

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	1	40



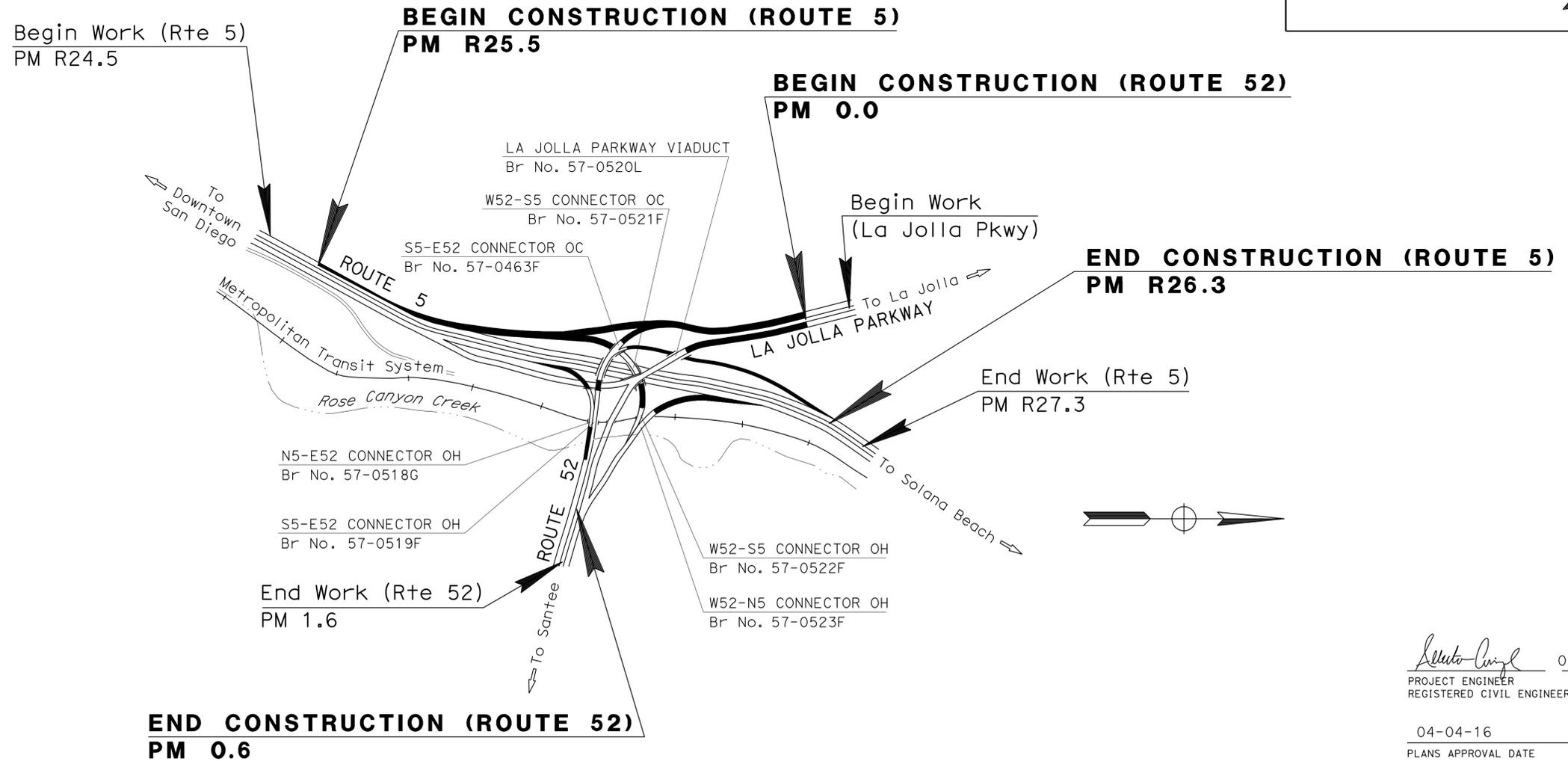
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-5	TYPICAL CROSS SECTIONS
6-7	CONSTRUCTION DETAILS
8-9	CONSTRUCTION AREA SIGNS
10-14	TRAFFIC HANDLING PLANS
15-17	PAVEMENT DELINEATION DETAILS AND QUANTITIES
18-19	SUMMARY OF QUANTITIES
20-23	ELECTRICAL PLANS
24-40	REVISED STANDARD PLANS

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

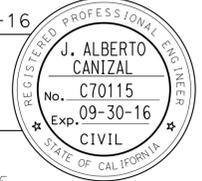
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**
**IN SAN DIEGO COUNTY
IN SAN DIEGO**
AT ROUTE 5/52 SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER LAURA ESPINOZA
DESIGN ENGINEER ALBERTO CANIZAL

 04-01-16
 PROJECT ENGINEER REGISTERED CIVIL ENGINEER DATE
 04-04-16
 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.



CONTRACT No.	11-419701
PROJECT ID	1114000144

NO SCALE

DATE PLOTTED => 05-APR-2016 TIME PLOTTED => 10:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	2	40

04-01-16
 REGISTERED CIVIL ENGINEER DATE
 04-04-16
 PLANS APPROVAL DATE

J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL

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

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. (*) = MATCH EXISTING.
3. APPLY FOG SEAL AT AC DIKES AND GORE AREAS.

ABBREVIATION:

- RHMA-G RUBBERIZED HOT MIXED ASPHALT (GAP GRADED)
 LCB LEAN CONCRETE BASE
 HMA-A HOT MIX ASPHALT-TYPE A

PAVEMENT CLIMATE REGION: SOUTH COAST

DESIGN DESIGNATION

NB5 TO LA JOLLA PARKWAY OFF-RAMP

ADT (2016)	9,820	D	NA
ADT (2026)	10,580	T	4.1%
DHV	1,010	TI ₂₀	10
ESAL	2,601,000		

LA JOLLA PARKWAY TO SB5 ON-RAMP
 WB52 - SB5 CONNECTOR

ADT (2016)	22,170	D	NA
ADT (2026)	23,460	T	4.1%
DHV	2,200	TI ₂₀	10.5
ESAL	3,634,300		

NB5 - EB 52 CONNECTOR

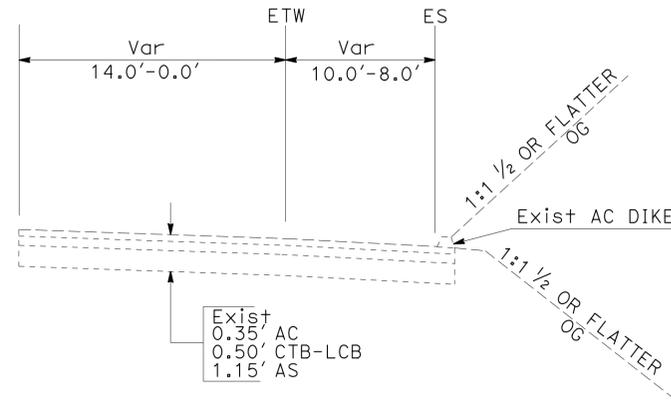
ADT (2016)	12,140	D	NA
ADT (2026)	12,990	T	4.1%
DHV	1,230	TI ₂₀	10.5
ESAL	3,136,600		

WB 52 - NB5 CONNECTOR

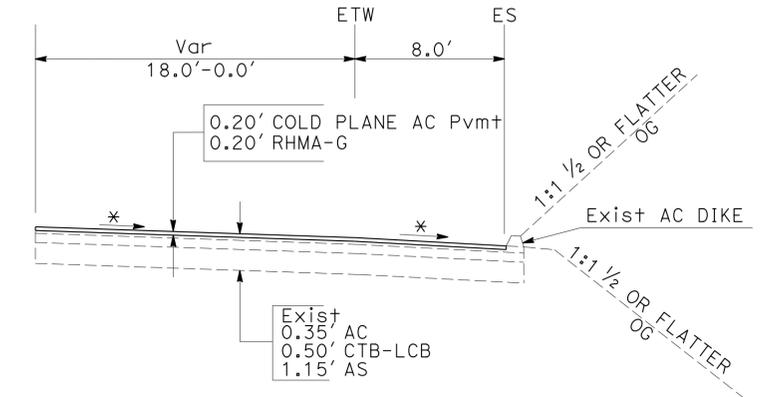
ADT (2016)	13,610	D	NA
ADT (2026)	14,710	T	4.1%
DHV	1,730	TI ₂₀	10.5
ESAL	3,606,100		

SB5 - EB 52 CONNECTOR

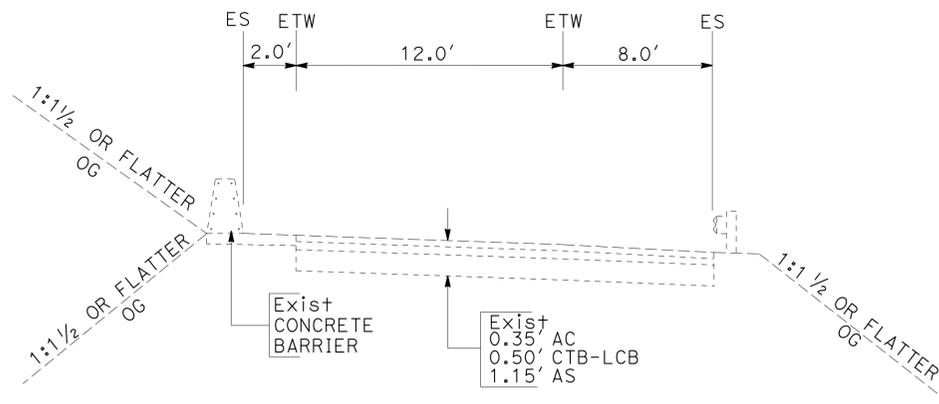
ADT (2016)	14,650	D	NA
ADT (2026)	15,880	T	4.1%
DHV	2,330	TI ₂₀	10.5
ESAL	3,937,300		



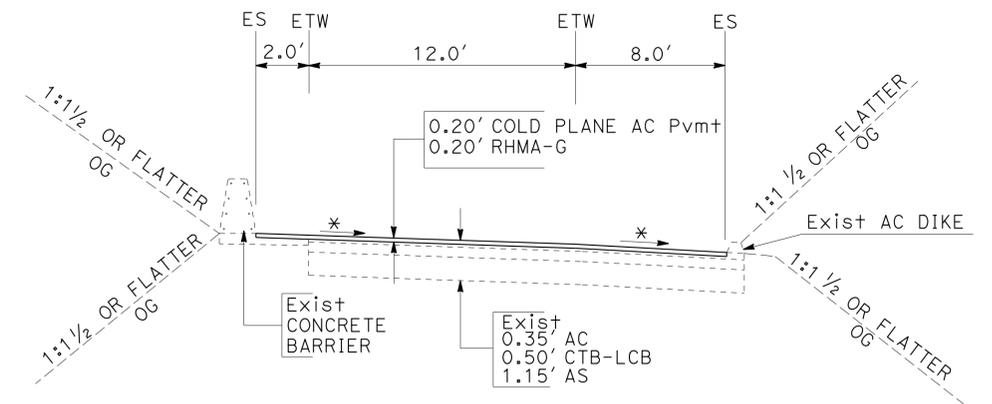
**LOCATION 1
 WB52**



**LOCATION 2
 NB5**



**LOCATION 1
 WB52 - NB5 CONNECTOR**



**LOCATION 2
 WB52 - NB5 CONNECTOR**

TYPICAL CROSS SECTIONS

X-1

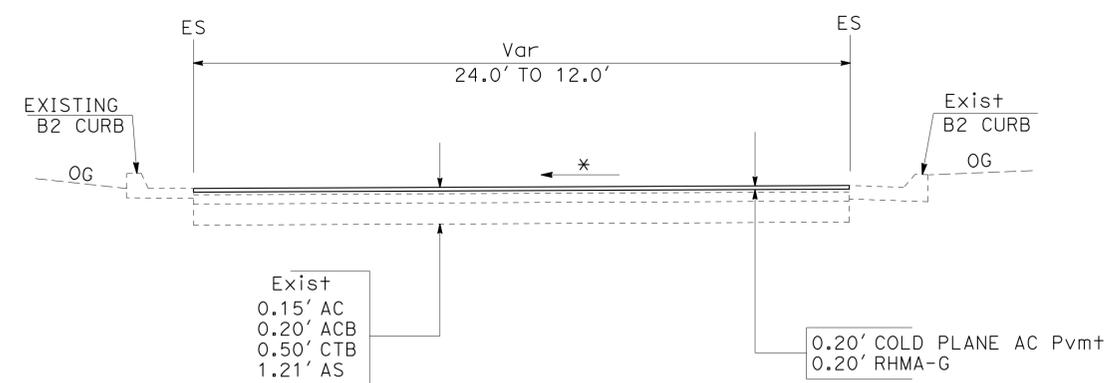
NO SCALE

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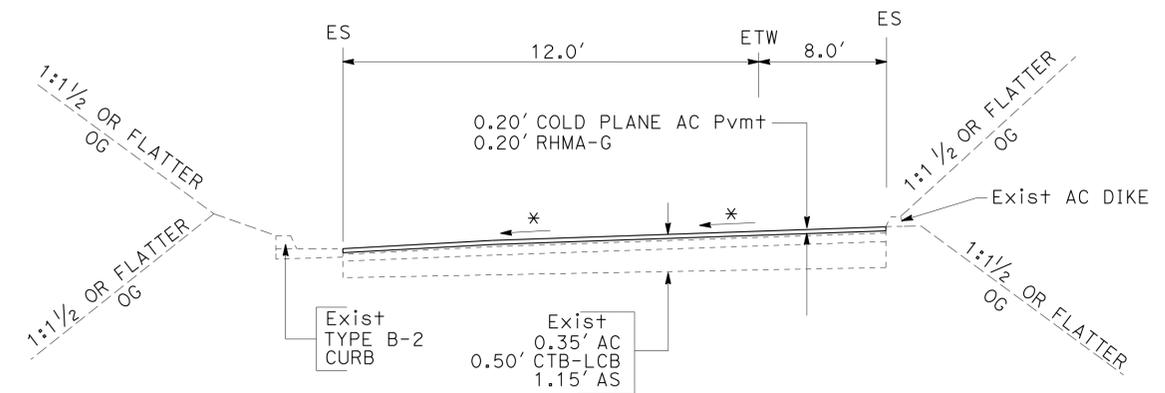
04-01-16
 REGISTERED CIVIL ENGINEER DATE
 04-04-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL
 STATE OF CALIFORNIA

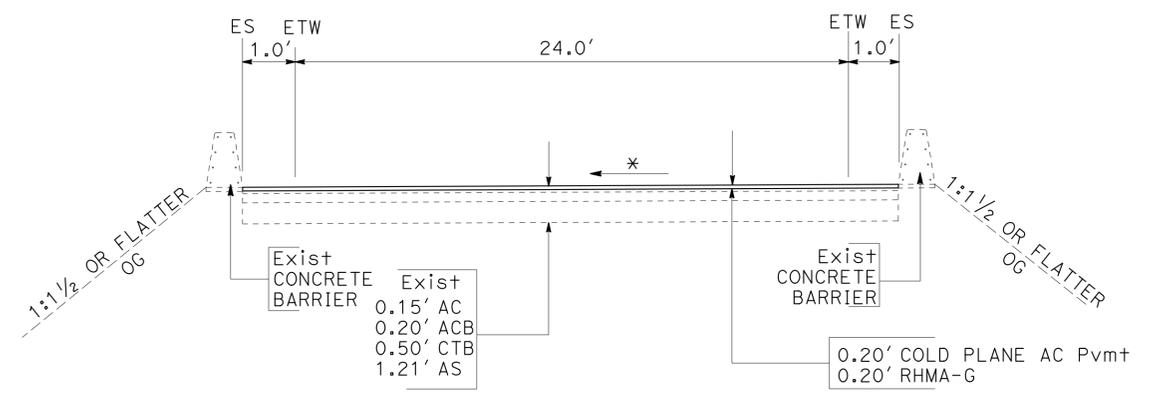
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



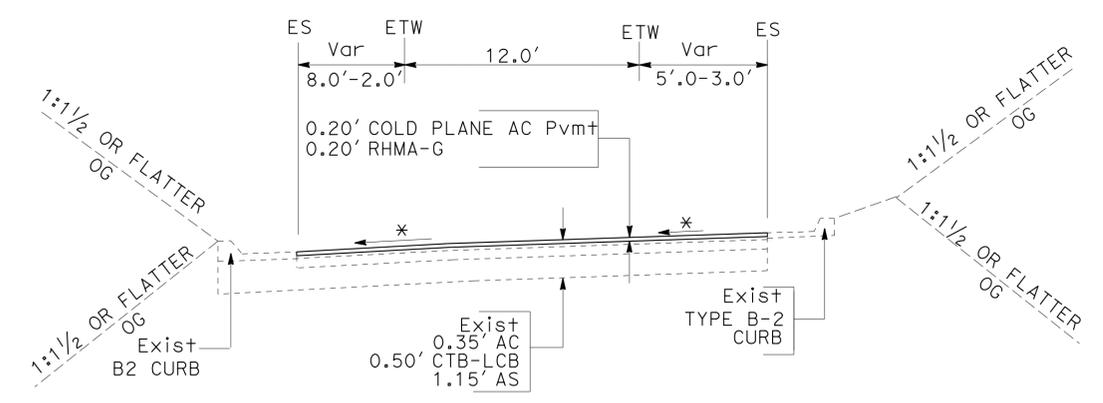
LOCATION 5
WB52 - SB5 CONNECTOR



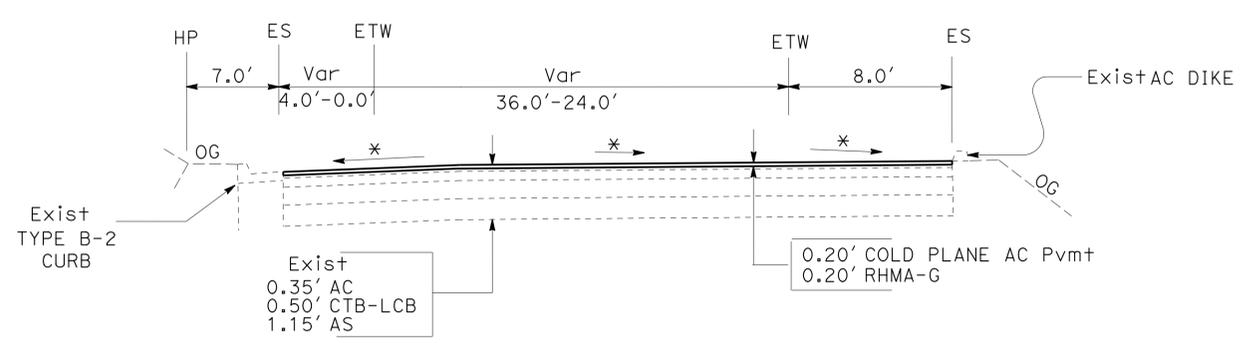
LOCATION 7
SB5 - EB52 CONNECTOR



LOCATION 4
WB52 - SB5 CONNECTOR



LOCATION 6
LA JOLLA PARKWAY TO EB 52 ON-RAMP



LOCATION 3
WB52 TO LA JOLLA PARKWAY OFF-RAMP

TYPICAL CROSS SECTIONS
NO SCALE
X-2

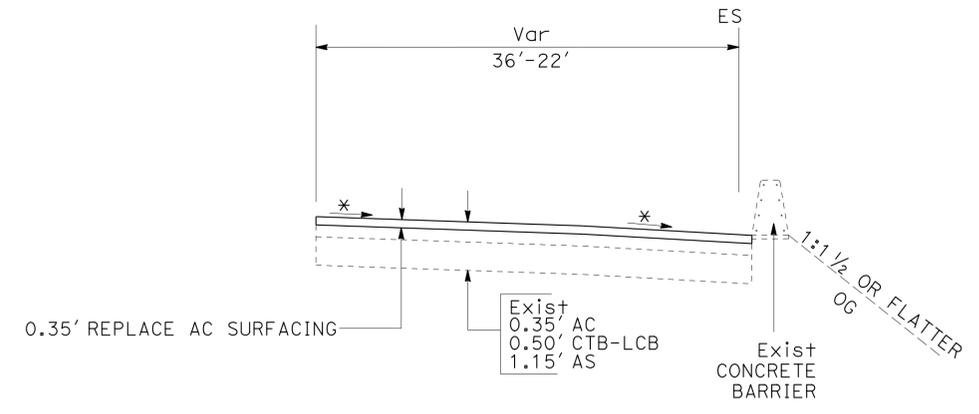
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: LAURA ESPINOZA
 CALCULATED/DESIGNED BY: ALBERTO CANIZAL
 CHECKED BY: ALBERTO CANIZAL
 REVISIONS: BASOZ GHAZI, ALBERTO CANIZAL
 REVISOR: BASOZ GHAZI, ALBERTO CANIZAL
 DATE: 04-01-16, 04-04-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	4	40

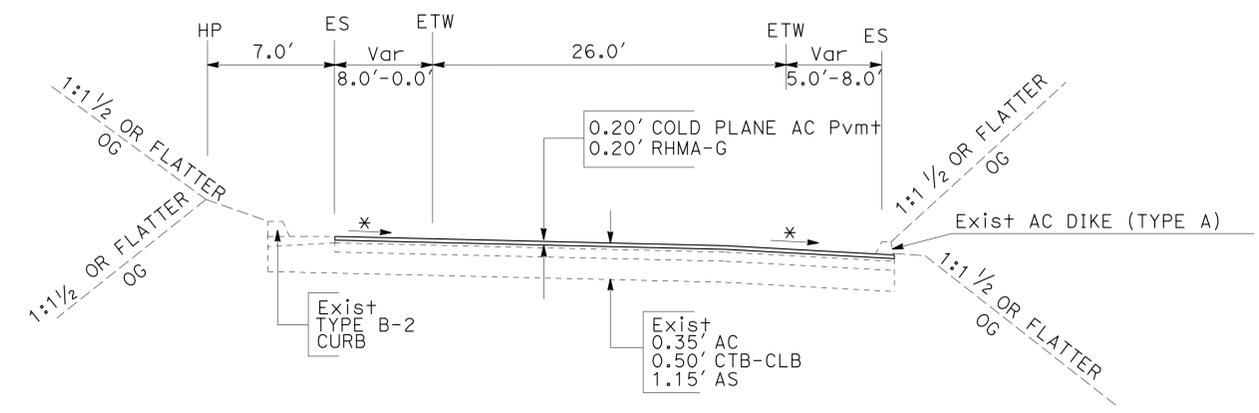
<i>Alberto Canizal</i>	04-01-16
REGISTERED CIVIL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL
 STATE OF CALIFORNIA

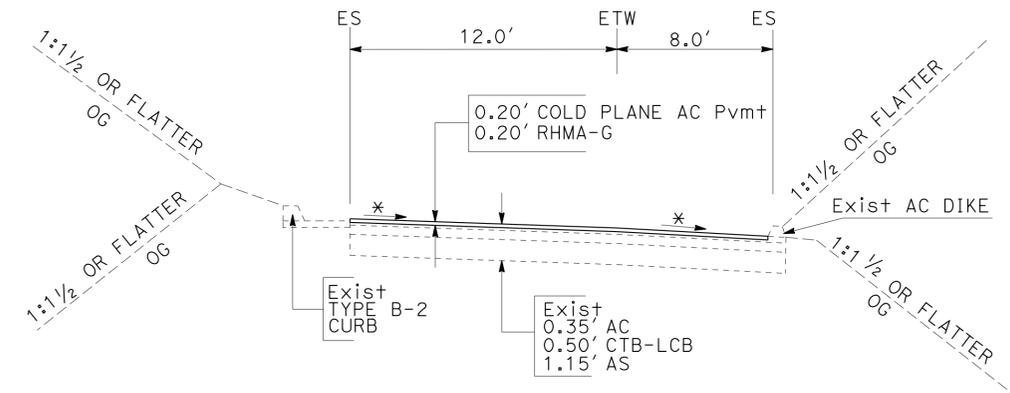
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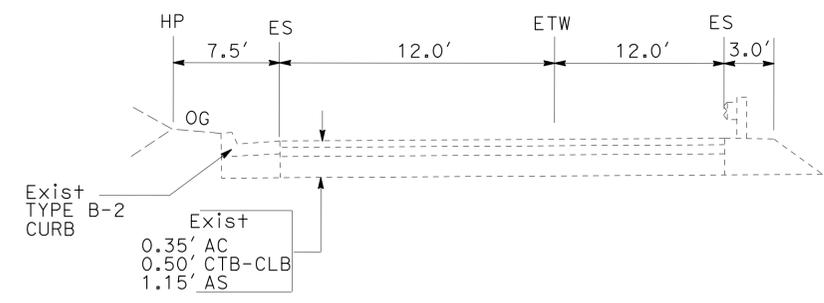
LOCATION 10
NB5 - EB52 CONNECTOR



