

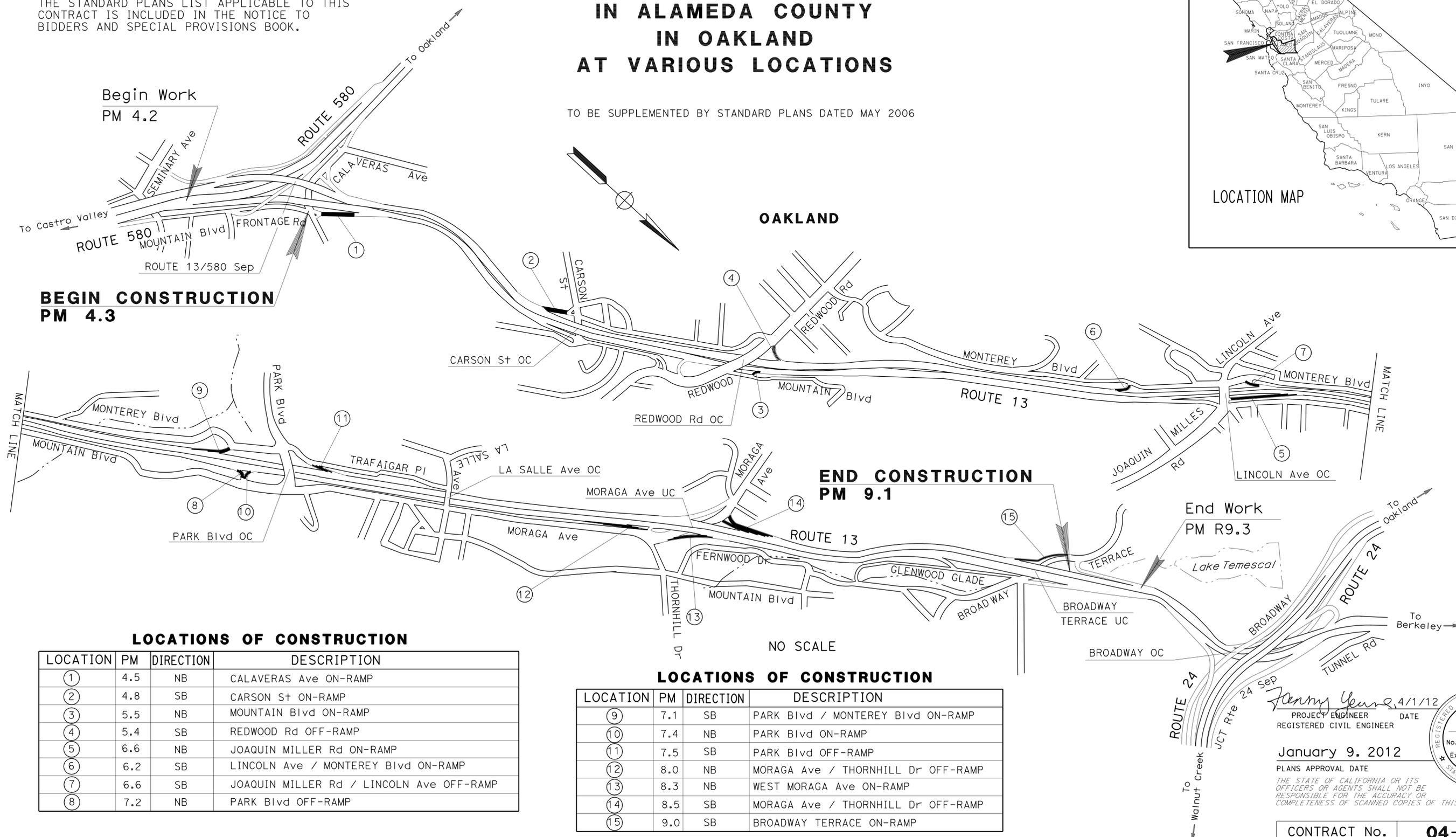
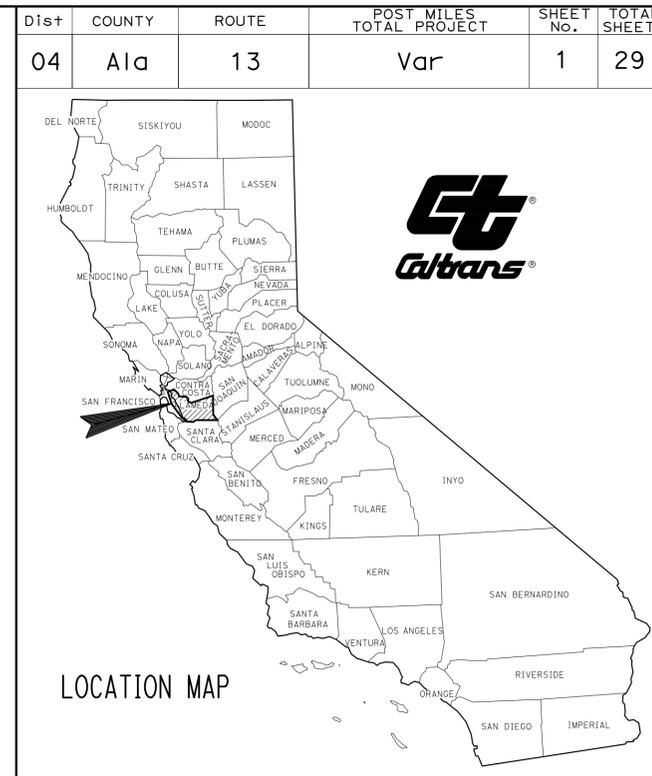
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE SHEET AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3 - 6	CONSTRUCTIONS DETAILS
7 - 12	DETOUR PLAN
13 & 14	SUMMARY OF QUANTITIES
15 - 17	ELECTRICAL PLANS
18 - 29	REVISED AND NEW STANDARD PLAN

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 ALAMEDA COUNTY
IN OAKLAND
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



BEGIN CONSTRUCTION
PM 4.3

END CONSTRUCTION
PM 9.1

End Work
PM R9.3

LOCATIONS OF CONSTRUCTION

LOCATION	PM	DIRECTION	DESCRIPTION
①	4.5	NB	CALAVERAS Ave ON-RAMP
②	4.8	SB	CARSON St ON-RAMP
③	5.5	NB	MOUNTAIN Blvd ON-RAMP
④	5.4	SB	REDWOOD Rd OFF-RAMP
⑤	6.6	NB	JOAQUIN MILLER Rd ON-RAMP
⑥	6.2	SB	LINCOLN Ave / MONTEREY Blvd ON-RAMP
⑦	6.6	SB	JOAQUIN MILLER Rd / LINCOLN Ave OFF-RAMP
⑧	7.2	NB	PARK Blvd OFF-RAMP

LOCATIONS OF CONSTRUCTION

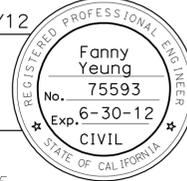
LOCATION	PM	DIRECTION	DESCRIPTION
⑨	7.1	SB	PARK Blvd / MONTEREY Blvd ON-RAMP
⑩	7.4	NB	PARK Blvd ON-RAMP
⑪	7.5	SB	PARK Blvd OFF-RAMP
⑫	8.0	NB	MORAGA Ave / THORNHILL Dr OFF-RAMP
⑬	8.3	NB	WEST MORAGA Ave ON-RAMP
⑭	8.5	SB	MORAGA Ave / THORNHILL Dr OFF-RAMP
⑮	9.0	SB	BROADWAY TERRACE ON-RAMP

NO SCALE

PROJECT MANAGER
RAMSES SARGISS

DESIGN ENGINEER
FANNY YEUNG

Fanny Yeung 4/1/12
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
January 9, 2012
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No. 04-2E6204
PROJECT ID 0412000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	2	29

Fanny Yeung, 1/4/12
 REGISTERED CIVIL ENGINEER DATE
 1-9-2012
 PLANS APPROVAL DATE

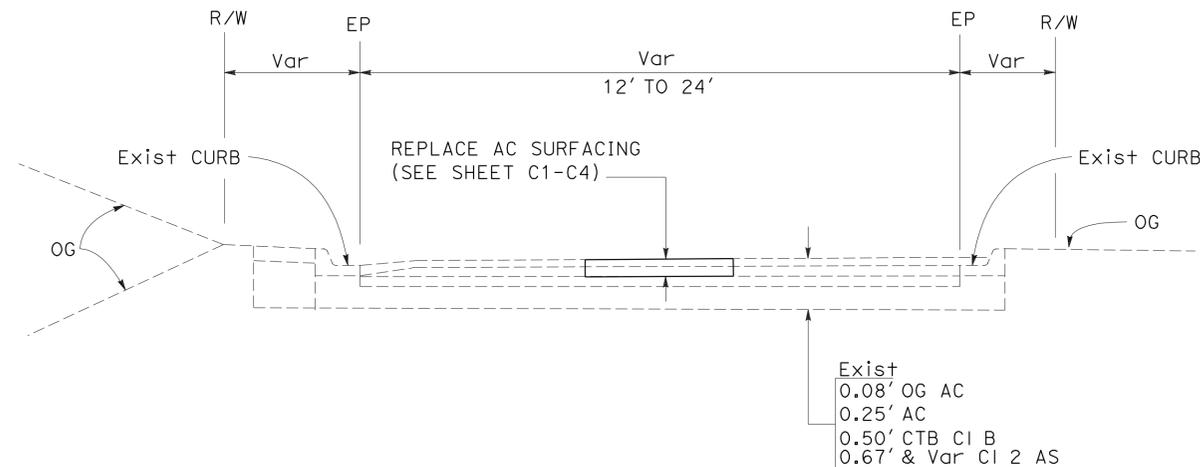
REGISTERED PROFESSIONAL ENGINEER
 Fanny Yeung
 No. 75593
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA

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.

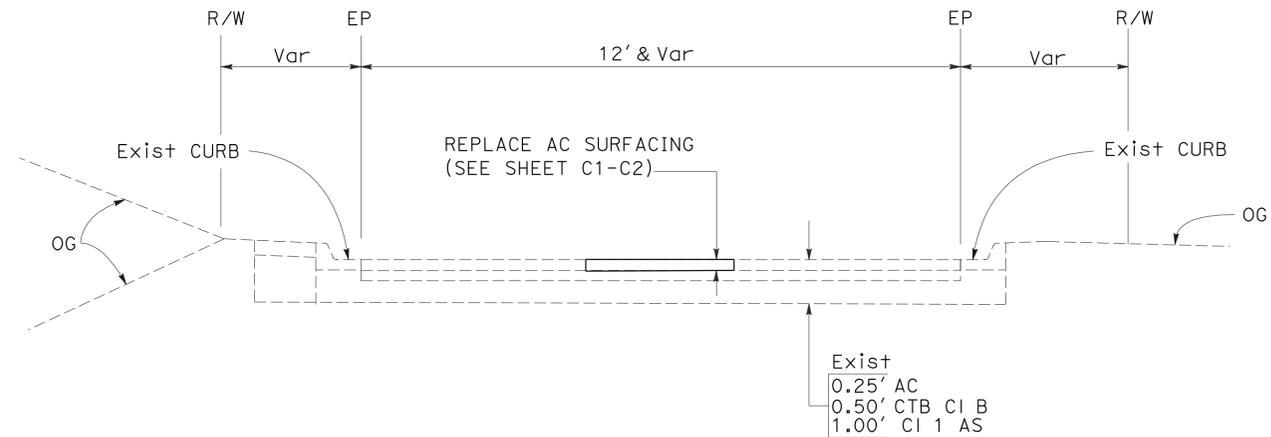
NOTES

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY ENGINEER.
3. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR NGOC TRAN
 CALCULATED/DESIGNED BY NGOC TRAN
 CHECKED BY
 FANNY YEUNG
 NGOC TRAN
 REVISED BY DATE REVISED
 NT 1/3/12



ON-RAMPS AND OFF-RAMPS
 LOCATIONS 1, 3 AND 6 TO 15



ON-RAMPS AND OFF-RAMPS
 LOCATIONS 2, 4 AND 5

TYPICAL CROSS SECTIONS
 NO SCALE

X-1



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	NGOC TRAN
		CALCULATED/DESIGNED BY	CHECKED BY
FANNY YEUNG	NGOC TRAN	REVISOR	DATE
		NT	1/3/12

NOTE:

1. EXACT LOCATIONS AND LIMITS OF THE AC SURFACING TO BE DETERMINED BY THE ENGINEER.

LEGEND:

 REPLACE AC SURFACING

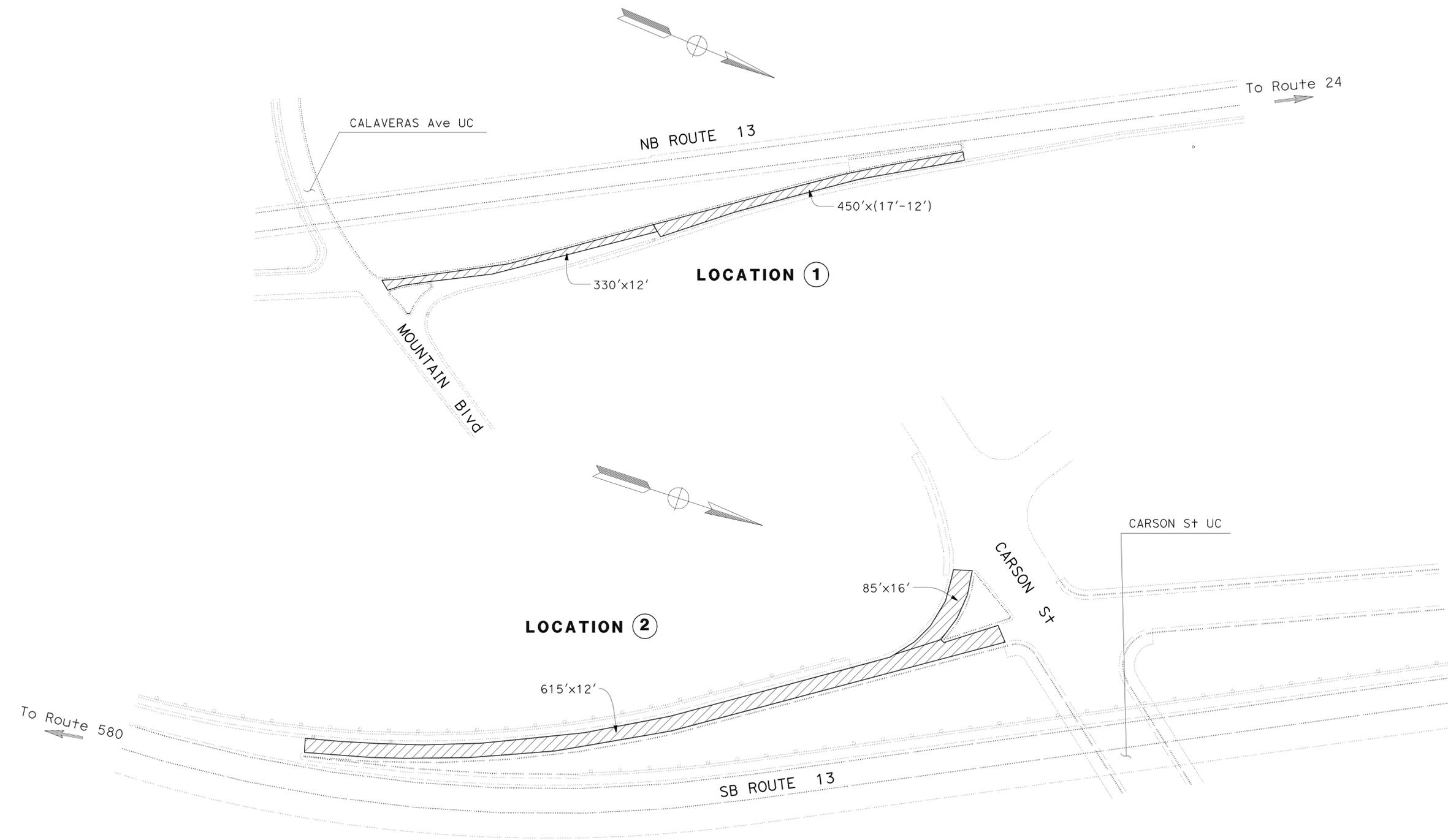
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	3	29

Fanny Yeung, 1/4/12
 REGISTERED CIVIL ENGINEER DATE

1-9-2012
 PLANS APPROVAL DATE

Fanny Yeung
 No. 75593
 Exp. 6-30-12
 CIVIL

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: NGOC TRAN
 FANNY YEUNG
 NGOC TRAN
 REVISOR: NGOC TRAN
 DATE: 1/3/12
 NT

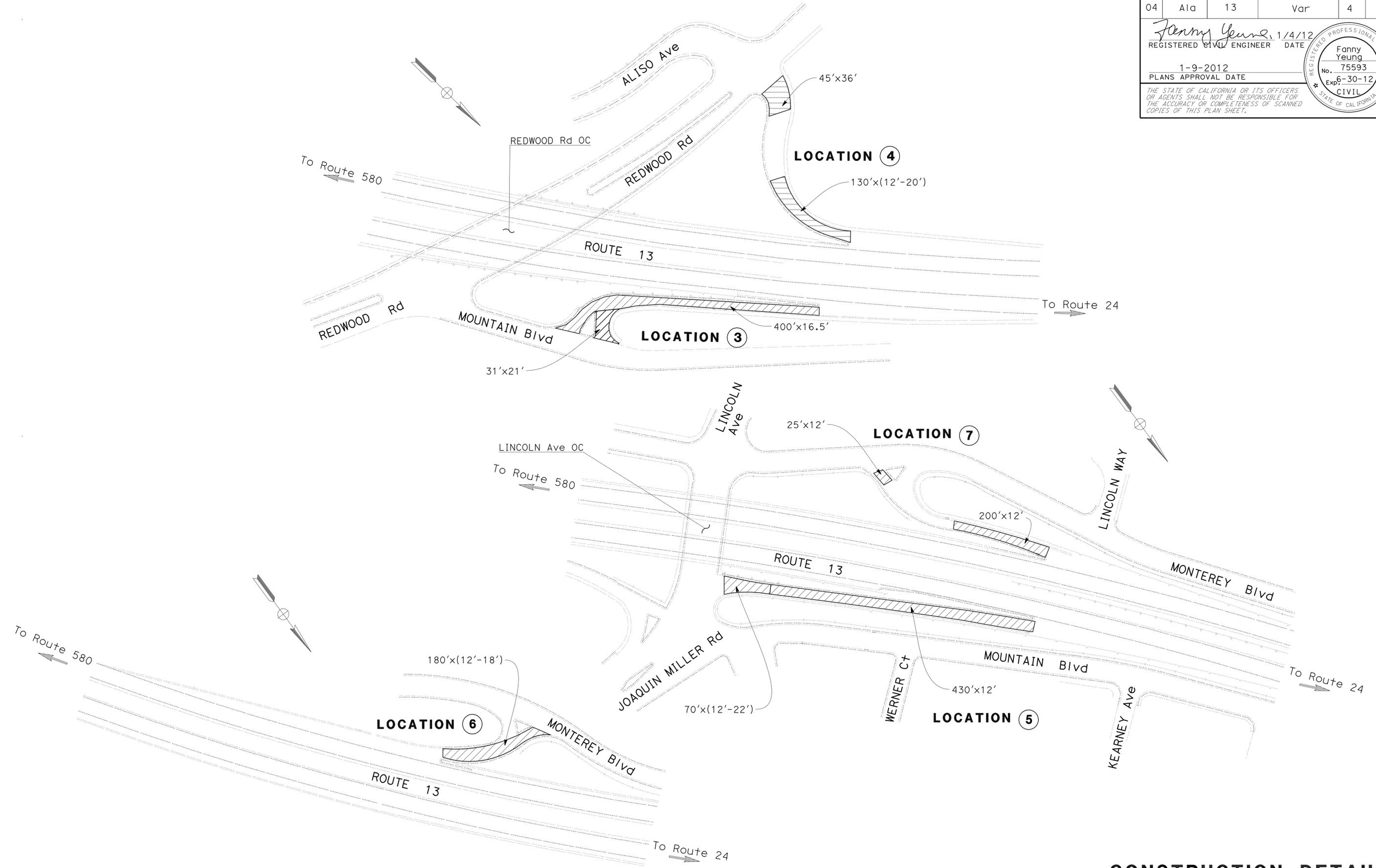
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	4	29

Fanny Yeung, 1/4/12
 REGISTERED CIVIL ENGINEER DATE

1-9-2012
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Fanny Yeung
 No. 75593
 Exp. 6-30-12
 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.



