

INDEX OF PLANS

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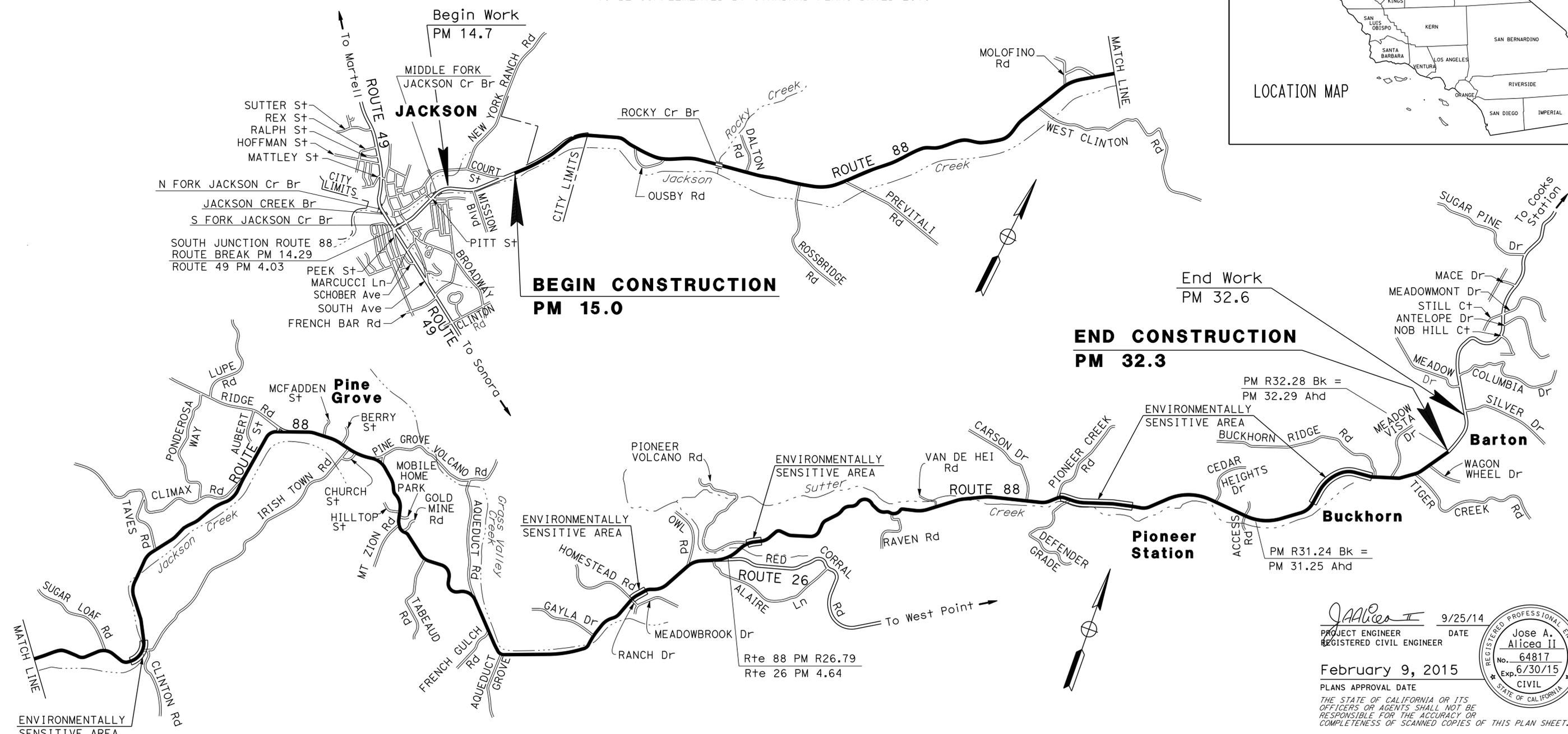
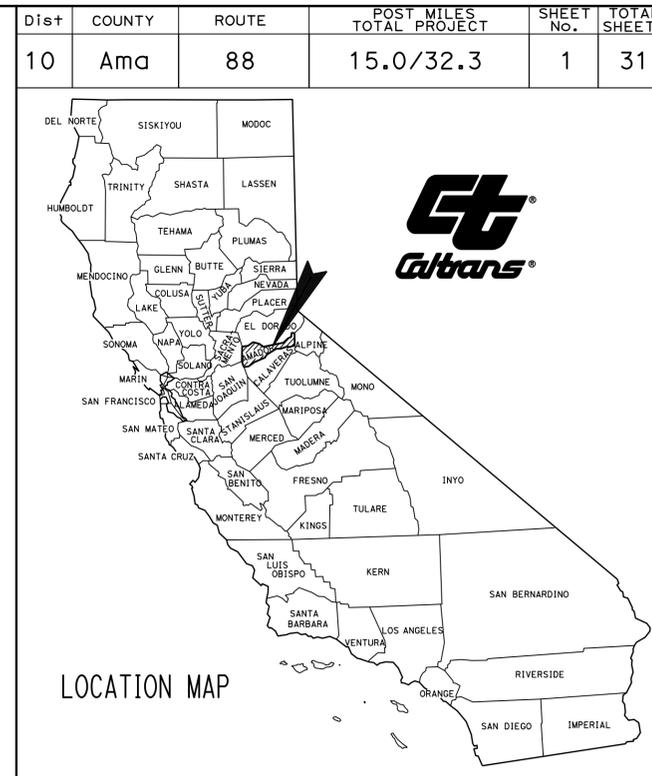
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ACNHP-P088(067)E

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN AMADOR COUNTY
AT AND NEAR PINE GROVE
FROM 0.1 MILE EAST OF COURT STREET
TO 0.2 MILE EAST OF WAGON WHEEL DRIVE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
ALVIN MANGINDIN

DESIGN MANAGER
ALVIN MANGINDIN

PROJECT ENGINEER DATE 9/25/14
 REGISTERED CIVIL ENGINEER
 February 9, 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.

CONTRACT No.	10-0V9004
PROJECT ID	1000020477

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

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Am	88	15.0/32.3	2	31
			9/25/14	DATE	
REGISTERED CIVIL ENGINEER			No. 64817		
PLANS APPROVAL DATE			Exp 6/30/15		
<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>					

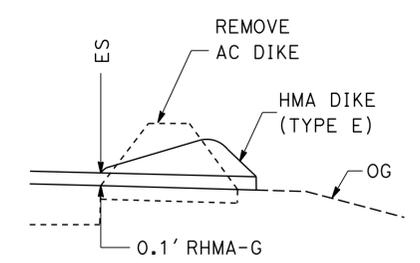
- NOTES:**
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
 - FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
 - FOR COLD PLANE AC PAVEMENT DIMENSIONS AND LOCATIONS, SEE REPAIR FAILED AREAS TABLE ON SUMMARY OF QUANTITIES SHEET.
 - ENVIRONMENTALLY SENSITIVE AREA (ESA), NO WORK OR GROUND DISTURBANCE SHALL BE PERFORMED BEYOND SHOULDER BACKING.
 - ENVIRONMENTALLY SENSITIVE AREA (ESA), NO WORK OR GROUND DISTURBANCE SHALL BE PERFORMED BEYOND EDGE OF PAVEMENT.
 - FOR DETAILS, SEE CONFORM TAPERS AT GUARDRAIL DETAIL ON SHEET C-1. FOR LOCATIONS, SEE CONFORM TAPER AT GUARDRAIL TABLE ON SUMMARY OF QUANTITIES SHEET.
 - FOR HMA DIKE LOCATIONS, SEE SUMMARY OF QUANTITIES SHEET.

ABBREVIATION:

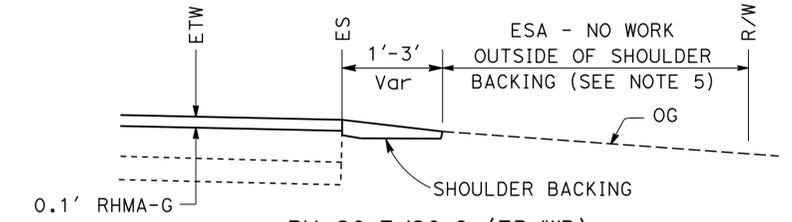
RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

PAVEMENT CLIMATE REGION

HIGH MOUNTAIN

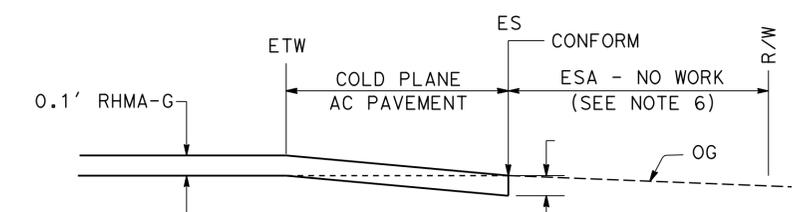


PLACE HMA DIKE
(SEE NOTE 8)

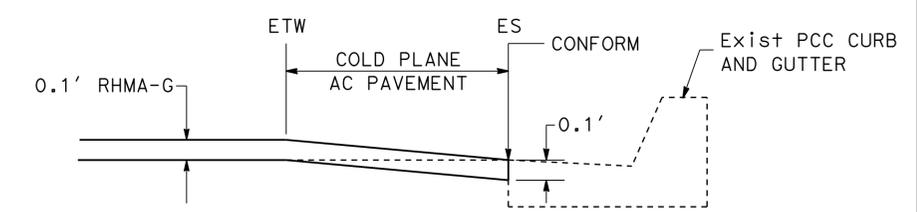


PM 20.7/20.9 (EB/WB)
PM R26.0/R26.1 (EB)
PM 29.4/29.8 (EB/WB)
PM R31.2/R31.8 (EB/WB)

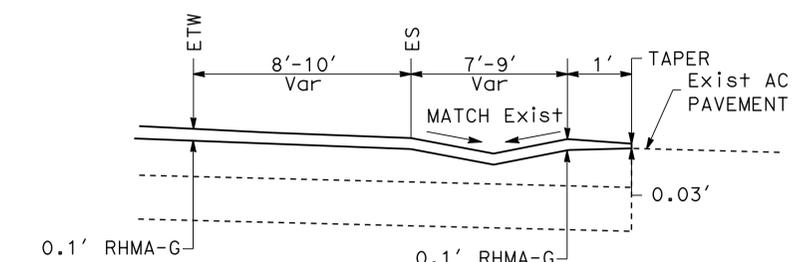
ESA LOCATIONS



PM R26.9/R27.0 (WB)
CONFORM TAPER AT ESA



(SEE CONFORM TAPERS AT CURB & GUTTER TABLE ON SHEET Q-3)
CONFORM TAPER AT CURB & GUTTER

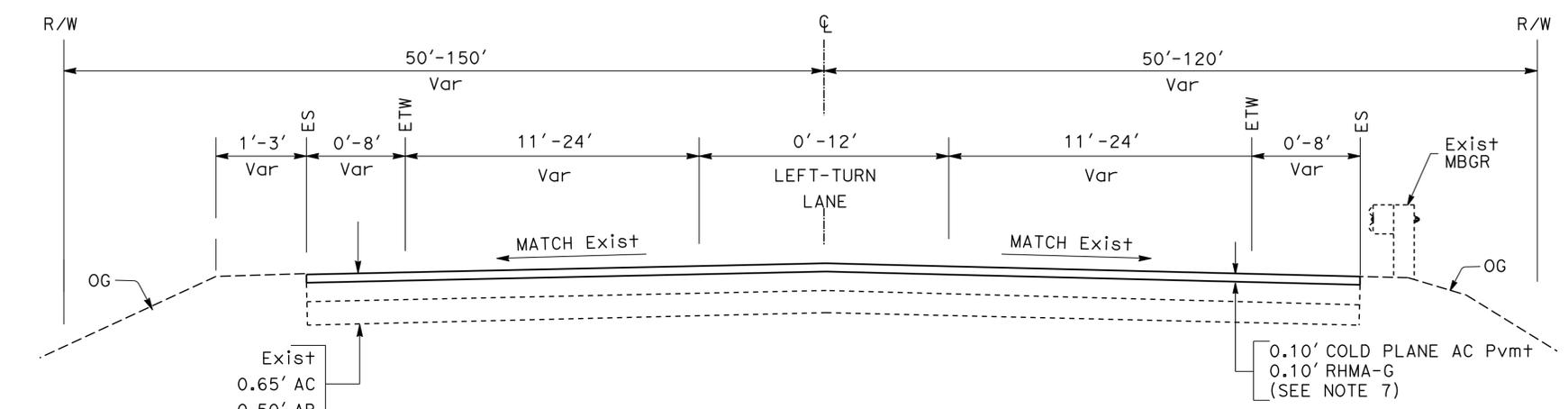


PM 22.8/22.9
ROUTE 88

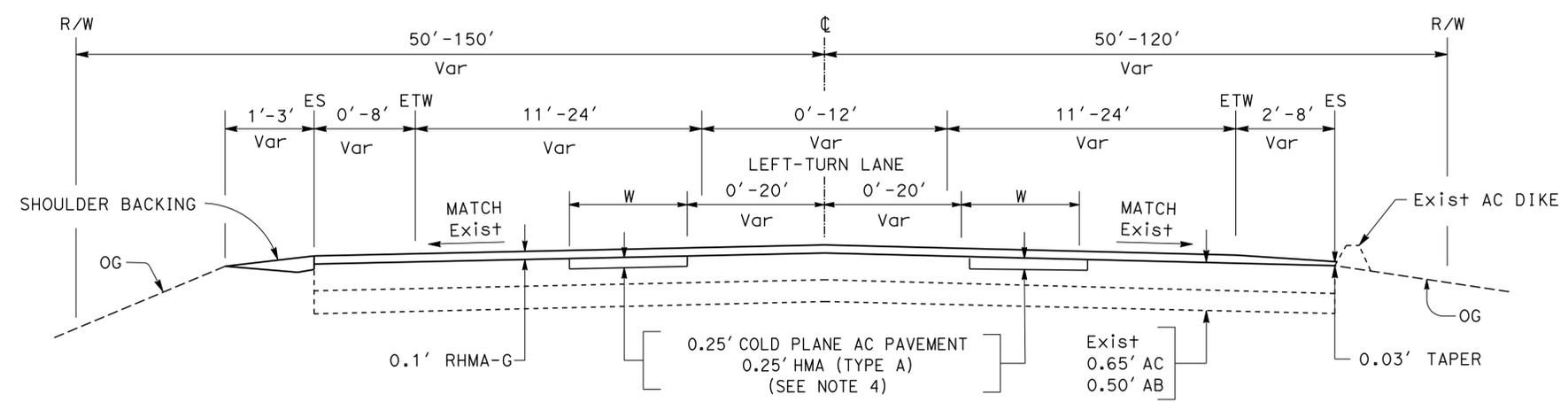
TYPICAL CROSS SECTIONS

NO SCALE

X-1



EXISTING GUARDRAIL LOCATIONS



PM 15.0/32.3
ROUTE 88

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

THOA TABADA
JOSE A ALICEA

REVISOR BY
DATE REVISED
2-6-15

FUNCTIONAL SUPERVISOR
ALVIN MANGINDIN

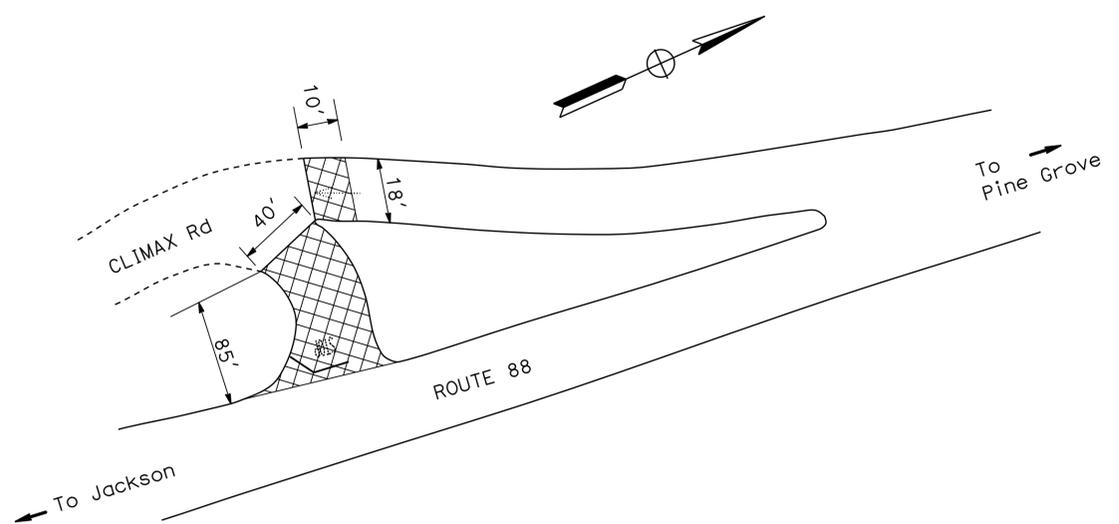
CALCULATED/DESIGNED BY
CHECKED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	4	31

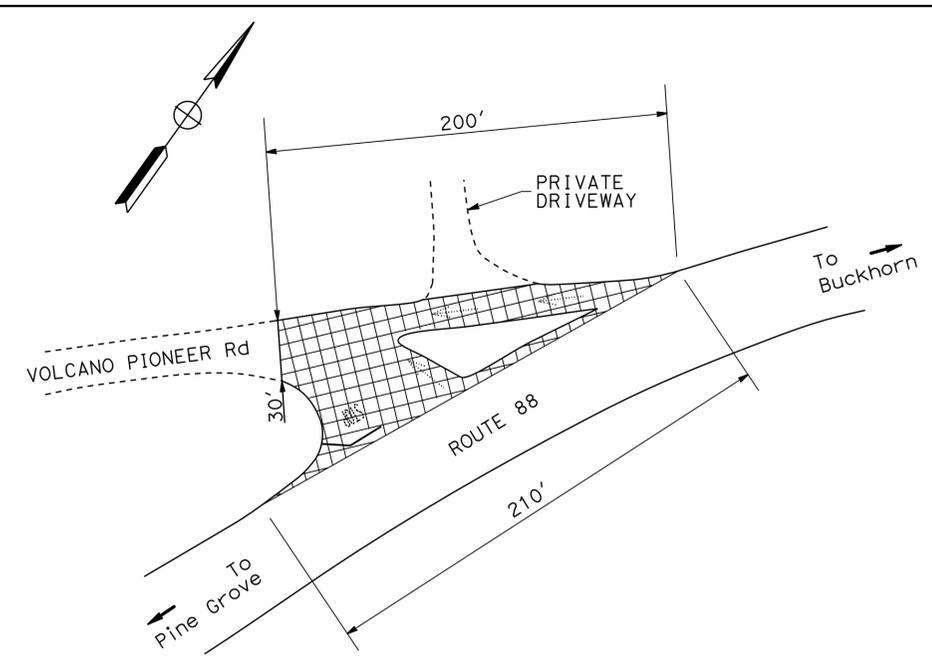
<i>JAALICEA II</i>	9/25/14
REGISTERED CIVIL ENGINEER	DATE
2-9-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JOSE A. ALICEA II
No. 64817
Exp. 6/30/15
CIVIL
STATE OF CALIFORNIA

