

SHEET No.	INDEX OF PLANS DESCRIPTION
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16-31	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA **ACSTPNH-Q101(287)E**  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN MENDOCINO COUNTY NEAR LEGGETT**  
**FROM 0.6 MILE SOUTH OF JITNEY GULCH BRIDGE**  
**TO SOUTH FORK EEL RIVER BRIDGE No. 10-0300**

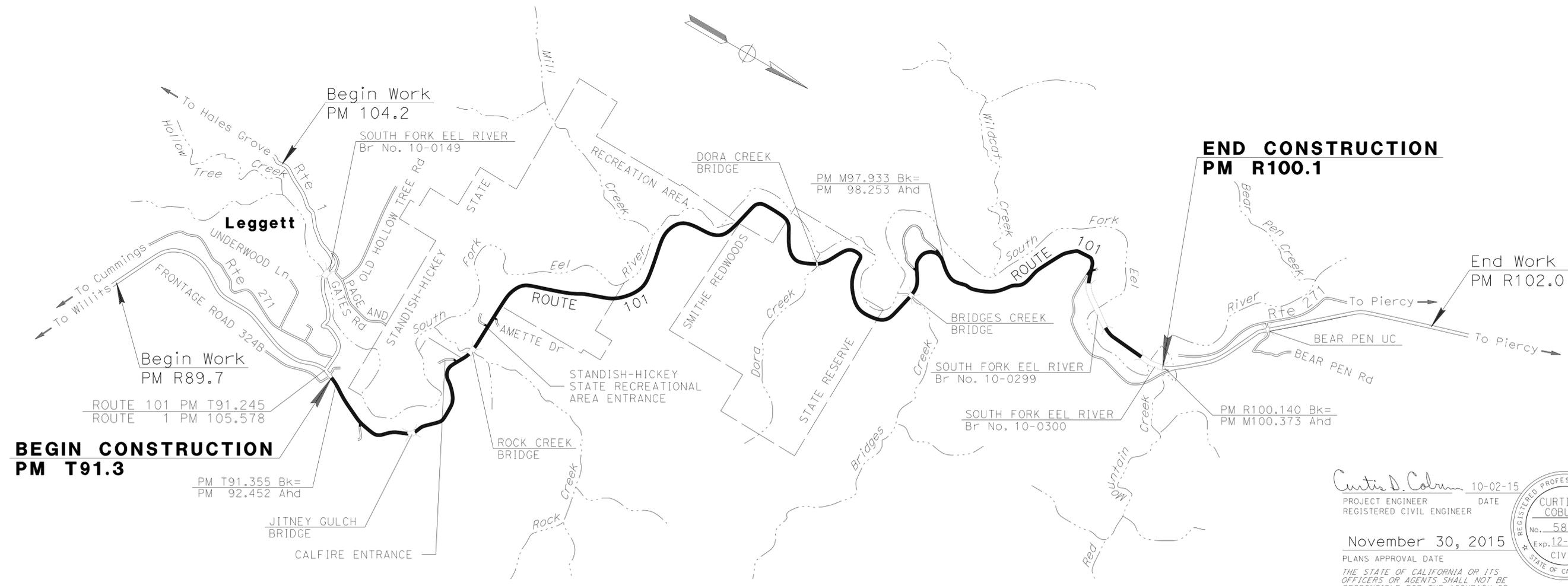
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	1	31



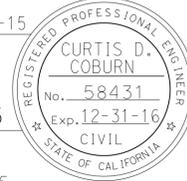


LOCATION MAP



PROJECT MANAGER  
TOM FITZGERALD

DESIGN MANAGER  
TOM FITZGERALD

  
 Curtis D. Coburn 10-02-15  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
 No. 58431  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA  
 November 30, 2015  
 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.

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

NO SCALE

DATE PLOTTED => 04-JAN-2016  
 TIME PLOTTED => 09:58  
 07-14-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	2	31
<i>Curtis D. Coburn</i> 10-02-15 REGISTERED CIVIL ENGINEER DATE			REGISTERED PROFESSIONAL ENGINEER <b>CURTIS D. COBURN</b> No. 58431 Exp. 12-31-16 CIVIL STATE OF CALIFORNIA		
November 30, 2015 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

PAVEMENT CLIMATE REGION

NORTH COAST

NOTES:

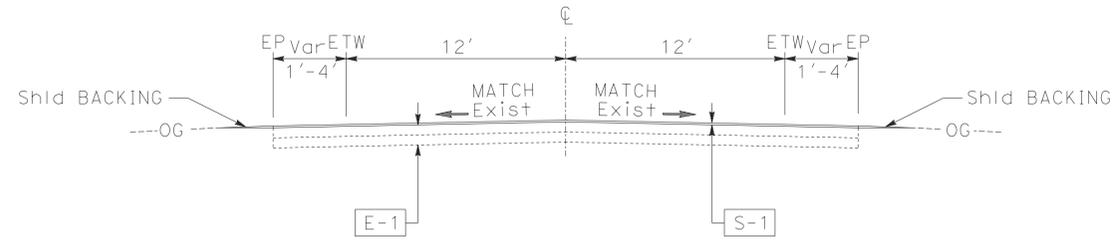
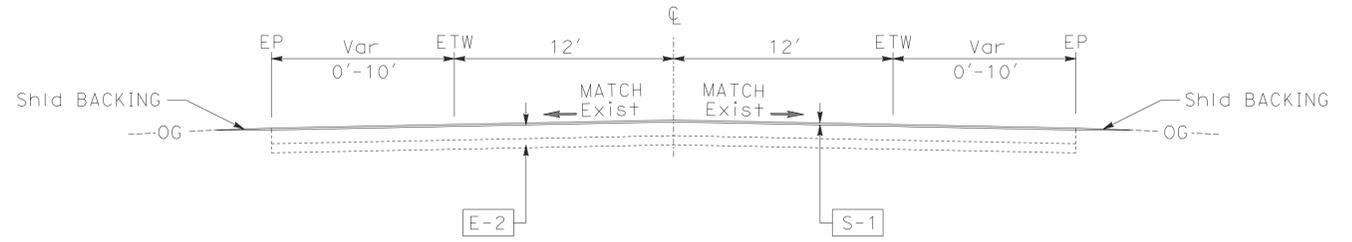
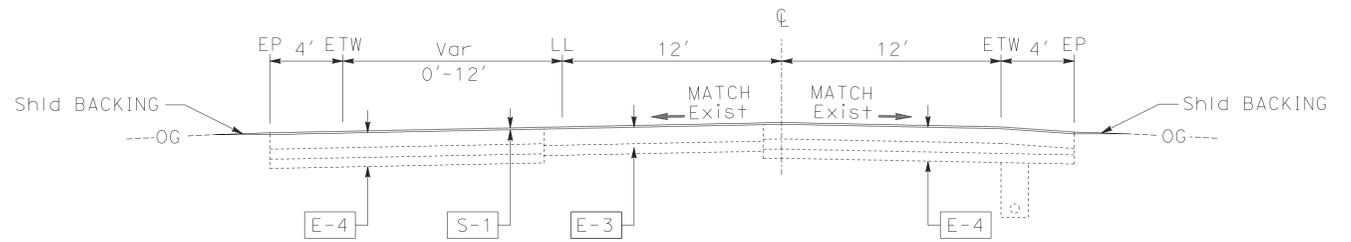
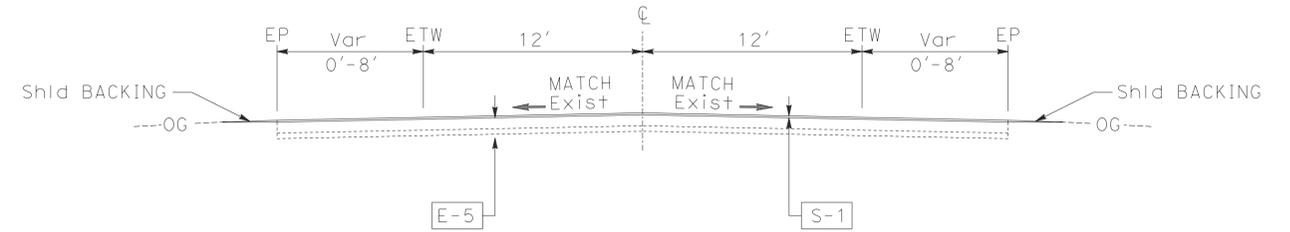
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- IN AREAS WHERE THE WIDTH OF THE EXISTING SURFACING VARIES FROM THAT SHOWN, VARY THE WIDTH OF THE PAVING OPERATIONS AS DIRECTED BY THE ENGINEER.

LEGEND:

RHMA-GG = RUBBERIZED HOT MIX ASPHALT (GAP-GRADED)

TYPICAL PAVEMENT STRUCTURAL SECTIONS

- |     |   |     |  |      |   |
|-----|---|-----|--|------|---|
| S-1 | 0.10' RHMA-GG   | E-5 | Exist<br>0.60'-2.50' AC<br>PRF<br>0.30'-1.50' AB | E-10 | Exist<br>0.5' AC<br>0.95' GRINDINGS                                   |
| E-1 | Exist<br>0.60'-1.30' AC<br>0.60'-1.45' AB             | E-6 | Exist<br>0.60'-1.35' AC<br>PRF<br>0.45'-1.35' AB | E-11 | Exist<br>0.14' OGAC<br>0.50' AC<br>1.44' AS<br>0.56' CTB              |
| E-2 | Exist<br>0.55'-1.85' AC<br>PRF<br>0.25'-2.10' AB      | E-7 | Exist<br>0.54' AC<br>1.89' AB                    | E-12 | Exist<br>0.16' OGAC<br>0.51' AC<br>0.25' ATPB<br>0.08' AC<br>1.23' AB |
| E-3 | Exist<br>0.90'-1.25' AC<br>PRF<br>Var AB              | E-8 | Exist<br>0.85'-1.40' AC<br>PRF<br>0.40'-1.35' AB | E-13 | Exist<br>0.16' OGAC<br>0.51' AC<br>0.25' ATPB<br>0.08' AC<br>1.23' AB |
| E-4 | Exist<br>0.75'-1.20' AC<br>0.45'-1.20' AB<br>0.50' AS | E-9 | Exist<br>0.70'-1.15' AC<br>PRF<br>0.40'-1.10' AB |      |   |



ROUTE 101

TYPICAL CROSS SECTIONS

NO SCALE

X-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

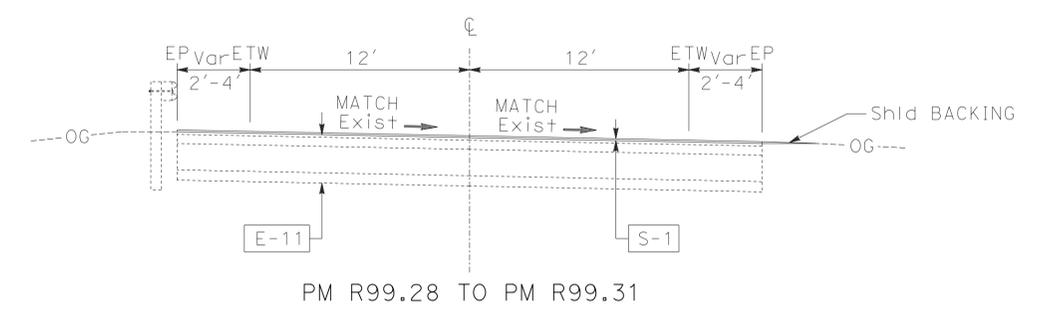
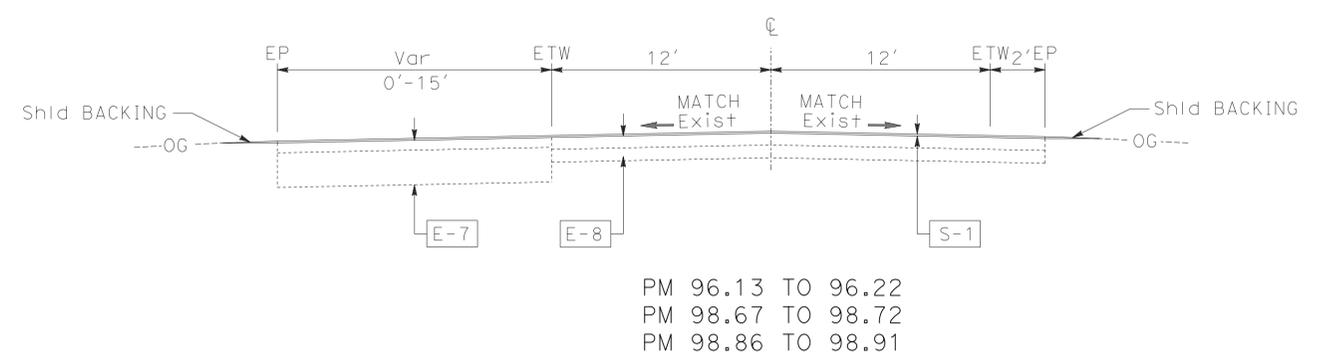
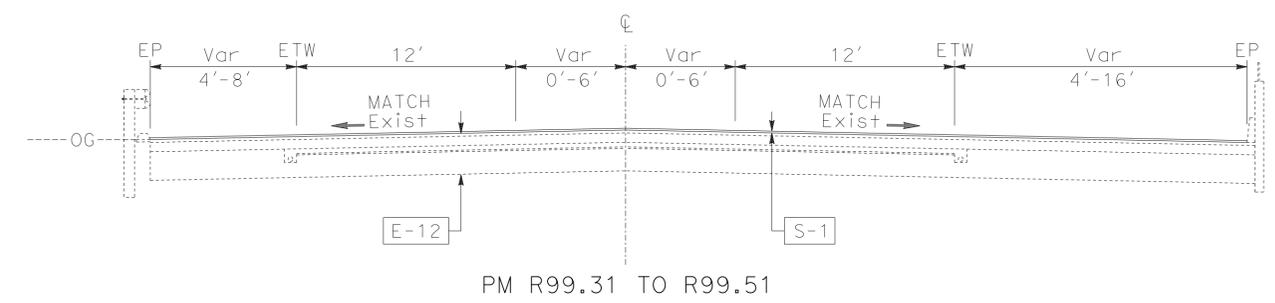
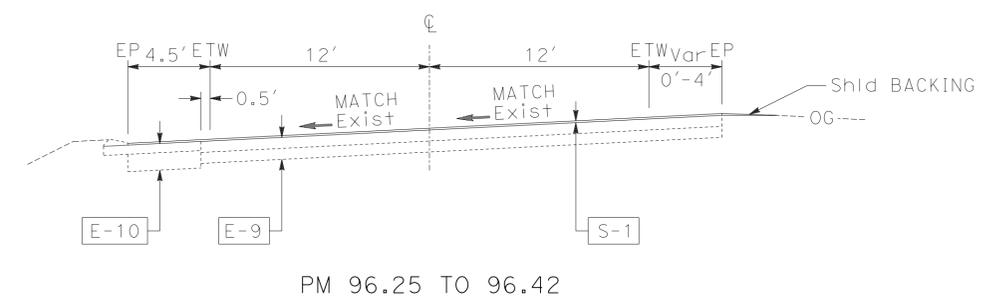
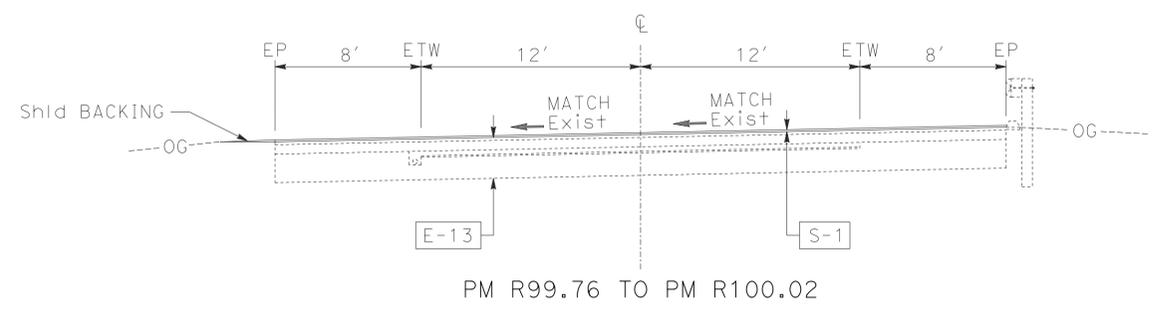
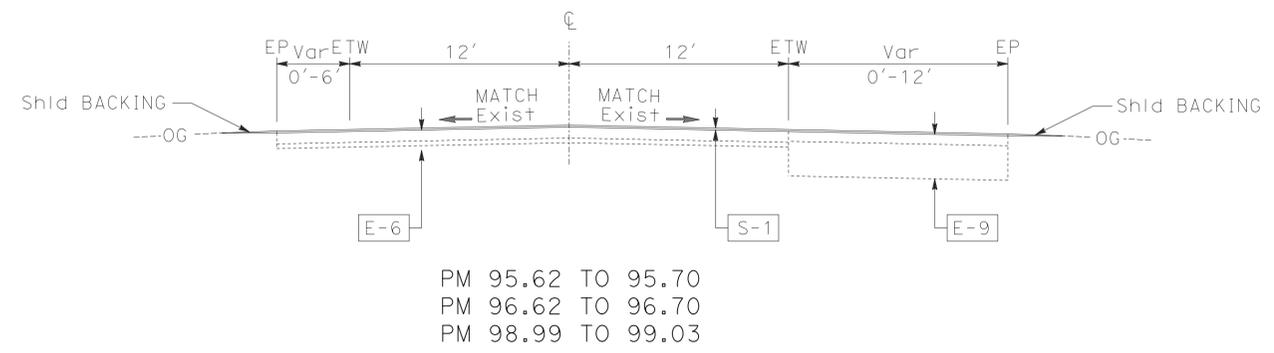
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: JOHNATHON JACKSON  
 CHECKED BY: CURTIS COBURN  
 REVISED BY: JOHNATHON JACKSON  
 DATE REVISED: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	3	31

Curtis D. Coburn 10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 CURTIS D. COBURN  
 No. 58431  
 Exp. 12-31-16  
 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.



**ROUTE 101**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

**TYPICAL CROSS SECTIONS**  
NO SCALE

**X-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 JOHNATHAN JACKSON CURTIS COBURN  
 REVISED BY: DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	4	31

Curtis D. Coburn 10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 CURTIS D. COBURN  
 No. 58431  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA

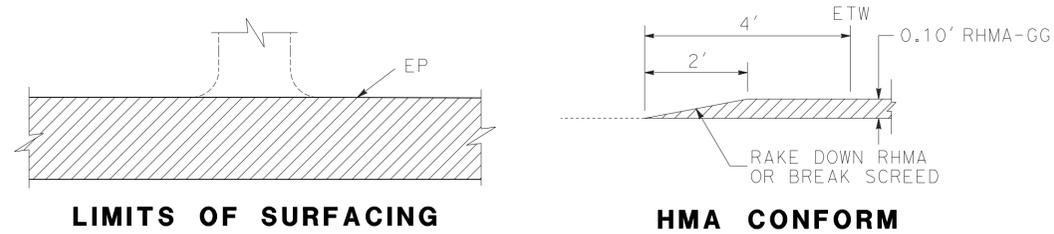
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

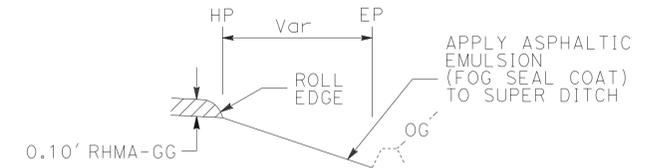
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- IN AREAS WHERE THE WIDTH OF THE EXISTING SURFACING VARIES FROM THAT SHOWN, VARY THE WIDTH OF THE PAVING OPERATIONS AS DIRECTED BY THE ENGINEER.

