

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	101	164

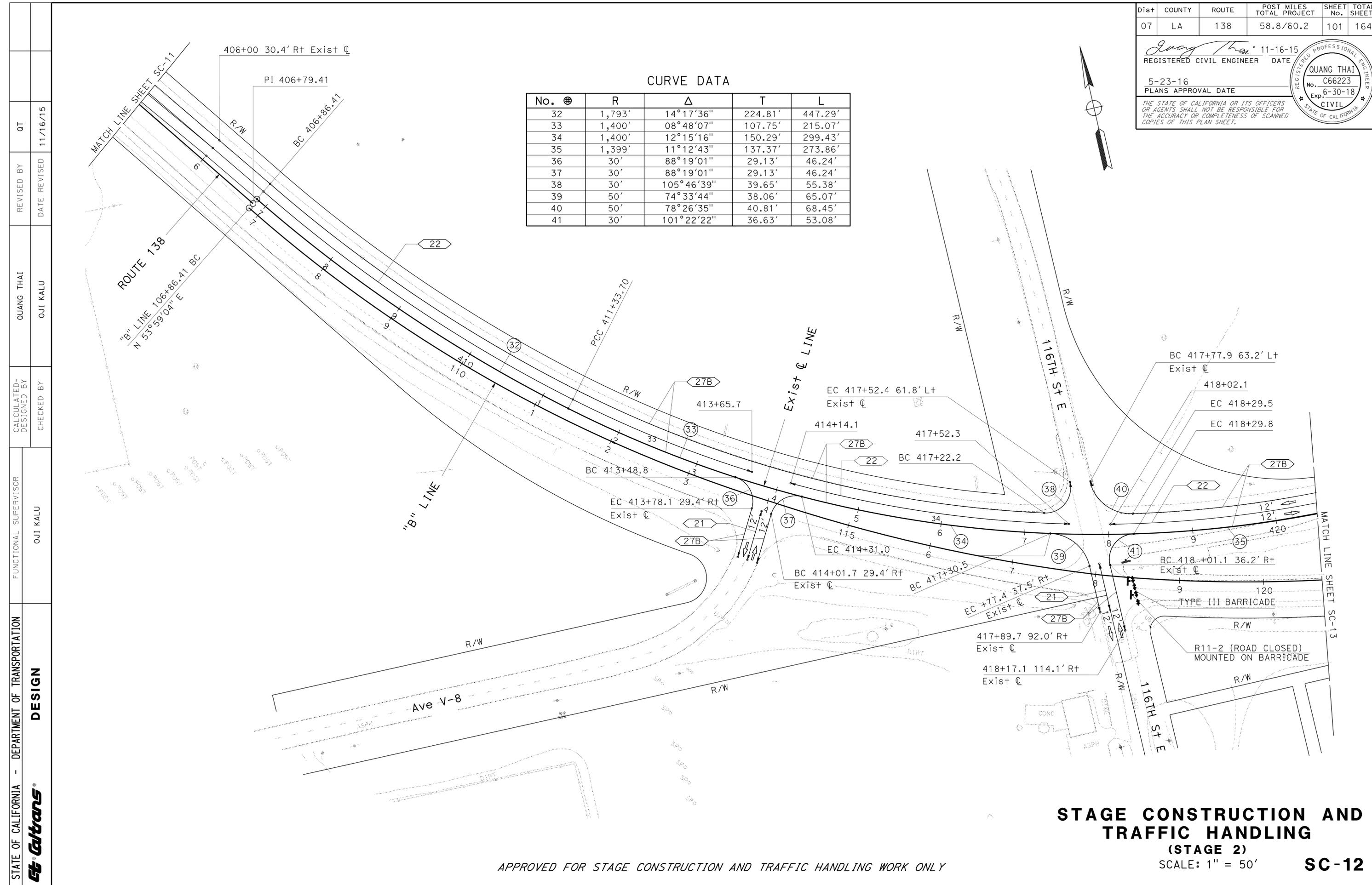
Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

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
 QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA

CURVE DATA

No. ⊕	R	Δ	T	L
32	1,793'	14° 17' 36"	224.81'	447.29'
33	1,400'	08° 48' 07"	107.75'	215.07'
34	1,400'	12° 15' 16"	150.29'	299.43'
35	1,399'	11° 12' 43"	137.37'	273.86'
36	30'	88° 19' 01"	29.13'	46.24'
37	30'	88° 19' 01"	29.13'	46.24'
38	30'	105° 46' 39"	39.65'	55.38'
39	50'	74° 33' 44"	38.06'	65.07'
40	50'	78° 26' 35"	40.81'	68.45'
41	30'	101° 22' 22"	36.63'	53.08'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: OJI KALU
 CALCULATED/DESIGNED BY: OJI KALU
 CHECKED BY:
 QUANG THAI: OJI KALU
 REVISED BY: OJI KALU
 DATE REVISED: 11/16/15
 QT: 11/16/15

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-12

LAST REVISION | DATE PLOTTED => 28-JUL-2016 TIME PLOTTED => 15:48

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	102	164

Registered Professional Engineer
QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA

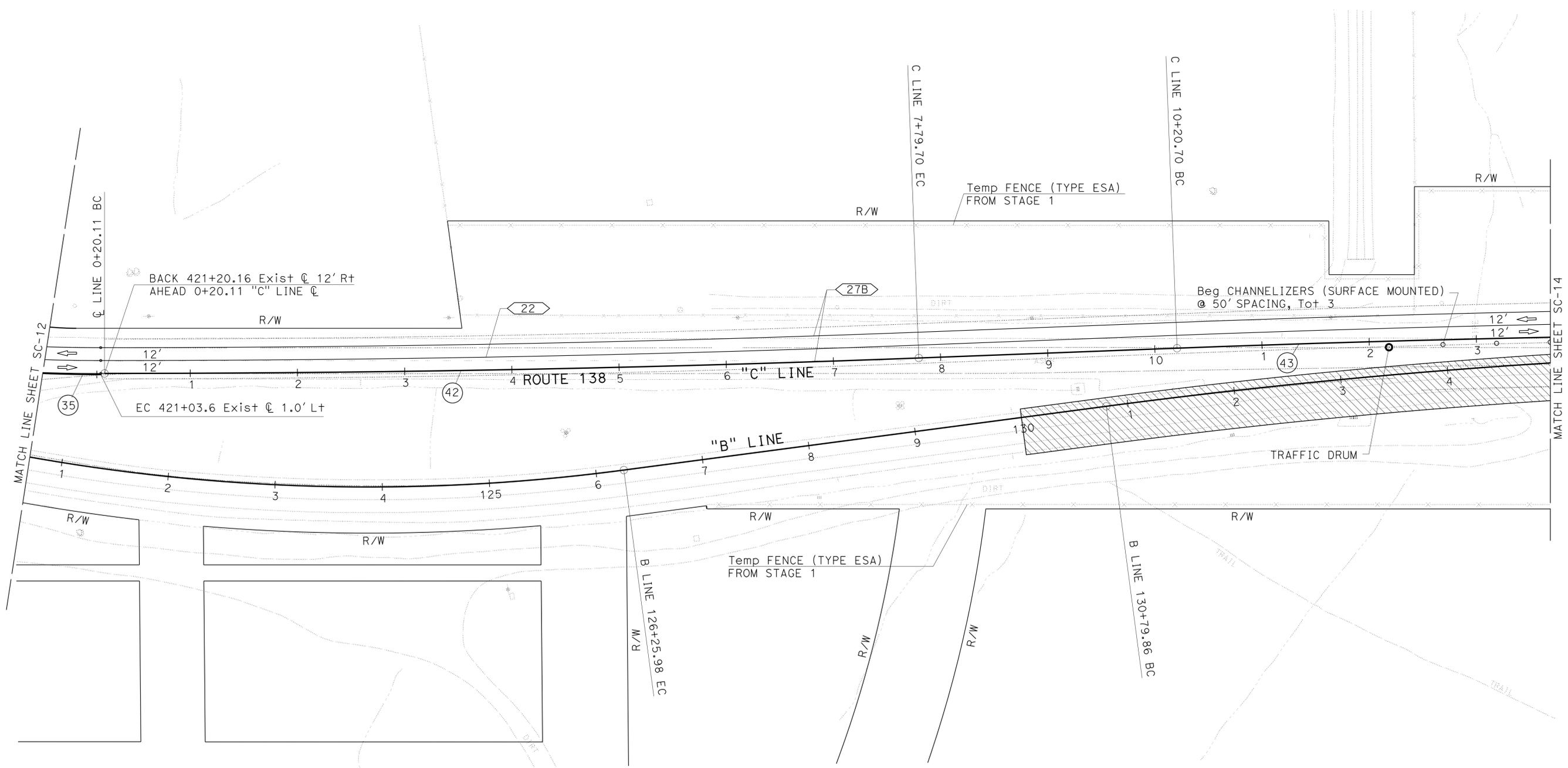
11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

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.



CURVE DATA

No. Ⓢ	R	Δ	T	L
35	1,399'	11°12'43"	137.37'	273.86'
42	20,000'	02°11'11"	381.62'	763.15'
43	20,000'	02°10'34"	379.87'	759.65'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 OJI KALU

CALCULATED/DESIGNED BY
 CHECKED BY

QUANG THAI
 OJI KALU

REVISED BY
 DATE REVISED

QT
 11/16/15

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	103	164

Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE

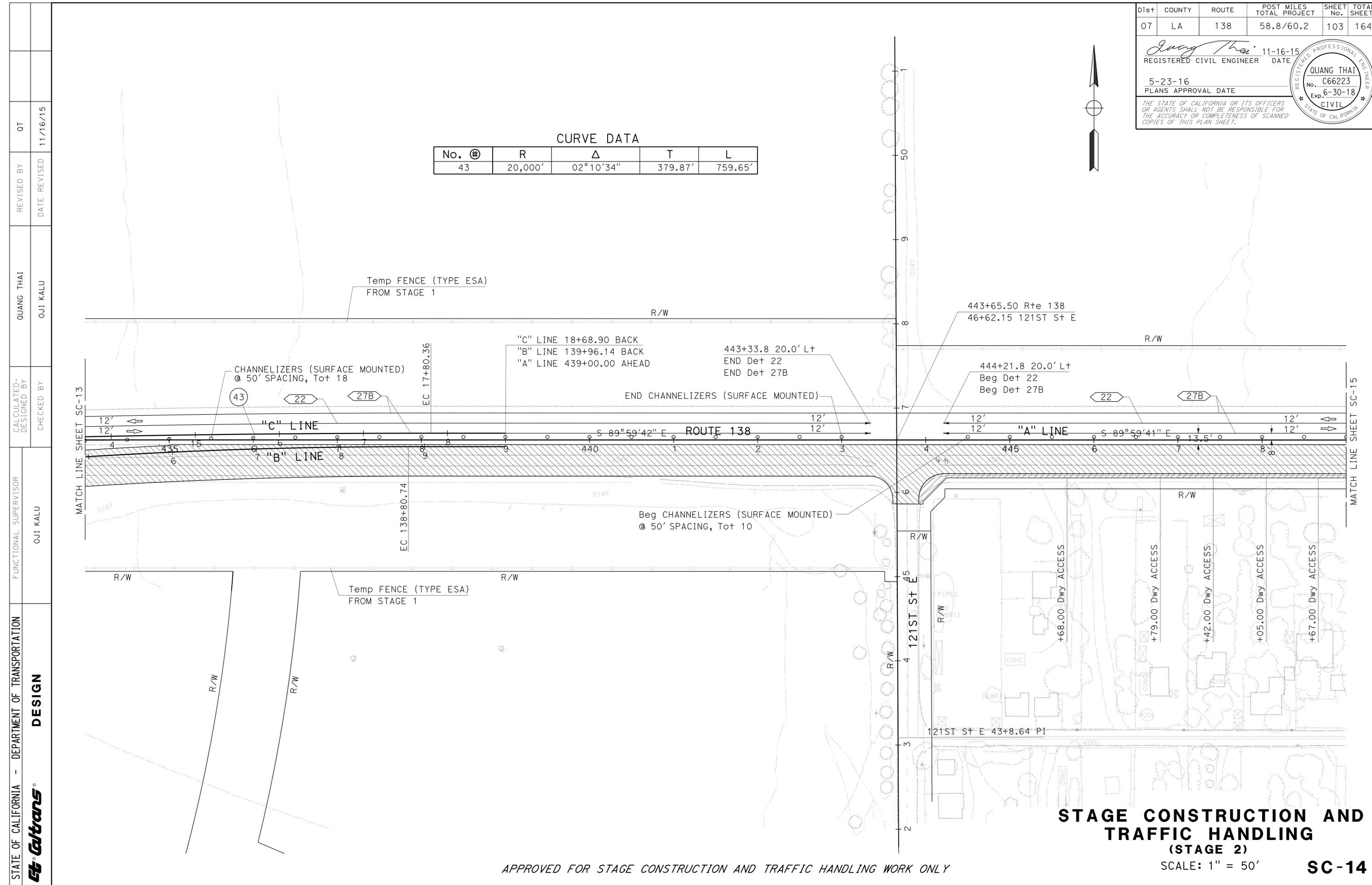
5-23-16
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA

CURVE DATA

No. Ⓢ	R	Δ	T	L
43	20,000'	02°10'34"	379.87'	759.65'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR OJI KALU
 CALCULATED/DESIGNED BY OJI KALU
 CHECKED BY OJI KALU
 QUANG THAI OJI KALU
 REVISED BY
 DATE REVISED 11/16/15
 QT

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-14

LAST REVISION DATE PLOTTED => 28-JUL-2016
 11-16-15 TIME PLOTTED => 15:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	104	164

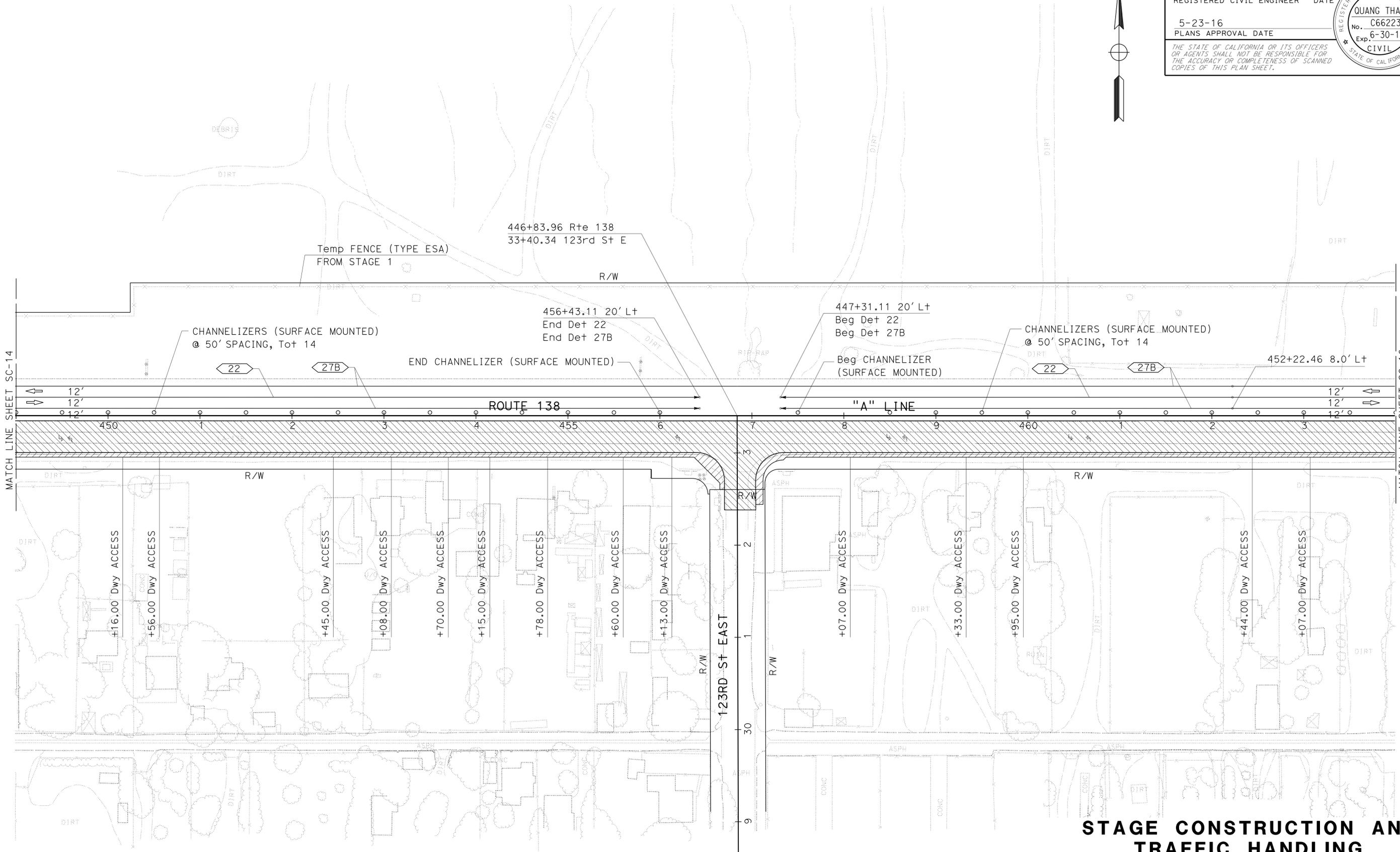
Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	QUANG THAI	REVISOR	DATE
Caltrans	QUANG THAI	DESIGNED BY	11/16/15
DESIGN	OJI KALU	CHECKED BY	
FUNCTIONAL SUPERVISOR	OJI KALU		



APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
(STAGE 2)
 SCALE: 1" = 50'
SC-15

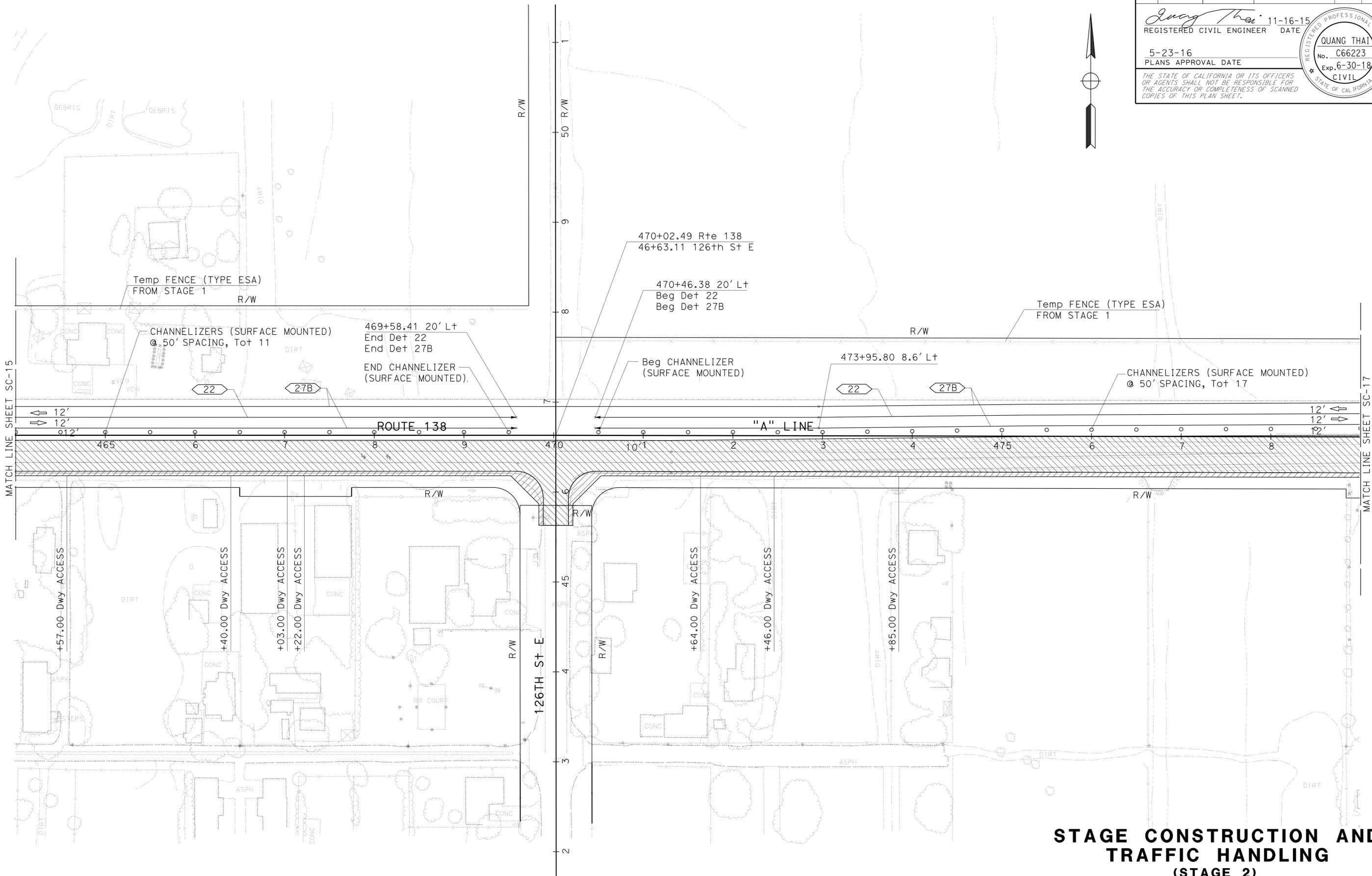
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: OJI KALU
 QUANG THAI: OJI KALU
 REVISIONS: (None)
 DESIGNED BY: (None)
 CHECKED BY: (None)
 DATE: 11/16/15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	105	164

11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 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.

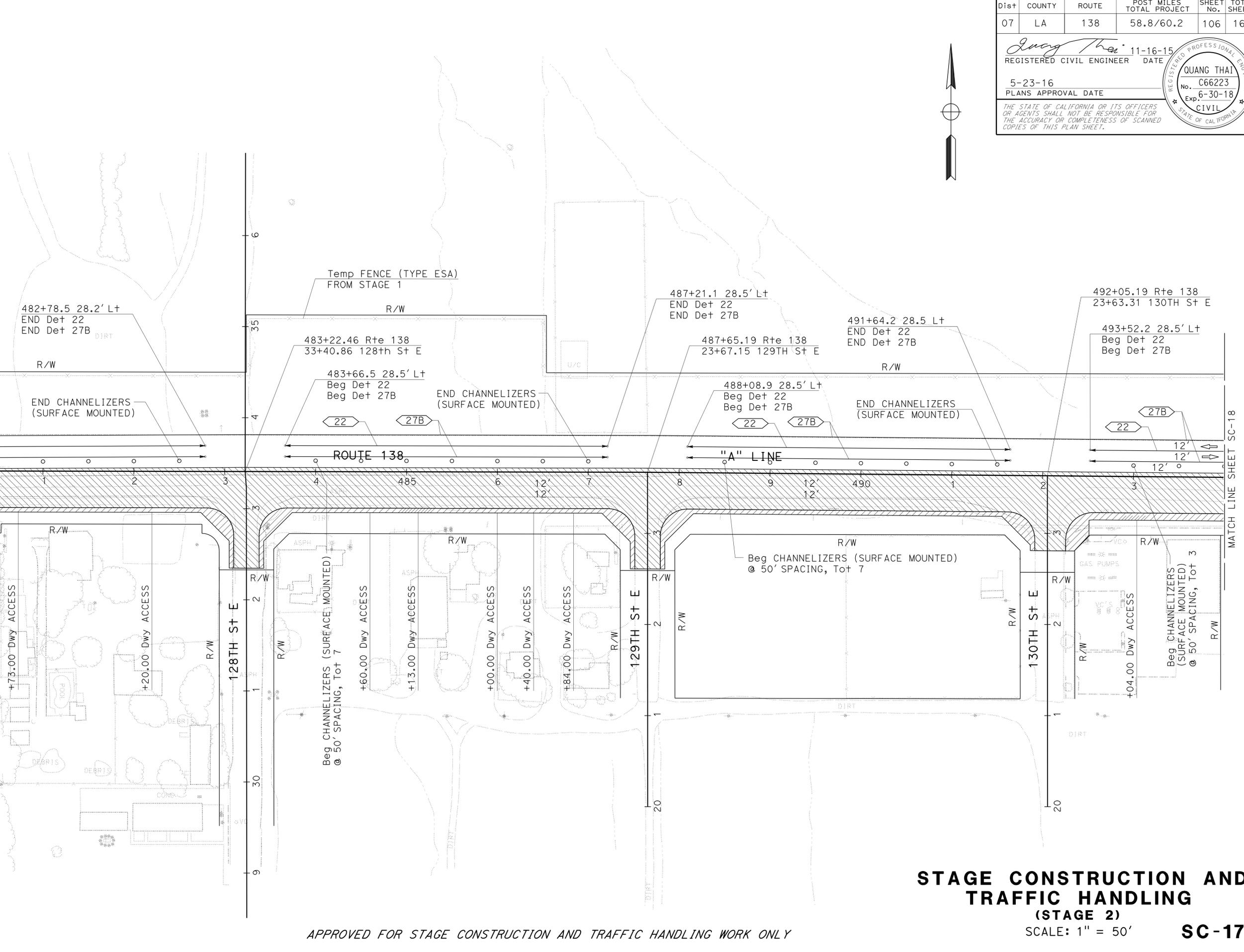
REGISTERED PROFESSIONAL ENGINEER
 QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA



APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-16

FUNCTIONAL SUPERVISOR	QUANG THAI	REVISOR	OT
CHECKED BY	OJI KALU	DATE REVISED	11/16/15
DESIGNED BY			
CALCULATED BY			



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	106	164

11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL

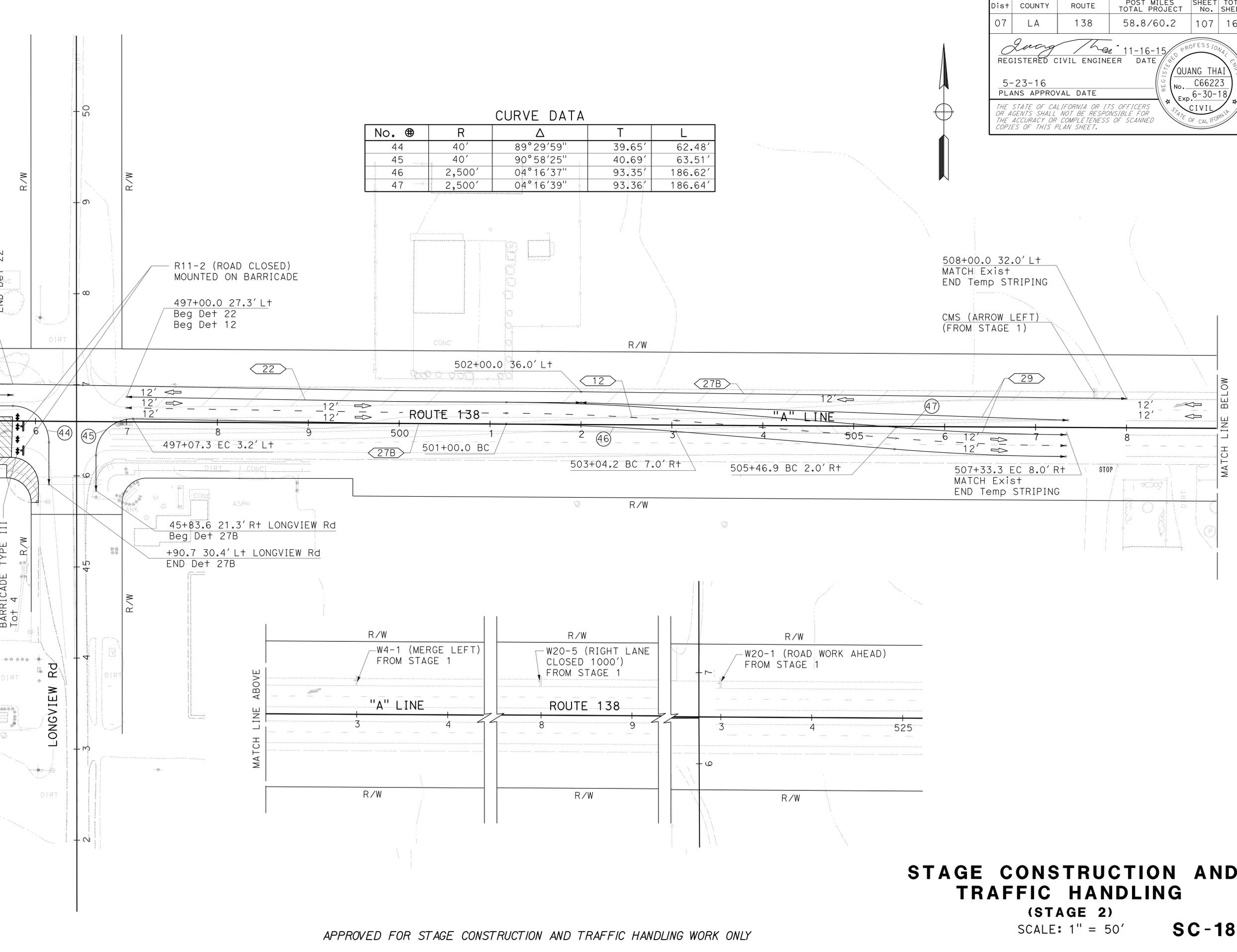
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STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-17

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FUNCTIONAL SUPERVISOR	QUANG THAI	REVISOR	QUANG THAI	DATE	11/16/15
CHECKED BY	OJI KALU	DATE REVISOR	OJI KALU	DATE	11/16/15
DESIGNED BY	OJI KALU	DATE			



CURVE DATA

No.	⊕	R	Δ	T	L
44		40'	89°29'59"	39.65'	62.48'
45		40'	90°58'25"	40.69'	63.51'
46		2,500'	04°16'37"	93.35'	186.62'
47		2,500'	04°16'39"	93.36'	186.64'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	107	164

Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE

5-23-16
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER

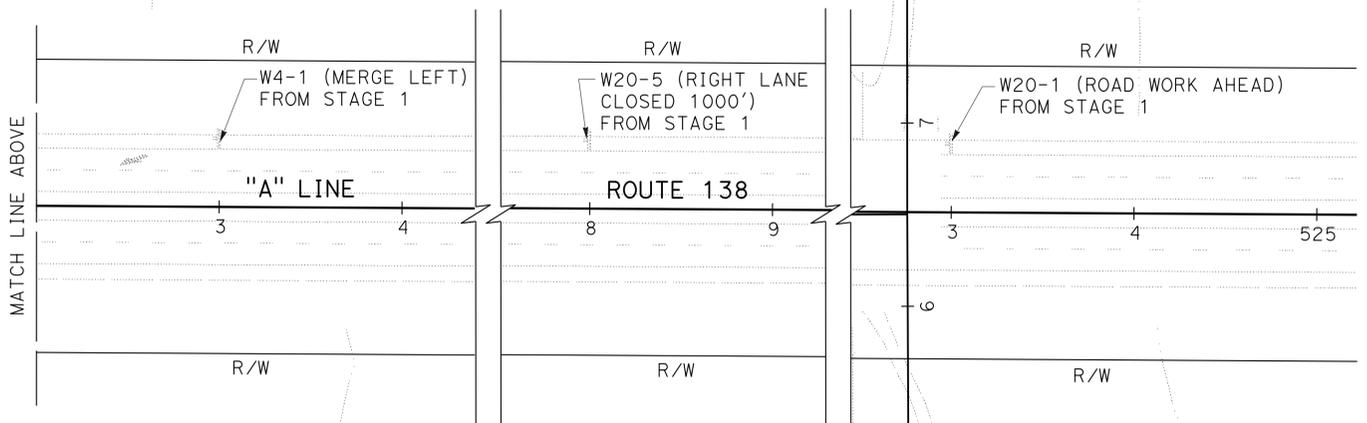
QUANG THAI

No. C66223

Exp. 6-30-18

CIVIL

STATE OF CALIFORNIA



STAGE CONSTRUCTION AND TRAFFIC HANDLING
 (STAGE 2)
 SCALE: 1" = 50'
SC-18

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 28-JUL-2016
 11-16-15 TIME PLOTTED => 15:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	108	164

Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE

5-23-16
 PLANS APPROVAL DATE

QUANG THAI
 No. C66223
 Exp. 6-30-18
 CIVIL
 STATE OF CALIFORNIA

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STAGE CONSTRUCTION QUANTITIES

SHEET NUMBER	TEMPORARY PAVEMENT DELINEATION												(N)	(N)	TYPE III BARRICADE	CHANNELIZERS (SURFACE MOUNTED)	TRAFFIC PLASTIC DRUM	Temp. RAILING (TYPE K)	Temp. CRASH CUSHION MODULE	TEMPORARY FENCE (TYPE ESA)		
	TRAFFIC STRIPE PAINT							PAVEMENT MARKING		PAVEMENT MARKER												
	4" WHITE (DETAIL 12)	4" YELLOW (DETAIL 32)	4" YELLOW (DETAIL 21)	4" YELLOW (DETAIL 22)	4" WHITE (DETAIL 27B)	4" YELLOW (DETAIL 29)	8" WHITE (DETAIL 38A)	DIAGONAL	ARROW (TYPE VI)	PAVEMENT MARKER (TYPE D) RETROREFLECTIVE	PAVEMENT MARKER (TYPE G) RETROREFLECTIVE	PAVEMENT MARKER (TYPE H) RETROREFLECTIVE									PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	SIGN
LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA		
STAGE 1																						
SC-2	937			1,063	2,837	1,474			126	214	20			3		17	1					
SC-3			122	1,432	3,429					120				3	8	11	1					
SC-4				1,430	2,860					120							500	14	1,730			
SC-5				1,412	3,302		136			118							1,500		2,450			
SC-6				1,416	2,268					118							1,500		1,500			
SC-7				1,416	3,010					118							1,500		1,535			
SC-8				1,247	3,113					104							1,500		1,620			
SC-9		470		804	2,404	400	116	39		112		20	1		2	12	180	14	25			
SC-10														3								
STAGE 2																						
SC-11	837			2,837	2,837				42	238	18			3								
SC-12			116	1,451	3,399					122				2	4							
SC-13				1,420	2,840					120						3	1					
SC-14				1,411	2,910					118						28						
SC-15				1,412	2,912					118						28						
SC-16				1,412	2,912					118						28						
SC-17				1,236	2,736					104						24						
SC-18	1,200	100		575	3,085	700				111	25	5		2	4	3						
SUBTOTAL	2,974	570	238	21,974	46,854	2,574	252	39	168	2,073	63	25	2	16	18	154	3	6,680	28	8,860		
TOTAL	75,436							207		2,161			2	16	18	154	3	6,680	28	8,860		

NOTE: (N) NOT A PAY ITEM, FOR INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 QUANG THAI
 OUI KALU
 OUI KALU
 DESIGN

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES SCQ-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	109	164

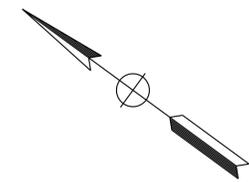
4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL
 STATE OF CALIFORNIA

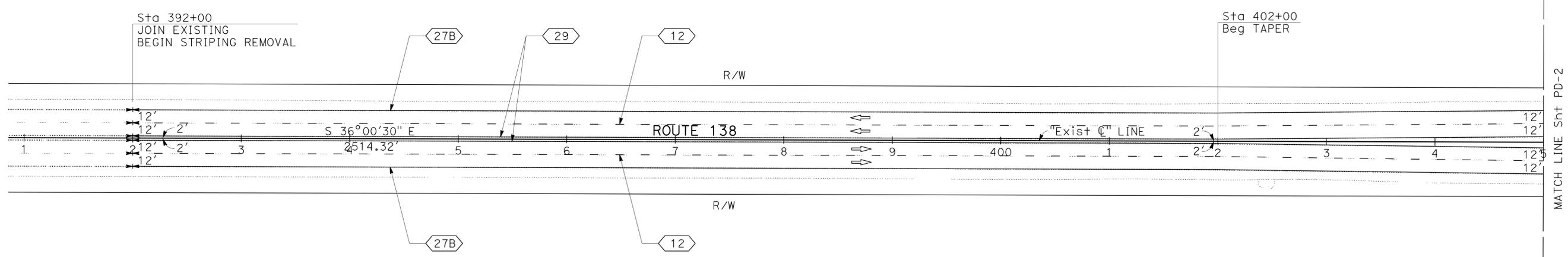
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LEGEND:

-  INSTALL ROADSIDE SIGN (WOOD POST)
-  REMOVE ROADSIDE SIGN
-  RELOCATE ROADSIDE SIGN
-  INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)
-  CHANNELIZER (SURFACE MOUNTED)(LEFT IN PLACE)
-  TYPE IV(L) ARROW PAVEMENT MARKING
-  TYPE IV(R) ARROW PAVEMENT MARKING
-  TYPE V ARROW PAVEMENT MARKING
- STOP** PAVEMENT MARKING "STOP"
- SIGNAL** PAVEMENT MARKING "SIGNAL"
- AHEAD** PAVEMENT MARKING "AHEAD"
- DO** PAVEMENT MARKING "DO"
- NOT** PAVEMENT MARKING "NOT"
- PASS** PAVEMENT MARKING "PASS"

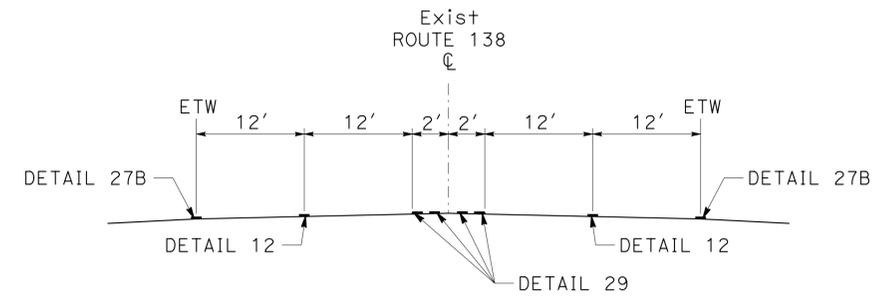


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR GRISH BICLIARIAN
 REVISOR BY EUGENE BRAVO
 CHECKED BY VINCENT NGUYEN
 DESIGNED BY
 DATE REVISOR DATE



NOTES:

1. STRIPES AND PAVEMENT MARKINGS MUST BE THERMOPLASTIC (ENHANCED WET NIGHT VISIBILITY), UNLESS OTHERWISE NOTED.
2. PAVEMENT MARKERS MUST BE RECESSED.
3. CHEVRON AND DIAGONAL MARKINGS MUST BE APPLIED AT A 45 DEGREE ANGLE FROM THE ETW.
4. CONFLICTING STRIPING MUST BE REMOVED.
5. LIMIT LINES, CROSSWALKS, CHEVRONS AND DIAGONALS MUST BE 12" SOLID WHITE, UNLESS OTHERWISE NOTED.
6. EXISTING SIGNS WILL REMAIN, UNLESS OTHERWISE NOTED.