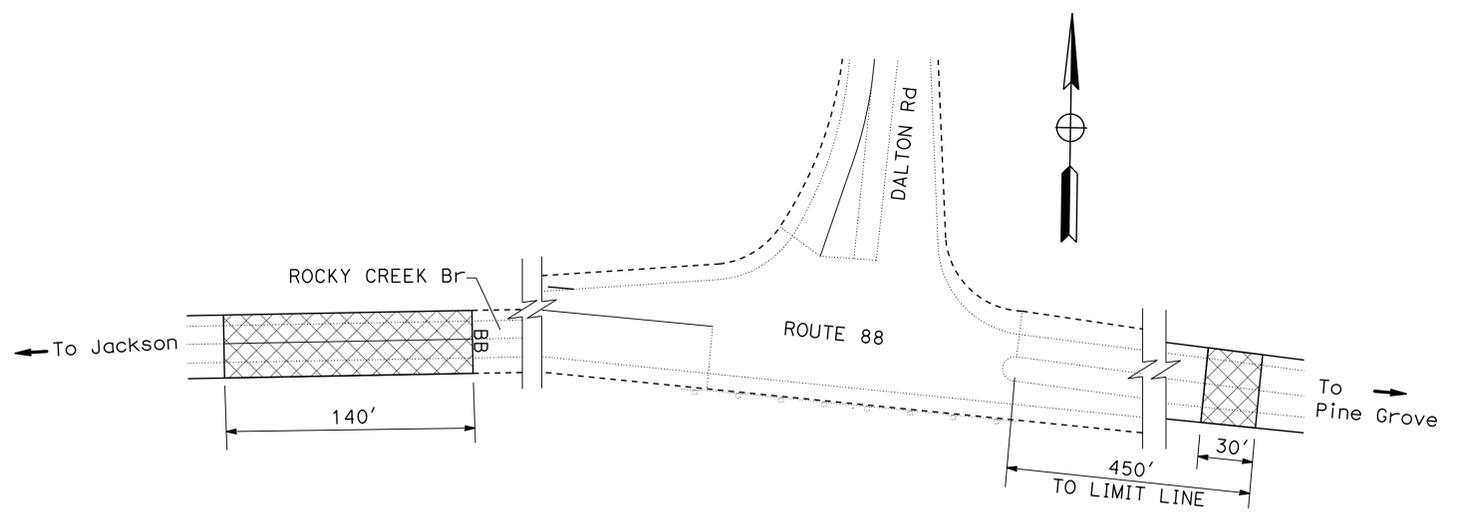
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



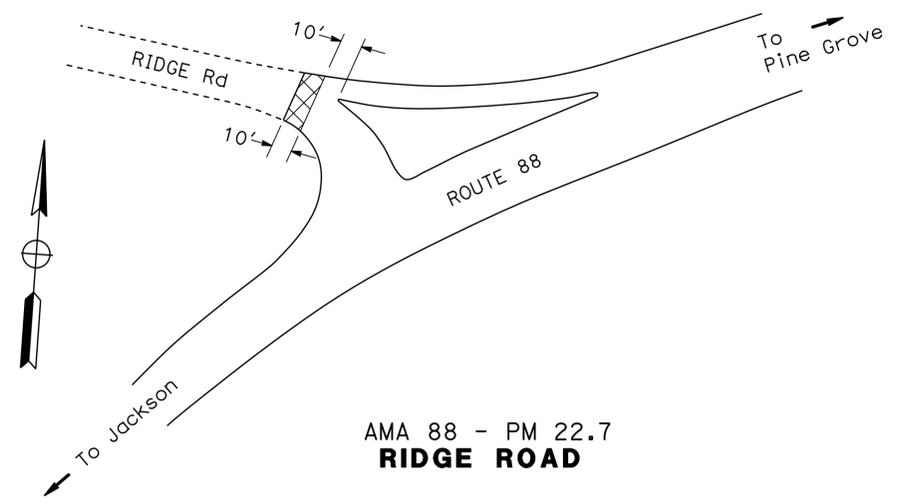
AMA 88 - PM 22.3
CLIMAX ROAD



AMA 88 - PM 26.9
VOLCANO-PIONEER ROAD



AMA 88 - PM 16.9
DALTON ROAD



AMA 88 - PM 22.7
RIDGE ROAD

COLD PLANE AC PAVEMENT AREAS

CONSTRUCTION DETAILS

NO SCALE **C-2**

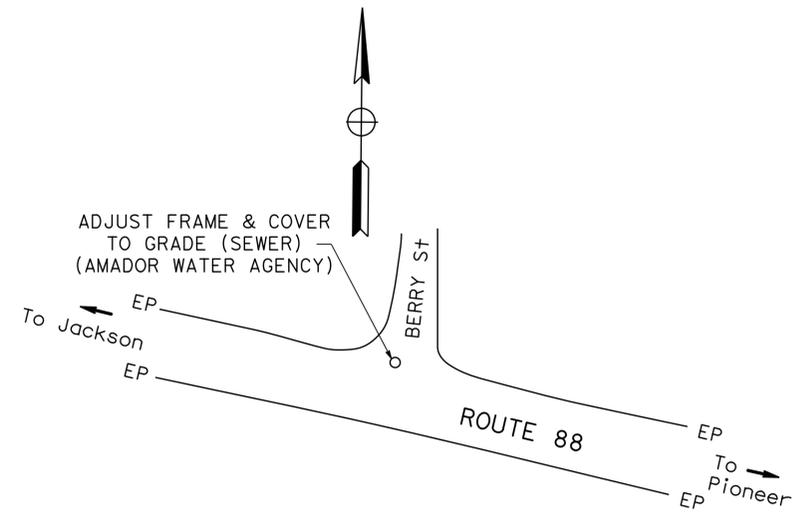
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
MAINTENANCE
FUNCTIONAL SUPERVISOR
ALVIN MANGINDIN
CALCULATED-DESIGNED BY
CHECKED BY
THOA TABADA
JOSE A ALICEA II
REVISOR
DATE
TT
2-9-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amo	88	15.0/32.3	5	31

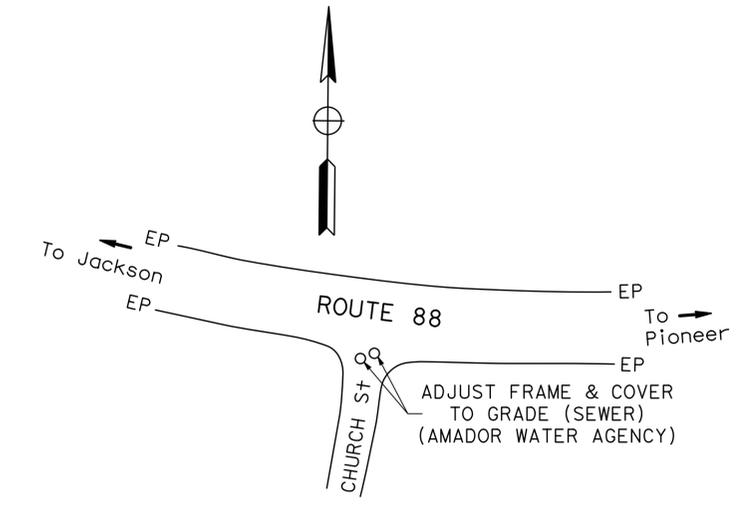
<i>JAALICEA II</i>	9/25/14
REGISTERED CIVIL ENGINEER	DATE
2-9-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JOSE A. ALICEA II
No. 64817
Exp. 6/30/15
CIVIL
STATE OF CALIFORNIA

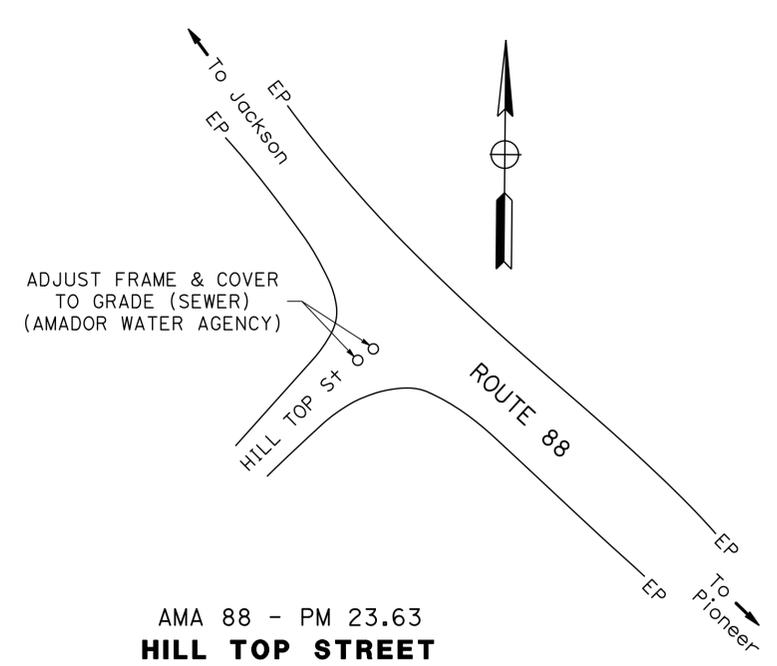
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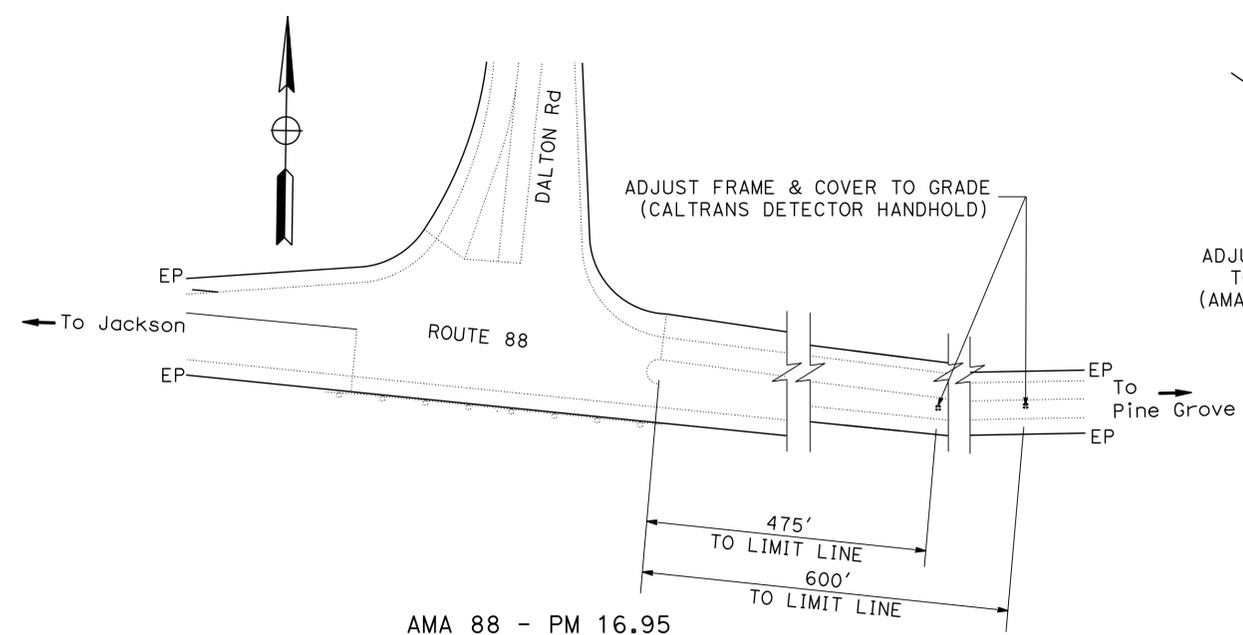
AMA 88 - PM 23.09
BERRY STREET



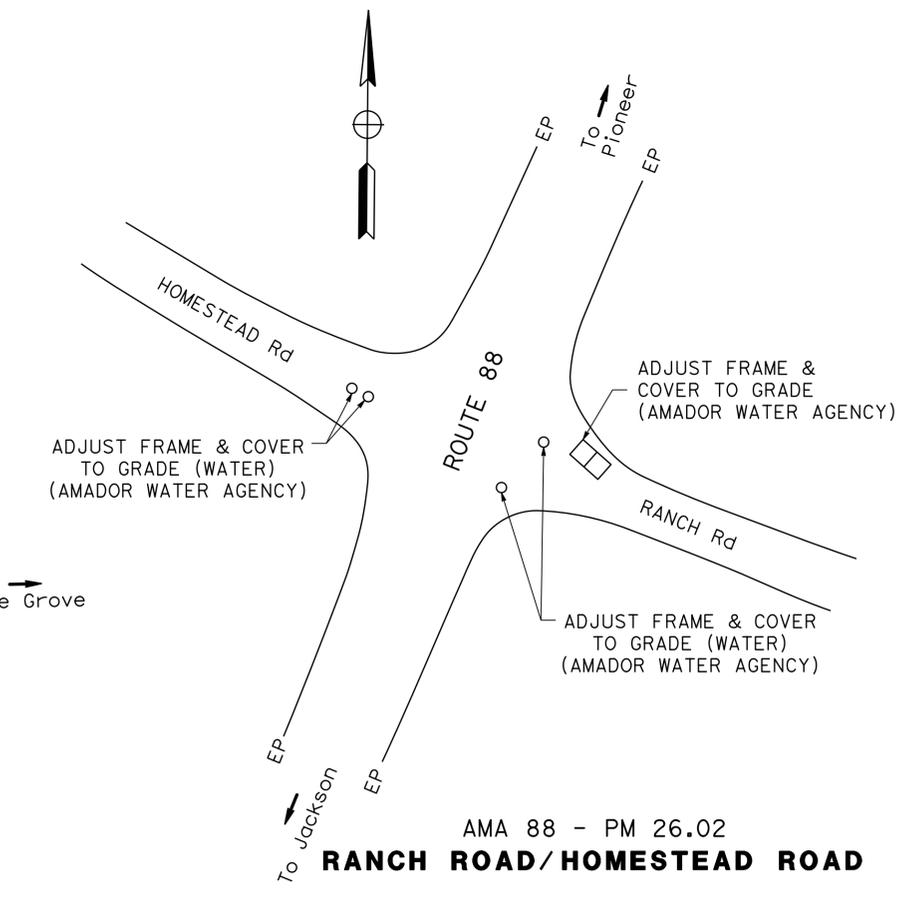
AMA 88 - PM 23.22
CHURCH STREET



AMA 88 - PM 23.63
HILL TOP STREET



AMA 88 - PM 16.95
DALTON ROAD



AMA 88 - PM 26.02
RANCH ROAD/HOMESTEAD ROAD

ADJUST FRAME AND COVER TO GRADE LOCATIONS

CONSTRUCTION DETAILS

NO SCALE

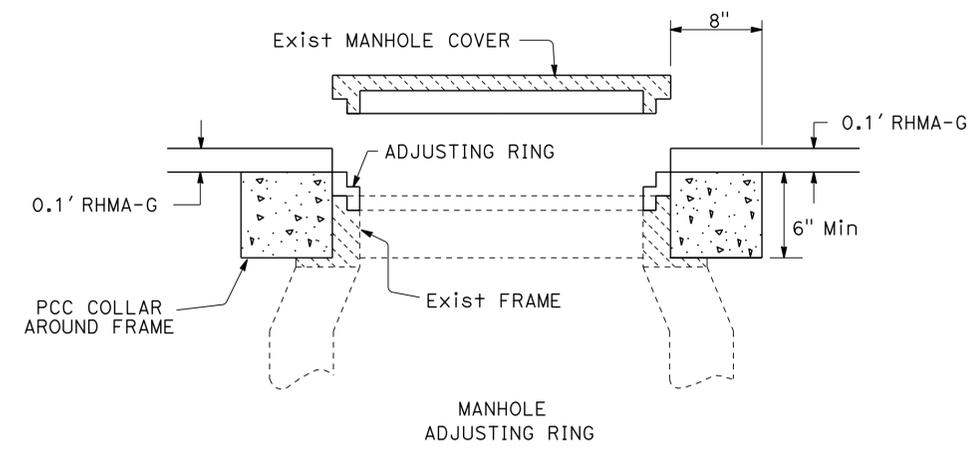
C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	ALVIN MANGINDIN
CALCULATED/DESIGNED BY	CHECKED BY
THOA TABADA	JOSE A ALICEA II
REVISOR	DATE
TT	2-6-15

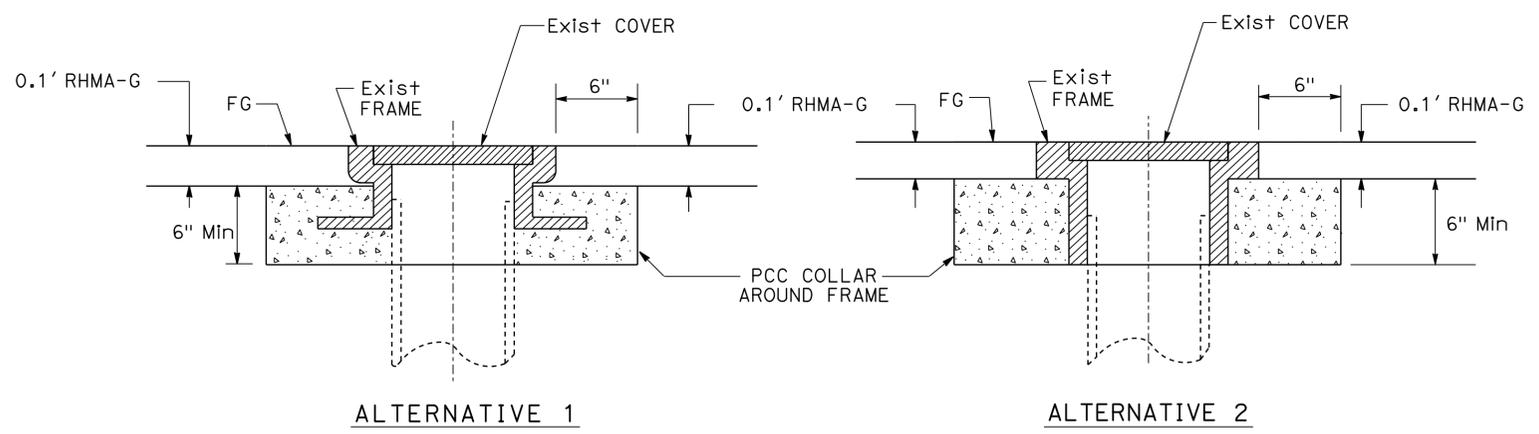
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Alameda	88	15.0/32.3	6	31

REGISTERED CIVIL ENGINEER DATE 9/25/14
 JOSE A. ALICEA II
 No. 64817
 Exp 6/30/15
 CIVIL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE 2-9-15
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR ALVIN MANGINDIN
 THOA TABADA
 JOSE A ALICEA II
 REVISOR TT
 DATE 1-22-15
 CHECKED BY
 DESIGNED BY
 CALCULATED BY



