Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	1	31

ACH6NH-000C (326)E

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN EL DORADO AND SACRAMENTO COUNTIES
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

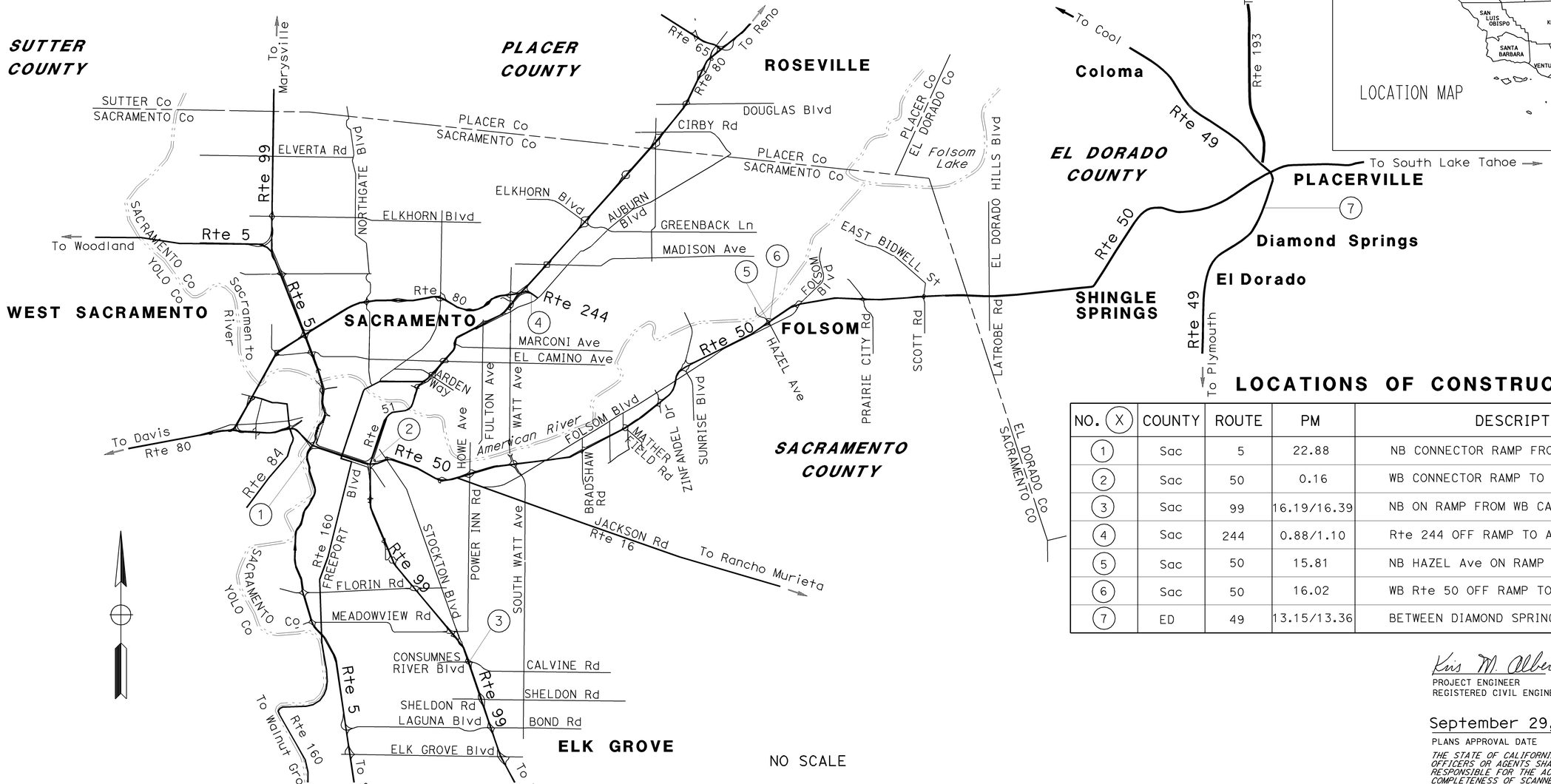
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-5	CONSTRUCTION DETAILS
6-7	CONSTRUCTION AREA SIGNS
8-9	DETOUR PLANS
10-12	PAVEMENT DELINEATION AND QUANTITIES
13	SIGN DETAILS
14-17	ELECTRICAL PLANS
18-28	REVISED AND NEW STANDARD PLANS

STRUCTURE PLANS

29-31	ROUTE 5 BRIDGES

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



LOCATIONS OF CONSTRUCTION

NO. (X)	COUNTY	ROUTE	PM	DESCRIPTION
1	Sac	5	22.88	NB CONNECTOR RAMP FROM WB Rte 50
2	Sac	50	0.16	WB CONNECTOR RAMP TO SB Rte 99
3	Sac	99	16.19/16.39	NB ON RAMP FROM WB CALVINE ROAD
4	Sac	244	0.88/1.10	Rte 244 OFF RAMP TO AUBURN Blvd
5	Sac	50	15.81	NB HAZEL Ave ON RAMP TO WB Rte 50
6	Sac	50	16.02	WB Rte 50 OFF RAMP TO HAZEL Ave
7	ED	49	13.15/13.36	BETWEEN DIAMOND SPRINGS AND PLACERVILLE

Kris M. Albers 9-21-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

September 29, 2010
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

PROJECT MANAGER ROSS FOON
DESIGN ENGINEER JOSEPH W. HORTON

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

CONTRACT No.	03-0F9204
PROJECT ID	0300000118

LAST REVISION 06-25-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	2	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

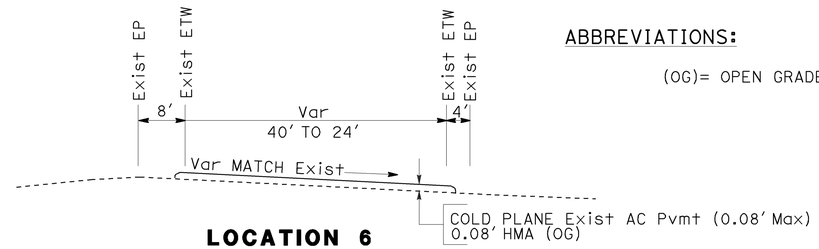
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. SEE SHEETS C-1, C-2 AND C-3 FOR LIMITS OF HOT MIX ASPHALT (OPEN GRADED) AND COLD PLANE ASPHALT CONCRETE PAVEMENT.
4. SEE BRIDGE PLANS.
5. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

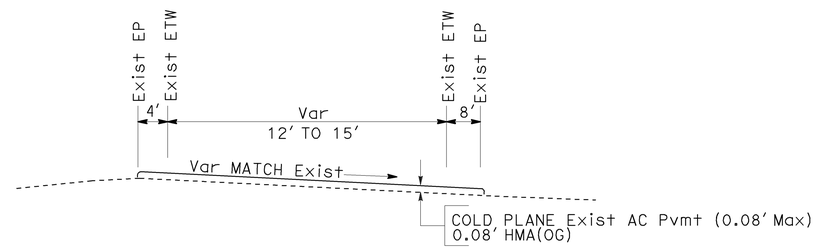
ABBREVIATIONS:

(OG)= OPEN GRADED



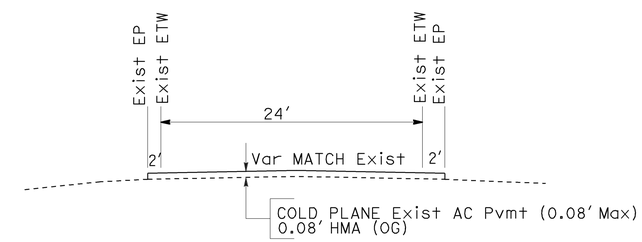
LOCATION 6

Sac 50 - PM 16.02
WB Rte 50 OFF RAMP TO HAZEL Ave



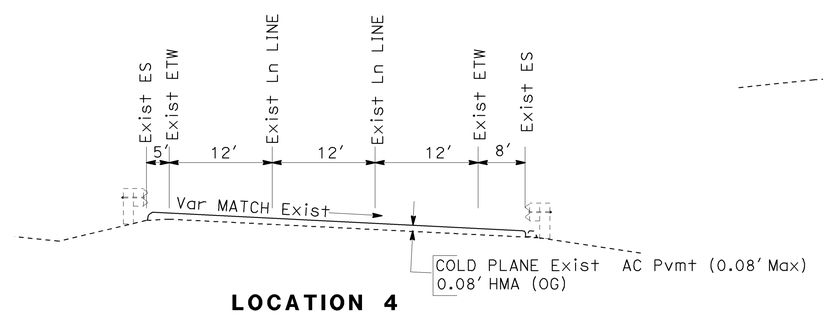
LOCATION 5

Sac 50 - PM 15.81
NB HAZEL Ave ON RAMP TO WB Rtr 50



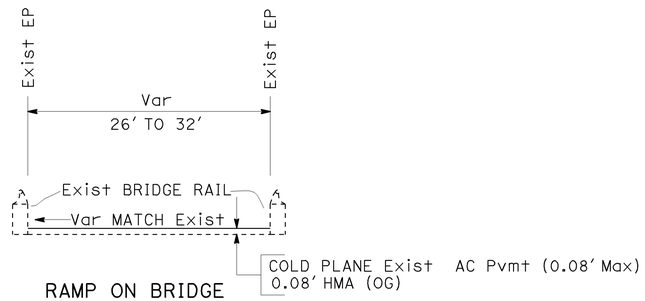
LOCATION 7

ED 49 - PM 13.15/13.36
BETWEEN DIAMOND SPRINGS AND PLACERVILLE

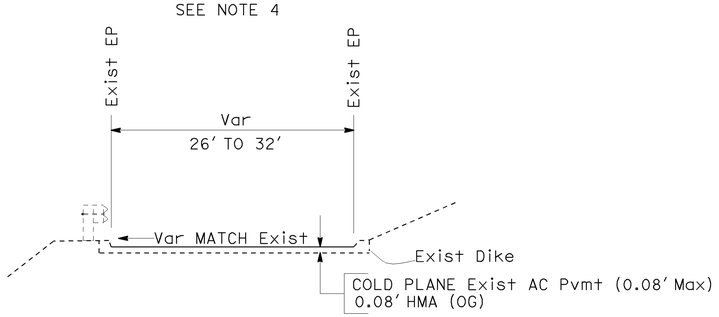


LOCATION 4

Sac 244 - PM 0.88/1.10
Rte 244 OFF-RAMP TO AUBURN Blvd



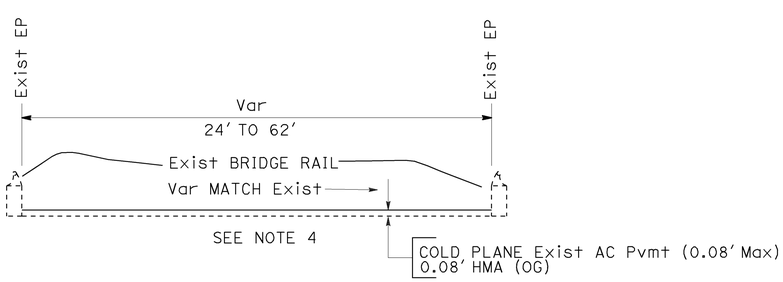
RAMP ON BRIDGE
Br No. 24-0234F
SEE NOTE 4



RAMP ON EMBANKMENT

LOCATION 2

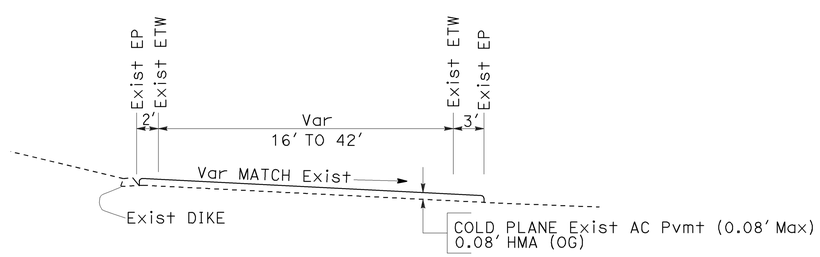
Sac 50 - PM 0.16
WB CONNECTOR RAMP TO SB Rte 99



SEE NOTE 4

LOCATION 1

Sac 5 - PM 22.88
NB CONNECTOR RAMP FROM WB Rte 50



LOCATION 3

Sac 99 - PM 16.19/16.39
NB ON RAMP FROM WB CALVINE ROAD

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	3	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

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

NOTES:

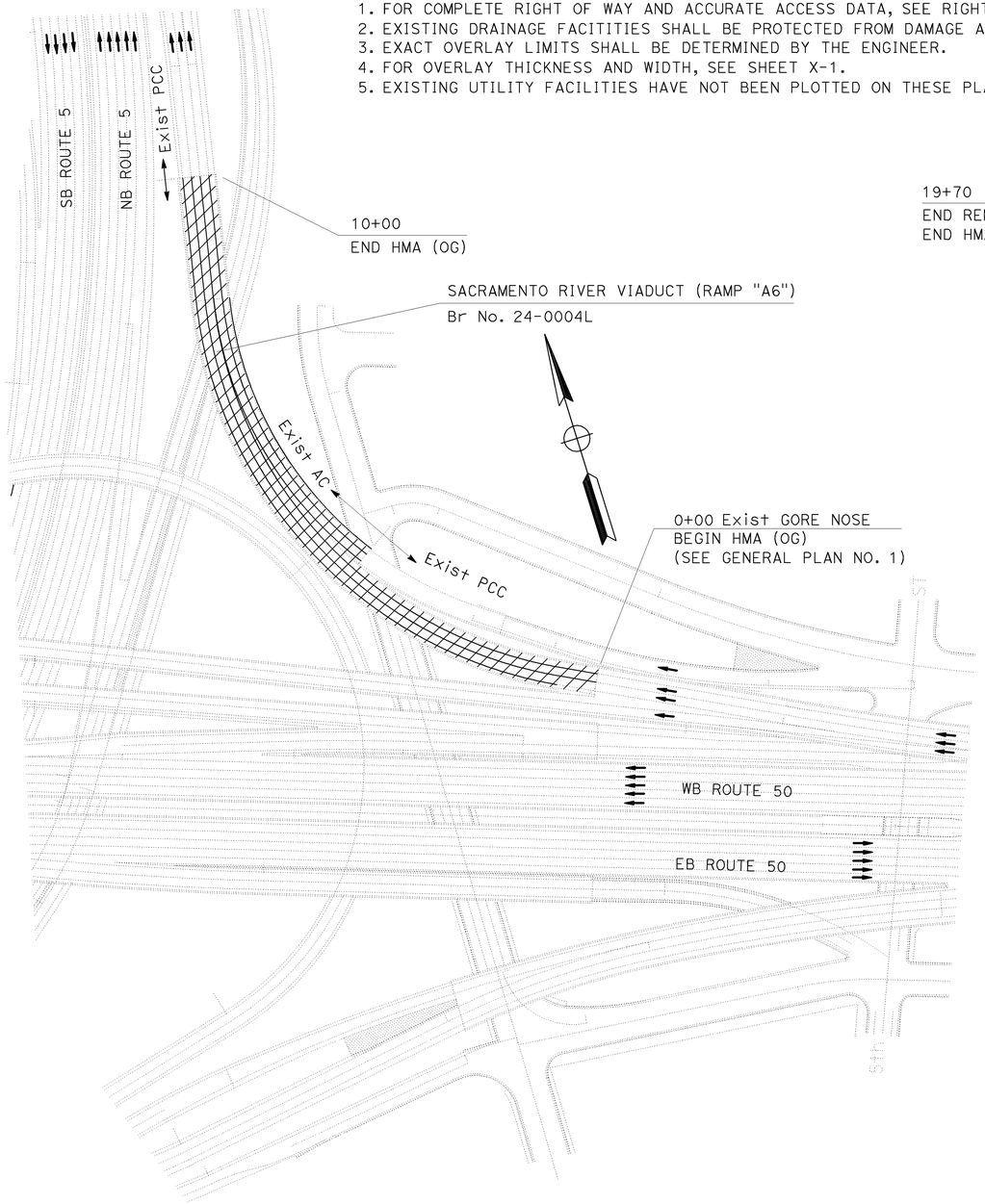
1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. EXISTING DRAINAGE FACITITIES SHALL BE PROTECTED FROM DAMAGE AND REMAIN OPERATIONAL.
3. EXACT OVERLAY LIMITS SHALL BE DETERMINED BY THE ENGINEER.
4. FOR OVERLAY THICKNESS AND WIDTH, SEE SHEET X-1.
5. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

ABBREVIATIONS:
HMA - HOT MIX ASPHALT (OPEN GRADED)

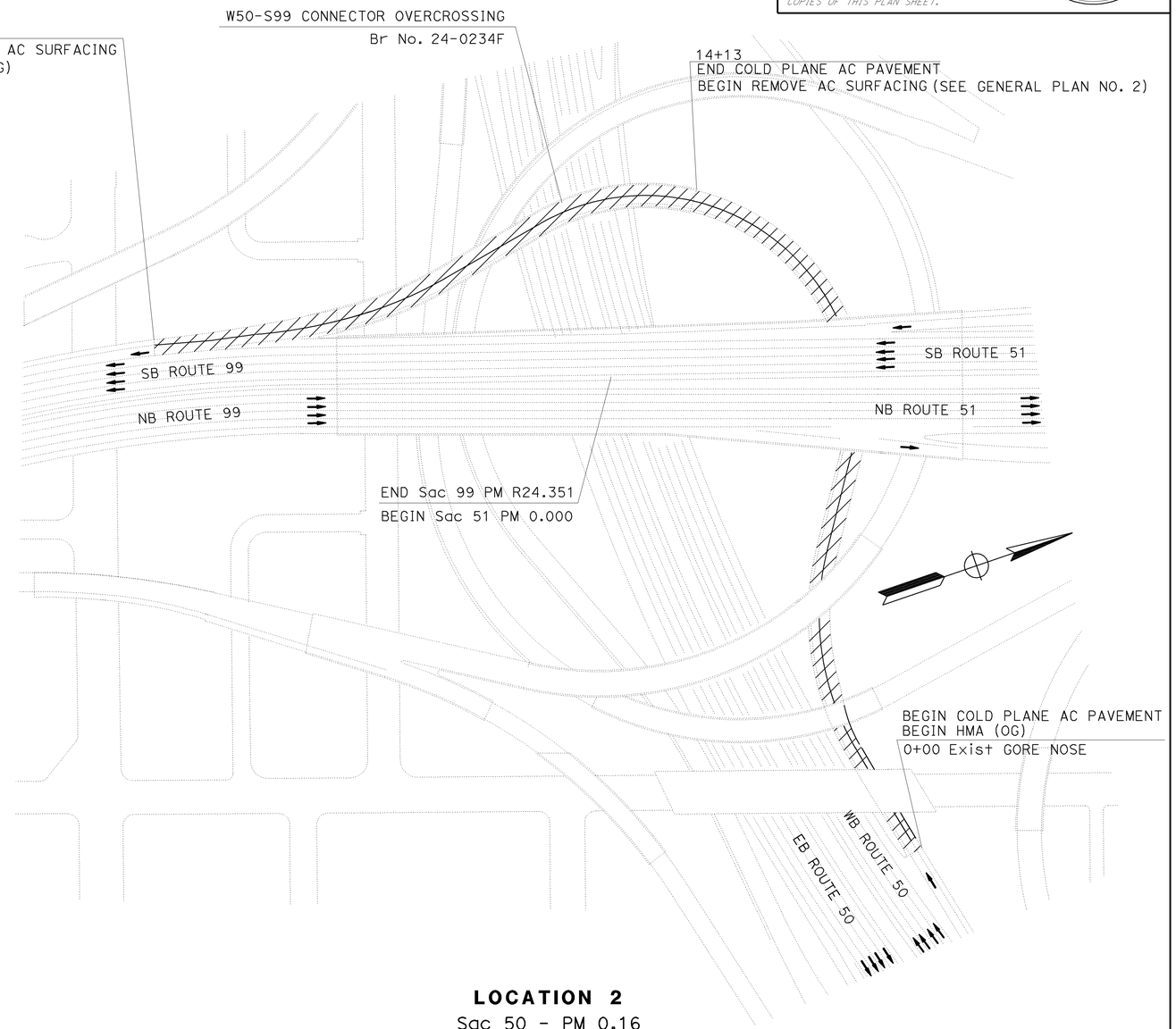
LEGEND:

OVERLAY LIMITS

DIRECTION OF TRAFFIC



LOCATION 1
Sac 5 - PM 22.88
NB CONNECTOR RAMP FROM WB Rte 50



LOCATION 2
Sac 50 - PM 0.16
WB CONNECTOR RAMP TO SB Rte 99

CONSTRUCTION DETAILS
NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	4	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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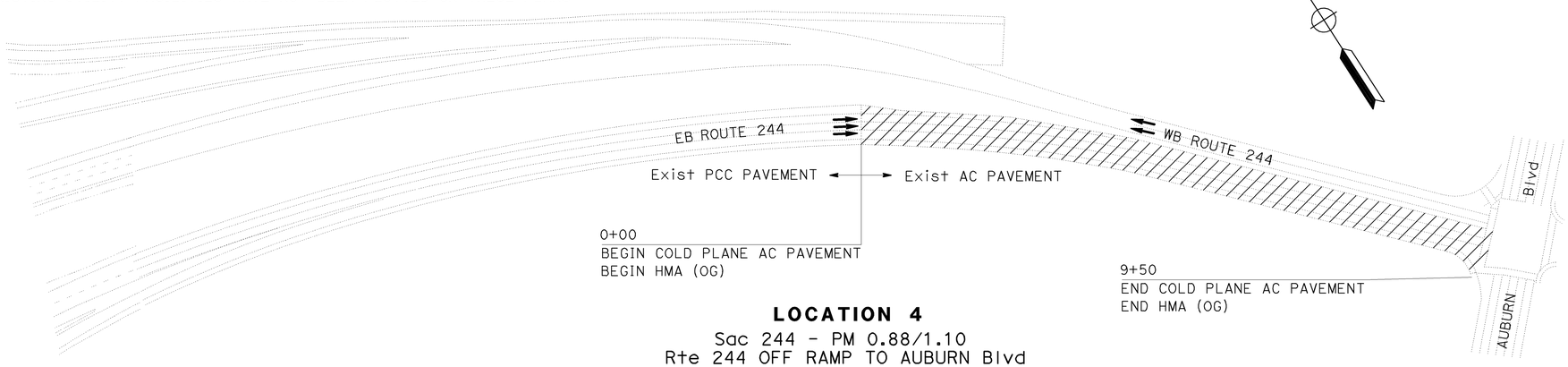
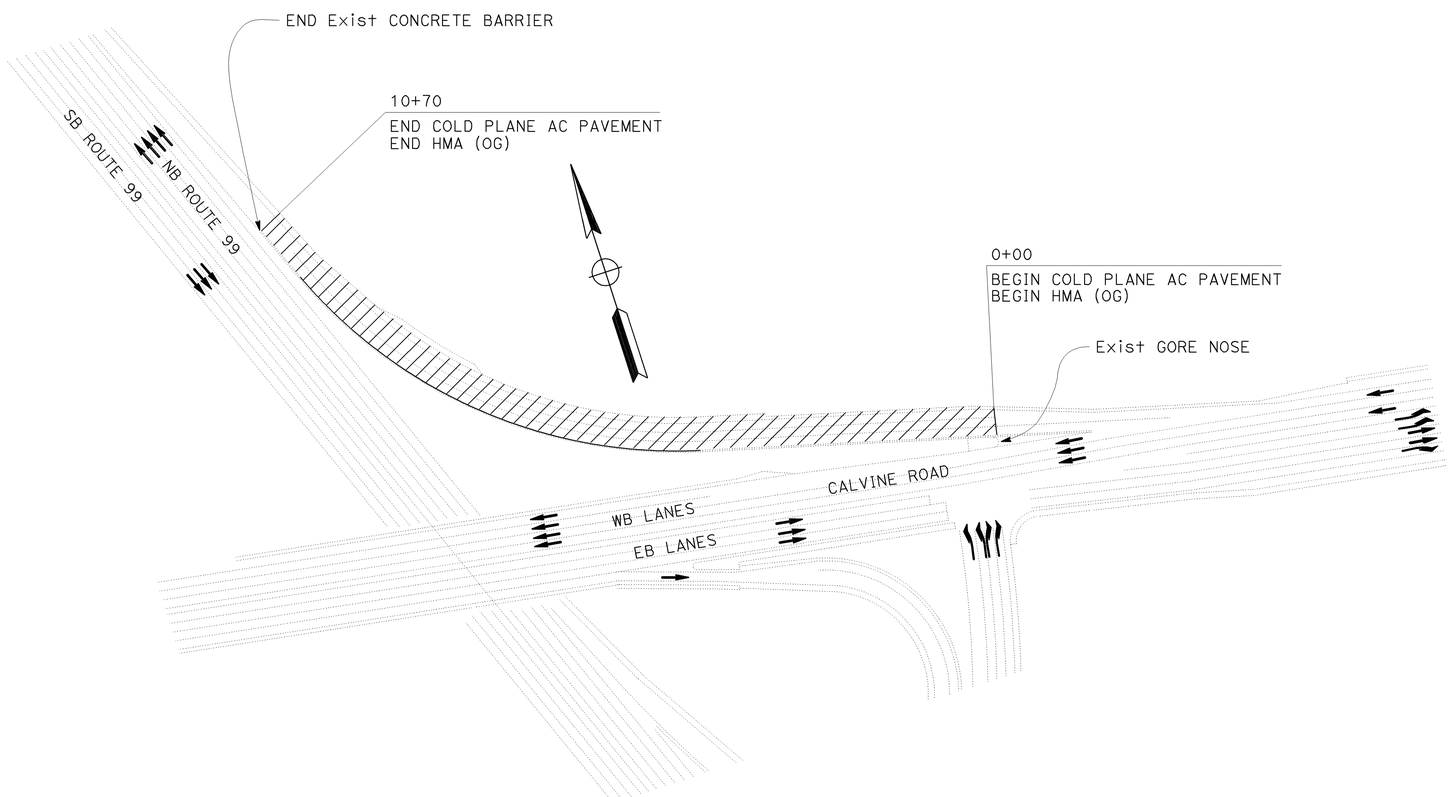


LOCATION 4
Sac 244 - PM 0.88/1.10
Rte 244 OFF RAMP TO AUBURN Blvd



LOCATION 3
Sac 99 - PM 16.19/16.39
NB ON-RAMP FROM WB CALVINE ROAD

CONSTRUCTION DETAILS
NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	5	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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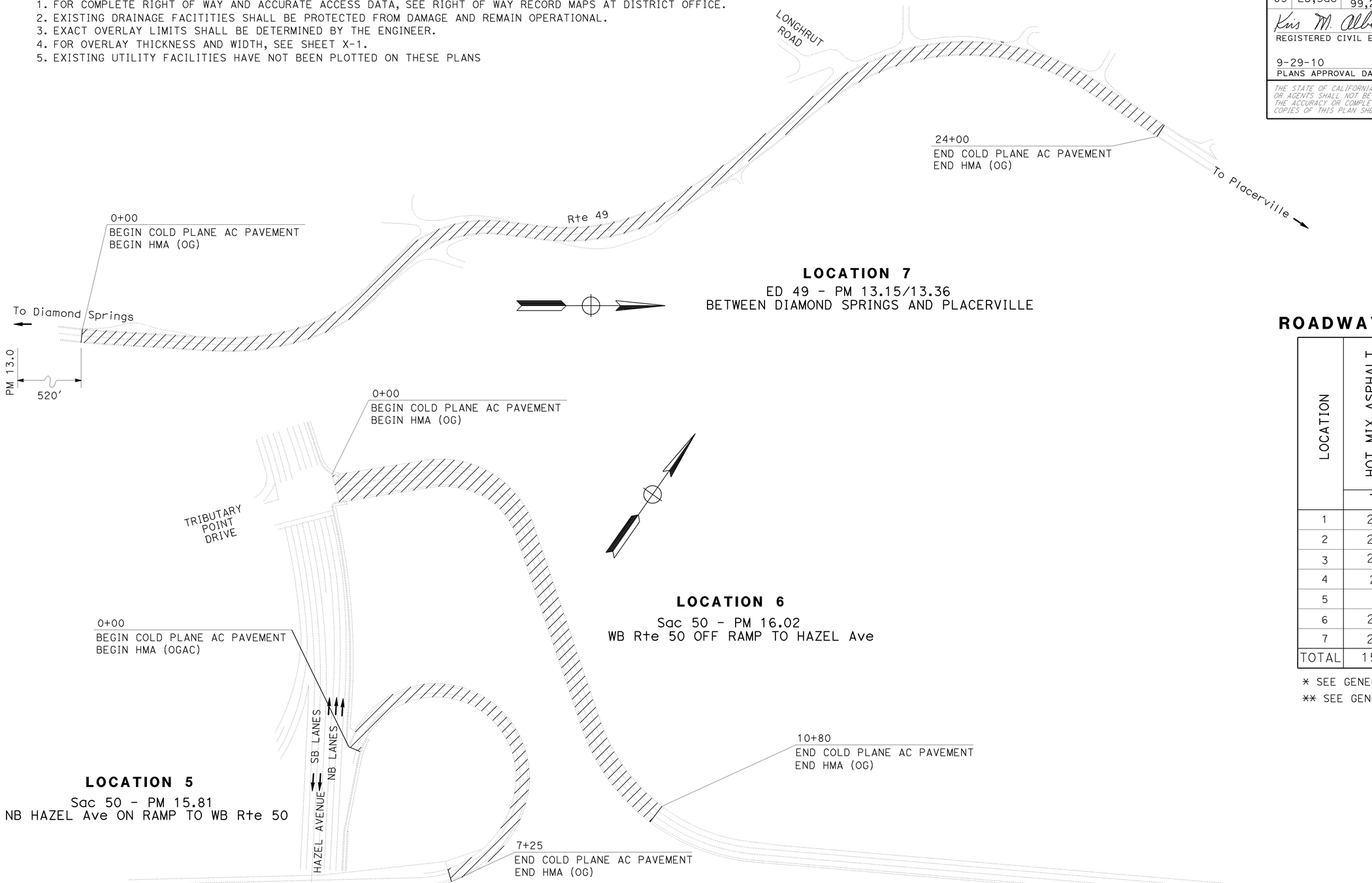

ROADWAY QUANTITIES

LOCATION	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT
	TON	SQYD
1	289	0 *
2	250	3710 **
3	203	5062
4	211	5267
5	92	2296
6	217	5416
7	299	7483
TOTAL	1561	29234

* SEE GENERAL PLAN NO.1
** SEE GENERAL PLAN NO.2

CONSTRUCTION DETAILS AND SUMMARY OF QUANTITIES

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	6	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

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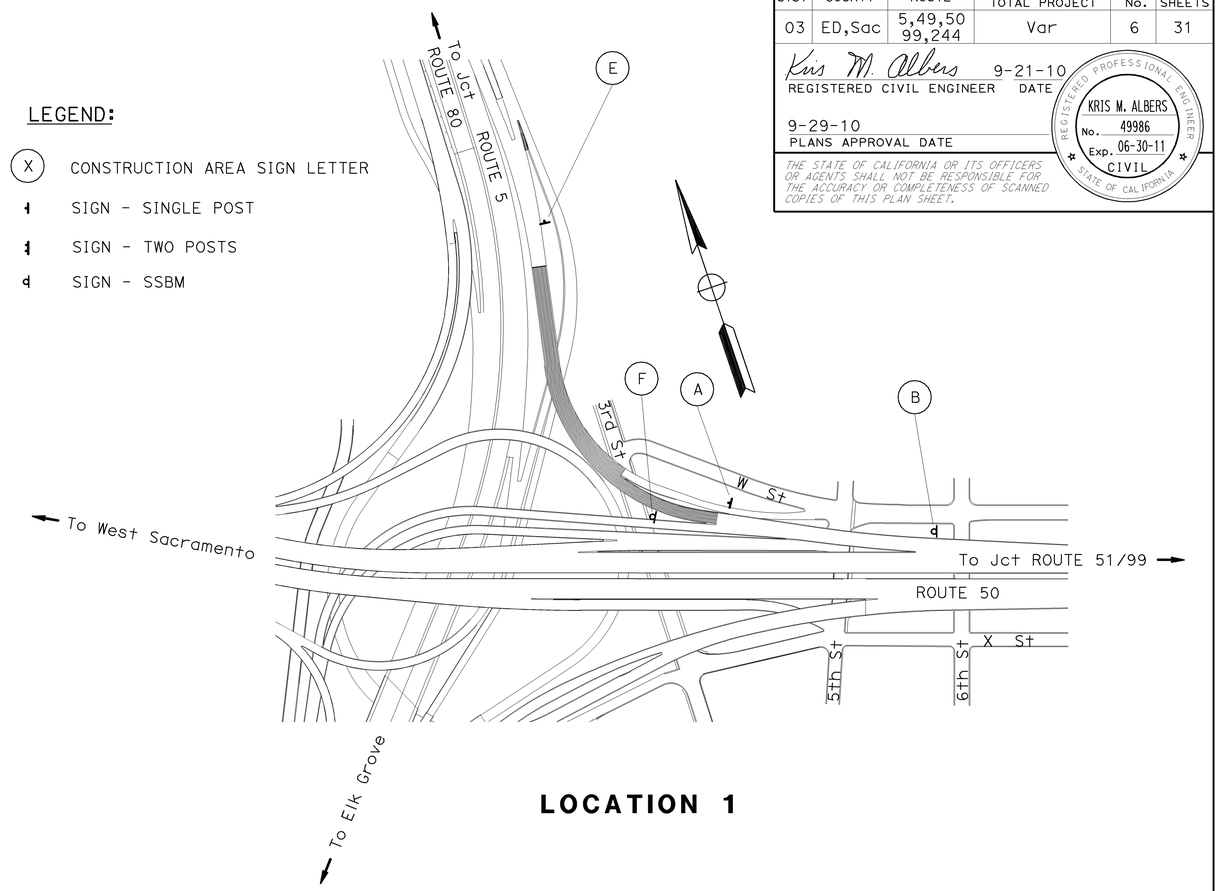
STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
A	W20-1	C23	48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	7
B	W20-1	C23	48" x 48"	ROAD WORK AHEAD	SSBM	1
C	W20-1	C23	60" x 60"	ROAD WORK AHEAD	2 - 4" x 6"	2 2
D	G20-2	C14	36" x 18"	END ROAD WORK	1 - 4" x 4"	9
E		C14	48" x 24"	END ROAD WORK	1 - 4" x 6"	1
F		C14	48" x 24"	END ROAD WORK	SSBM	2

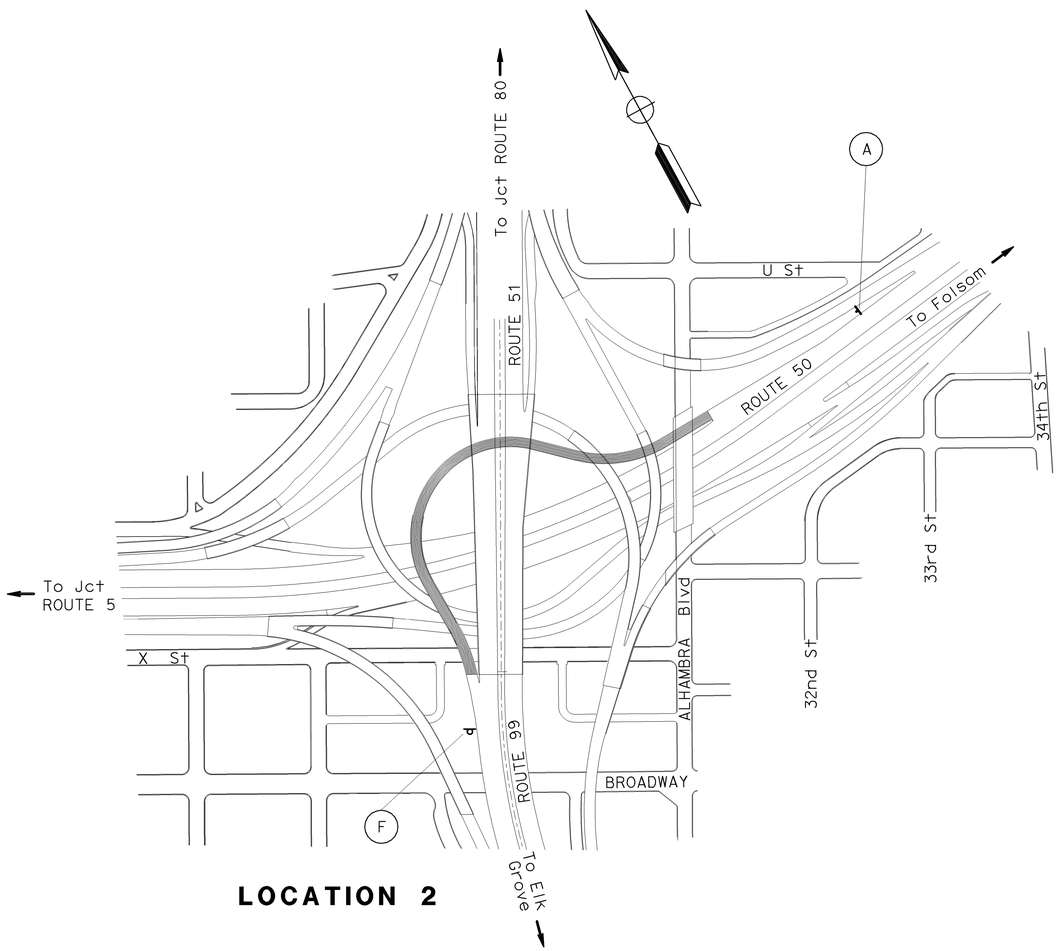
NOTE: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

LEGEND:

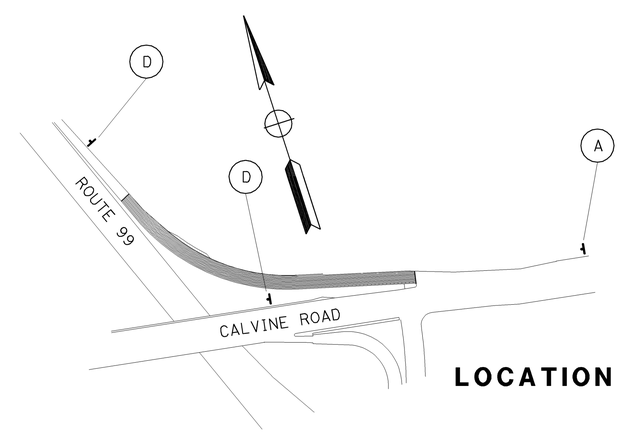
- (X) CONSTRUCTION AREA SIGN LETTER
- SIGN - SINGLE POST
- SIGN - TWO POSTS
- SIGN - SSBM



LOCATION 1



LOCATION 2



LOCATION 3

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53
08-04-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	7	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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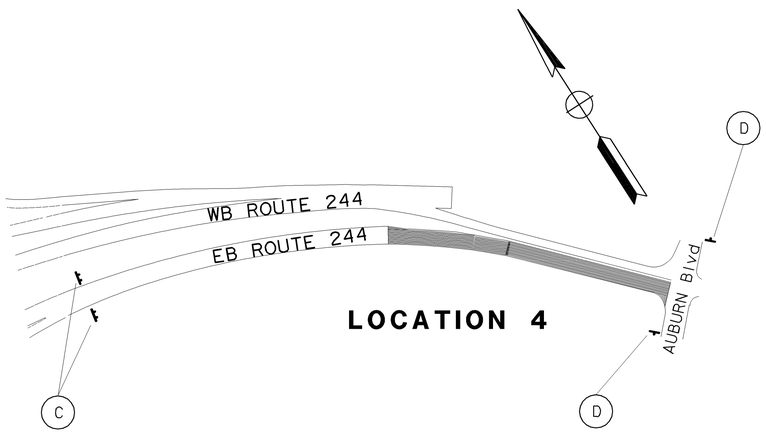
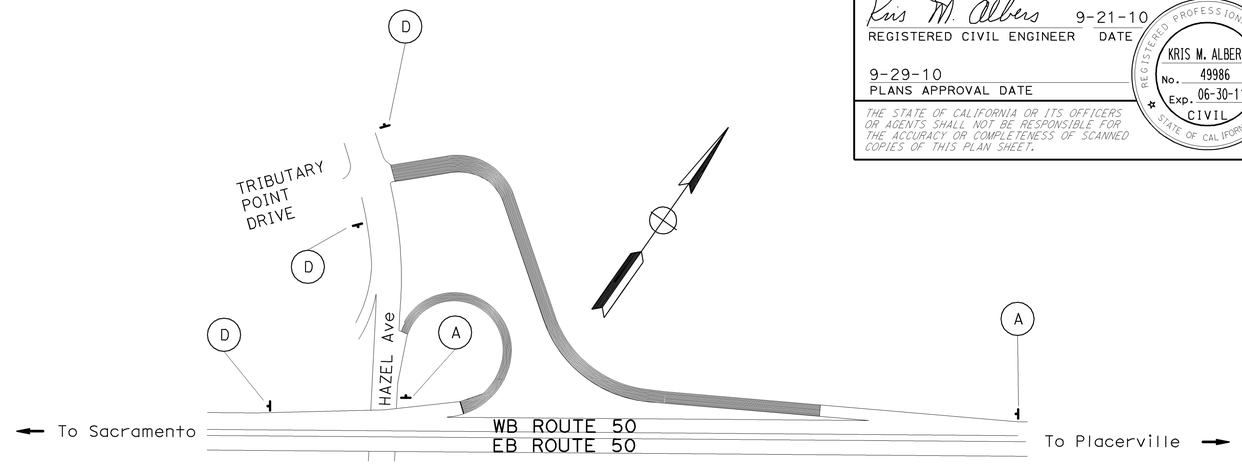
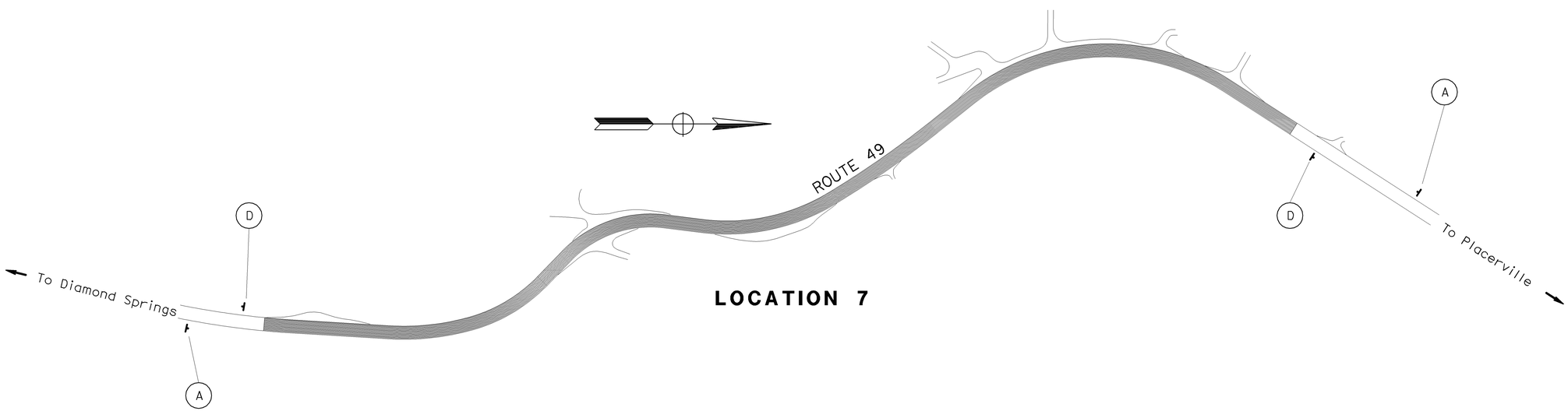


LOCATION 4



LOCATION 5 AND 6



LOCATION 7

CONSTRUCTION AREA SIGNS

NO SCALE

CS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	8	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

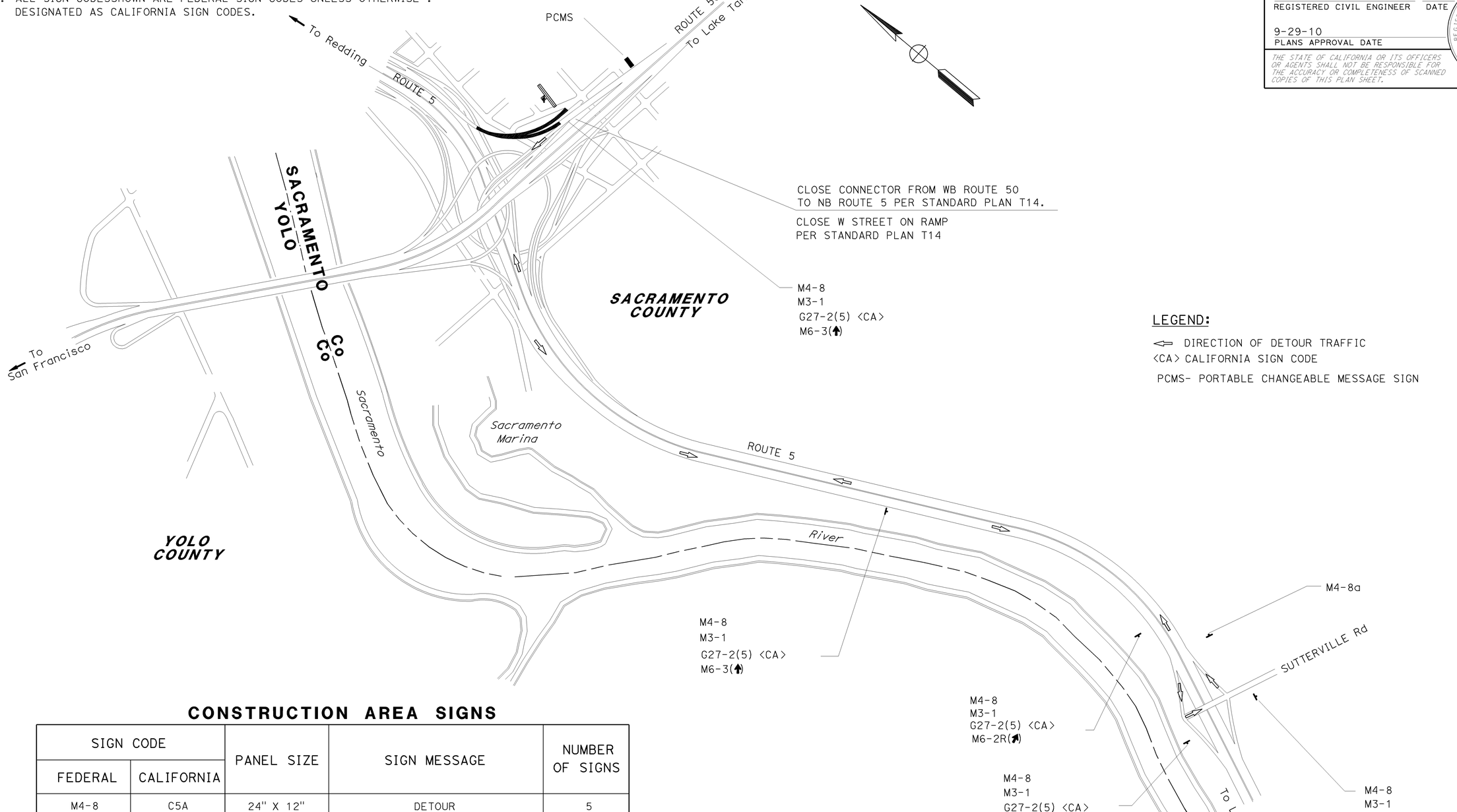
9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. ALL SIGN CODESSHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE . DESIGNATED AS CALIFORNIA SIGN CODES.



LEGEND:

⇦ DIRECTION OF DETOUR TRAFFIC
<CA> CALIFORNIA SIGN CODE
PCMS- PORTABLE CHANGEABLE MESSAGE SIGN

CONSTRUCTION AREA SIGNS

SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF SIGNS
FEDERAL	CALIFORNIA			
M4-8	C5A	24" X 12"	DETOUR	5
	G27-2(5)	24" X 24"	INTERSTATE 5	5
M3-1*	G47	24" X 12"	NORTH	5
M6-3*	G36	21" X 15"	DIRECTIONAL ARROW (↑)	2
M6-2R*	G44	21" X 15"	DIRECTIONAL ARROW (↗)	1
M6-1L*	G34(L†)	21" X 15"	DIRECTIONAL ARROW (←)	2
M4-8a	C7	24" X 18"	END DETOUR	1

* PANELS WHITE ON BLUE

WB ROUTE 50 TO NB ROUTE 5 CONNECTOR DETOUR
(VIA SB ROUTE 5 TO SUTTERVILLE Rd)

THIS PLAN ACCURATE FOR DETOUR WORK ONLY.

DETOUR PLAN
NO SCALE

DE-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	9	31

Kris M. Albers 9-21-10
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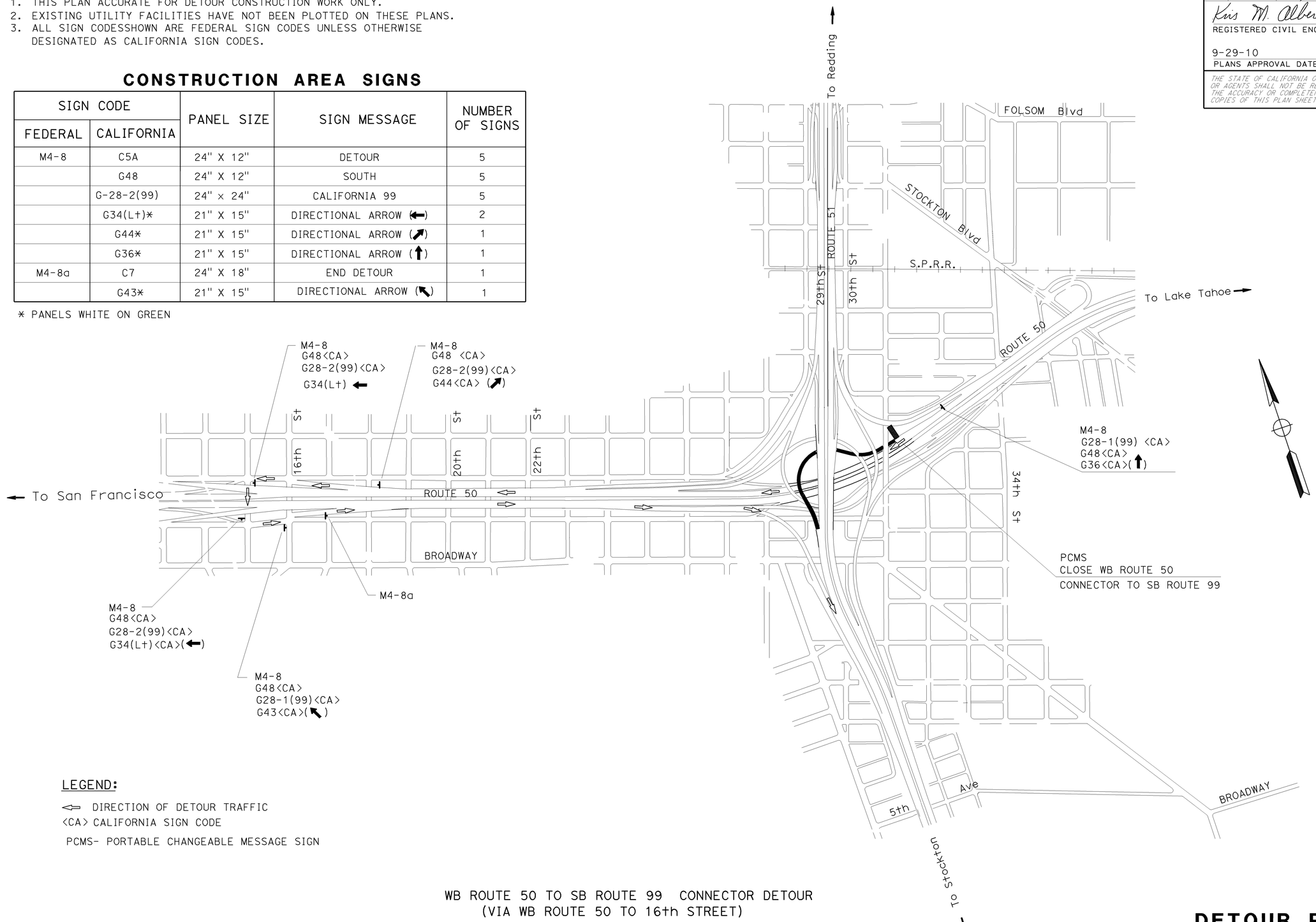
CONSTRUCTION AREA SIGNS

SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF SIGNS
FEDERAL	CALIFORNIA			
M4-8	C5A	24" X 12"	DETOUR	5
	G48	24" X 12"	SOUTH	5
	G-28-2(99)	24" x 24"	CALIFORNIA 99	5
	G34(Lt)*	21" X 15"	DIRECTIONAL ARROW (⬅)	2
	G44*	21" X 15"	DIRECTIONAL ARROW (↗)	1
	G36*	21" X 15"	DIRECTIONAL ARROW (↑)	1
M4-8a	C7	24" X 18"	END DETOUR	1
	G43*	21" X 15"	DIRECTIONAL ARROW (↖)	1

* PANELS WHITE ON GREEN



LEGEND:

⇦ DIRECTION OF DETOUR TRAFFIC
<CA> CALIFORNIA SIGN CODE
PCMS- PORTABLE CHANGEABLE MESSAGE SIGN

WB ROUTE 50 TO SB ROUTE 99 CONNECTOR DETOUR
(VIA WB ROUTE 50 TO 16th STREET)

THIS PLAN ACCURATE FOR DETOUR WORK ONLY.

DETOUR PLAN
NO SCALE

DE-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	10	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

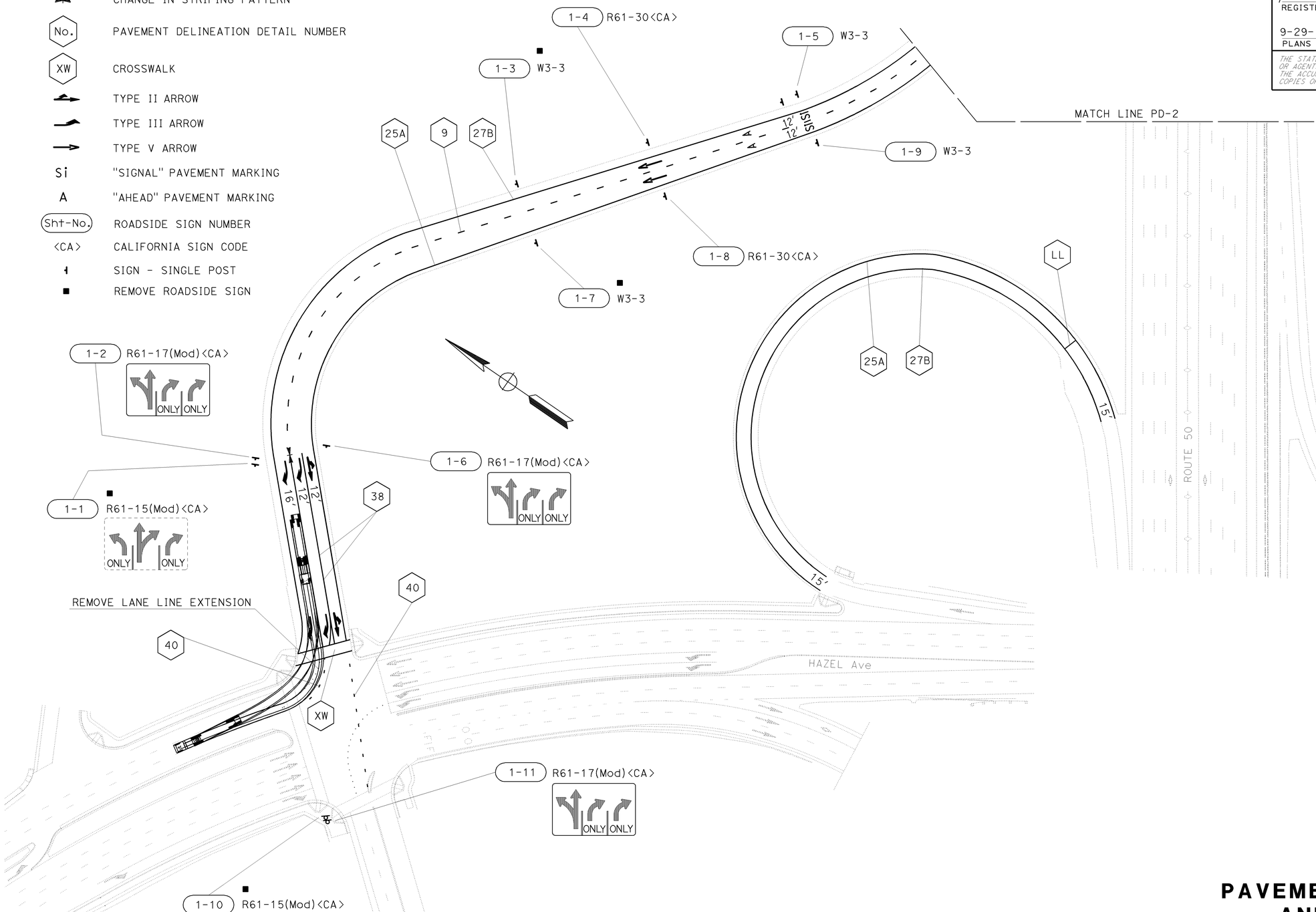
9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 06-30-11
CIVIL
STATE OF CALIFORNIA

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

LEGEND:

- CHANGE IN STRIPING PATTERN
- No. — PAVEMENT DELINEATION DETAIL NUMBER
- XW — CROSSWALK
- TYPE II ARROW
- TYPE III ARROW
- TYPE V ARROW
- Si — "SIGNAL" PAVEMENT MARKING
- A — "AHEAD" PAVEMENT MARKING
- Sht-No. — ROADSIDE SIGN NUMBER
- <CA> — CALIFORNIA SIGN CODE
- SIGN - SINGLE POST
- REMOVE ROADSIDE SIGN



NOTES:

1. ALL LANES SHALL BE 12' WIDE UNLESS OTHERWISE SHOWN.
2. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL SHALL REMAIN IN PLACE.
3. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.