CROSS SECTION
 Sta 392+00 to Sta 402+00 "Exist C" LINE
 NO SCALE

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN
 SCALE 1" = 50'

PD-1

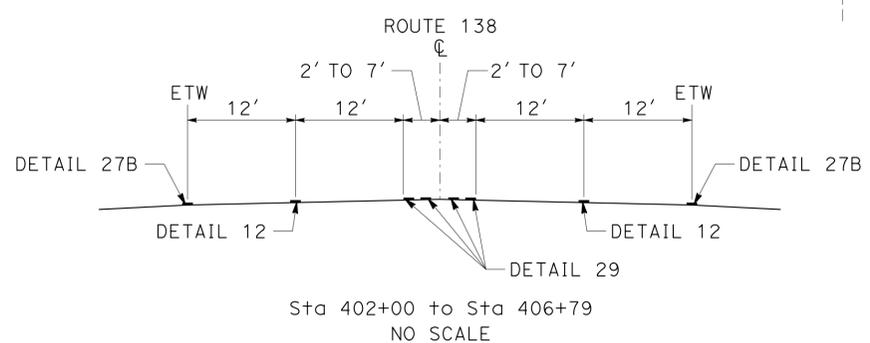
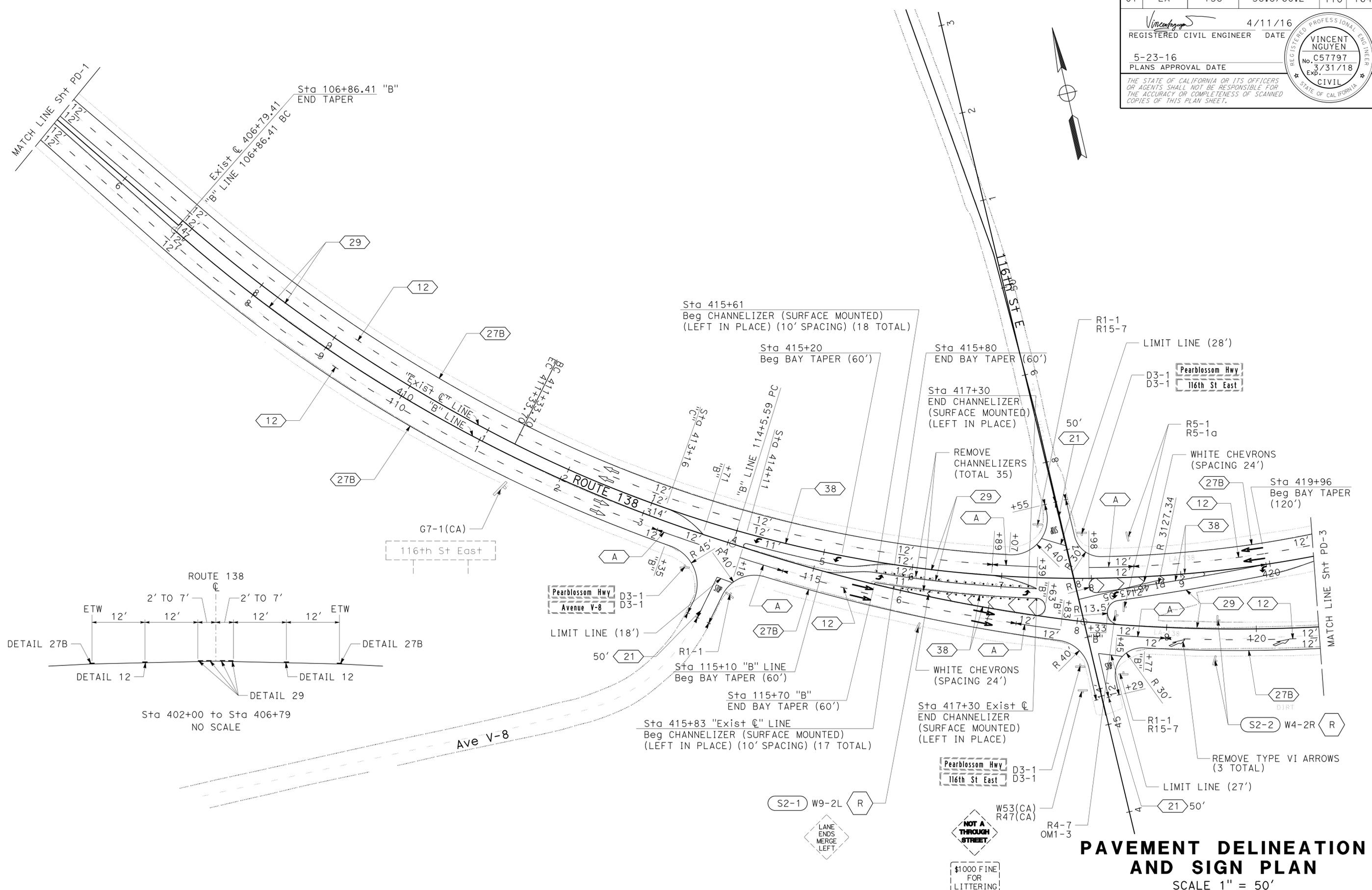
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	110	164

<i>Vincent Nguyen</i>	4/11/16
REGISTERED CIVIL ENGINEER	DATE
5-23-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL
 STATE OF CALIFORNIA

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

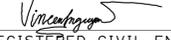
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	GRISH BICLIARIAN
Caltrans TRAFFIC DESIGN	DESIGNED BY	CHECKED BY
	EUGENE BRAVO	VINCENT NGUYEN
	REVISOR	DATE



APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

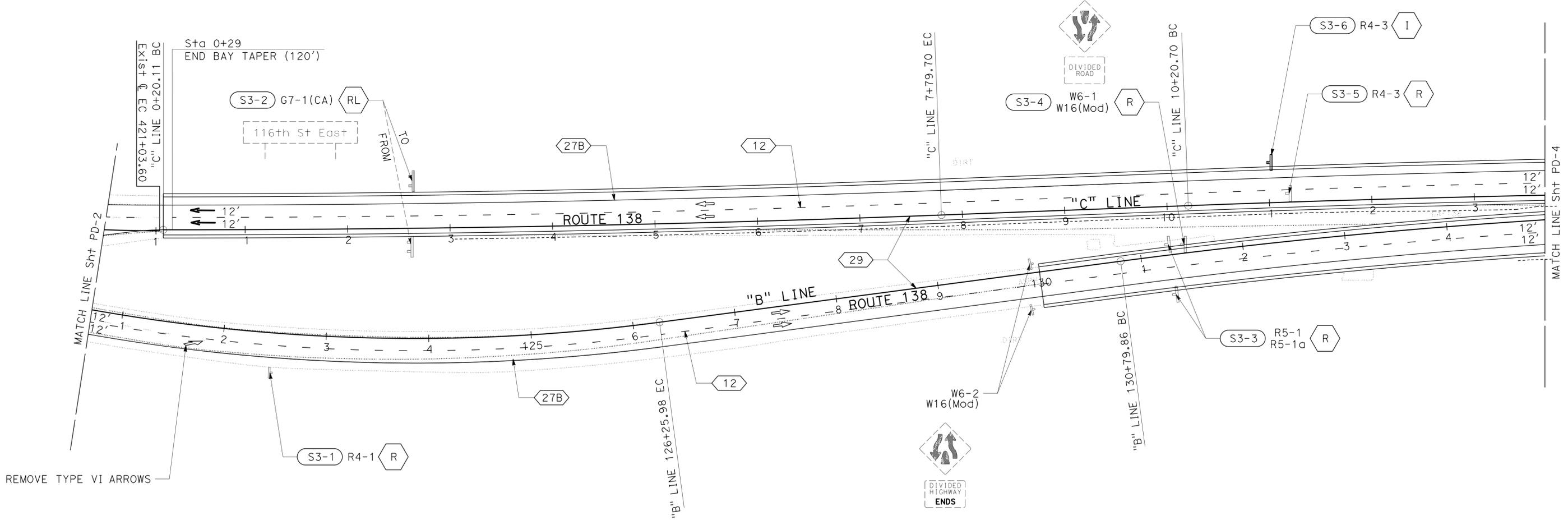
PAVEMENT DELINEATION AND SIGN PLAN
SCALE 1" = 50'

PD-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	111	164
			4/11/16	DATE	
REGISTERED CIVIL ENGINEER			DATE		
5-23-16			PLANS APPROVAL DATE		
					
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	GRISH BICLIARIAN	CHECKED BY	EUGENE BRAVO
			VINCENT NGUYEN
			DATE
			REVISOR
			DATE



REMOVE TYPE VI ARROWS

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE 1" = 50'

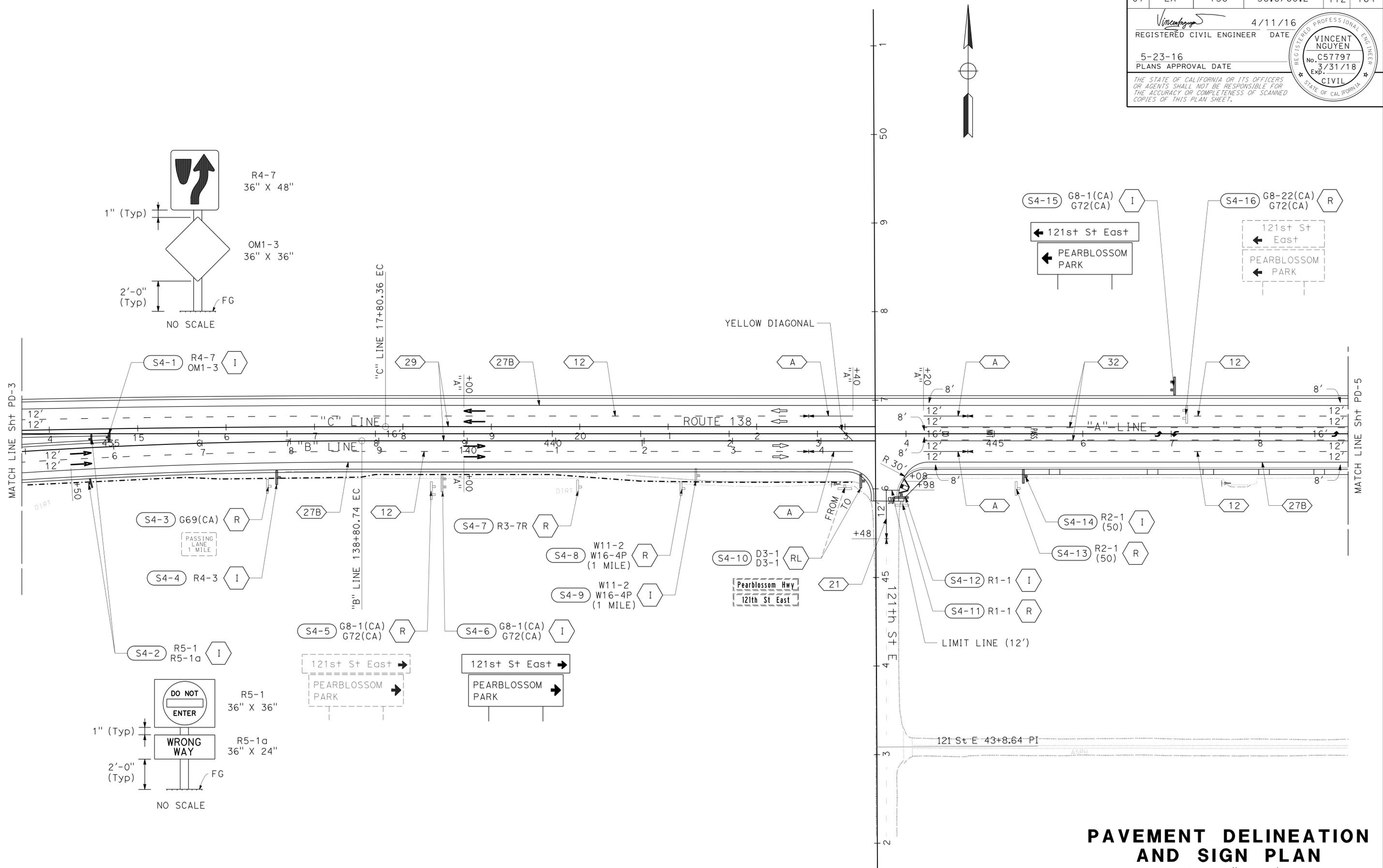
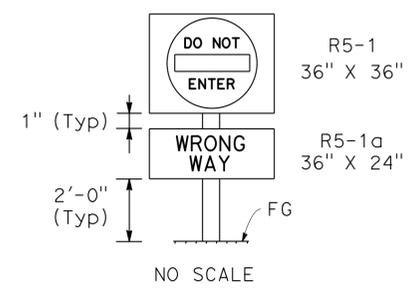
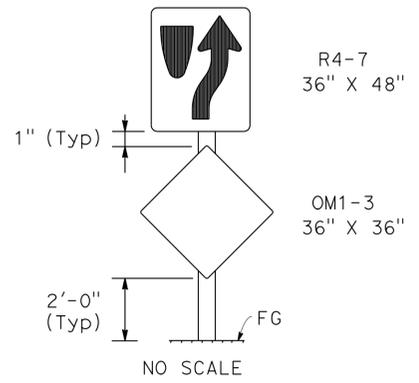
PD-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	112	164

<i>Vincent Nguyen</i>	4/11/16
REGISTERED CIVIL ENGINEER	DATE
5-23-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	VINCENT NGUYEN
No. C57797	Exp. 3/31/18
CIVIL	STATE OF CALIFORNIA

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PAVEMENT DELINEATION AND SIGN PLAN
SCALE 1" = 50'

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PD-4

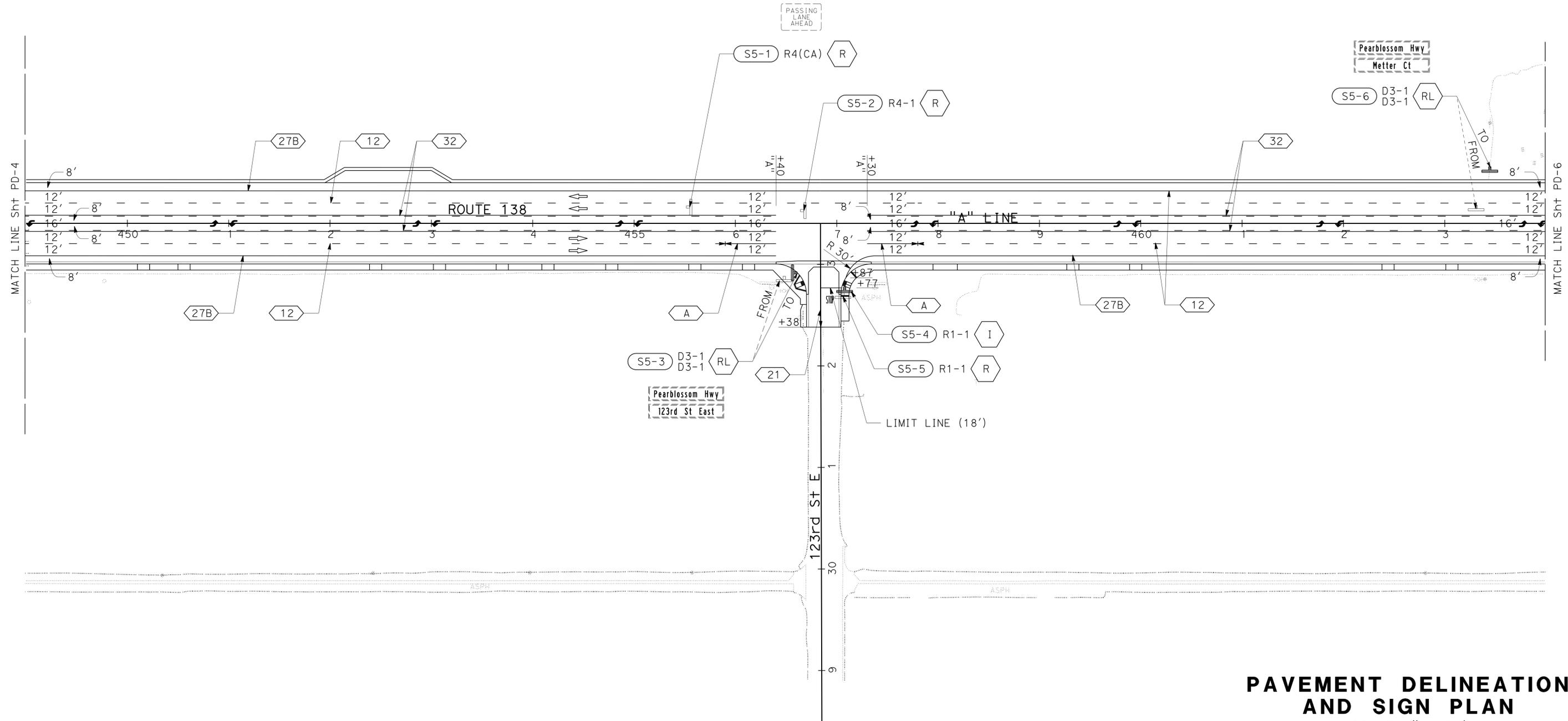
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	GRISH BICLIARIAN	EUGENE BRAVO	VINCENT NGUYEN
		CHECKED BY	DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	113	164

REGISTERED CIVIL ENGINEER DATE 4/11/16
 5-23-16
 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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR GRISH BICLIARIAN
 CALCULATED/DESIGNED BY EUGENE BRAVO
 CHECKED BY VINCENT NGUYEN
 REVISED BY DATE REVISION
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100



PAVEMENT DELINEATION AND SIGN PLAN

SCALE 1" = 50'

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

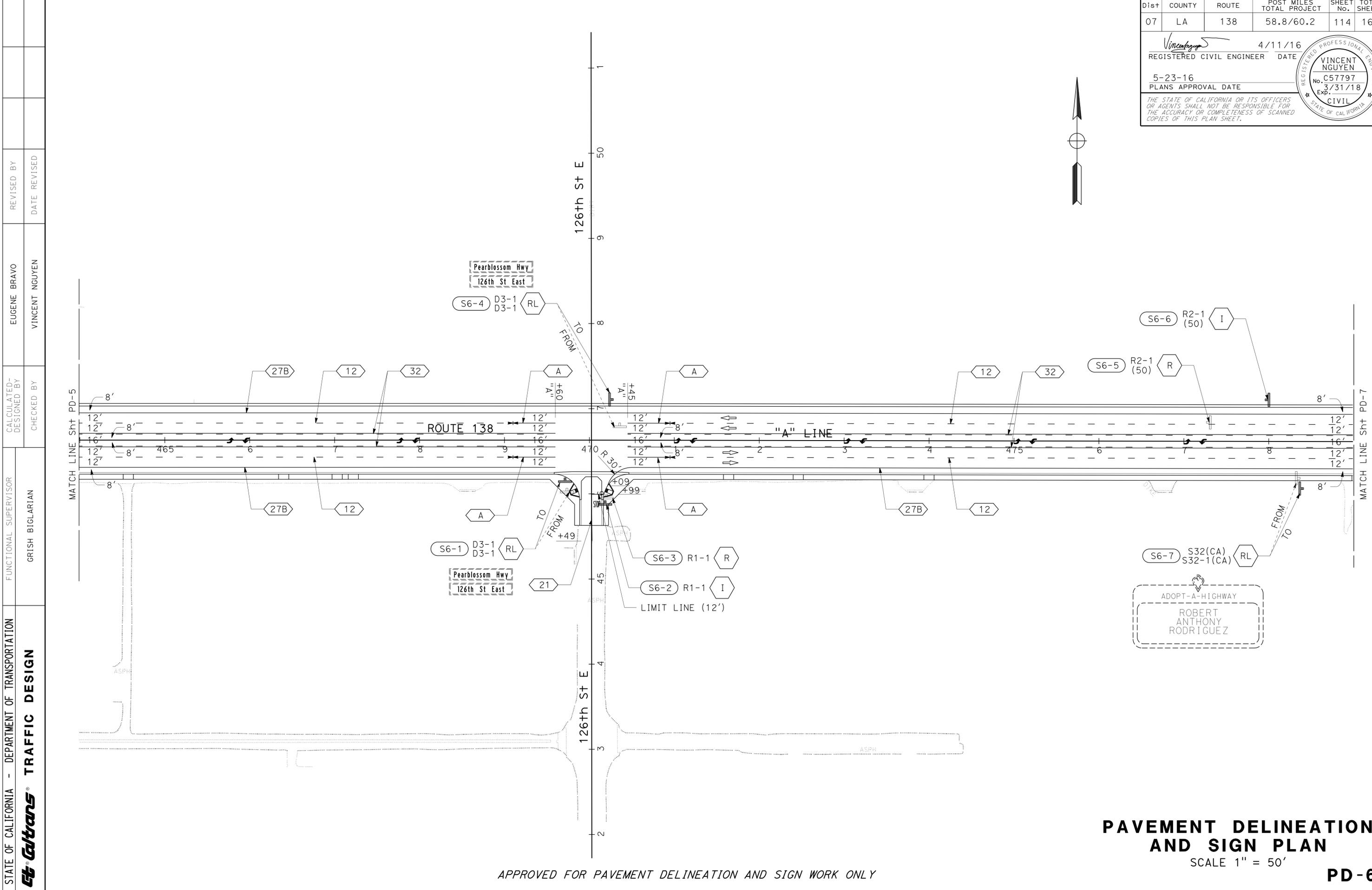
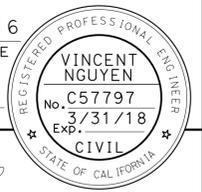
PD-5

LAST REVISION DATE PLOTTED => 28-JUL-2016 00-00-00 TIME PLOTTED => 15:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	114	164

<i>Vincent Nguyen</i>	4/11/16
REGISTERED CIVIL ENGINEER	DATE
5-23-16	
PLANS APPROVAL DATE	

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	GRISH BICLIARIAN	CHECKED BY	EUGENE BRAVO
			VINCENT NGUYEN
			DATE REVISION

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE 1" = 50'

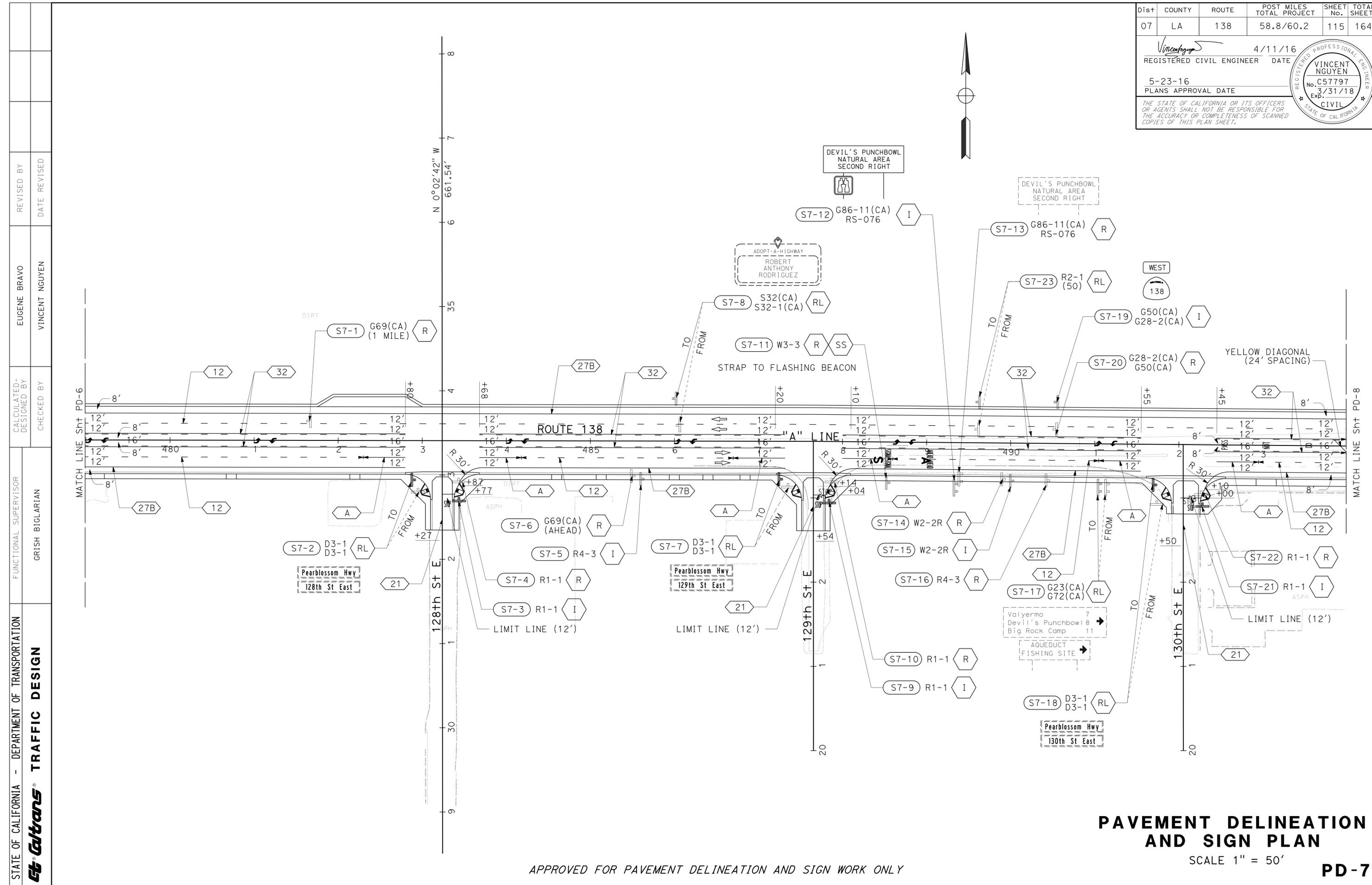
PD-6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	115	164

REGISTERED CIVIL ENGINEER	DATE
VINCENT NGUYEN	4/11/16
No. C57797	
Exp. 3/31/18	
CIVIL	

5-23-16
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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	GRISH BIGHLARIAN	EUGENE BRAVO	VINCENT NGUYEN
		CHECKED BY	DATE REVISED

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE 1" = 50'

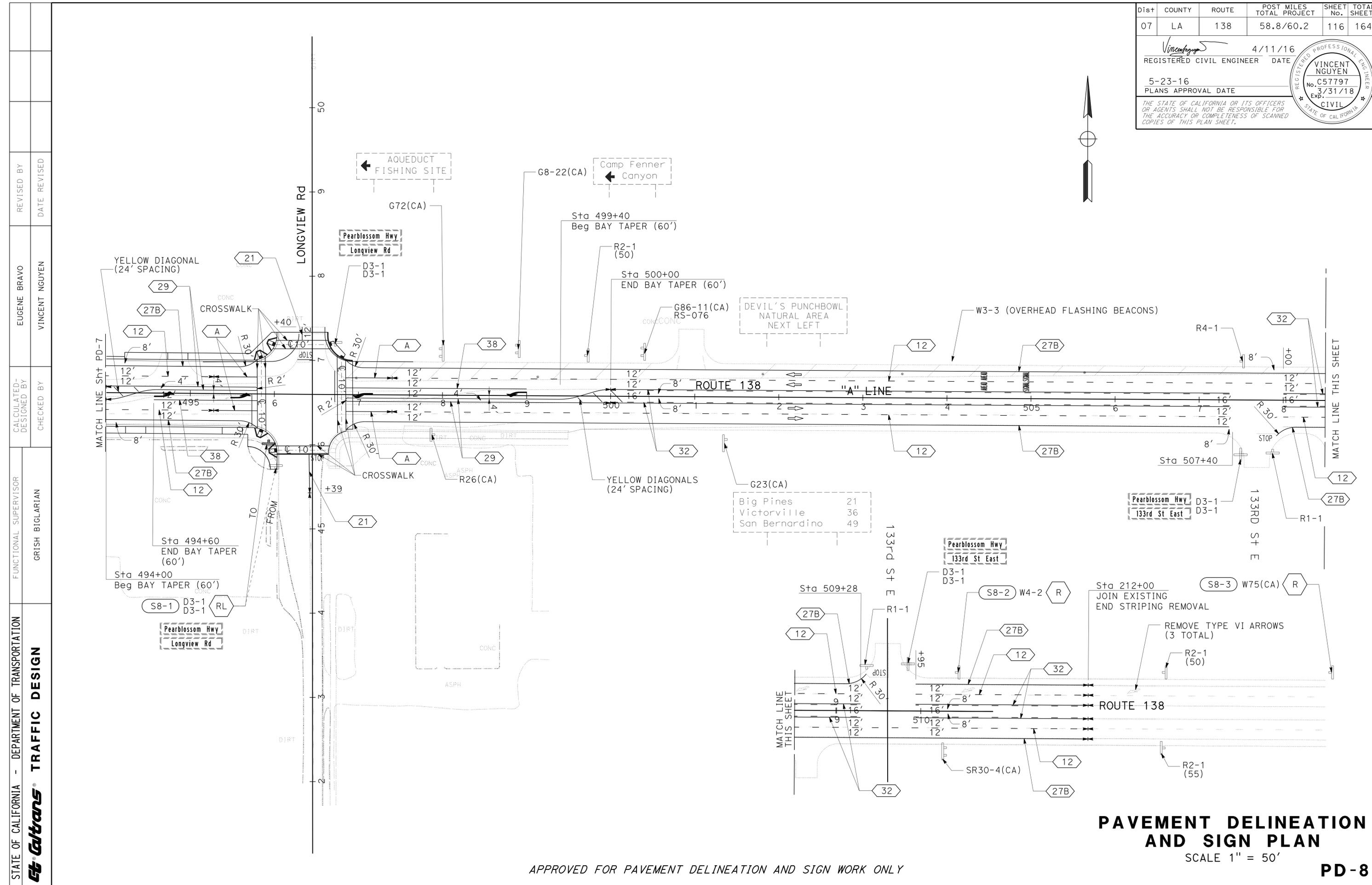
PD-7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	116	164

<i>Vinc Nguyen</i>	4/11/16
REGISTERED CIVIL ENGINEER	DATE
5-23-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL
 STATE OF CALIFORNIA

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PAVEMENT DELINEATION AND SIGN PLAN
SCALE 1" = 50'

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PD-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR BY
Caltrans TRAFFIC DESIGN	GRISH BICLIARIAN	EUGENE BRAVO	VINCENT NGUYEN
	CHECKED BY	DATE	REVISED DATE

LAST REVISION DATE PLOTTED => 28-JUL-2016
00-00-00 TIME PLOTTED => 15:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	117	164

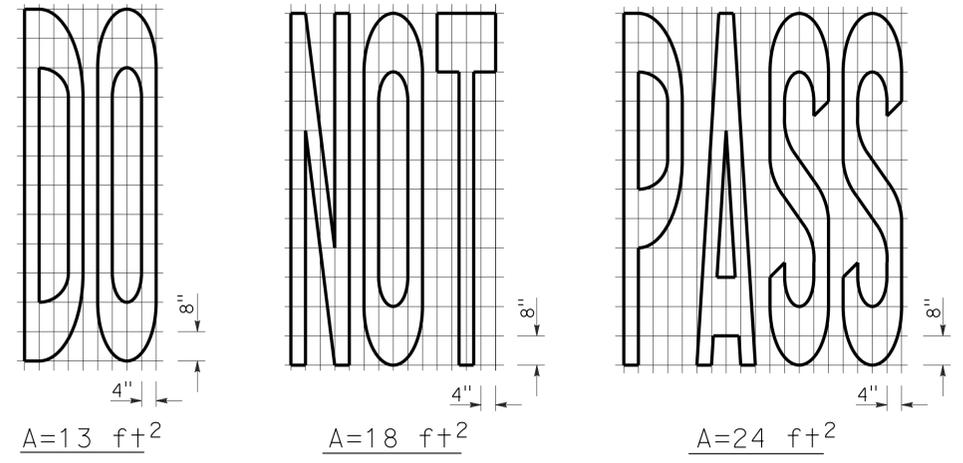
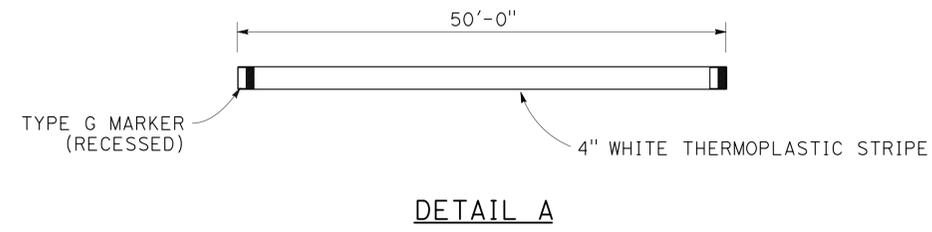
4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL
 STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

SHEET NO.	THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY)								THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)					PAVEMENT MARKER (RECESSED)		REMOVE CHANNELIZER	CHANNELIZER (SURFACE MOUNTED) (LEFT IN PLACE)	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE YELLOW THERMOPLASTIC PAVEMENT MARKING (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE	REMOVE THERMOPLASTIC PAVEMENT MARKINGS	REMOVE PAVEMENT MARKERS
	4" (BROKEN 36-12)		4"				8"		ARROW	WORDS	LIMIT LINE / CROSSWALK	DIAGONAL	CHEVRON	RETROREFLECTIVE								
	DETAIL 12	DETAIL 32	DETAIL A	DETAIL 21	DETAIL 27B	DETAIL 29	DETAIL 32	DETAIL 38				YELLOW	WHITE	TYPE D	TYPE G							
	LF	LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	SQFT	SQFT	EA	EA							
PD-1	2,600				2,600	5,200								108	54			5,200		3,250		163
PD-2	2,602		300	300	3,250	5,660		890	288	66	73		187	118	103	35	35	5,960	101	5,981	597	221
PD-3	2,863				2,863	5,726			66					119	60			5,726		2,684	571	152
PD-4	2,630	960	200	100	2,853	2,832	960		243	77	12	22		109	63			4,132		3,143	185	115
PD-5	2,810	2,820	100	78	3,003		2,820		225	22	18			147	63			3,603		3,003	250	147
PD-6	2,630	2,830	200	100	4,363		2,830		180	22	12			147	63			4,225		4,363	215	136
PD-7	2,432	2,464	300	300	2,819		2,154		210	247	36	21		128	63			3,082	21	2,895	375	112
PD-8	3,049	2,346	200	132	3,249	1,576	2,346	328	60	126	602	65		155	85			4,791		4,481	1,215	210
SUB-TOTAL	21,616	11,420	1,300	1,010	25,000	20,994	11,110	1,218	1,272	560	753	108	187	1,031	554	35	35	36,719	122	29,800	3,408	1,256
TOTAL	33,036		59,414					1,218	2,880					1,585		35	35	36,719	122	29,800	3,408	1,256



PAVEMENT MARKINGS

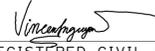
PAVEMENT DELINEATION DETAILS AND QUANTITIES

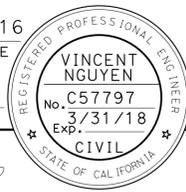
NO SCALE

PDQ-1

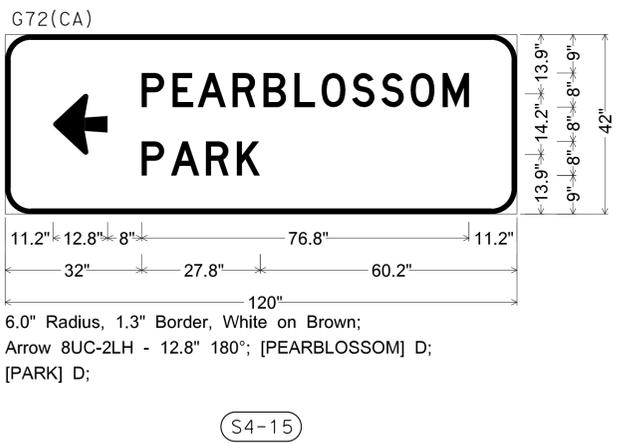
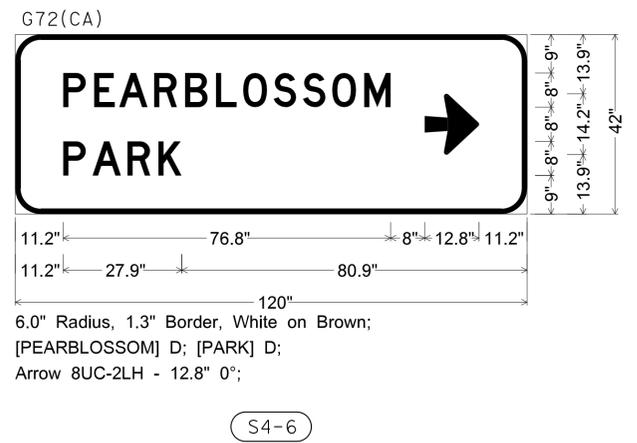
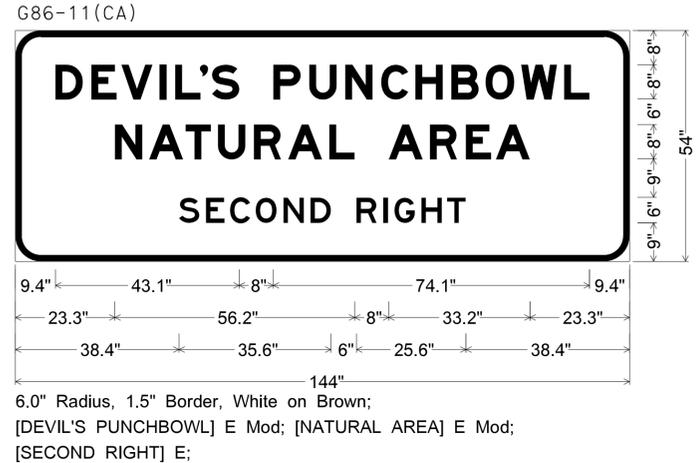
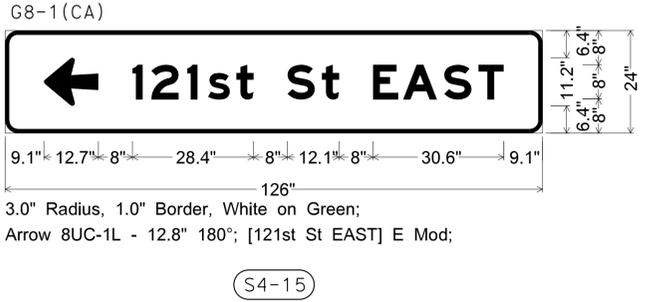
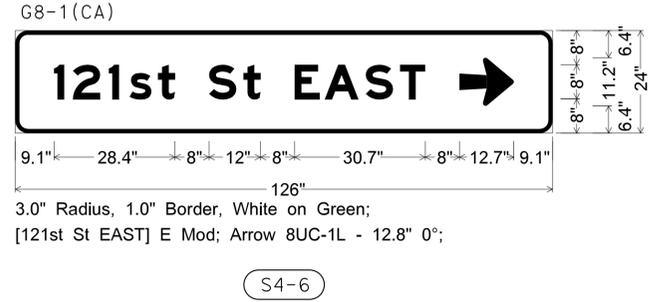
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: GRISH BICLIARIAN
 CALCULATED/DESIGNED BY: EUGENE BRAVO
 CHECKED BY: VINCENT NGUYEN
 REVISED BY: DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	118	164