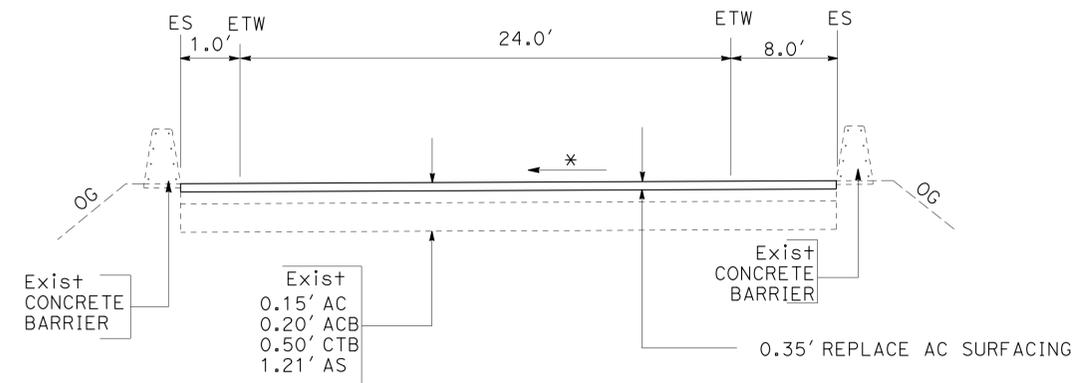
LOCATION 12
LA JOLLA PARKWAY (SR-52)



LOCATION 9
NB5 - EB52 CONNECTOR



LOCATION 11
NB5 TO LA JOLLA PARKWAY OFF-RAMP



LOCATION 8
SB5 - EB52 CONNECTOR

TYPICAL CROSS SECTIONS

NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

FUNCTIONAL SUPERVISOR: LAURA ESPINOZA

CALCULATED/DESIGNED BY: BASOZ GHAZI

CHECKED BY: ALBERTO CANIZAL

REVISOR: BASOZ GHAZI

DATE: ALBERTO CANIZAL

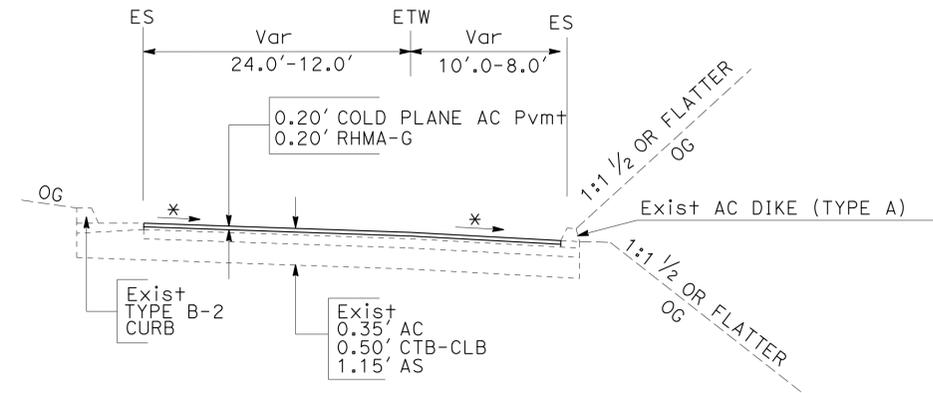
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	5	40

<i>Alberto Canizal</i>	04-01-16
REGISTERED CIVIL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

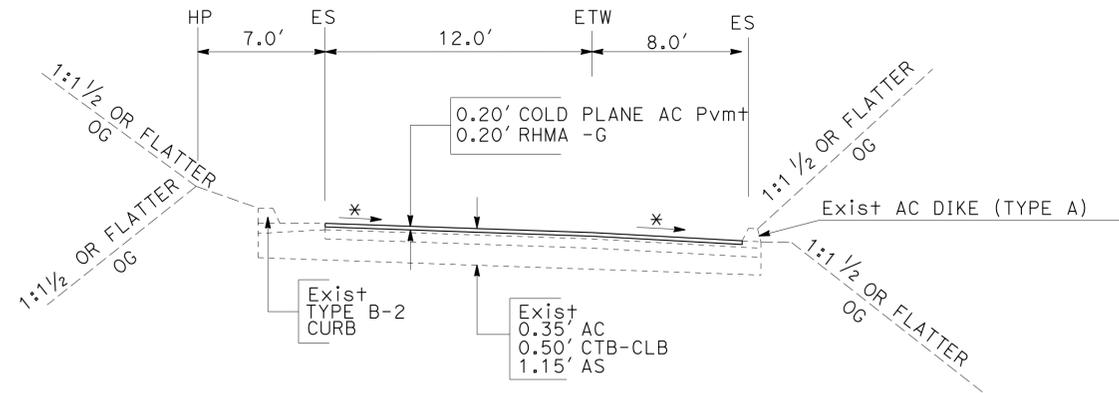
REGISTERED PROFESSIONAL ENGINEER
J. ALBERTO CANIZAL
No. C70115
Exp. 09-30-16
CIVIL

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
FUNCTIONAL SUPERVISOR LAURA ESPINOZA
CALCULATED/DESIGNED BY CHECKED BY
BASOZ GHAZI ALBERTO CANIZAL
REVISED BY DATE REVISED



LOCATION 14
SB 5



LOCATION 13
LA JOLLA PARKWAY TO SB 5 ON-RAMP

TYPICAL CROSS SECTIONS
NO SCALE
X-4

LAST REVISION | DATE PLOTTED => 05-APR-2016 04-04-16 | TIME PLOTTED => 10:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	6	40

<i>Alberto Canizal</i>	04-01-16
REGISTERED CIVIL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

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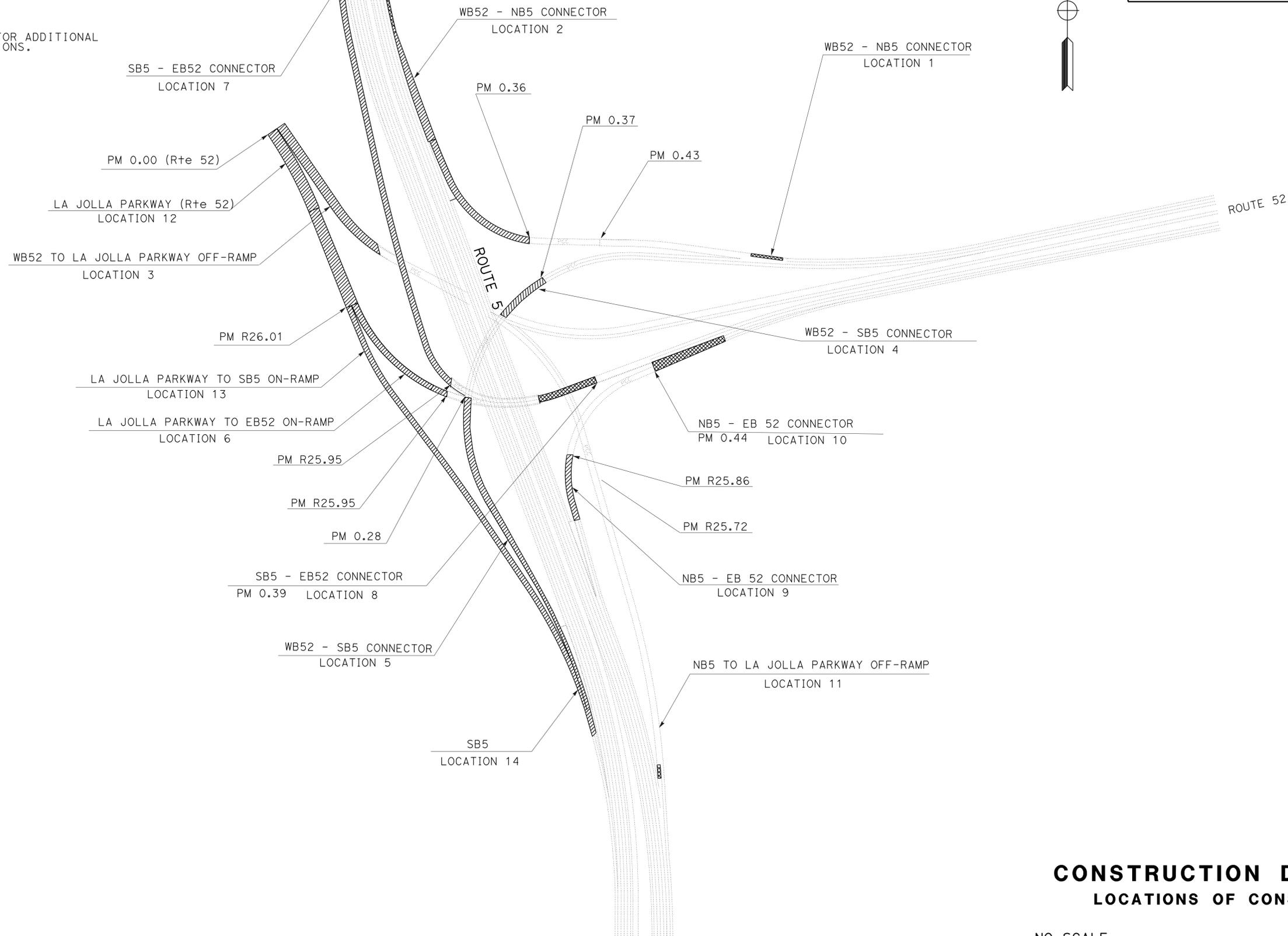


LEGEND:

- COLD PLANE AC PAVEMENT (0.20')
RHMA-G (0.20')
- REPLACE AC SURFACING

NOTE:

SEE SUMMARY OF QUANTITIES FOR ADDITIONAL REPLACE AC SURFACING LOCATIONS.



**CONSTRUCTION DETAILS
LOCATIONS OF CONSTRUCTION**

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
FUNCTIONAL SUPERVISOR LAURA ESPINOZA
CALCULATED/DESIGNED BY CHECKED BY
BASOZ GHAZI ALBERTO CANIZAL
REVISOR BY DATE
REVISOR BY DATE

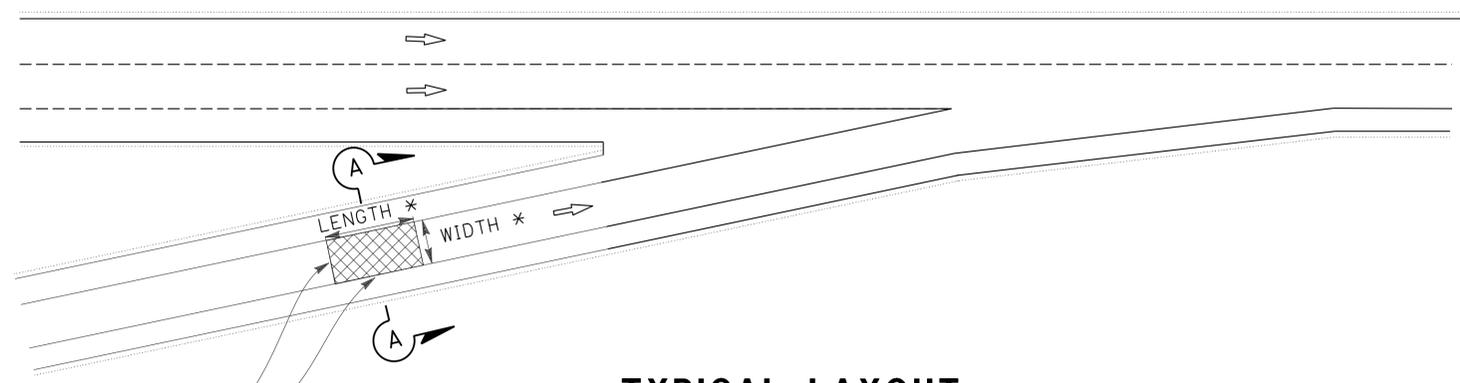


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	7	40
		04-01-16		REGISTERED CIVIL ENGINEER DATE	
		04-04-16		PLANS APPROVAL DATE	
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LEGEND:

REPLACE ASPHALT CONCRETE SURFACING

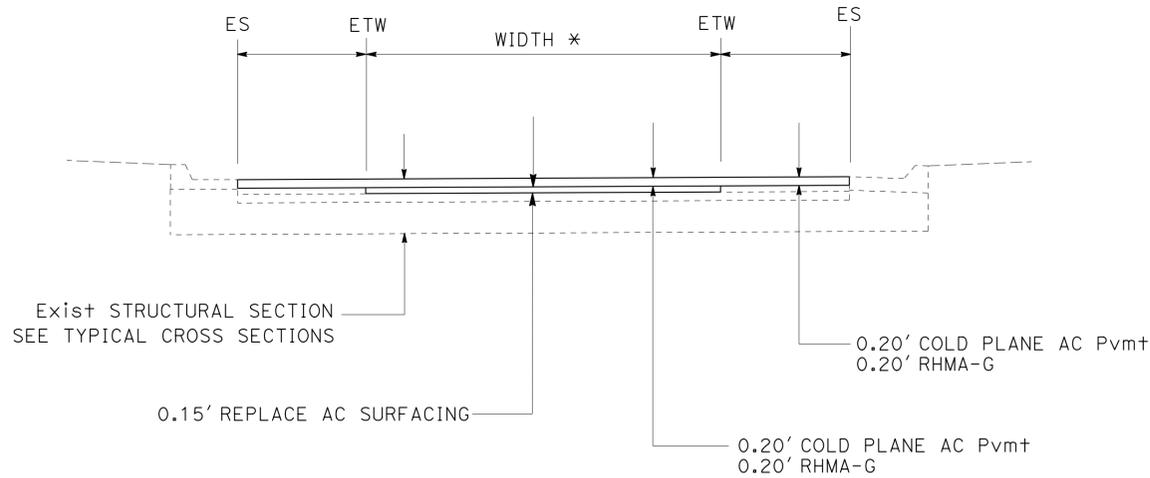


TYPICAL LAYOUT

SAW CUT ALL FOUR SIDES, TYPICAL

NOTE:

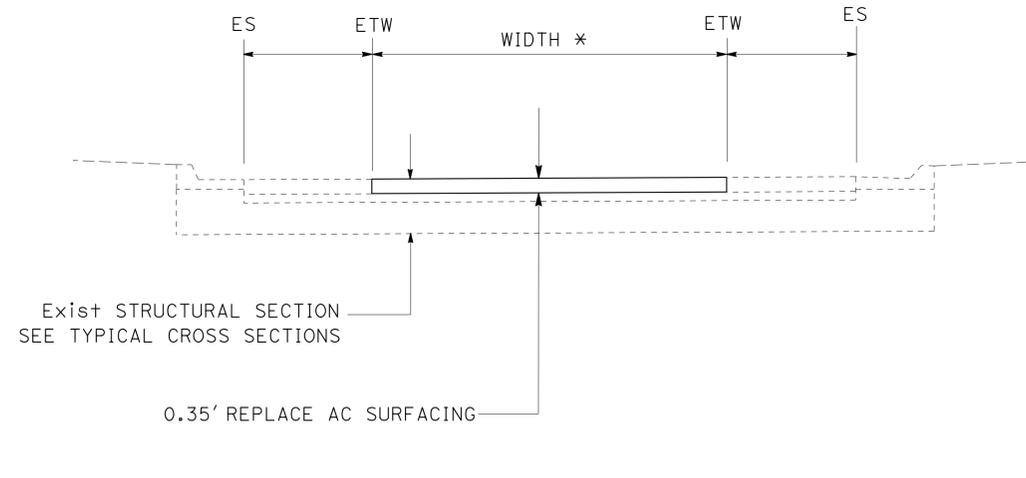
LOCATION TO BE DETERMINED BY THE ENGINEER.



SECTION A-A

TYPICAL REPLACE ASPHALT CONCRETE SURFACING

LOCATIONS 2, 3, 5, 7, 12, 13



SECTION A-A

TYPICAL REPLACE ASPHALT CONCRETE SURFACING

LOCATIONS 1, 8, 10, 11

* **NOTE:** SEE SUMMARY OF QUANTITIES SHEET FOR MORE INFORMATION.

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: LAURA ESPINOZA
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 BASOZ GHAZI
 ALBERTO CANIZAL
 REVISED BY: [blank]
 DATE REVISED: [blank]



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	8	40

04-01-16
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J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL
 STATE OF CALIFORNIA

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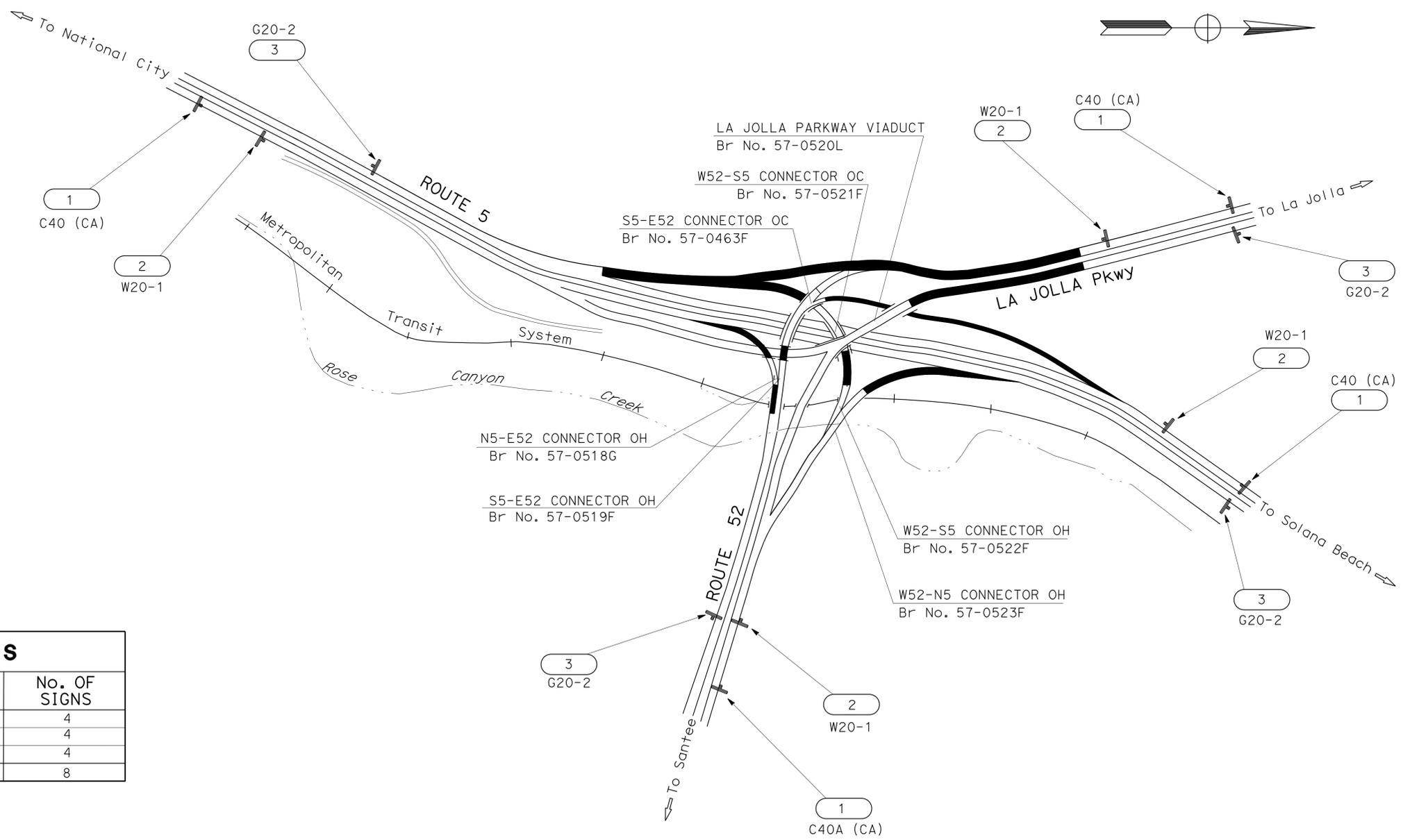
NOTES:

- EXACT LOCATION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY ENGINEER.
- FEDERAL MUTCD SIGN CODES ARE SHOWN UNLESS DESIGNATED (CA) INDICATING STANDARD CALIFORNIA SIGN SPECIFICATIONS ARE USED.
- ROTATE ARROW ON SC9 (CA) PANEL TO REFLECT DIRECTION OF DETOUR.
- SEE TRAFFIC HANDLING PLANS FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
- EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND AVOID IMPACTING THESE UTILITIES BY ADJUSTING THE FIELD LOCATION OF THE DESIGN POST IN CONSULTATION WITH THE ENGINEER.

