Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	1	20

INDEX OF PLANS

SHEET NO.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
6-12	PAVEMENT DELINEATION PLAN, DETAILS AND QUANTITIES
13	SUMMARY OF QUANTITIES
14-20	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA

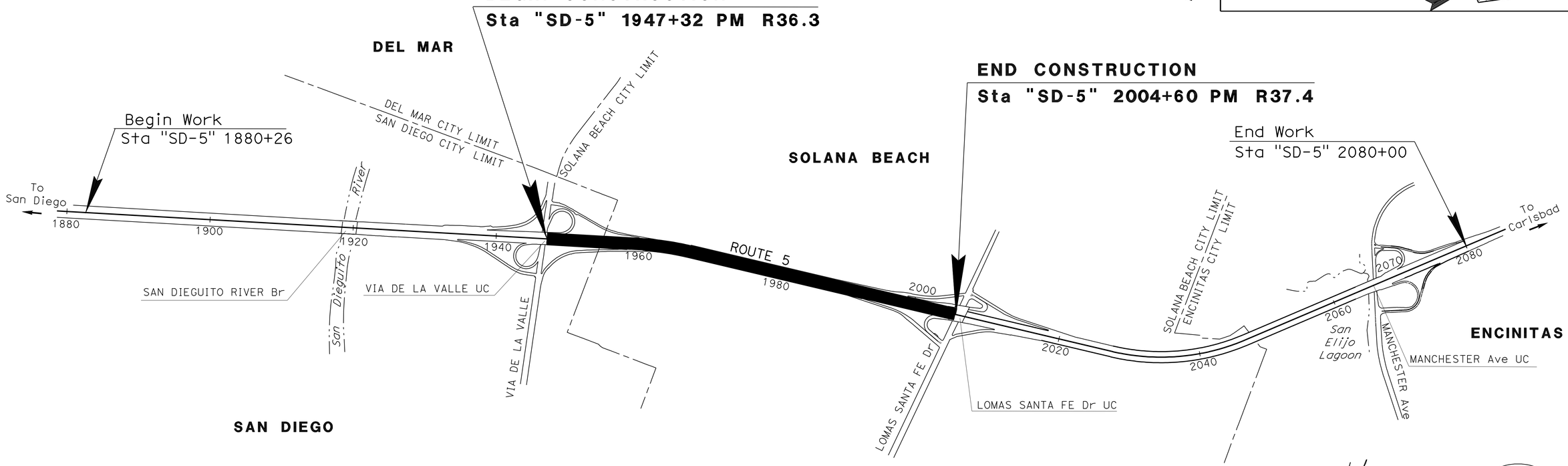
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SAN DIEGO COUNTY
IN SAN DIEGO AND SOLANA BEACH
FROM VIA DE LA VALLE UNDERCROSSING
TO LOMAS SANTA FE DRIVE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



NO SCALE

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

PROJECT MANAGER: MAJID KHARRATI

DESIGN ENGINEER: OANH LE

06-28-11
PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — OANH N. LE — No. 54306 — Exp. 12-31-11 — CIVIL — STATE OF CALIFORNIA

October 10, 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.

CONTRACT No.	11-077604
PROJECT ID	1100000739

LAST REVISION 07-18-11 — DATE PLOTTED => 12-OCT-2011 TIME PLOTTED => 15:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	2	20

REGISTERED CIVIL ENGINEER 06-28-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER OANH N. LE No. 54306 Exp. 12-31-11 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:

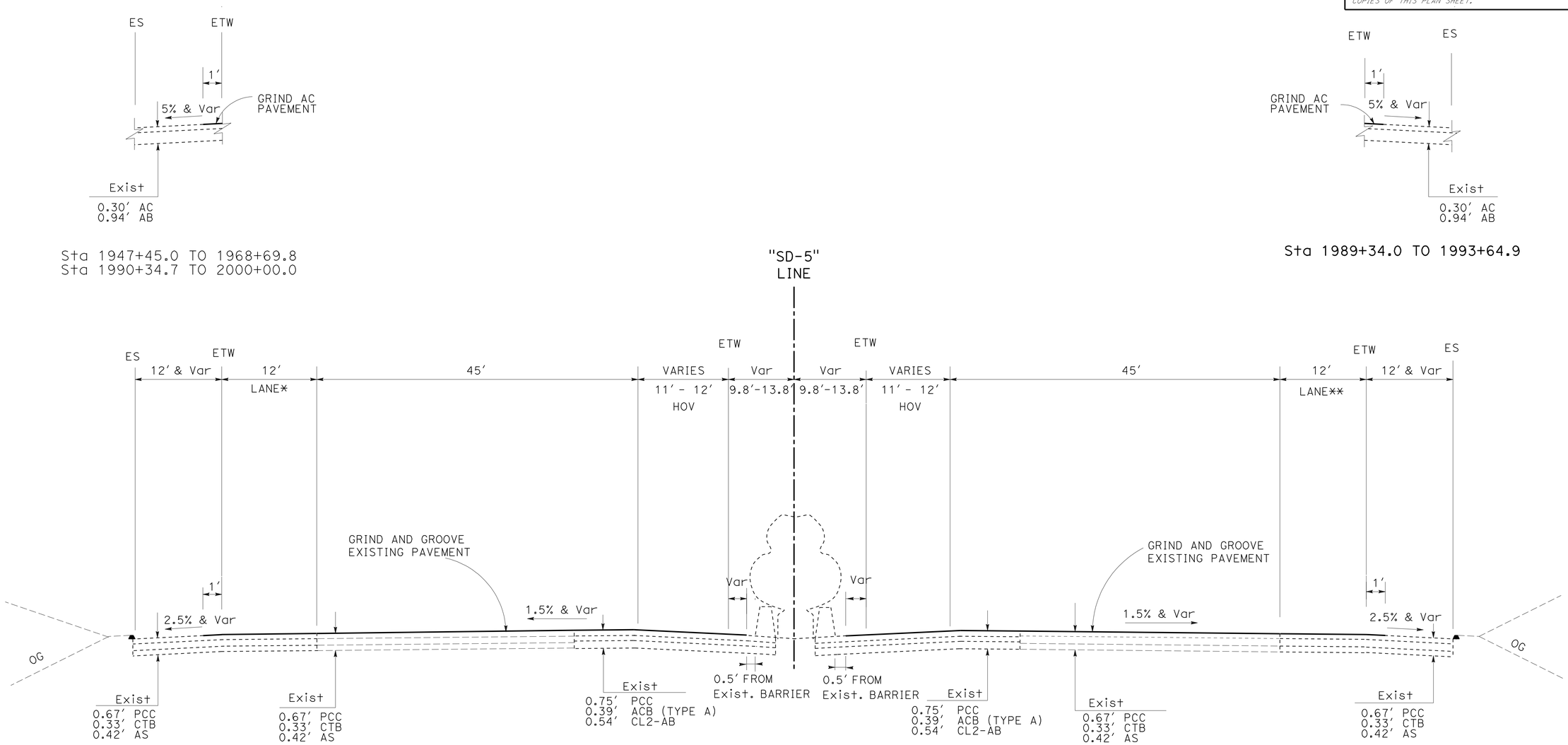
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. FOG SEAL COAT SHALL BE APPLIED TO ALL GRINDED AC SURFACES EXCEPT TRAVELED WAY
4. FOR LOCATION OF METAL BEAM GUARD RAIL SEE CONSTRUCTION DETAIL SHEET.

DESIGN DESIGNATION (Rte 5)

	MAIN LANE	HOV LANE
ADT (2008) =	222,000	
ADT (2030) =	290,800	50,050

TI_{20} = 13.5

T = 6%



SOUTHBOUND
Sta 1947+45 TO 2004+81

NORTHBOUND
Sta 1947+32 TO 2004+60

LEGEND:

HOV - HIGH OCCUPANCY VEHICLE

* NO LANE IN SB DIRECTION FROM STATION 1947+45 TO 1963+20 AND 1997+73 TO 2004+81

** NO LANE IN NB DIRECTION FROM STATION 1989+34 TO 2004+60

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED
OANH LE | CHRISTOPHER SCOTT
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: MAJID KHARRATI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 07-18-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:23

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	3	20

REGISTERED CIVIL ENGINEER 06-28-11 DATE

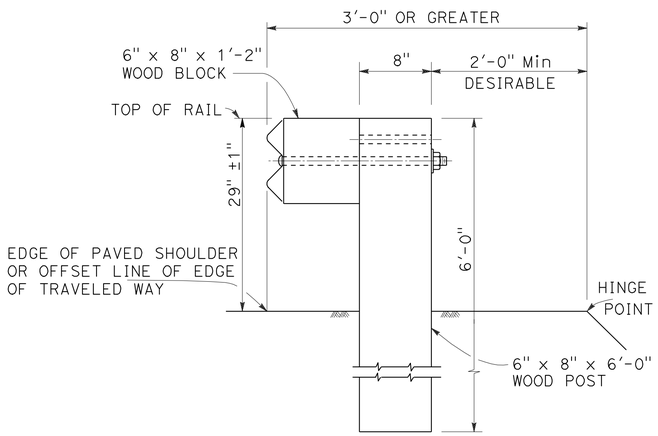
PLANS APPROVAL DATE 10-10-11

REGISTERED PROFESSIONAL ENGINEER OANH N. LE No. 54306 Exp. 12-31-11 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.

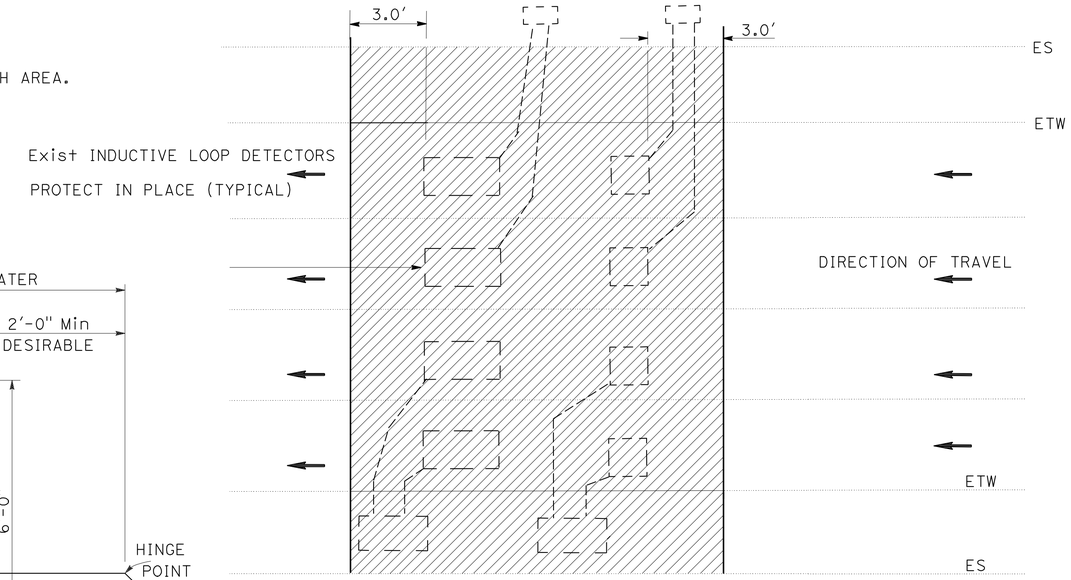
LEGEND:

- NO SEAL JOINT WORK WITHIN THE HATCH AREA.
- # - MBGR No.
- REPAIR SPALLED CONCRETE



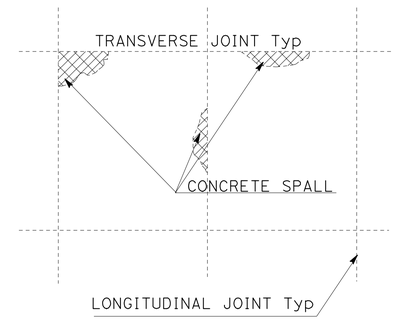
TYPICAL DETAIL-METAL BEAM GUARD RAIL

NO SCALE

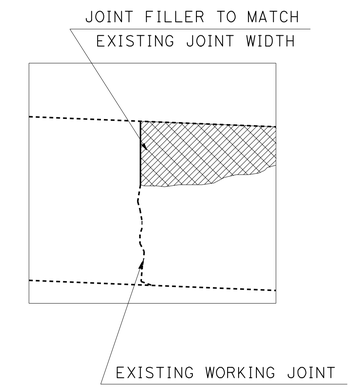


EXISTING INDUCTIVE LOOP

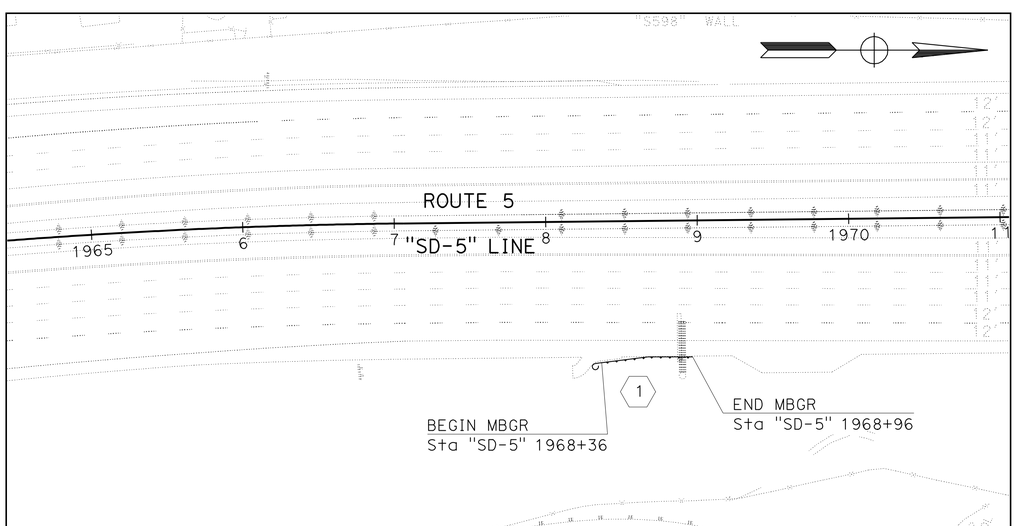
SB DIRECTION SHOWN, NB DIRECTION SIMILAR
VIA DE LA VALLE_ PM 36.39 (SB-RM)
VIA DE LA VALLE_ PM 36.83 (SB-COUNT STATION), 36.83 (NB-COUNT)
LOMAS SANTA FE Dr._ PM 36.35 (NB-RM), 37.42 (SB-RM)



PLAN

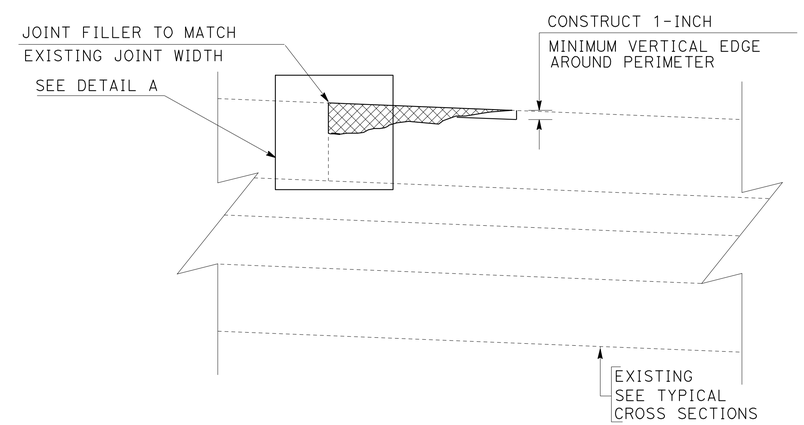


DETAIL A



SCALE: 1" = 50'

METAL BEAM GUARDRAIL LOCATION



ELEVATION

TYPICAL DETAIL-REPAIR SPALLED CONCRETE

NOTE: LOCATIONS AND QUANTITIES TO BE DETERMINED BY THE ENGINEER

CONSTRUCTION DETAILS

SCALE AS SHOWN

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR MAJID KHARARTI
CALCULATED-DESIGNED BY OANH LE
CHECKED BY CHRISTOPHER SCOTT
REVISED BY
DATE REVISED

LAST REVISION 07-19-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:23

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	4	20

06-28-11
REGISTERED CIVIL ENGINEER DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
OANH N. LE
No. 54306
Exp. 12-31-11
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.

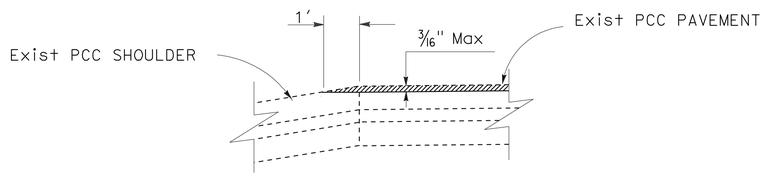
NOTE:

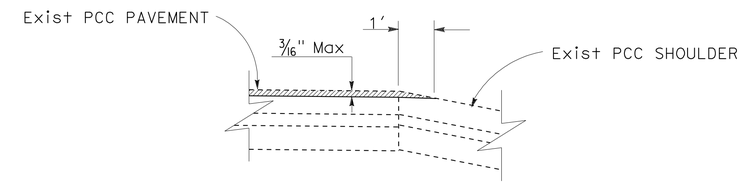
GRIND AC/PCC SHOULDER TO MATCH NEW GROUND ELEVATION OF PCC PAVEMENT.

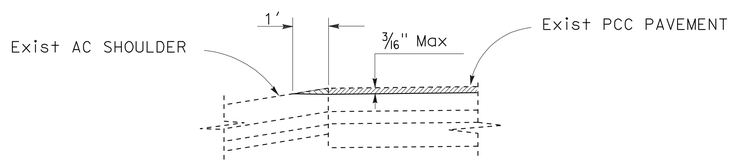
LEGEND:

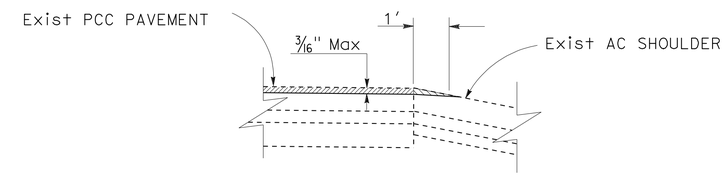
TEXTURE PCC PAVEMENT

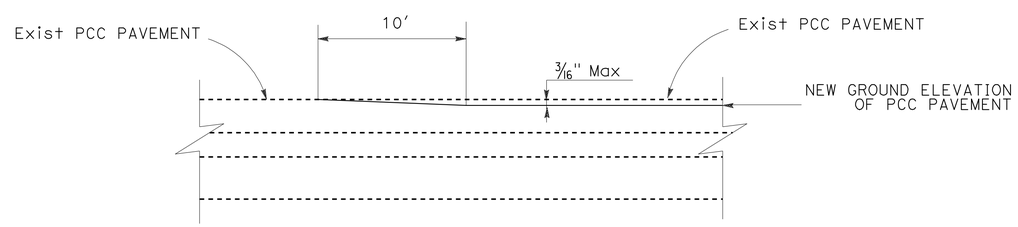
GRIND AC PAVEMENT











TYPICAL CONFORM DETAILS

FOR BRIDGE APPROACHES/DEPARTURES

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: MAJID KHARRATI

CALCULATED-DESIGNED BY: OANH LE
CHECKED BY: CHRISTOPHER SCOTT

REVISED BY | DATE REVISED

LAST REVISION 07-19-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	5	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 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.

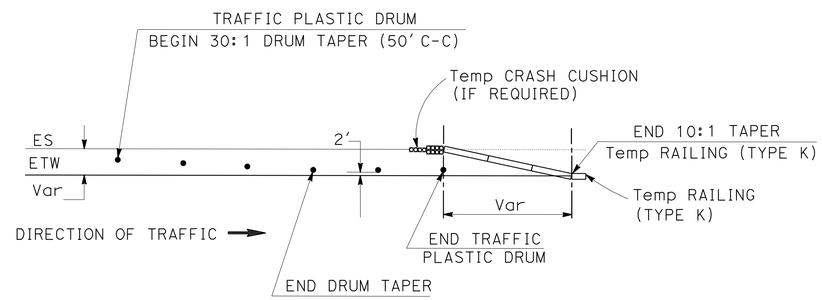
NOTES:

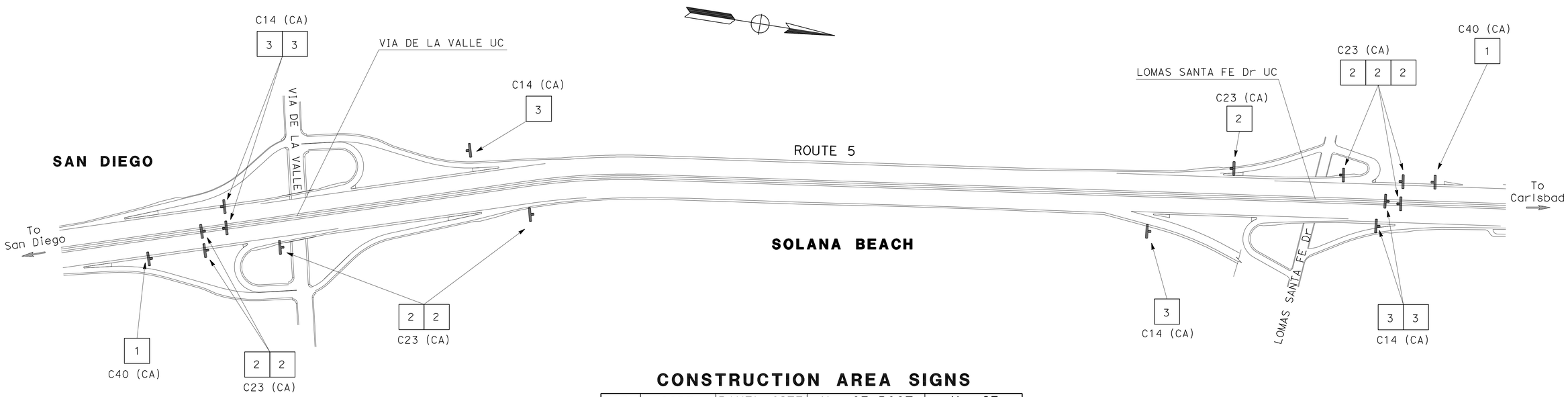
1. EXACT LOCATION OF CONSTRUCTION AREA SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA) INDICATING STANDARD CALIFORNIA SIGN ARE USED.
3. EXISTING UTILITIES ARE NOT SHOWN ON THESE PLAN SHEETS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ADJUST THE FIELD LOCATION OF SIGN POSTS IN CONSULTATION WITH THE ENGINEER.