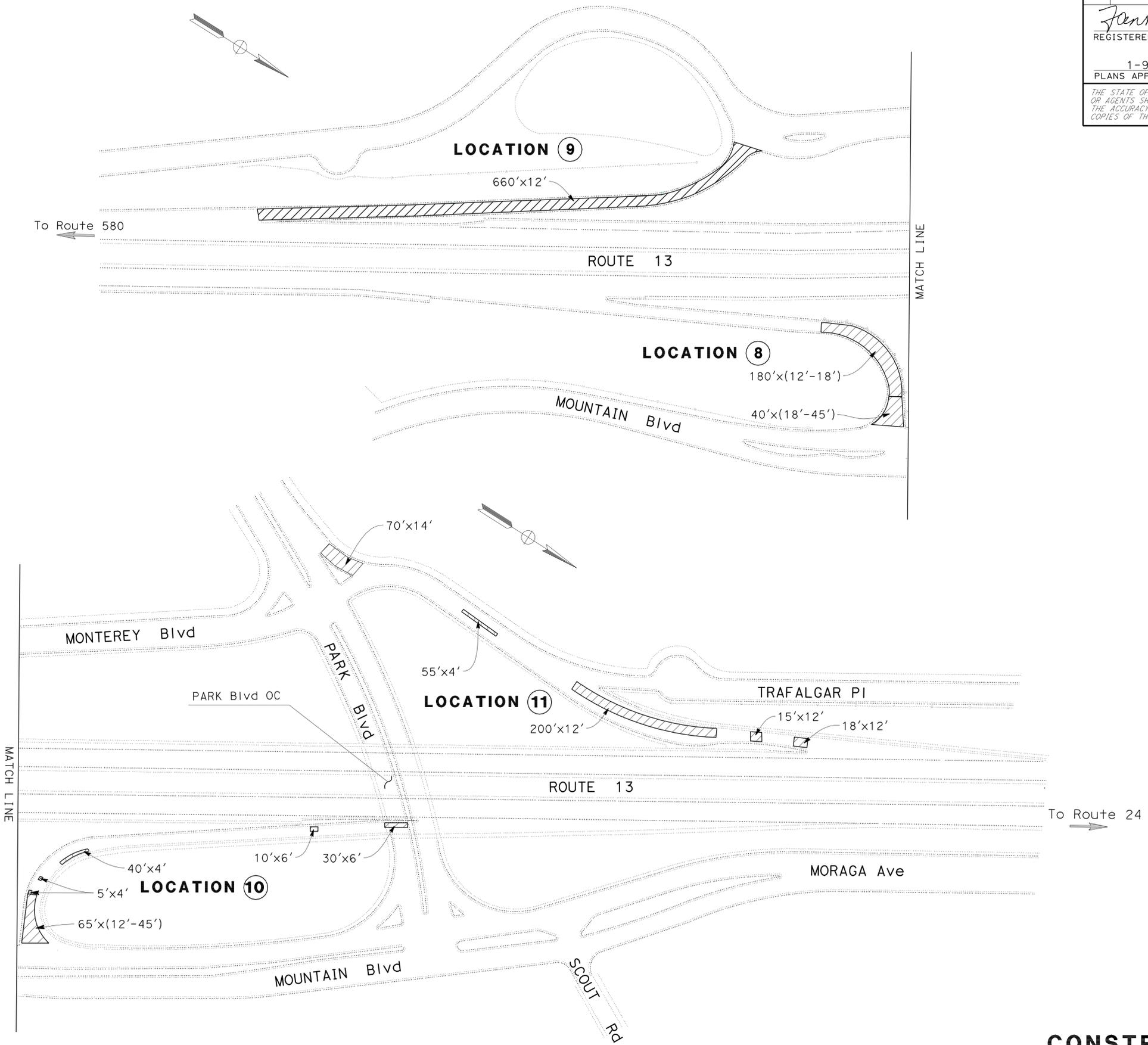
FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

LAST REVISION DATE PLOTTED => 11-JAN-2012 01-03-12 TIME PLOTTED => 08:20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	NGOC TRAN	CALCULATED/DESIGNED BY	NGOC TRAN	REVISOR	FANNY YEUNG	DATE	1/3/12	NT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	5	29
<i>Fanny Yeung</i> , 1/4/12 REGISTERED CIVIL ENGINEER DATE					
1-9-2012 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

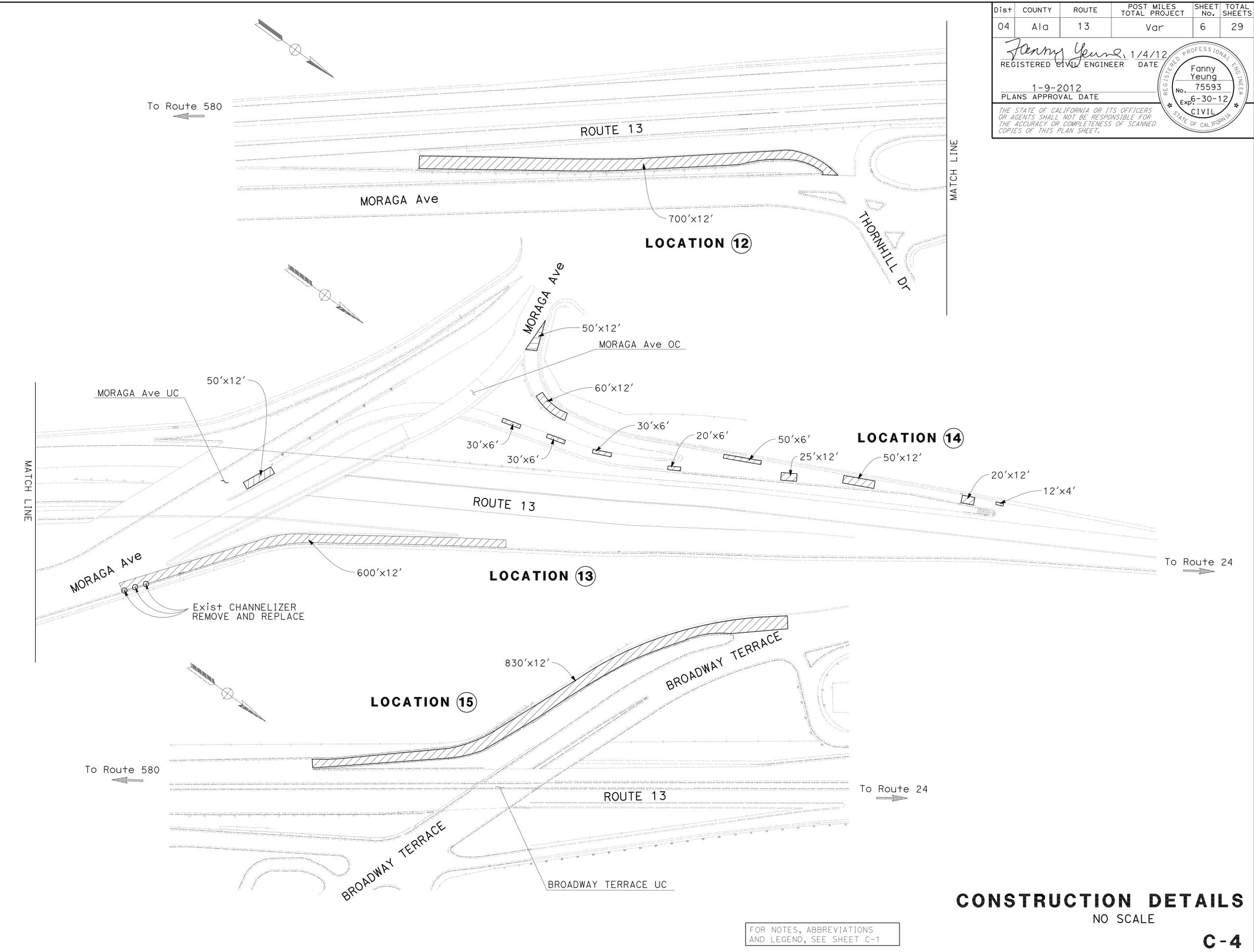


CONSTRUCTION DETAILS
NO SCALE

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR	NGOC TRAN
CALCULATED/DESIGNED BY	CHECKED BY
FANNY YEUNG	NGOC TRAN
REVISOR	DATE
NT	1/3/12



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	6	29

Fanny Yeung, 1/4/12
 REGISTERED CIVIL ENGINEER DATE

1-9-2012
 PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER
 Fanny Yeung
 No. 75593
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET C-1

CONSTRUCTION DETAILS
 NO SCALE

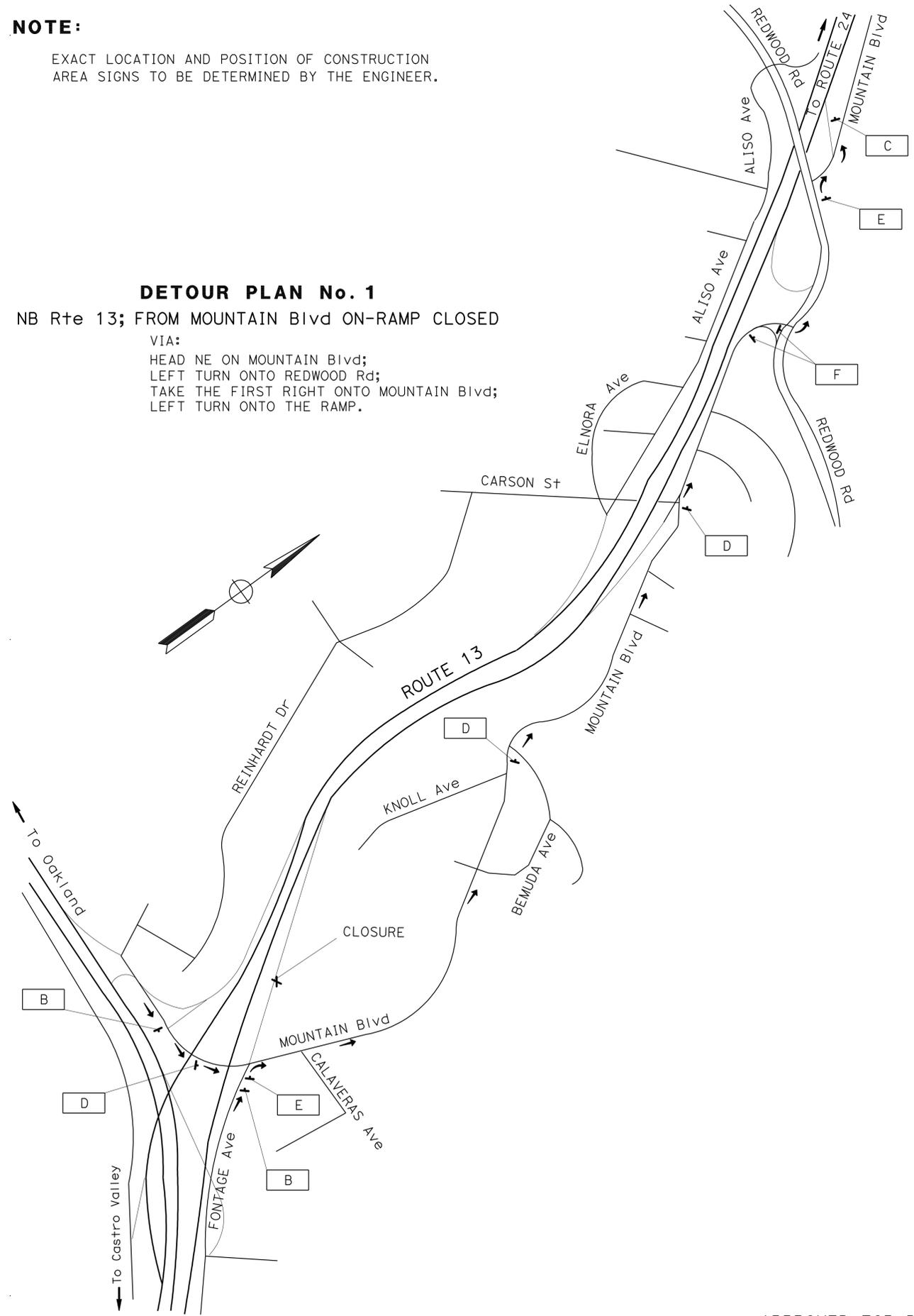
C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: LOURDES DAVID
 TRAFFIC

DESIGNED BY	CLAUDIA FANG	REVISOR	FP
CHECKED BY	FLORANTE PEREZ	DATE	1/3/12
DESIGNED BY		REVISOR	
CHECKED BY		DATE	

NOTE:
 EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.

DETOUR PLAN No. 1
 NB Rte 13; FROM MOUNTAIN Blvd ON-RAMP CLOSED
 VIA:
 HEAD NE ON MOUNTAIN Blvd;
 LEFT TURN ONTO REDWOOD Rd;
 TAKE THE FIRST RIGHT ONTO MOUNTAIN Blvd;
 LEFT TURN ONTO THE RAMP.

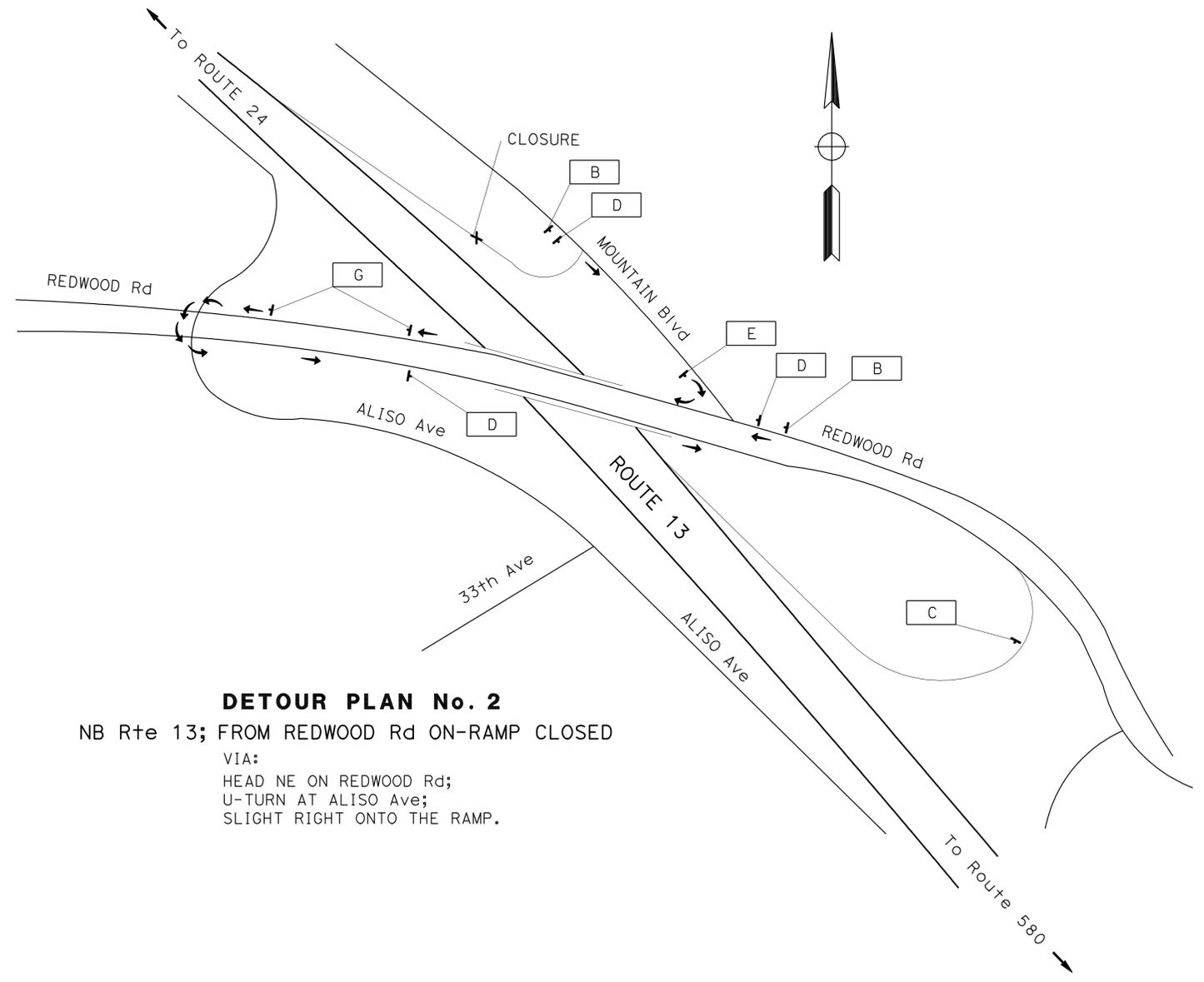


LEGEND:
 X CONSTRUCTION AREA SIGN LETTER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	7	29

REGISTERED CIVIL ENGINEER: *Florante P. Perez* DATE: 1/3/12
 PLANS APPROVAL DATE: 1-9-2012
 No. 41030 Exp. 3-31-13
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

DETOUR PLAN No. 2
 NB Rte 13; FROM REDWOOD Rd ON-RAMP CLOSED
 VIA:
 HEAD NE ON REDWOOD Rd;
 U-TURN AT ALISO Ave;
 SLIGHT RIGHT ONTO THE RAMP.



APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN
 NO SCALE

DE-1

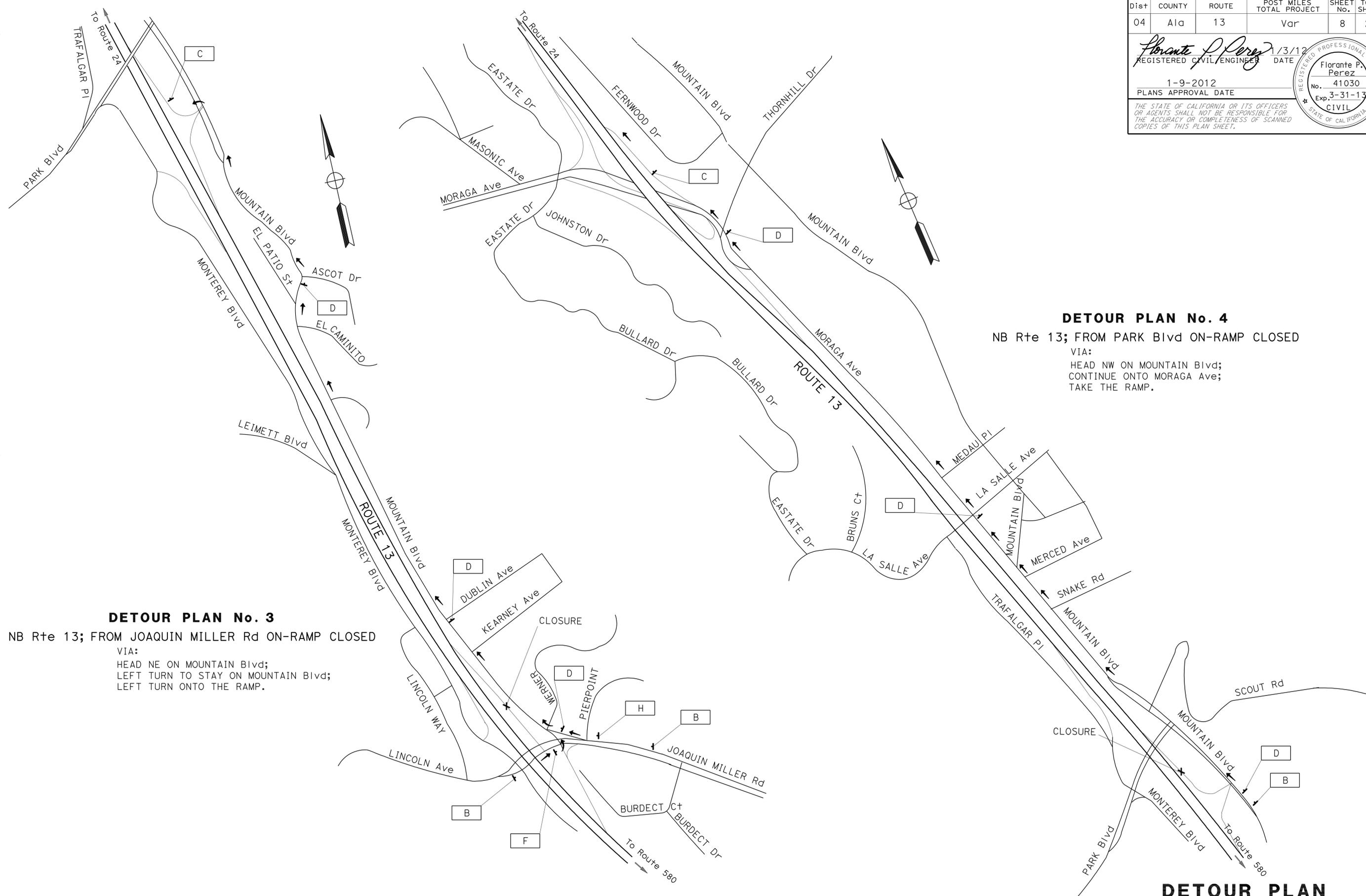
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	8	29

Florante P. Perez 1/3/12
 REGISTERED CIVIL ENGINEER DATE
 1-9-2012
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Florante P. Perez
 No. 41030
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR
 LOURDES DAVID
 CALCULATED/DESIGNED BY
 CHECKED BY
 CLAUDIA FANG
 FLORANTE PEREZ
 REVISED BY
 DATE REVISED
 FP
 1/3/12



DETOUR PLAN No. 3
 NB Rte 13; FROM JOAQUIN MILLER Rd ON-RAMP CLOSED
 VIA:
 HEAD NE ON MOUNTAIN Blvd;
 LEFT TURN TO STAY ON MOUNTAIN Blvd;
 LEFT TURN ONTO THE RAMP.

DETOUR PLAN No. 4
 NB Rte 13; FROM PARK Blvd ON-RAMP CLOSED
 VIA:
 HEAD NW ON MOUNTAIN Blvd;
 CONTINUE ONTO MORAGA Ave;
 TAKE THE RAMP.

DETOUR PLAN
 NO SCALE

APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET DE-1

DE-2

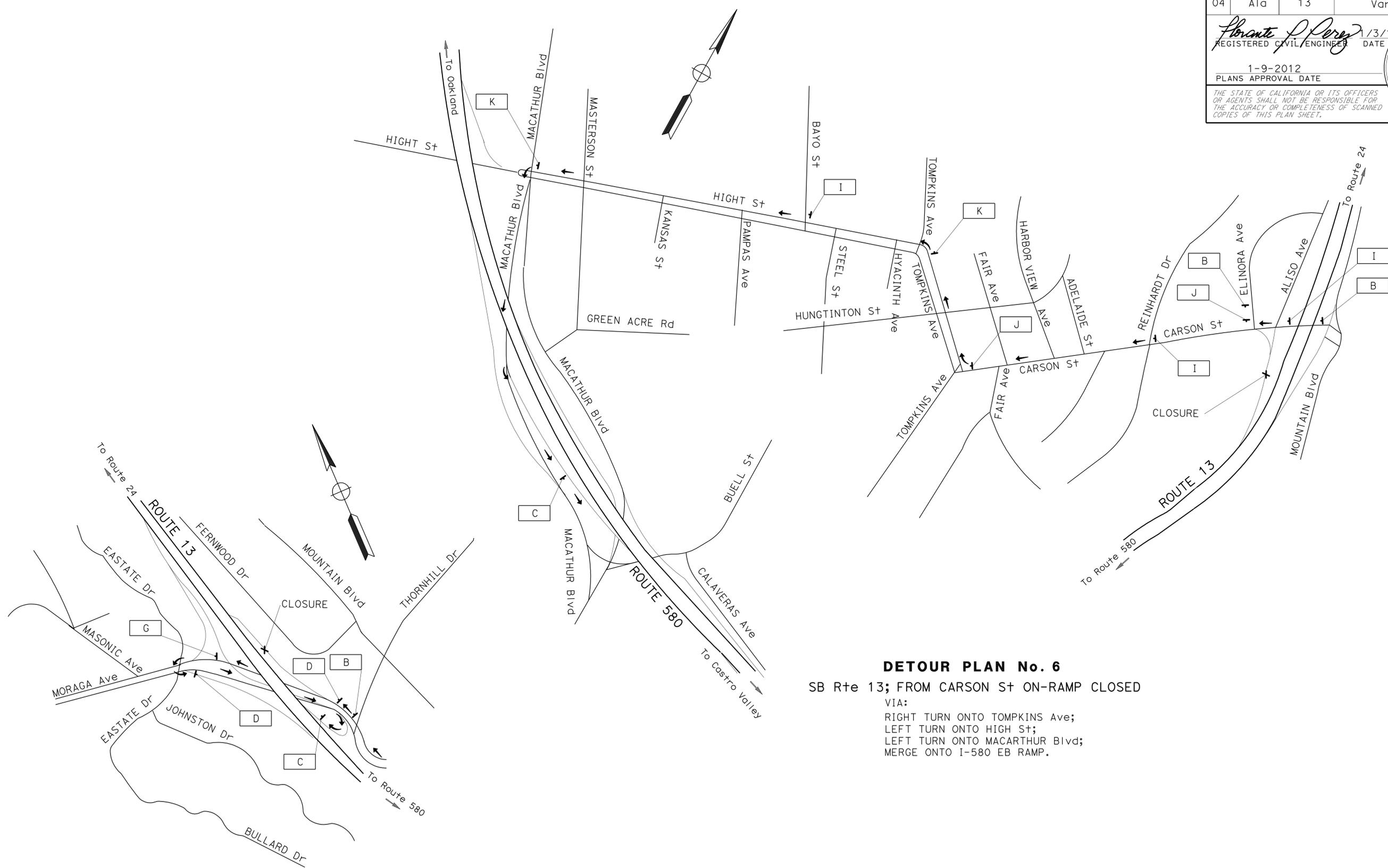
LAST REVISION DATE PLOTTED => 11-JAN-2012
 01-03-12 TIME PLOTTED => 08:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	9	29

Florante P. Perez 1/3/12
 REGISTERED CIVIL ENGINEER DATE
 1-9-2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Florante P. Perez
No. 41030
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
TRAFFIC	LOURDES DAVID	CLAUDIA FANG	1/3/12
		FLORANTE PEREZ	
	CHECKED BY	REVISOR	DATE
		FP	1/3/12



DETOUR PLAN No. 6
 SB Rte 13; FROM CARSON ST ON-RAMP CLOSED
 VIA:
 RIGHT TURN ONTO TOMPKINS Ave;
 LEFT TURN ONTO HIGH St;
 LEFT TURN ONTO MACARTHUR Blvd;
 MERGE ONTO I-580 EB RAMP.

DETOUR PLAN No. 5
 NB Rte 13; FROM WB MORAGA Ave ON-RAMP CLOSED
 VIA:
 CONTINUE ONTO WB MORAGA Ave;
 U-TURN ONTO EB MORAGA Ave;
 EB MORAGA Ave;
 SLIGHT RIGHT ONTO THE RAMP.

APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET DE-1

DETOUR PLAN
 NO SCALE

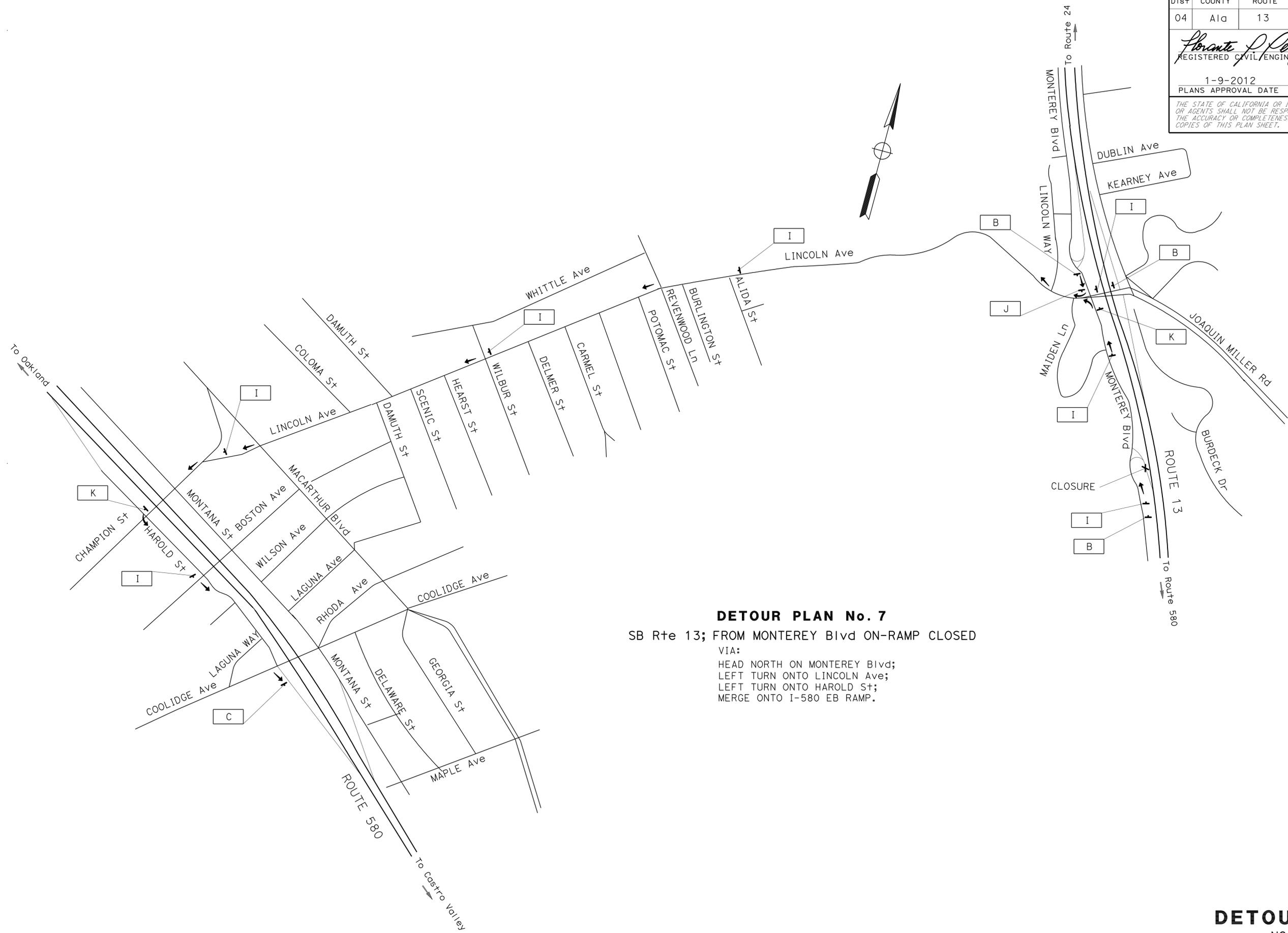
DE-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: LOURDES DAVID
 CALCULATED/DESIGNED BY: CLAUDIA FANG
 CHECKED BY: FLORANTE PEREZ
 REVISED BY: FP
 DATE REVISED: 1/3/12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	10	29

Florante P. Perez
 REGISTERED CIVIL ENGINEER DATE 1/3/12
 1-9-2012
 PLANS APPROVAL DATE
 No. 41030
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

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DETOUR PLAN No. 7
 SB Rte 13; FROM MONTEREY Blvd ON-RAMP CLOSED
 VIA:
 HEAD NORTH ON MONTEREY Blvd;
 LEFT TURN ONTO LINCOLN Ave;
 LEFT TURN ONTO HAROLD St;
 MERGE ONTO I-580 EB RAMP.

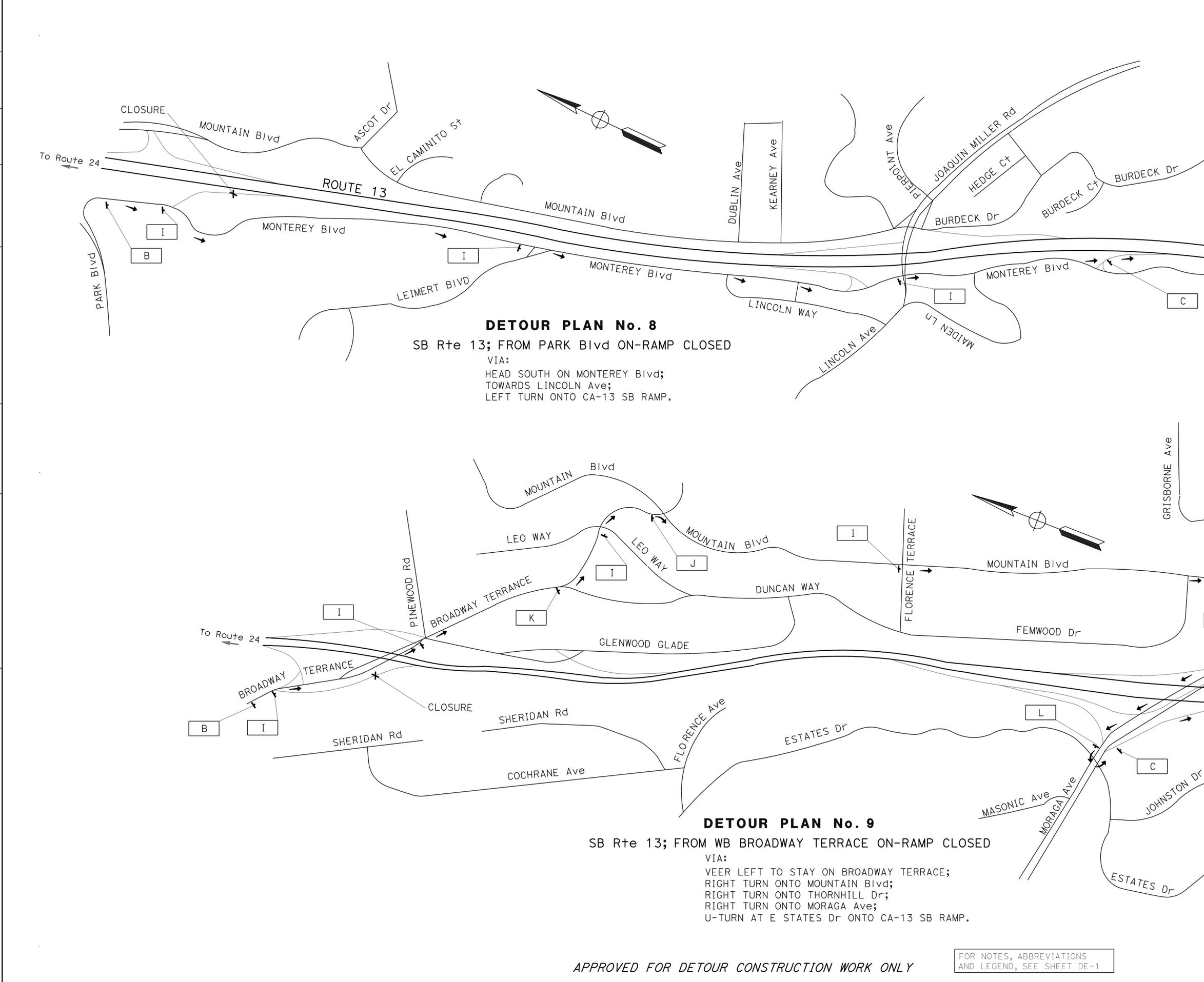
APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET DE-1

DETOUR PLAN
 NO SCALE

DE-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: LOURDES DAVID
 TRAFFIC



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	11	29

Florante P. Perez 1/3/12
 REGISTERED CIVIL ENGINEER DATE
 1-9-2012
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Florante P. Perez
 No. 41030
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

DETOUR PLAN No. 8
 SB Rte 13; FROM PARK Blvd ON-RAMP CLOSED
 VIA:
 HEAD SOUTH ON MONTEREY Blvd;
 TOWARDS LINCOLN Ave;
 LEFT TURN ONTO CA-13 SB RAMP.

DETOUR PLAN No. 9
 SB Rte 13; FROM WB BROADWAY TERRACE ON-RAMP CLOSED
 VIA:
 VEER LEFT TO STAY ON BROADWAY TERRACE;
 RIGHT TURN ONTO MOUNTAIN Blvd;
 RIGHT TURN ONTO THORNHILL Dr;
 RIGHT TURN ONTO MORAGA Ave;
 U-TURN AT E STATES Dr ONTO CA-13 SB RAMP.

