INDEX OF PLANS

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2	TYPICAL CROSS SECTIONS
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5	CONSTRUCTION AREA SIGNS
6-7	PAVEMENT DELINEATION DETAILS AND QUANTITIES
8-9	SUMMARY OF QUANTITIES
10-11	ELECTRICAL PLANS
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STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

NH-P0701(126)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	1	22

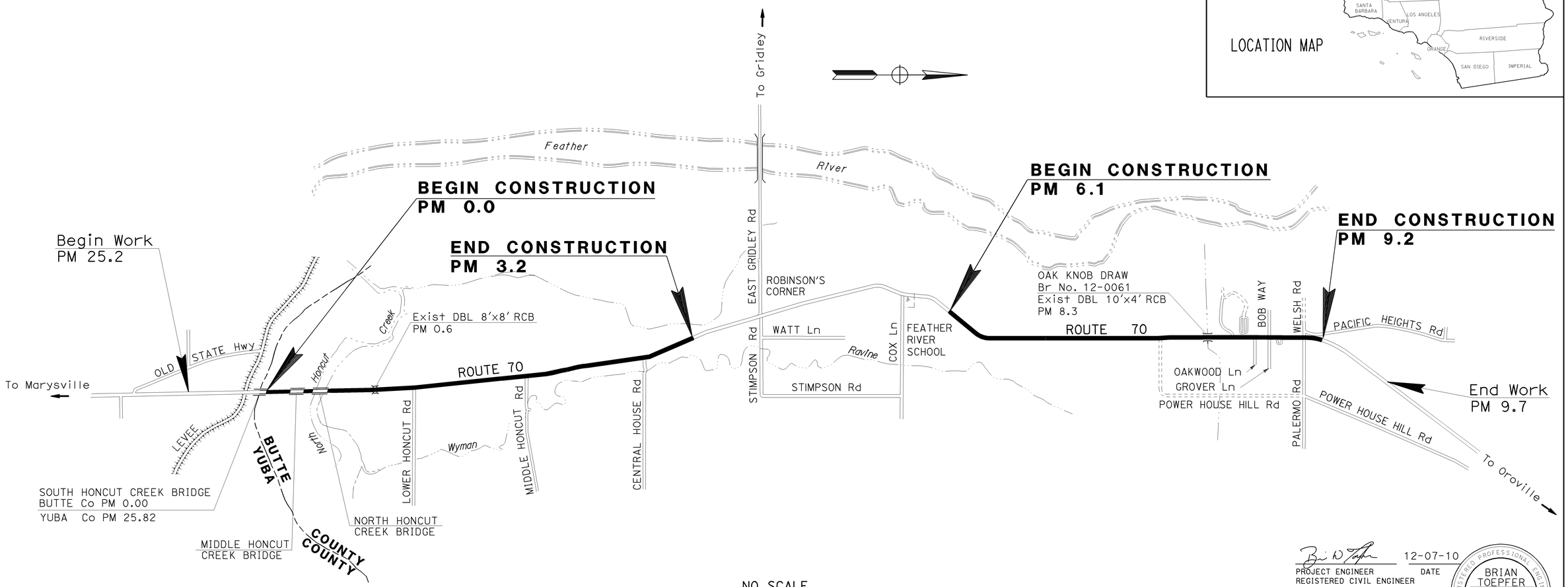
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN BUTTE COUNTY ABOUT TEN MILES SOUTH OF OROVILLE FROM SOUTH HONCUT CREEK BRIDGE TO 0.2 MILE NORTH OF CENTRAL HOUSE ROAD AND FROM 0.7 MILE NORTH OF COX LANE TO 0.1 MILE NORTH OF PALERMO ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

LOCATION MAP



NO SCALE

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

PROJECT MANAGER B. TOEPFER

DESIGN ENGINEER B. TOEPFER

12-07-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
BRIAN TOEPFER
No. 46278
Exp. 12-31-12
CIVIL
STATE OF CALIFORNIA

December 20, 2010
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.	03-3M8604
PROJECT ID	0300000606

LAST REVISION 00-00-00
DATE PLOTTED => 17-FEB-2011
TIME PLOTTED => 12:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	2	22

REGISTERED CIVIL ENGINEER — DATE 12-07-10

12-20-10
PLANS APPROVAL DATE

BRIAN TOEPFER
No. 46278
Exp 12-31-12
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

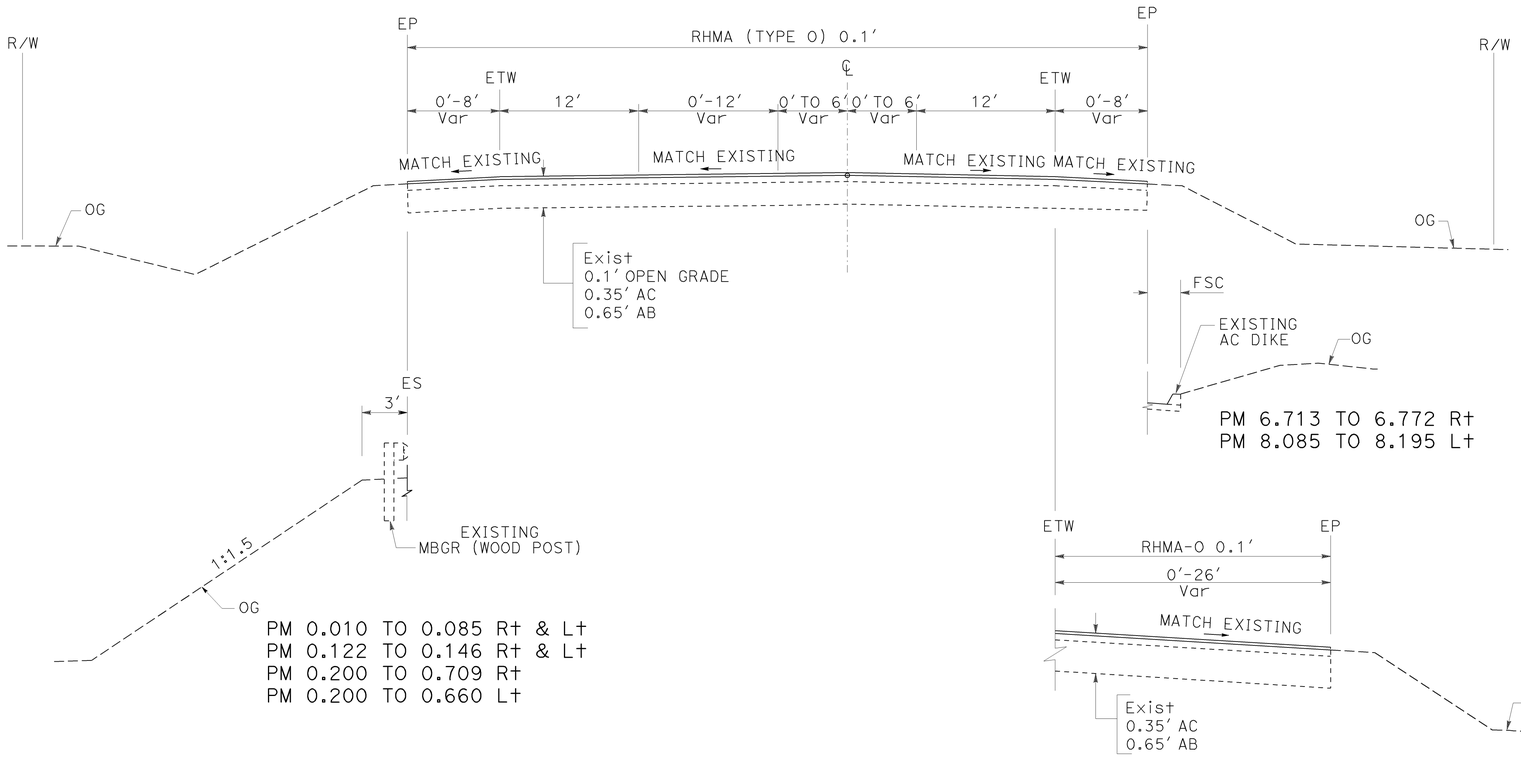
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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 THE ENGINEER.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

ABBREVIATIONS

FSC	FOG SEAL COAT
RHMA-O	RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)



TURNOUTS

PM 0.749 TO 0.800 Rt
PM 0.690 TO 0.749 Lt

ROUTE 70

PM 0.195 TO 3.2
PM 6.1 TO 9.2

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED
BRIAN KORTE | REX HERVEY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: BRIAN D. TOEPFER
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION | DATE PLOTTED => 21-DEC-2010
00-00-00 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010 | USERNAME => s130875 | DGN FILE => 0300000606ca001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0484 | PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	3	22

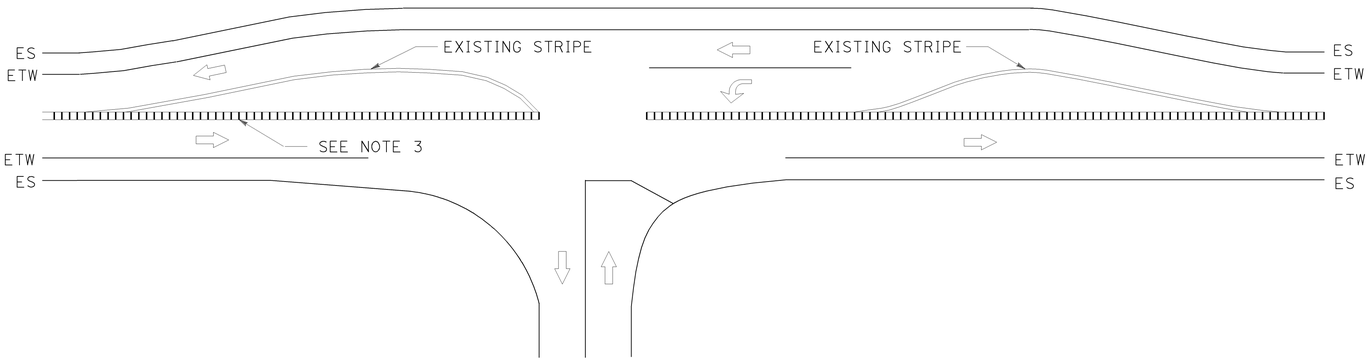
12-07-10
REGISTERED CIVIL ENGINEER DATE

12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRIAN TOEPFER
No. 46278
Exp 12-31-12
CIVIL
STATE OF CALIFORNIA

NOTES:

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
2. CENTERLINE RUMBLE STRIPS AS SHOWN ON THE PLANS WILL CONTINUE THROUGH LOCATIONS HAVING PRIVATE DRIVEWAYS UNLESS OTHERWISE NOTED ON THE PLANS.
3. ALL LOCATIONS LISTED ON THIS PLAN SHEET FOR BUT 70 WILL USE ONE OF THREE CENTERLINE DETAILS SHOWN ON SHEET PDD-1.
4. CENTERLINE RUMBLE STRIP MUST BE CONSTRUCTED PRIOR TO INSTALLING FINAL TRAFFIC STRIPES.
5. FOR LOCATIONS AND DIMENSIONS OF REPLACE ASPHALT CONCRETE SURFACING SEE SUMMARY OF QUANTITIES.