UTILITY MANHOLES



WATER VALVE

(SEE ADJUST FRAME AND COVER TO GRADE ON TABLE SUMMARY OF QUANTITIES)
ADJUST FRAME AND COVER TO GRADE

CONSTRUCTION DETAILS

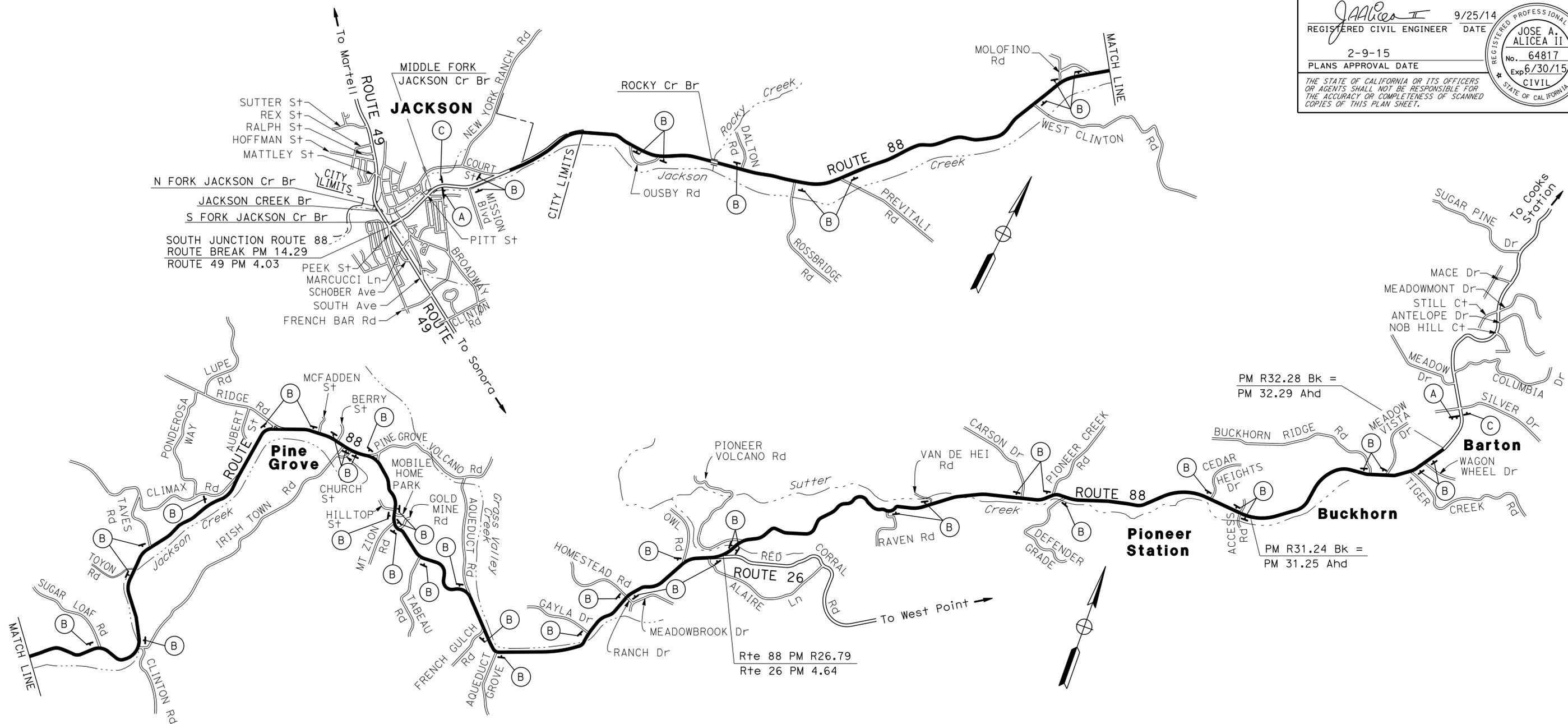
NO SCALE **C-4**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	7	31

REGISTERED CIVIL ENGINEER **JOSE A. ALICEA II** DATE 9/25/14
 No. 64817 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

2-9-15
 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.



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
	FEDERAL				
(A)	G20-1	60" x 36"	2 - 4" x 6"	2	ROAD WORK NEXT 18 MILES
(B)	W20-1	36" x 36"	1 - 4" x 6"	48	ROAD WORK AHEAD
(C)	G20-2	36" x 18"	1 - 4" x 4"	2	END ROAD WORK

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

CONSTRUCTION AREA SIGNS

NO SCALE **CS-1**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR ALVIN MANGINDIN
 CHECKED BY JOSE A ALICEA II
 THOA TABADA
 REVISOR TT
 DATE 1-22-15

LAST REVISION DATE PLOTTED => 02-MAR-2015
 TIME PLOTTED => 16:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	8	31

<i>JAlice II</i>	9/25/14
REGISTERED CIVIL ENGINEER	DATE
2-9-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JOSE A. ALICEA II
No. 64817
Exp. 6/30/15
CIVIL
STATE OF CALIFORNIA

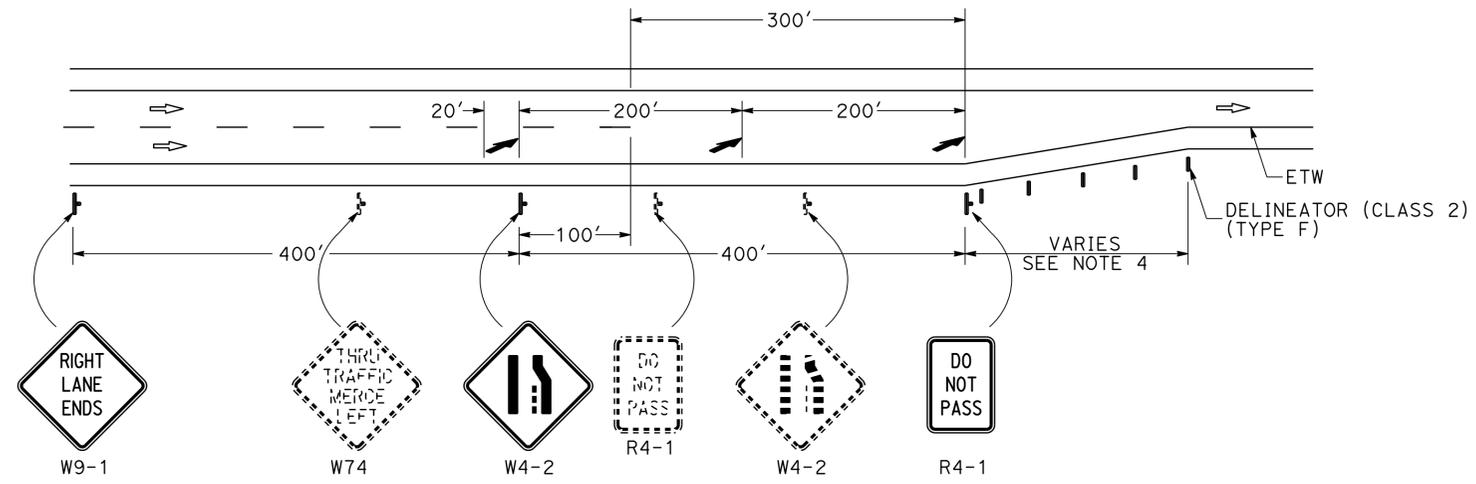
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. A W9-1 SIGN SHOULD BE USED IN CONJUNCTION WITH THE W4-2 SIGN.
2. LANE REDUCTION ARROWS ARE PLACED IN GROUPS OF THREE.
3. EXACT SIGN LOCATIONS TO BE DETERMINED BY ENGINEER.
4. DELINEATORS SHOULD BE SPACED APPROXIMATELY 200 FEET APART. THERE SHOULD BE A MINIMUM OF 3 DELINEATORS THROUGH THE LENGTH OF A LANE REDUCTION TRANSITION.

LEGEND:

- ⌵ - REMOVE ROADSIDE SIGN (WOOD POST)
- ⌴ - ROADSIDE SIGN (ONE POST)
- - LANE REDUCTION ARROW
- ▬ - DELINEATOR (CLASS 2) (TYPE F)



- PM R24.32/R24.39 (WB)
- PM R25.44/R25.52 (EB)
- PM R39.50/R39.58 (EB)
- PM 42.40/42.52 (WB)
- PM 46.15/46.22 (EB)
- PM 46.39/46.47 (WB)

LANE-REDUCTION TRANSITION DETAIL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR
 ALVIN MANGINDIN
 CALCULATED-DESIGNED BY
 CHECKED BY
 THOA TABADA
 JOSE A ALICEA II
 REVISED BY
 DATE REVISED
 TT
 2/06/15

PAVEMENT DELINEATION AND SIGN DETAILS

NO SCALE

PDD-1

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	9	31

REGISTERED CIVIL ENGINEER: JOSE A. ALICEA II
 No. 64817
 Exp. 6/30/15
 CIVIL

DATE: 9/25/14
 PLANS APPROVAL DATE: 2-9-15

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REMOVE PAVEMENT DELINEATION QUANTITIES

LOCATION	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)				REMOVE THERMOPLASTIC TRAFFIC STRIPE			REMOVE PAVEMENT MARKER	REMOVE YELLOW THERMOPLASTIC PAVEMENT MARKING (HAZARDOUS WASTE)				REMOVE THERMOPLASTIC PAVEMENT MARKING											
	4" YELLOW				4" WHITE	8" WHITE			CROSSWALK	SLOW	SCHOOL	XING	LIMIT LINE	CROSSWALK (WHITE)	TYPE I ARROW	TYPE III (L) ARROW	TYPE III (R) ARROW	TYPE V ARROW	TYPE VI ARROW	SIGNAL	AHEAD	DO	NOT	PARK
	Det 21	Det 22	Det 28	Det 29	Det 8	Det 38	Det 38A																	
PM 15.0/32.3	72,907	63,497	12,764	4,436	200	2,279	8,341	3324	590	92	140	84	15	190	72	3234	126	165	504	96	93	28	36	52
TOTAL	153,604				10,820			3324	906				4611											

PAVEMENT DELINEATION QUANTITIES

LOCATION	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)															THERMOPLASTIC PAVEMENT MARKING																
	4" WHITE					8" WHITE		4" YELLOW								LIMIT LINE (WHITE)	CROSSWALK (WHITE)	CROSSWALK (YELLOW)	TYPE I ARROW	TYPE III (L) ARROW	TYPE III (R) ARROW	TYPE V ARROW	TYPE VI ARROW	STOP	SIGNAL	AHEAD	SLOW	SCHOOL	XING	DO	NOT	PARK
	Det 8	Det 9	Det 27B	Det 27C	Det 38	Det 38A	Det 2	Det 16	Det 19	Det 21	Det 22	Det 25A	Det 28	Det 29	Det 31																	
PM 15.0/32.3	7,915	3,169	180,568	4,850	2,279	8,341	476	5,809	4,647	72,907	63,497	10	12,764	4,436	40,460	1505	190	590	72	3234	126	165	504	1034	96	93	92	140	84	28	36	52
TOTAL	412,128															8041																

PAVEMENT DELINEATION QUANTITIES PDQ-1

DATE PLOTTED => 02-MAR-2015
 TIME PLOTTED => 16:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	11	31

Jose A. Alicea II 9/25/14
 REGISTERED CIVIL ENGINEER DATE
 No. 64817
 Exp 6/30/13
 CIVIL
 PLANS APPROVAL DATE 2-9-15

THE STATE OF CALIFORNIA OR ITS OFFICERS
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 COPIES OF THIS PLAN SHEET.

NOTES:

- * - TOTAL INCLUDED IN ROADWAY QUANTITIES TABLE.
- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
- TRAFFIC MANAGEMENT SYSTEM ELEMENTS LOCATIONS ARE APPROXIMATE.

ABBREVIATIONS:

RHMA-G - RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

CONFORM TAPERS AT PUBLIC INTERSECTIONS QUANTITIES

LOCATION			LENGTH	WIDTH	COLD PLANE AC Pvm†	HMA (TYPE A)
PM	SIDE	DESCRIPTION			SQYD	TON
16.2	R+	OUSBY Rd, W Jct	30'	40'	134	9
16.2	R+	OUSBY Rd, E Jct	30'	30'	100	7
17.4	R+	ROSSBRIDGE Rd	35'	35'	137	10
17.8	R+	PREVITALI Rd	40'	40'	178	12
19.3	R+	WEST CLINTON Rd	35'	36'	140	10
19.6	L+	MOLOFINO Rd	25'	35'	98	7
20.0	L+	MOLOFINO Rd	25'	35'	98	7
20.5	L+	SUGAR LOAF Dr	30'	22'	74	5
20.8	R+	IRISHTOWN Rd/CLINTON Rd	30'	60'	200	14
21.4	L+	TOYON Rd	25'	48'	134	9
21.5	L+	TAVES Rd	25'	30'	84	6
22.3	L+	CLIMAX Rd	85'	40'	378	26
22.4	L+	CLIMAX Rd RAMP	10'	18'	20	2
22.7	L+	RIDGE Rd	10'	90'	100	7
22.9	L+	PINE GROVE MAINTENANCE STATION	40'	100'	445	30
23.1	L+	MCFADDEN St	25'	26'	73	5
23.1	L+	BERRY St	30'	20'	67	5
23.2	R+	IRISHTOWN Rd	25'	60'	167	12
23.2	R+	CHURCH St	25'	20'	56	4
23.4	L+	PINE GROVE-VOLCANO Rd	65'	40'	289	20
23.4	L+	PINE GROVE-VOLCANO Rd	100'	25'	278	19
23.6	R+	HILL TOP St	25'	32'	89	6
23.7	L+	MOBILE HOME PARK	40'	30'	134	9
23.8	R+	MT ZION Rd	30'	66'	220	15
SUBTOTAL A					3,693	256

LOCATION			LENGTH	WIDTH	COLD PLANE AC Pvm†	HMA (TYPE A)
PM	SIDE	DESCRIPTION			SQYD	TON
24.0	L+	GOLD MINE Rd	30'	37'	124	9
24.1	R+	TABEAU Rd	30'	65'	217	15
24.7	LT	AQUEDUCT VOLCANO Rd	30'	45'	150	11
25.0	R+	AQUEDUCT GROVE Rd	30'	65'	217	15
25.8	L+	GAYLA Dr	30'	52'	174	12
26.0	R+	RANCH Dr	50'	30'	167	12
26.0	L+	HOMESTEAD Rd	50'	38'	212	15
26.7	R+	ALAIRE Ln	25'	50'	139	10
26.8	R+	JCT 26-RED CORRAL Rd	35'	60'	234	16
26.9	L+	VOLCANO-PIONEER Rd	55'	55'	337	23
26.9	L+	VOLCANO-PIONEER Rd RAMP	200'	18'	400	27
28.2	R+	RAVEN Rd	30'	30'	100	7
28.5	L+	VAN DE HEI RANCH Rd	30'	30'	100	7
29.2	L+	CARSON Dr	30'	30'	100	7
29.4	L+	PIONEER CREEK Rd	25'	33'	92	7
29.5	R+	DEFENDER GRADE Rd	30'	68'	227	16
30.5	L+	CEDAR HEIGHTS Dr	30'	35'	117	8
30.7	L+	ACCESS Rd	30'	47'	157	11
30.7	R+	ACCESS Rd	30'	60'	200	14
31.8	L+	BUCKHORN RIDGE Rd	30'	42'	140	10
31.9	L+	MEADOW VISTA Dr	30'	42'	140	10
32.1	R+	TIGER CREEK Rd	30'	45'	150	11
32.2	R+	WAGON WHEEL Dr	30'	45'	150	11
32.2	L+	WAGON WHEEL Dr	30'	45'	150	11
SUBTOTAL B					4,194	295
SUBTOTAL A					3,693	256
TOTAL					7,887*	551*

**SUMMARY OF QUANTITIES
Q-1**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	12	31

REGISTERED CIVIL ENGINEER DATE 9/25/14
 JOSE A. ALICEA II
 No. 64817
 Exp. 6/30/15
 CIVIL
 STATE OF CALIFORNIA

2-9-15
 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.

REPAIR FAILED AREA QUANTITIES

LOCATION		LENGTH (N)	WIDTH (N)	COLD PLANE AC Pvm†	HMA (TYPE A)
BEGIN PM	SIDE			SQYD	TON
16.0	EB	140'	4'	63	11
17.0		445'	4'	198	34
17.8		540'	4'	240	41
18.0		835'	4'	372	63
19.0		655'	8'	583	99
19.0		2408'	4'	1,071	181
20.0		445'	4'	198	34
20.8		375'	4'	167	29
21.0		540'	4'	240	41
21.5		165'	4'	74	13
22.0		1165'	4'	518	88
22.5		220'	4'	98	17
22.7		965'	4'	429	73
23.0		340'	4'	152	26
24.0		2565'	4'	1,140	193
25.0		620'	4'	276	47
26.0		135'	4'	60	11
27.0		395'	4'	176	30
28.0		1031'	4'	459	78
28.5		1670'	4'	743	126
28.5		15'	8'	14	3
29.0		755'	4'	336	57
30.0		1080'	4'	480	81
31.0	380'	4'	169	29	
15.9	WB	20'	4'	9	2
17.8		300'	4'	134	23
18.0		265'	4'	118	20
SUBTOTAL 1				8,517	1450
LOCATION		LENGTH (N)	WIDTH (N)	COLD PLANE AC Pvm†	HMA (TYPE A)
BEGIN PM	SIDE			SQYD	TON
19.0	WB	3615'	4'	1,607	272
20.0		315'	4'	140	24
20.5		1290'	4'	574	97
20.7		10'	32'	36	6
20.8		125'	4'	56	10
21.0		510'	4'	227	39
21.5		195'	4'	87	15
21.5		200'	12'	267	45
22.0		400'	4'	178	30
22.3		400'	24'	1,067	180
22.5		35'	4'	16	3
22.7		585'	4'	260	44
23.0		680'	4'	303	51
24.0		200'	4'	89	15
25.0		280'	4'	125	21
26.0		305'	4'	136	23
26.9		305'	68'	2,305	389
27.3		50'	6'	34	6
27.3		60'	12'	80	14
28.0		1845'	4'	820	139
28.5		1185'	4'	527	89
29.0		1207'	4'	537	91
30.0		1340'	4'	596	101
30.6	520'	4'	232	39	
31.0	60'	4'	27	5	
SUBTOTAL 2				10,326	1748
SUBTOTAL 1				8,517	1450
TOTAL				18,843 *	3198 *

NOTE: LOCATIONS ARE APPROXIMATE. ACTUAL LOCATION, LENGTHS, AND WIDTHS SHALL BE DETERMINED BY THE ENGINEER.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR ALVIN MANGINDIN
 CALCULATED-DESIGNED BY CHECKED BY
 THOA TABADA JOSE A ALICEA II
 REVISED BY DATE REVISID
 TT 2-6-15

SUMMARY OF QUANTITIES Q-2

LAST REVISION DATE PLOTTED => 02-MAR-2015 TIME PLOTTED => 16:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amg	88	15.0/32.3	13	31


 REGISTERED CIVIL ENGINEER DATE 9/25/14
 No. 64817
 Exp 6/30/15
 CIVIL
 STATE OF CALIFORNIA

2-9-15
 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.

