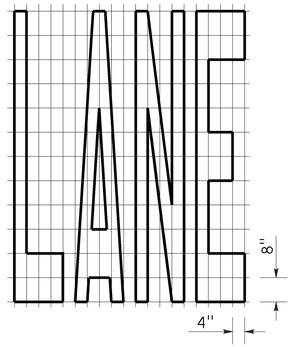
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

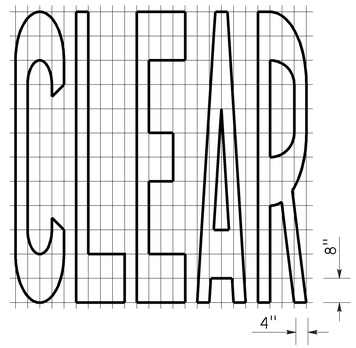
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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.

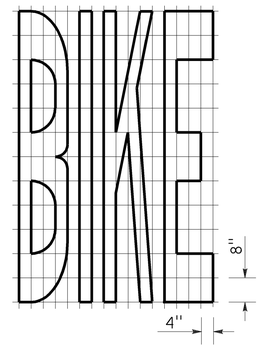
TO ACCOMPANY PLANS DATED 3-11-13



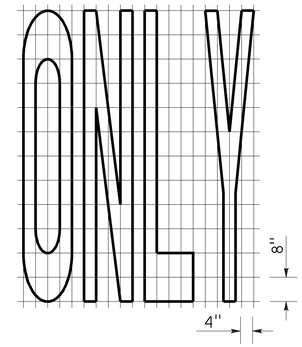
A=24 ft²



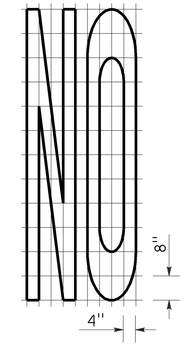
A=27 ft²



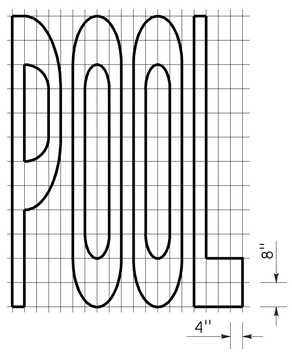
A=21 ft²



A=22 ft²



A=14 ft²



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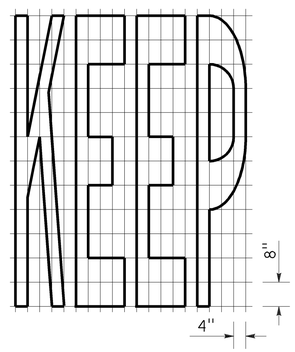
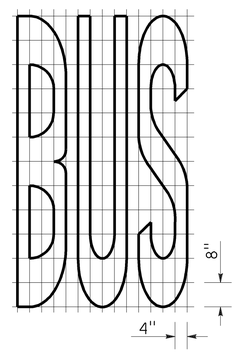
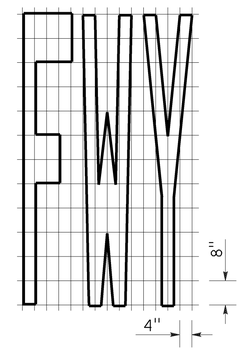