LEGEND:

[X] = CONSTRUCTION AREA SIGN

TYPICAL PLACEMENT OF TRAFFIC PLASTIC DRUM





CONSTRUCTION AREA SIGNS

SIGN No.	CODE	PANEL SIZE (In)	No. OF POST AND SIZE (In)	No. OF SIGNS
1	C40 (CA)	108 X 42	2-4 X 6 (S)	2
2	C23 (CA)	48 X 48	1-4 X 6 (S)	8
3	C14 (CA)	48 X 24	1-4 X 4 (S)	6
			TOTAL	16

(S) DENOTES STATIONARY MOUNTED SIGN

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGNS ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

REVISED BY | DATE REVISED

NOEL TAPIA | SHAHIN T. ADIBI

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION 07-19-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	6	20

REGISTERED CIVIL ENGINEER DATE 06-29-11

10-10-11
PLANS APPROVAL DATE

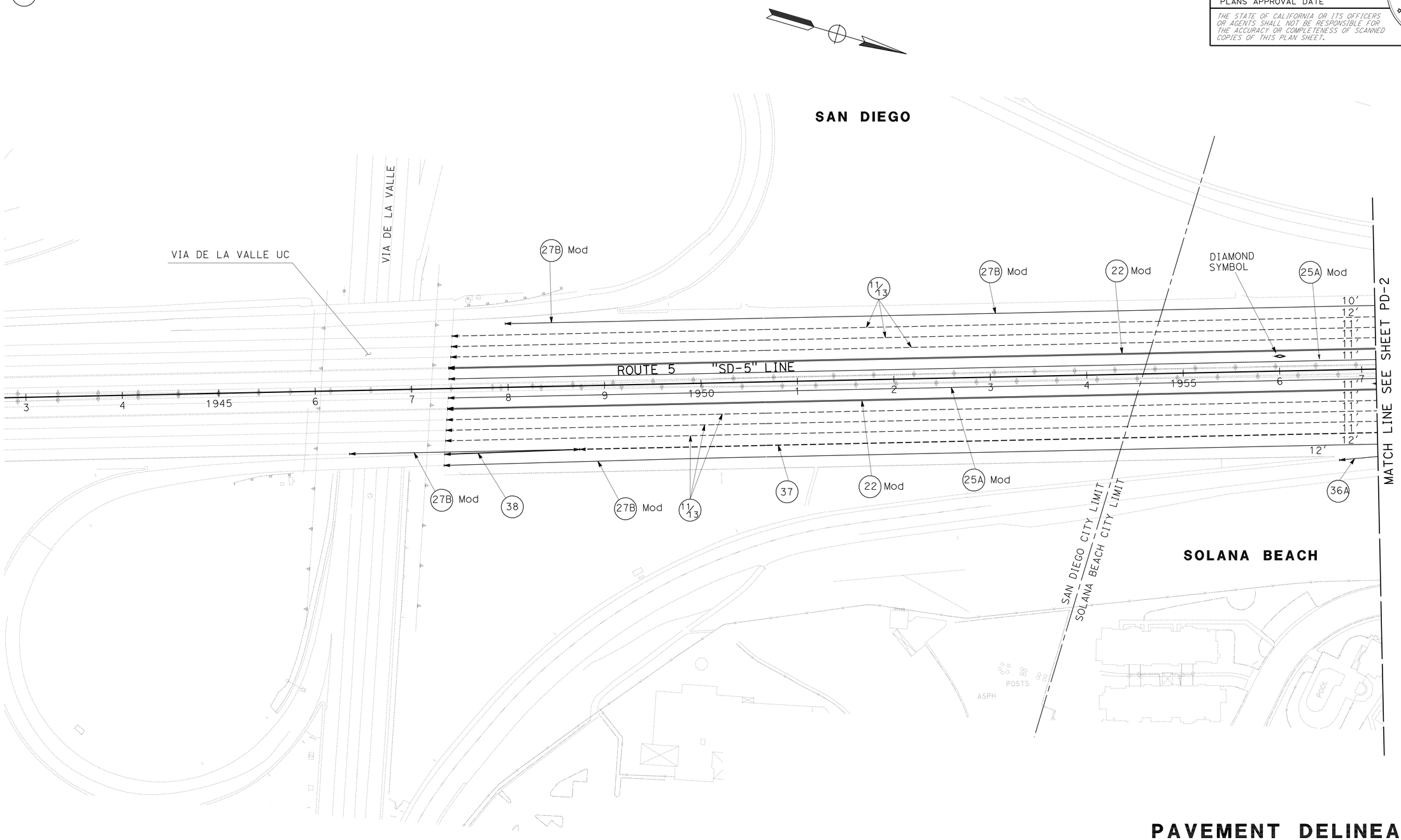
REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 CIVIL STATE OF CALIFORNIA

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:

= CHANGE OF PAVEMENT DELINEATION DETAIL

(XXX) = PAVEMENT DELINEATION DETAIL



PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-1

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
NOEL TAPIA	SHAHIN T. ADIBI

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans TRAFFIC DESIGN

LAST REVISION 09-26-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:24

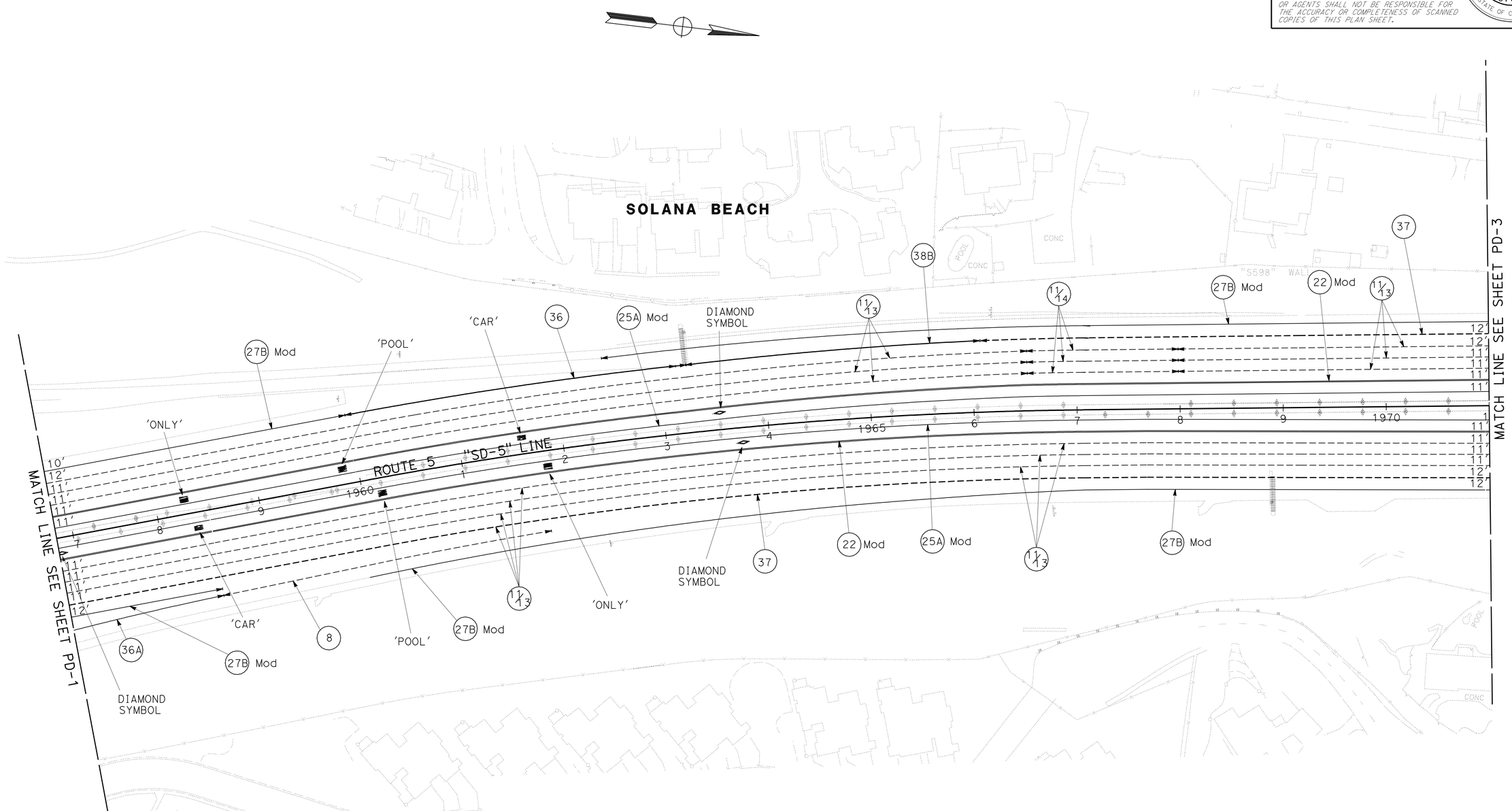
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	7	20

06-29-11
REGISTERED CIVIL ENGINEER DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SHAHIN T. ADIBI
No. 66748
Exp. 03-30-12
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 PLAN

SCALE: 1" = 50'

PD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL
CALCULATED-DESIGNED BY: NOEL TAPIA
CHECKED BY: SHAHIN T. ADIBI
REVISED BY
DATE REVISED

LAST REVISION 07-19-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	8	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T ADIBI No. 66748 Exp. 03-30-12 CIVIL STATE OF CALIFORNIA

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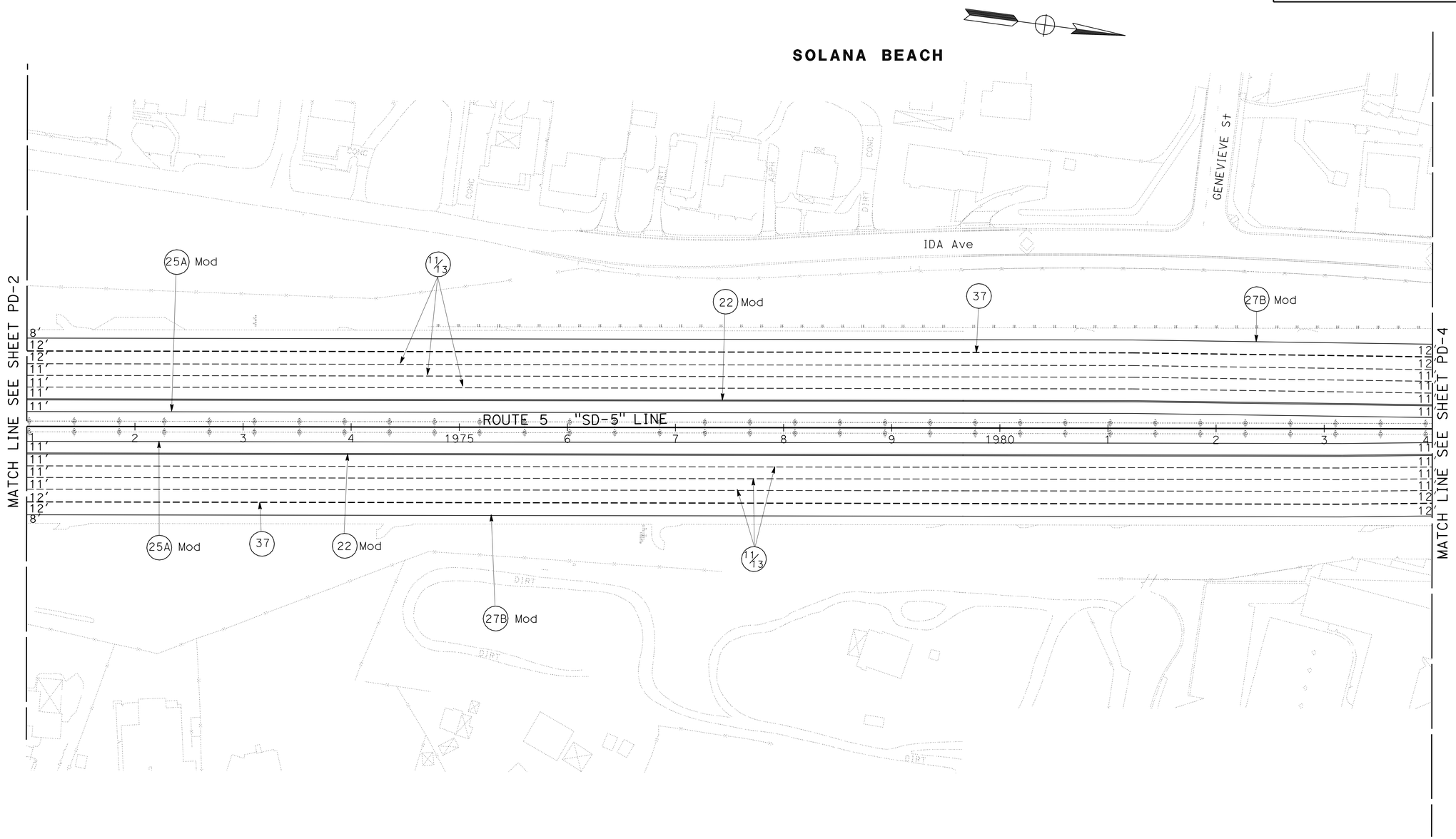

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-3

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL
CALCULATED-DESIGNED BY: NOEL TAPIA
CHECKED BY: SHAHIN T. ADIBI
REVISED BY
DATE REVISED

LAST REVISION 07-19-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	9	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 CIVIL STATE OF CALIFORNIA