**LEGEND:**

- LIMITS OF COLD PLANE AC PAVEMENT PRIOR TO RHMA-GG OVERLAY
- LIMITS OF RHMA-GG
- LIMITS OF REPLACE AC SURFACING

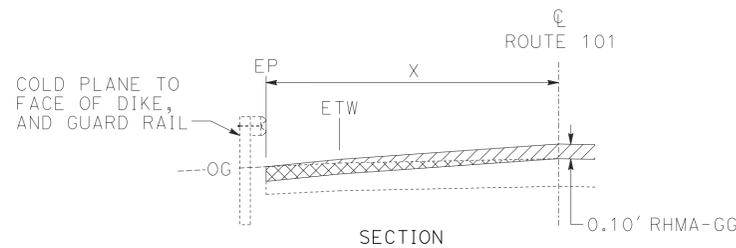
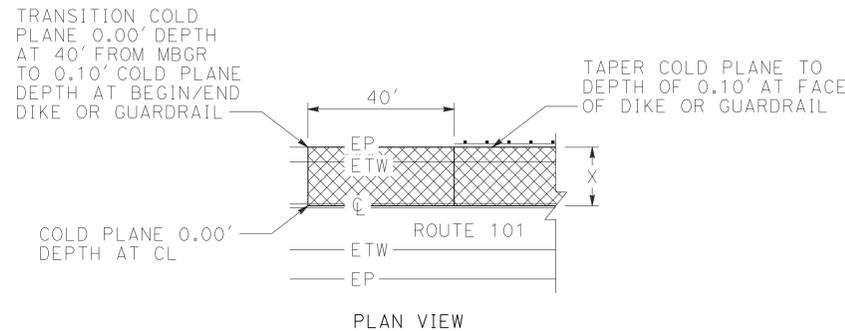


**LIMITS OF SURFACING HMA CONFORM**  
**PRIVATE ROAD CONNECTIONS**



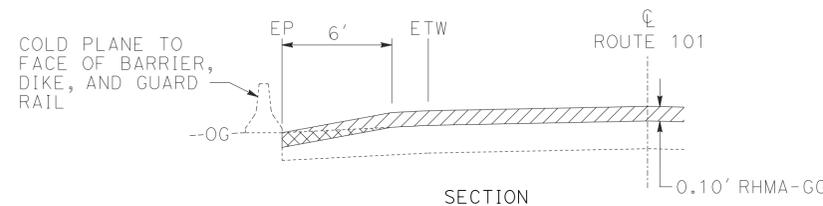
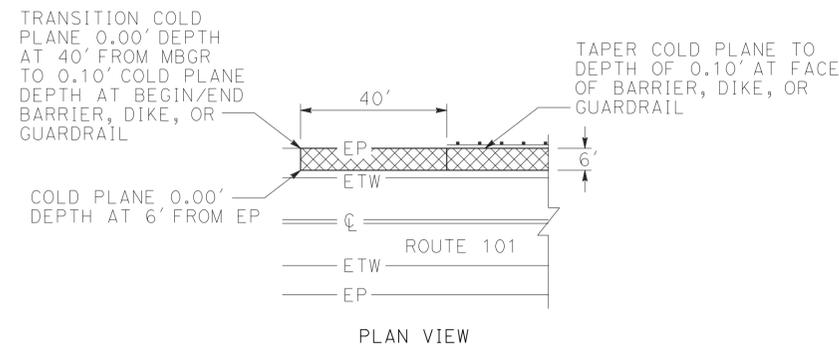
LOCATION	PM	
	TO	FROM
NB Shld	94.09 Rt	94.60 Rt

**HMA CONFORM & FOG SEAL AT SUPER DITCH**



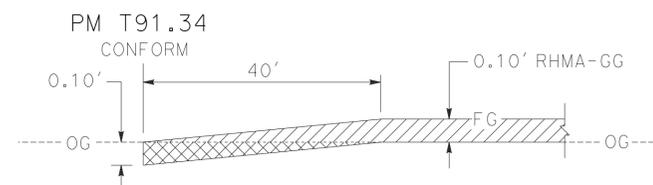
**COLD PLANE AC PAVEMENT TO CENTERLINE AT DIKE, AND MBGR**

DESCRIPTION	LOCATION (PM)		X (FT)
	FROM	TO	
COLD PLANE AT GUARD RAIL	92.69 Lt	92.76 Lt	14
COLD PLANE AT GUARD RAIL	93.08 Rt	93.12 Rt	14
COLD PLANE AT DIKE	93.14 Lt	93.29 Lt	14
COLD PLANE AT GUARD RAIL AND DIKE	93.33 Lt	93.50 Lt	14
COLD PLANE AT DIKE	94.08 Lt	94.61 Lt	14
COLD PLANE AT GUARD RAIL	94.74 Lt	94.85 Lt	14
COLD PLANE AT DIKE	94.92 Lt	95.02 Lt	14
COLD PLANE AT GUARD RAIL	95.18 Lt	95.37 Lt	14
COLD PLANE AT DIKE	95.57 Lt	95.66 Lt	16
COLD PLANE AT DIKE	95.70 Lt	95.78 Lt	16
COLD PLANE AT DIKE	96.21 Lt	96.44 Lt	13
COLD PLANE AT DIKE	97.09 Lt	97.28 Lt	14
COLD PLANE AT DIKE	97.28 Lt	97.39 Lt	16
COLD PLANE AT GUARD RAIL AND DIKE	97.40 Lt	97.46 Lt	16
COLD PLANE AT DIKE	97.50 Lt	M97.66 Lt	16
COLD PLANE AT DIKE	98.31 Lt	98.41 Lt	14
COLD PLANE AT GUARD RAIL	98.64 Lt	98.69 Lt	14
COLD PLANE AT GUARD RAIL	99.09 Lt	99.20 Lt	14
COLD PLANE AT GUARD RAIL	99.20 Lt	R99.44 Lt	16
COLD PLANE AT DIKE	R99.44 Lt	R99.50 Lt	16

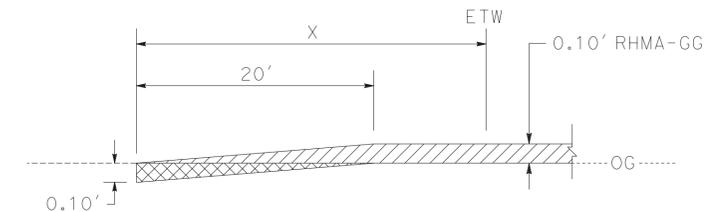


**COLD PLANE AC PAVEMENT ON SHOULDER AT BARRIER, DIKE, AND MBGR**

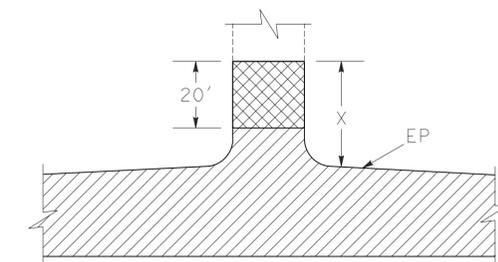
DESCRIPTION	LOCATION (PM)	
	FROM	TO
COLD PLANE AT BARRIER	92.62 Rt	92.69 Rt
COLD PLANE AT DIKE	93.60 Rt	93.69 Rt
COLD PLANE AT DIKE	93.61 Lt	93.69 Lt
COLD PLANE AT DIKE	93.77 Rt	93.86 Rt
COLD PLANE AT DIKE	95.38 Rt	95.46 Rt
COLD PLANE AT DIKE	96.68 Rt	96.73 Rt
COLD PLANE AT GUARD RAIL	96.71 Lt	96.83 Lt
COLD PLANE AT GUARD RAIL	99.21 Rt	R99.41 Rt
COLD PLANE AT DIKE	R99.47 Rt	R99.50 Rt
COLD PLANE AT GUARD RAIL	R99.82 Rt	R99.95 Rt



**COLD PLANE AC PAVEMENT AT SOUTH PROJECT CONFORM**



**COLD PLANE AC PAVEMENT AT PUBLIC ROAD CONNECTIONS**



**LIMITS OF SURFACING AT PUBLIC ROAD CONNECTIONS**

LOCATION	PM	X
		FT
CALFIRE ENTRANCE	93.60 Lt	58
STANDISH HICKEY STATE RECREATIONAL AREA ENTRANCE	93.90 Lt	68
REDWOOD RETREAT ENTRANCE	99.44 Lt	22
CONFUSION HILL ENTRANCE	99.44 Rt	260

**CONSTRUCTION DETAILS C-1**  
 NO SCALE

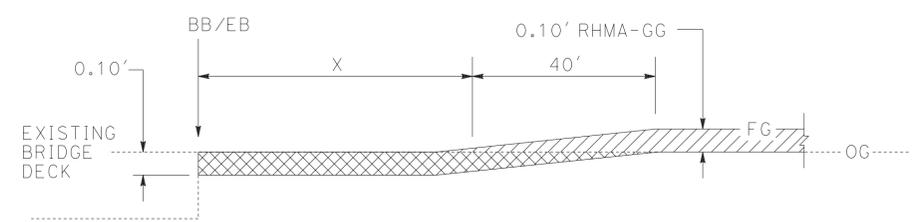
EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	5	31

Curtis D. Coburn 10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

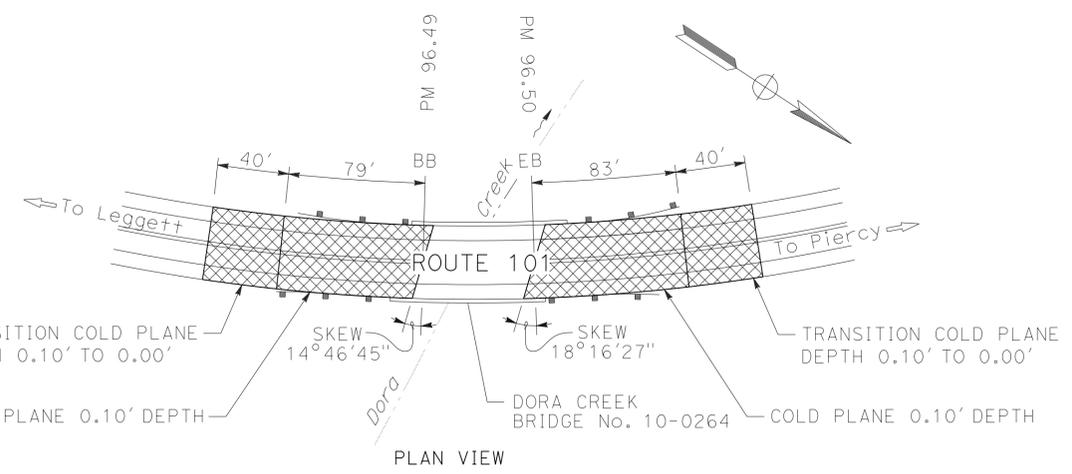
REGISTERED PROFESSIONAL ENGINEER  
 CURTIS D. COBURN  
 No. 58431  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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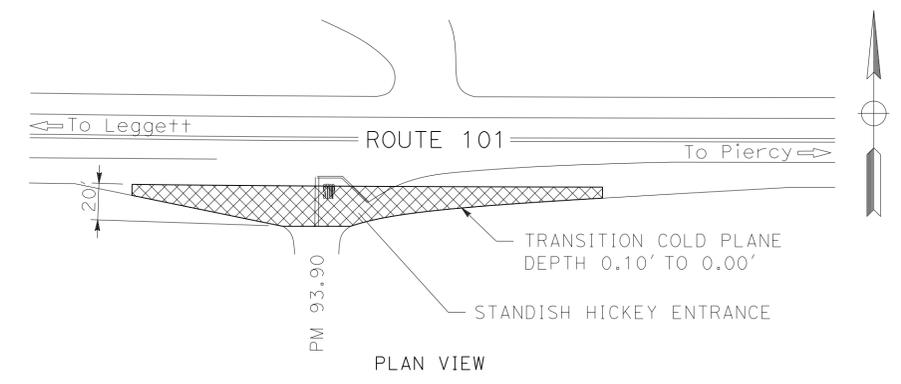
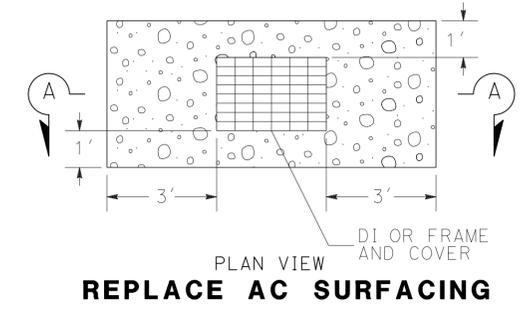
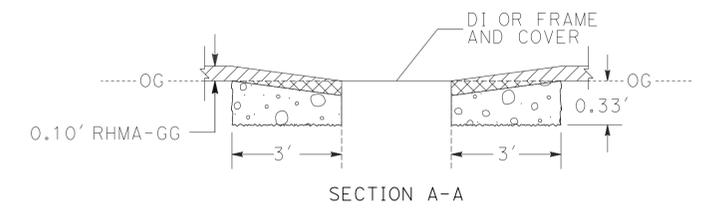


**COLD PLANE AC PAVEMENT AT BB & EB**

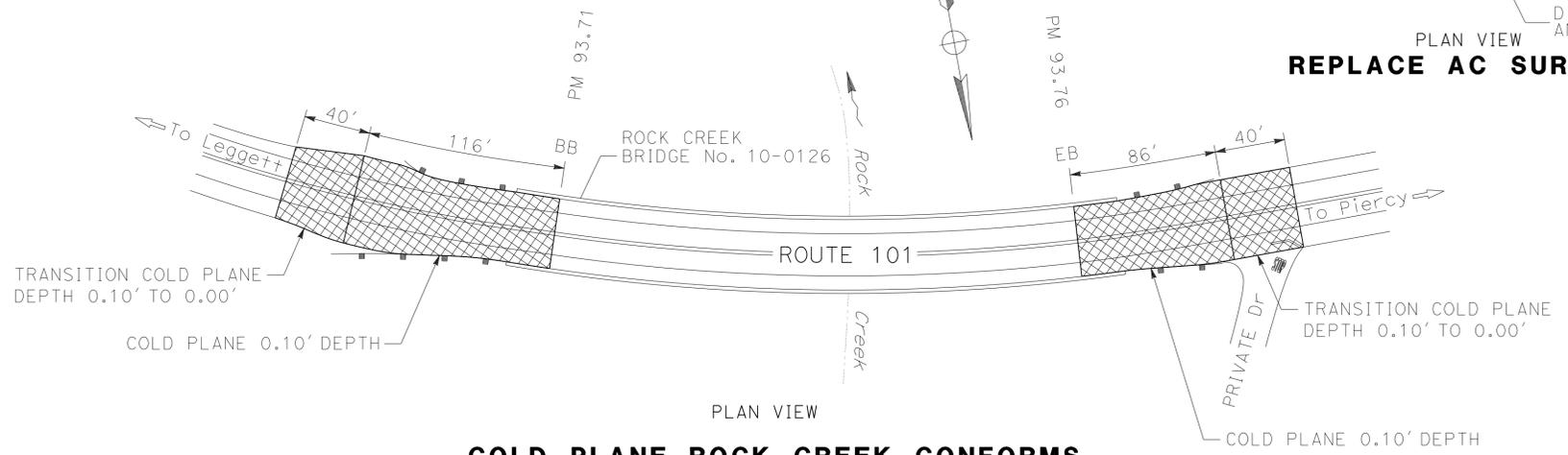
DESCRIPTION	PM	X	
		FT	
BB JITNEY GULCH Br	93.01	86	
EB JITNEY GULCH Br	93.06	95	
BB ROCK CREEK Br	93.71	116	
EB ROCK CREEK Br	93.76	86	
BB DORA CREEK Br	96.49	79	
EB DORA CREEK Br	96.50	83	
BB BRIDGES CREEK Br	97.47	79	
EB BRIDGES CREEK Br	97.50	77	
BB SOUTH FORK EEL RIVER Br No. 10-0299	R99.51	75	
EB SOUTH FORK EEL RIVER Br No. 10-0299	R99.76	115	
BB SOUTH FORK EEL RIVER Br No. 10-0300	R100.13	135	



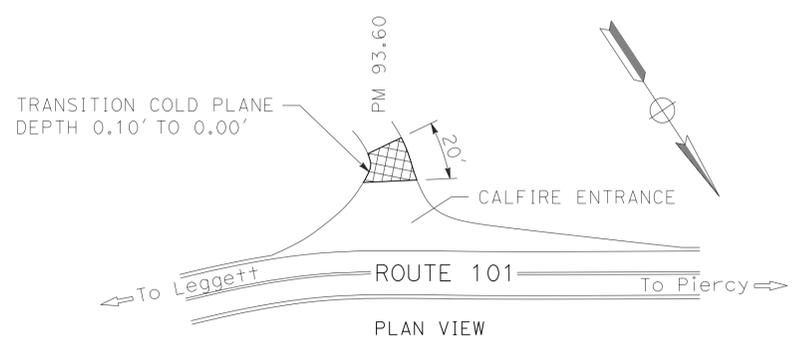
**COLD PLANE DORA CREEK CONFORMS**  
BRIDGE No. 10-0264



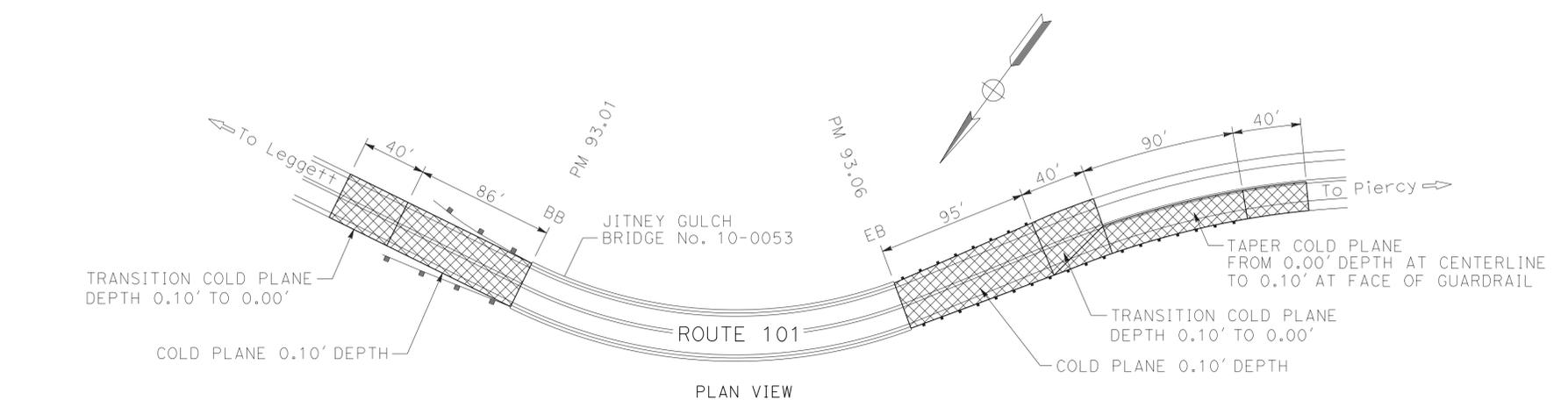
**COLD PLANE STANDISH HICKEY ENTRANCE CONFORM**



**COLD PLANE ROCK CREEK CONFORMS**  
BRIDGE No. 10-0126



**COLD PLANE CALFIRE ENTRANCE CONFORM**



**COLD PLANE JITNEY GULCH CONFORMS**  
BRIDGE No. 10-0053

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

**CONSTRUCTION DETAILS**  
NO SCALE  
**C-2**

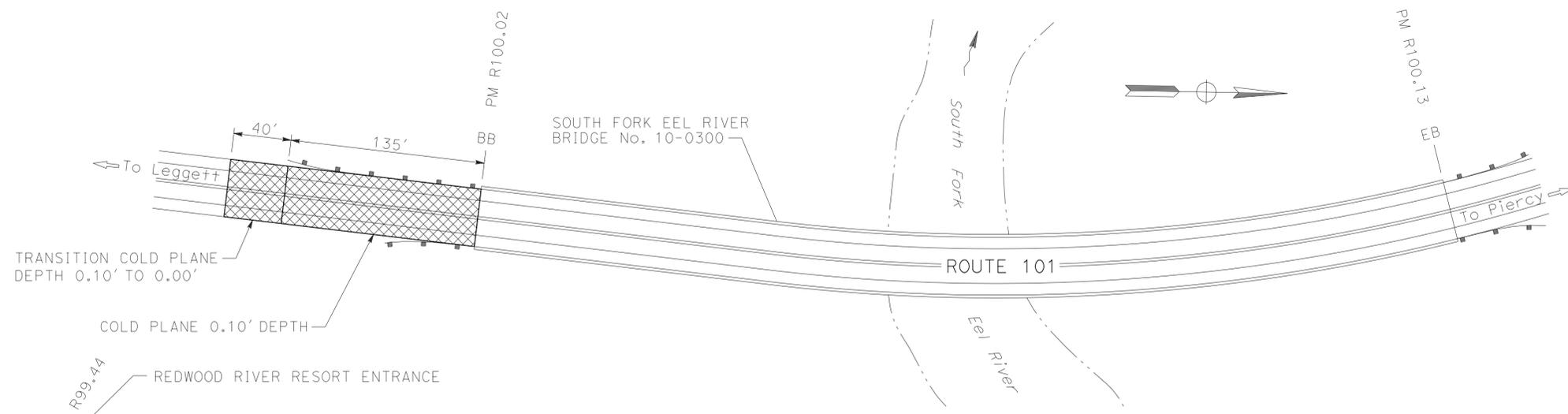
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: JOHNATHAN JACKSON  
 CHECKED BY: CURTIS COBURN  
 REVISED BY: JOHNATHAN JACKSON  
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	6	31