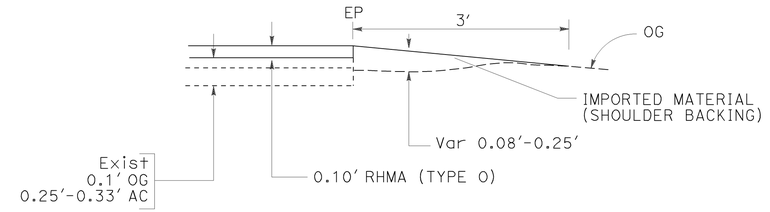


CENTERLINE RUMBLE STRIPS
AT GRADE INTERSECTION WITH TURN POCKET

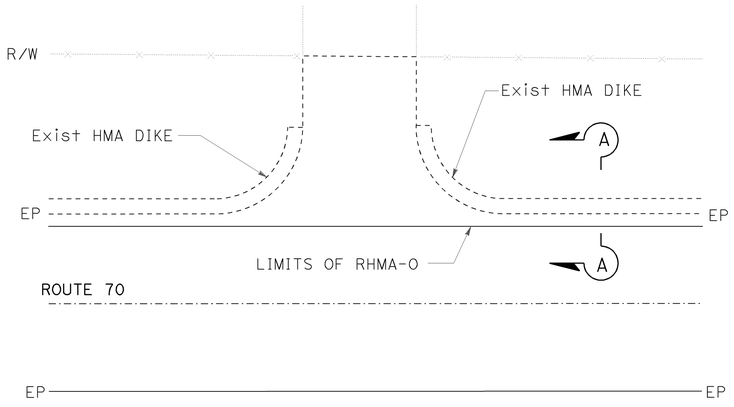
PM 0.97
PM 1.96
PM 3.00
PM 7.75

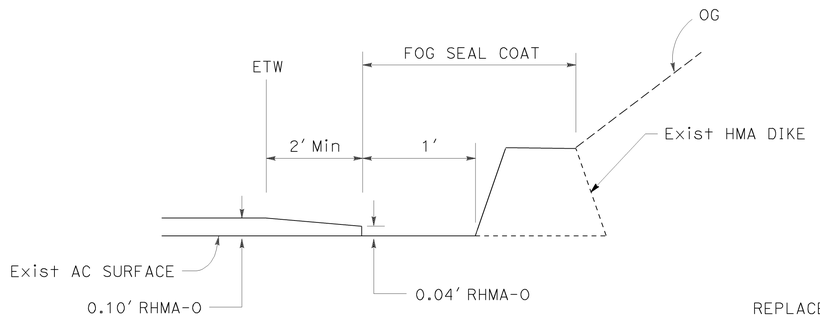
ABBREVIATION

RHMA-O RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)

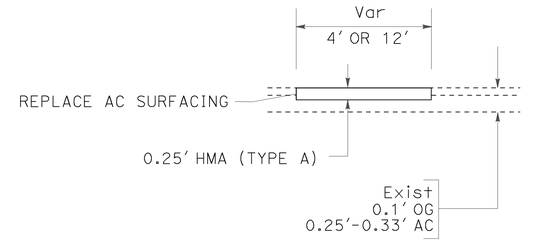


SHOULDER BACKING CONSTRUCTION





SECTION A-A



DRIVEWAY RHMA (TYPE O) PAVING - 2 LOCATIONS

PM 6.713 TO 6.772 RT
PM 8.085 TO 8.195 Lt

REPLACE ASPHALT CONCRETE SURFACING

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY | DATE REVISED
BRIAN KORTE | REX HERVEY
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | BRIAN D. TOEPFER
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | MAINTENANCE ENGINEERING | Caltrans

LAST REVISION | DATE PLOTTED => 21-DEC-2010
00-00-00 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010 | USERNAME => s130875 | DGN FILE => 0300000606ga001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0484 | PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	4	22

REGISTERED CIVIL ENGINEER — 12-07-10 DATE

12-20-10
PLANS APPROVAL DATE

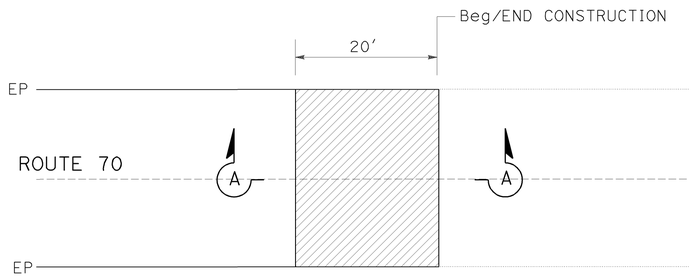
REGISTERED PROFESSIONAL ENGINEER
BRIAN TOEPFER
No. 46278
Exp 12-31-12
CIVIL
STATE OF CALIFORNIA

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

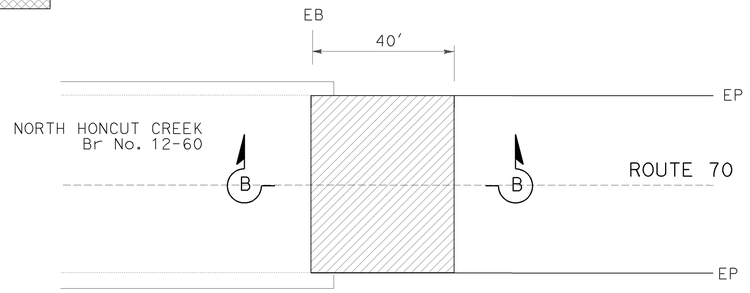
LEGEND:

COLD PLANE ASPHALT CONCRETE PAVEMENT (0.10' Max)

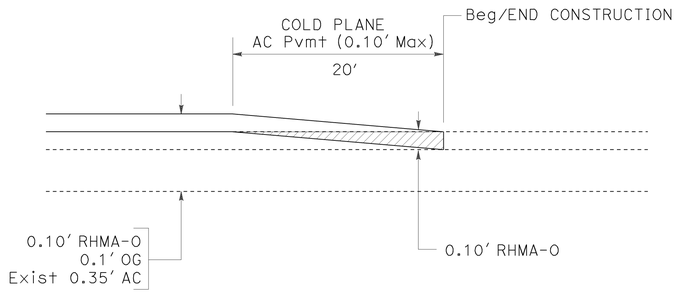
COLD PLANE ASPHALT CONCRETE PAVEMENT (0.25' Max)



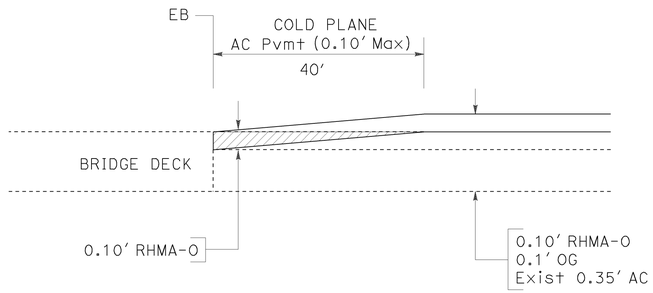
RHMA-O PAVING CONFORMAT PM 3.2, 6.1, 9.2



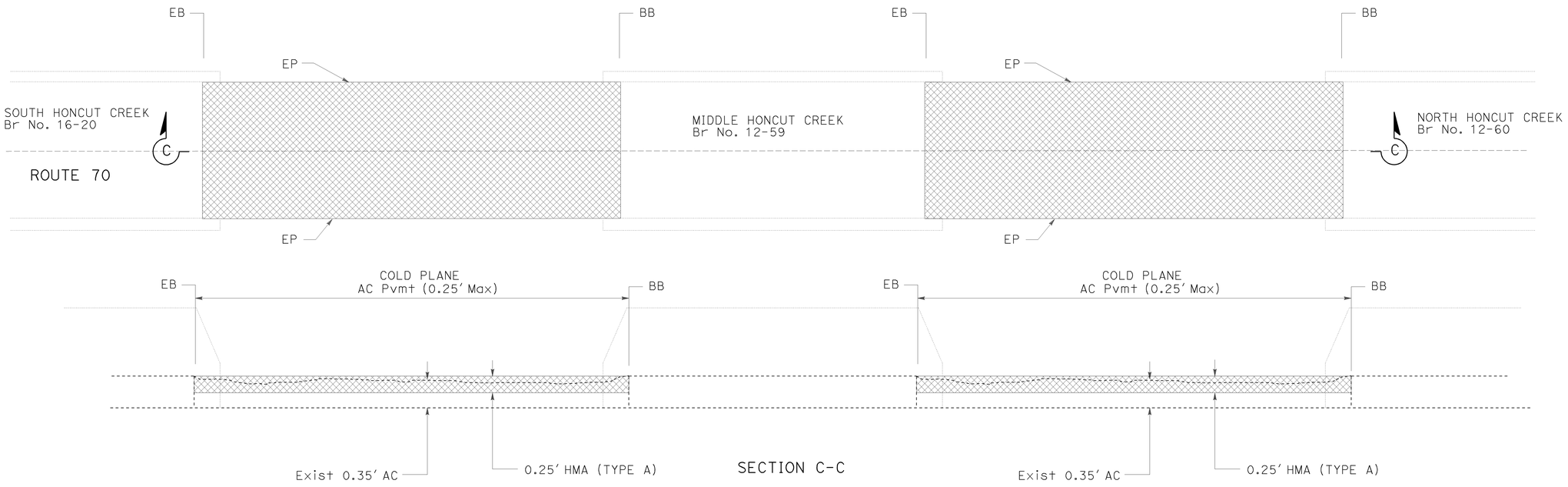
RHMA-O PAVING CONFORM AT EB



SECTION A-A



SECTION B-B



SECTION C-C

COLD PLANE AC Pvmt BETWEEN BRIDGE DECKS

CONSTRUCTION DETAILS

NO SCALE

C-2

REVISED BY | DATE REVISED

BRIAN KORTE | REX HERVEY

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: BRIAN D. TOEPFER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION | DATE PLOTTED => 21-DEC-2010
00-00-00 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010

USERNAME => s130875
DGN FILE => 0300000606ga002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0484

PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	5	22

John R. Keber 11-9-10
REGISTERED CIVIL ENGINEER DATE

12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
John R. Keber
No. 40048
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

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

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	W20-1	C23	48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	8
(B)	G20-2	C14	36" X 18"	END ROAD WORK	1 - 4" X 4"	10
(C)	G20-1[Spec](4)		60" X 30"	ROAD WORK NEXT 4 MILES	2 - 4" X 6"	4

NOTES:

1. EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. ALL SIGN CODES ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA <CA> SIGN CODES.

SIGN DETAILS

(C) G20-1[Spec](4)

ROAD WORK
NEXT 4 MILES

60"x30"

6" C SERIES LETTERS

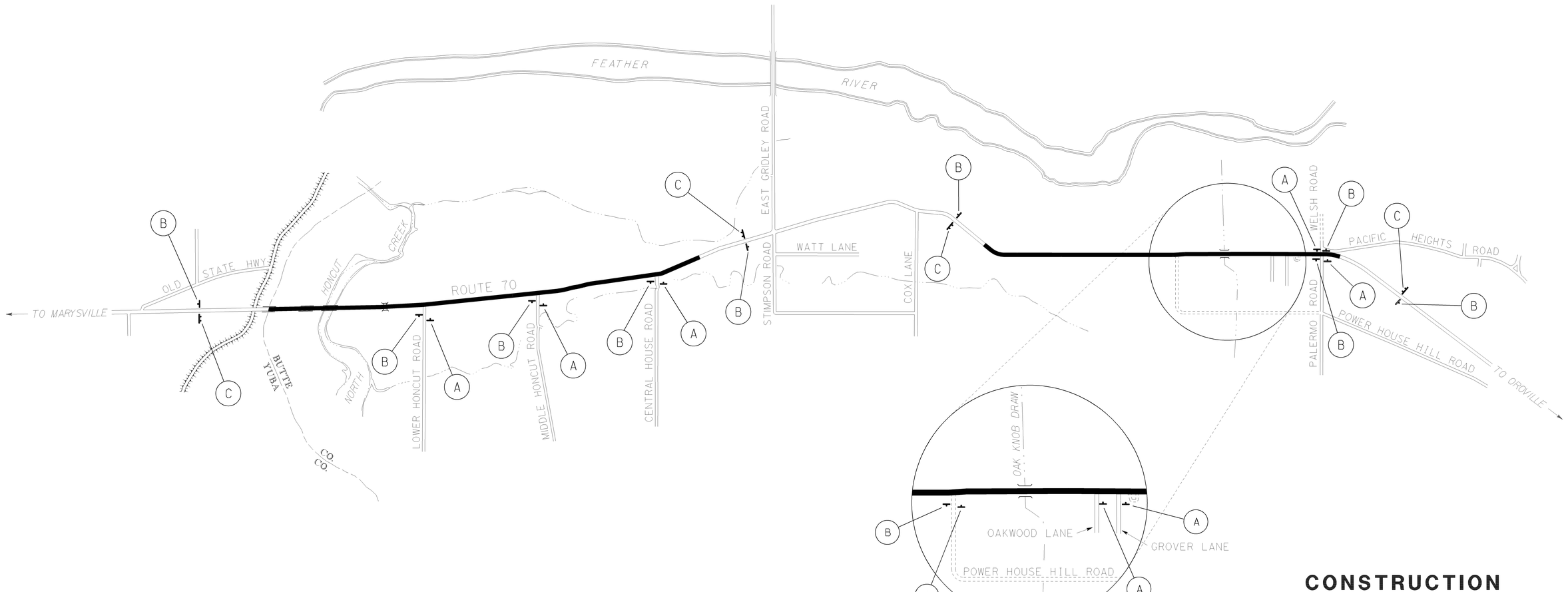
RETROREFLECTIVE ORANGE BACKGROUND WITH BLACK LEGEND AND BORDER.