ADJUST FRAME AND COVER TO GRADE

PM	DESCRIPTION	EA
16.95	DETECTOR HANDHOLE - CALTRANS	1
17.02	DETECTOR HANDHOLE - CALTRANS	1
23.09	SEWER MANHOLE - AMADOR WATER AGENCY	1
23.22	SEWER MANHOLE - AMADOR WATER AGENCY	2
23.63	SEWER MANHOLE - AMADOR WATER AGENCY	2
26.02	WATER VALVE - AMADOR WATER AGENCY	6
TOTAL		13

TRAFFIC MANAGEMENT SYSTEM ELEMENT (EXISTING)

LOCATION	PM	TYPE	DIRECTION
DALTON Rd	16.8	SIGNAL	BOTH
WEST OF RIDGE Rd	22.6	EMS	EB
JUNCTION Rte 104 (UPPER RIDGE Rd)	22.6	SIGNAL	BOTH
PINE GROVE, WEST OF RIDGE Rd	22.7	TMS	BOTH
PINE GROVE, EAST OF RIDGE Rd	22.7	TMS	BOTH
PINE GROVE	23.2	HAR	WB
EAST OF PINE GROVE	R23.9	CMS	EB
EAST OF PINE GROVE	R23.9	EMS	WB
WEST OF Jct Rte 26, RED CORRAL Rd	R26.8	TMS	BOTH
EAST OF Jct Rte 26, RED CORRAL Rd	R26.8	TMS	BOTH

CONFORM TAPERS AT ESA

LOCATION	SIDE	LENGTH	WIDTH	COLD PLANE AC Pvmt	RHMA-G
PM TO PM				SQYD	TON
R26.90 TO R27.0	L+	400'	7'	267	18
TOTAL				267 *	18 *

CONFORM TAPERS QUANTITIES

PM	DESCRIPTION	LENGTH	WIDTH	COLD PLANE AC Pvmt	RHMA-G
				SQYD	TON
15.0	BEGIN CONSTRUCTION	50'	32'	178	14
16.6	ROCKY CREEK BRIDGE (APPROACH)	150'	32'	534	40
16.9	ROUTE 49 AT DALTON ROAD	50'	32'	178	14
32.3	END CONSTRUCTION	50'	32'	178	14
TOTAL				1,068*	82 *

ROADWAY QUANTITIES

LOCATION	COLD PLANE AC PAVEMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	HOT MIX ASPHALT (TYPE A)	TACK COAT	SHOULDER BACKING
	SQYD	TON	TON	TON	TON
PM 15.0/32.3		28,200		113	4000
CONFORM TAPERS QUANTITIES	1,068	82		1	
REPAIR FAILED AREA QUANTITIES	18,843		3198	6	
CONFORM TAPERS AT PUBLIC INTERSECTIONS QUANTITIES	7,887		551	3	
CONFORM TAPERS AT PRIVATE DRIVEWAYS		119		1	
CONFORM TAPERS AT CURB AND GUTTER	3,962	272		2	
CONFORM TAPERS AT GUARDRAIL QUANTITIES	5,692	382		2	
CONFORM TAPERS AT ESA	267	18		1	
DIKE QUANTITIES			434	1	
TOTAL	37,719	29,073	4183	130	4000

SUMMARY OF QUANTITIES Q-3

DIKE QUANTITIES

LOCATION			REMOVE AC DIKE	PLACE HMA DIKE (TYPE E)	HMA (TYPE A)
PM	PM	SIDE	LF	LF	TON
15.3	15.5	EB	945	945	25
15.5	15.7		1,000	1,000	27
15.7	15.8		635	635	17
16.0	16.1		635	635	17
16.3	16.4		635	635	17
16.6	16.6		55	55	2
17.1	17.2		475	475	13
17.4	17.4		265	265	7
17.8	18.0		1,000	1,000	27
18.2	18.3		900	900	24
18.4	18.5		530	530	14
18.6	18.7		420	420	12
18.7	18.9		1,055	1,055	28
19.0	19.2		790	790	21
19.9	20.0		530	530	14
20.1	20.2		265	265	7
20.4	20.4		320	320	9
20.5	20.5		210	210	6
21.3	21.3		210	210	6
26.2	26.4		1,055	1,055	28
29.5	29.6	320	320	9	
31.0	31.1	530	530	14	
15.4	15.4	WB	105	105	3
15.8	15.9		530	530	14
16.1	16.2		530	530	14
17.5	17.7		1,160	1,160	31
19.3	19.4		160	160	5
19.8	19.9		315	315	9
20.9	20.9		35	35	1
20.9	21.0		475	475	13
TOTAL			16,090	16,090	434*

CONFORM TAPERS AT CURB AND GUTTER

LOCATION	SIDE	LENGTH	WIDTH	COLD PLANE AC Pvmt	RHMA-G
PM TO PM				SQYD	TON
22.91 TO 23.13	R+	1170'	8'	1,040	70
23.25 TO 23.48	R+	1220'	4'	543	37
26.95 TO 26.98	R+	160'	8'	143	10
28.92 TO 29.02	R+	550'	4'	245	17
29.33 TO 29.42	R+	500'	4'	223	15
31.83 TO 31.93	R+	490'	8'	436	30
31.99 TO 32.03	R+	220'	8'	196	14
23.11 TO 23.14	L+	160'	6'	107	8
23.20 TO 23.32	L+	640'	6'	427	29
23.50 TO 23.56	L+	320'	4'	143	10
26.55 TO 26.58	L+	160'	8'	143	10
26.96 TO 27.01	L+	270'	8'	240	16
29.81 TO 29.84	L+	170'	4'	76	6
TOTAL				3,962*	272*

CONFORM TAPERS AT GUARDRAIL QUANTITIES

LOCATION	LENGTH	WIDTH	COLD PLANE AC Pvmt	RHMA-G
PM TO PM			SQYD	TON
16.56 TO 16.58	200'	32'	712	48
17.21 TO 17.23	200'	32'	712	48
20.78 TO 20.80	200'	56'	1,245	83
23.39 TO 23.41	200'	44'	978	66
23.86 TO 23.87	200'	52'	1,156	77
24.98 TO 25.00	200'	40'	889	60
TOTAL			5,692*	382*

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 THOA TABADA - JOSE A ALICEA II
 REVISOR BY - DATE REVISOR
 TT - 2-6-15
 REVISOR BY - DATE REVISOR
 CALCULATED/DESIGNED BY - CHECKED BY
 FUNCTIONAL SUPERVISOR - ALVIN MANGINDIN
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

LAST REVISION DATE PLOTTED => 02-MAR-2015
 00-00-00 TIME PLOTTED => 16:10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: JASPAL SINGH
 CHECKED BY: JASPAL SINGH
 REVISED BY: JS
 DATE REVISED: 01/26/15

LEGEND:

- 1 [AB] Exist LOOP DETECTORS AND INSTALL AS SHOWN.
- 2 [AB] Exist LOOP DETECTORS AND INSTALL AS SHOWN IN DETAIL 'A' ON SHEET E-3.
- 3 ADJUST DETECTOR HANDHOLE TO FINISH GRADE.

NOTES:

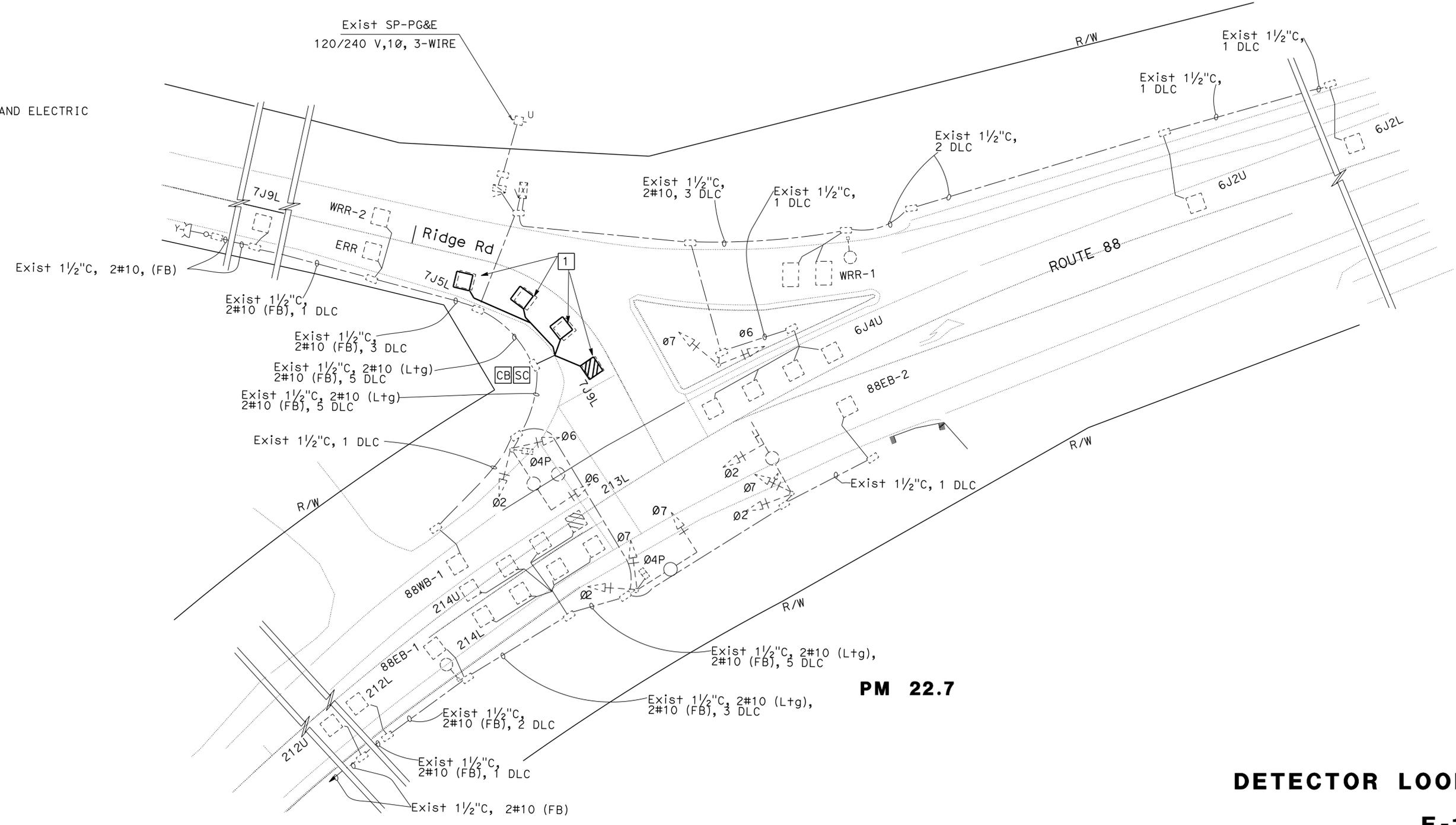
- 1. Exist SIGNAL AND LIGHTING DETAILS NOT SHOWN.
- 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS:

PG&E - PACIFIC GAS AND ELECTRIC

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amo	88	15.0/32.3	14	31

REGISTERED ELECTRICAL ENGINEER DATE: 9/25/14
 JASPAL SINGH
 No. 16657
 Exp. 3/30/16
 ELECTRICAL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE: 2-9-15
 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.



PM 22.7

DETECTOR LOOP

E-1

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amc	88	15.9/32.3	15	31

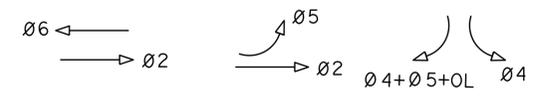
<i>Jaspal Singh</i>	9/25/14
REGISTERED ELECTRICAL ENGINEER	DATE
2-9-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	JASPAL SINGH
No. 16657	
Exp. 3/30/16	
ELECTRICAL	

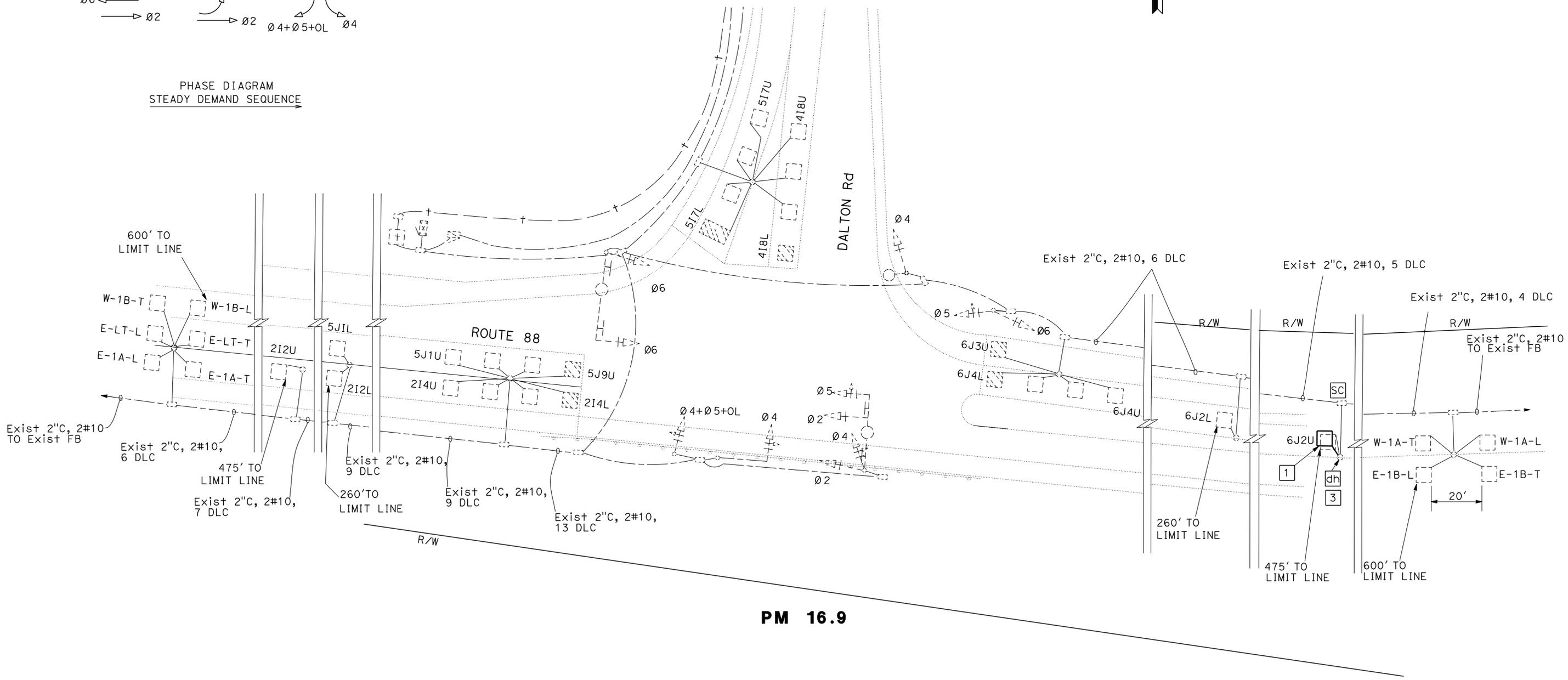
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



- NOTES:**
- Exist SIGNAL AND LIGHTING DETAILS NOT SHOWN.
 - FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PHASE DIAGRAM
STEADY DEMAND SEQUENCE



PM 16.9

DETECTOR LOOP

E-2

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED/DESIGNED BY: JASPAL SINGH
CHECKED BY: JASPAL SINGH
REVISOR: JS
DATE REVISED: 1-26-15

NOTE:

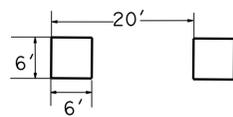
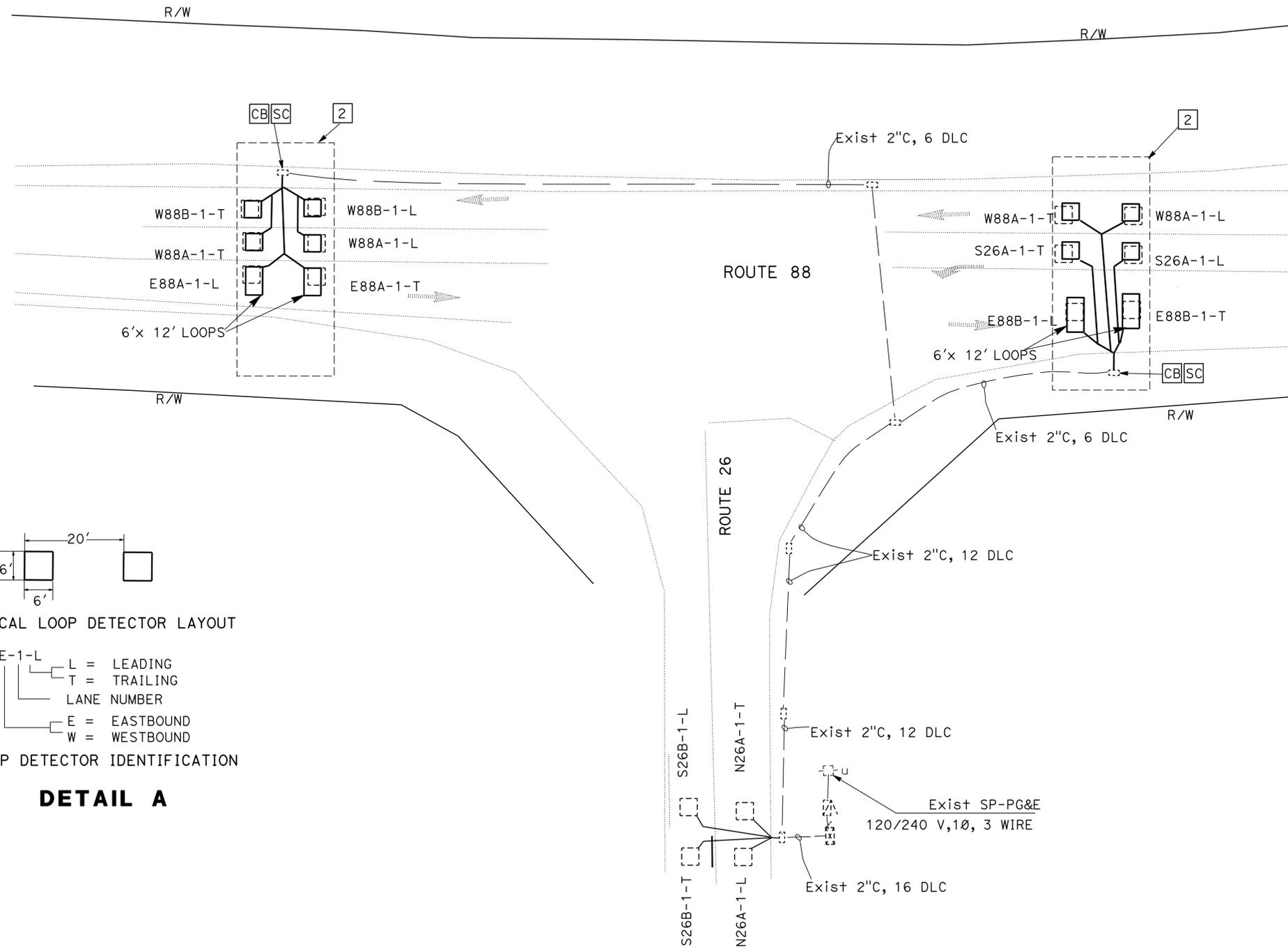
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amo	88	15.0/32.3	16	31

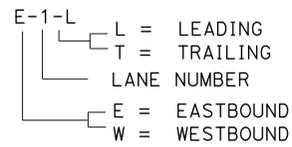
<i>Jaspal Singh</i>	9/25/14
REGISTERED ELECTRICAL ENGINEER	DATE
2-9-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
 No. 16657
 Exp. 3/30/16
 ELECTRICAL
 STATE OF CALIFORNIA

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



TYPICAL LOOP DETECTOR LAYOUT



LOOP DETECTOR IDENTIFICATION

DETAIL A

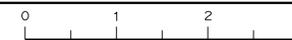
PM 26.8

APPROVED FOR ELECTRICAL WORK ONLY

DETECTOR LOOP

E-3

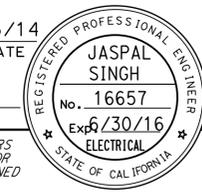
NO SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	ALT BAKHDOUD	JS	1-26-15
CALCULATED-DESIGNED BY	CHECKED BY	JASPAL SINGH	JASPAL SINGH

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Amador	88	15.0/32.3	17	31

 9/25/14
 REGISTERED ELECTRICAL ENGINEER DATE
 2-9-15
 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.