PAVEMENT DELINEATION AND SIGN PLAN

LOCATIONS 5 AND 6

SCALE: 1"=50'

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY.

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	11	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KRIS M. ALBERS
No. 49986
Exp. 06-30-11
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STATE OF CALIFORNIA

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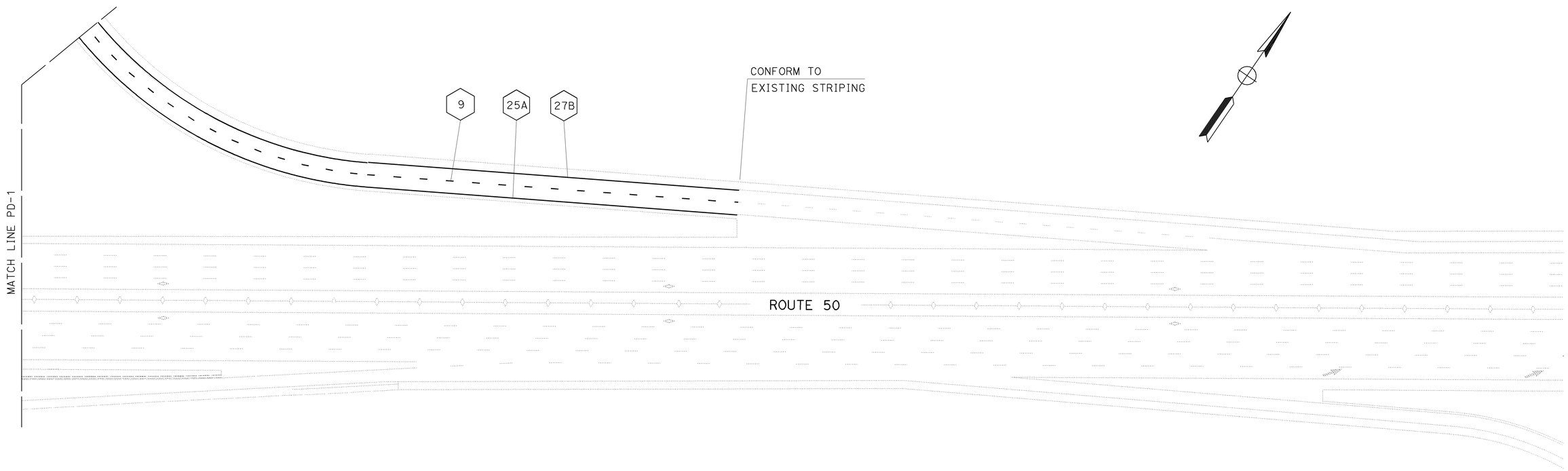

NOTE: THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY.

PAVEMENT DELINEATION AND SIGN PLAN

LOCATION 6
SCALE: 1"=50'

PD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	12	31

Kris M. Albers 9-21-10
REGISTERED CIVIL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

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THERMOPLASTIC TRAFFIC STRIPE

LOCATION	4" THERMOPLASTIC TRAFFIC STRIPE				4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17 - 7)	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36 - 12)	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 6 - 1)	8" THERMOPLASTIC TRAFFIC STRIPE		8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12 - 3)
	DETAIL NUMBER				DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER	DETAIL NUMBER		DETAIL NUMBER
	22 (LF)	25 (LF)	25A (LF)	27B (LF)	9 (LF)	12 (LF)	40 (LF)	36A (LF)	38 (LF)	37 (LF)
1			1,000	1,090		1,000		148		435
2			1,706	1,970	81			183		
3			1,070	1,070	642				1,009	
4	100	409		950		1,416			484	
5			725	725						
6			1,645	1,645	1,456		201		409	
7	4,800			4,800						
SUBTOTAL	4,900	409	6,146	12,250	2,179	2,416	201	331	1,902	435
TOTAL	23,705				2,179	2,416	201	2,233		435

THERMOPLASTIC PAVEMENT MARKING

LOCATION	DESCRIPTION											
	TYPE II(L+) ARROW (SQFT)	TYPE III ARROW (SQFT)	TYPE V ARROW (SQFT)	SIGNAL (SQFT)	AHEAD (SQFT)	CAR (SQFT)	POOL (SQFT)	LANE (SQFT)	DIAMOND SYMBOL (SQFT)	12" DIAGONAL (WHITE) (SQFT)	CROSSWALK (SQFT)	LIMIT LINE (SQFT)
2										270		
3						17	46	48	33			24
4		252		96	93						120	
5												15
6	90	168	66	64	62						104	
SUBTOTAL	90	420	66	160	155	17	46	48	33	270	224	39
TOTAL	1,568											

NOTE: ALL 12" DIAGONALS SHALL BE PLACED 100' ON CENTER.

PAVEMENT MARKER

LOCATION	DETAIL NUMBER	RETROREFLECTIVE				RETROREFLECTIVE (RECESSED)
		TYPE C (EACH)	TYPE D (EACH)	TYPE G (EACH)	TYPE H (EACH)	TYPE D (EACH)
1	12,25A,36A,37	8		54	43	
2	9,25A,36A			12	73	
3	9,25A,38			58	46	
4	12,22,25,26,38		12	53	23	
5	25A				32	
6	9,25A,38			49	70	
7	22					202
SUBTOTAL		8	12	226	287	202
TOTAL		533				202

REMOVE TRAFFIC STRIPE

LOCATION	DESCRIPTION
	LANELINE EXTENSION (LF)
6	10
TOTAL	10

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	13	31

Kris M. Albers 9-21-10
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9-29-10
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REGISTERED PROFESSIONAL ENGINEER KRIS M. ALBERS No. 49986 Exp. 06-30-11 CIVIL STATE OF CALIFORNIA

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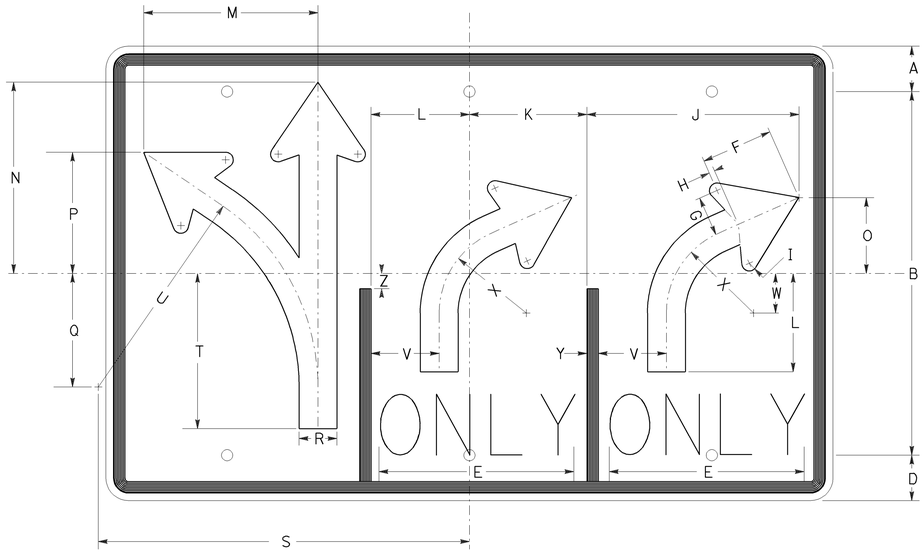


SIGN DETAIL
R61-17(MOD)<CA>

DIMENSIONS												
A	B	C	D	E	F	G	H	I	J	K	L	M
3	24	16	3	12⅞	4¾	2⅝	⅜	½	14	7¾	6½	11½
DIMENSIONS												
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
12⅝	5	8	7½	2½	24½	10¼	14½	4½	2⅝	5¾	¾	1

NOTE: SIGN DIMENSIONS ARE IN INCHES.

ROADSIDE SIGN QUANTITIES

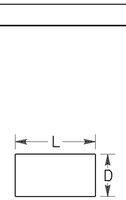
SIGN NUMBER (SHT-No)	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE (INCHES)	"C" DIM IN FEET	POST SIZE AND LENGTH 4"X6"	POST SIZE AND LENGTH 6"X6"	ROADSIDE SIGN ONE POST (EACH)	INSTALL SIGN (SSBM) (EACH)	REMOVE ROADSIDE SIGN (EACH)	REMOVE ROADSIDE SIGN (SSBM) (EACH)
1-1		R61-15(Mod)							1	
1-2		R61-17(Mod)	48 x 30	7	16′		1			
1-3	W3-3	W41							1	
1-4		R61-30	36 x 30	7	16′		1			
1-5	W3-3	W41	48 x 48	7		18′	1			
1-6		R61-17(Mod)	48 x 30	7	16′		1			
1-7	W3-3	W41							1	
1-8		R61-30	36 x 30	7	16′		1			
1-9	W3-3	W41	48 x 48	7		18′	1			
1-10		R61-15(Mod)								1
1-11		R61-17(Mod)	48 x 30	7	16′			1		
TOTAL							6	1	3	1

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE.
3. "C" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.

ROADSIDE SIGN PANEL QUANTITIES (CONTRACTOR-FURNISHED)

SIGN CODE	SIGN MESSAGE/DESCRIPTION	SIGN SIZE L X D (INCHES)	SIGN AREA (SQFT)	NUMBER OF SIGNS	BACKGROUND SHEETING COLOR	BACKGROUND RETROREFLECTIVE ASTM TYPE	LEGEND SHEETING COLOR	LEGEND RETROREFLECTIVE ASTM TYPE	PROTECTIVE OVERLAY PREMIUM	FURNISH SINGLE SHEET ALUMINUM SIGN UNFRAMED 0.063" SQFT	FURNISH SINGLE SHEET ALUMINUM SIGN UNFRAMED 0.080" SQFT
R61-17(MOD)<CA>	LANE CONTROL ARROWS	48 x 30	10.00	3	WHITE	III	BLACK		X		30.00
R61-30<CA>	LANE CONTROL ARROWS	36 x 30	7.50	2	WHITE	III	BLACK		X	15.00	
W3-3	SIGNAL AHEAD SYMBOL	48 x 48	16.00	2	YELLOW	IX	BLACK		X		32.00
							RED,GREEN	IX			
TOTAL										15.00	62.00



L = LENGTH OF SIGN
D = DEPTH OF SIGN

NOTE: CALIFORNIA SIGN CODES ARE DESIGNATED BY <CA>. OTHERWISE, FEDERAL SIGN CODES ARE SHOWN.

SIGN DETAILS AND QUANTITIES

NO SCALE

SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: AG CHIN
CHECKED BY: KRIS ALBERS
REVISED BY
DATE REVISED

LAST REVISION 08-04-10
DATE PLOTTED => 26-OCT-2010
TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	14	31

R. P. Gill 9-14-10
REGISTERED ELECTRICAL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER RUPINDER PAL GILL No. 16642 Exp. 06-30-12 ELECTRICAL STATE OF CALIFORNIA

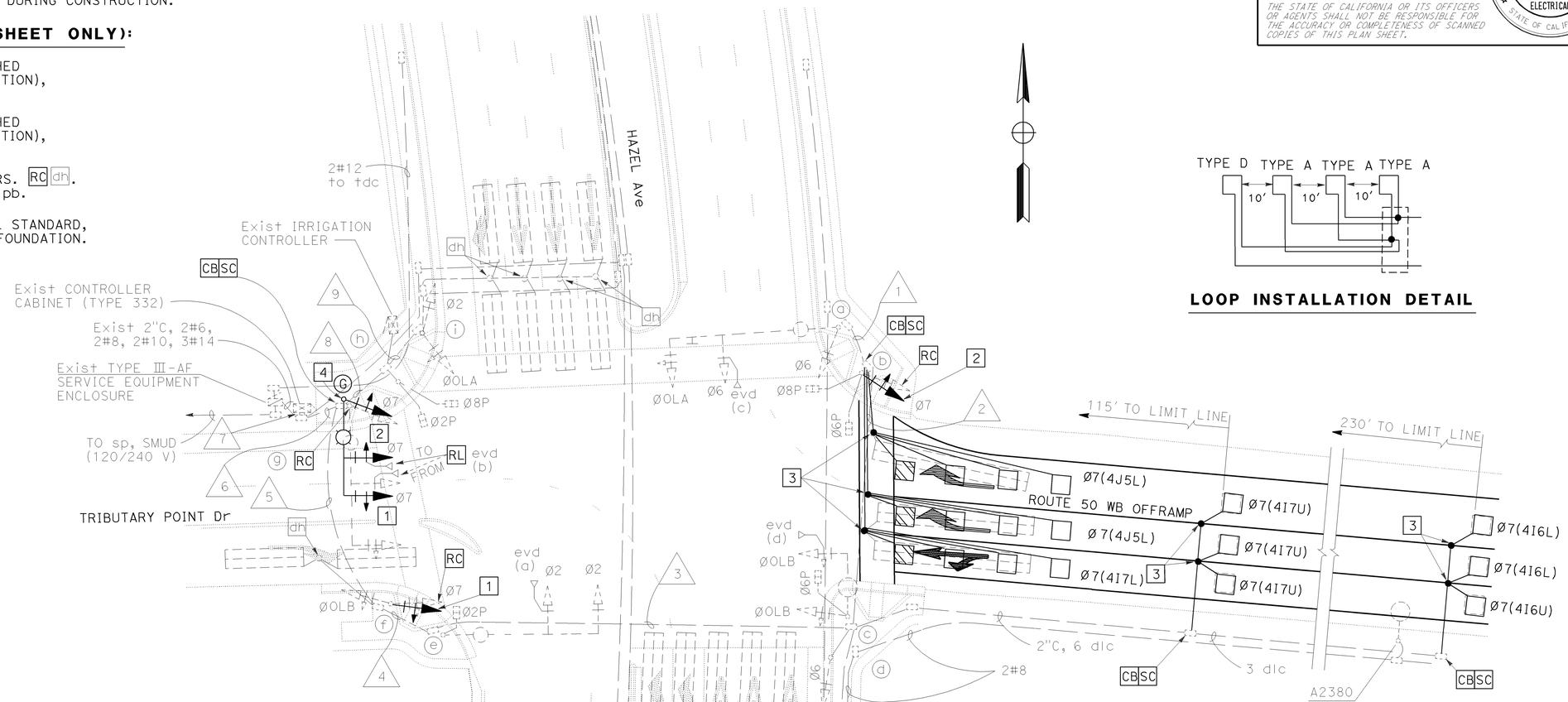
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GENERAL NOTES:

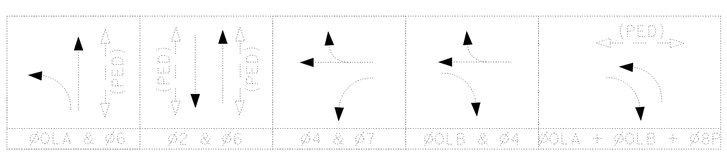
1. FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORDS AT DISTRICT OFFICE.
2. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND PROTECT EXISTING UTILITIES DURING CONSTRUCTION.

PROJECT NOTES (THIS SHEET ONLY):

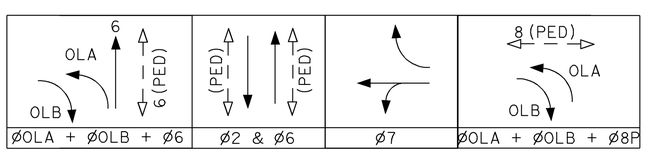
1. INSTALL CONTRACTOR FURNISHED VEHICLE SIGNAL FACE (4 SECTION), SEE DETAIL "A" THIS SHEET.
2. INSTALL CONTRACTOR FURNISHED VEHICLE SIGNAL FACE (3 SECTION), SEE DETAIL "B" THIS SHEET.
3. AB EXISTING LOOP CONDUCTORS. RC dh. INSTALL DH AND CONDUIT TO pb.
4. BEFORE ORDERING NEW SIGNAL STANDARD, LOCATE EXACT LOCATION OF FOUNDATION.



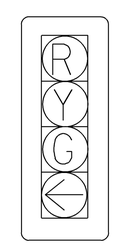
LOOP INSTALLATION DETAIL



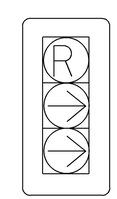
EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM



DETAIL A



DETAIL B

MODIFY SIGNAL
(LOCATION 6)
SCALE: 1" = 20'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RUPINDER GILL, ALI HASSANI
CHECKED BY: STEVE BLOCK
FUNCTIONAL SUPERVISOR: STEVEN BLOCK

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL DESIGN MARYSVILLE

LAST REVISION 00-00-00 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	15	31

R. P. Gill 9-14-10
REGISTERED ELECTRICAL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER RUPINDER PAL GILL No. 16642 Exp. 06-30-12 ELECTRICAL STATE OF CALIFORNIA

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CONDUCTOR AND CONDUIT SCHEDULE

AWG	CIRCUIT	NUMBER OF CONDUCTORS RUN NUMBER 1	2	3	4	5	6*	7*	8	9
#14	ØOLA SIGNALS	3	3	3	3	3	6	6	3	3
	Ø2 SIGNALS				3	3	6	6	3	3
	Ø4 SIGNALS		3	3	3	3	**3**	**3**		
	Ø6 SIGNALS	3	3	3	3	3	3	3		
	Ø7 SIGNALS					3	**3**	**3**		
	ØOLB SIGNALS			3	3	3	3	3		
	Ø2 PED				2	2	4	4	2	
	Ø8 PED		2	2	2	2	4	4	2	
	Ø6 PED		2	2	2	2	2	2		
	Ø2 PPB				1	1	2	2	1	
	Ø8 PPB		1	1	1	1	2	2	1	
	Ø6 PPB		1	1	1	1	1	1		
	Ø6 BPB			1	1	1	1	1		
	PPB NEUTRAL		1	1	1	1	2	2	1	
	PEU						3	3		
	SPARES	3	3	3	3	3	6	6	3	3
	TOTAL #14	9	19	23	29	32	51	51	16	9
#10	SIGNAL COMMON	1	1	1	1	1	**1**	**1**	1	1
#10	IRRIGATION CONTROLLER						2		2	
#8	LIGHTING	2	2	2	2	2	2			
3CSC	CCTV POWER			1	1	1	1	1		
#6	CONTROLLER							2		
DLC	Ø1 DETECTORS			2	2	3	3	3		
	Ø2 DETECTORS						9	9	9	9
	Ø4 DETECTORS		6	6	6	6	6	6		
	Ø6 DETECTORS			7	7	7	7	7		
	Ø7 DETECTORS		2	2	2	2	2	2		
	TOTAL		8	17	17	18	27	27	9	9
6-STRAND SMFO CABLE								1		
96-STRAND SMFO CABLE							1			
EVC (OPTICOM CABLE)		1	1	2	3	3	4**	4**		
CCTV CABLE				1	1	1	1	1		
CONDUIT SIZE (INCHES)		2	3	4	4	4	2-3½	3½	3	3

* NEW CONDUCTORS TO BE INSTALLED IN THE EXISTING CONDUIT RUNS ARE SHOWN IN BOLD FACE.