LEGEND:

- = DIRECTION OF TRAVEL
- = CONSTRUCTION AREA SIGNS
- SPCL = SPECIAL CONSTRUCTION AREA SIGN
- Caps = CAPITAL LETTERING
- = CONSTRUCTION AREA SIGNS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 Laura Espinoza
 Functional Supervisor
 Alberto Canizal
 Basoz Ghazi
 Revised By
 Date Revised



CONSTRUCTION AREA SIGNS				
SIGN No.	TYPE	PANEL SIZE (In)	No. OF POST AND SIZE (In)	No. OF SIGNS
1	C40 (CA)	108 X 42	2-4 X 6 (S)	4
2	W20-1	48 X 48	1-4 X 6 (S)	4
3	G20-2	48 X 24	1-4 X 4 (S)	4
4	SC6-4 (CA)	48 X 60	PORTABLE	8

(S) DENOTES STATIONARY MOUNTED SIGN

**CONSTRUCTION AREA SIGNS
CS-1**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

NO SCALE

LAST REVISION DATE PLOTTED => 05-APR-2016
 04-04-16 TIME PLOTTED => 10:35

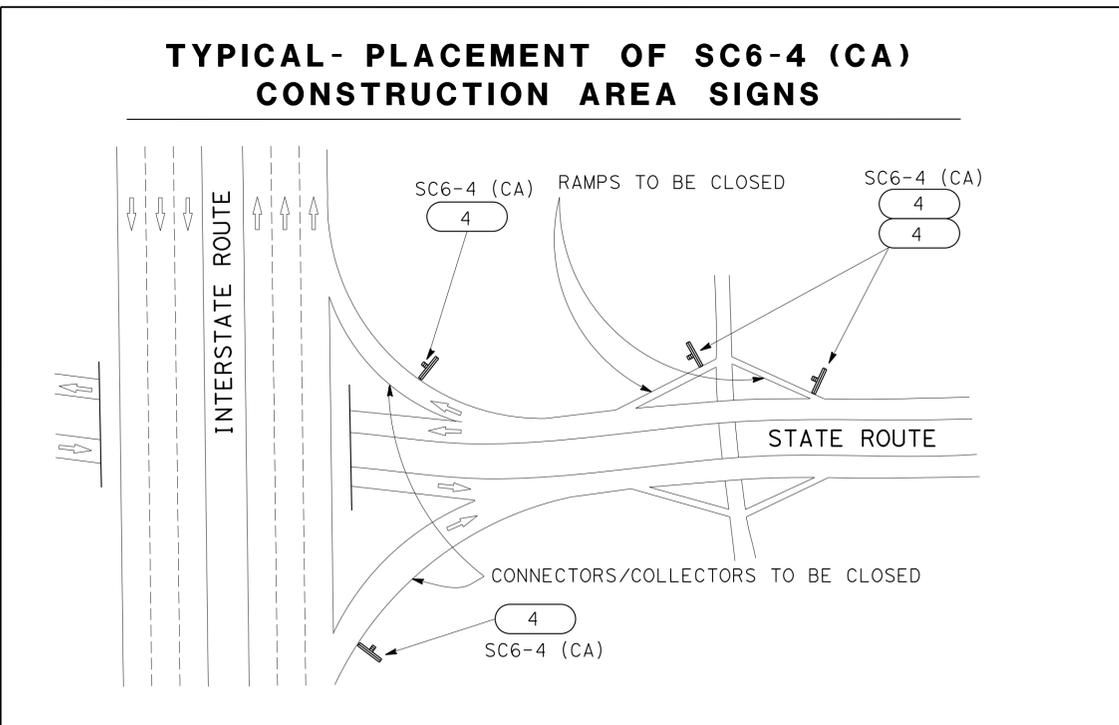
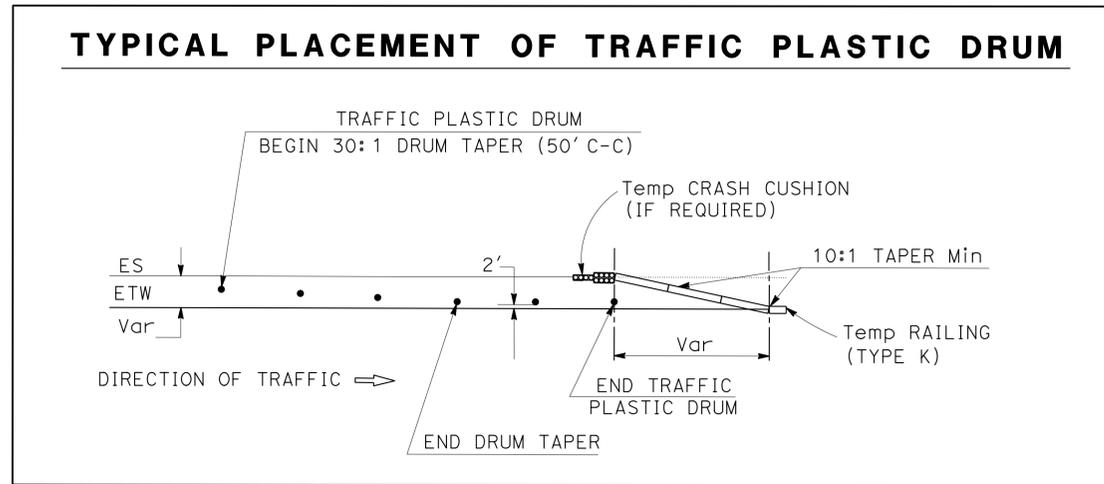
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04-01-16
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 PLANS APPROVAL DATE

J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans MAINTENANCE	LAURA ESPINOZA	BASOZ GHAZI	
		ALBERTO CANIZAL	



CONSTRUCTION AREA SIGNS

NO SCALE

CS-2

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION | DATE PLOTTED => 05-APR-2016
 04-04-16 | TIME PLOTTED => 10:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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REGISTERED PROFESSIONAL ENGINEER
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 No. C70115
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 CIVIL
 STATE OF CALIFORNIA

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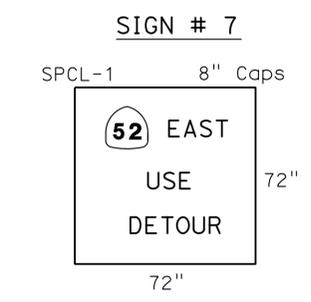
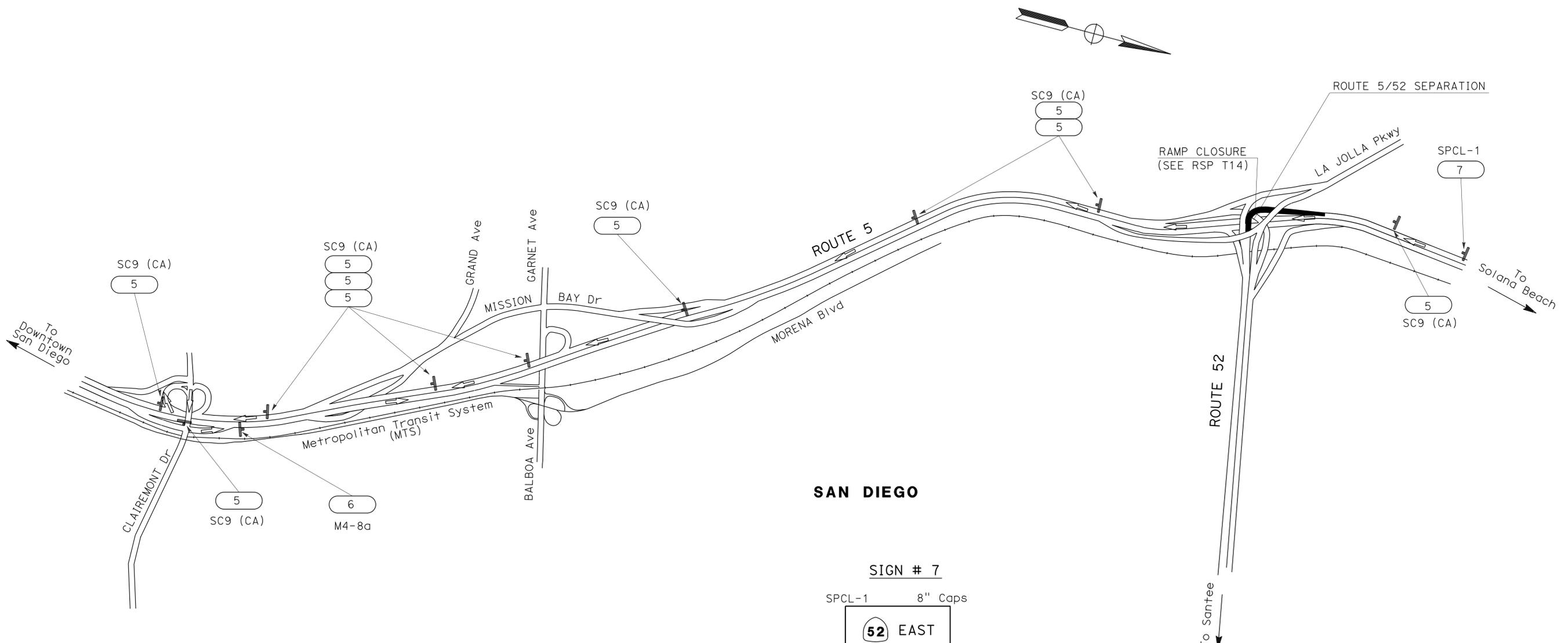
CONSTRUCTION AREA SIGNS

SIGN No.	CODE	PANEL SIZE (In)	No. OF POST AND SIZE (In)	No. OF SIGNS
5	SC9 (CA)	36 X 36	PORTABLE	63
6	M4-8a	24 X 18	PORTABLE	7
7	SPCL-1	72 X 72	PORTABLE	2
8	SPCL-2	72 X 72	PORTABLE	7
9	SPCL-3	72 X 72	PORTABLE	1
10	SPCL-4	72 X 72	PORTABLE	1
11	SPCL-5	72 X 72	PORTABLE	3

REVISIONS:
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE



SB5 - EB 52 CONNECTOR CLOSED

TRAFFIC HANDLING PLAN

TH-1

NO SCALE

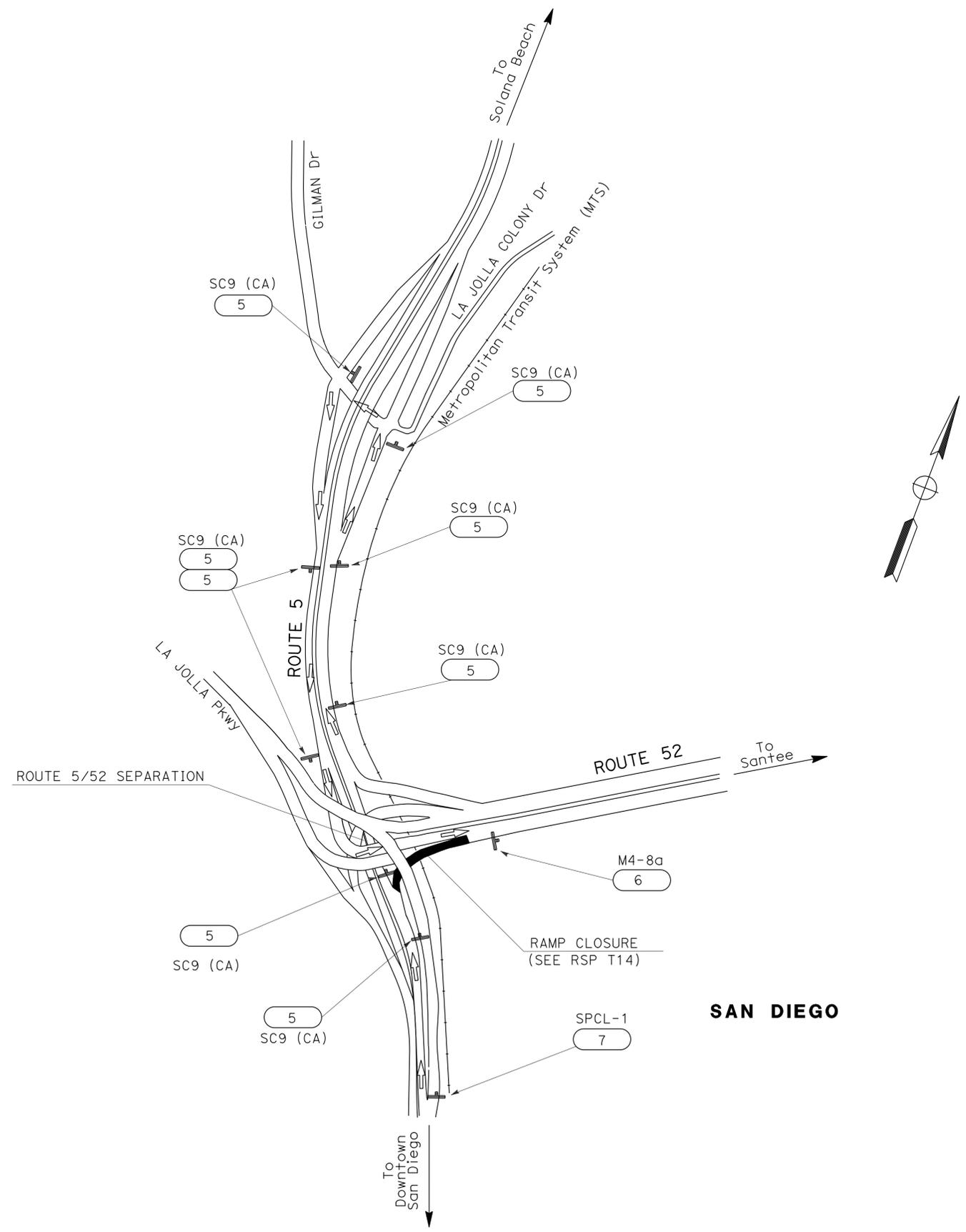
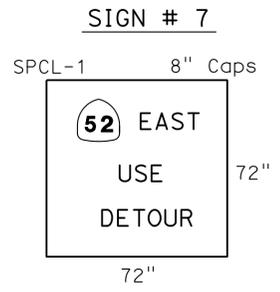
APPROVED FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	11	40

04-01-16
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 04-04-16
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J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans MAINTENANCE	LAURA ESPINOZA	CHECKED BY	BASOZ GHAZI
			ALBERTO CANIZAL

NB5 - EB52 CONNECTOR CLOSED

TRAFFIC HANDLING PLAN

TH-2

NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

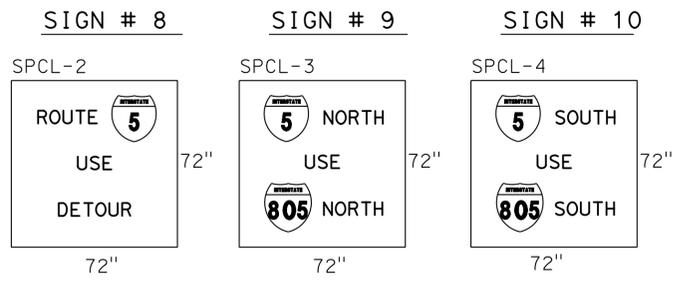
LAST REVISION | DATE PLOTTED => 05-APR-2016
 04-04-16 | TIME PLOTTED => 10:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	12	40

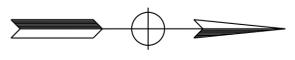
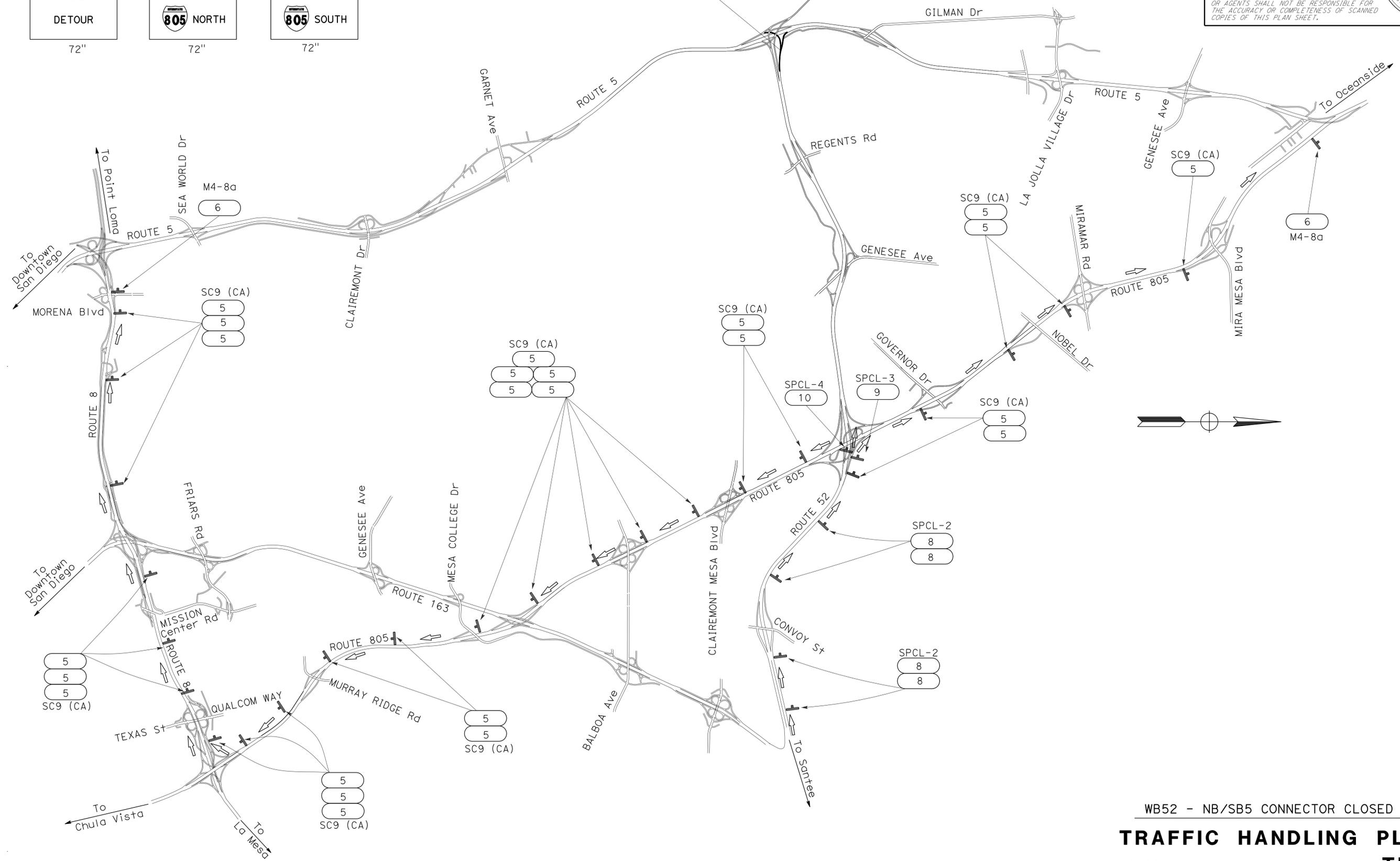
REGISTERED CIVIL ENGINEER DATE 04-01-16
 J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL

04-04-16
 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.



RAMP CLOSURE
(SEE STANDARD PLAN T14)



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: LAURA ESPINOZA
 CALCULATED/DESIGNED BY: BASOZ GHAZI
 CHECKED BY: ALBERTO CANIZAL
 REVISED BY: [blank]
 DATE REVISED: [blank]

APPROVED FOR TRAFFIC HANDLING WORK ONLY

WB52 - NB/SB5 CONNECTOR CLOSED
TRAFFIC HANDLING PLAN
 NO SCALE
TH-3

LAST REVISION DATE PLOTTED => 05-APR-2016 10:35
 04-04-16 TIME PLOTTED => 10:35

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 LAURA ESPINOZA

CALCULATED/DESIGNED BY
 CHECKED BY

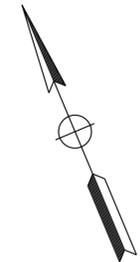
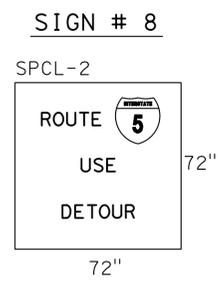
REVISOR
 BASOZ GHAZI
 ALBERTO CANIZAL

REVISOR
 DATE

REVISOR
 DATE

REVISOR
 DATE

REVISOR
 DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	13	40

REGISTERED CIVIL ENGINEER DATE 04-01-16
 04-04-16
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 J. ALBERTO CANIZAL
 No. C70115
 Exp. 09-30-16
 CIVIL
 STATE OF CALIFORNIA

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WB52 - NB/SB5 CONNECTOR CLOSED

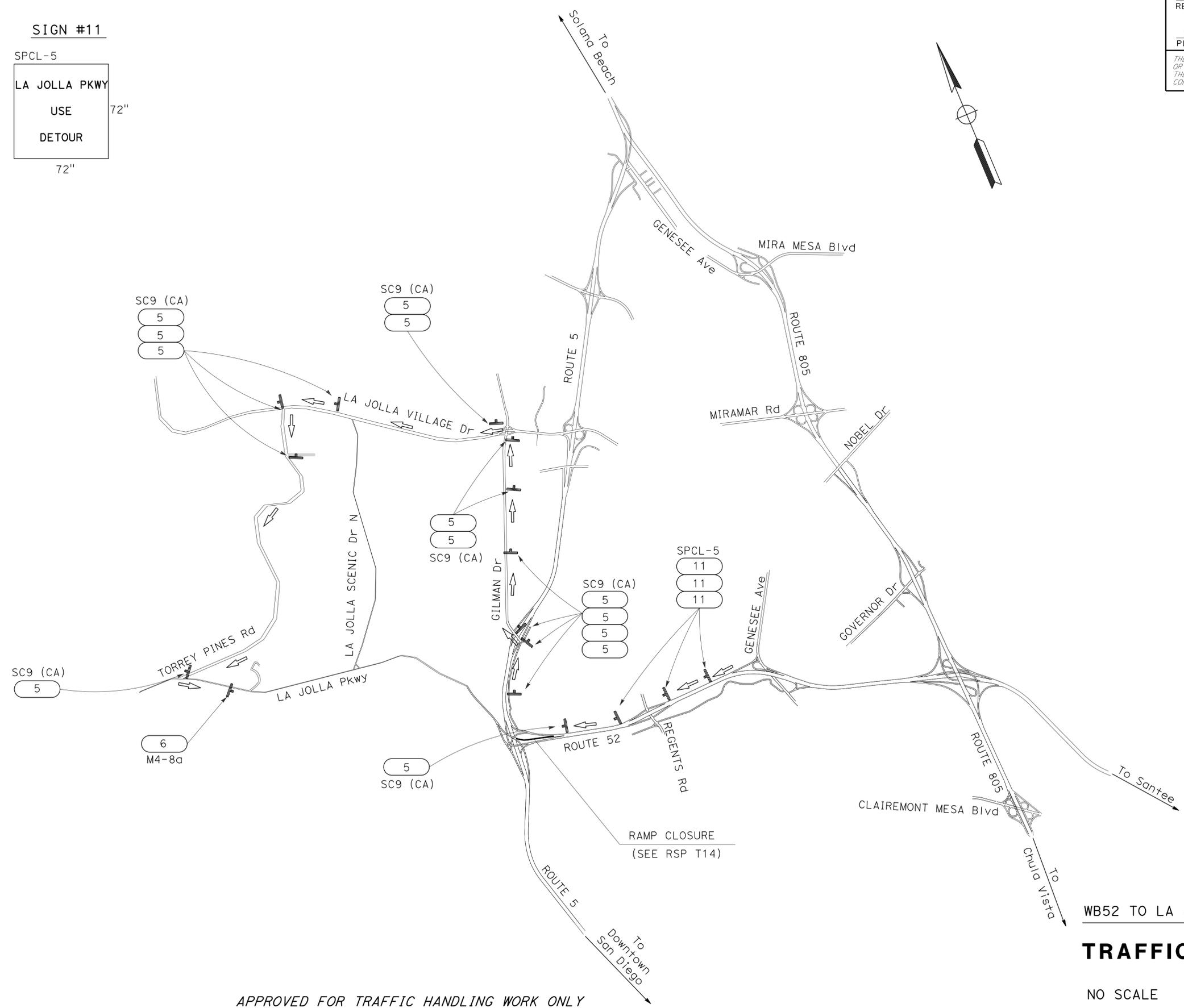
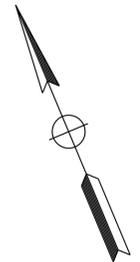
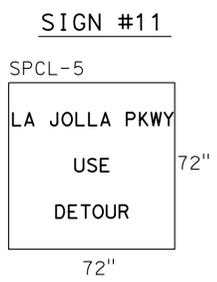
TRAFFIC HANDLING PLAN
 NO SCALE
TH-4

APPROVED FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	14	40

<i>Alberto Canizal</i>	04-01-16
REGISTERED CIVIL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

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APPROVED FOR TRAFFIC HANDLING WORK ONLY

WB52 TO LA JOLLA PARKWAY OFF-RAMP CLOSED

TRAFFIC HANDLING PLAN

NO SCALE

TH-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
FUNCTIONAL SUPERVISOR
Laura Espinoza
CALCULATED/DESIGNED BY
Checked by
BASOZ GHAZI
ALBERTO CANIZAL
REVISED BY
DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	15	40

<i>Alberto Canizal</i>	04-01-16
REGISTERED CIVIL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER J. ALBERTO CANIZAL No. C70115 Exp. 09-30-16 CIVIL STATE OF CALIFORNIA	
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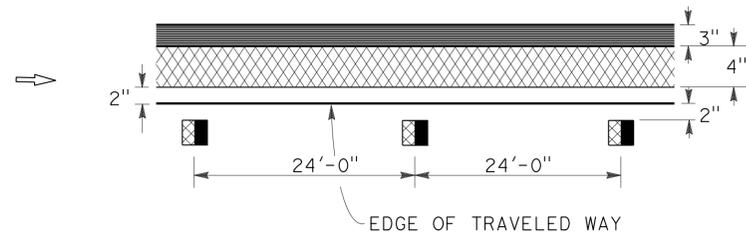
LEGEND:

MARKERS:

-  TYPE G ONE-WAY CLEAR RETROREFLECTIVE
-  TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES:

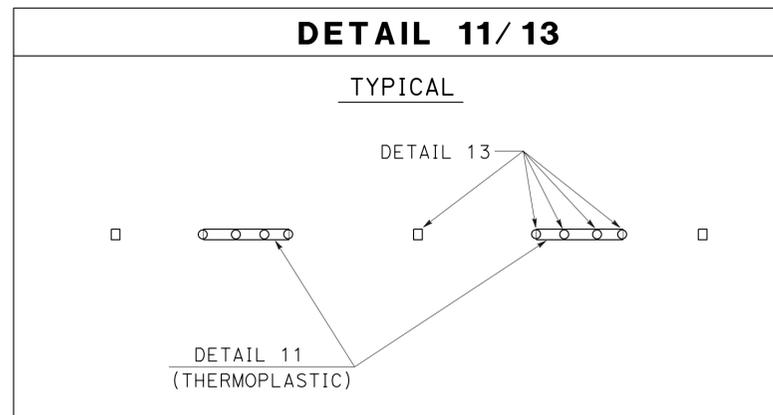
-  4" WHITE THERMOPLASTIC STRIPE
-  4" YELLOW THERMOPLASTIC STRIPE
-  3" BLACK PAINT STRIPE
-  DIRECTION OF TRAVEL



DETAIL 25A (Mod)



DETAIL 27B (Mod)

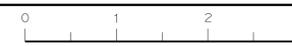


PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans MAINTENANCE	LAURA ESPINOZA	BASOZ GHAZI	
		ALBERTO CANIZAL	



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	16	40

Alberto Canizal 04-01-16
 REGISTERED CIVIL ENGINEER DATE

04-04-16
 PLANS APPROVAL DATE

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NOTES:

1. ALL PAVEMENT DELINEATION SHALL BE REPLACED IN KIND UNLESS INDICATED OTHERWISE.
2. ALL PAVEMENT DELINEATION SHALL BE REPLACED WITH THERMOPLASTIC (ENHANCED WET NIGHT VISIBILITY) TRAFFIC STRIPE.
3. ALL PAVEMENT MARKERS SHALL BE REPLACED IN KIND.