LEGEND

(X) CONSTRUCTION AREA SIGN LETTER

SIGN - SINGLE POST

SIGN - TWO POST



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY: JACK KEMMERLY
CHECKED BY: JOHN KEBER
REVISED BY / DATE REVISED

LAST REVISION 11-9-10
DATE PLOTTED => 21-DEC-2010
TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010

USERNAME => s130875
DGN FILE => 03000006061a001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0389 | PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	6	22

John R. Keber 11-09-10
REGISTERED CIVIL ENGINEER DATE

12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
John R. Keber
No. 40048
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

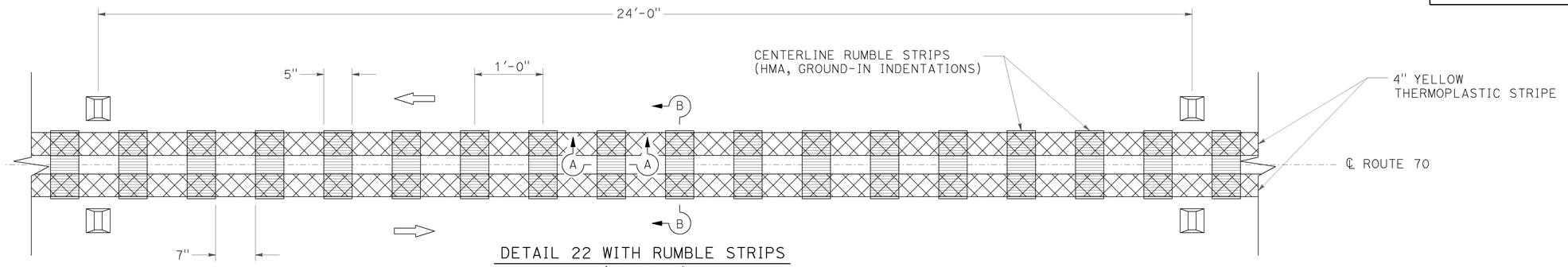
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

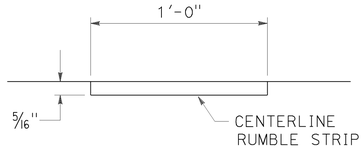
1. CENTERLINE RUMBLE STRIP SHALL BE CONSTRUCTED PRIOR TO INSTALLING FINAL TRAFFIC STRIPE.
2. FOR STRIPING DETAIL INFORMATION NOT SHOWN, SEE STANDARD PLANS.
3. THIS PLAN ACCURATE FOR CENTERLINE RUMBLE STRIP AND PAVEMENT DELINEATION DETAILS ONLY.

LEGEND

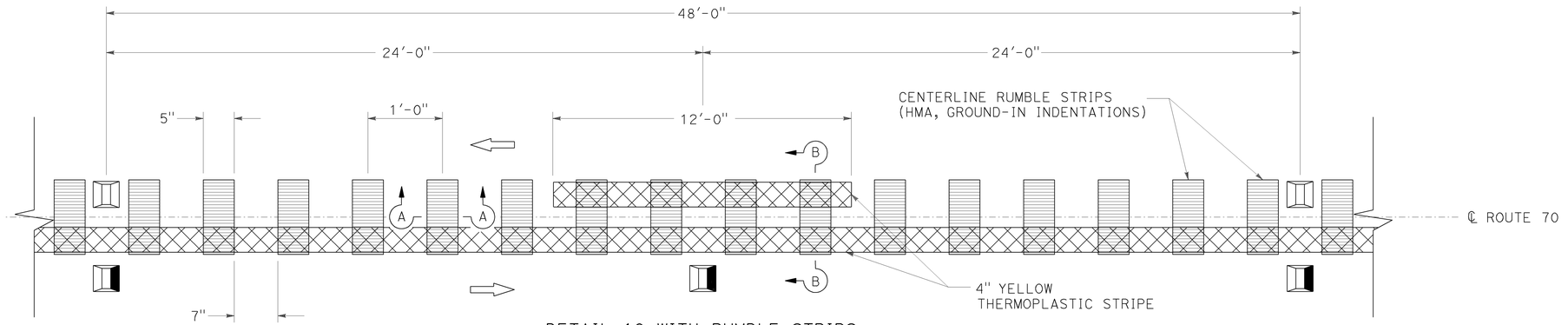
- DIRECTION OF TRAVEL
- TYPE D TWO-WAY YELLOW PAVEMENT MARKER (RETROREFLECTIVE)
- TYPE H ONE-WAY YELLOW PAVEMENT MARKER (RETROREFLECTIVE)



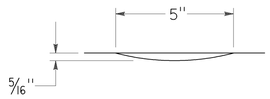
DETAIL 22 WITH RUMBLE STRIPS
(TYPICAL)



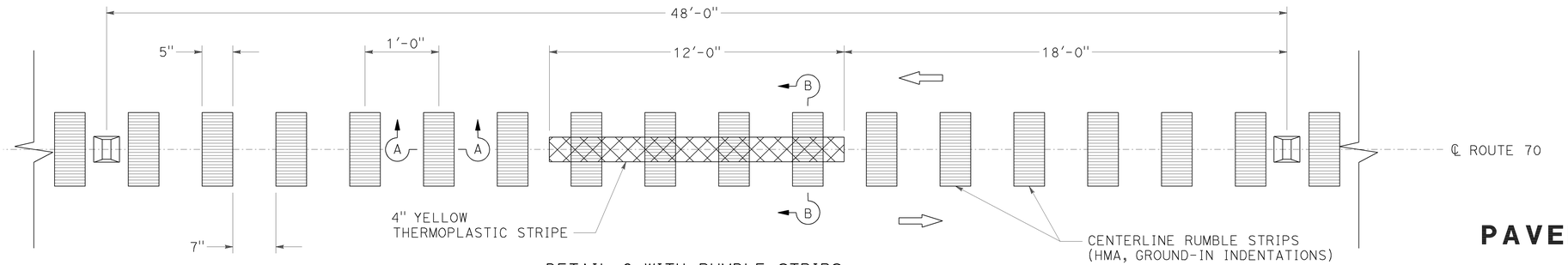
SECTION B-B



DETAIL 19 WITH RUMBLE STRIPS
(TYPICAL)



SECTION A-A



DETAIL 6 WITH RUMBLE STRIPS
(TYPICAL)

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
CALCULATED-DESIGNED BY:
CHECKED BY:
REVISED BY:
DATE REVISED:
JACK KEMMERLY
JOHN KEBER

LAST REVISION
DATE PLOTTED => 21-DEC-2010
TIME PLOTTED => 09:49
11-9-10

BORDER LAST REVISED 7/2/2010
USERNAME => s130875
DGN FILE => 0300000606nb001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0389
PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	7	22

John R. Keber 11-09-10
REGISTERED CIVIL ENGINEER DATE

12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
John R. Keber
No. 40048
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

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

4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)

DETAIL NUMBER	LINEAR FEET
6	16,601
12	3,209
19	3,412
32	5,059
TOTAL	28,281

4" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
19	3,412
22	13,996
27B	64,602
27C	1,572
32	5,059
TOTAL	88,641

8" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
38	2,726
38A	394
TOTAL	3,120

PAVEMENT MARKER (RETROREFLECTIVE)

DETAIL NUMBER	TYPE D (EACH)	TYPE G (EACH)	TYPE H (EACH)
6	347		
12		68	
19	72		143
22	1,168		
32			265
38		115	
SUBTOTAL	1,587	183	408
TOTAL	2,178		

THERMOPLASTIC PAVEMENT MARKING

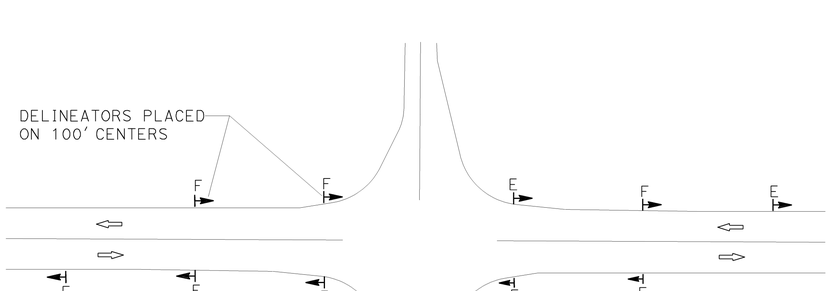
DESCRIPTION	NUMBER	SQUARE FEET
"STOP"	19 @ 22 SQFT	418
TYPE III ARROW	22 @ 42 SQFT	924
TYPE VI ARROW	6 @ 42 SQFT	252
LIMIT LINE	11	424
TOTAL		2,018

DELINEATOR - OBJECT MARKER - HIGHWAY POST MARKER

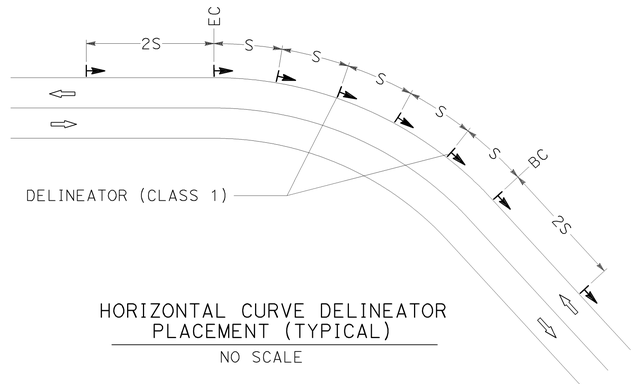
DESCRIPTION	DELINEATOR (CLASS 1)		OBJECT MARKER TYPE L-1 (EACH)	HIGHWAY POST MARKER (EACH)
	TYPE E (EACH)	TYPE F (EACH)		
EB ROUTE 70		15	1	5
WB ROUTE 70	4	5	2	7
LOWER HONCUT ROAD	2	3		
MIDDLE HONCUT ROAD	2	3		
CENTRAL HOUSE ROAD	2	3		
POWER HOUSE HILL ROAD	2	3		
OAKWOOD LANE	2	3		
GROVER LANE	2	3		
WELSH ROAD	2	3		
PALERMO ROAD	2	3		
SUBTOTAL	20	44	3	12
TOTAL	64		3	12

NOTES:

1. HIGHWAY POST MARKER TARGET PLATE INFORMATION TO BE PROVIDED BY THE ENGINEER.
2. EXACT LOCATION OF DELINEATORS, OBJECT MARKERS AND HIGHWAY POST MARKERS TO BE DETERMINED BY THE ENGINEER.



INTERSECTION DELINEATOR PLACEMENT (TYPICAL)
NO SCALE



HORIZONTAL CURVE DELINEATOR PLACEMENT (TYPICAL)
NO SCALE

LEGEND

S DELINEATOR SPACING (TO BE PROVIDED BY THE ENGINEER)

⇨ DIRECTION OF TRAVEL

PAVEMENT DELINEATION QUANTITIES

PDQ-1

CALCULATED-DESIGNED BY: JACK KEMMERLY
CHECKED BY: JOHN KEBER
FUNCTIONAL SUPERVISOR: JOSEPH W. HORTON
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC

REVISED BY | DATE REVISED

LAST REVISION DATE PLOTTED => 21-DEC-2010
TIME PLOTTED => 09:49
11-9-10

BORDER LAST REVISED 7/2/2010
USERNAME => s130875
DGN FILE => 0300000606nc001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0389
PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	8	22

REGISTERED CIVIL ENGINEER — 12-07-10 DATE

12-20-10
PLANS APPROVAL DATE

BRIAN TOEPFER
No. 46278
Exp 12-31-12
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

