

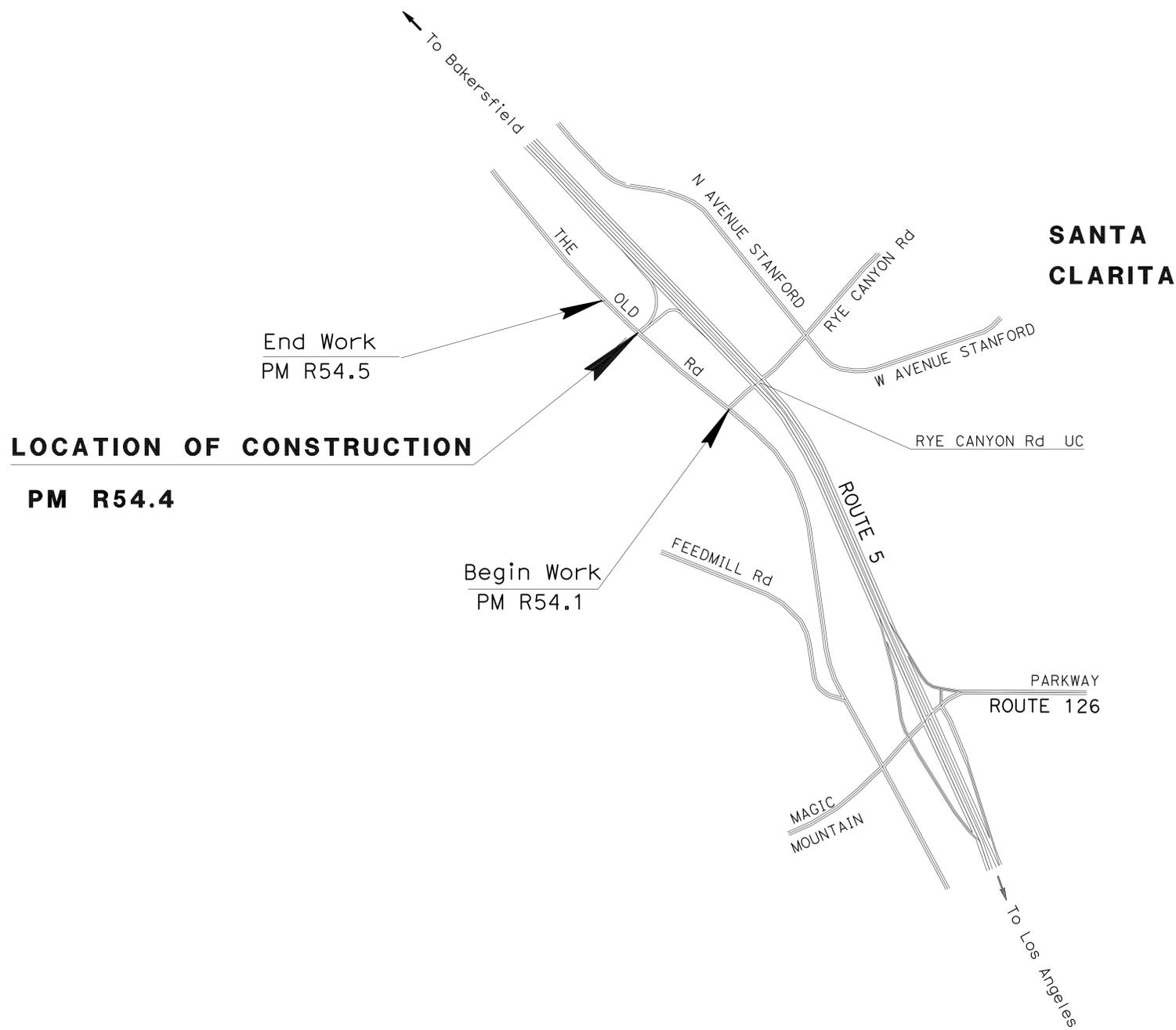
INDEX OF PLANS

SHEET NO.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LAYOUT
3	CONSTRUCTION DETAIL
4-5	UTILITY PLAN
6	CONSTRUCTION AREA SIGNS
7-8	TRAFFIC HANDLING PLAN
9-12	TRAFFIC HANDLING DETAILS
13	PAVEMENT DELINEATION AND SIGN PLAN
14	SUMMARY OF QUANTITIES
15-20	ELECTRICAL PLANS
21-49	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA **ACIMG-005-3(073)E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
AT THE OLD ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER DAVID MIRAANEY	DESIGN ENGINEER EDGAR HERRERA
--	---

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

NO SCALE

Edgar Herrera 5/18/12
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

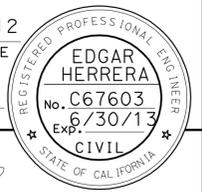


June 11, 2012
 PLANS APPROVAL DATE

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

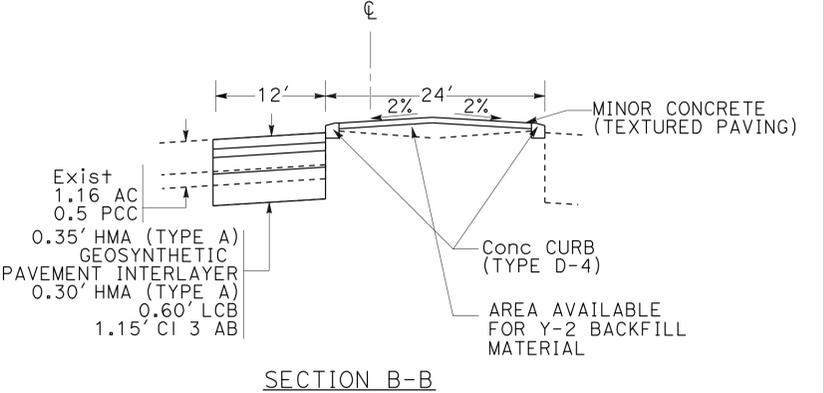
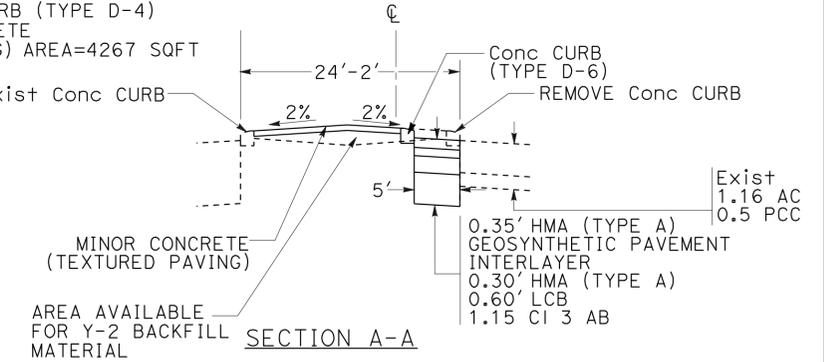
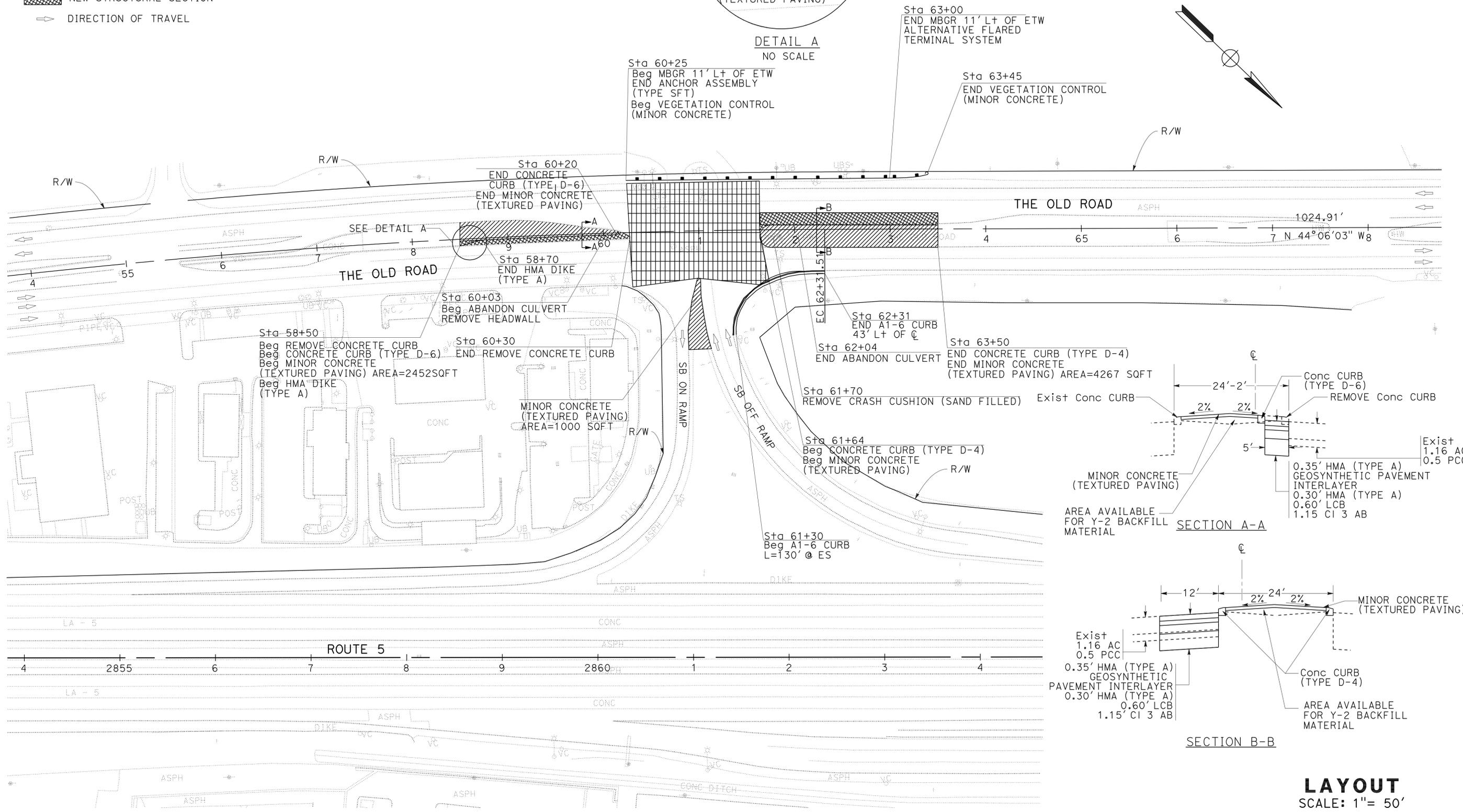
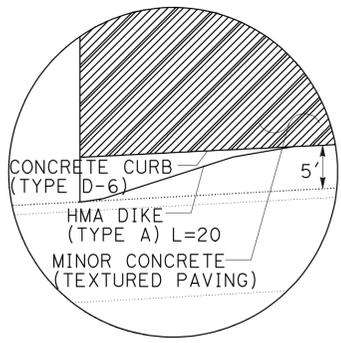
CONTRACT No.	07-285004
PROJECT ID	0700001995

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	2	49
			5/18/12		
REGISTERED CIVIL ENGINEER			DATE		
6-11-12			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



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

- LEGEND:**
-  COLD PLANE 0.15' & PLACE HMA (TYPE A)
 -  MINOR CONCRETE (TEXTURED PAVING)
 -  NEW STRUCTURAL SECTION
 -  DIRECTION OF TRAVEL



LAYOUT
SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: GRISH BIGLIARIAN
 CHECKED BY: GRISH BIGLIARIAN
 CALCULATED/DESIGNED BY: EDGAR HERRERA
 REVISIONS: GRISH BIGLIARIAN
 REVISOR: EDGAR HERRERA
 DATE: 5/18/12

USERNAME => s126987
DGN FILE => 728500ea01.dgn



UNIT 1877

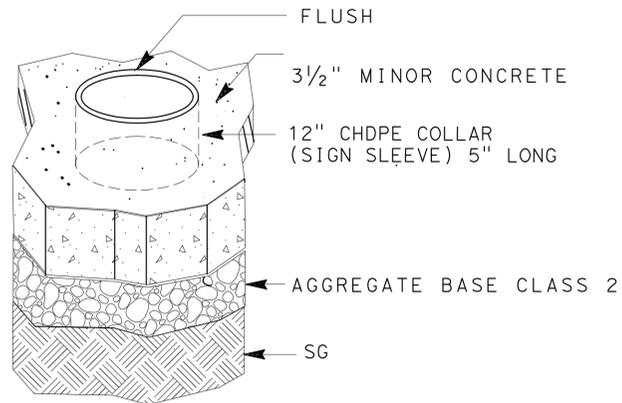
PROJECT NUMBER & PHASE

07000019951

L-1

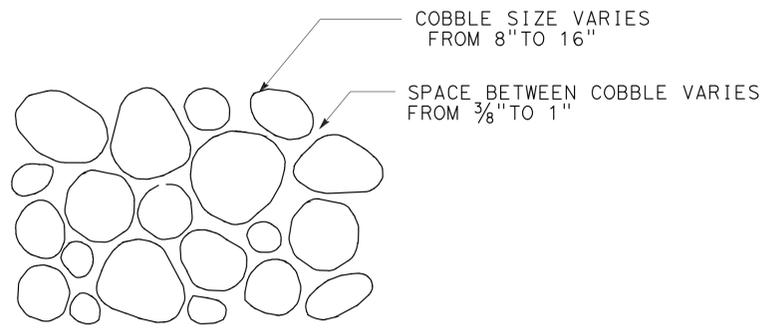
LAST REVISION: DATE PLOTTED => 04-SEP-2012
 TIME PLOTTED => 13:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	3	49
 LICENSED LANDSCAPE ARCHITECT 6-11-12 PLANS APPROVAL DATE					
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

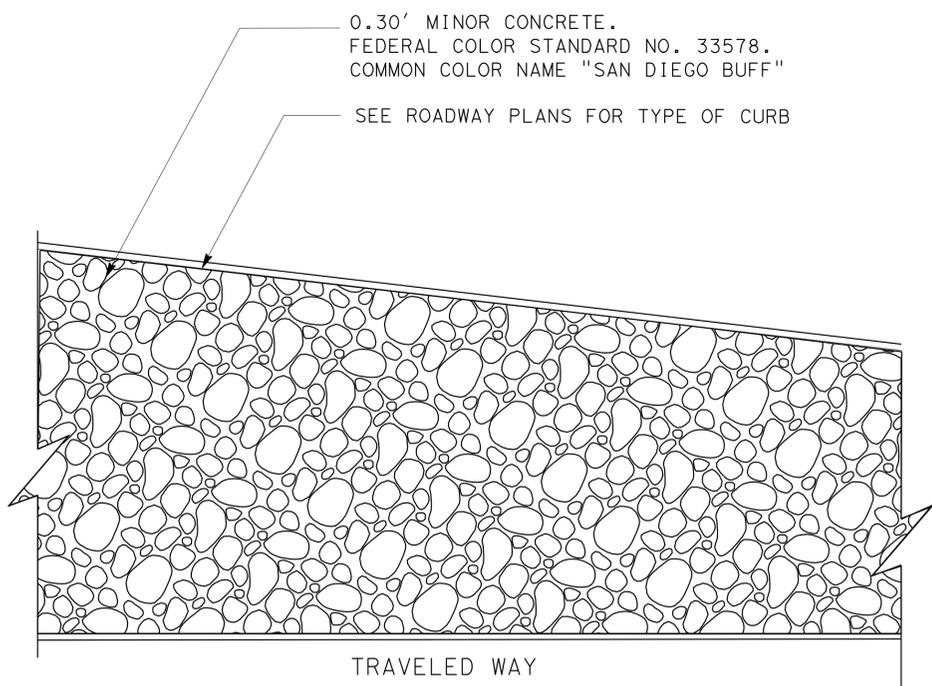


COLLAR DETAIL

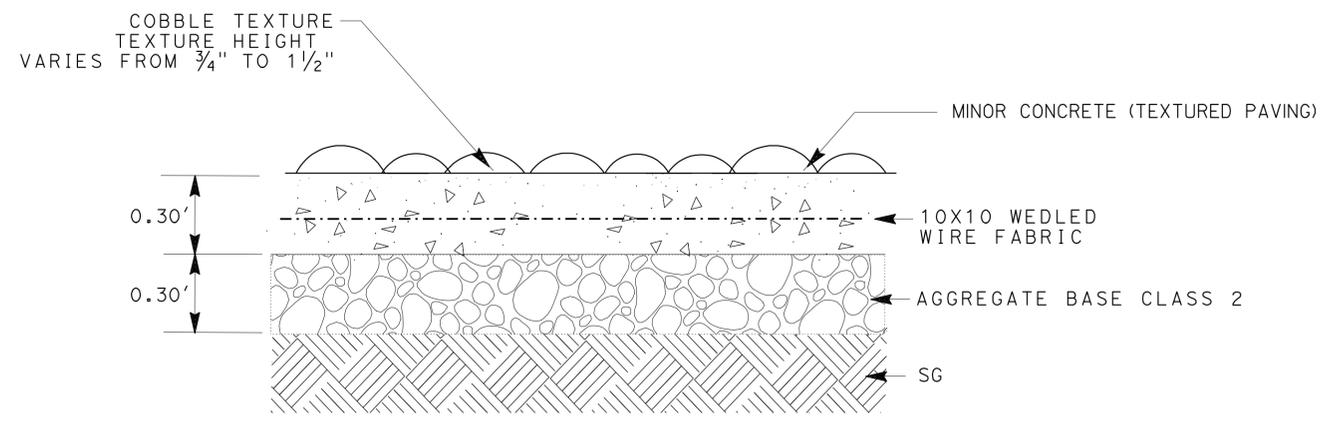
NOTE:
PLACE 12" Dia HDPE COLLAR (5" LENGTH)
AS FORM (CLEAR) AROUND POST



TEXTURED CONCRETE DETAIL



TYPICAL PAVEMENT LAYOUT



EXPANSION JOINT DETAIL

CONSTRUCTION DETAIL
MINOR CONCRETE (TEXTURED PAVING)
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE

JOSEPH MILLMAN - DAHLIA PERSOFF

SENIOR LANDSCAPE ARCHITECT - PATTY WATANABE

APPROVED FOR LANDSCAPE WORK ONLY



UNIT 1851 PROJECT NUMBER & PHASE 07000019951

BORDER LAST REVISED 9/9/2010

USERNAME => s126987
DGN FILE => 728500ga01.dgn

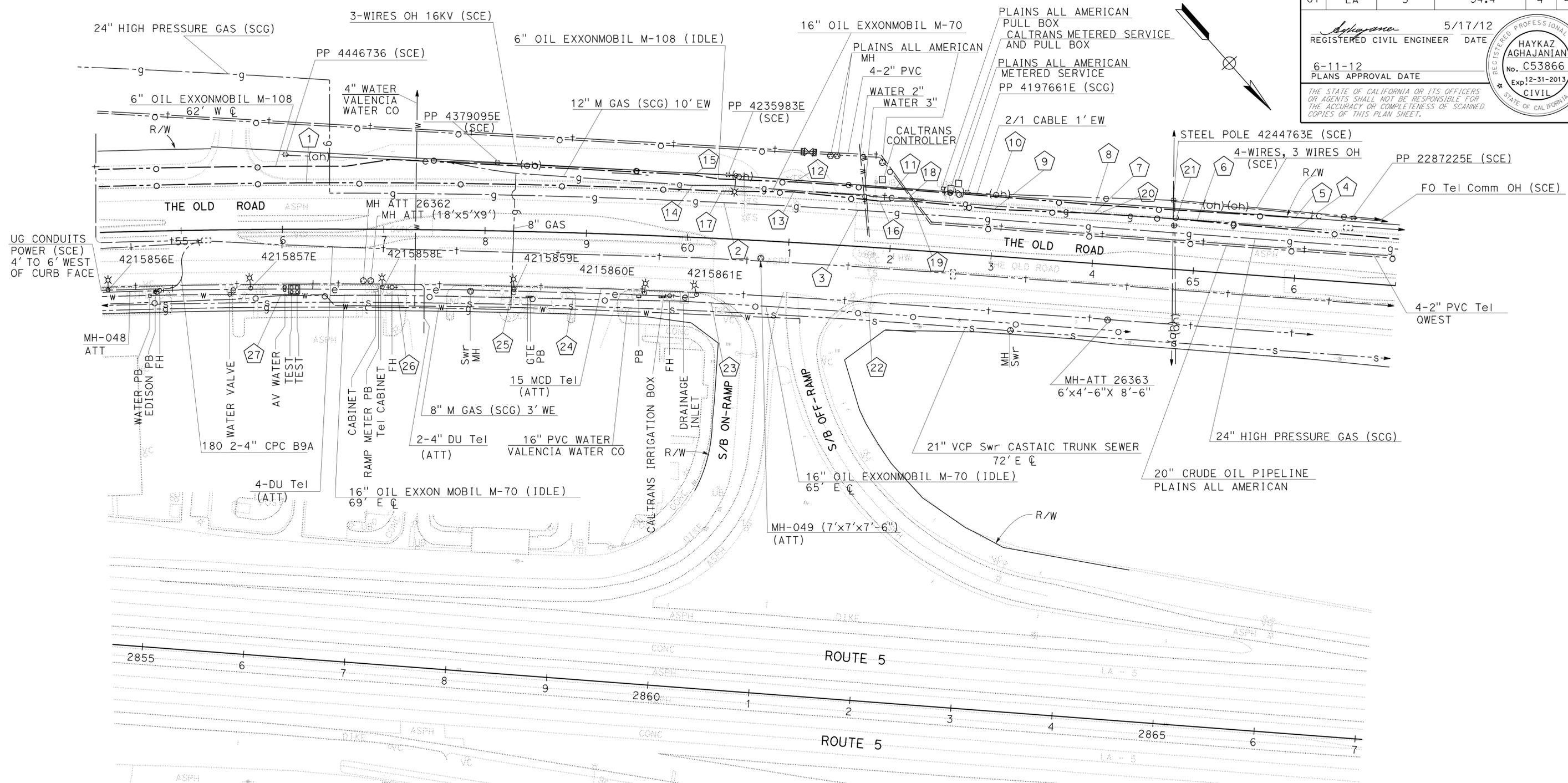
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00-00-00 TIME PLOTTED => 1:31:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	4	49

REGISTERED CIVIL ENGINEER	DATE
<i>Asherane</i>	5/17/12
REGISTERED CIVIL ENGINEER	DATE
HAYKAZ AGHAJANIAN	
No. C53866	
Exp 12-31-2013	
CIVIL	

6-11-12
PLANS APPROVAL DATE

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



NOTE:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- UTILITY OWNERSHIP ON THIS PROJECT:
 - WATER - VALENCIA WATER COMPANY
 - GAS - SOUTHERN CALIFORNIA GAS COMPANY (SCG)
 - ELECTRIC - SOUTHERN CALIFORNIA EDISON (SCE)
 - TELEPHONE - AT&T, AT&T (LONG DISTANCE) - QWEST
 - OIL - EXXONMOBIL - PLAINS ALL AMERICAN PIPELINES

ABBREVIATIONS:

CPC	CONCRETE PIPE CONDUIT
M	MEDIUM PRESSURE
MCD	MULTIPLE CONCRETE DUCTS
VCP	VITRIFIED CLAY PIPE
SCG	SOUTHERN CALIFORNIA GAS
PP	POWER POLE
ATT	AMERICAN TELEPHONE AND TELEGRAPH
MCD	MULTIPLE CONCRETE DUCT
DU	DUCT
Comm	COMMUNICATION
AV	AIR VACUUM
GTE	GENERAL TELEPHONE AND ELECTRONICS

UTILITY PLAN

SCALE: 1" = 50'

U-1

APPROVED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: CELINA AVILES
 CALCULATED/DESIGNED BY: CESAR HERNANDEZ
 CHECKED BY: HAYKAZ AGHAJANIAN
 REVISED BY: _____ DATE REVISED: _____

USERNAME => s126987
 DGN FILE => 728500ka01.dgn



UNIT 1879

PROJECT NUMBER & PHASE

070000019951

BORDER LAST REVISED 7/2/2010

LAST REVISION DATE PLOTTED => 04-SEP-2012
 00-00-00 TIME PLOTTED => 13:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	5	49

Agajane 5/17/12
 REGISTERED CIVIL ENGINEER DATE

6-11-12
 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.

POSITIVE LOCATION INFORMATION

X	UTILITY	OWNER	THE OLD ROAD C		Elev.	DEPTH	NORTHING	EASTING
			STATION	OFFSET				
1	16" OIL	EXXONMOBIL	56+23.61	45.08 Lt	1054.63	53"	1980052.35	6383424.52
2	24" GAS	SCG	60+34.10	35.43 Lt	1051.97	56"	1980340.80	6383129.47
3	24" GAS	SCG	61+66.10	35.61 Lt	1050.66	59"	1980434.35	6383035.52
4	12" GAS	SCG	65+97.97	49.67 Lt	1045.79	41.5"	1980734.72	6382724.48
5	6" OIL (IDLE)	EXXONMOBIL	65+97.85	58.33 Lt	1045.00	32"	1980728.61	6382718.34
6	12" GAS	SCG	65+00.15	49.94 Lt	1046.55	40"	1980664.28	6382792.36
7	12" GAS	SCG	63+98.09	49.05 Lt	1047.95	55"	1980591.61	6382864.02
8	6" OIL (IDLE)	EXXONMOBIL	63+98.44	57.75 Lt	1047.74	46"	1980585.81	6382857.53
9	16" OIL	EXXONMOBIL	62+99.89	46.07 Lt	1048.87	54.25"	1980523.17	6382934.50
10	6" OIL (IDLE)	EXXONMOBIL	62+99.60	58.69 Lt	1047.97	37"	1980514.18	6382925.64
11	6" OIL (IDLE)	EXXONMOBIL	62+01.06	58.96 Lt	1049.77	50"	1980443.10	6382994.22
12	6" OIL (IDLE)	EXXONMOBIL	61+02.36	59.53 Lt	1050.09	37.5"	1980371.99	6383063.72
13	16" OIL	EXXONMOBIL	61+01.88	49.71 Lt	1051.17	57.5"	1980378.60	6383071.01
14	12" GAS	SCG	60+02.59	51.10 Lt	1051.70	48"	1980307.45	6383141.16
15	6" OIL (IDLE)	EXXONMOBIL	60+03.59	61.40 Lt	1051.41	46"	1980300.77	6383133.25
16	16" OIL	EXXONMOBIL	61+86.74	45.96 Lt	1050.31	64"	1980441.89	6383013.60
17	16" OIL	EXXONMOBIL	60+31.53	46.75 Lt	1051.84	57.5"	1980330.91	6383123.38
18	4-2" PVC	QWEST	62+16.75	53.36 Lt	1049.68	37"	1980458.33	6382987.21
19	16" OIL	EXXONMOBIL	62+17.72	48.20 Lt	1049.89	60"	1980462.63	6382990.22
20	16" OIL	EXXONMOBIL	64+03.48	49.40 Lt	1047.90	54"	1980595.24	6382860.03
21	16" OIL	EXXONMOBIL	64+79.28	49.68 Lt	1046.78	42"	1980649.48	6382807.07
22	16" OIL (IDLE)	EXXONMOBIL	61+83.48	64.48 Rt	1048.34	48"	1980516.89	6383094.73
23	16" OIL (IDLE)	EXXONMOBIL	60+26.30	63.65 Rt	1050.78	64"	1980406.06	6383204.42
24	16" OIL (IDLE)	EXXONMOBIL	58+88.77	65.05 Rt	1052.25	76"	1980312.42	6383303.63
25	8" GAS	SCG	58.27.30	65.00 Rt	1052.73	87"	1980270.64	6383348.03
26	16" OIL (IDLE)	EXXONMOBIL	57+14.38	64.84 Rt	1053.70	70"	1980194.71	6383430.37
27	16" OIL (IDLE)	EXXONMOBIL	55+97.80	65.27 Rt	1054.49	72"	1980118.00	6383516.89

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 CELINA AVILES
 CALCULATED/DESIGNED BY
 CHECKED BY
 CESAR HERNANDEZ
 HAYKAS AGHAJANIAN
 REVISED BY
 DATE REVISED

APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

NO SCALE

U-2



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	6	49

5/18/12
 REGISTERED CIVIL ENGINEER DATE
 6-11-12
 PLANS APPROVAL DATE

EDGAR HERRERA
 No. C67603
 Exp. 6/30/13
 CIVIL

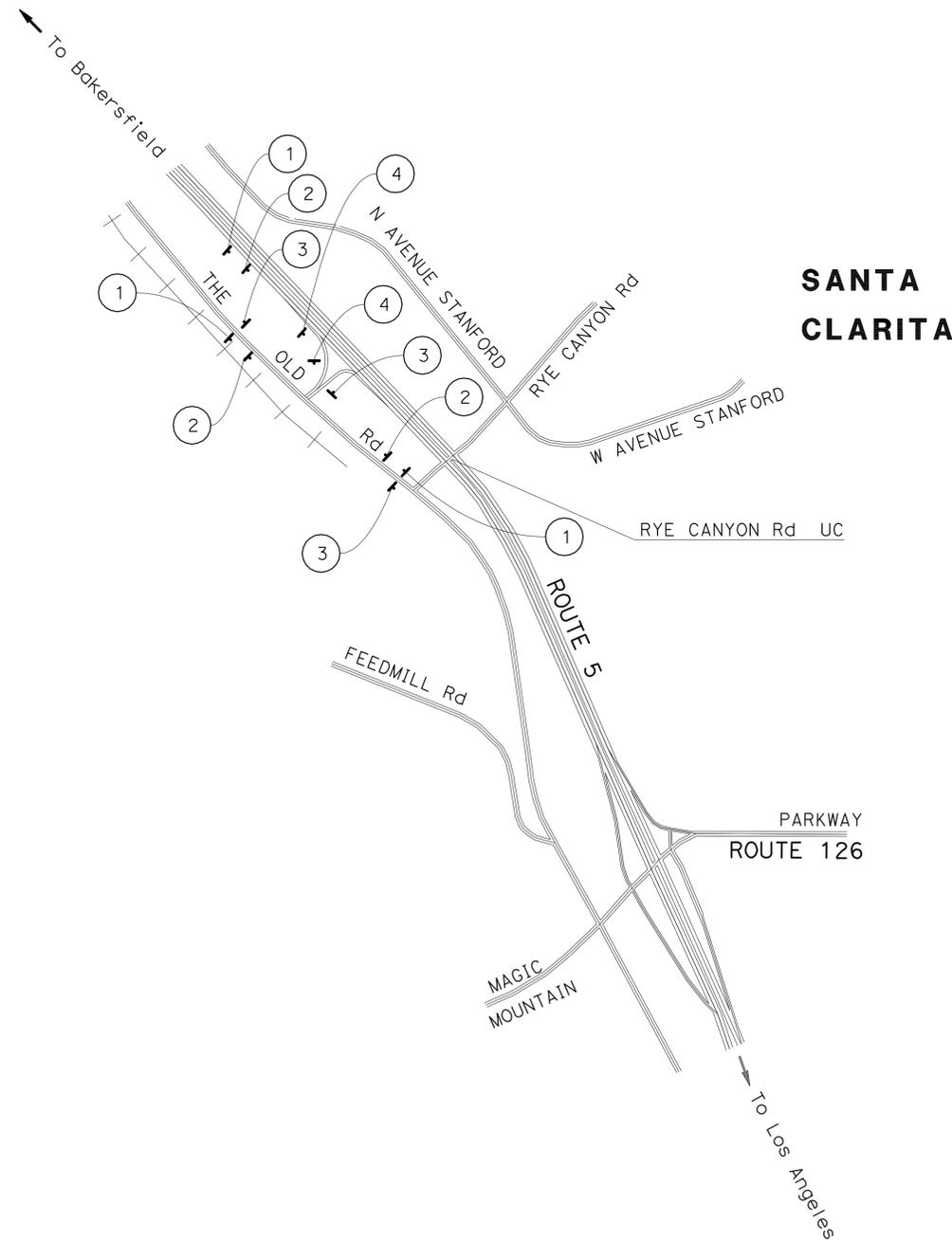
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STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGNS
1	C40 (CA)	72" x 36"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	1 - 6" X 6"	3
2	W20-1	36" X 36"	ROAD WORK AHEAD	1 - 4" X 6"	3
3	G20-2	48" X 24"	END ROAD WORK	1 - 4" X 6"	3
4	R53B(CA)	36" X 48"	TRUCKS RIGHT LANE ONLY	1 - 4" X 6"	2

NOTES:

- LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE TRAFFIC HANDLING PLAN.