 4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE



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SIGN DETAILS
 NO SCALE
SD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	119	164

4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL

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NOTES:

- EXACT LOCATIONS AND POSITIONS OF ROADSIDE SIGNS WILL BE DETERMINED BY THE ENGINEER.
- SIGNS ARE MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, NOV 2014 EDITION) CODED EXCEPT AS NOTED.
- (CA) DENOTES CALIFORNIA CODED SIGNS.
- FOR SIGN SPECIFICATIONS SEE CALTRANS WEBSITE: <http://www.dot.ca.gov/hq/traffops/engineering/control-devices/specs.htm>

LEGEND

B = BLACK ; Y = YELLOW ; R = RED ; W = WHITE ; G = GREEN ; BLU = BLUE ; BRW=BROWN

ROADSIDE SIGN QUANTITIES

SIGN No.	SIGN CODE	SIGN PANEL	POST DATA SIZE	MATERIAL SUMMARY								FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED) SQFT	FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)			FURNISH LAMINATED SIGN (1" - TYPE B) FOR RETROREFLECTIVE SHEETING (TYPE XI) SQFT	RETROREFLECTIVE SHEETING (TYPE XI) SQFT	ROADSIDE SIGN (WOOD)		REMOVE ROADSIDE SIGN EA	RELOCATE ROADSIDE SIGN EA	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	TREATED WOOD WASTE LB	REMARKS
				SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI			UNFRAMED ALUMINUM		FRAMED ALUMINUM			ONE POST	TWO POST					
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	NON-REFLECTIVE	STANDARD	PREMIUM		0.063"	0.080"	0.080"			EA	EA					
													SQFT	SQFT	SQFT			SQFT	SQFT					
S2-1	W9-2L																	1			137	RIGHT LANE ENDS		
S2-2	W4-2R																	2			275	LANE END SYMBOL		
S3-1	R4-1																	1			90	DO NOT PASS		
S3-2	G7-1(CA)																		1				116th St East	
S3-3	R5-1																	2			275	DO NOT ENTER		
	R5-1a																							WRONG WAY
S3-4	W6-1																	1			137	DIVIDED HIGHWAY SYMBOL		
	W16(Mod)																							DIVIDED HIGHWAY
S3-5	R4-3																	1			90	SLOWER TRAFFIC KEEP RIGHT		
S3-6	R4-3	36 " X 48 "	4X6	X	WHITE	VIII	BLACK		X	X	12.0							1					SLOWER TRAFFIC KEEP RIGHT	
S4-1	R4-7	36 " X 48 "	4X6	X	WHITE	VIII	BLACK		X	X	12.0							1					KEEP RIGHT SYMBOL	
	OM1-3	36 " X 36 "		X	YELLOW	XI				X		9.0			9.0									YELLOW OBJECT MARKER
S4-2	R5-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI		X	9.0			9.0			1						DO NOT ENTER	
	R5-1a	36 " X 24 "		X	RED	XI	WHITE	XI		X	6.0			6.0										WRONG WAY
	R5-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI		X	9.0			9.0										DO NOT ENTER
R5-1a	36 " X 24 "	X		RED	XI	WHITE	XI		X	6.0			6.0									WRONG WAY		
S4-3	G69(CA)																	1			85	PASSING LANE 1 MILE		
S4-4	R4-3	36 " X 48 "	4X6	X	WHITE	VIII	BLACK		X	X	12.0							1					SLOWER TRAFFIC KEEP RIGHT	
S4-5	G8-1(CA)																	1			432	121st St EAST		
	G72(CA)																							PEARBLOSSOM PARK
S4-6	G8-1(CA)	126 " X 24 "	6X8	X	GREEN	XI	WHITE	XI		X			21.0	21.0			1						121st St EAST	
	G72(CA)	120 " X 42 "		X	BROWN	XI	WHITE	XI		X		35.0	35.0											PEARBLOSSOM PARK
S4-7	R3-7R																	1			54	RIGHT LANE MUST TURN RIGHT		
S4-8	W11-2																	1			137	PEDESTRIAN CROSSING SYMBOL		
	W16-4P																							NEXT 1 MILE
SHEET SUB-TOTAL SQ-1											36.0	39.0	56.0		95.0	5	1	12	1		1,712			

SIGN QUANTITIES
SQ-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	120	164

4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

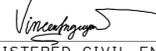
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ROADSIDE SIGN QUANTITIES

SIGN No.	SIGN CODE	SIGN PANEL	POST DATA SIZE	MATERIAL SUMMARY								FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)			FURNISH LAMINATED SIGN (1" - TYPE B) FOR RETROREFLECTIVE SHEETING (TYPE XI)	RETROREFLECTIVE SHEETING (TYPE XI)	ROADSIDE SIGN (WOOD)		REMOVE ROADSIDE SIGN	RELOCATE ROADSIDE SIGN	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD)	TREATED WOOD WASTE	REMARKS	
				SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI			UNFRAMED ALUMINUM		FRAMED ALUMINUM			ONE POST	TWO POST						
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	NON-REFLECTIVE	STANDARD	PREMIUM		0.063"	0.080"	0.080"										
													SQFT	SQFT	SQFT										EA
S4-9	W11-2	48 " X 48 "	6X6	X	YELLOW	XI	BLACK		X													PEDESTRIAN TRAFFIC			
	W16-4P	30 " X 24 "		X	YELLOW	XI	BLACK		X			5.0											NEXT 1 MILE		
S4-10	D3-1																					PEARBLOSSOM Hwy			
	D3-1																					121th St EAST			
S4-11	R1-1																	1				85	STOP		
S4-12	R1-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI				9.0											STOP		
S4-13	R2-1																						90	SPEED LIMIT 50	
S4-14	R2-1	36 " X 48 "	4X6	X	WHITE	VIII	BLACK		X		12.0													SPEED LIMIT 50	
S4-15	G8-1(CA)	126 " X 24 "	6X8		GREEN	XI	WHITE	XI						21.0										121st St EAST	
	G72(CA)	120 " X 42 "		X	BROWN	XI	WHITE	XI							35.0									PEARBLOSSOM PARK	
S4-16	G8-22(CA)																						432	121st St EAST	
	G72(CA)																							PEARBLOSSOM PARK	
S5-1	R4(CA)																						85	PASSING LANE AHEAD	
S5-2	R4-1																						90	DO NOT PASS	
S5-3	D3-1																							PEARBLOSSOM Hwy	
	D3-1																							123rd St EAST	
S5-4	R1-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI				9.0												STOP	
S5-5	R1-1																							85	STOP
S5-6	D3-1																							PEARBLOSSOM Hwy	
	D3-1																							METTER Ct	
S6-1	D3-1																							PEARBLOSSOM Hwy	
	D3-1																							126th St EAST	
S6-2	R1-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI				9.0												STOP	
S6-3	R1-1																							85	STOP
SHEET SUB-TOTAL SQ-2											12.0	32.0	16.0	56.0		104.0	5	1	7	4		952			

SIGN QUANTITIES SQ-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	121	164

 4/11/16
 REGISTERED CIVIL ENGINEER DATE

VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL

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ROADSIDE SIGN QUANTITIES

SIGN No.	SIGN CODE	SIGN PANEL	POST DATA SIZE	MATERIAL SUMMARY											FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED) SQFT	FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)			FURNISH LAMINATED SIGN (1" - TYPE B) FOR RETROREFLECTIVE SHEETING (TYPE XI) SQFT	RETROREFLECTIVE SHEETING (TYPE XI) SQFT	ROADSIDE SIGN (WOOD)		REMOVE ROADSIDE SIGN EA	RELOCATE ROADSIDE SIGN EA	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD) EA	TREATED WOOD WASTE LB	REMARKS
				SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI		UNFRAMED ALUMINUM		FRAMED ALUMINUM		ONE POST EA	TWO POST EA										
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	NON-REFLECTIVE	STANDARD	PREMIUM	0.063"	0.080"	0.080"													
												SQFT	SQFT	SQFT													
S6-4	D3-1																						PEARBLOSSOM Hwy				
	D3-1																							126th St EAST			
S6-5	R2-1																	1						90 SPEED LIMIT 50			
S6-6	R2-1	36" X 48"	4X6	X	WHITE	VIII	BLACK		X		X	12.0							1						SPEED LIMIT 50		
S6-7	S32(CA) S32-1(CA)																								ADOPT-A-HIGHWAY		
S7-1	G69(CA)																								85 PASSING LANE 1 MILE		
S7-2	D3-1																								PEARBLOSSOM Hwy		
	D3-1																								128th St EAST		
S7-3	R1-1	36" X 36"	4X6	X	RED	XI	WHITE	XI			X		9.0						1							STOP	
S7-4	R1-1																								85 STOP		
S7-5	R4-3	36" X 48"	4X6	X	WHITE	VIII	BLACK		X		X	12.0							1							SLOWER TRAFFIC KEEP RIGHT	
S7-6	G69(CA)																								85 PASSING LANE AHEAD		
S7-7	D3-1																								PEARBLOSSOM Hwy		
	D3-1																								129th St EAST		
S7-8	S32(CA) S32-1(CA)																									ADOPT-A-HIGHWAY LITTER REMOVAL	
S7-9	R1-1	36" X 36"	4X6	X	RED	XI	WHITE	XI			X		9.0						1							STOP	
S7-10	R1-1																								85 STOP		
S7-11	W3-3	48" X 48"		X	Y/G/R	XI	BLACK		X		X			16.0												SIGNAL AHEAD (STRAP TO FLASHING BEACON)	
S7-12	G86-11(CA) RS-076	144" X 54" 24" X 24"	6X8	X	BROWN	XI	WHITE	XI			X				54.0	54.0			1							DEVIL'S PUNCHBOWL NATURAL AREA RECREATIONAL SYMBOL G200-81(CA)	
S7-13	G86-11(CA) RS-076																									408 DEVIL'S PUNCHBOWL NATURAL AREA RECREATIONAL SYMBOL G200-81(CA)	
S7-14	W2-2R																									137 SIDE ROAD SYMBOL	
S7-15	W2-2R	48" X 48"	6X6	X	YELLOW	XI	BLACK		X		X			16.0												SIDE ROAD SYMBOL	
S7-16	R4-3																									90 SLOWER TRAFFIC KEEP RIGHT	
SHEET SUB-TOTAL SQ-3												24.0	22.0	32.0		54.0	108.0	5	1	9	5	1	1,065				

SIGN QUANTITIES
SQ-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	122	164

4/11/16
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 PLANS APPROVAL DATE

VINCENT NGUYEN
 No. C57797
 Exp. 3/31/18
 CIVIL

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ROADSIDE SIGN QUANTITIES

SIGN No.	SIGN CODE	SIGN PANEL	POST DATA SIZE	MATERIAL SUMMARY								FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)			FURNISH LAMINATED SIGN (1" - TYPE B) FOR RETROREFLECTIVE SHEETING (TYPE XI)	RETROREFLECTIVE SHEETING (TYPE XI)	ROADSIDE SIGN (WOOD)		REMOVE ROADSIDE SIGN	RELOCATE ROADSIDE SIGN	INSTALL SIGN (STRAP & SADDLE BRACKET METHOD)	TREATED WOOD WASTE	REMARKS				
				SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI			UNFRAMED ALUMINUM		FRAMED ALUMINUM			ONE POST	TWO POST									
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	NON-REFLECTIVE	STANDARD	PREMIUM		0.063"	0.080"	0.080"													
													SQFT	SQFT	SQFT										EA	EA		
S7-17	G23(CA)																					VALYERMO, DEVIL'S PUNCHBOWL, AQUEDUCT FISHING SITE						
	G72(CA)																						PEARBLOSSOM Hwy					
S7-18	D3-1																						130th St EAST					
	D3-1																						WEST					
S7-19	G50(CA)	26 " X 12 "	4X4	X	GREEN	XI	WHITE	XI			X	2.2			2.2	1								STATE ROUTE SHIELD 138				
	G28-2(CA)	28 " X 25 "		X	GREEN	XI	WHITE	XI			X	4.9			4.9										47	STATE ROUTE SHIELD 138		
S7-20	G28-2(CA)																1							WEST				
	G50(CA)																											
S7-21	R1-1	36 " X 36 "	4X6	X	RED	XI	WHITE	XI				9.0			9.0	1									STOP			
S7-22	R1-1																1								85	STOP		
S7-23	R2-1																									1	SPEED LIMIT 50	
S8-1	D3-1																									1	PEARBLOSSOM Hwy	
	D3-1																											LONGVIEW Rd
S8-2	W4-2																	1									137	MERGE
S8-3	W75(CA)																	1									137	LANE ENDS MERGE LEFT
SHEET SUB-TOTAL SQ-4												16.1				16.1	2		4	4			406					
SHEET SUB-TOTAL SQ-3											24.0	22.0	32.0		54.0	108.0	5	1	9	5	1	1,065						
SHEET SUB-TOTAL SQ-2											12.0	32.0	16.0	56.0		104.0	5	1	7	4		952						
SHEET SUB-TOTAL SQ-1											36.0	39.0		56.0		95.0	5	1	12	1		1,712						
TOTAL											72.0	109.1	48.0	112.0	54.0	323.1	17	3	32	14	1	4,135						

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR GRISH BICLARIAN
 CALCULATED/DESIGNED BY EUGENE BRAVO
 CHECKED BY VINCENT NGUYEN
 REVISED BY DATE REVISIONS

SIGN QUANTITIES SQ-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	123	164

Quang Thai 11-16-15
 REGISTERED CIVIL ENGINEER DATE
 5-23-16
 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.

ROADWAY QUANTITIES

SHEET NUMBER	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	HOT MIX ASPHALT, (TYPE A)	LEAN CONCRETE BASE (LCB)	CLASS 3 AGGREGATE BASE (AB)	TACK COAT	JOINTED PLAIN CONCRETE PAVEMENT (JPCP)	ROADWAY EXCAVATION	EMBANKMENT (N)	MINOR CONCRETE		BASE BOND BREAKER
									CURB AND GUTTER	SIDEWALK, DRIVEWAY AND CURB AND GUTTER	
	TON	TON	CY	CY	TON	CY	CY	CY	CY	CY	SQYD
L-1	1,027	2,054	1,521	4,025	3.24	0	1,409	2,507	0	0	0
L-2	1,811	3,621	2,680	5,985	5.70	0	0	6,867	31.4	60.5	0
L-3	399	796	589	1,754	1.25	29	479	4,752	169.7	90.7	98
L-4	391	784	589	1,743	1.23	28	1,575	3,643	177.1	92.5	94
L-5	456	907	672	1,990	1.43	86	1,211	1,211	218.0	99.3	286
L-6	67	136	100	259	1.12	0	1,751	25	26.0	72.8	0
D-3	0	0	0	0	0	0	3,700	0	0	0	0
D-5	0	0	0	0	0	0	8,800	0	0	0	0
SUBTOTAL	4,151	8,298	6,151	15,756	13.97	143	18,925	21,501	622.2	415.8	478
TOTAL	4,151	8,298	6,151	15,756	13.97	143	18,925		1,038.0		478

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

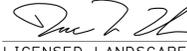
TEMPORARY WATER POLLUTION CONTROL QUANTITIES

RAIN EVENT ACTION PLAN	EA	4
STORM WATER SAMPLING AND ANALYSIS DAY	EA	20
STORM WATER ANNUAL REPORT	EA	1
MOVE IN/MOVE-OUT (TEMPORARY EROSION CONTROL)	EA	20
TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SQYD	5,000
TEMPORARY FIBER ROLL	LF	5,000
TEMPORARY CONSTRUCTION ENTRANCE	EA	4

SUMMARY OF QUANTITIES Q-1

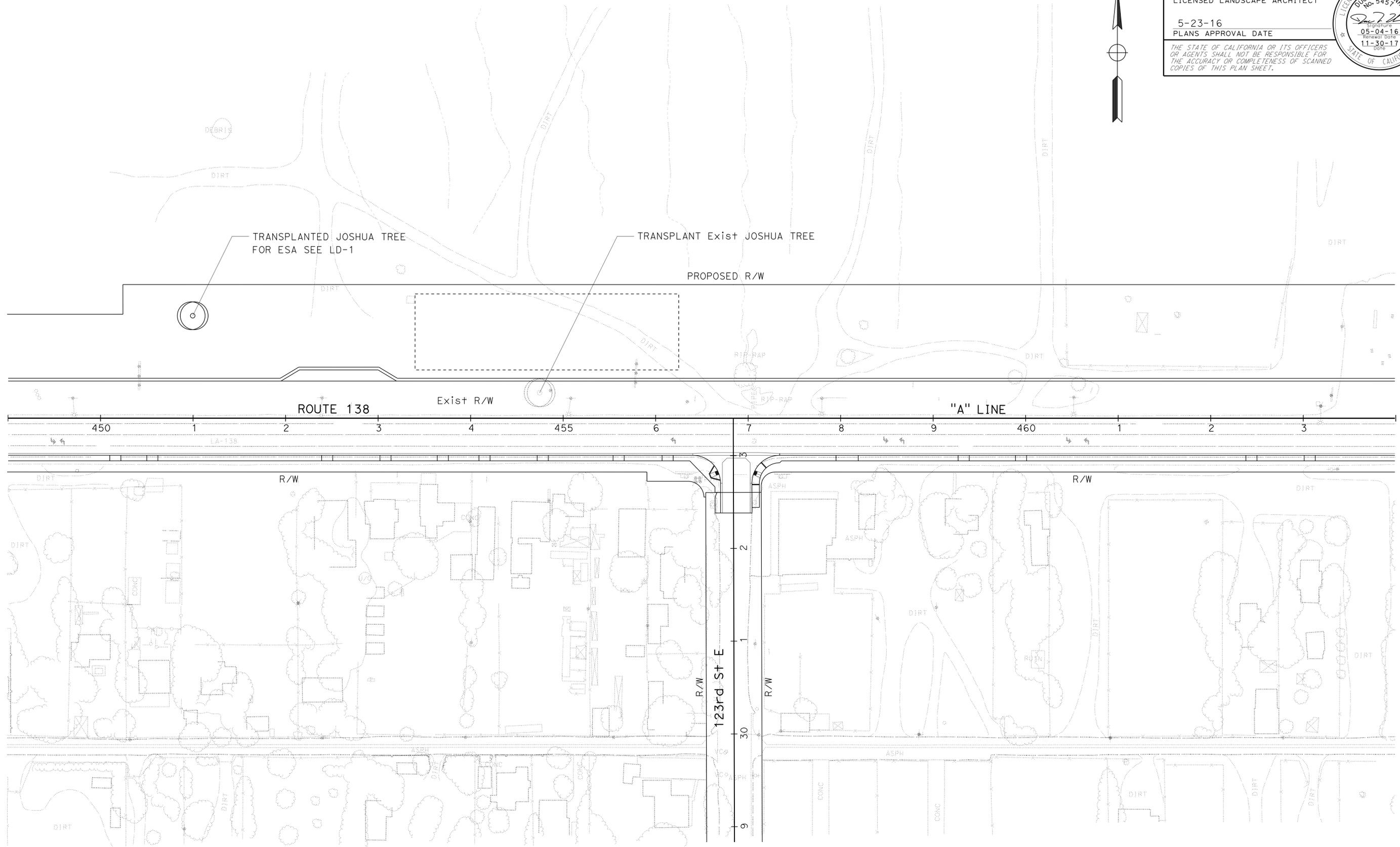
APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	124	164


 LICENSED LANDSCAPE ARCHITECT
 5-23-16
 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.



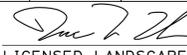
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT: PATTY WATANABE
 CALCULATED/DESIGNED BY: DONNY THAI
 CHECKED BY: DUC T. TRINH
 REVISED BY: DATE REVISIONS:



PLANTING PLAN
 SCALE: 1" = 50'
PP-1

LAST REVISION: DATE PLOTTED => 29-JUL-2016
 00-00-00 TIME PLOTTED => 10:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	125	164


 LICENSED LANDSCAPE ARCHITECT
 5-23-16
 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.

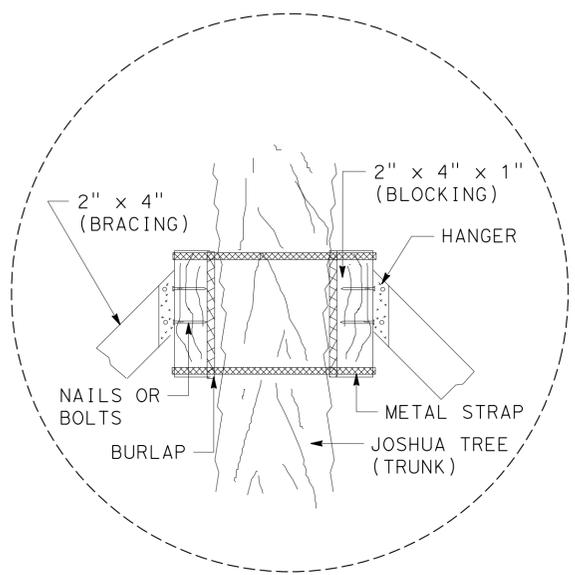


NOTES

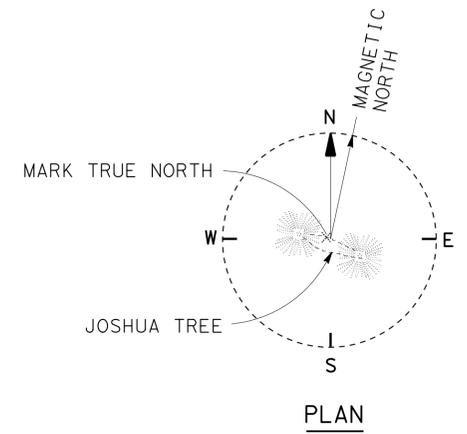
- BRACING REQUIRED ON THREE SIDES. BRACING HEIGHT ABOVE FG VARIES. ADJUST ACCORDING TO JOSHUA TREE SIZE.
- MOVING EQUIPMENT MUST NOT GIRDLE ANY PART OF THE TREE.
- RETAIN 90% TO 100% TAP ROOT & 90% TO 100% LATERAL ROOTS.

TRANSPLANT JOSHUA TREE

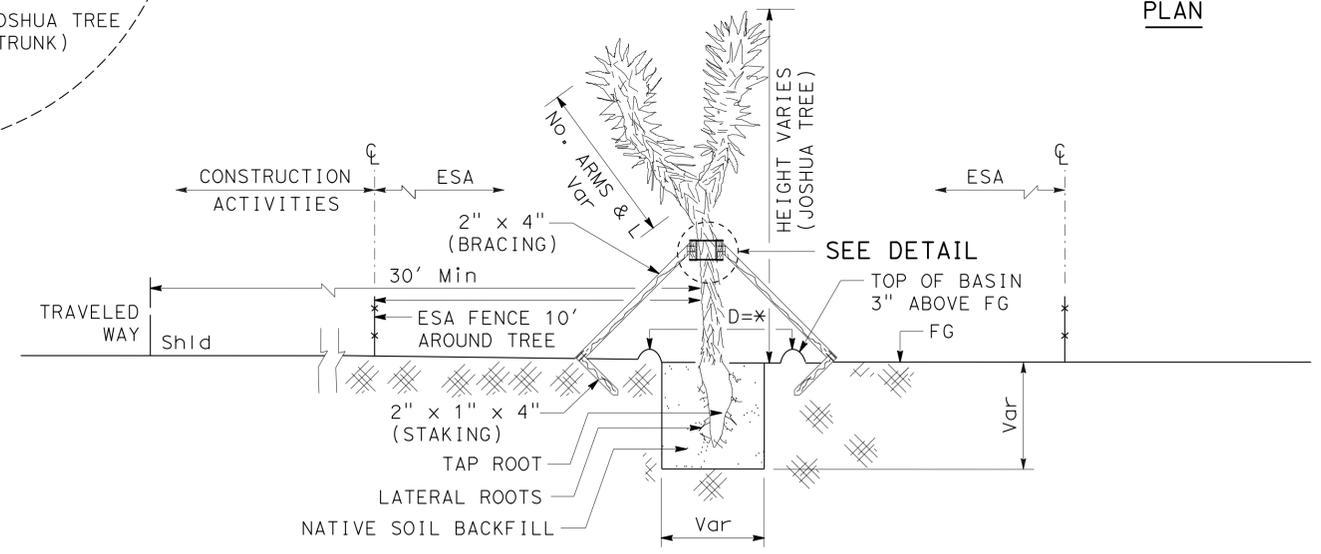
EXISTING LOCATION					NEW LOCATION		
LOCATION	NUMBER OF TREE	EASTBOUND WESTBOUND	FEET	STATION NUMBER	EASTBOUND WESTBOUND	FEET	STATION NUMBER
1	1	WB	27	454.85 "A" LINE	WB	110	451.00 "A" LINE



DETAIL



PLAN

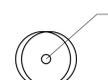


SECTION

* BASIN MUST BE CONSTRUCTED OUTSIDE THE DIMENSION OF THE PLANTING HOLE.

TRANSPLANT JOSHUA TREE

LEGEND

-  TRANSPLANT Exist JOSHUA TREE
-  TRANSPLANTED JOSHUA TREE

LANDSCAPE DETAILS
NO SCALE **LD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT: PATTY WATANABE
 CALCULATED/DESIGNED BY: DONNY THAI
 CHECKED BY: DUC T. TRINH
 REVISED BY: DATE REVISD
 USERNAME => s119140
 DGN FILE => 729350sy001.dgn
 BORDER LAST REVISED 9/9/2010



LAST REVISION DATE PLOTTED => 29-JUL-2016
 00-00-00 TIME PLOTTED => 10:35

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: YI TSAU
 CALCULATED/DESIGNED BY: CECILIO BURCIAGA
 CHECKED BY:
 REVISIONS:
 REVISION NO. | DATE | DESCRIPTION
 REVISIONS:
 REVISION NO. | DATE | DESCRIPTION

NOTE: (THIS SHEET ONLY)

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

LEGEND: (THIS SHEET ONLY)

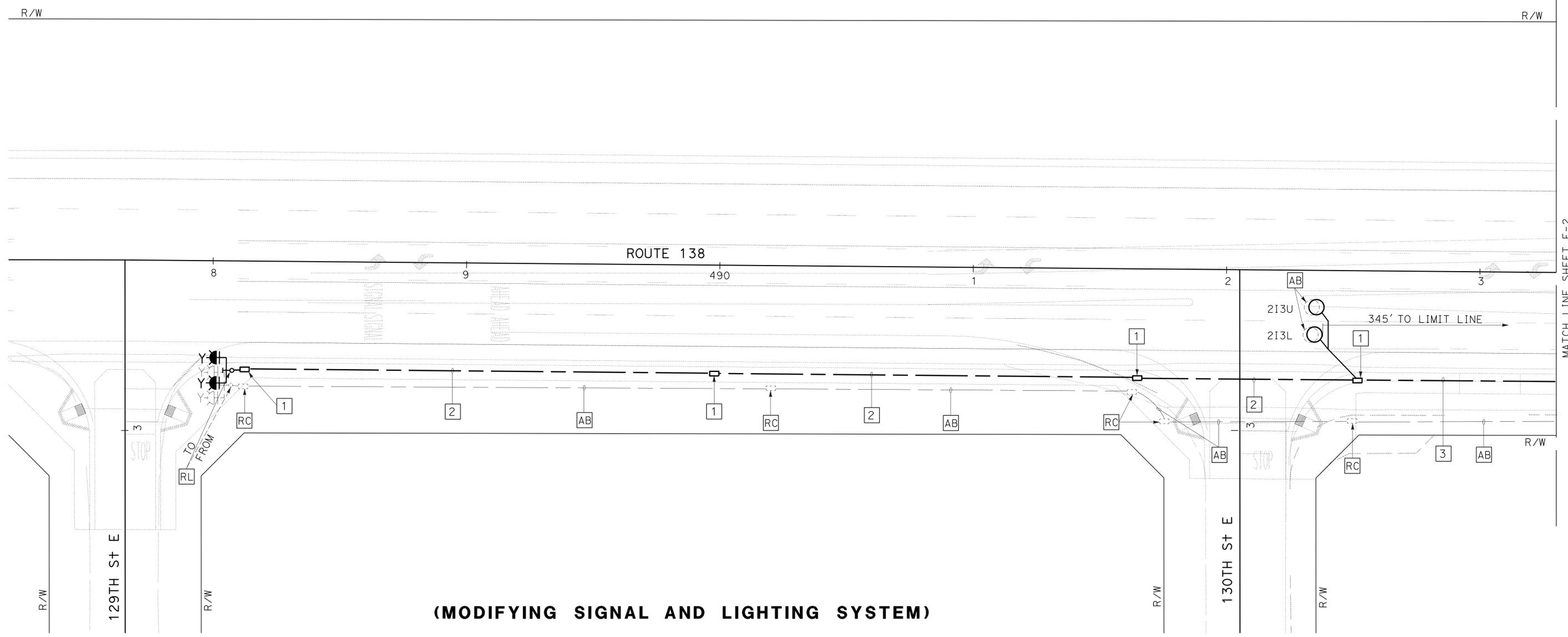
- 1 INSTALL TRAFFIC TYPE PULL BOX WITH TAMPER RESISTANT COVER.
- 2 INSTALL 2"C, 2#4 (FB), 1#8 (G).
- 3 INSTALL 2"C, 2#4 (FB), 2 DLC, 1#8 (G).

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	126	164

REGISTERED ELECTRICAL ENGINEER: *Cecilio Burciaga* DATE: 4/13/16
 PLANS APPROVAL DATE: 5-23-16

REGISTERED PROFESSIONAL ENGINEER
 CECILIO BURCIAGA
 No. E015302
 Exp. 3/31/17
 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.



(MODIFYING SIGNAL AND LIGHTING SYSTEM)

MODIFYING EXISTING ELECTRICAL SYSTEM

SCALE: 1" = 20'

E-1

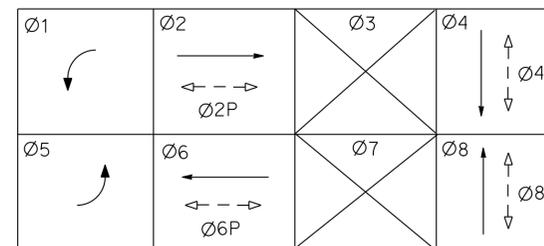
APPROVED FOR ELECTRICAL WORK ONLY

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD		Veh Sig Mtg		COUNTDOWN Ped SIGNAL Mtg	APS (N)		LED LUMINAIRE	SPECIAL REQUIREMENTS	
	TYPE	SMA	LMA	MAST ARM		POLE	Ø			ARROW
(A)	26-4-100	40'	12'	1 MAT 1 MAS	SV-1-T	SP-1-T (N)	8	←	165 W (N)	LONGVIEW Rd
(B)	15TS	—	12'	—	SV-2-TA	SP-1-T (N)	2	→	165 W (N)	
(C)	1-A	—	—	—	TV-1-T	SP-1-T (N)	2	←	—	
(D)	15TS	—	12'	—	SV-2-TA	SP-1-T (N)	4	→	165 W (N)	
(E)	29-5-100	50'	12'	1 MAT 1 MAS	SV-1-T	SP-1-T (N)	—	—	165 W (N)	LONGVIEW Rd
(F)	1-A	—	—	—	TV-1-T	SP-1-T (N)	6	→	—	
(G)	15TS	—	12'	—	SV-1-T	SP-1-T (N)	6	←	165 W (N)	
(H)	1-A	—	—	—	TV-2-T	SP-1-T (N)	8	→	—	
(I)	PBA POST(N)	—	—	—	—	—	4	←	—	

(N) - NEW

PHASE DIAGRAM



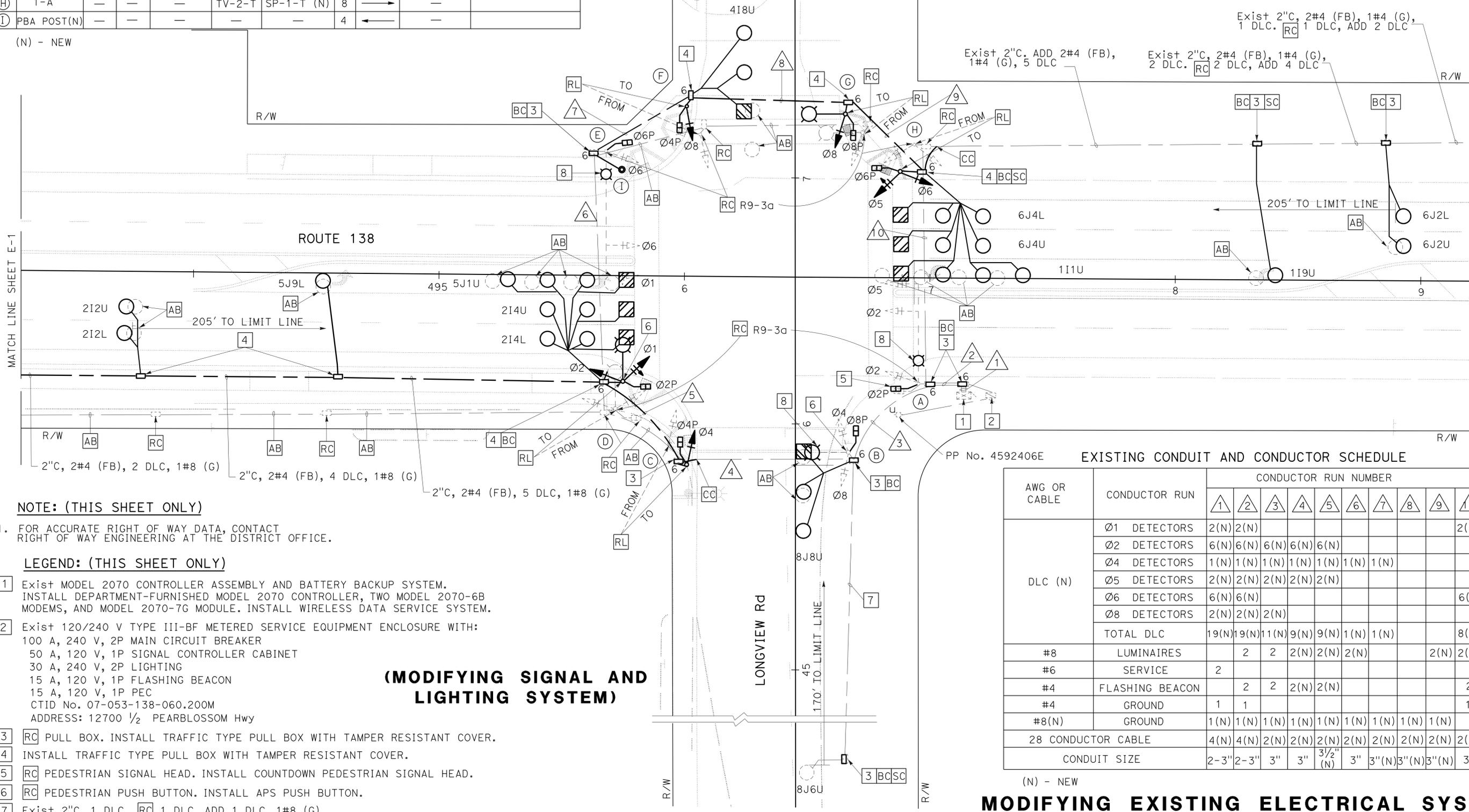
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	127	164

REGISTERED ELECTRICAL ENGINEER DATE 4/13/16
 CECILIO BURCIAGA
 No. E015302
 Exp. 3/31/17
 ELECTRICAL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE 5-23-16

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: YI TSAU
 CALCULATED/DESIGNED BY: FARIDA MAHMOOD
 CHECKED BY: CECILIO BURCIAGA
 REVISIONS: REVISOR: DATE: REVISION: DATE



NOTE: (THIS SHEET ONLY)

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

LEGEND: (THIS SHEET ONLY)

- Exist MODEL 2070 CONTROLLER ASSEMBLY AND BATTERY BACKUP SYSTEM. INSTALL DEPARTMENT-FURNISHED MODEL 2070 CONTROLLER, TWO MODEL 2070-6B MODEMS, AND MODEL 2070-7G MODULE. INSTALL WIRELESS DATA SERVICE SYSTEM.
- Exist 120/240 V TYPE III-BF METERED SERVICE EQUIPMENT ENCLOSURE WITH:
 100 A, 240 V, 2P MAIN CIRCUIT BREAKER
 50 A, 120 V, 1P SIGNAL CONTROLLER CABINET
 30 A, 240 V, 2P LIGHTING
 15 A, 120 V, 1P FLASHING BEACON
 15 A, 120 V, 1P PEC
 CTID No. 07-053-138-060.200M
 ADDRESS: 12700 1/2 PEARBLOSSOM Hwy
- RC PULL BOX. INSTALL TRAFFIC TYPE PULL BOX WITH TAMPER RESISTANT COVER.
- INSTALL TRAFFIC TYPE PULL BOX WITH TAMPER RESISTANT COVER.
- RC PEDESTRIAN SIGNAL HEAD. INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEAD.
- RC PEDESTRIAN PUSH BUTTON. INSTALL APS PUSH BUTTON.
- Exist 2"C, 1 DLC. RC 1 DLC. ADD 1 DLC, 1#8 (G).
- RC HPS LUMINAIRE. INSTALL LED LUMINAIRE.