NOTE:

THE QUANTITIES SHOWN IN THIS TABLE ARE NOT SEPARATE PAY ITEMS, FOR INFORMATION ONLY. FOR COMPLETE ELECTRICAL WORK, SEE ELECTRICAL PLANS.

DETECTOR LOOP

SHEET No.	TYPE A LOOP DETECTOR	TYPE D LOOP DETECTOR	1/2" C TYPE-3
	EA	EA	LF
E-1	3	1	10
E-2	1		
E-3	12		20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR
 ALI BAKHDOD
 CALCULATED-DESIGNED BY
 CHECKED BY
 JASPAL SINGH
 JASPAL SINGH
 REVISED BY
 DATE REVISED
 JS
 1-26-15

ELECTRICAL QUANTITIES

E-4

	M	
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	
	N	
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	
	O	
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	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	

	P continued	
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	
	Q	
Qty	QUANTITY	
	R	
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	
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	
	T	
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	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
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	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	18	31

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Grace M. Tsushima
 No. C49814
 Exp. 9-30-14
 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.

TO ACCOMPANY PLANS DATED 2-9-15

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 ³ , 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

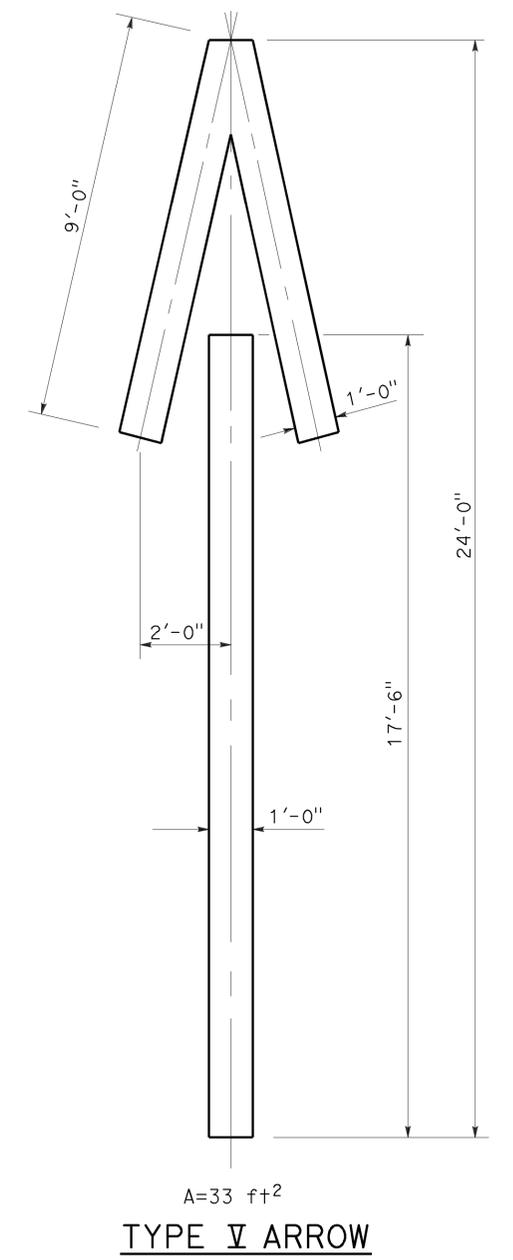
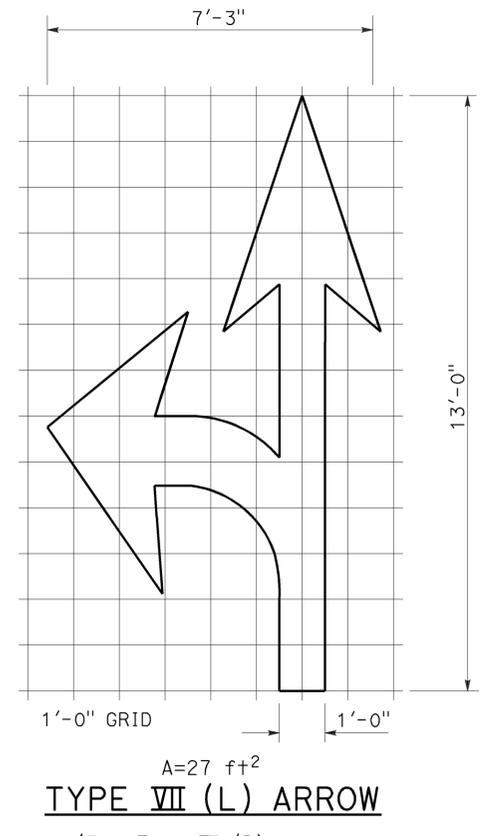
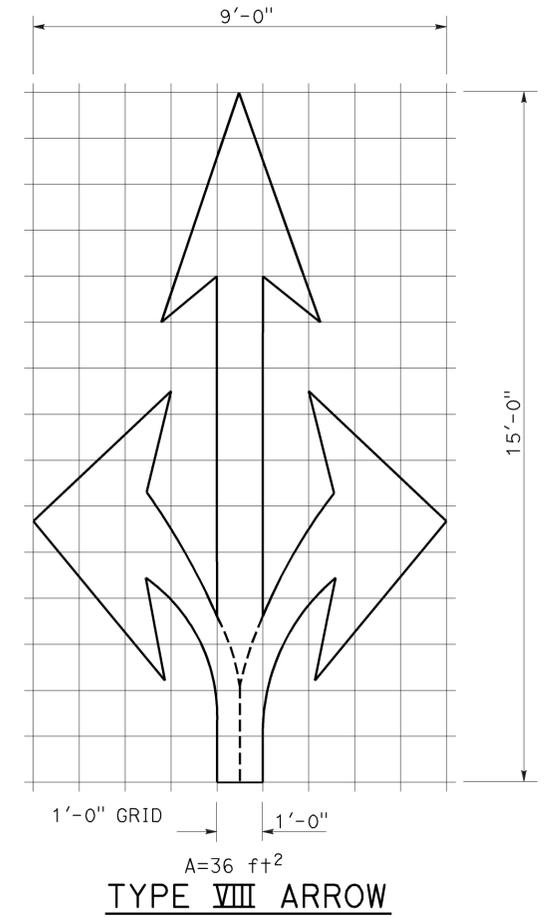
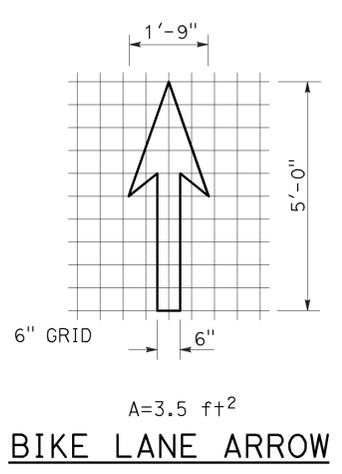
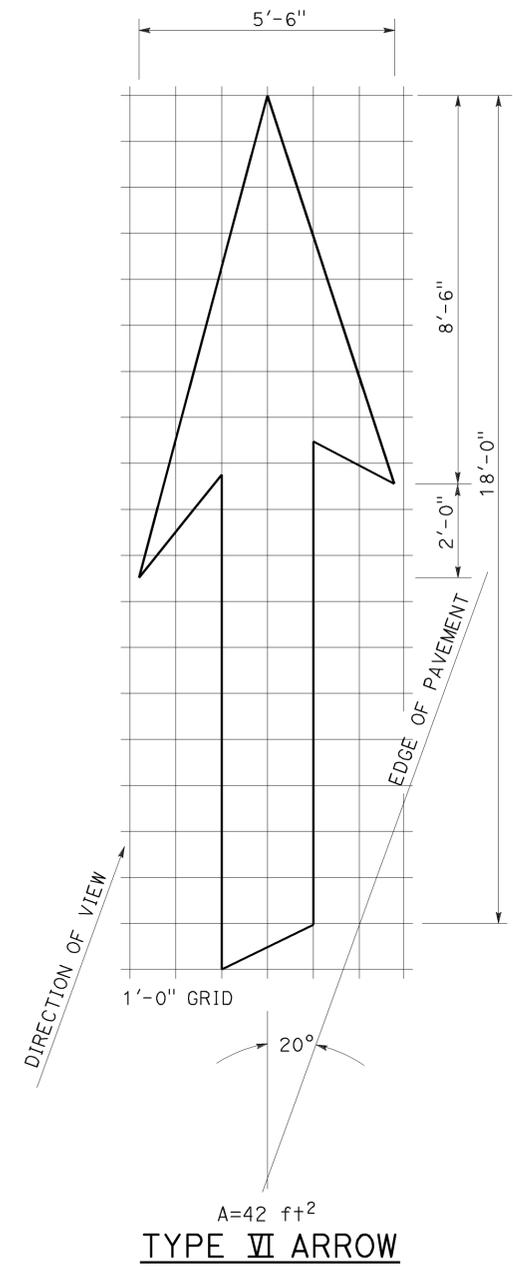
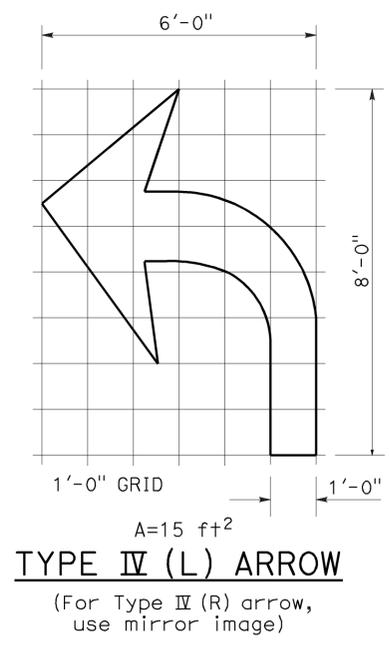
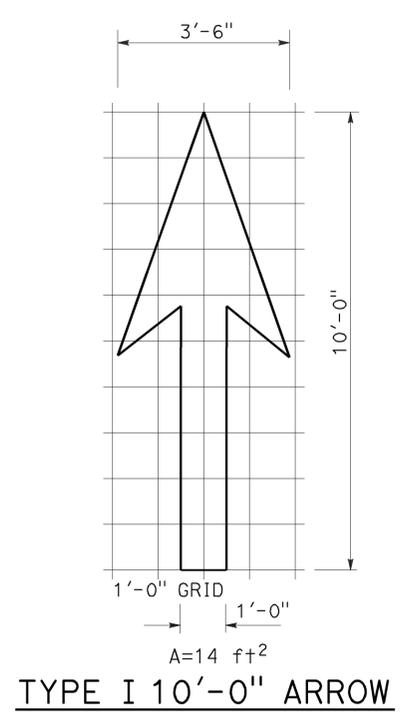
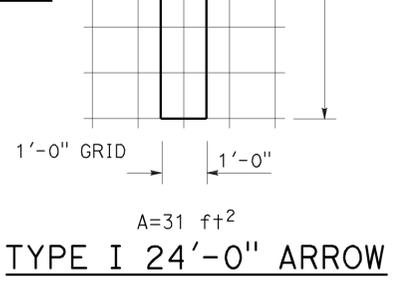
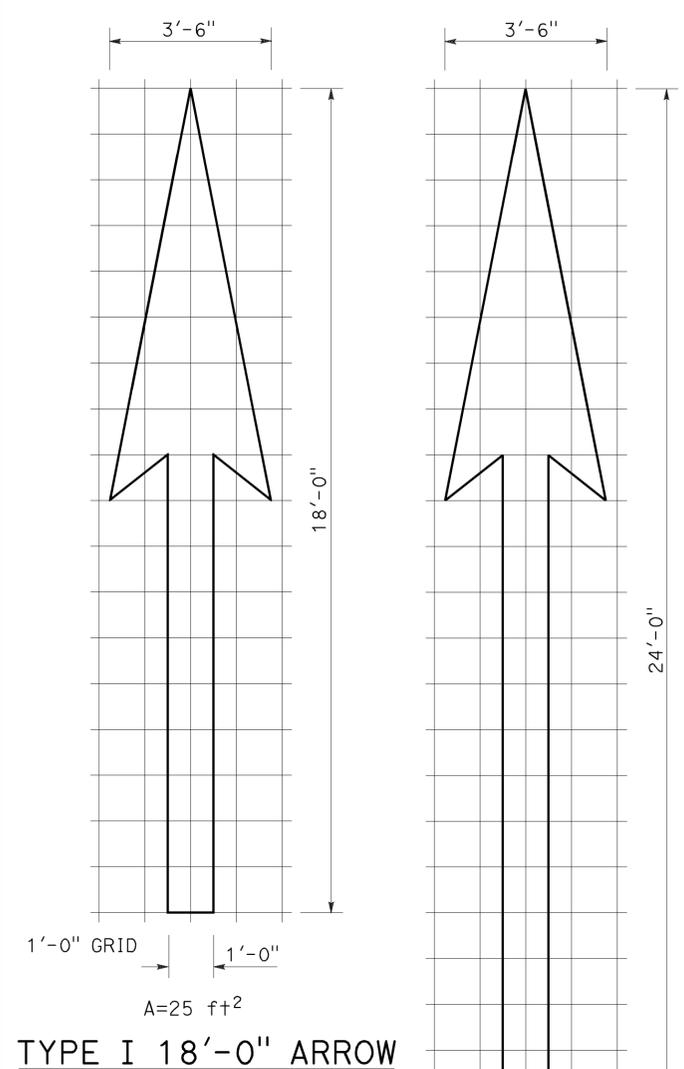
RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	19	31

Roberto L. McLaughlin
 REGISTERED CIVIL ENGINEER
 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.

REGISTERED PROFESSIONAL ENGINEER
 Roberto L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 2-9-15



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

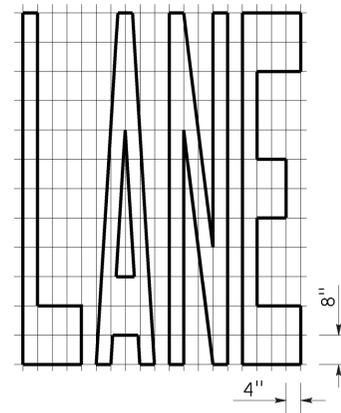
NOTE:
Minor variations in dimensions may be accepted by the Engineer.

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

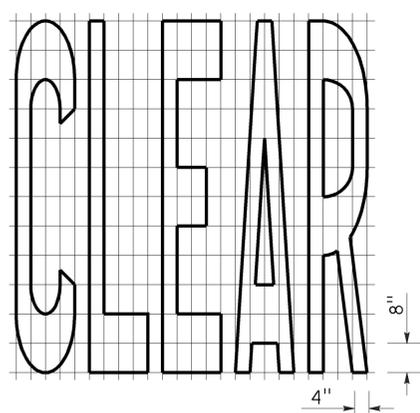
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

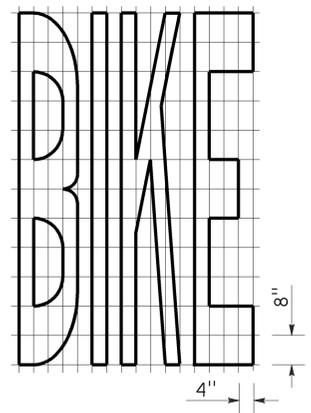
TO ACCOMPANY PLANS DATED 2-9-15



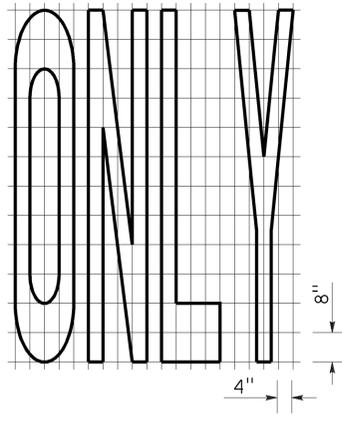
A=24 ft²



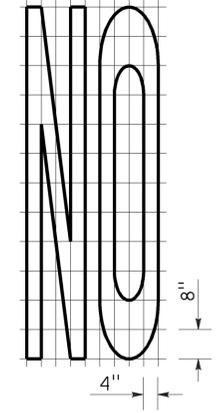
A=27 ft²



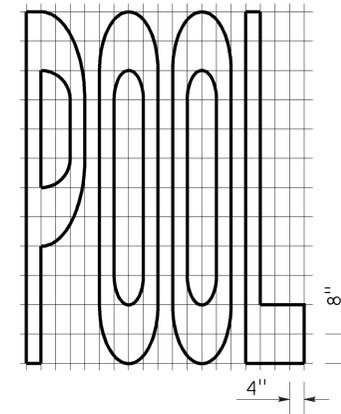
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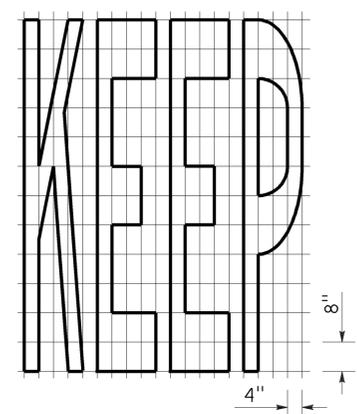
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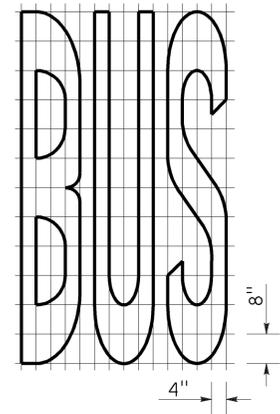
A=14 ft²