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

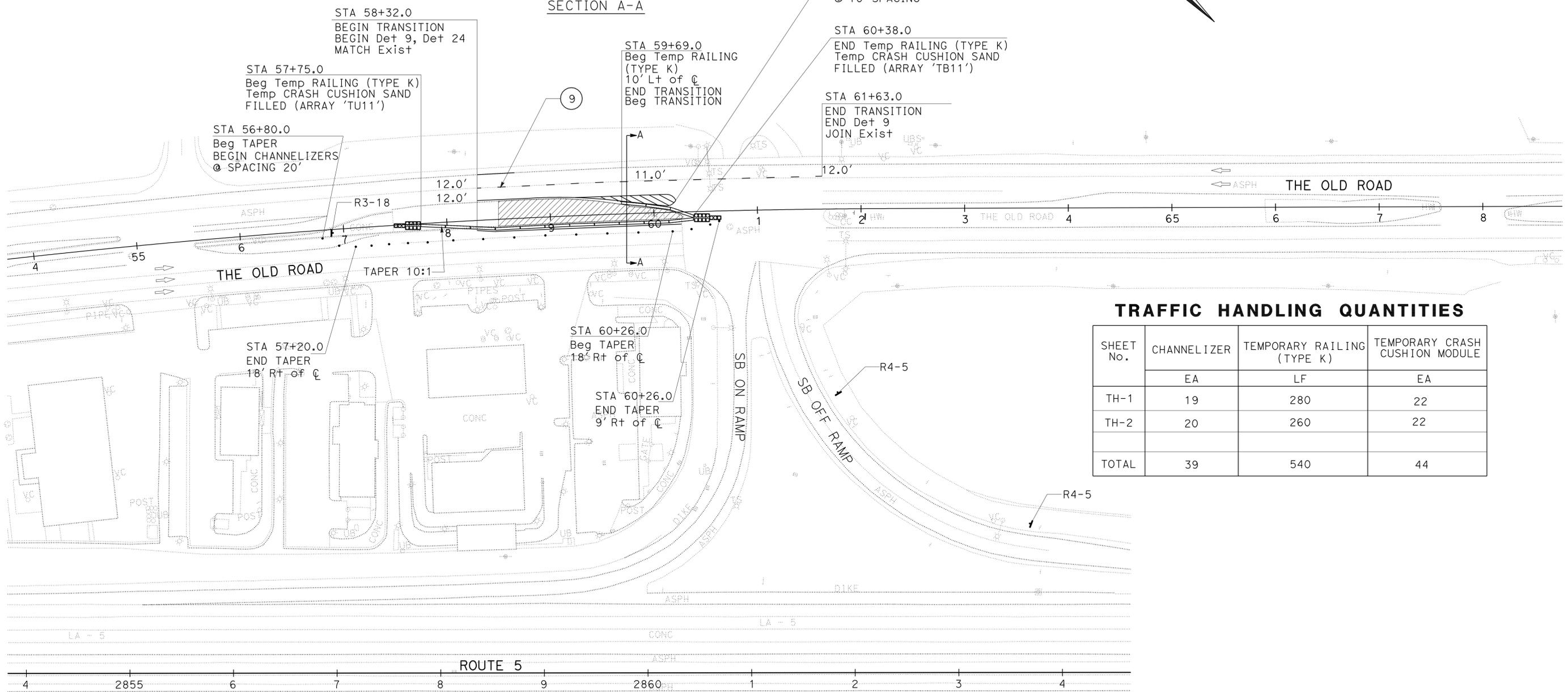
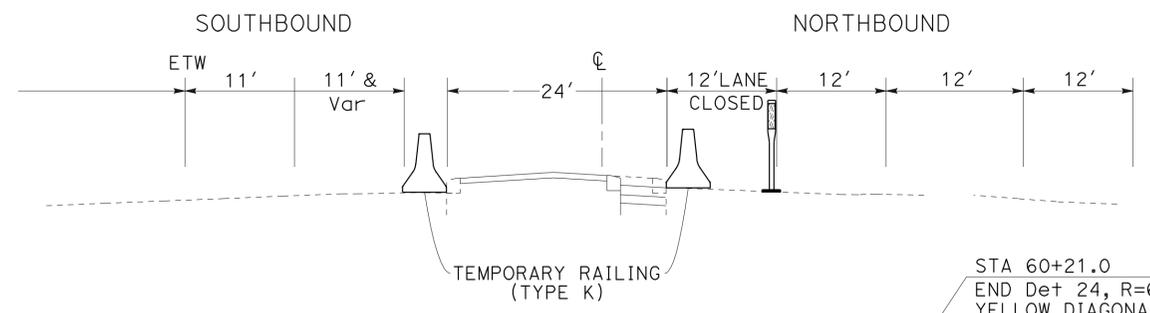
APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: GRISH BIGLIARIAN
 CALCULATED/DESIGNED BY: GRISH BIGLIARIAN
 REVISOR: EDGAR HERRERA
 DATE REVISOR: GRISH BIGLIARIAN



LEGEND:

CONSTRUCTION AREA
 TYPE II ARROW



TRAFFIC HANDLING QUANTITIES

SHEET No.	CHANNELIZER	TEMPORARY RAILING (TYPE K)	TEMPORARY CRASH CUSHION MODULE
	EA	LF	EA
TH-1	19	280	22
TH-2	20	260	22
TOTAL	39	540	44

TEMPORARY PAVEMENT DELINEATION QUANTITIES

SHEET NO.	STATION	DETAIL 9 (PAINT) BROKEN WHITE STRIPE	DETAIL 24 (PAINT) SOLID YELLOW STRIPE	DETAIL 27B (PAINT) SOLID WHITE STRIPE	PAVEMENT MARKER	PAVEMENT MARKINGS	REMOVE PAINTED TRAFFIC STRIPE	REMOVE PAINTED PAVEMENT MARKING
		(LF)	(LF)	(LF)	TYPE (G)	(SQFT)	(LF)	(SQFT)
TH-1	58+32 - 65+00	331	189		8	102	286	102
TH-2	58+32 - 65+00	336	260	336	8	90	694	90
TOTAL			1452		16	192	980	192

TRAFFIC HANDLING PLAN

SCALE: 1"= 50'

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

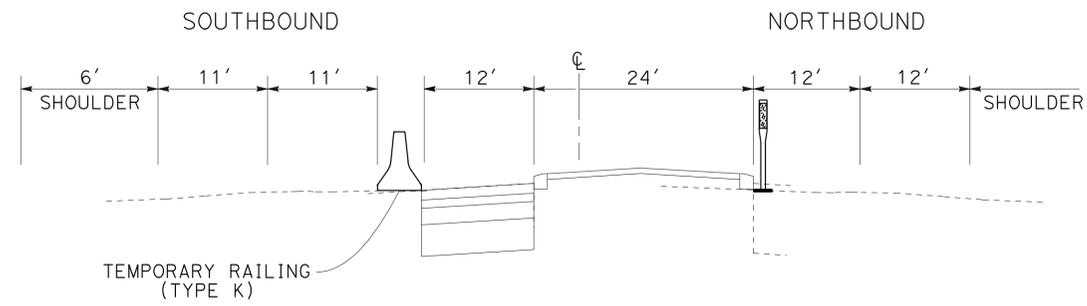
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	8	49

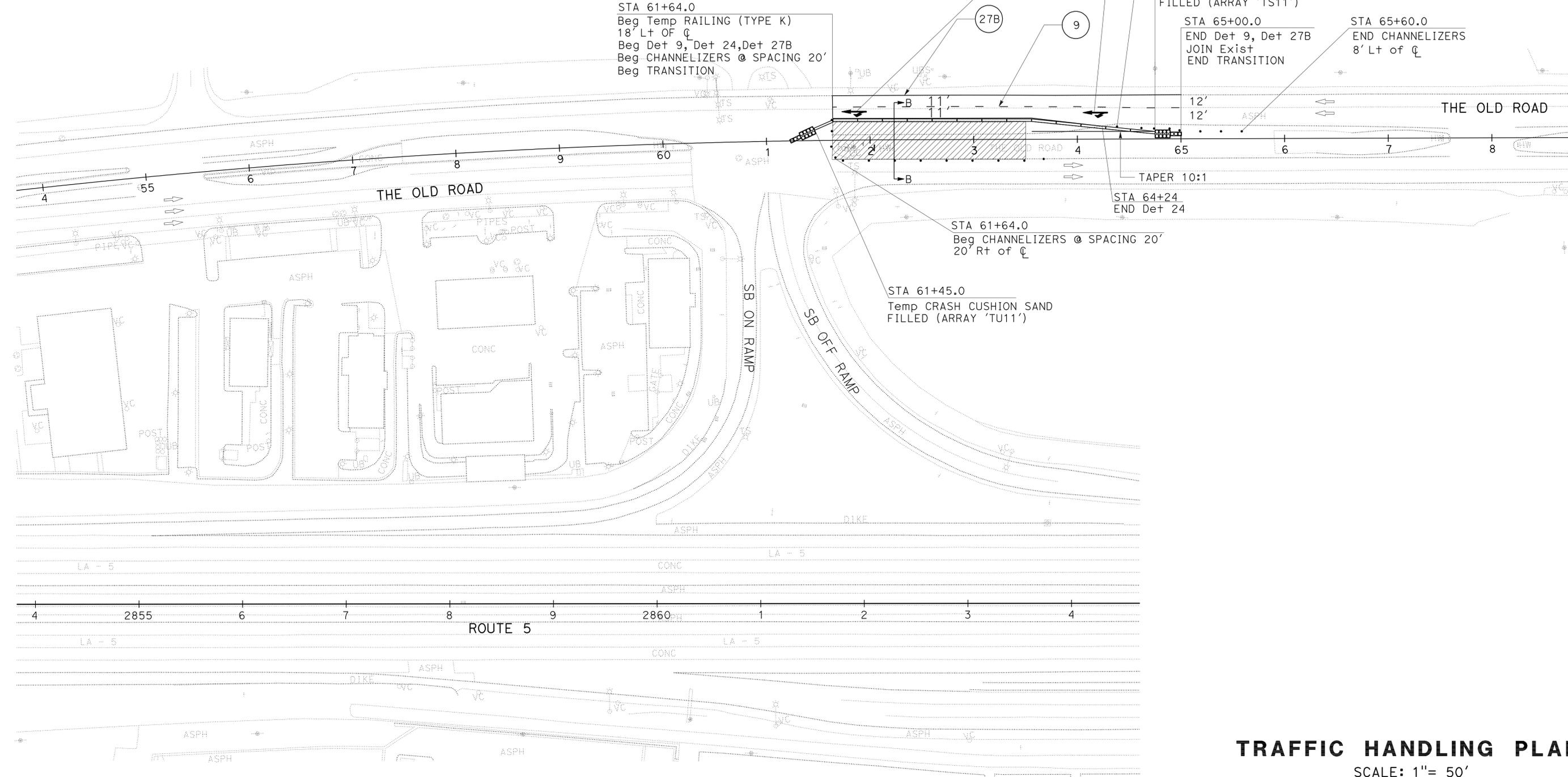
5/18/12
 REGISTERED CIVIL ENGINEER DATE
 6-11-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 EDGAR HERRERA
 No. C67603
 Exp. 6/30/13
 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.



SECTION B-B



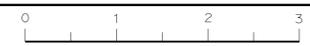
TRAFFIC HANDLING PLAN
 SCALE: 1" = 50'
TH-2

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: GRISH BIGLIARIAN
 CALCULATED/DESIGNED BY: SYED ALISHA
 CHECKED BY: EDGAR HERRERA
 REVISED BY: SYED ALISHA
 DATE REVISION: EDGAR HERRERA

USERNAME => s126987
 DGN FILE => 728500md02.dgn

RELATIVE BORDER SCALE
 IS IN INCHES



UNIT 1877

PROJECT NUMBER & PHASE

07000019951

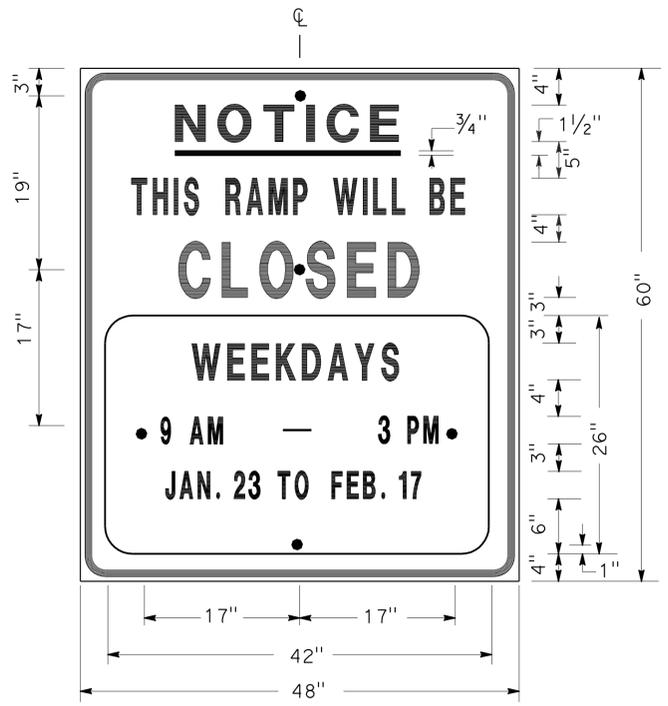
BORDER LAST REVISED 7/2/2010

LAST REVISION: DATE PLOTTED => 04-SEP-2012
 00-00-00 TIME PLOTTED => 13:37

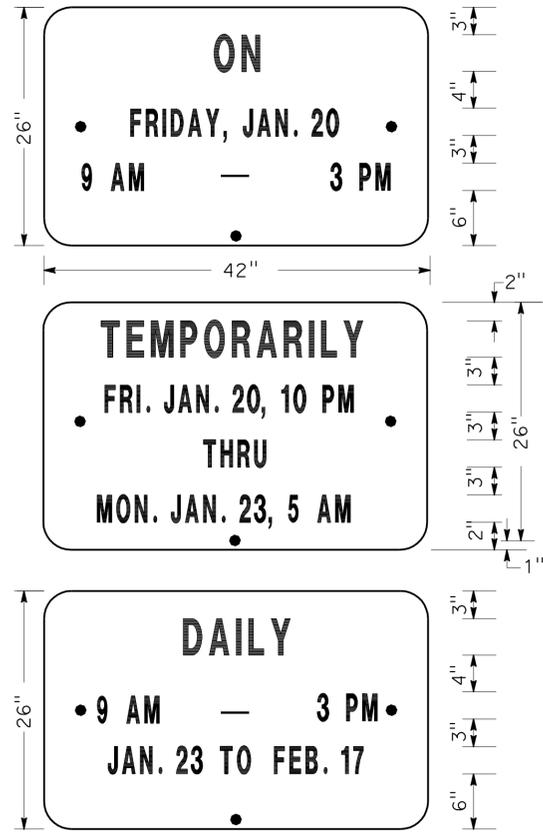
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	9	49

REGISTERED CIVIL ENGINEER DATE: 11-04-11
 MARTIN OREGEL
 No. C56816
 Exp. 6-30-13
 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.



SIGN SP-1



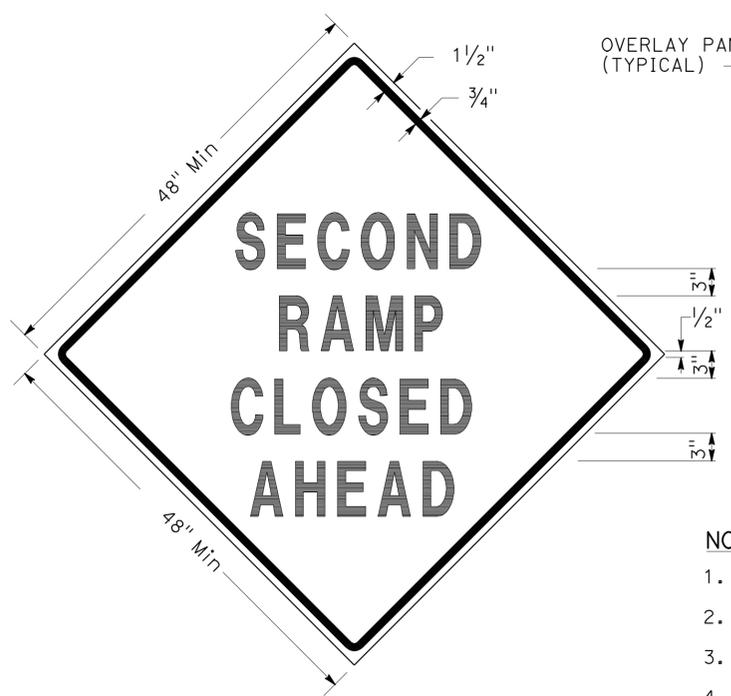
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES:**(SIGN SP-1)
- SIGNS SHALL HAVE ORANGE RETROREFLECTORIZED BACKGROUND WITH BLACK BORDER AND LETTERS.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.

SIZE	BORDER	MARGIN	LETTER SIZE					CORNER RADIUS
	WIDTH	WIDTH	LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5,6 & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"

* CONDENSED SPACING IF NECESSARY

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



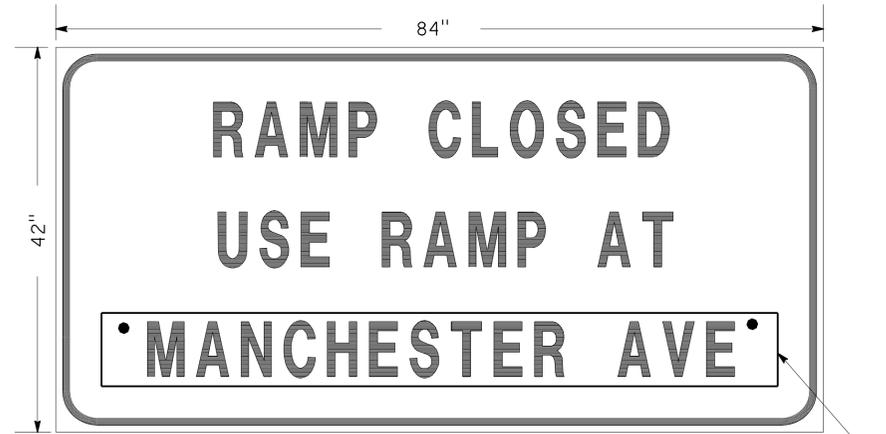
SIGN SP-3

SPECIAL SIGN FOR EXIT RAMP CLOSURES

- NOTES:** (SIGNS SP-3 & SP-5)
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.



SIGN SP-5



SIGN SP-4

- NOTES:** (SIGN SP-4)
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED WHITE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

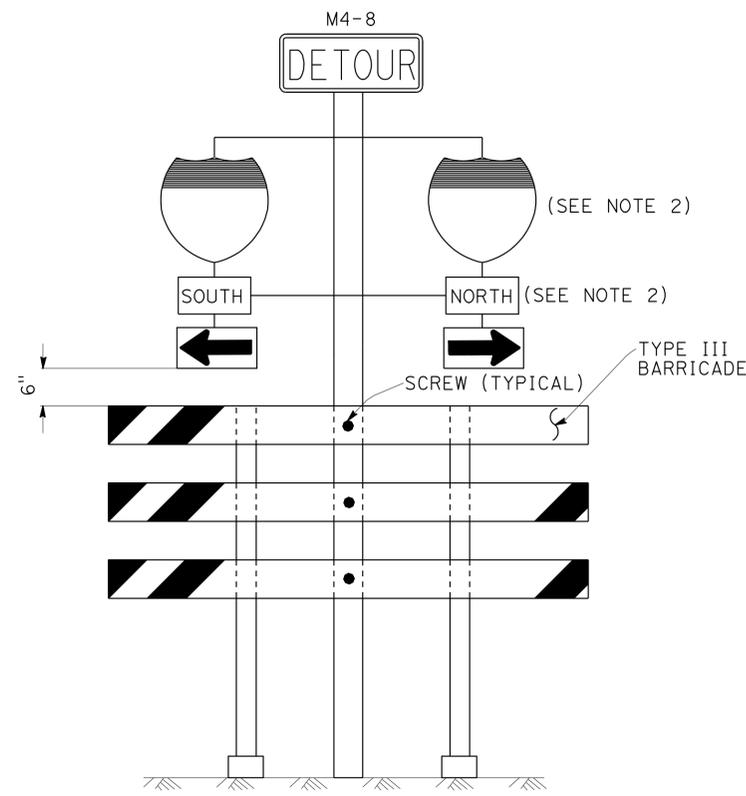
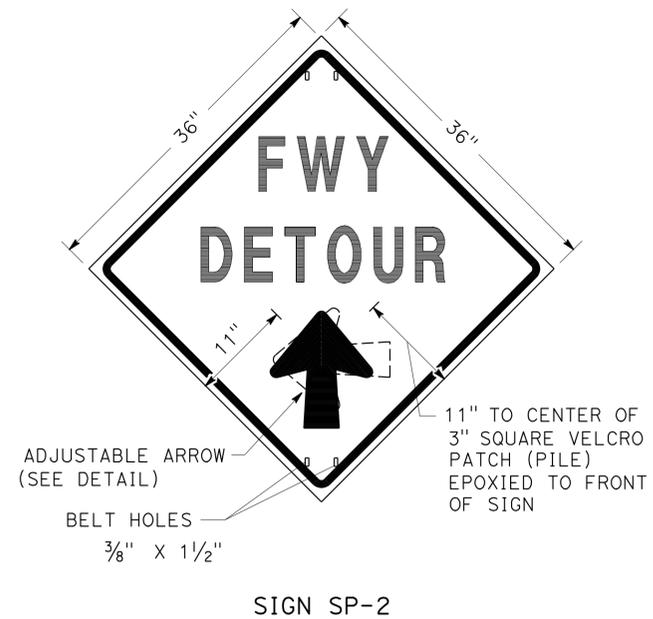
SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURES, DETOUR SIGNS
 AND MISCELLANEOUS DETAILS**

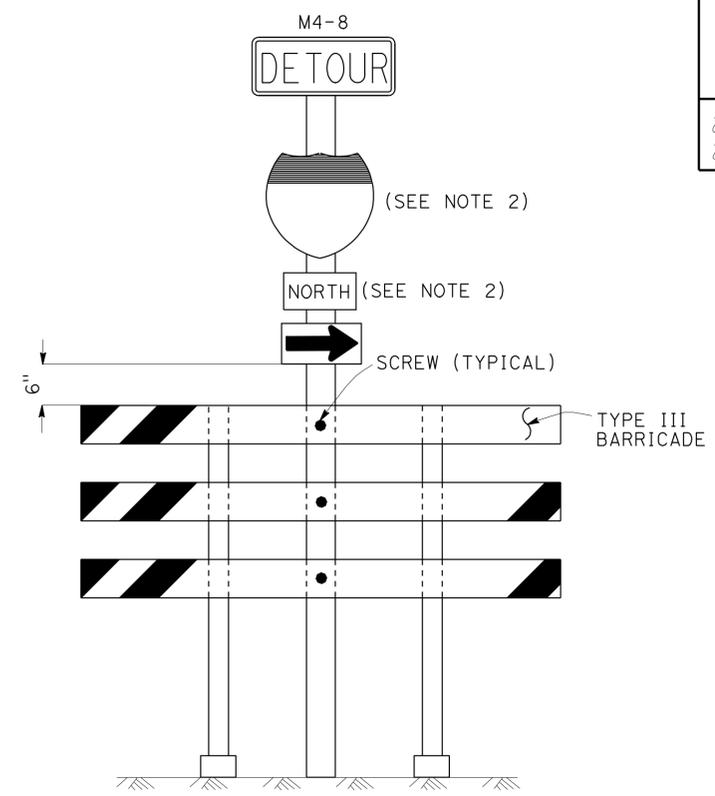
SHEET 1 OF 2

NO SCALE

THD-1



SIGN SP-6 (SEE NOTE 1)



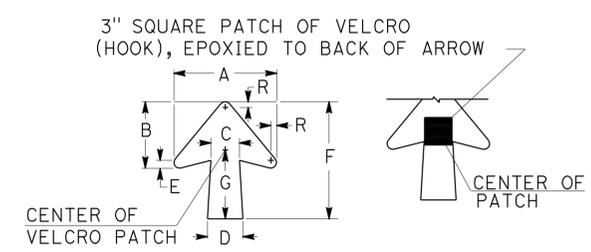
SIGN SP-7 (SEE NOTE 1)

- NOTES:** (SIGN SP-2)
- LETTERS -6" SERIES E.
 - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL FOR SIGNS AND ARROWS SHALL BE ALUMINUM (MINIMUM 0.06").
 - BELTS (LUGGAGE STRAPS) SHALL BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

ABBREVIATION
 (CA) CALIFORNIA CODE

- NOTES:** (SIGNS SP-6 & SP-7)
- IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
 - USE APPROPRIATE ROUTE SHIELD [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)]

SPECIAL PORTABLE FREEWAY DETOUR SIGNS



DIMENSIONS							
A	B	C	D	E	F	G	R
11 1/4"	7 1/4"	3 1/8"	4"	7/8"	13"	7 1/2"	5/8"

SPECIAL PORTABLE FREEWAY DETOUR SIGN

ADJUSTABLE ARROW DETAIL

TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR RAMP CLOSURES, DETOUR SIGNS
AND MISCELLANEOUS DETAILS
SHEET 2 OF 2
 NO SCALE

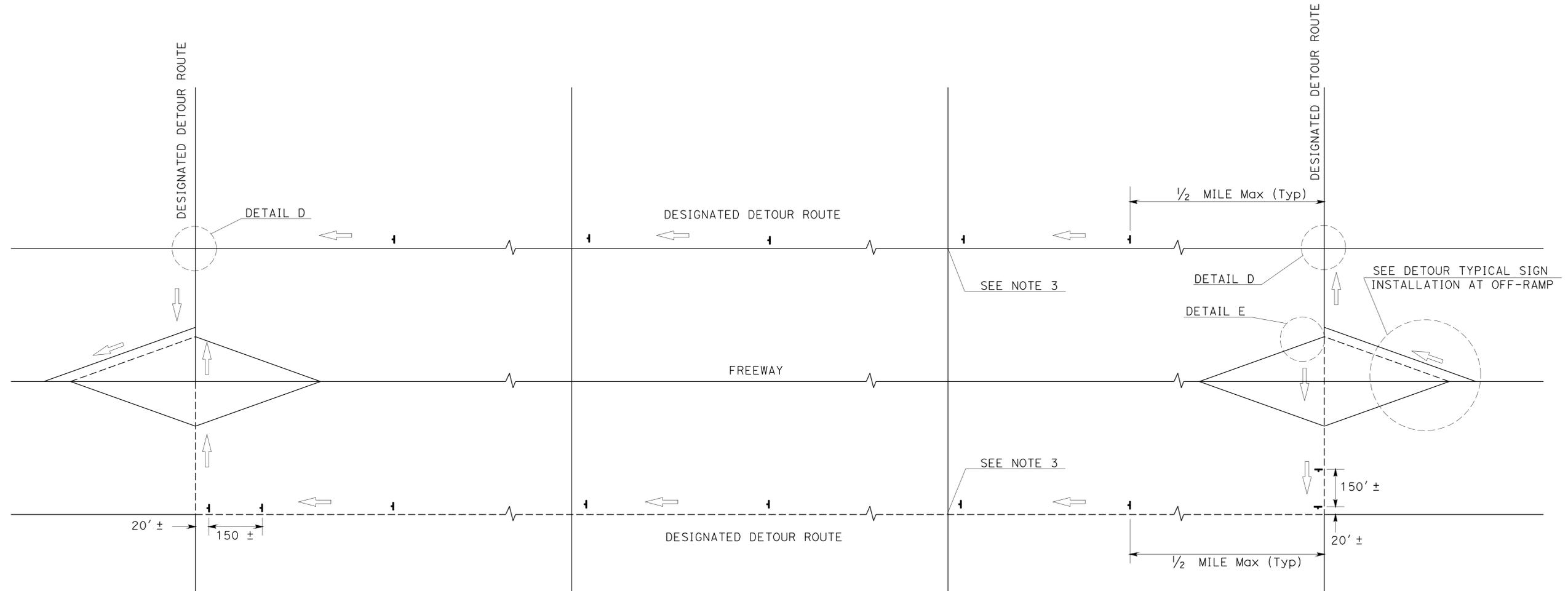
THD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DTIC
 FUNCTIONAL SUPERVISOR
 MARTIN OREGEL
 CHECKED BY
 ALBERT K YU
 JOCELYN C CHIANG
 REVISIONS BY
 DATE
 7/10
 JC

LAST REVISION
 DATE PLOTTED => 04-SEP-2012
 TIME PLOTTED => 1:3:37

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	11	49
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
6-11-12			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
DTM	MARTIN OREGEL	ALBERT K YU JOCELYN C CHIANG	JC	7/10
Caltrans				



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

LEGEND

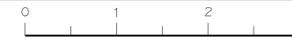
- TEMPORARY SIGN (SP-2)
- AND/OR DESIGNATED DETOUR ROUTE
- DIRECTION OF TRAVEL

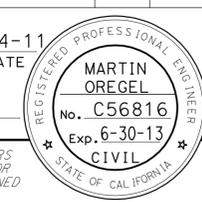
NOTES:

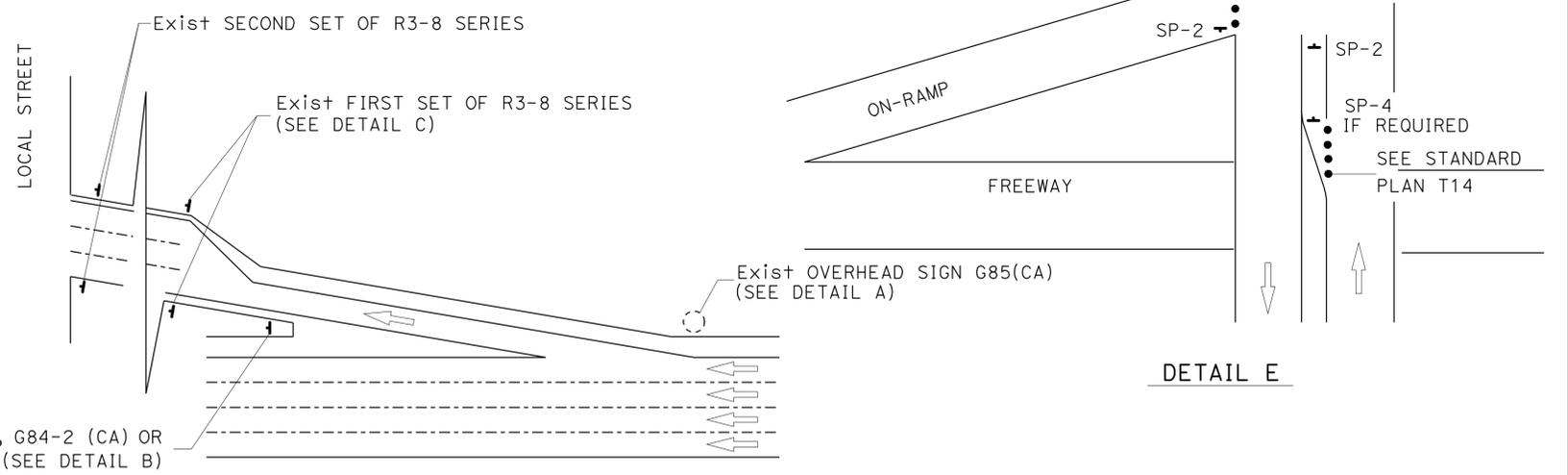
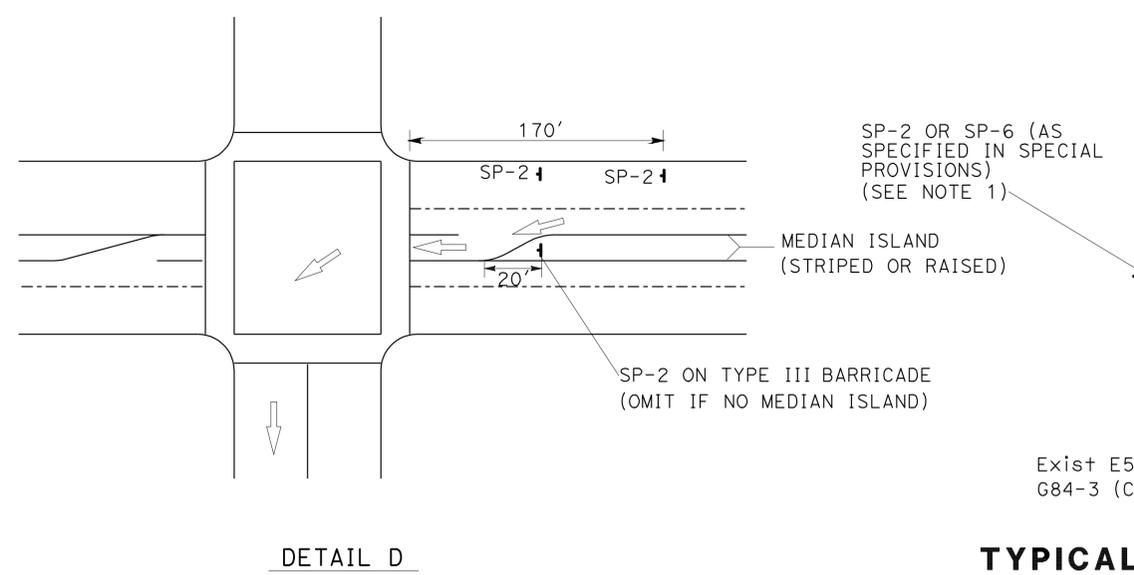
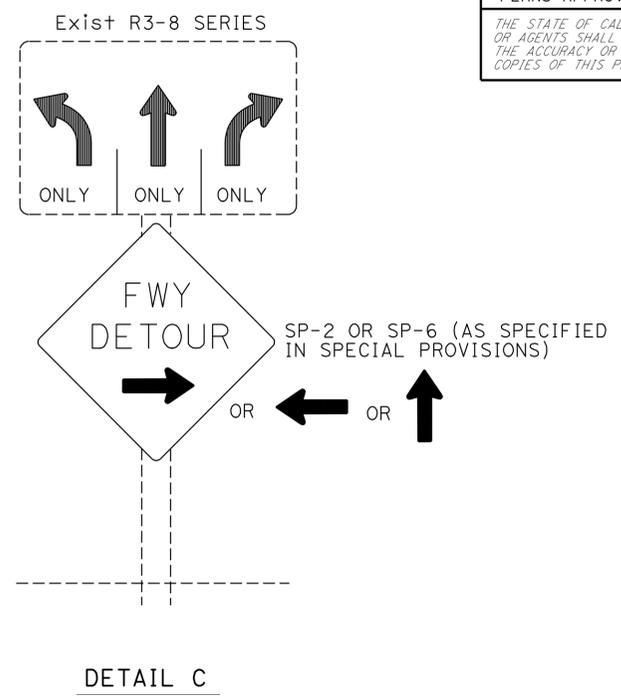
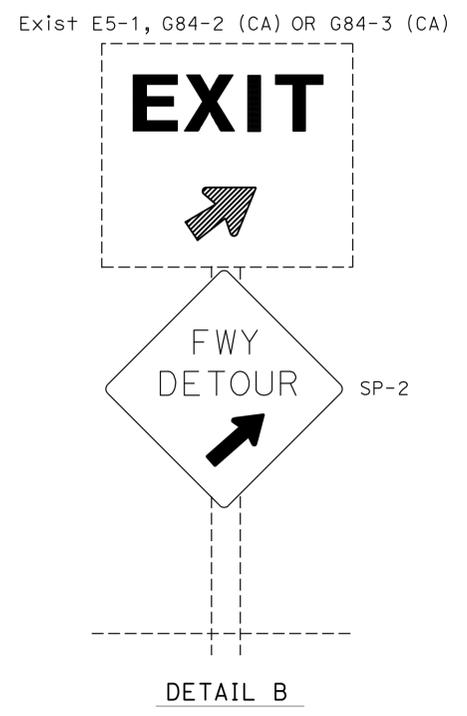
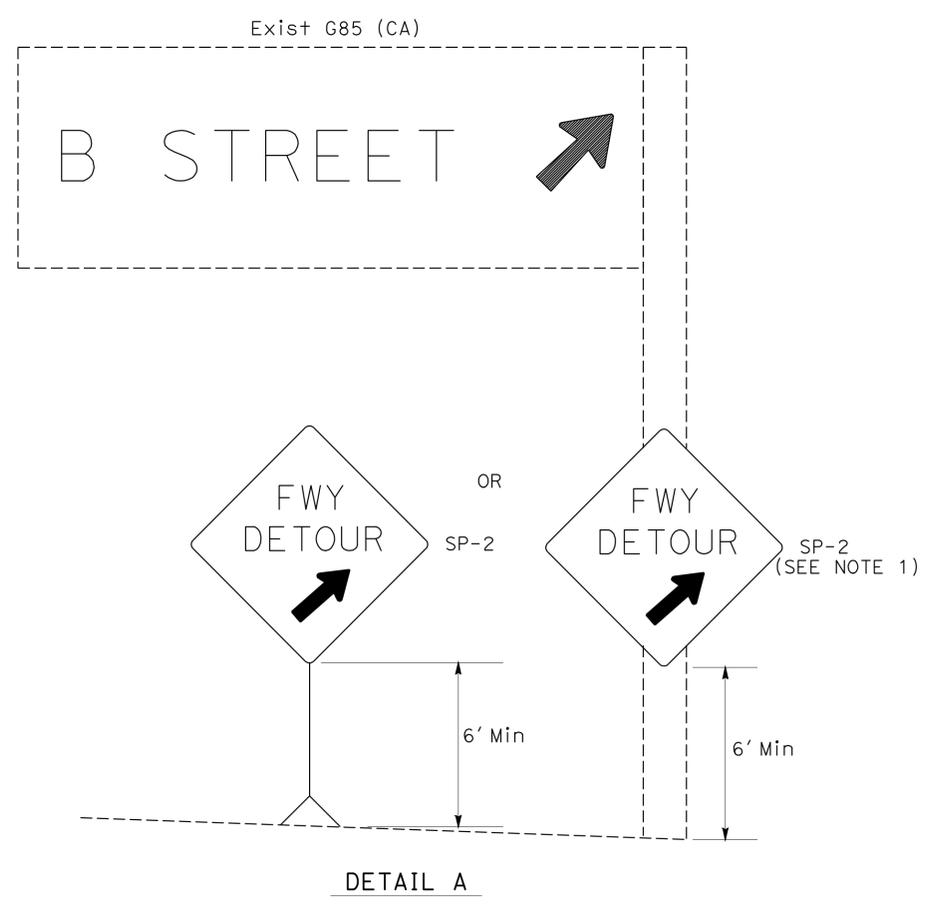
1. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
3. SP-2 SIGNS SHALL BE POSTED AT SIGNALIZED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE OR 1/2 MILE MAXIMUM APART.

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 1 OF 2
NO SCALE**

THD-3



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	12	49
 REGISTERED CIVIL ENGINEER DATE 11-04-11					
6-11-12 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

- NOTES:**
1. TEMPORARY SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POSTS, OR SIGN POSTS.
 2. OMIT DETAIL A AND DETAIL B FOR FULL FREEWAY CLOSURES.
 3. SEE TRAFFIC HANDLING DETAILS PLAN-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS AND MISCELLANEOUS DETAILS SHEET 2 OF 2 FOR SP-6.