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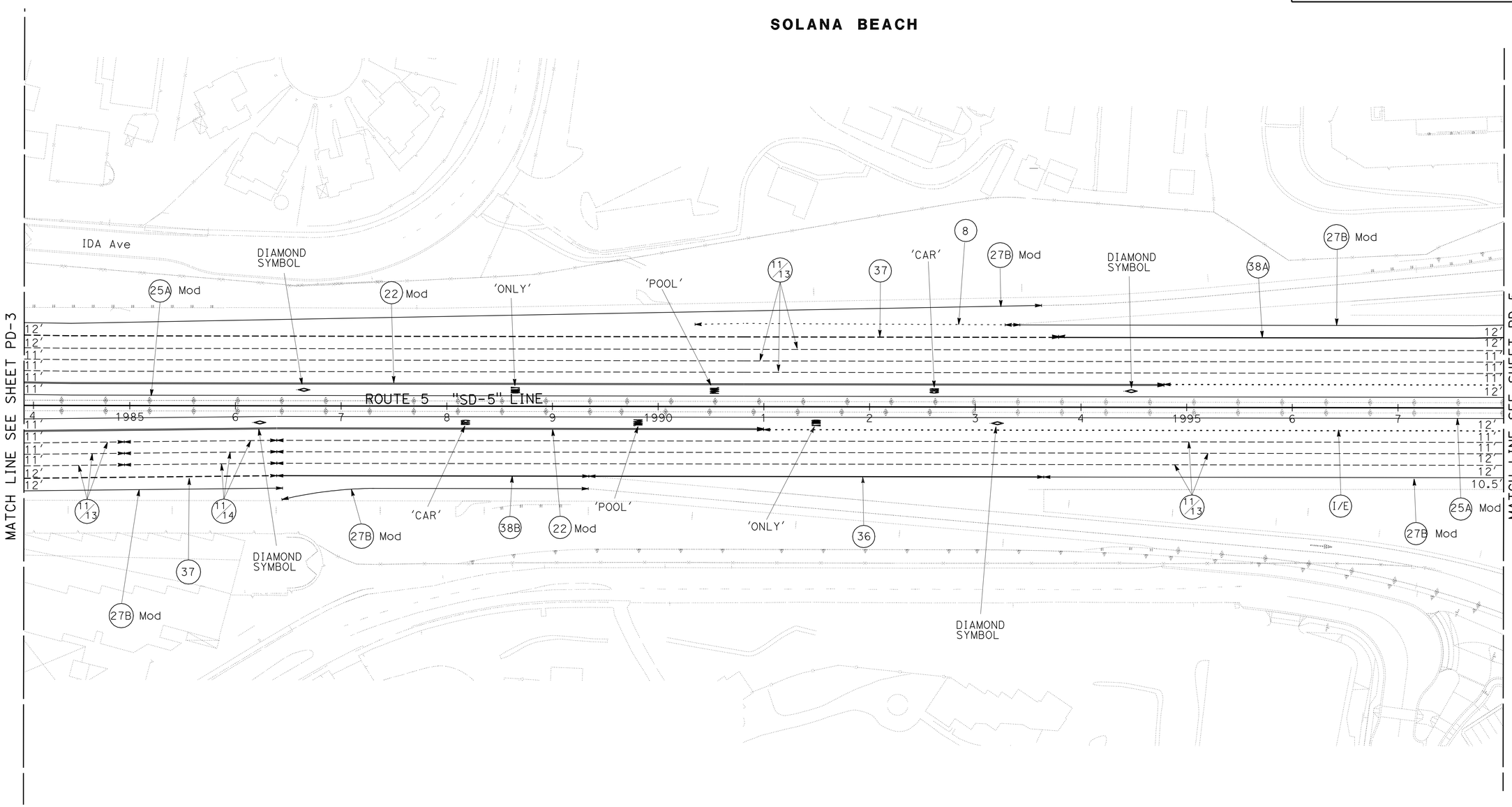


PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-4

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
NOEL TAPIA	SHAHIN T. ADIBI

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **TRAFFIC DESIGN**

LAST REVISION 07-19-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:24

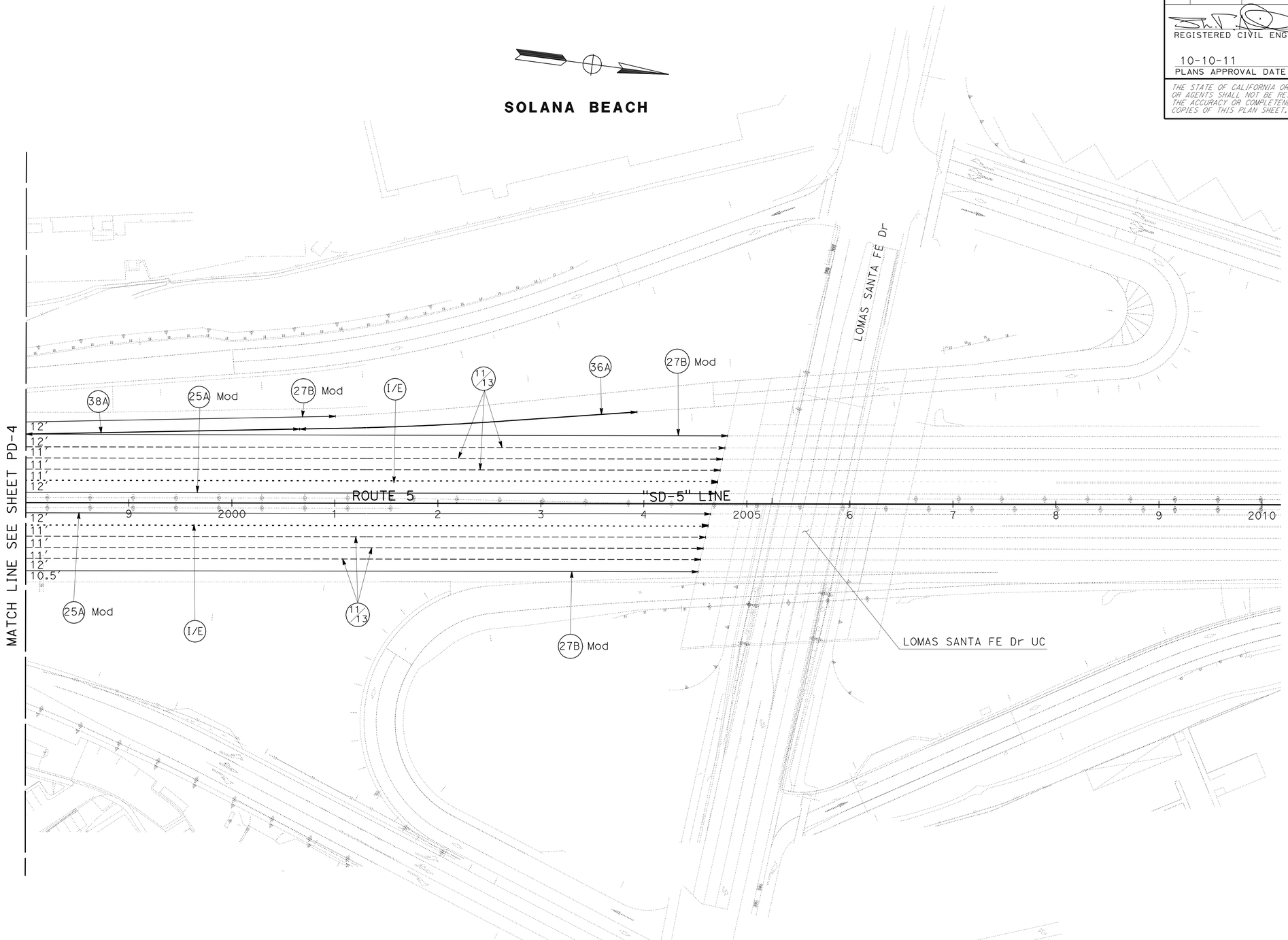
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	10	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 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.



THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50′

PD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL
CALCULATED-DESIGNED BY: NOEL TAPIA
CHECKED BY: SHAHIN T. ADIBI
REVISED BY
DATE REVISED

LAST REVISION 09-26-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	11	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

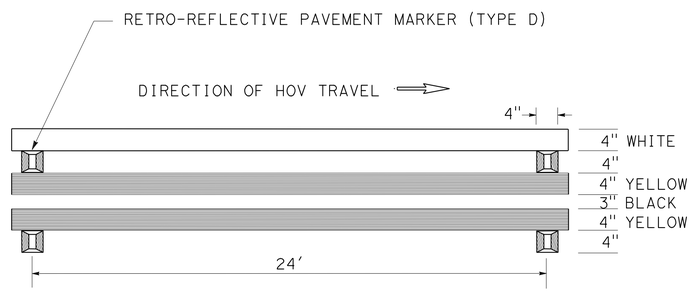
10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 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.

HOV BUFFER DELINEATION DETAIL 22 (MODIFIED)

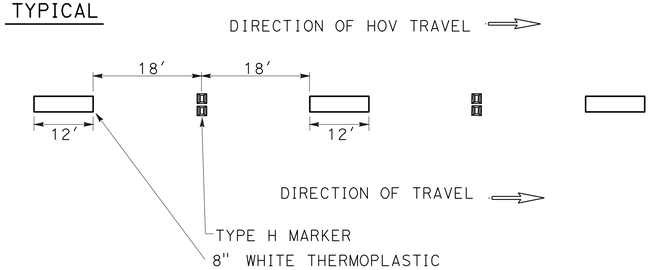
TYPICAL



NOTE:
USE THERMOPLASTIC MATERIAL FOR BUFFER DELINEATION (WHITE AND YELLOW)

I/E (INGRESS/EGRESS) DELINEATION DETAIL

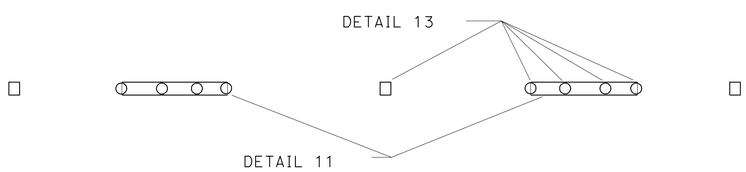
TYPICAL



NOTE:
USE THERMOPLASTIC MATERIAL FOR INGRESS/EGRESS DELINEATION

DETAIL 11/13 COMBINATION

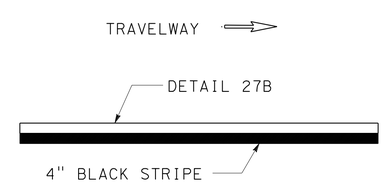
TYPICAL



NOTE:
FOR DETAIL 11/14 COMBINATION SUBSTITUTE TYPE C MARKERS FOR TYPE G MARKERS AS PER STANDARD PLANS A20A

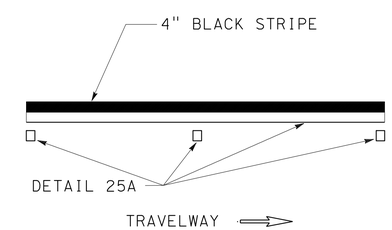
DETAIL 27B (Mod)

TYPICAL



DETAIL 25A (Mod)

TYPICAL



PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL
CALCULATED-DESIGNED BY: NOEL TAPIA
CHECKED BY: SHAHIN T. ADIBI
REVISED BY
DATE REVISED

LAST REVISION 07-19-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	12	20

REGISTERED CIVIL ENGINEER 06-29-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER SHAHIN T. ADIBI No. 66748 Exp. 03-30-12 CIVIL STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