Curtis D. Coburn 10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

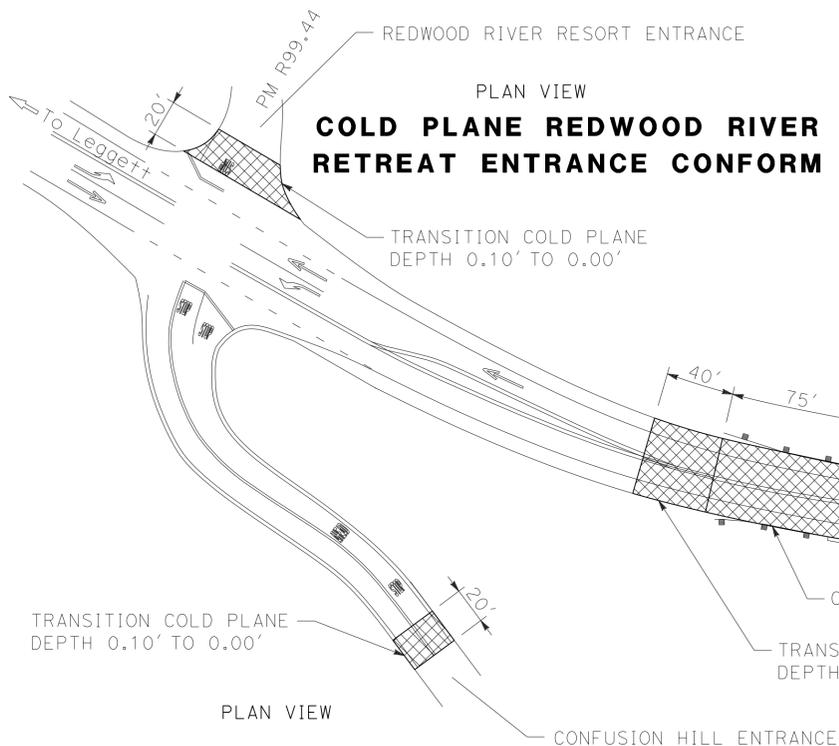
REGISTERED PROFESSIONAL ENGINEER  
 CURTIS D. COBURN  
 No. 58431  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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**COLD PLANE REDWOOD RIVER RETREAT ENTRANCE CONFORM**

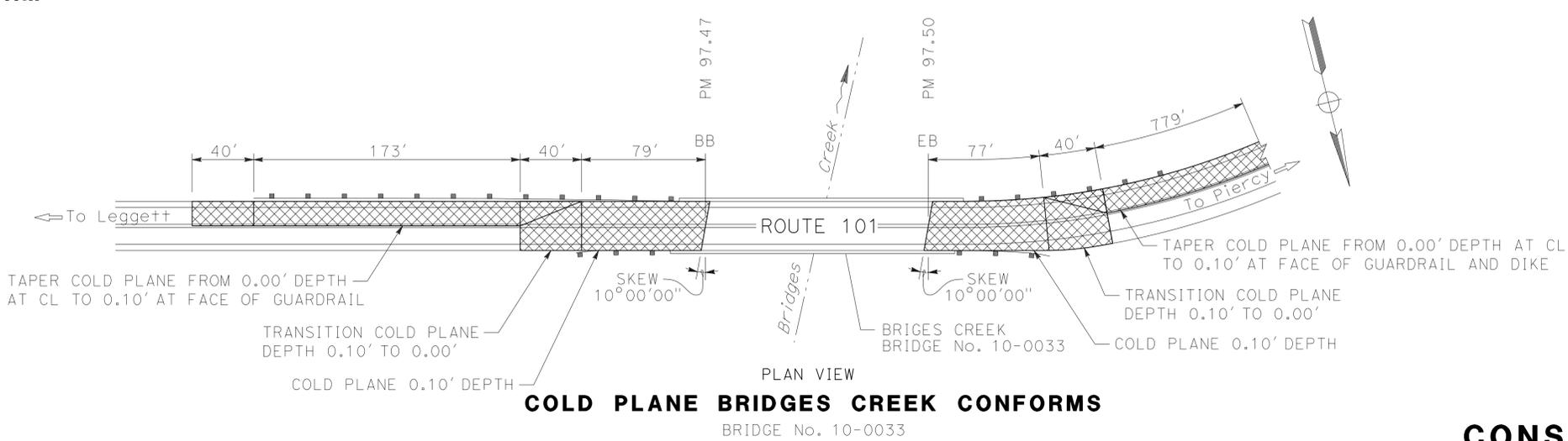
**COLD PLANE SOUTH FORK EEL RIVER CONFORMS**  
BRIDGE No. 10-0300



**COLD PLANE CONFUSION HILL ENTRANCE CONFORM**



**COLD PLANE SOUTH FORK EEL RIVER CONFORMS**  
BRIDGE No. 10-0299



**COLD PLANE BRIDGES CREEK CONFORMS**  
BRIDGE No. 10-0033

**CONSTRUCTION DETAILS**  
NO SCALE  
**C-3**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: JOHNATHAN JACKSON  
 CHECKED BY: CURTIS COBURN  
 REVISED BY: JOHNATHAN JACKSON  
 DATE REVISED:

USERNAME => johnathan\_jackson  
DGN FILE => 0115000052ga003.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0052

PROJECT NUMBER & PHASE

01150000521

LAST REVISION | DATE PLOTTED => 04-JAN-2016  
08-10-15 | TIME PLOTTED => 09:59





P:\PROJ\01\0E980\graf+ing\sheet\0115000052md001.dgn  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC OPERATIONS  
 FUNCTIONAL SUPERVISOR: RICHARD MULLEN  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 SHERI M. RODRIGUEZ TROY A. ARSENEAU  
 REVISED BY: DATE REVISED:

- NOTES:**
- CALIFORNIA CODES ARE DESIGNATED BY (CA). OTHERWISE, FEDERAL (MUTCD) CODES ARE SHOWN.
  - ALL SIGNS SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE BACKGROUND AND SHALL BE EQUIPPED WITH AT LEAST TWO 16" x 16" ORANGE FLAGS FOR DAYTIME CLOSURE OR FLASHING BEACONS FOR LANE CLOSURE DURING HOURS OF DARKNESS.
  - ALL CONES USED FOR LANE CLOSURES DURING THE HOURS OF DARKNESS SHALL BE FITTED WITH RETROREFLECTIVE BANDS OR SLEEVES.
  - WHEN A PILOT CAR IS USED, PLACE A C37 (CA) SIGN AT ALL INTERSECTIONS WITHIN TRAFFIC CONTROL AREA. WHERE VEHICULAR TRAFFIC CAN NOT EFFECTIVELY SELF-REGULATE, AT LEAST ONE FLAGGER SHALL BE USED AT EACH INTERSECTION WITHIN THE TRAFFIC CONTROL AREA.
  - FLAGGER SHOULD STAND IN A CONSPICUOUS PLACE, FACING TRAFFIC AT ALL TIMES, BE VISIBLE TO APPROACHING TRAFFIC AS WELL AS APPROACHING VEHICLES AFTER THE FIRST VEHICLE HAS STOPPED.
  - ADDITIONAL ADVANCE FLAGGERS ARE REQUIRED.
  - WHEN FLAGGER IS NOT VISIBLE FROM THIS LOCATION PLACE A C29 (CA) SIGN BELOW THE C9A (CA) SIGN.



**SIGN PANEL SIZE (MINIMUM)**

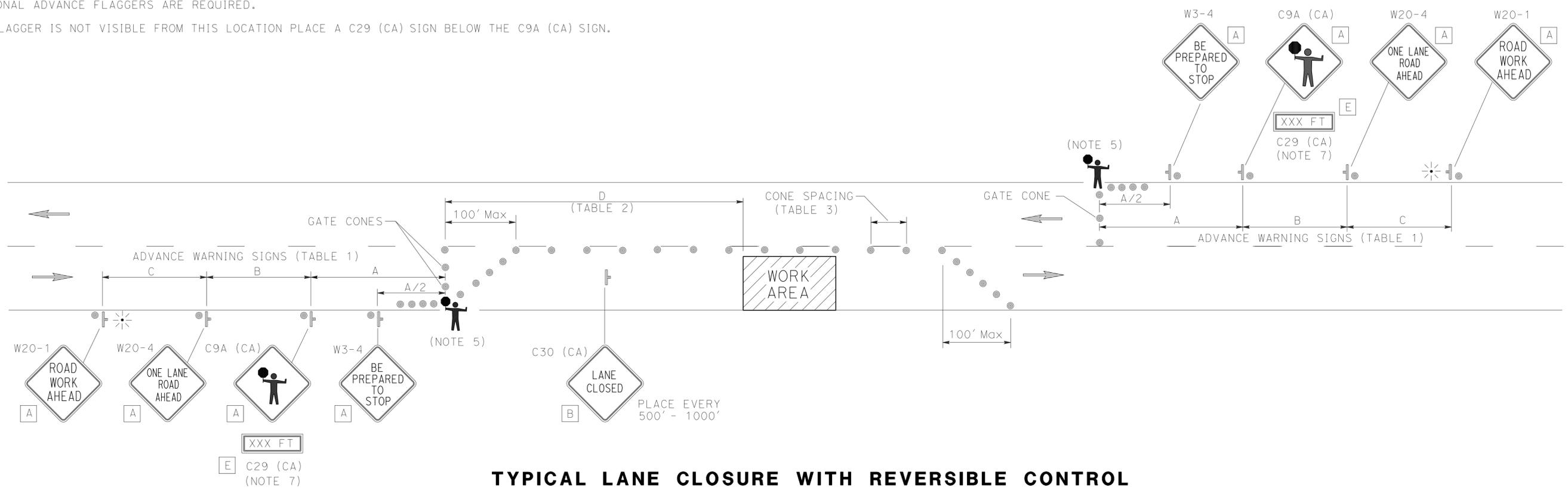
A	48" x 48" - SPEED OF 45 mph OR MORE 36" x 36" - SPEED LESS THAN 45 mph
B	30" x 30"
C	UNUSED
D	UNUSED
E	20" x 7"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	9	31

*Sheri M. Rodriguez*  
 REGISTERED CIVIL ENGINEER 3-5-15 DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 SHERI M. RODRIGUEZ  
 No. C66861  
 Exp. 9-30-16  
 CIVIL  
 STATE OF CALIFORNIA



**TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL**

**TABLE 1**  
ADVANCE WARNING SIGN SPACING

ROAD TYPE	Min A	Min B	Min C
	ft		
URBAN (25 mph OR LESS)	100	100	100
URBAN (30 mph TO 40 mph)	250	250	250
URBAN (MORE THAN 40 mph)	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

**TABLE 2**  
BUFFER SPACE

APPROACH SPEED	Min D	DOWNGRADE Min D		
		-3%*	-6%*	-9%*
		ft		
25 & BELOW	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785

\* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

**TABLE 3**  
Max CONE SPACING

POSTED SPEED	TAPER	TANGENT	CONFLICT*
mph	ft		
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32

\* USE WHERE THERE IS A CONFLICT BETWEEN EXISTING PAVEMENT MARKINGS AND CHANNELIZERS.

**TRAFFIC HANDLING PLAN**  
NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TH-1**

LAST REVISION | DATE PLOTTED => 04-JAN-2016  
 03-05-15 | TIME PLOTTED => 09:59

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	10	31

Curtis D. Coburn 10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
 November 30, 2015  
 PLANS APPROVAL DATE

No. 58431  
 Exp. 12-31-16  
 CIVIL

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

**NOTE:**

WHEN DETAIL 19 IS SHOWN, THE SOLID BARRIER SHALL BE PLACED ON THE SIDE DESIGNATED (R=RIGHT, L=LEFT) AS PM'S INCREASE.

**TRAFFIC STRIPE AND PAVEMENT MARKER QUANTITIES**

LOCATION (PM)		DETAIL NUMBER	DETAIL LENGTH	THERMOPLASTIC TRAFFIC STRIPE						PAVEMENT MARKER (RETROREFLECTIVE)			REMARKS		
				REMOVE	8 INCH WHITE	4 INCH YELLOW	4 INCH WHITE	4 INCH WHITE (BROKEN 12-3)	4 INCH YELLOW (BROKEN 36-12)	4 INCH WHITE (BROKEN 36-12)	REMOVE (N)	TYPE D		TYPE G	TYPE H
FROM	TO			LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	
T91.34	T91.36	22	80			160						10			
T91.34 L+	T91.36 L+	27B	80				80								
T91.34 R+	T91.36 R+	27B	80				80								
T91.355 EQUATES TO 92.452															
92.45	93.01	22	2,946			5,892						248			
92.45 R+	95.64 R+	27B	16,833				16,833								
92.45 L+	93.90 L+	27B	7,645				7,645								
93.01	93.06	22	264			528				24	24			JITNEY GULCH Br (10-0053)	
93.06	93.71	22	3,432			6,864				24	24			ROCK CREEK Br (10-0032)	
93.71	93.76	22	264			528				24	24				
93.76	96.49	22	14,414			28,828					1204				
93.90 L+		22	28			56					6			STANDISH HICKEY ENTRANCE	
93.90 L+	96.17 L+	27B	11,986				11,986								
94.06	94.57	12	2,693									58			
95.65 R+	95.71 R+	38	317	634	317							15		TURNOUT	
95.72 R+	97.54 R+	27B	9,610				9,610								
96.18 L+	96.22 L+	38	212	424	212							10		TURNOUT	
96.23 L+	97.93 L+	27B	8,992				8,992								
96.49	96.50	22	53			106				8	8			DORA CREEK Br (10-0264)	
96.50	97.18	22	3,590			7,180					302				
97.18	97.39	19L	1,109								25		48		
97.39	97.47	22	422			844					38				
97.47	97.50	22	158			316				16	16			BRIDGES CREEK Br (10-0033)	
97.50	M97.93	22	2,286			4,572					194				
97.55 R+	M97.64 R+	38	476	952	476							21		TURNOUT	
M97.65 R+	M97.93 R+	27B	1,495				1,495								
M97.933 EQUATES TO 98.253															
98.25	R99.27	22	5,370			10,740						450			
98.25 L+	R99.43 L+	27B	6,215				6,215								
98.25 R+	R99.43 R+	27B	6,215				6,215								
98.94 R+	99.02 R+	38	423	846	423							19		TURNOUT	
R99.30	R99.42	29	634			2,536					56				
R99.41 R+	R99.47 R+	27C	317								317				
R99.41 L+	R99.45 L+	27C	212								212				
R99.42	R99.43	22	53			106					8				
R99.42	R99.44	38	106	212	106							6		NB L+ TURN Ln CHANNELIZING LINE	
R99.44 L+		22	16			32					4			REDWOODS RIVER RESORT ENTRANCE	
R99.44 R+		22	255			510					24			CONFUSION HILL ENTRANCE	
R99.44 L+	R100.13 L+	27B	3,644				3,644								
R99.44 R+	R100.13 R+	27B	3,696				3,696								
R99.44	R99.45	22	53			106					8				
R99.44	R99.45	38	53	106	53							4		SB L+ TURN Ln CHANNELIZING LINE	
R99.45	R99.51	29	317			1,268					30				
R99.51	R99.53	29	106			424				12	12			SOUTH FORK EEL RIVER Br (10-0299)	
R99.53	R99.76	22	1,214			2,428				104	104			SOUTH FORK EEL RIVER Br (10-0299)	
R99.76	R100.02	22	1,373			2,746					118				
R100.02	R100.13	22	581			1,162				52	52			SOUTH FORK EEL RIVER Br (10-0300)	
SUBTOTAL				3174	1587	79,041	76,491	529	1109	2693	240	3253	133	48	
TOTAL SHEET PDQ-1				3174	1587	155,532		529	3802		240		3434		

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

**PAVEMENT DELINEATION QUANTITIES PDQ-1**

**NOTE:**

MAINTAIN EXISTING TRAFFIC MANAGEMENT SYSTEM (TMS) ELEMENTS DURING CONSTRUCTION FROM PM R99.31 TO R99.50.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	11	31

*Curtis D. Coburn* 10-02-15  
 REGISTERED CIVIL ENGINEER DATE

November 30, 2015  
 PLANS APPROVAL DATE

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**MAINTAIN EXISTING TMS ELEMENTS DURING CONSTRUCTION**

LOCATION (PM)	TMS ELEMENT	
	EA (N)	REMARKS
99.44	15	VEHICLE DETECTOR LOOP

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

**ASPHALTIC EMULSION (FOG SEAL COAT)**

LOCATION (PM)		ASPHALTIC EMULSION (FOG SEAL COAT)
FROM	TO	TON
94.09 R+	94.60 R+	0.2
TOTAL		0.2

**RUMBLE STRIP**

LOCATION (PM)		OFFSET	DETAIL NUMBER	CENTERLINE RUMBLE STRIP	SHOULDER RUMBLE STRIP
FROM	TO			STA	
92.69	93.01	CL	22	16.9	
93.06	93.61	CL	22	29.0	
96.58	96.92	CL	22	18.0	
R99.32	R99.40	R+ Shld	27B		4.3
R99.40	R99.41	L+ Shld	27B		0.7
R99.47	R99.51	R+ Shld	27B		2.1
R99.48	R99.51	L+ Shld	27B		1.7
R99.76	R100.02	CL	22	13.5	
R99.76	R100.02	R+ Shld	27B		13.5
R99.76	R100.02	L+ Shld	27B		13.5
SUBTOTAL				77.4	35.8
TOTAL				77.4	35.8

**SHOULDER BACKING QUANTITIES**

LOCATION (PM)		SHOULDER BACKING TON	LOCATION (PM)		SHOULDER BACKING TON
FROM	TO		FROM	TO	
T91.34 R+	T91.36 R+	5	95.98 L+	96.07 L+	21
T91.34 L+	T91.36 L+	5	96.10 L+	96.22 L+	28
T91.355 EQUATES TO 92.452			96.18 R+	96.46 R+	64
92.45 R+	92.53 R+	19	96.51 L+	96.69 L+	42
92.45 L+	92.56 L+	26	96.54 R+	96.58 R+	10
92.54 R+	92.63 R+	21	96.71 R+	96.75 R+	10
92.57 L+	92.59 L+	5	96.76 L+	96.97 L+	48
92.60 L+	92.64 L+	10	96.77 R+	96.94 R+	39
92.67 L+	92.70 L+	7	96.98 R+	97.06 R+	19
92.75 L+	92.81 L+	14	97.08 R+	97.12 R+	10
92.79 R+	92.89 R+	23	97.13 R+	97.24 R+	26
92.88 L+	93.00 L+	28	97.37 L+	97.45 L+	7
93.09 L+	93.15 L+	14	97.41 R+	97.45 R+	10
93.11 R+	93.23 R+	28	97.51 R+	M97.93 R+	96
93.19 L+	93.20 L+	3	M97.65 L+	M97.93 L+	64
93.27 L+	93.34 L+	16	M97.933 EQUATES TO 98.253		
93.49 L+	93.61 L+	28	98.25	98.42	39
93.54 R+	93.62 R+	19	98.25	98.36	26
93.61 L+	93.62 L+	3	98.41	98.48	16
93.78 L+	93.89 L+	26	98.47	98.71	55
93.90 L+	94.64 L+	169	98.50	98.63	30
94.63 R+	94.76 R+	30	98.67	98.78	26
94.78 R+	95.01 R+	53	98.74	99.12	87
94.84 L+	94.88 L+	10	98.79	99.00	48
95.01 L+	95.10 L+	21	99.11	99.18	16
95.08 R+	95.12 R+	10	99.14	99.19	12
95.11 L+	95.19 L+	19	99.20	99.22	5
95.14 R+	95.21 R+	16	99.24	R99.42	42
95.36 L+	95.42 L+	14	R99.41	R99.44	7
95.43 L+	95.56 L+	30	R99.45	R99.46	3
95.62 R+	95.77 R+	35	R99.45	R99.49	10
95.78 L+	95.90 L+	28	R99.78	R99.80	5
95.80 R+	95.88 R+	19	R99.79	R99.84	12
95.97 R+	96.10 R+	30	R99.84	R100.00	37
TOTAL					1754

**REPLACE AC SURFACING**

LOCATION (PM)	VOLUME CY	DESCRIPTION
93.10 R+	0.4	DI ON NB Shld
94.76 R+	0.4	FRAME AND COVER ON AC APPROACH
99.23 R+	0.4	DI ON NB Shld
99.26 R+	0.4	FRAME AND COVER ON NB Shld
R99.30 R+	0.4	FRAME AND COVER ON NB Shld
TOTAL	2.0	

**PAVEMENT MARKING QUANTITIES**

LOCATION (PM)	ORIENTATION	LEGEND	REMOVE THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING	REMARKS
			SQFT		
93.79 R+	FWBT	LIMIT LINE		19	PRIVATE Rd
93.79 R+	FWBT	STOP		22	PRIVATE Rd
93.90 L+	FEBT	LIMIT LINE	34	34	STANDISH HICKEY STATE RECREATIONAL AREA ENTRANCE
93.90 L+	FEBT	STOP	22	22	STANDISH HICKEY STATE RECREATIONAL AREA ENTRANCE
94.06 L+	FSBT	TYPE VI ARROW	42	42	SB No. 2 Ln
94.10 L+	FSBT	TYPE VI ARROW	42	42	SB No. 2 Ln
94.14 L+	FSBT	TYPE VI ARROW	42	42	SB No. 2 Ln
R99.39 R+	FNBT	TYPE V ARROW	33	33	NB Ln
R99.42 R+	FNBT	TYPE III (L) ARROW	42	42	NB L+ TURN Ln TO REDWOODS RIVER RESORT
R99.42 R+	FNBT	TYPE V ARROW	33	33	NB Ln
R99.44 L+	FSBT	TYPE III (L) ARROW	42	42	SB L+ TURN Ln TO CONFUSION HILL
R99.44 L+	FEBT	LIMIT LINE	28	28	REDWOODS RIVER RESORT ENTRANCE
R99.44 L+	FEBT	STOP		22	REDWOODS RIVER RESORT ENTRANCE
R99.44 R+	FWBT	LIMIT LINE	38	38	CONFUSION HILL ENTRANCE
R99.44 R+	FWBT	STOP (3)	66	66	CONFUSION HILL ENTRANCE
R99.44 R+	FWBT	AHEAD	31	31	CONFUSION HILL ENTRANCE
R99.44 L+	FSBT	TYPE V ARROW	33	33	SB Ln
R99.46 L+	FSBT	TYPE V ARROW	33	33	SB Ln
TOTAL			561	624	