ABBREVIATIONS
(CA) CALIFORNIA CODE

- LEGENDS**
- TRAFFIC CONE
 - ↑ TEMPORARY SIGN
 - DIRECTION OF TRAVEL
 - EXISTING OVERHEAD SIGN

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 2
NO SCALE**

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
FUNCTIONAL SUPERVISOR: MARTIN OREGEL
DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISOR: JC
DATE REVISED: 8/10

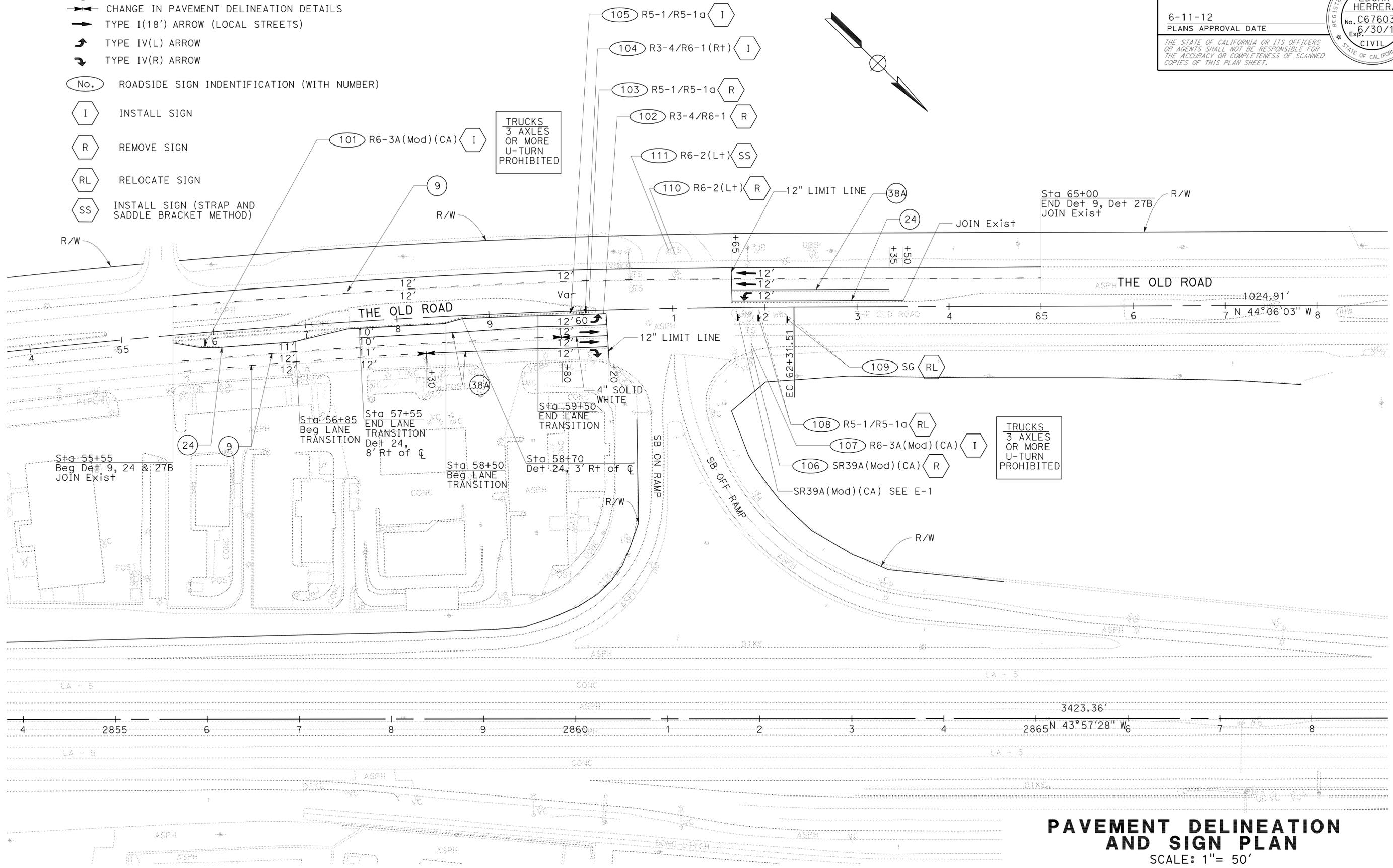
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	13	49

REGISTERED CIVIL ENGINEER	DATE
5/18/12	
PLANS APPROVAL DATE	
6-11-12	

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

LEGEND:

- (No) STRIPING DETAIL NUMBER
- ↔ CHANGE IN PAVEMENT DELINEATION DETAILS
- TYPE I(18') ARROW (LOCAL STREETS)
- ↶ TYPE IV(L) ARROW
- ↷ TYPE IV(R) ARROW
- (No.) ROADSIDE SIGN IDENTIFICATION (WITH NUMBER)
- I INSTALL SIGN
- R REMOVE SIGN
- RL RELOCATE SIGN
- SS INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)



PAVEMENT DELINEATION AND SIGN PLAN
SCALE: 1" = 50'

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR
GRISH BIGLIARIAN

CALCULATED/DESIGNED BY
CHECKED BY

EDGAR HERRERA
GRISH BIGLIARIAN

REVISED BY
DATE REVISED

REVISIONS

ROADWAY QUANTITIES

STATION	PLACE HOT MIX ASPHALT DIKE (TYPE A)	MINOR CONCRETE (CURB)	LEAN CONCRETE BASE	CLASS 3 AGGREGATE BASE	GEOSYNTHETIC PAVEMENT INTERLAYER	HOT MIX ASPHALT (TYPE A)	ROADWAY EXCAVATION	ROADWAY EXCAVATION (TYPE Y-2) (AERIALY DEPOSITED LEAD)	MINOR CONCRETE (TEXTURED PAVING)	COLD PLANE ASPHALT CONCRETE PAVEMENT	ALTERNATIVE FLARED TERMINAL SYSTEM	METAL BEAM GUARD RAILING (WOOD POST)	VEGETATION CONTROL (MINOR CONCRETE)	ABANDON CULVERT	REMOVE CONCRETE CURB	REMOVE HEADWALL
	LF	CY	CY	CY	SQYD	TON	CY	CY	SQFT	SQYD	EA	LF	SQYD	LF	LF	CY
58+50 to 60+30		12	19	35	100	39		75	2452						180	
58+50 to 58+70	20					1										
60+25 to 63+00												275	122			
60+03 to 62+04														201		0.75
60+30 to 61+64						145										
61+00							15		1000	1610						
61+30 to 62+31		9														
61+70																0.75
61+64 to 63+50		15	50	95	248	105	198		4267							
63+00 to 63+45											1		20			
TOTAL	20	36	69	130	348	290	213	75	7719	1610	1	275	142	201	180	1.5

PAVEMENT DELINEATION QUANTITIES

STATION	THERMOPLASTIC TRAFFIC STRIPE				PAVEMENT MARKER	THERMOPLASTIC PAVEMENT MARKINGS		REMOVE				
	4"		8"		RETRO-REFLECTIVE	ARROWS	12"	REMOVE				
	DETAIL 9 (BROKEN 17 - 7)	DETAIL 24 SOLID YELLOW	DETAIL 27B SOLID WHITE	SOLID WHITE	DETAIL 38A SOLID WHITE			TYPE G	YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	THERMOPLASTIC TRAFFIC STRIPE	PAVEMENT MARKER	PAVEMENT MARKING
LF	LF	LF	LF	EA	SQFT	SQFT	LF	LF	EA	SQFT		
55+55 TO 65+00	1645	650	945	40	455	23	145	87	650	2185	36	202
SUBTOTAL	1645	650	945	40	455	36	145	87	650	2185	36	202
TOTAL	1645	1635			455	36	232		650	2185	36	202

ROADSIDE SIGNS

SHEET No	SIGN No	SIGN CODE	PANEL SIZE (in X in)	POST DATA				SIGN FACING MATERIAL	SIGN FACING MATERIAL					FURNISH SINGLE SHEET ALUMINUM SIGN (SQFT)	ROADSIDE SIGN				REMARKS		
				SIZE (in X in)	H (FT)	E (FT)	LENGTH (FT)		SINGLE FACED	BACKGROUND		LEGEND			GRAFFITI FILM PREMIUM	(WOOD)				SADDLE & BRACKET METHOD	
										SHEETING COLOR	RETRO - REFLECTIVE ASTM TYPE	SHEETING COLOR	RETRO - REFLECTIVE ASTM TYPE			NON - REFLECTIVE	UNFRAMED ALUMINUM	ONE POST			REMOVE
	101	R6-3A(MOD)(CA)	54 X 66	4 X 6	4.0	4.5	12.0	X	W	III	B		X	X	24.7	1				TRUCKS 3 AXLES OR MORE U TURN PROHIBITED	
	102	R3-4/R6-1															1			NO U TURN/ONE WAY ON ARROW	
	103	R5-1/R5-1a															1			DO NOT ENTER/WRONG WAY	
	104	R3-4	24 X 24	4 X 4	7.0	3.5	12.0	X	W	III	R/B		X	X	4.0	1				NO U TURN/ONE WAY ON ARROW	
		R6-1	36 X 12					X	W	III	B		X	X	3.0						
	105	R5-1	30 X 30	4 X 6	4.0	4.5	12.0	X	W	III	R		X	X	6.2	1				DO NOT ENTER/WRONG WAY	
		R5-1a	30 X 18					X	W	III	R		X	X	3.8						
	106	SR39A(MOD)(CA)															1			U TURN ON GREEN ARROW ONLY	
	107	R6-3A(MOD)(CA)	54 X 66					X	W	III	B		X	X	24.7				1	TRUCKS 3 AXLES OR MORE U TURN PROHIBITED	
	108	R5-1/R5-1a																	1	DO NOT ENTER/WRONG WAY	
	109	SG																	1	NO TRUCKS (SYMBOL) OVER 7 TONS	
	110	R6-2																	1	ONE WAY WITH ARROW	
	111	R6-2	24 X 30					X	W	III	B		X	X	5.0				1		
	E-1	SR39A(MOD)(CA)	42 X 24					X	W	III	B		X	X	*						U TURN ON GREEN ARROW ONLY
TOTAL												71.4	3	4	2	2					

* PAID AS PART OF ELECTRICAL WORK, FOR INFORMATION ONLY

WATER POLLUTION CONTROL QUANTITIES

STATION	TEMPORARY DRAINAGE INLET PROTECTION
55+55 TO 65+00	3
TOTAL	3

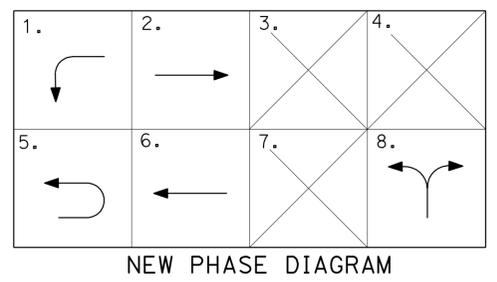
SUMMARY OF QUANTITIES Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	15	49

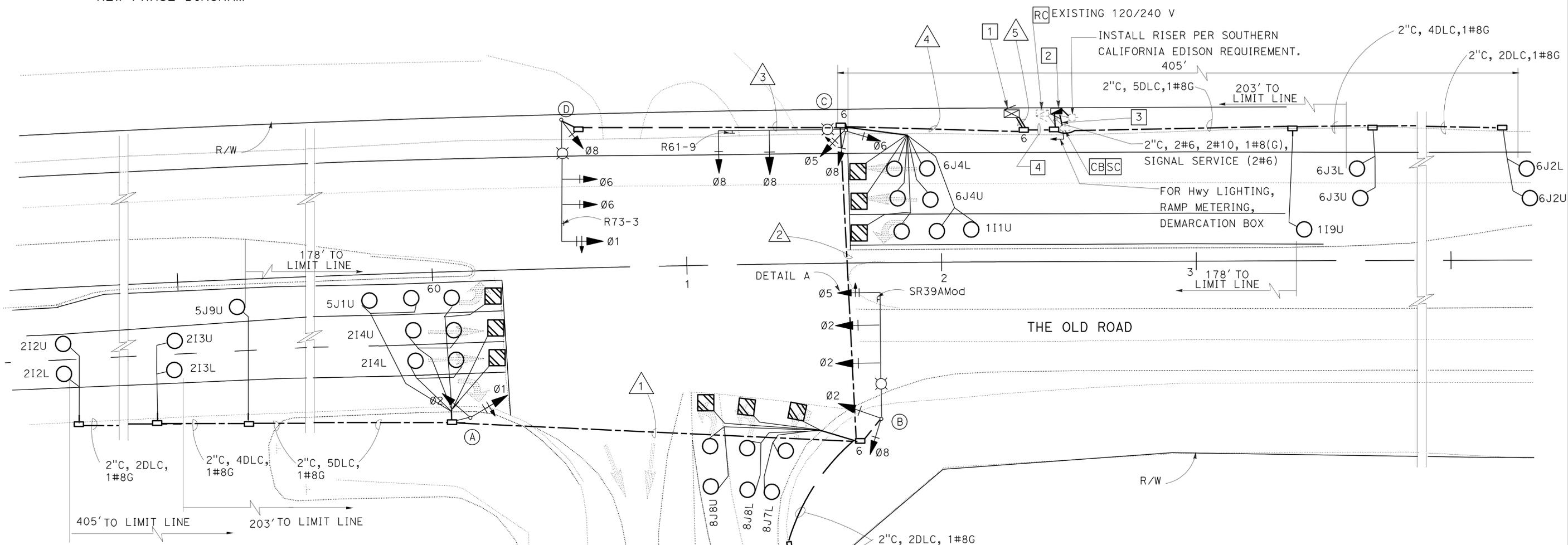
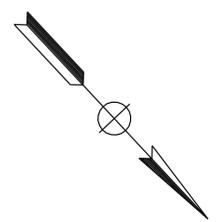
<i>Cesar Hernandez</i>	5/18/12
REGISTERED ELECTRICAL ENGINEER	DATE
6-11-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	CESAR HERNANDEZ
No. 15805	Exp! 2/31/12
ELECTRICAL	

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



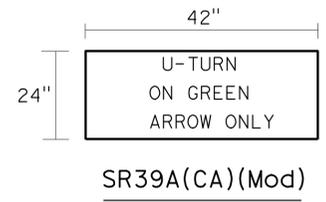
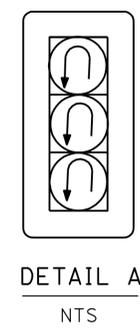
NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL STATE-FURNISHED MODEL 2070 CONTROLLER ASSEMBLY. INSTALL BBS EXTERNAL CABINET, BATTERIES AND STATE-FURNISHED BBS COMPONENTS. THE EXACT LOCATION OF CABINET WILL BE DETERMINED BY THE ENGINEER.
2. INSTALL 120/240 V TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH:
 - METER #1
 - 1-100A, 240V MAIN CIRCUIT BREAKER
 - 1-30 A, 120 V, 1P, CB- RAMP METERING
 - 2-30 A, 240 V, 2P, CB- FREEWAY LIGHTING
 - 1-20 A, 240 V, 1P, CB- TELEPHONE DEMARCATION
 - 1-15 A, 120 V, 1P, CB- PEC
 - METER #2
 - 1-100A, 240V MAIN CIRCUIT BREAKER
 - 1-50 A, 120 V, 1P, CB- TRAFFIC SIGNAL
 - 1-30 A, 240 V, 2P, CB- SAFETY LIGHTING
3. 2" C, RAMP METERING(2#12), Fwy LIGHTING (2#8), TDC (2#12).
4. 2" C, 5DLC, 1#8G, 2#6, 2#10.

FOR POLE AND EQUIPMENT SCHEDULE, AND CONDUIT AND CONDUCTOR SCHEDULE SEE SHEET E-3.



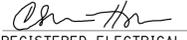
APPROVED FOR ELECTRICAL WORK ONLY

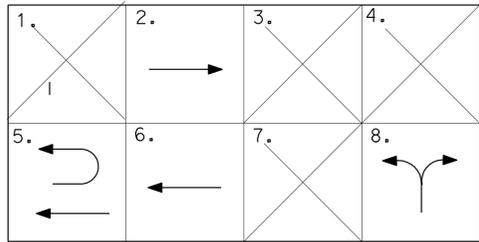
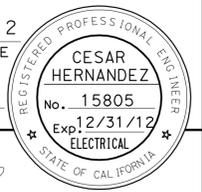
SIGNAL AND LIGHTING

SCALE: 1" = 20'

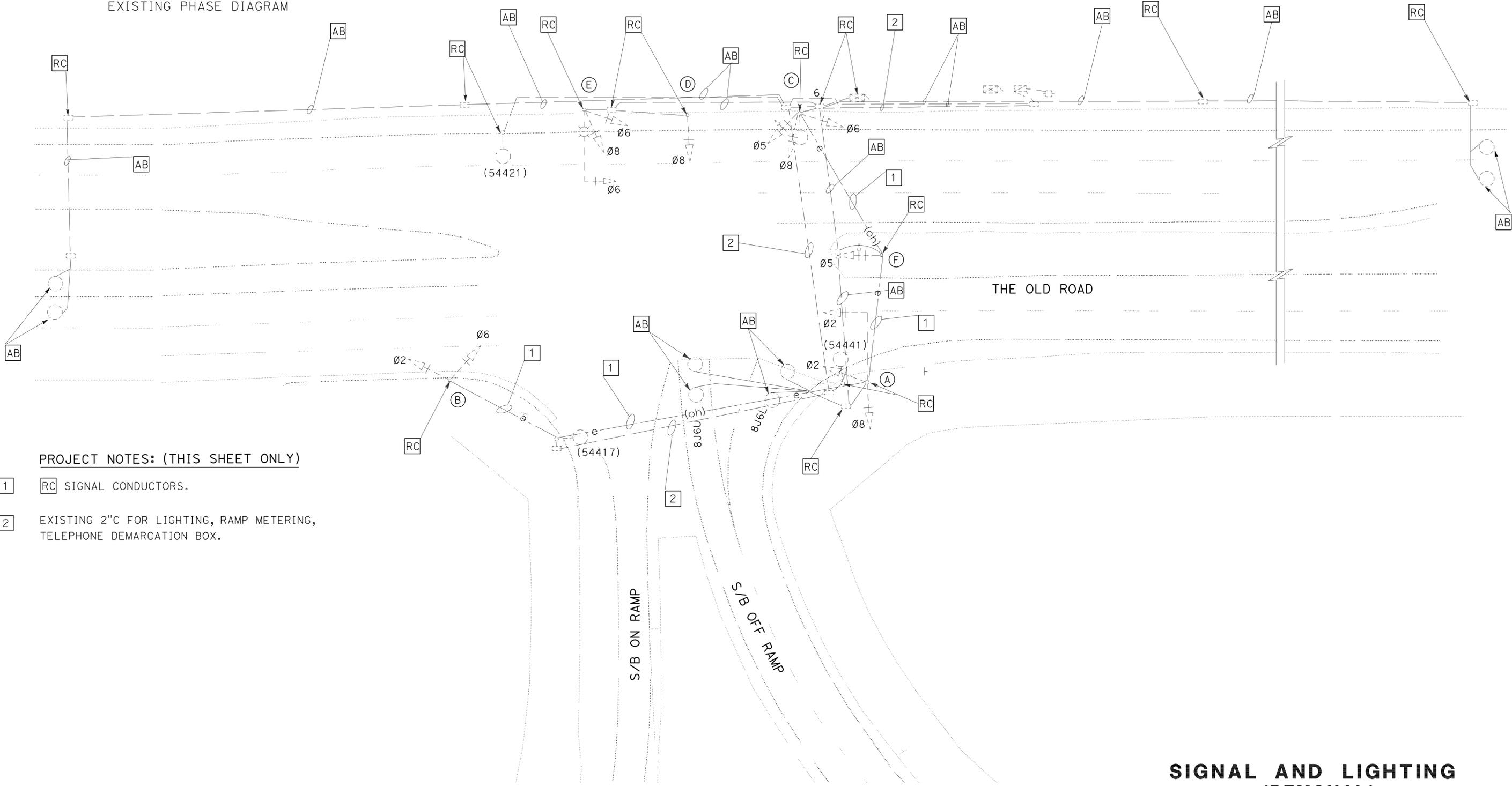
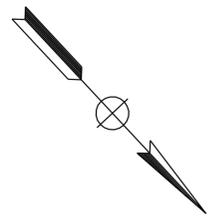
E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: HASSAN MANNA
 CALCULATED/DESIGNED BY: CESAR HERNANDEZ
 CHECKED BY:
 REVISIONS:
 REVISOR: YAGHOUB SHADROOZ
 DATE: 5/18/12
 REVISION: 1
 REVISOR: CESAR HERNANDEZ
 DATE: 5/18/12
 REVISION: 2
 REVISOR:
 DATE:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	16	49
			5/18/12	DATE	
REGISTERED ELECTRICAL ENGINEER					
6-11-12			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



EXISTING PHASE DIAGRAM



PROJECT NOTES: (THIS SHEET ONLY)

- 1 RC SIGNAL CONDUCTORS.
- 2 EXISTING 2" C FOR LIGHTING, RAMP METERING, TELEPHONE DEMARCATION BOX.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: HASSAN MANNA
 CALCULATED/DESIGNED BY: YAGHOUB SHADROOZ
 CHECKED BY: CESAR HERNANDEZ
 REVISED BY: YAGHOUB SHADROOZ
 DATE REVISED: CESAR HERNANDEZ

FOR WIRING DIAGRAM SEE E-4

APPROVED FOR ELECTRICAL WORK ONLY

SIGNAL AND LIGHTING (REMOVAL)

SCALE: 1" = 20'

E-2



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 HASSAN MANNA
 CALCULATED/DESIGNED BY
 CHECKED BY
 YAGHOUB SHADROOZ
 CESAR HERNANDEZ
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	17	49

5/18/12
 REGISTERED ELECTRICAL ENGINEER DATE

6-11-12
 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.

POLE AND EQUIPMENT SCHEDULE FOR E-1

No.	STANDARD			VEH SIG MTG		PED SIGNAL	PPB		HPS LUMINAIRE	REFLECTORIZED SNS
	Type	SMA (Ft)	LMA (Ft)	Mast Arm	Pole	MTG	Ø	ARROW		
(A)	1A	—	—	—	TV-2-T	—	—	—	—	
(B)	29A-5-100	50	12	2 MAS 1 MAT	SV-2-T	—	—	—	310W	
(C)	29-5-100*	55	12	1 MAS 1 MAT	SV-3-T	—	—	—	200W	THE OLD ROAD
(D)	29-5-100**	50	12	2 MAS 1 MAT	SV-1-T	—	—	—	200W	

* — MODIFIED, SEE SHEET SES-1
 ** — MODIFIED, SEE SHEET SES-2

CONDUIT AND CONDUCTOR SCHEDULE FOR E-1

CONDUIT RUN		1	2	3	4	5
28 CONDUCTOR CABLE		1	2	2	2	2
#10 LUMINAIRES		—	2	2	2	—
#6 SIGNAL SERVICE		—	—	—	—	2
#8 GROUND		1	1	1	1	1
DLC	Ø1	—	—	—	1	2
	Ø2	6	6	—	6	6
	Ø5	2	2	—	2	2
	Ø6	—	—	—	2	6
Ø8	—	5	—	5	5	
CONDUIT SIZE		3"	3"	3"	3"	2-3"

SIGNAL AND LIGHTING

APPROVED FOR ELECTRICAL WORK ONLY

LAST REVISION | DATE PLOTTED => 04-SEP-2012
 00-00-00 | TIME PLOTTED => 13:37

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	54.4	18	49

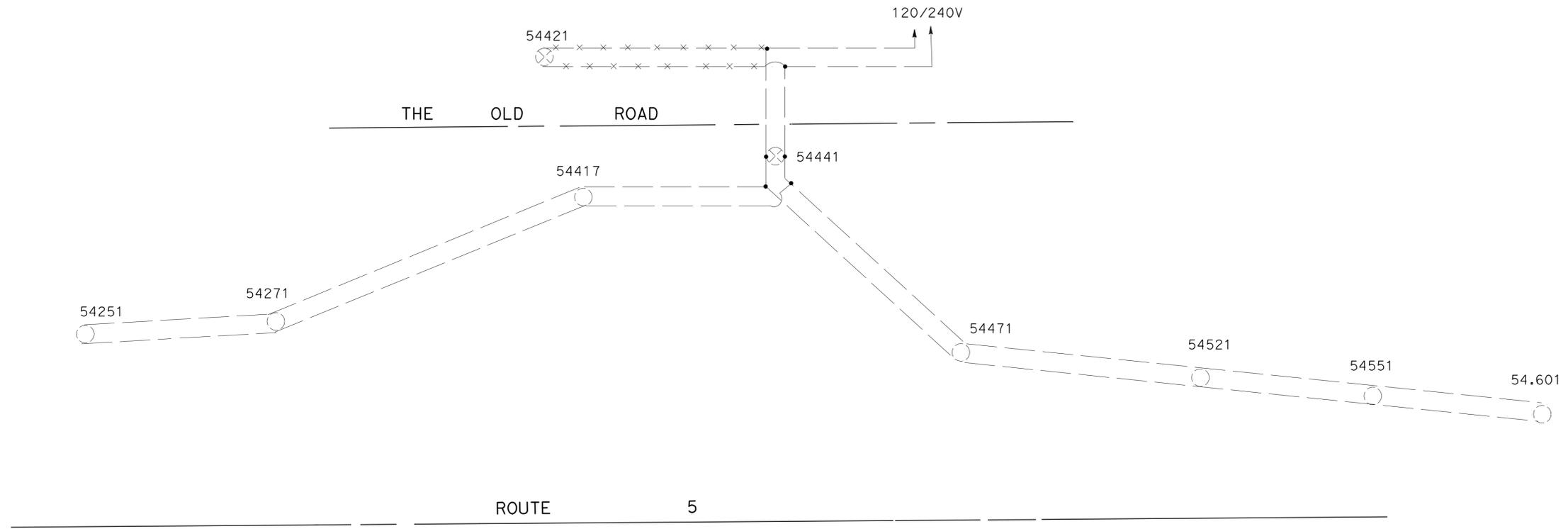
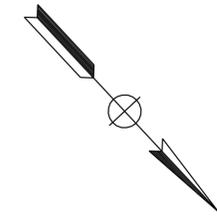
	5/18/12
REGISTERED ELECTRICAL ENGINEER	DATE
6-11-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
CESAR HERNANDEZ
No. 15805
Exp 12/31/12
ELECTRICAL
STATE OF CALIFORNIA

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WIRING DIAGRAM LEGEND: (THIS SHEET ONLY)

- EXISTING LAMP AND BALLAST.
- LAMP AND BALLAST.
- CONDUCTOR.
- EXISTING CONDUCTOR TO REMAIN.
- SPLICE CONDUCTOR



YAGHOUB SHADROOZ	REVISOR
CESAR HERNANDEZ	DATE
CALCULATED/DESIGNED BY	CHECKED BY
HASSAN MANNA	
FUNCTIONAL SUPERVISOR	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	
Caltrans TRAFFIC DESIGN	

**SIGNAL AND LIGHTING
(WIRING DIAGRAM)**

NO SCALE

E-4

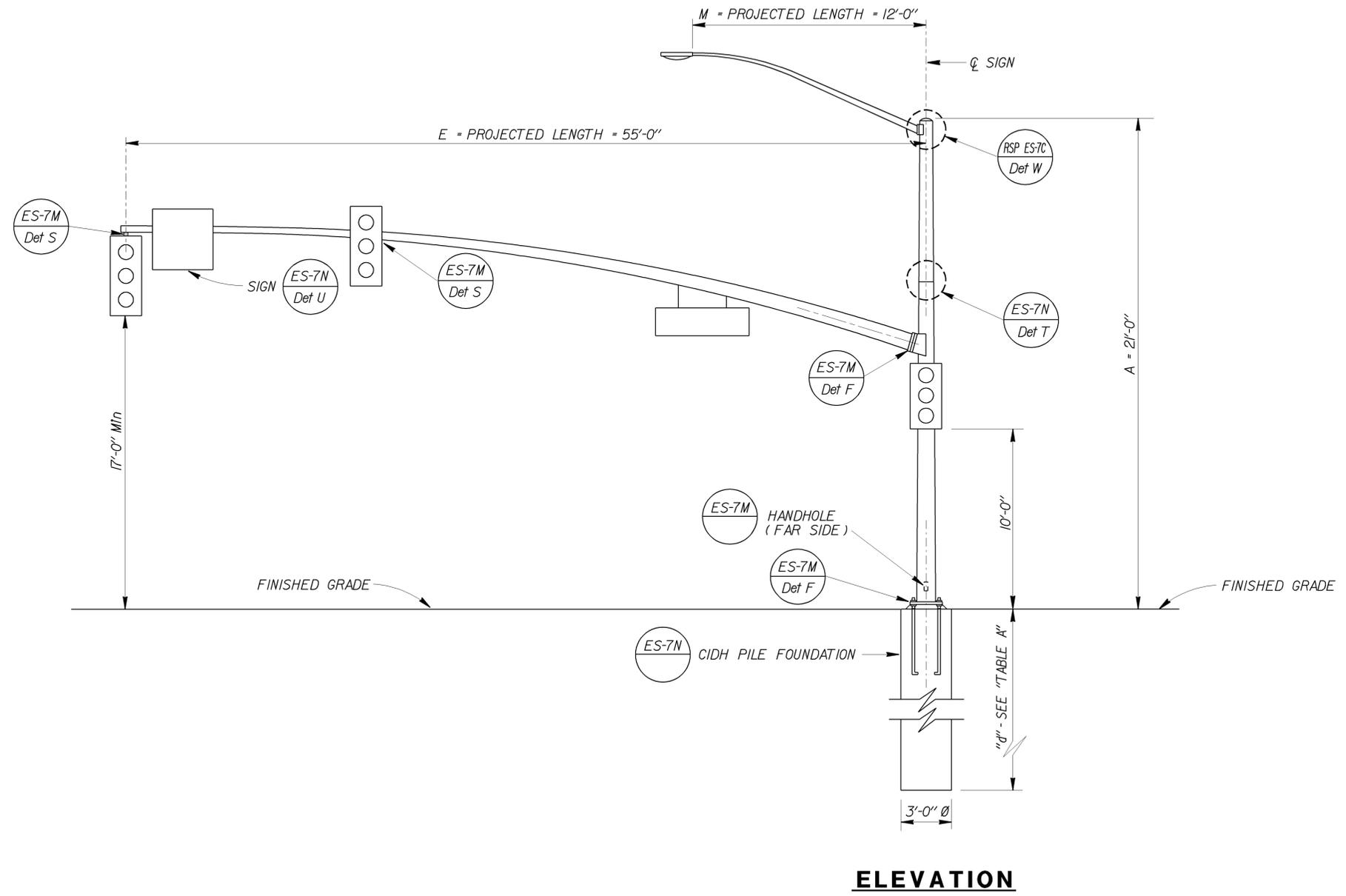
APPROVED FOR ELECTRICAL WORK ONLY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	5	R54.4	19	49

Eliseo Lopez
 REGISTERED CIVIL ENGINEER DATE 5/2/12
 No. C72910
 Exp. 12/31/12
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE _____
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POLE TYPE	POLE DATA			BASE PLATE DATA				"d" - 3'-0" Ø CIDH PILE		STRUCTURAL STEEL LBS PLUS 3.5% GALVANIZING	
	A HEIGHT	Min OD		THICKNESS	C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	LEVEL GROUND		SLOPING GROUND
		BASE	TOP								
29-5-100 (Modified)	21'-0"	14"	1 1/8"	0.3125"	23"	23"	2"	2 1/4" Ø x 5'-0" x 6"	15'-0"	17'-0"	2,854



ELEVATION

GENERAL NOTES:

SPECIFICATIONS

Design : AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, dated 2001.

LOADING

Wind Loading (3 second gust) : 100 MPH

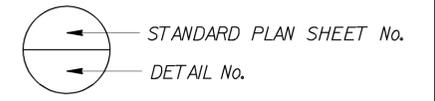
UNIT STRESSES

Structural Steel : $f_y = 48,000$ psi (tapered steel tube)
 $f_y = 36,000$ psi (unless otherwise noted).
 Anchor bolts: $f_y = A307$
 Reinforced Concrete : $f'_c = 3,600$ psi
 $f_y = 60,000$ psi

NOTES:

1. For pole location, see "ELECTRICAL" plans.
2. All steel shall be galvanized after fabrication.
3. During pole erection, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
4. The foundation shall be treated as level ground condition if the slope inclination is flatter than 4H:1V.
5. Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft³.
6. For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS".

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



BRANCH CHIEF **JEFF WOODY**

DESIGN	BY ELISEO LOPEZ	CHECKED JOHN DATILES
DETAILS	BY R. YEE	CHECKED JOHN DATILES
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 DESIGN AND TECHNICAL SERVICES
 SPECIAL DESIGNS BRANCH

NO SCALE

BRIDGE NO.	N/A
POST MILE	R54.4

**TYPE 29-5-100 MODIFIED
 POLE DETAILS**

SES-1

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
 PROJECT ID & PHASE: 07000011995-1
 CONTRACT No.: 07-285001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

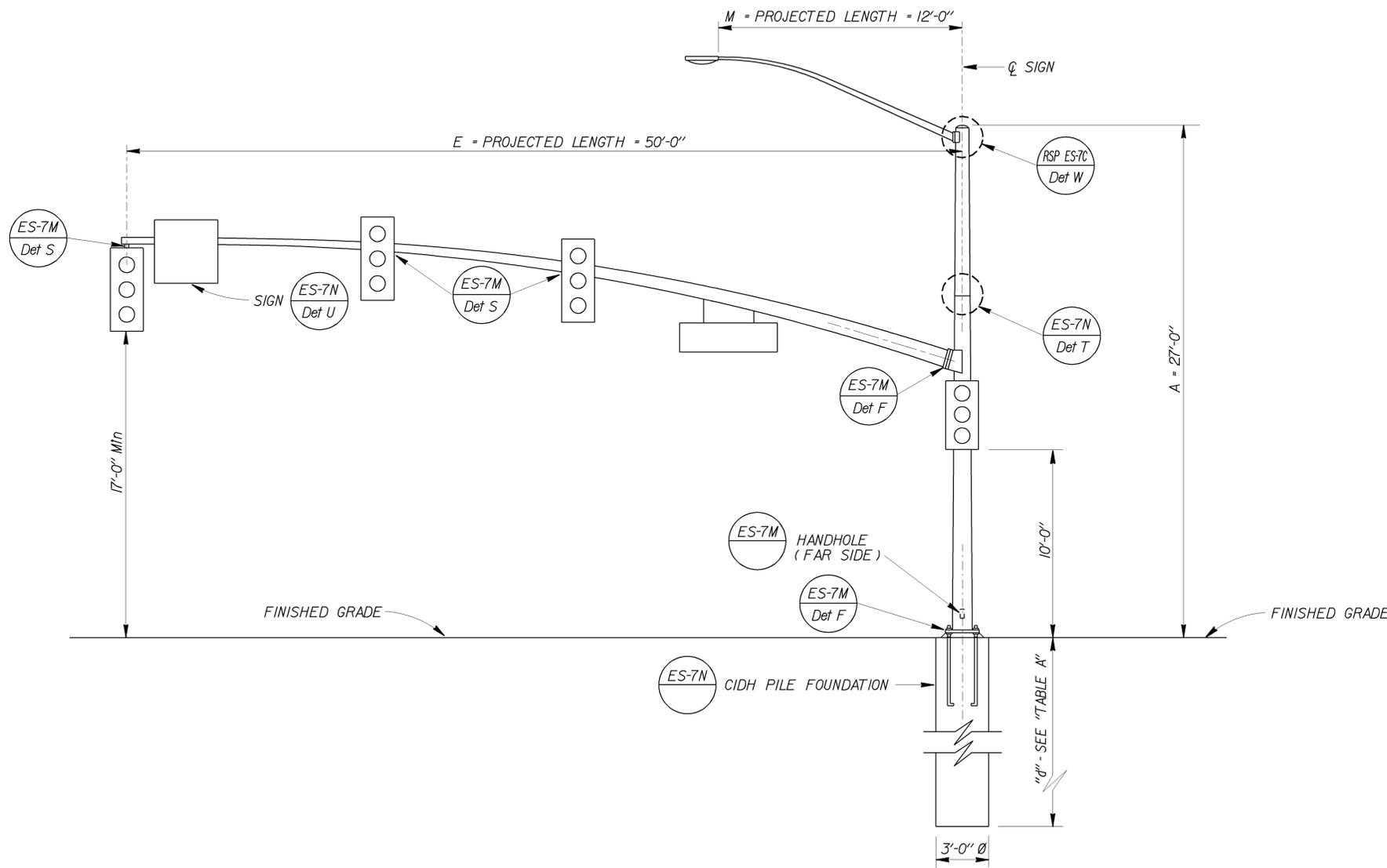
REVISION DATES	SHEET	OF
5/2/12	19	49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	5	R54.4	20	49

Eliseo Lopez
 REGISTERED CIVIL ENGINEER DATE 5/2/12
 No. C72910
 Exp. 12/31/12
 CIVIL
 STATE OF CALIFORNIA

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

POLE TYPE	POLE DATA				BASE PLATE DATA				"d" - 3'-0" Ø CIDH PILE		STRUCTURAL STEEL LBS PLUS 3.5% GALVANIZING
	A HEIGHT	Min OD		THICKNESS	C	BC = BOLT CIRCLE	THICKNESS	ANCHOR BOLT SIZE	LEVEL GROUND	SLOPING GROUND	
		BASE	TOP								
29-5-100 (Modified)	27'-0"	14"	10 ⁹ / ₁₆ "	0.3125"	23"	23"	2"	2 1/4" Ø x 5'-0" x 6"	15'-0"	17'-0"	2,901.5



ELEVATION

GENERAL NOTES:

SPECIFICATIONS

Design : AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, dated 2001.

LOADING

Wind Loading (3 second gust) : 100 MPH

UNIT STRESSES

Structural Steel : $f_y = 48,000$ psi (tapered steel tube)
 $f_y = 36,000$ psi (unless otherwise noted).

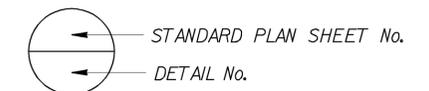
Anchor bolts : $f_y = A307$

Reinforced Concrete : $f'_c = 3,600$ psi
 $f_y = 60,000$ psi

NOTES:

- For pole location, see "ELECTRICAL" plans.
- All steel shall be galvanized after fabrication.
- During pole erection, the post shall be raked as necessary with the use of levelling nuts to provide a plumb pole axis.
- The foundation shall be treated as level ground condition if the slope inclination is flatter than 4H:1V.
- Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft³.
- For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS".