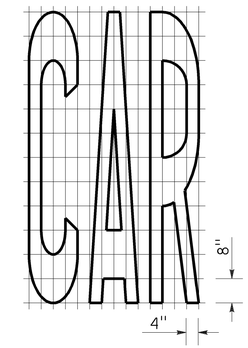
A=24 ft²



A=20 ft²

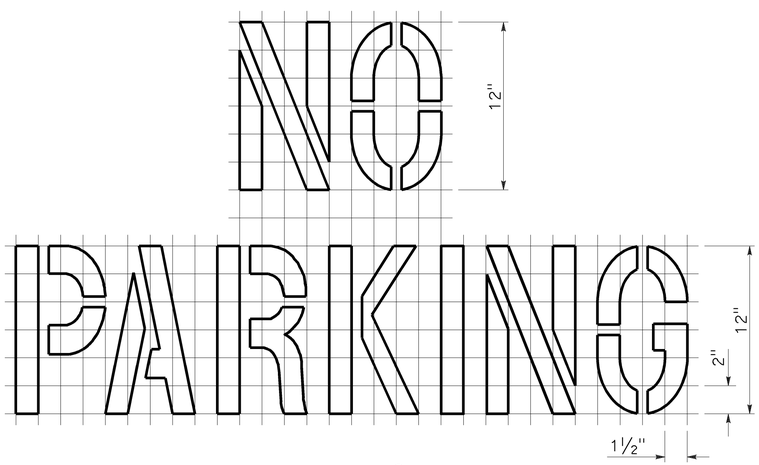


A=16 ft²

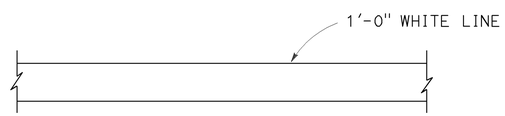


A=17 ft²

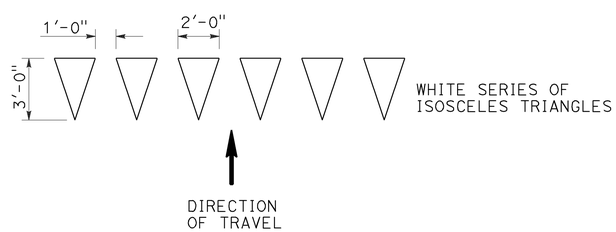
WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS, LIMIT AND YIELD LINES

NO SCALE

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

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

6-12-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	22	24

REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

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

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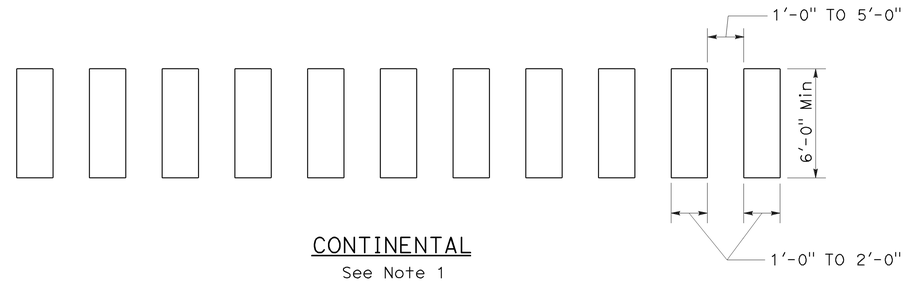
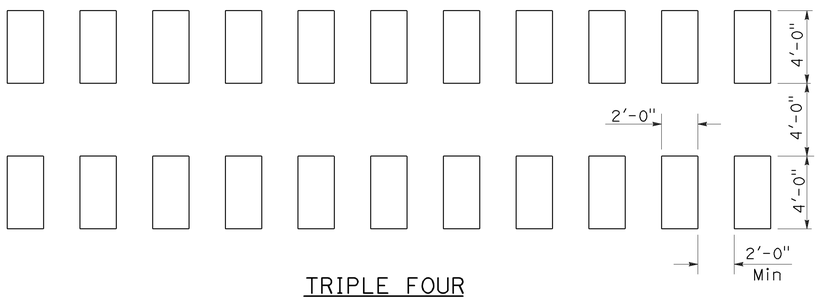
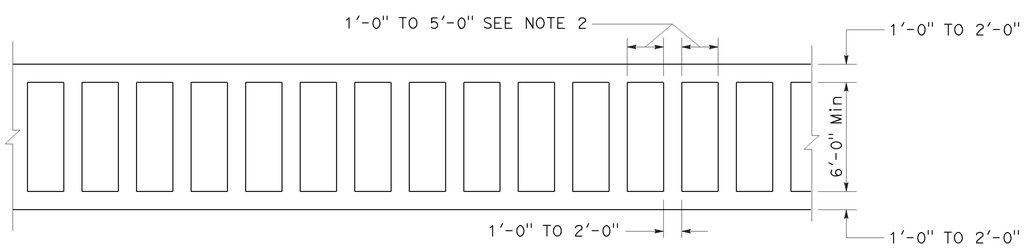
TO ACCOMPANY PLANS DATED 3-11-13



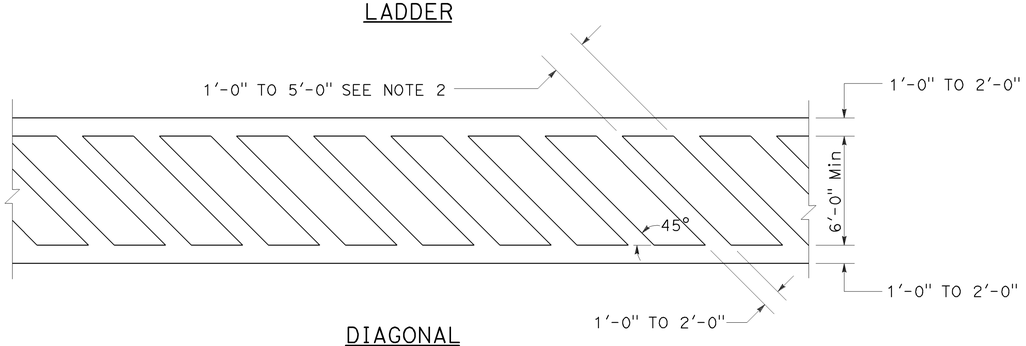
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1