**SUMMARY OF QUANTITIES Q-1**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	12	31

*Curtis D. Coburn* 10-02-15  
REGISTERED CIVIL ENGINEER DATE

November 30, 2015  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
CURTIS D. COBURN  
No. 58431  
Exp. 12-31-16  
CIVIL  
STATE OF CALIFORNIA

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### ROADWAY QUANTITIES

LOCATION (PM)		Avg WIDTH (N)	LENGTH (N)	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT	REMARKS
FROM	TO	LF	LF	TON	TON	
T91.34	T91.35	36	40	14.3	0.1	
T91.35	T91.36	28	66	18.2	0.1	
T91.355 EQUATES TO 92.452						
92.45	92.61	28	845	233.8	0.9	
92.61	92.71	40	528	208.7	0.8	
92.71	92.93	28	1162	321.4	1.3	
92.93	92.98	30	296	87.9	0.4	
92.98	92.99	31	40	12.3	0.1	
92.99	93.01	31	86	26.4	0.1	
JITNEY GULCH Br						
93.06	93.08	36	95	33.8	0.2	
93.08	93.09	32	40	12.7	0.1	
93.09	93.28	30	1027	304.3	1.2	
93.28	93.39	28	581	160.7	0.7	
93.39	93.61	30	1162	344.3	1.3	
93.60 Lt		48	58	27.6	0.2	CALFIRE ENTRANCE
93.61	93.68	40	372	147.1	0.6	
93.68	93.69	40	40	15.9	0.1	
93.69	93.71	40	116	45.9	0.2	
ROCK CREEK Br						
93.76	93.78	40	86	34.0	0.2	
93.78	93.79	40	40	15.9	0.1	
93.79	94.56	44	4098	1,781.5	6.7	
93.78 Lt	93.92 Lt	12	739	87.7	0.4	WIDE Shld
93.90 Lt		214	22	46.6	0.2	STANDISH HICKEY ENTRANCE
94.56	94.97	28	2165	598.9	2.3	
94.58 Lt	94.65 Lt	6	370	22.0	0.1	WIDE Shld
94.97	95.13	30	845	250.4	1.0	
95.13	95.37	28	1267	350.6	1.4	
95.33 Lt	95.43 Lt	6	528	31.3	0.2	WIDE Shld
95.37	95.53	36	845	300.5	1.2	
95.45 Rt	95.54 Rt	10	475	47.0	0.2	WIDE Shld
95.53	95.65	32	634	200.4	0.8	
95.65 Rt	95.71 Rt	44	317	137.8	0.6	TURNOUT
95.71	96.12	34	2165	727.2	2.8	
95.90 Lt	96.05 Lt	12	792	93.9	0.4	WIDE Shld
96.12	96.18	26	317	81.4	0.4	
96.18 Lt	96.22 Lt	38	211	79.3	0.3	TURNOUT
96.22	96.47	26	1307	335.7	1.3	
96.40 Lt	96.47 Lt	6	370	22.0	0.1	WIDE Shld
96.47	96.48	40	40	15.9	0.1	
96.48	96.49	40	79	31.3	0.2	
SUBTOTAL				7,306.6	29.4	

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

### ROADWAY QUANTITIES

LOCATION (PM)		Avg WIDTH (N)	LENGTH (N)	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT	REMARKS
FROM	TO	LF	LF	TON	TON	
DORA CREEK Br						
96.50	96.52	40	83	32.9	0.2	
96.52	96.53	40	40	15.9	0.1	
96.53	97.40	30	4629	1,372.1	5.2	
96.59 Rt	96.87 Rt	8	1478	116.9	0.5	WIDE Shld
96.77 Lt	96.86 Lt	16	475	75.2	0.3	WIDE Shld
97.24 Lt	97.30 Lt	10	317	31.3	0.2	WIDE Shld
97.27 Rt	97.32 Rt	14	264	36.6	0.2	WIDE Shld
97.40	97.45	32	251	79.3	0.3	
97.45	97.46	32	40	12.7	0.1	
97.46	97.47	32	79	25.0	0.1	
BRIDGES CREEK Br						
97.50	97.51	32	77	24.4	0.1	
97.51	97.52	32	40	12.7	0.1	
97.52	97.55	32	147	46.5	0.2	
97.55 Rt	M97.64 Rt	44	475	206.6	0.8	TURNOUT
M97.64	M97.93	32	1531	484.2	1.9	
M97.933 EQUATES TO 98.253						
98.25	98.37	24	634	150.3	0.6	
98.37	98.94	26	3010	773.2	2.9	
98.68 Lt	98.73 Lt	18	264	47.0	0.2	WIDE Shld
98.87 Lt	98.91 Lt	16	211	33.4	0.2	WIDE Shld
98.94 Rt	99.02 Rt	40	422	167.0	0.7	TURNOUT
99.00 Lt	99.07 Lt	16	370	58.5	0.3	WIDE Shld
99.02	99.08	26	317	81.4	0.4	
99.08	99.20	28	634	175.3	0.7	
99.20	R99.27	28	370	102.3	0.4	
R99.27	R99.31	32	211	66.8	0.3	
R99.31	R99.34	40	158	62.6	0.3	
R99.34	R99.43	54	475	253.6	1.0	
R99.43	R99.49	52	317	162.8	0.7	
R99.44 Lt		83	28	22.9	0.1	REDWOOD RIVER RESORT ENTRANCE
R99.44 Rt		128	260	186.6	0.7	CONFUSION HILL ENTRANCE
R99.49	R99.50	40	40	15.9	0.1	
R99.50	R99.51	40	70	27.7	0.2	
SOUTH FORK EEL Br No. 10-0299						
R99.76	R99.78	40	80	31.7	0.2	
R99.78	R99.79	40	40	15.9	0.1	
R99.79	R99.98	40	1063	420.1	1.6	
R99.98	R99.99	40	40	15.9	0.1	
R99.99	R100.02	40	150	59.3	0.3	
SUBTOTAL				5,502.4	22.4	
TOTAL				12,809.1	51.8	

## SUMMARY OF QUANTITIES Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 JOHNATHON JACKSON CURTIS COBURN  
 REVISED BY: DATE REVISED:

### COLD PLANE AC PAVEMENT QUANTITIES

LOCATION (PM)		Avg WIDTH (N)	LENGTH (N)	COLD PLANE AC PAVEMENT	REMARKS
FROM	TO	LF	LF	SQYD	
T91.34	T91.35	36	40	160	
92.62 R+	92.63 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
92.63 R+	92.68 R+	6	264	176	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT BARRIER
92.68 R+	92.69 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
92.69 L+	92.70 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
92.70 L+	92.75 L+	14	264	411	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
92.75 L+	92.76 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
92.98	92.99	31	40	138	JITNEY GULCH Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
92.99	93.01	31	86	297	JITNEY GULCH Br - HOLD COLD PLANE DEPTH AT 0.1'
93.06	93.08	36	95	380	JITNEY GULCH Br - HOLD COLD PLANE DEPTH AT 0.1'
93.08	93.08	32	40	143	JITNEY GULCH Br - TRANSITION COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.08 R+	93.09 R+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.09 R+	93.11 R+	14	106	165	
93.11 R+	93.12 R+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.14 L+	93.15 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.15 L+	93.28 L+	14	686	1,068	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
93.28 L+	93.29 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.33 L+	93.34 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.34 L+	93.49 L+	14	792	1,232	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL AND DIKE
93.49 L+	93.50 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.60 L+		27	20	59	CALFIRE ENTRANCE
93.60 R+	93.61 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.61 R+	93.69 R+	6	422	282	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
93.61 L+	93.62 L+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.62 L+	93.69 L+	6	370	247	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
93.68	93.69	40	40	178	ROCK CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.69	93.71	40	116	516	ROCK CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
93.76	93.78	40	86	383	ROCK CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
93.78	93.79	40	40	178	ROCK CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.77 R+	93.78 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
93.78 R+	93.85 R+	6	370	247	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
93.85 R+	93.86 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
93.90 L+		131	20	292	STANDISH HICKEY STATE RECREATIONAL AREA ENTRANCE
94.74 L+	94.75 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
94.75 L+	94.84 L+	14	475	739	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
94.84 L+	94.85 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
94.92 L+	94.93 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
94.93 L+	95.01 L+	14	422	657	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
95.01 L+	95.02 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
95.18 L+	95.19 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
95.19 L+	95.36 L+	14	898	1,397	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
95.36 L+	95.37 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
95.38 R+	95.39 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
95.39 R+	95.45 R+	6	317	212	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
95.45 R+	95.46 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
95.57 L+	95.58 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
95.58 L+	95.65 L+	16	370	658	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
95.65 L+	95.66 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
95.70 L+	95.71 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
95.71 L+	95.77 L+	16	317	564	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
95.77 L+	95.78 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
96.21 L+	96.22 L+	13	40	58	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
96.22 L+	96.43 L+	13	1109	1,602	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
96.43 L+	96.44 L+	13	40	58	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
SUBTOTAL Q-3				13,883	

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	13	31

10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
**November 30, 2015**  
 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.

## SUMMARY OF QUANTITIES Q-3

LAST REVISION DATE PLOTTED => 04-JAN-2016  
 08-10-15 TIME PLOTTED => 10:00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR TOM FITZGERALD  
 CALCULATED/DESIGNED BY CHECKED BY  
 JOHNATHON JACKSON CURTIS COBURN  
 REVISED BY DATE REVISED

### COLD PLANE AC PAVEMENT QUANTITIES

LOCATION (PM)		Avg WIDTH (N)	LENGTH (N)	COLD PLANE AC PAVEMENT	REMARKS
FROM	TO	LF	LF	SQYD	
96.47	96.48	40	40	178	DORA CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
96.48	96.49	40	79	352	DORA CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
96.50	96.52	40	83	369	DORA CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
96.52	96.53	40	40	178	DORA CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
96.68 R+	96.69 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
96.69 R+	96.72 R+	6	158	106	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
96.72 R+	96.73 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
96.71 L+	96.72 L+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
96.72 L+	96.82 L+	6	528	352	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
96.82 L+	96.83 L+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
97.09 L+	97.10 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
97.10 L+	97.27 L+	14	898	1,397	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
97.27 L+	97.28 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
97.28 L+	97.29 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
97.29 L+	97.38 L+	16	475	845	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
97.38 L+	97.39 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
97.40 L+	97.41 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
97.41 L+	97.45 L+	16	211	376	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL AND DIKE
97.45 L+	97.46 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
97.45	97.46	32	40	143	BRIDGES CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
97.46	97.47	32	79	281	BRIDGES CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
97.50	97.51	32	77	274	BRIDGES CREEK Br - HOLD COLD PLANE DEPTH AT 0.1'
97.51	97.52	32	40	143	BRIDGES CREEK Br - TRANSITION COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
97.50 L+	97.51 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
97.51 L+	M97.65 L+	16	739	1,314	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
M97.65 L+	M97.66 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
98.31 L+	98.32 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
98.32 L+	98.40 L+	14	422	657	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
98.40 L+	98.41 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
98.64 L+	98.65 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
98.65 L+	98.68 L+	14	158	246	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
98.68 L+	98.69 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
99.09 L+	99.10 L+	14	40	63	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
99.10 L+	99.20 L+	14	1742	2,710	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
99.20 L+	R99.43 L+	16	1254	2,230	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
99.43 L+	R99.44 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
99.21 R+	99.22 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
99.22 R+	R99.40 R+	6	950	634	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
R99.40 R+	R99.41 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
R99.44 L+		64	20	143	REDWOOD RIVER RESORT ENTRANCE
R99.44 R+		28	20	63	CONFUSION HILL ENTRANCE
R99.44 L+	R99.45 L+	16	40	72	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
R99.45 L+	R99.50 L+	16	264	470	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
R99.47 R+	R99.48 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
R99.48 R+	R99.50 R+	6	106	71	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT DIKE
R99.49	R99.50	40	40	178	SOUTH FORK EEL RIVER Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
R99.50	R99.51	40	75	334	SOUTH FORK EEL RIVER Br - HOLD COLD PLANE DEPTH AT 0.1'
R99.76	R99.78	40	115	512	SOUTH FORK EEL RIVER Br - HOLD COLD PLANE DEPTH AT 0.1'
R99.78	R99.79	40	40	178	SOUTH FORK EEL RIVER Br - TRANSITION COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
R99.82 R+	R99.83 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
R99.83 R+	R99.94 R+	6	581	388	HOLD TAPERED COLD PLANE AT 0.1' DEPTH AT GUARDRAIL
R99.94 R+	R99.95 R+	6	40	27	TRANSITION TAPERED COLD PLANE DEPTH FROM 0.1' TO 0.0' OVER 40'
R99.98	R99.99	40	40	178	SOUTH FORK EEL RIVER Br - TRANSITION COLD PLANE DEPTH FROM 0.0' TO 0.1' OVER 40'
R99.99	R100.02	40	135	601	SOUTH FORK EEL RIVER Br - HOLD COLD PLANE DEPTH AT 0.1'
SUBTOTAL SHEET Q-4				17,161	
SUBTOTAL SHEET Q-3				13,883	
TOTAL				31,044	

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	14	31

10-02-15  
 REGISTERED CIVIL ENGINEER DATE  
**November 30, 2015**  
 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.

## SUMMARY OF QUANTITIES Q-4

LAST REVISION DATE PLOTTED => 04-JAN-2016  
 08-10-15 TIME PLOTTED => 10:00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: TOM FITZGERALD  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 BRIAN FINCK  
 CURTIS COBURN  
 REVISED BY: [blank] DATE REVISED: [blank]

NOTE:  
 1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

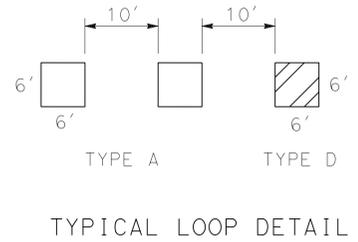
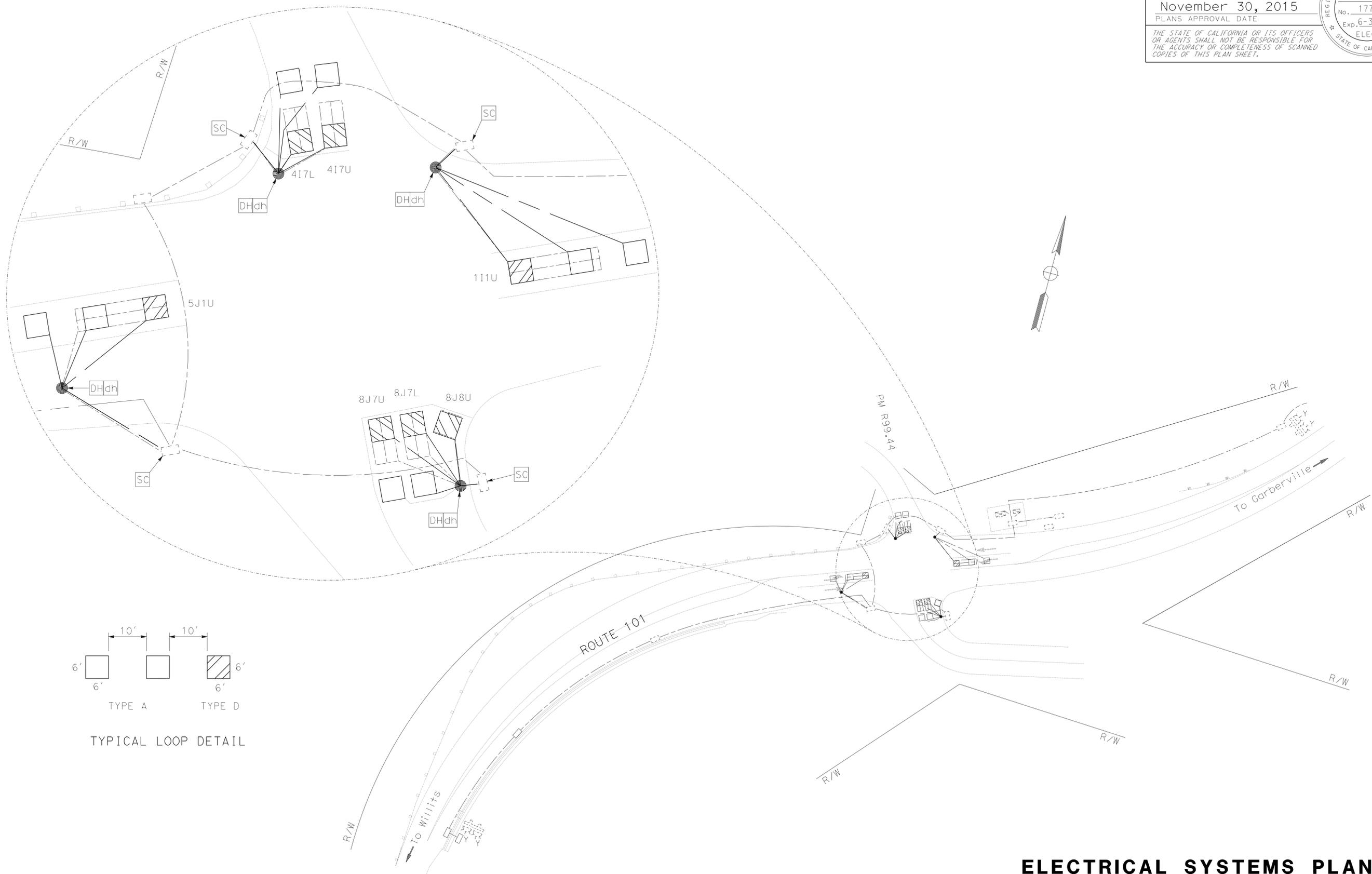
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	15	31

*Brian T. Finck* 10-05-15  
 REGISTERED CIVIL ENGINEER DATE

November 30, 2015  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 BRIAN T. FINCK  
 No. 17756  
 Exp. 6-30-16  
 ELECT  
 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.



**ELECTRICAL SYSTEMS PLAN**  
 NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

**E-1**

LAST REVISION DATE PLOTTED => 04-JAN-2016 05:29:15 TIME PLOTTED => 10:00

M

P continued

S

T continued

Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
MtI	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT
<p>N</p>	
N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE
<p>O</p>	
Obir	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN
<p>P</p>	
p	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE, PRECAST
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm MtI	PERMEABLE MATERIAL

PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
PL, PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT
<p>Q</p>	
<p>R</p>	
Qty	QUANTITY
R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
SL	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES
<p>T</p>	
T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
TeI	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
ToI	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
<p>U</p>	
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
<p>V</p>	
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
<p>W</p>	
W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE
<p>X</p>	
X Sec	CROSS SECTION
Xing	CROSSING
<p>Y</p>	
Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	16	31

*Grace M. Tsushima*  
REGISTERED CIVIL ENGINEER

July 19, 2013  
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
Grace M. Tsushima  
No. C49814  
Exp. 9-30-14  
CIVIL  
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 11-30-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft <sup>3</sup> , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

\* For use on a sign panel only

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS  
(SHEET 2 OF 2)

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B  
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10B

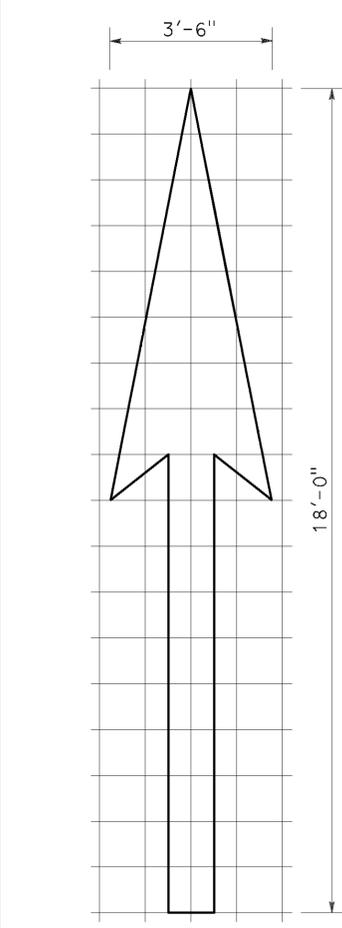
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	17	31

Registered Professional Engineer  
 Roberta L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