(MODIFYING SIGNAL AND LIGHTING SYSTEM)

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	CONDUCTOR RUN NUMBER													
		1	2	3	4	5	6	7	8	9	10				
DLC (N)	Ø1 DETECTORS	2(N)	2(N)												2(N)
	Ø2 DETECTORS	6(N)	6(N)	6(N)	6(N)	6(N)									
	Ø4 DETECTORS	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)							
	Ø5 DETECTORS	2(N)	2(N)	2(N)	2(N)	2(N)									
	Ø6 DETECTORS	6(N)	6(N)												6(N)
	Ø8 DETECTORS	2(N)	2(N)	2(N)											
	TOTAL DLC	19(N)	19(N)	11(N)	9(N)	9(N)	1(N)	1(N)							8(N)
#8	LUMINAIRES		2	2	2(N)	2(N)	2(N)							2(N)	2(N)
#6	SERVICE		2												
#4	FLASHING BEACON		2	2	2(N)	2(N)									2
#4	GROUND		1	1											1
#8(N)	GROUND	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)
	28 CONDUCTOR CABLE	4(N)	4(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)
	CONDUIT SIZE	2-3"	2-3"	3"	3"	3"	3 1/2" (N)	3"	3"	3"(N)	3"(N)	3"(N)	3"	3"	3"

(N) - NEW

MODIFYING EXISTING ELECTRICAL SYSTEM E-2
 SCALE: 1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

REVISOR BY
 DATE

FARIDA MAHMOOD
 CECILIO BURCIAGA

CALCULATED/DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 YI TSAU

NOTE: (THIS SHEET ONLY)

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

LEGEND: (THIS SHEET ONLY)

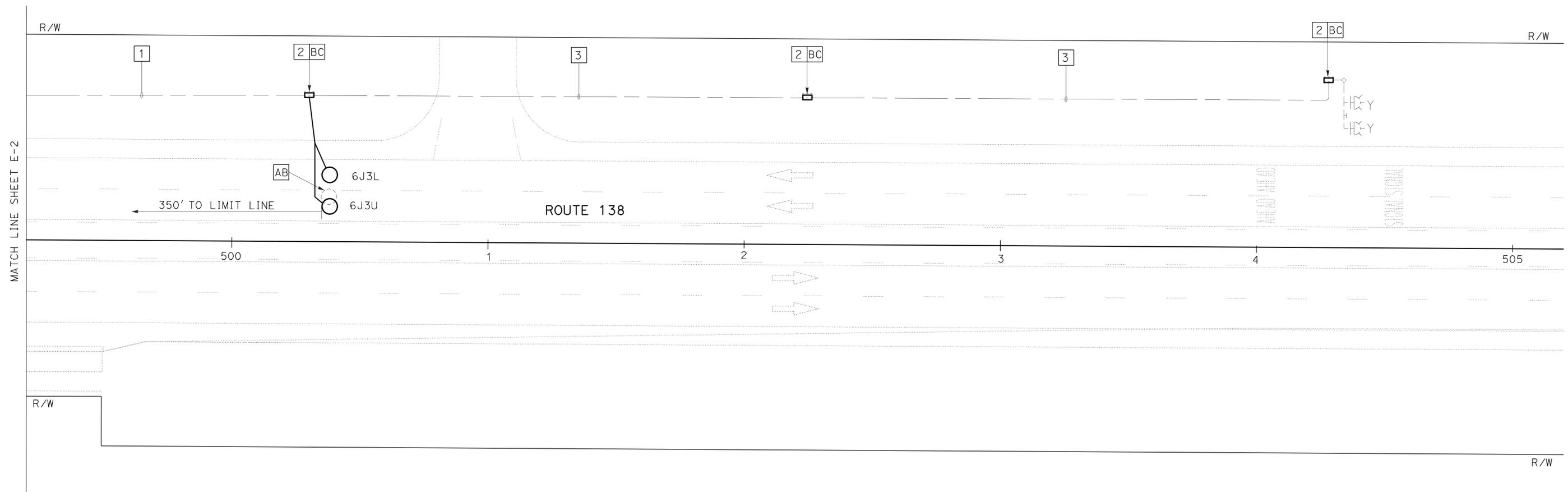
- 1 Exist 2"C, 2#4 (FB), 1#4 (G), 1 DLC. RC 1 DLC, ADD 2 DLC.
- 2 RC PULL BOX. INSTALL TRAFFIC TYPE PULL BOX WITH TAMPER RESISTANT COVER.
- 3 Exist 2"C, 2#4 (FB), 1#4 (G).

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	128	164

REGISTERED ELECTRICAL ENGINEER DATE 4/13/16
 CECILIO BURCIAGA
 No. E015302
 Exp. 3/31/17
 ELECTRICAL

5-23-16
 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.



(MODIFYING SIGNAL AND LIGHTING SYSTEM)

MODIFYING EXISTING ELECTRICAL SYSTEM

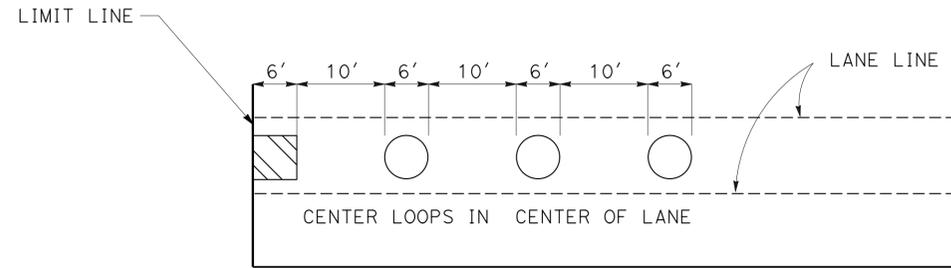
SCALE: 1" = 20'

E-3

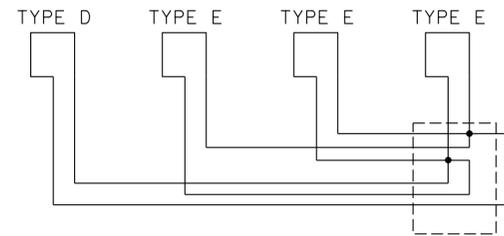
APPROVED FOR ELECTRICAL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	129	164
 REGISTERED ELECTRICAL ENGINEER DATE			4/13/16		
5-23-16 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>					

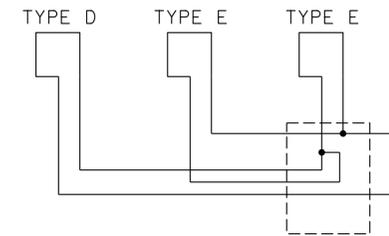
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
Caltrans TRAFFIC DESIGN	YI TSAU	CHECKED BY	FARIDA MAHMOOD	
			CECILIO BURCIAGA	



TYPICAL LOOP DETAIL



LOOP CONNECTION



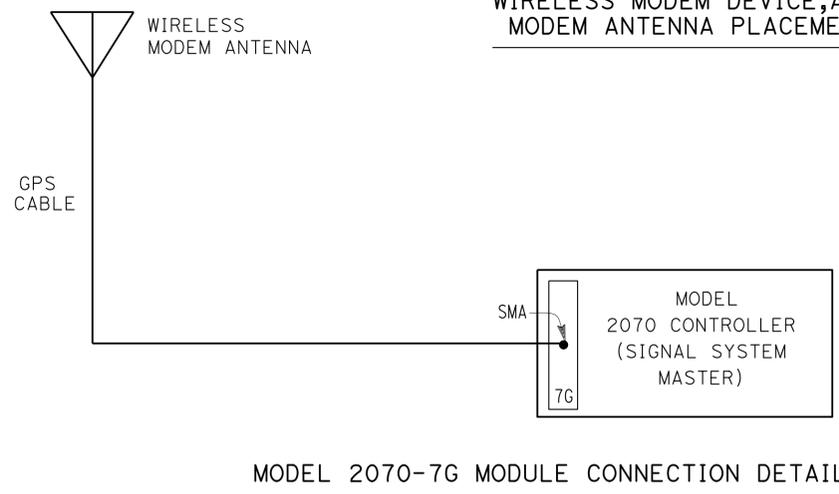
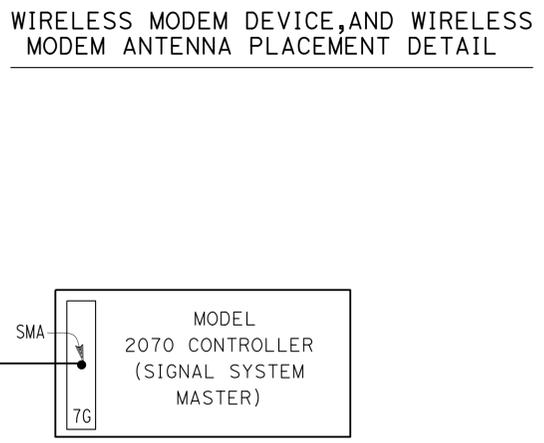
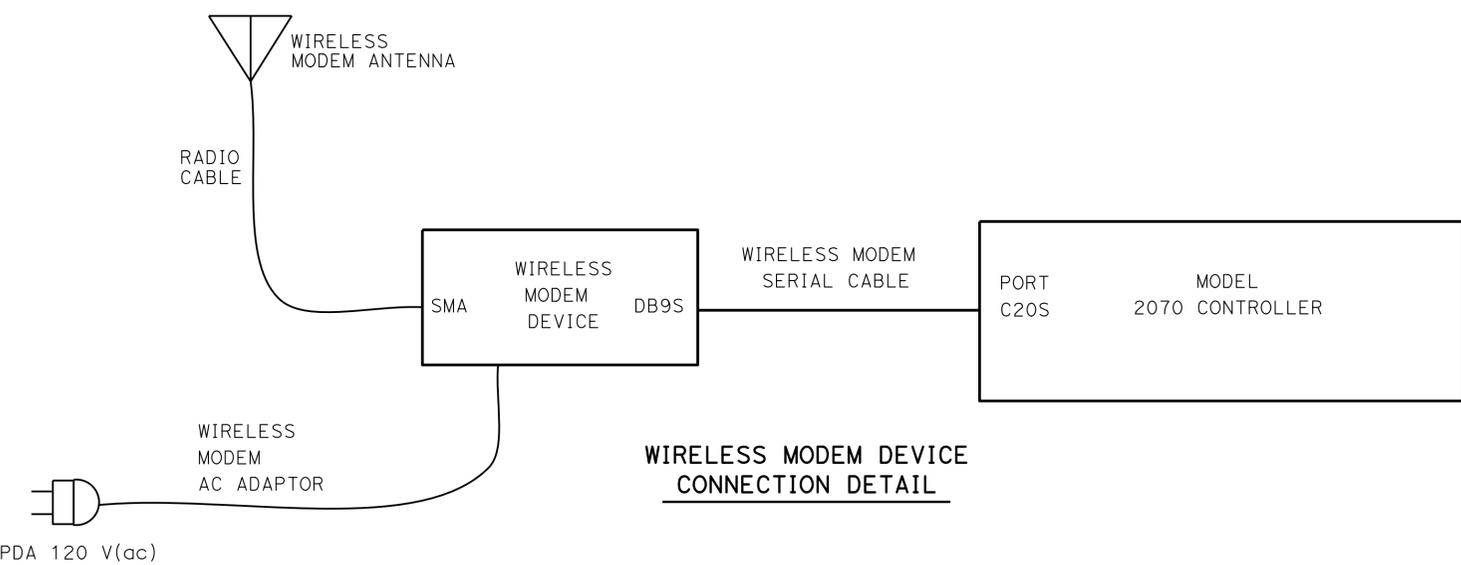
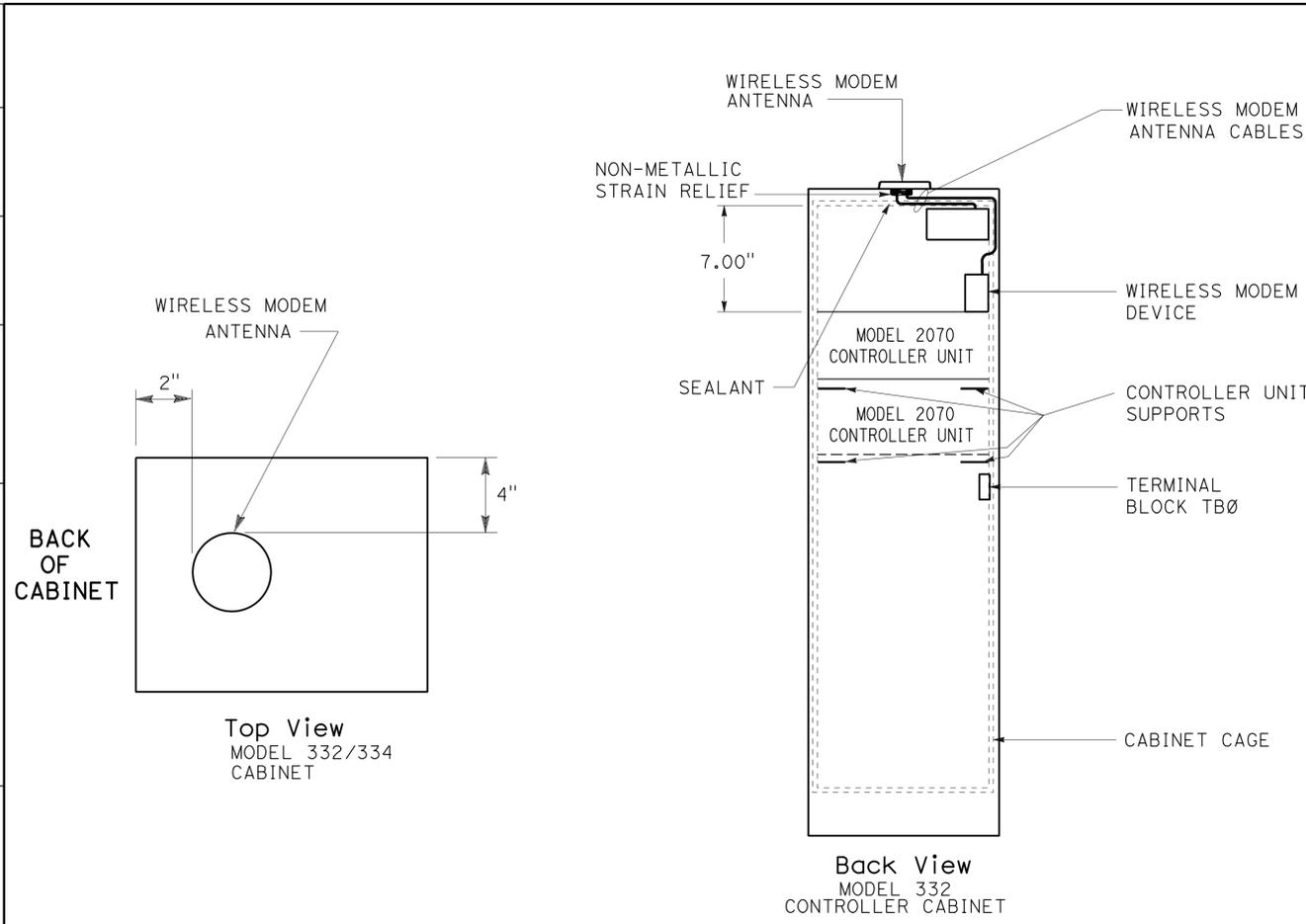
LOOP CONNECTION

(BICYCLE LOOP DETECTOR DETAILS)

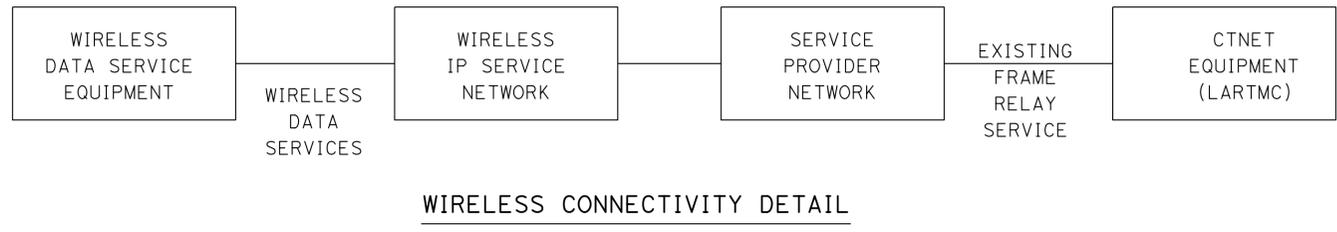
ELECTRICAL DETAILS
NO SCALE

E-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR YI TSAU
 CALCULATED/DESIGNED BY CHECKED BY
 FARIDA MAHMOOD CECILIO BURCIAGA
 REVISED BY DATE REVISED



- ABBREVIATIONS: (THIS SHEET)**
- BNC BAYONET NEILL-CONCELMAN
 - CTNET CALTRANS TRAFFIC SIGNAL NETWORK.
 - DB9S SERIES D SUBMINIATURE CONNECTOR, E SIZE SHELL, 9 PIN SOCKET
 - GPS GLOBAL POSITIONING SYSTEM
 - IP INTERNET PROTOCOL
 - LARTMC LOS ANGELES REGIONAL TRANSPORTATION MANAGEMENT CENTER
 - PDA POWER DISTRIBUTION ASSEMBLY
 - SMA SUBMINIATURE VERSION A



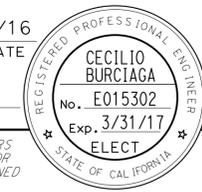
(WIRELESS DATA SERVICE SYSTEMS)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	131	164

 4/13/16
 REGISTERED ELECTRICAL ENGINEER DATE

5-23-16
 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:

1. ITEMS SHOWN IN TABLE ARE NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 YI TSAU
 CALCULATED/DESIGNED BY
 CHECKED BY
 FARIDA MAHMOOD
 CECILIO BURCIAGA
 REVISED BY
 DATE REVISED

MODIFYING EXISTING ELECTRICAL SYSTEM

SHEET No.	No. 5 PB WITH TAMPER RESISTANT COVER (EA)	No. 6 PB WITH TAMPER RESISTANT COVER (EA)	LOOP D (EA)	LOOP E (EA)	2" C (LF)	3" C (LF)	PBA POST (EA)	APS (EA)	COUNT- DOWN Ped HEAD (EA)	LED Lum (EA)	DLC (LF)	AWG #4 (LF)	AWG #8 (LF)	28CSC (LF)	WIRELESS DATA (EA)	FOUNDATION FOR STANDARD (EA)
E-1	4	—	—	2	520	—	—	—	—	—	160	1100	550	—	—	1
E-2	5	9	8	24	260	220	1	8	8	5	5050	1020	1250	1100	1	5
E-3	3	—	—	2	—	—	—	—	—	—	230	—	—	—	—	—

ELECTRICAL QUANTITIES

E-6



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	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
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	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

M

N

O

P

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
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

P continued

Q

R

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	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

S

T

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

T continued

U

V

W

X

Y

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	132	164
<i>Grace M. Tsushima</i> REGISTERED CIVIL ENGINEER					
July 19, 2013 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 5-23-16

UNIT OF MEASUREMENT SYMBOLS:

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

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:

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.

REVISED STANDARD PLAN RSP A10B

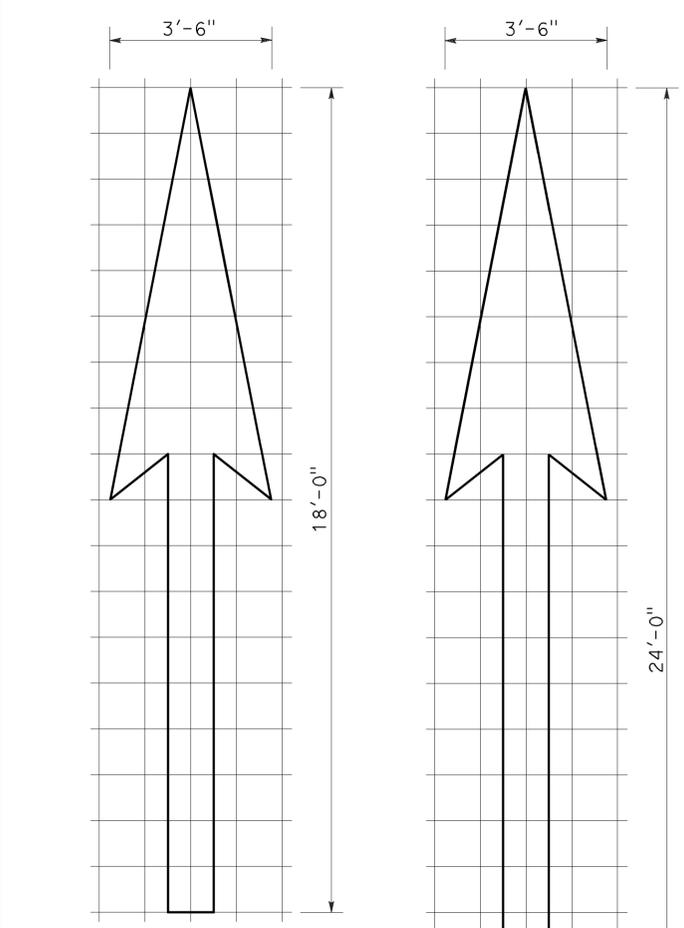
2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	133	164

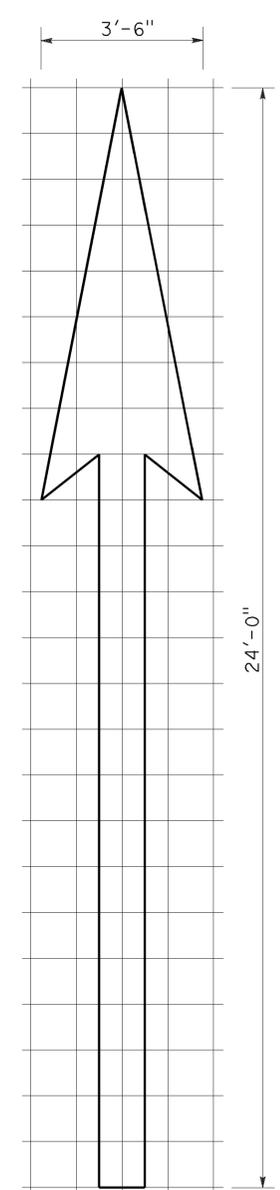
Roberto L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

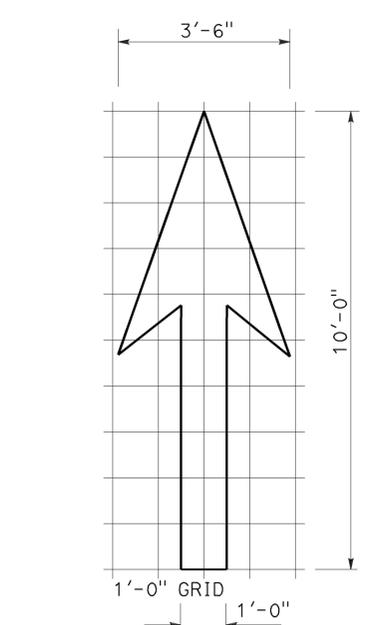
TO ACCOMPANY PLANS DATED 5-23-16



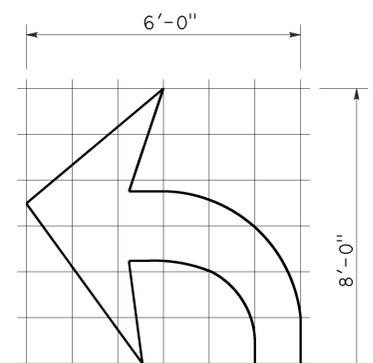
A=25 ft²
TYPE I 18'-0" ARROW



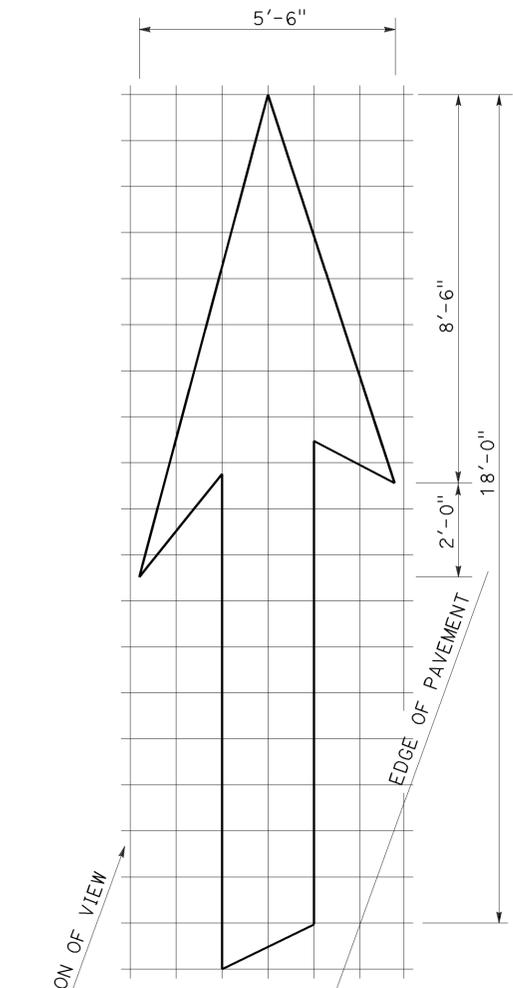
A=31 ft²
TYPE I 24'-0" ARROW



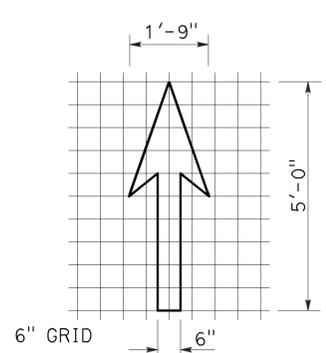
A=14 ft²
TYPE I 10'-0" ARROW



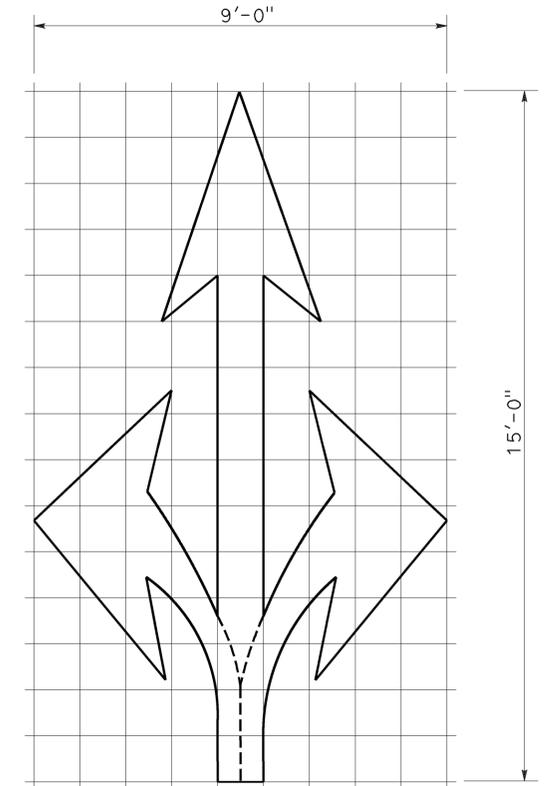
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow, use mirror image)



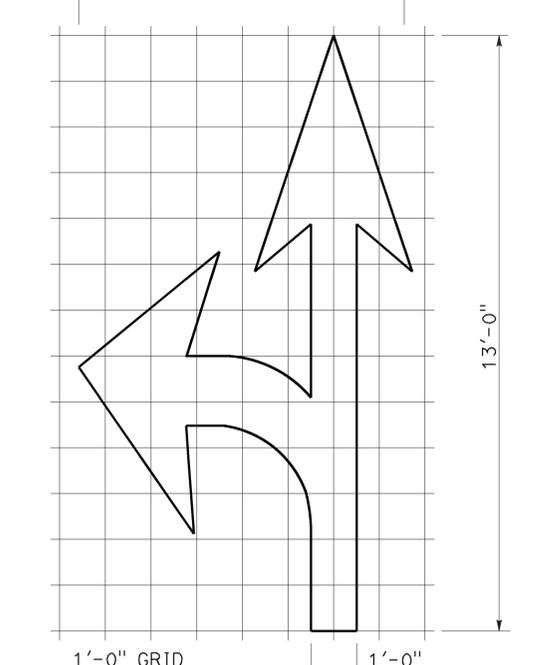
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane, use mirror image)



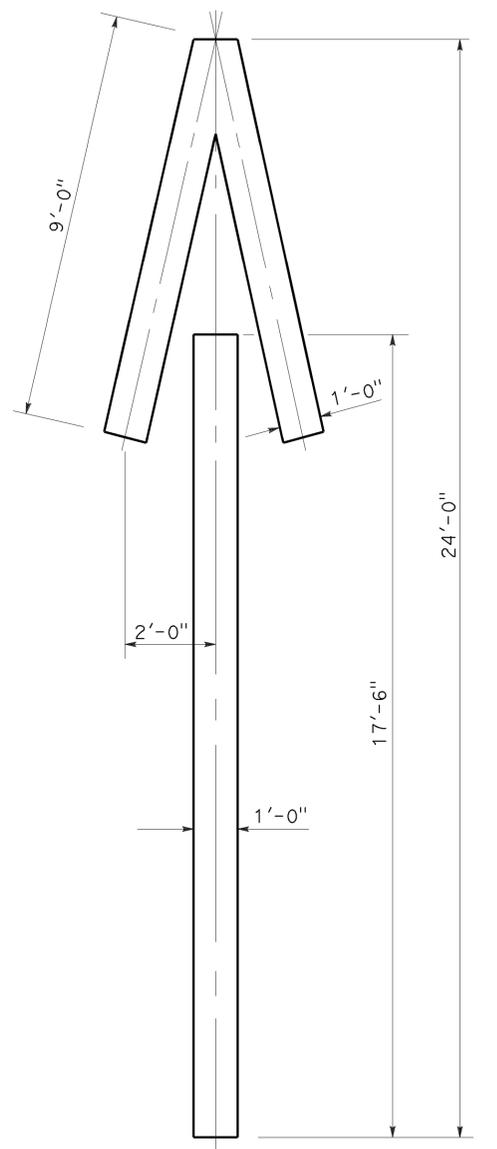
A=3.5 ft²
BIKE LANE ARROW



A=36 ft²
TYPE VIII ARROW



A=27 ft²
TYPE VII (L) ARROW
(For Type VII (R) arrow, use mirror image)



A=33 ft²
TYPE V ARROW

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

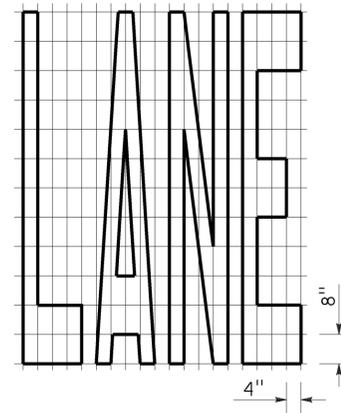
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

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

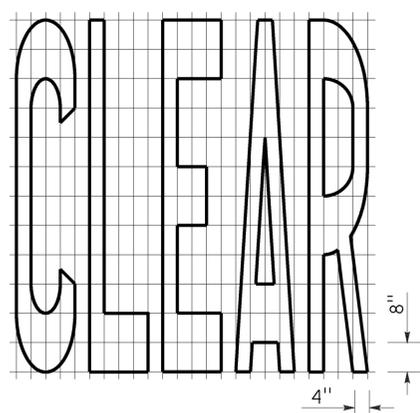
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

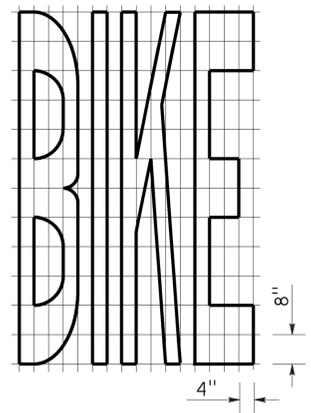
TO ACCOMPANY PLANS DATED 5-23-16



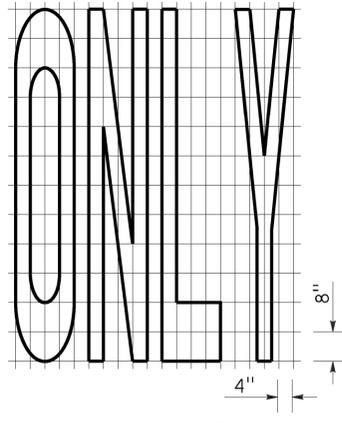
A=24 ft²



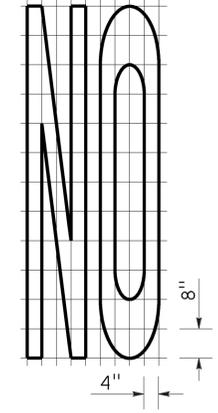
A=27 ft²



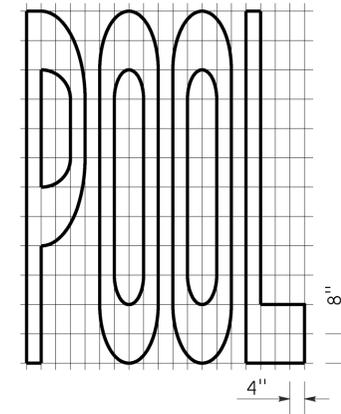
A=21 ft²



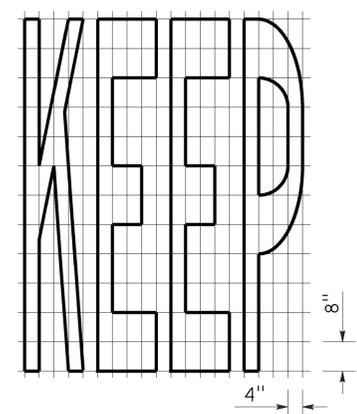
A=22 ft²



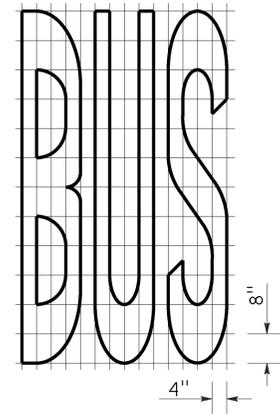
A=14 ft²



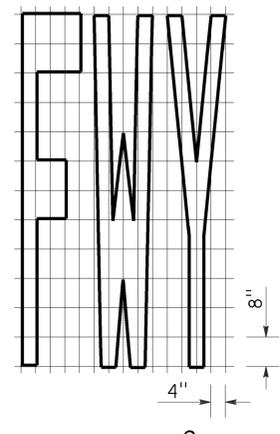
A=23 ft²



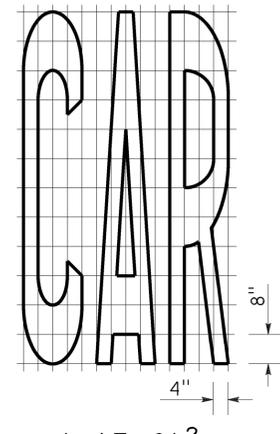
A=24 ft²



A=20 ft²

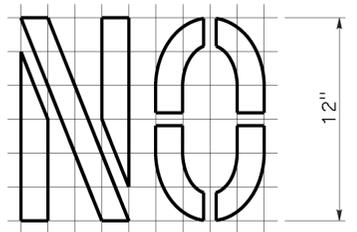


A=16 ft²



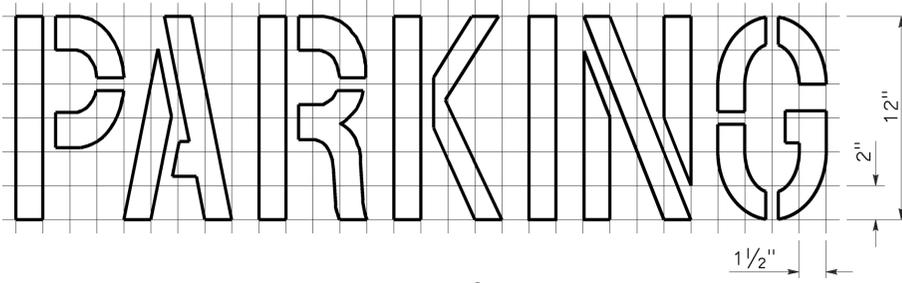
A=17 ft²

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



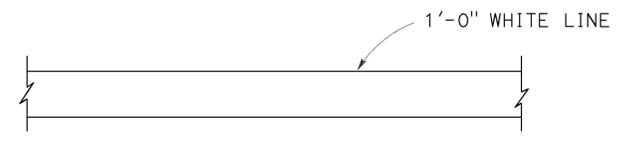
A=2 ft²

See Notes 6 and 7



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



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

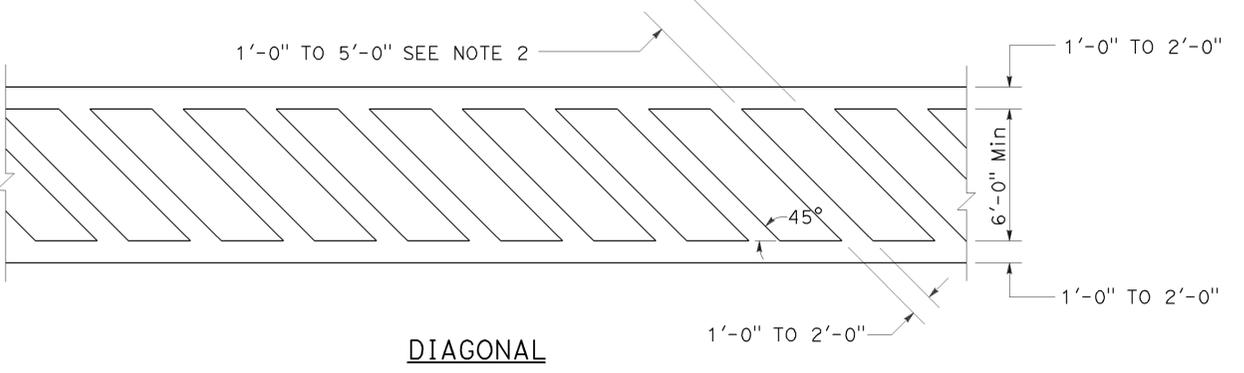
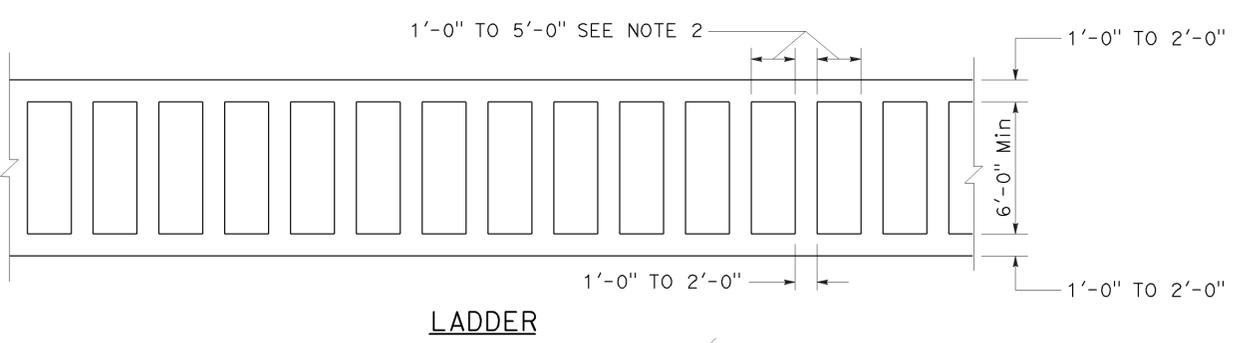
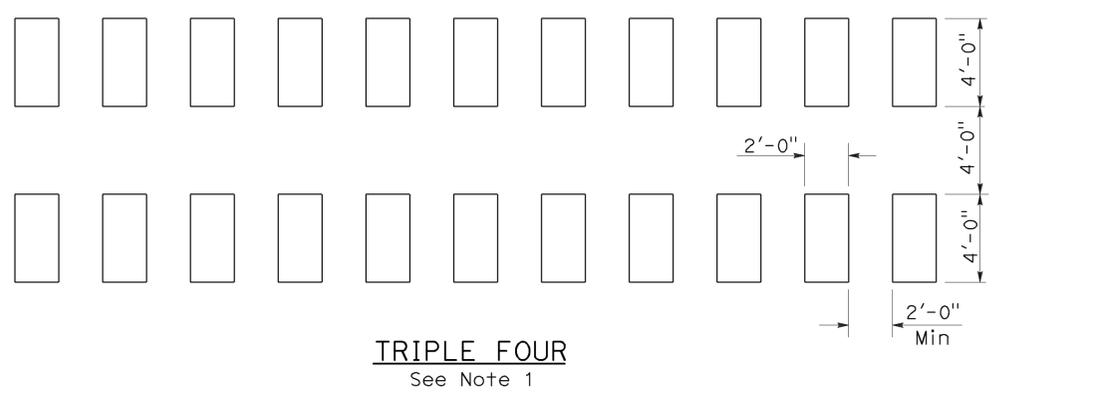
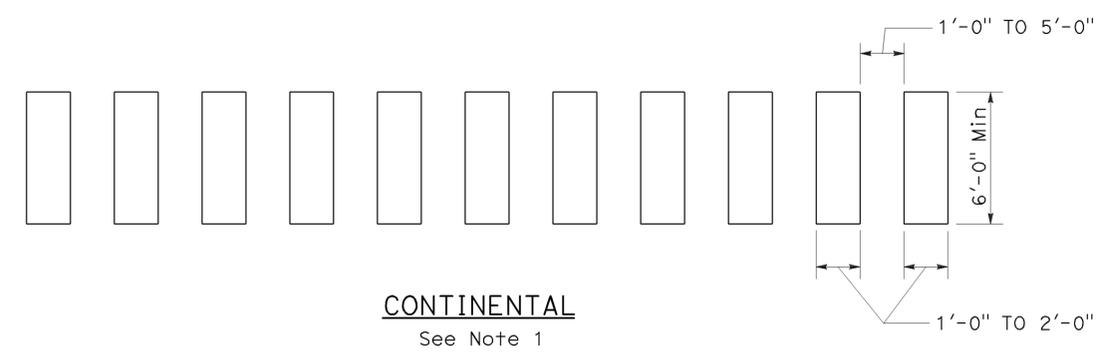
RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
 DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	135	164

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 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.