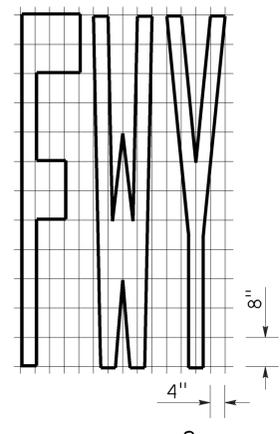
A=23 ft²



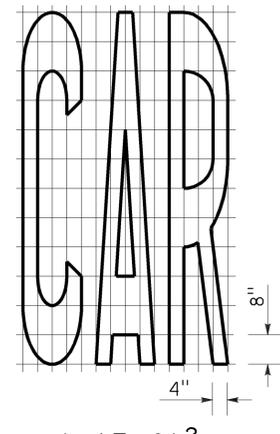
A=24 ft²



A=20 ft²

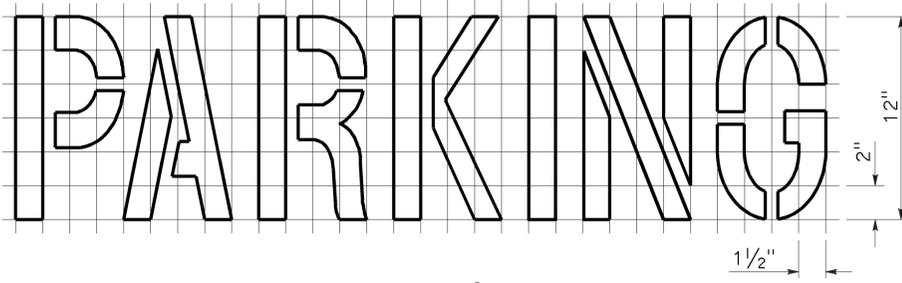
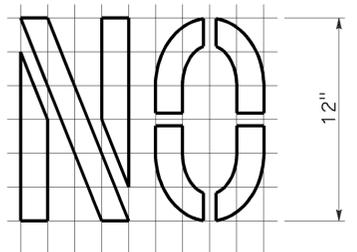


A=16 ft²

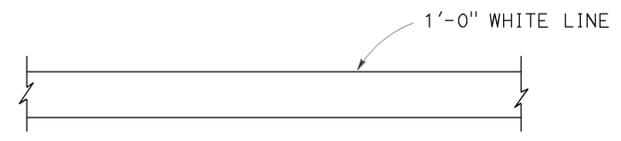


A=17 ft²

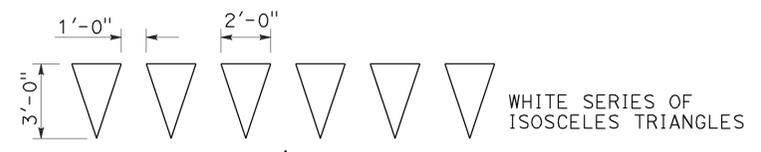
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL
YIELD LINE

NOTES:

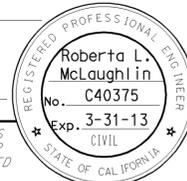
1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. 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.

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

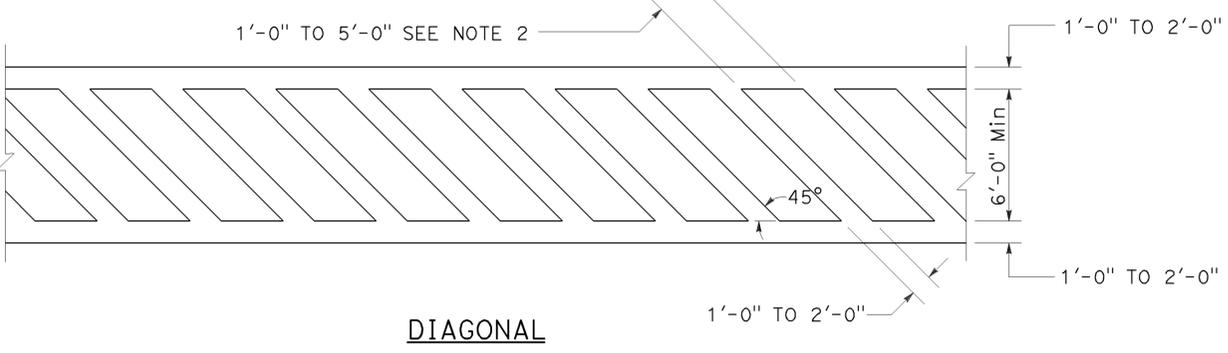
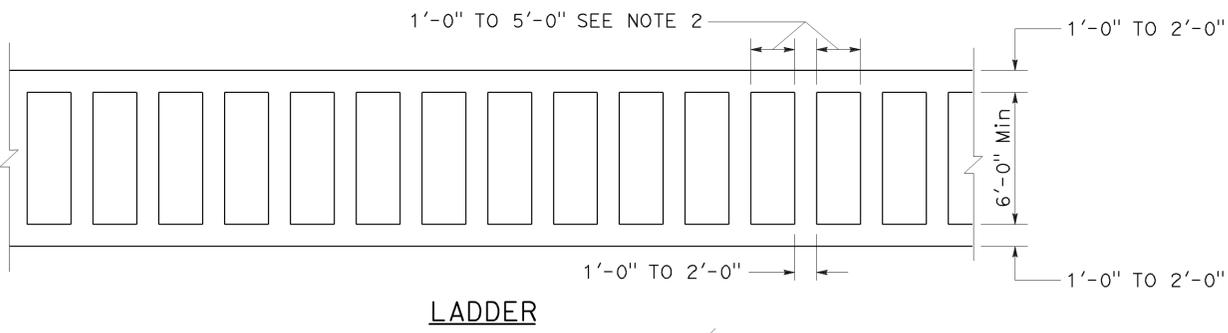
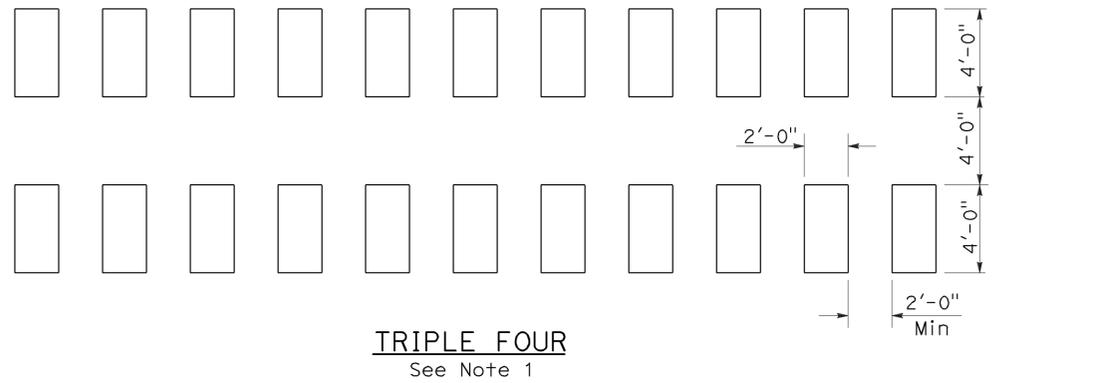
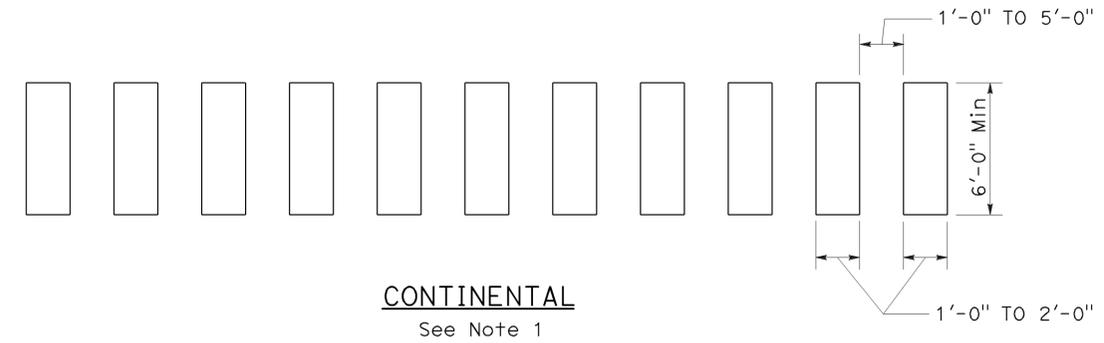
RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24E

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	21	31

 REGISTERED CIVIL ENGINEER		
July 20, 2012 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		

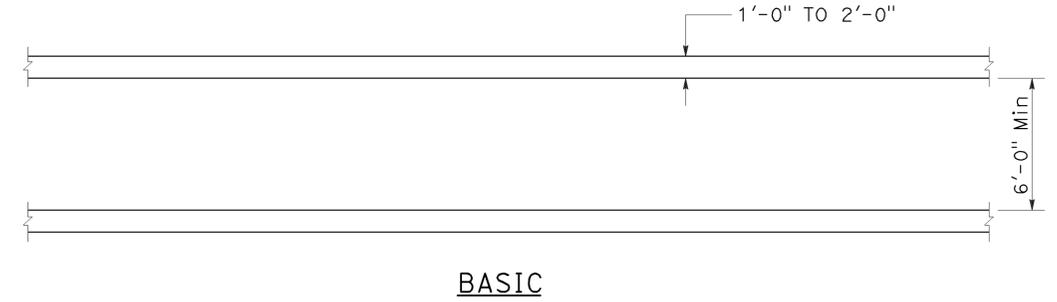
TO ACCOMPANY PLANS DATED 2-9-15



HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



BASIC

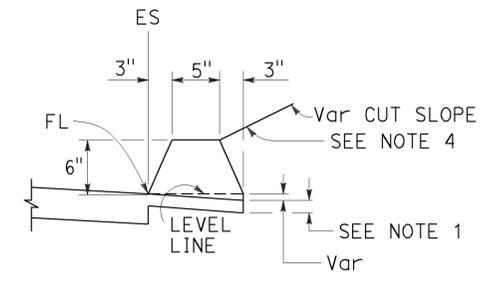
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
CROSSWALKS**

NO SCALE
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

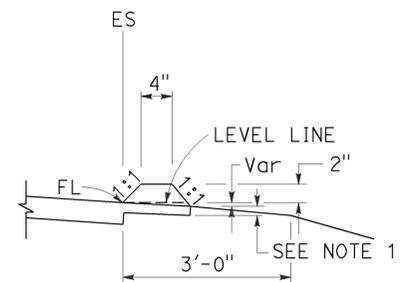
2010 REVISED STANDARD PLAN RSP A24F



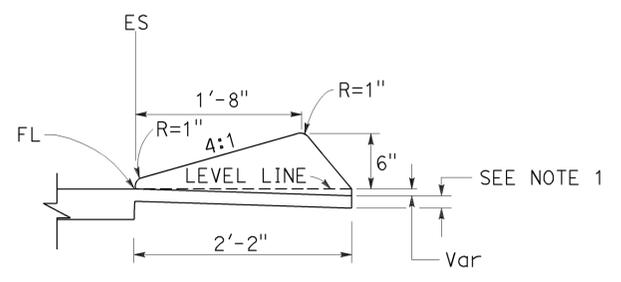
TO ACCOMPANY PLANS DATED 2-9-15



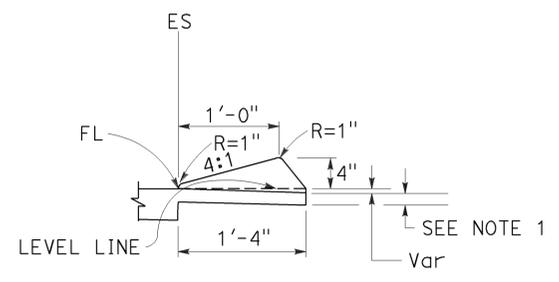
TYPE A
See Note 3



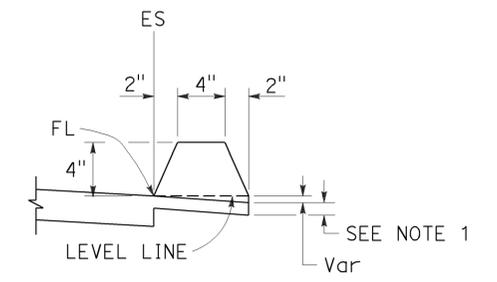
TYPE C



TYPE D

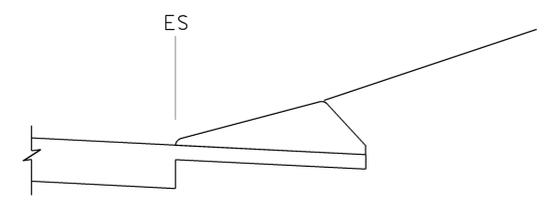


TYPE E

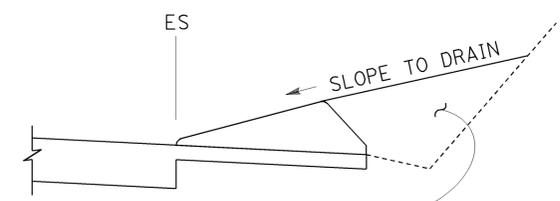


TYPE F
See Note 5

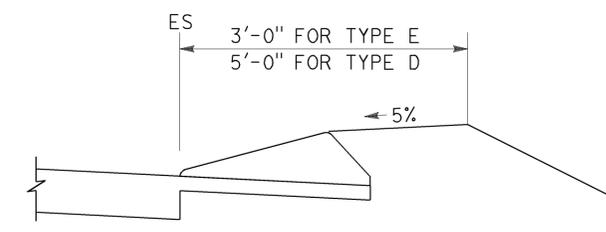
DIKES



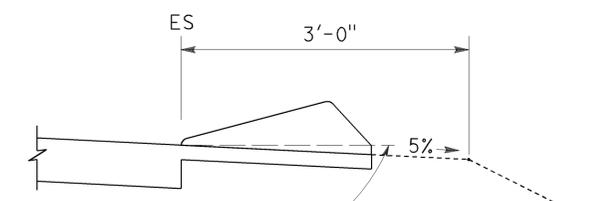
CASE C-1
Cut Slope



CASE C-2
Cut Slope



CASE F



CASE R
See Note 2

TYPE D AND E BACKFILL DETAILS

NOTES:

- For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
- Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
- Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
- Fill and compact with excavated material to top of dike.
- Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

DIKE QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT DIKES

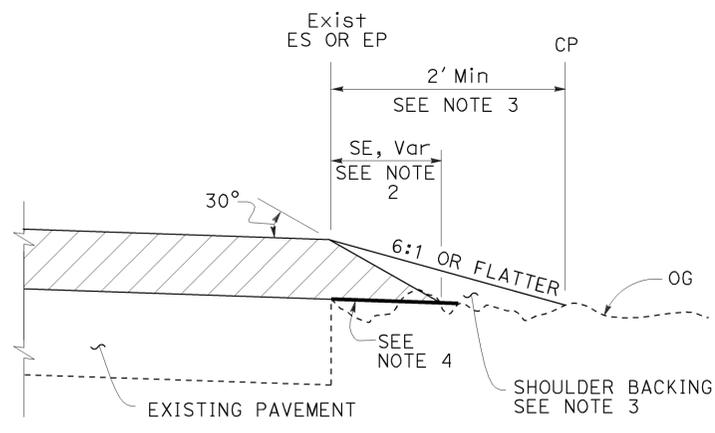
NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

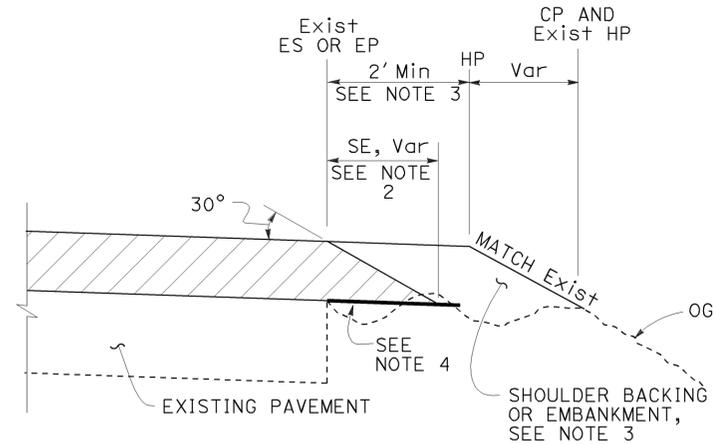
REVISED STANDARD PLAN RSP A87B

2010 REVISED STANDARD PLAN RSP A87B

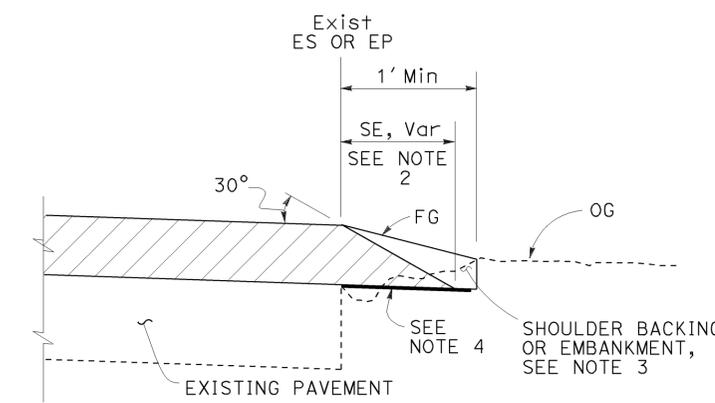
2010 REVISED STANDARD PLAN RSP P75



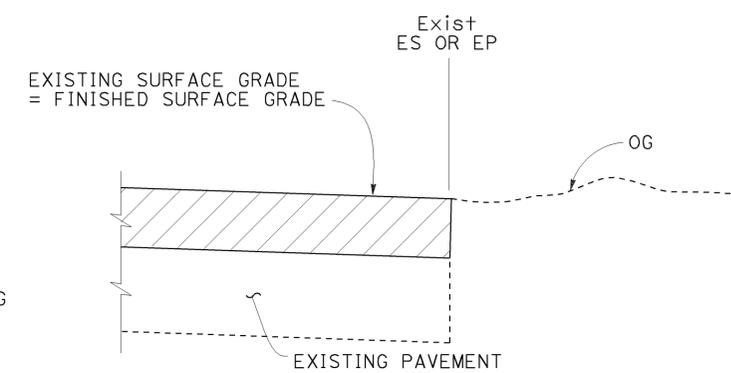
CASE A
Safety Edge



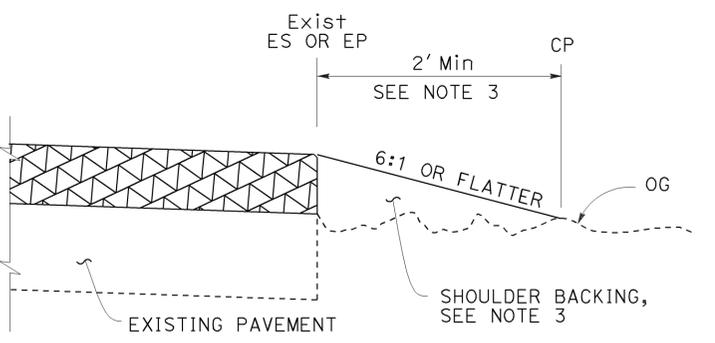
CASE B
Safety Edge



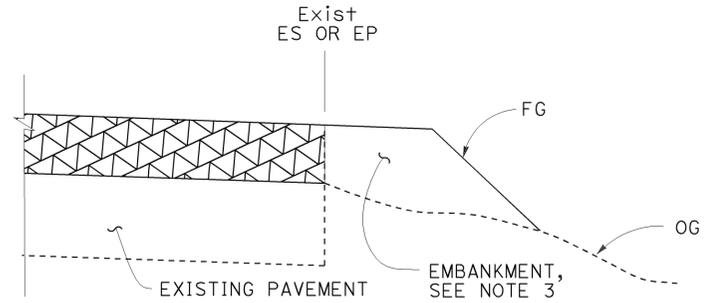
CASE C
Safety Edge



CASE D
Vertical Edge



CASE E
Vertical Edge



CASE F
Vertical Edge
* See Table A and Revised Std Plan RSP P74

- NOTES:**
- For limits of safety edge and vertical edge treatments, see Revised Standard Plan RSP P74.
 - Details shown for HMA overlay thickness less than 0.43'. See Detail "A" for HMA overlay thickness more than 0.43' or concrete overlay.
 - For locations and limits of shoulder backing or embankment see project plans.
 - Grade existing ground to place safety edge. 1' minimum width
 - Safety edge transverse joint must match overlay transverse joint. End of #6 longitudinal bar must be 2" ± 1/2" clear from transverse joint.
 - Safety edge is not needed in the area of MGS, barrier, right turn lane and acceleration lane. See Revised Standard Plan RSP P74.