DETOUR PLAN
 NO SCALE
DE-5

APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET DE-1

LAST REVISION DATE PLOTTED => 11-JAN-2012
 01-03-12 TIME PLOTTED => 08:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	12	29

Florante P. Perez 1/3/12
 REGISTERED CIVIL ENGINEER DATE

1-9-2012
 PLANS APPROVAL DATE

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 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Florante P. Perez
 No. 41030
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CLAUDIA FANG
 FLORANTE PEREZ
 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 LOURDES DAVID
 TRAFFIC
 REVISED BY
 DATE REVISED
 FP
 1/3/12

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	SIGN MESSAGE	PANEL SIZE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
B	W20-2	DETOUR AHEAD	36"x36"	(ONE) 4" x 6"	15
C	M4-8A	END DETOUR	24"x18"	(ONE) 4" x 4"	9
D	M4-8	DETOUR	30"x15"	(ONE) 6" x 6"	14
	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"		
	M3-1	NORTH	30"x15"		
E	M6-3(▲)	STRAIGHT AHEAD ARROW	21"x15"	(ONE) 6" x 6"	3
	M4-8	DETOUR	30"x15"		
	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"		
F	M3-1	NORTH	30"x15"	(ONE) 6" x 6"	3
	M6-1(➔)	RIGHT ARROW	21"x15"		
	M4-8	DETOUR	30"x15"		
G	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"	(ONE) 6" x 6"	4
	M3-1	NORTH	30"x15"		
	SPECIAL (↻)	LEFT U-TURN ARROW	21"x18"		
H	M4-8	DETOUR	30"x15"	(ONE) 6" x 6"	1
	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"		
	M3-1	NORTH	30"x15"		
I	M6-2(↗)	UP-RIGHT ARROW	21"x15"	(ONE) 6" x 6"	17
	M4-8	DETOUR	30"x15"		
	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"		
J	M3-3	SOUTH	30"x15"	(ONE) 6" x 6"	6
	M6-1(➔)	RIGHT ARROW	21"x15"		
	M4-8	DETOUR	30"x15"		
K	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"	(ONE) 6" x 6"	5
	M3-3	SOUTH	30"x15"		
	M6-1(←)	LEFT ARROW	21"x15"		
L	M4-8	DETOUR	30"x15"	(ONE) 6" x 6"	1
	G28-2(13)(CA)	ROUTE 13 SHIELD	24"x25"		
	M3-3	SOUTH	30"x15"		
	SPECIAL (↻)	LEFT U-TURN ARROW	21"x18"		

DETOUR PLAN
NO SCALE

APPROVED FOR DETOUR CONSTRUCTION WORK ONLY

FOR NOTES, ABBREVIATIONS
AND LEGEND, SEE SHEET DE-1

DE-6



NOTE:

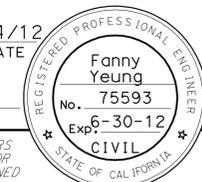
ALL EXISTING PAVEMENT DELINEATION SHALL BE REMOVED AND REPLACED AT THE SAME LOCATIONS AS EXISTING.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	13	29

Fanny Yeung, 1/4/12
 REGISTERED CIVIL ENGINEER DATE

1-9-2012
 PLANS APPROVAL DATE

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



TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS

LOCATION	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE				PAVEMENT MARKER RETROREFLECTIVE		THERMOPLASTIC PAVEMENT MARKING			
		4" WHITE (BROKEN 17-7)	4" WHITE	4" YELLOW	8" WHITE	TYPE G	TYPE H	WORD	ARROW	12" WHITE STRIPE	12" YELLOW STRIPE
		LF				EA		SQFT			
1	25A			780							
	27B		450								
	38				50	3					
	TYPE I 18' ARROW							25			
2	25A			610							
	27B		600								
	TYPE I 10' ARROW							28			
	CROSSWALK								34		
3	25A			430							
	27B		400								
	38				50	4					
	TYPE I 18' ARROW							50			
4	25A			175							
	27B		175								
	38				90	5					
	TYPE III (R) ARROW							42			
	TYPE III (L) ARROW							42			
	TYPE II (L) ARROW ONLY							45			
5	LIMIT LINE							44			36
	25A			460							
	27B		500								
	38				50	4					
6	25A			180							
	27B		110								
	38				30	3					
	TYPE I 18' ARROW							25			
7	25A			225							
	27B		200								
	38				25	3					
	TYPE V ARROW							33			
	AHEAD							31			
	STOP							44			
8	LIMIT LINE									18	
	25A			220							
	27B		220								
	TYPE V ARROW							33			
9	TYPE III (B) ARROW							73			
	LIMIT LINE									45	
	25A			660							
	27B		660								
10	TYPE I 18' ARROW							25			
	25A			110							
	27B		105								
	TYPE I 18' ARROW							6			
SUB TOTAL SHEET Q-1			3420	3850	295	22	171	119	446	97	36

SUMMARY OF QUANTITIES

Q-1

LAST REVISION | DATE PLOTTED => 11-JAN-2012
 01-03-12 TIME PLOTTED => 08:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	14	29

Fanny Yeung, 1/4/12
REGISTERED CIVIL ENGINEER DATE

1-9-2012
PLANS APPROVAL DATE

Fanny Yeung
No. 75593
Exp. 6-30-12
CIVIL

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

TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS (CONTINUED)

LOCATION	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE				PAVEMENT MARKER RETROREFLECTIVE		THERMOPLASTIC PAVEMENT MARKING			
		4" WHITE (BROKEN 17-7)	4" WHITE	4" YELLOW	8" WHITE	TYPE G	TYPE H	WORD	ARROW	12" WHITE STRIPE	12" YELLOW STRIPE
		LF									
11	9	55		233		2					
	25A						11				
	27B		103								
	38				200	10					
	YIELD							24			
	DIAGONALS									30	
	TYPE III (R) ARROW								42		
12	25A			700			30				
	27B		700								
	TYPE V ARROW							66			
	LIMIT LINE								26		
13	25A			450			20				
	27B		600								
	38				90	5					
14	CROSSWALK								30		
	25A			70			4				
	27B		185								
15	YIELD							24			
	25A			695			30				
	27B		830								
	38				50	3			25		
	TYPE I 18" ARROW										
	SUBTOTAL	55	2418	2148	340	20	95	48	166	86	
	SUBTOTAL SHEET Q-1		3420	3850	295	22	171	119	446	97	36
	TOTAL	55		11836	635		308		998		

REPLACE ASPHALT CONCRETE SURFACING

LOCATION	ROUTE	PM	DESCRIPTION	REPLACE ASPHALT CONCRETE SURFACING
				CY
1	13	4.5	CALAVERAS Ave ON-RAMP	128
2	13	4.8	CARSON St ON-RAMP	81
3	13	5.5	MOUNTAIN Blvd ON-RAMP	90
4	13	5.4	REDWOOD Rd OFF-RAMP	34
5	13	7.2	JOAQUIN MILLER Rd ON-RAMP	59
6	13	6.2	LINCOLN Ave/ MONTEREY Blvd ON-RAMP	33
7	13	6.6	JOAQUIN MILLER Rd/ LINCOLN Ave OFF-RAMP	33
8	13	7.2	PARK Blvd OFF-RAMP	48
9	13	7.1	PARK Blvd/ MONTEREY Blvd ON-RAMP	97
10	13	7.4	PARK Blvd ON -RAMP	28
11	13	7.5	PARK Blvd OFF-RAMP	50
12	13	8	MORAGA Ave/ THORNHILL Dr OFF-RAMP	103
13	13	8.3	WEST MORAGA Ave ON-RAMP	88
14	13	8.5	MORAGA Ave/ THORNHILL Dr OFF-RAMP	48
15	13	9	BROADWAY TERRACE ON-RAMP	125
TOTAL				1045

CHANNELIZER (SURFACE MOUNTED)

LOCATION	DESCRIPTION	CHANNELIZER
		EA
13	WEST MORAGA Ave ON-RAMP	3
TOTAL		3

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR NGOC TRAN
 CALCULATED/DESIGNED BY NGOC TRAN
 CHECKED BY
 FANNY YEUNG NGOC TRAN
 REVISED BY DATE REVISED
 NT 1/3/12

LAST REVISION DATE PLOTTED => 11-JAN-2012
 01-03-12 TIME PLOTTED => 08:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	15	29

<i>M. Nou</i>	1/3/12
REGISTERED ELECTRICAL ENGINEER	DATE
1-9-2012	
PLANS APPROVAL DATE	

Mahmood Noii	
No. 13717	
Exp. 6-30-13	
ELECT	

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GENERAL NOTES:

- NO ABOVE GROUND ELECTRICAL WORK SHALL BE PERFORMED ON ANY SYSTEM WITHIN THE PROJECT SITE UNTIL ALL CONTRACTOR-FURNISHED ELECTRICAL MATERIALS FOR THE INDIVIDUAL SYSTEM HAVE BEEN TESTED AND DELIVERED TO CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE LOOP DETECTORS TO BE REPLACED PRIOR TO REPAVING.
- ALL LOOP DETECTORS AT EACH LOCATION SHALL BE REPLACED AND TESTED WITHIN THE TIME ALLOTTED FOR TRAFFIC SIGNAL SYSTEM SHUTDOWN AT THAT LOCATION.
- SPLICE NEW LOOP CONDUCTORS TO CORRESPONDING DLC IN TERMINATION PULL BOX. VERIFY IDENTIFICATION OF EXISTING DLC BEFORE CONNECTING TO THE CORRESPONDING LOOP DETECTORS.
- AT LEAST THREE WORKING DAYS PRIOR TO PERFORMING ANY WORK ON EACH EXISTING SYSTEM, THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION, ELECTRICAL AND SIGNAL MAINTENANCE SUPERINTENDENT, PHONE (415) 330-6500
- WHERE ONE OR MORE TRAFFIC SIGNAL DETECTOR(S) CONSIST OF A SEQUENCE OF 4 LOOPS IN A SINGLE LANE THE FRONT LOOP CLOSEST TO THE LIMIT LINE OR CROSSWALK SHALL BE LOCATED 1 FOOT FROM THE LINE. THE SET OF 3 LOOPS OR 4 LOOPS ASSIGNED TO THE SAME LOOP DETECTOR LEAD -IN CABLE (DLC) SHALL BE CONNECTED IN SERIES FOR TRAFFIC SIGNAL SYSTEM ONLY AND NOT FOR RAMP METERING SYSTEM.
- THE CONTRACTOR SHALL PROVIDE TWO REPORTS PER LOCATION ON THE STATUS OF EACH DETECTOR LOOP REPLACEMENT SHOWING CONTINUITY AND INSULATION RESISTANCE READINGS. THE REPORTS SHALL BE SUBMITTED TO THE ENGINEER, ONE BEFORE STARTING WORK AND THE OTHER AFTER WORK HAS BEEN COMPLETED AT EACH LOCATION.

ELECTRICAL INDEX

- E-1 ELECTRICAL INDEX, NOTES
- E-2 LOOP DETECTOR REPLACEMENT (TRAFFIC SIGNAL)
- E-3 ELECTRICAL DETAILS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 ELECTRICAL
 FUNCTIONAL SUPERVISOR
 LAI HONG CHIU
 CALCULATED-DESIGNED BY
 CHECKED BY
 HAWA GARDIZI
 MAHMOOD NOII
 REVISED BY
 DATE REVISED
 MN
 1/3/12

APPROVED FOR ELECTRICAL WORK ONLY

ELECTRICAL NOTES AND INDEX
E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	16	29

M. Noor
 REGISTERED ELECTRICAL ENGINEER DATE 1/3/12
 1-9-2012
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Mahmood Noor
 No. 13717
 Exp. 6-30-13
 ELECT
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

ELECTRICAL

FUNCTIONAL SUPERVISOR: LAI HONG CHIU

CALCULATED/DESIGNED BY: HAWA GARDIZI

CHECKED BY: MAHMOOD NOOR

REVISED BY: MN

DATE REVISED: 1/3/12

COUNTY	ROUTE	PM	REDWOOD Rd AND ROUTE 13 SB OFF-RAMP						PARK Blvd AND ROUTE 13 NB OFF-RAMP						MORAGA Ave / THORNHILL Dr AND ROUTE 13 NB OFF-RAMP					
			Ala 13 5.4			Ala 13 7.2			Ala 13 8.0											
			ADVANCE DETECTOR RAMP		INTERSECTION DETECTOR RAMP	ADVANCE DETECTOR RAMP		INTERSECTION DETECTOR RAMP	ADVANCE DETECTOR RAMP		INTERSECTION DETECTOR RAMP									
LANE NUMBER (FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC. SEE E-3 FOR LANE DESCRIPTION)	1T	1L	-	1T	1L	-	1L	-	-	1L	-	-	-	-	-	-	1T	-	-	
DISTANCE FROM LIMIT LINE (FEET)	156	156	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	
DETECTORS	A. FRONT DETECTOR	B. BICYCLE DETECTOR	C. ADVANCE DETECTOR	D. INTERMEDIATE DETECTOR																
PULL BOX LOCATION:	A. RIGHT SHOULDER	B. RIGHT SIDEWALK	C. MEDIAN	D. LEFT SHOULDER	E. LEFT SIDEWALK															
HANDHOLE LOCATION:	A. RIGHT SHOULDER/(RIGHT ETW)	B. LEFT SHOULDER/(LEFT ETW)	C. MEDIAN	D. PAINTED MEDIAN																
DETECTOR TYPE & QUANTITY	TYPE A LOOP DETECTOR	TYPE B LOOP DETECTOR	TYPE C LOOP DETECTOR	TYPE D LOOP DETECTOR																
DETECTOR CONFIGURATION (SEE DETAIL A ON E-3)	a,b,c,d.																			
PULL BOX REPLACEMENT (Y=YES N=NO)	N	-	N	-	N	-	N	-	-	N	-	-	-	-	-	-	N	-	-	
HANDHOLE REPLACEMENT (Y=YES N=NO)	*	-	*	-	Y	-	Y	-	-	Y	-	-	-	-	-	-	Y	-	-	
LOOP DETECTOR TOTAL	1	1	-	4	4	-	1	-	-	4	-	-	-	-	-	-	4	-	-	
COMMENTS	*NO EXISTING HANDHOLE IN THIS LOCATION. INSTALL NEW DETECTOR HANDHOLE.																			
																				TOTAL
																				5
																				19

APPROVED FOR ELECTRICAL WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET E-1

LOOP DETECTOR REPLACEMENT (TRAFFIC SIGNAL)

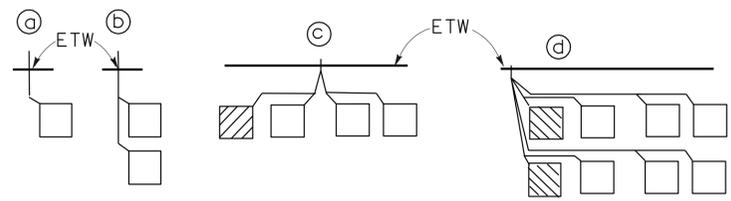
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	17	29

M. Noui 1/3/12
 REGISTERED ELECTRICAL ENGINEER DATE
 1-9-2012
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Mahmood Noii
 No. 13717
 Exp. 6-30-13
 ELECT
 STATE OF CALIFORNIA

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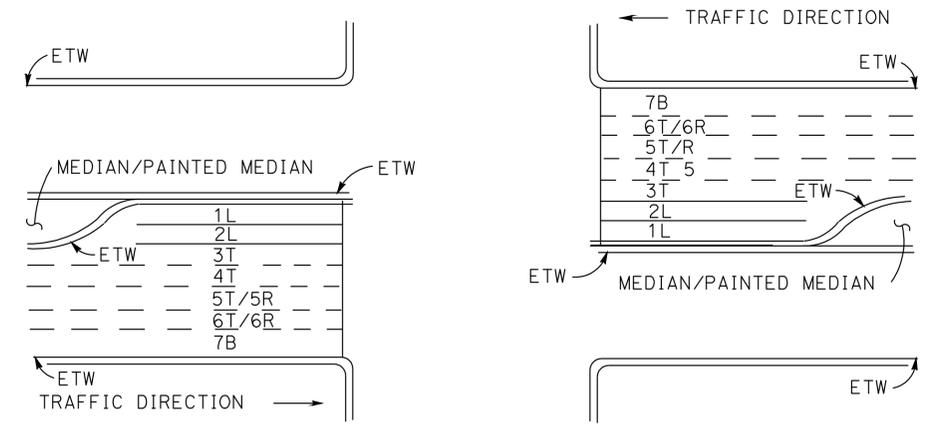


**DETAIL A
TYPICAL DETECTOR CONFIGURATIONS**

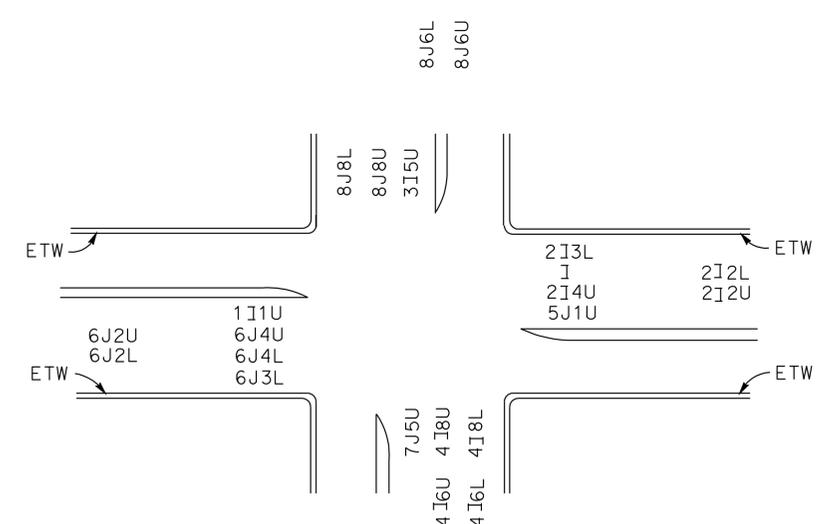
LANE DESCRIPTION

NUMBER OF LANE FROM LEFT WITH RESPECT TO TRAFFIC DIRECTION

- 1= FIRST LANE FROM LEFT
- 2= SECOND LANE FROM LEFT
- 3= THIRD LANE FROM LEFT
- 4= FOURTH LANE FROM LEFT
- 5= FIFTH LANE FROM LEFT
- T= THROUGH TRAFFIC MOVEMENT
- L= LEFT TURN TRAFFIC MOVEMENT
- R= RIGHT TURN TRAFFIC MOVEMENT
- B= BICYCLE LANE



**LANE CONFIGURATION (TYPICAL)
TRAFFIC SIGNAL**



DETECTOR IDENTIFICATION (TYPICAL)

**ELECTRICAL DETAILS
LOOP DETECTOR REPLACEMENT**

SCALE: AS SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 ELECTRICAL
 FUNCTIONAL SUPERVISOR
 LAI HONG CHIU
 HAWA GARDIZI
 MAHMOOD NOII
 REVISOR
 MN
 DATE REVISOR
 1/3/12
 CALCULATED/DESIGNED BY
 CHECKED BY

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FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET E-1