REPLACE ASPHALT CONCRETE SURFACING

LOCATION/ DESCRIPTION				LENGTH	WIDTH	REPLACE ASPHALT CONCRETE SURFACING
	FROM	TO	WHEEL PATH			
	PM			LF		CY
NORTHBOUND ROUTE 70	0.195	0.201		30	12	3.3
	0.382	0.396		73	12	8.1
	0.415	0.422		38	12	4.2
	0.420	0.422	Lt	13	4	0.5
	0.460	0.467		36	12	4.0
	0.540	0.549		45	12	5.0
	0.763	0.773	Lt	55	4	2.0
	0.829	0.834		27	12	3.0
	0.922	0.927	Rt	24	4	0.9
	0.932	0.950	Rt	95	4	3.5
	0.957	0.964	Rt	39	4	1.4
	0.999	1.023	Rt	125	4	4.6
	1.034	1.043		50	12	5.6
	1.477	1.478	Lt	4	4	0.1
	1.498	1.502	Lt	23	4	0.9
	1.621	1.625	Rt	19	4	0.7
	1.962	1.973		56	4	6.2
	1.984	2.001		88	12	9.8
	2.000	2.004	Rt	19	4	0.7
	2.396	2.400		23	12	2.6
	3.252	3.255	Lt	15	4	0.6
	6.328	6.331		18	12	2.0
	6.406	6.409	Rt	18	4	0.7
	6.448	6.449	Lt	4	4	0.1
	6.460	6.461	Lt	4	4	0.1
	7.425	7.430	Rt	27	4	1.0
	7.446	7.451	Rt	24	4	0.9
	7.454	7.459	Rt	27	4	1.0
	7.468	7.470	Rt	11	4	0.4
	7.474	7.479	Rt	27	4	1.0
	7.491	7.497	Rt	33	4	1.2
	7.503	7.514	Rt	56	4	2.1
	7.535	7.544	Rt	47	4	1.7
	7.549	7.552	Rt	17	4	0.6
	7.608	7.620	Rt	65	4	2.4
	7.645	7.647	Rt	8	4	0.3
	7.812	7.823	Lt	60	4	2.2
	7.830	7.860	Lt	158	4	5.9
	8.039	8.058	Rt	100	4	3.7
	8.252	8.259	Rt	35	4	1.3
	8.532	8.577	Lt	240	4	8.9
	8.885	8.901	Lt	86	4	3.2
	8.977	8.997	Rt Shldr	105	4	3.9
	9.140	9.148	Lt	43	4	1.6
SUBTOTAL - NORTHBOUND LANES						113.9

HMA (TYPE A)

LOCATION/ DESCRIPTION	HMA (TYPE A)
	TON
PM 0.010/0.085	327.9
PM 0.122/0.146	104.7
TOTAL	432.3

REPLACE ASPHALT CONCRETE SURFACING

LOCATION/ DESCRIPTION				LENGTH	WIDTH	REPLACE ASPHALT CONCRETE SURFACING
	FROM	TO	WHEEL PATH			
	PM			LF		CY
SOUTHBOUND ROUTE 70	0.215	0.217	Rt	10	4	0.4
	0.360	0.362		8	12	0.9
	0.473	0.486	Rt	70	4	2.6
	0.540	0.547	Rt	37	4	1.4
	0.590	0.592	Lt	10	4	0.4
	0.880	0.883	Lt	18	4	0.7
	0.884	0.890	Rt	32	4	1.2
	0.897	0.901		20	12	2.2
	0.925	0.927	Rt	8	4	0.3
	1.961	1.966	Lt	25	4	0.9
	2.000	2.010	Lt	52	4	1.9
	2.025	2.030	Lt	24	4	0.9
	2.035	2.041	Rt	30	4	1.1
	2.387	2.395		40	12	4.4
	2.581	2.587	Lt	30	4	1.1
	2.585	2.599	Rt	73	4	2.7
	2.728	2.786	Rt	306	4	11.3
	2.805	2.812	Rt	36	4	1.3
	2.817	2.837	Rt	103	4	3.8
	2.836	2.842	Middle	31	4	1.1
	2.845	2.851	#2 Rt	30	4	1.1
	2.858	2.864	#2 Rt	31	4	1.1
	2.880	2.888	#2 Rt	44	4	1.6
	2.886	2.895	#1 Lt	45	4	1.7
	2.897	2.911	#2 Rt	76	4	2.8
	2.912	2.917	#2	25	12	2.8
	2.940	2.959	#2 Rt	100	4	3.7
	2.966	2.978	#2 Rt	61	4	2.3
	2.954	2.998	#1 Rt	231	4	8.6
	3.000	3.004	#1 Lt	20	4	0.7
	3.008	3.015	#1 Rt	38	4	1.4
	3.015	3.020	#2 Rt	24	4	0.9
	3.015	3.041	#1 Lt	136	4	5.0
	3.036	3.043	#2 Rt	38	4	1.4
	3.047	3.049	#2 Rt	12	4	0.4
	3.041	3.053	#1	64	12	7.1
	3.052	3.058	#2 Lt	34	4	1.3
	3.058	3.063	#1	26	12	2.9
	3.070	3.075	#1 Rt	28	4	1.0
	3.092	3.094	#1 Rt	12	4	0.4
	3.119	3.127	#1 Rt	40	4	1.5
	3.134	3.137	#1 Rt	17	4	0.6
	3.206	3.209	#1 Rt	15	4	0.6
	3.227	3.236	#1 Rt	47	4	1.7
	6.232	6.250		94	12	10.4
	6.303	6.306	Rt	18	4	0.7
	6.661	6.662	Rt	6	4	0.2
	7.289	7.295	Rt	30	4	1.1
	7.442	7.477	Lt	184	4	6.8
	7.477	7.486	Rt	47	4	1.7
	7.486	7.491	Lt	28	4	1.0
	7.500	7.504	Rt	21	4	0.8
SUBTOTAL - SOUTHBOUND LANES						115.9
SUBTOTAL - NORTHBOUND LANES						113.9
TOTAL						229.8

RUBBERIZED HMA (OPEN GRADED)

LOCATION/ DESCRIPTION	RUBBERIZED HMA (OPEN GRADED)
	TON
PM 0.2/3.2-6.1/9.2	11,460
TOTAL	11,460

REPLACE ASPHALT CONCRETE SURFACING

LOCATION/ DESCRIPTION				LENGTH	WIDTH	REPLACE ASPHALT CONCRETE SURFACING
	FROM	TO	WHEEL PATH			
	PM			LF		CY
SOUTHBOUND ROUTE 70	7.510	7.514	Lt	22	4	0.8
	7.522	7.535		66	12	7.3
	7.540	7.563		120	12	13.3
	7.562	7.602	Rt	210	4	7.8
	7.610	7.628		93	12	10.3
	7.634	7.648		75	12	8.3
	7.677	7.682		26	12	2.9
	7.726	7.733	Lt	39	4	1.4
	7.805	7.820	Lt	78	4	2.9
	7.828	7.835	Lt	38	4	1.4
	7.850	7.855	Lt	28	4	1.0
	7.876	7.888	Rt	61	4	2.3
	7.896	7.923	Rt	144	4	5.3
	8.390	8.398	Rt	43	4	1.6
	8.490	8.492	Lt	10	4	0.4
	8.530	8.542	Lt	65	4	2.4
	8.578	8.581	Lt	16	4	0.6
	8.591	8.594	Lt	14	4	0.5
	8.623	8.647	Lt	125	4	4.6
	8.653	8.674	Lt	110	4	4.1
	8.722	8.738	Lt	84	4	3.1
	8.766	8.771	Lt	25	4	0.9
	8.793	8.799	Lt	31	4	1.1
	8.816	8.830	Lt	74	4	2.7
	8.858	8.860	Lt	10	4	0.4
	8.877	8.880	Lt	17	4	0.6
	8.887	8.894	Lt	37	4	1.4
	8.894	8.912		95	12	10.6
	8.922	8.932		54	12	6.0
	8.969	8.974	Lt	24	4	0.9
	8.999	9.013	Lt	75	4	2.8
SUBTOTAL - SOUTHBOUND LANES						109.7
SUBTOTAL - NORTHBOUND LANES						229.8
TOTAL						339.5

SUMMARY OF QUANTITIES
Q-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
BRIAN KORTE	REX HERVEY

FUNCTIONAL SUPERVISOR: BRIAN D. TOEPFER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE ENGINEERING

LAST REVISION | DATE PLOTTED => 21-DEC-2010
00-00-00 | TIME PLOTTED => 09:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	9	22

REGISTERED CIVIL ENGINEER — DATE 12-07-10

BRIAN TOEPFER No. 46278 Exp 12-31-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE 12-20-10

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METAL BEAM GUARDRAIL QUANTITIES

LOCATION DESCRIPTION POST MILE		LAYOUT TYPE	ADJUST METAL BEAM GUARD RAILING	RECONSTRUCT MBGR	ALTERNATIVE FLARED TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB)	END CAP (TYPE TC)	END CAP (TYPE A)
BEGIN	END		LF	LF	EA	EA	EA	EA
0.010 Rt	0.085 Rt	12D		377		1	1	1
0.122 Rt	0.146 Rt	12D		107		1	1	1
0.195 Rt	0.232 Rt			196				1
0.232 Rt	0.674 Rt		2530		1			
8.33 Rt	8.345 Rt	12B	26	38	1	1	1	
8.349 Rt	8.361 Rt		26	38	1			1
0.010 Lt	0.085 Lt	12D		377		1	1	1
0.122 Lt	0.146 Lt	12D		107		1	1	1
0.195 Lt	0.236 Lt			214		1	1	
0.236 Lt	0.658 Lt		2230		1			
8.33 Lt	8.345 Lt		26	38	1			1
8.349 Lt	8.361 Lt	12B	26	38	1	1	1	
TOTAL			4,864	1,530	6	7	7	7

CRACK TREATMENT

LOCATION/ DESCRIPTION		CRACK TREATMENT
PM	LANES	(LNMI)
0.195 - 3.2	NB/SB	6.01
6.1 - 9.2	NB/SB	6.2
TOTAL		12.21

ASPHALTIC EMULSION (FOG SEAL COAT)

LOCATION/ DESCRIPTION		(FOG SEAL COAT)
PM	Lt/Rt	(TON)
6.7 -6.971	Rt	0.02
8.095 - 8.204	Lt	0.04
TOTAL		0.06

COLD PLANE AC PAVEMENT

LOCATION	SQYD
PM 0.010 TO 0.085	1660
PM 0.122 TO 0.146	564
PM 0.195	133.3
PM 3.2	88.9
PM 6.1	88.9
PM 9.2	88.9
TOTAL	2624

SHOULDER BACKING

LOCATION/ DESCRIPTION		IMPORTED MATERIAL (SHOULDER BACKING) (TON)
PM	Lt/Rt	
0.71 - 3.2	Lt/Rt	1,033
6.1 - 9.2	Lt/Rt	1,289
TOTAL		2,320

TACK COAT

LOCATION/ DESCRIPTION		(TON)
PM	DIRECTION	
0.20/3.2-6.1/9.2	NB/SB	38
TOTAL		38

RUMBLE STRIP

LOCATION/ DESCRIPTION	RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS) (Sta)	
PM	℄	SHOULDER
0.010-3.2	164	300
6.1-8.3	117	210
9.0-9.2	11	
TOTAL	802	

SUMMARY OF QUANTITIES
Q-2

CALCULATED- BRIAN KORTE
DESIGNED BY REX HERVEY
CHECKED BY
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR BRIAN D. TOEPFER
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE ENGINEERING

LAST REVISION 00-00-00 DATE PLOTTED => 21-DEC-2010 TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010
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DGN FILE => 0300000606pa002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0484
PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/9.2	10	22

Mary Ann Hudspeth 8-4-10
REGISTERED ELECTRICAL ENGINEER DATE

12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARY ANN HUDSPETH
No. 17245
Exp. 06-30-12
ELECTRICAL
STATE OF CALIFORNIA

NOTE:

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

GENERAL NOTES:

1. EXACT CONFIGURATION AND INSTALLATION PROCEDURES OF PIEZOELECTRIC AXLE SENSOR AND LOOP DETECTORS SHALL CONFORM TO THE REQUIREMENTS OF THE PIEZOELECTRIC AXLE SENSOR MANUFACTURER.
2. PIEZOELECTRIC AXLE SENSOR SHALL MATCH EXISTING ROADWAY PROFILE AND CROSS-SLOPE.
3. PULL BOX COVERS SHALL BE MARKED "CENSUS STATION".