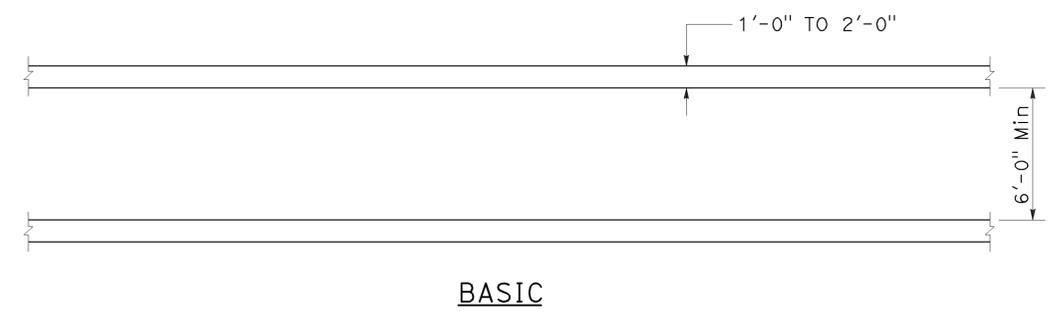
TO ACCOMPANY PLANS DATED 5-23-16



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.



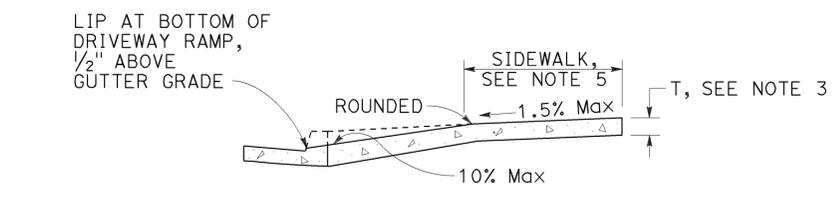
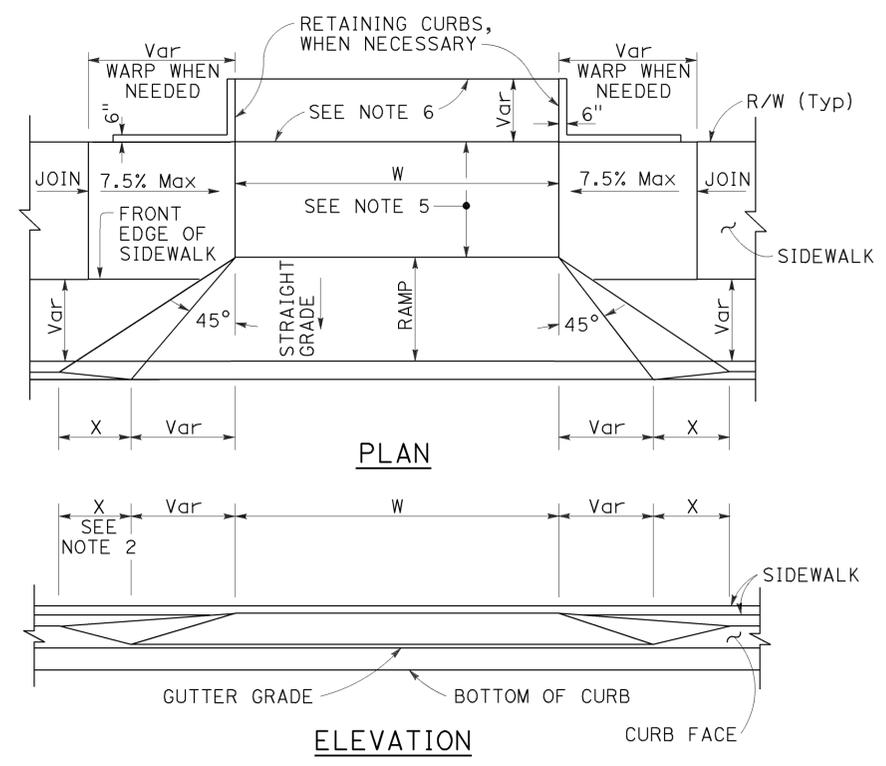
BASIC

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

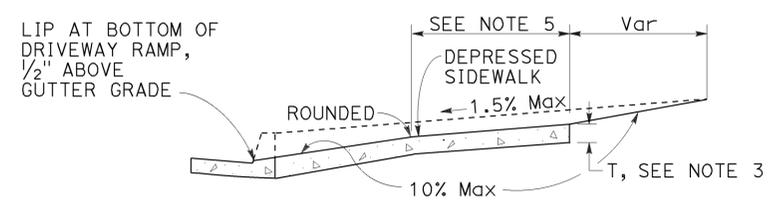
NO SCALE
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24F

TO ACCOMPANY PLANS DATED 5-23-16



CASE A
Typical driveway, sidewalk not depressed



CASE B
Driveway with depressed sidewalk

SECTIONS

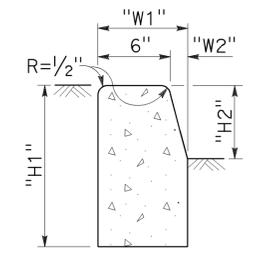
TABLE A

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

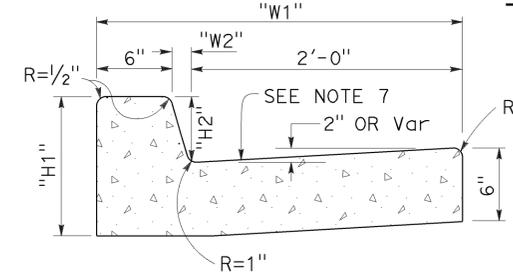
CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

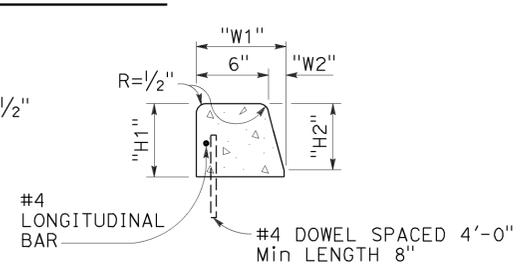
DRIVEWAYS



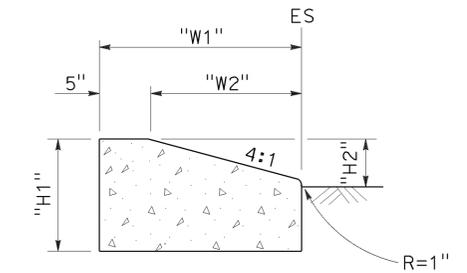
TYPE A1 CURBS
See Table A



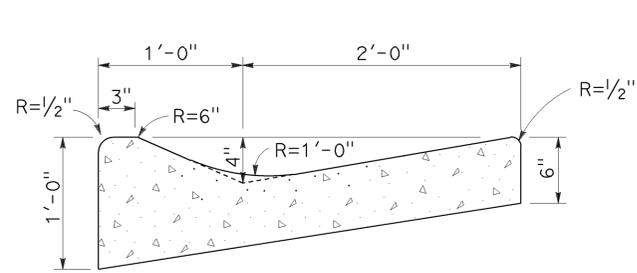
TYPE A2 CURBS
See Table A



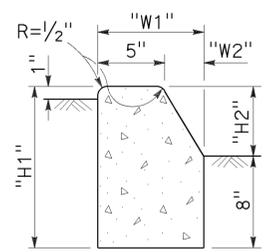
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



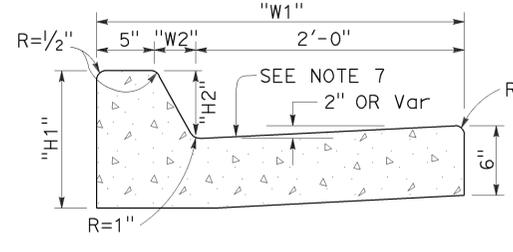
TYPE D CURBS
See Table A



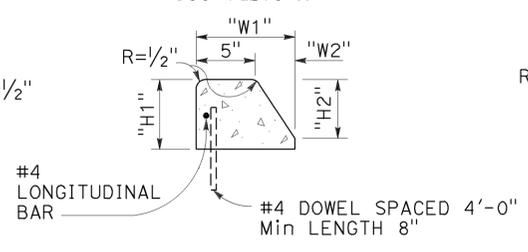
TYPE E CURB



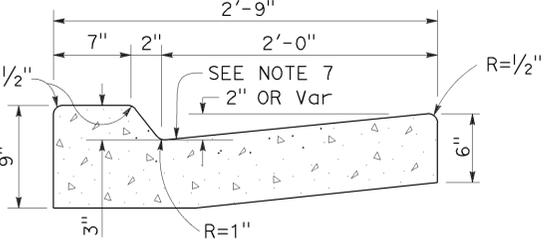
TYPE B1 CURBS
See Table A



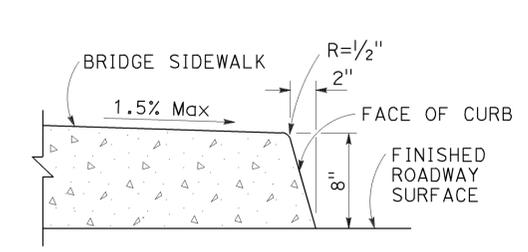
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

CURBS

- NOTES:**
- Case A driveway section typically applies.
 - X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
 - Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
 - Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.

- Minimum width of clear passageway for sidewalk shall be 4'-2".
- Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
- Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

NO SCALE

RSP A87A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87A
DATED MAY 20, 2011 - PAGE 119 OF THE STANDARD PLANS BOOK DATED 2010.

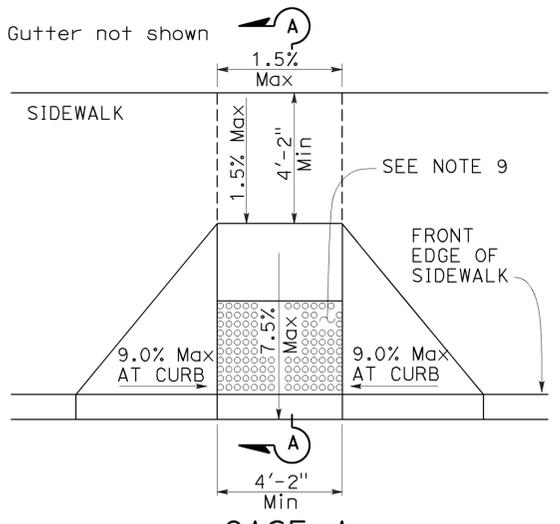
REVISED STANDARD PLAN RSP A87A

2010 REVISED STANDARD PLAN RSP A87A

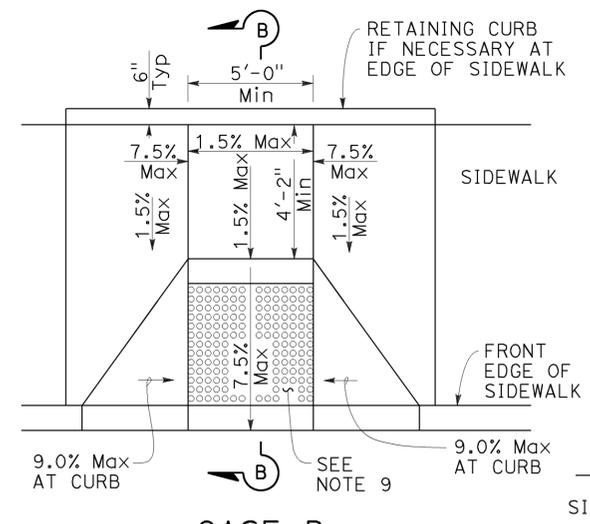
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	137	164

H. David Cordova
 REGISTERED CIVIL ENGINEER
 No. C41957
 Exp. 3-31-18
 CIVIL
 STATE OF CALIFORNIA

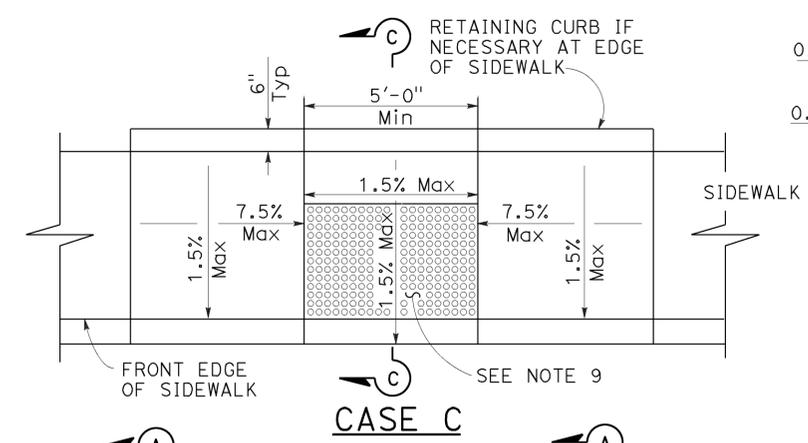
July 15, 2016
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



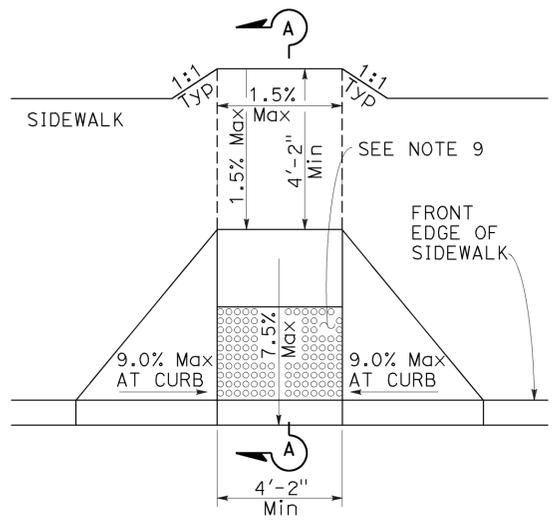
CASE A



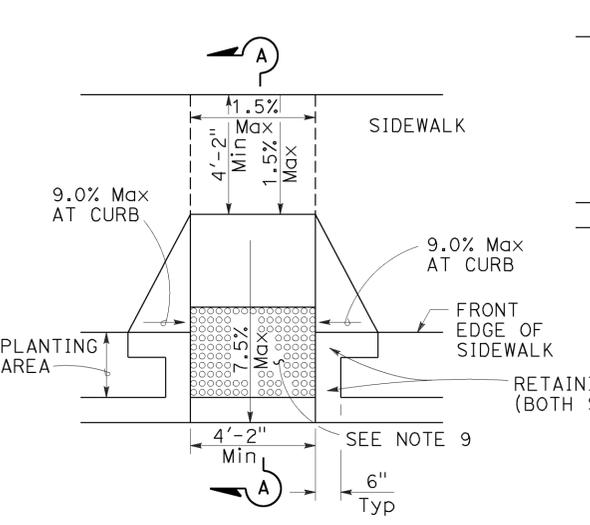
CASE B



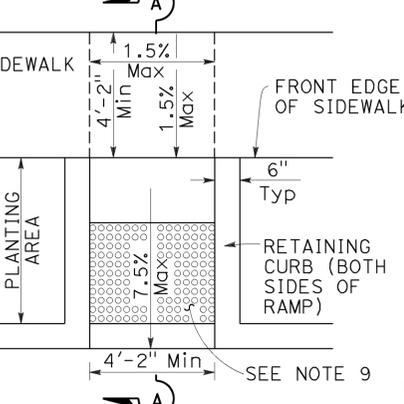
CASE C



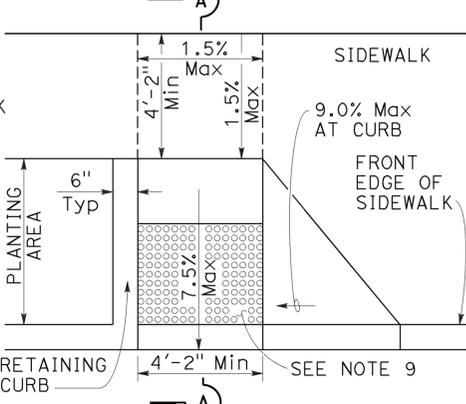
CASE D



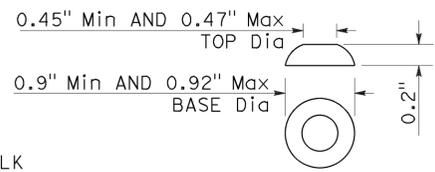
CASE E



CASE F



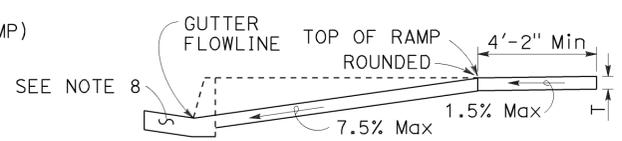
CASE G



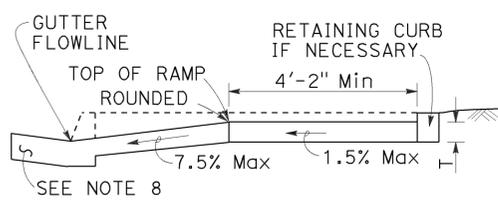
RAISED TRUNCATED DOME

NOTES:

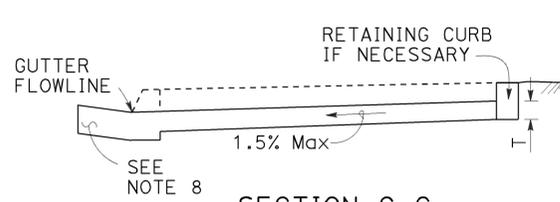
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1:20 (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable Warning Surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3 1/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.



SECTION A-A



SECTION B-B

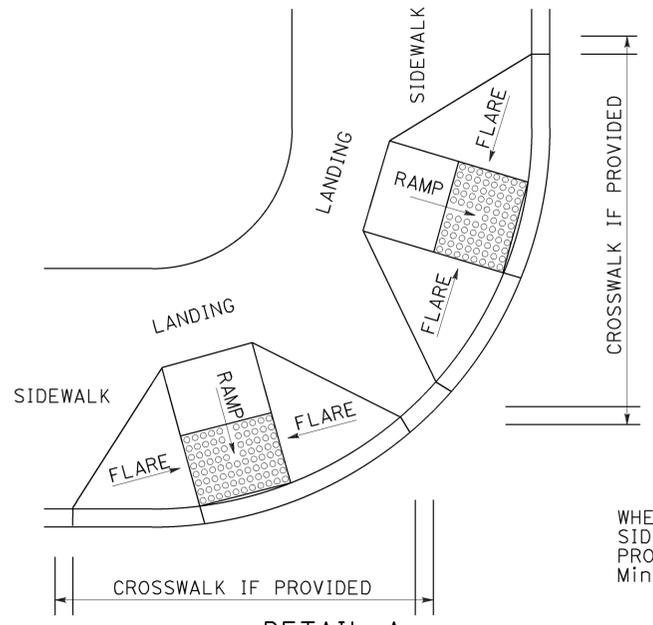


SECTION C-C



RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE

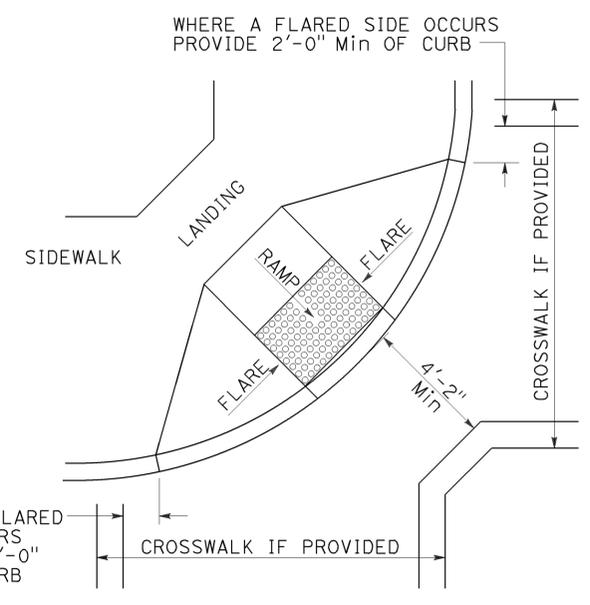
See Note 9



DETAIL A

TYPICAL TWO-RAMP CORNER INSTALLATION

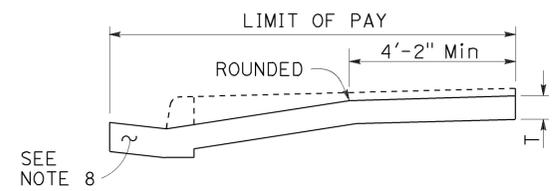
See Note 1



DETAIL B

TYPICAL ONE-RAMP CORNER INSTALLATION

See Notes 1 and 3



RETROFIT PAY LIMITS

See Note 8

Existing curb and sidewalk

2010 REVISED STANDARD PLAN RSP A88A

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
CURB RAMP DETAILS
 NO SCALE
 RSP A88A DATED JULY 15, 2016 SUPERSEDES RSP A88A DATED JULY 3, 2015,
 RSP A88A DATED MARCH 21, 2014 AND RSP A88A DATED JULY 19, 2013 AND
 STANDARD PLAN A88A DATED MAY 20, 2011 -
 PAGE 121 OF THE STANDARD PLANS BOOK DATED 2010.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	138	164


 LICENSED LANDSCAPE ARCHITECT
 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 5-23-16

2010 REVISED STANDARD PLAN RSP H1

A

AB AGGREGATE BASE
 ABS ACRYLONITRILE-BUTADIENE-STYRENE
 AC ASPHALT CONCRETE
 ACC ARMOR-CLAD CONDUCTORS
 Adj ADJACENT/ADJUSTABLE
 AIC AUXILIARY IRRIGATION CONTROLLER
 Alt ALTERNATIVE
 AMEND AMENDMENT
 ARV AIR RELEASE VALVE
 AUTO AUTOMATIC
 AUX AUXILIARY
 AVB ATMOSPHERIC VACUUM BREAKER

B

B&B BALLED AND BURLAPPED
 B/B BRASS/BRONZE
 B/B/PL BRASS/BRONZE/PLASTIC
 B/PL BRASS/PLASTIC
 BFM BONDED FIBER MATRIX
 Bit Ctd BITUMINOUS COATED
 BP BOOSTER PUMP
 BPA BACKFLOW PREVENTER ASSEMBLY
 BPE BACKFLOW PREVENTER ENCLOSURE
 BV BALL VALVE

C

C CONDUIT
 CAP CORRUGATED ALUMINUM PIPE
 CARV COMBINATION AIR RELEASE VALVE
 CB COUPLING BAND
 CCA CAM COUPLER ASSEMBLY
 CEC CONTROLLER ENCLOSURE CABINET
 CHDPE CORRUGATED HIGH DENSITY POLYETHYLENE
 CL CHAIN LINK
 CNC CONTROL AND NEUTRAL CONDUCTORS
 Conc CONCRETE
 CP COPPER PIPE
 CS COMPOST SOCK
 CSP CORRUGATED STEEL PIPE
 CST CENTER STRIP
 CV CHECK VALVE

D

Dia DIAMETER
 DIP DUCTILE IRON PIPE
 DIT DRIP IRRIGATION TUBING
 DG DECOMPOSED GRANITE
 DN DIAMETER NOMINAL
 DVA DRIP VALVE ASSEMBLY

E

EC EROSION CONTROL
 ECTC EROSION CONTROL TECHNOLOGY COUNCIL
 ElecT ELECTRIC/ELECTRICAL
 Elev ELEVATION
 ELL ELBOW
 ENCL ENCLOSURE
 EP EDGE OF PAVEMENT
 ES EDGE OF SHOULDER
 EST END STRIP
 ESTB ESTABLISHMENT
 ETW EDGE OF TRAVELED WAY

F

F FULL CIRCLE
 F/P FULL/PART CIRCLE
 FCV FLOW CONTROL VALVE
 FERT FERTILIZER
 FG FINISHED GRADE
 FH FLEXIBLE HOSE
 FIPT FEMALE IRON PIPE THREAD
 FIS FERTILIZER INJECTOR SYSTEM
 FL FLOW LINE
 FR FIBER ROLL
 FS FLOW SENSOR
 FSC FLOW SENSOR CABLE
 FV FLUSH VALVE

G

Galv GALVANIZED
 GARV GARDEN VALVE
 GARVA GARDEN VALVE ASSEMBLY
 GM GRAVEL MULCH
 GPH GALLONS PER HOUR
 GPM GALLONS PER MINUTE
 GSP GALVANIZED STEEL PIPE
 GV GATE VALVE

H

H HALF CIRCLE
 HDPE HIGH DENSITY POLYETHYLENE
 HP HORSEPOWER/HINGE POINT
 HPL HIGH PRESSURE LINE
 Hwy HIGHWAY

I

IC IRRIGATION CONTROLLER
 ICC IRRIGATION CONTROLLER(S)
 IN CONTROLLER ENCLOSURE CABINET
 ID INSIDE DIAMETER
 IFS IRRIGATION FILTRATION SYSTEM
 IPS IRON PIPE SIZE
 IPT IRON PIPE THREAD
 Irr IRRIGATION

L

L LENGTH

M

Max MAXIMUM
 MBGR METAL BEAM GUARD RAILING
 MCV MANUAL CONTROL VALVE
 MIC MASTER IRRIGATION CONTROLLER
 Min MINIMUM
 MIPT MALE IRON PIPE THREAD
 Misc MISCELLANEOUS
 M+I MATERIAL
 MVP MAINTENANCE VEHICLE PULLOUT

N

NCN NO COMMON NAME
 NL NOZZLE LINE
 No. NUMBER
 NPT NATIONAL PIPE THREAD

O

O/C ON CENTER
 OD OUTSIDE DIAMETER
 OL OVERLAP

P

P PART CIRCLE
 PB PULL BOX
 PCC PORTLAND CEMENT CONCRETE
 PE POLYETHYLENE
 Pk+ PACKET
 PL PLASTIC
 PLS PURE LIVE SEED
 PLT PLANT/PLANTING
 PLT ESTB PLANT ESTABLISHMENT
 PM POST MILE
 PR PRESSURE RATED
 PRLV PRESSURE RELIEF VALVE
 PRV PRESSURE REGULATING VALVE
 PVC POLYVINYL CHLORIDE
 Pvm+ PAVEMENT

Q

Q QUARTER CIRCLE
 QCV QUICK COUPLING VALVE

NOTE:
 For additional abbreviations,
 see Standard Plans A10A and A10B.

R

R RADIUS
 RCP REINFORCED CONCRETE PIPE
 RCV REMOTE CONTROL VALVE
 RCVM REMOTE CONTROL VALVE (MASTER)
 RCVMF REMOTE CONTROL VALVE (MASTER) W/FLOW SENSOR
 RCVP REMOTE CONTROL VALVE W/PRESSURE REGULATOR
 RCW RECYCLED WATER
 RECP ROLLED EROSION CONTROL PRODUCT
 REQ REQUIRED
 RICS REMOTE IRRIGATION CONTROL SYSTEM
 R/W RIGHT OF WAY

S

S SLIP
 SCH SCHEDULE
 SF STATE-FURNISHED
 Shld SHOULDER
 Sq SQUARE
 SST SIDE STRIP
 Sta STATION
 Std STANDARD
 SW SIDEWALK/SOUND WALL

T

T THIRD CIRCLE/THREAD
 TLS TRUCK LOADING STANDPIPE
 TQ THREE QUARTER CIRCLE
 TRM TURF REINFORCEMENT MAT
 TT TWO-THIRDS CIRCLE
 TWSA TREE WELL SPRINKLER ASSEMBLY
 Typ TYPICAL

U

UG UNDERGROUND

W

W WIDTH
 W/ WITH
 WM WATER METER
 WS WYE STRAINER
 WSA WYE STRAINER ASSEMBLY
 WSP WELDED STEEL PIPE
 WWM WELDED WIRE MESH

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**LANDSCAPE AND
 EROSION CONTROL ABBREVIATIONS**
 NO SCALE

RSP H1 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H1
 DATED MAY 20, 2011 - PAGE 218 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H1

TO ACCOMPANY PLANS DATED 5-23-16

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

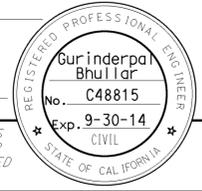
* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

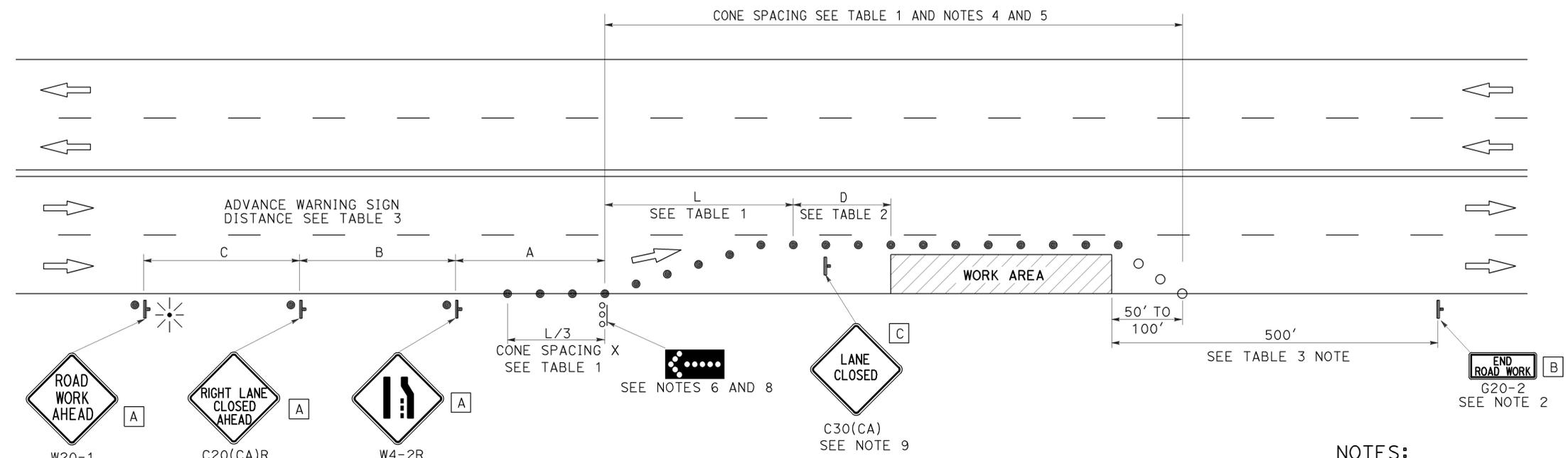
TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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



TO ACCOMPANY PLANS DATED 5-23-16



TYPICAL LANE CLOSURE

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:

- Each advance warning sign 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 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) 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.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- 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 the top of crest vertical curve or on a horizontal curve.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- 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 closure unless, otherwise directed by the Engineer.

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 36" x 18"
- C 30" x 30"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS**

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	141	164

REGISTERED CIVIL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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.

LEGEND

- TRAFFIC CONE
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⦿ FAS SUPPORT OR TRAILER
- ☀ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

NOTES:

See Revised Standard Plan RSP T9 for tables.

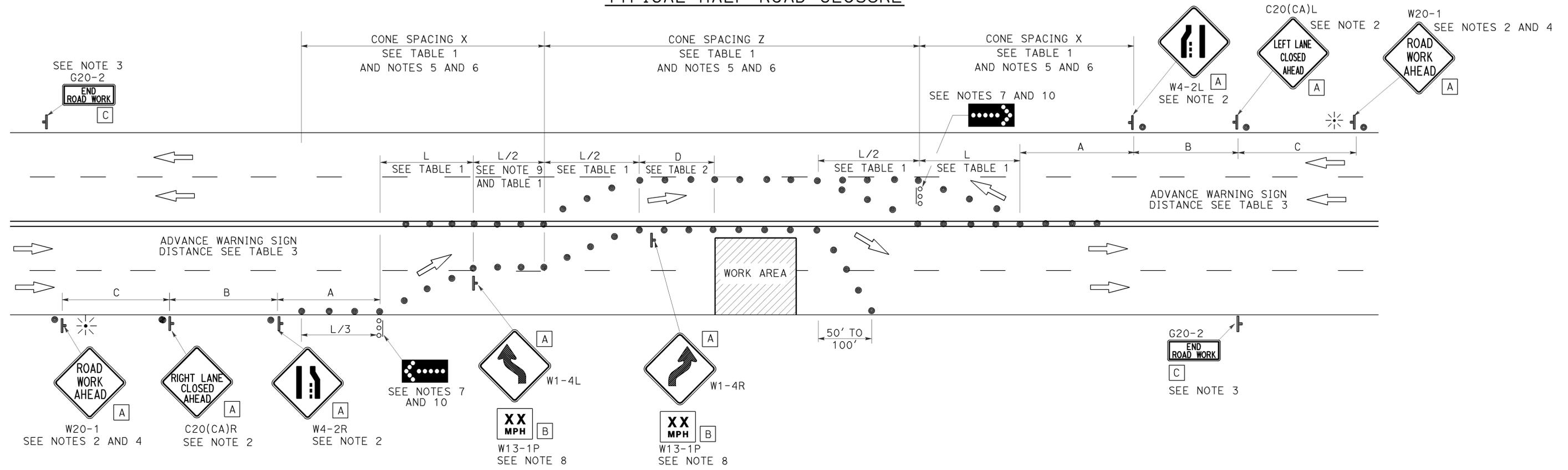
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

TO ACCOMPANY PLANS DATED 5-23-16

TYPICAL HALF ROAD CLOSURE



NOTES:

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. 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.
3. A G20-2 "END ROAD WORK" sign, 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.
4. 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) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. 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 the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR HALF ROAD CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS AND EXPRESSWAYS**

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12 DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

2010 REVISED STANDARD PLAN RSP T12

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
07	LA	138	58.8/60.2	142	164

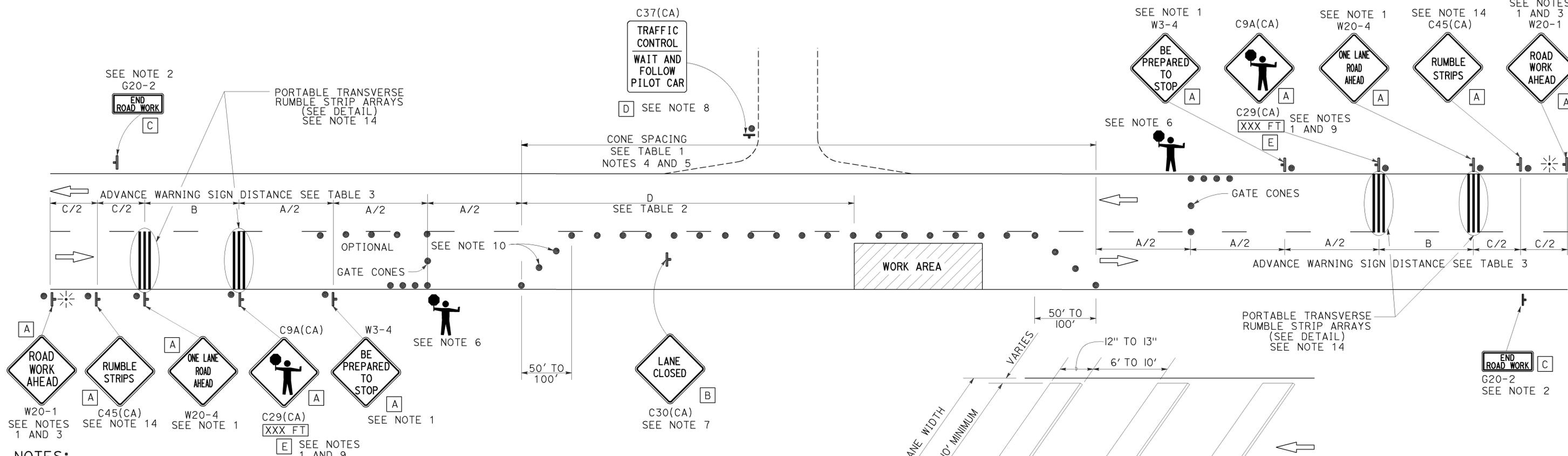
Devinder Singh
 REGISTERED CIVIL ENGINEER
 No. C50470
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

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.