** REPLACE ONE EVC FOR RELOCATED evd, SEE SHEET E-1.

POLE AND EQUIPMENT SCHEDULE

No.	STANDARD * TYPE	SIG. MA	LUM. MA	VEHICLE SIGNAL MOUNTING Ø	MAST ARM	Ø	POLE	PEDESTRIAN SIGNAL Ø	MOUNTING	PPB Ø	HPS LUMINAIRE (WATTS)
a	EXISTING 29-5-80	55′	15′	OLA 6	MAS MAS	6	SV-1-T				200
b	EXISTING 1-B					7	**NEW TV-1-T**	8 6	SP-2-T	8P → 6P ←	
c	EXISTING 17-3-100	20′	12′	OLB	MAS	OLB	SV-1-T	6	SP-1-T	6P →	200
d	EXISTING 1-B					6	TV-1-T				
e	EXISTING 29-5-100	50′	15′	2 2 2	MAS MAS MAS			2	SP-1-T	2P ←	200
f	EXISTING 1-B					7 OLB	**NEW TV-2-T**				
** G	**NEW 26-4-100**	30′	12′	7 4	MAT MAS	4	SV-1-T				200
h	EXISTING 1-B							2 8	TP-2-T	2P → 8P ←	
i	EXISTING 1-B					OLA 2	TV-2-T				

* NEW EQUIPMENT TO BE INSTALLED ARE SHOWN IN BOLD FACE.

** RELOCATE AND INSTALL peu, evd (b) and R61(MOD)(CA)SIGN ON NEW STANDARD.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL
(LOCATION 6)

E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL DESIGN MARYSVILLE

FUNCTIONAL SUPERVISOR: STEVEN BLOCK
CALCULATED-DESIGNED BY: RUPINDER GILL, ALI HASSANI
CHECKED BY: STEVE BLOCK
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	16	31

R. P. Gill 9-14-10
REGISTERED ELECTRICAL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER RUPINDER PAL GILL No. 16642 Exp. 06-30-12 ELECTRICAL STATE OF CALIFORNIA

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

PROJECT NOTES (THIS SHEET ONLY):

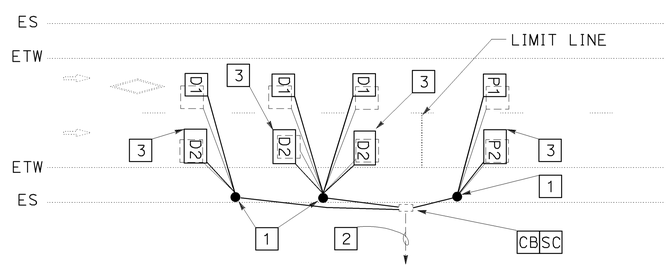
1. AB EXISTING LOOP CONDUCTORS. RC dh. INSTALL DH AND CONDUIT TO pb.
2. EXISTING 1½"C AND 1 dlc PER LOOP TO CONTROLLER CABINET (SEE TABLE).
3. INSTALL 6' X 10' TYPE A LOOP.

GENERAL NOTE:

1. EXACT LOCATION OF TYPE A LOOPS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

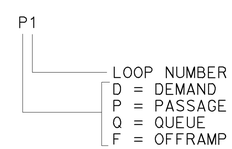
LOOP QUANTITY TABLE

LOCATION	COUNTY	ROUTE	DESCRIPTION	APPROXIMATE POST MILE	No. OF TYPE A LOOPS
1	Sac	5	NB CONNECTOR RAMP FROM WB Rte 50	22.88	2
2	Sac	50	WB CONNECTOR RAMP TO SB Rte 99	0.16	2
3	Sac	99	NB ON RAMP FROM WB CALVINE ROAD	16.3	18
5	Sac	50	NB HAZEL Ave ON RAMP TO WB Rte 50	15.81	6



TYPICAL RAMP METER LIMIT LINE DETECTOR LOOP INSTALLATION DETAIL

NO SCALE



RAMP DETECTOR DETECTOR IDENTIFICATION

NO SCALE

MODIFY RAMP METERING SYSTEM

NO SCALE

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL DESIGN MARYSVILLE

FUNCTIONAL SUPERVISOR: STEVEN BLOCK
CALCULATED-DESIGNED BY: RUPINDER GILL, ALI HASSANI
CHECKED BY: STEVE BLOCK
REVISED BY / DATE REVISED

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	17	31

R. P. Gill 9-14-10
REGISTERED ELECTRICAL ENGINEER DATE

9-29-10
PLANS APPROVAL DATE

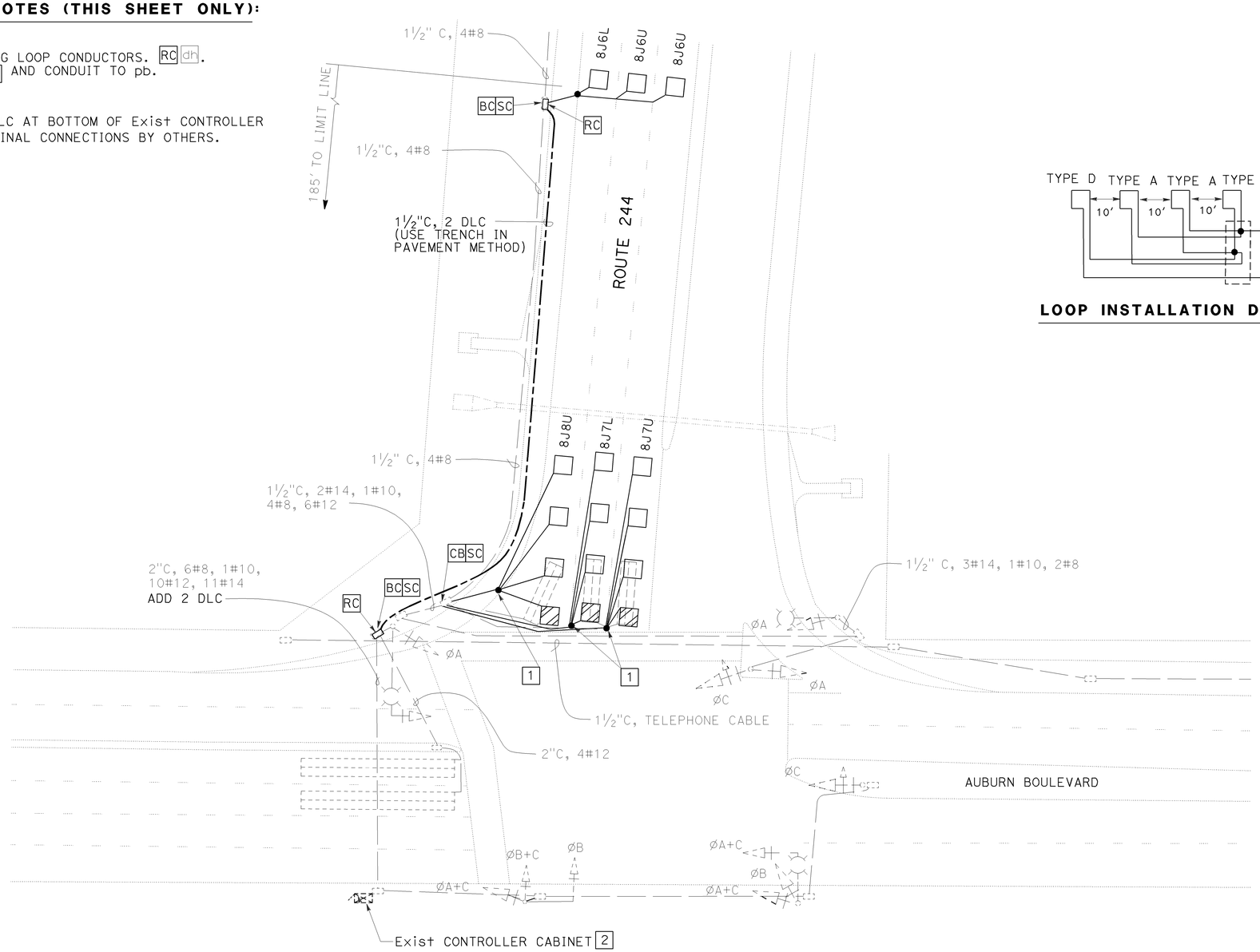
REGISTERED PROFESSIONAL ENGINEER
RUPINDER PAL GILL
No. 16642
Exp. 06-30-12
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT NOTES (THIS SHEET ONLY):

1 AB EXISTING LOOP CONDUCTORS. RC dh. INSTALL DH AND CONDUIT TO pb.

2 COIL 20' DLC AT BOTTOM OF Exist CONTROLLER CABINET. FINAL CONNECTIONS BY OTHERS.



LOOP INSTALLATION DETAIL

MODIFY SIGNAL
(LOCATION 4)
SCALE: 1" = 20'

E-4

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC ELECTRICAL DESIGN MARYSVILLE

FUNCTIONAL SUPERVISOR: STEVEN BLOCK
CALCULATED-DESIGNED BY: RUPINDER GILL, ALI HASSANI
CHECKED BY: STEVE BLOCK
REVISED BY
DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 26-OCT-2010 | TIME PLOTTED => 09:53

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	18	31

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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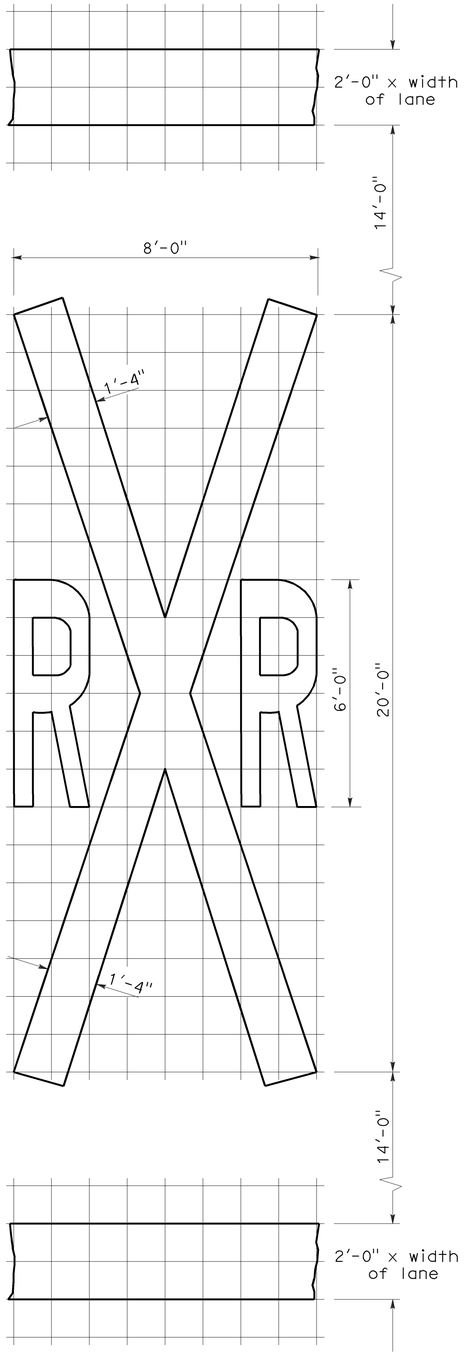
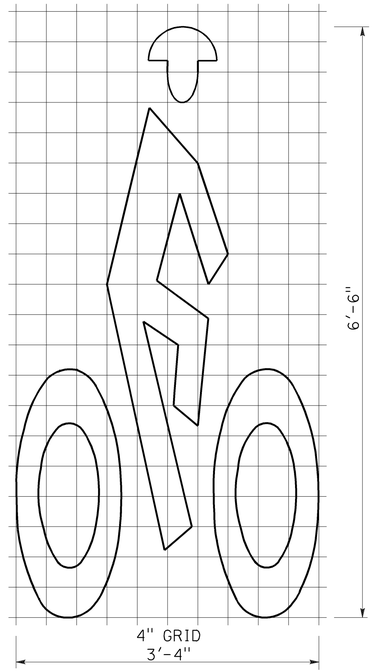
To accompany plans dated 9-29-10

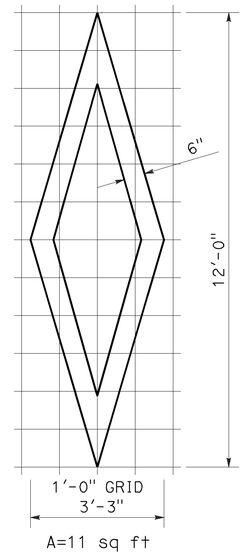


RAILROAD CROSSING SYMBOL

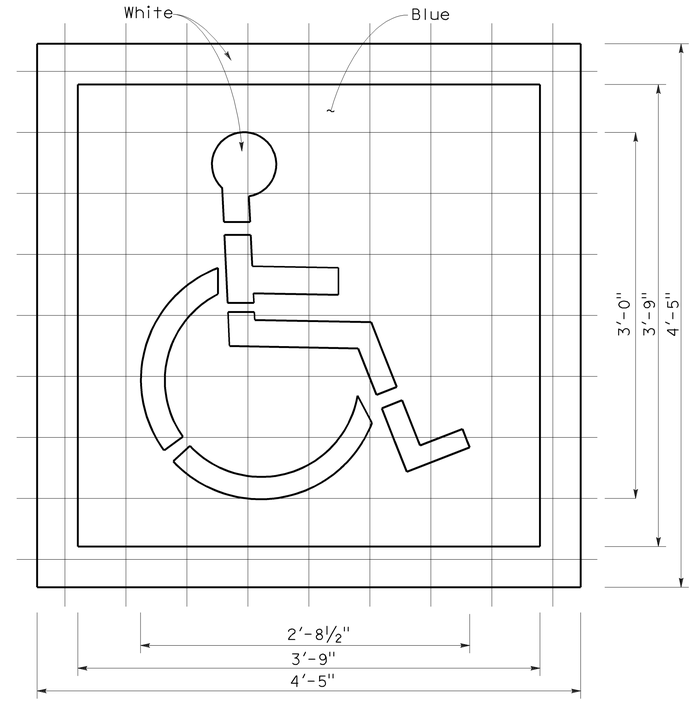
✳70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



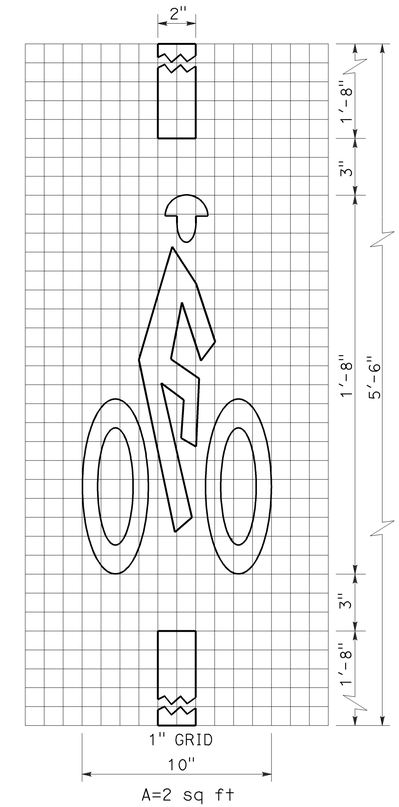
BIKE LANE SYMBOL



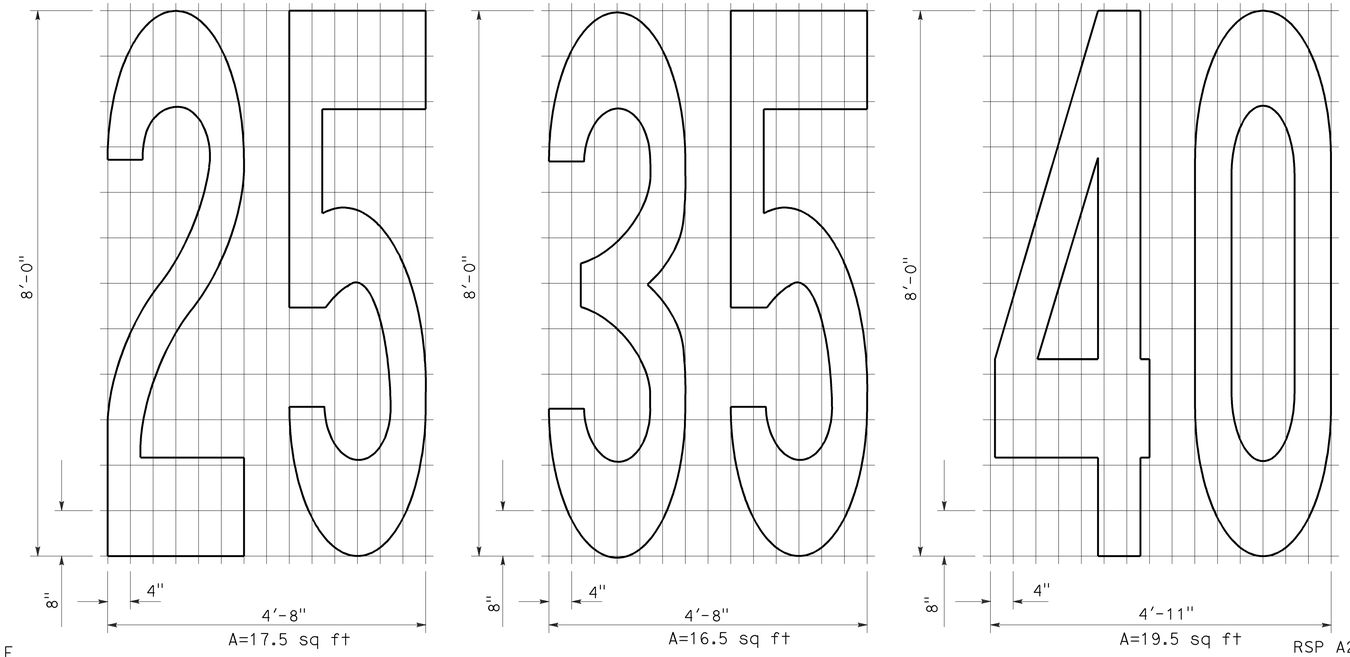
DIAMOND SYMBOL



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

2006 REVISED STANDARD PLAN RSP A24C

5-27-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	19	31

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jeffery G. McRae No. E14512 Exp. 6-30-08 ELECTRICAL 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 9-29-10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

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.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	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		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

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
03	ED,Sac	5,49,50 99,244	Var	20	31

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 9-29-10

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 (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION

Type of installation

TYPE H SERVICE - 28'-10" ← Pole height above grade

ILLUMINATED OVERHEAD SIGN

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

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
PV	PV	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
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	21	31

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 9-29-10

2006 REVISED STANDARD PLAN RSP ES-1C

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345
10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

Ø1, Ø2, Ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED EXISTING

Pull box-No. 5 unless otherwise indicated or noted.