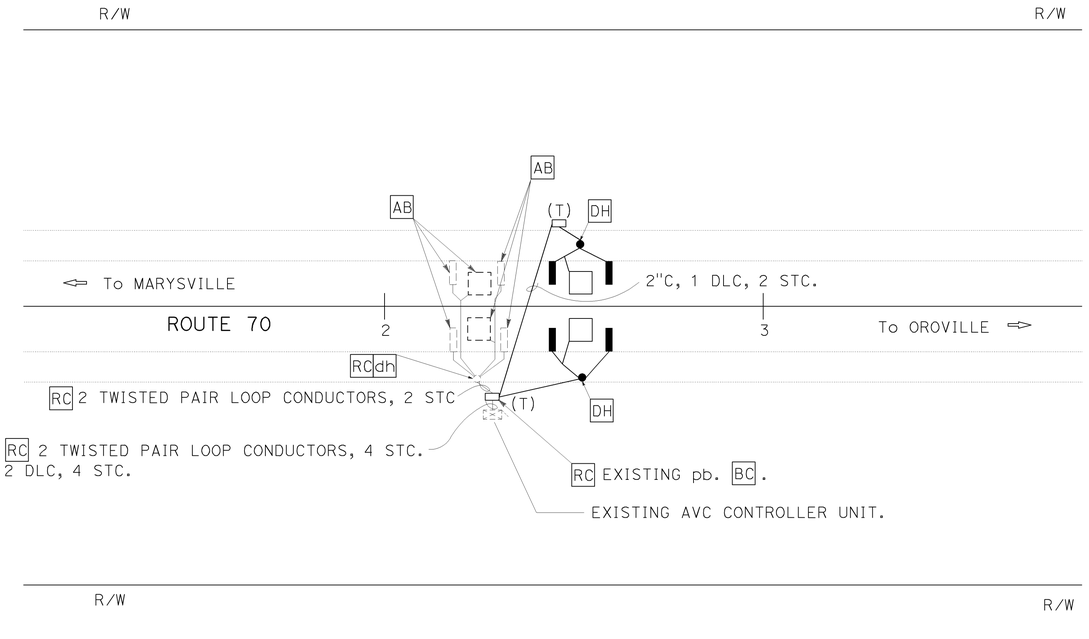
LEGEND:

[ ] - EXISTING PIEZOELECTRIC AXLE SENSOR

▌ - PIEZOELECTRIC AXLE SENSOR

ABBREVIATIONS:

AVC - AUTOMATIC VEHICLE CLASSIFICATION STATION
STC - SCREENED TRANSMISSION CABLE



COUNT STATION No. 340
(PM 0.66)

MODIFY AUTOMATIC VEHICLE CLASSIFICATION STATION

SCALE: 1" = 20'

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

CALCULATED-DESIGNED BY: ZAHRA NIKNAFS
CHECKED BY: MARY ANN HUDSPETH
FUNCTIONAL SUPERVISOR: STEVEN BLOCK
REVISED BY / DATE REVISED

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

LAST REVISION: DATE PLOTTED => 21-DEC-2010, TIME PLOTTED => 09:48, 07-29-10

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BORDER LAST REVISED 7/1/2010
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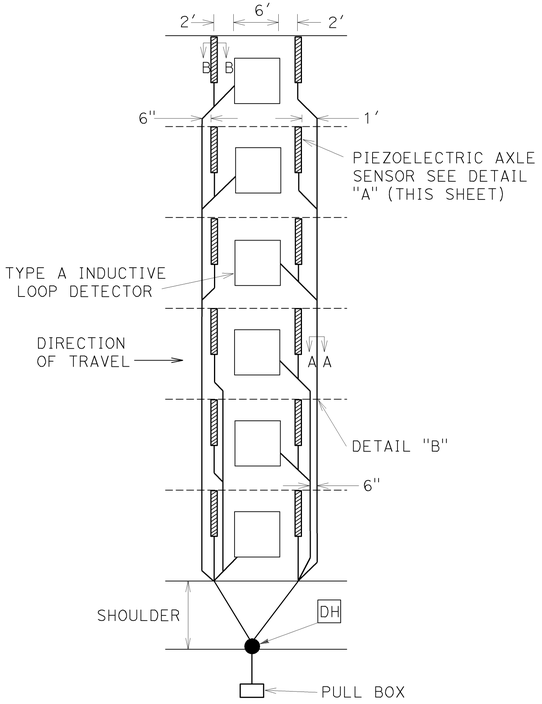
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0402
PROJECT NUMBER & PHASE 03000006061

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/9.2	11	22

Mary Ann Hudspeth 8-4-10
REGISTERED ELECTRICAL ENGINEER DATE

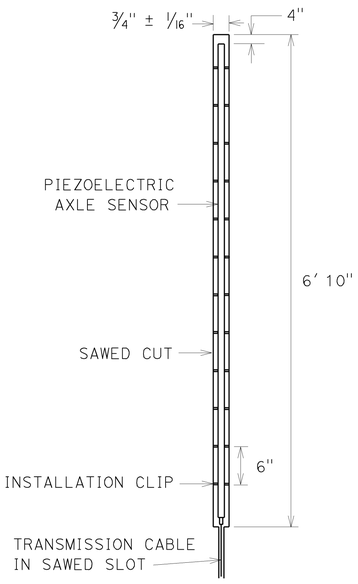
12-20-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MARY ANN HUDSPETH
No. 17245
Exp. 06-30-12
ELECTRICAL
STATE OF CALIFORNIA

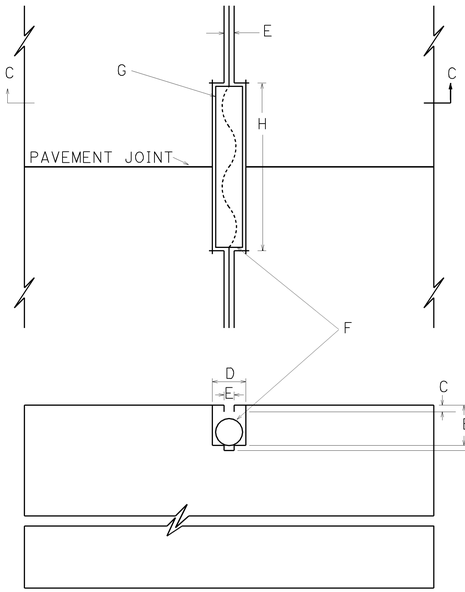


TYPICAL PIEZOELECTRIC AXLE SENSOR INSTALLATION

(SEE PLAN SHEET FOR NUMBER OF LANES)



DETAIL "A"

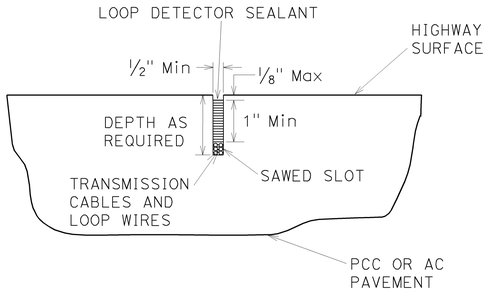


SECTION C-C

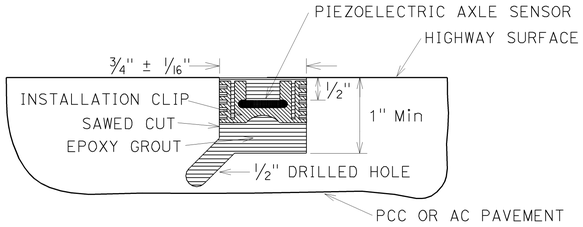
DETAIL "B"

(TYPICAL LEAD-IN AT PAVEMENT JOINT)

A. SAW CUT DEPTH TO ACCOMMODATE SPECIFIED NUMBER OF CONDUCTORS WITH A MINIMUM OF 1" FROM TOP OF WIRE TO PAVEMENT SURFACE (3-1/4" Max).
B. SLOT SAW-CUT DEPTH TO ACCOMMODATE 1" TYPE 3 CONDUIT WITH ½" MINIMUM FROM TOP OF CONDUIT TO PAVEMENT SURFACE.
C. ½" MINIMUM BETWEEN TOP OF CONDUIT AND PAVEMENT SURFACE.
D. SAW-CUT WIDTH TO ACCOMMODATE 1" TYPE 3 CONDUIT WITH ⅛" CLEARANCE.
E. SAW-CUT ½" WIDE.
F. 1" TYPE 3 CONDUIT, 6" LONG. PLUG BOTH ENDS WITH CAULKING COMPOUND TO KEEP OUT EPOXY.
G. CONDUCTORS WITH ½" MINIMUM SLACK INSIDE CONDUIT.
H. SAW-CUT LENGTH OF SLOT ⅛" LONGER THAN CONDUIT.



SECTION A-A



SECTION B-B

PIEZOELECTRIC AXLE SENSOR INSTALLATION PROCEDURE:

1. MARK THE POSITION OF THE AXLE SENSORS AS DIRECTED BY THE ENGINEER. AXLE SENSOR CHANNELS MUST BE PERPENDICULAR TO TRAFFIC.
2. MARK THE POSITION OF THE LOOP DETECTORS. THE DETECTORS SHALL BE CENTERED IN THE LANE AND BETWEEN THE AXLE SENSORS.
3. MARK THE HOME RUN CUTS AS SHOWN IN THE AXLE SENSOR INSTALLATION DETAIL.
4. USING A CONCRETE SAW, CUT THE AXLE SENSOR CHANNELS ¾" WIDE BY 1" DEEP IN A SINGLE PASS. CUTS SHALL BE STRAIGHT AND TRUE.
5. CUT THE LOOP DETECTORS AND HOME RUNS IN ACCORDANCE WITH CALTRANS SPECIFICATIONS.
6. DRILL ½" Dia HOLES, 1" DEEP AT A 45 DEGREE ANGLE AT THE BOTTOM CORNERS OF EACH AXLE SENSOR CHANNEL. HOLES SHALL BE 1′ APART AND ON ALTERNATING SIDES OF THE CHANNEL.
7. WASH OUT THE CHANNELS AND ALL SAW CUTS THOROUGHLY WITH HIGH PRESSURE WATER. DRY COMPLETELY WITH AN AIR COMPRESSOR. IN PCC PAVEMENT ONLY, WIPE OUT THE CHANNELS WITH LACQUER THINNER AND CLEAN COTTON RAGS.
8. PLACE 4" DUCT TAPE STRIPS ON THE PAVEMENT AROUND THE CHANNELS.
9. ENSURE THAT EACH SENSOR IS STRAIGHT AND FLAT. BEND EACH END DOWN SLIGHTLY AND PLACE THE INSTALLATION CLIPS ON THE SENSOR.
10. BLOCK OFF THE CABLE END OF THE CHANNEL WITH DUCT SEAL TO PREVENT THE GROUT FLOWING OUT OF THE CHANNEL.
11. INSERT SENSOR EPOXY CARTRIDGE INTO CAULKING GUN. ATTACH STATIC MIXING TUBE ONTO CARTRIDGE.
12. WHILE WEARING PROTECTIVE GLOVES, HALF FILL THE CHANNEL WITH SENSOR EPOXY. ENSURE THAT THE BOTTOM OF THE CHANNEL IS COMPLETELY COVERED, AND THAT THE HOLES DRILLED IN STEP 6 ARE FILLED.
13. PLACE THE SENSOR IN THE CHANNEL WITH THE BRASS ELEMENT ½" BELOW THE ROAD SURFACE WITH NO VOIDS BENEATH THE SENSOR.
14. COMPLETELY FILL THE CHANNEL WITH SENSOR EPOXY. SMOOTH OUT THE EPOXY ON TOP OF THE SENSOR TO ROAD LEVEL WITH NO TROUGH ON TOP.
15. WHEN SENSOR EPOXY HAS BEGUN TO SET, REMOVE THE DUCT TAPE FROM THE PAVEMENT. REMOVE THE DUCT SEAL FROM THE END OF THE CHANNEL.
16. INSTALL THE LOOP DETECTORS AS PER CALTRANS SPECIFICATIONS.
17. INSTALL ALL LEAD-IN CABLES IN THE HOME RUN SLOTS, INSTALLING TYPE 3 CONDUIT AT THE EXPANSION JOINT CROSSINGS. PULL CABLES THROUGH STUB-OUT CONDUIT AND COIL IN PULL BOX.
18. SEAL ALL SAW CUTS. ELASTOMERIC SEALANT ONLY SHALL BE USED IN ALL CUTS CONTAINING SCREENED TRANSMISSION CABLES.
19. REMOVE ANY HIGH SPOTS IN THE SENSOR EPOXY WITH A HAND GRINDER.
20. CLEAN UP THE SITE. WHEN ALL SEALANTS ARE COMPLETELY CURED, LANES MAY BE OPENED TO TRAFFIC.