LADDER

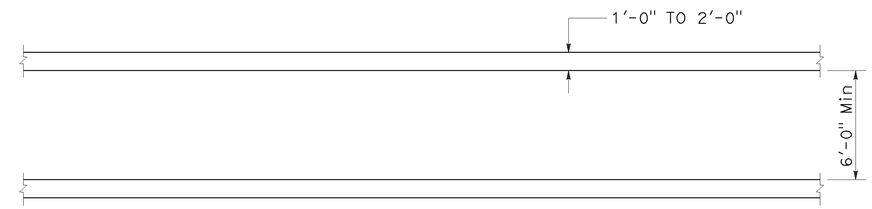


DIAGONAL

HIGHER VISIBILITY CROSSWALKS

NOTES:

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



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS CROSSWALKS

NO SCALE

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

REVISED STANDARD PLAN RSP A24F

2010 REVISED STANDARD PLAN RSP A24F

6-28-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	23	24

William K. Farnbach
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER William K. Farnbach No. C49042 Exp. 9-30-12 CIVIL STATE OF CALIFORNIA

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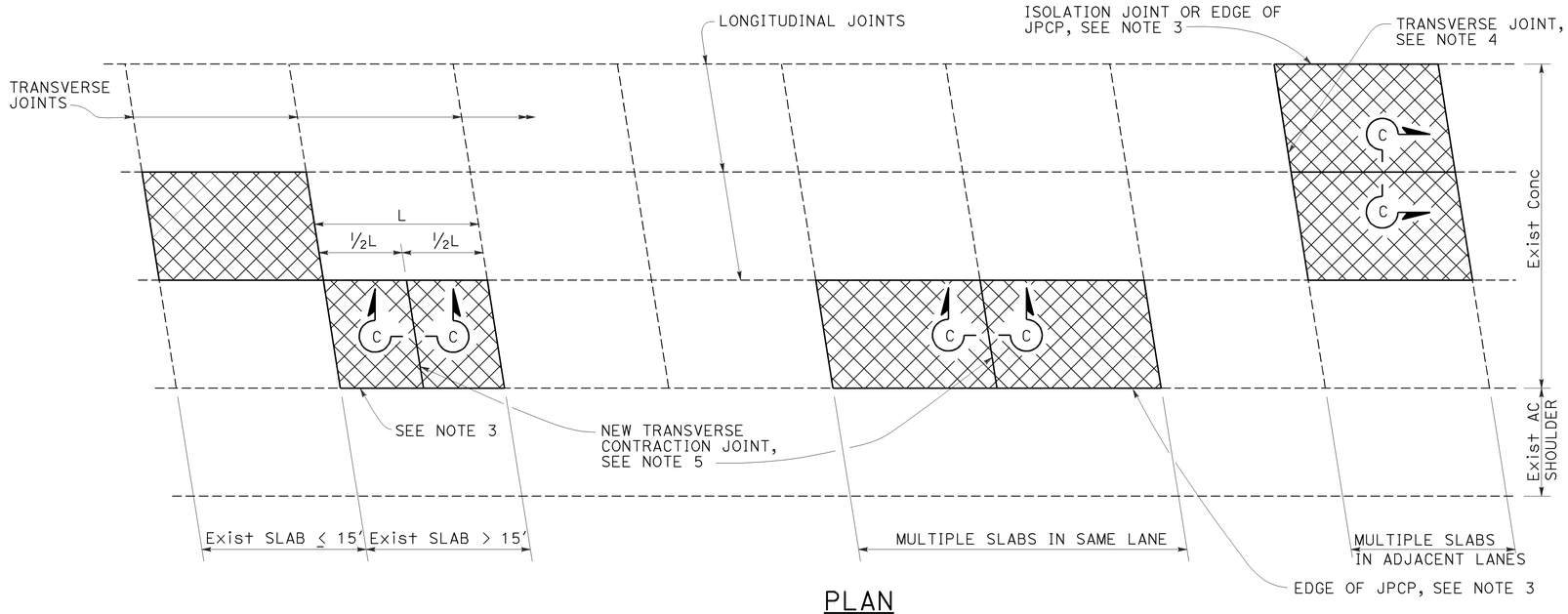
TO ACCOMPANY PLANS DATED 3-11-13