SHEET	FROM Sta	TO Sta	LINE	DETAIL No.	PAVEMENT MARKER SUMMARY: PAVEMENT MARKER (EA) NON-REFLECTIVE TYPE A WHITE	RETROREFLECTIVE TYPE C RED - CLEAR	RETROREFLECTIVE TYPE D YELLOW	RETROREFLECTIVE TYPE G CLEAR	RETROREFLECTIVE TYPE H YELLOW	TRAFFIC STRIPE SUMMARY: PAINT (LF) 2-COAT	THERMOPLASTIC (LF) 4 INCH SOLID	4 INCH BROKEN 36'-12'	4 INCH BROKEN 17'-7'	8 INCH SOLID	8 INCH BROKEN 12'-3'	8 INCH 36'-12'	REMARKS
PD-1	1947+32	1957+00	"SD-5"	11/13	484			121				5,808					
PD-1	1947+32	1957+00	"SD-5"	22 Mod			162				1,936						
PD-1	1947+32	1957+00	"SD-5"	25A Mod					81	1,936							
PD-1	1947+32	1957+00	"SD-5"	27B Mod						1,870							
PD-1	1946+35	1948+75	"SD-5"	27B Mod						240							
PD-1	1947+30	1948+75	"SD-5"	36A				6						145			
PD-1	1948+75	1957+00	"SD-5"	37		8		49							825		
PD-1	1956+60	1957+00	"SD-5"	36A				2						40			
PD-2	1957+00	1971+00	"SD-5"	11/13	666			173				7,968					
PD-2	1966+50	1967+94	"SD-5"	11/14	36	12						432					
PD-2	1957+00	1971+00	"SD-5"	22 Mod			236				2,800						
PD-2	1957+00	1971+00	"SD-5"	25A Mod					119	2,800							
PD-2	1957+00	1971+00	"SD-5"	27B Mod						2,150							
PD-2	1960+00	1963+25	"SD-5"	36				15						325			
PD-2	1957+00	1958+50	"SD-5"	36A				6						150			
PD-2	1957+00	1971+00	"SD-5"	37		16		116							1,900		
PD-2	1963+25	1966+00	"SD-5"	38B				25						275			
PD-2	1958+50	1961+80	"SD-5"	8									330				
PD-3	1971+00	1984+00	"SD-5"	11/13	654			169				7,800					
PD-3	1971+00	1984+00	"SD-5"	22 Mod			220				2,600						
PD-3	1971+00	1984+00	"SD-5"	25A Mod					111	2,600							
PD-3	1971+00	1984+00	"SD-5"	27B Mod						2,600							
PD-3	1971+00	1984+00	"SD-5"	37		8		168							2,600		
PD-4	1984+00	1998+00	"SD-5"	11/13	666			173				7,968					
PD-4	1984+80	1986+24	"SD-5"	11/14	36	12						432					
PD-4	1984+00	1994+80	"SD-5"	22 Mod			153				1,780						
PD-4	1984+00	1998+00	"SD-5"	25A Mod					119	2,800							
PD-4	1984+00	1998+00	"SD-5"	27B Mod						2,400							
PD-4	1989+30	1993+60	"SD-5"	36				19						430			
PD-4	1984+00	1993+80	"SD-5"	37		16		69							1,204		
PD-4	1993+80	1998+00	"SD-5"	38A										420			
PD-4	1986+24	1989+30	"SD-5"	38B				28						306			
PD-4	1990+30	1993+40	"SD-5"	8									310				
PD-4	1991+00	1998+00	"SD-5"	I/E					48							1,020	
PD-5	1998+00	2004+60	"SD-5"	11/13	330			83				3,960					
PD-5	1998+00	2004+60	"SD-5"	25A Mod					55	1,320							
PD-5	1998+00	2004+60	"SD-5"	27B Mod						1,350							
PD-5	1998+00	2001+00	"SD-5"	27B Mod						300							
PD-5	2000+70	2004+00	"SD-5"	36A				15						330			
PD-5	1998+00	2000+60	"SD-5"	38A										270			
PD-5	1998+00	2004+60	"SD-5"	I/E					58							1,320	
SUBTOTAL					2,872	72	771	1,237	591	22,366	9,116	34,368	640	2,691	6,529	2,340	
TOTAL					2,872	2,671				22,366	9,116	34,368	640	2,691	6,529	2,340	

TEMPORARY PAVEMENT MARKER

LOCATION	TYPE A, C, D, G, H (EA)
SB/NB - 5	5543
TOTAL	5543

THERMOPLASTIC PAVEMENT MARKING

ROUTE	LOCATION	CAR POOL ONLY ◊ SQFT	SQFT	SQFT	SQFT	REMARKS
5	NB/SB	68	92	88	88	
TOTAL		336				

IRRIGATION CROSSOVER MARKERS

LOCATION	TYPE A - (RED) (EA)
SB/NB-5, Sta 1946+16.14	2
SB/NB-5, Sta 1947+17.84	2
NB-5, Sta 1951+60.76	1
SB-5, Sta 1974+08.13	1
SB-5, Sta 1987+73.61	1
TOTAL	7

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

REMOVE PAVEMENT MARKER (N)

LOCATION	TYPE A, C, D, G, H (EA)
SB/NB - 5	5,543
TOTAL	5,543

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

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
NOEL TAPIA | SHAHIN T. ADIBI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: CAMILLE ABOUFADEL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

LAST REVISION 09-26-11 | DATE PLOTTED => 12-OCT-2011 | TIME PLOTTED => 15:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	13	20

REGISTERED CIVIL ENGINEER 06-28-11 DATE

10-10-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
OANH N. LE
No. 54306
Exp. 12-31-11
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.

GRIND EXISTING AC PAVEMENT

DIRECTION	LOCATION		AREA
	BEGIN Sta	END Sta	SQYD
NB	1989+34.0	1993+64.9	48
SB	1947+45.0	1968+69.8	236
SB	1990+34.7	2000+00.0	107
		TOTAL	391

ASPHALTIC EMULSION

DIRECTION	LOCATION		AREA (N)	FOG SEAL COAT
	BEGIN Sta	END Sta	(SQYD)	TON
NB	1989+34.0	1993+64.9	575	0.12
SB	1947+45.0	1968+69.8	2033	0.59
SB	1990+34.7	2000+00.0	1287	0.27
		TOTAL	3895	0.98

REPAIR SPALLED JOINTS

DIRECTION	STATION LIMITS	AREA
		(SQYD)
NORTHBOUND	1947+32 TO 2004+60	20
SOUTHBOUND	1947+45 TO 2004+81	20
	TOTAL	40

GRIND AND GROOVE EXISTING CONCRETE PAVEMENT

DIRECTION	STATION LIMITS	AREA
		(SQYD)
NORTHBOUND	1947+32 TO 2004+60	44,983
SOUTHBOUND	1947+45 TO 2004+81	42,169
	TOTAL	87,152

METAL BEAM GUARD RAILING

MBGR No. (#)	SHEET	LINE	DIRECTION	LOCATION		LAYOUT TYPE (N)	MBGR	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	GUARD RAILING DELINEATOR	REMARKS
				STATION LIMITS						(TYPE F)	
				BEGIN	END		(LF)	(Ea)	(Ea)	(Ea)	
1	C-1	"SD-5"	NB	1968+36	1968+96	16B	60	1	1	11	FOR EXISTING OH SIGN STRUCTURE
						TOTAL	60	1	1	11	

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FUNCTIONAL SUPERVISOR: MAJID KHARRATI
CALCULATED-DESIGNED BY: OANH LE
CHECKED BY: CHRISTOPHER SCOTT
REVISED BY
DATE REVISED

LAST REVISION 07-19-11
DATE PLOTTED => 12-OCT-2011
TIME PLOTTED => 15:24

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	14	20

REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Donald E. Howe
No. C46402
Exp. 3-31-09
CIVIL
STATE OF CALIFORNIA

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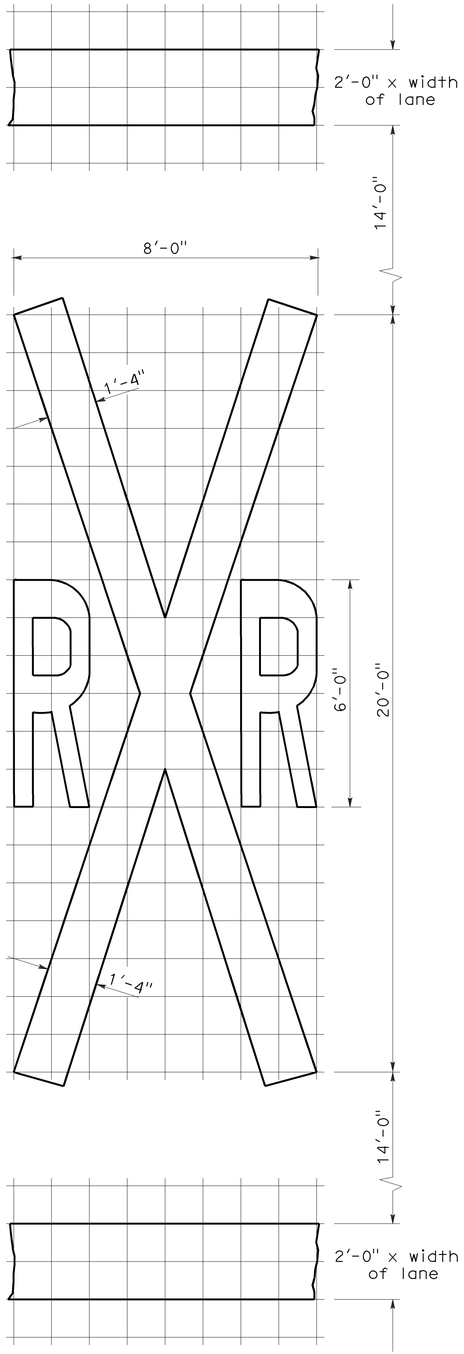
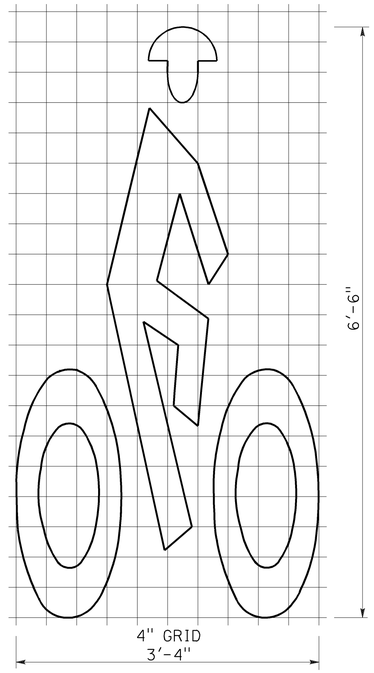
To accompany plans dated 10-10-11

2006 REVISED STANDARD PLAN RSP A24C

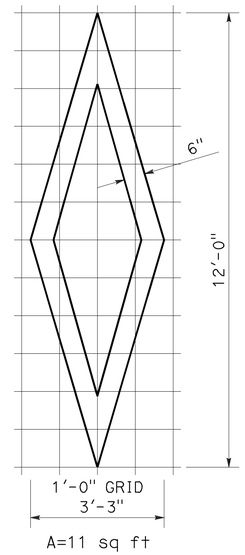


RAILROAD CROSSING SYMBOL

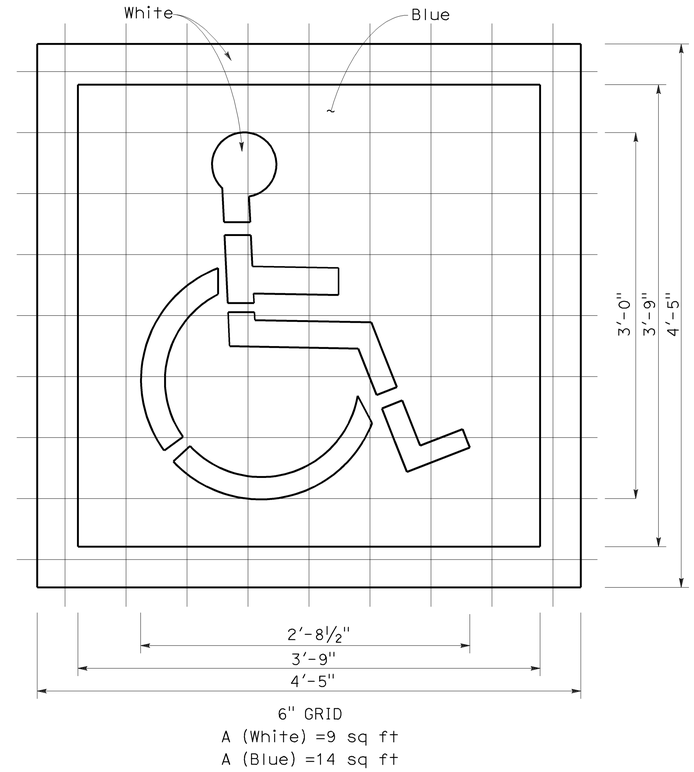
✳70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