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



BRANCH CHIEF **JEFF WOODY**

DESIGN	BY <i>ELISEO LOPEZ</i>	CHECKED <i>JOHN DATILES</i>
DETAILS	BY <i>R. YEE</i>	CHECKED <i>JOHN DATILES</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 DESIGN AND TECHNICAL SERVICES
 SPECIAL DESIGNS BRANCH

BRIDGE NO.	N/A
POST MILE	R54.4

TYPE 29-5-100 MODIFIED
POLE DETAILS

SES-2

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)



UNIT: 3619
 PROJECT ID & PHASE: 0700001995-1

CONTRACT No.: 07-285001

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	6/6/12 5/2/12 4/11/12 5/2/12		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	21	49

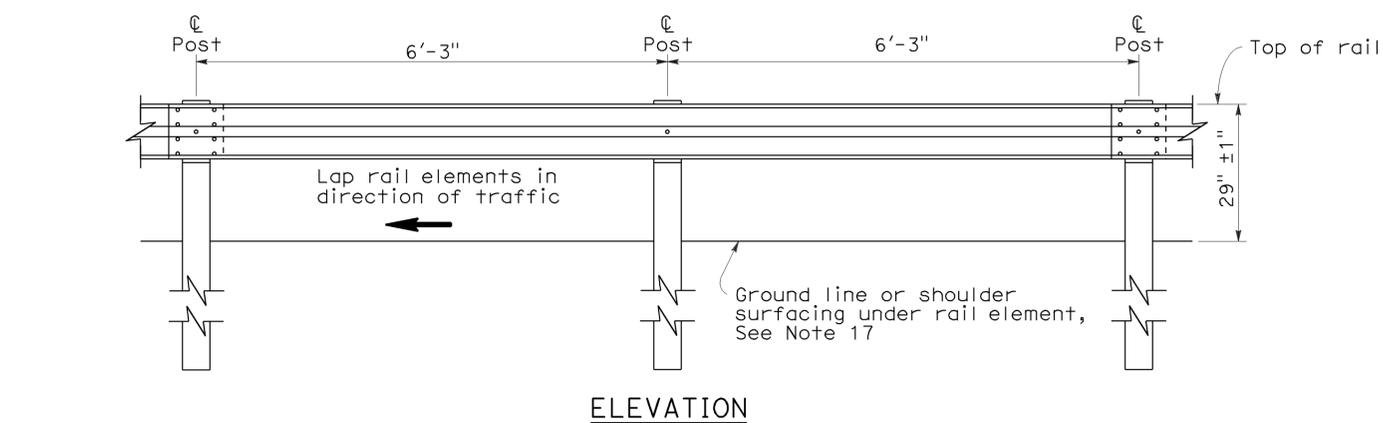
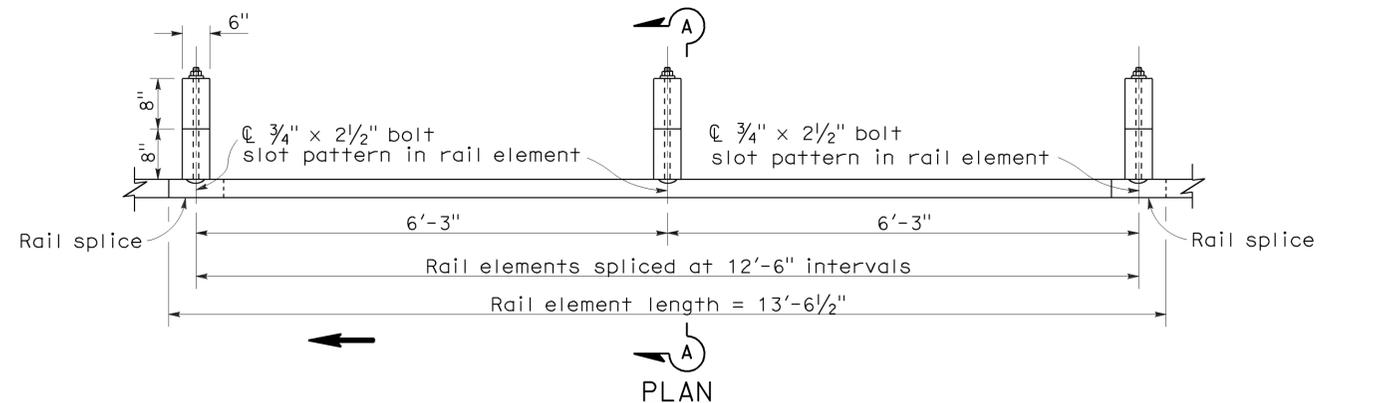
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

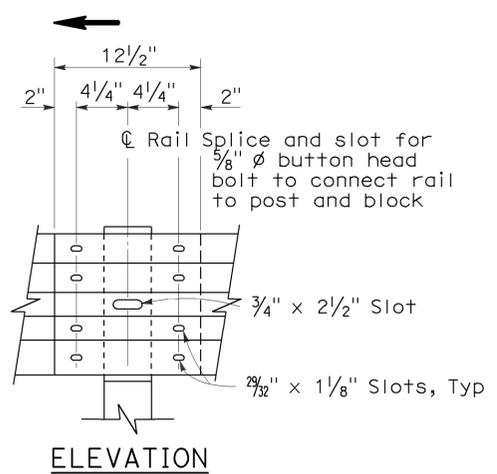
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To accompany plans dated 6-11-12

2006 REVISED STANDARD PLAN RSP A77A1

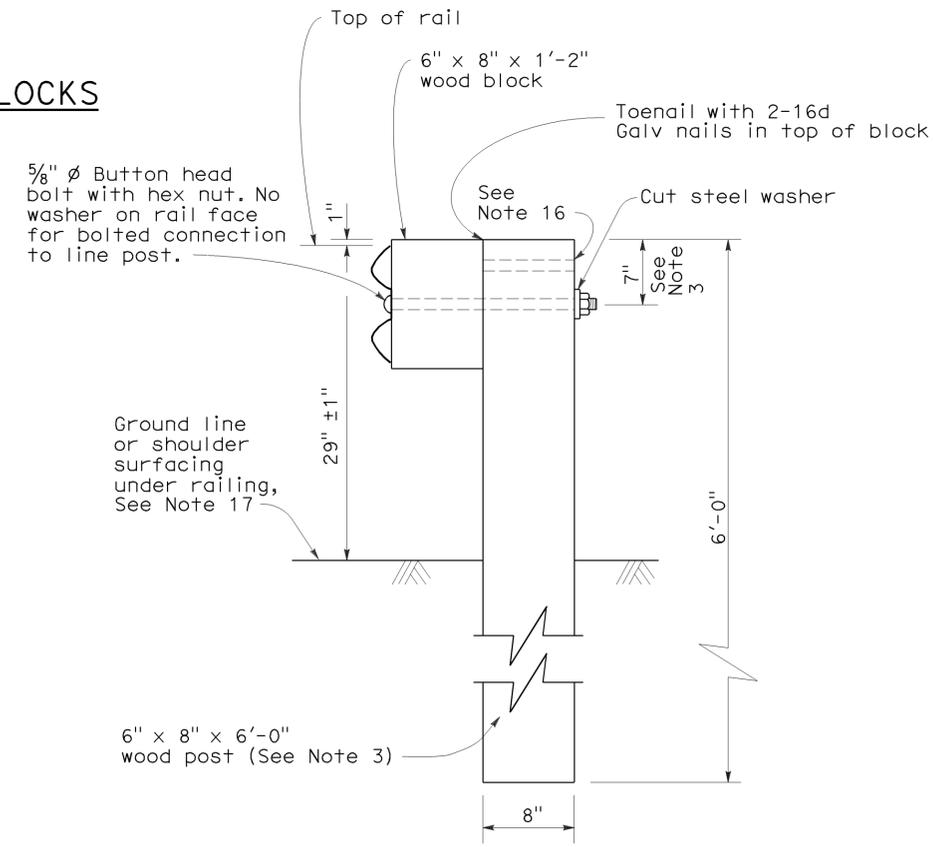
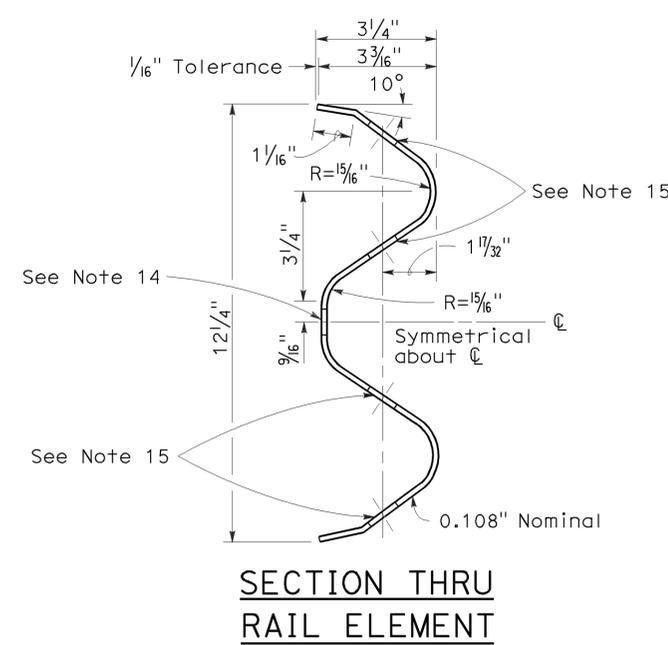


METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS



RAIL ELEMENT SPLICE DETAIL

- Connect the over lapped end of the rail elements with 5/8" ϕ x 1 3/8" button head oval shoulder splice bolts inserted into the 2 9/32" x 1 1/8" slots and bolted together with 5/8" ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



**SECTION A-A
TYPICAL WOOD LINE
POST INSTALLATION**

See Note 4

NOTES:

- For details of steel post installations, see Standard Plan A77A2.
- For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- For details of wood posts and wood blocks used to construct guard railing, see Standard Plan A77C1.
- For additional installation details, see Standard Plan A77C3.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- For guard railing typical layouts, see the A77E, A77F and A77G Series of Standard Plans.
- For terminal system end treatment details, see the A77L Series of Standard Plans. To connect railing to terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
- For guard railing end anchor details, see Standard Plans A77H1 and A77I2.
- For details of guard railing transition to bridge railing, see Standard Plan A77J4.
- For additional details of guard railing connection to bridge railings, see Standard Plans A77J1, A77J2 and A77K1.
- For guard railing connection details to abutments and walls, see Standard Plan A77J3.
- Direction of adjacent traffic indicated by \rightarrow .
- For typical guard railing delineation and dike positioning details, see Standard Plan A77C4.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Standard Plan A77C1.
- Install posts in soil.

**METAL BEAM GUARD RAILING
STANDARD RAILING SECTION
(WOOD POST WITH
WOOD BLOCK)**

NO SCALE

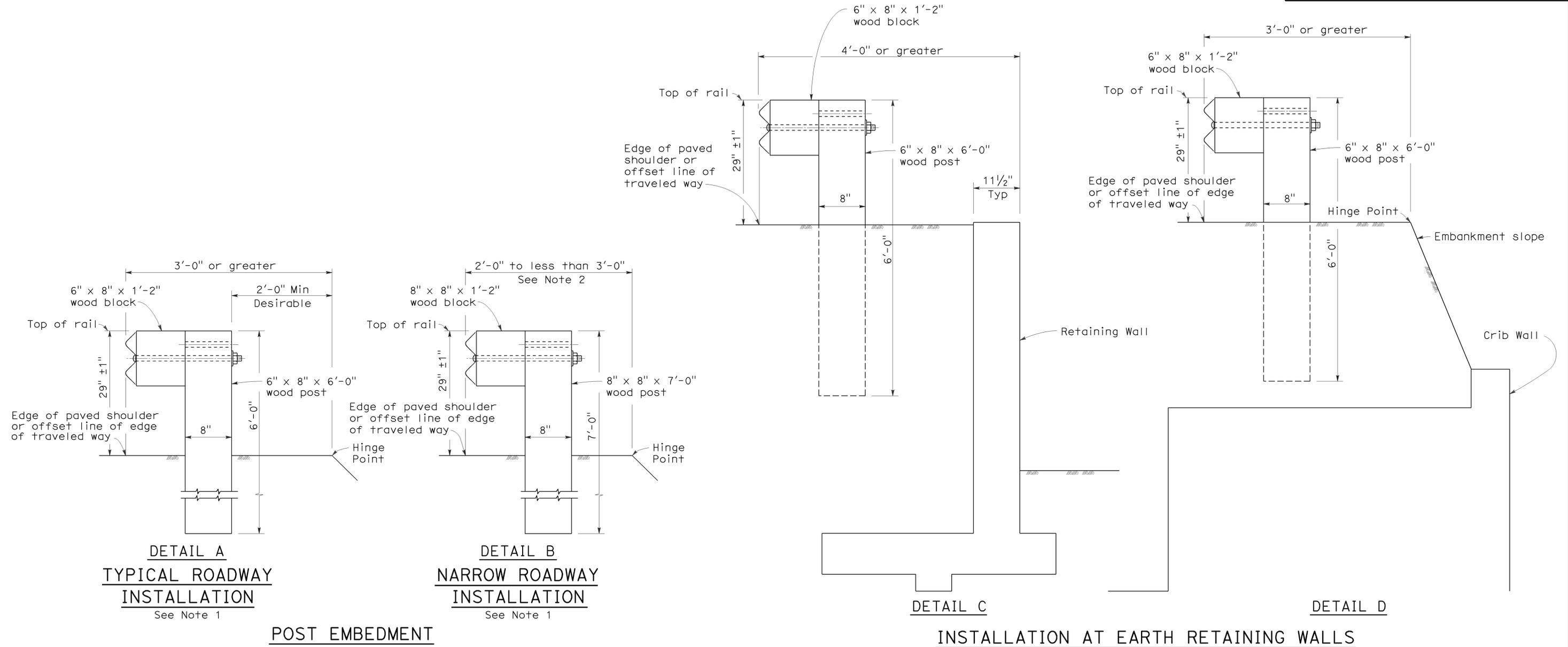
To accompany plans dated 6-11-12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	22	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

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NOTES:

1. These installation details also applicable to steel line post installations. For Detail A, C, and D, where steel line post installations are constructed, W6 x 9 steel post, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For Detail B, where steel line post installations are constructed, W6 x 9 steel post, 7'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks are to be used in place of the size of wood post and wood block shown. For additional installation details, see Standard Plans A77A1 and A77A2.
2. Where the distance between the face of the rail and the hinge point is less than 2'-0", see the Project Plans for special details.
3. For dike positioning with guard railing installations, see Standard Plan A77C4.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL LINE POST
EMBEDMENT AND
HINGE POINT OFFSET DETAILS**

NO SCALE

RSP A77C3 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77C3
DATED MAY 1, 2006 - PAGE 46 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C3

2006 REVISED STANDARD PLAN RSP A77C3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	23	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

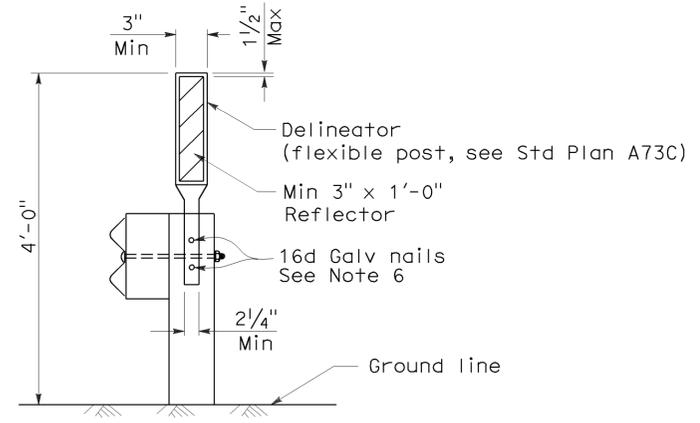
May 20, 2011
PLANS APPROVAL DATE

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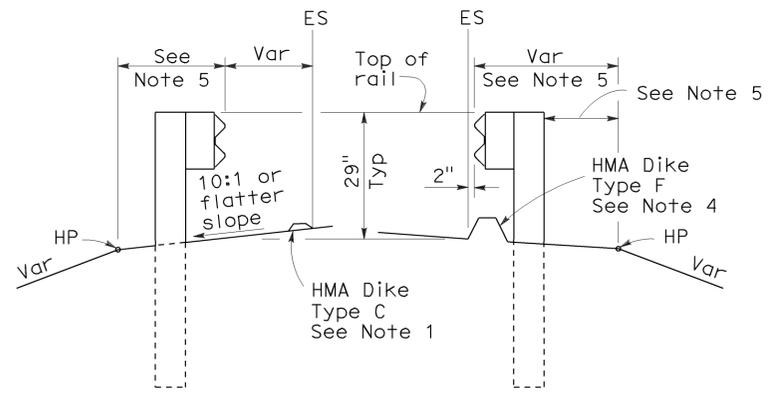
To accompany plans dated 6-11-12

NOTES:

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Standard Plans A87A and A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**
NO SCALE

RSP A77C4 DATED MAY 20, 2011 SUPERSEDES RSP A77C4 DATED JUNE 6, 2008 AND STANDARD PLAN A77C4 DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

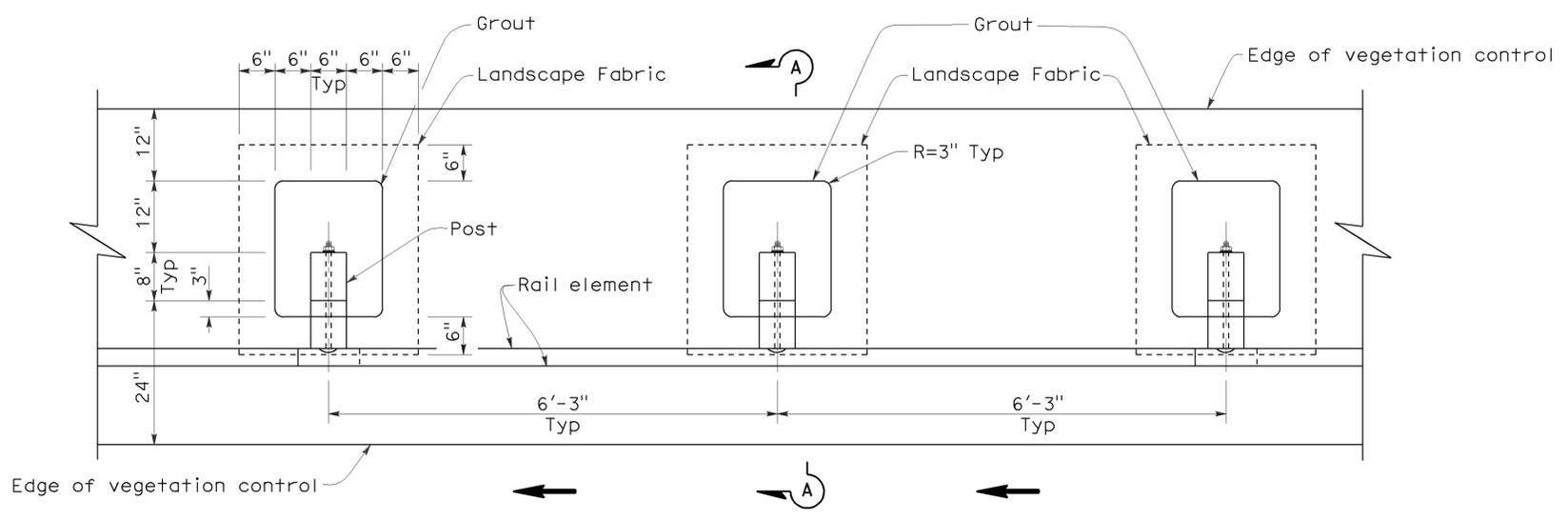
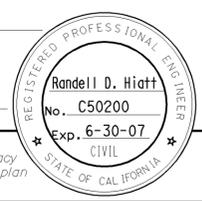
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	24	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

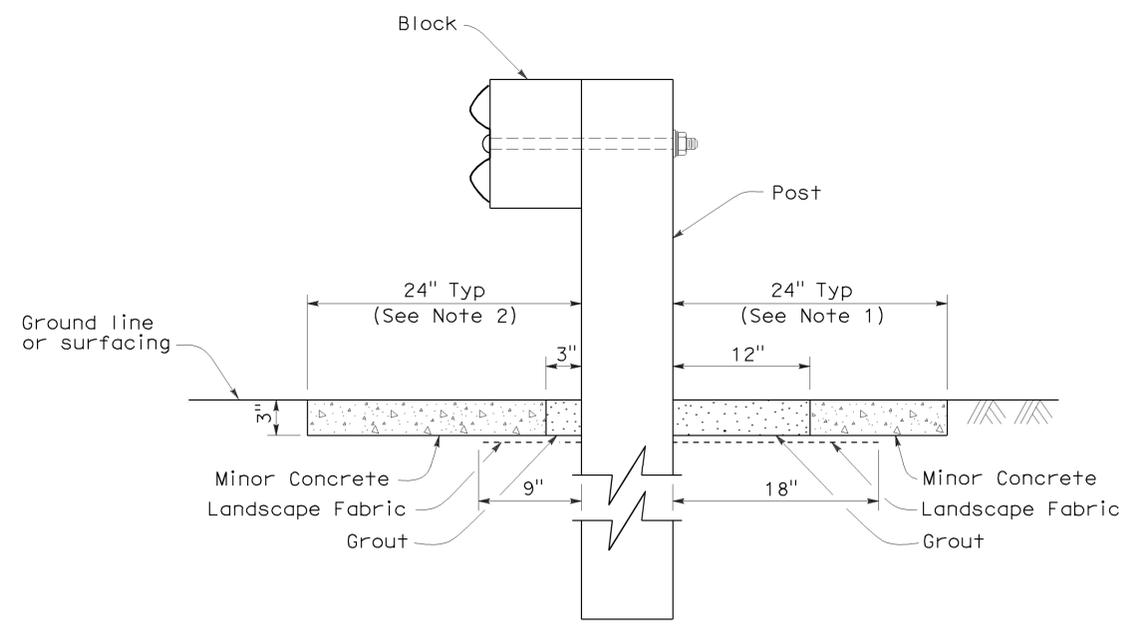
October 20, 2006
PLANS APPROVAL DATE

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To accompany plans dated 6-11-12



PLAN



SECTION A-A

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
STANDARD RAILING SECTION**

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C5

2006 NEW STANDARD PLAN NSP A77C5

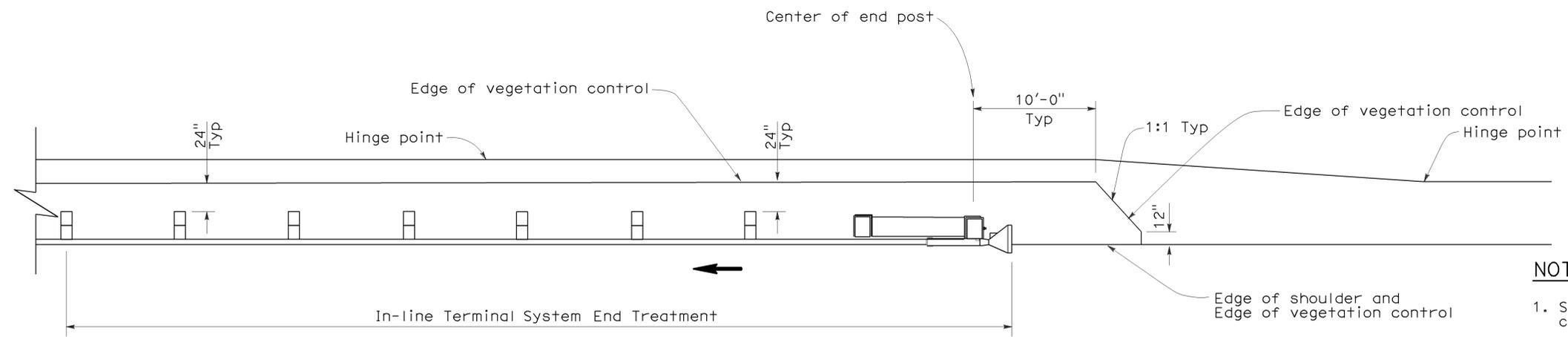
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	25	49

RANDALL D. HIATT
 REGISTERED CIVIL ENGINEER
 No. C50200
 Exp. 6-30-07
 STATE OF CALIFORNIA
 CIVIL

October 20, 2006
 PLANS APPROVAL DATE

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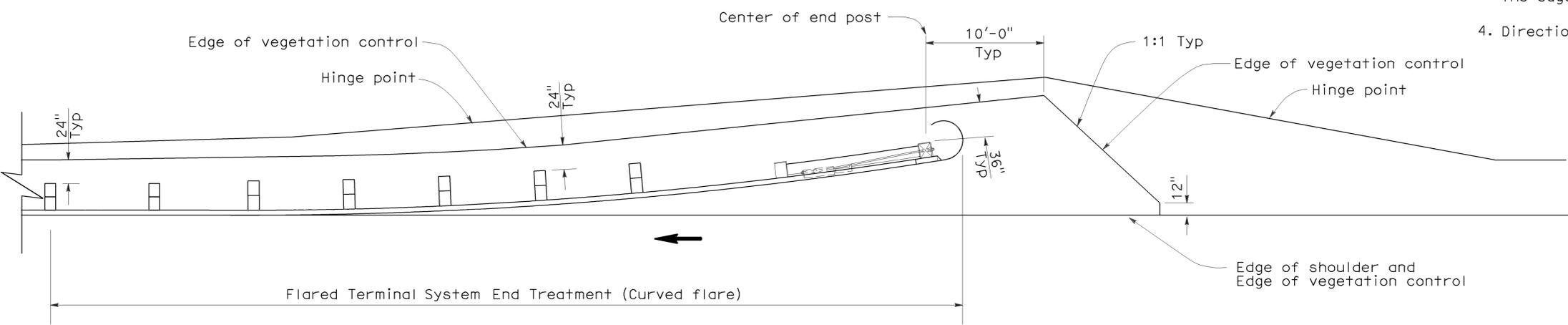
To accompany plans dated 6-11-12



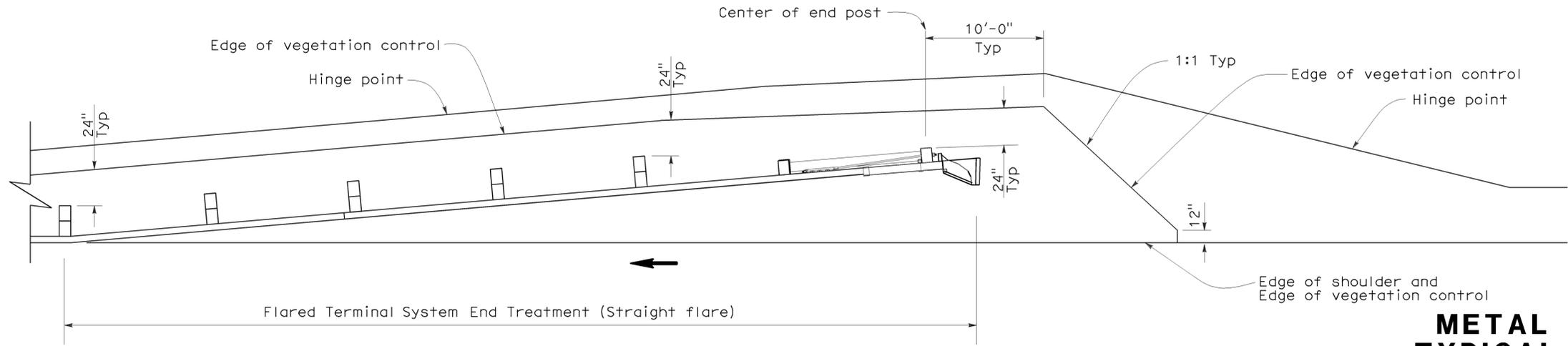
PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN



PLAN

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
FOR TERMINAL SYSTEM END TREATMENTS**

NO SCALE
NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD
PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C6

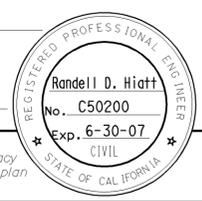
2006 NEW STANDARD PLAN NSP A77C6

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	26	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

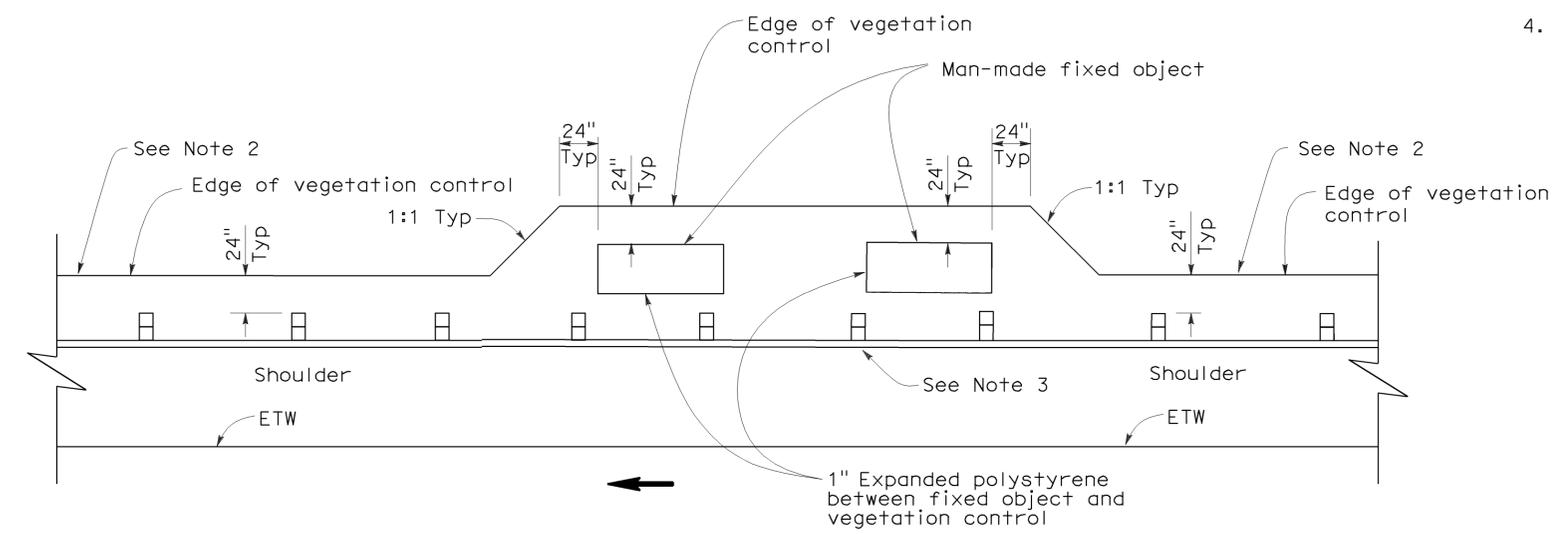
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To accompany plans dated 6-11-12

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN
FIXED OBJECT(S) ON SHOULDER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
AT FIXED OBJECT**

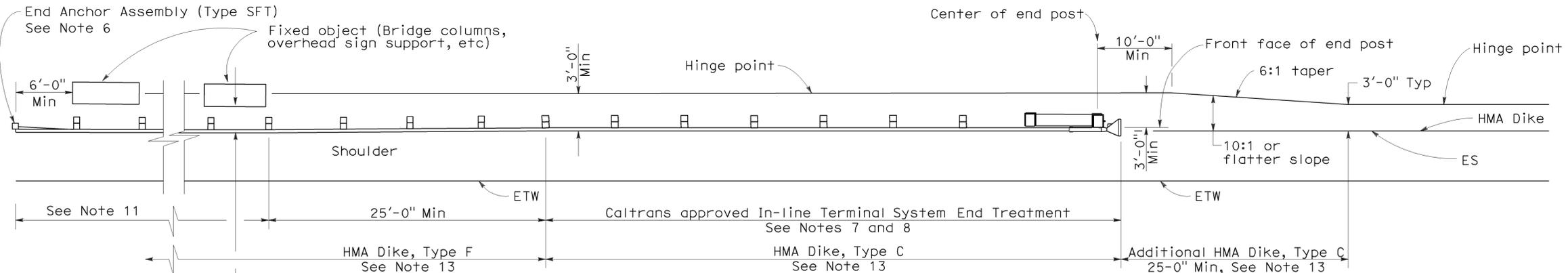
NO SCALE
NSP A77C8 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD
PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP A77C8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	27	49

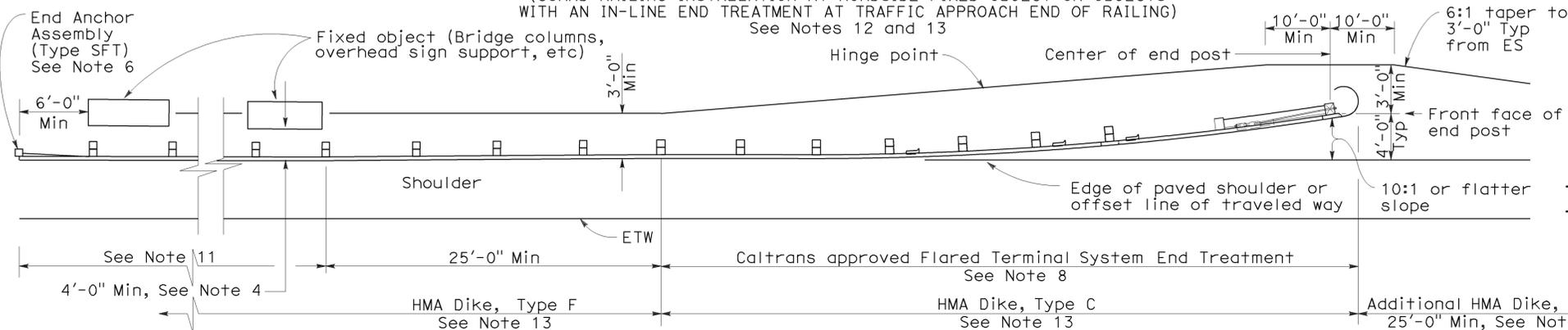
RANDALL D. HIATT
 REGISTERED CIVIL ENGINEER
 No. C50200
 Exp. 6-30-09
 STATE OF CALIFORNIA
 CIVIL

June 6, 2008
 PLANS APPROVAL DATE
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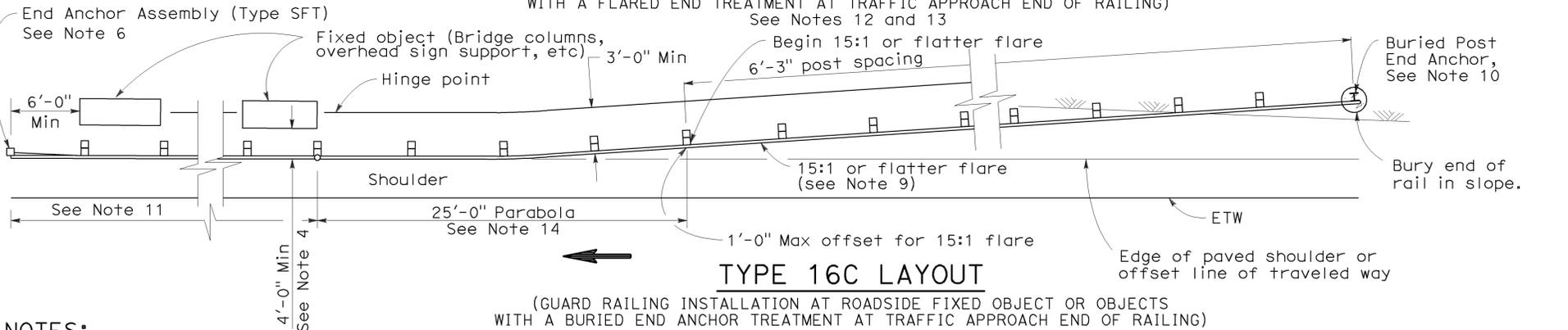
TYPE 16A LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



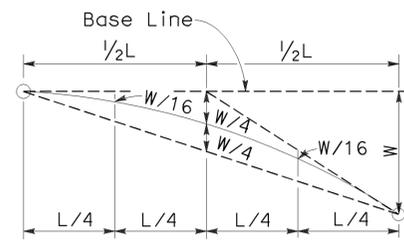
TYPE 16B LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13

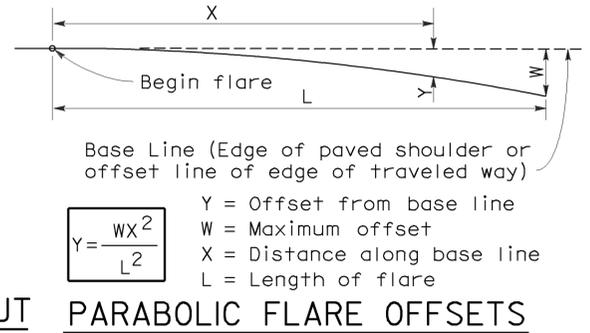


TYPE 16C LAYOUT

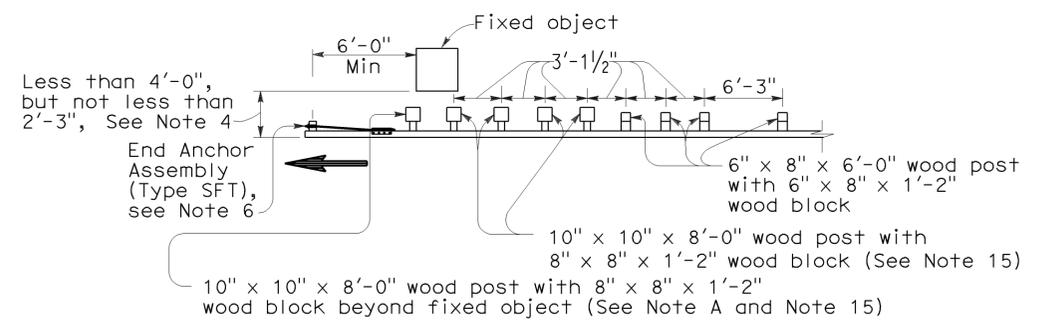
(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



TYPICAL PARABOLIC LAYOUT



PARABOLIC FLARE OFFSETS



NOTE A:

For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1/2" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Types 16A, 16B or 16C Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4

NOTES:

- Line post, blocks and hardware to be used are shown on Revised Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
- Direction of adjacent traffic indicated by \rightarrow .
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system to be used will be shown on the Project Plans.
- The 15:1 or flatter flare used with Type 16C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Standard Plan A77I2.
- As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
- Layout Types 16A, 16B or 16C are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for only one direction of traffic.
- Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77G3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G3
DATED MAY 1, 2006 - PAGE 61 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G3