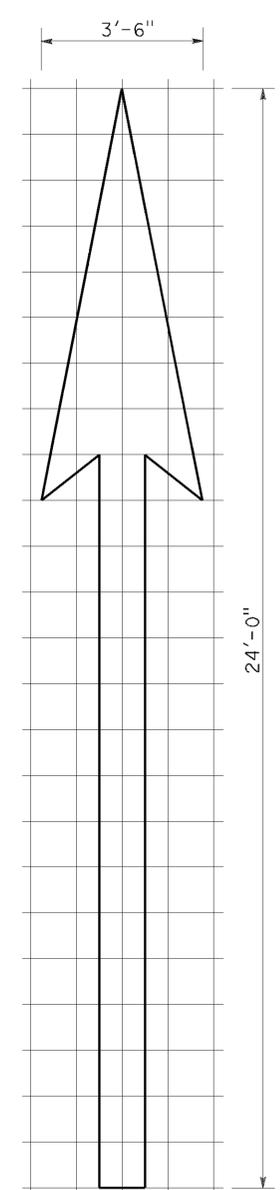
April 20, 2012  
 PLANS APPROVAL DATE

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

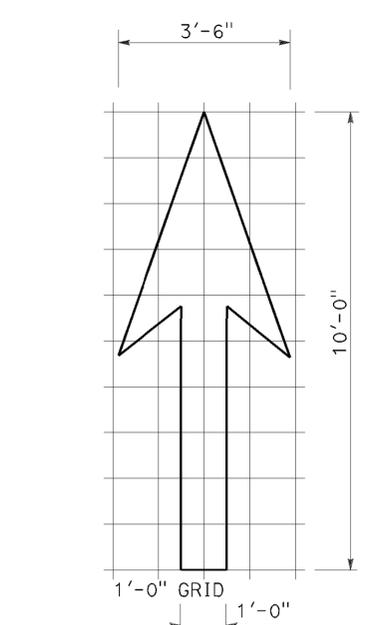
TO ACCOMPANY PLANS DATED 11-30-15



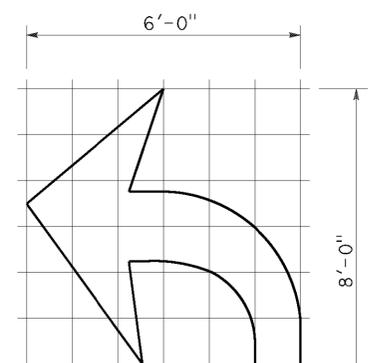
A=25 ft<sup>2</sup>  
**TYPE I 18'-0" ARROW**



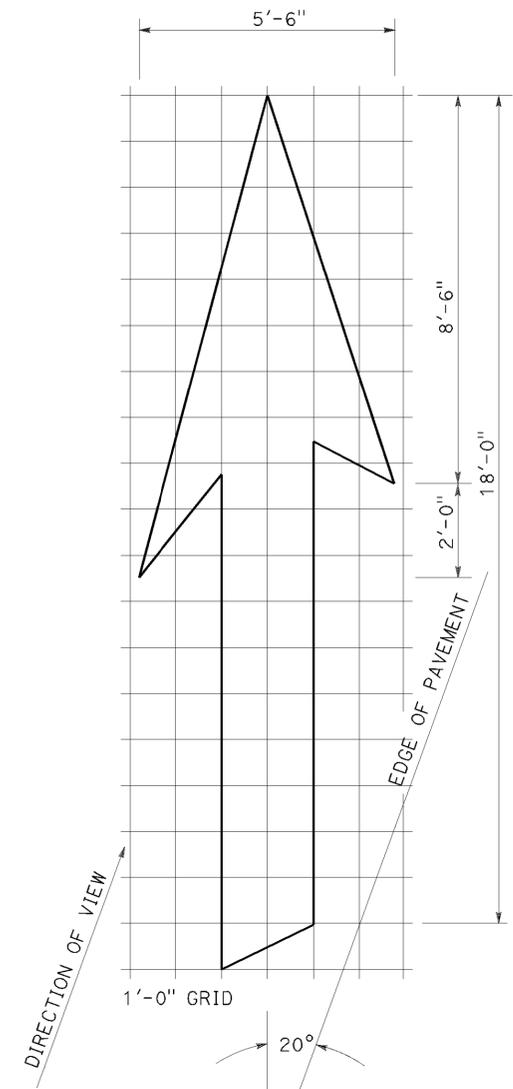
A=31 ft<sup>2</sup>  
**TYPE I 24'-0" ARROW**



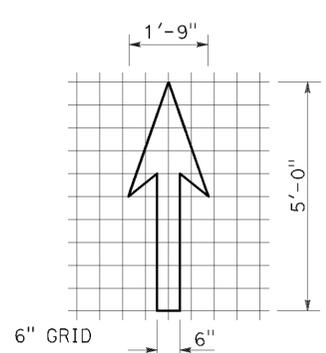
A=14 ft<sup>2</sup>  
**TYPE I 10'-0" ARROW**



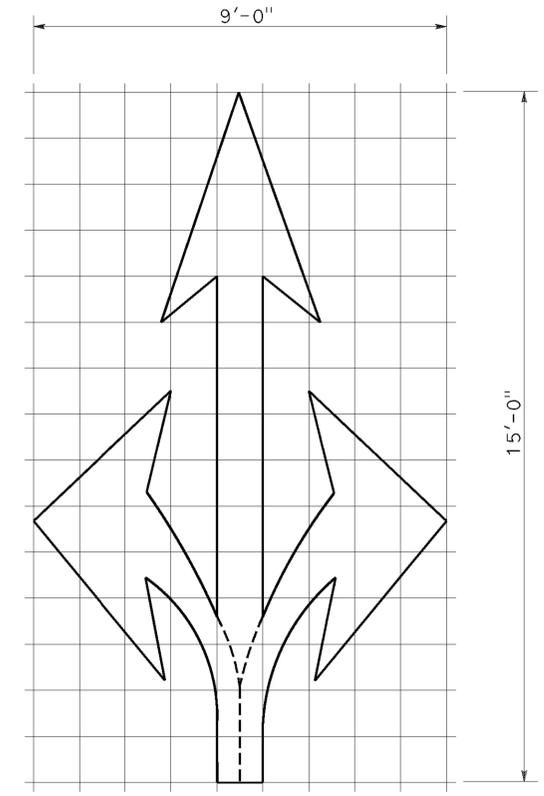
A=15 ft<sup>2</sup>  
**TYPE IV (L) ARROW**  
 (For Type IV (R) arrow, use mirror image)



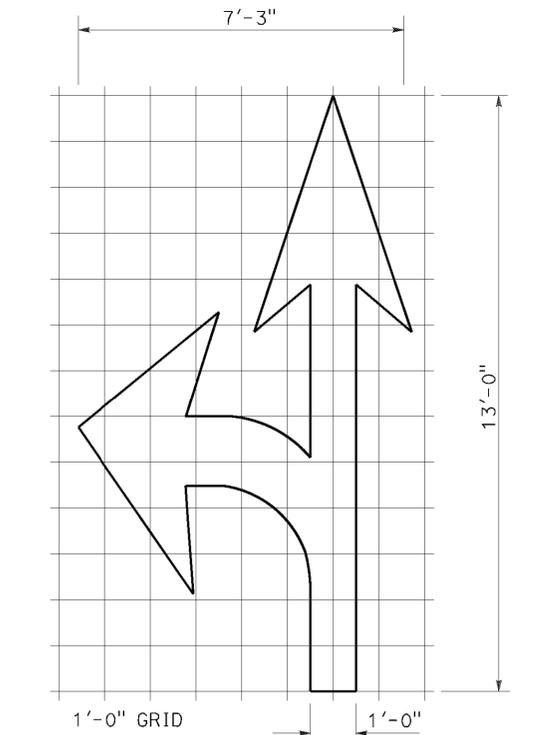
A=42 ft<sup>2</sup>  
**TYPE VI ARROW**  
 Right lane drop arrow  
 (For left lane, use mirror image)



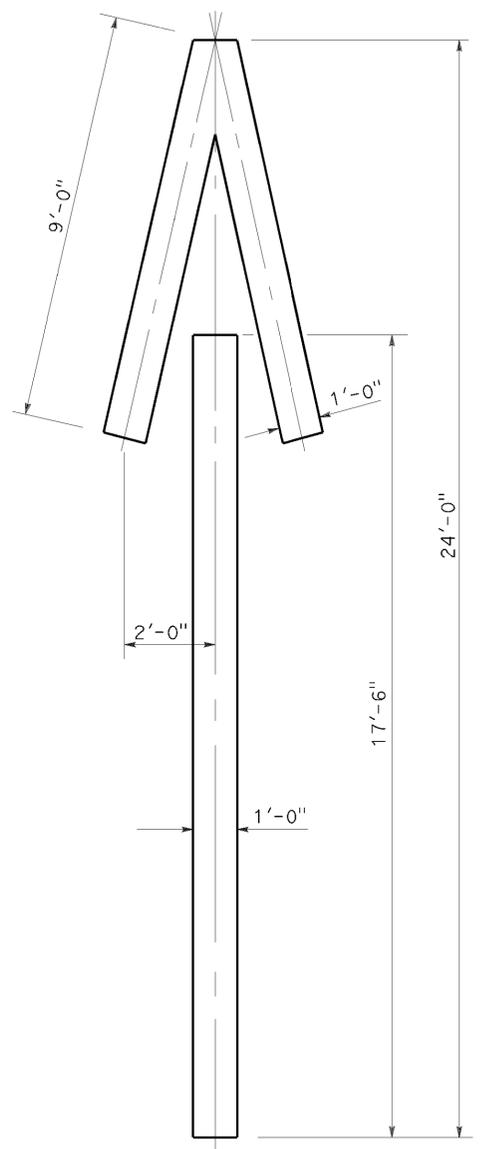
A=3.5 ft<sup>2</sup>  
**BIKE LANE ARROW**



A=36 ft<sup>2</sup>  
**TYPE VIII ARROW**



A=27 ft<sup>2</sup>  
**TYPE VII (L) ARROW**  
 (For Type VII (R) arrow, use mirror image)



A=33 ft<sup>2</sup>  
**TYPE V ARROW**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
 ARROWS**  
 NO SCALE

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

**REVISED STANDARD PLAN RSP A24A**

2010 REVISED STANDARD PLAN RSP A24A

P:\PROJ\01\0E980\drafting\sheet5\vo002.dgn

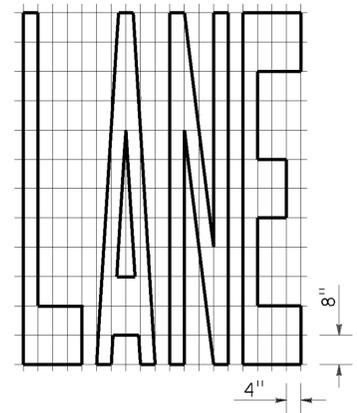
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	18	31

Registered Professional Engineer  
 Roberta L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

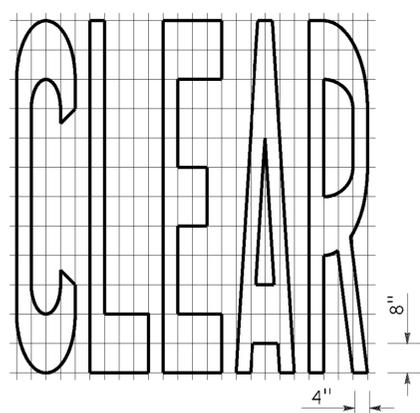
July 20, 2012  
 PLANS APPROVAL DATE

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

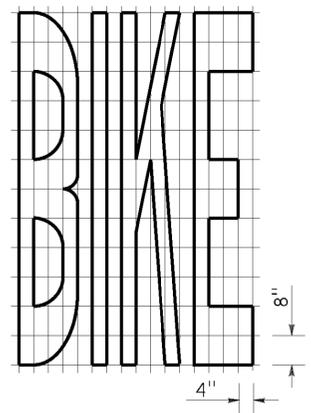
TO ACCOMPANY PLANS DATED 11-30-15



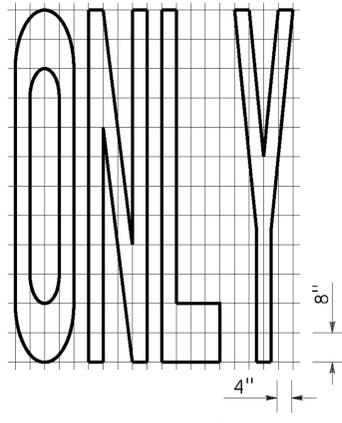
A=24 ft<sup>2</sup>



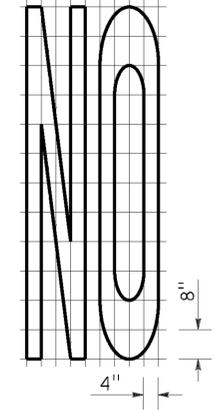
A=27 ft<sup>2</sup>



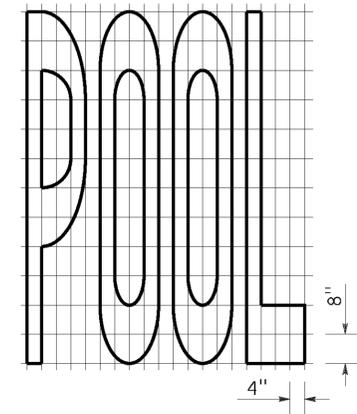
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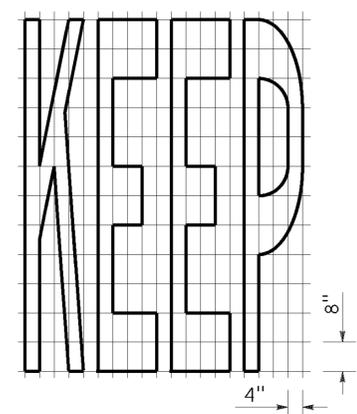
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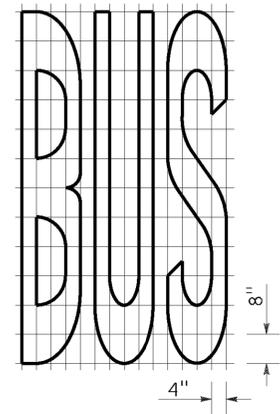
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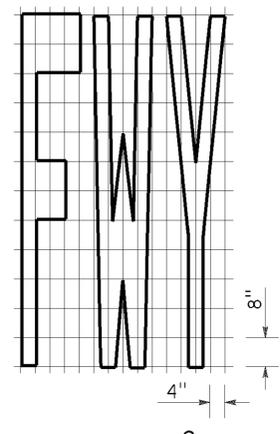
A=23 ft<sup>2</sup>



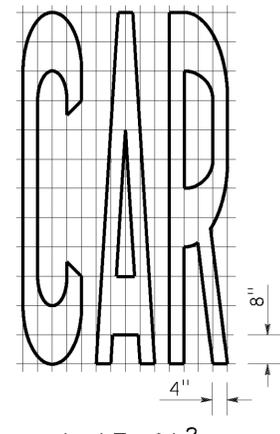
A=24 ft<sup>2</sup>



A=20 ft<sup>2</sup>



A=16 ft<sup>2</sup>

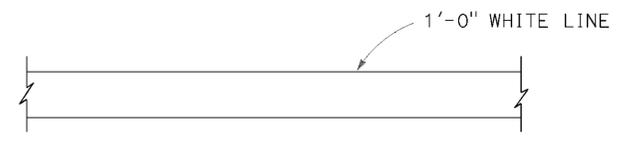
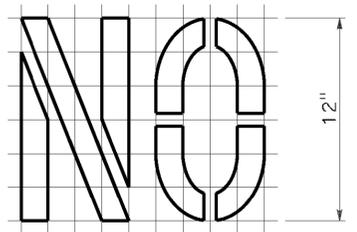


A=17 ft<sup>2</sup>

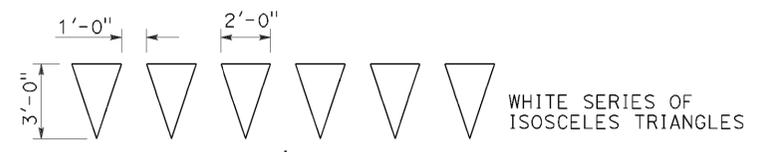
WORD MARKINGS			
ITEM	ft <sup>2</sup>	ITEM	ft <sup>2</sup>
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16

**NOTES:**

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



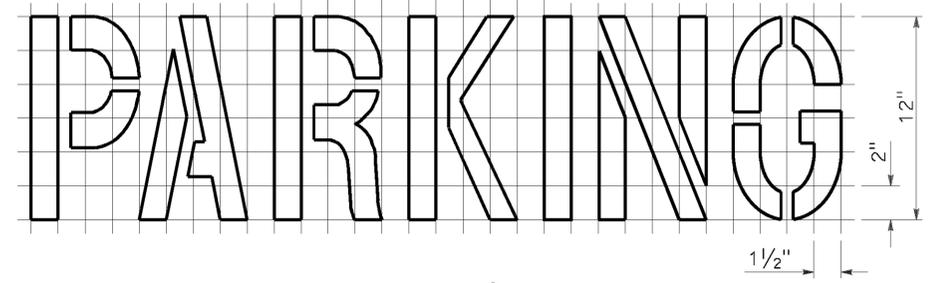
**LIMIT LINE (STOP LINE)**



WHITE SERIES OF ISOSCELES TRIANGLES

DIRECTION OF TRAVEL

**YIELD LINE**



A=2 ft<sup>2</sup>

See Notes 6 and 7

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS**  
**WORDS, LIMIT AND YIELD LINES**  
 NO SCALE

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

**REVISED STANDARD PLAN RSP A24E**

**LEGEND:**

- 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 TAPE
- 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
- TSP** TELEPHONE SERVICE POINT

**ABBREVIATIONS**

- |       |   |       |   |
|-------|---|-------|---|
| AC+   | UNDERGROUNDED CONDUCTOR                 | MAT   | MAST ARM MOUNTING TOP ATTACHMENT        |
| APS   | ACCESSIBLE PEDESTRIAN SIGNAL            | MAS   | MAST ARM MOUNTING SIDE ATTACHMENT       |
| Batt  | BATTERY                                 | MBPS  | MANUAL BYPASS SWITCH                    |
| BBS   | BATTERY BACKUP SYSTEM                   | M/M   | MULTIPLE TO MULTIPLE TRANSFORMER        |
| BC    | BOLT CIRCLE                             | Mtg   | MOUNTING                                |
| BIK   | BLACK                                   | MV    | MERCURY VAPOR LIGHTING FIXTURE          |
| BP    | BYPASS                                  | MVDS  | MICROWAVE VEHICLE DETECTION SYSTEM      |
| BPB   | BICYCLE PUSH BUTTON                     | N     | NEUTRAL (GROUNDED CONDUCTOR)            |
| C     | CONDUIT                                 | NB    | NEUTRAL BUS                             |
| CB    | CIRCUIT BREAKER                         | NC    | NORMALLY CLOSE                          |
| CCTV  | CLOSED CIRCUIT TELEVISION               | NO    | NORMALLY OPEN                           |
| Ckt   | CIRCUIT                                 | P     | CIRCUIT BREAKER'S POLE                  |
| CMS   | CHANGEABLE MESSAGE SIGN                 | PB    | PULL BOX                                |
| Ctid  | CALTRANS IDENTIFICATION                 | PBA   | PUSH BUTTON ASSEMBLY                    |
| Comm  | COMMUNICATION                           | PEC   | PHOTOELECTRIC CONTROL                   |
| Cntl  | CONTROL                                 | Ped   | PEDESTRIAN                              |
| DF    | DEPARTMENT-FURNISHED                    | PEU   | PHOTOELECTRIC UNIT                      |
| DLC   | LOOP DETECTOR LEAD-IN CABLE             | PT    | CONDUIT WITH PULL TAPE                  |
| EMS   | EXTINGUISHABLE MESSAGE SIGN             | PTR   | POWER TRANSFER RELAY                    |
| EVUC  | EMERGENCY VEHICLE UNIT CABLE            | RE    | RELOCATED EQUIPMENT                     |
| EVUD  | EMERGENCY VEHICLE UNIT DETECTOR         | RM    | RAMP METERING                           |
| FB    | FLASHING BEACON                         | RWIS  | ROADSIDE WEATHER INFORMATION SYSTEM     |
| FBCA  | FLASHING BEACON CONTROL ASSEMBLY        | SB    | SLIP BASE                               |
| FBS   | FLASHING BEACON WITH SLIP BASE          | SIC   | SIGNAL INTERCONNECT CABLE               |
| FO    | FIBER OPTIC                             | Sig   | SIGNAL                                  |
| G     | EQUIPMENT GROUNDING CONDUCTOR           | SMA   | SIGNAL MAST ARM                         |
| GB    | GROUND BUS                              | SNS   | STREET NAME SIGN                        |
| GFCI  | GROUND FAULT CIRCUIT INTERRUPTER        | SP    | SERVICE POINT                           |
| Grn   | GREEN                                   | TB    | TERMINAL BOARD                          |
| HAR   | HIGHWAY ADVISORY RADIO                  | TDC   | TELEPHONE DEMARCATION CABINET           |
| Hex   | HEXAGONAL                               | Temp  | TEMPERATURE                             |
| HPS   | HIGH PRESSURE SODIUM                    | TMS   | TRAFFIC MONITORING STATION              |
| IISNS | INTERNALLY ILLUMINATED STREET NAME SIGN | TOS   | TRAFFIC OPERATIONS SYSTEM               |
| ISL   | INDUCTION SIGN LIGHTING                 | UPS   | UNINTERRUPTABLE POWER SUPPLY            |
| LED   | LIGHT EMITTING DIODE                    | UPSC  | UNINTERRUPTABLE POWER SUPPLY CONTROLLER |
| LMA   | LUMINAIRE MAST ARM                      | Veh   | VEHICLE                                 |
| LPS   | LOW PRESSURE SODIUM                     | VIVDS | VIDEO IMAGE VEHICLE DETECTION SYSTEM    |
| Ltg   | LIGHTING                                | Wht   | WHITE                                   |
| Lum   | LUMINAIRE                               | WIM   | WEIGH-IN-MOTION                         |
| M     | METERED                                 | Xfmr  | TRANSFORMER                             |