LOCATION			DETAIL	LENGTH LF (N)	PAVEMENT MARKERS			TRAFFIC STRIPE SUMMARY					REMARKS	
ROUTE	DESCRIPTION	POSTMILE			(NON-REFLECTIVE) (EA)	(RETROREFLECTIVE) (EA)		PAINT (1-COAT)	THERMOPLASTIC (LF) (ENHANCED WET NIGHT VISIBILITY)					
				TYPE A	TYPE G	TYPE H	3" SOLID BLACK	4" SOLID YELLOW	4" SOLID WHITE	4" WHITE BROKEN 17-7	4" WHITE BROKEN 36-12	8" WHITE SOLID		
5	SB5 - EB52 CONNECTOR	R26.22	11/13	20	6						220			
			25A	1,320		56		1,320						
			25A (Mod)	610		26	610	610					BRIDGE	
			27B	2,140					2,140					
			27B (Mod)	430			430		430				BRIDGE	
			36	350		31						700		
5	NB5 TO LA JOLLA PARKWAY OFF-RAMP	R25.66	25A	50		3		50					BRIDGE	
			25A (Mod)											
			27B	50					50				BRIDGE	
			27B (Mod)										BRIDGE	
			36	310		28								
5	LA JOLLA PARKWAY TO SB5 ON-RAMP	R25.69	25A	1,300		55		1,300						
			27B	2,960					2,960					
			36A	650		28			650			650		
5	NB5 - EB52 CONNECTOR	R25.85	25A	520		23		520						
			25A (Mod)	240		11	240	240					BRIDGE	
			27B	1,250					1,250					
			27B (Mod)	240			240	240	240				BRIDGE	
			36	310		28						620		
			36A	260		12			260			260		
52	WB52 TO LA JOLLA PARKWAY OFF-RAMP	0.59	11/13	920	79	20					920			
			25A	620		27		620						
			27B	670					670					
52	WB52 - SB5 CONNECTOR	0.51	11/13	660	57	14					660			
			25A	1,160		49		1,160						
			25A (Mod)	350		16	350	350					BRIDGE	
			27B	1,360					1,360					
			27B (Mod)	350			350	350	350				BRIDGE	
52	LA JOLLA PARKWAY TO EB52 ON-RAMP	0.21	25A	510		22		510						
			25A (Mod)	80		4	80	80					BRIDGE	
			27B	510					510					
			27B (Mod)	360			360	360	360				BRIDGE	
52	WB52 - NB5 CONNECTOR	0.51	25A	410		18		410						
			25A (Mod)	330		15	330	330					BRIDGE	
			27B	1,600					1,600					
			27B (Mod)	330			330	330	330				BRIDGE	
			36A	220		10			220			220		
			8	300						300				
SUBTOTAL					156	177	325	3,320	7,500	13,380	300	1,800	2,450	
TOTAL					156	502		3,320	20,880		300	1,800	2,450	

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

PAVEMENT DELINEATION QUANTITIES

PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	17	40

Alberto Canizal 04-01-16
 REGISTERED CIVIL ENGINEER DATE

04-04-16
 PLANS APPROVAL DATE

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THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)

ROUTE	DESCRIPTION	TYPE VI ↑	TYPE V ↑	REMARKS
		SQFT	SQFT	
52	WB52 TO LA JOLLA PARKWAY OFF-RAMP	126	-	
52	WB52 - SB5 CONNECTOR	126	-	
52	LA JOLLA PARKWAY TO EB52 ON-RAMP	-	66	
5	SB5 - EB52 CONNECTOR	-	33	
SUBTOTAL		252	99	
TOTAL		351		

REMOVE THERMOPLASTIC PAVEMENT MARKING (N)

ROUTE	LOCATION	DETAIL/TYPE	SQFT
52	WB52 TO LA JOLLA PARKWAY OFF-RAMP	ARROW TYPE VI	126
52	WB52 - SB5 CONNECTOR	ARROW TYPE VI	126
TOTAL			252

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

REMOVE THERMOPLASTIC PAVEMENT MARKING

ROUTE	LOCATION	DETAIL/TYPE	SQFT
52	LA JOLLA PARKWAY TO EB52 ON-RAMP	ARROW TYPE V	66
5	SB5 - EB52 CONNECTOR	ARROW TYPE V	33
TOTAL			99

REMOVE THERMOPLASTIC TRAFFIC STRIPE

ROUTE	LOCATION	DETAILS	LENGTH (LF)
52	WB52 - SB5 CONNECTOR	25A(Mod), 27B(Mod)	700
52	LA JOLLA PARKWAY TO EB52 ON-RAMP	25A(Mod), 27B(Mod)	440
5	SB5 - EB52 CONNECTOR	25A(Mod), 27B(Mod)	1,040
5	NB5 - EB52 CONNECTOR	25A(Mod), 27B(Mod)	480
TOTAL			2,660

REMOVE PAVEMENT MARKER (EA) (N)

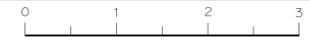
ROUTE	DESCRIPTION	TYPE		
		A	G	H
5	SB5 - EB52 CONNECTOR	20	37	82
5	NB5 TO LA JOLLA PARKWAY OFF-RAMP	-	28	3
5	LA JOLLA PARKWAY TO SB5 ON-RAMP	-	28	55
5	NB5 - EB52 CONNECTOR	-	40	34
5	WB52 TO LA JOLLA PARKWAY OFF-RAMP	79	20	27
52	WB52 - SB5 CONNECTOR	57	14	65
52	LA JOLLA PARKWAY TO EB52 ON-RAMP	-	-	26
52	WB52 - NB5 CONNECTOR	-	10	33

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

PAVEMENT DELINEATION QUANTITIES

PDQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR LAURA ESPINOZA
 CALCULATED/DESIGNED BY BASOZ GHAZI
 CHECKED BY ALBERTO CANIZAL
 REVISED BY DATE
 REVISIONS



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	18	40

J. Alberto Canizal 04-01-16
 REGISTERED CIVIL ENGINEER DATE

04-04-16
 PLANS APPROVAL DATE

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ROADWAY QUANTITIES

LOCATION	DESCRIPTION	POSTMILE	LENGTH (LF) (N)	MAIN LANES WIDTH (LF) (N)	RIGHT SHOULDER WIDTH (LF) (N)	LEFT SHOULDER WIDTH (LF) (N)	AREA (SQFT) (N)	VOLUME (CY) (N)	COLD PLANE AC PAVEMENT (SQYD)	RHMA-G (TON)	TACK COAT (TON)	ASPHALTIC EMULSION (FOG SEAL COAT)	REMARKS
1	WB52 - NB5 CONNECTOR	0.43	450	12	8	2						0.17	FOG SEAL GORE AREA ONLY
	↓ WB52		450	14-0	10-8	-						0.29	FOG SEAL GORE ONLY
2	WB52 - NB5 CONNECTOR	0.36	570	12	8	2	12,540	92.89	1,393	182.06	0.35		
	↓ NB5		910	18-0	8	-	15,470	114.59	1,719	224.60	0.43		
3	WB52 TO LA JOLLA PARKWAY OFF-RAMP	0.00	600	36-24	8	4-0	24,000	177.78	2,667	348.44	0.67		
4	WB52 - SB5 CONNECTOR	0.37	200	24	1	1	5,200	38.52	578	75.50	0.14	0.35	FOG SEAL GORE AREA
5	↓	0.28	1,300	24-12	-	-	23,400	173.33	2,600	339.73	0.65		
6	LA JOLLA PARKWAY TO EB52 ON-RAMP	R25.95	510	12	5-3	8-2	10,710	79.33	1,190	155.49	0.30		
7	SB5 - EB52 CONNECTOR	R25.95	1,920	12	8	-	38,400	284.44	4,267	557.51	1.07		
8	↓	0.39											
9	NB5 - EB52 CONNECTOR	R25.86	225.00	12	8	-	4,500	77.04	500	65.33	0.13	0.14	SEE SHEET Q-2 FOR QUANTITIES FOG SEAL GORE AREA
10	↓	0.44											SEE SHEET Q-2 FOR QUANTITIES FOG SEAL GORE AREA ONLY
11	NB5 TO LA JOLLA PARKWAY OFF-RAMP	R25.72	1,120	12	12	-						0.19	FOG SEAL GORE AREA ONLY
12	LA JOLLA PARKWAY (Rte 52)	0.00	750	26	8-5	8-0	27,375	202.78	3,042	397.44	0.76		
13	LA JOLLA PARKWAY TO SB5 ON-RAMP	R26.01	1,530	12	8	-	30,600	226.67	3,400	444.27	0.85		
14	SB5		365	24-12	10-8	-	9,855	73.00	1,095	143.08	0.27		
SUBTOTAL									22,451	2,933.45	5.62	1.14	
FOG SEAL AC DIKES												0.31	
TOTAL									22,451	2,933.45	5.62	1.45	

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: LAURA ESPINOZA
 CALCULATED/DESIGNED BY: BASOZ GHAZI
 CHECKED BY: ALBERTO CANIZAL
 REVISED BY: _____ DATE REVISED: _____

SUMMARY OF QUANTITIES Q-1

LAST REVISION | DATE PLOTTED => 05-APR-2016
 04-04-16 | TIME PLOTTED => 10:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	19	40

Alberto Canizal 04-01-16
 REGISTERED CIVIL ENGINEER DATE

04-04-16
 PLANS APPROVAL DATE

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REPLACE ASPHALT CONCRETE SURFACING

ROUTE	DESCRIPTION	POSTMILE	LENGTH (N)	WIDTH (N)	AREA (N)	DEPTH (N)	VOLUME	REMARKS	
			LF	LF	SQFT	LF	CY		
52	WB52 - NB5 CONNECTOR	0.56	120	10	1,200	0.35	15.56	SHOULDER / POSTMILE FROM END BRIDGE 57-0523	
		0.29	475	12	5,700	0.15	31.67	LANE / POSTMILE FROM BEGIN BRIDGE 57-0523	
	WB52 TO LA JOLLA PARKWAY OFF-RAMP	0.00	70	20	1,400	0.15	7.78	#2 LANE AND SHOULDER	
		0.05	50	12	600	0.15	3.33	#2 LANE	
	WB52 - SB5 CONNECTOR	0.28	100	24	2,400	0.15	13.33	#1, #2 LANE / POSTMILE FROM BRIDGE 57-0521	
		0.24	100	12	1,200	0.15	6.67	#1, #2 LANE / POSTMILE FROM BRIDGE 57-0521	
	LA JOLLA PARKWAY (Rte 52)	0.00	250	5	1,250	0.15	6.94	RIGHT SHOULDER	
		0.00	20	12	240	0.15	1.33	#1 LANE	
			0.04	20	12	240	0.15	1.33	#1 LANE
			0.14	50	12	600	0.15	3.33	#1 LANE
5	SB5 - EB52 CONNECTOR	R26.22	70	12	840	0.15	4.67	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
		R26.17	80	12	960	0.15	5.33	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
		R26.06	50	12	600	0.15	3.33	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
		R26.05	50	12	600	0.15	3.33	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
	NB5 - EB52 CONNECTOR	0.39	220	33	7,260	0.35	94.11	#1, #2, SHOULDER / POSTMILE FROM BRIDGE 57-0463	
		0.44	286	36'-22'	8,300	0.35	107.59	LANE AND SHOULDER / POSTMILE AT BRIDGE 57-0518	
	NB5 OFF-RAMP TO LA JOLLA PARKWAY	R25.64	50	12	600	0.35	7.78	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
	LA JOLLA PARKWAY TO SB5 ON-RAMP	R25.67	180	12	2,160	0.15	12.00	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463	
	R25.80	50	12	600	0.15	3.33	LANE / POSTMILE FROM BEGIN BRIDGE 57-0463		
TOTAL							332.77		

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

SUMMARY OF QUANTITIES

Q-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	20	40

Mahendra R. Nirmal 04-04-16
 REGISTERED ELECTRICAL ENGINEER DATE

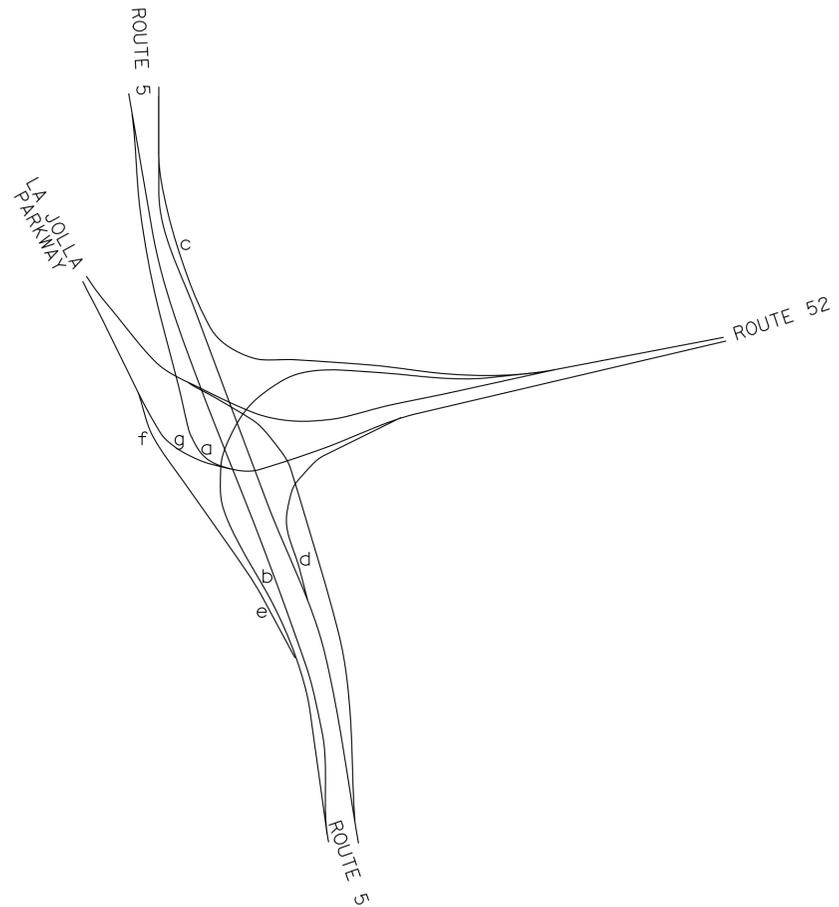
04-04-16
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- NOTES:**
1. NEW LOOPS MUST BE TYPE E.
 2. SEE DETAIL A FOR APPROXIMATE LOCATION OF INDUCTIVE LOOPS.

INDUCTIVE LOOP DETECTOR

Loc.	ROUTE	PM	LOCATION	EXISTING FACILITY	DIRECTION	LOCATION OF THE EXISTING PULL BOX IN THE DIRECTION OF TRAVEL	NUMBER OF NEW LOOP DETECTOR
a	52	0.21	CONNECTOR	RAMP METER	EB	RIGHT SIDE	1
b	52	0.10	CONNECTOR	RAMP METER	WB	RIGHT SIDE	1
c	5	25.80	CONNECTOR	RAMP METER	NB	RIGHT SIDE	1
d	5	25.85	CONNECTOR	RAMP METER	NB	RIGHT SIDE	1
e	52	0.30	ON-RAMP	RAMP METER	WB	RIGHT SIDE	5
f	52	0.20	ON-RAMP	RAMP METER	WB	RIGHT SIDE	1
g	52	25.60	OFF-RAMP	RAMP METER	NB	LEFT SIDE	1
h	52	0.20	ON-RAMP	RAMP METER	EB	RIGHT SIDE	1



DETAIL A
 SEE SHEET C-1 FOR MORE DETAILS

INDUCTIVE LOOP DETECTOR
E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL
 MAHENDRA R. NIRMAL
 HECTOR SANTAMARIA
 RAJPREET SINGH
 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	21	40

<i>Mahendra R. Nirmal</i>	04-04-16
REGISTERED ELECTRICAL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

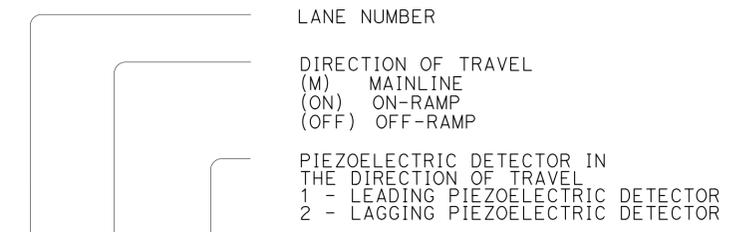
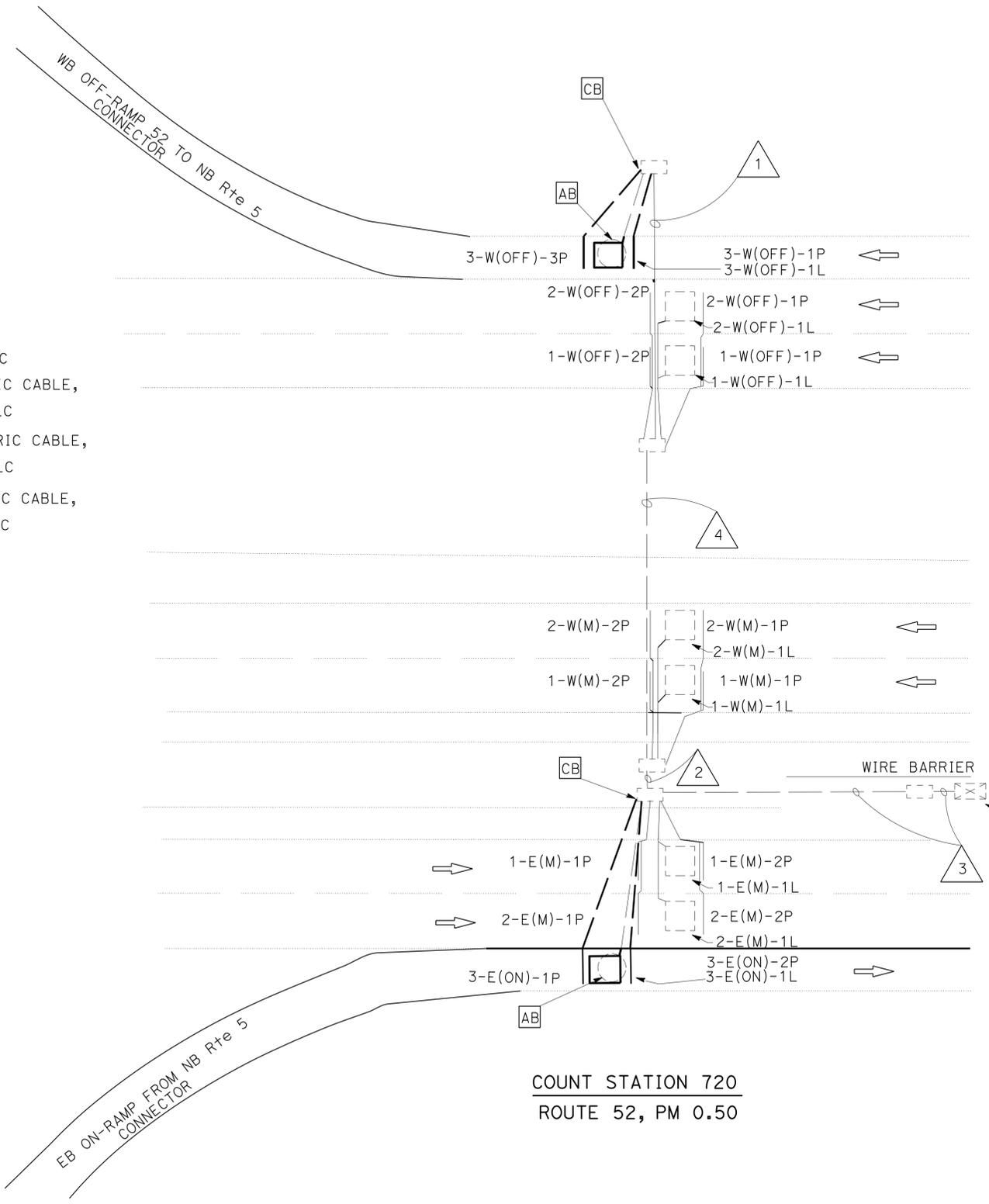
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NOTE:

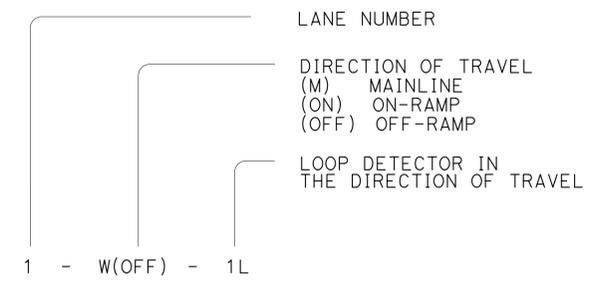
SEE SHEET E-3 FOR PIEZOELECTRIC SENSOR AND LOOP INSTALLATION.