MODIFY AUTOMATIC VEHICLE CLASSIFICATION STATION

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
ZAHRA NIKNAFS	MARY ANN HUDSPETH		

FUNCTIONAL SUPERVISOR: STEVEN BLOCK

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

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LAST REVISION => DATE PLOTTED => 21-DEC-2010
07-28-10 TIME PLOTTED => 09:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	12	22

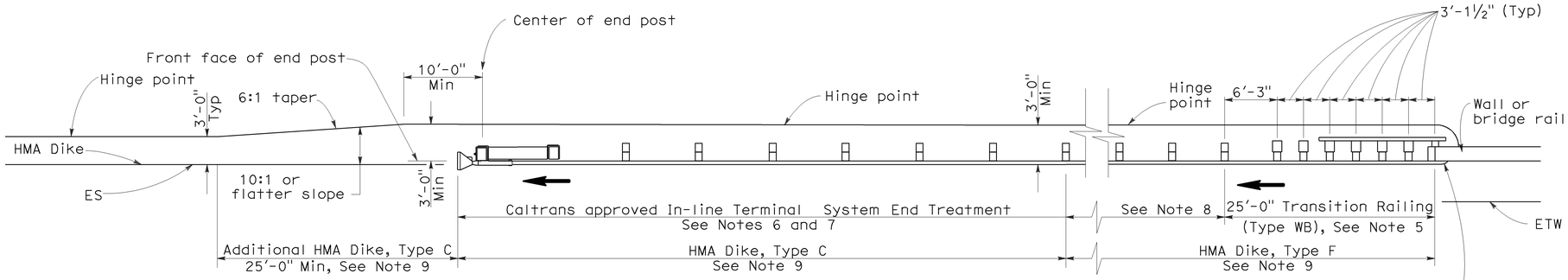
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

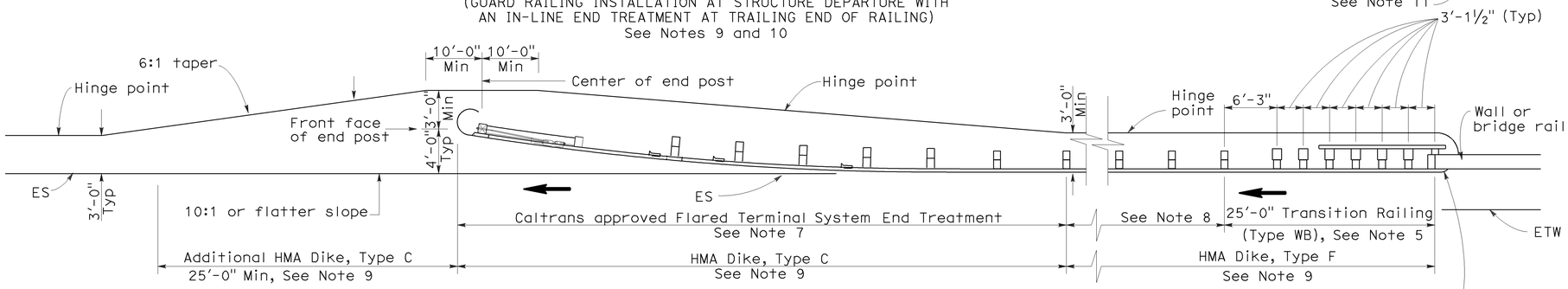
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 12-20-10



TYPE 12AA LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH AN IN-LINE END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10



TYPE 12BB LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH A FLARED END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. For Transition Railing (Type WB) details for Types 12AA and 12BB Layouts, see Standard Plan A77J4.
6. In-line Terminal System Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. Dependent on site conditions (embankment height, side slopes, other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatments.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. Type 12AA or Type 12BB Layouts are typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
11. For additional details of typical connections to bridge rail, see Connection Detail CC on Revised Standard Plan RSP A77J2 and Connection Detail HH on Standard Plans A77k2.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR STRUCTURE DEPARTURE

NO SCALE

RSP A77F4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F4
DATED MAY 1, 2006 - PAGE 57 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F4

2006 REVISED STANDARD PLAN RSP A77F4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	13	22

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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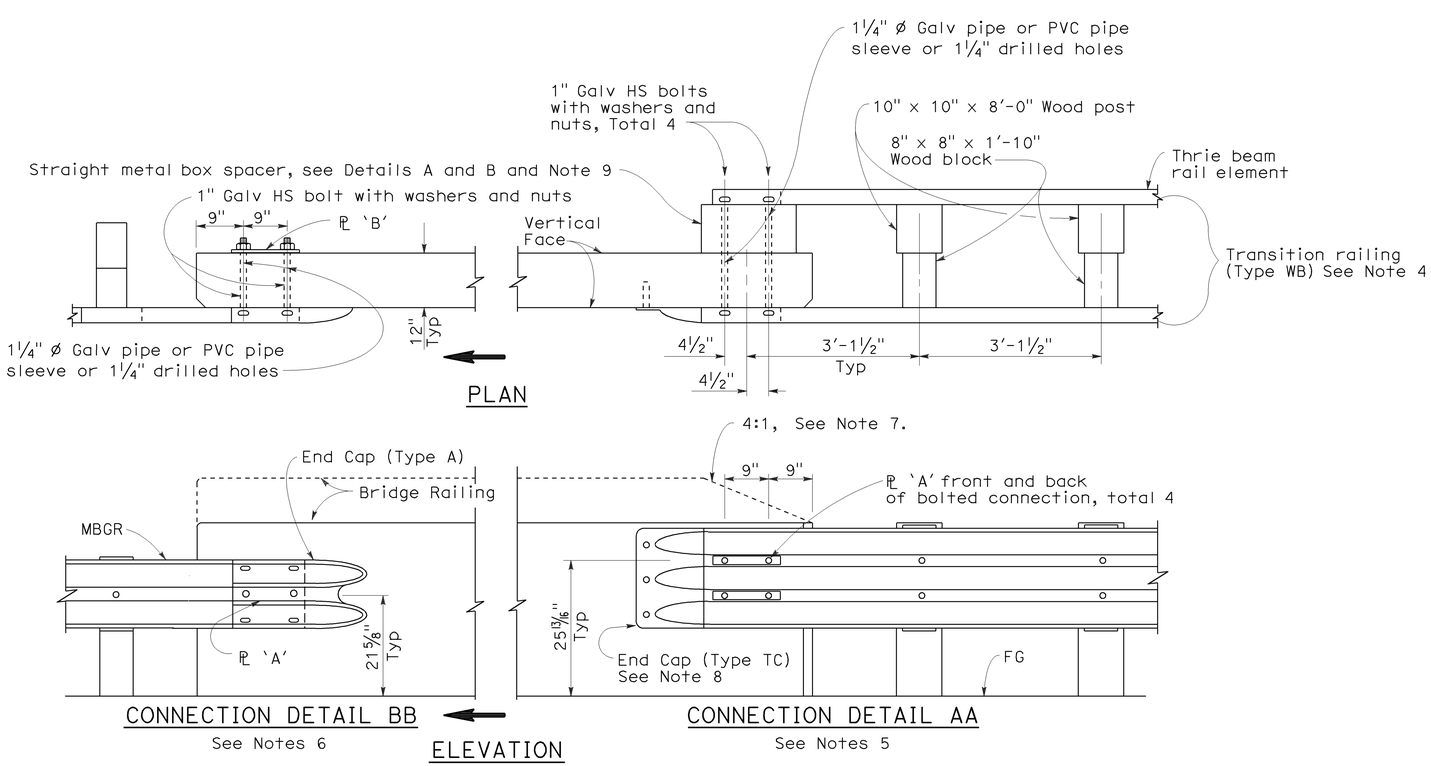
To accompany plans dated 12-20-10



GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

1. See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
3. Direction of adjacent traffic indicated by ➡.
4. For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
5. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
6. For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD on Standard Plan A77F5.
7. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
8. For details of End Cap (Type TC), see Standard Plan A77J4.
9. See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.

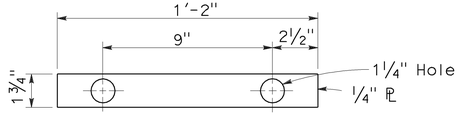


PLATE 'A'

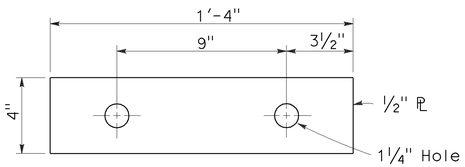
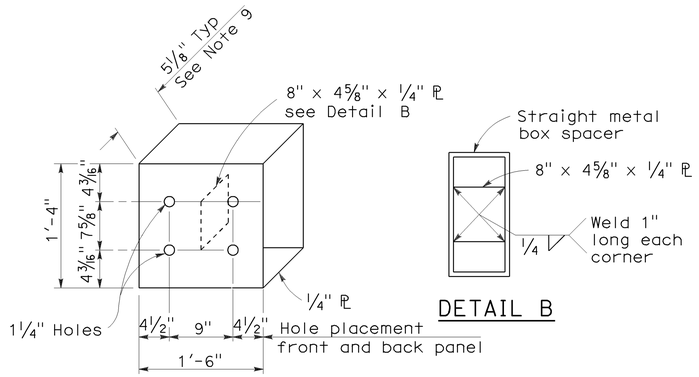


PLATE 'B'
(For backside of connection BB)



DETAIL A

STRAIGHT METAL BOX SPACER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.1

NO SCALE

RSP A77J1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J1
DATED MAY 1, 2006 - PAGE 72 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J1

2006 REVISED STANDARD PLAN RSP A77J1

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	14	22

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

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

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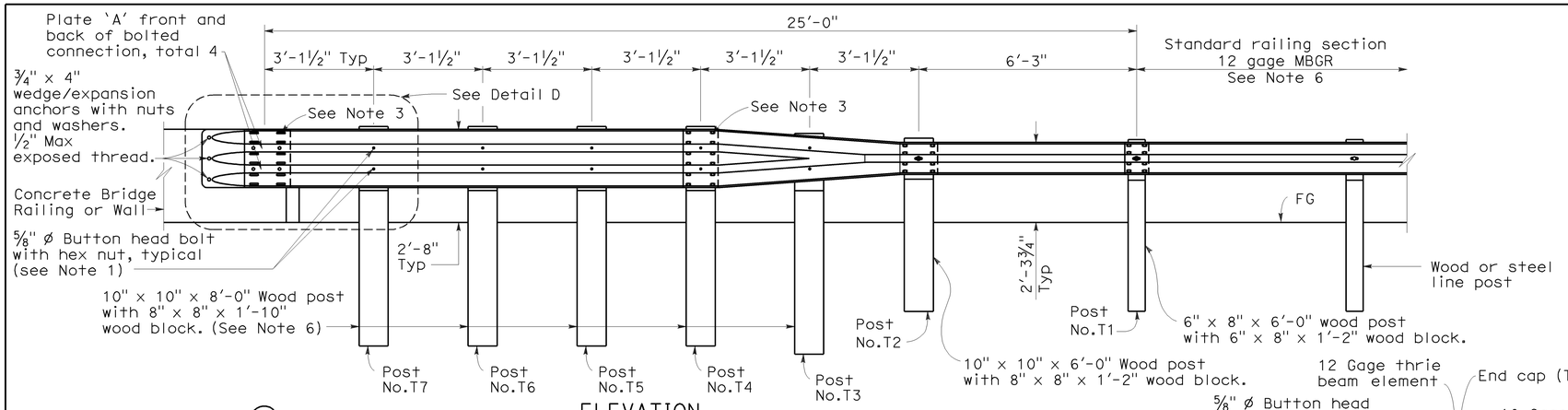
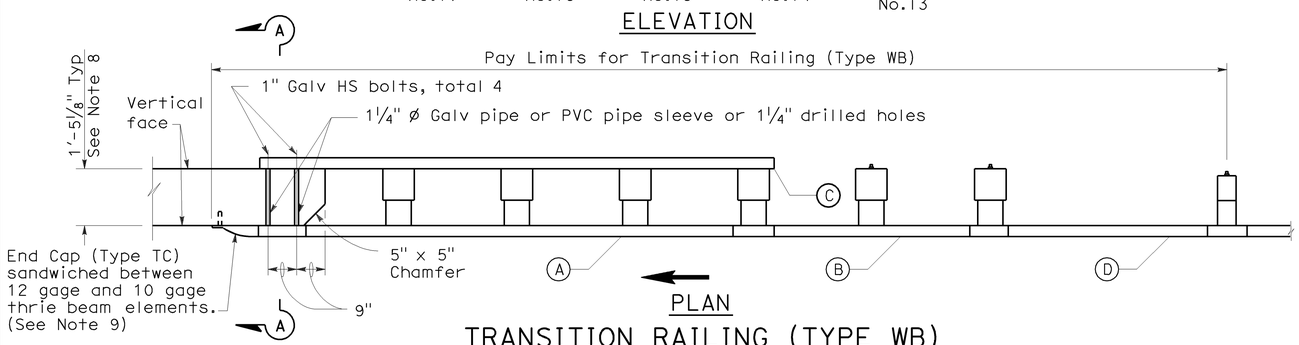