LEGEND:

- HMA OVERLAY
- HMA OR CONCRETE OVERLAY
- CONCRETE OVERLAY

ABBREVIATIONS:

- SE SAFETY EDGE
- TT TOTAL THICKNESS OF SE

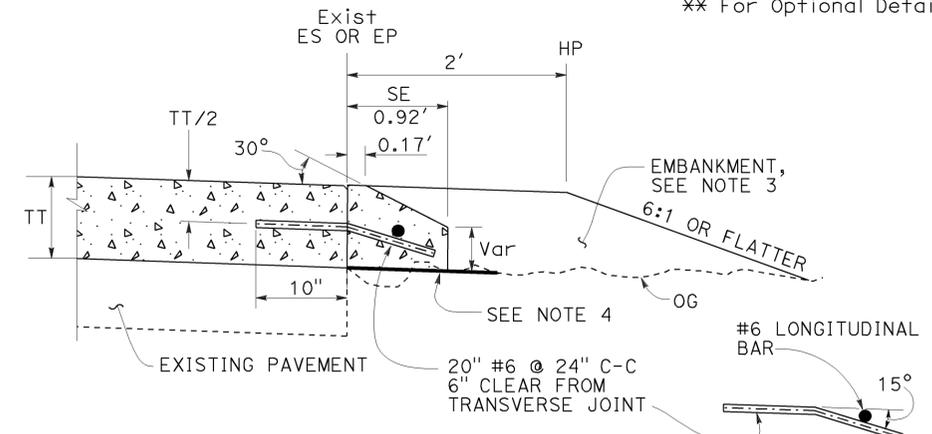
TABLE A
EDGE TREATMENT FOR VARIOUS OVERLAY THICKNESS AND CONDITIONS

FIELD CONDITION	OVERLAY THICKNESS	
	LESS THAN 0.15'	0.15' OR MORE
Exist SLOPE 6:1 OR FLATTER	CASE E	CASE A
Exist SLOPE 3:1 TO 6:1	CASE E	CASE B
Exist SLOPE STEEPER THAN 3:1	CASE F	CASE F
CUT SECTION (REPLACE, COLD PLANE, MILL PAVEMENT)	CASE D	CASE C

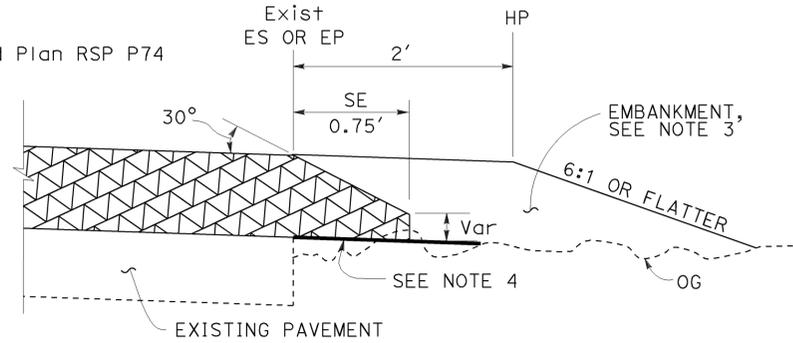
ADDITIONAL HMA OR CONCRETE QUANTITIES FOR SE/SIDE/MILE

TYPICAL CROSS SECTION	TT	TOTAL ADDITIONAL MATERIAL FOR SE/SIDE/MILE		
		HMA (TON)	CONCRETE (CY)*	CONCRETE (CY)**
	0.15'	NA	NA	NA
	0.20'	13.7	NA	NA
	0.30'	30.9	NA	NA
	0.40'	54.9	NA	NA
	0.45'	69.4	NA	NA
	0.50'	84.2	NA	NA
	0.60'	113.9	NA	NA
	0.70'	143.6	70.9	94.2
	0.80'	173.3	85.6	112.2
	0.90'	203.0	100.3	130.2
1.00'	232.7	114.9	148.2	
1.10'	262.4	129.6	166.2	
1.20'	292.1	144.3	184.2	

* For Detail "A"
** For Optional Detail "A"



OPTIONAL DETAIL "A"
For concrete overlay
See Note 5



DETAIL "A"
For HMA overlay thickness more than 0.43' or concrete overlay

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT EDGE TREATMENTS - OVERLAYS
NO SCALE

TO ACCOMPANY PLANS DATED 2-9-15

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

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.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	25	31

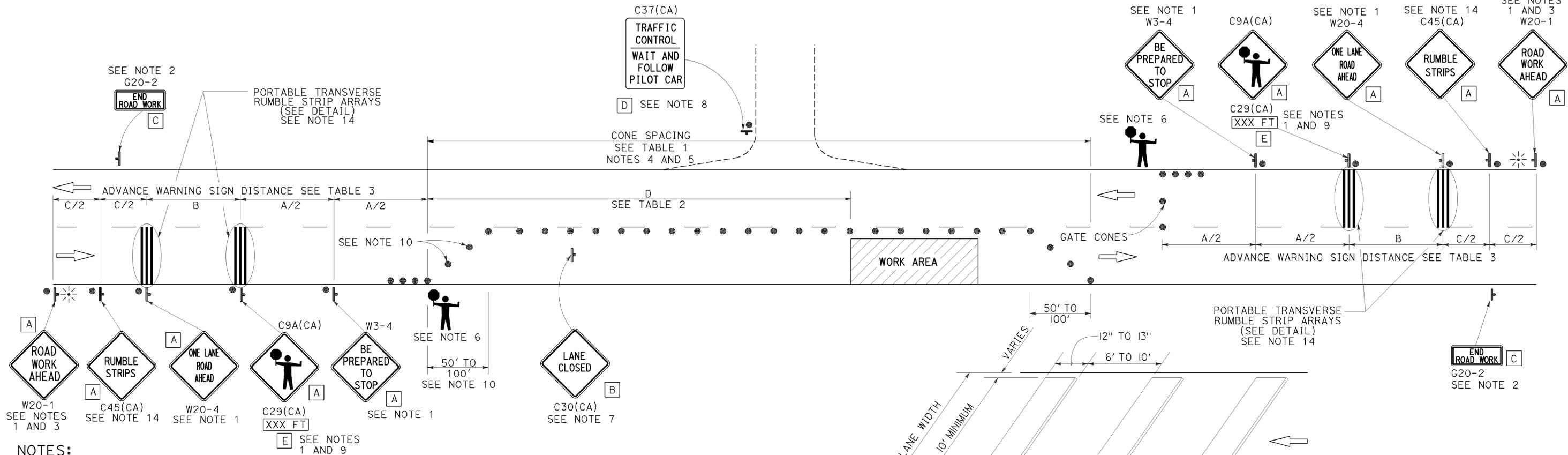
Devinder Singh
 REGISTERED CIVIL ENGINEER
 October 17, 2014
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Devinder Singh
 No. C50470
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA

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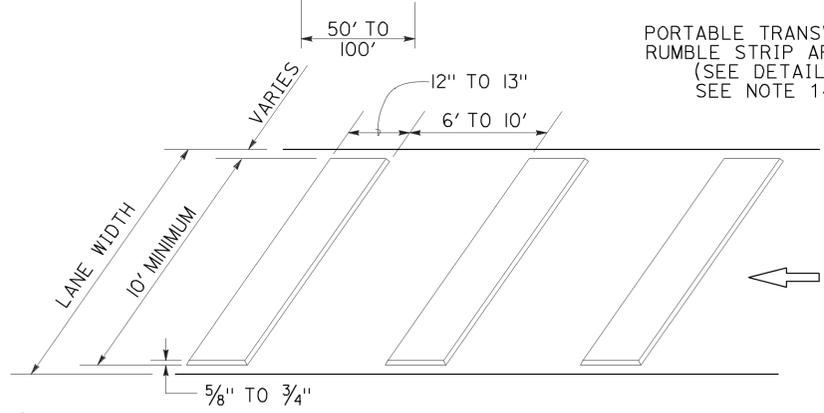
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 2-9-15



NOTES:

- Each advance warning sign in each direction of travel 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, as appropriate, shall be placed at the end of the lane control 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 W20-4 sign for the first advance warning sign.
- 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.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions



PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

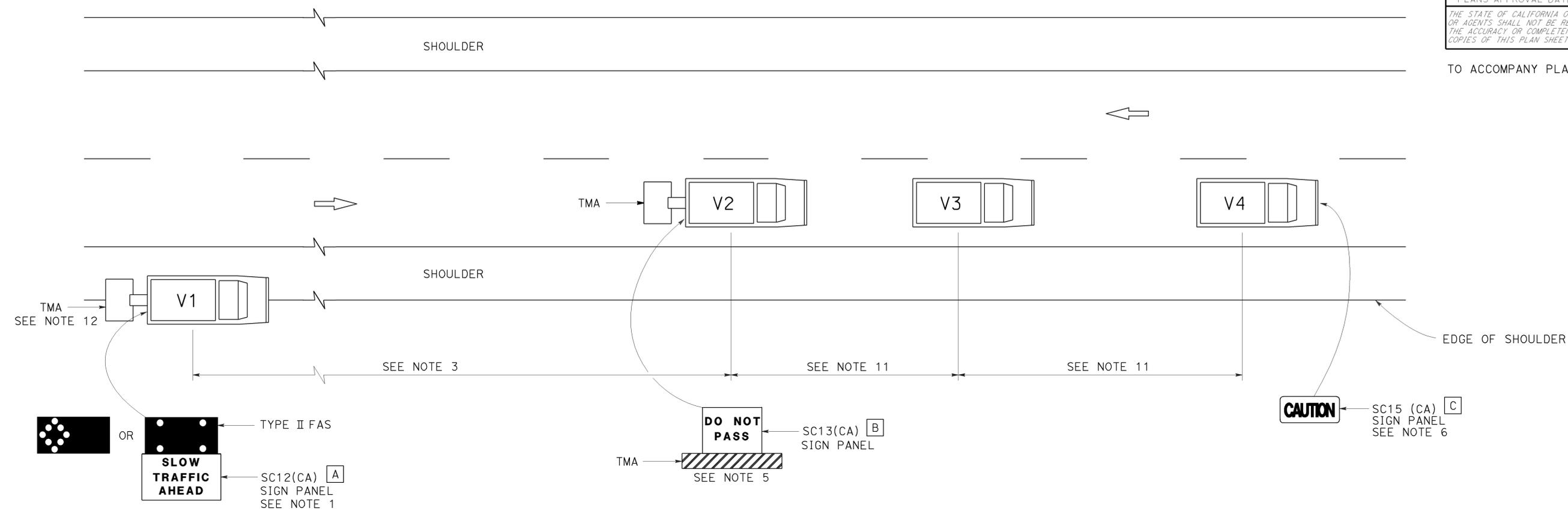
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 TWO LANE CONVENTIONAL
 HIGHWAYS**
 NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

TO ACCOMPANY PLANS DATED 2-9-15



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.

2010 REVISED STANDARD PLAN RSP T17

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	27	31

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 2-9-15

SOFFIT AND WALL MOUNTED LUMINAIRES

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

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	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

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

NOTES:

- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
- 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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	28	31

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 2-9-15

CONDUIT

NEW	EXISTING	
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
---C---	---c---	COMMUNICATION CONDUIT
---T---	---t---	TELEPHONE CONDUIT
---F---	---f---	FIRE ALARM CONDUIT
---FO---	---fo---	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

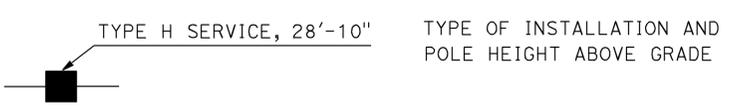
SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN 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)
		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

SERVICE EQUIPMENT

NEW	EXISTING	
---OH---	---oh---	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

POLE-MOUNTED SERVICE DESIGNATION



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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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

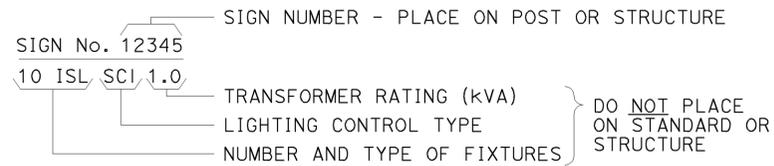
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

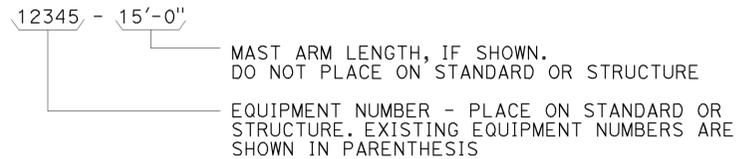
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

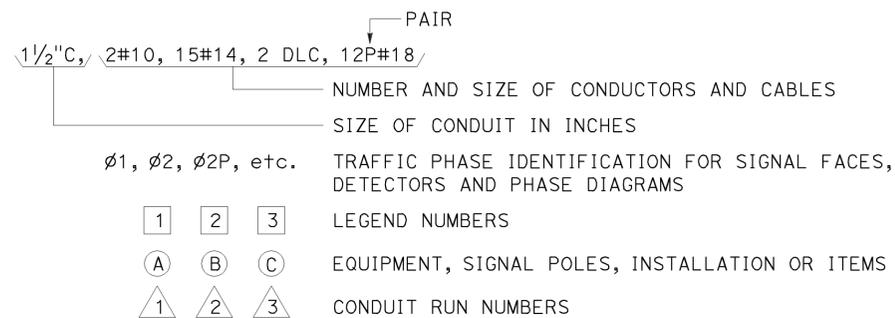
ILLUMINATED SIGN IDENTIFICATION NUMBER:



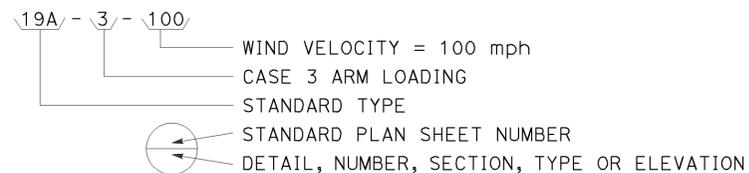
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



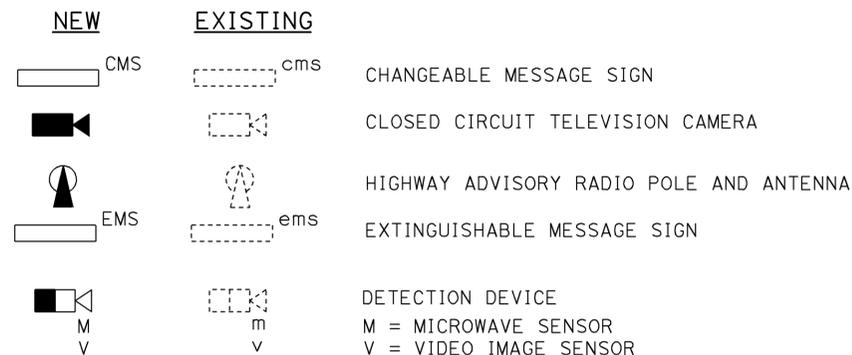
CONDUIT AND CONDUCTOR IDENTIFICATION:



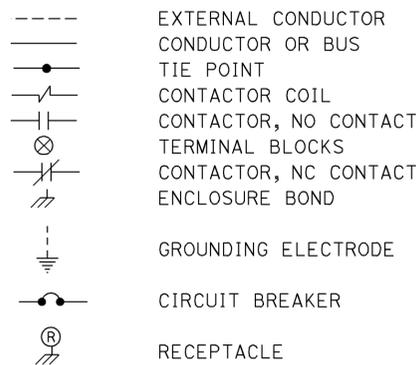
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