CONDUIT LEGEND:

- 1 - Exist 2"C, 1 DLC,
ADD 2 PIEZOELECTRIC CABLE, 1 DLC
- 2 - Exist 2"C, 5 DLC, 8 PIEZOELECTRIC CABLE,
ADD 2 PIEZOELECTRIC CABLE, 1 DLC
- 3 - Exist 2"C, 8 DLC, 12 PIEZOELECTRIC CABLE,
ADD 4 PIEZOELECTRIC CABLE, 2 DLC
- 4 - Exist 2"C, 3 DLC, 4 PIEZOELECTRIC CABLE,
ADD 2 PIEZOELECTRIC CABLE, 1 DLC



PIEZOELECTRIC DETECTOR IDENTIFICATION



LOOP DETECTOR IDENTIFICATION

AUTOMATIC VEHICLE CLASSIFICATION SYSTEM
E-2

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL

REVISOR BY
MAHENDRA R. NIRMAL
HECTOR SANTAMARIA

DESIGNED BY
MAHENDRA R. NIRMAL
HECTOR SANTAMARIA

CHECKED BY
MAHENDRA R. NIRMAL
HECTOR SANTAMARIA

FUNCTIONAL SUPERVISOR
RAJPREET SINGH

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	22	40

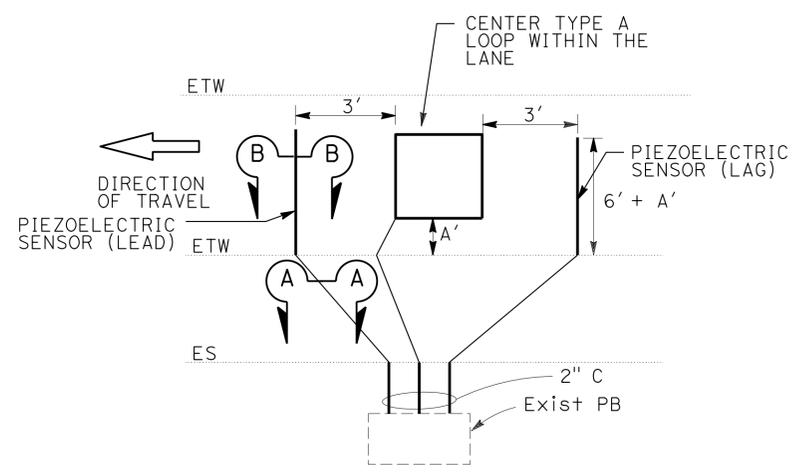
<i>Mahendra R. Nirmal</i>	04-04-16
REGISTERED ELECTRICAL ENGINEER	DATE
04-04-16	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MAHENDRA R. NIRMAL
No. E 10689
Exp. 06-30-17
ELECTRICAL
STATE OF CALIFORNIA

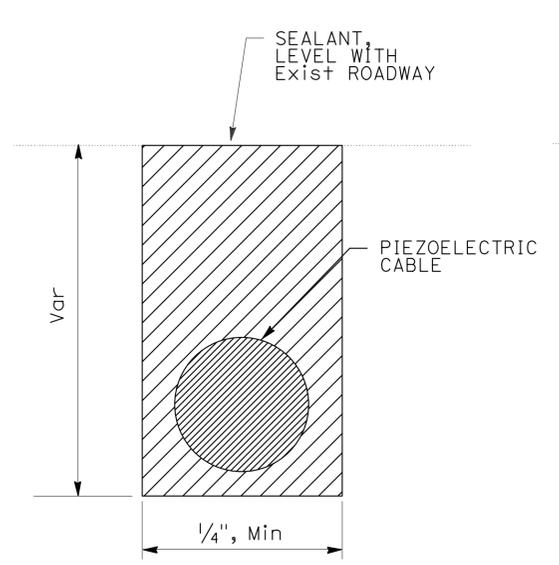
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NOTES:

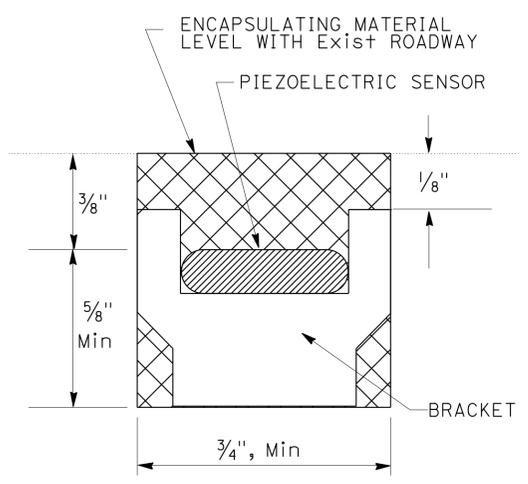
1. PIEZOELECTRIC SENSOR CONNECTION TO THE PIEZOELECTRIC CABLE MUST BE BELOW THE LANE LINE OR ETW.
2. REFER TO REVISED STANDARD PLAN RSP ES-5D FOR CONDUIT TERMINATION.
3. THE VALUE OF A' IS THE DISTANCE OF THE LOOP FROM EITHER THE LANE LINE OR ETW.



**PIEZOELECTRIC-LOOP-PIEZOELECTRIC
DETECTOR INSTALLATION
(TYPICAL AC ROADWAY)
DETAIL A
(SEE NOTE 3)**



**PIEZOELECTRIC CABLE INSTALLATION
SECTION A-A**



**PIEZOELECTRIC SENSOR INSTALLATION
SECTION B-B**

**AUTOMATIC VEHICLE
CLASSIFICATION SYSTEM**

NO SCALE

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC ELECTRICAL

FUNCTIONAL SUPERVISOR
RAJPREET SINGH

CALCULATED/DESIGNED BY
CHECKED BY

MAHENDRA R. NIRMAL
HECTOR SANTAMARIA

REVISOR BY
DATE REVISED

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

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

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

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	24	40

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 04-04-16

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

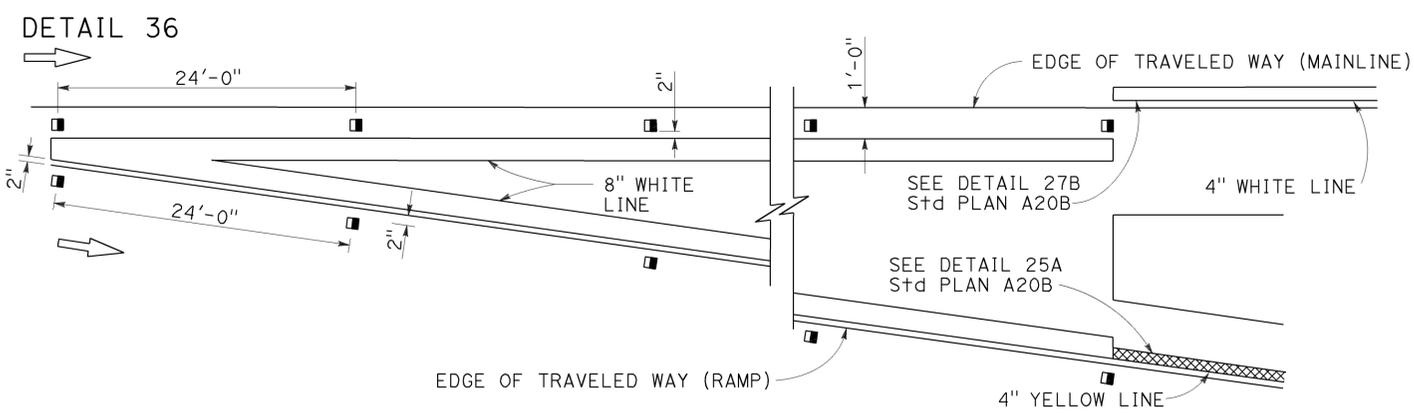
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	25	40

REGISTERED CIVIL ENGINEER
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

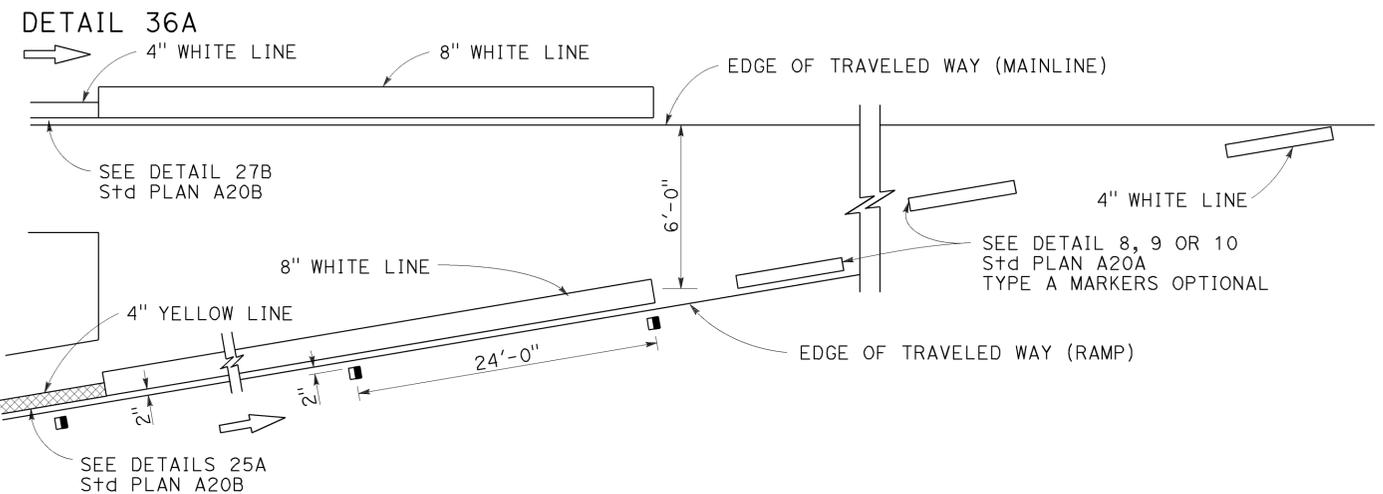
July 19, 2013
 PLANS APPROVAL DATE

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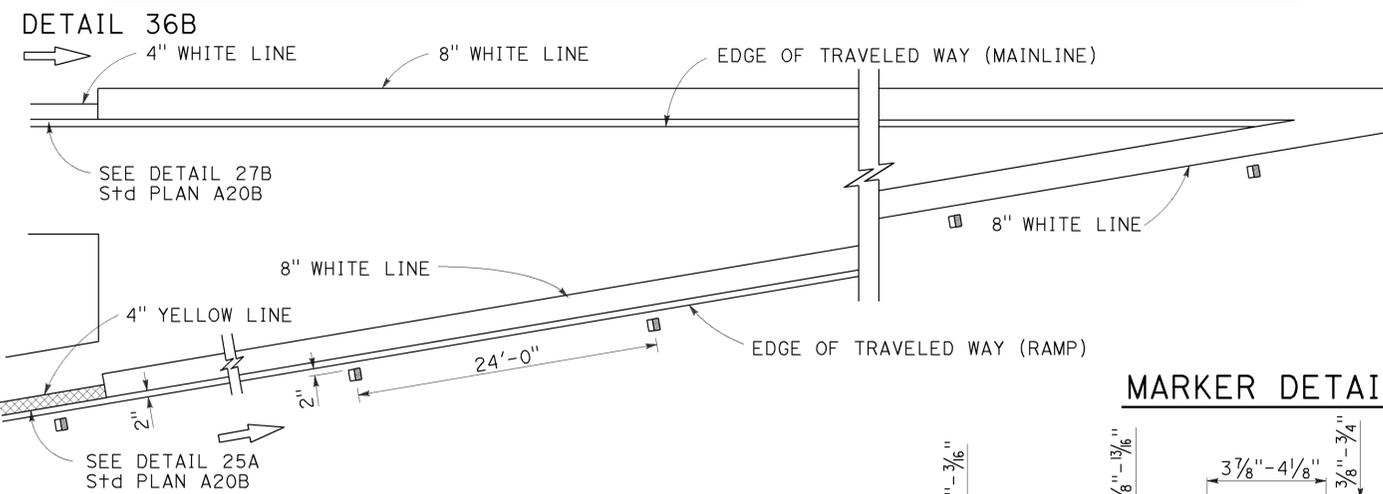
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



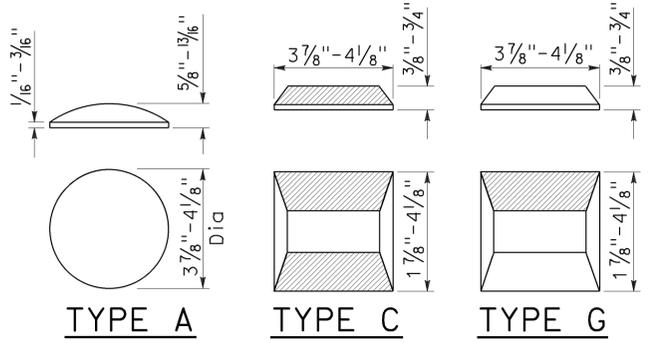
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



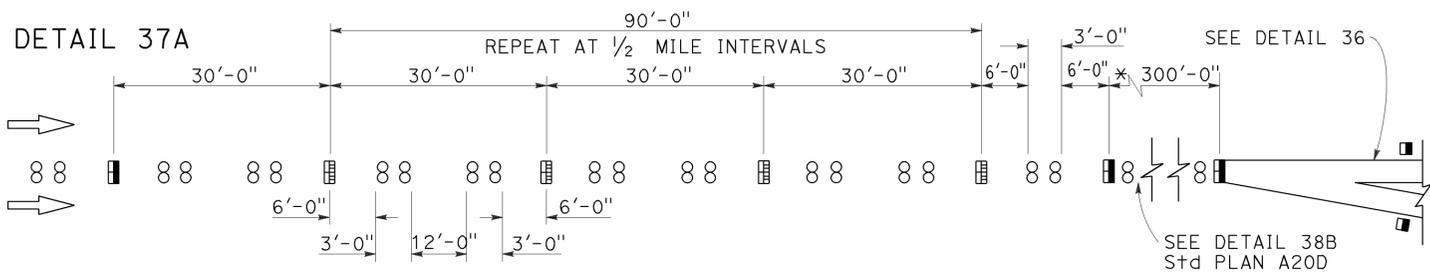
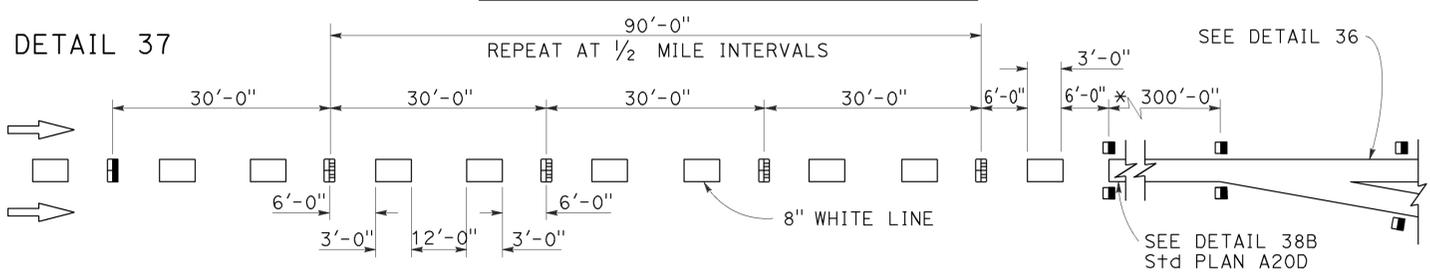
MARKER DETAILS

LEGEND:

- MARKERS
- TYPE A WHITE NON-REFLECTIVE
 - ◻ TYPE C RED-CLEAR RETROREFLECTIVE
 - TYPE G ONE-WAY CLEAR RETROREFLECTIVE

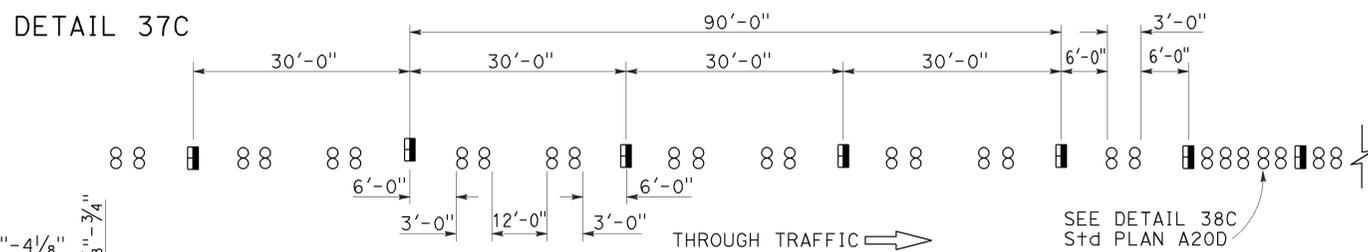
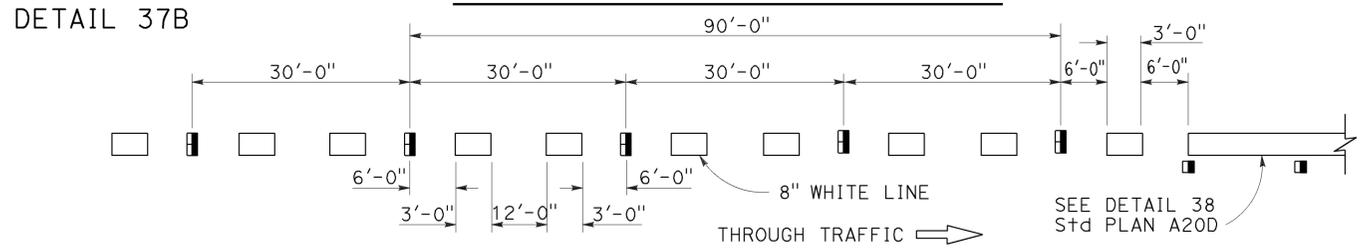


LANE DROP AT EXIT RAMPS



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

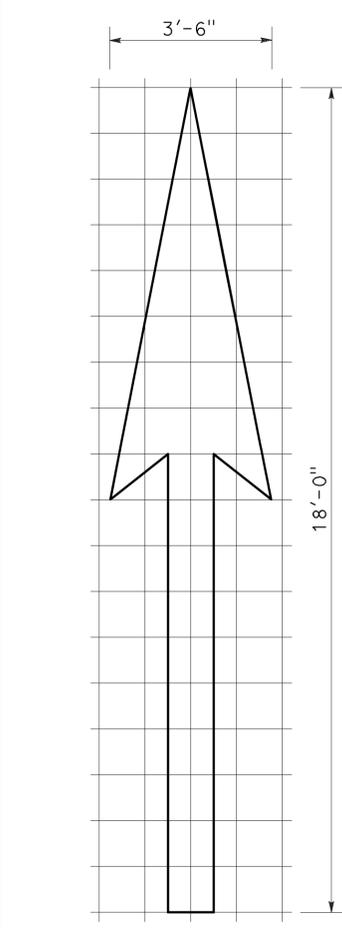
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	26	40

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

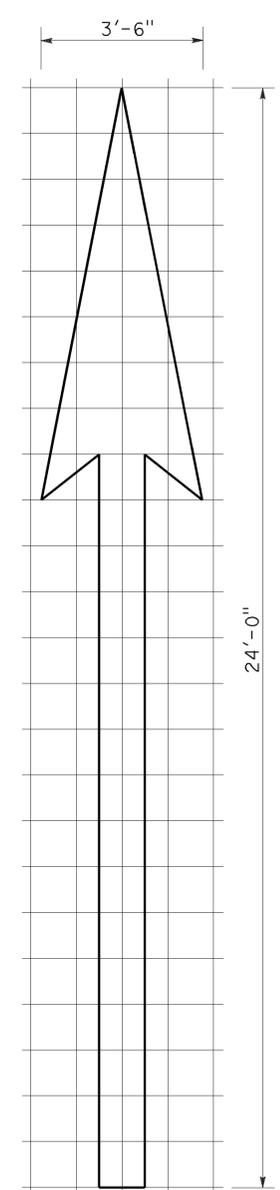
April 20, 2012
 PLANS APPROVAL DATE

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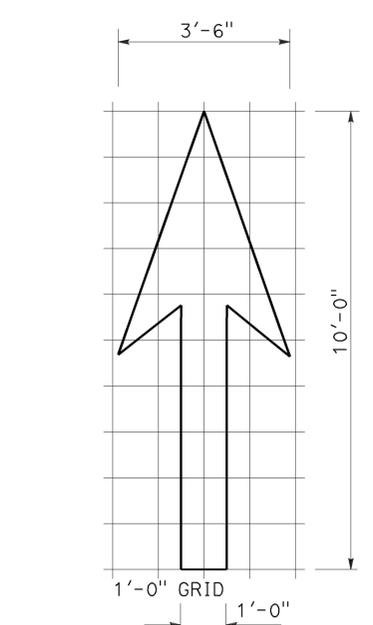
TO ACCOMPANY PLANS DATED 04-04-16



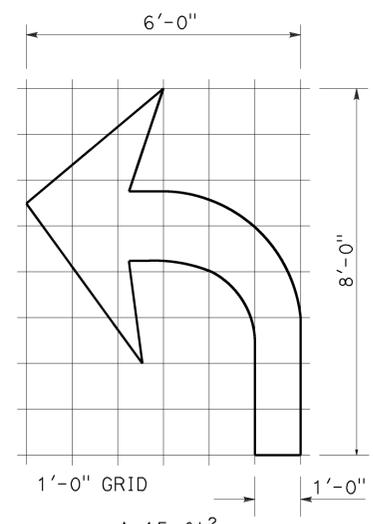
1'-0" GRID 1'-0"
A=25 ft²
TYPE I 18'-0" ARROW



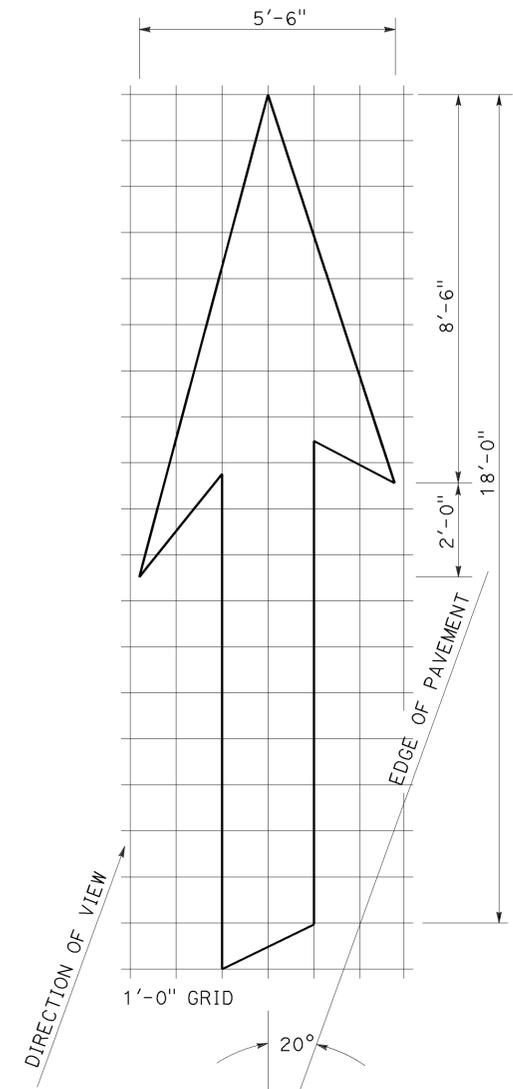
1'-0" GRID 1'-0"
A=31 ft²
TYPE I 24'-0" ARROW



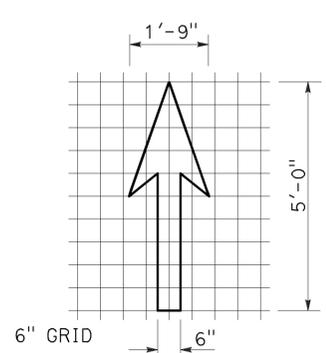
1'-0" GRID 1'-0"
A=14 ft²
TYPE I 10'-0" ARROW



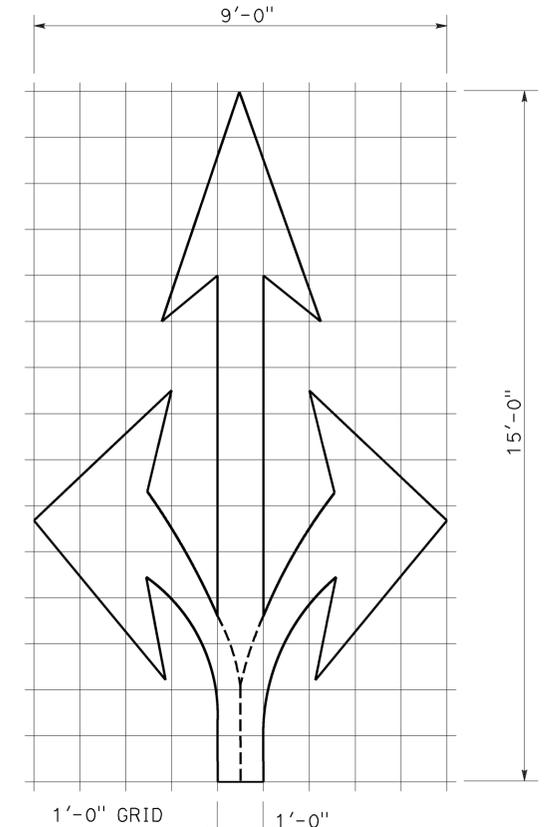
1'-0" GRID 1'-0"
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow,
use mirror image)



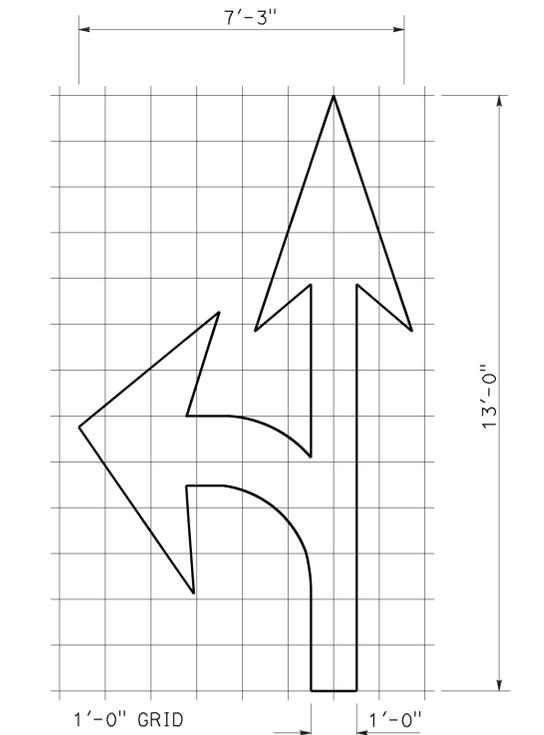
1'-0" GRID 20°
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane,
use mirror image)



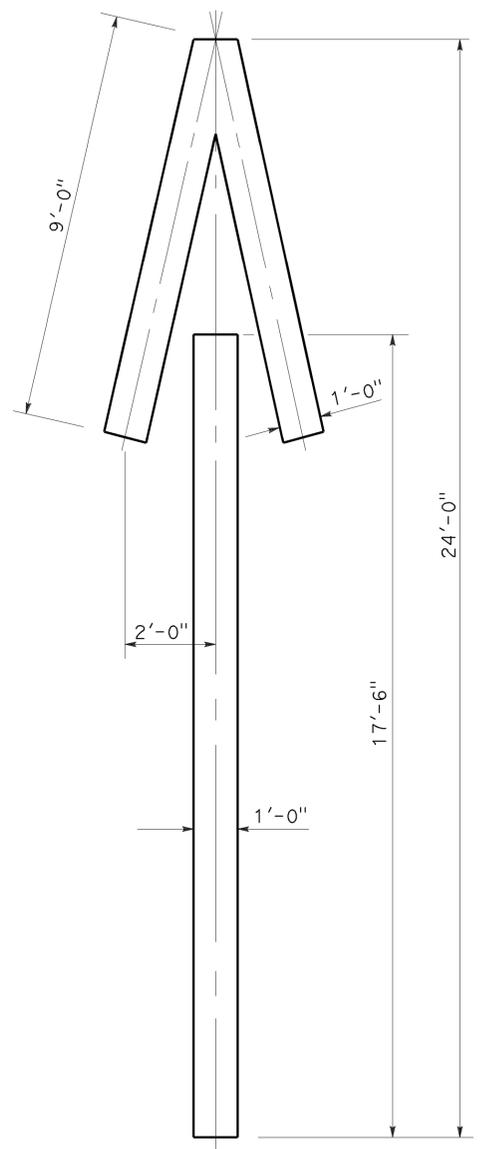
6" GRID 6"
A=3.5 ft²
BIKE LANE ARROW



1'-0" GRID 1'-0"
A=36 ft²
TYPE VIII ARROW



1'-0" GRID 1'-0"
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.