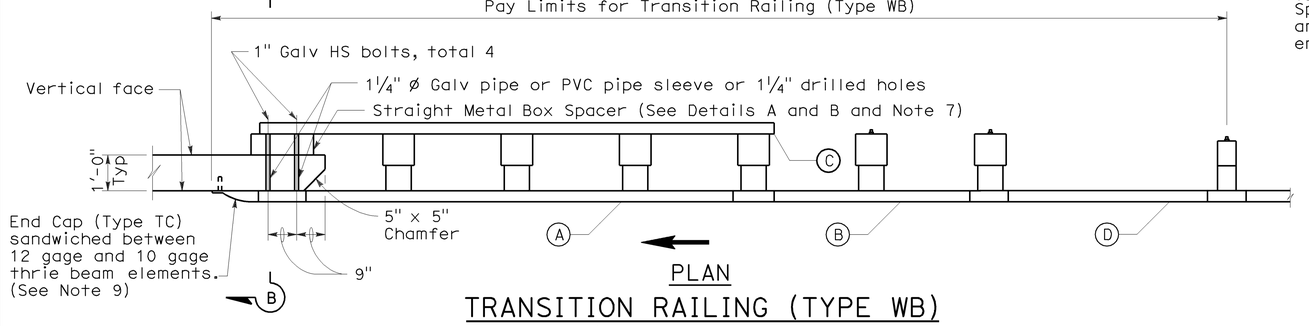
ELEVATION



PLAN

TRANSITION RAILING (TYPE WB)

(No Blockout Attachment)



PLAN

TRANSITION RAILING (TYPE WB)

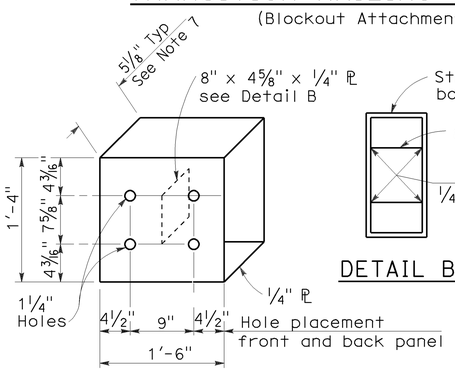
(Blockout Attachment)

LEGEND

- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
- (B) One 10 gage "W" beam to thrie beam element.
- (C) One 12 gage thrie beam element.
- (D) One 10 gage "W" beam rail element (7'-3½" length)

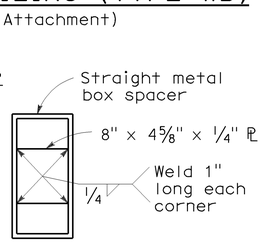
10 gage = 0.135" thick

12 gage = 0.108" thick

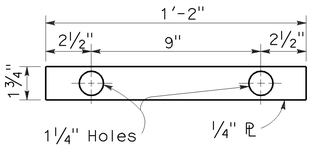


DETAIL A

STRAIGHT METAL BOX SPACER

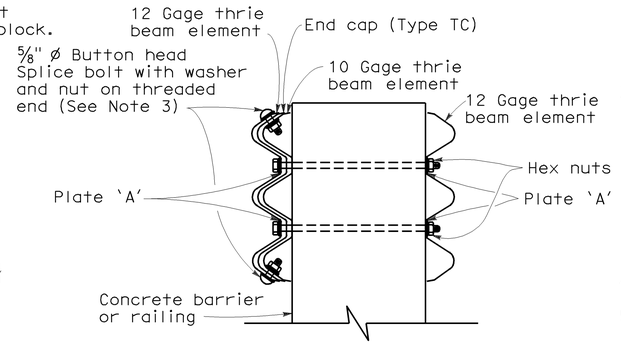


DETAIL B

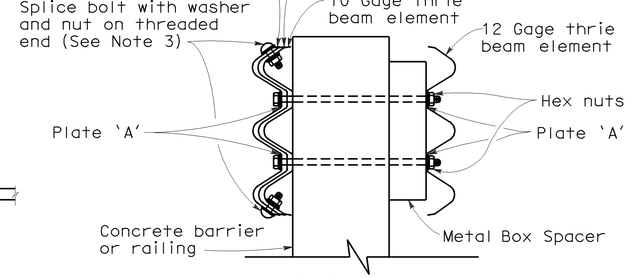


DETAIL C

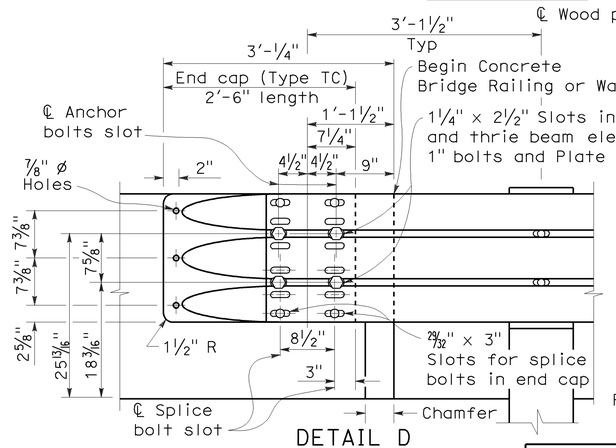
PLATE 'A'



SECTION A-A



SECTION B-B



DETAIL D

NOTES:

To accompany plans dated 12-20-10

1. Use 5/8 " ø Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
2. The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
3. Exterior splice bolt holes for rail element splices at Post No.T4 and the connection to the concrete barrier or railing shall be the standard 29/32 " x 1 1/8 " slot size. Interior splice bolt holes at these locations may be increased up to 1 1/4 " ø. Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No.T4 and the connection to the concrete barrier or railing.
4. Direction of adjacent traffic indicated by →.
5. The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
6. Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing or an approved Caltrans end treatment attached to Post No.T1.
7. The depth of the metal box spacer varies from the 5 1/8 " to 1 1/2 " and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17 1/8 ". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2 ", metal plates similar to Plate 'A' are to be used as spacers.
8. Where the width of the concrete railing or wall is greater than 17 1/8 ", wood blocks are to be used to fill the space created between the backside of Posts No.4 through No.7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
9. End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TRANSITION RAILING (TYPE WB)

NO SCALE

RSP A77J4 DATED JUNE 5, 2009 SUPERSEDES RSP A77J4 DATED JUNE 6, 2008 AND STANDARD PLAN A77J4 DATED MAY 1, 2006 - PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J4

2006 REVISED STANDARD PLAN RSP A77J4

5-14-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	15	22

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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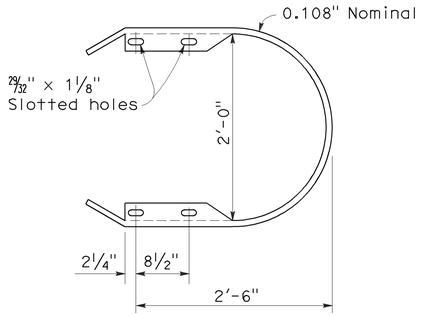
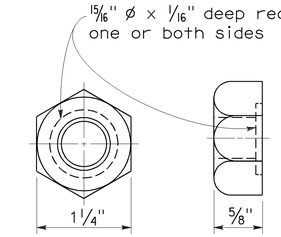
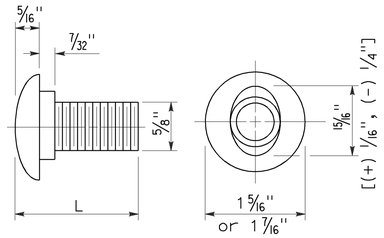
To accompany plans dated 12-20-10



RETURN CAP
(TYPE TA)

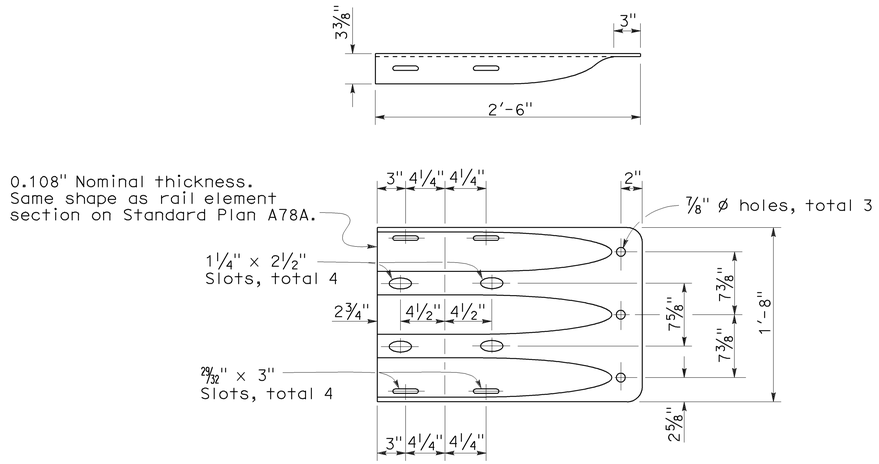


5/8" ø RECESS NUT



5/8" ø BUTTON HEAD BOLT

L	THREAD LENGTH
1 1/4"	full thread length
2"	full thread length
9 1/2"	4" Min thread length
18"	4" Min thread length



END CAP
(TYPE TC)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

THRIE BEAM BARRIER
STANDARD HARDWARE DETAILS

NO SCALE

RSP A78C1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A78C1
DATED MAY 1, 2006 - PAGE 85 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A78C1

2006 REVISED STANDARD PLAN RSP A78C1

4-21-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	16	22

Jeffrey G. McRae
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 12-20-10

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,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	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
	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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	17	22

Jeffery G. McRae
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 12-20-10

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	But	70	0.0/3.2 6.1/9.2	18	22

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 12-20-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345 — Sign number - Place on post or structure

10 ISL SCI 1.0
- 1.0 — Transformer rating (kVA)
- SCI — Lighting control type
- ISL — Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"
- 15'-0" — Mast arm length, if shown. Do not place on standard or structure.
- 12345 — 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
- 2#10, 15#14, 2 DLC — Number and size of conductors and cables
- 1½"C, — 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
- 100 — Wind velocity = 100 mph
- 3 — Case 3 arm loading
- 19A — 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
- Vehicle detector designation
- 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

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	19	22

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

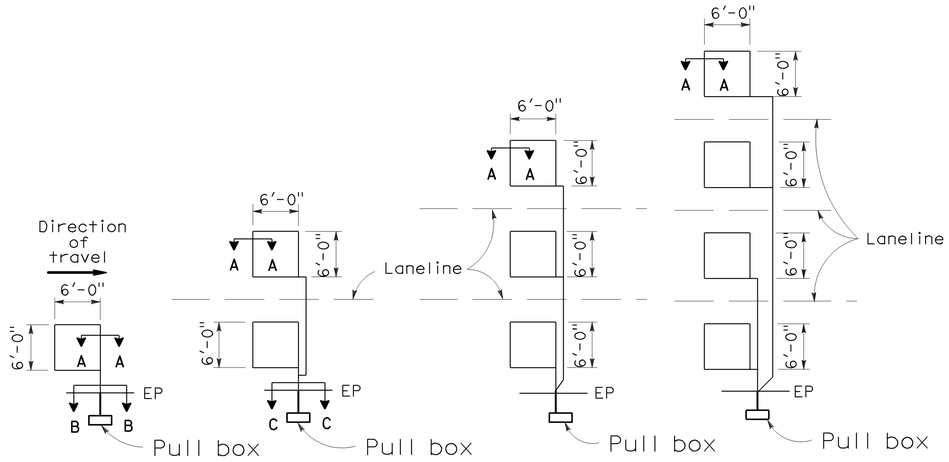
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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 12-20-10

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.