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		NOTES: 1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified. 2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified. 3. Variations noted adjacent to symbol on project plans.
32		
35		
36-20A		

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

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	18	29

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 1-9-12

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

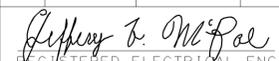
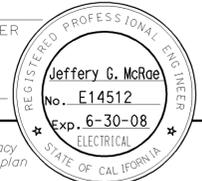
NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

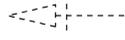
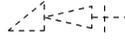
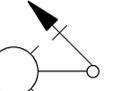
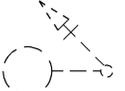
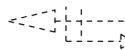
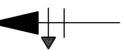
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	19	29


 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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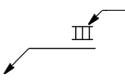
CONDUIT

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

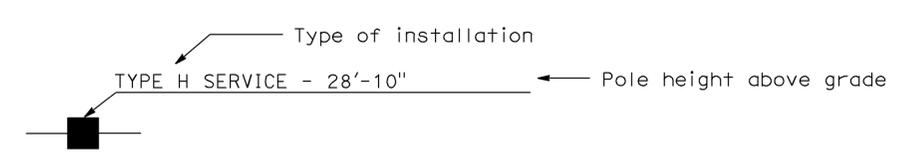
SIGNAL EQUIPMENT

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

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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

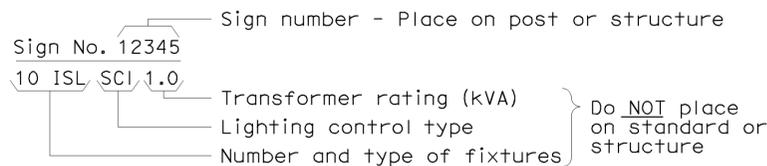
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

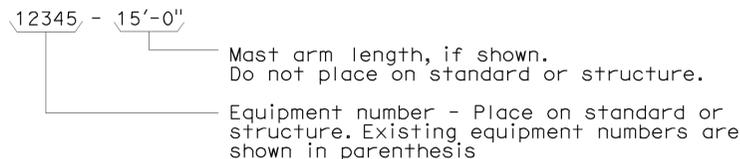
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

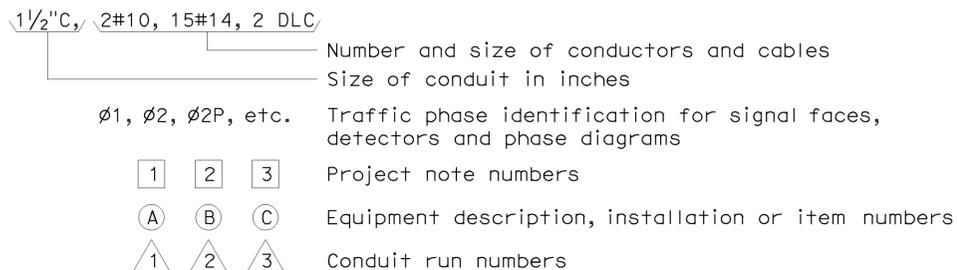
ILLUMINATED SIGN IDENTIFICATION NUMBER:



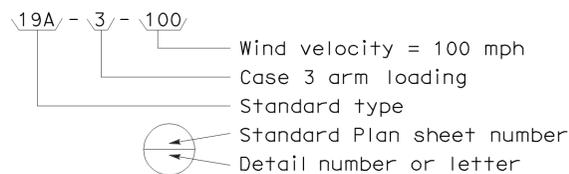
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



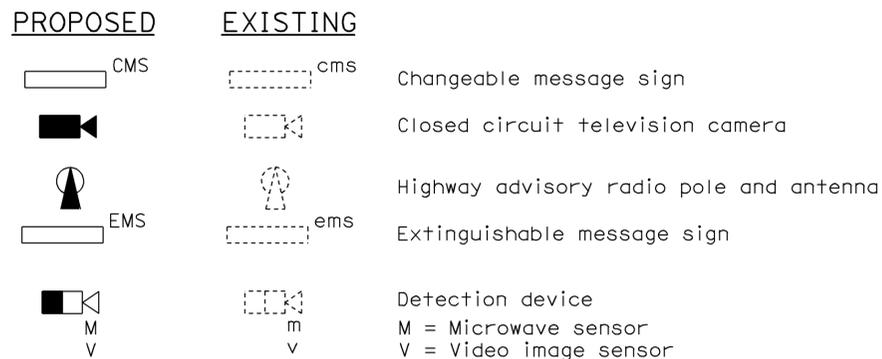
CONDUIT AND CONDUCTOR IDENTIFICATION:



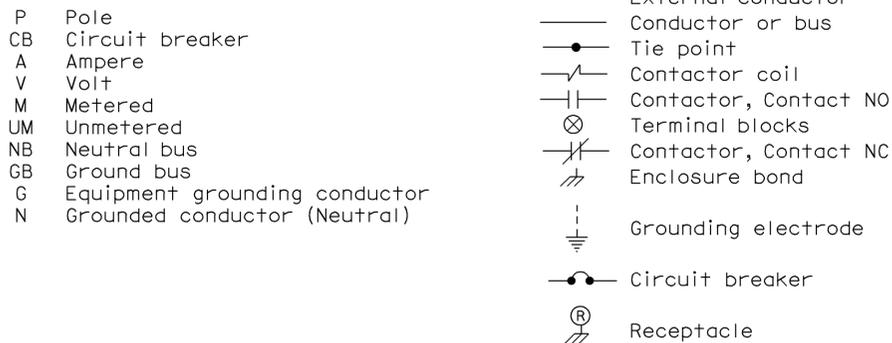
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



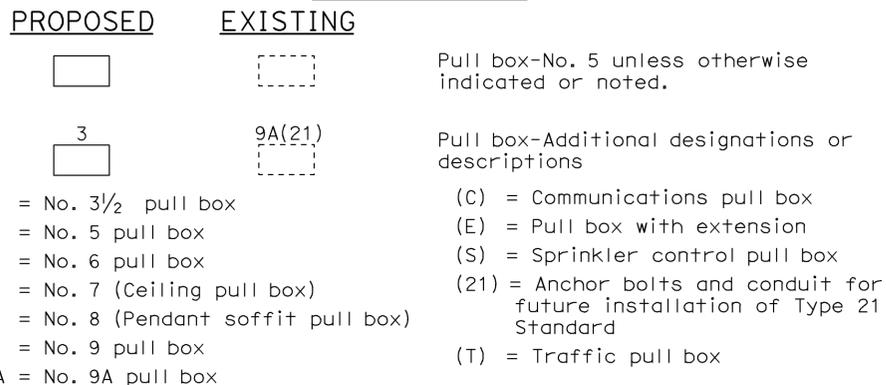
MISCELLANEOUS EQUIPMENT



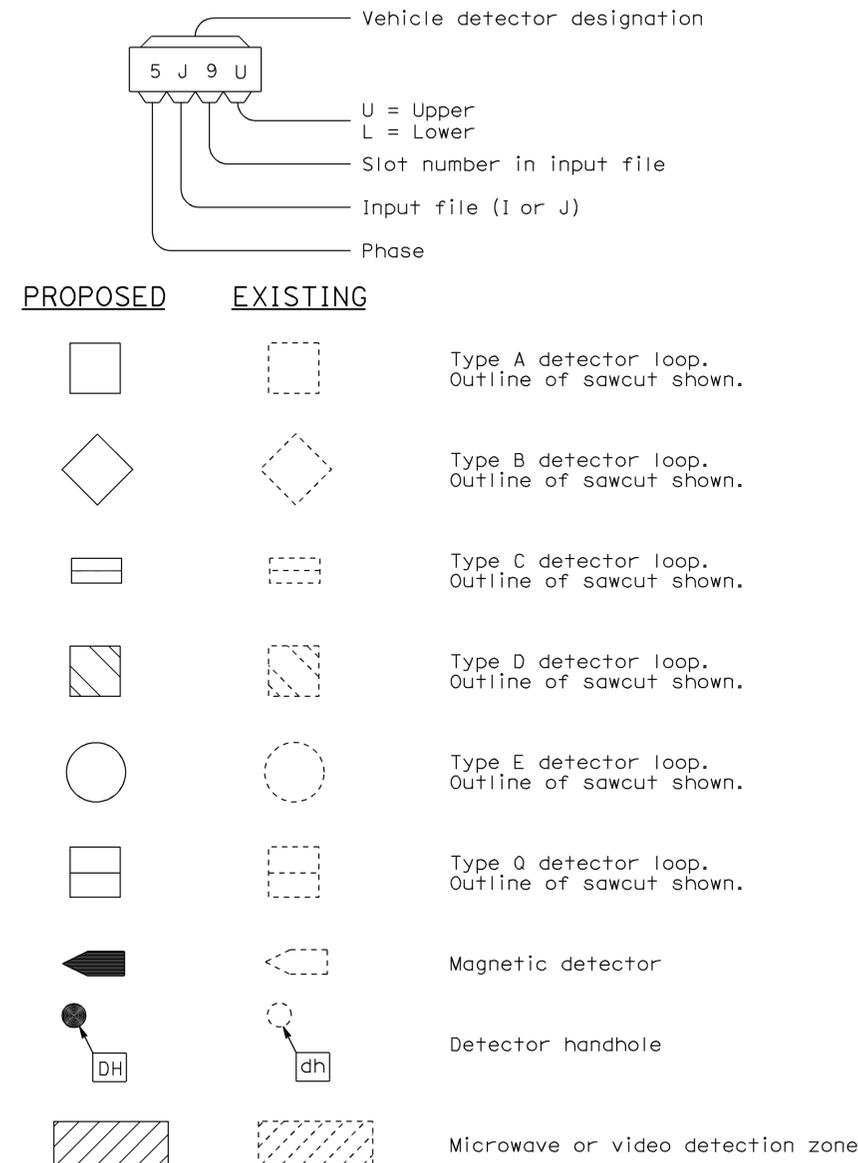
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



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

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	21	29

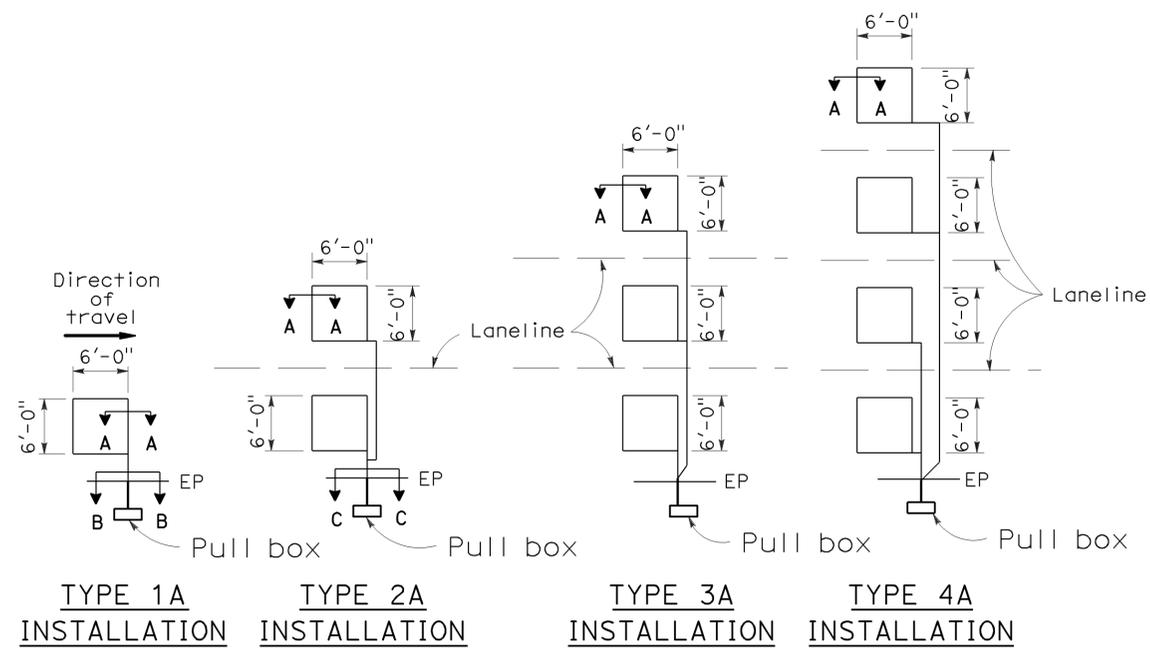
REGISTERED ELECTRICAL ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 Jeffery G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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

LOOP INSTALLATION PROCEDURE

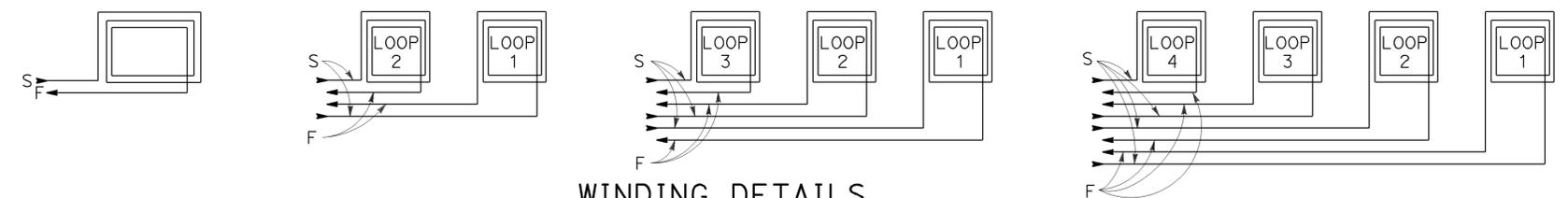
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no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



TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION

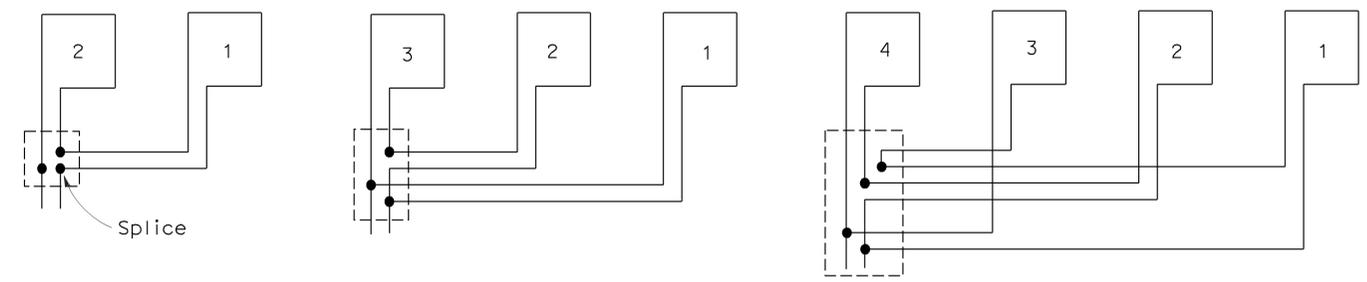
SAWCUT DETAILS

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



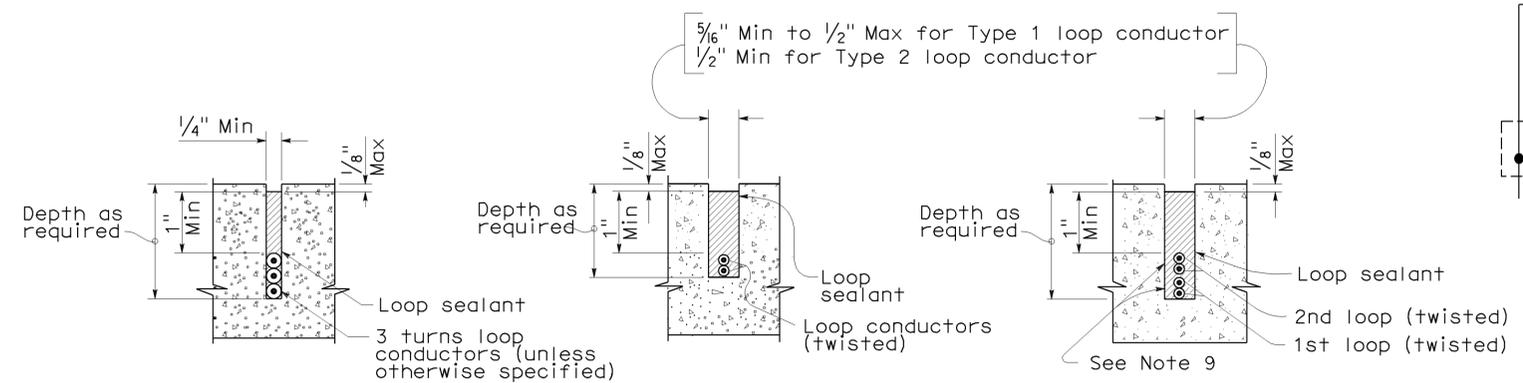
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



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

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

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

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

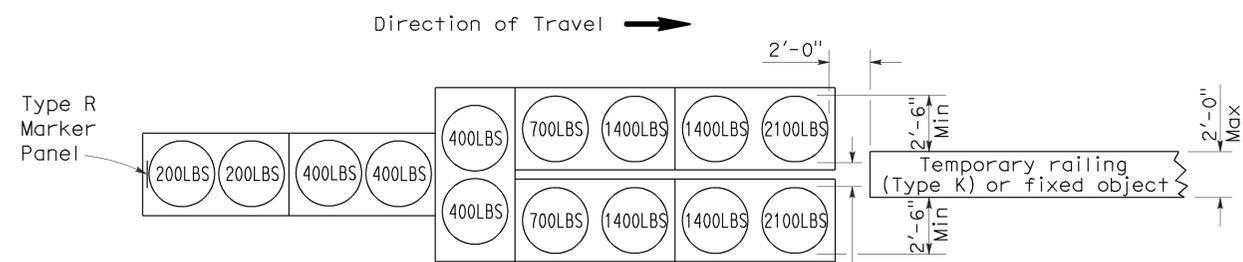
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	22	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

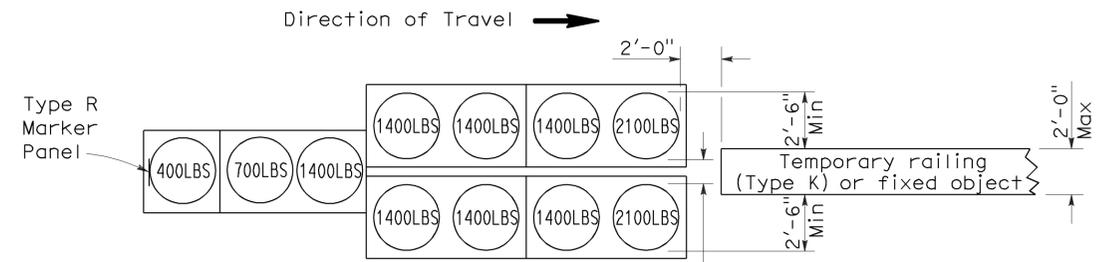
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-9-12