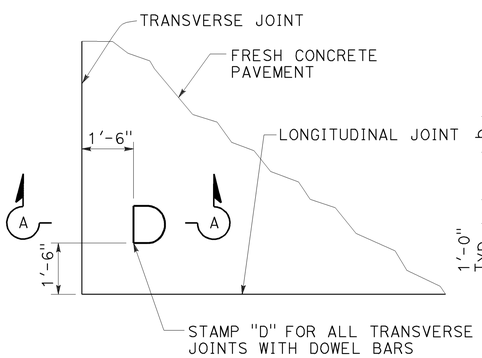
PLAN

NOTES:

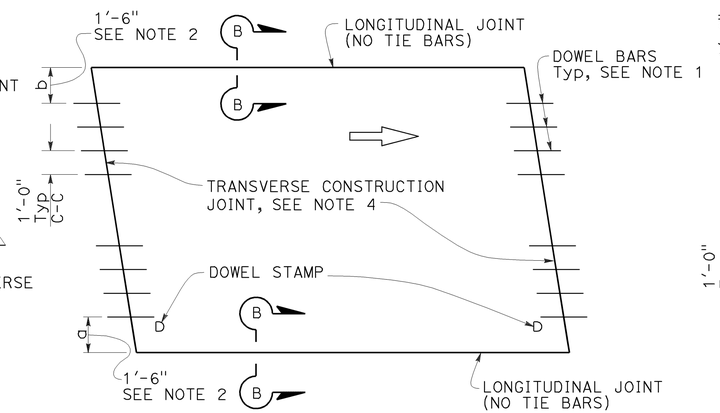
1. For details not shown, see Revised Standard Plan P10.
2. Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
3. Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
4. For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan P10.
5. Transverse joint to match skew of existing joint. Omit dowel bars.

LEGEND:

Replace Concrete Pavement (See Slab Layout Detail)

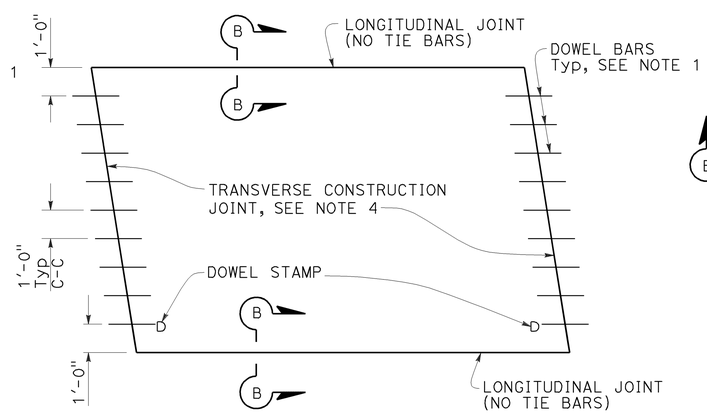


DOWEL STAMP DETAIL



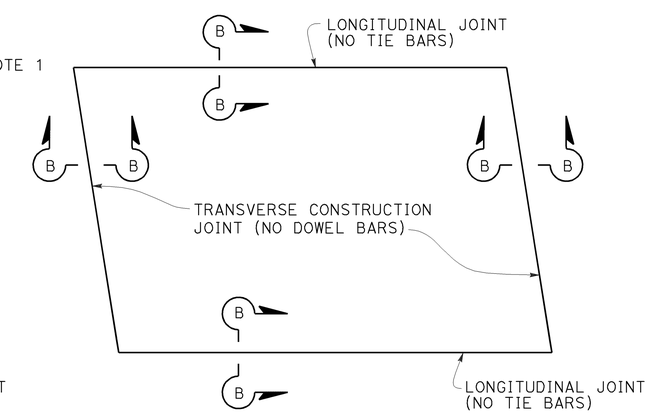
TYPE I

Traffic lane lines match longitudinal joints



TYPE II

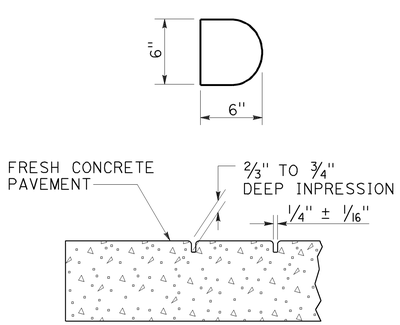
Traffic lane lines do not match longitudinal joints