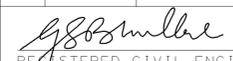
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	27	40


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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TO ACCOMPANY PLANS DATED 04-04-16

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
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.

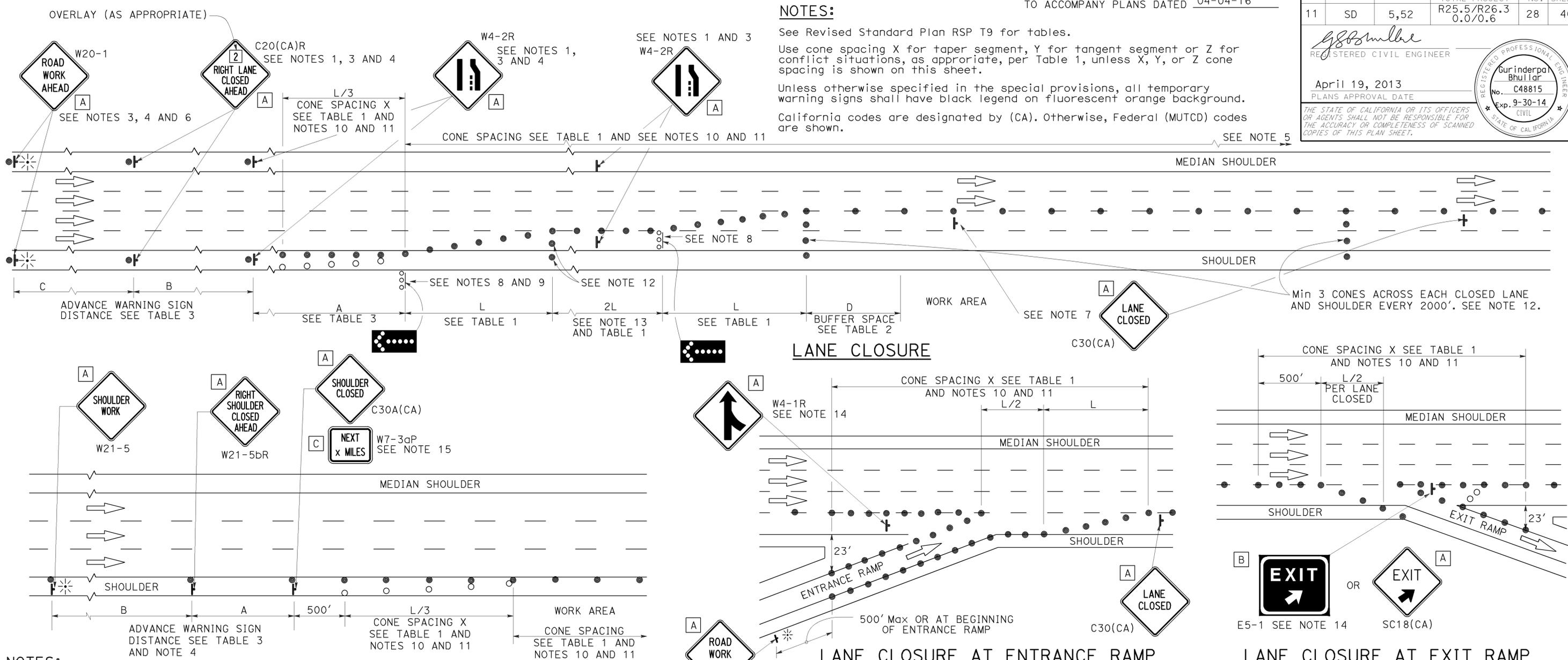
2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	28	40

REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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2010 REVISED STANDARD PLAN RSP T10



- NOTES:**
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- 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.
 - Place a C30(CA) sign every 2000' throughout length of lane closure.
 - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
 - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
 - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
 - Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

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

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⊞ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T10

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	29	40

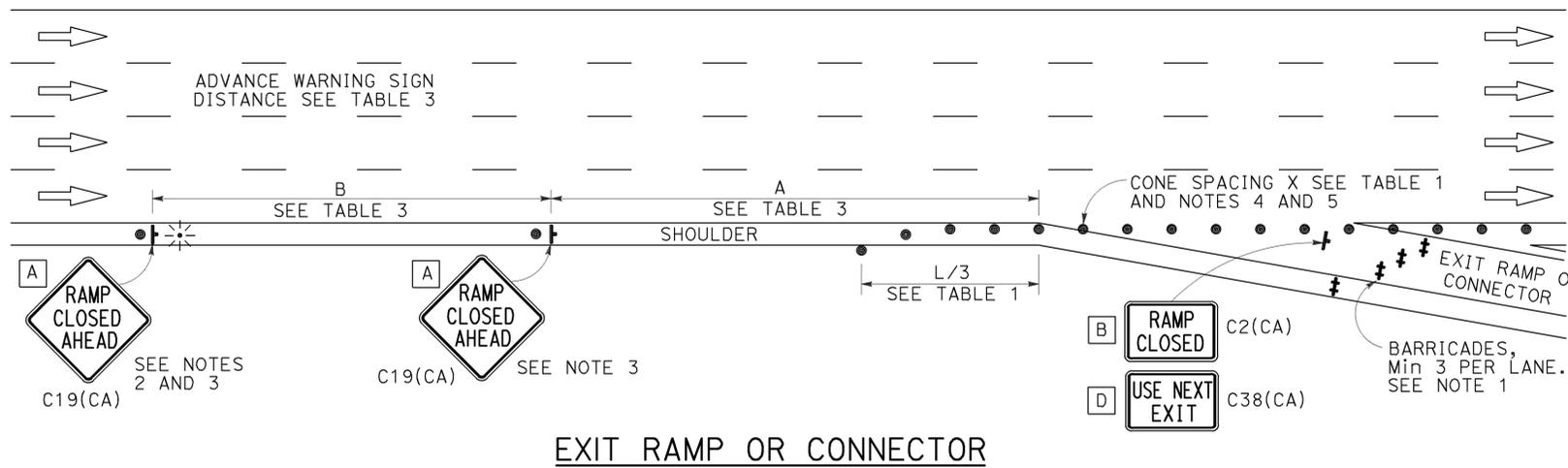
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

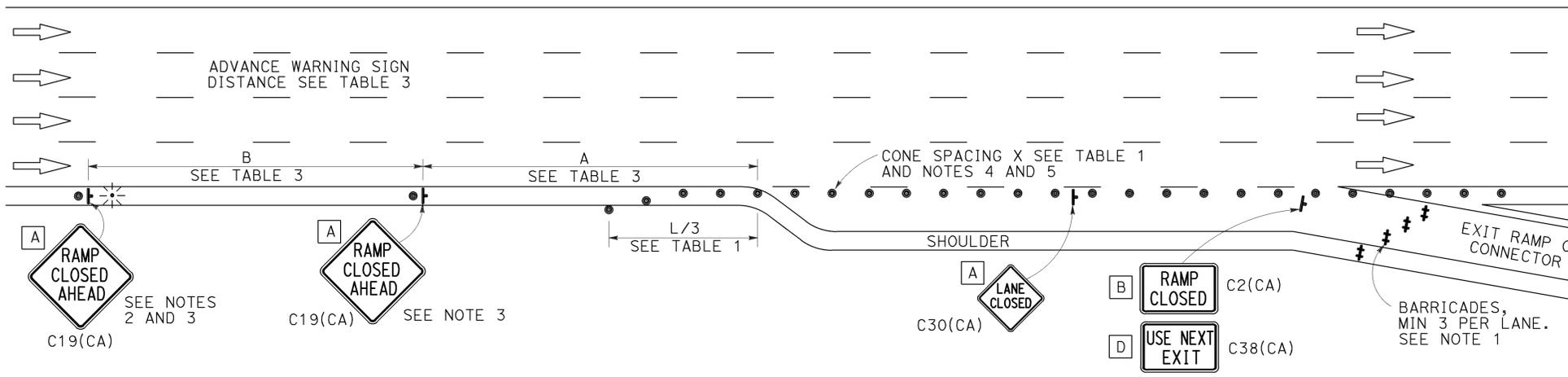
TO ACCOMPANY PLANS DATED 04-04-16

NOTES:

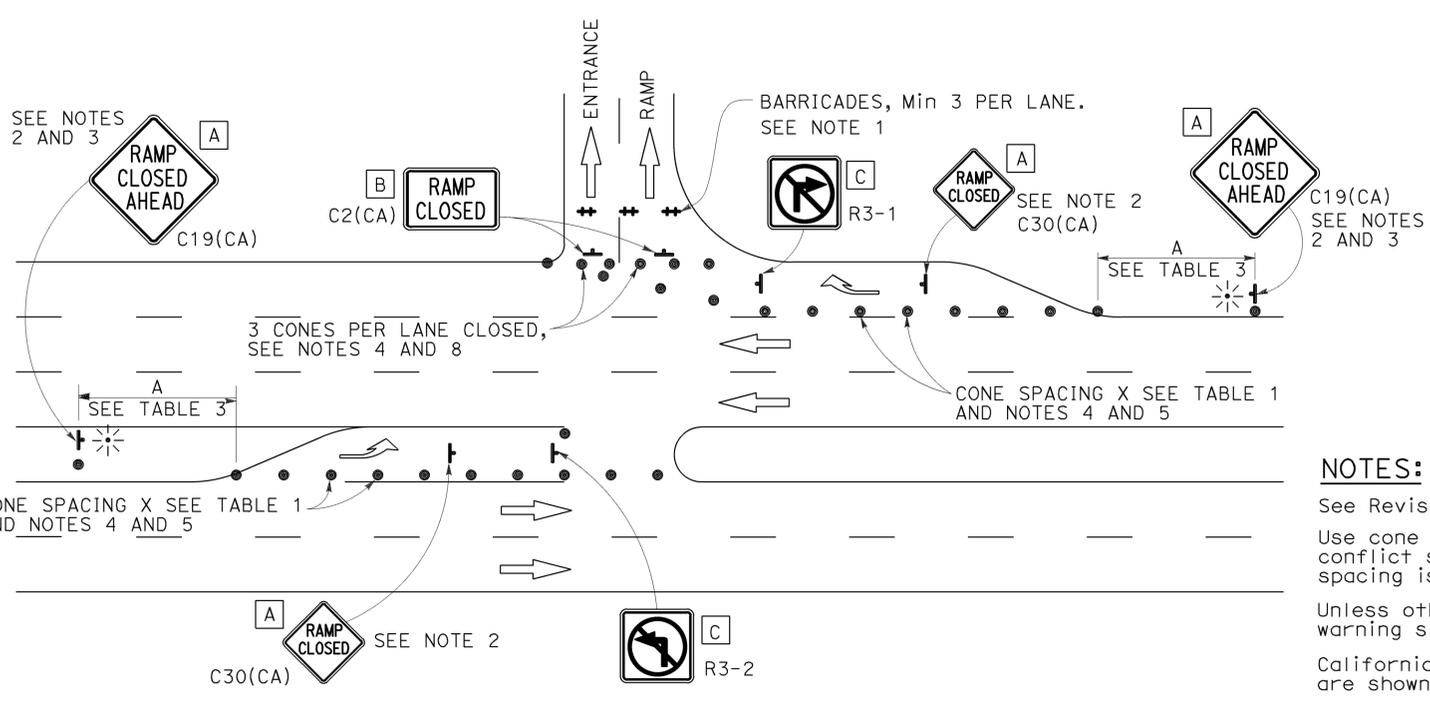
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" 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. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp 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 ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



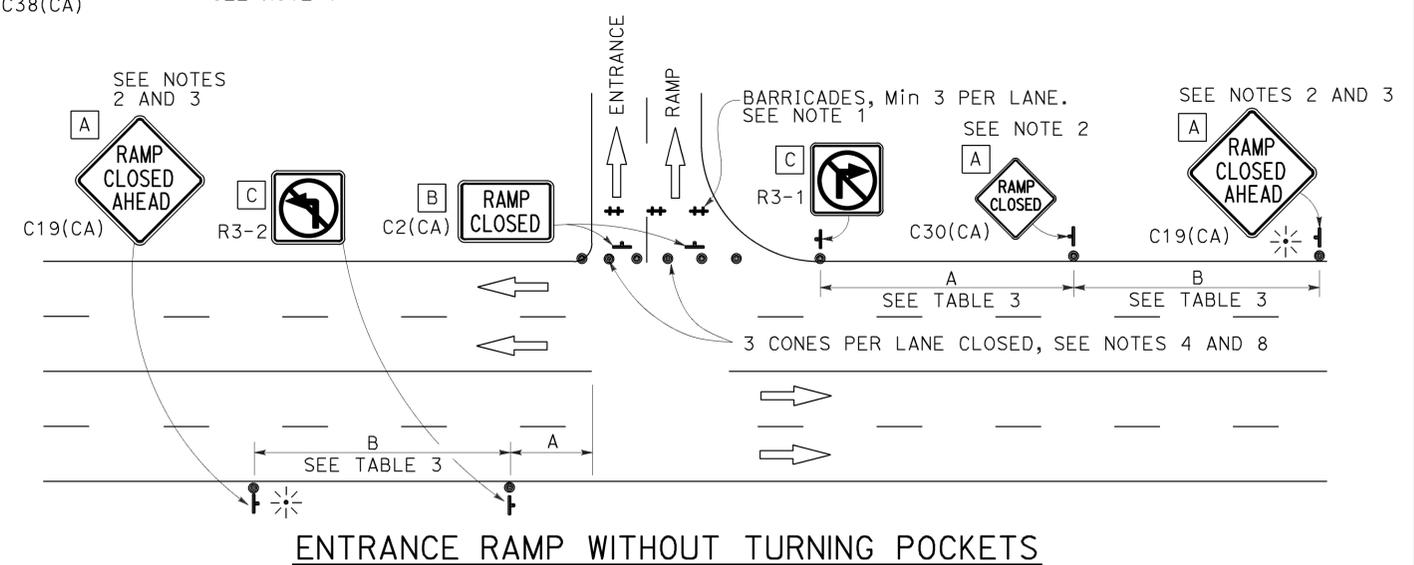
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

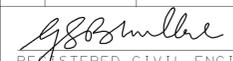
- See Revised Standard Plan RSP T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Unless otherwise specified in the special provisions, all temporary warning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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP T14

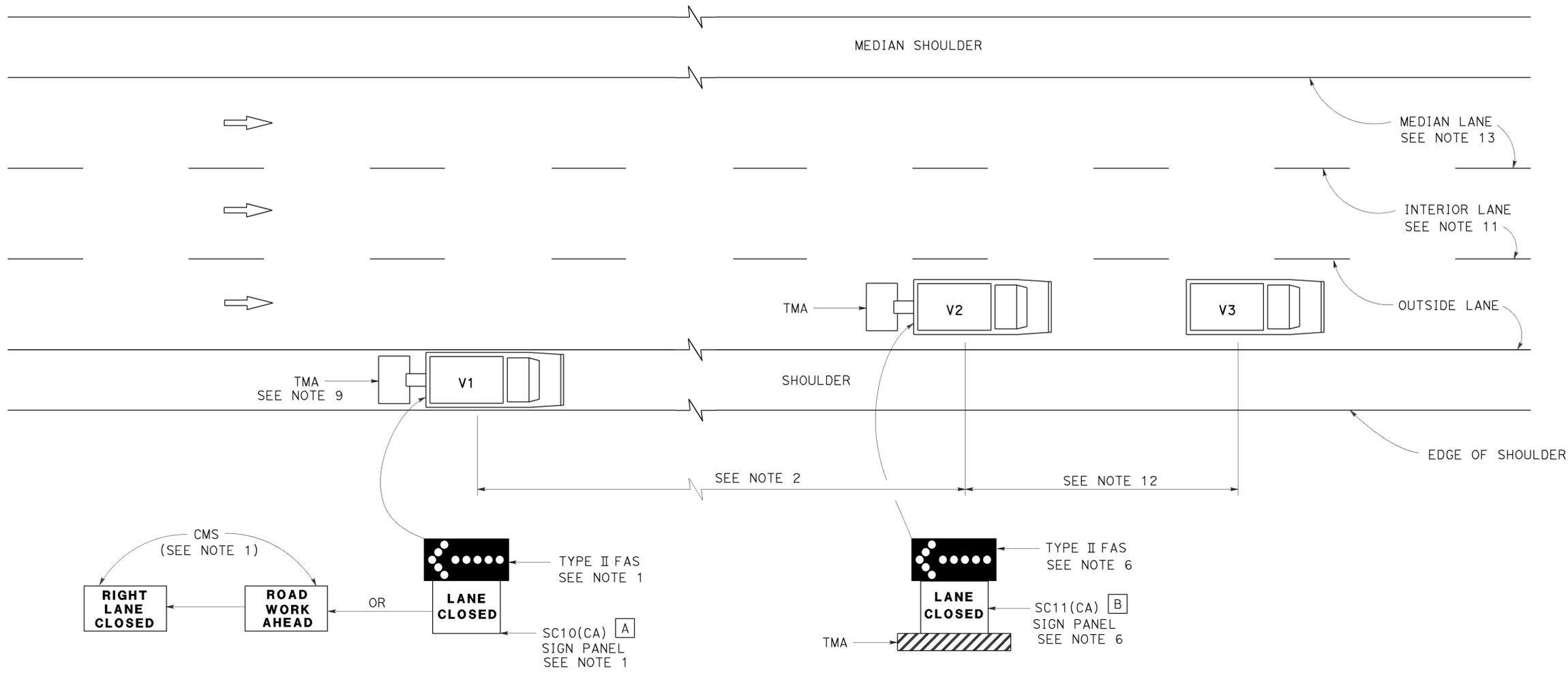
2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	30	40


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 04-04-16



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

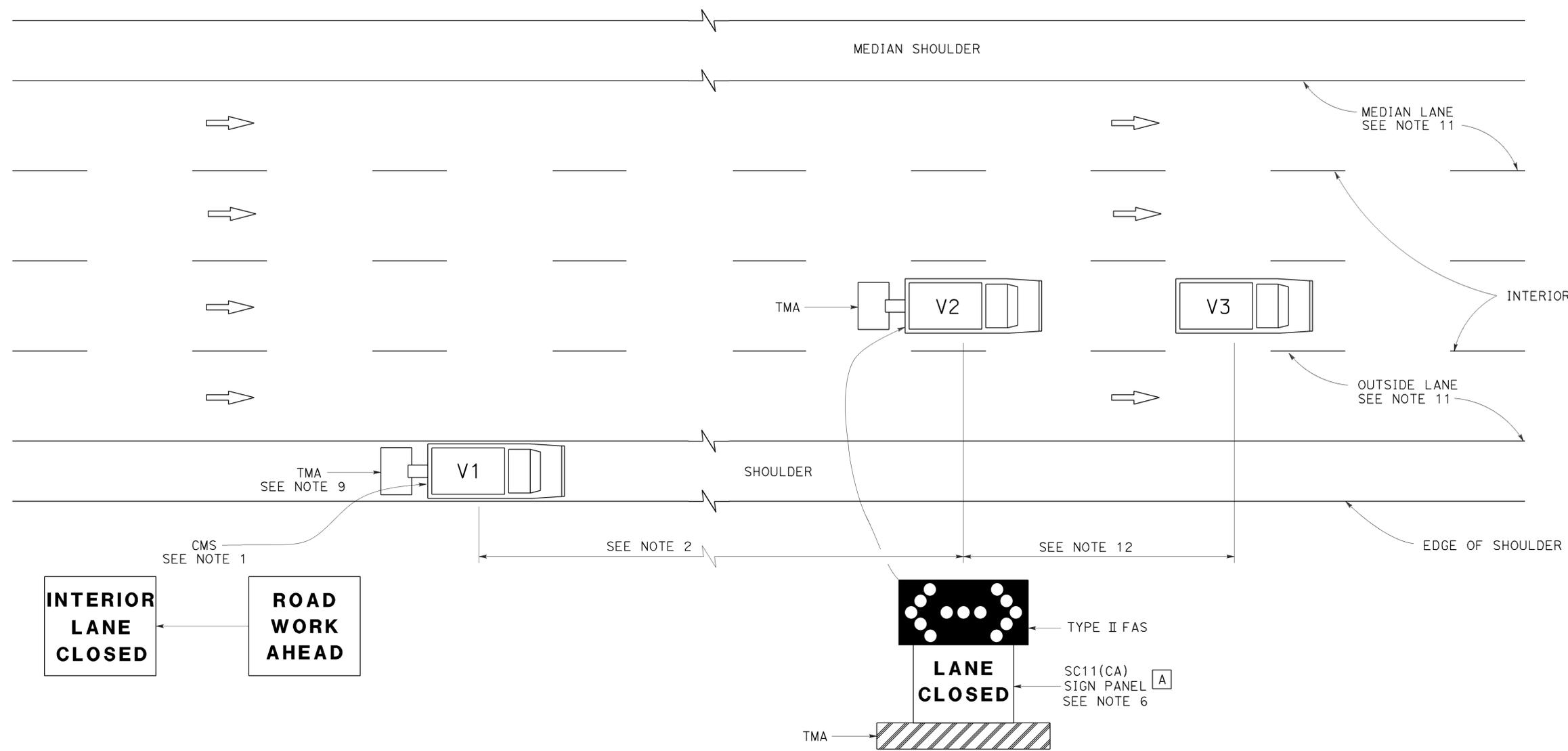
2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	31	40