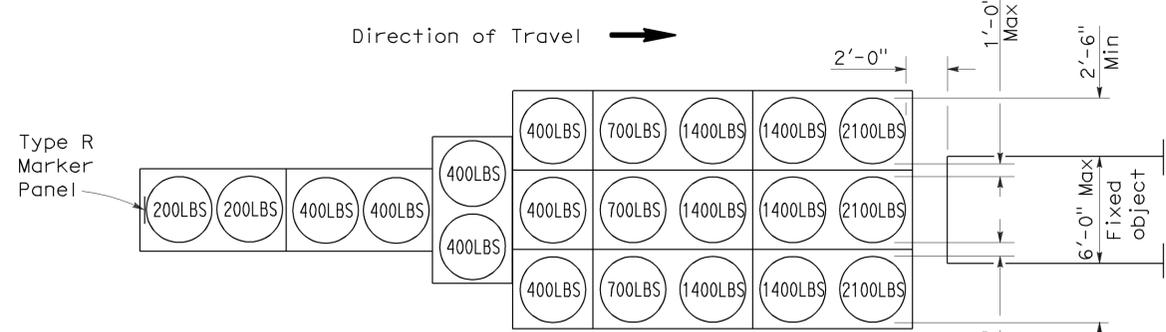
ARRAY 'TU14'

Approach speed 45 mph or more



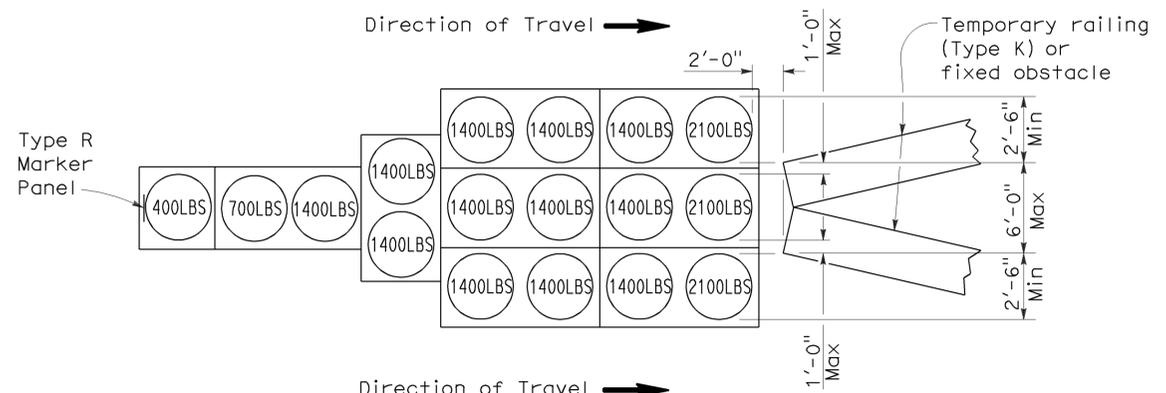
ARRAY 'TU11'

Approach speed less than 45 mph



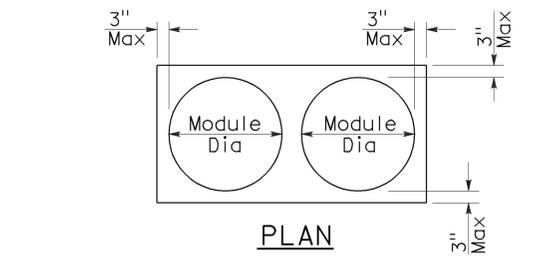
ARRAY 'TU21'

Approach speed 45 mph or more

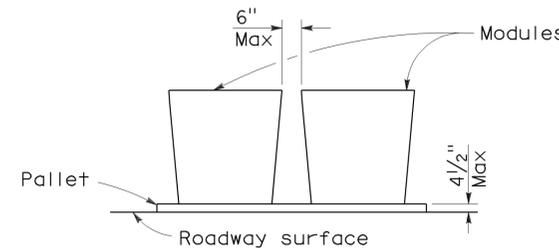


ARRAY 'TU17'

Approach speed less than 45 mph



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

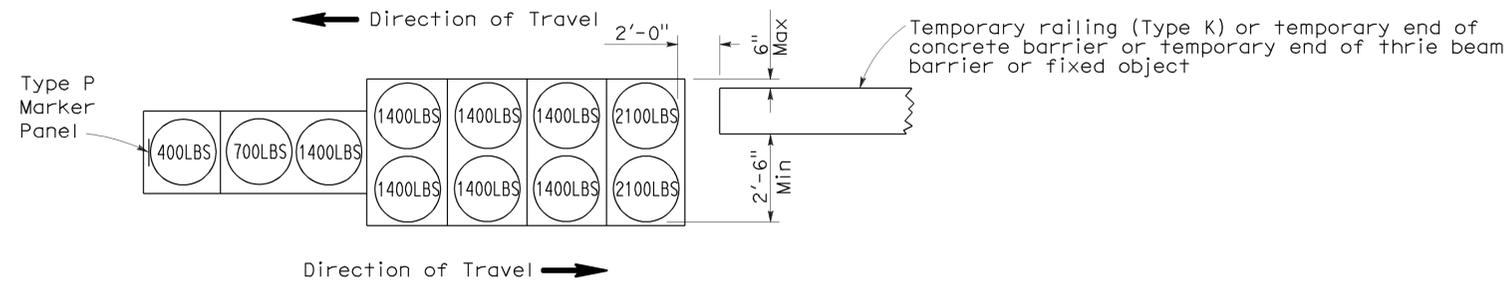
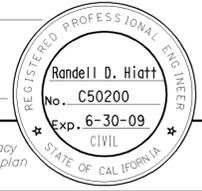
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	23	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

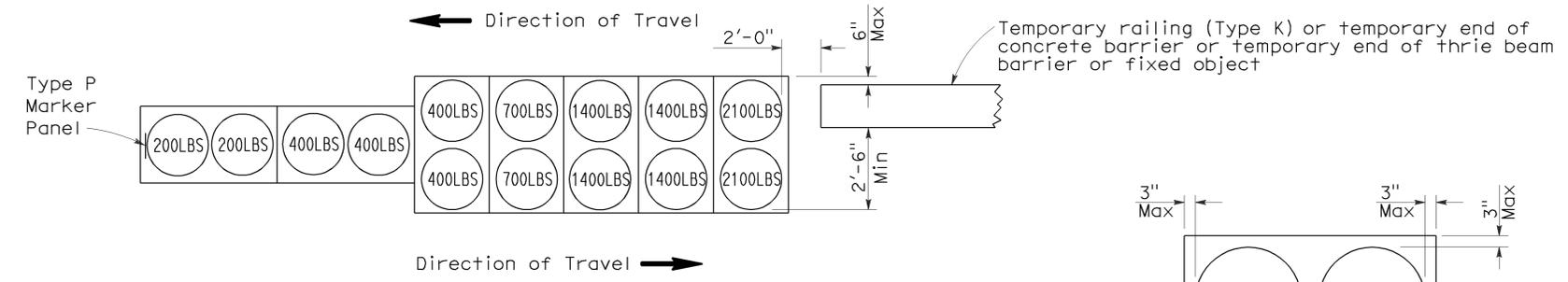
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-9-12



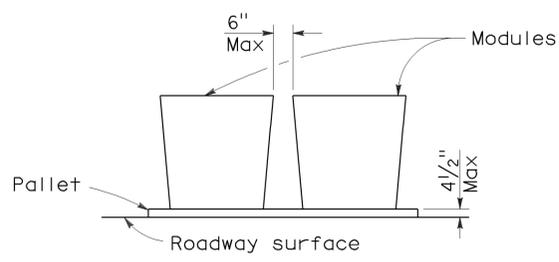
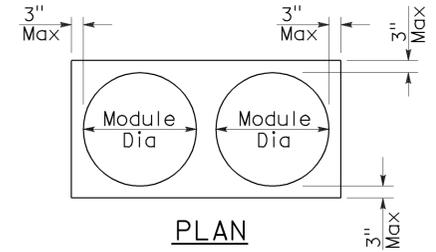
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**
NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

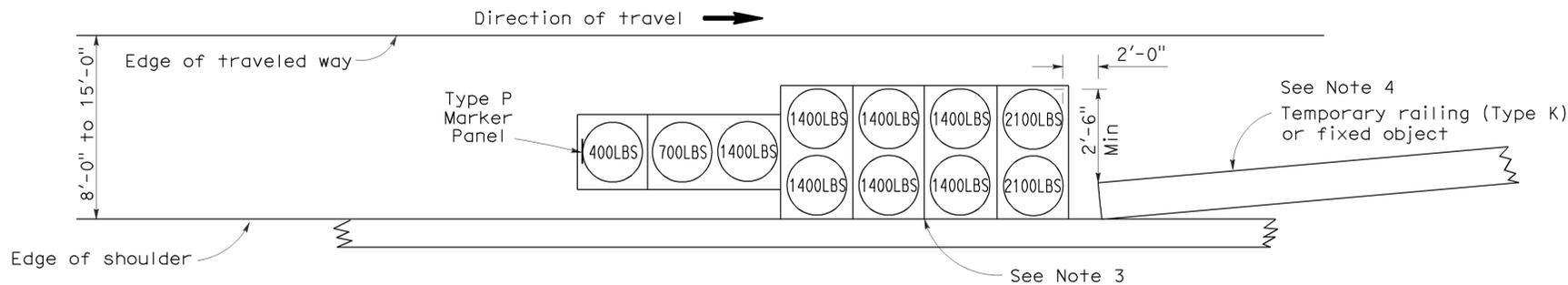
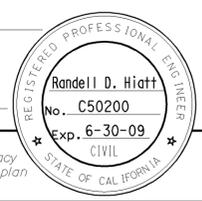
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	24	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

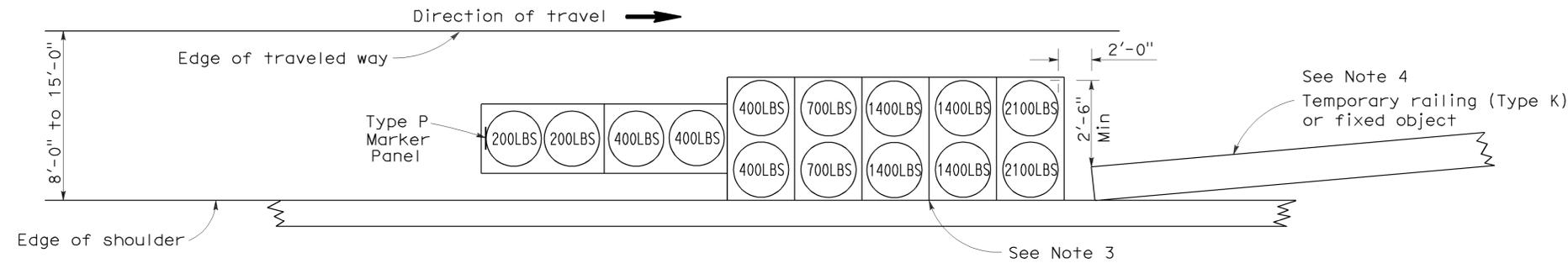
June 6, 2008
PLANS APPROVAL DATE

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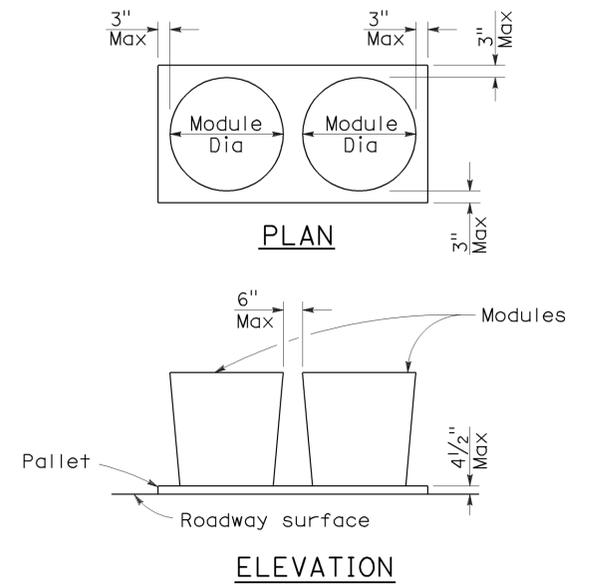
To accompany plans dated 1-9-12



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	13	Var	25	29

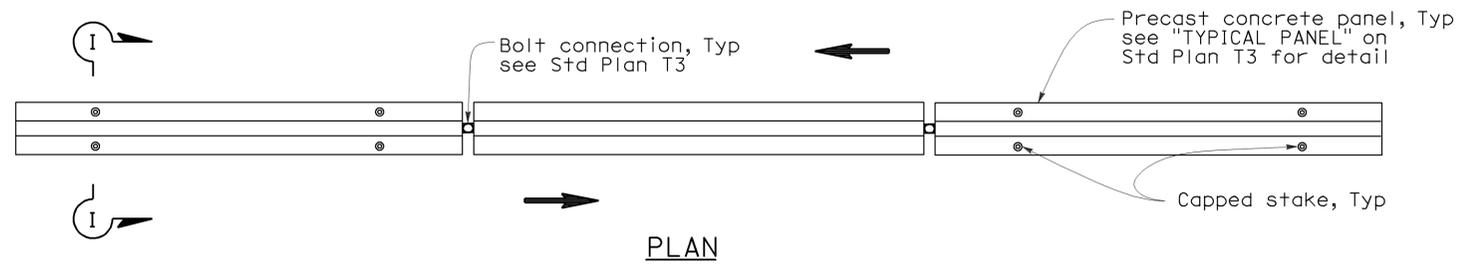
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

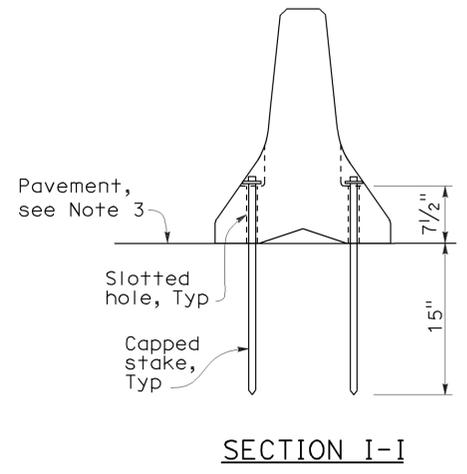
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

To accompany plans dated 1-9-12



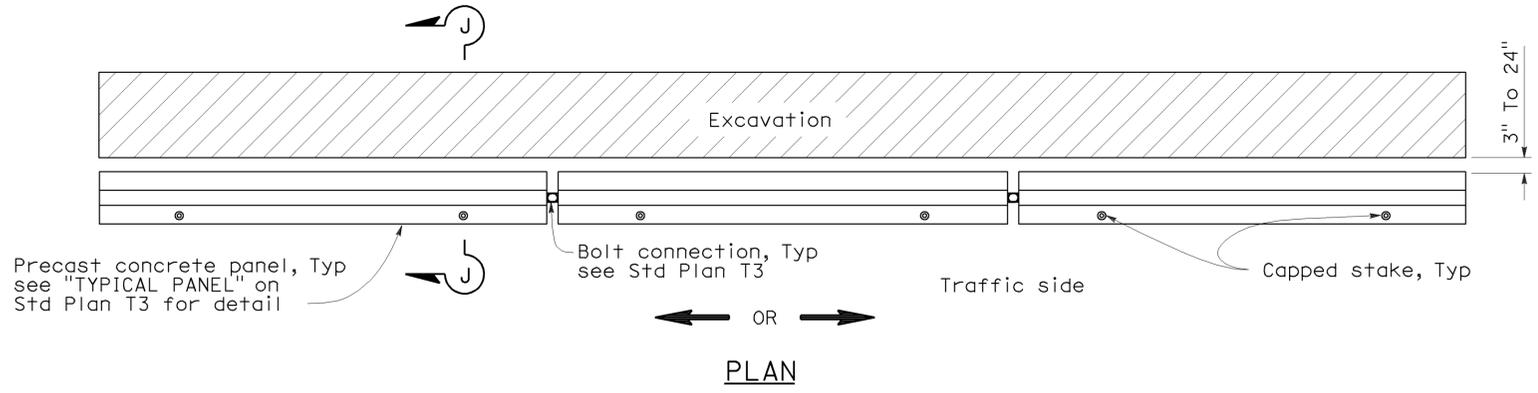
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



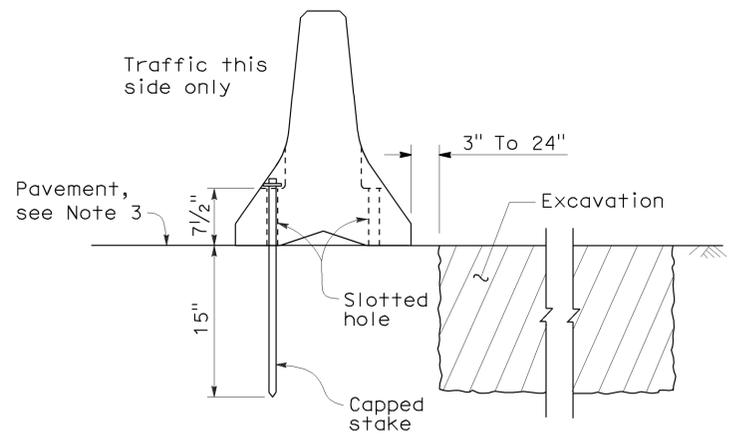
SECTION I-I

NOTES:

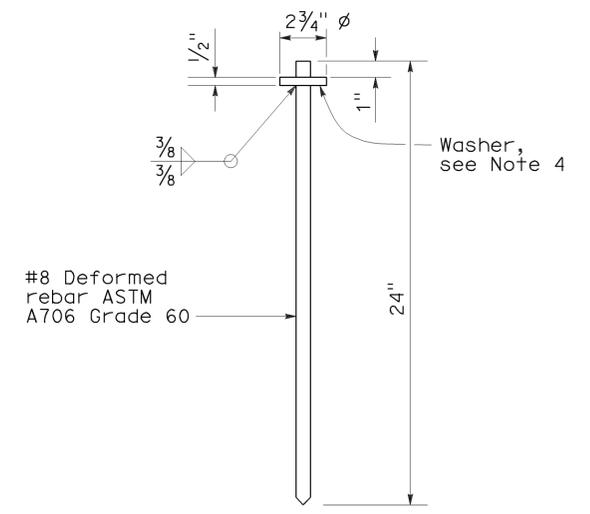
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY RAILING
(TYPE K)**
NO SCALE

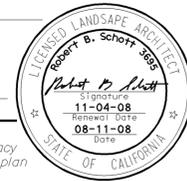
NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T3A