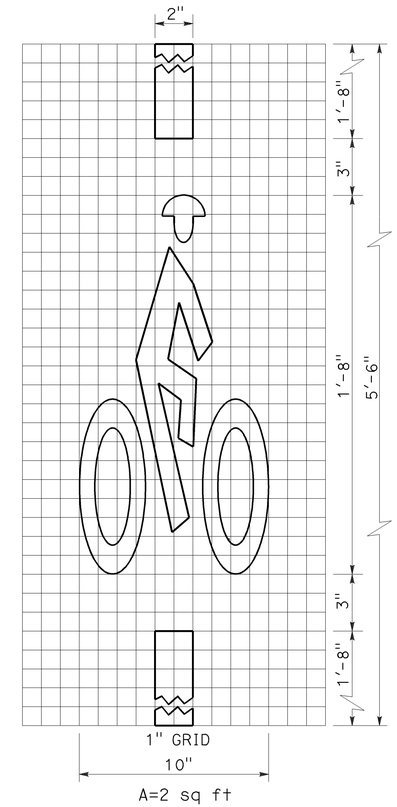
BIKE LANE SYMBOL



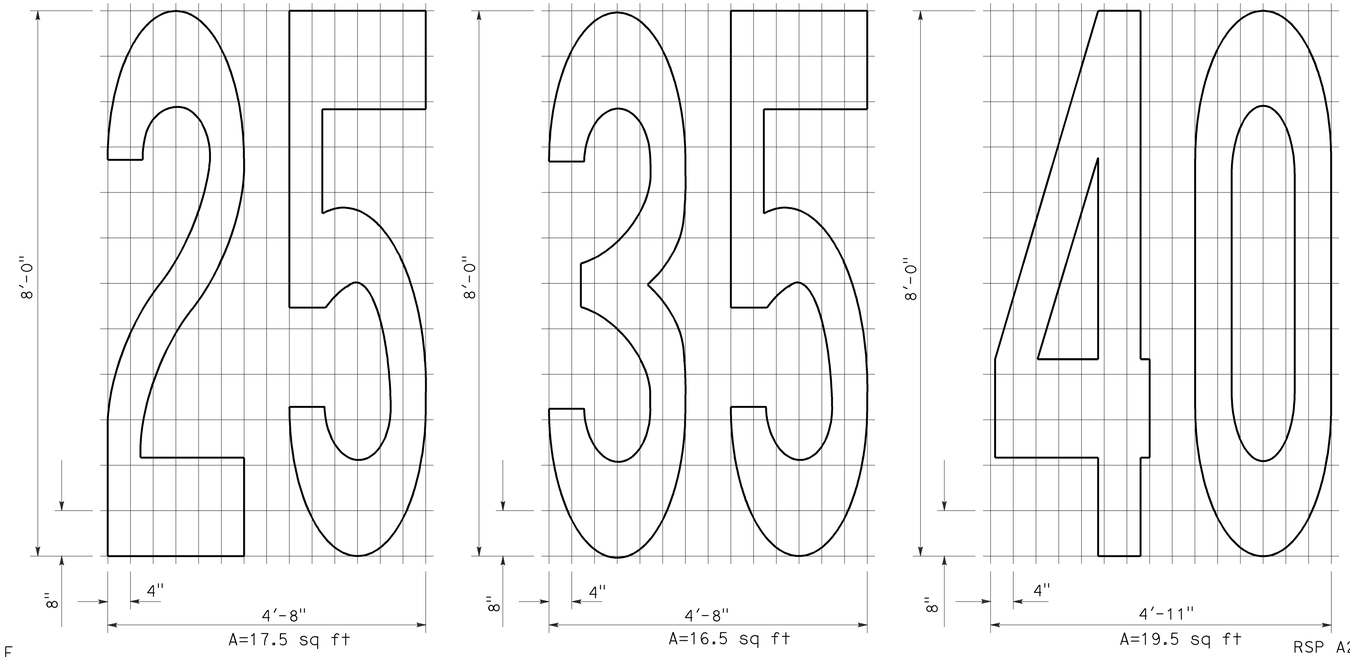
DIAMOND SYMBOL



INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING



BICYCLE LOOP DETECTOR SYMBOL



NUMERALS

NOTE:

1. Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

NO SCALE

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A24C

5-27-08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	15	20

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Randell D. Hiatt No. C50200 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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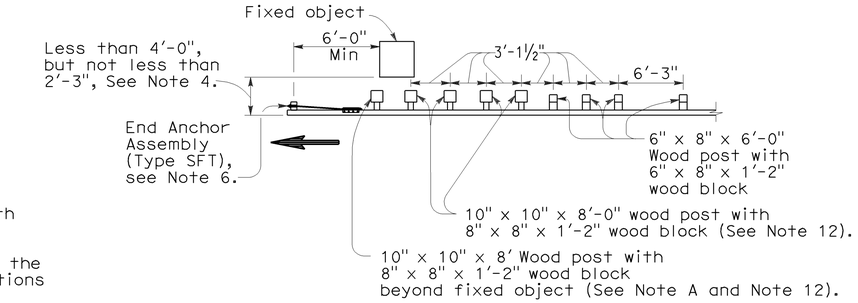
To accompany plans dated 10-10-11

NOTES:

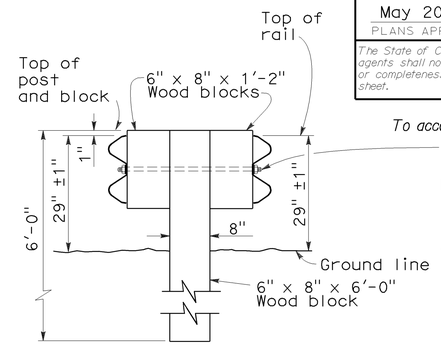
1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6′-3″ center to center, except as otherwise noted.
3. Except as noted, line posts are 6″ x 8″ x 6′-0″ wood with 6″ x 8″ x 1′-2″ wood blocks. W6 x 9 steel posts, 6′-0″ in length, with 6″ x 8″ x 1′-2″ notched wood blocks or notched recycled plastic blocks may be used for 6″ x 8″ x 6′-0″ wood line posts with 6″ x 8″ x 1′-2″ wood blocks where applicable and when specified.
4. A 4′-0″ minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6′-3″. Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4′-0″, but not less than 2′-3″. Where the clearance is less than 2′-3″, a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ➡.
6. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
7. For details of Rail Tensioning Assembly, see Standard Plan A77H2.
8. The type of crash cushion to be used will be shown on the Project Plans.
9. Type 14A layout is typically used on multilane freeways or expressways to shield fixed objects where a median type barrier is not constructed between the separated roadbeds.
10. For typical flare offsets for 25′-0″ length parabola with maximum offset of 1′-0″, see Revised Standard Plan RSP A77E1.
11. The 15:1 or flatter flare is measured off of the edge of traveled way.
12. W6 x 15 steel post, 8′-0″ in length, with 8″ x 8″ x 1′-2″ notched wood block or notched recycled plastic block may be used in place of the 10″ x 10″ x 8′-0″ wood post with 8″ x 8″ x 1′-2″ wood block shown in the "Strengthened Railing Sections Detail".



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10″ x 10″ x 8′-0″ wood post with 8″ x 8″ x 1′-2″ wood blocks at 3′-1½″ center to center spacing are to be used between fixed objects.

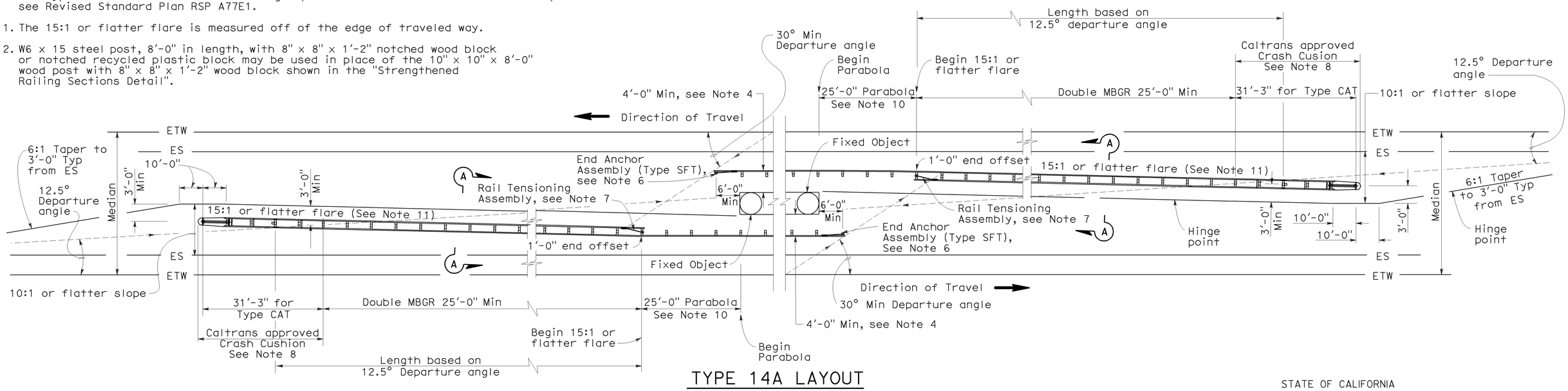
STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Type 14A layout where minimum clearance between the face of the guard railing and fixed object(s) is less than 4′-0″, but not less than 2′-3″, See Note 4.



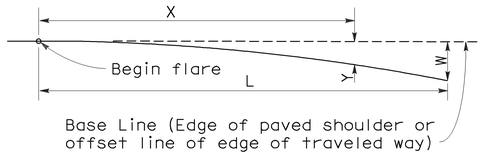
⅝″ Ø button head bolt with hex nut or ⅝″ Ø Rod, threaded both ends, with hex nuts. ½″ Max exposed threads after hex nut(s) tightened. No washer on rail faces for bolted connection to line post.

SECTION A-A
TYPICAL DOUBLE METAL BEAM GUARD RAILING



TYPE 14A LAYOUT

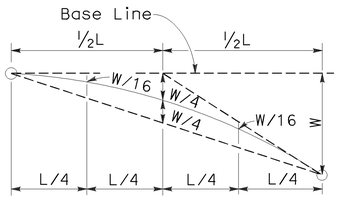
See Note 9



$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPICAL PARABOLIC LAYOUT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR FIXED OBJECTS BETWEEN SEPARATE ROADBEDS (TWO-WAY TRAFFIC)

NO SCALE

RSP A77G1 DATED MAY 20, 2011 SUPERSEDES RSP A77G1 DATED JUNE 6, 2008 AND STANDARD PLAN A77G1 DATED MAY 1, 2006 - PAGE 59 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G1

2006 REVISED STANDARD PLAN RSP A77G1

3-10-11

NOTE:

1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	16	20

William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER William K. Farnbach No. C49042 Exp. 9-30-10 CIVIL STATE OF CALIFORNIA

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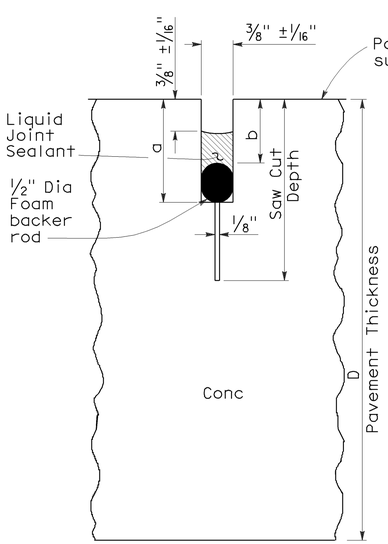
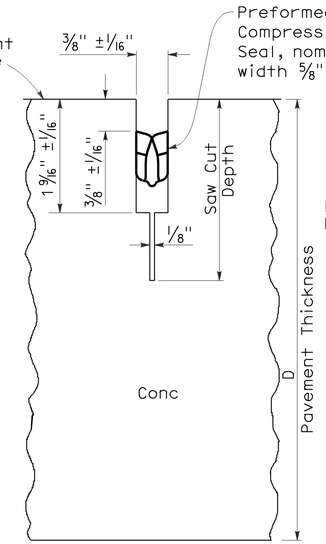
To accompany plans dated 10-10-11