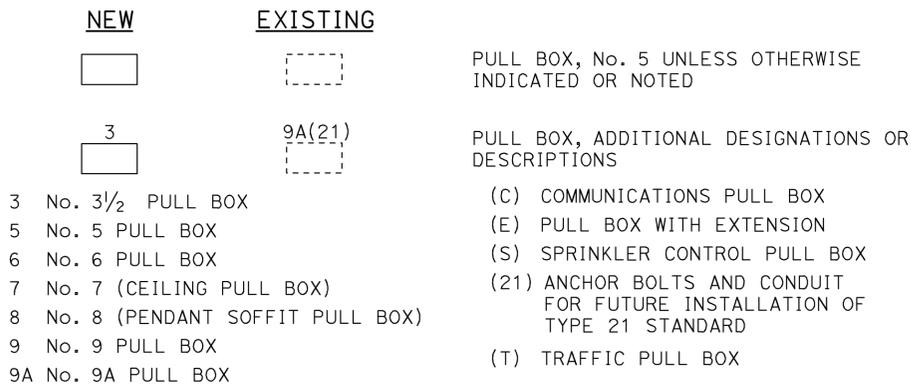
MISCELLANEOUS EQUIPMENT



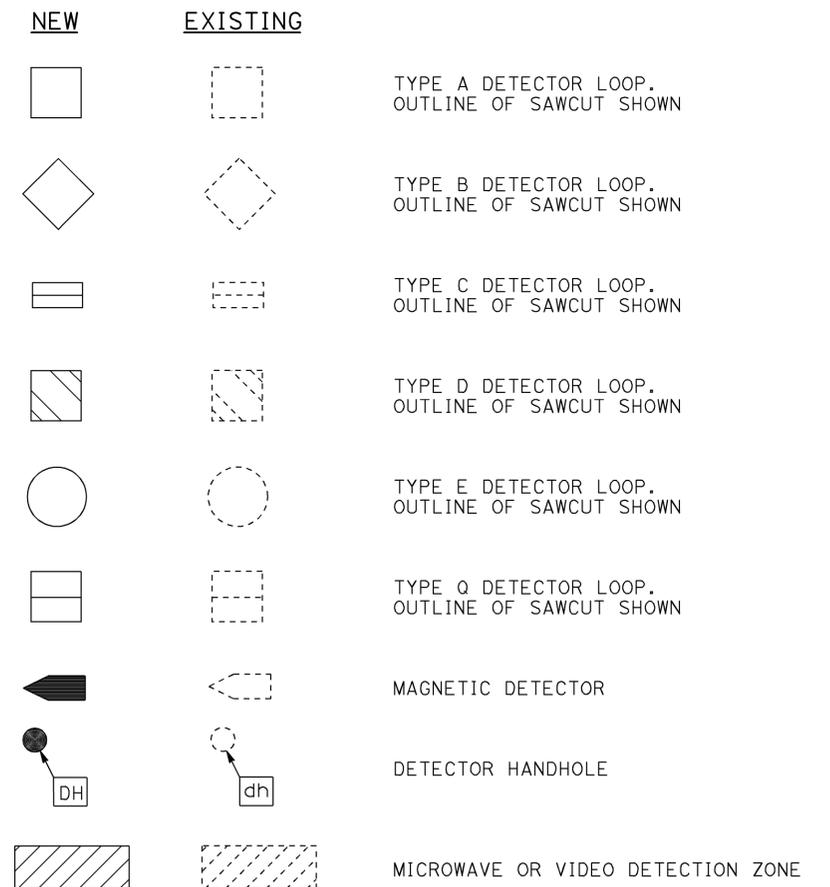
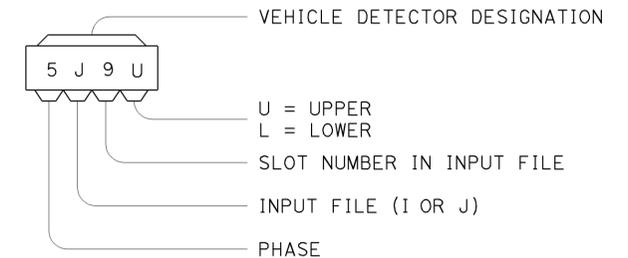
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

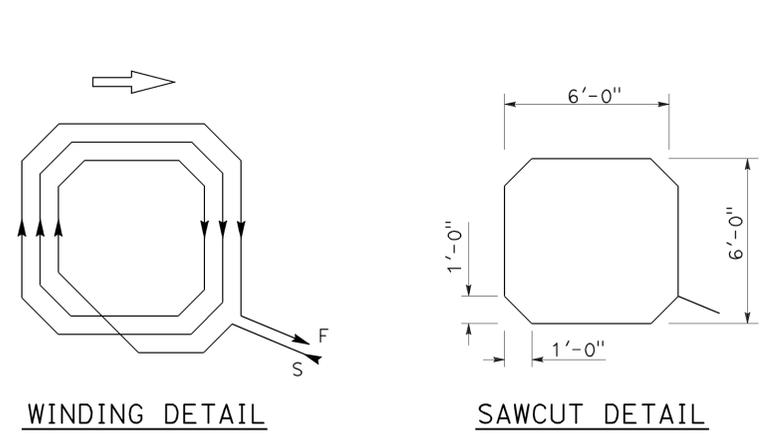
2010 REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	30	31

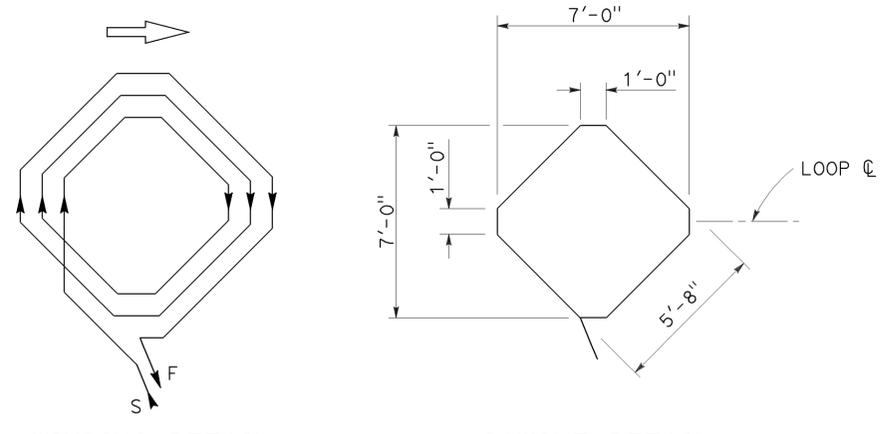
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

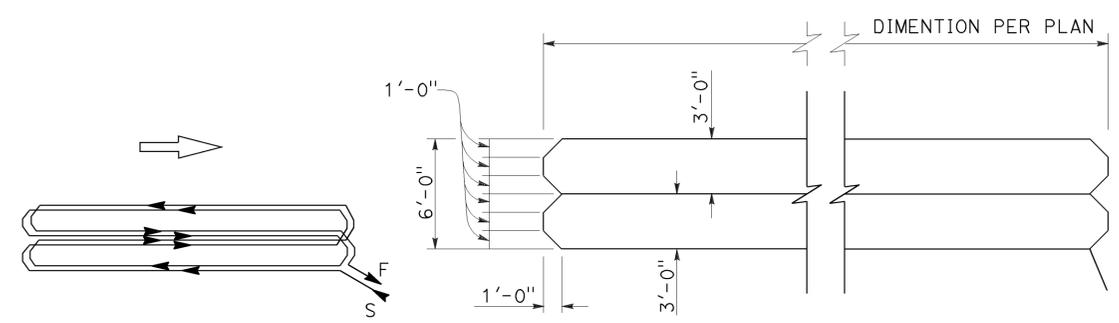
TO ACCOMPANY PLANS DATED 2-9-15



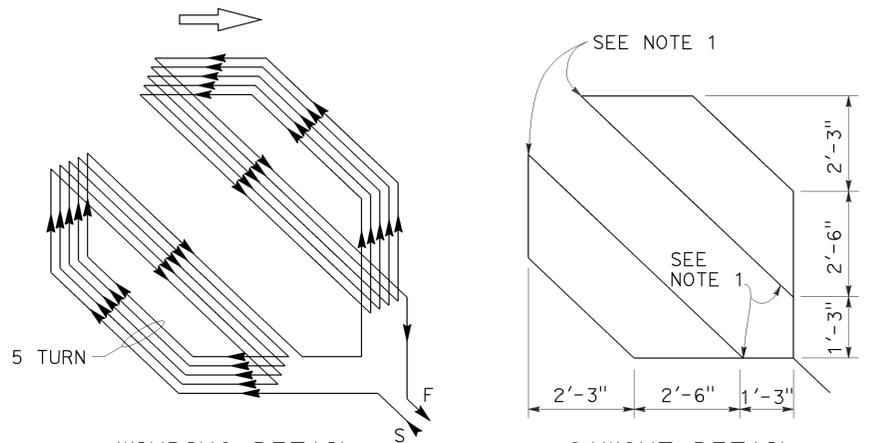
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



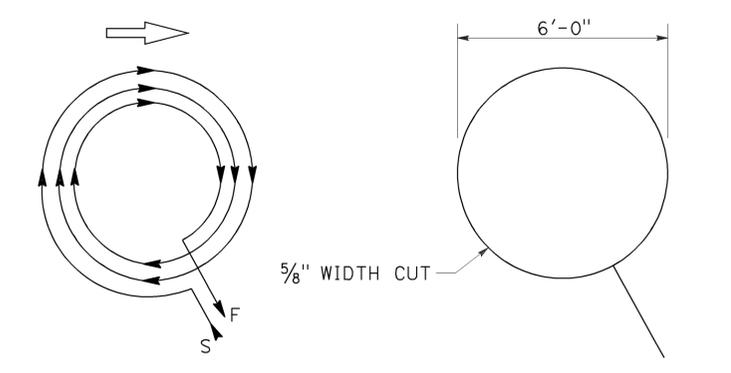
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



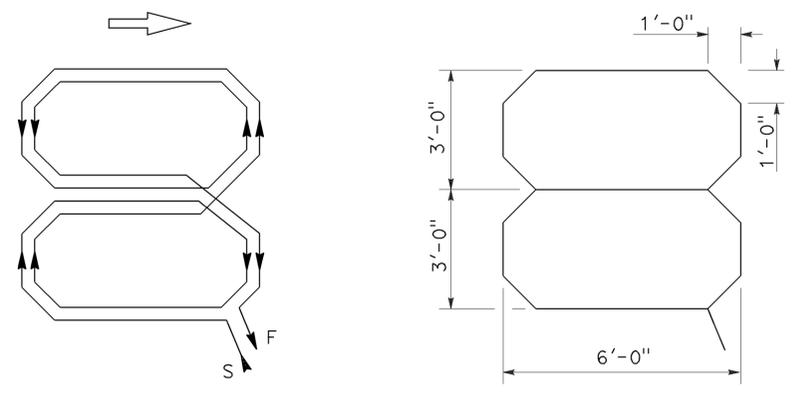
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



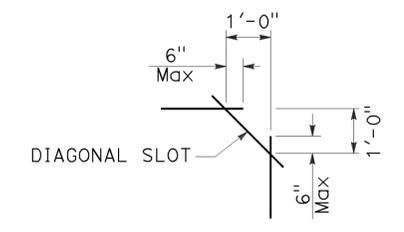
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



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**

- 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.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(DETECTORS)**
NO SCALE

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

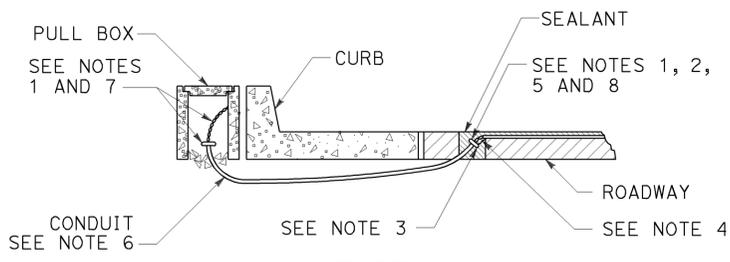
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Ama	88	15.0/32.3	31	31

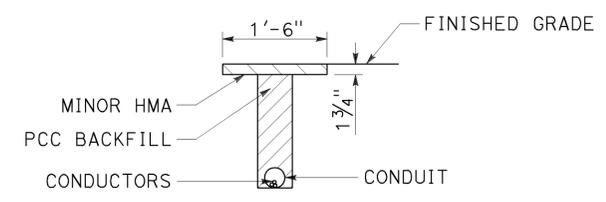
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
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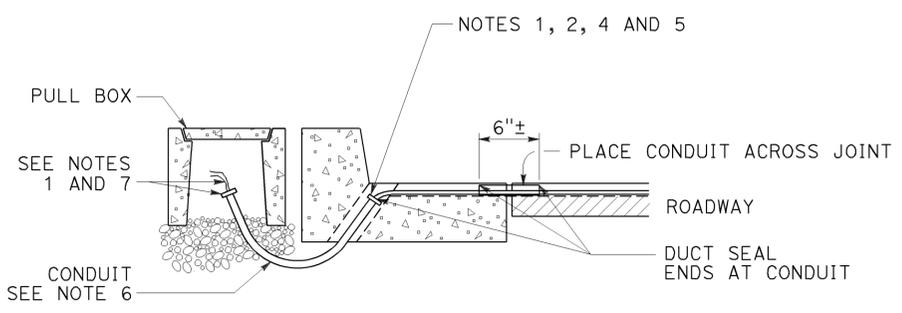
TO ACCOMPANY PLANS DATED 2-9-15



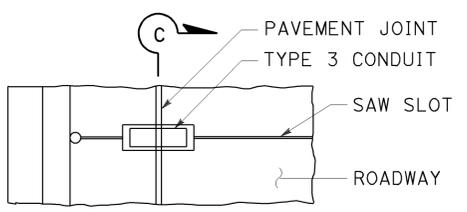
**TYPE A
CURB TERMINATION DETAIL**



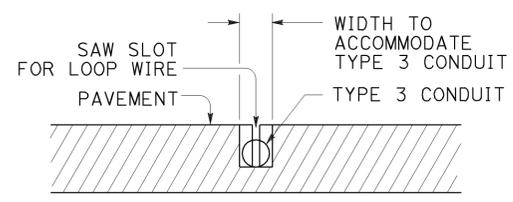
**"T" TRENCH
DETAIL T**



CROSS SECTION

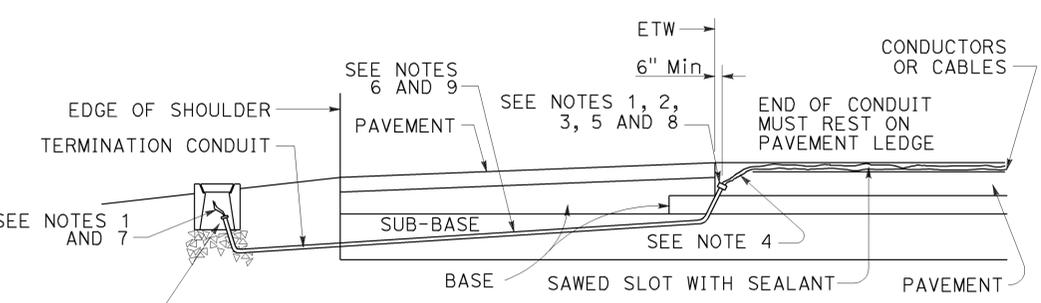


PLAN VIEW



SECTION C-C

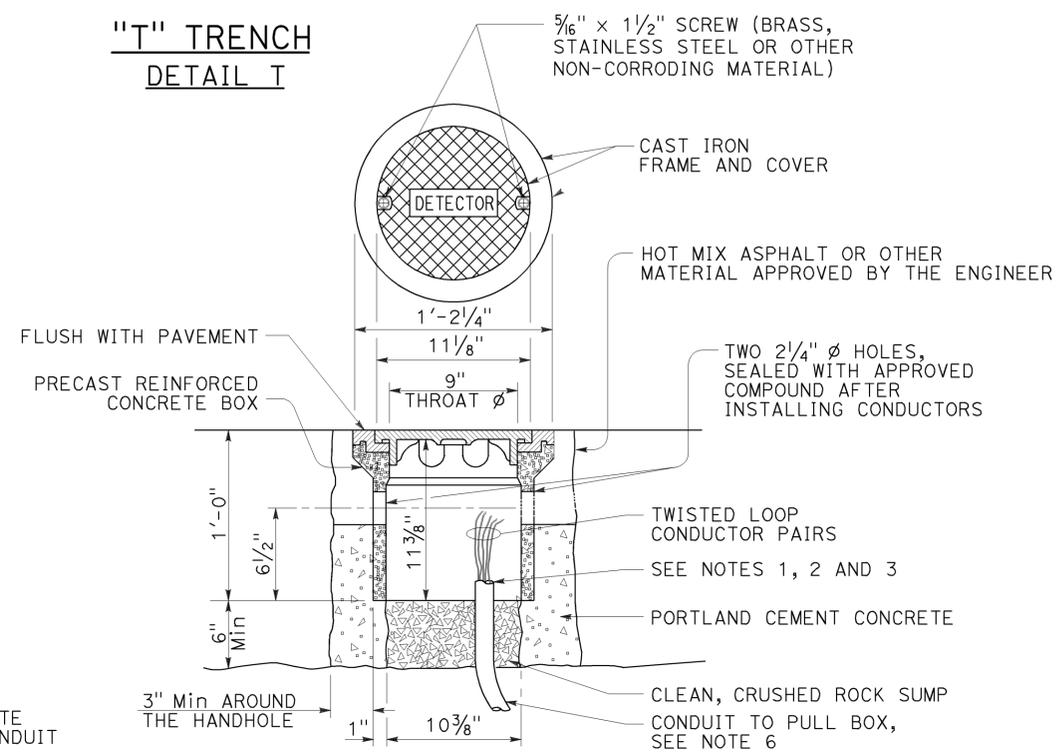
**TYPE B
CURB TERMINATION DETAIL**



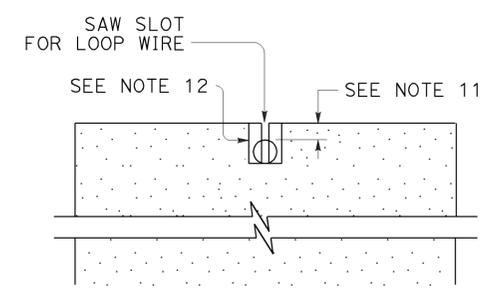
CROSS SECTION



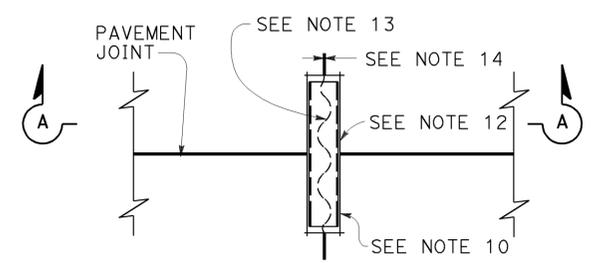
**PLAN VIEW
SHOULDER TERMINATION DETAILS**



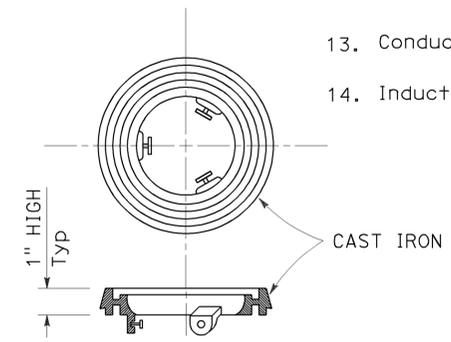
DETECTOR HANDHOLE DETAIL



SECTION A-A



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



LOCKING GRADE RING

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- | | |
|-----------------|-----------------|
| Conduit size | Loop conductors |
| 1"C minimum | 1 to 2 pairs |
| 1 1/2"C minimum | 3 to 4 pairs |
| 2"C minimum | 5 or more pairs |
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(CURB TERMINATION
AND HANDHOLE)**
NO SCALE

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

REVISED STANDARD PLAN RSP ES-5D

2010 REVISED STANDARD PLAN RSP ES-5D