2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	26	29

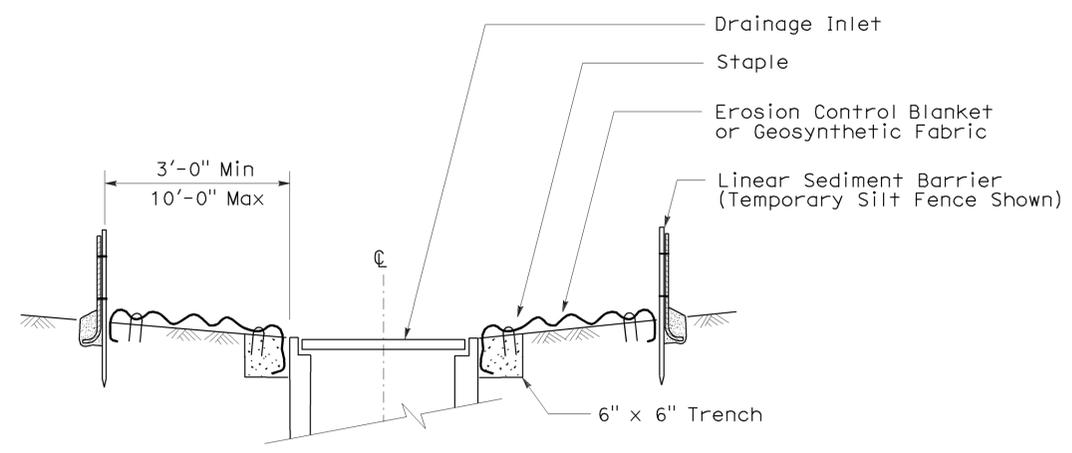
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



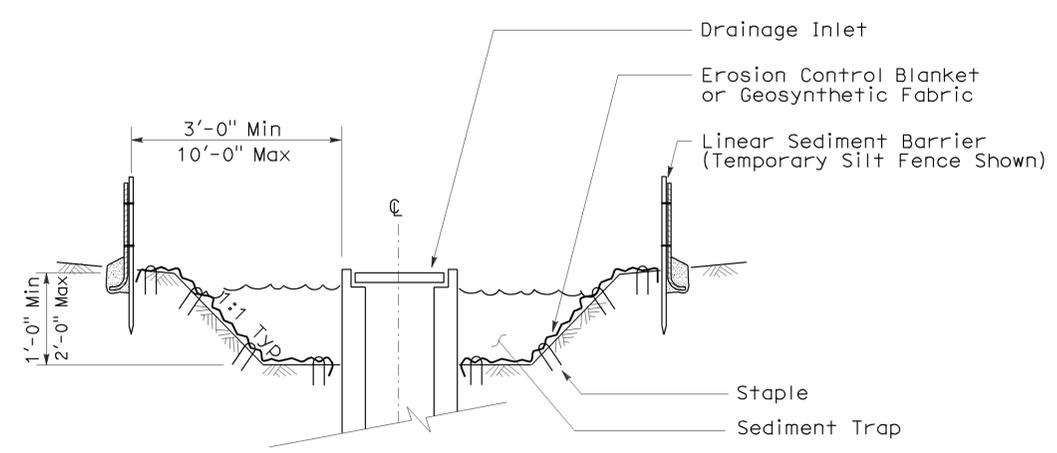
To accompany plans dated 1-9-12

NOTES:

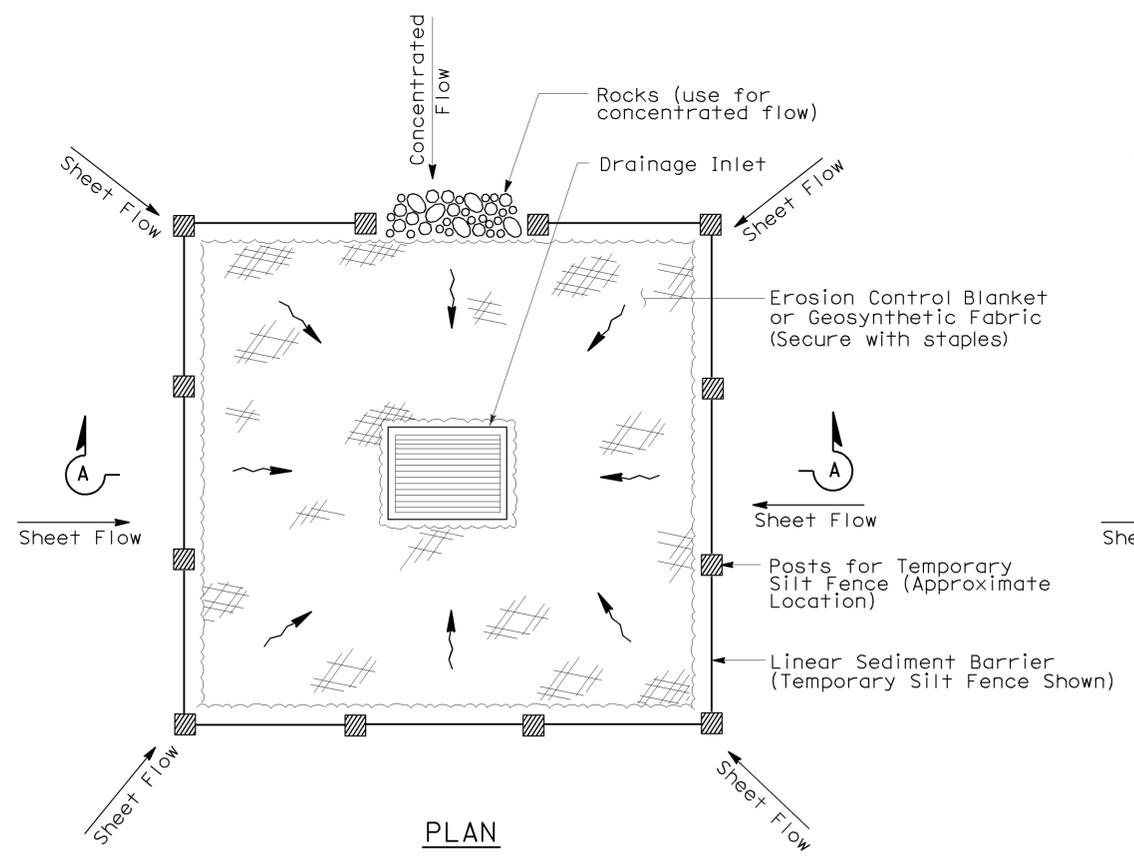
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



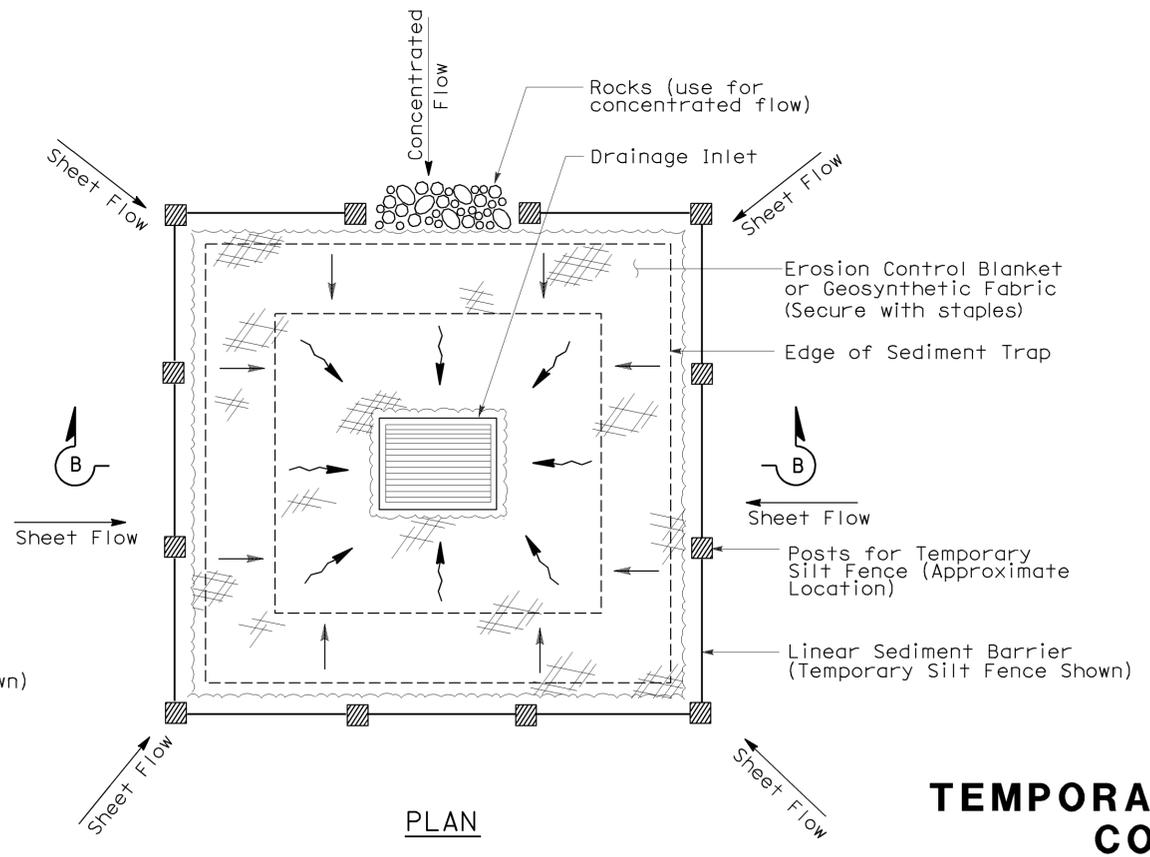
SECTION A-A



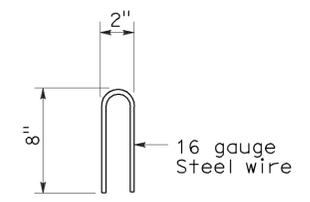
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE

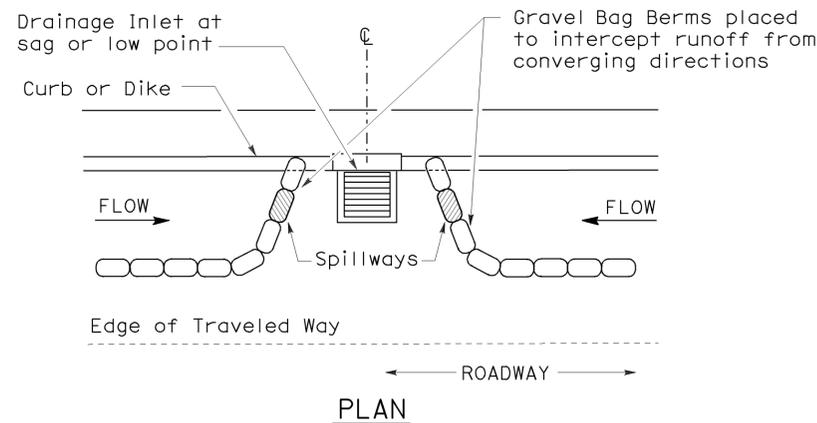
Nsp t61 dated august 15, 2008 supplements the standard plans book dated may 2006.

2006 NEW STANDARD PLAN NSP T61

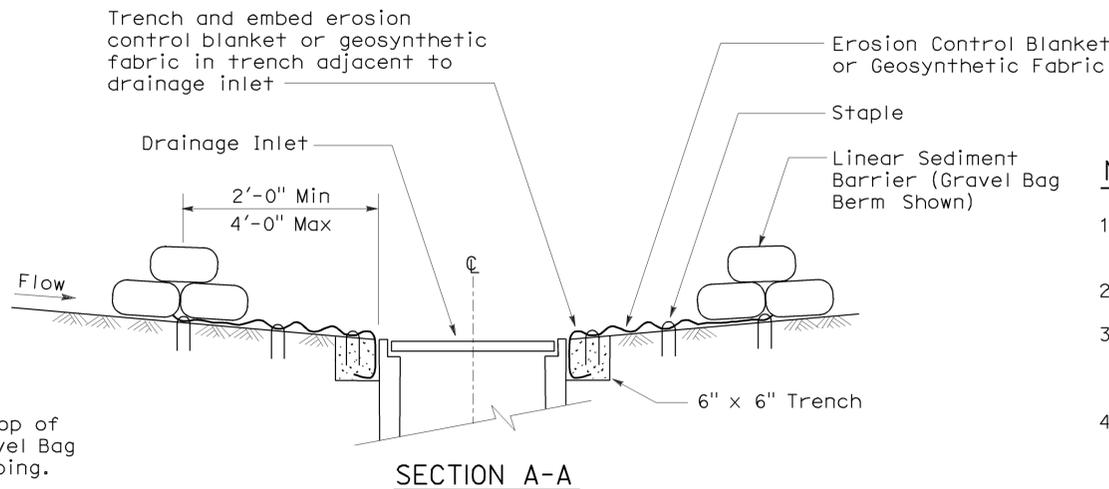
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



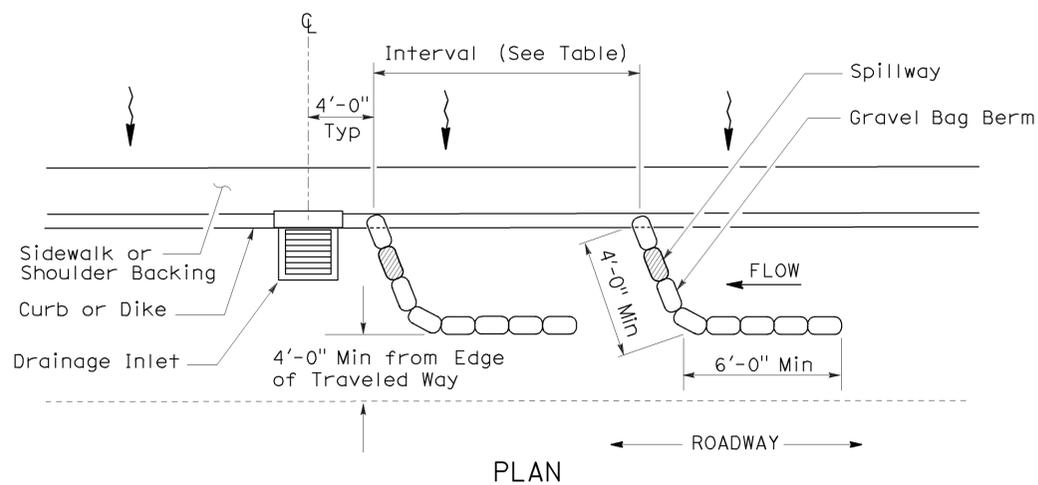
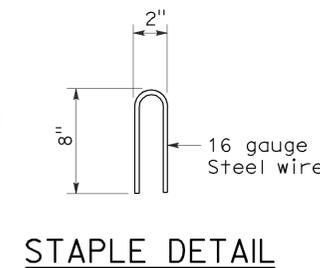
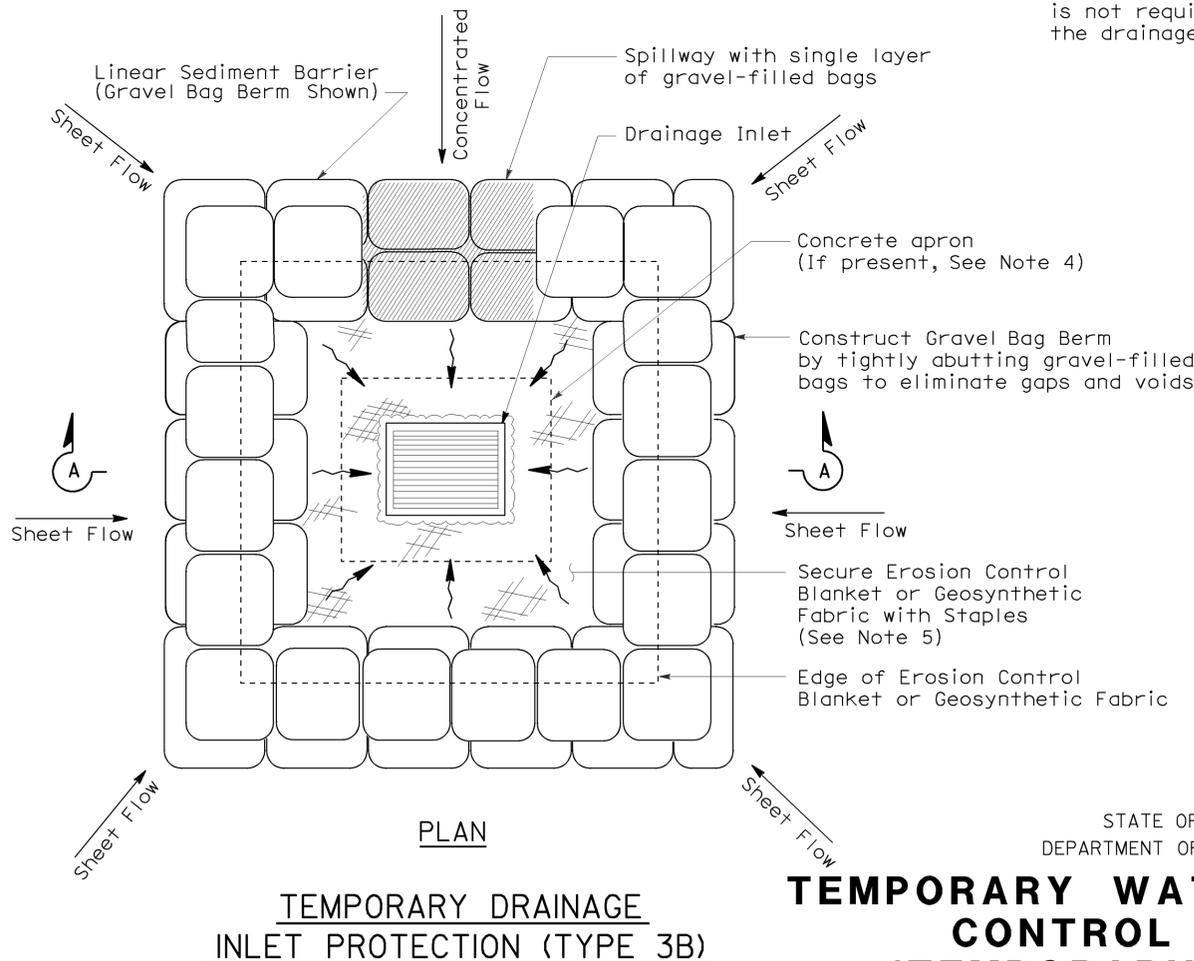
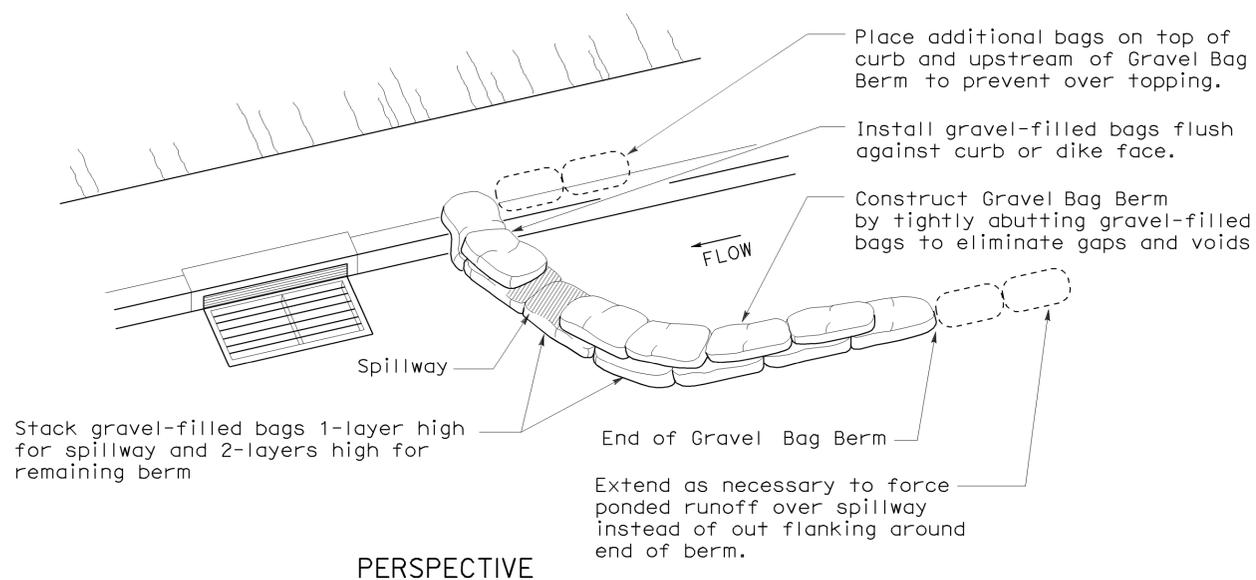
CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)



NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.