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	19	31

*Theresa Gabriel*  
REGISTERED ELECTRICAL ENGINEER

October 30, 2015  
PLANS APPROVAL DATE

Theresa Aziz Gabriel  
No. E15129  
Exp. 6-30-16  
ELECTRICAL  
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 11-30-15

**SOFFIT AND WALL-MOUNTED LUMINAIRES**

- PENDANT SOFFIT LUMINAIRE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH-MOUNTED SOFFIT LUMINAIRE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL-MOUNTED LUMINAIRE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL-MOUNTED LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL-MOUNTED LUMINAIRE TO BE MODIFIED AS SPECIFIED

**NOTE:**  
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(ac)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
Hz	HERTZ

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1A DATED JULY 19, 2013 AND STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-1A**

**MISCELLANEOUS ELECTROLIERS**

- | NEW | EXISTING |   |
|-----|----------|---|
|     |          | LUMINAIRE ON WOOD POLE                        |
|     |          | NON-STANDARD ELECTROLIER (SEE PROJECT LEGEND) |
|     |          | CITY ELECTROLIER                              |
|     |          | ELECTROLIER FOUNDATION (FUTURE INSTALLATION)  |

**NOTES:**

- LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

**STANDARD ELECTROLIER**

- | NEW | EXISTING | STANDARD TYPE |
|-----|----------|---------------|
|     |          | 15            |
|     |          | 15D           |
|     |          | 15 STRUCTURE  |
|     |          | 15D STRUCTURE |
|     |          | 21            |
|     |          | 21D           |
|     |          | 21 STRUCTURE  |
|     |          | 21D STRUCTURE |
|     |          | 30            |
|     |          | 31            |
|     |          | 32            |

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	20	31

*Theresa Gabriel*  
REGISTERED ELECTRICAL ENGINEER

October 30, 2015  
PLANS APPROVAL DATE

Theresa Aziz Gabriel  
No. E15129  
Exp. 6-30-16  
ELECTRICAL  
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 11-30-15

**CONDUIT**

**SIGNAL EQUIPMENT**

NEW	EXISTING	
		LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
		TRAFFIC SIGNAL CONDUIT
		COMMUNICATION CONDUIT
		TELEPHONE CONDUIT
		FIRE ALARM CONDUIT
		FIBER OPTIC CONDUIT
		CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)

**SIGNAL EQUIPMENT Cont**

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION

**SERVICE EQUIPMENT**

NEW	EXISTING	
		OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

**NOTES:**

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

**POLE-MOUNTED SERVICE DESIGNATION**

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

**FLASHING BEACON**

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

**ILLUMINATED OVERHEAD SIGN**

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

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

RSP ES-1B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1B DATED JULY 19, 2013 AND STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-1B**

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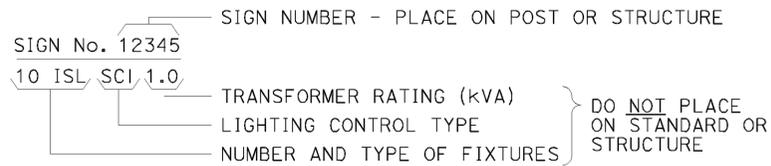
2010 REVISED STANDARD PLAN RSP ES-1B



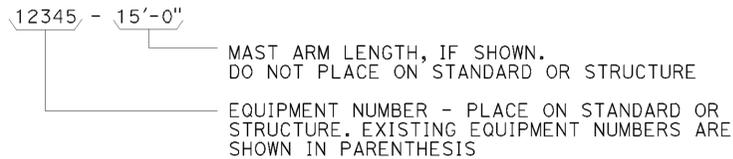
TO ACCOMPANY PLANS DATED 11-30-15

### EQUIPMENT IDENTIFICATION

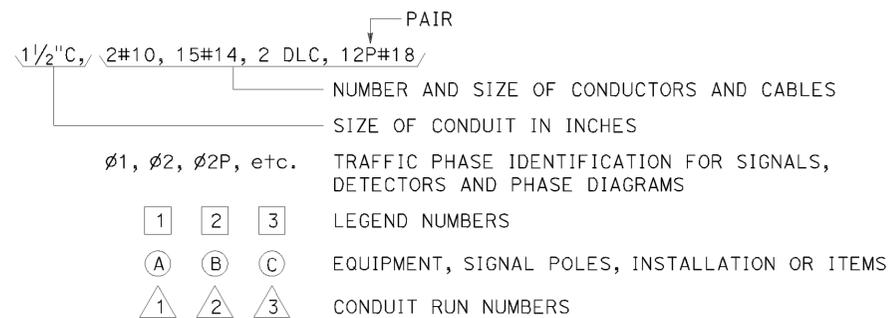
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



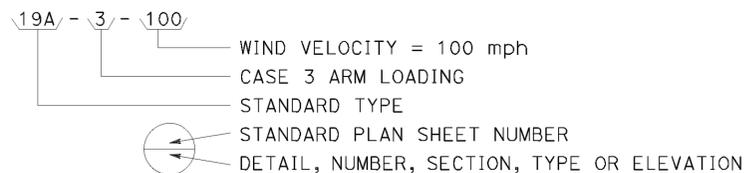
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



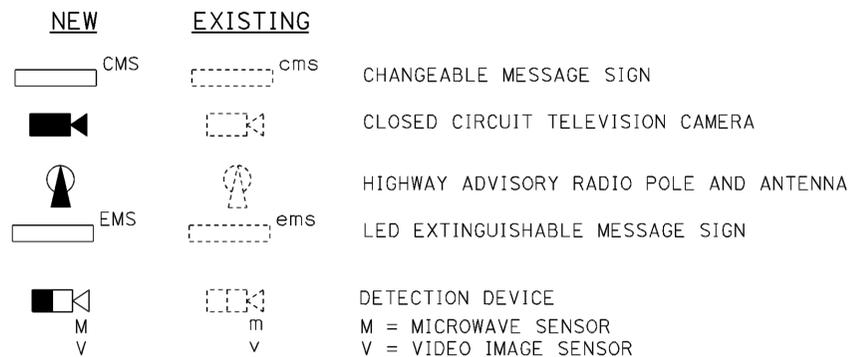
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



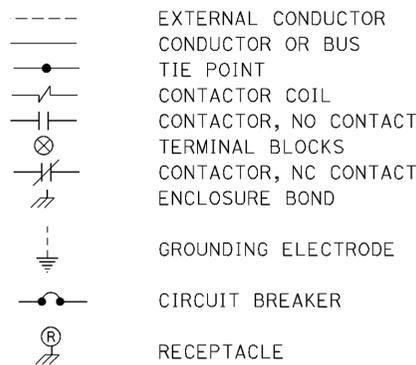
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



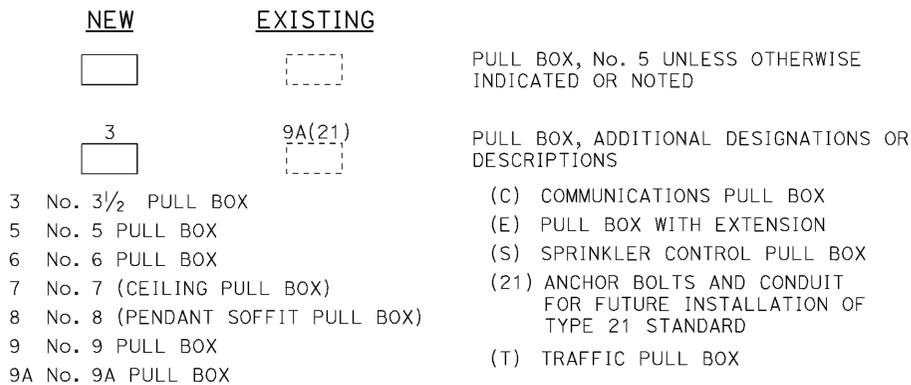
### MISCELLANEOUS EQUIPMENT



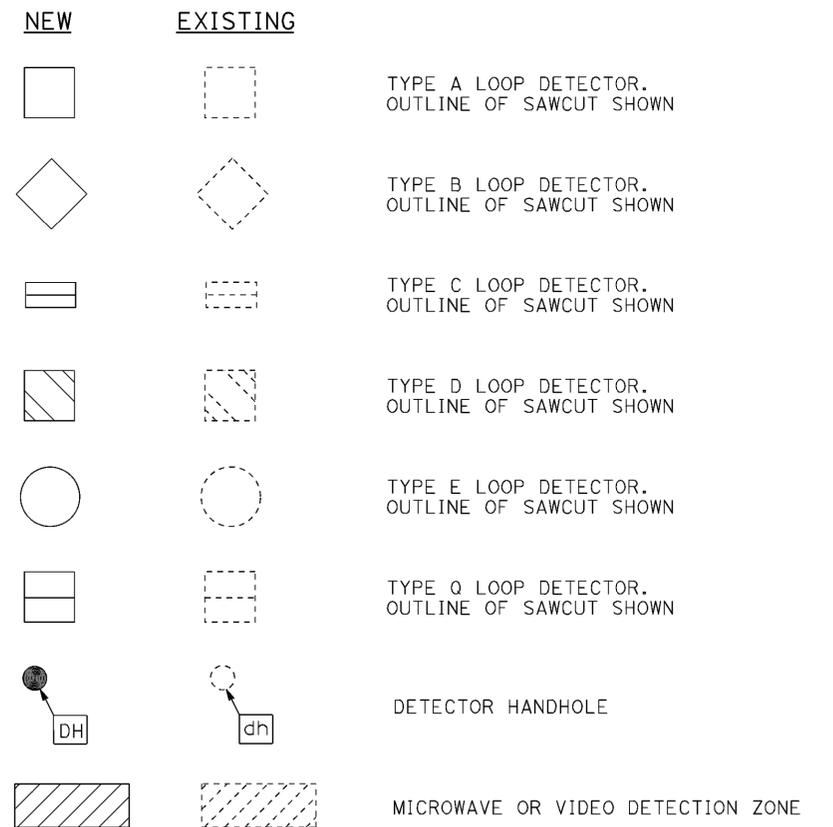
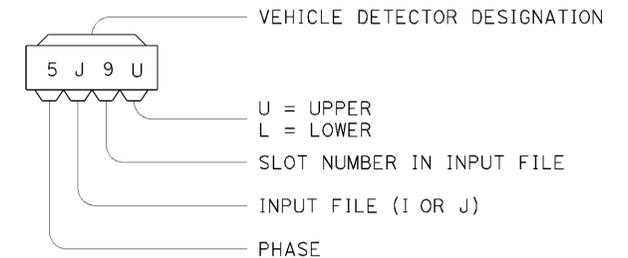
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1C DATED JULY 19, 2013 AND STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

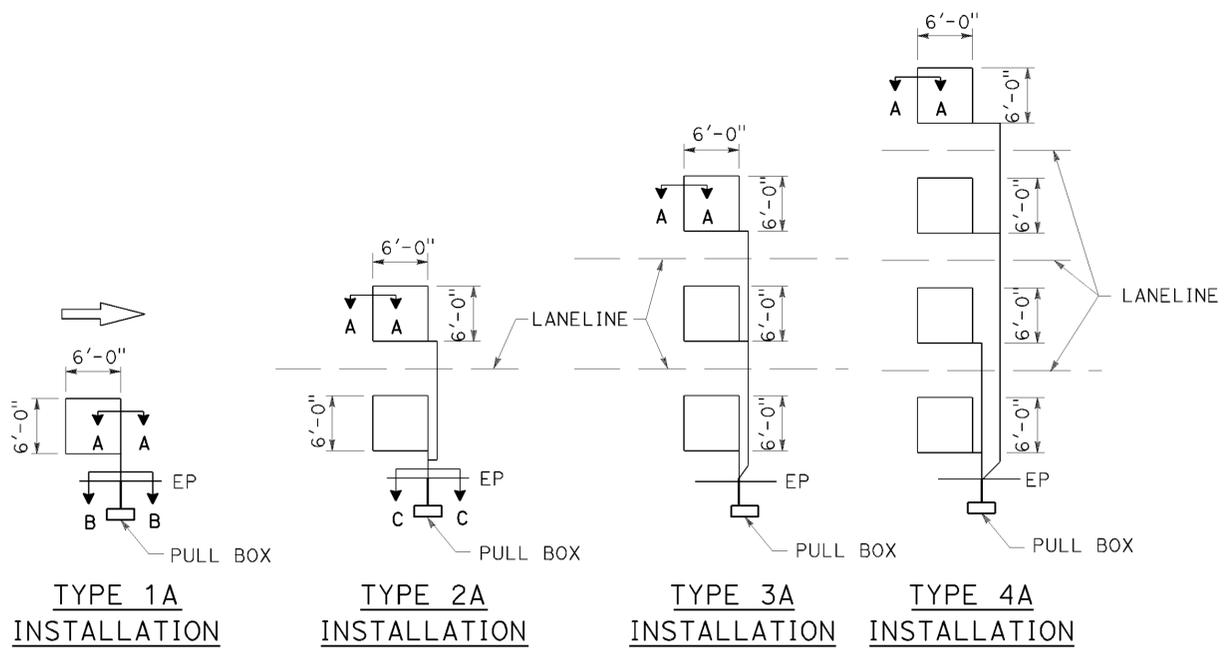
**REVISED STANDARD PLAN RSP ES-1C**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	22	31

*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE  
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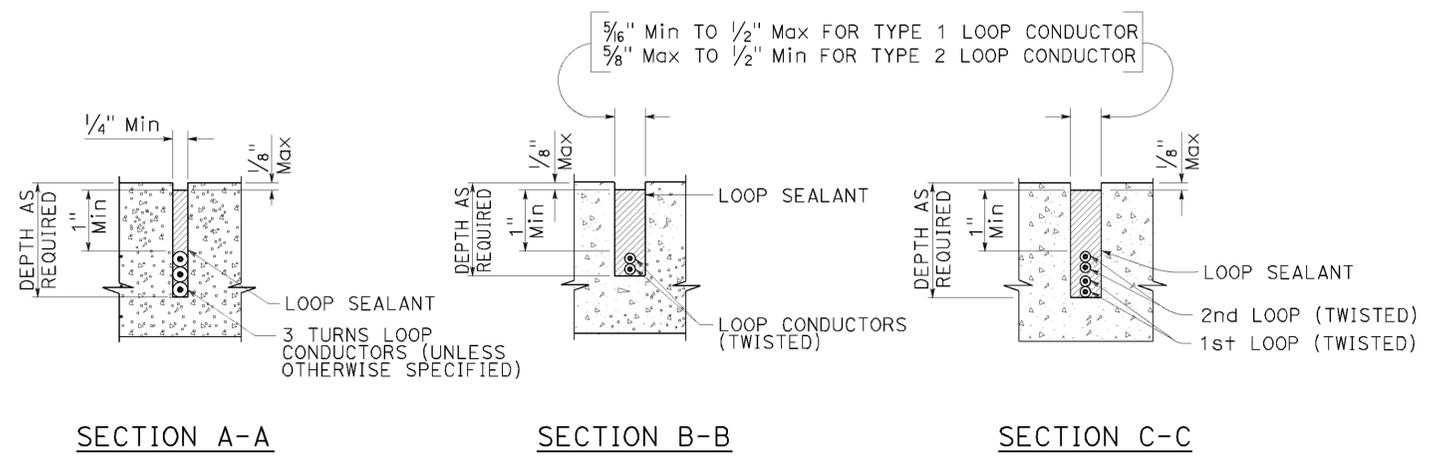
REGISTERED PROFESSIONAL ENGINEER  
 Theresa Aziz Gabriel  
 No. E15129  
 Exp. 6-30-16  
 ELECTRICAL  
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 11-30-15

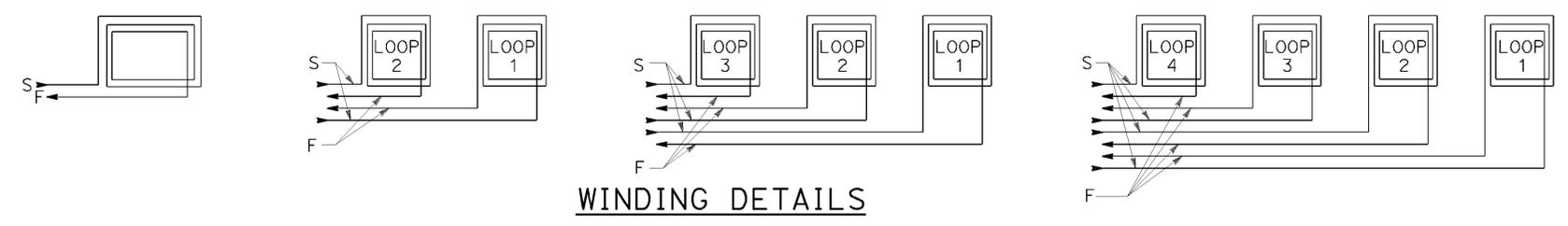


**SAWCUT DETAILS**

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

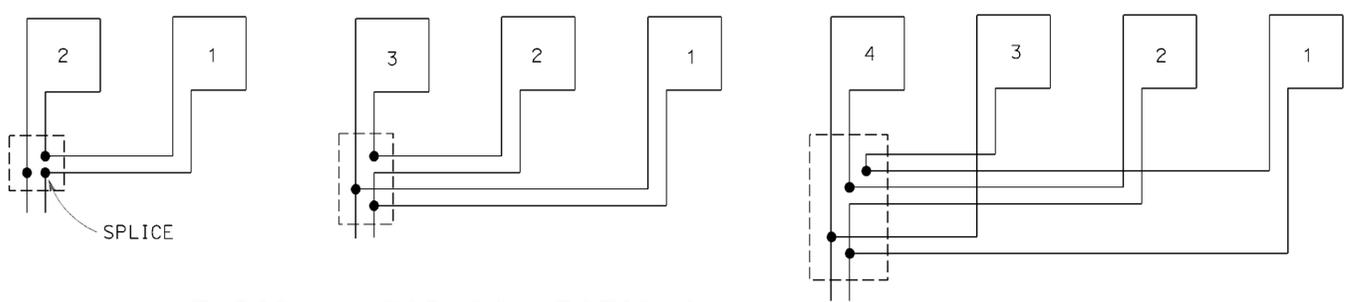


**SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR**



**WINDING DETAILS**

**ABBREVIATIONS:**  
 S - START  
 F - FINISH



**TYPICAL LOOP CONNECTIONS**

Dashed lines represent the pull box

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (LOOP DETECTORS)**

NO SCALE

RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-5A**

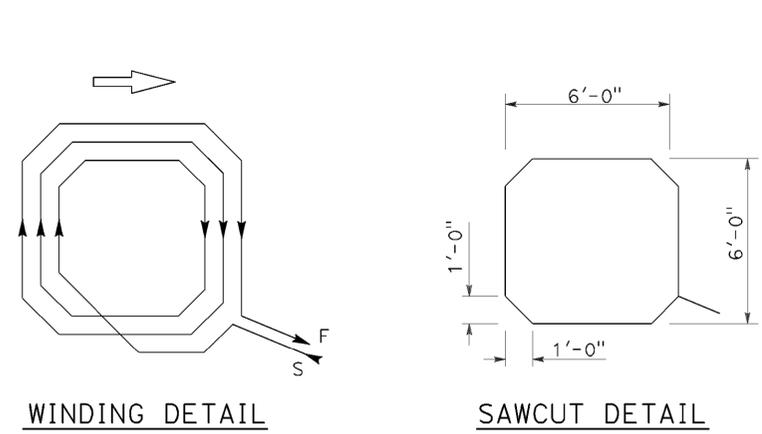
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2010 REVISED STANDARD PLAN RSP ES-5A

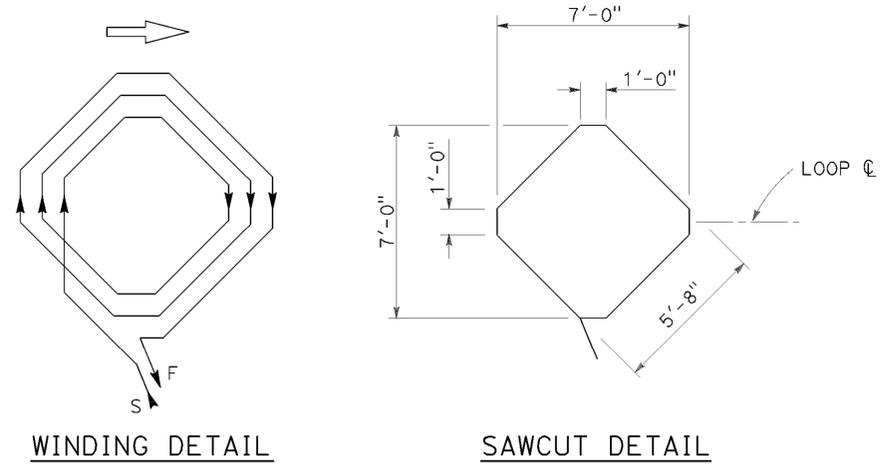
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	23	31

*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 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.