3 9A(21)

Pull box-Additional designations or descriptions

3 = No. 3½ pull box
5 = No. 5 pull box
6 = No. 6 pull box
7 = No. 7 (Ceiling pull box)
8 = No. 8 (Pendant soffit pull box)
9 = No. 9 pull box
9A = No. 9A pull box

(C) = Communications pull box
(E) = Pull box with extension
(S) = Sprinkler control pull box
(21) = Anchor bolts and conduit for future installation of Type 21 Standard
(T) = Traffic pull box

VEHICLE DETECTORS

5 J 9 U

- U = Upper
- L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
DH	dh	Detector handhole
		Microwave or video detection zone

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	22	31

REGISTERED ELECTRICAL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-10
ELECTRICAL
STATE OF CALIFORNIA

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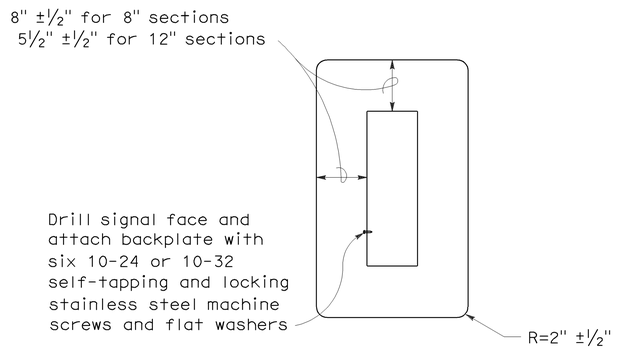
To accompany plans dated 9-29-10

2006 REVISED STANDARD PLAN RSP ES-4C

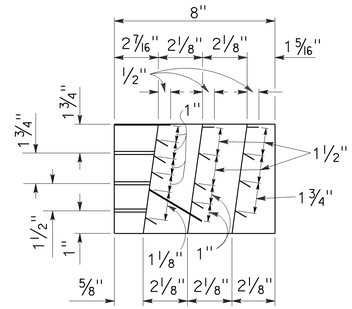
VISORS



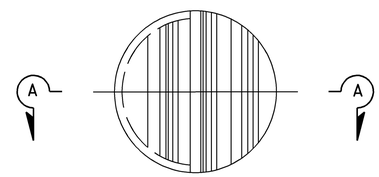
8" AND 12" SECTIONS

BACKPLATE

1/16" minimum thickness
3001-14 aluminum, or plastic when specified



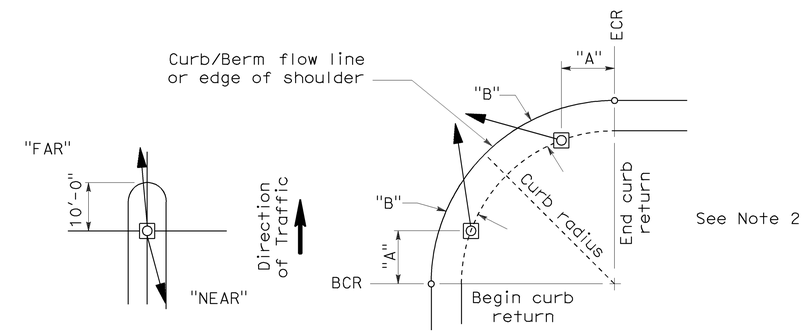
SECTION A-A



FRONT VIEW

DIRECTIONAL LOUVER

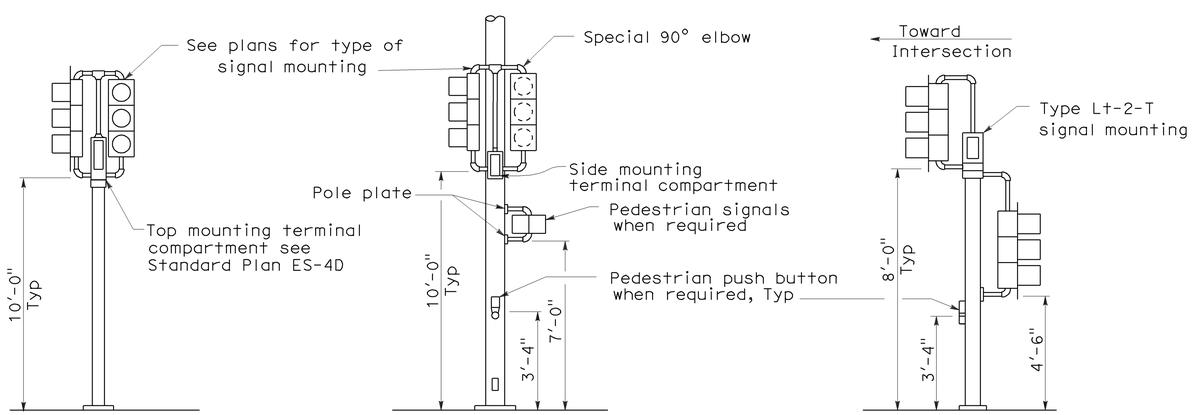
Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.



NOTES:

1. Typical signal pole placement unless dimensioned on plans.
2. For "A" and "B" dimensions, see Pole Schedule, or as directed by the Engineer.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS

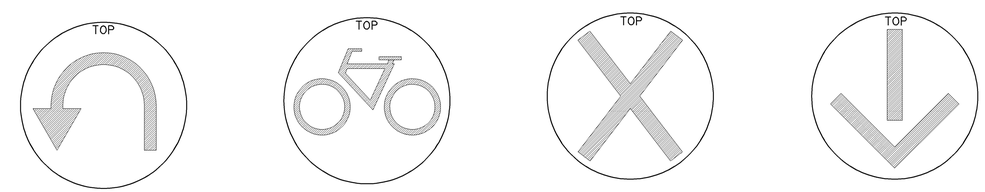


TOP MOUNTED SIGNALS (TV)
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)
Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL
Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans

TYPICAL SIGNAL INSTALLATIONS



U-TURN SIGNAL FACE

BICYCLE SIGNAL FACE

LANE CONTROL SIGNAL FACE

LANE CONTROL SIGNAL FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4C

5-19-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	23	31

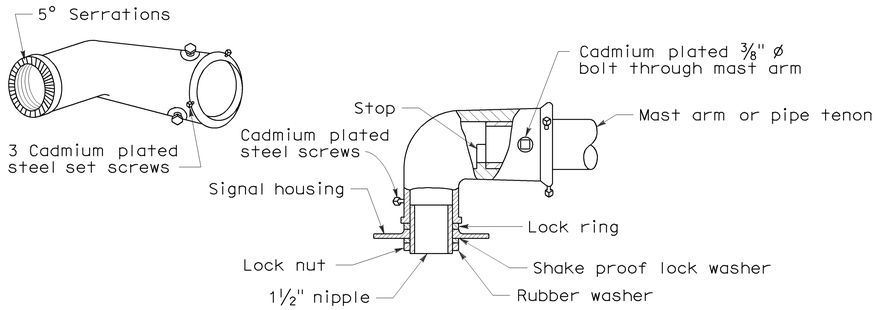
REGISTERED ELECTRICAL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jeffery G. McRae No. E14512 Exp. 6-30-10 ELECTRICAL STATE OF CALIFORNIA

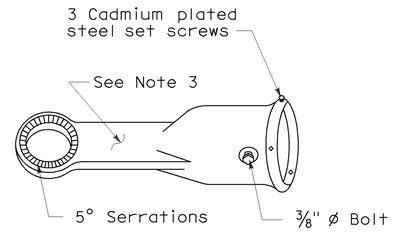
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 9-29-10



MAST ARM MOUNTING - TYPE "MAT"

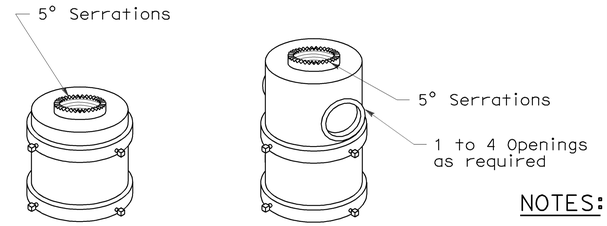
For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"

For 2 NPS pipe. See Note 1.

SIGNAL SLIP FITTERS



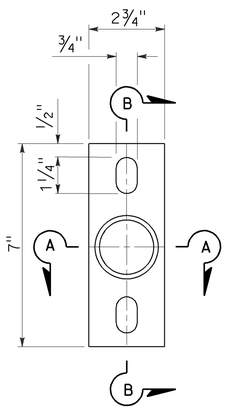
For one mounting For mulitiple mountings

TOP MOUNTINGS

For 4 NPS pipe, see Note 2.

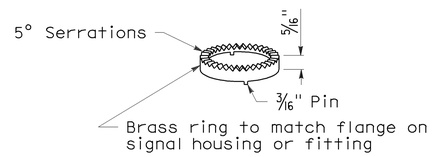
NOTES:

1. After mast arm signal has been plumbed and secured, drill 7/16" hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated ⅜" ø galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
2. (a) Threaded top mounted slip fitter openings shall be 1½ NPS.
   (b) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
   (c) Top opening shall be offset when backplate is used.
3. Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of ½".



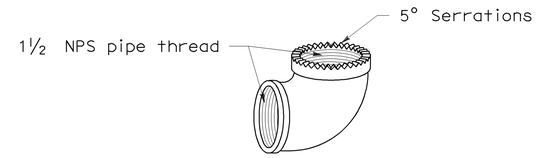
POLE PLATE

For side mountings



LOCK RING

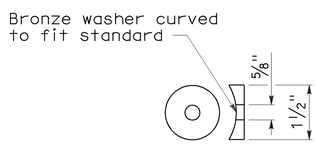
Use where locking ring is not integral with signal housing or fitting.



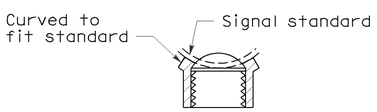
SPECIAL 90° ELBOW

One for each signal head, except those with special slip fitter mounting

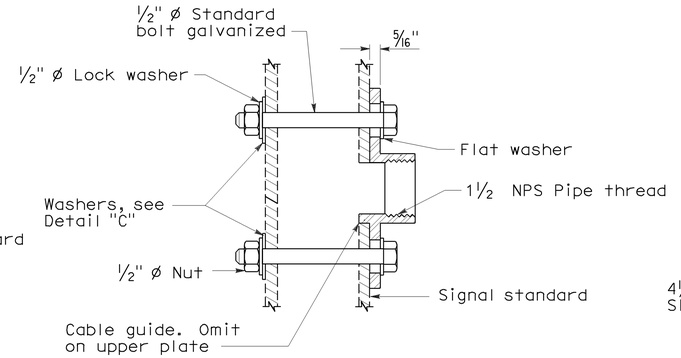
MISCELLANEOUS MOUNTING HARDWARE



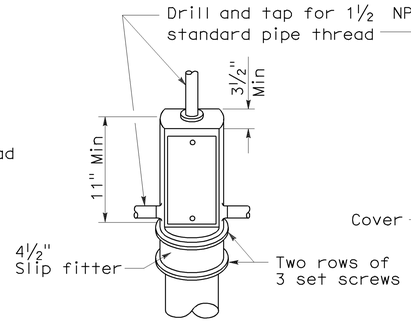
DETAIL "C"



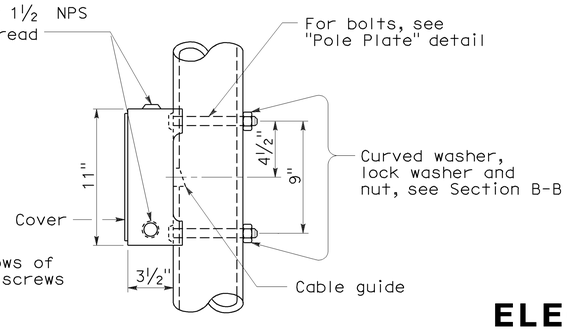
SECTION A-A



SECTION B-B



TOP MOUNTING



SIDE MOUNTING

TERMINAL COMPARTMENTS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D
DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

5-19-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	24	31

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

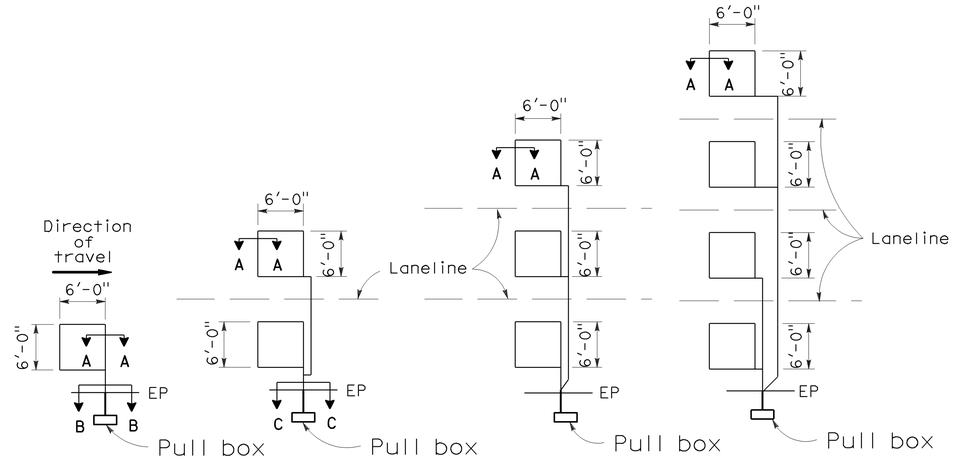
REGISTERED PROFESSIONAL ENGINEER Jeffery G. McRae No. E14512 Exp. 6-30-08 ELECTRICAL STATE OF CALIFORNIA

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 9-29-10

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. 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.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. 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.
8. 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.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. 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.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. 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.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. 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.

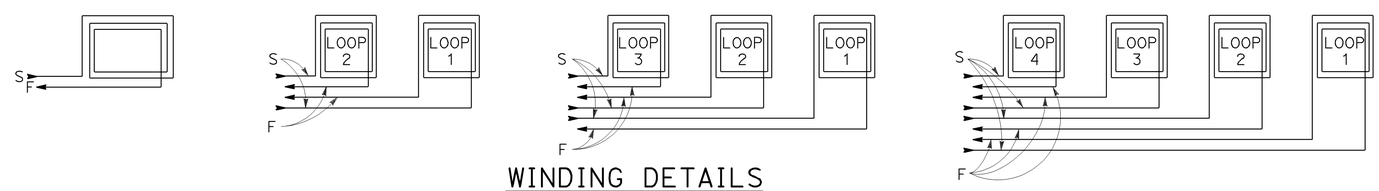


TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

SAWCUT DETAILS

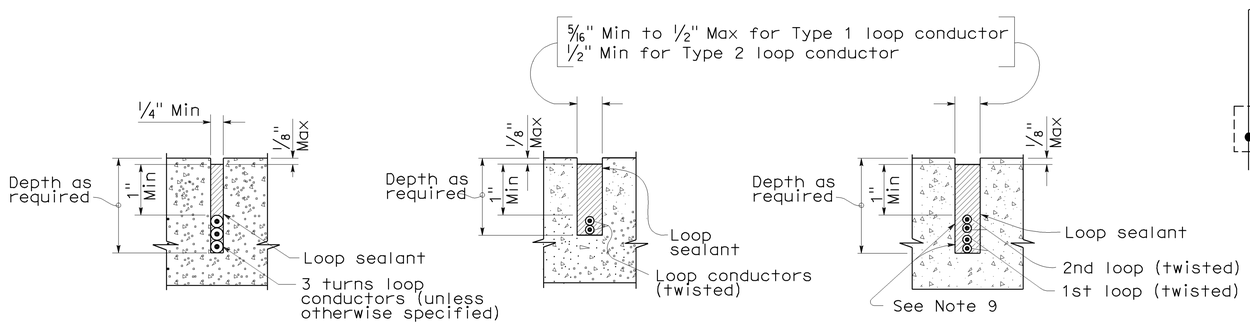
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 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)



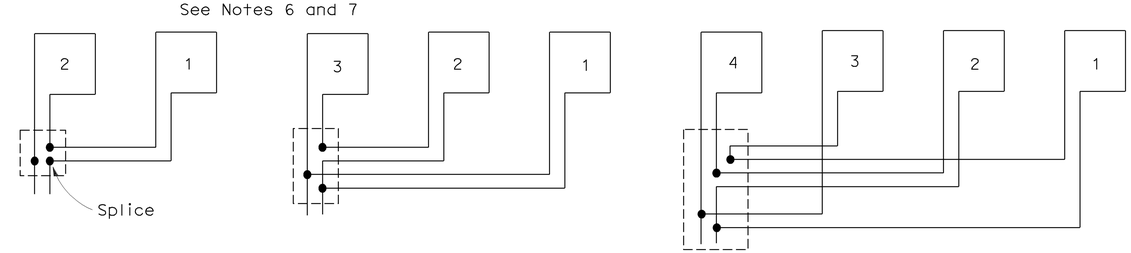
WINDING DETAILS

See Notes 6 and 7



SECTION A-A | SECTION B-B | SECTION C-C

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	25	31

REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Stanley P. Johnson No. C57793 Exp. 3-31-08 CIVIL STATE OF CALIFORNIA