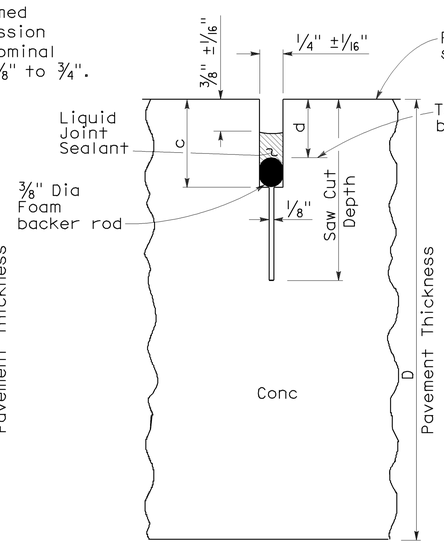
LIQUID SEALANT



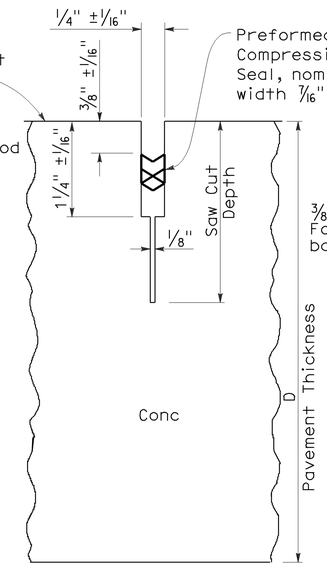
COMPRESSION SEAL

TYPE A1

Transverse Contraction Joints



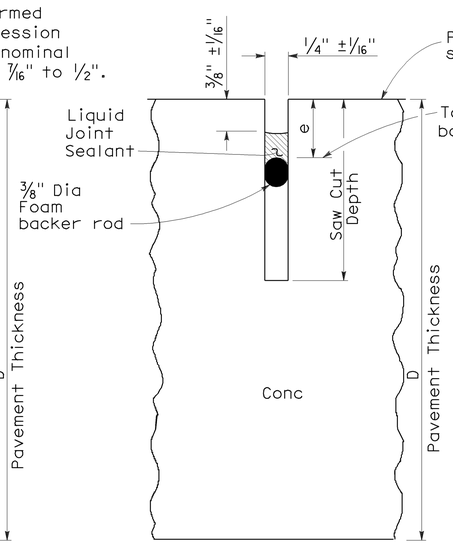
LIQUID SEALANT



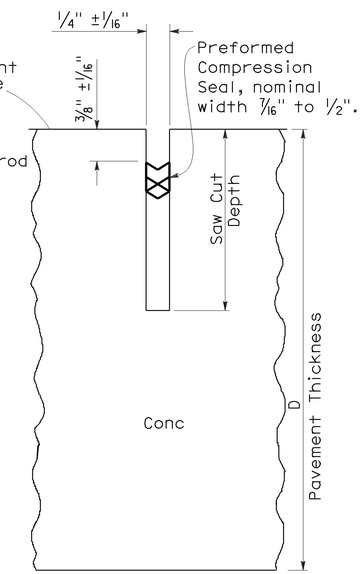
COMPRESSION SEAL

TYPE A2

Longitudinal Contraction Joints



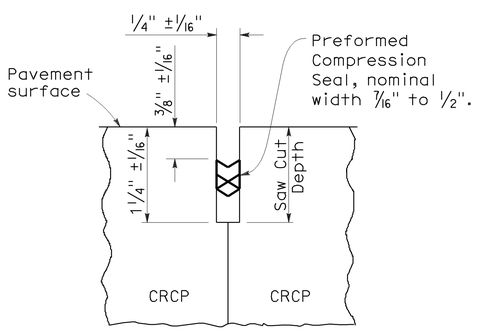
LIQUID SEALANT



COMPRESSION SEAL

TYPE B

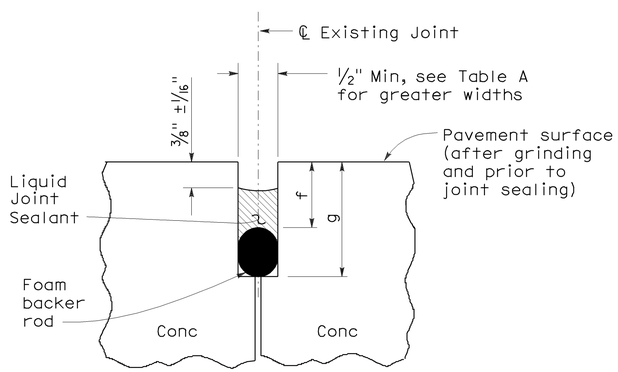
Longitudinal or Transverse Contraction Joint



COMPRESSION SEAL

TYPE C

Transverse and Longitudinal Construction Joints (For CRCP)



LIQUID SEALANT

TYPE R

Retrofit Transverse and Longitudinal Joints

LIQUID SEALANT RESERVOIR DEPTH

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILCONE	1" ±1/16"	5/8" ±1/16"	15/16" ±1/16"	9/16" ±1/16"	9/16" ±1/16"
ASPHALT RUBBER	1 3/16" ±1/16"	3/4" ±1/16"	1 1/16" ±1/16"	11/16" ±1/16"	11/16" ±1/16"

TABLE A (TYPE R JOINT)

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-JOINT DETAILS

NO SCALE

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20
DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P20

2006 REVISED STANDARD PLAN RSP P20

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	17	20

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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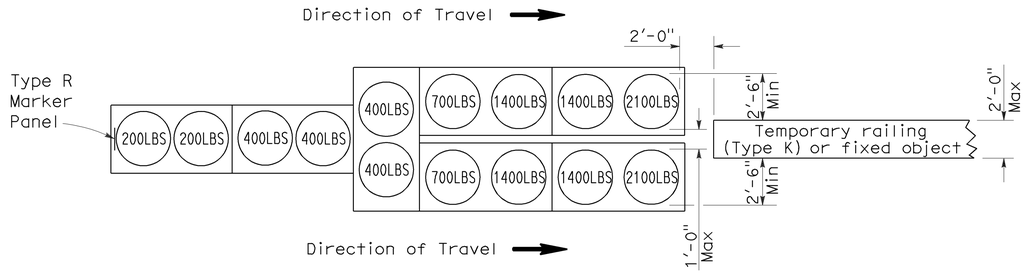
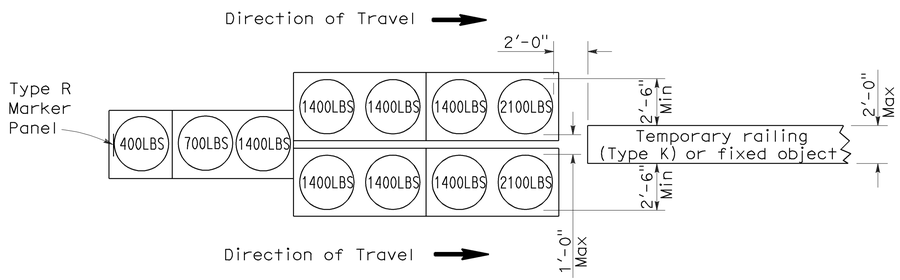
To accompany plans dated 10-10-11



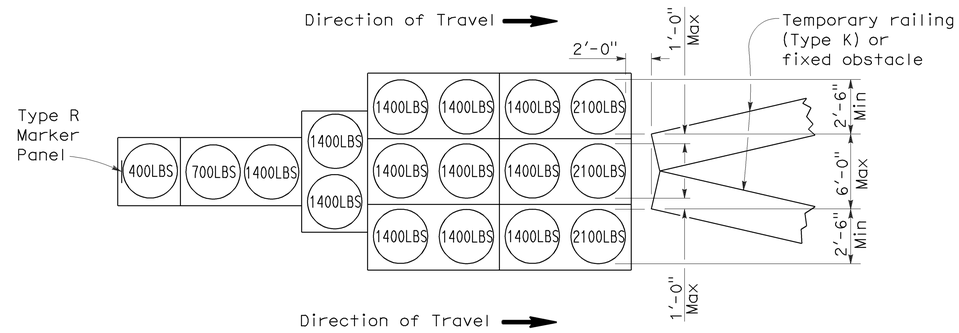
ARRAY 'TU14'

Approach speed 45 mph or more



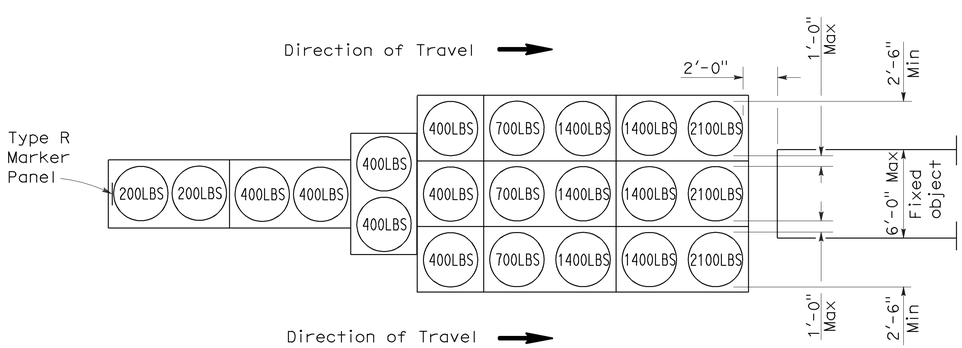
ARRAY 'TU11'

Approach speed less than 45 mph



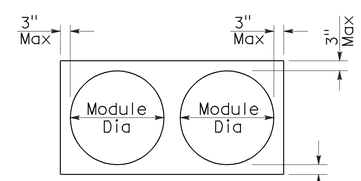
ARRAY 'TU17'

Approach speed less than 45 mph

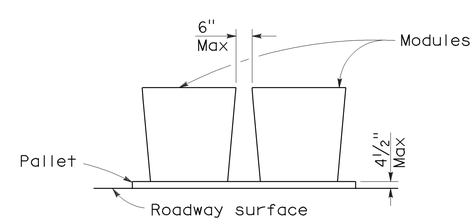


ARRAY 'TU21'

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
11	SD	5	R36.3/R37.4	18	20

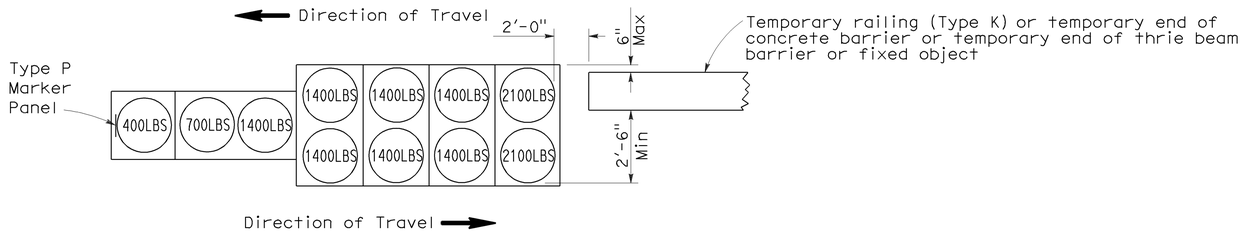
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

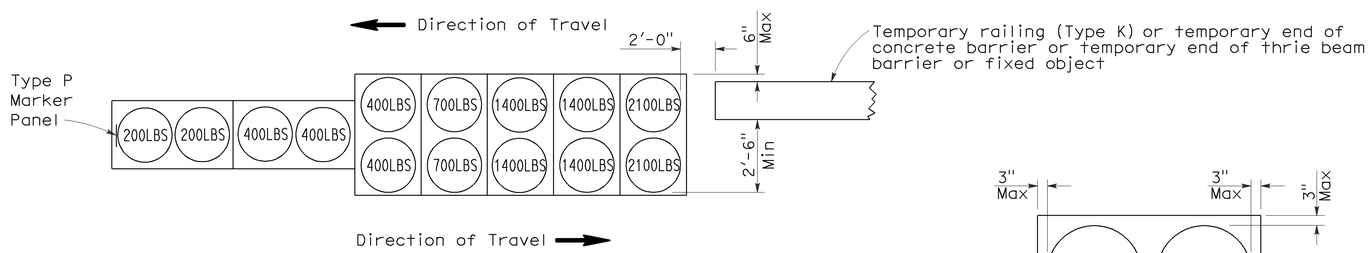
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 10-10-11



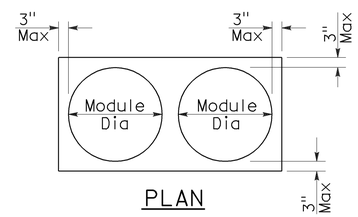
ARRAY 'TB11'