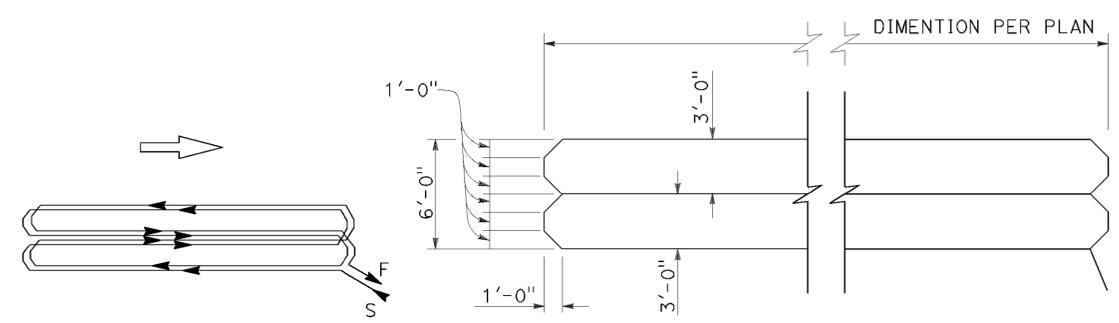
TO ACCOMPANY PLANS DATED 11-30-15



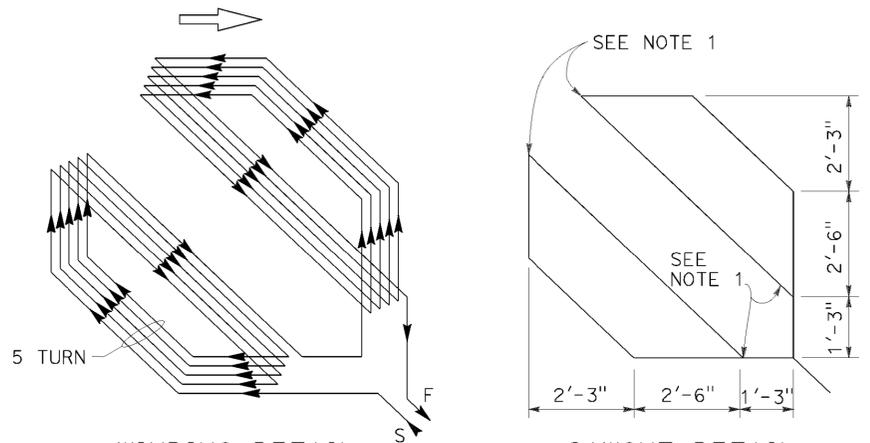
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE A LOOP DETECTOR CONFIGURATION**



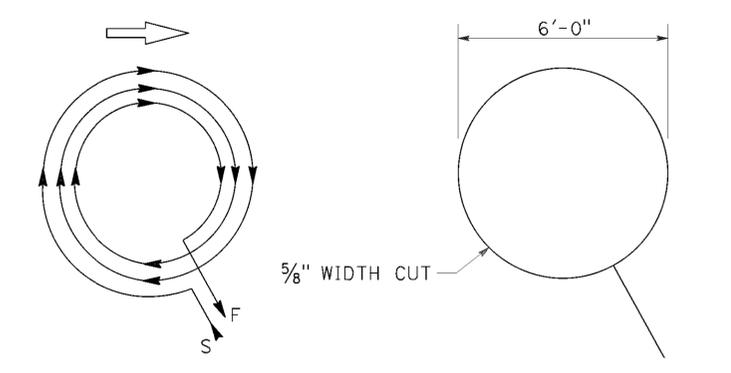
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE B LOOP DETECTOR CONFIGURATION**



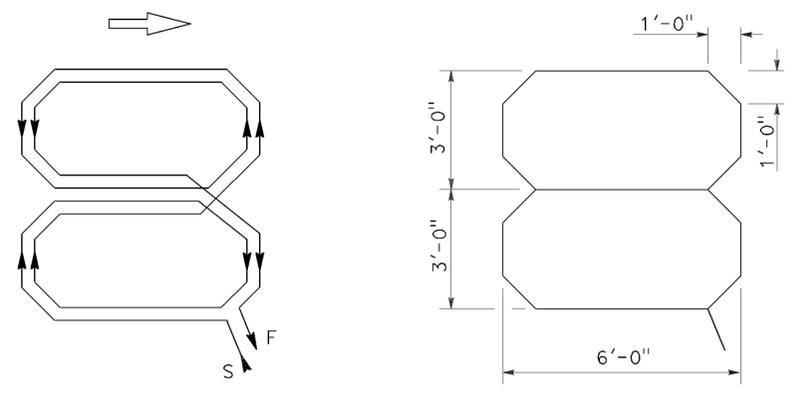
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE C LOOP DETECTOR CONFIGURATION**



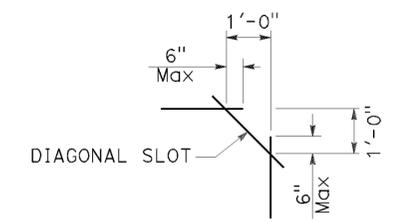
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE D LOOP DETECTOR CONFIGURATION**



WINDING DETAIL  
SAWCUT DETAIL  
**TYPE E LOOP DETECTOR CONFIGURATION**



WINDING DETAIL  
SAWCUT DETAIL  
**TYPE Q LOOP DETECTOR CONFIGURATION**



**PLAN VIEW OF DIAGONAL SLOT AT CORNERS**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS (DETECTORS)**

NO SCALE

RSP ES-5B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5B DATED JULY 19, 2013 AND STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-5B**

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
  2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
  3. Use Type D loops for limit line detector installations in left turn and bicycle lanes.

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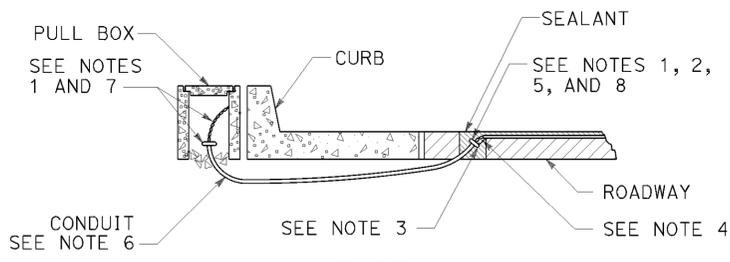
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	24	31

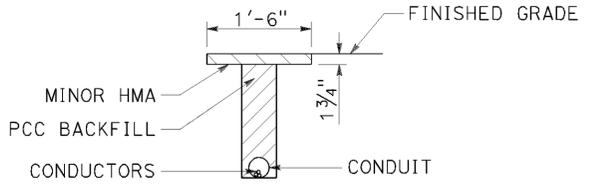
*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 11-30-15

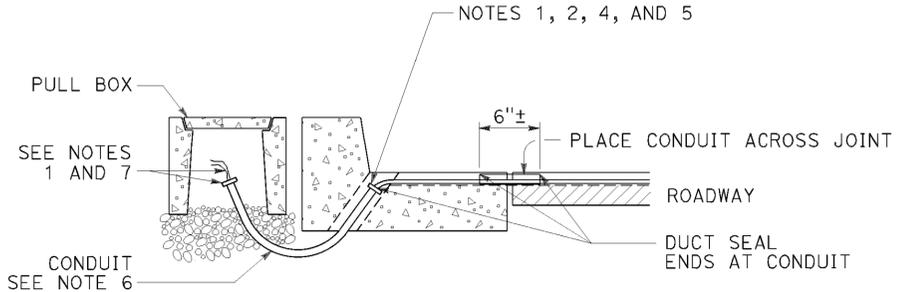
2010 REVISED STANDARD PLAN RSP ES-5D



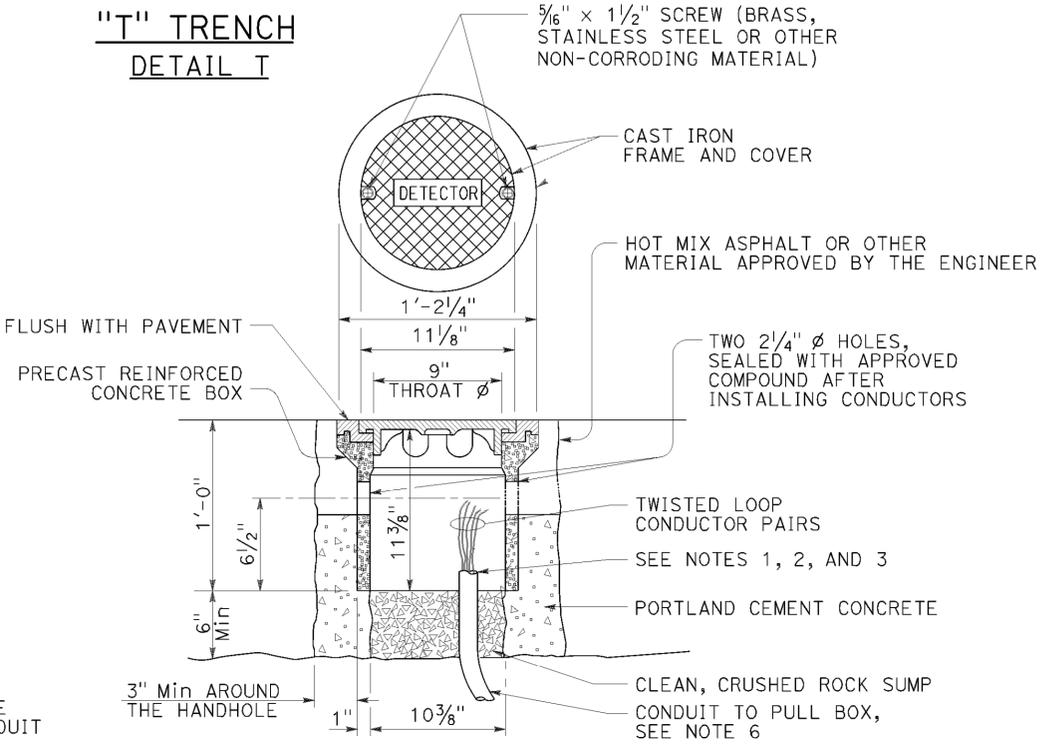
**TYPE A  
CURB TERMINATION DETAIL**



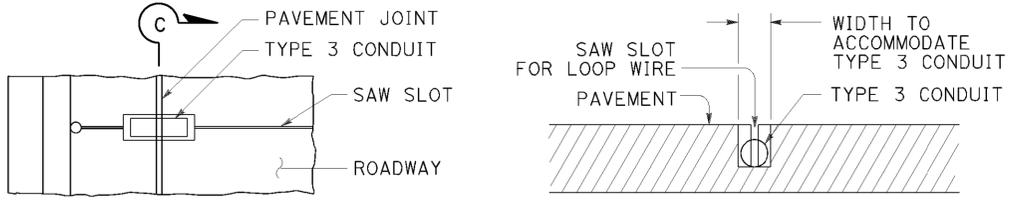
**"T" TRENCH  
DETAIL 1**



**CROSS SECTION**



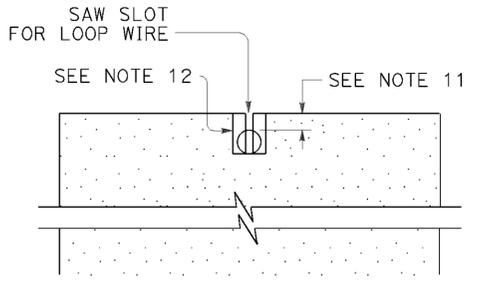
**DETECTOR HANDHOLE DETAIL**



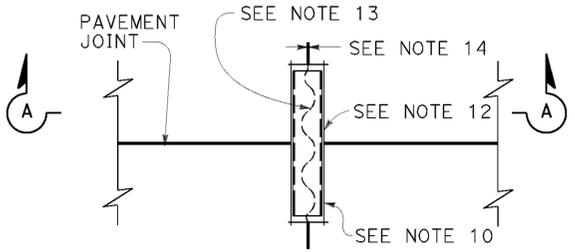
**PLAN VIEW**

**SECTION C-C**

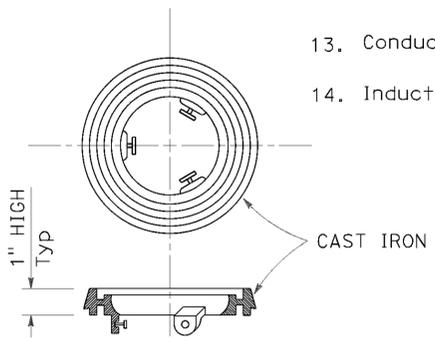
**TYPE B  
CURB TERMINATION DETAIL**



**SECTION A-A**



**PLAN VIEW  
TYPICAL LOOP LEAD-IN DETAIL  
AT PAVEMENT JOINT**



**LOCKING GRADE RING**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
(CURB AND SHOULDER TERMINATION,  
TRENCH, AND HANDHOLE DETAILS)**

NO SCALE

RSP ES-5D DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5D DATED JULY 19, 2013 AND STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

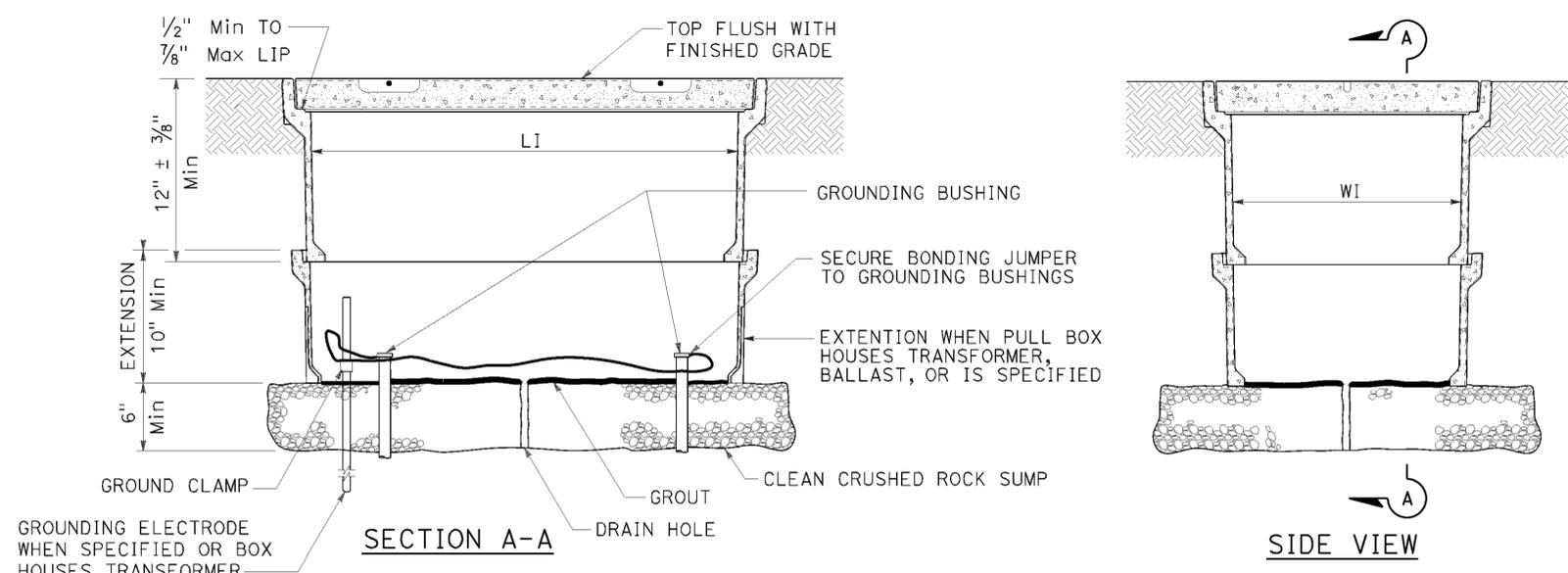
**REVISED STANDARD PLAN RSP ES-5D**

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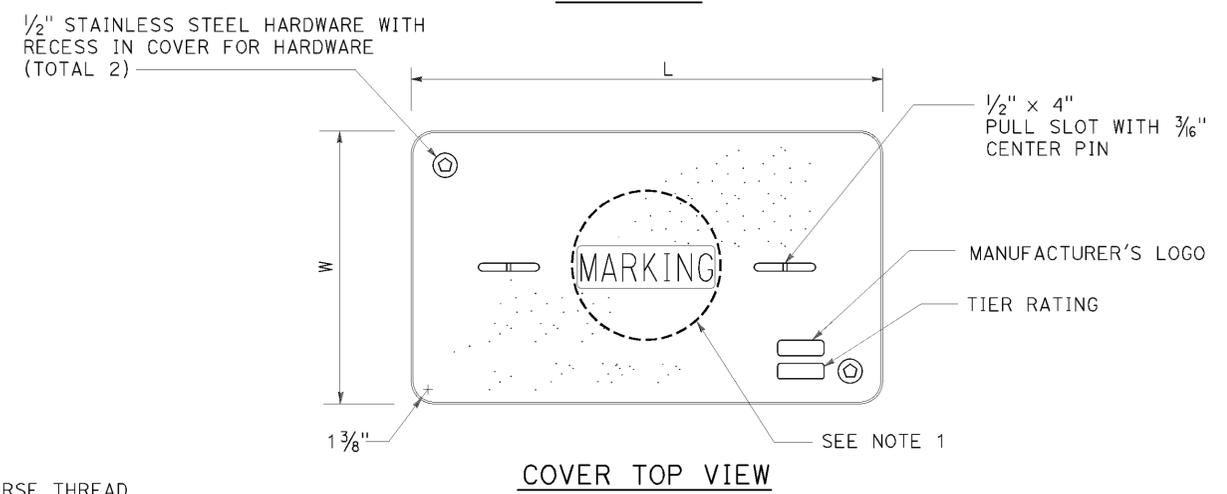
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	25	31

*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 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.

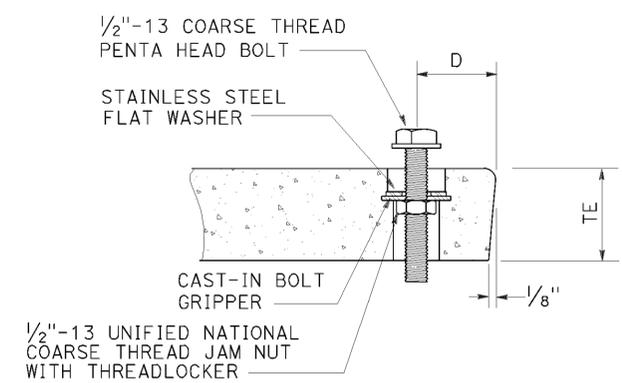
TO ACCOMPANY PLANS DATED 11-30-15



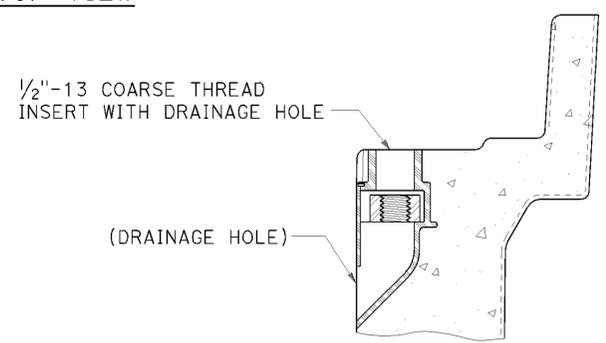
**INSTALLATION DETAILS**  
**DETAIL A**



**COVER TOP VIEW**



**TYPICAL COVER CAPTIVE BOLT**  
**OR SIMILAR**



**TYPICAL THREADED INSERT**  
**OR SIMILAR**

**NOTES:**

- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
  - No. 3 1/2 pull box.
    - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
    - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
  - No. 5, 6, 9 or 9A pull box.
    - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
    - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
    - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
    - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
    - "RAMP METER" - Ramp meter circuits.
    - "COUNT STATION" - Count or speed monitor circuits.
    - "COMMUNICATIONS" - Communication circuits.
    - "TOS COMMUNICATIONS" - TOS communication line.
    - "TOS POWER" - TOS power.
    - "TDC POWER" - Telephone demarcation cabinet power.
    - "CCTV" - Closed circuit television circuits.
    - "TMS" - Traffic monitoring station circuits.
    - "CMS" - Changeable message sign circuits.
    - "HAR" - Highway advisory radio circuits.
    - "BOOSTER PUMP" - Booster pump circuit.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- Dimensions for the cover for non-traffic pull box are nominal values.