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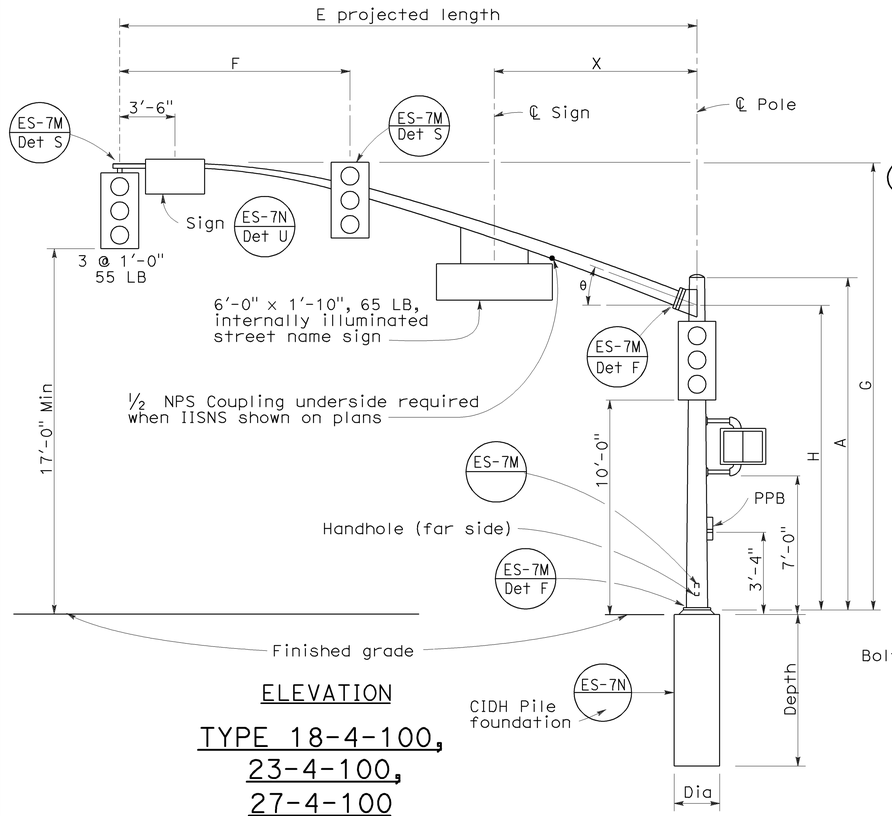
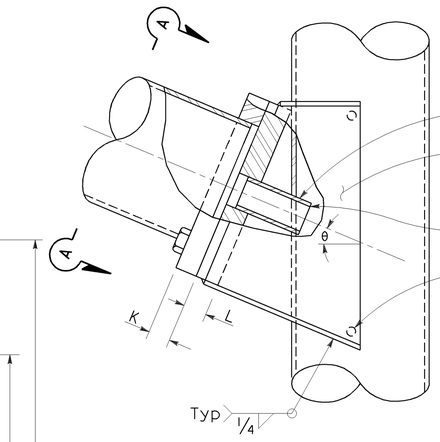
To accompany plans dated 9-29-10

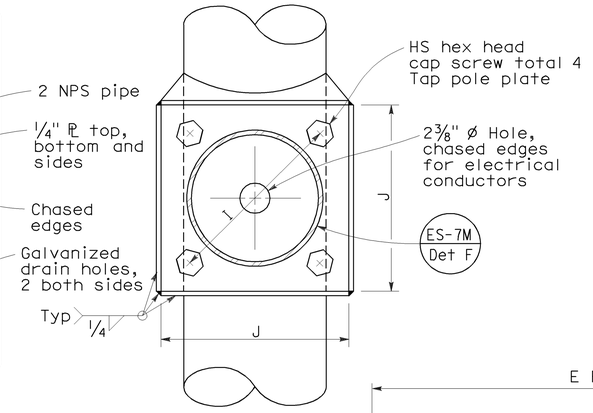


ELEVATION

TYPE 18-4-100, 23-4-100, 27-4-100

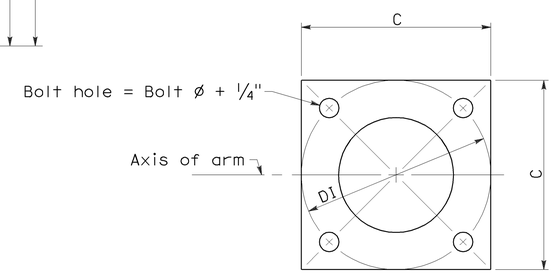


ELEVATION

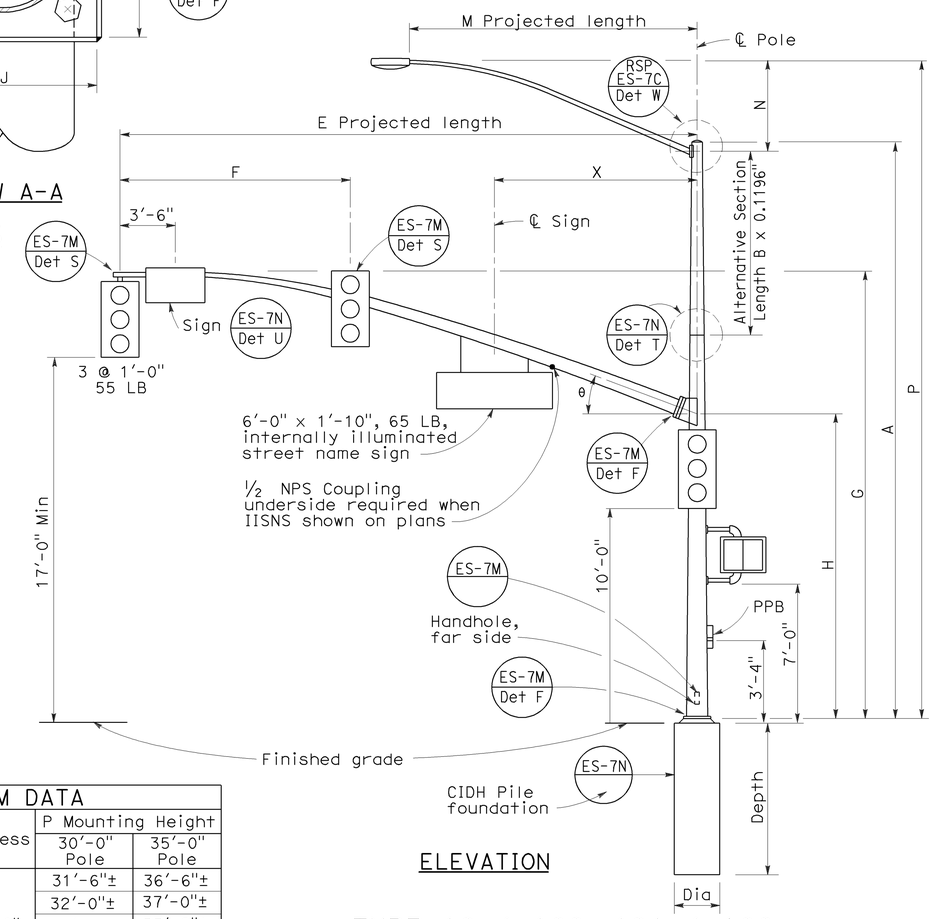


VIEW A-A

SIGNAL ARM CONNECTION DETAILS



BASE PLATE



ELEVATION

TYPE 19-4-100, 19A-4-100, 24-4-100, 24A-4-100, 26-4-100, 26A-4-100

SIGNAL ARM DATA												
E Projected Length	F Min Spacing	G Mounting Height	H	Min OD at Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate Size	K Arm PL Thickness	L Pole PL Thickness	θ	X Max
25'-0"	10'-0"	22'-8"±	16'-0"	7 5/16"	0.2391"	12"	1¼"-7NC-3"	1'-0"	1¼"	1½"	23°	10'-6"
30'-0"	12'-0"	23'-0"±		8"								
35'-0"	14'-0"			8 11/16"		13½"		1'-1½"	1½"	1¾"	21°	
40'-0"	15'-0"			9⅜"							15°	13'-0"
45'-0"		23'-8"±		10¼"								

LUMINAIRE ARM DATA					
M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height 30'-0" Pole	P Mounting Height 35'-0" Pole
6'-0"	2'-0"±	3¼"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3½"		32'-0"±	37'-0"±
10'-0"	3'-3"±	3⅜"		32'-9"±	37'-9"±
12'-0"	4'-3"±			33'-9"±	38'-9"±
15'-0"	4'-9"±	4¼"		34'-3"±	39'-3"±

Pole Type	Load Case	Wind Velocity mph	POLE DATA A Height	Min OD Base	Min OD Top	Thickness	Alternative Section B Length	Alternative Section Bottom	Alternative Section Top	BASE PLATE DATA C	DI Bolt Circle	Thickness	Anchor Bolts Size	Luminaire Arm	Signal Arm	CIDH PILE FOUNDATION Dia	Depth	Reinforced
18-4-100	4	100	17'-0"	12"	9"	0.2391"	None			1'-6"	1'-6"	1½"	2" Ø x 42" x 6"	None	25'-0", 30'-0"	3'-0"	9'-0"	Yes
19-4-100			30'-0"		8"		10'-0"	9⅜"	8"					6'-15' 12'-0"				
19A-4-100			35'-0"		7 5/16"		15'-0'		7 5/16"					6'-15' 15'-0"				
23-4-100			17'-0"		9"		None							None	35'-0"			
24-4-100			30'-0"		8"		10'-0"	9⅜"	8"					6'-15' 12'-0"				
24A-4-100			35'-0"		7 5/16"		15'-0"		7 5/16"					6'-15' 15'-0"				
26-4-100			30'-0"	12½"	8"	0.3125"	10'-0"	9¾"	8 3/8"					6'-15' 12'-0"	40'-0", 45'-0"			
26A-4-100			35'-0"		7 5/16"		15'-0"		7 11/16"					6'-15' 15'-0"				
27-4-100			17'-0"		9¾"		None							None				

☐ Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD CASE 4 ARM LOADING WIND VELOCITY=100 MPH ARM LENGTHS 25' TO 45')

NO SCALE

RSP ES-7F DATED OCTOBER 5, 2007 SUPERCEDES RSP ES-7F DATED NOVEMBER 17, 2006 AND STANDARD PLAN ES-7F DATED MAY 1, 2006 - PAGE 442 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7F

2006 REVISED STANDARD PLAN RSP ES-7F

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	26	31

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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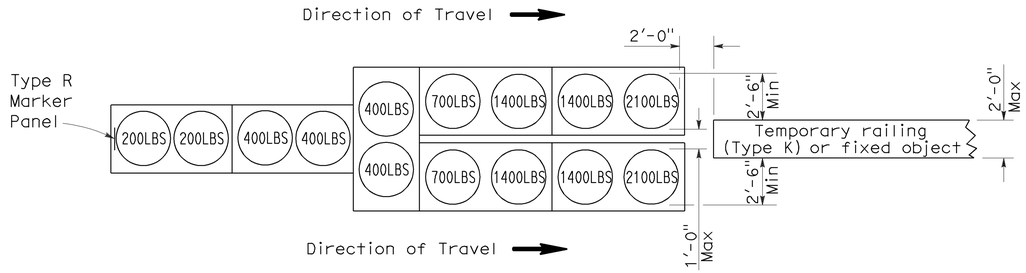
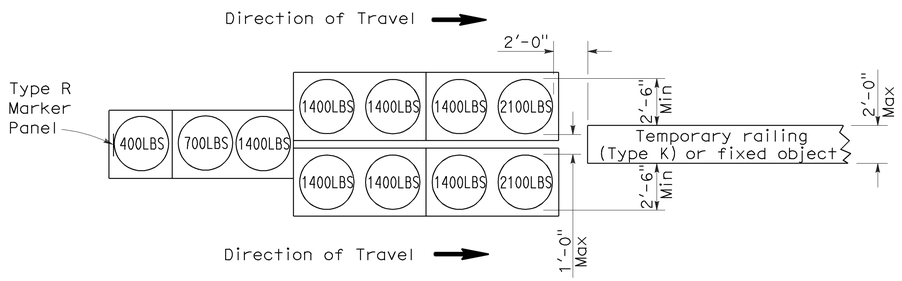
To accompany plans dated 9-29-10



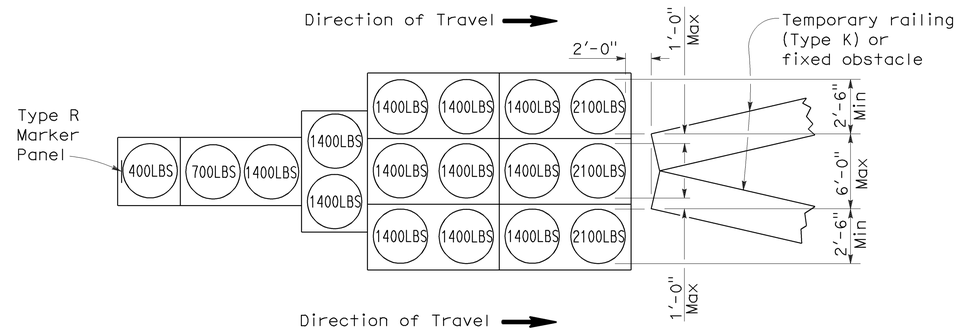
ARRAY 'TU14'

Approach speed 45 mph or more



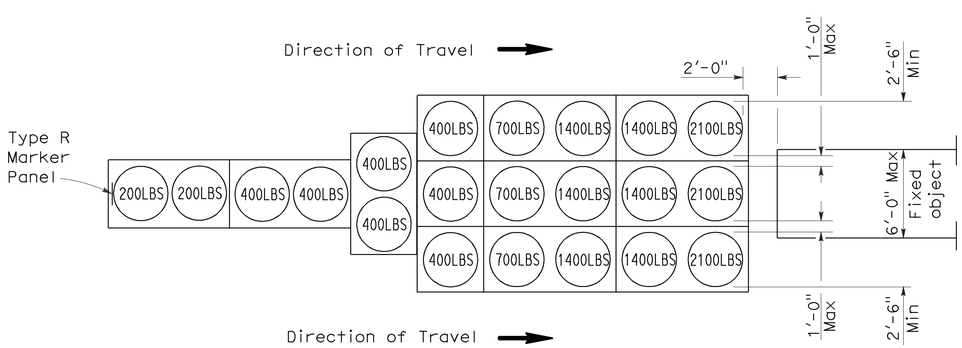
ARRAY 'TU11'

Approach speed less than 45 mph



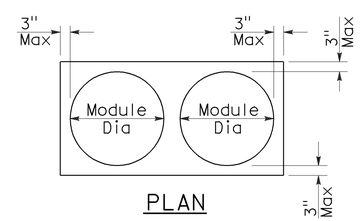
ARRAY 'TU17'

Approach speed less than 45 mph

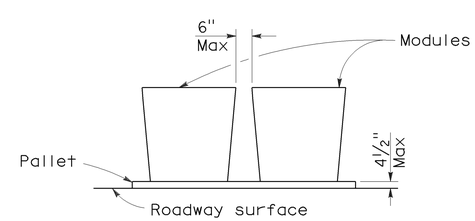


ARRAY 'TU21'

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
03	ED,Sac	5,49,50 99,244	Var	27	31

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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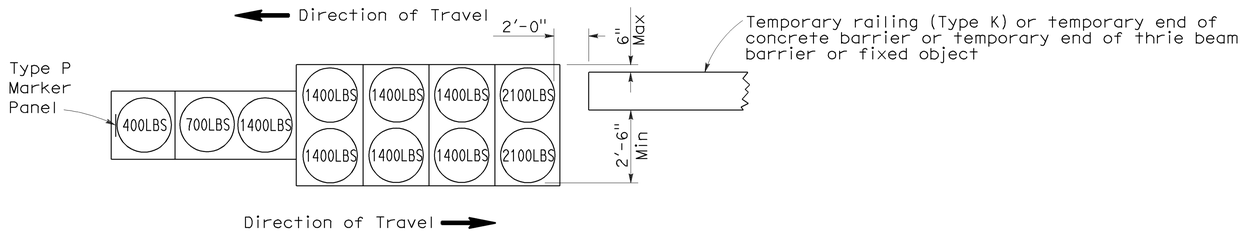
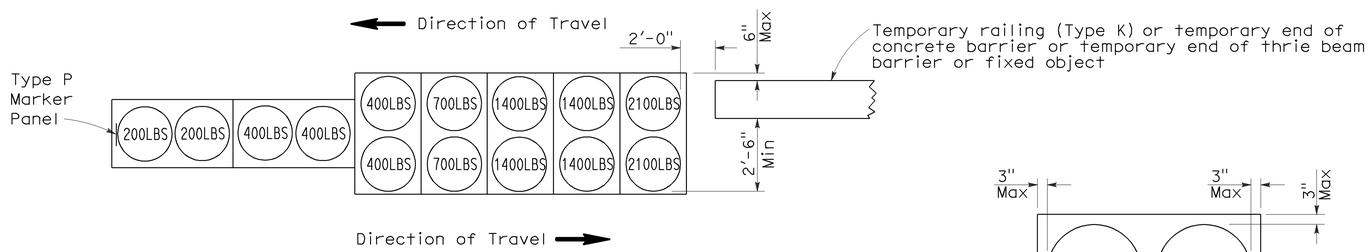
To accompany plans dated 9-29-10



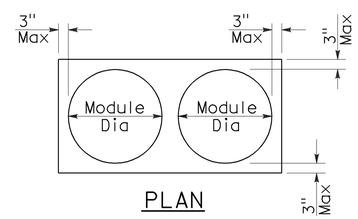
ARRAY 'TB11'

Approach speed less than 45 mph

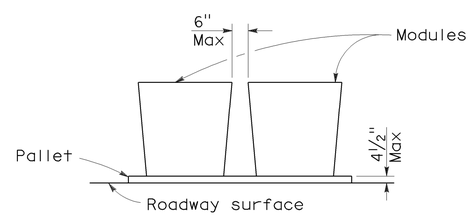


ARRAY 'TB14'

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Sac	5,49,50 99,244	Var	28	31

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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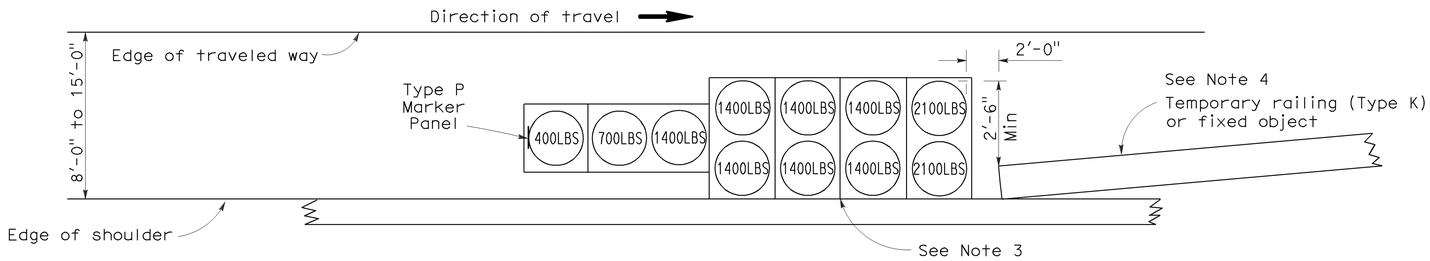
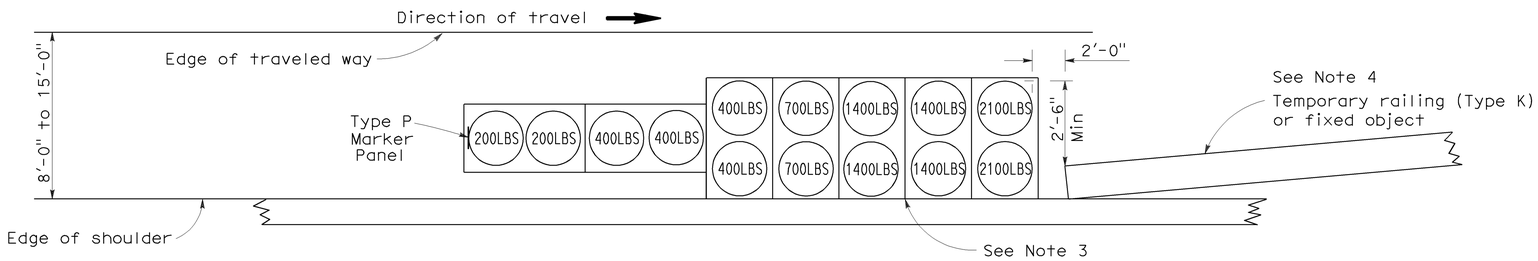
To accompany plans dated 9-29-10