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 04-04-16



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

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
Cn+I	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	Wh+	WHITE
Lum	LUMINAIRE	WIM	WEIGH-IN-MOTION
M	METERED	Xfmr	TRANSFORMER

MISCELLANEOUS ELECTROLIERS

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

NOTES:

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

STANDARD ELECTROLIER

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	32	40

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 04-04-16

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

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	33	40

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 04-04-16

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

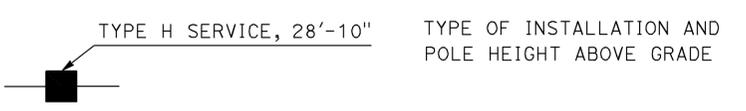
NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

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

NOTES:

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

POLE-MOUNTED SERVICE DESIGNATION



FLASHING BEACON

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

ILLUMINATED OVERHEAD SIGN

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

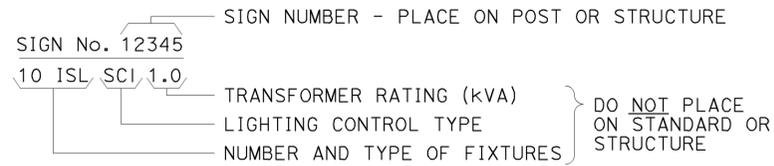
RSP ES-1B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-1B DATED JULY 19, 2013 AND STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

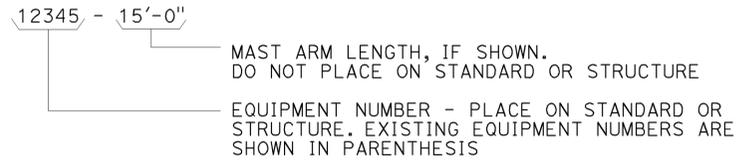
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

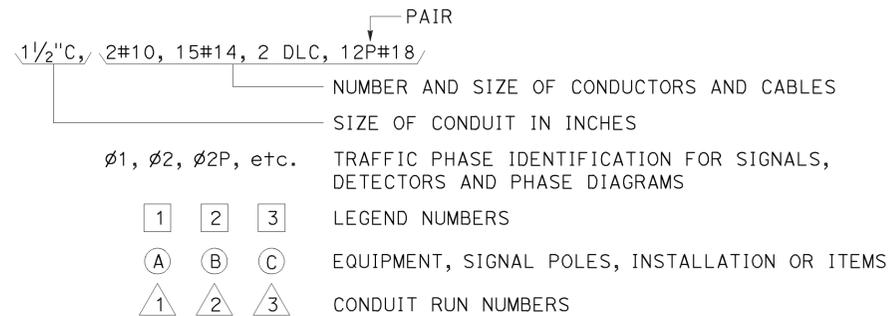
ILLUMINATED SIGN IDENTIFICATION NUMBER:



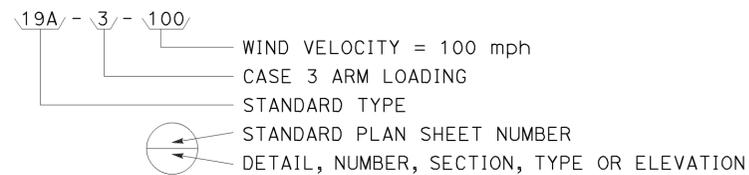
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



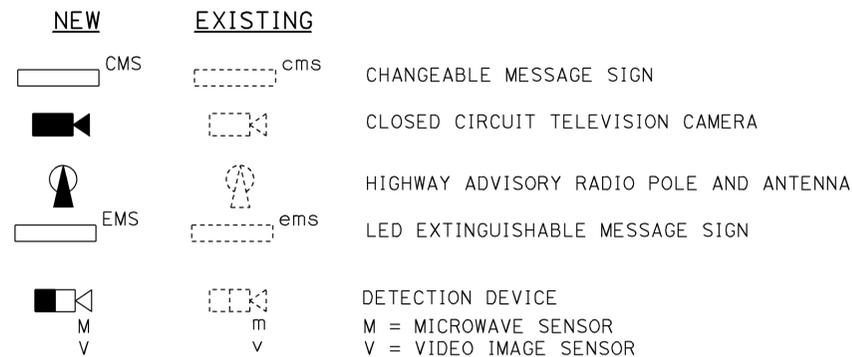
CONDUIT AND CONDUCTOR IDENTIFICATION:



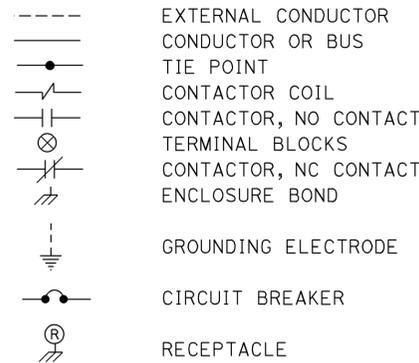
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



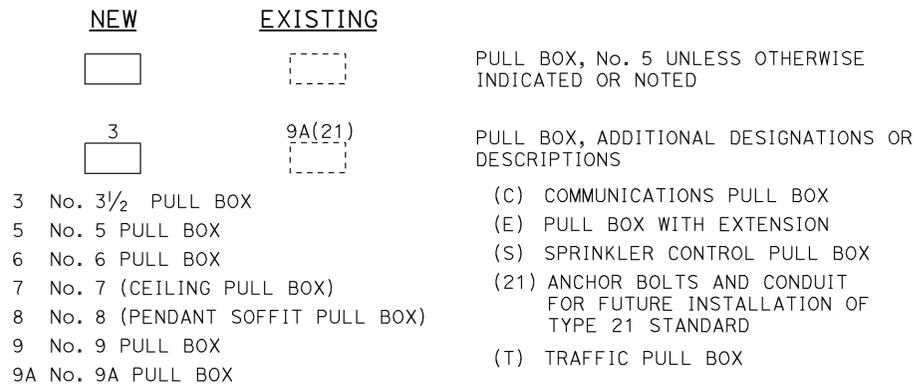
MISCELLANEOUS EQUIPMENT



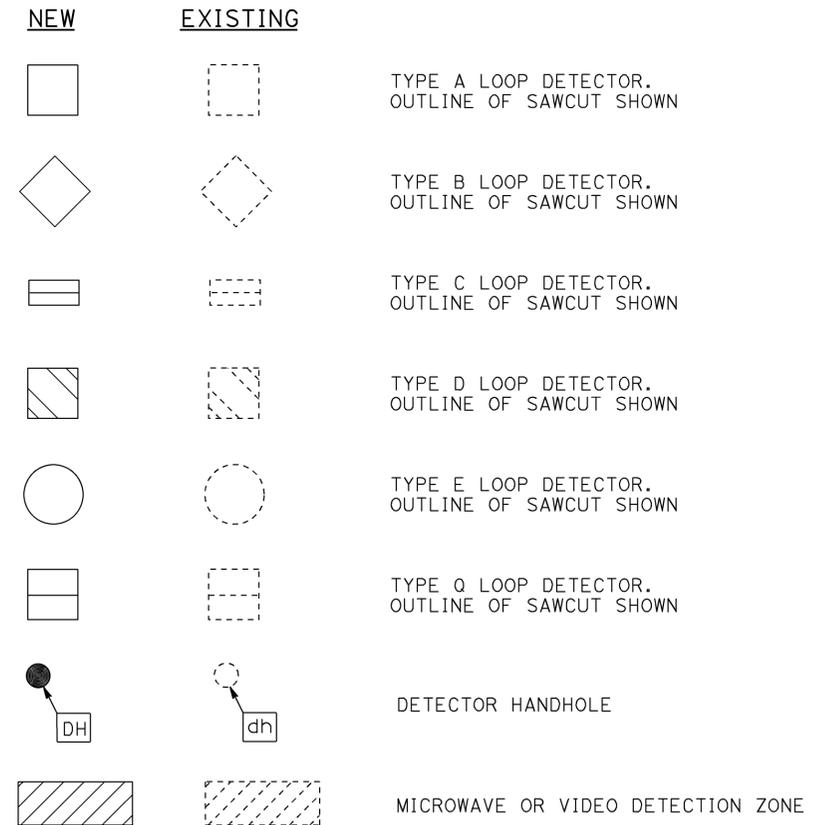
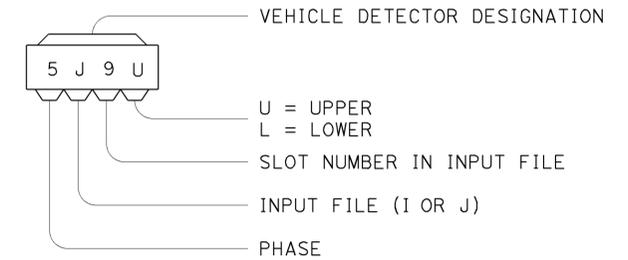
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

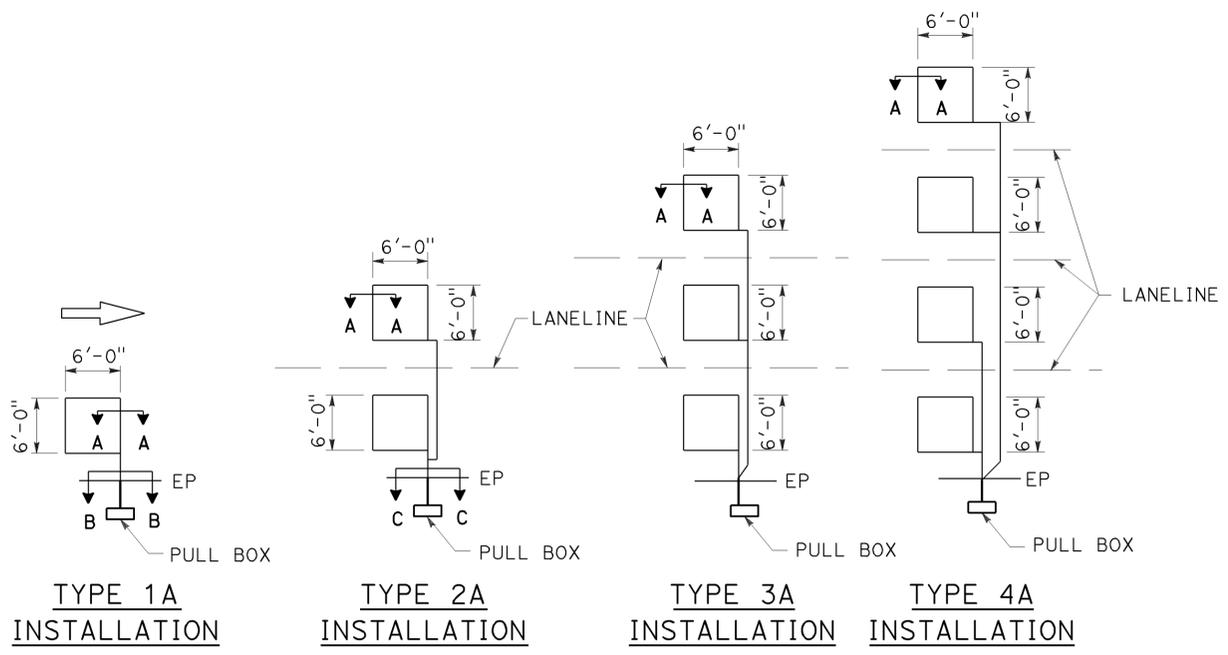
2010 REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	35	40

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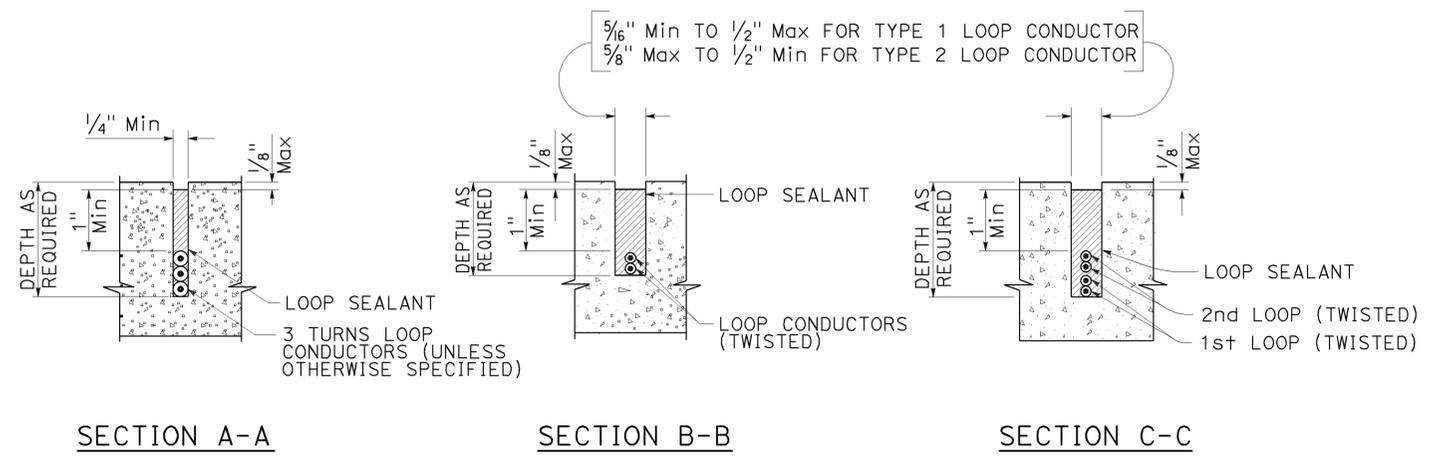


TO ACCOMPANY PLANS DATED 04-04-16

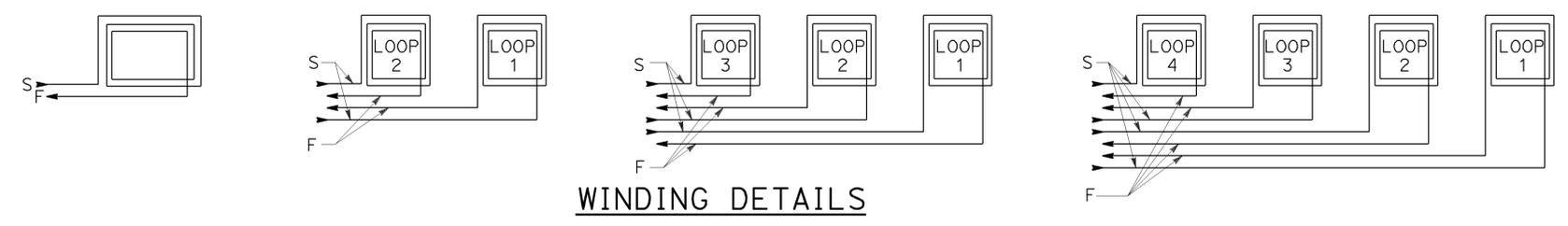


SAWCUT DETAILS

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

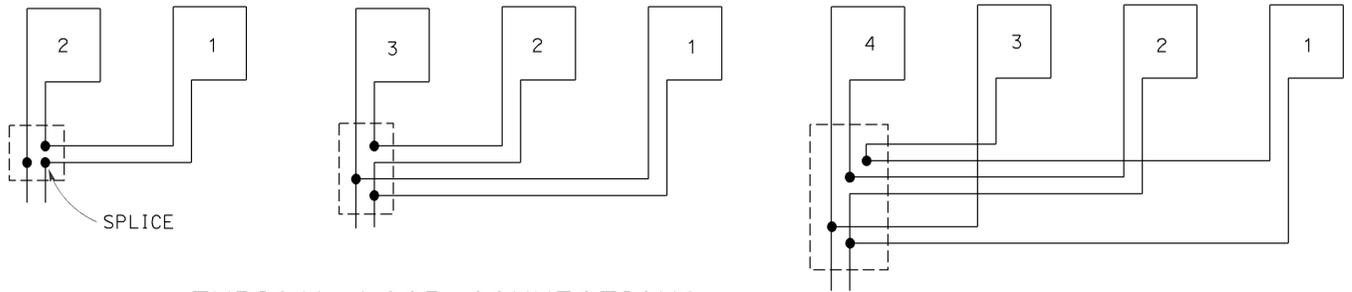


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS
 Dashed lines represent the pull box

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

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

REVISED STANDARD PLAN RSP ES-5A

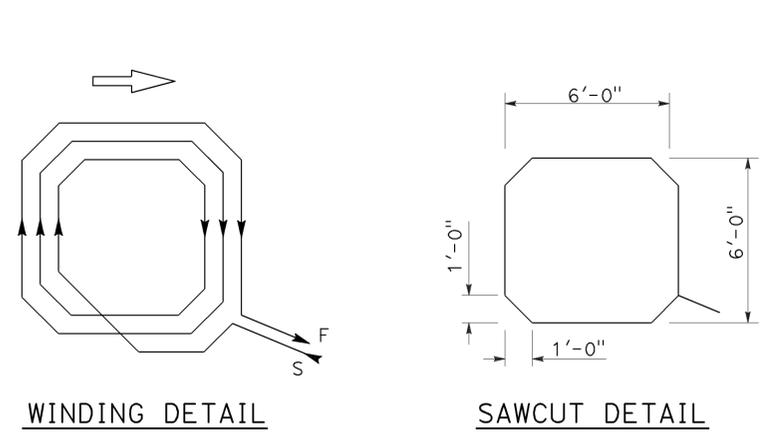
2010 REVISED STANDARD PLAN RSP ES-5A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	36	40

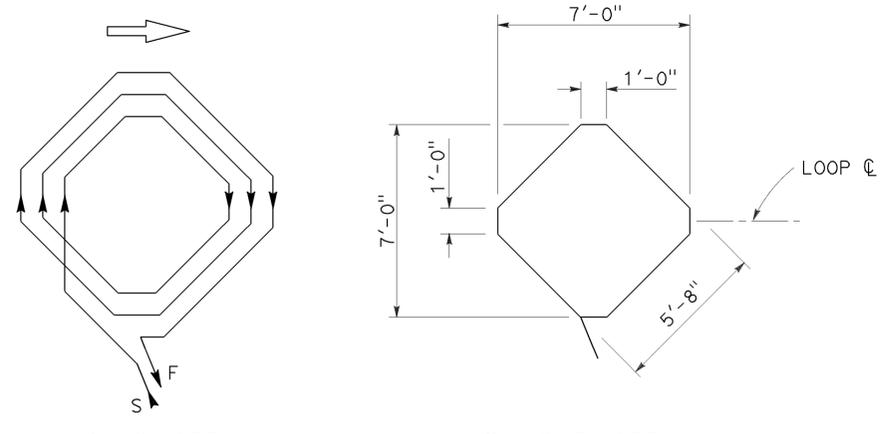
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

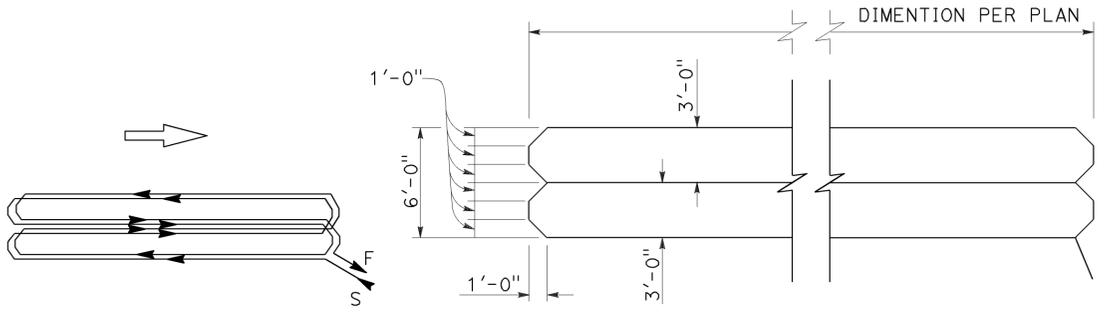
TO ACCOMPANY PLANS DATED 04-04-16



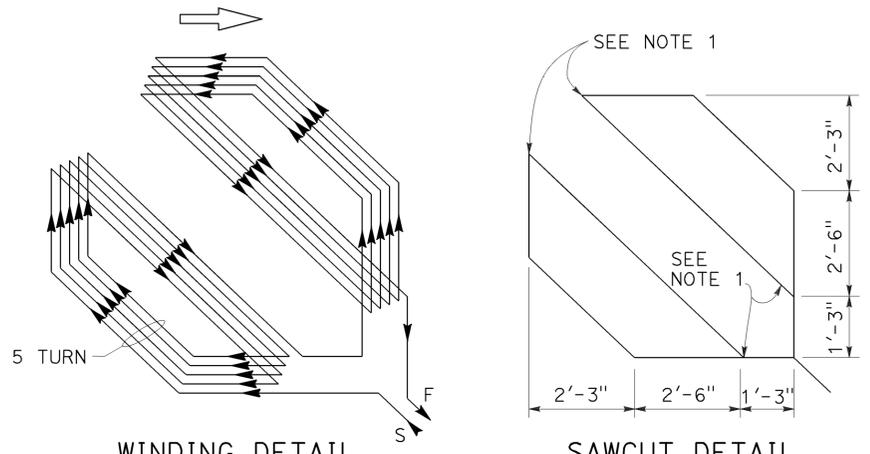
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



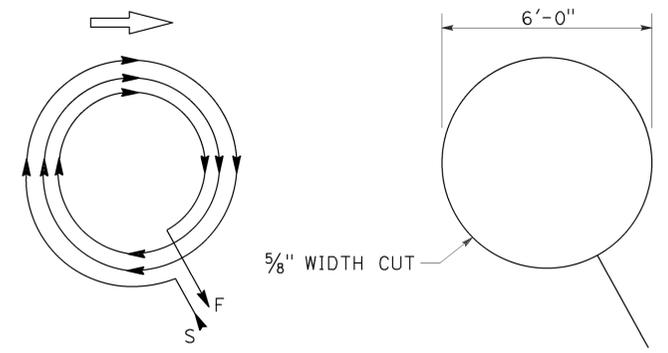
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



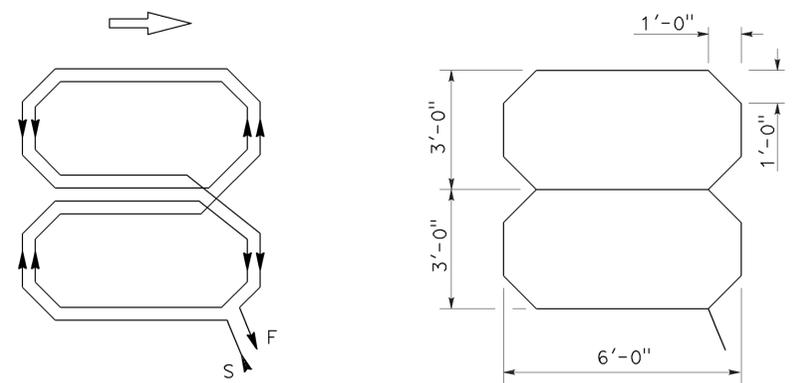
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



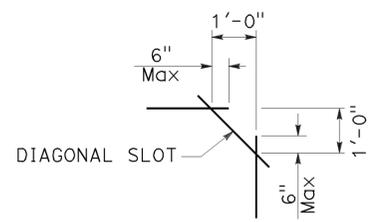
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

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

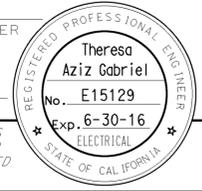
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)
NO SCALE