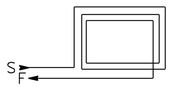


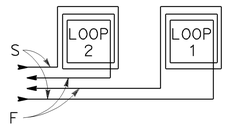
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

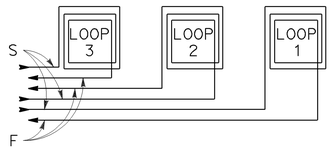
SAWCUT DETAILS

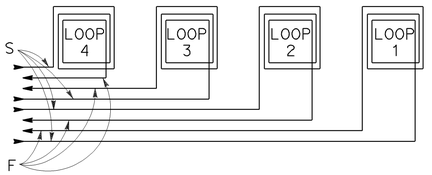
(Type A loop detector configurations illustrated)

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)



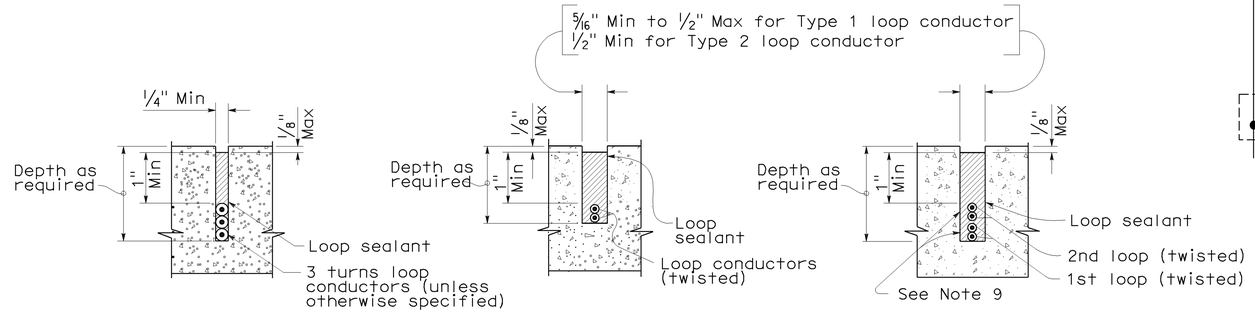






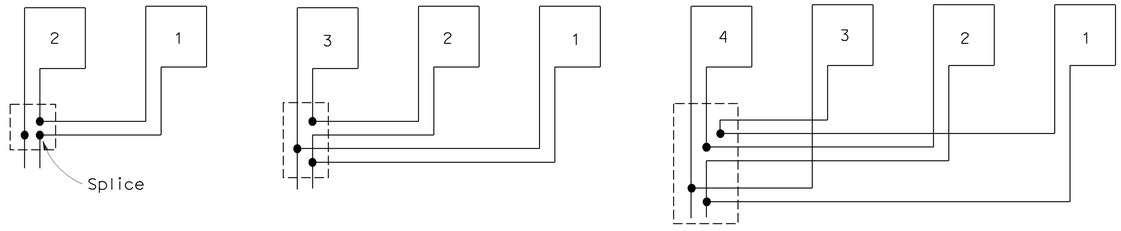
WINDING DETAILS

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	But	70	0.0/3.2 6.1/9.2	20	22

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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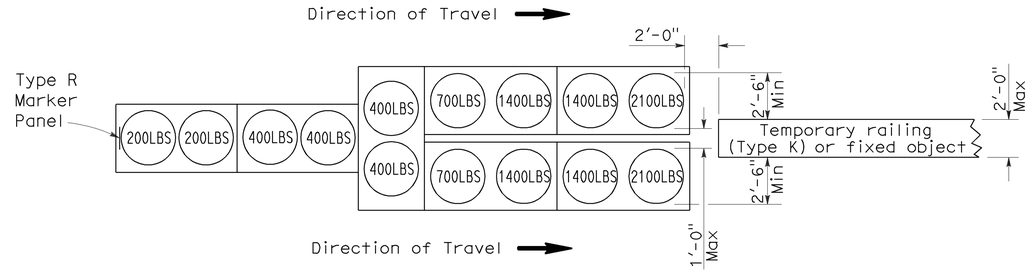
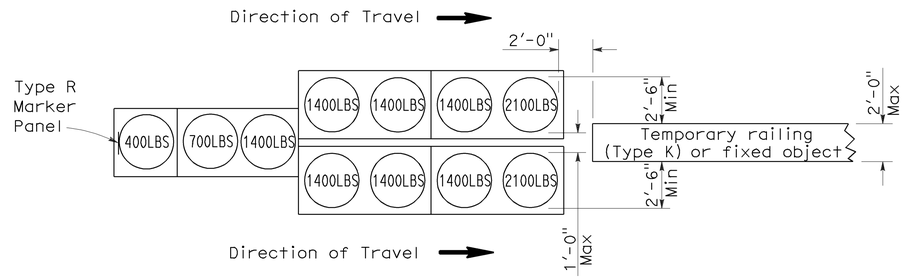
To accompany plans dated 12-20-10



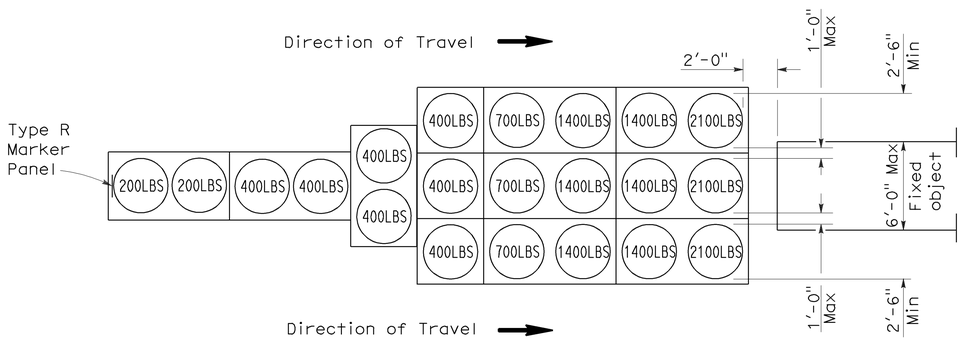
ARRAY 'TU14'

Approach speed 45 mph or more



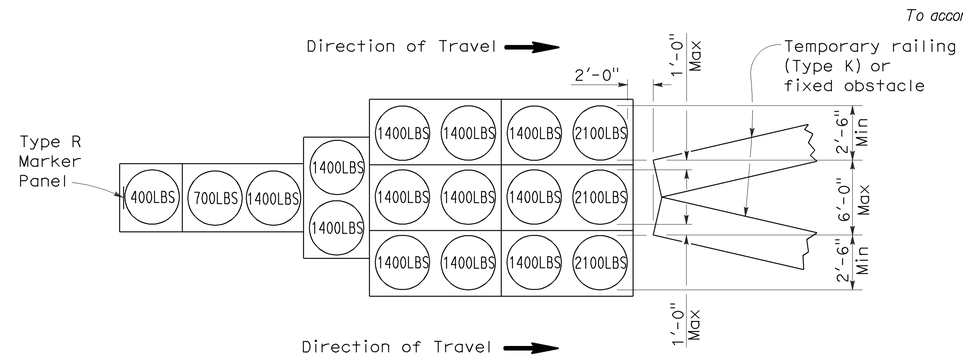
ARRAY 'TU11'

Approach speed less than 45 mph



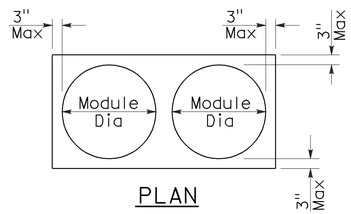
ARRAY 'TU21'

Approach speed 45 mph or more

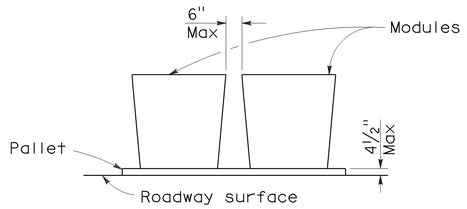


ARRAY 'TU17'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	21	22

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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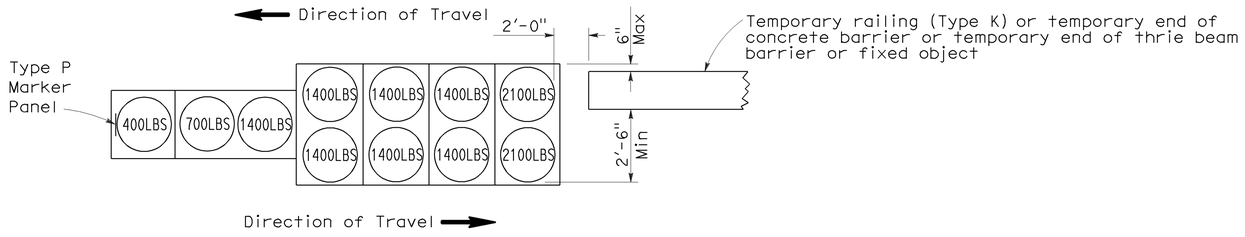
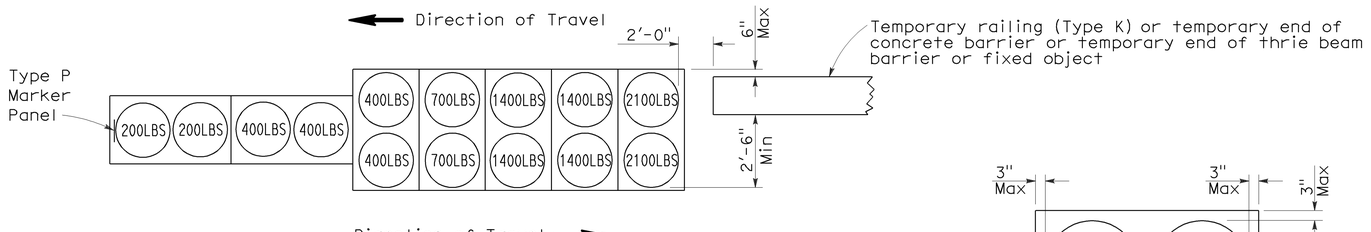
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 12-20-10



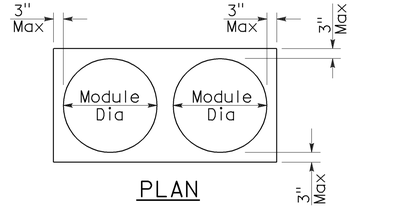
ARRAY 'TB11'

Approach speed less than 45 mph

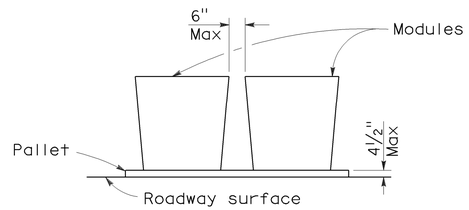


ARRAY 'TB14'

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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	But	70	0.0/3.2 6.1/9.2	22	22

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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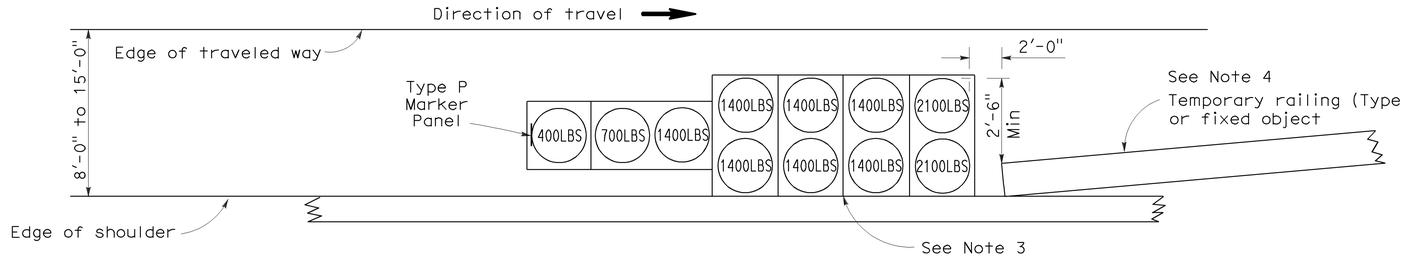
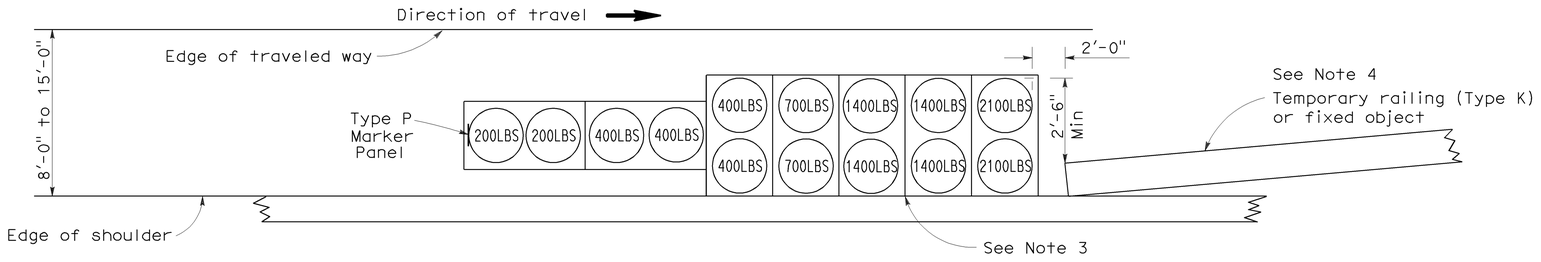
To accompany plans dated 12-20-10



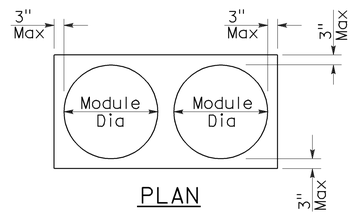
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

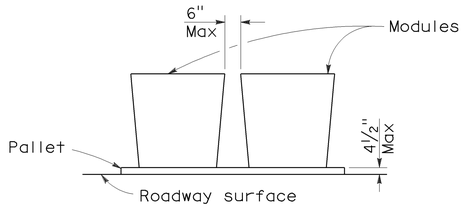


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08