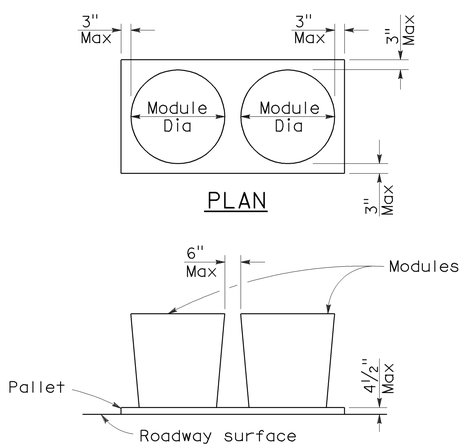
ARRAY 'TS11'

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:

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
03	ED,Sac	5,49,50, 99,244	Var	29	31

REGISTERED CIVIL ENGINEER 05-25-10 DATE

09-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Robert G. Jones No. 65676 Exp. 9-30-11 CIVIL STATE OF CALIFORNIA

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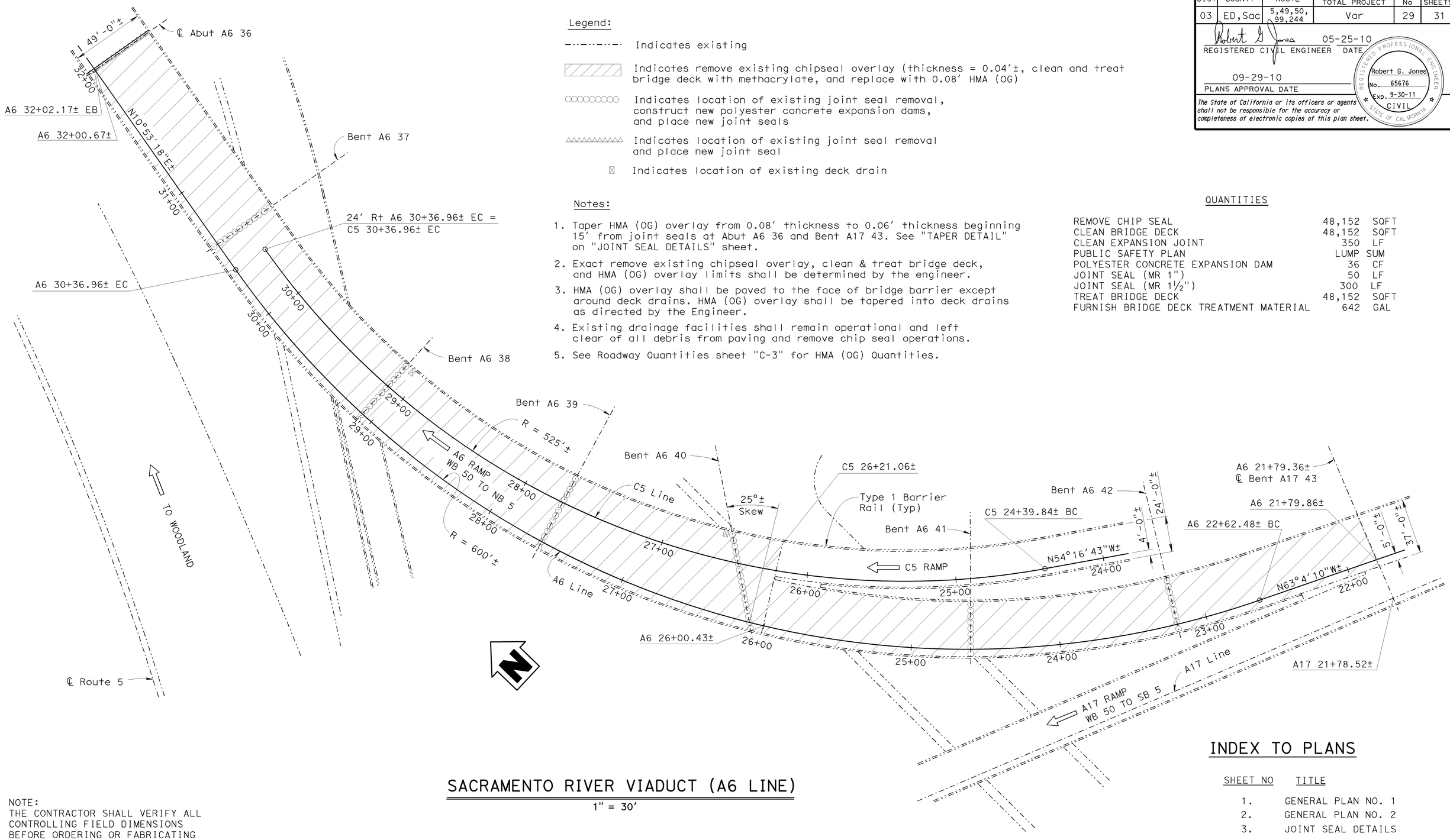

Legend:

- Indicates existing
- Indicates remove existing chipseal overlay (thickness = 0.04'±, clean and treat bridge deck with methacrylate, and replace with 0.08' HMA (OG)
- Indicates location of existing joint seal removal, construct new polyester concrete expansion dams, and place new joint seals
- Indicates location of existing joint seal removal and place new joint seal
- Indicates location of existing deck drain

Notes:

1. Taper HMA (OG) overlay from 0.08' thickness to 0.06' thickness beginning 15' from joint seals at Abut A6 36 and Bent A17 43. See "TAPER DETAIL" on "JOINT SEAL DETAILS" sheet.
2. Exact remove existing chipseal overlay, clean & treat bridge deck, and HMA (OG) overlay limits shall be determined by the engineer.
3. HMA (OG) overlay shall be paved to the face of bridge barrier except around deck drains. HMA (OG) overlay shall be tapered into deck drains as directed by the Engineer.
4. Existing drainage facilities shall remain operational and left clear of all debris from paving and remove chip seal operations.
5. See Roadway Quantities sheet "C-3" for HMA (OG) Quantities.

QUANTITIES

REMOVE CHIP SEAL	48,152	SQFT
CLEAN BRIDGE DECK	48,152	SQFT
CLEAN EXPANSION JOINT	350	LF
PUBLIC SAFETY PLAN	LUMP	SUM
POLYESTER CONCRETE EXPANSION DAM	36	CF
JOINT SEAL (MR 1")	50	LF
JOINT SEAL (MR 1½")	300	LF
TREAT BRIDGE DECK	48,152	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	642	GAL

SACRAMENTO RIVER VIADUCT (A6 LINE)

1" = 30'

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

INDEX TO PLANS

SHEET NO	TITLE
1.	GENERAL PLAN NO. 1
2.	GENERAL PLAN NO. 2
3.	JOINT SEAL DETAILS

Jeff Sims
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Greg Jones	Greg Thornton
DETAILS	Jie Tang	Greg Thornton
QUANTITIES	Greg Jones	Greg Thornton
LAYOUT	Jie Tang	Greg Thornton
SPECIFICATIONS	Rebecca Franti	PLANS AND SPECS COMPARED Rebecca Franti

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. 24-0004L
POST MILE L0.01

HIGHWAY 50 BRIDGES
GENERAL PLAN NO. 1

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03
EA 0F9201

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 03/04/10 03/08/10 03/19/10 04/12/10 04/14/10 05/20/10 07/26/10 08/04/10

SHEET 1 OF 3

FILE => 03-0f9201-a-gp01.dgn

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

USERNAME => jtong DATE PLOTTED => 29-SEP-2010 TIME PLOTTED => 13:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	30	31

REGISTERED CIVIL ENGINEER 05-25-10 DATE

09-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Robert G. Jones No. 65676 Exp. 9-30-11 CIVIL STATE OF CALIFORNIA

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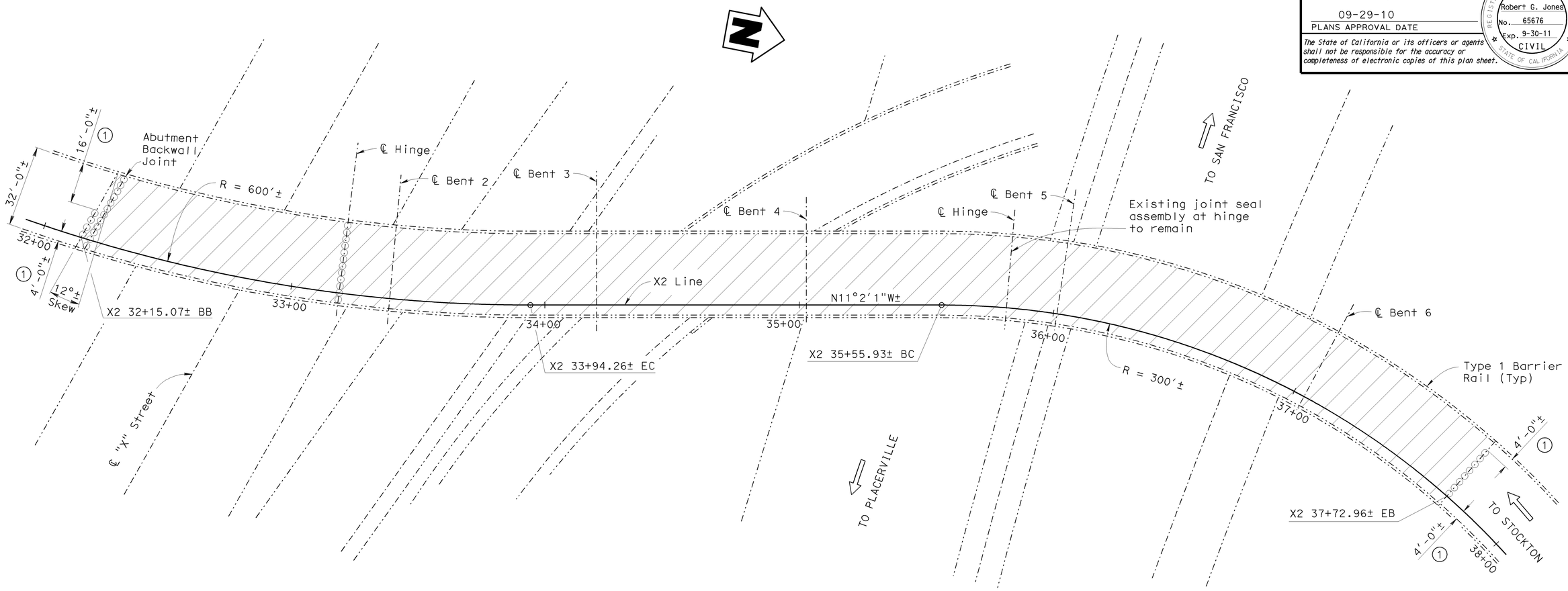

W50 TO S99 CONNECTOR

1" = 20'

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	17,934	SQFT
CLEAN BRIDGE DECK	17,934	SQFT
CLEAN EXPANSION JOINT	103	LF
POLYESTER CONCRETE EXPANSION DAM	12	CF
JOINT SEAL (MR 1/2")	70	LF
JOINT SEAL (MR 1 1/2")	33	LF
TREAT BRIDGE DECK	17,934	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	239	GAL

Legend:

Indicates existing

Indicates remove existing AC overlay (thickness = 0.125'±), clean and treat bridge deck with methacrylate, and replace with 0.08' HMA (OG).

Indicates location of existing expansion dam and joint seal removal, construct new polyester concrete expansion dams, and place new joint seals

(1) Indicates limits of AC approach

Notes:

1. Exact remove existing AC overlay, clean & treat bridge deck, and HMA (OG) overlay limits shall be determined by the Engineer.
2. HMA (OG) overlay shall be paved to the face of bridge barrier.
3. See Roadway Quantities sheet "C-3" for HMA (OG) Quantities.

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

Jeff Sims
DESIGN ENGINEER

	BY	CHECKED		BY	CHECKED
DESIGN	Greg Jones	Greg Thornton			
DETAILS	Jie Tang	Greg Thornton	LAYOUT	Jie Tang	Greg Thornton
QUANTITIES	Greg Jones	Greg Thornton	SPECIFICATIONS	Rebecca Franti	PLANS AND SPECS COMPARED Rebecca Franti

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. 24-0234F
POST MILE L2.43

HIGHWAY 50 BRIDGES
GENERAL PLAN NO. 2

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

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EA 0F9201

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 03/03/10 03/19/10 04/12/10 04/14/10 05/28/10 07/26/10 08/04/10

SHEET 2 OF 3

FILE => 03-0f9201-a-gp02.dgn

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

USERNAME => jhong DATE PLOTTED => 29-SEP-2010 TIME PLOTTED => 13:01

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Sac	5,49,50, 99,244	Var	31	31

REGISTERED CIVIL ENGINEER 05-25-10 DATE

09-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Robert G. Jones No. 65676 Exp. 9-30-11 CIVIL STATE OF CALIFORNIA

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JOINT SEAL TABLE

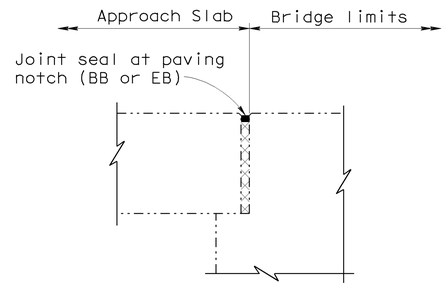
Bridge No.	Location	Minimum "MR" (in)	Approx Length (ft)	Existing Waterstop	Approx Depth to Clean Exp Joint (in)
24-0004L	Abut 36 BW	1.0	49.5	Yes	6
	Bent 37	1.5	49.5	Yes	6
	Bent 38	1.5	51.0	Yes	6
	Bent 39	1.5	55.5	Yes	6
	Bent 40	1.5	68.5	Yes	6
	Bent 41	1.5	37.5	Yes	6
	Bent 42	1.5	37.5	Yes	6
24-0234F	Abut 1 BB	½	12.5	No	12
	Abut 1 BW	½	33.5	Yes	6
	Span 3 H	1.5	32.5	Yes	6
	Abut 7 EB	½	24.0	No	12

Legend:

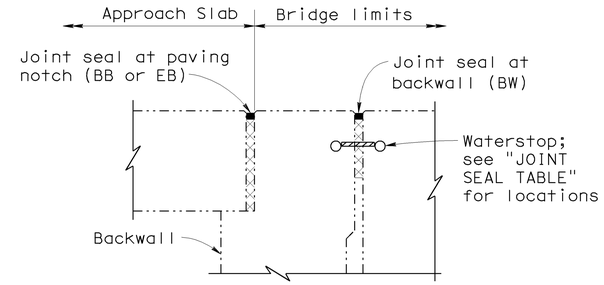
BB - Paving notch at beginning of bridge
EB - Paving notch at end of bridge
BW - Abutment backwall joint
H - Hinge joint

The following notes apply to JOINT SEAL TYPE B:

1. Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
2. Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the engineer.
3. W1 shall be the smaller of the values determined as follows:
   A. 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
   B. The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3 psi.
4. Bend Type B joint seal 6" up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.



DIAPHRAGM ABUTMENT



ABUTMENT WITH BACKWALL AND PAVING NOTCH

JOINT SEAL LOCATION

NO SCALE

Notes:

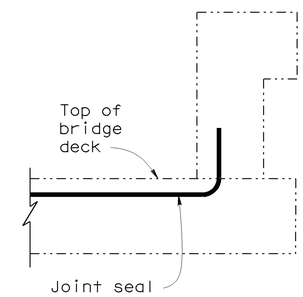
Indicates Exist structure.

Indicates limits of Exist joint seal, expansion dam or AC overlay removal.

Indicates limits of new polyester concrete expansion dam.

Standard Plan Sheet. No.

Detail No.

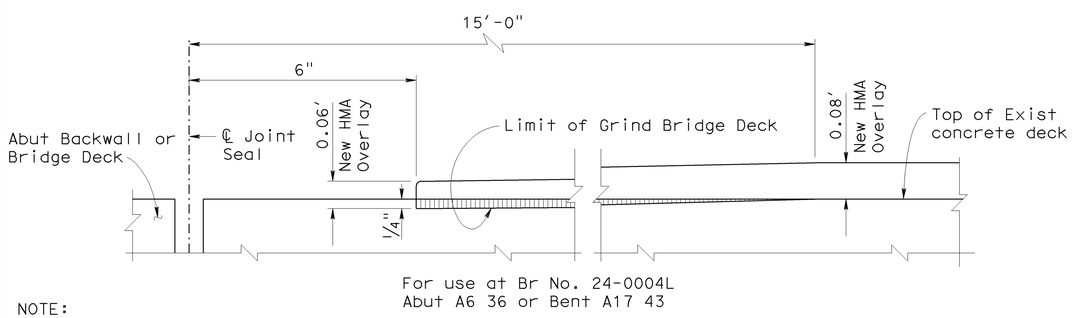


BARRIER RAIL

Note:
Details shown for illustration purposes only. For use only where deck joint matches the barrier rail joint.

JOINT SEAL AT LOW SIDE OF DECK

NO SCALE



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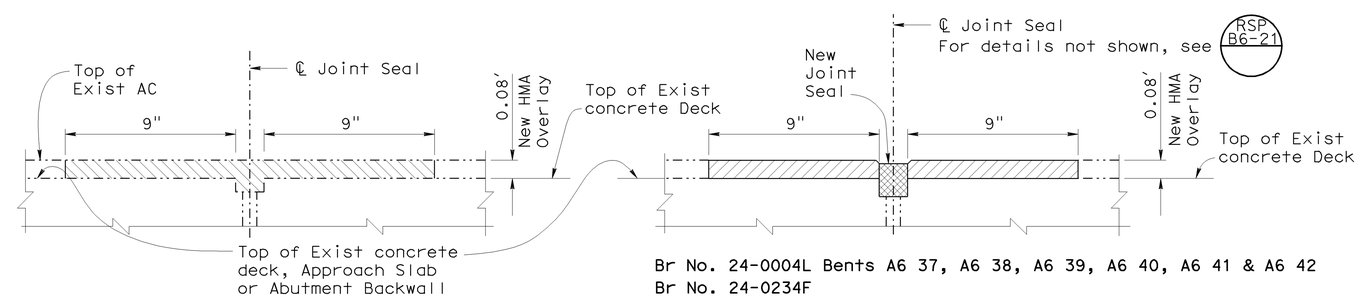
TAPER DETAIL

NO SCALE



EXISTING

Br No. 24-0004L Bents A6 37, A6 38, A6 39, A6 40, A6 41 & A6 42
Br No. 24-0234F

RECONSTRUCTION

EXPANSION DAM DETAILS

3" = 1'-0"

DESIGN	BY Greg Jones	CHECKED Greg Thornton	
DETAILS	BY Jie Tang	CHECKED Greg Thornton	
QUANTITIES	BY Greg Jones	CHECKED Greg Thornton	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 1

BRIDGE NO. Varies
POST MILE Varies

HIGHWAY 50 BRIDGES
JOINT SEAL DETAILS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES 03/09/10 03/11/10 04/12/10 04/14/10 05/28/10 07/26/10

SHEET 3 OF 3

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USERNAME => jtang DATE PLOTTED => 29-SEP-2010 TIME PLOTTED => 13:01