2006 REVISED STANDARD PLAN RSP A77G3

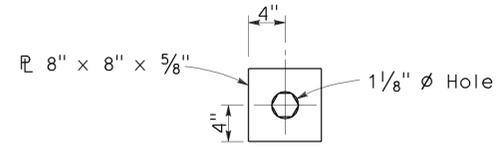
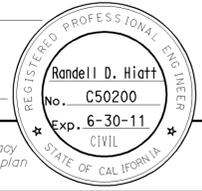
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	28	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

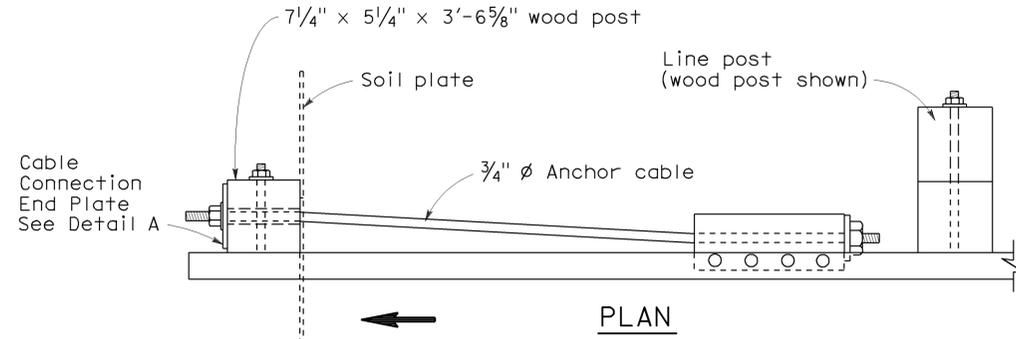
May 20, 2011
PLANS APPROVAL DATE

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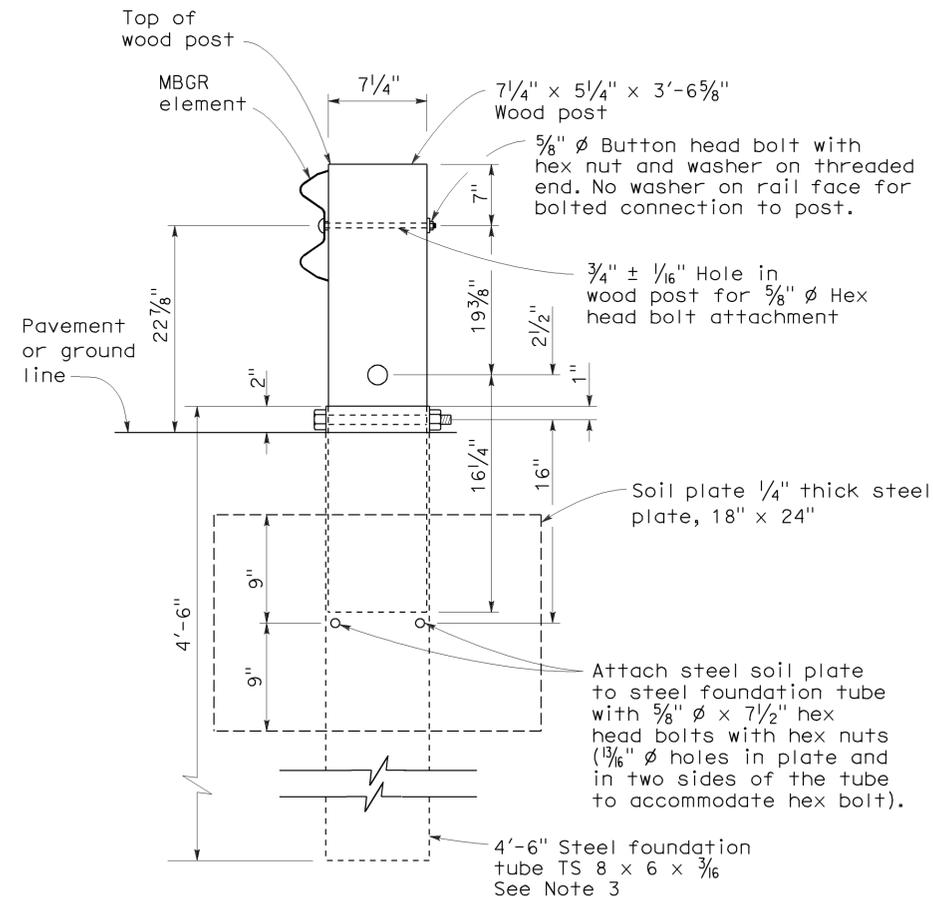
To accompany plans dated 6-11-12



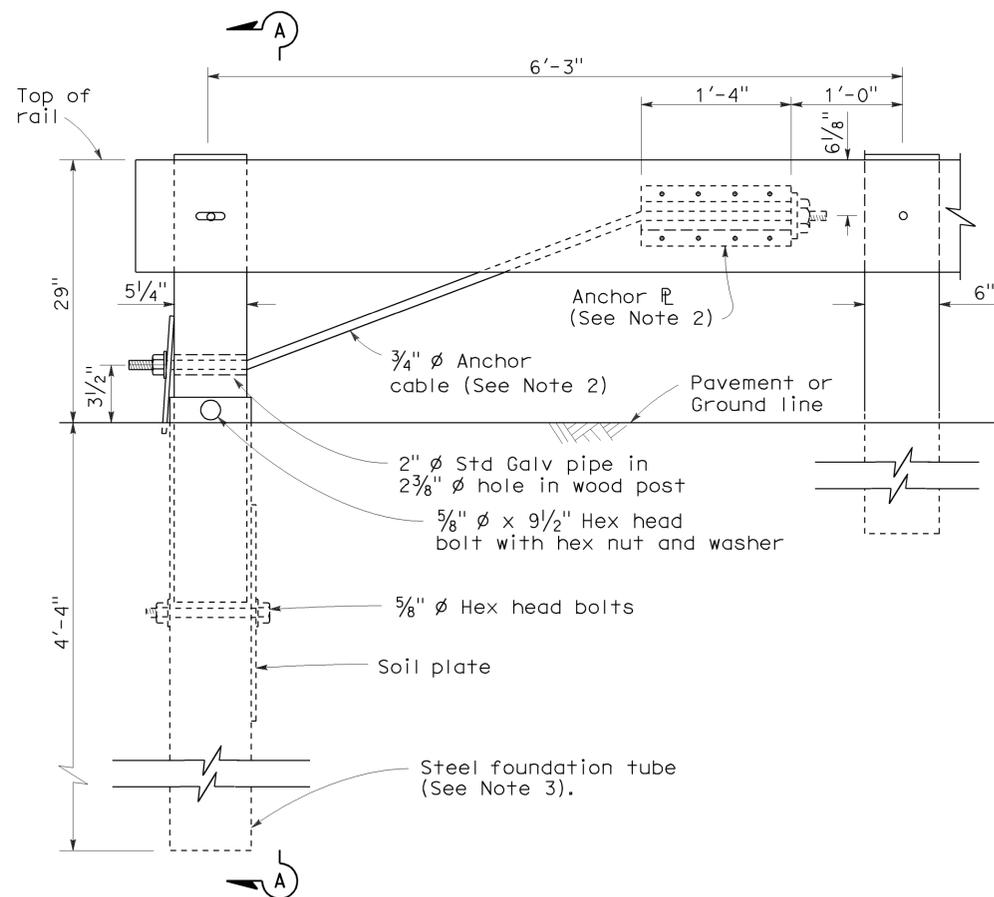
DETAIL A
CABLE CONNECTION
END PLATE



PLAN



SECTION A-A



ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)
See Note 1

NOTES:

1. See the A77E, A77F and A77G series of Standard Plans for typical use of End Anchor Assembly (Type SFT).
2. For details of the anchor plate and 3/4" cable, see Standard Plan A77H3.
3. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
4. Direction of traffic indicated by .
5. Install line post, steel foundation tube and soil plate in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
METAL RAILING
END ANCHOR ASSEMBLY
(TYPE SFT)

NO SCALE

RSP A77H1 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77H1
DATED MAY 1, 2006 - PAGE 67 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77H1

2006 REVISED STANDARD PLAN RSP A77H1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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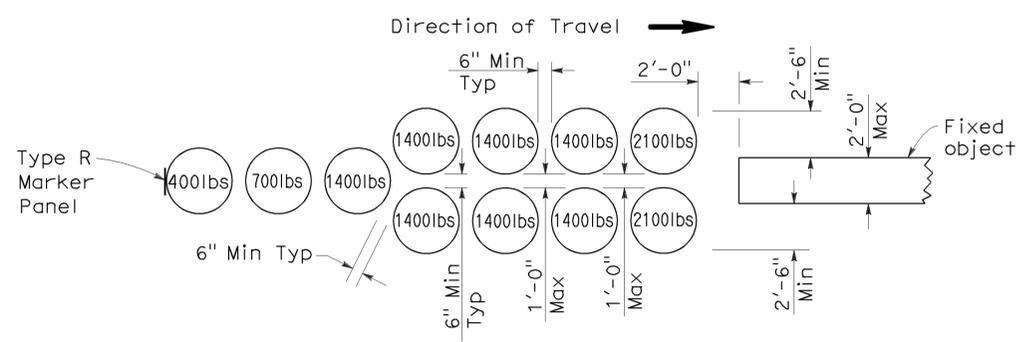
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

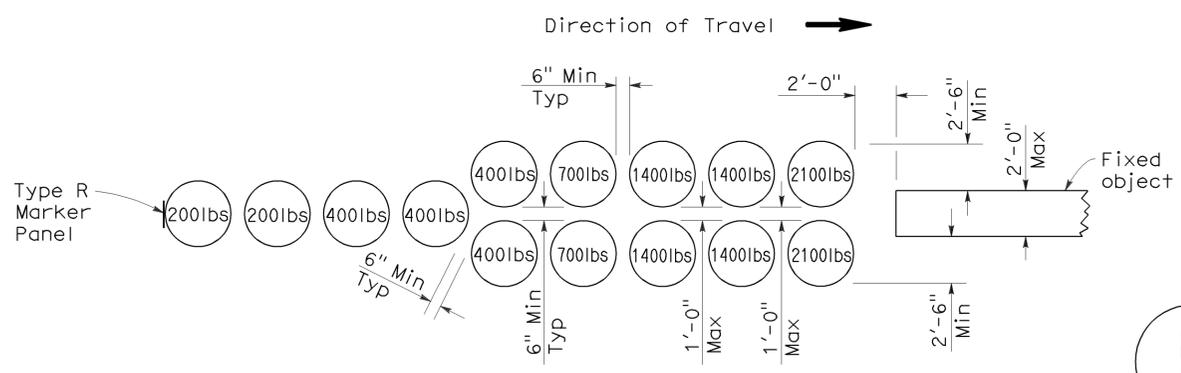
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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

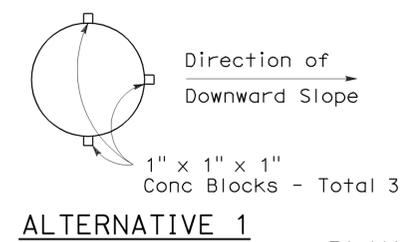
To accompany plans dated 6-11-12



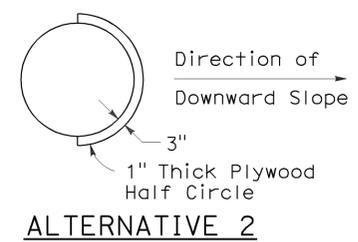
Direction of Travel →
ARRAY 'U11'
Approach speed less than 45 mph



Direction of Travel →
ARRAY 'U14'
Approach speed 45 mph or more

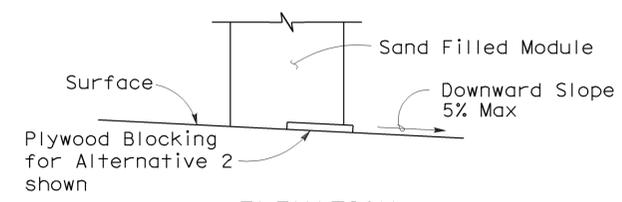


ALTERNATIVE 1



ALTERNATIVE 2

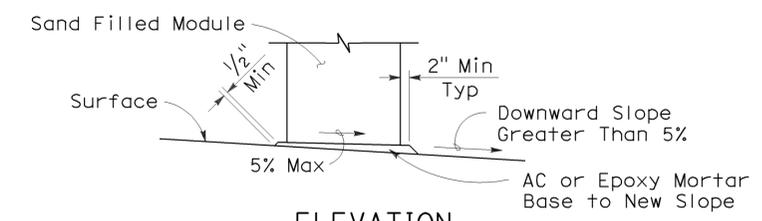
PLAN



ELEVATION

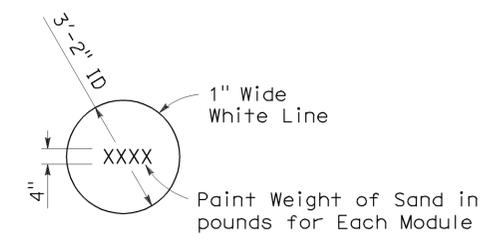
BRIDGE DECK MODULE BLOCKING DETAILS

(See Note 6)



ELEVATION
SLOPED SEAT DETAIL

(See Note 4)



PAINTING DETAIL

(See Note 5)

NOTES:

1. (XXX) Indicates module location and mass of sand in pounds for each module. Module spacing is based on the greater diameter of the modules.
2. All sand weights are nominal.
3. Each module is to contain amount of sand indicated, supported according to the manufacturer's instructions.
4. Modules shall be placed on asphalt concrete, epoxy mortar or concrete surface. Modules to be placed on surfacing with greater than 5% downward slope shall be seated as shown.
5. Mass of sand and outline of each module shall be painted on the surface at each module location.
6. Module blocking, epoxied to the deck surface, is required for all modules placed on bridge decks. Two acceptable alternatives are shown. Other alternatives recommended by the manufacturer and approved by the Engineer will be accepted.
7. Place the top of the Type R marker panel 1" below the module lid.
8. Approach speeds indicated conform to NCHRP Report criteria.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP A81A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A81A
DATED MAY 1, 2006 - PAGE 99 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A81A

2006 REVISED STANDARD PLAN RSP A81A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	30	49

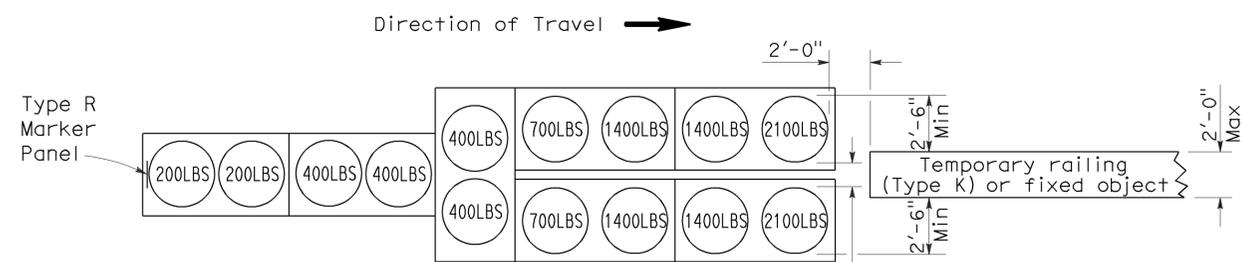
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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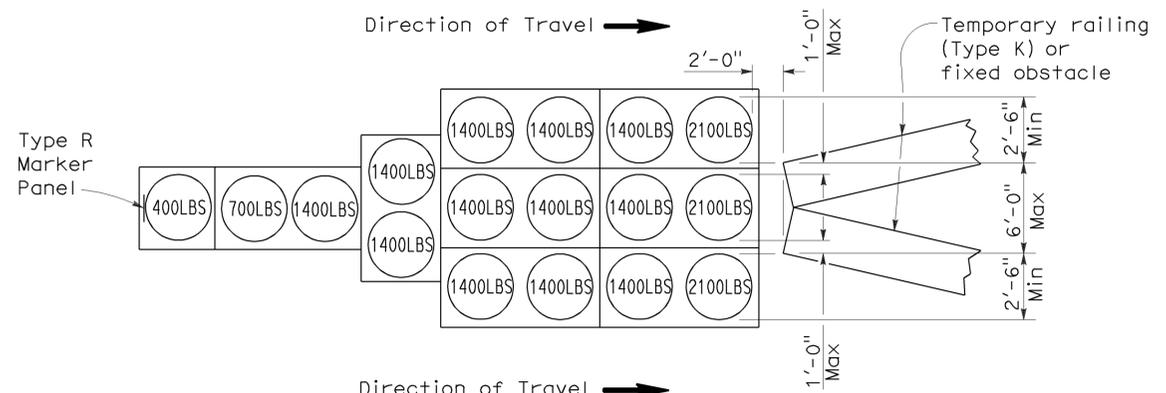
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 6-11-12



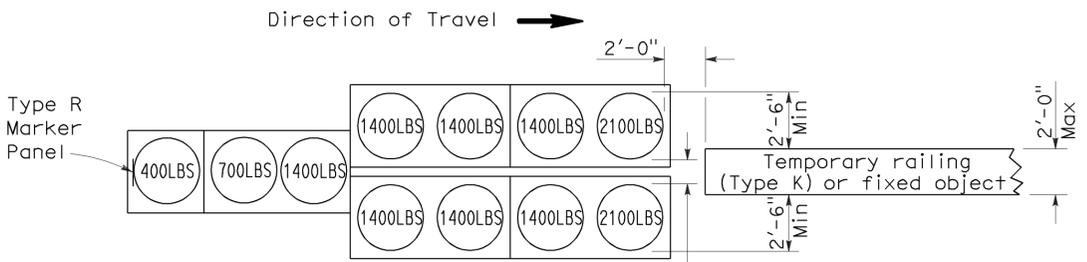
ARRAY 'TU14'

Approach speed 45 mph or more



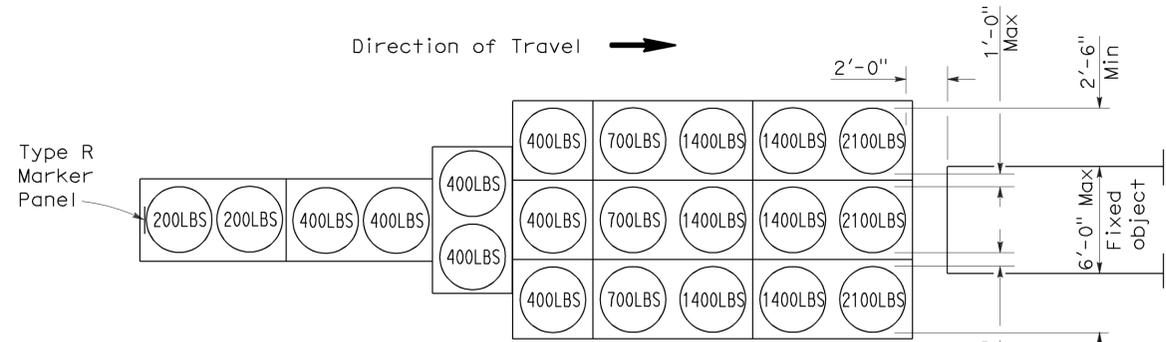
ARRAY 'TU17'

Approach speed less than 45 mph



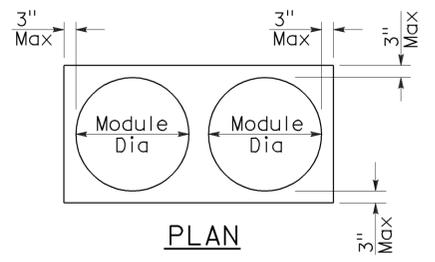
ARRAY 'TU11'

Approach speed less than 45 mph

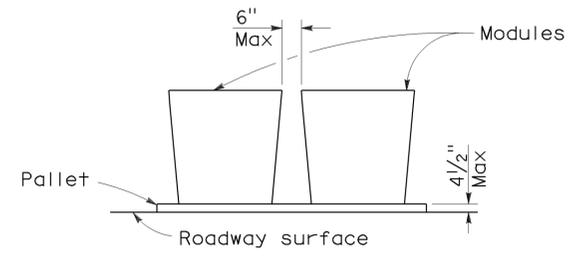


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

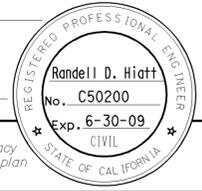
2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	31	49

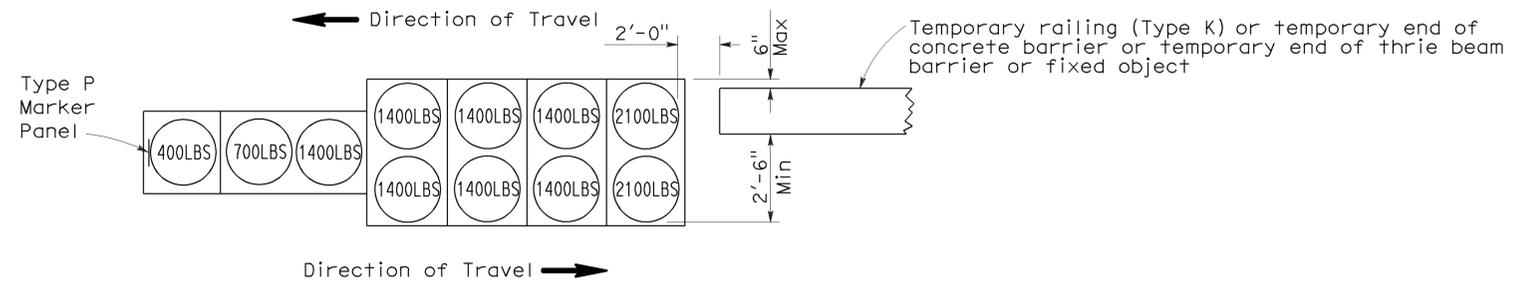
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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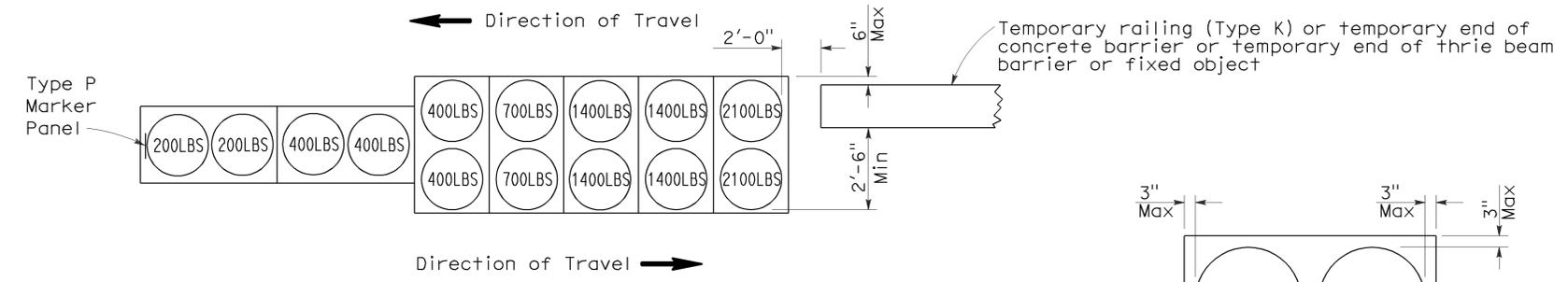


To accompany plans dated 6-11-12



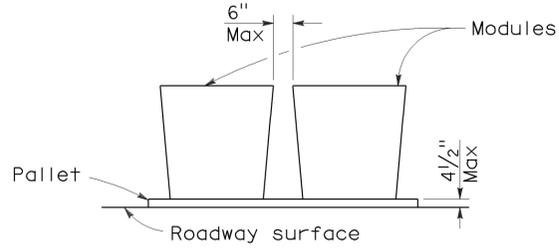
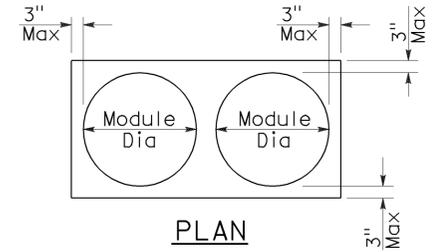
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

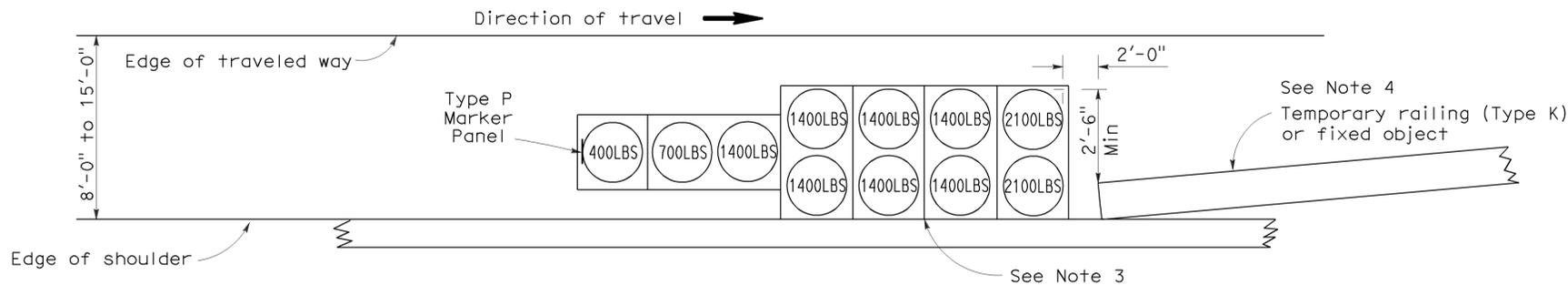
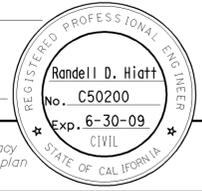
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	32	49

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

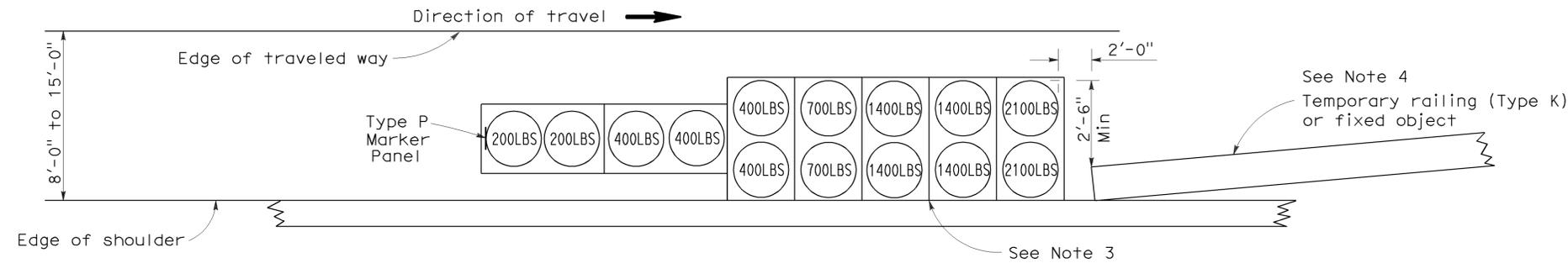
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated 6-11-12



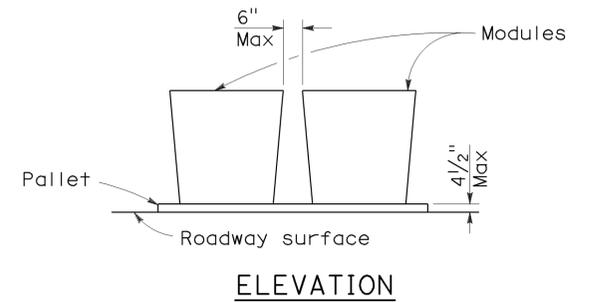
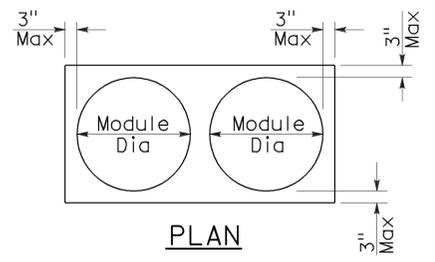
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9

NOTES:

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



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5	R54.4	33	49

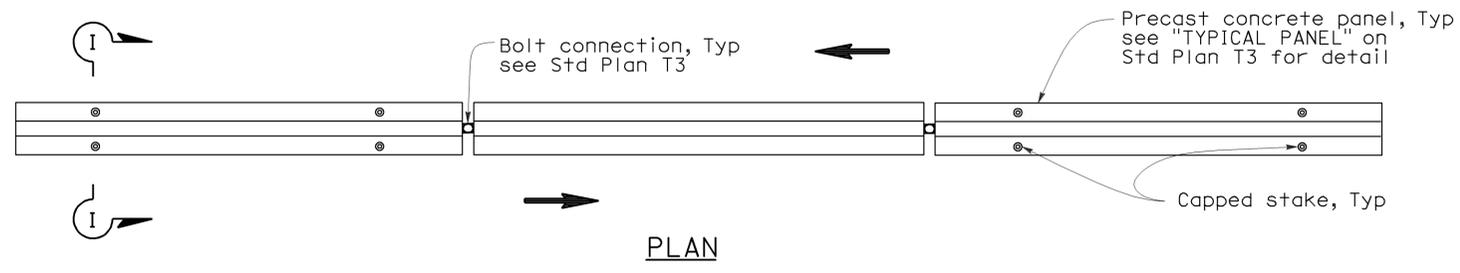
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

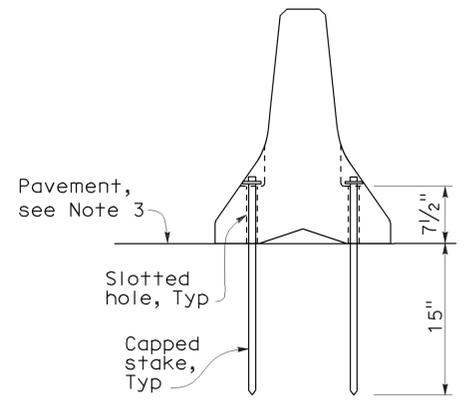
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To accompany plans dated 6-11-12

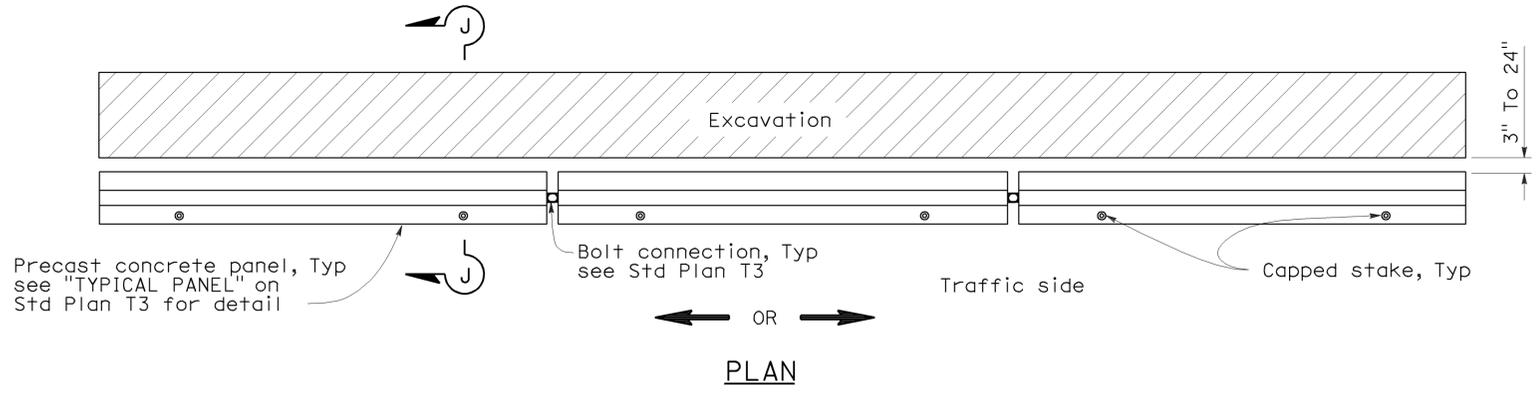


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

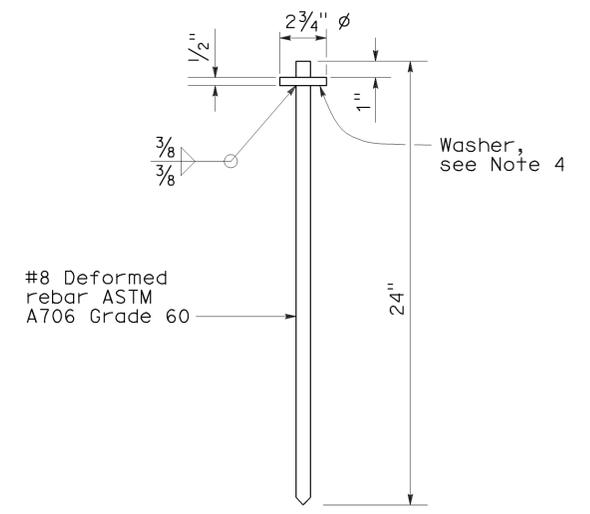
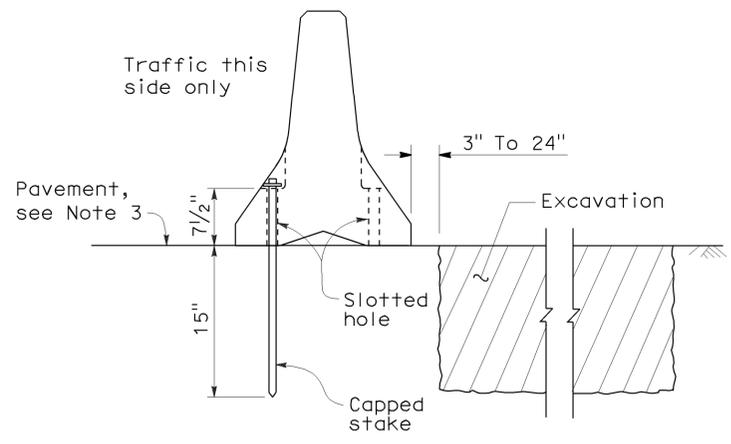


NOTES:

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

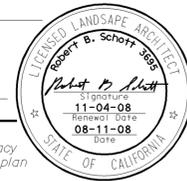
NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

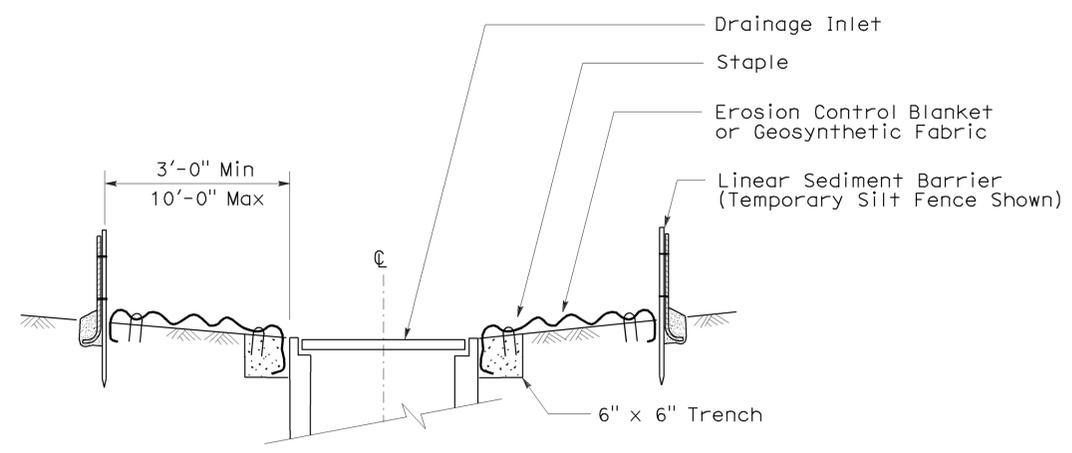
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	34	49

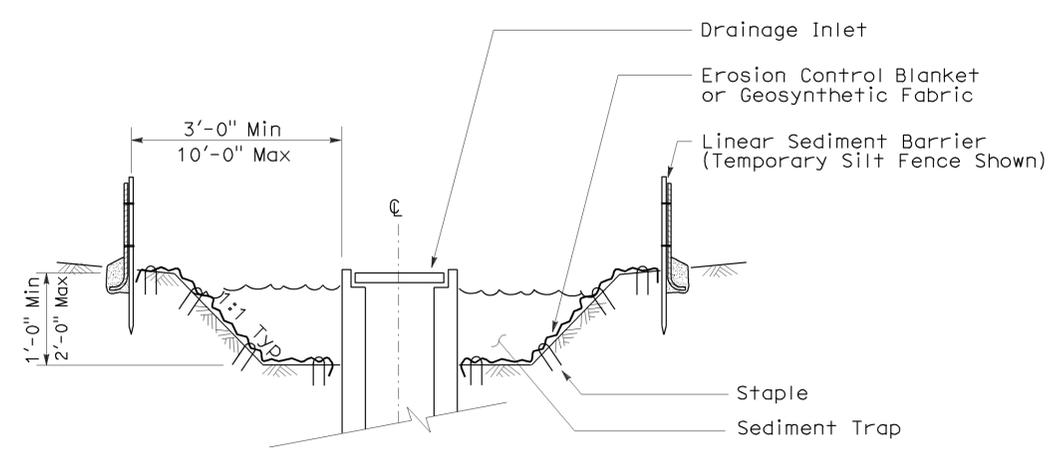
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