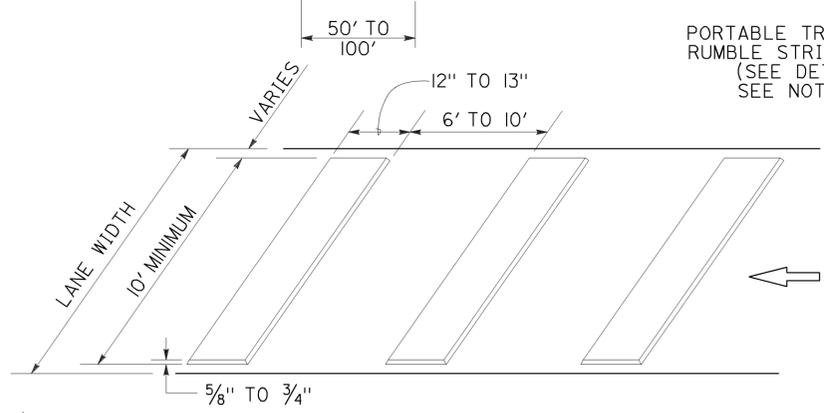
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 5-23-16



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



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 30, 2015 SUPERSEDES
 RSP T13 DATED OCTOBER 17, 2014, 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

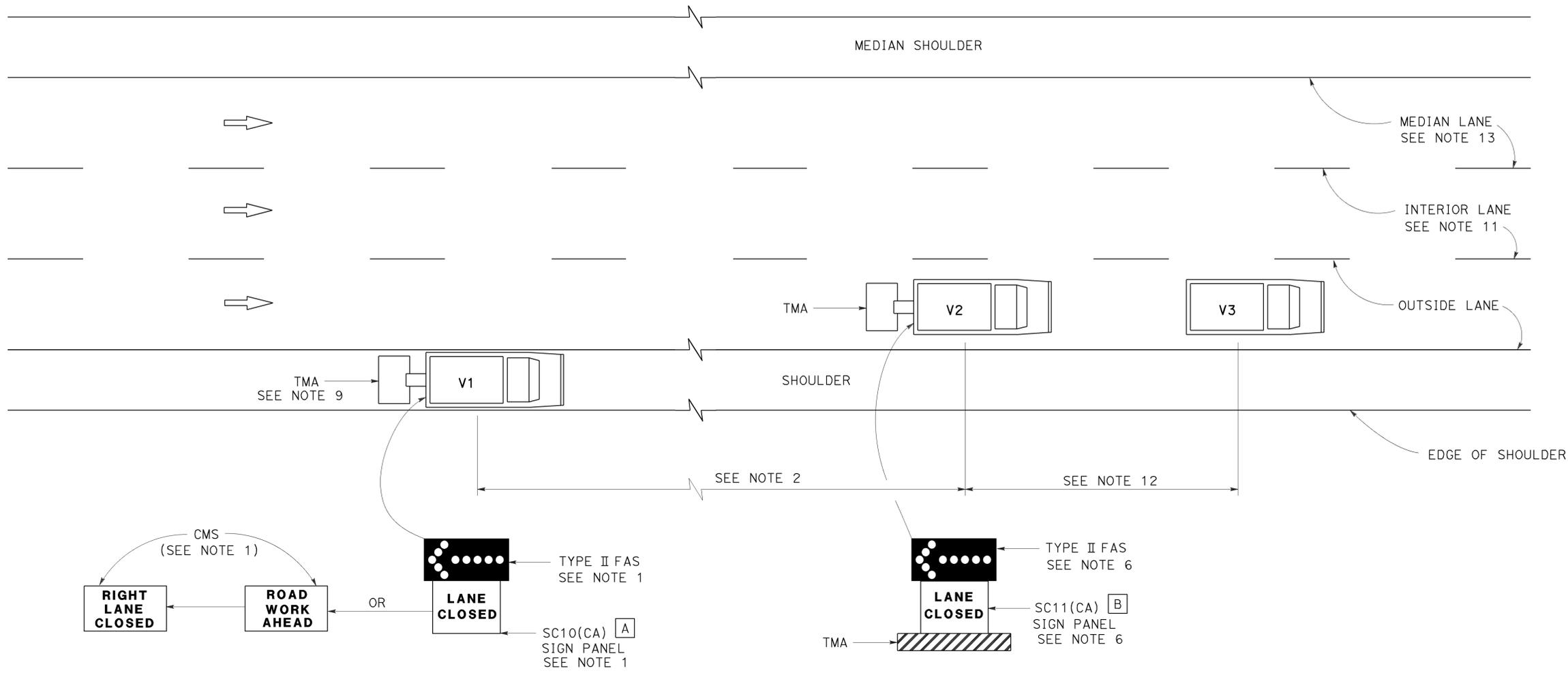
2010 REVISED STANDARD PLAN RSP T13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	143	164

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.

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 5-23-16



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

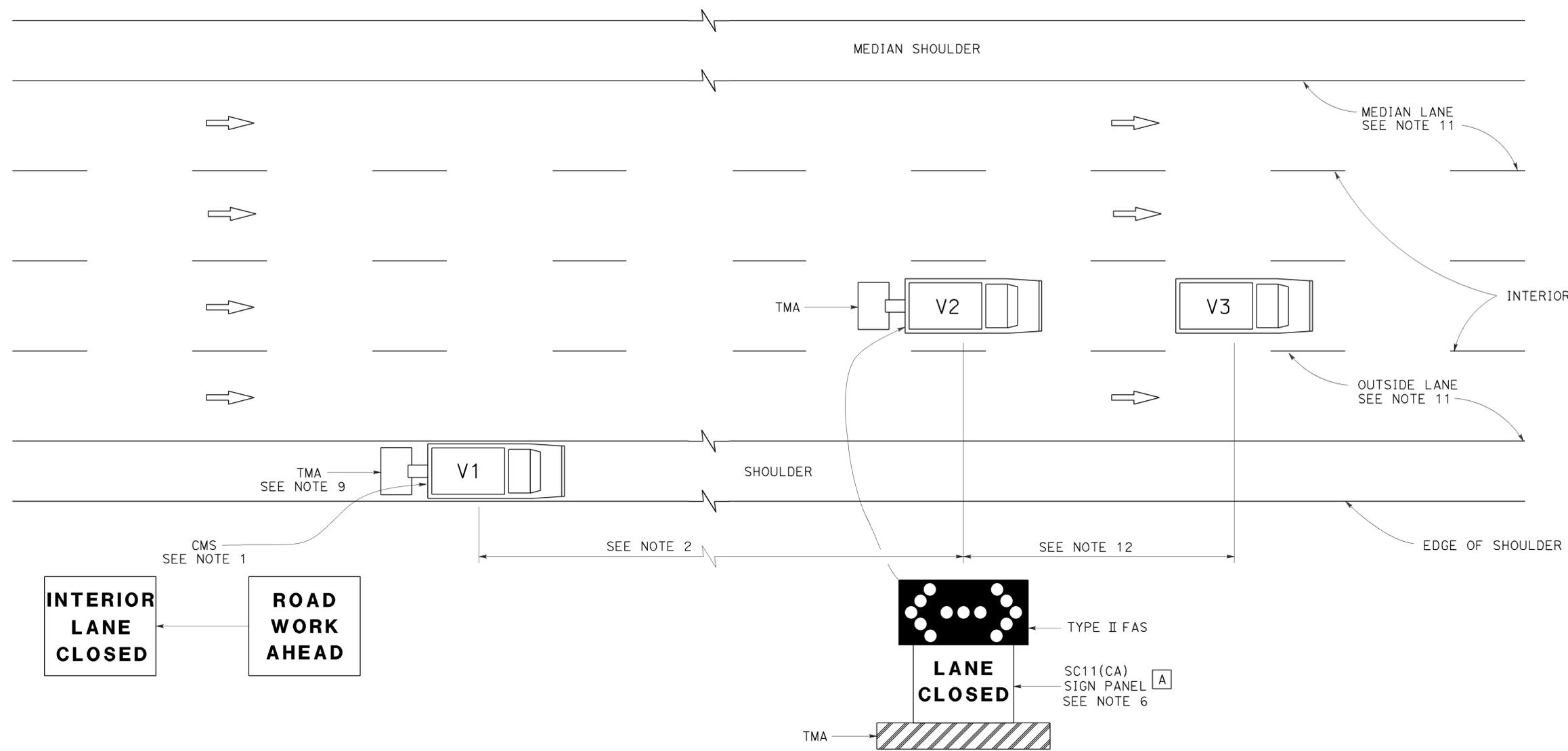
2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	144	164

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.

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 5-23-16



SIGN PANEL SIZE (Min)

A 54" x 42"

LEGEND

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

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

NOTES:

1. A changeable message 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 "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
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.
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 median lane or outside lane of multilane highways, use Revised Standard Plan T15.
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.

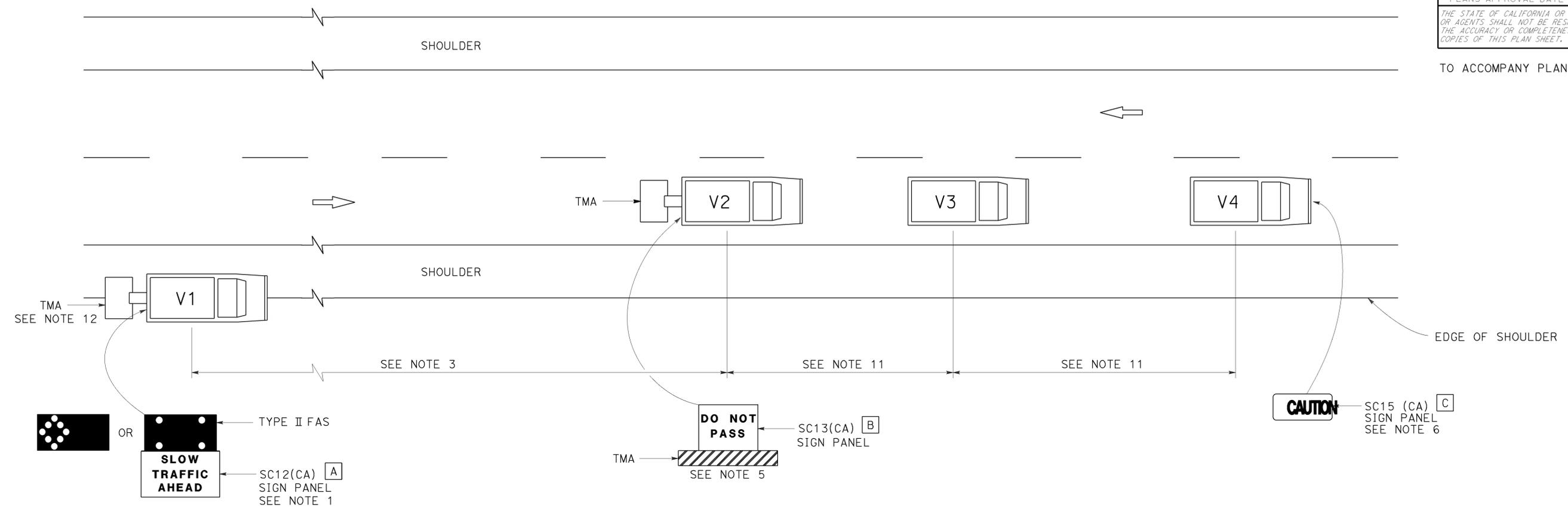
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T16

2010 REVISED STANDARD PLAN RSP T16

TO ACCOMPANY PLANS DATED 5-23-16



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

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

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
07	LA	138	58.8/60.2	146	164

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-16
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.

TO ACCOMPANY PLANS DATED 5-23-16

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(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

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

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	147	164

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 5-23-16

CONDUIT

SIGNAL EQUIPMENT

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

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	
---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

	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

		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:

1. All signal sections shall be 12" unless shown otherwise.
2. 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

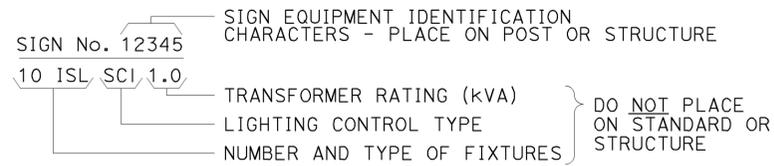
RSP ES-1B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1B DATED JULY 19, 2013 AND STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

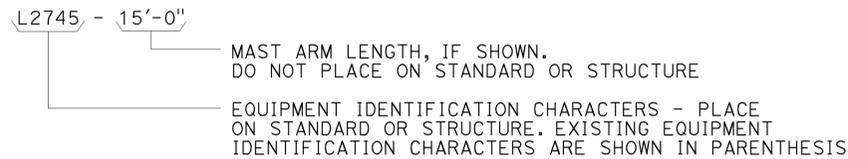
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

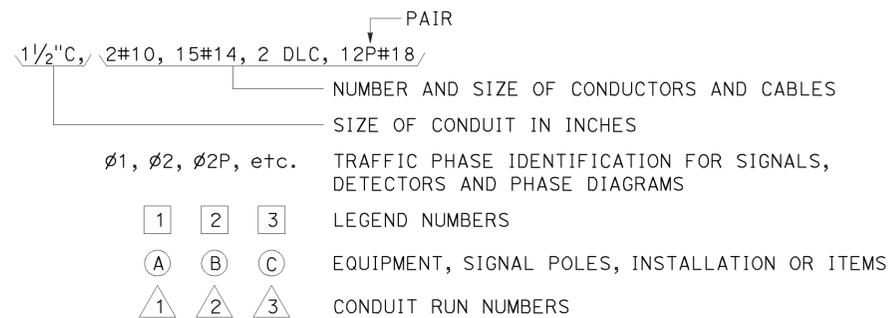
ILLUMINATED SIGN IDENTIFICATION:



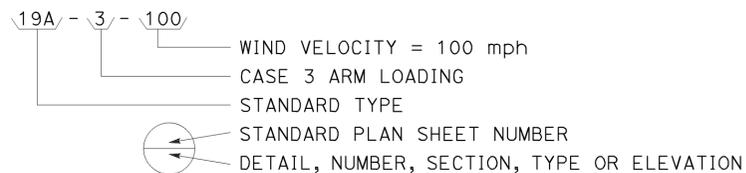
ELECTROLIER OR EQUIPMENT IDENTIFICATION:



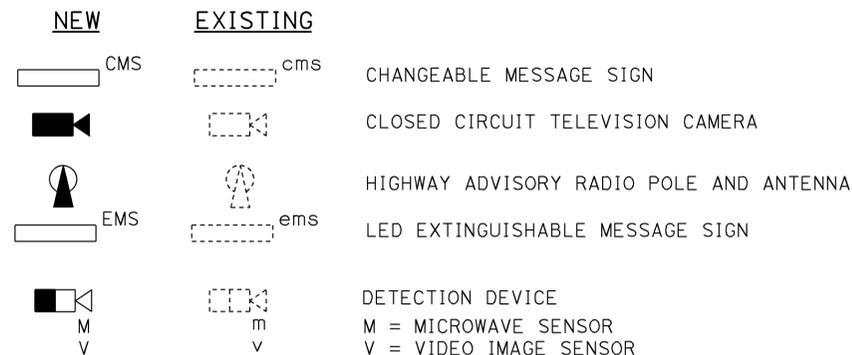
CONDUIT AND CONDUCTOR IDENTIFICATION:



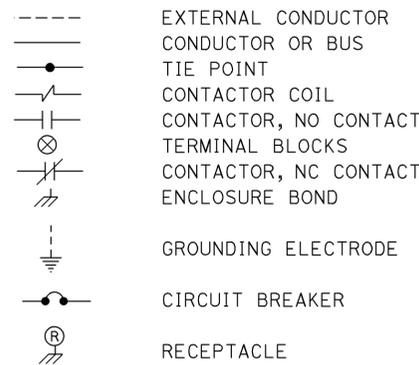
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



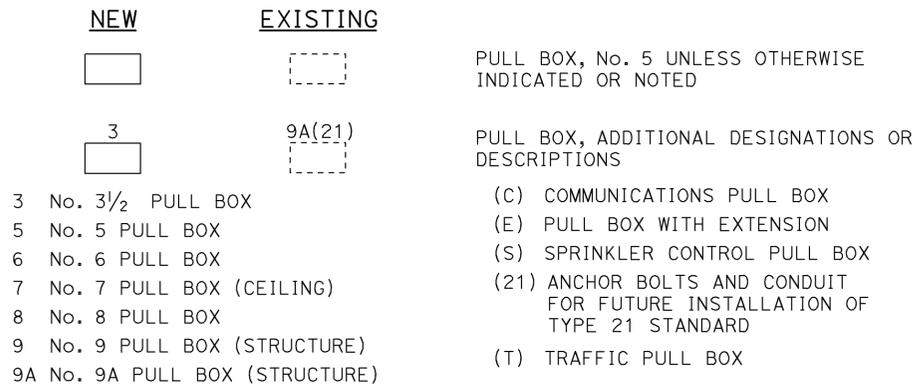
MISCELLANEOUS EQUIPMENT



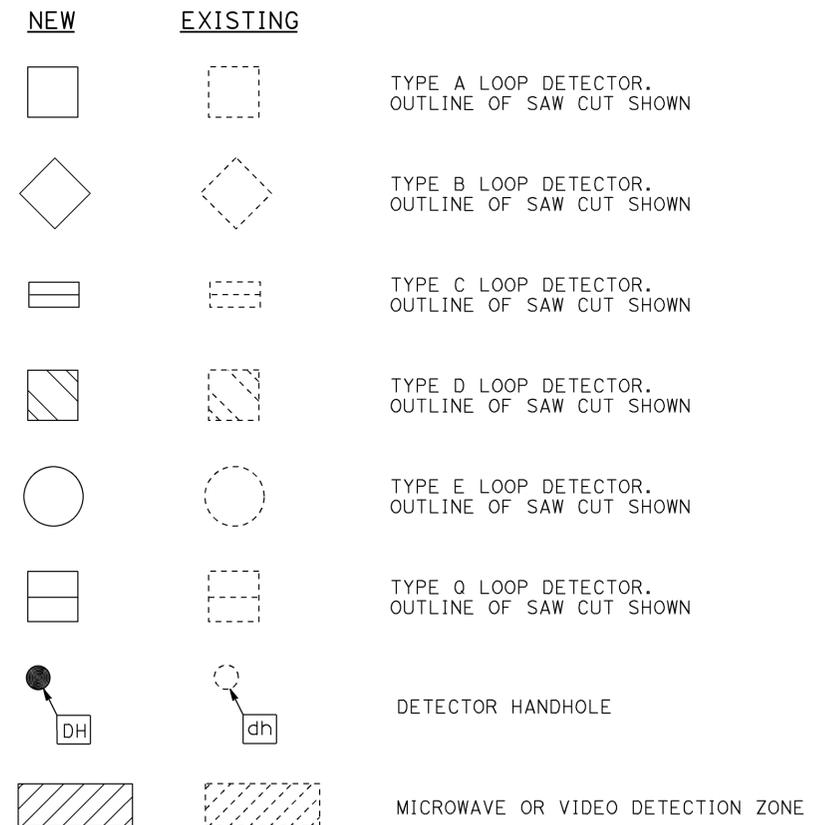
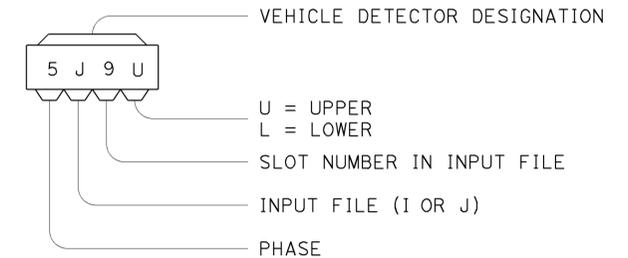
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-1C
DATED OCTOBER 30, 2015 - PAGE 420 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-1C

2015 REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	138	58.8/60.2	149	164

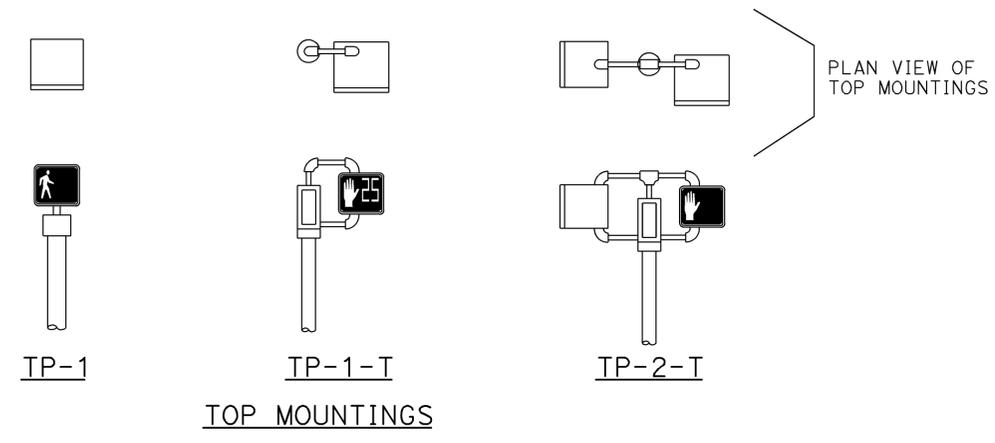
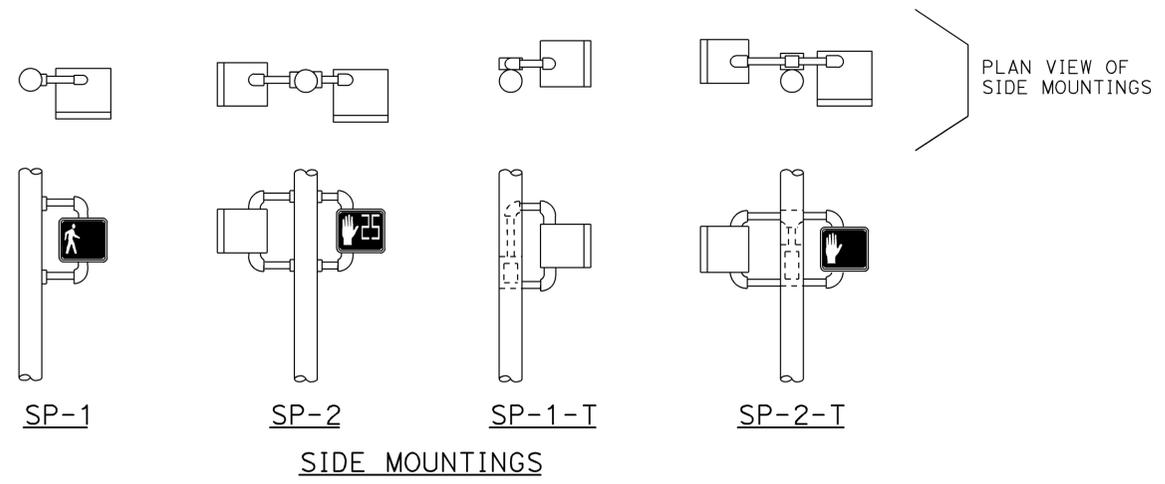
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-16
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.

TO ACCOMPANY PLANS DATED 5-23-16



PEDESTRIAN SIGNAL HEAD MOUNTINGS
DETAIL A



PERSON WALKING INTERVAL FLASHING UPRAISED HAND INTERVAL STEADY UPRAISED HAND INTERVAL
LED COUNTDOWN PEDESTRIAN SIGNAL FACE MODULE
DETAIL B

NOTES:

1. Mounting shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Bracket arms shall be long enough to permit proper alignment of signals.
3. See Revised Standard Plan RSP ES-4D for attachment fittings details.

ABBREVIATIONS:

- 1, 2 NUMBER OF SIGNAL FACES
- SP SIDE MOUNTED PEDESTRIAN SIGNAL
- T TERMINAL COMPARTMENT
- TP TOP MOUNTED PEDESTRIAN SIGNAL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(PEDESTRIAN SIGNAL HEADS)**
NO SCALE

RSP ES-4B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4B DATED JULY 19, 2013 AND STANDARD PLAN ES-4B DATED MAY 20, 2011 - PAGE 444 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4B

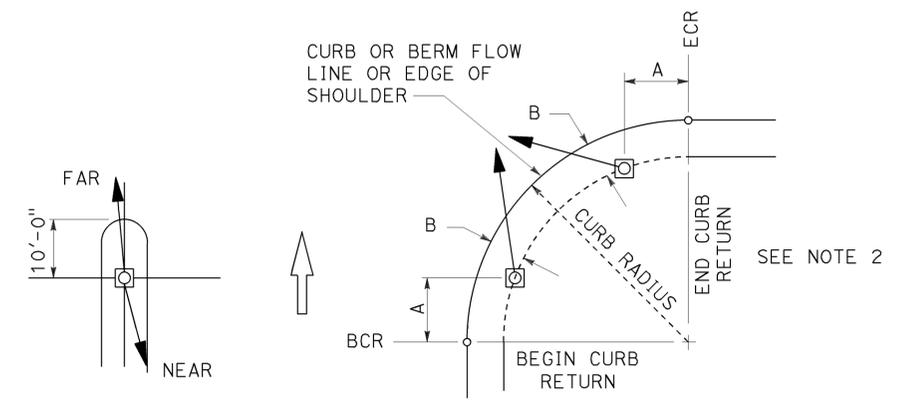
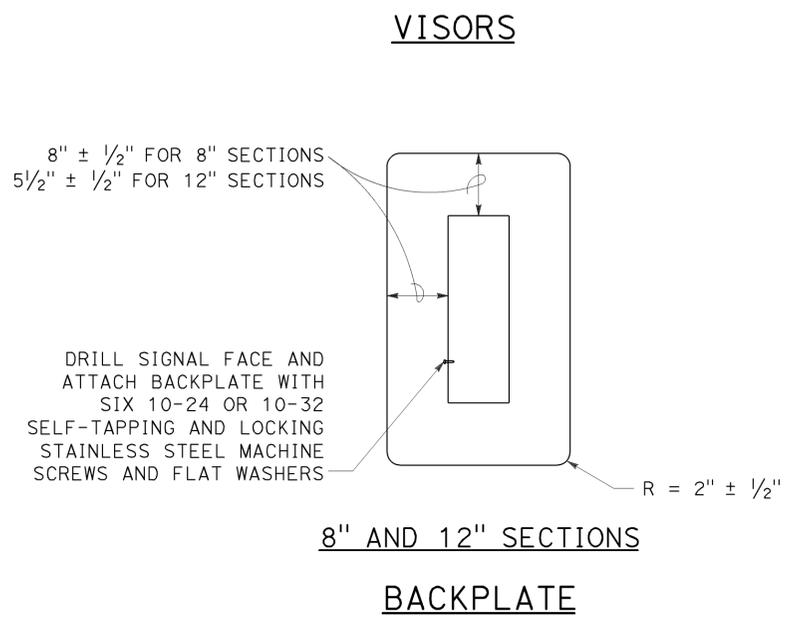
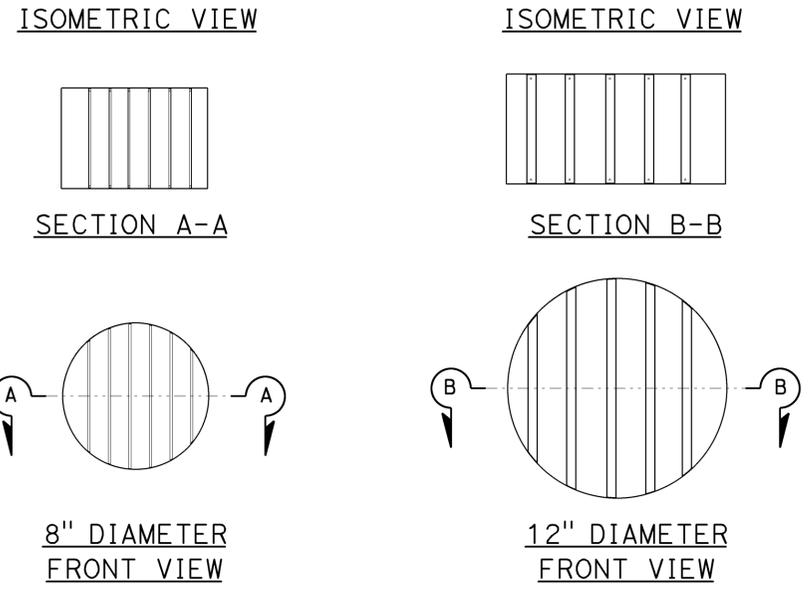
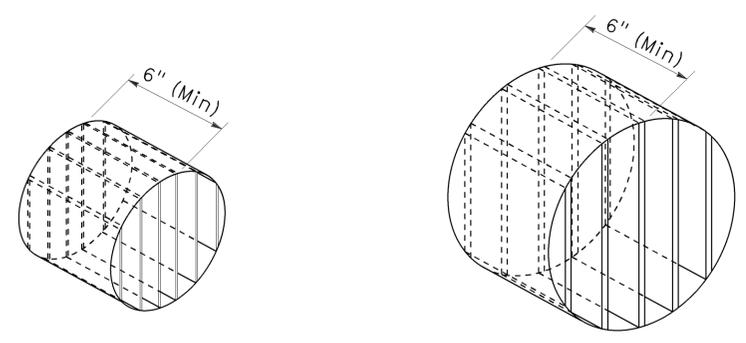
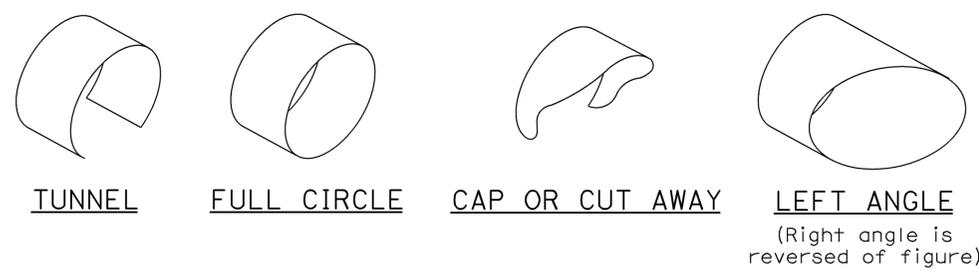
2010 REVISED STANDARD PLAN RSP ES-4B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	150	164

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 5-23-16

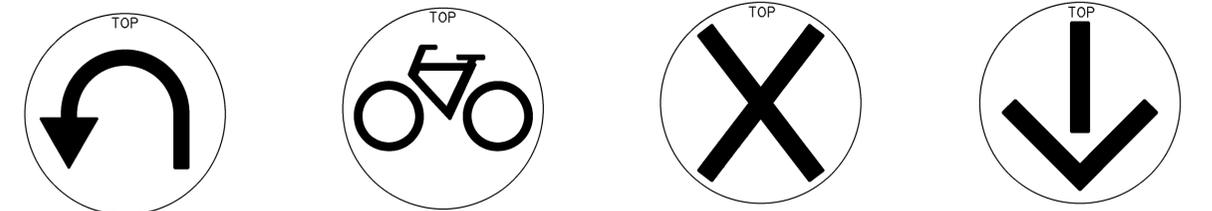
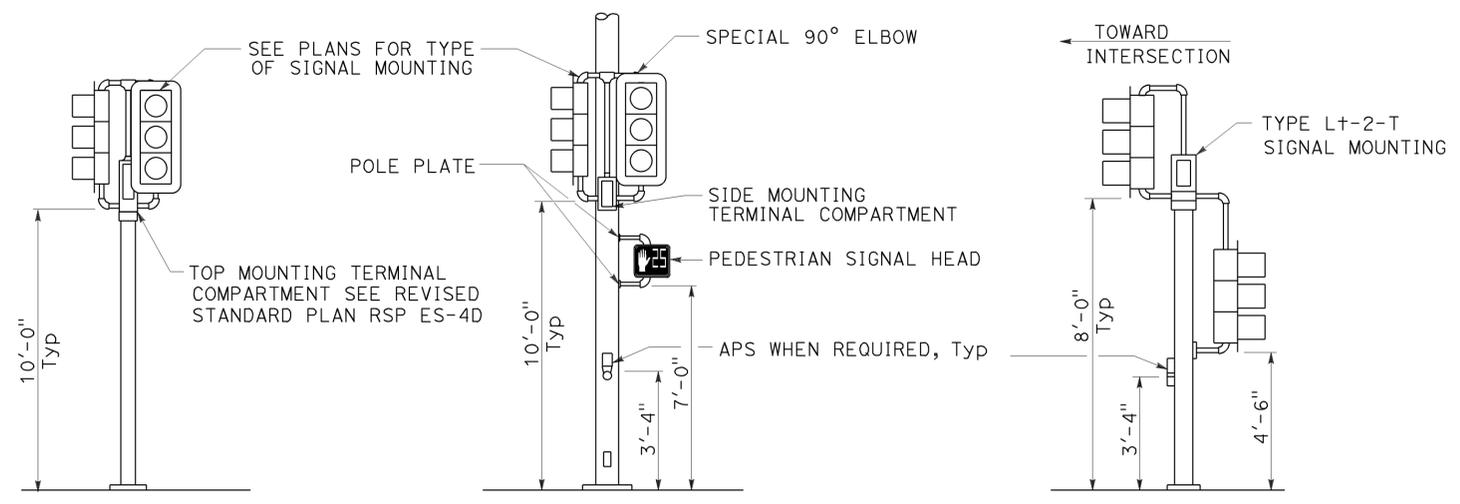


- NOTES:**
1. Typical signal pole placement unless dimensioned on plans.
 2. For A and B dimensions, see Pole Schedule.

DIRECTIONAL LOUVER

Directional louvers shall be oriented and secured in place with one plated brass machine screw and nut.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



SIGNAL FACES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

Normally used on standards with luminaire or signal mast arm

Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans

TYPICAL SIGNAL HEAD INSTALLATIONS

RSP ES-4C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-4C DATED JULY 19, 2013 AND STANDARD PLAN ES-4C DATED MAY 20, 2011 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-4C

2010 REVISED STANDARD PLAN RSP ES-4C

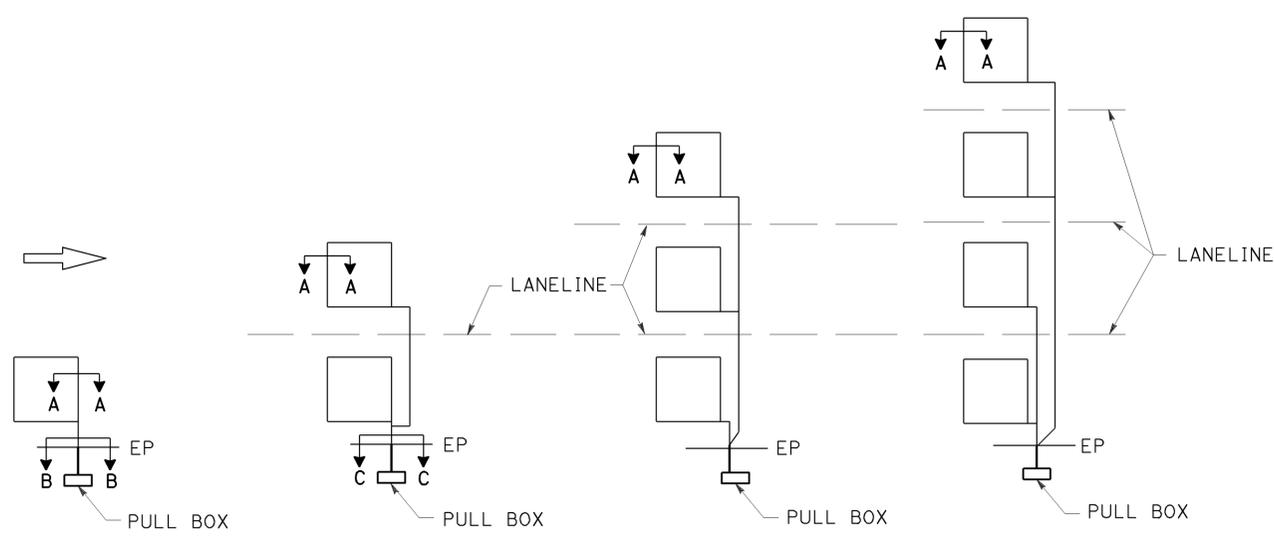
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	151	164

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 April 15, 2016
 PLANS APPROVAL DATE

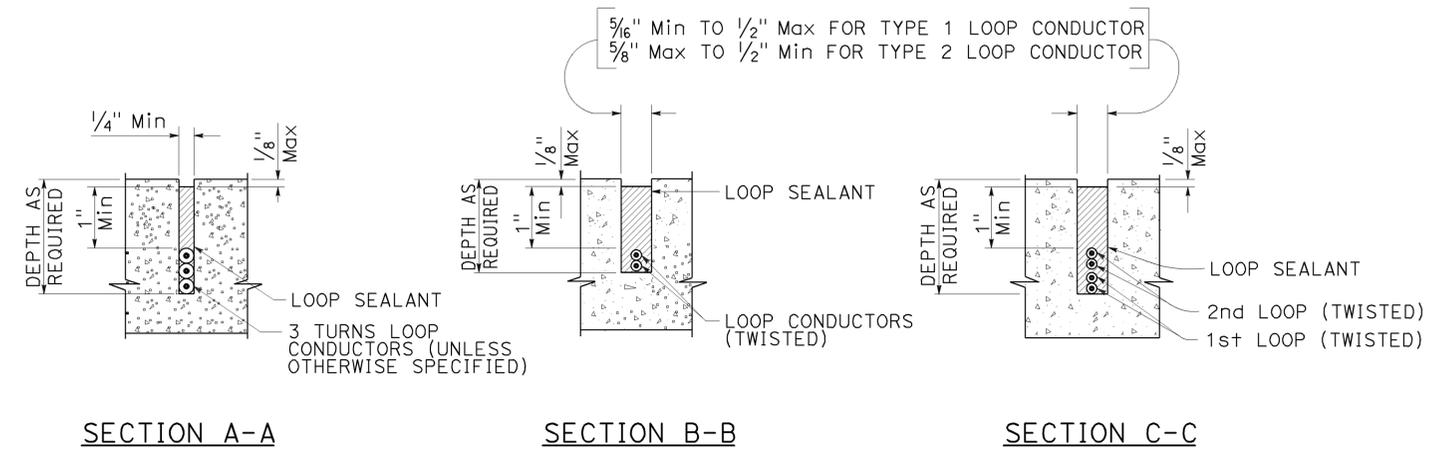
REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
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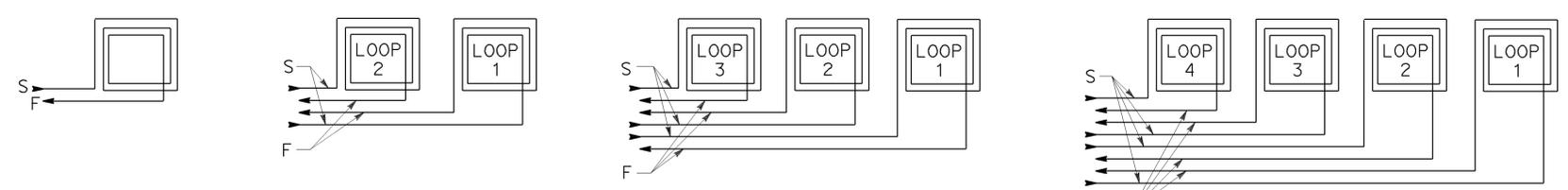
TO ACCOMPANY PLANS DATED 5-23-16



SAW CUT DETAILS
Type A loop detector configurations illustrated

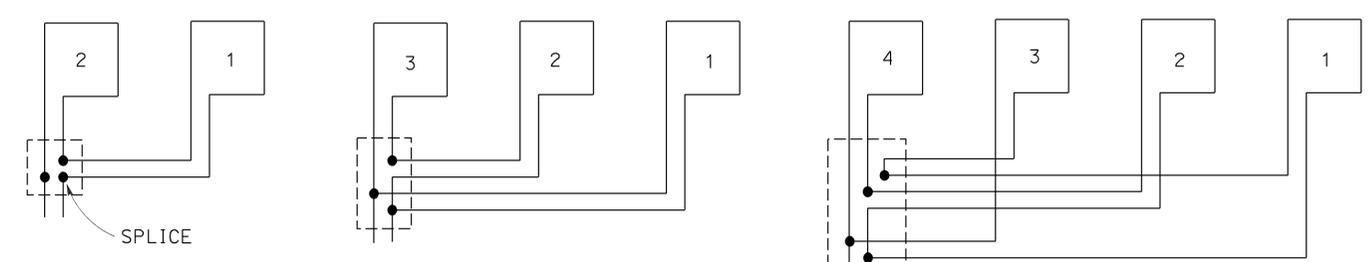


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
S - START
F - FINISH



TYPICAL LOOP CONNECTIONS
Dashed lines represent the pull box

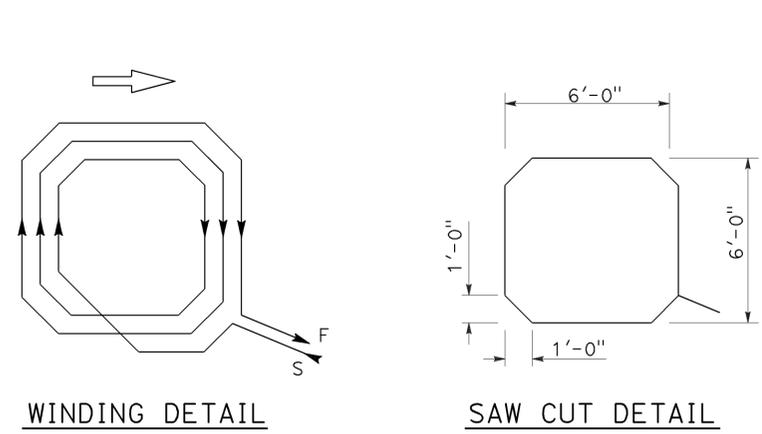
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LOOP DETECTORS)**

NO SCALE
RSP ES-5A DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-5A
DATED OCTOBER 30, 2015 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2015.