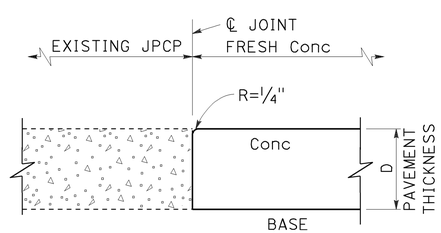
TYPE III

For short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation

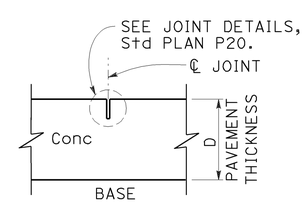
SLAB LAYOUT



SECTION A-A



SECTION B-B



SECTION C-C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT

NO SCALE

RSP P8 DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN P8
DATED MAY 20, 2011 - PAGE 130 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP P8

2010 REVISED STANDARD PLAN RSP P8

2-22-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	23	R3.5/T11.6	24	24

William K. Farnbach
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER William K. Farnbach No. C49042 Exp. 9-30-12 CIVIL STATE OF CALIFORNIA

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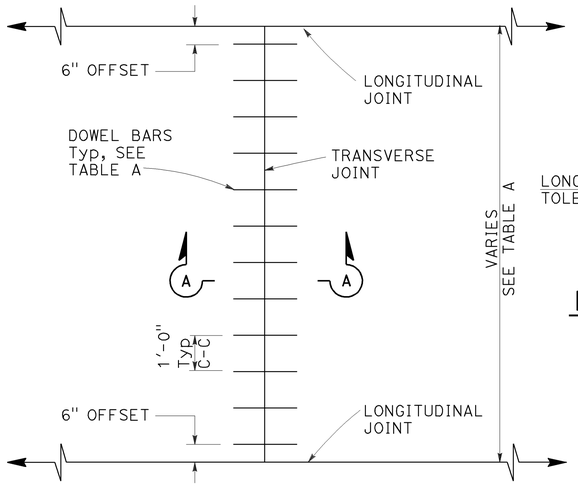
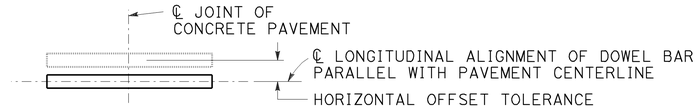
TO ACCOMPANY PLANS DATED 3-11-13