To accompany plans dated 6-11-12



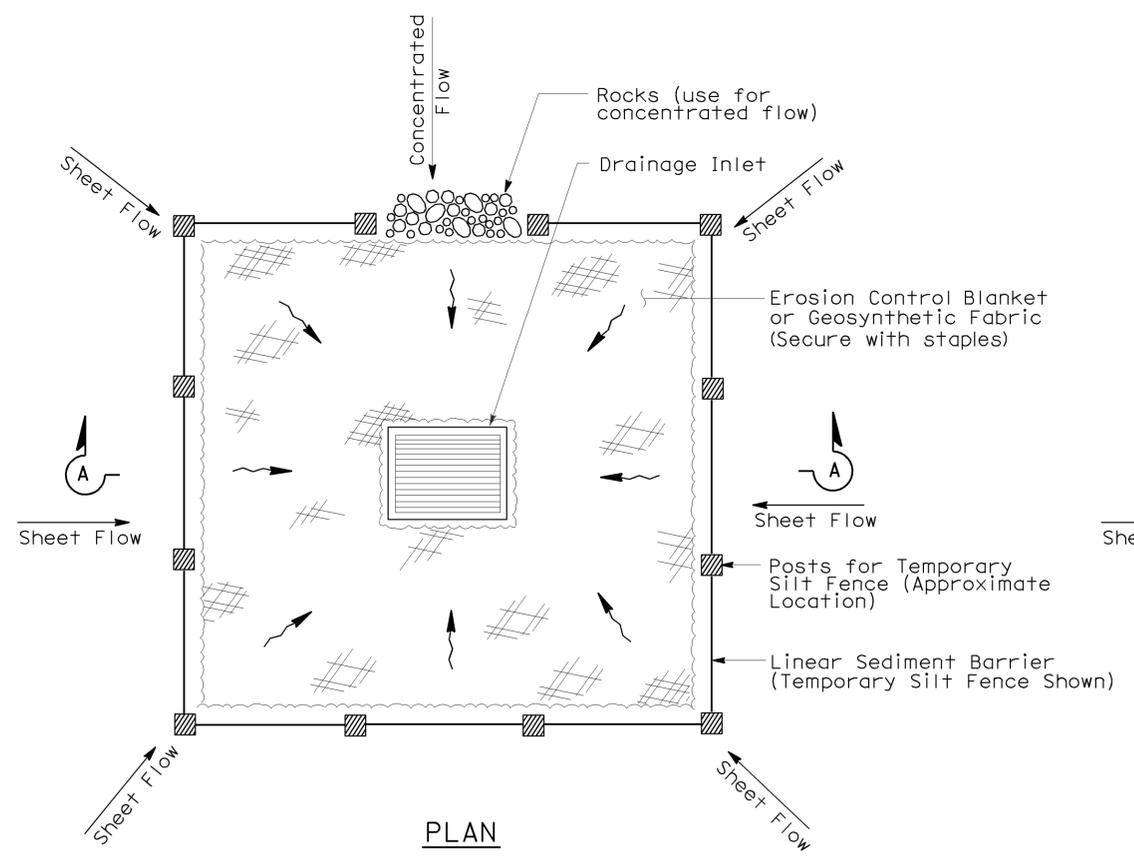
SECTION A-A



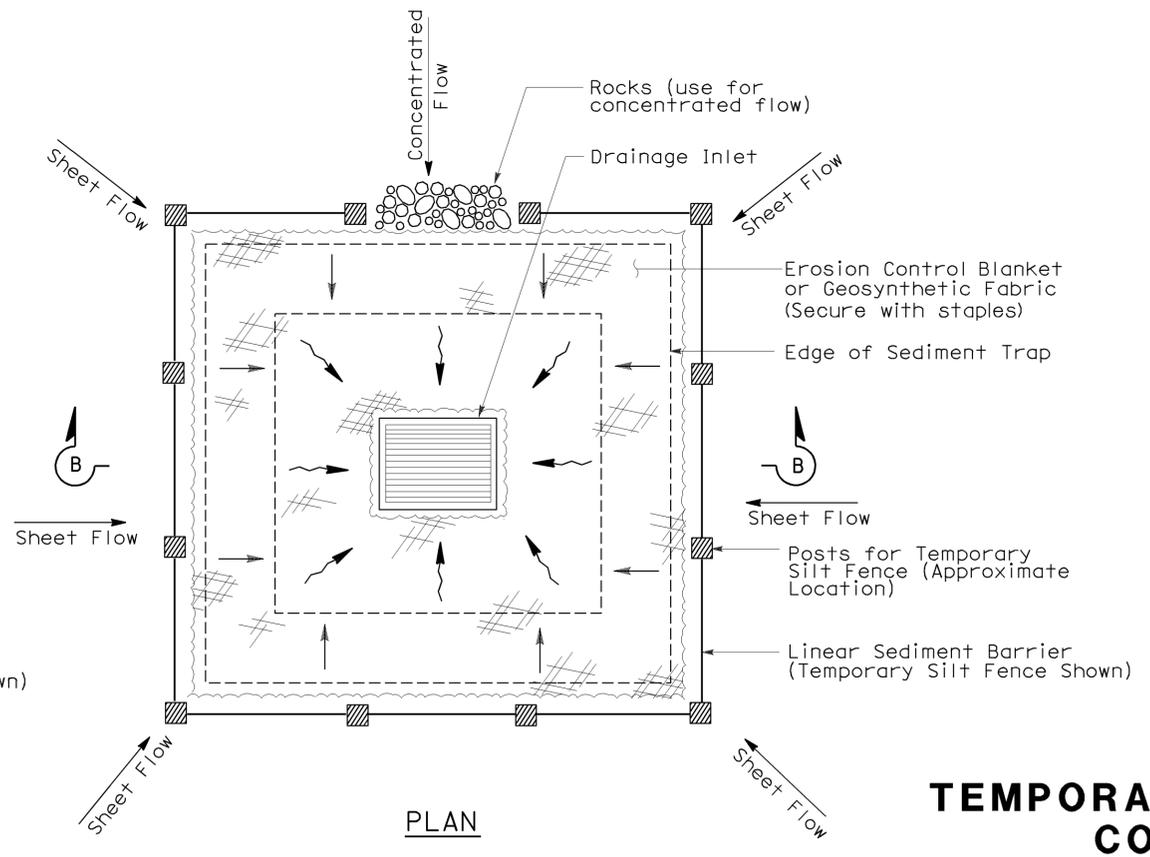
SECTION B-B

NOTES:

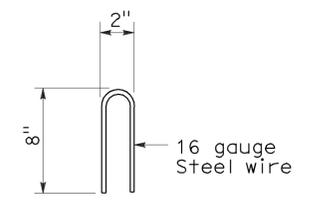
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2)
(EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)
NO SCALE

Nsp t61 dated august 15, 2008 supplements the standard plans book dated may 2006.

2006 NEW STANDARD PLAN NSP T61

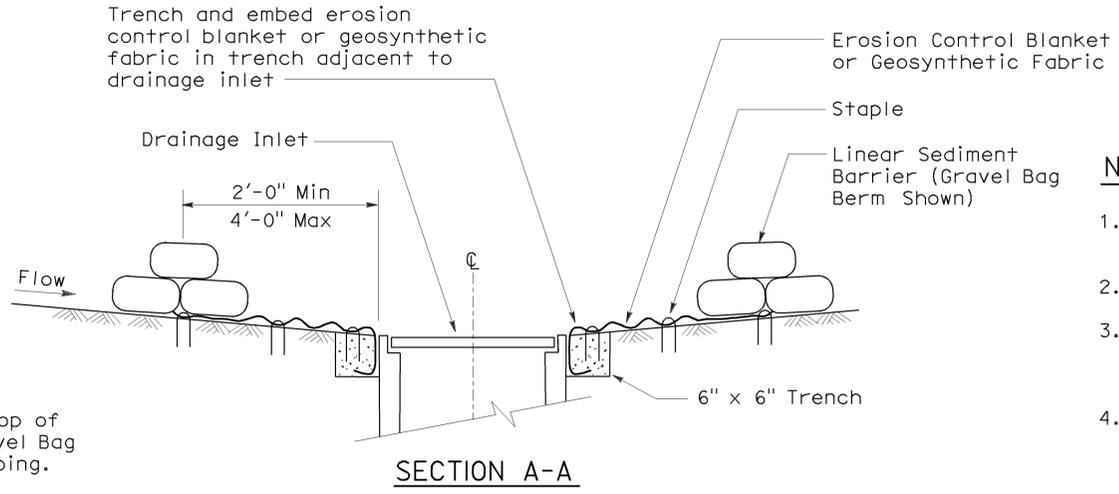
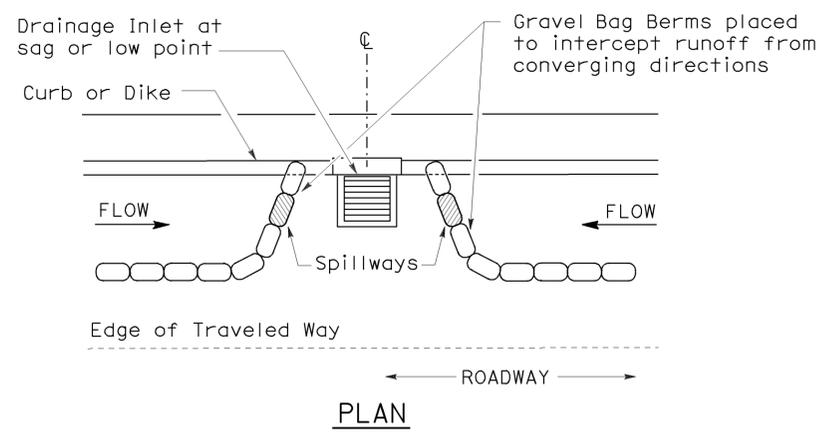


To accompany plans dated 6-11-12

GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

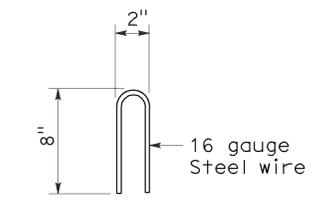
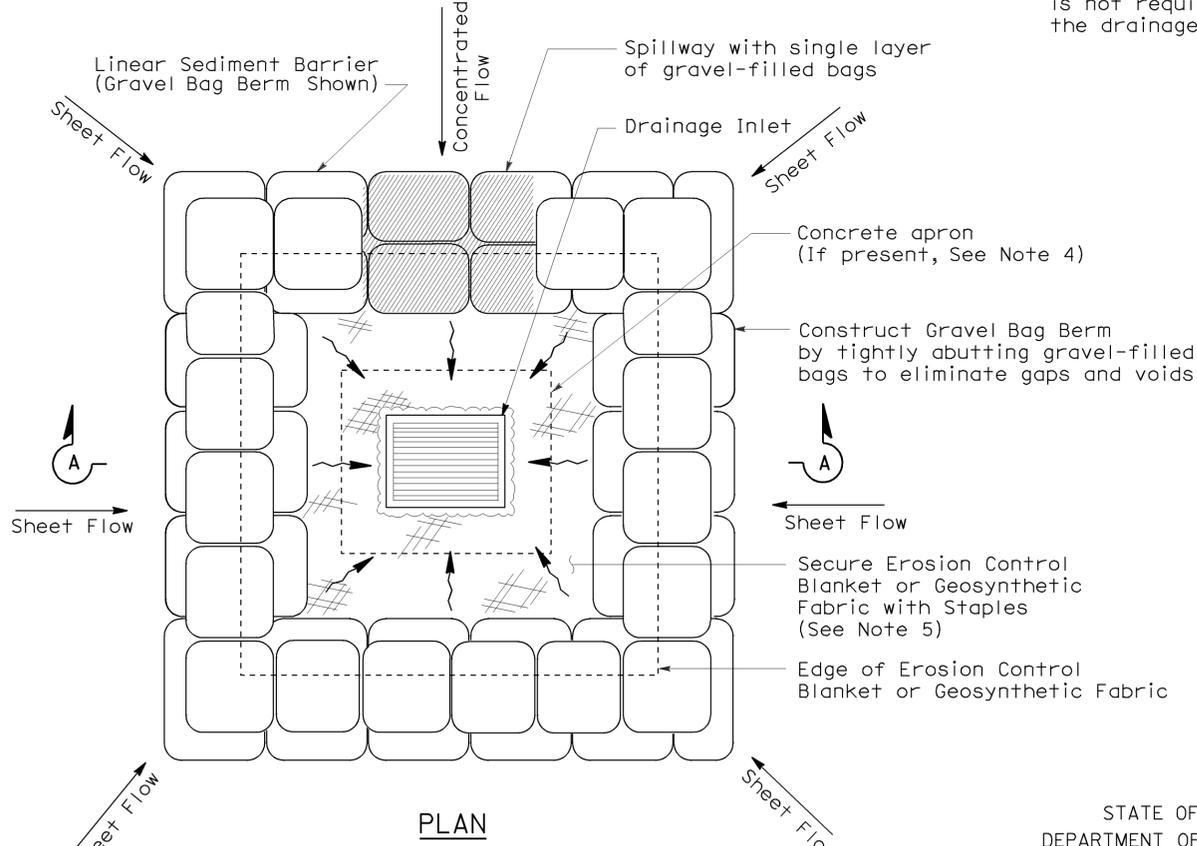
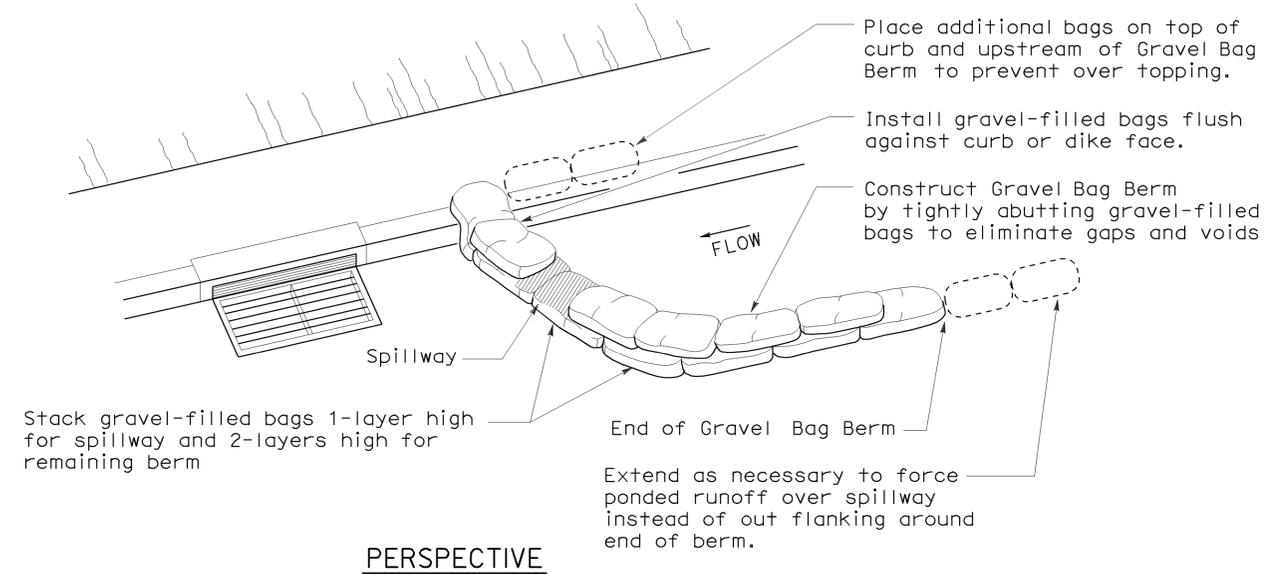
SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent

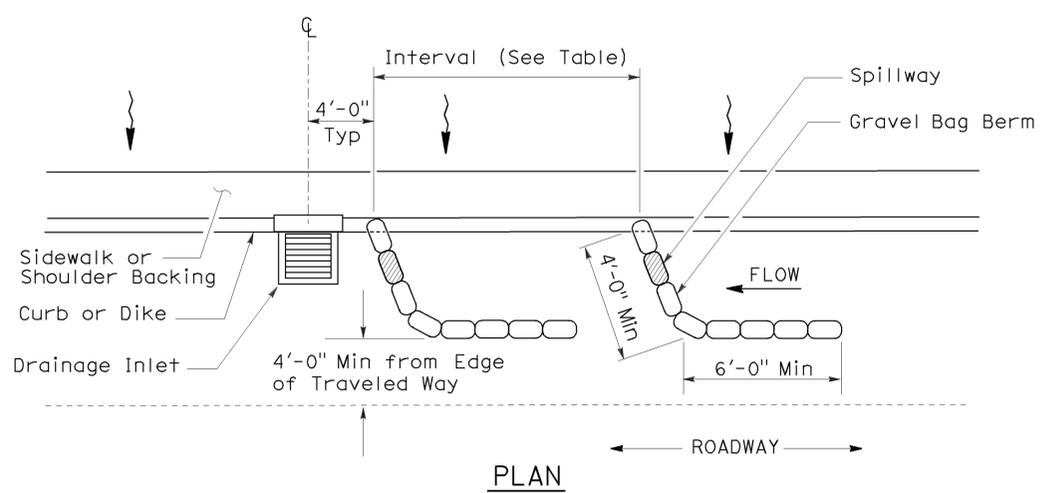


NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



STAPLE DETAIL



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'

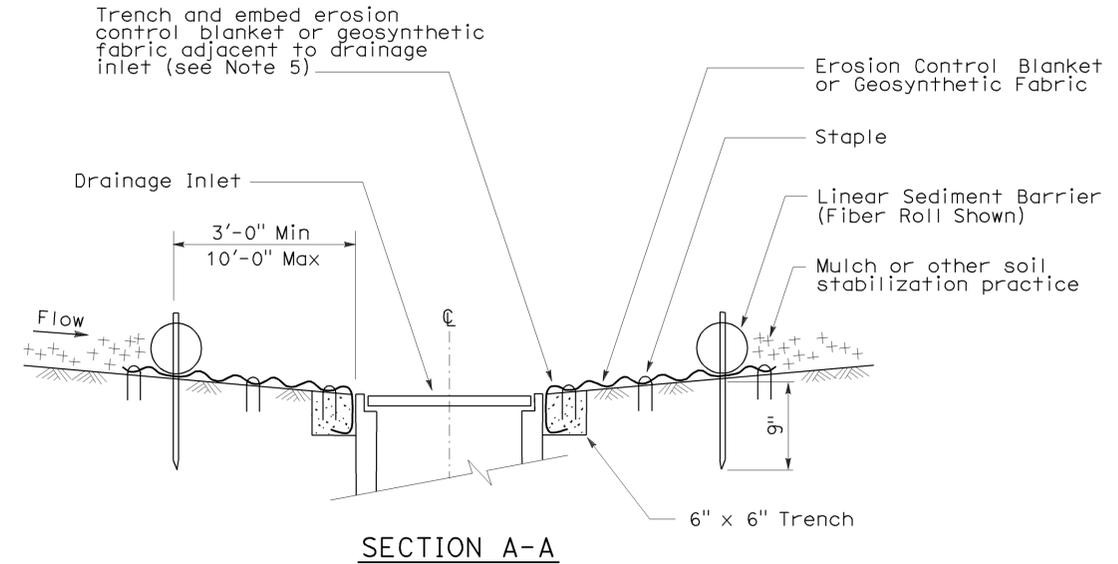
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	36	49

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

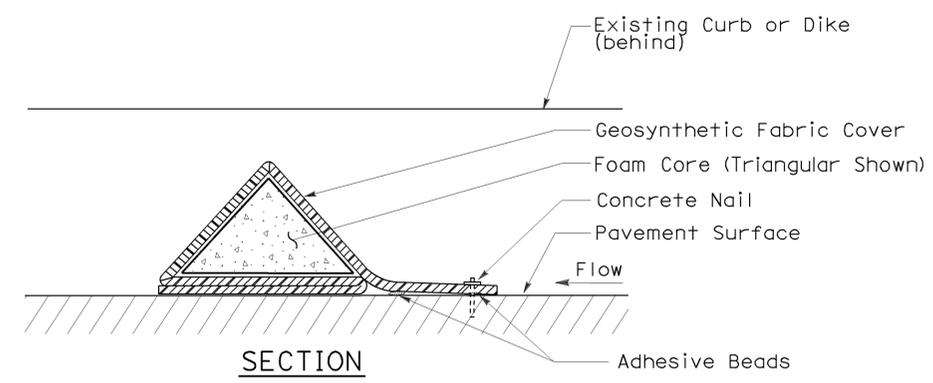
August 15, 2008
 PLANS APPROVAL DATE

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To accompany plans dated 6-11-12



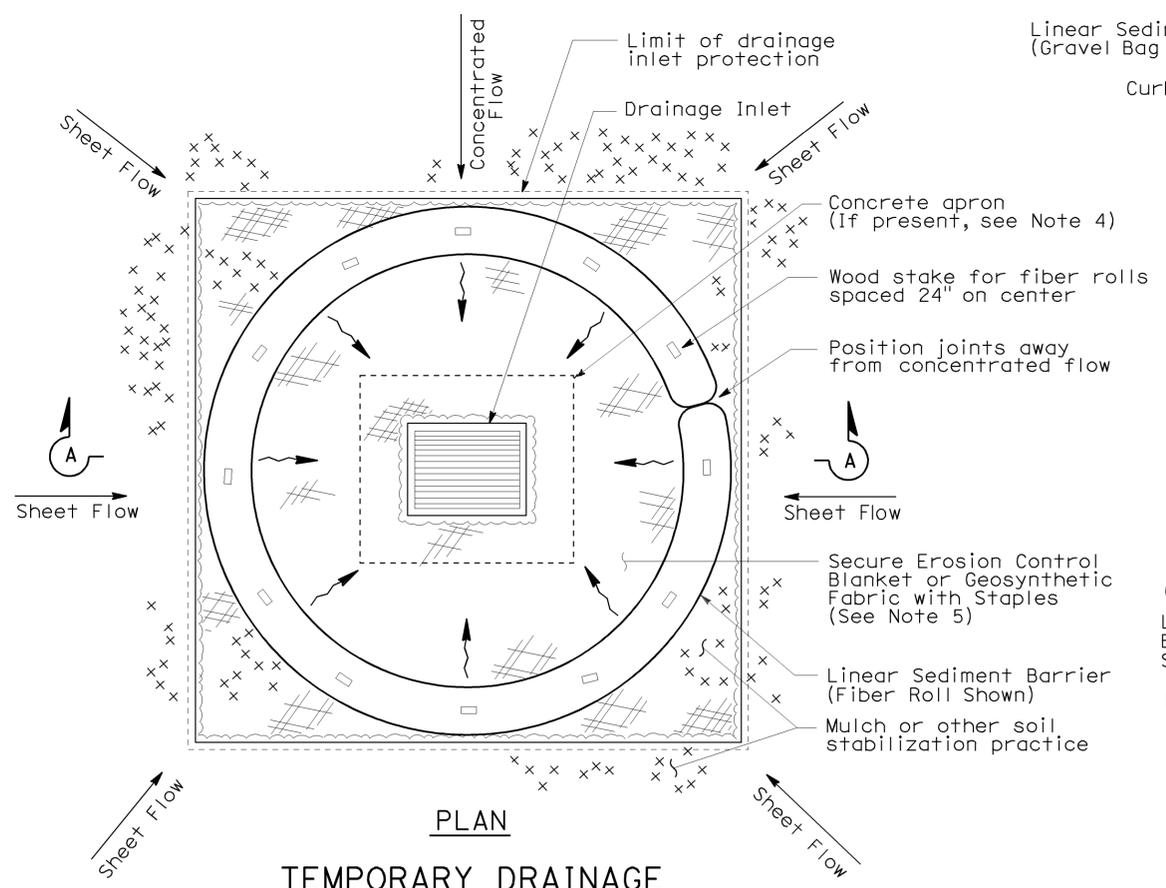
SECTION A-A



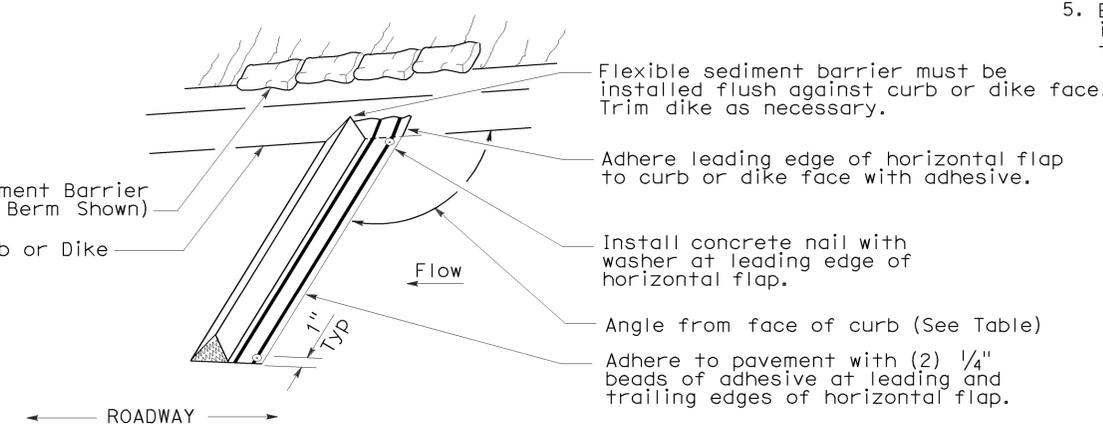
SECTION
 FLEXIBLE SEDIMENT BARRIER DETAIL
 (FOAM BARRIER SHOWN)

NOTES:

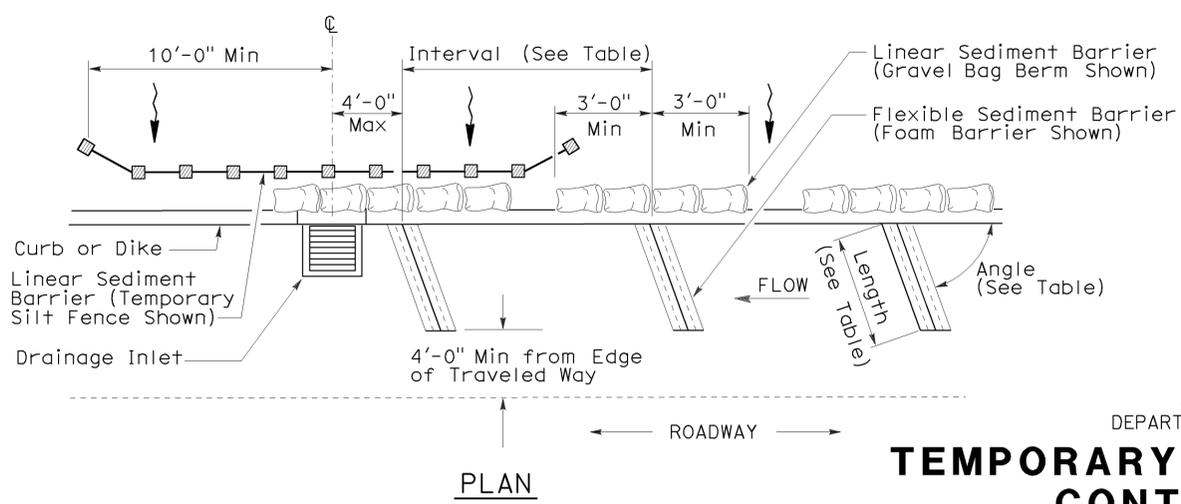
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



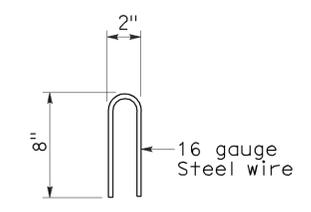
PLAN
 TEMPORARY DRAINAGE
 INLET PROTECTION (TYPE 4A)



PERSPECTIVE



PLAN
 TEMPORARY DRAINAGE
 INLET PROTECTION (TYPE 4B)
 FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

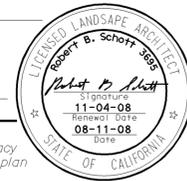
**TEMPORARY WATER POLLUTION
 CONTROL DETAILS
 (TEMPORARY DRAINAGE
 INLET PROTECTION)**

NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

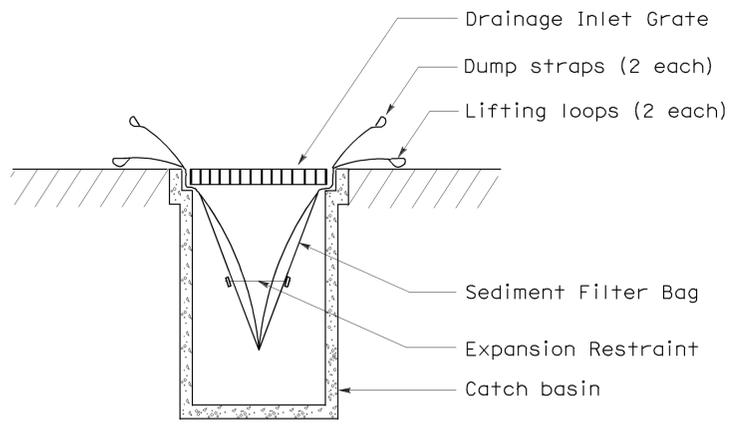
2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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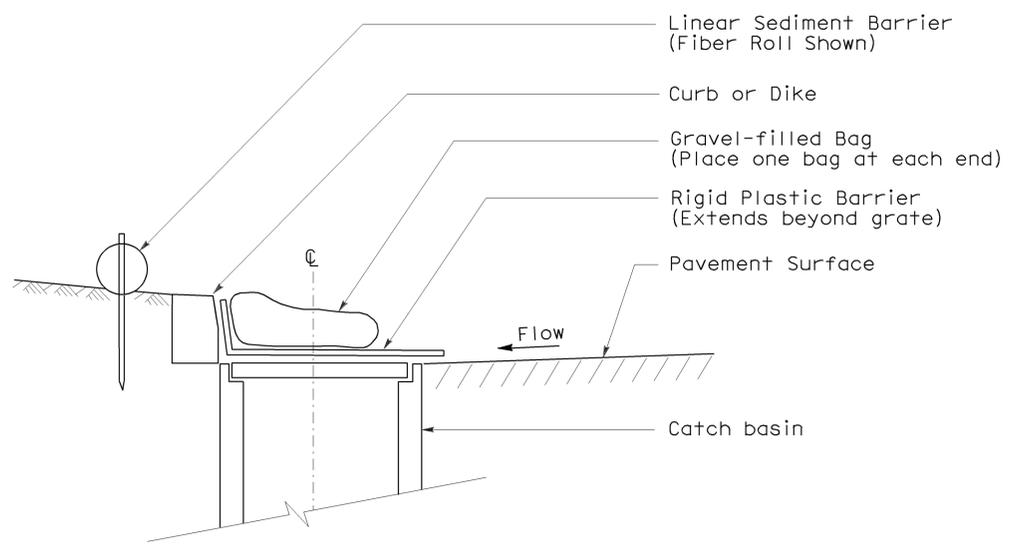
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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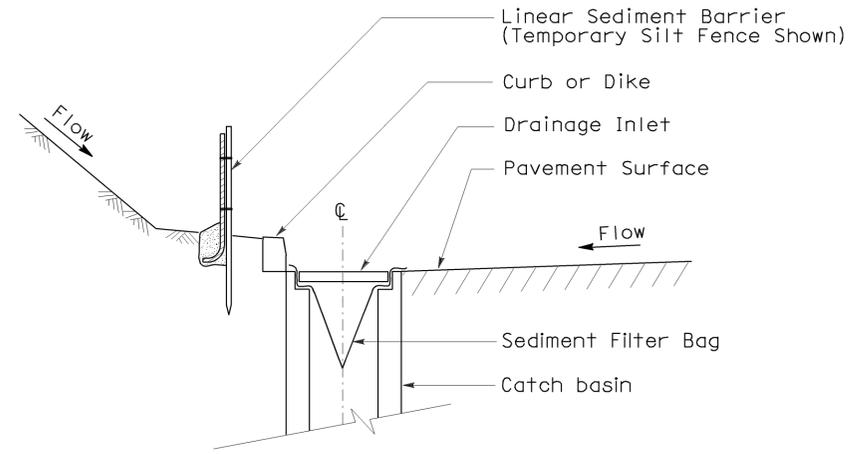
To accompany plans dated 6-11-12



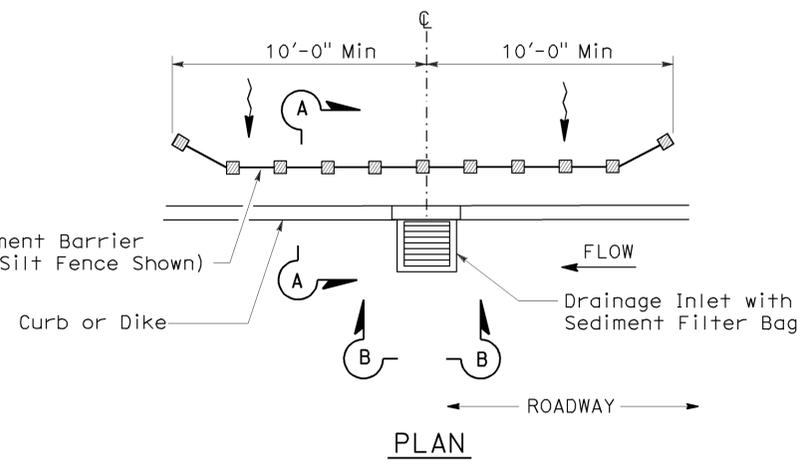
SECTION B-B
SEDIMENT FILTER BAG DETAIL



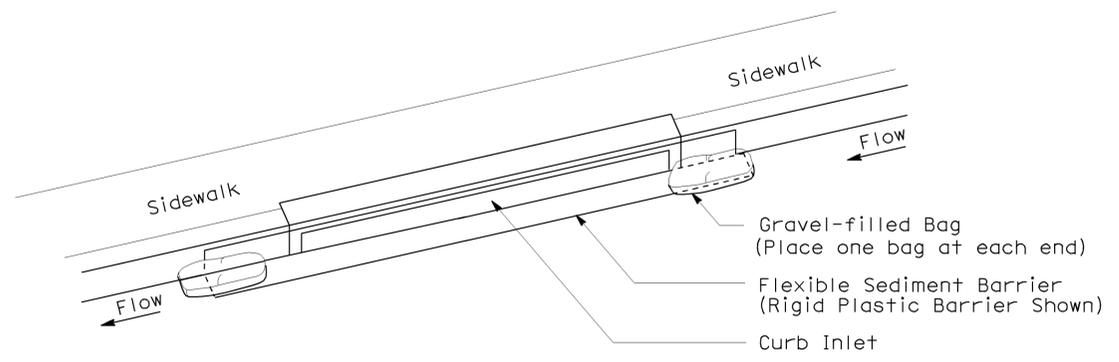
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		
32		
35		
36-20A		

NOTES:

- Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	38	49

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 6-11-12

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	39	49

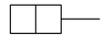
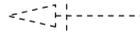
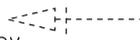
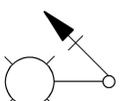
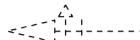
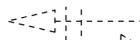
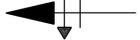
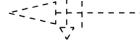
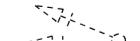
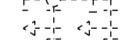
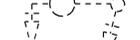
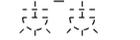
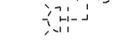
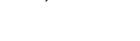
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination 
		Conduit riser in/on structure or service pole

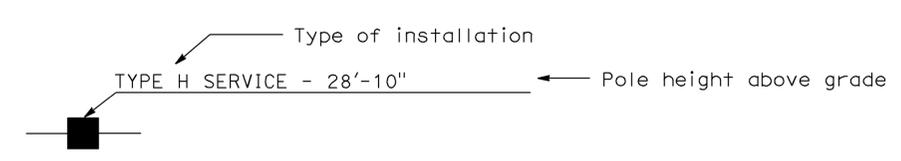
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

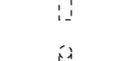
SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

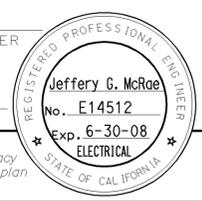
- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

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

RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

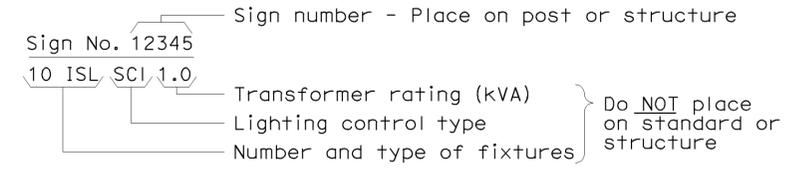
2006 REVISED STANDARD PLAN RSP ES-1B



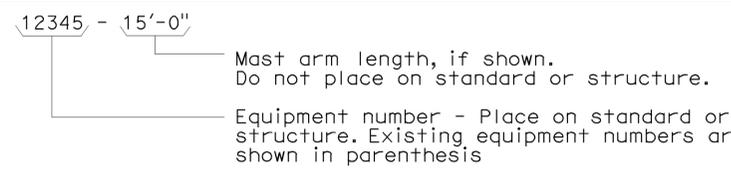
To accompany plans dated 6-11-12

EQUIPMENT IDENTIFICATION

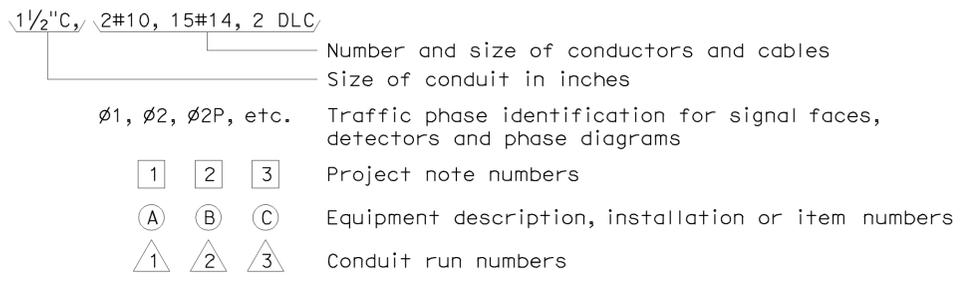
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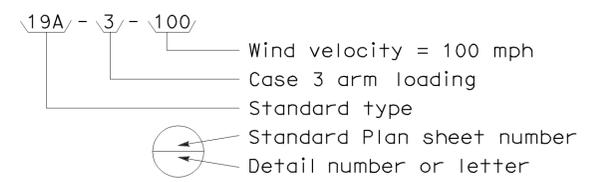
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:



SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
		Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
		Extinguishable message sign
		Detection device M = Microwave sensor V = Video image sensor

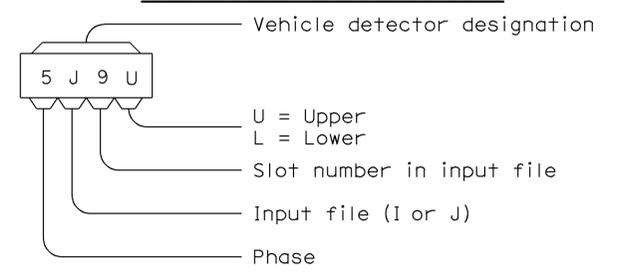
WIRING DIAGRAM LEGEND

P Pole	----- External conductor
CB Circuit breaker	— Conductor or bus
A Ampere	• Tie point
V Volt	— Contactor coil
M Metered	— Contactor, Contact NO
UM Unmetered	⊗ Terminal blocks
NB Neutral bus	— Contactor, Contact NC
GB Ground bus	— Enclosure bond
G Equipment grounding conductor	⊥ Grounding electrode
N Grounded conductor (Neutral)	— Circuit breaker
	Ⓜ Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
		Pull box-Additional designations or descriptions
3 = No. 3 1/2 pull box		(C) = Communications pull box
5 = No. 5 pull box		(E) = Pull box with extension
6 = No. 6 pull box		(S) = Sprinkler control pull box
7 = No. 7 (Ceiling pull box)		(21) = Anchor bolts and conduit for future installation of Type 21 Standard
8 = No. 8 (Pendant soffit pull box)		(T) = Traffic pull box
9 = No. 9 pull box		
9A = No. 9A pull box		

VEHICLE DETECTORS



PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
		Detector handhole
		Microwave or video detection zone

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

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	41	49

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007
 PLANS APPROVAL DATE

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NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.
2. Service equipment enclosures shall be factory wired and conform to NEMA standards.
3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.
4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.
5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of $\frac{7}{16}$ ".
6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.
7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.
8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:
 - a) Incoming terminals (landing lugs)
 - b) Neutral lugs
 - c) Solid neutral terminal strip
9. At least 6 standard single pole circuit breaker spaces, $\frac{3}{4}$ " nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.
10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.
11. Main bus shall be rated for 125 A and shall be tin-plated copper.
12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:
 - a) Adjacent to the breaker or device with character size a minimum of $\frac{1}{8}$ ".
 - b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of $\frac{3}{16}$ ".
14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.
15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.
16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.
17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.
18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.
19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.
20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.
21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

To accompany plans dated 6-11-12

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
 (SERVICE EQUIPMENT NOTES
 TYPE III SERIES)**

NO SCALE

RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C
 DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-2C

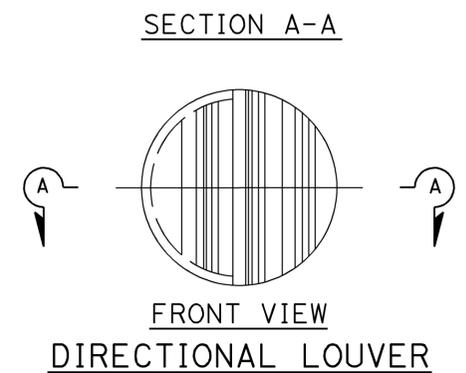
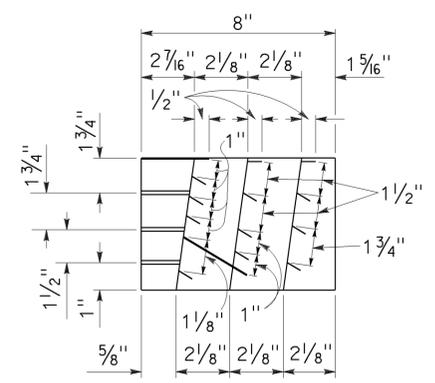
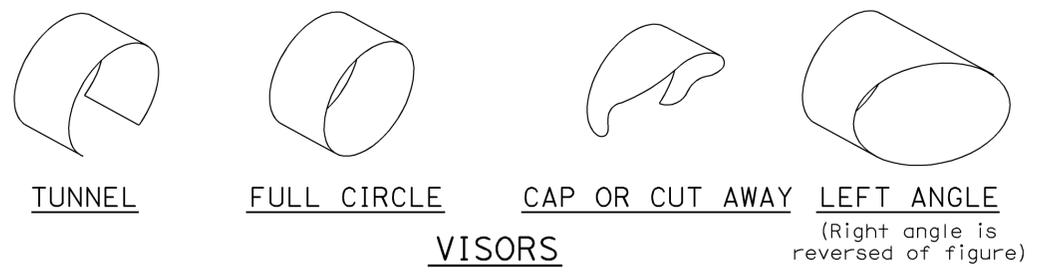
2006 REVISED STANDARD PLAN RSP ES-2C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	42	49

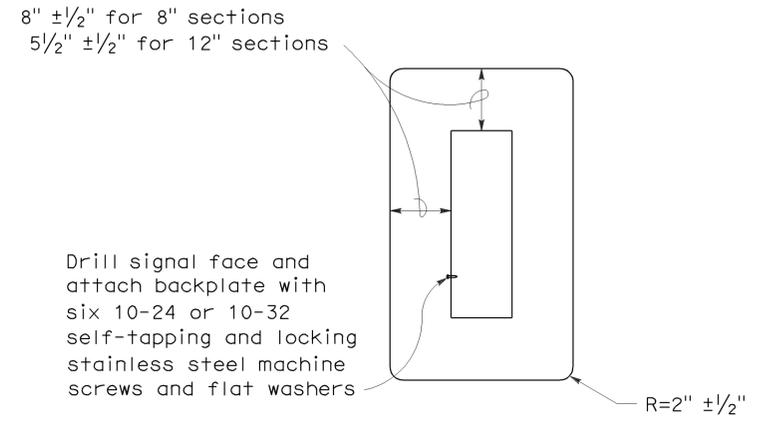
Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA

June 6, 2008
 PLANS APPROVAL DATE

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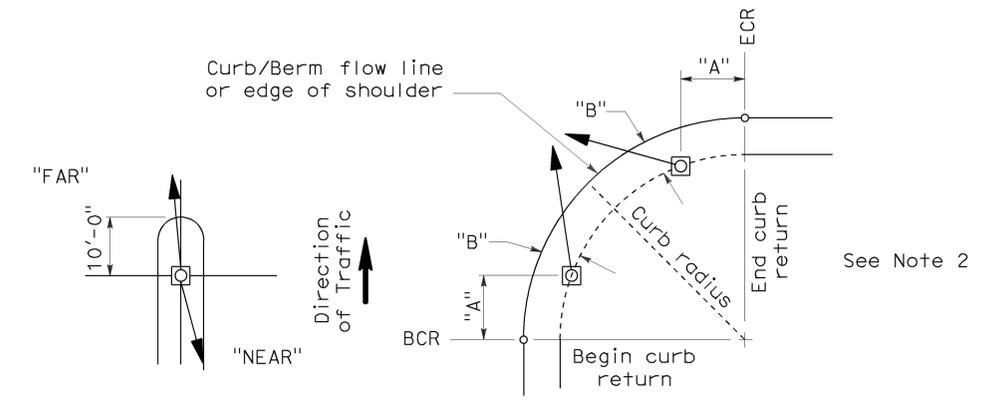


DIRECTIONAL LOUVER
 Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.



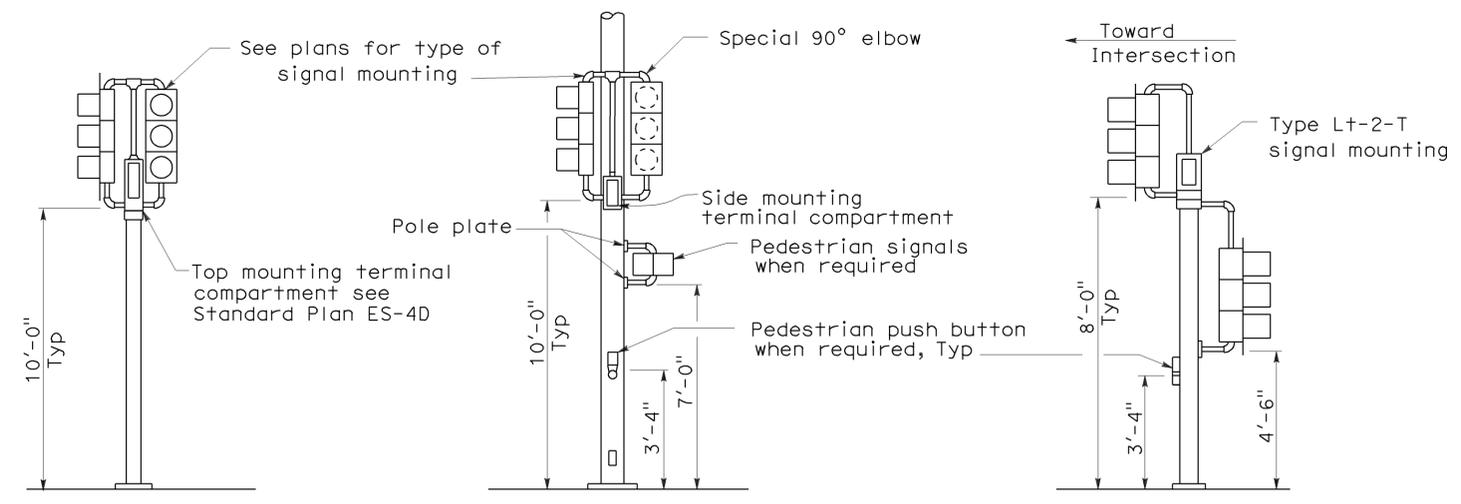
8" AND 12" SECTIONS

BACKPLATE
 1/16" minimum thickness
 3001-14 aluminum, or plastic when specified



- NOTES:**
1. Typical signal pole placement unless dimensioned on plans.
 2. For "A" and "B" dimensions, see Pole Schedule, or as directed by the Engineer.

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS

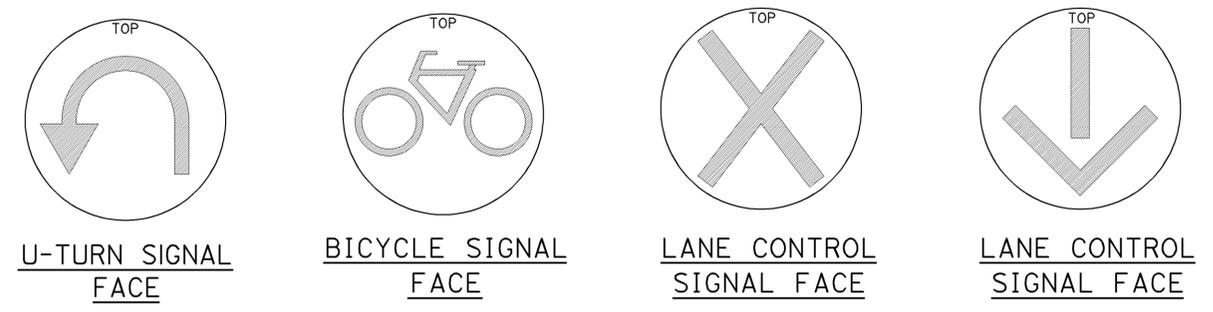


TOP MOUNTED SIGNALS (TV)
 Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)
 Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL
 Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans

TYPICAL SIGNAL INSTALLATIONS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

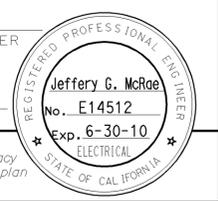
RSP ES-4C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN ES-4C DATED MAY 1, 2006 - PAGE 420 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-4C

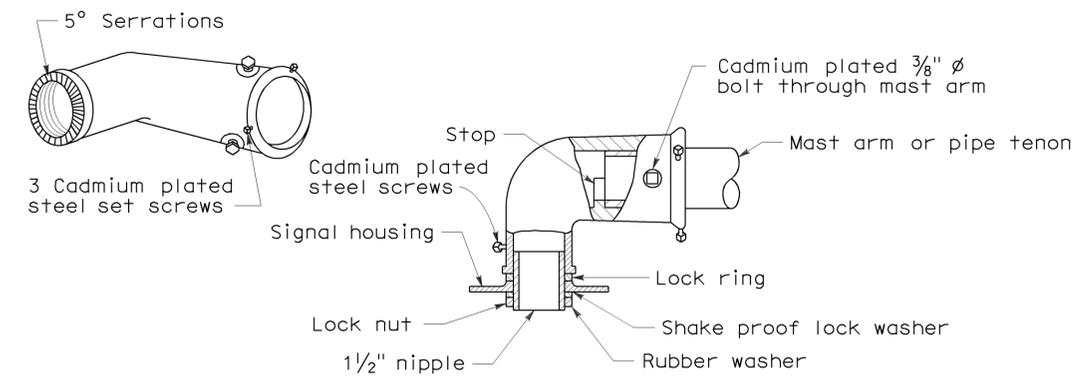
2006 REVISED STANDARD PLAN RSP ES-4C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	43	49

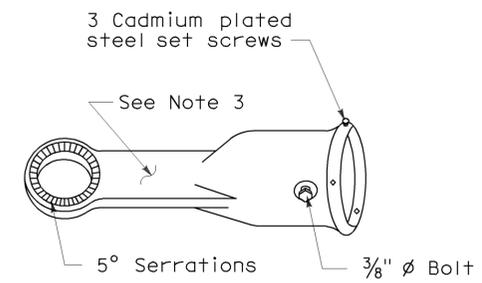
June 6, 2008
 PLANS APPROVAL DATE
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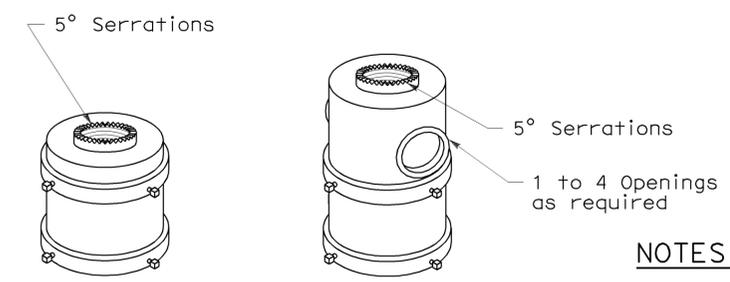
To accompany plans dated 6-11-12



MAST ARM MOUNTING - TYPE "MAT"
For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"
For 2 NPS pipe. See Note 1.

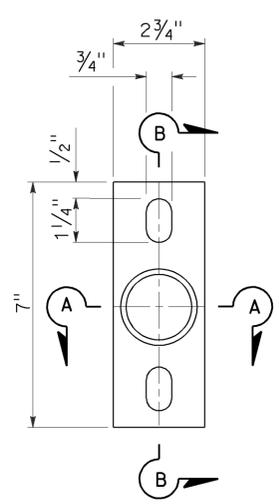


For one mounting For multiple mountings
TOP MOUNTINGS
For 4 NPS pipe, see Note 2.

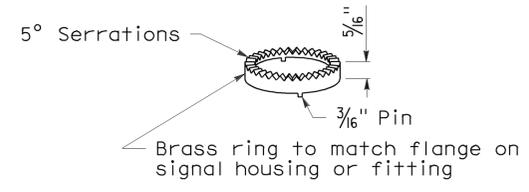
NOTES:

- After mast arm signal has been plumbed and secured, drill 7/16 inch hole through mast arm tenon in line with slip fitter hole. Place a cadmium plated 3/8 inch diameter galvanized bolt with washer under bolt head through hole and secure with washer, nut, and locknut. Seal openings between mast arm mountings and mast arm with mastic.
- (a) Threaded top mounted slip fitter openings shall be 1/2 NPS.
(b) Serrations in fittings shall match those on bottom of signal heads or in lock ring.
(c) Top opening shall be offset when backplate is used.
- Wireway shall have a cross section area of 0.95 square inch minimum. Minimum width of 1/2 inch.

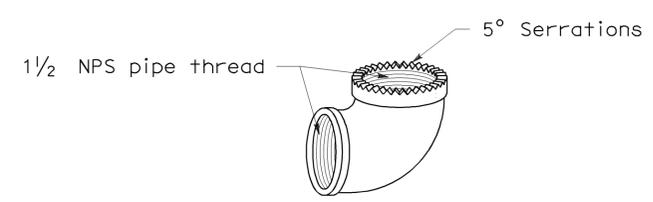
SIGNAL SLIP FITTERS



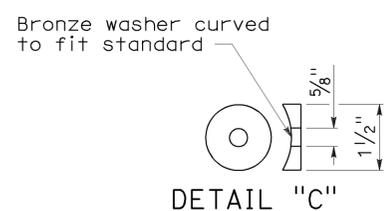
POLE PLATE
For side mountings



LOCK RING
Use where locking ring is not integral with signal housing or fitting.

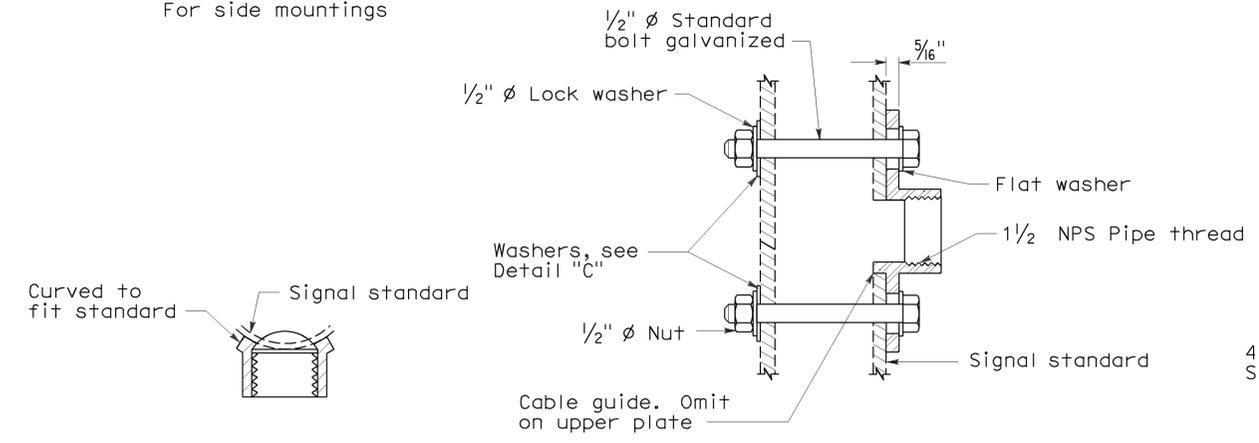


SPECIAL 90° ELBOW
One for each signal head, except those with special slip fitter mounting



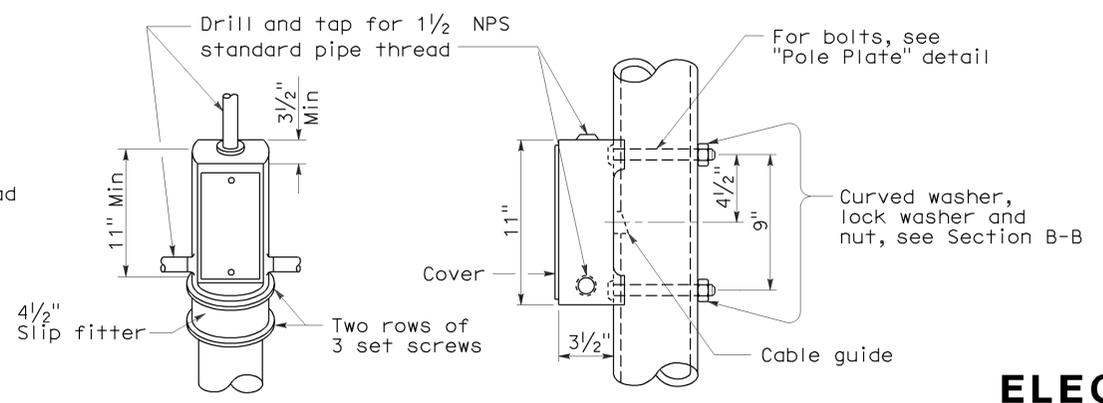
DETAIL "C"

MISCELLANEOUS MOUNTING HARDWARE



SECTION A-A

SECTION B-B



TOP MOUNTING

SIDE MOUNTING

TERMINAL COMPARTMENTS

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-4D DATED June 6, 2008 SUPERSEDES STANDARD PLAN ES-4D DATED MAY 1, 2006 - PAGE 421 OF THE STANDARD PLANS BOOK DATED MAY 2006.

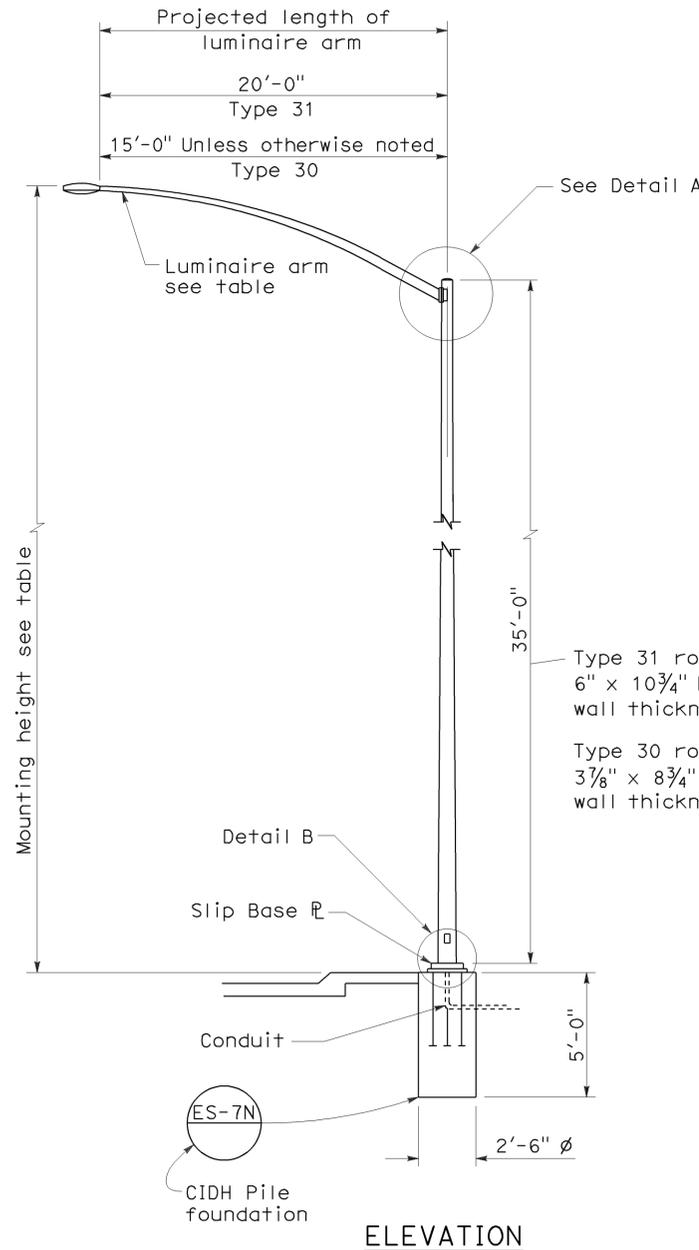
REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

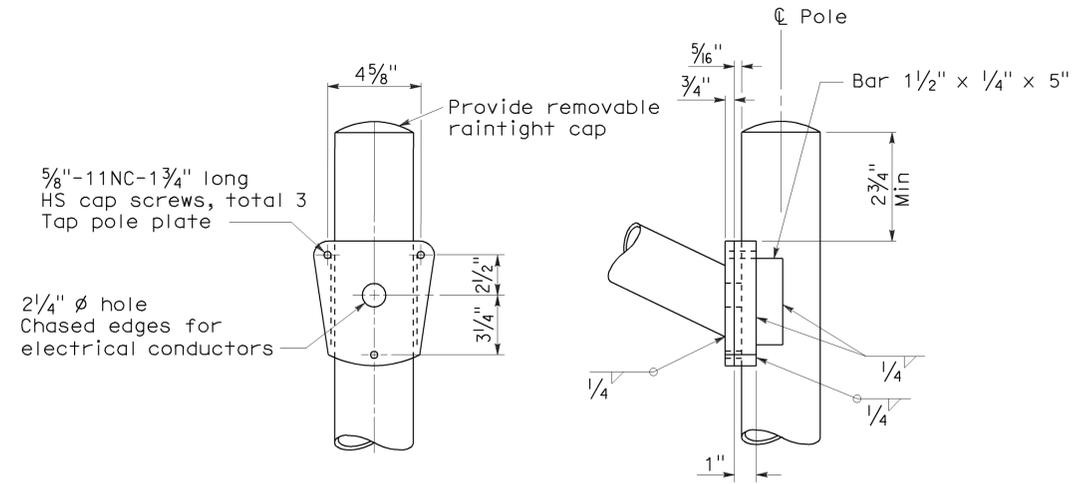
LUMINAIRE ARM DATA

PROJECTED LENGTH	THICKNESS	MINIMUM OD @ POLE	MOUNTING HEIGHT
* 6'-0"	0.1196"	3 1/4"	36'-9"±
8'-0"		3 1/2"	37'-3"±
10'-0"		3 3/4"	38'-0"±
12'-0"		3 3/4"	39'-0"±
15'-0"		4 1/4"	39'-6"±
** 20'-0"	0.1793"	5"	37'-0"±

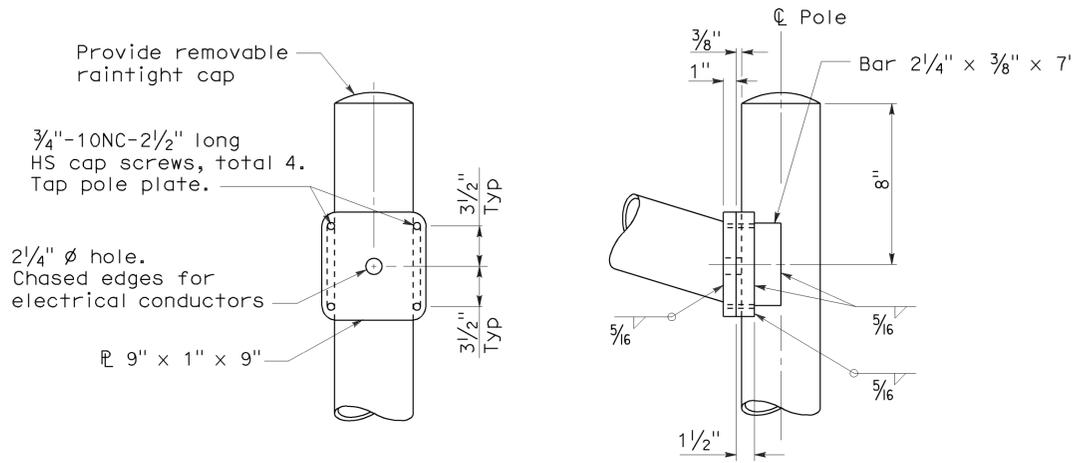
* Type 30 - arm length 6'-0" - 15'-0" maximum
 ** Type 31 - arm lengths 20'-0"



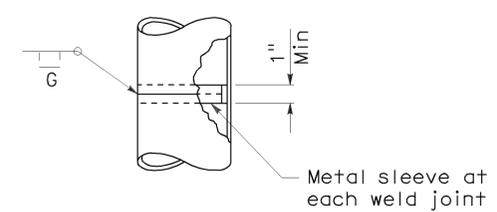
ELEVATION



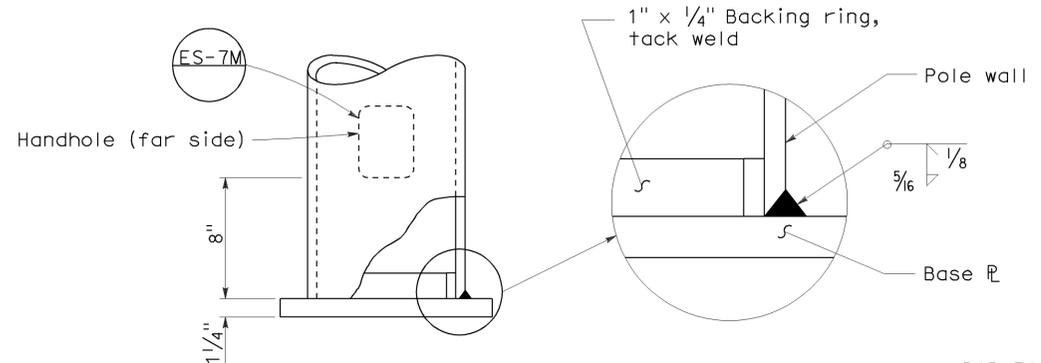
DETAIL A - TYPE 30



DETAIL A - TYPE 31



POLE SPLICE



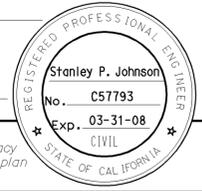
DETAIL B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	44	49

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER

January 18, 2008
 PLANS APPROVAL DATE

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To accompany plans dated 6-11-12

NOTES:

- Sheet steel shall have a minimum yield of 48,000 psi.
- For slip base details see Standard Plan ES-6F.
- For Type 30 fixed base use Type 15 base plate, and foundation shown on Revised Standard Plan RSP ES-6A. Use 1 1/4" Dia x 3'-6" x 4" anchor bolts.
- For Type 31 fixed base use Type 32 base plate, anchor bolts and foundation on Standard Plan ES-6G.
- Handhole shall be located on downstream side of traffic unless noted otherwise on plans.
- For additional general notes refer to Standard Plan ES-7M.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LIGHTING STANDARD
 TYPES 30 AND 31)**
 NO SCALE

RSP ES-6E DATED JANUARY 18, 2008 SUPERCEDES STANDARD PLAN ES-6E
 DATED MAY 1, 2006 - PAGE 430 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-6E

2006 REVISED STANDARD PLAN RSP ES-6E

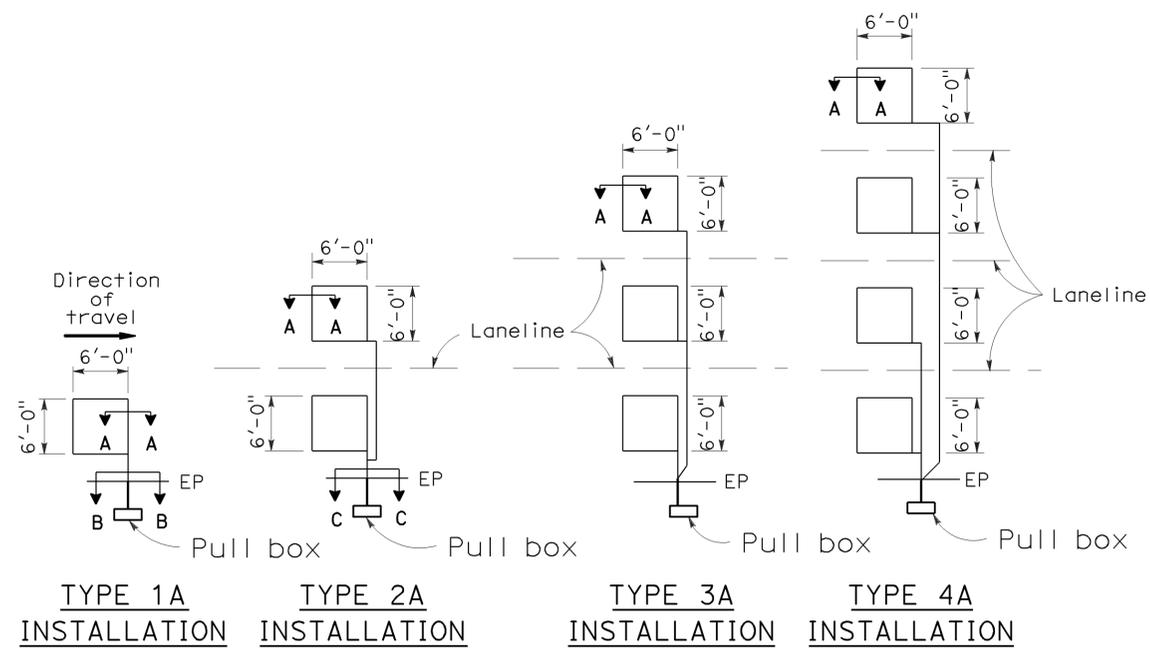
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	45	49

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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 To accompany plans dated 6-11-12

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

LOOP INSTALLATION PROCEDURE

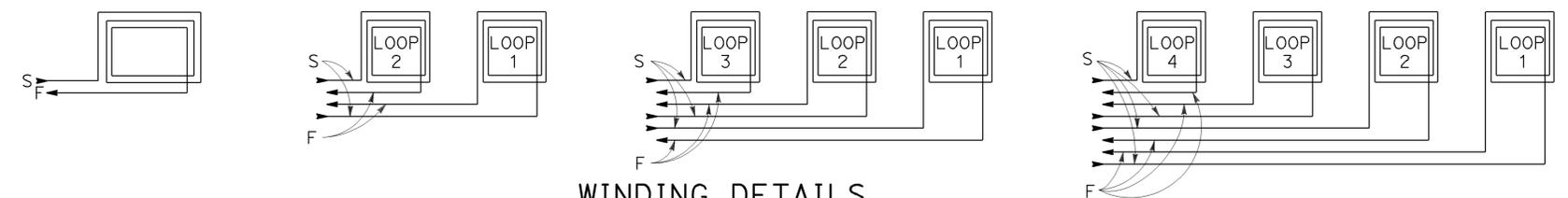
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



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

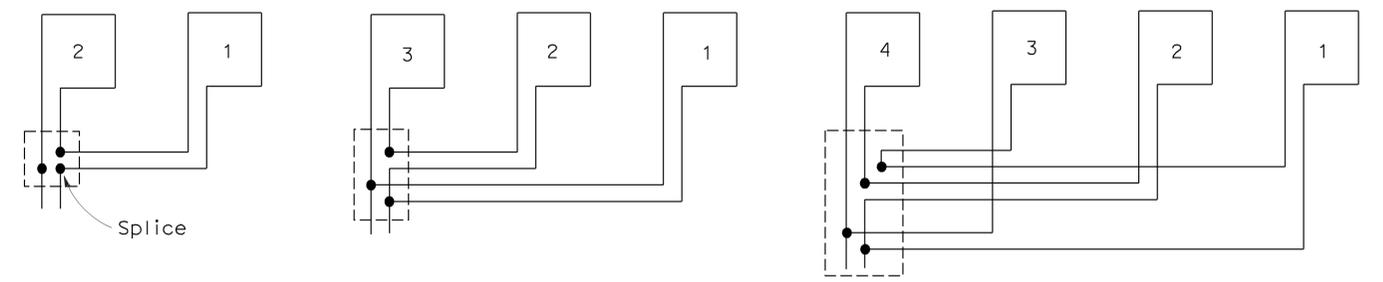
SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 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)



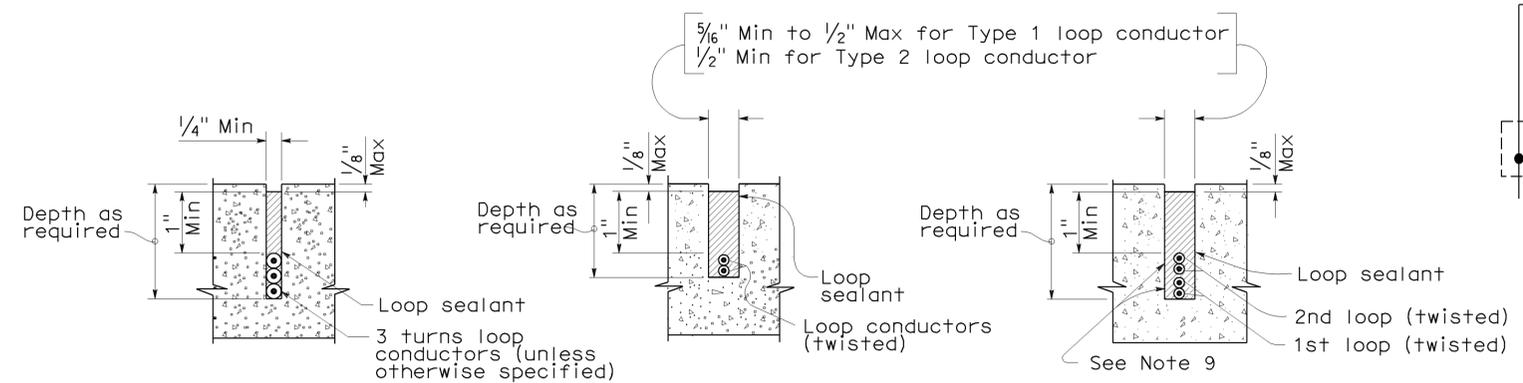
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