Approach speed less than 45 mph

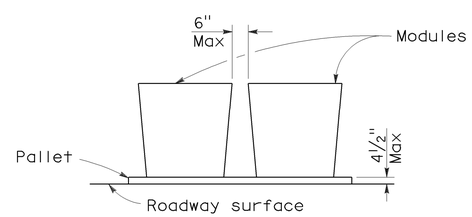


ARRAY 'TB14'

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 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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	19	20

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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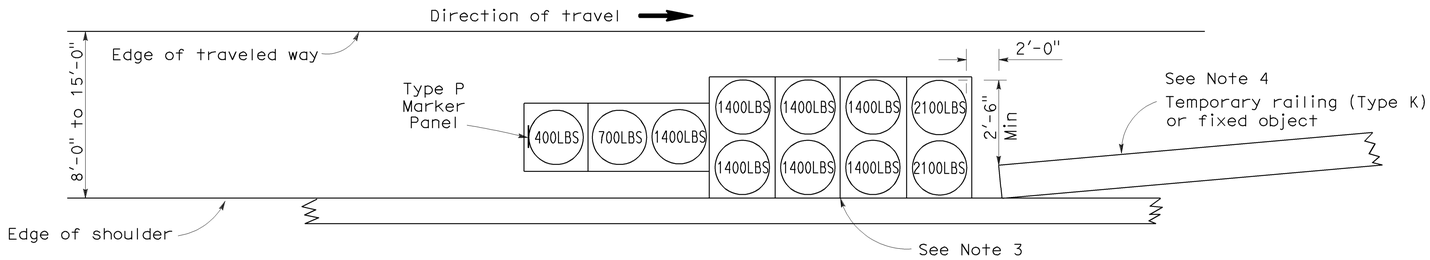
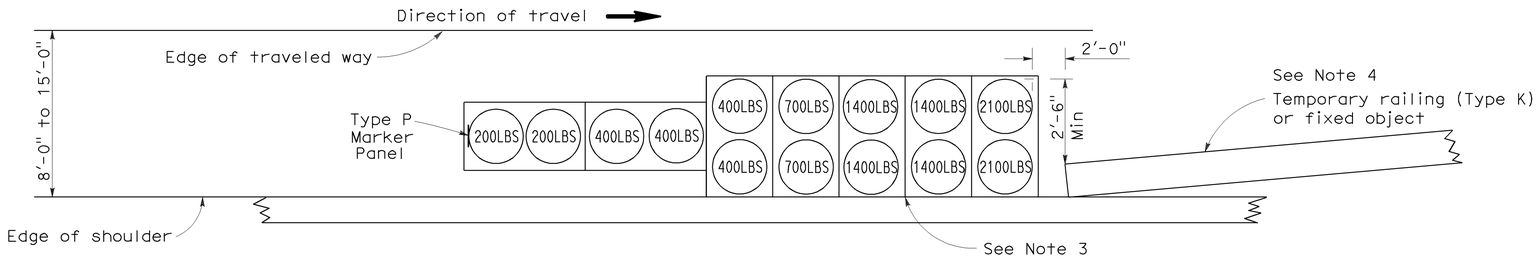
To accompany plans dated 10-10-11



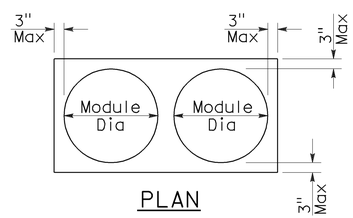
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

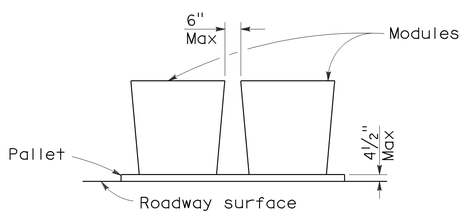


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

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. 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.
4. 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.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. 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.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. Use of pallets is optional.

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5	R36.3/R37.4	20	20

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

Greg W. Edwards No. C36386 Exp. 6-30-08 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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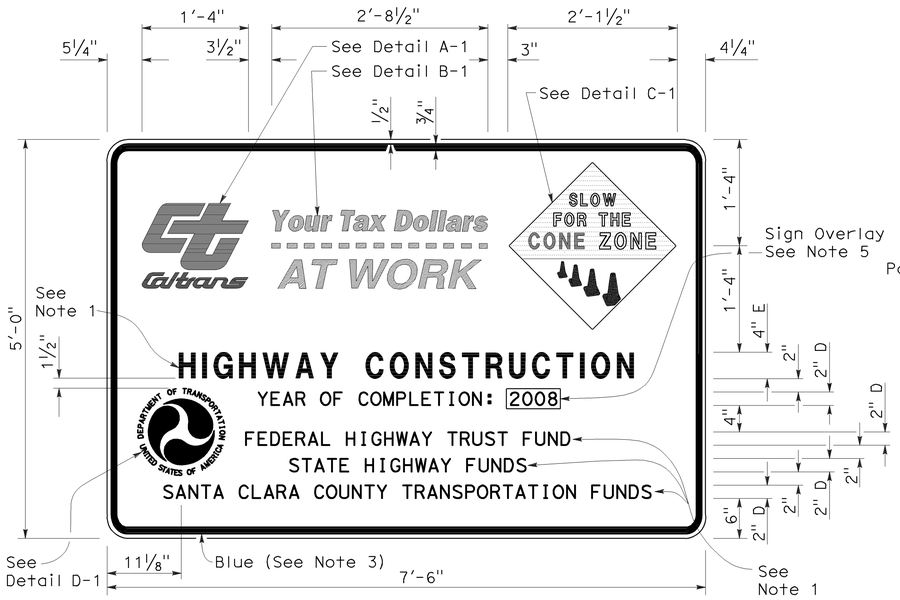
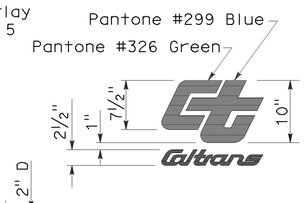
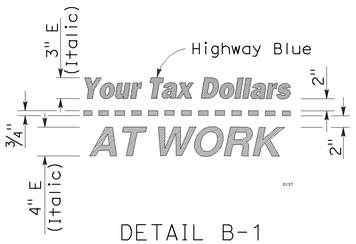
To accompany plans dated 10-10-11



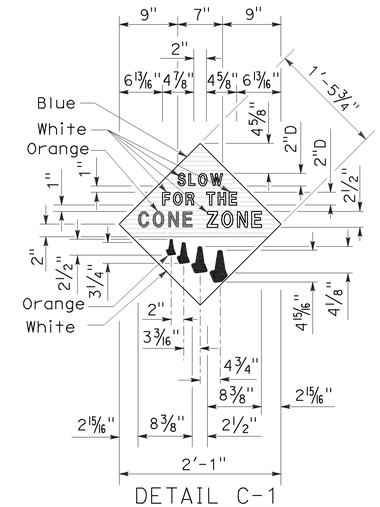
TYPE 1



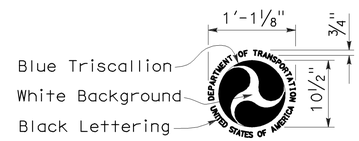
DETAIL A-1



DETAIL B-1
(See Note 3)



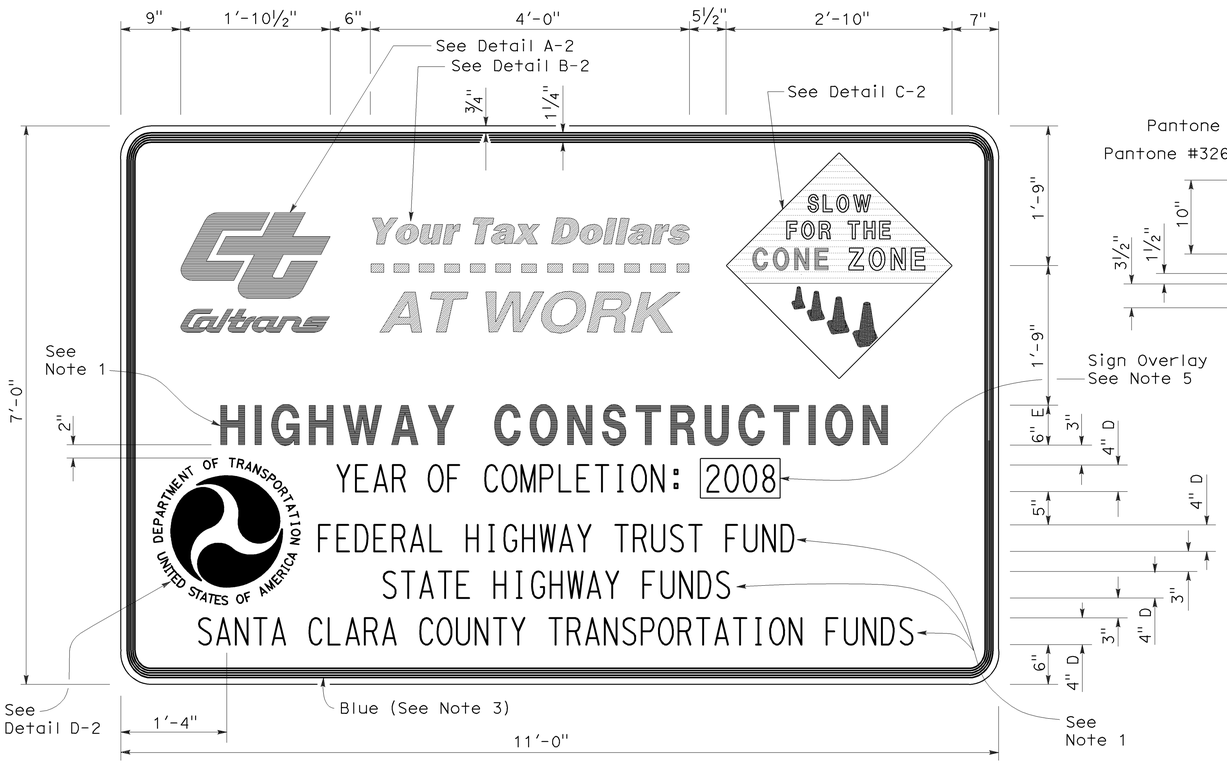
DETAIL C-1
(See Note 4)



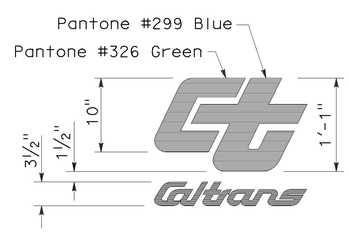
DETAIL D-1
(See Note 6)

NOTES:

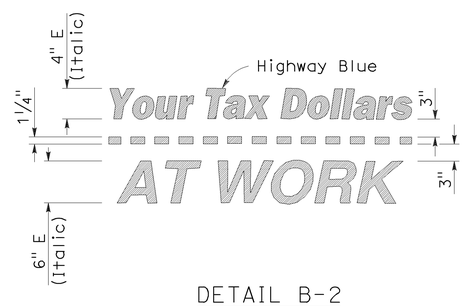
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



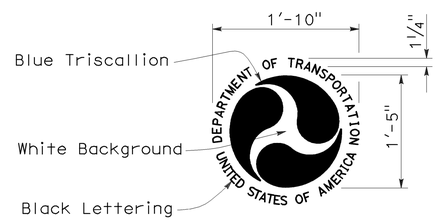
TYPE 2



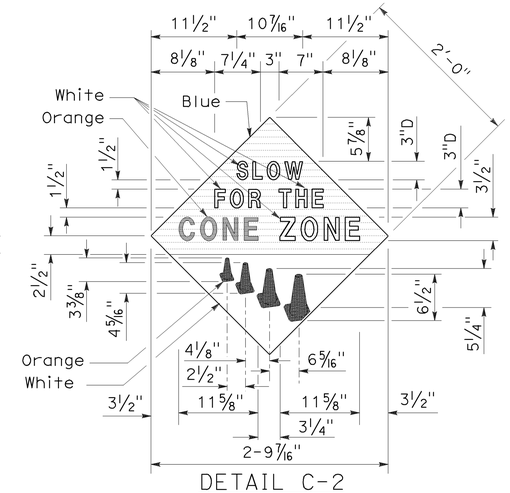
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06