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

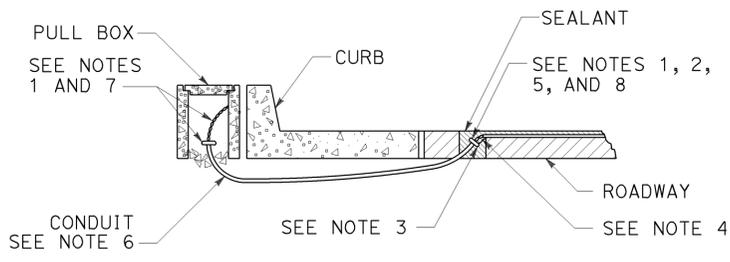
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	37	40

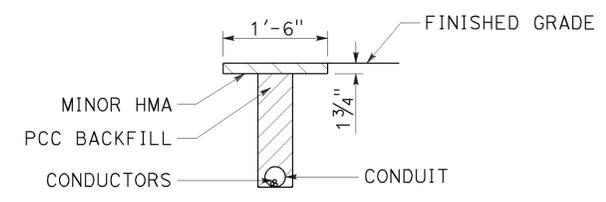
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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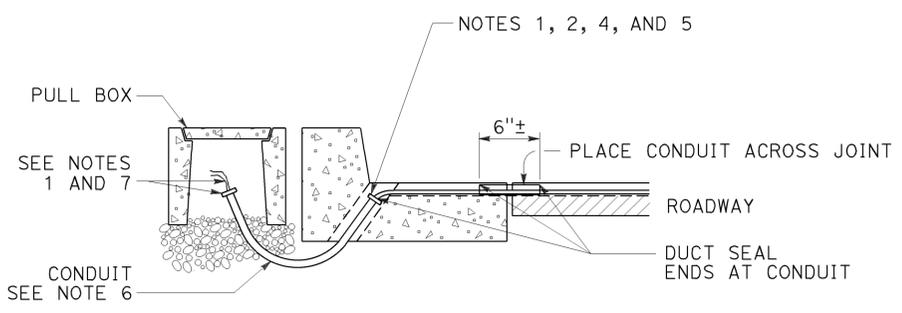
TO ACCOMPANY PLANS DATED 04-04-16



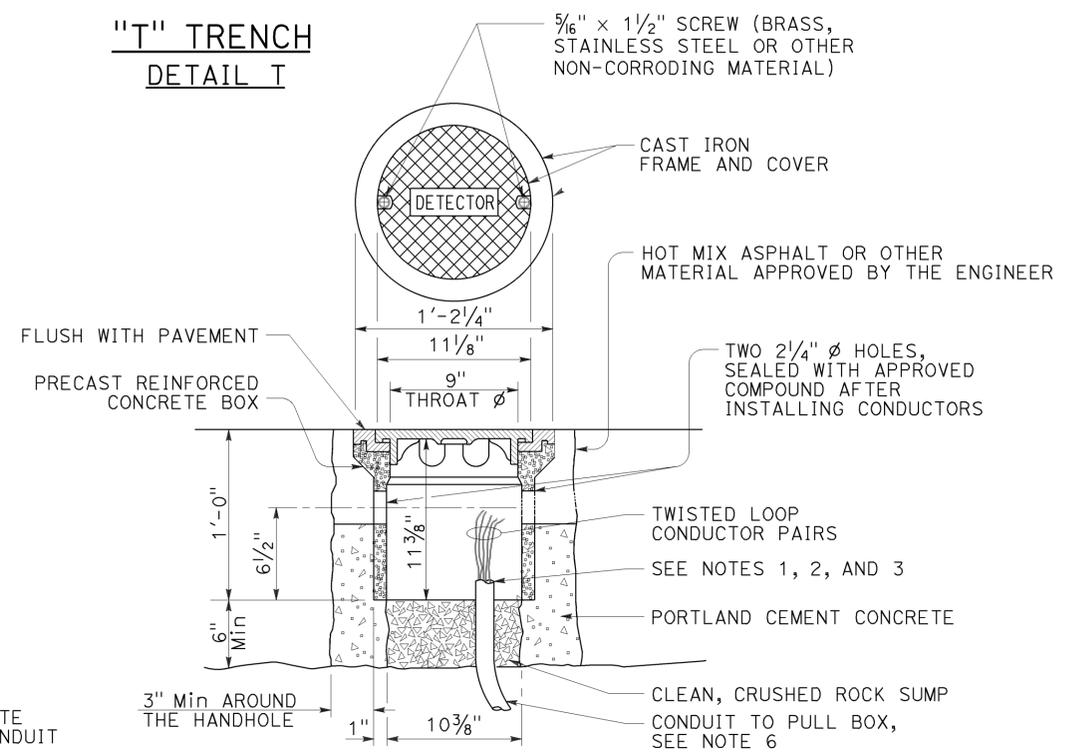
**TYPE A
CURB TERMINATION DETAIL**



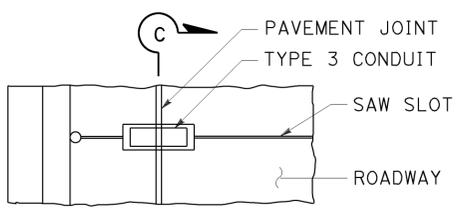
**"T" TRENCH
DETAIL 1**



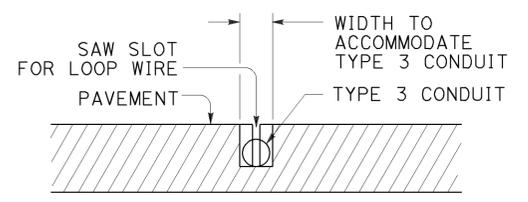
CROSS SECTION



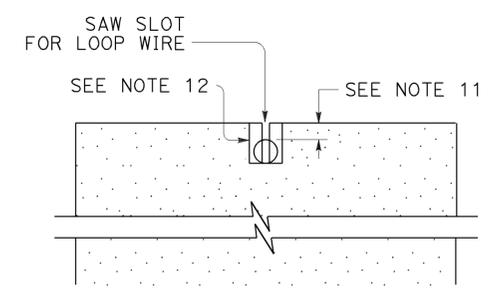
DETECTOR HANDHOLE DETAIL



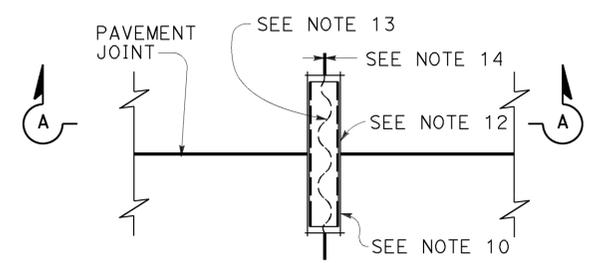
PLAN VIEW



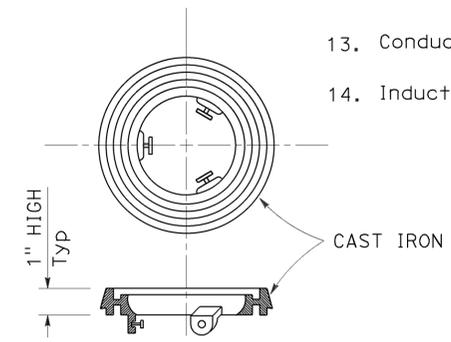
SECTION C-C



SECTION A-A



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



LOCKING GRADE RING

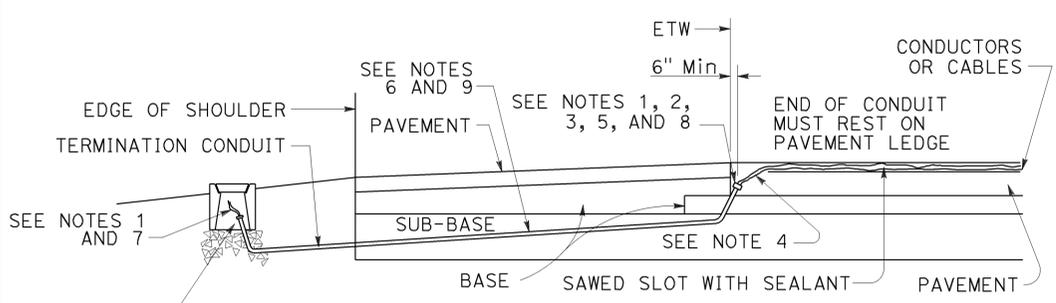
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

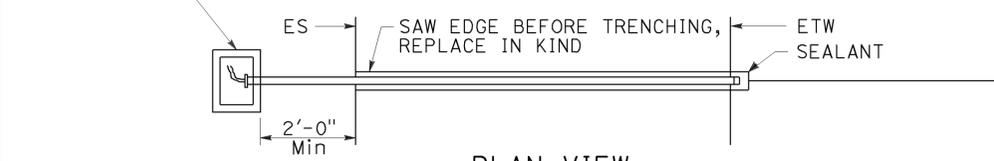
NO SCALE

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



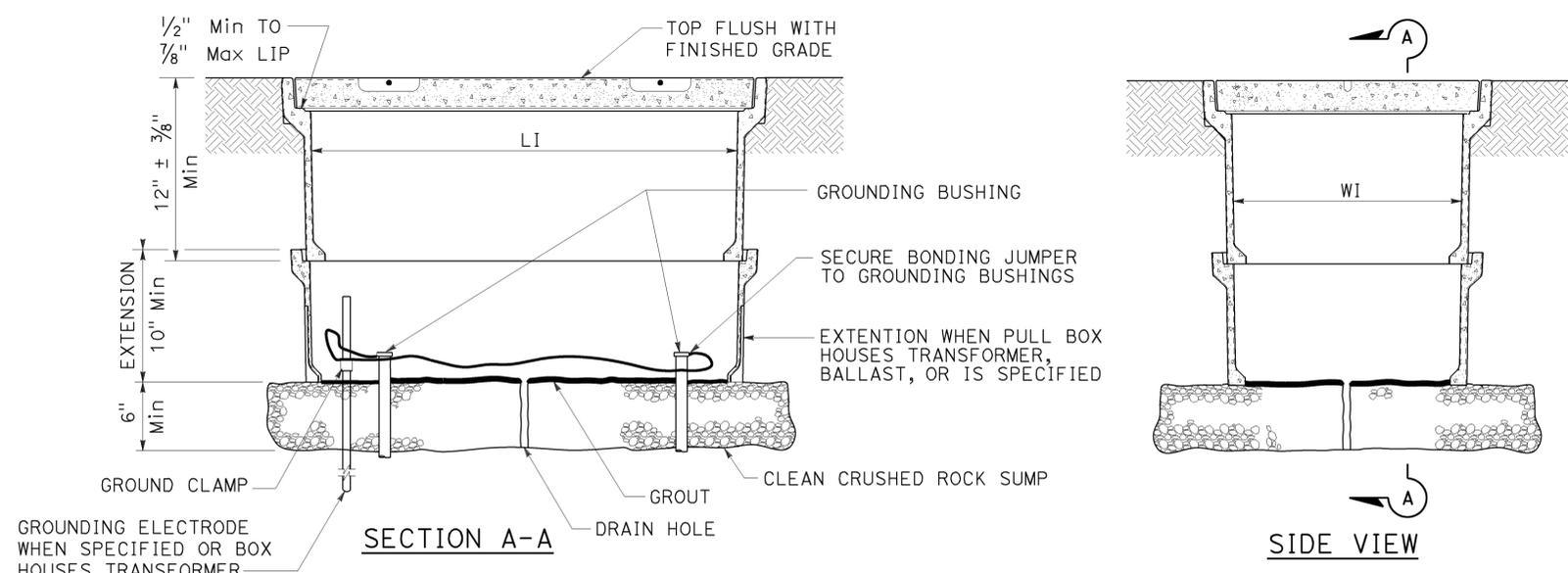
**PLAN VIEW
SHOULDER TERMINATION DETAILS**

2010 REVISED STANDARD PLAN RSP ES-5D

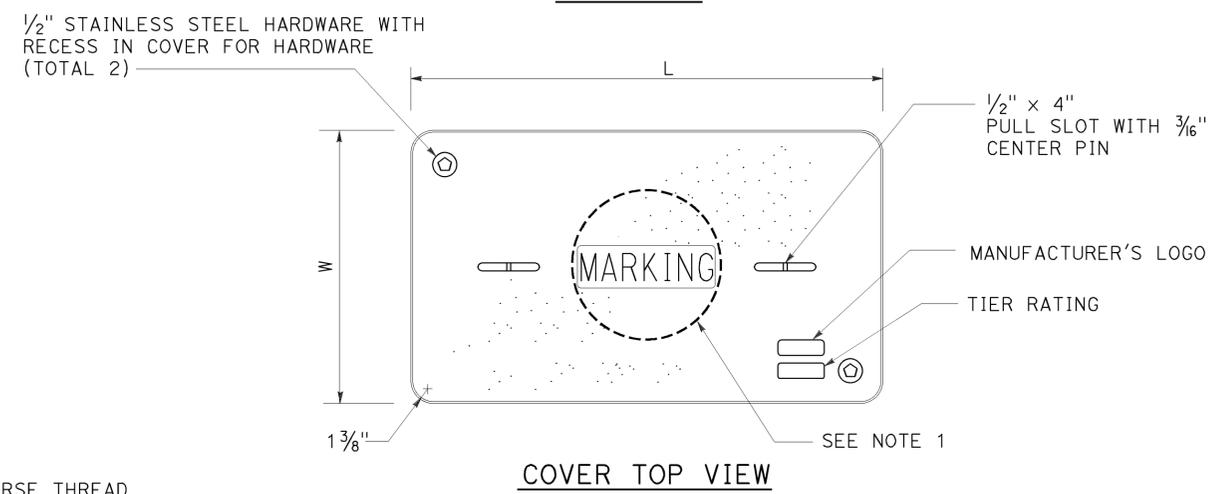
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	38	40

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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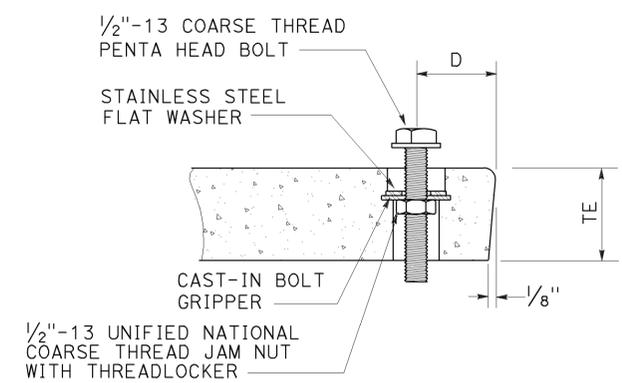
TO ACCOMPANY PLANS DATED 04-04-16



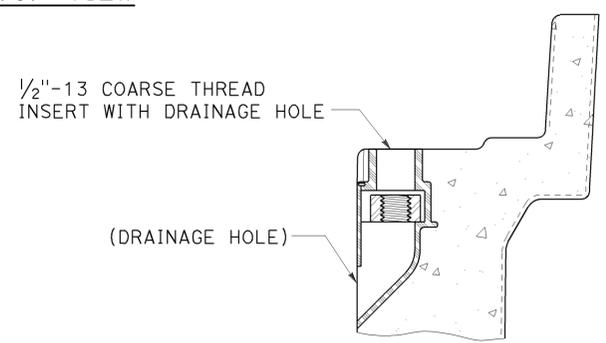
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
OR SIMILAR



TYPICAL THREADED INSERT
OR SIMILAR

NOTES:

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

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

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

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

REVISED STANDARD PLAN RSP ES-8A

2010 REVISED STANDARD PLAN RSP ES-8A

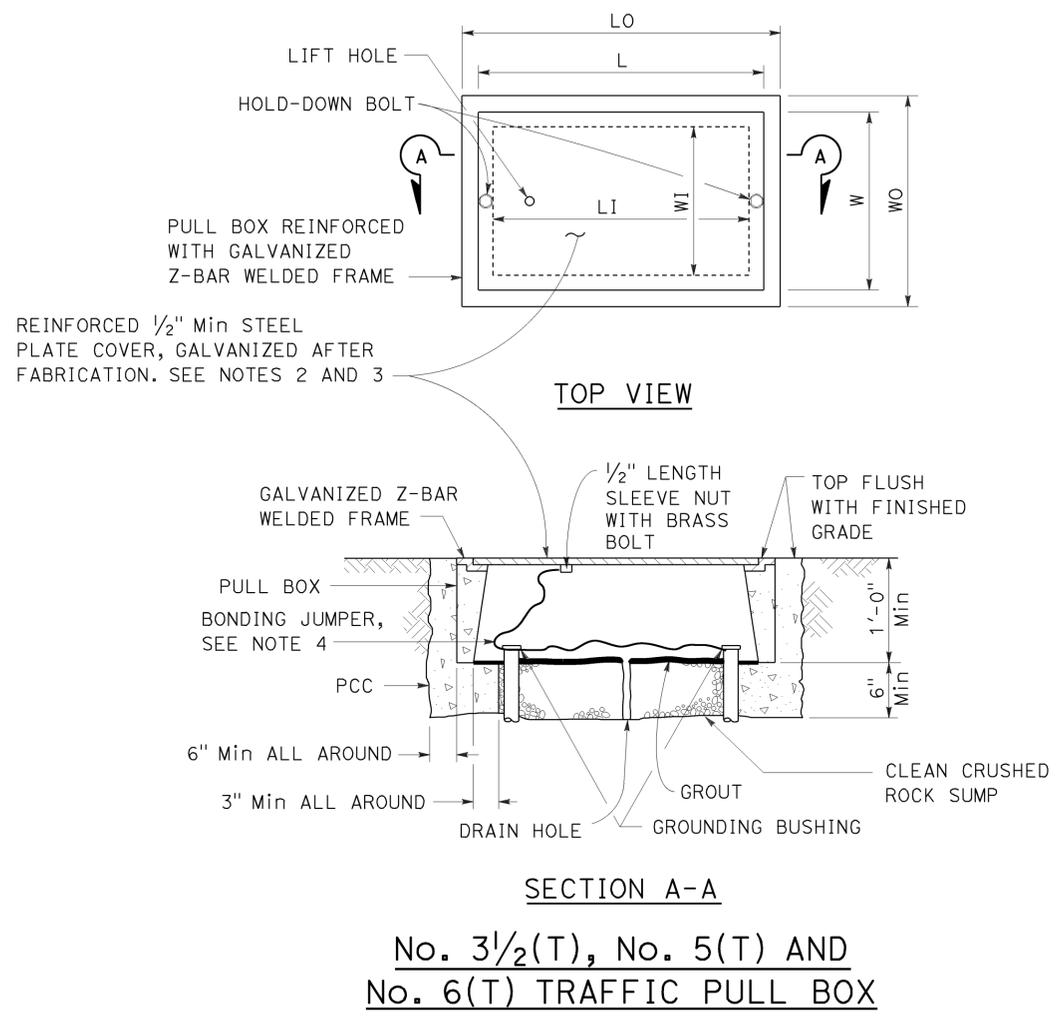
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	39	40

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 04-04-16



NOTES:

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

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

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

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

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

REVISED STANDARD PLAN RSP ES-8B

2010 REVISED STANDARD PLAN RSP ES-8B

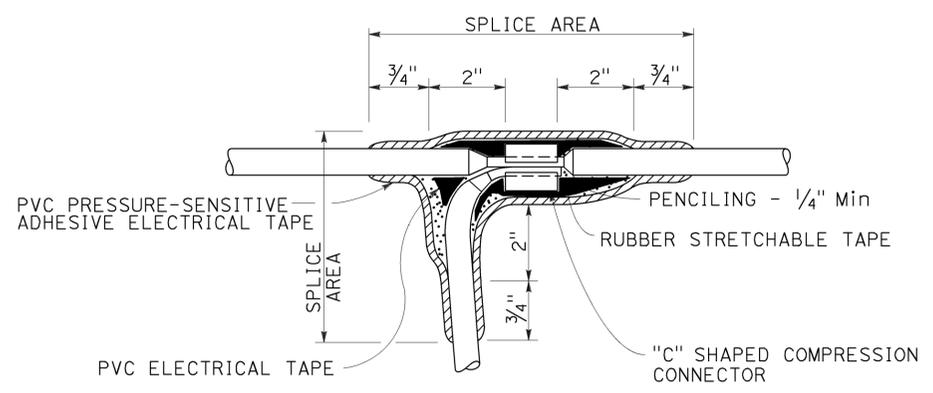
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	5,52	R25.5/R26.3 0.0/0.6	40	40

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

October 30, 2015
 PLANS APPROVAL DATE

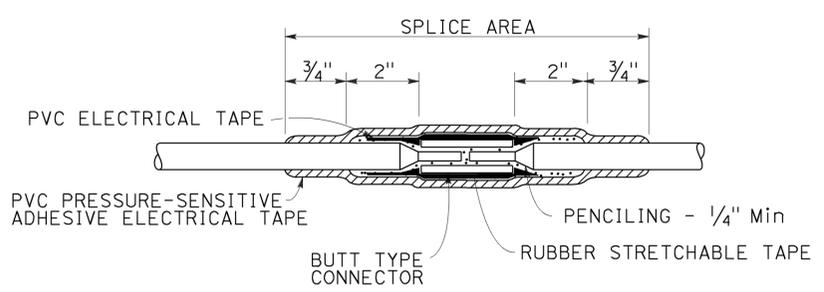
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TO ACCOMPANY PLANS DATED 04-04-16



TYPE C SPLICE

See Note 3

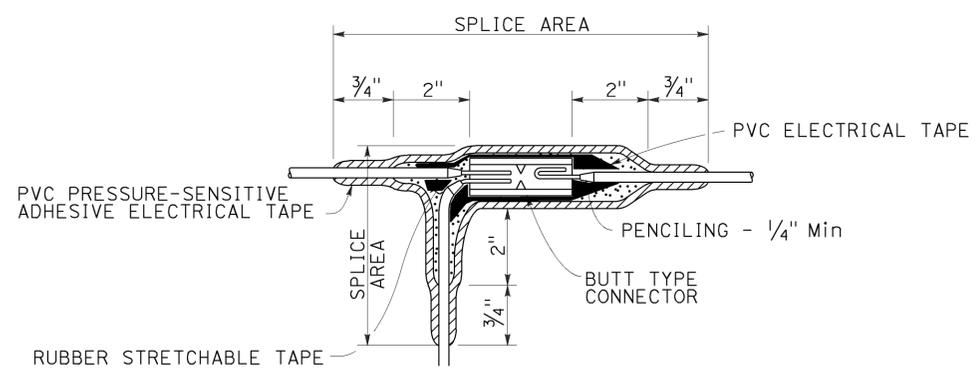


TYPE S SPLICE

See Note 4

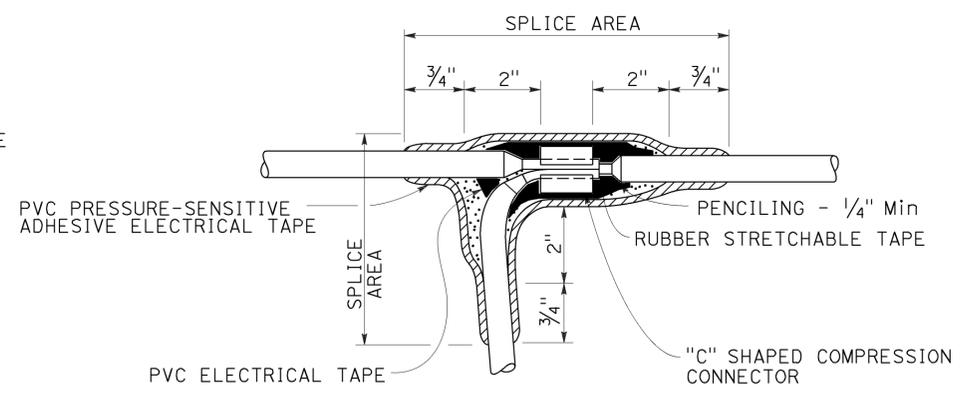
NOTES:

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



TYPE ST SPLICE

See Note 5



TYPE T SPLICE

See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(SPLICING DETAILS)**

NO SCALE

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

REVISED STANDARD PLAN RSP ES-13A

2010 REVISED STANDARD PLAN RSP ES-13A