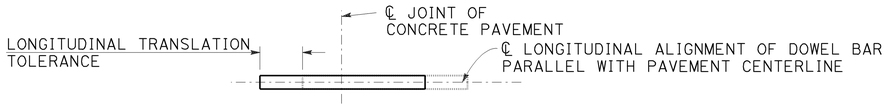


TRANSVERSE JOINT DOWEL BAR LAYOUT



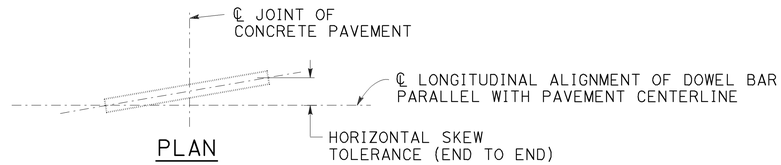
PLAN

HORIZONTAL OFFSET TOLERANCE



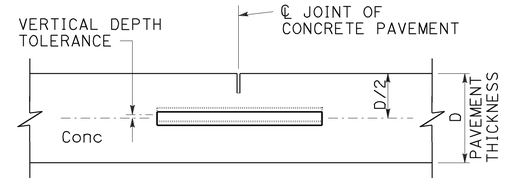
PLAN

LONGITUDINAL TRANSLATION TOLERANCE



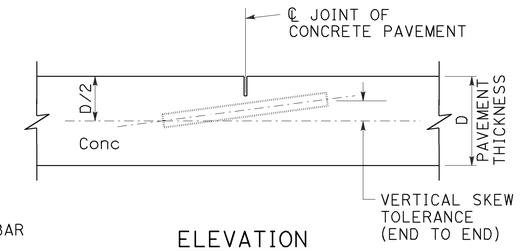
PLAN

HORIZONTAL SKEW TOLERANCE



ELEVATION

VERTICAL DEPTH TOLERANCE

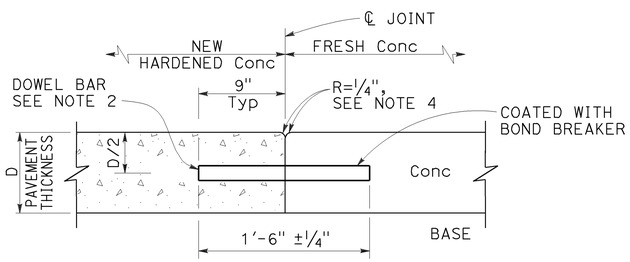


ELEVATION

VERTICAL SKEW TOLERANCE

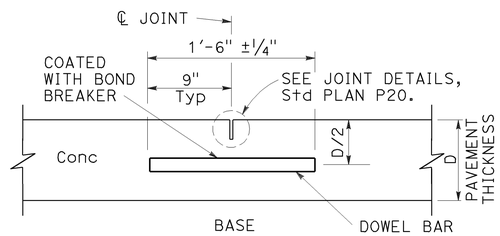
NOTES:

1. See Standard Plan P1 for typical dowel bar placement and locations.
2. 1½" Dia dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1¼" Dia dowel bars.
3. For widths not shown, see Project Plans.
4. If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the ¼" radius, as shown.
5. May also use ¾" Dia dowel bars 2'-4" ± ¼" in length. Center the length of dowel bars at the centerline of longitudinal joint.

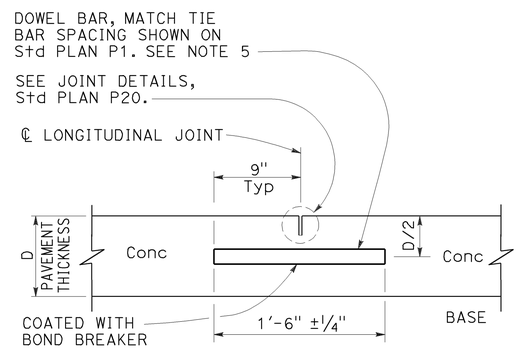


SECTION A-A

TRANSVERSE CONSTRUCTION JOINT DETAIL



TRANSVERSE CONTRACTION JOINT

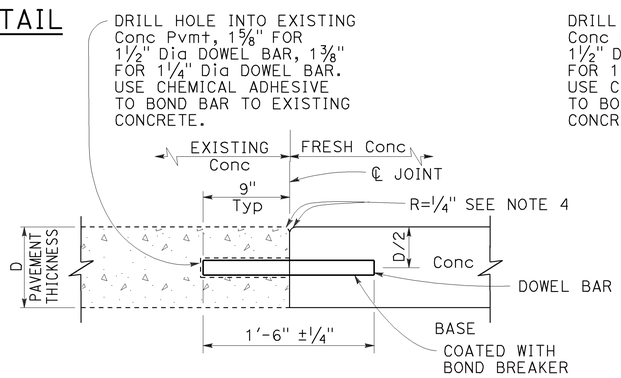


LONGITUDINAL CONTRACTION JOINT WITH DOWEL BARS

See Revised Std Plan RSP P18

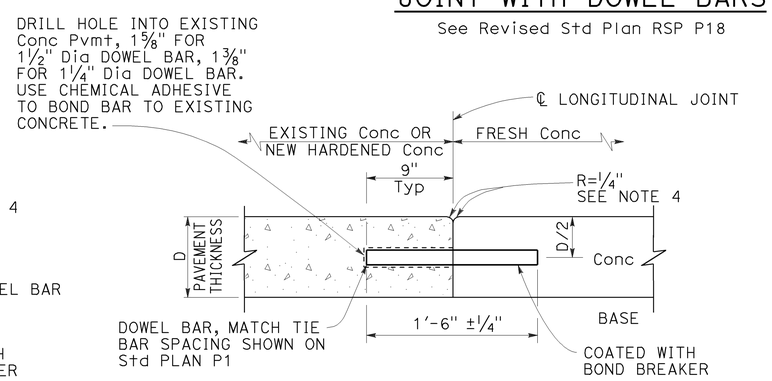
TABLE A (See Note 3)

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



TRANSVERSE CONSTRUCTION JOINT FOR EXISTING CONCRETE PAVEMENT

Drill and bond locations



LONGITUDINAL CONSTRUCTION JOINT WITH DOWEL BARS

See Revised Std Plan RSP P18

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-DOWEL BAR DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP P10

2010 REVISED STANDARD PLAN RSP P10

2-22-12