To accompany plans dated 1-9-12



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)

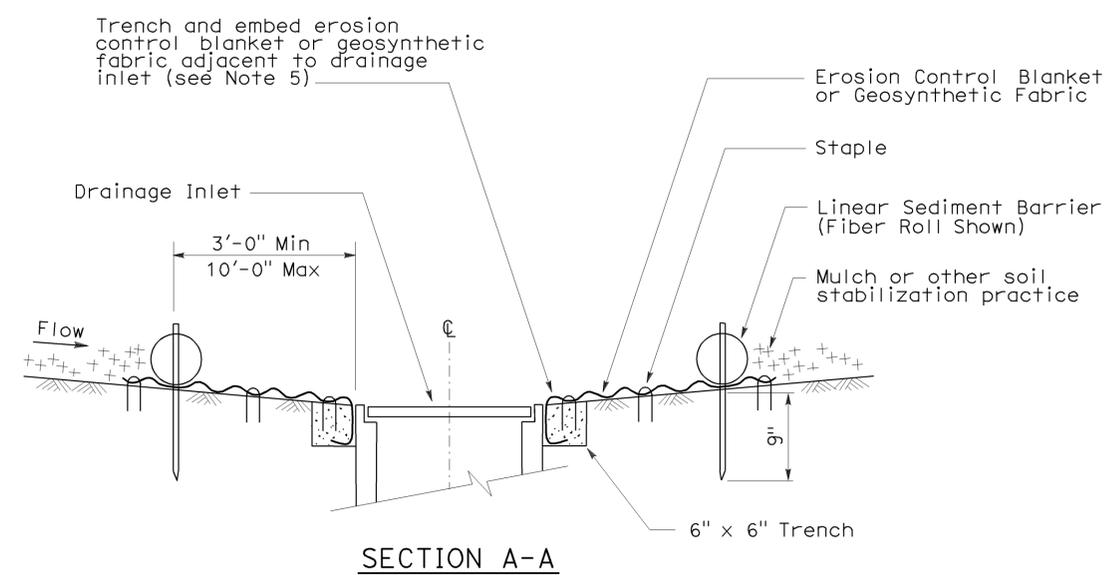
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

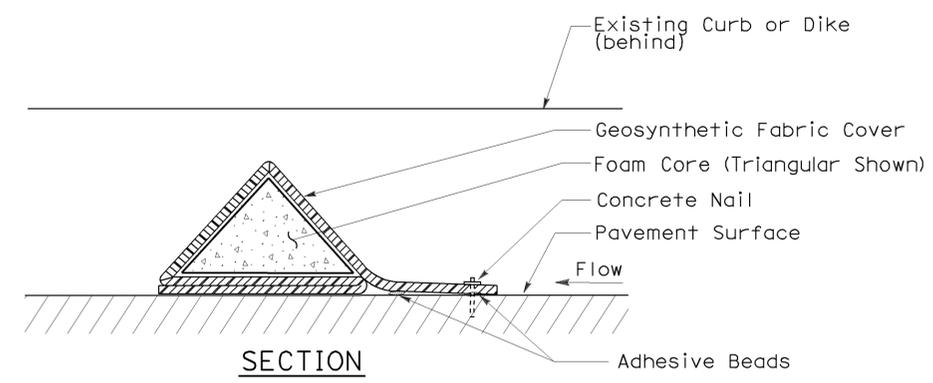
NO SCALE
 NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



SECTION A-A

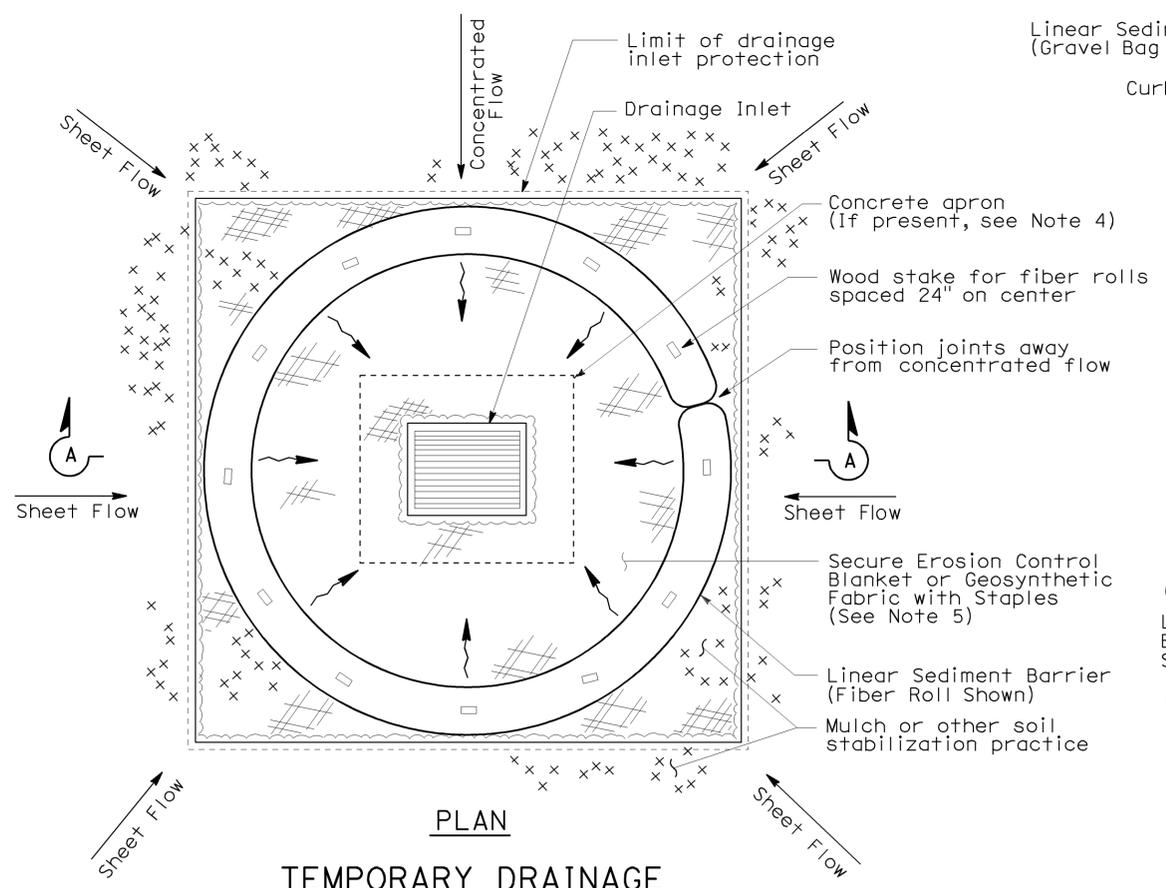


SECTION FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

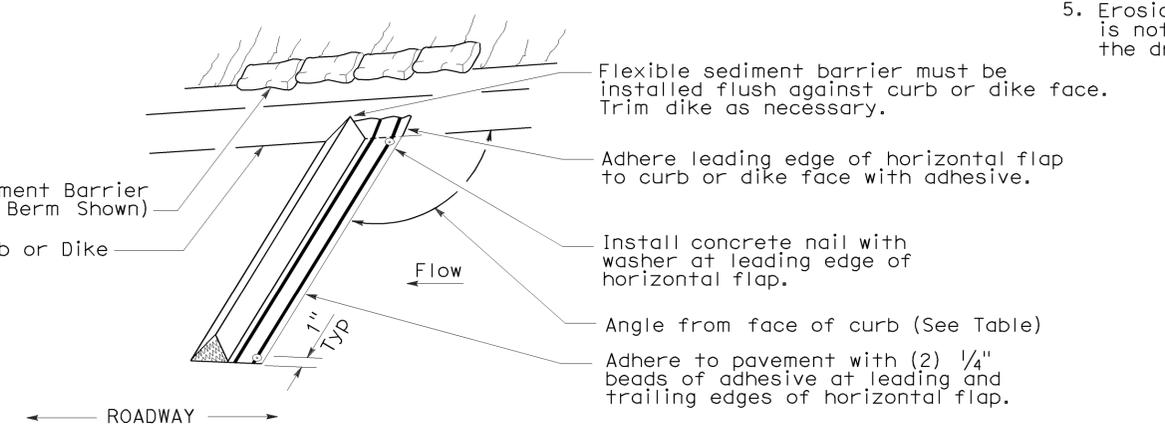
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.

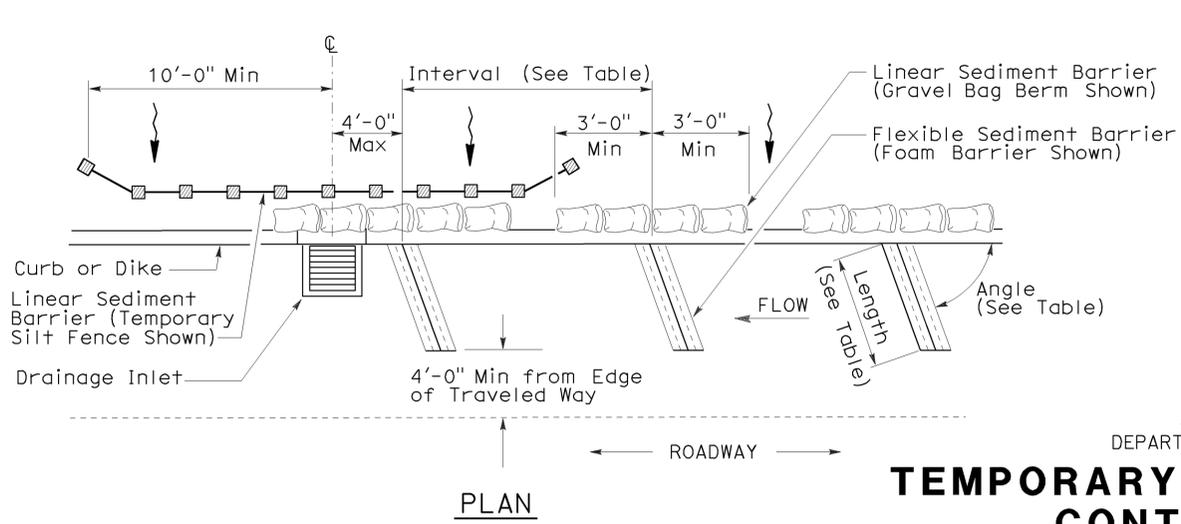
To accompany plans dated 1-9-12



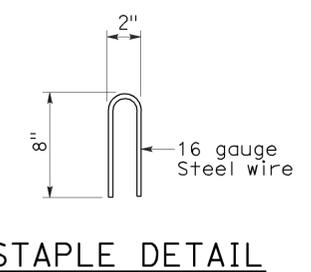
PLAN TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



PLAN TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T63

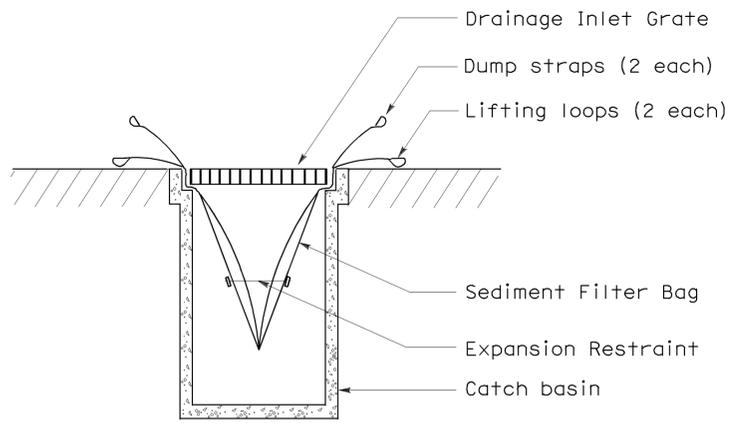
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	13	Var	29	29

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

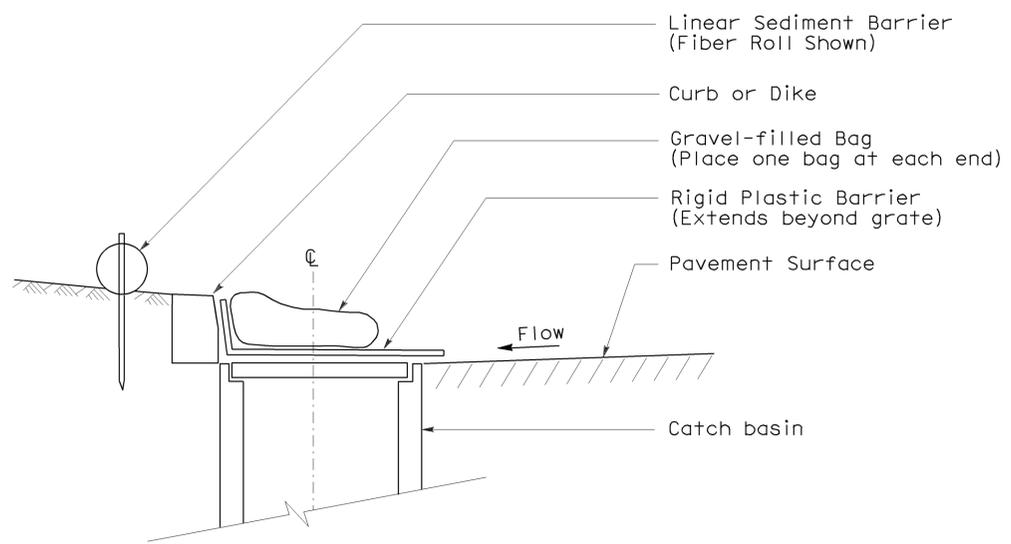
August 15, 2008
 PLANS APPROVAL DATE

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 Signature
 11-04-08
 Renewal Date
 08-11-08
 Date

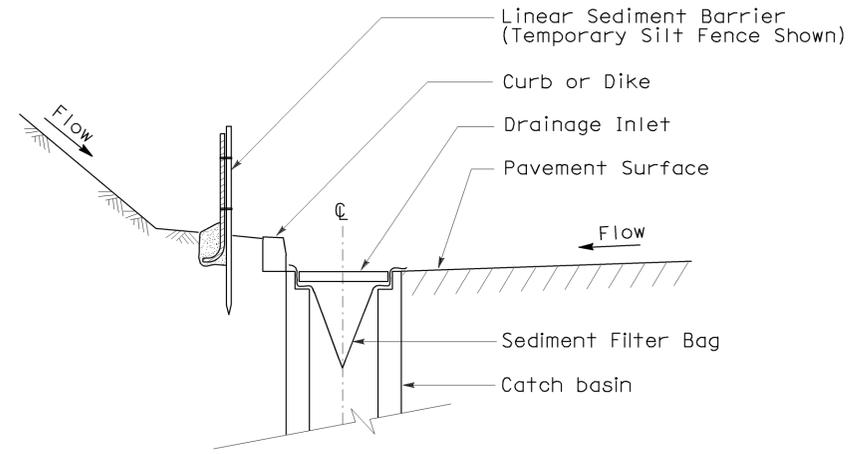
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



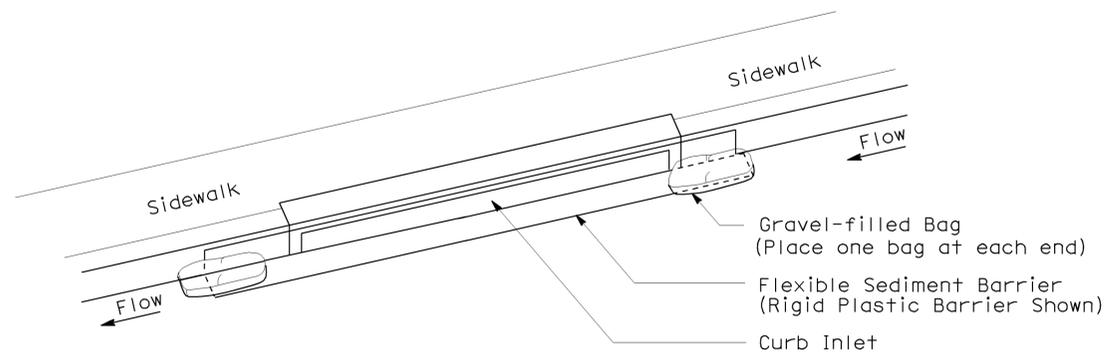
SECTION B-B
SEDIMENT FILTER BAG DETAIL



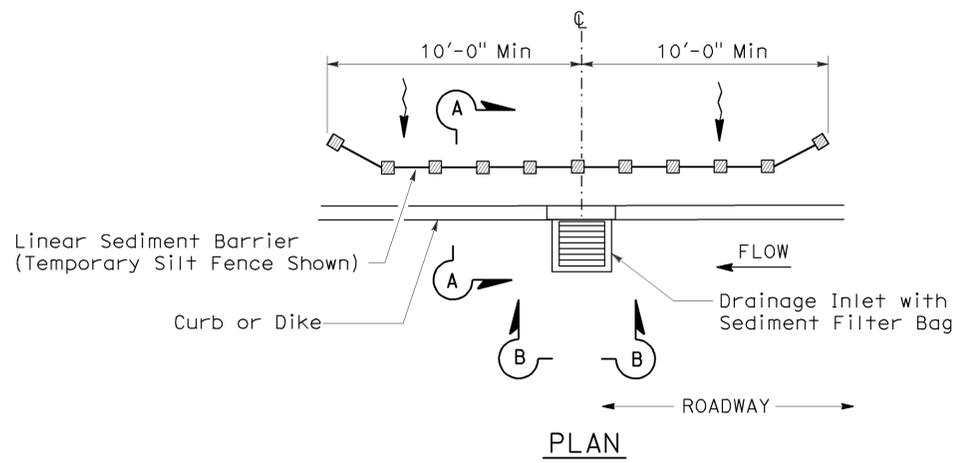
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

To accompany plans dated 1-9-12

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY WATER POLLUTION
CONTROL DETAILS
(TEMPORARY DRAINAGE
INLET PROTECTION)**

NO SCALE
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.