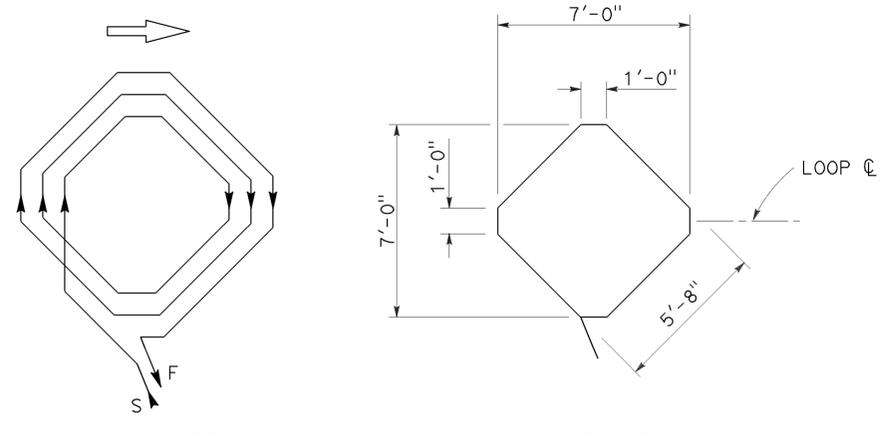
2015 REVISED STANDARD PLAN RSP ES-5A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	152	164
<i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER April 15, 2016 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>					

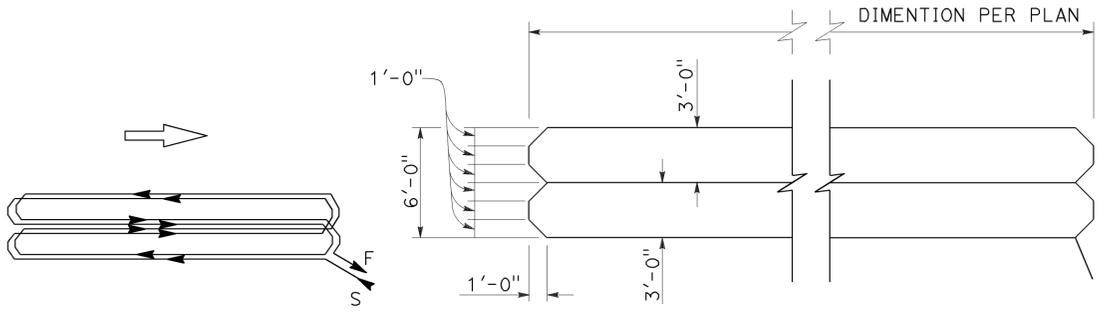
TO ACCOMPANY PLANS DATED 5-23-16



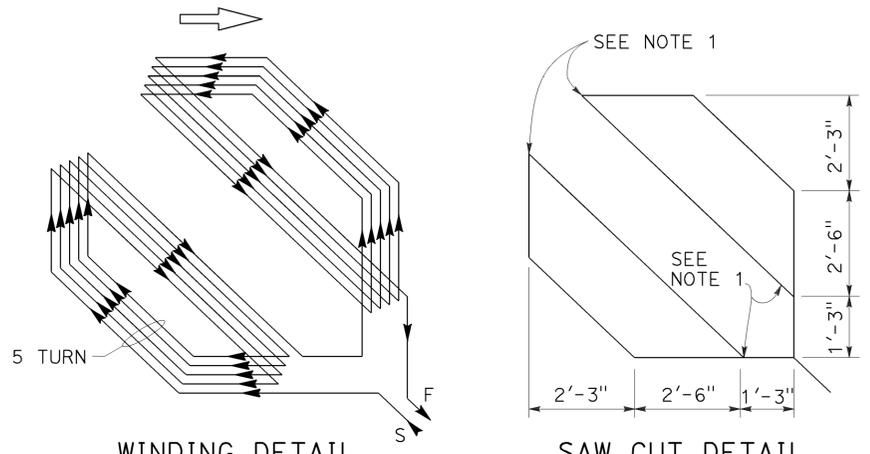
WINDING DETAIL SAW CUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



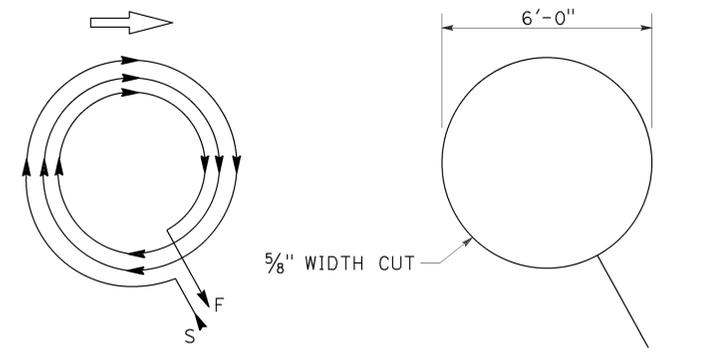
WINDING DETAIL SAW CUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



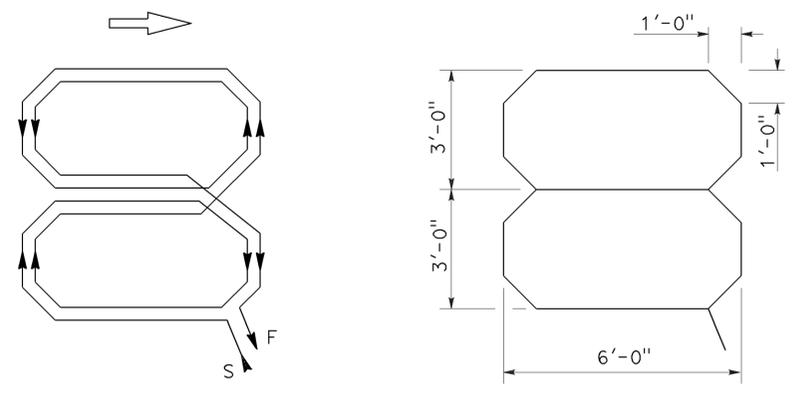
WINDING DETAIL SAW CUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



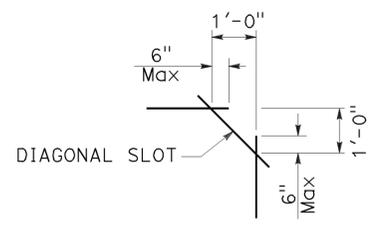
WINDING DETAIL SAW CUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL SAW CUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL SAW CUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

- NOTES:**
1. Round corners of acute angle saw cuts 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 detection and bicycle lanes.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE
 RSP ES-5B DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-5B DATED OCTOBER 30, 2015 - PAGE 446 OF THE STANDARD PLANS BOOK DATED 2015.

2015 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	153	164

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

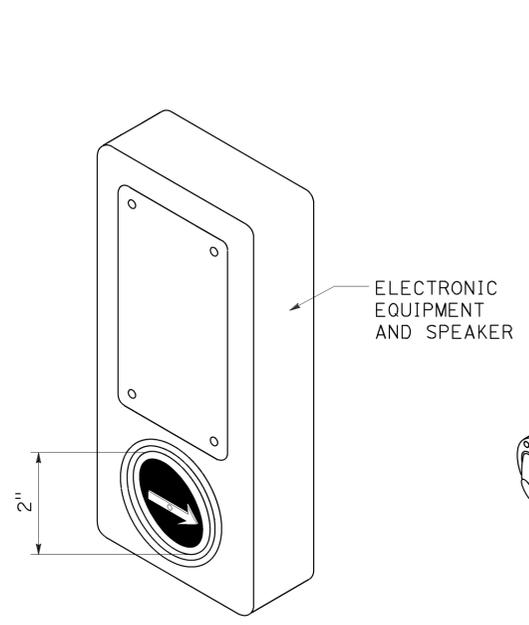
Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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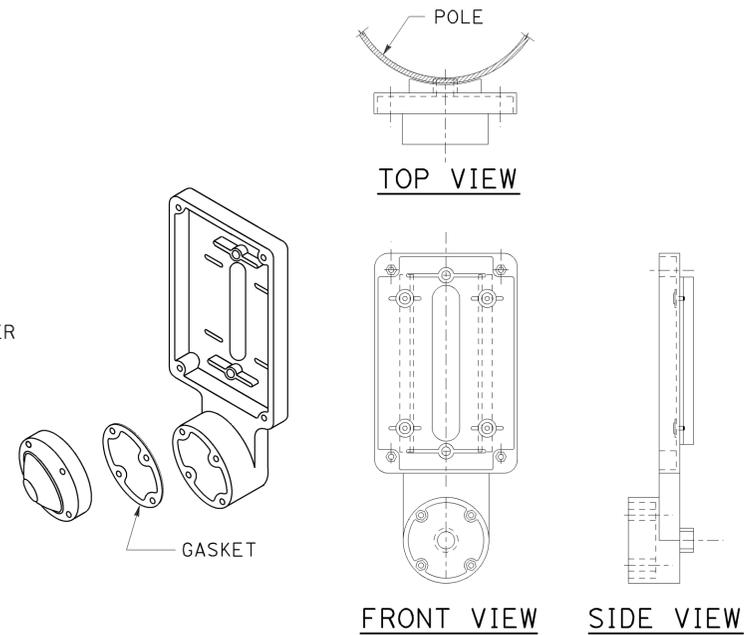
TO ACCOMPANY PLANS DATED 5-23-16

NOTES:

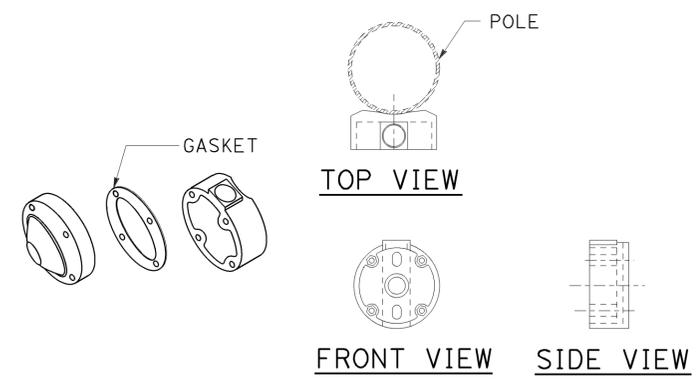
1. Back casting shape to fit curvature of pole.
2. Provide cover fitting for top of post, when PBA is mounted on push button assembly post.
3. Install push button on crosswalk side of standard.
4. Use R10 series regulatory signs and plaques for pedestrian and bicycle facilities.



ACCESSIBLE PEDESTRIAN SIGNAL
DETAIL A



TYPE B PUSH BUTTON ASSEMBLY
DETAIL B



TYPE C PUSH BUTTON ASSEMBLY
DETAIL C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ACCESSIBLE PEDESTRIAN SIGNAL
AND PUSH BUTTON ASSEMBLIES)**

NO SCALE

RSP ES-5C DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5C DATED JULY 19, 2013 AND STANDARD PLAN ES-5C DATED MAY 20, 2011 - PAGE 450 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5C

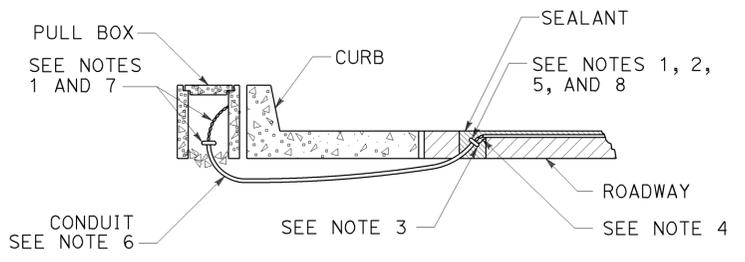
2010 REVISED STANDARD PLAN RSP ES-5C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	154	164

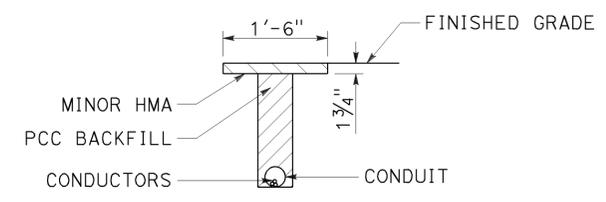
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE
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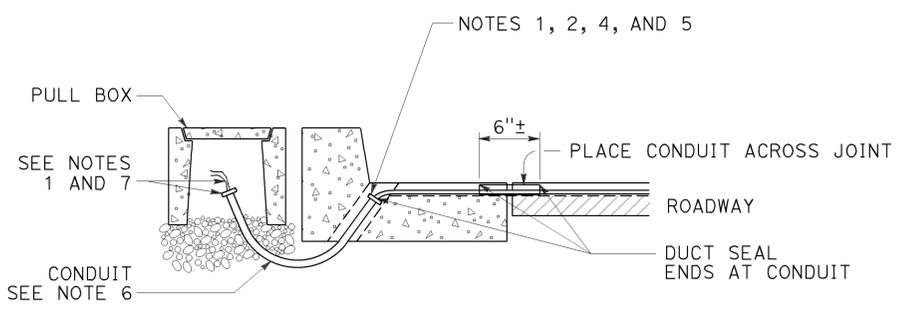
TO ACCOMPANY PLANS DATED 5-23-16



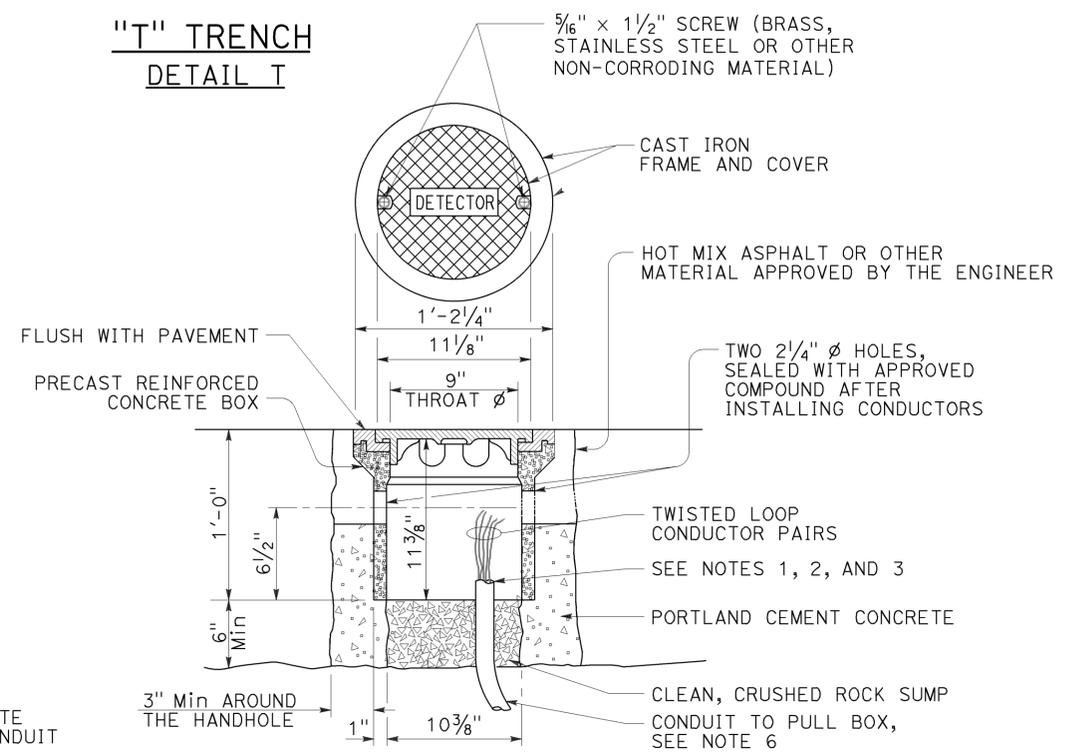
**TYPE A
CURB TERMINATION DETAIL**



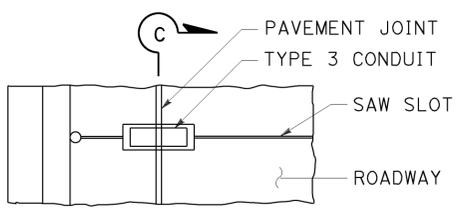
**"T" TRENCH
DETAIL 1**



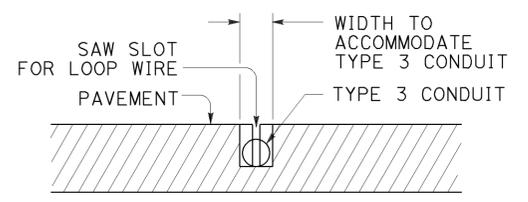
CROSS SECTION



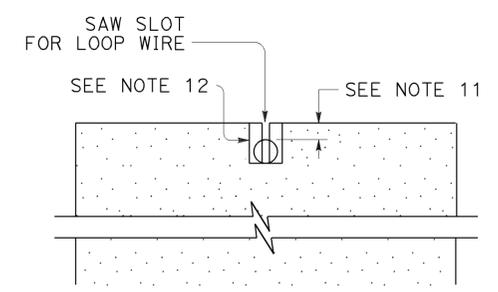
DETECTOR HANDHOLE DETAIL



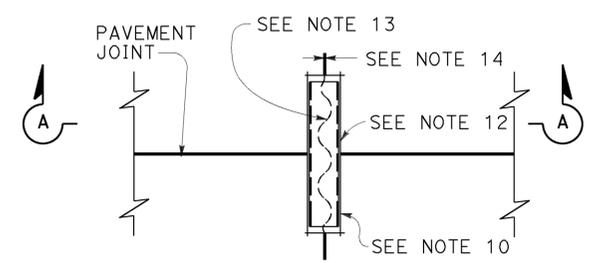
PLAN VIEW



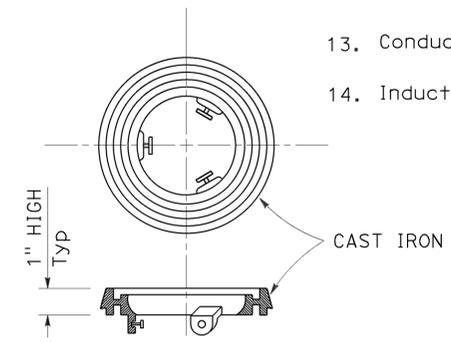
SECTION C-C



SECTION A-A



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



LOCKING GRADE RING

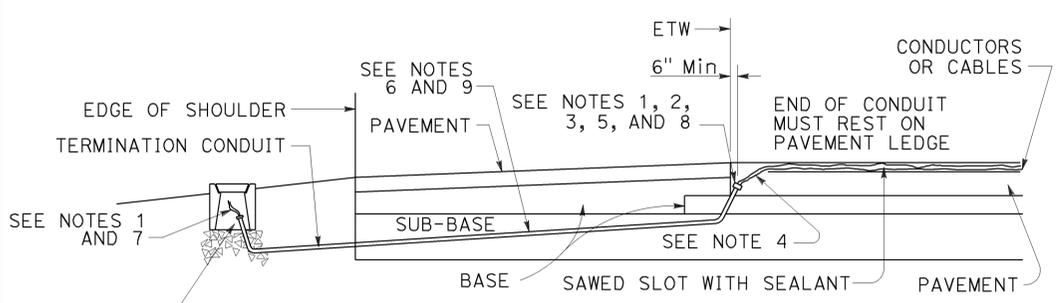
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

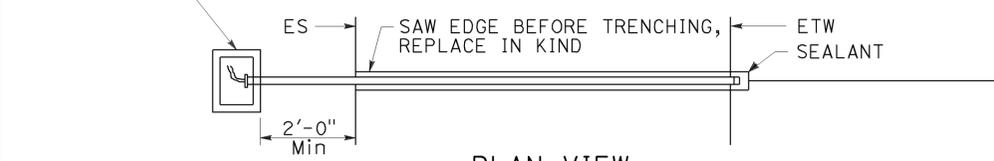
NO SCALE

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



CROSS SECTION



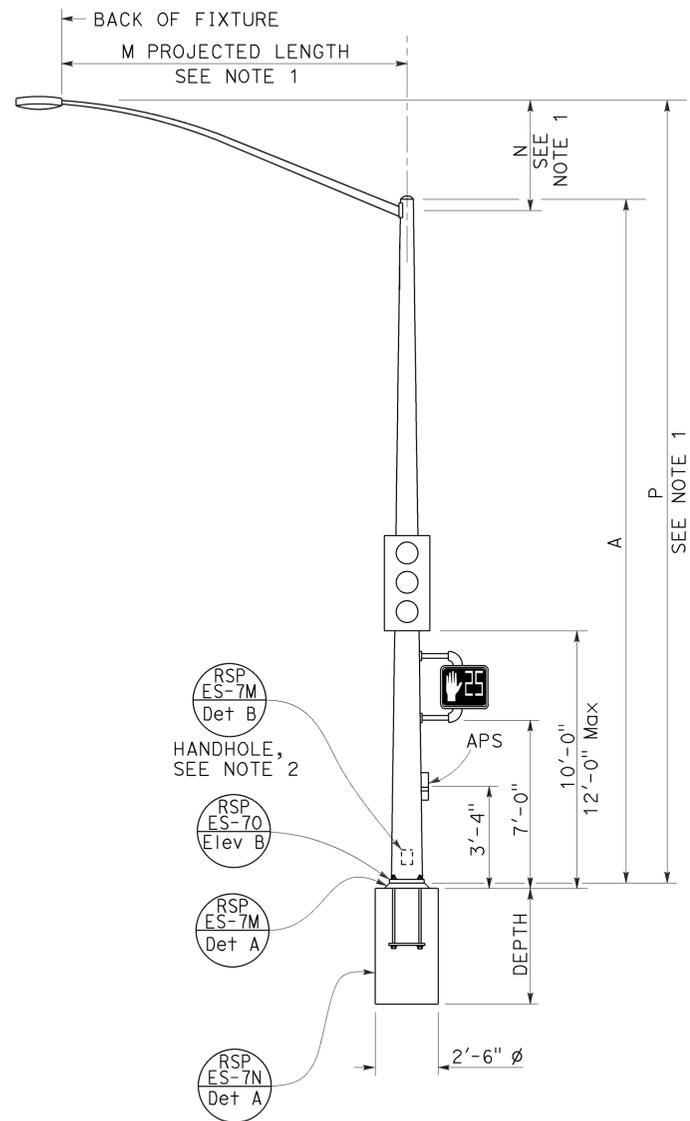
**PLAN VIEW
SHOULDER TERMINATION DETAILS**

2010 REVISED STANDARD PLAN RSP ES-5D

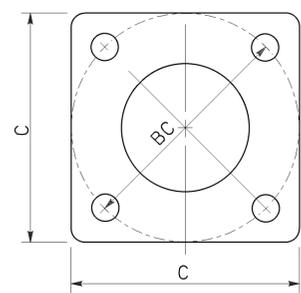
TO ACCOMPANY PLANS DATED 5-23-16

NOTES:

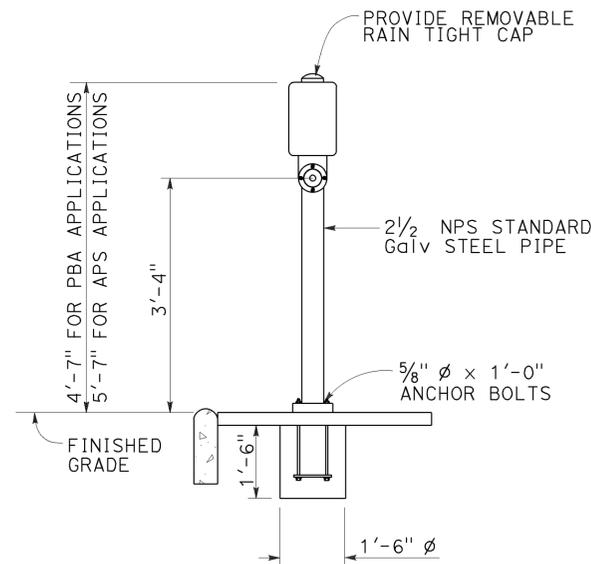
- For additional notes, details and data for Type 15TS and Type 21TS Standards, see Revised Standard Plan RSP ES-6A.
- Handhole shall be located on the downstream side of traffic.



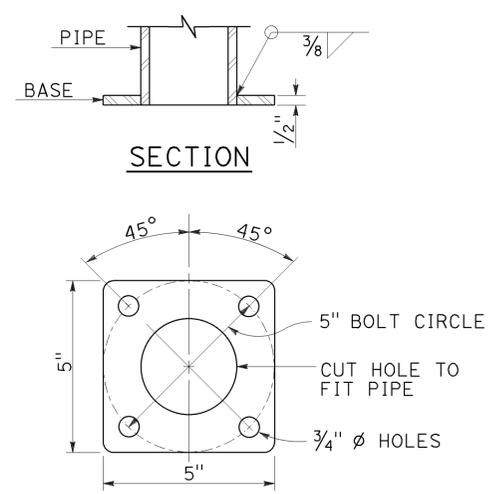
TYPE 15TS AND 21TS STANDARD
ELEVATION A
 (See Note 1)



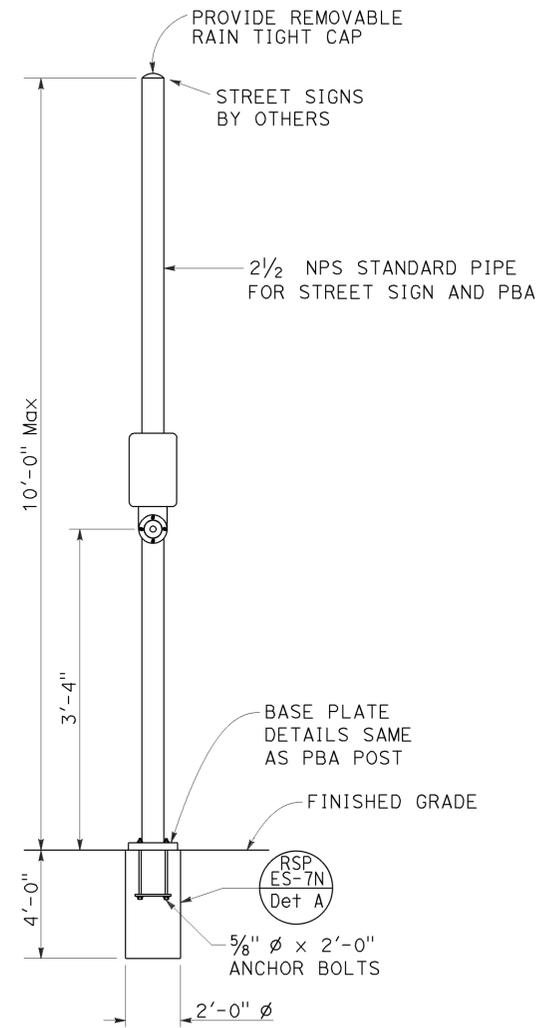
BASE PLATE
TYPE 15TS AND 21TS
DETAIL A



PUSH BUTTON ASSEMBLY POST
DETAIL B



BASE PLATE
PBA POST



COMBINED STREET SIGN
PUSH BUTTON ASSEMBLY POST
DETAIL C

POLE TYPE	POLE DATA			WALL THICKNESS	BASE PLATE DATA			CIDH DEPTH
	A HEIGHT	Min OD			C	BC = BOLT CIRCLE	THICKNESS	
15TS	30'-0"	8"	3 1/16"	0.1793"	1'-1 1/2"	1'-0"	1 1/2" diameter x 42"	7'-6"
21TS	35'-0"	9 3/8"	3 3/16"		1'-3"	1'-2"		8'-6"

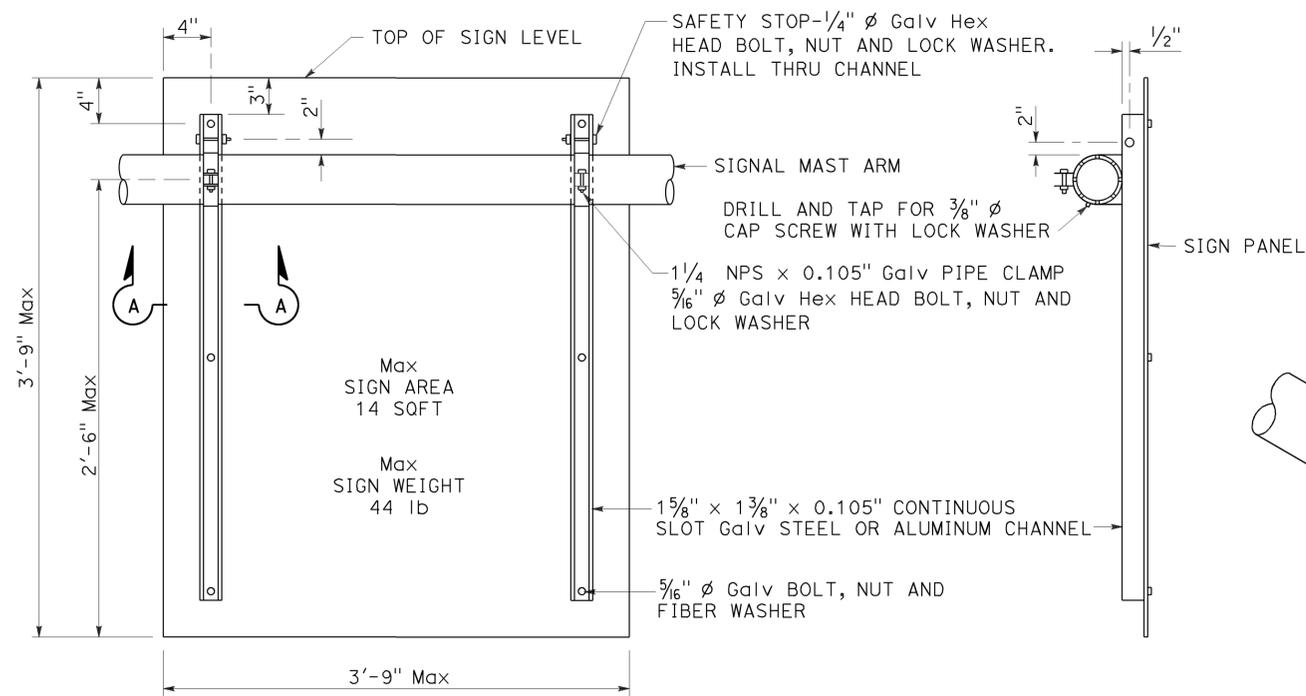
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD, TYPE TS, AND PUSH BUTTON ASSEMBLY POST)
 NO SCALE

RSP ES-7A DATED JULY 15, 2016 SUPERSEDES RSP ES-7A DATED OCTOBER 30, 2015 AND RSP ES-7A DATED JULY 19, 2013 AND STANDARD PLAN ES-7A DATED MAY 20, 2011 - PAGE 462 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP ES-7A

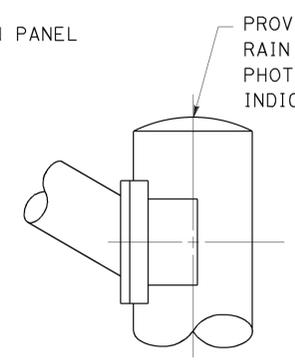
2010 REVISED STANDARD PLAN RSP ES-7N



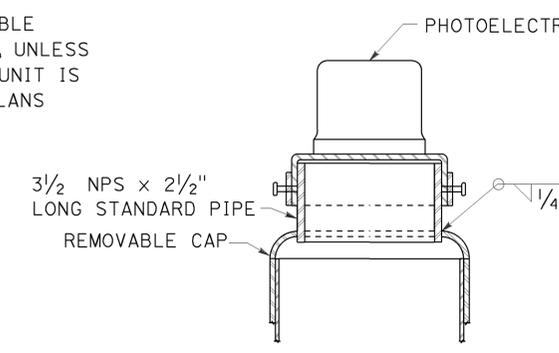
REAR VIEW

SIDE VIEW

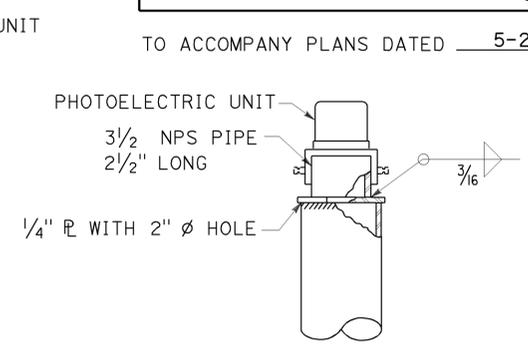
SIGN MOUNTING DETAILS
DETAIL U



STANDARD TOP
DETAIL B-1

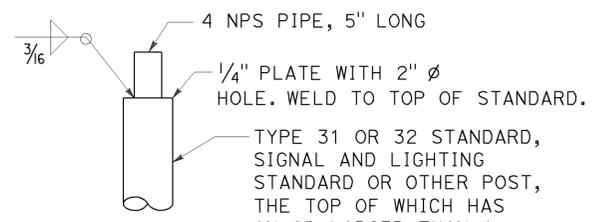


MOUNTING ADAPTER FOR
PHOTOELECTRIC UNIT
DETAIL B-2

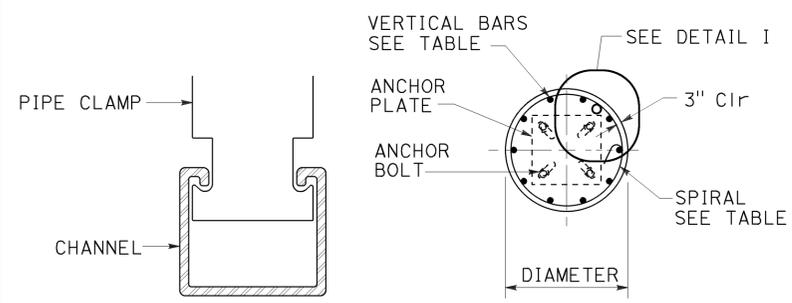


ALTERNATIVE
MOUNTING ADAPTER
DETAIL B-3

POLE TOP DETAILS
DETAIL B

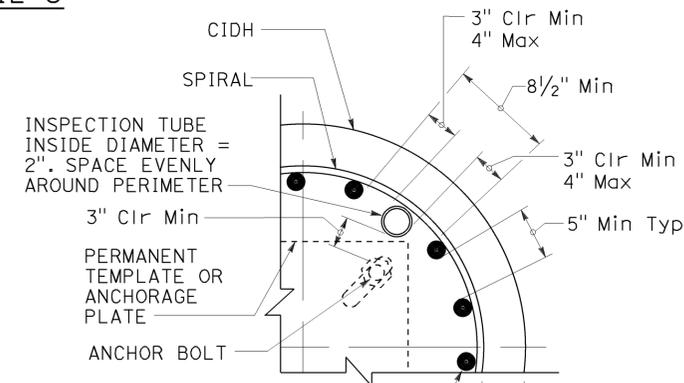


DETAIL C-1



SECTION A-A

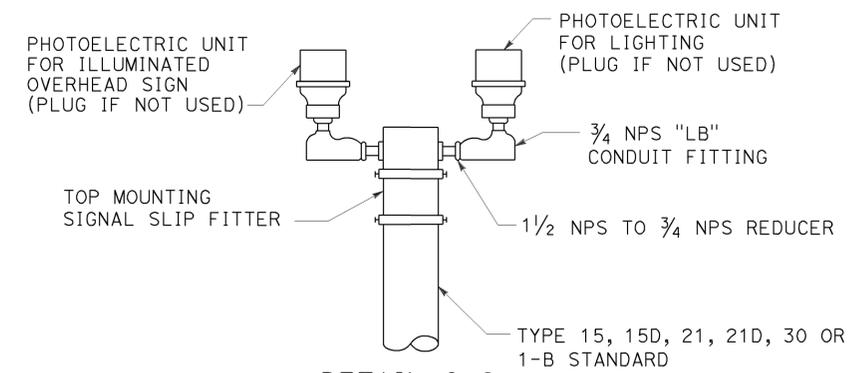
SECTION B-B



INSPECTION TUBE PLACEMENT
DETAIL I

CIDH DIAMETER	VERTICAL BARS	SPIRAL	INSPECTION TUBE
2 ft	8-#5	#4 AT 6	2
2.5 ft	10-#6		4*
3 ft	12-#7	#5 AT 6	4
3.5 ft	14-#8		4
4 ft	18-#9	2-#4 AT 7	5
4.5 ft	18-#9	2-#5 AT 7	5
5 ft	22-#10	2-#5 AT 7	6
6 ft	26-#11	2-#6 AT 7	7

* FOR SLIP BASE VERSIONS WITH 3 ANCHOR BOLTS USE 3 INSPECTION TUBES.