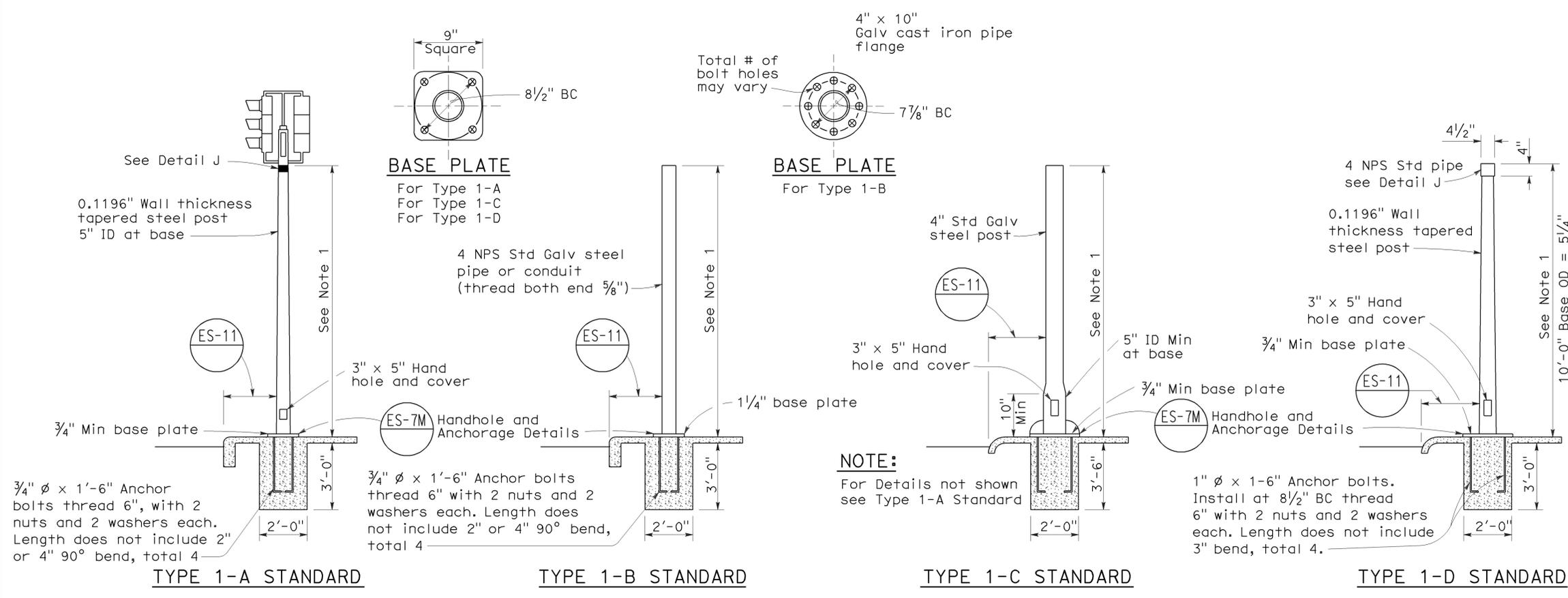
2006 REVISED STANDARD PLAN RSP ES-5A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	R54.4	46	49

Stanley P. Johnson
 REGISTERED CIVIL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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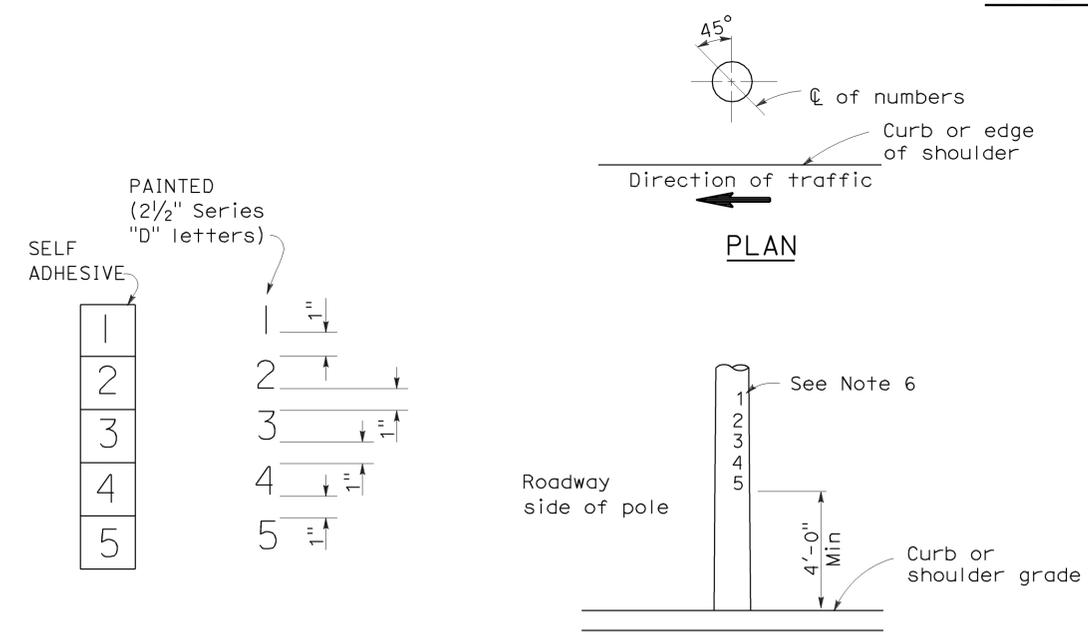
REGISTERED PROFESSIONAL ENGINEER
 Stanley P. Johnson
 No. C57793
 Exp. 3-31-08
 CIVIL
 STATE OF CALIFORNIA

To accompany plans dated 6-11-12

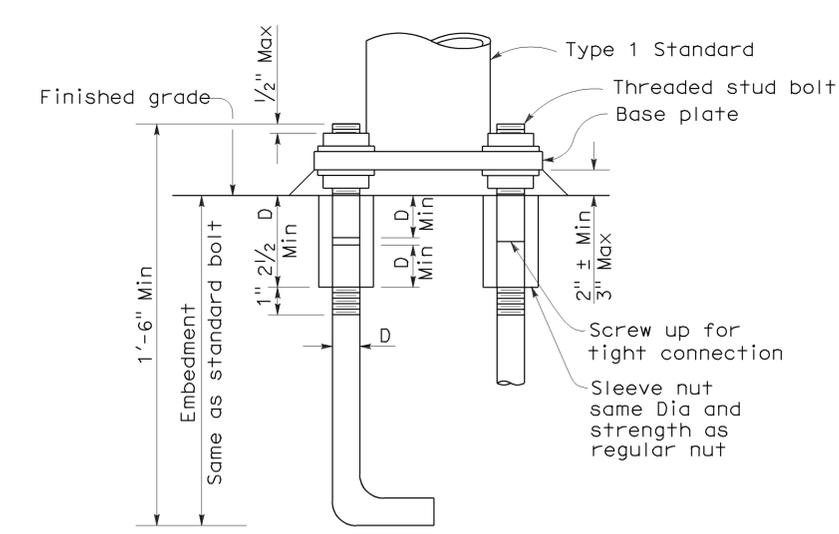


- NOTES:**
- Standards shall be 10'-0" ± 2" for vehicle signals and 7'-0" ± 2" for pedestrian signals unless otherwise noted on plans.
 - Top of standards shall be 4 1/2" OD.
 - Conduits shall extend 2" maximum above finished surface of foundation and for Types 1-A, 1-C and 1-D shall be sloped toward handhole.
 - Anchor bolts shall be bonded to conduit or grounding conductor.
 - Conduit between standard and adjacent pull box shall be 2" minimum.
 - Paint numbers on roadway side facing traffic when electrolier or post is left of direction of traffic.

TYPE 1 SIGNAL STANDARDS

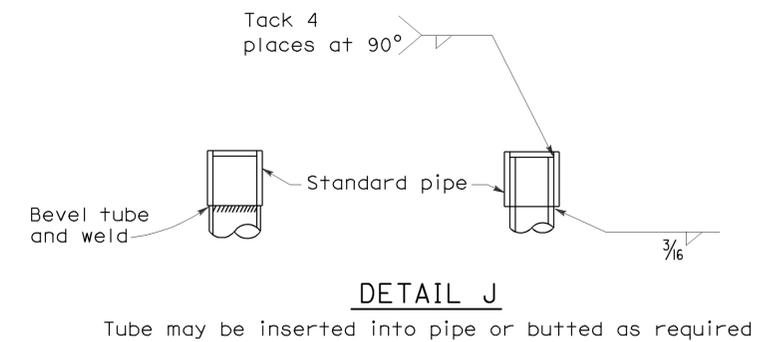


LOCATION OF EQUIPMENT NUMBERS ON STANDARDS AND POSTS



Sleeve nuts to be used only when shown or specified on Project Plans

D = Diameter of anchor bolt



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

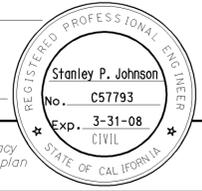
ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD TYPE 1 STANDARD AND EQUIPMENT NUMBERING)

NO SCALE

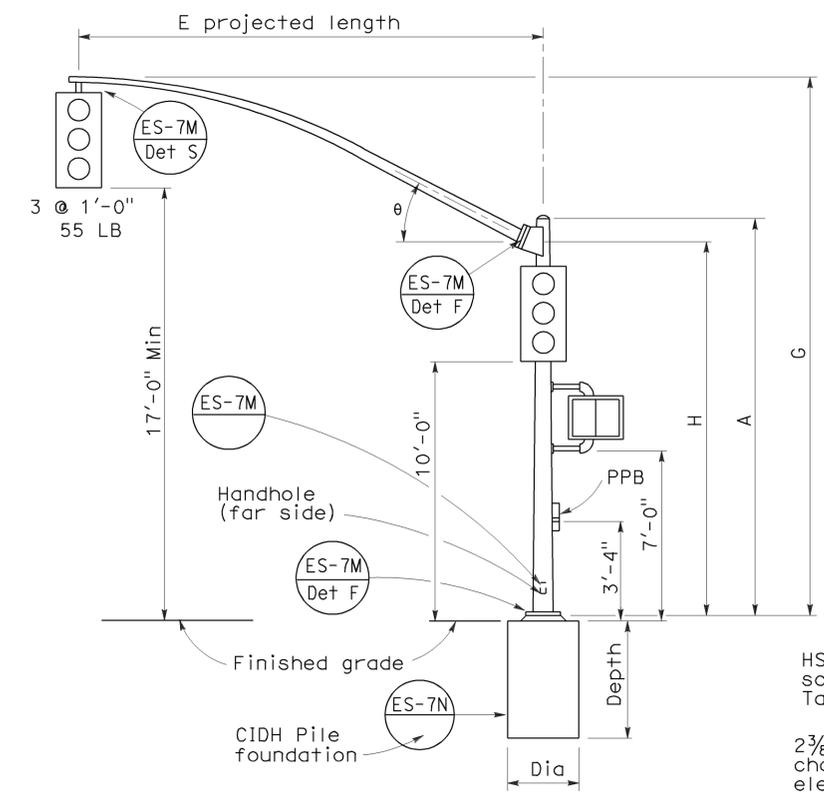
RSP ES-7B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-7B DATED MAY 1, 2006 - PAGE 438 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7B

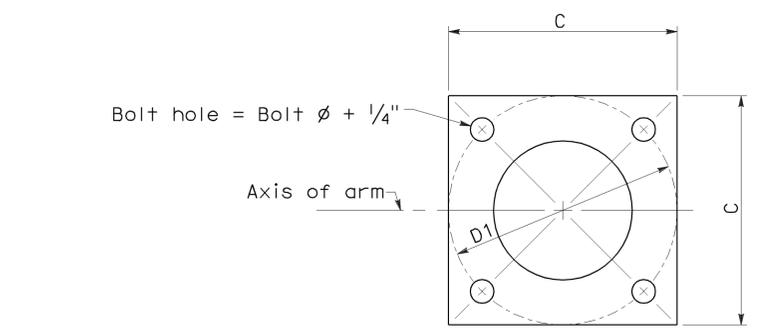
2006 REVISED STANDARD PLAN RSP ES-7B



To accompany plans dated 6-11-12

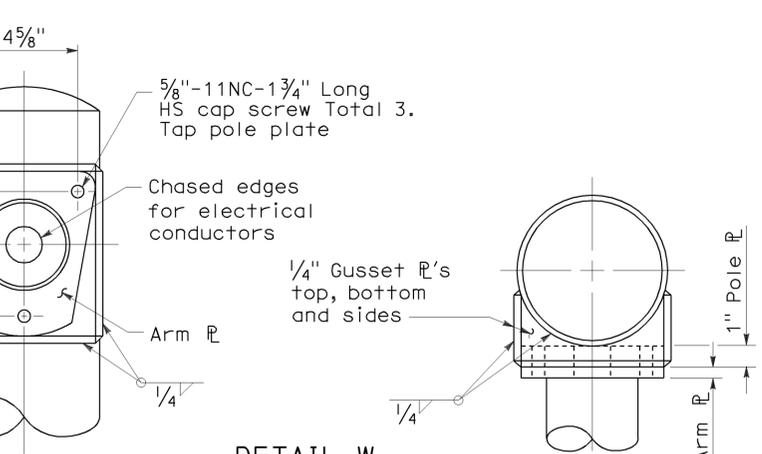


ELEVATION
TYPE 16-1-100, 18-1-100

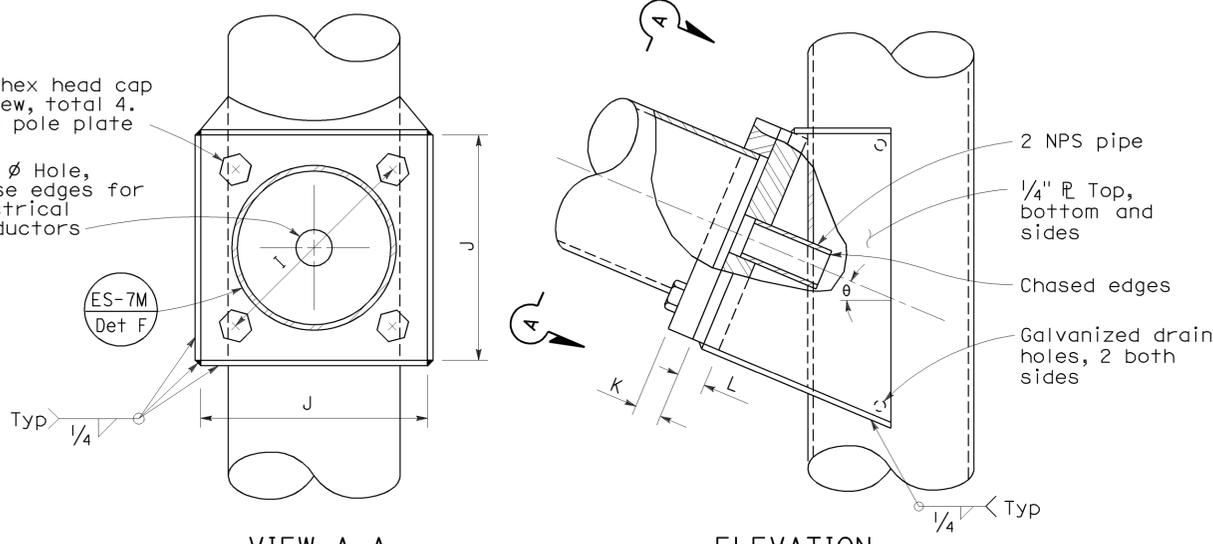


BASE PLATE

E Projected Length	G Mounting Height	H	Min OD At Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate size	K Arm R Thickness	L Pole R Thickness	θ
15'-0"	21'-8"±	17'-6"	7"	0.1196"	12"	1 1/4"-7NC-3"	1'-0"	1 1/4"	1 1/2"	23°
20'-0"	21'-8"±		7 1/8"							
25'-0"	22'-8"±	16'-0"	7 5/8"							
30'-0"	23'-0"±		8"							

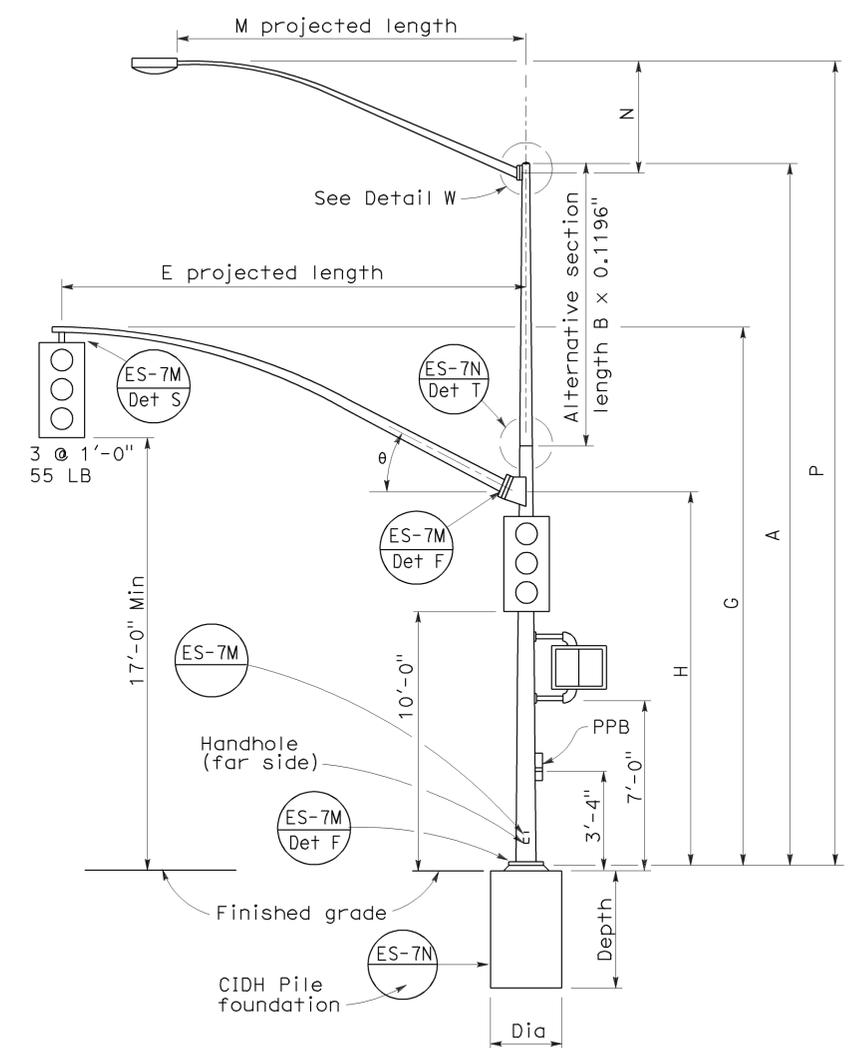


DETAIL W
LUMINAIRE ARM CONNECTION



VIEW A-A
SIGNAL ARM CONNECTION DETAILS

M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height
6'-0"	2'-0"±	3 1/4"	0.1196"	30'-0" Pole
8'-0"	2'-6"±	3 1/2"		31'-6"± Pole
10'-0"	3'-3"±	3 3/8"		32'-0"± Pole
12'-0"	4'-3"±	3 7/8"		32'-9"± Pole
15'-0"	4'-9"±	4 1/4"		33'-9"± Pole
				34'-3"± Pole



ELEVATION
TYPE 19-1-100, 19A-1-100

Pole Type	Load Case	Wind Velocity mph	POLE DATA					BASE PLATE DATA				CIDH PILE FOUNDATION							
			A Height	Min OD		Thickness	Alternative Section			C	D1 Bolt Circle	Thickness	Anchor Bolts		Luminaire Arm	Signal Arm	Diameter	Depth	Reinforced
				Base	Top		B Length	Bottom	Top				Size						
16-1-100	1	100	18'-6"	8 1/4"	0.1793"	None			1'-6"	1'-5 1/2"	1 1/4"	1 1/2" ø x 42" x 6"		None	15'-0"	2'-6"	7'-2"	Yes	
18-1-100			17'-0"	8 7/16"		None						None	20'-0"						
19-1-100			30'-0"	6 5/8"		10'-0"	8"	6 5/8"				6'-15' 12'-0"	25'-0"						
19A-1-100			35'-0"	5 1/16"		15'-0"	5 1/16"	6'-15' 15'-0"				30'-0"							

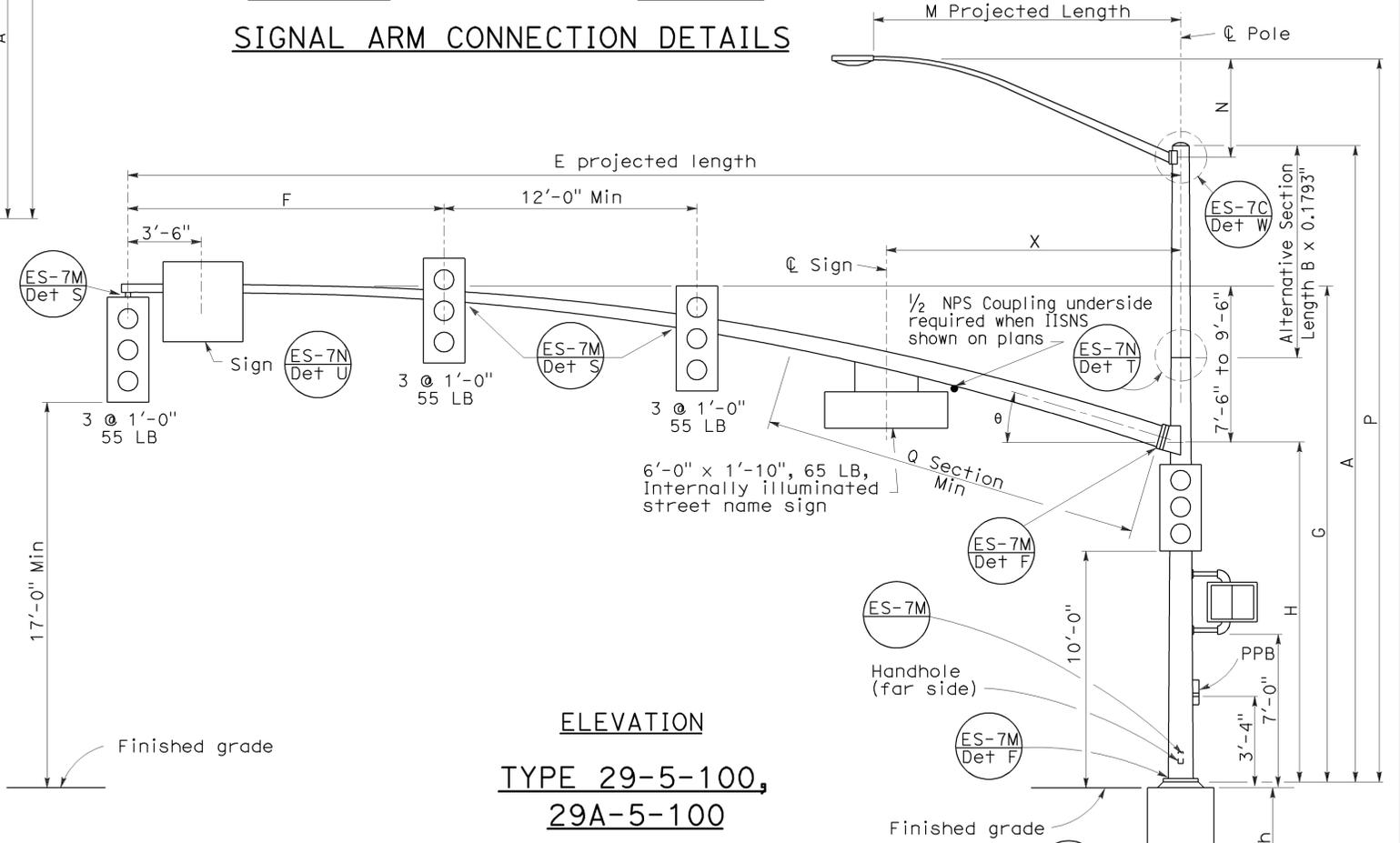
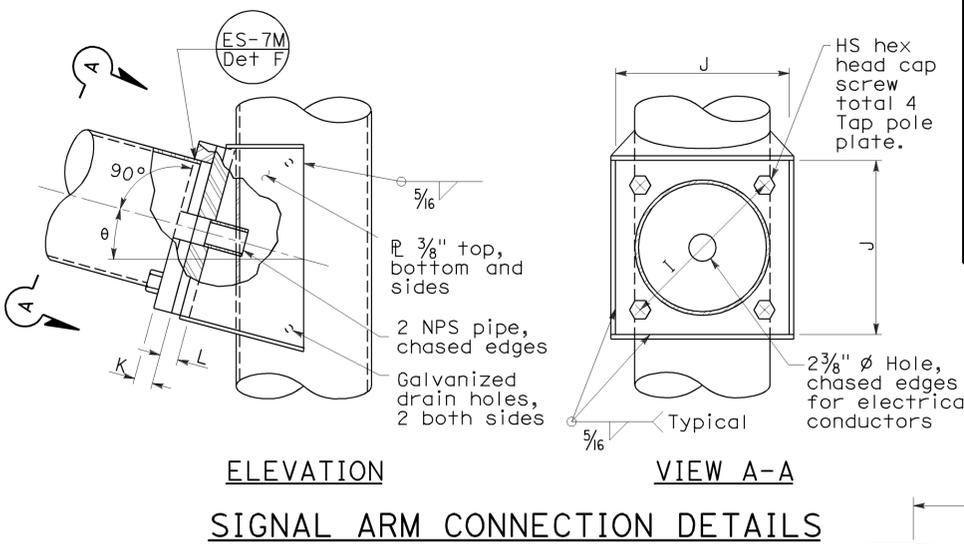
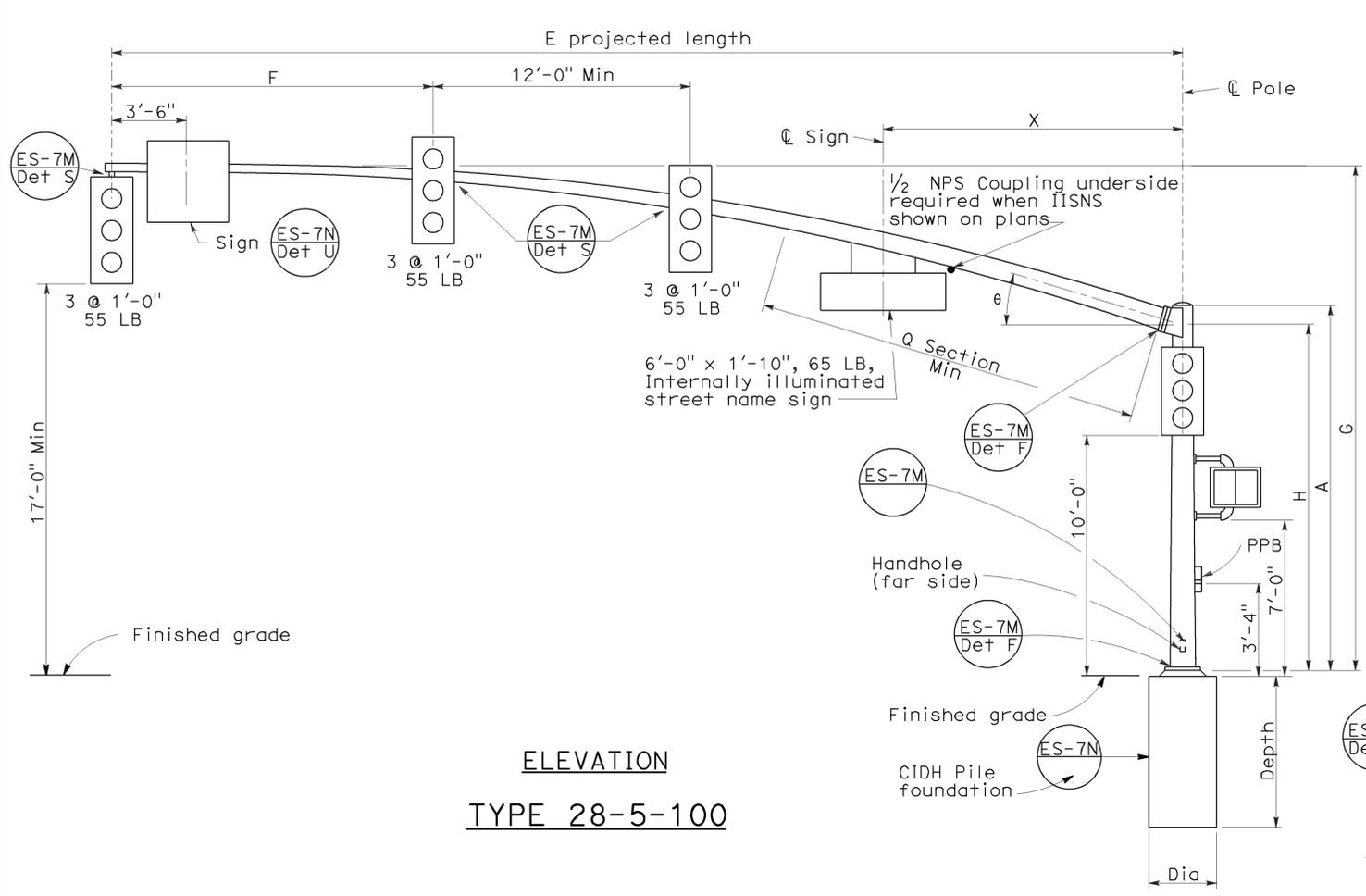
□ Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD
CASE 1 ARM LOADING
WIND VELOCITY = 100 MPH
ARM LENGTHS 15' TO 30')

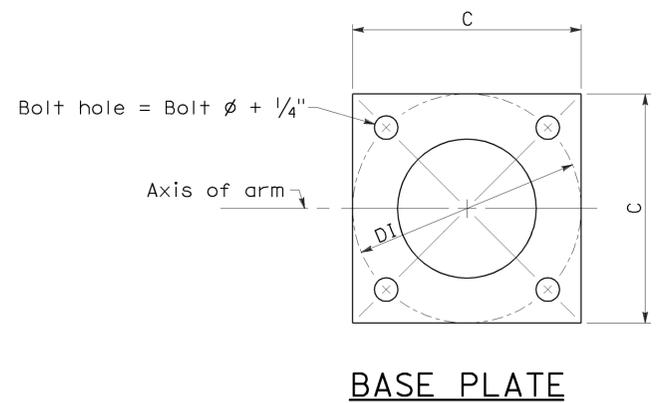
NO SCALE
RSP ES-7C DATED JUNE 15, 2007 SUPERSEDES STANDARD PLAN ES-7C
DATED MAY 1, 2006 - PAGE 439 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7C

2006 REVISED STANDARD PLAN RSP ES-7C



M Projected Length	N Rise	Min OD at Pole	Thickness	P Mounting Height
6'-0"	2'-0"±	3 1/4"	0.1196"	30'-0" Pole
8'-0"	2'-6"±	3 1/2"		31'-6"±
10'-0"	3'-3"±	3 7/8"		32'-0"±
12'-0"	4'-3"±	4 1/4"		32'-9"±
15'-0"	4'-9"±	4 1/4"		33'-9"±
				35'-0" Pole
				36'-6"±
				37'-0"±
				37'-9"±
				38'-9"±
				39'-3"±



E Projected Length	F Min Spacing	G Mounting Height	H	Min OD at Pole	Thickness	I Bolt Circle	HS Cap Screws	J Plate Size	K Arm ϕ Thickness	L Pole ϕ Thickness	θ	Q Section		X Max
												Length	Thickness	
50'-0"	15'-0"	23'-7"± to 25'-7"±	16'-0"	11 7/16"	0.1793"	16"	1 1/2"-6NC-3 1/4"	1'-4"	1 3/4"	1 3/4"	15°	18'-0"	0.2391"	14'-0"
55'-0"												23'-0"		

Pole Type	Load Case	Wind Velocity mph	POLE DATA					BASE PLATE DATA				Luminaire Arm	Signal Arm	CIDH PILE FOUNDATION				
			A Height	Min OD		Thickness	Alternative Section			C	DI Bolt Circle			Thickness	Anchor Bolts Size	Dia	Depth	Reinforced
				Base	Top		B Length	Bottom	Top									
28-5-100	5	100	17'-0"	14"	11 1/16"	None			21"	21"	1 3/4"	2" ϕ x 42" x 6"	6'-15'	15'-0"	3'-0"	9'-2"	Yes	
29-5-100			30'-0"		9 7/8"	10'-0"	11 1/4"	9 7/8"										
29A-5-100			35'-0"		9 3/16"	15'-0"	9 3/16"	23"										23"

□ Indicates arm length to be used unless otherwise noted on plans.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SIGNAL AND LIGHTING STANDARD
CASE 5 ARM LOADING
WIND VELOCITY=100 MPH
ARM LENGTHS 50' TO 55')
 NO SCALE

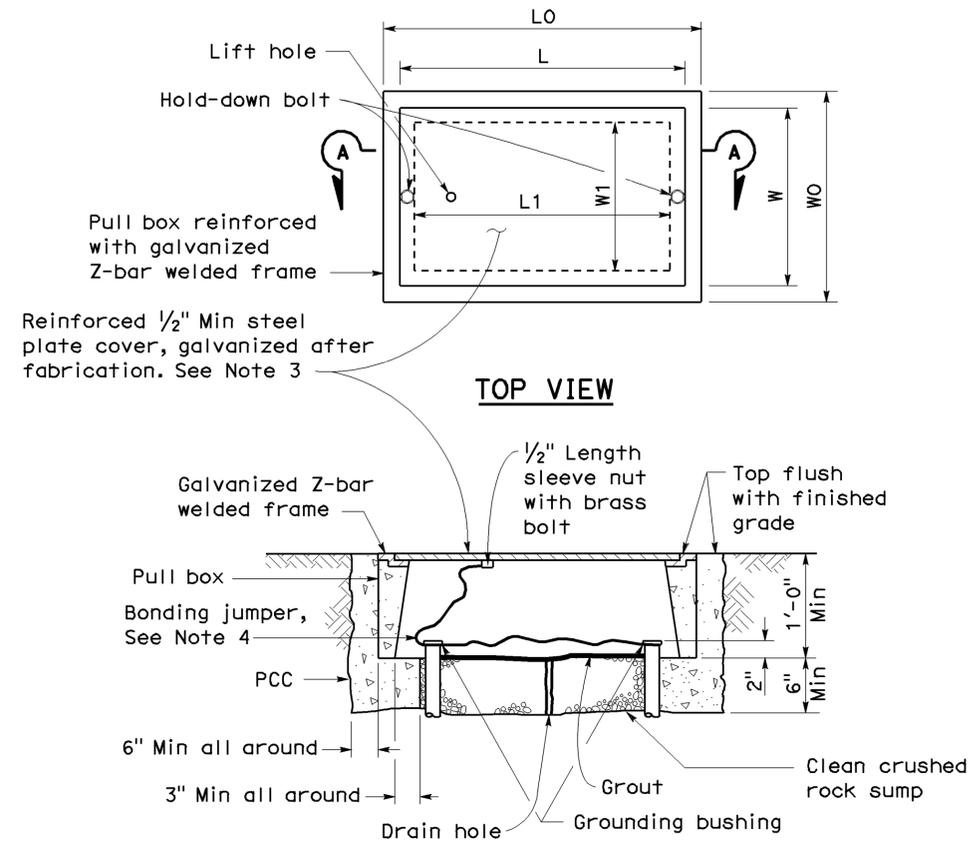
RSP ES-7G DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN ES-7G
 DATED MAY 1, 2006 - PAGE 443 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-7G

2006 REVISED STANDARD PLAN RSP ES-7G

To accompany plans dated 6-11-12

2006 NEW STANDARD PLAN NSP ES-8B



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

NOTES ON PULL BOXES:

- 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 must 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 street or sign lighting circuits.
 - "ST LIGHTING" - Street 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 street or sign lighting circuits.
 - "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - "STREET LIGHTING-HIGH VOLTAGE" - Street 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.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes must be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces must be flush within 1/8".

PULL BOX	BOX						COVER				
	Minimum * Thickness	Minimum Depth Box and Extension	W0	L0	L1	W1	L **	W **	R	Edge Thickness	Edge Taper
No. 3 1/2(T)	1 1/2"	1'-0"	1'-5"± 1"	1'-8 7/8"±	1'-2 1/2"±	10 5/8"± 1"	1'-8"±	1'-1 3/4"±	0"	1/2"	None
No. 5(T)	1 3/4"	1'-0"	1'-11 1/2"± 1"	2'-5 1/2"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	1/2"	None
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11 1/2"±	1'-11 1/2"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	1/2"	None

* Excluding conduit web ** Top dimension

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

NSP ES-8B DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.