DIMENSION TABLE										
PULL BOX	PULL BOX				COVER					
	MINIMUM DEPTH BOX	MINIMUM DEPTH EXTENSION	MINIMUM WEIGHT	LI Min	WI Min	TE	D	L	W	MINIMUM WEIGHT
No. 3 1/2	12"	N/A	40 lb	1' - 3"	9"	1 3/4"	1 3/4"	1'-3 1/4" - 1'-3 3/8"	10" - 10 1/8"	30 lb
No. 5	12"	10"	55 lb	1' - 8"	11"	2"	1 3/4"	1'-11 1/4"	1'-1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 4 1/4"	1' - 3 1/4"	2"	2"	2'-6 1/2"	1'-5 1/2"	85 lb

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS**  
**(NON-TRAFFIC PULL BOX)**  
NO SCALE

RSP ES-8A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8A DATED JULY 19, 2013 AND RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

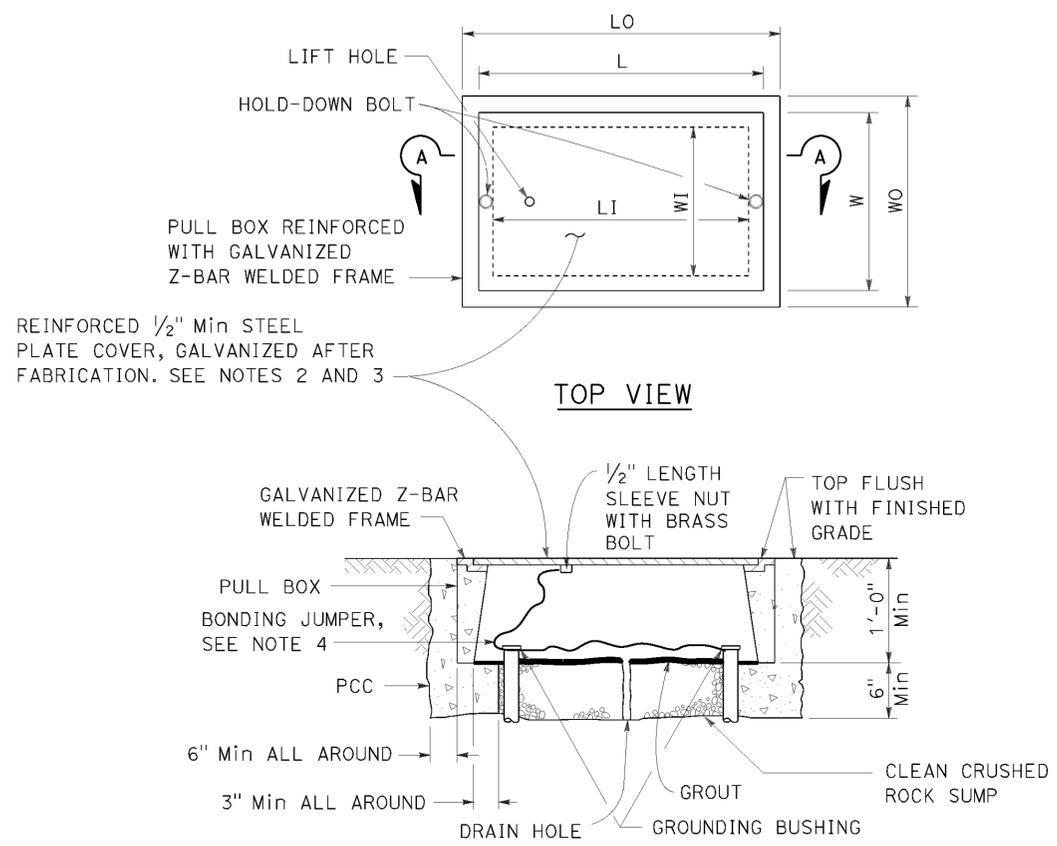
**REVISED STANDARD PLAN RSP ES-8A**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	26	31

*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 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.

TO ACCOMPANY PLANS DATED 11-30-15



**SECTION A-A**  
**No. 3 1/2(T), No. 5(T) AND**  
**No. 6(T) TRAFFIC PULL BOX**

**NOTES:**

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
  - No. 3 1/2(T) pull box.
    - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
    - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
  - No. 5(T) or 6(T) pull box.
    - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
    - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
    - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
    - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
    - "RAMP METER" - Ramp meter circuits.
    - "COUNT STATION" - Count or speed monitor circuits.
    - "COMMUNICATION" - Communication circuits.
    - "TOS COMMUNICATIONS" - TOS communications line.
    - "TOS POWER" - TOS power.
    - "TDC POWER" - Telephone demarcation cabinet power.
    - "CCTV" - Closed circuit television circuits.
    - "TMS" - Traffic monitoring station circuits.
    - "CMS" - Changeable message sign circuits.
    - "HAR" - Highway advisory radio circuits.
    - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

PULL BOX	PULL BOX				COVER			
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	LO	LI	WO	WI	L **	W **
No. 3 1/2(T)	1 1/2"	1'-0"	1'-10" - 1'-11"	1'-5" - 1'-6 1/2"	1'-3" - 1'-4"	10" - 1'-0"	1'-8" - 1'-8 1/2"	1'-1" - 1'-2"
No. 5(T)	1 3/4"	1'-0"	2'-5" - 2'-6"	2'-0" - 2'-1"	1'-6" - 1'-7"	1'-1" - 1'-2"	2'-3" - 2'-3 1/2"	1'-4" - 1'-4 1/2"
No. 6(T)	2"	1'-0"	2'-11" - 3'-1"	2'-6" - 2'-7"	1'-10" - 2'-0"	1'-5" - 1'-6"	2'-9" - 2'-9 1/2"	1'-8" - 1'-8 1/2"

\* EXCLUDING CONDUIT WEB      \*\* TOP DIMENSION

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS**  
**(TRAFFIC PULL BOX)**  
 NO SCALE

RSP ES-8B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8B DATED JULY 19, 2013 AND RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-8B**

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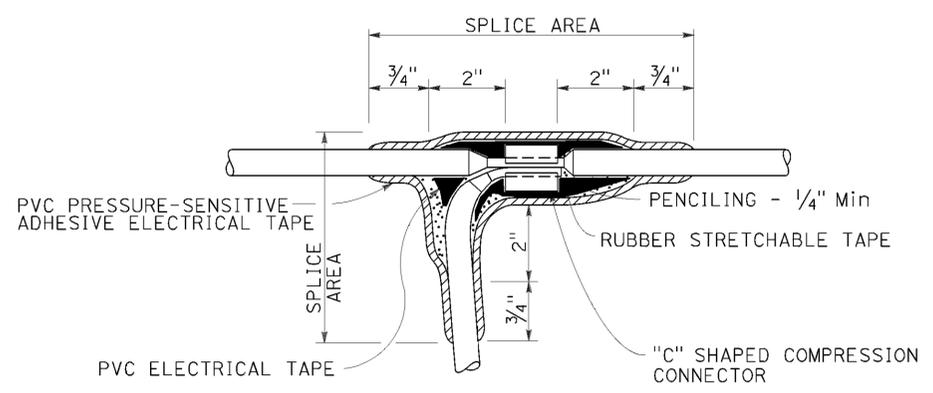
2010 REVISED STANDARD PLAN RSP ES-8B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	27	31

*Theresa Gabriel*  
 REGISTERED ELECTRICAL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE

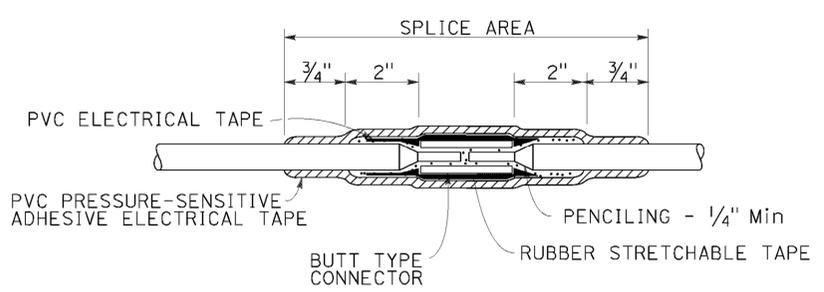
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TO ACCOMPANY PLANS DATED 11-30-15



**TYPE C SPLICE**

See Note 3

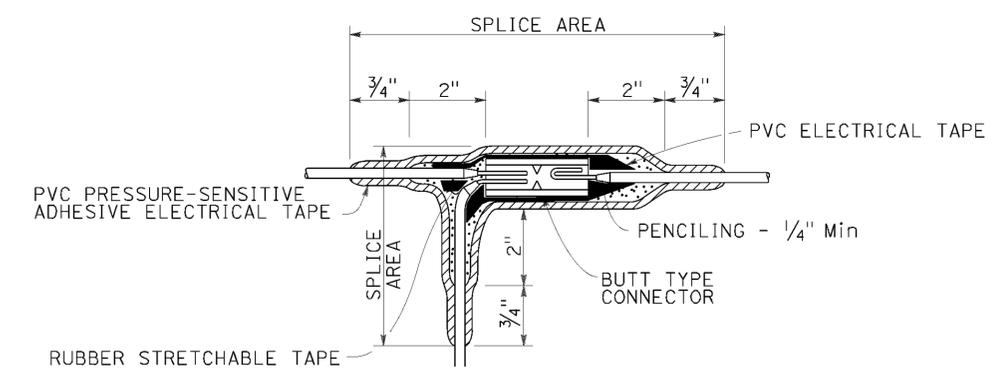


**TYPE S SPLICE**

See Note 4

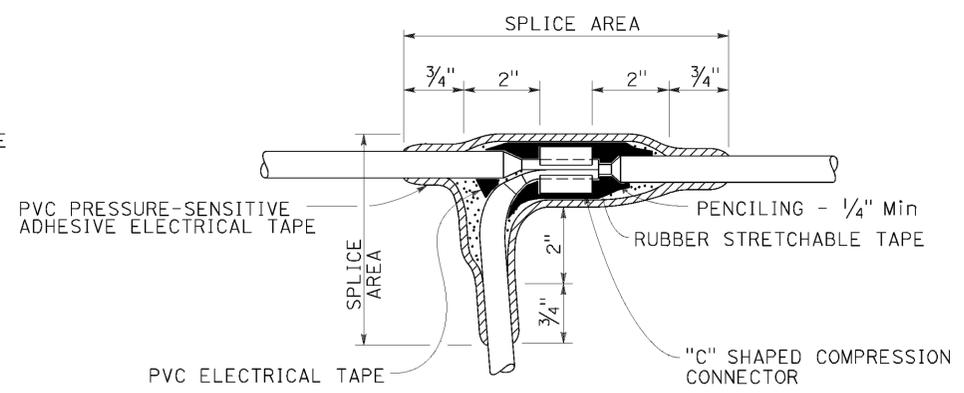
**NOTES:**

1. Dimensions are minimum.
2. Rubber tapes shall be rolled after application.
3. Between 1 free-end and 1 through conductor.
4. Between 2 free-end conductors.
5. Between 3 free-end conductors.



**TYPE ST SPLICE**

See Note 5



**TYPE T SPLICE**

See Note 5

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (SPlicing DETAILS)**

NO SCALE

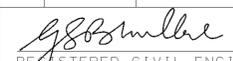
RSP ES-13A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-13A DATED MAY 20, 2011 - PAGE 491 OF THE STANDARD PLANS BOOK DATED 2010.

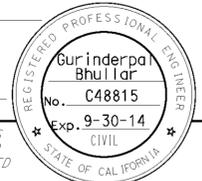
**REVISED STANDARD PLAN RSP ES-13A**

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2010 REVISED STANDARD PLAN RSP ES-13A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	28	31

  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 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.

TO ACCOMPANY PLANS DATED 11-30-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

\* - For other offsets, use the following merging taper length formula for L:  
 For speed of 40 mph or less,  $L = WS^2/60$   
 For speed of 45 mph or more,  $L = WS$

Where: L = Taper length in feet  
 W = Width of offset in feet  
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

\*\* - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

\* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph  
 \*\* - Longitudinal buffer space or flagger station spacing  
 \*\*\* - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

\* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES  
 FOR LANE AND RAMP CLOSURES**

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T9**

2010 REVISED STANDARD PLAN RSP T9

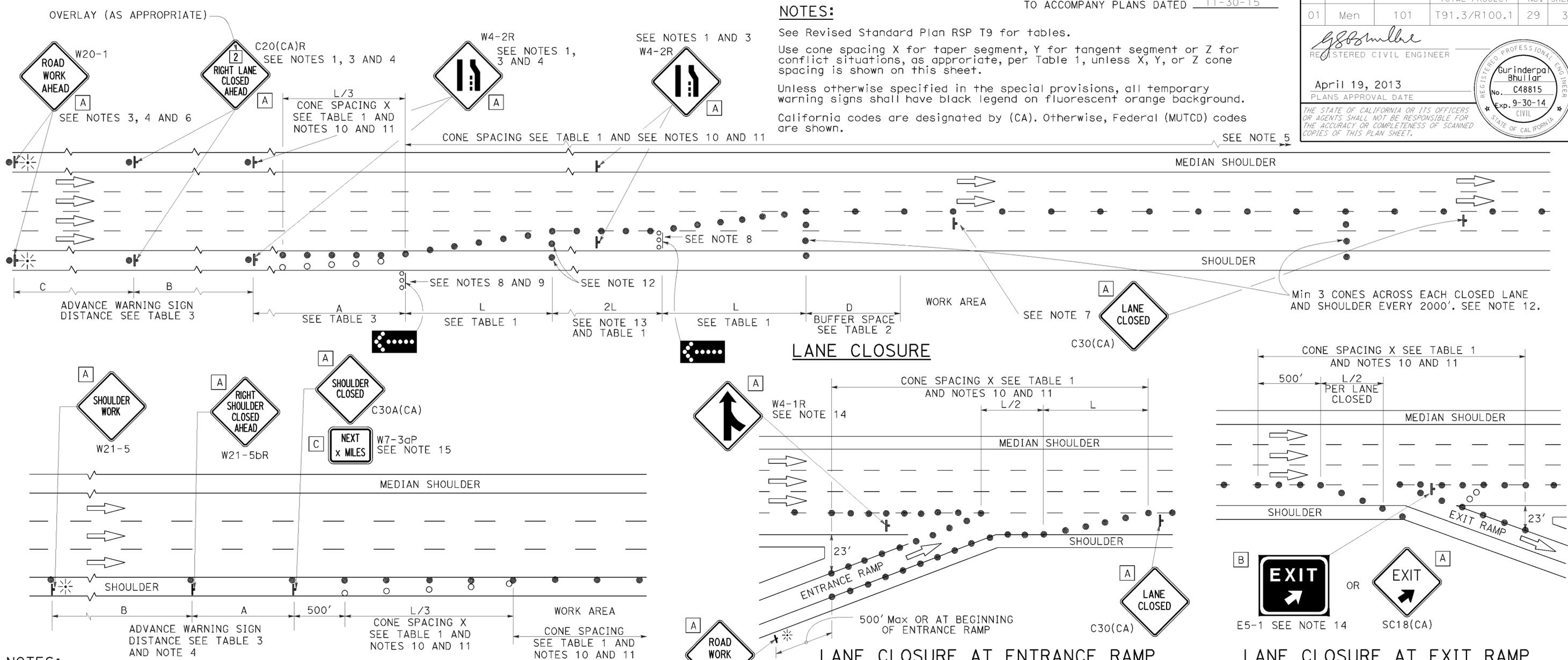
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	29	31

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 11-30-15

**NOTES:**

See Revised Standard Plan RSP T9 for tables.  
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.  
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.  
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



**NOTES:**

- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Duplicate sign installations are not required:
  - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
  - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA)L and W4-2L signs shall be used.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

**SHOULDER CLOSURE**

- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT \_\_\_\_\_ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

**TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS**

NO SCALE

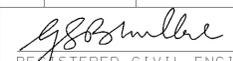
RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T10**

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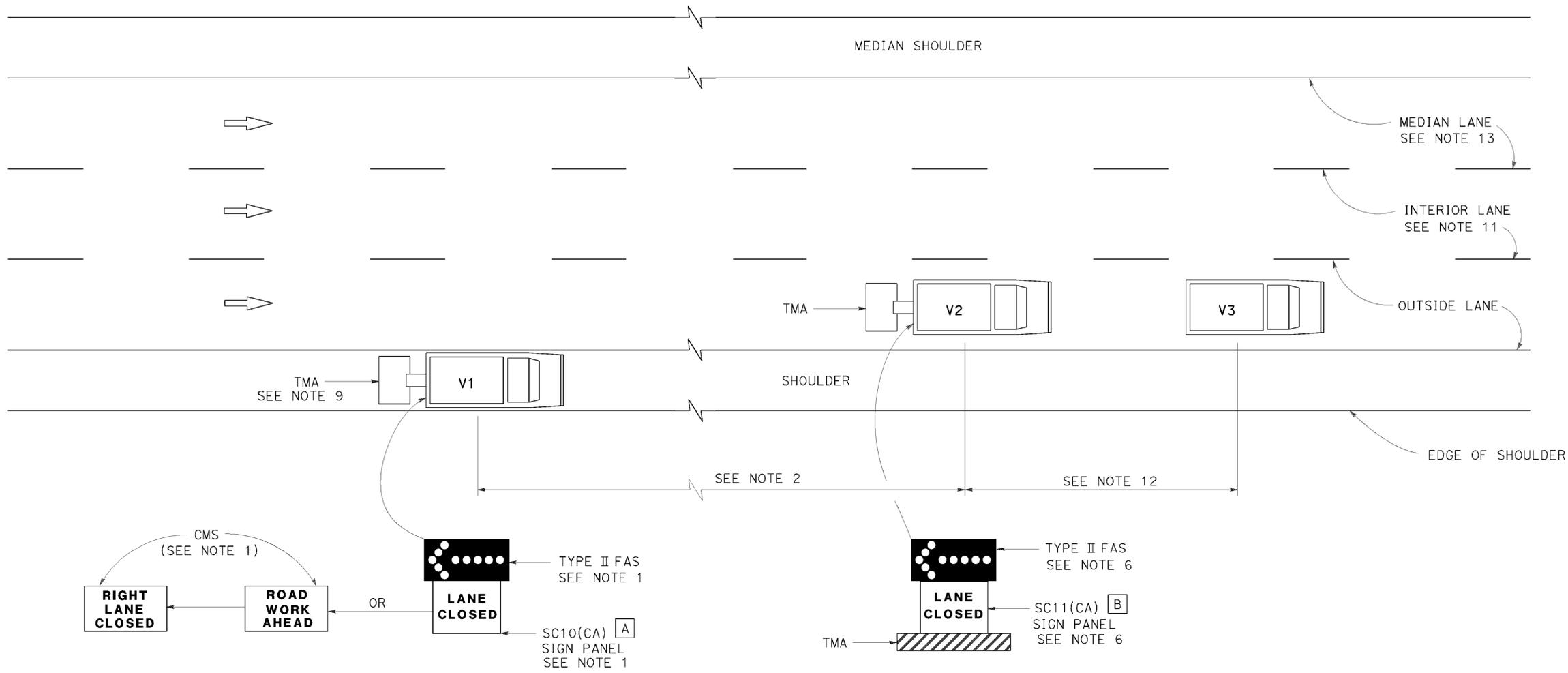
2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	101	T91.3/R100.1	30	31

  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 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.



TO ACCOMPANY PLANS DATED 11-30-15



**SIGN PANEL SIZE (Min)**

- A 66" x 36"
- B 54" x 42"

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
-  FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS**

NO SCALE

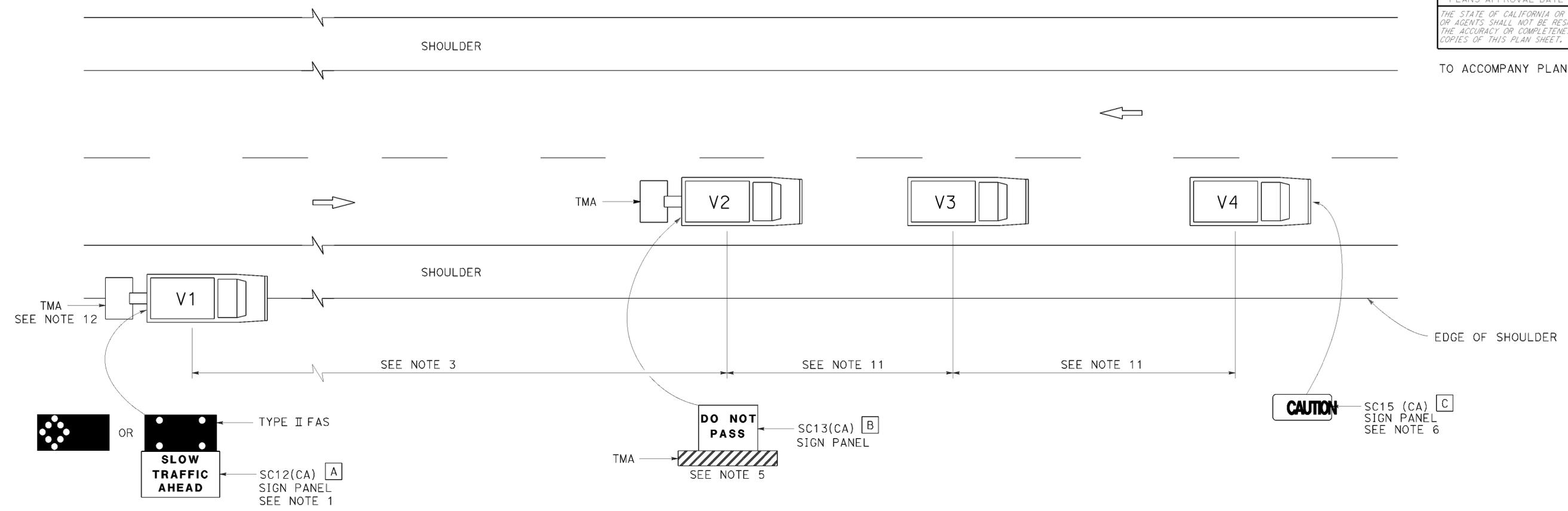
RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15 DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T15**

2010 REVISED STANDARD PLAN RSP T15

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TO ACCOMPANY PLANS DATED 11-30-15



**NOTES:**

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.
7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
-  FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
-  FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

**SIGN PANEL SIZE (Min)**

- A 72" x 42"
- B 54" x 42"
- C 54" x 24"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON TWO LANE HIGHWAYS**  
 NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17  
 DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T17**

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**2010 REVISED STANDARD PLAN RSP T17**