DUAL PHOTOELECTRIC UNIT MOUNTING DETAIL
DETAIL C

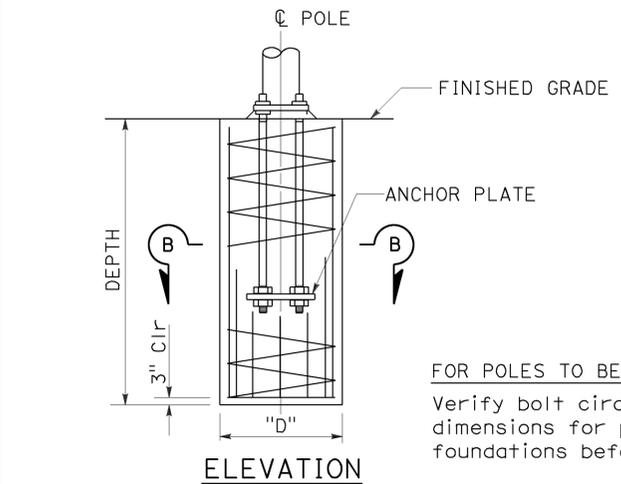
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD,
DETAIL No. 2)**

NO SCALE

RSP ES-7N DATED JULY 15, 2016 SUPERSEDES RSP ES-7N DATED OCTOBER 30, 2015 AND STANDARD PLAN ES-7N DATED MAY 20, 2011 - PAGE 475 OF THE STANDARD PLANS BOOK DATED 2010.

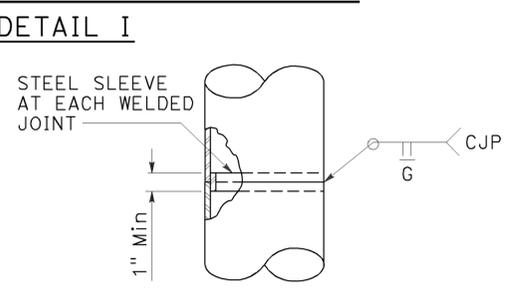
REVISED STANDARD PLAN RSP ES-7N



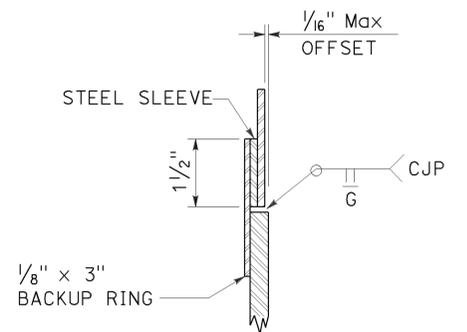
ELEVATION

CAST-IN-DRILLED-HOLE PILE FOUNDATION,
REINFORCED PILE
DETAIL A

FOR POLES TO BE INSTALLED ON EXISTING FOUNDATION:
Verify bolt circles, anchor bolt sizes and dependent dimensions for poles to be installed on existing foundations before fabricating the poles.



FOR UNIFORM TUBE THICKNESS
DETAIL T-1



AT TUBE THICKNESS CHANGE
DETAIL T-2

POLE SPLICES
DETAIL T

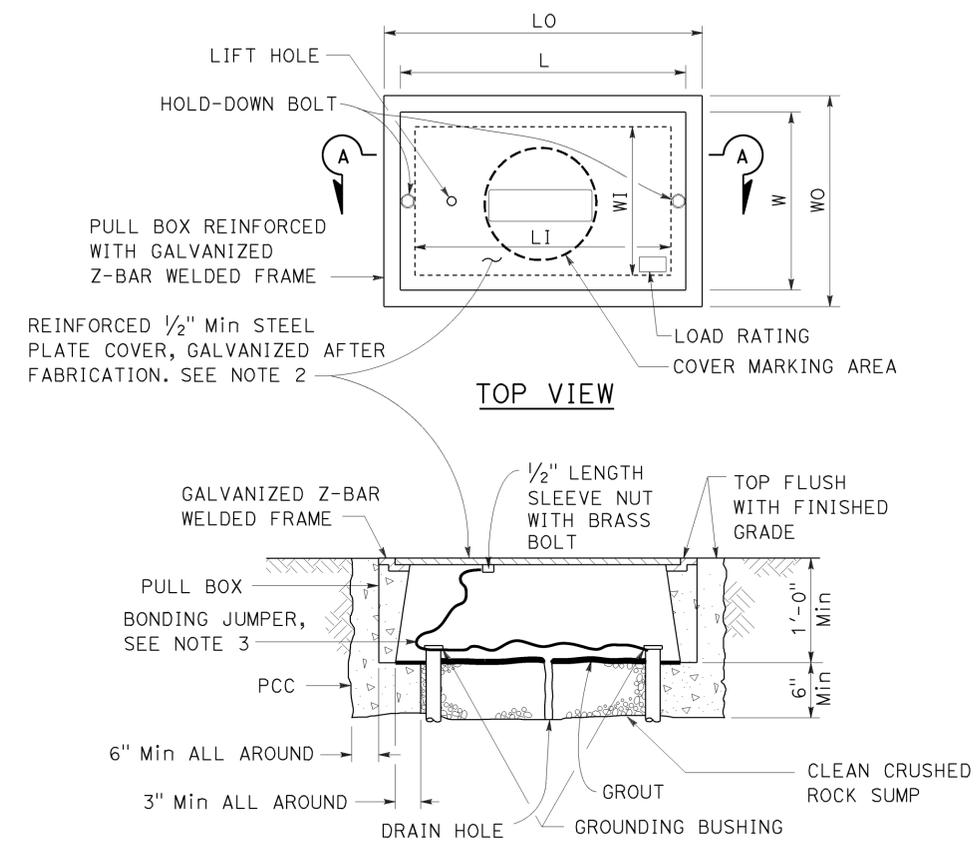
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	159	164

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 April 15, 2016
 PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 5-23-16



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.
- 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".

DIMENSION TABLE								
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 APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-8B
 DATED OCTOBER 30, 2015 - PAGE 474 OF THE STANDARD PLANS BOOK DATED 2015.

2015 REVISED STANDARD PLAN RSP ES-8B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	160	164

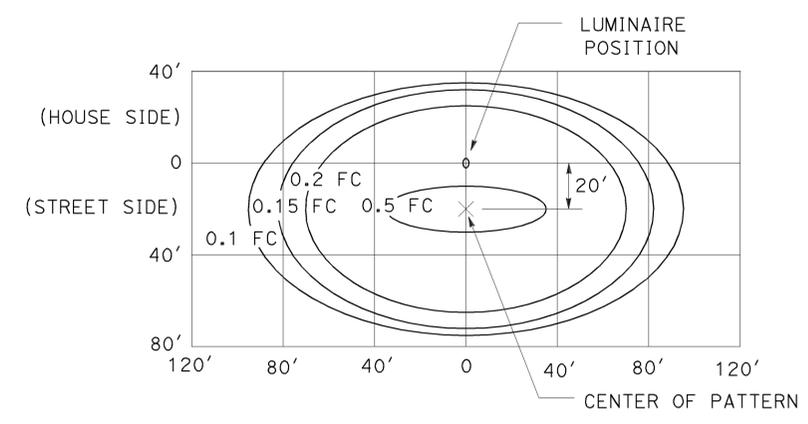
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

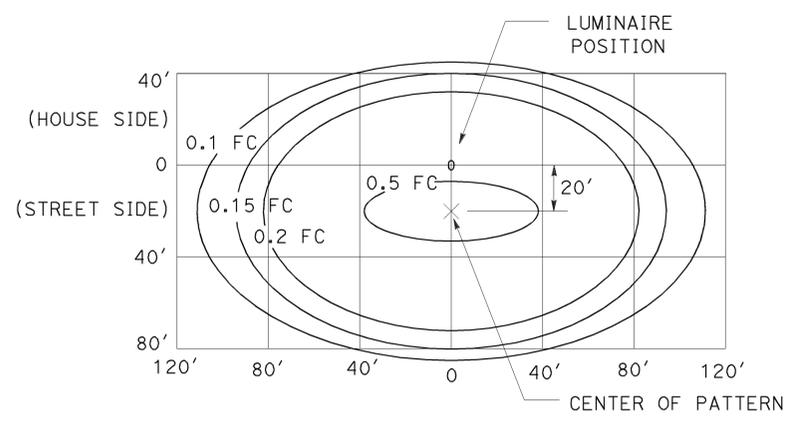
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TO ACCOMPANY PLANS DATED 5-23-16

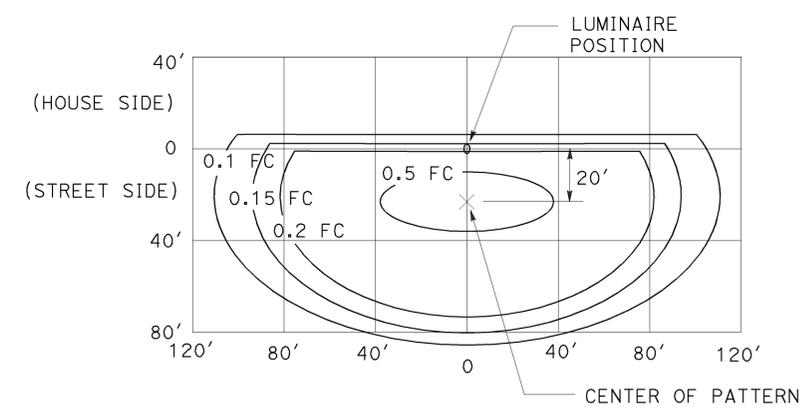
NOTE:
Curves represent the minimum footcandle (FC).



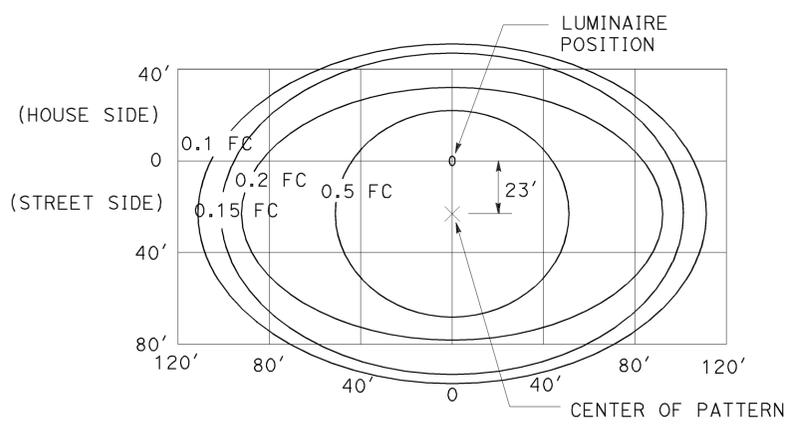
LED LUMINAIRE 165 W
34' Mounting Height



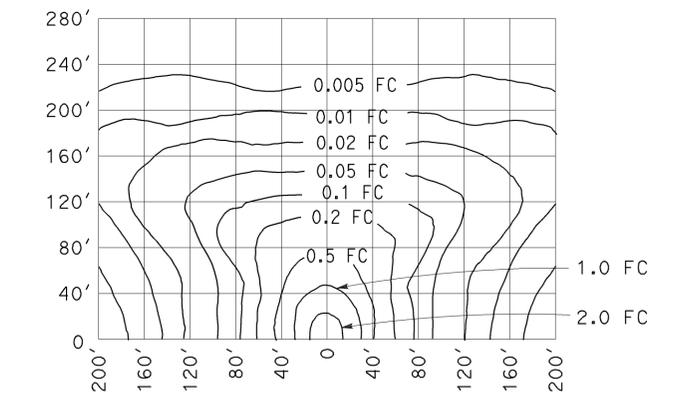
LED LUMINAIRE 235 W
40' Mounting Height



LED LUMINAIRE 235 W
40' Mounting Height
with back side control



LED LUMINAIRE 300 W
40' Mounting Height



LOW-PRESSURE SODIUM LUMINAIRE 180 W
40' Mounting Height
Lamp operated at 33,000 lm

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE CURVES)**

NO SCALE

RSP ES-10A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10A DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-10A

2010 REVISED STANDARD PLAN RSP ES-10A

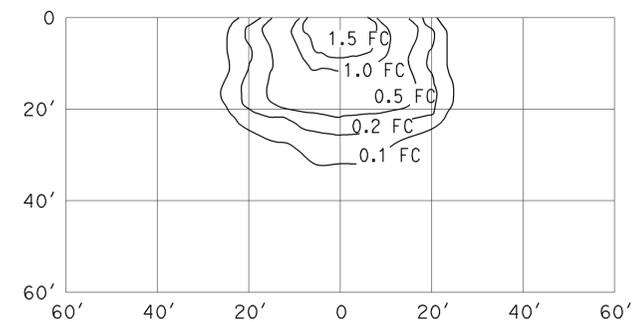
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	161	164

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

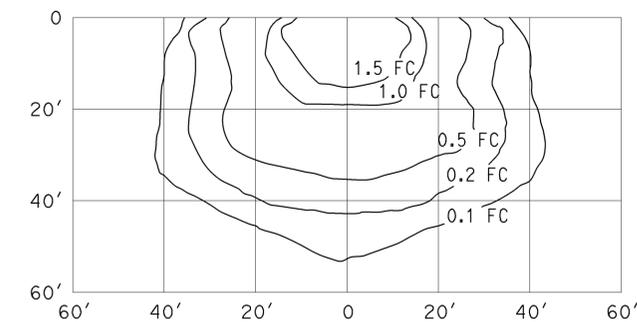
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 5-23-16

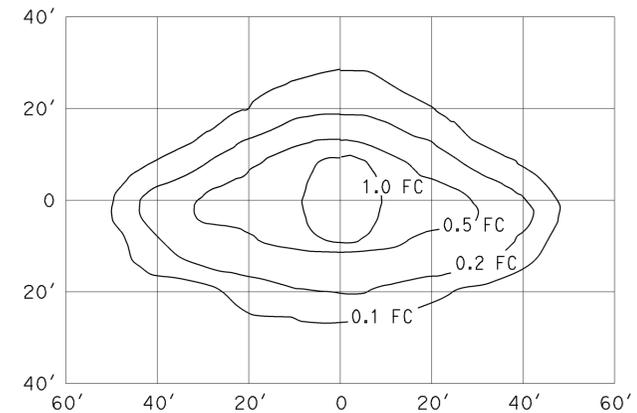
NOTE:
Curves represent the minimum footcandle (FC).



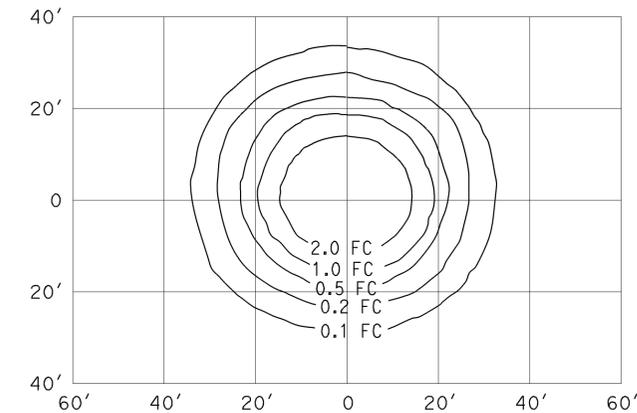
**HIGH-PRESSURE SODIUM
WALL-MOUNTED LUMINAIRE 70 W**
 15' Mounting Height
 ANSI Designation S62
 Lamp operated at 5,800 lm



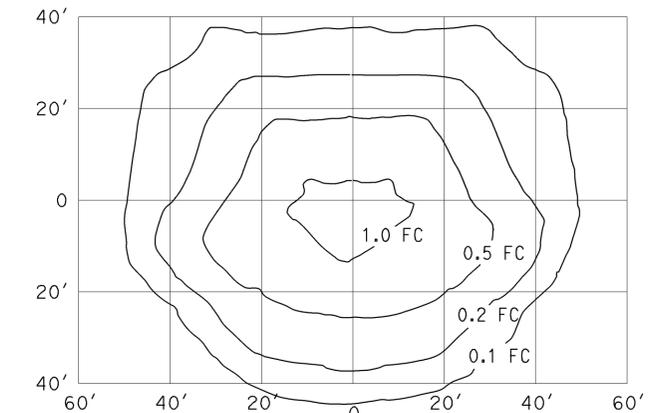
**HIGH-PRESSURE SODIUM
WALL-MOUNTED LUMINAIRE 100 W**
 15' Mounting Height
 ANSI Designation S54
 Lamp operated at 9,500 lm



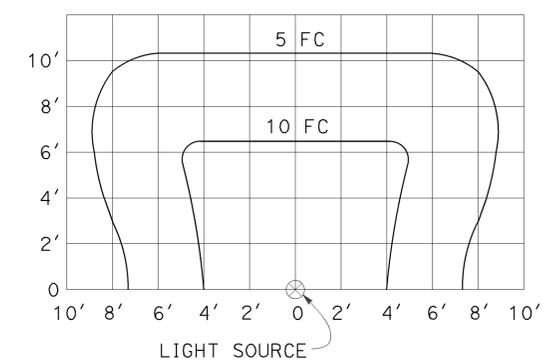
**HIGH-PRESSURE SODIUM
PENDANT SOFFIT LUMINAIRE 70 W
TYPE III SHORT**
 17' Mounting Height
 ANSI Designation S62
 Lamp operated at 5,800 lm



**HIGH-PRESSURE SODIUM
PENDANT SOFFIT LUMINAIRE 70 W**
 17' Mounting Height
 ANSI Designation S62
 Lamp operated at 5,800 lm



**HIGH-PRESSURE SODIUM
FLUSH-MOUNTED SOFFIT LUMINAIRE 70 W**
 17' Mounting Height
 ANSI Designation S62
 Lamp operated at 5,800 lm



**INDUCTION SIGN
LIGHTING FIXTURE 85 W**

2010 REVISED STANDARD PLAN RSP ES-10B

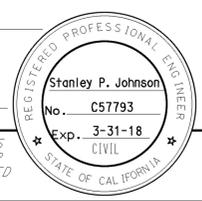
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(ISOFOOTCANDLE CURVES)**

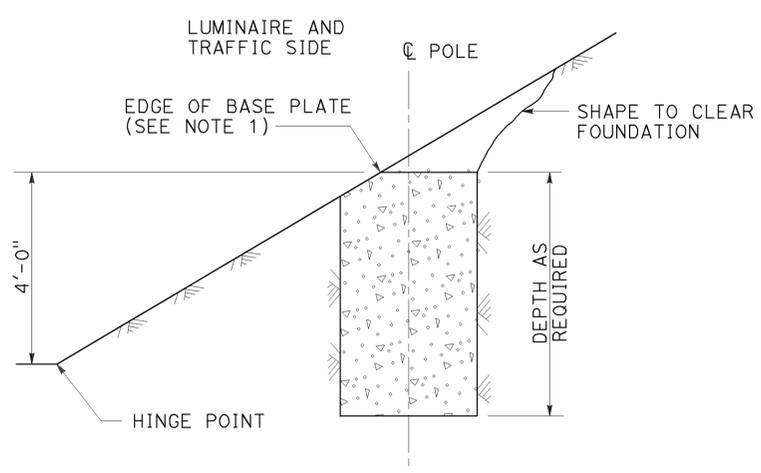
NO SCALE

RSP ES-10B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10B DATED JULY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

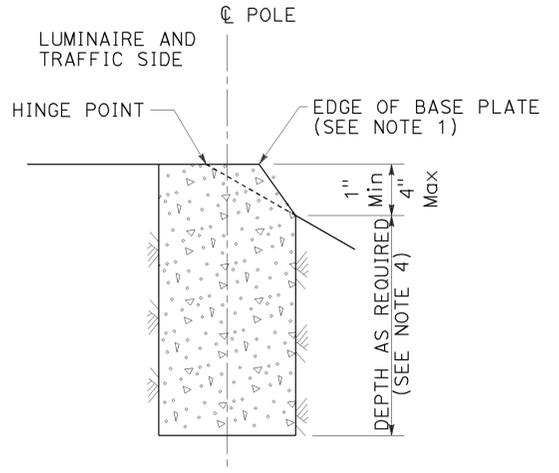
REVISED STANDARD PLAN RSP ES-10B



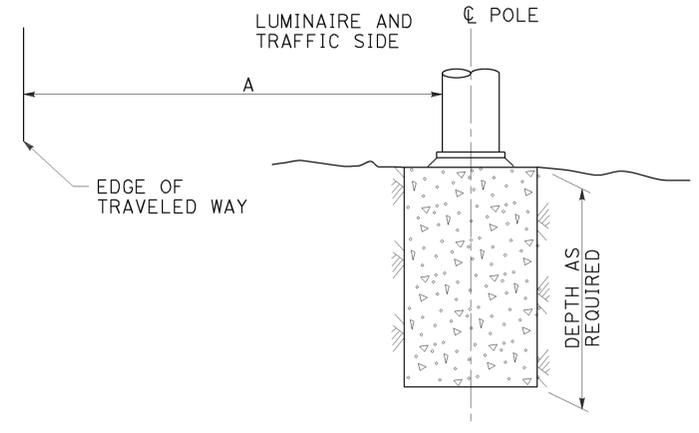
TO ACCOMPANY PLANS DATED 5-23-16



**CUT SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-1**
See Note 2 and 3



**FILL SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-2**
See Note 2 and 3



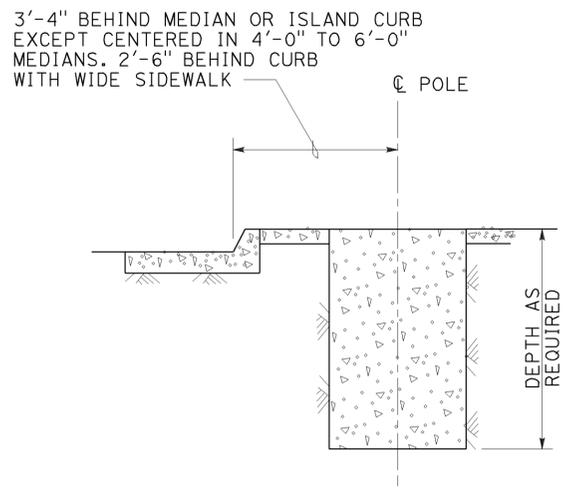
**FLAT SECTIONS, CUT OR FILL SLOPES
4:1 OR FLATTER
DETAIL A-3**
See Note 2

STANDARD TYPE	SETBACK (DIMENSION A)
32	30'-0" (Min)
31	20'-0" (Min)
15, 15D, 15-SB, 21, 21D, 30	ARM LENGTH (Min)

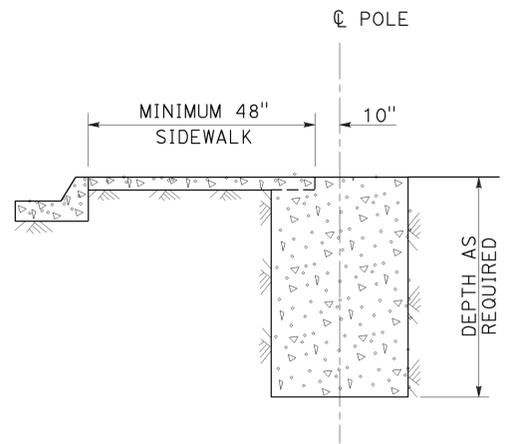
**FOUNDATIONS ADJACENT TO ALL ROADWAYS EXCEPT
IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL A**

NOTES:

- Where a portion of the foundation is above grade, the top edges shall have a 1" chamfer.
- Slopes shall be horizontal to vertical ratio (Horizontal : Vertical).
- Horizontal setbacks on cut and fill slopes steeper than 4:1 shall not exceed the distance shown for flat sections.
- CIDH embedment depth shall be increased beyond standard depths by the diameter of the CIDH.



**MEDIAN, ISLAND
OR WIDE SIDEWALK
DETAIL B-1**
7' Wide and wider



**NARROW SIDEWALK
DETAIL B-2**
Less than 7' wide

**FOUNDATIONS IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL B**

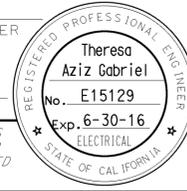
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(FOUNDATION INSTALLATIONS)**
NO SCALE

RSP ES-11 DATED JULY 15, 2016 SUPERSEDES RSP ES-11 DATED JULY 19, 2013 AND STANDARD PLAN ES-11 DATED MAY 20, 2011 - PAGE 488 OF THE STANDARD PLANS BOOK DATED 2010.

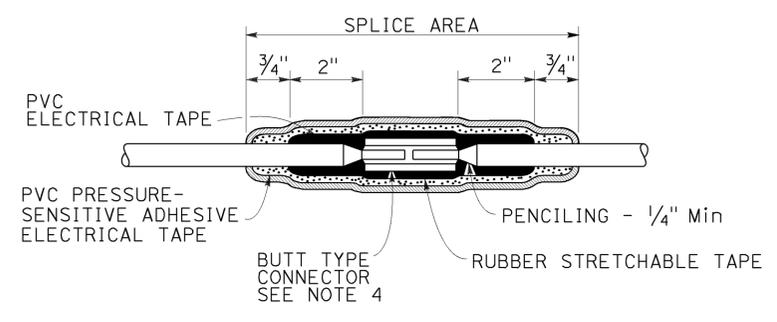
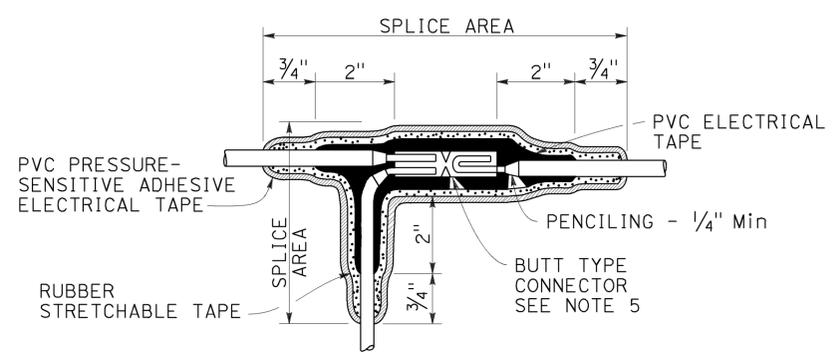
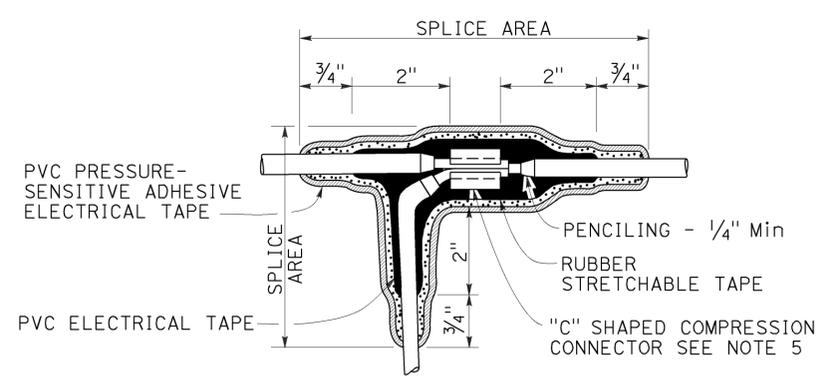
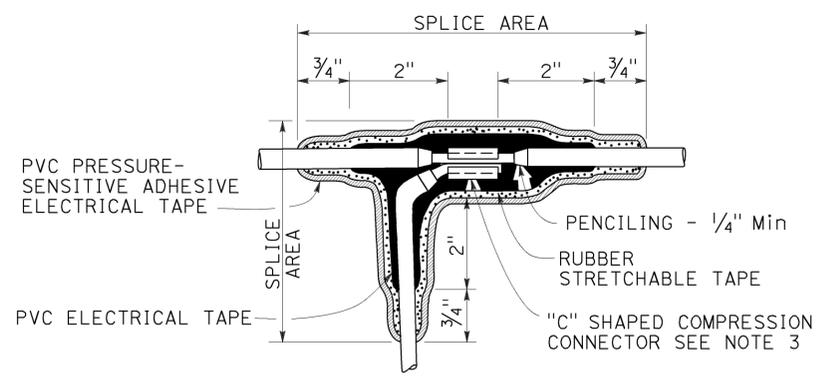
2010 REVISED STANDARD PLAN RSP ES-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	163	164

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 April 15, 2016
 PLANS APPROVAL DATE
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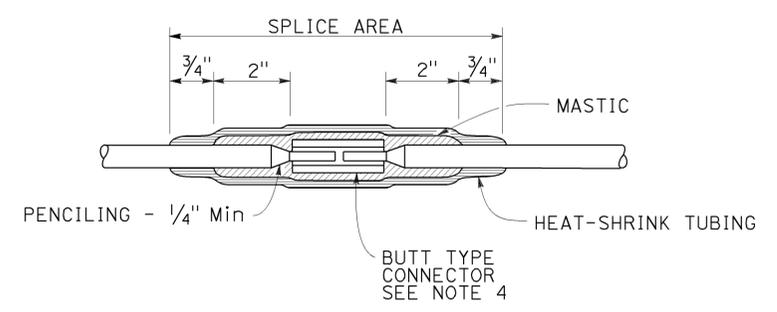
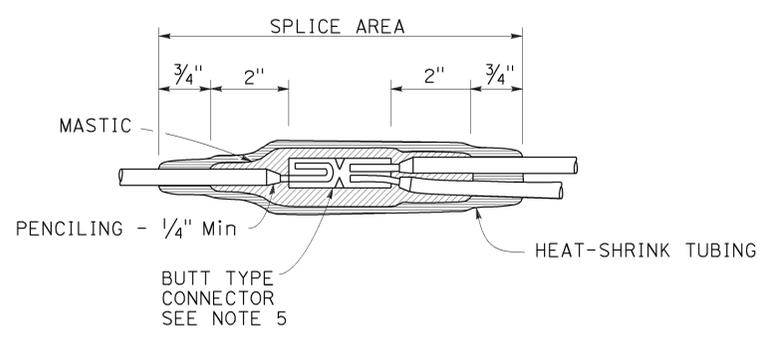
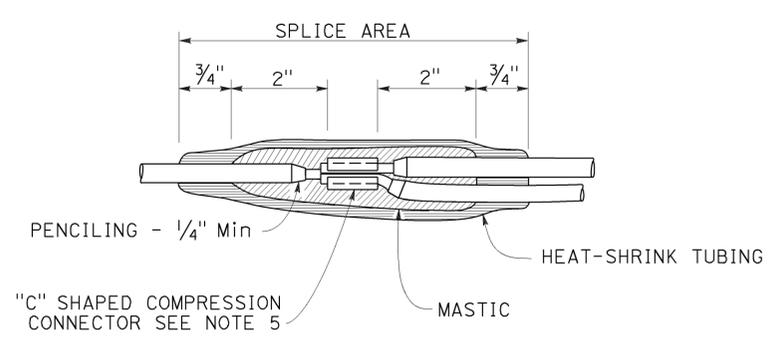
TO ACCOMPANY PLANS DATED 5-23-16



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.

TYPICAL SPLICE INSULATION METHOD B



TYPICAL SPLICE INSULATION HEAT-SHRINK TUBING

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SPLICE INSULATION METHODS DETAILS)

NO SCALE

RSP ES-13A DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-13A DATED OCTOBER 30, 2015 - PAGE 484 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-13A

2015 REVISED STANDARD PLAN RSP ES-13A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	58.8/60.2	164	164

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 April 15, 2016
 PLANS APPROVAL DATE

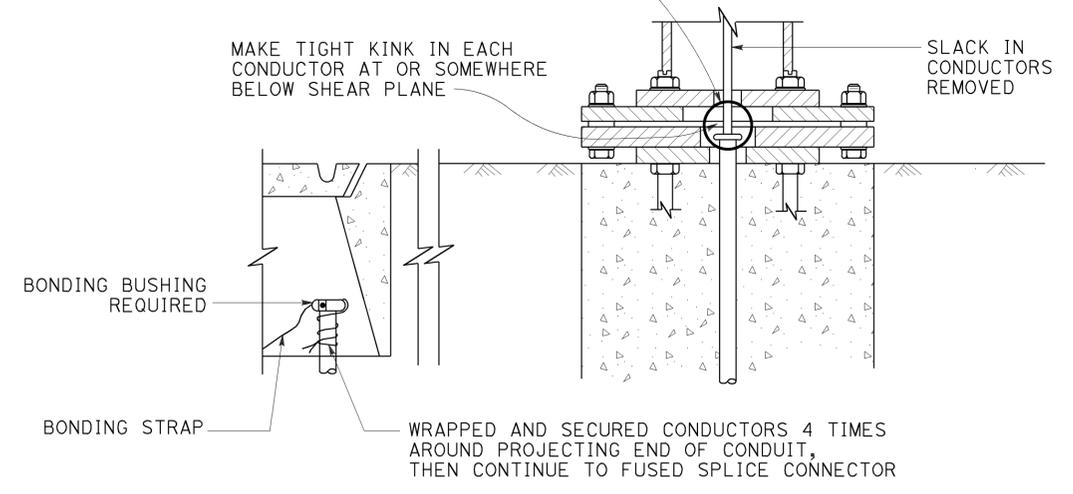
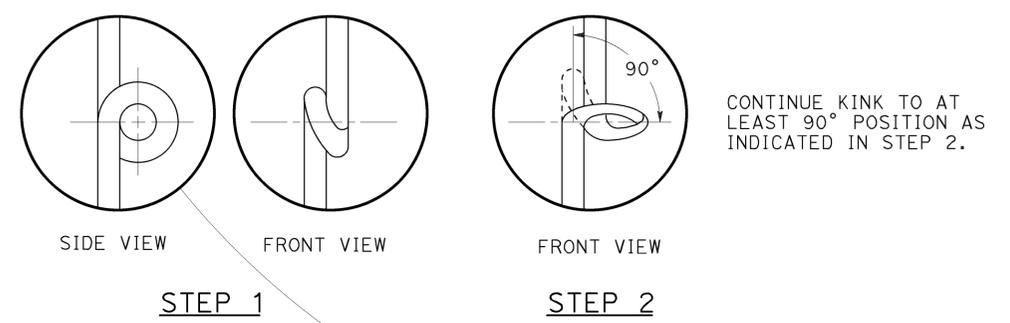
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TO ACCOMPANY PLANS DATED 5-23-16

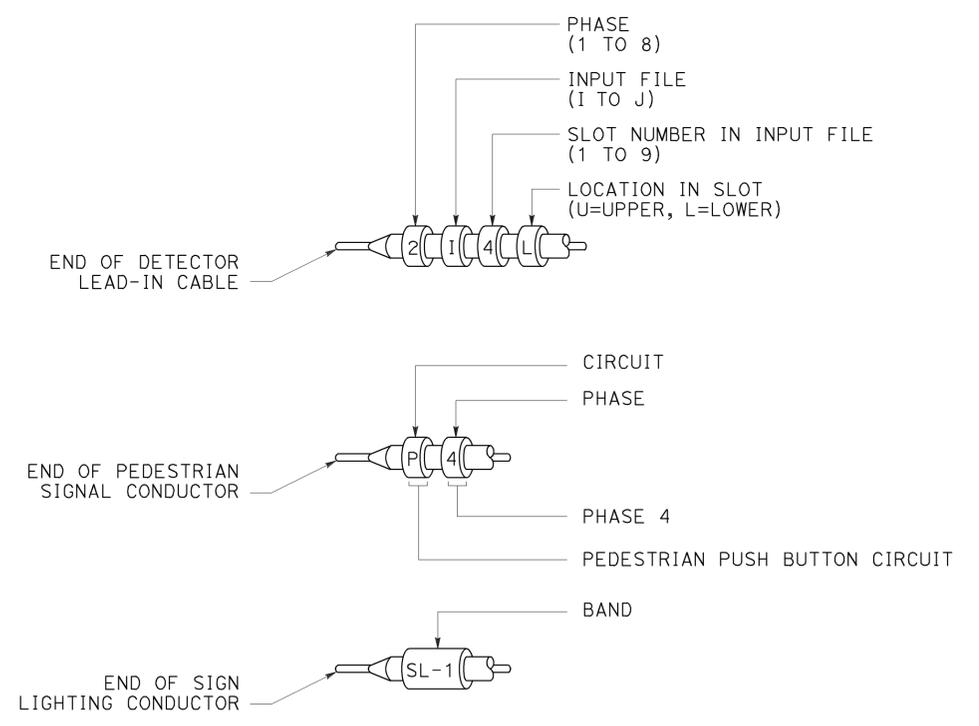
CIRCUIT VOLTAGE	FUSE VOLTAGE RATING	FUSE CURRENT RATING						
		HPS LAMP BALLAST		LOW PRESSURE SODIUM BALLAST	INDUCTION SIGN LIGHTING	SINGLE PHASE (TWO WIRE) TRANSFORMERS (PRIMARY SIDE)		
		70 W	100 W	180 W	85 W	1 KVA	2 KVA	3 KVA
120 V	250 V	5 A	5 A	5 A	5 A	10 A	20 A	30 A
240 V	250 V	5 A	5 A	5 A	5 A	6 A	10 A	20 A
480 V	500-600 V	5 A	5 A	3 A	1 A (SEE NOTE 2)	3 A	6 A	10 A

- NOTES:**
- Primary lines of multiple ballasts shall be provided with fused connectors. Fuse ratings shall be as noted above.
 - See Standard Plan ES-15D, Type SC3 control.

FUSE RATINGS FOR FUSED CONNECTORS



KINKING DETAIL FOR SLIP BASE STANDARDS
DETAIL A



TYPICAL BANDING DETAILS
DETAIL B

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(FUSE RATING, KINKING AND BANDING DETAIL)

NO SCALE

RSP ES-13B DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-13B DATED OCTOBER 30, 2015 - PAGE 485 OF THE STANDARD PLANS BOOK DATED 2015.

2015 REVISED STANDARD PLAN RSP ES-13B