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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

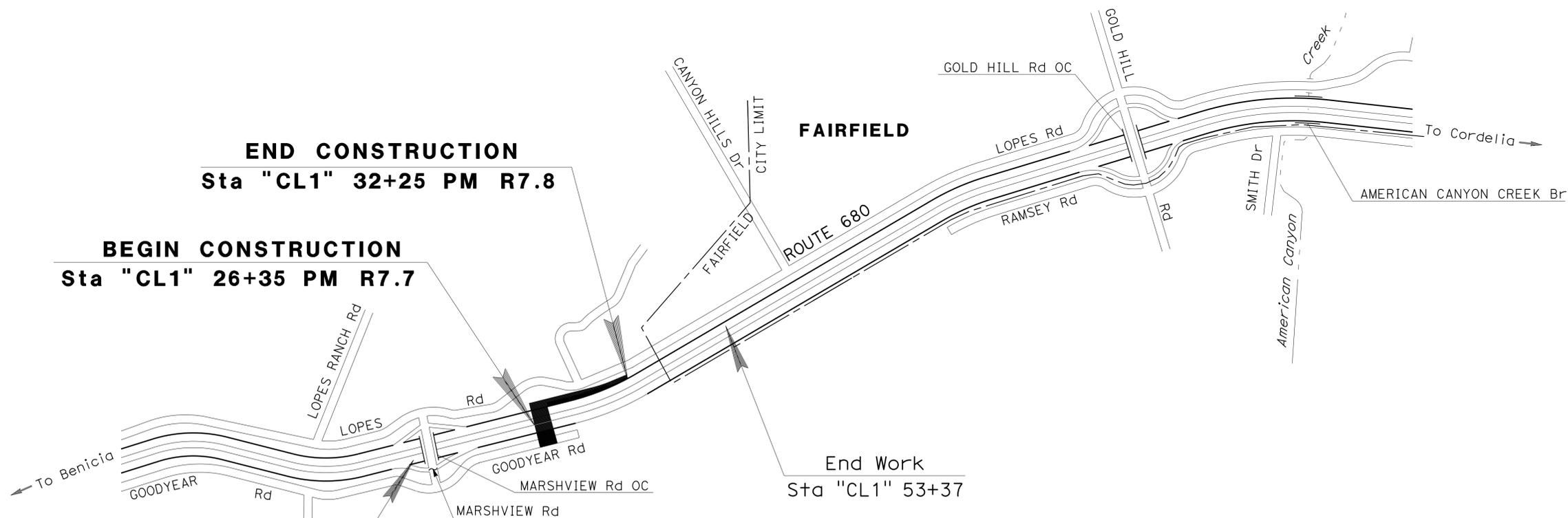
ACIM-680-1(078)E

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SOLANO COUNTY
NEAR FAIRFIELD
FROM 0.4 MILE NORTH OF MARSHVIEW ROAD OVERCROSSING
TO 1.9 MILES SOUTH OF GOLD HILL ROAD OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	680	R7.7/R7.8	1	26

LOCATION MAP



SOLANO COUNTY

NO SCALE

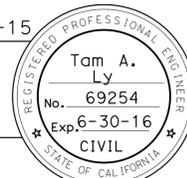
PROJECT MANAGER
JASON MAC

DESIGN MANAGER
LAWRENCE A. JONES

Tam A. Ly 10-27-15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

October 26, 2015
PLANS APPROVAL DATE

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



CONTRACT No.	04-3G0604
PROJECT ID	0400021256

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: TAM LY
 CALCULATED/DESIGNED BY: ADRIAN CUSTODIO
 CHECKED BY: KATHLEEN REILLY
 REVISED BY: TL
 DATE REVISED: 10-26-15

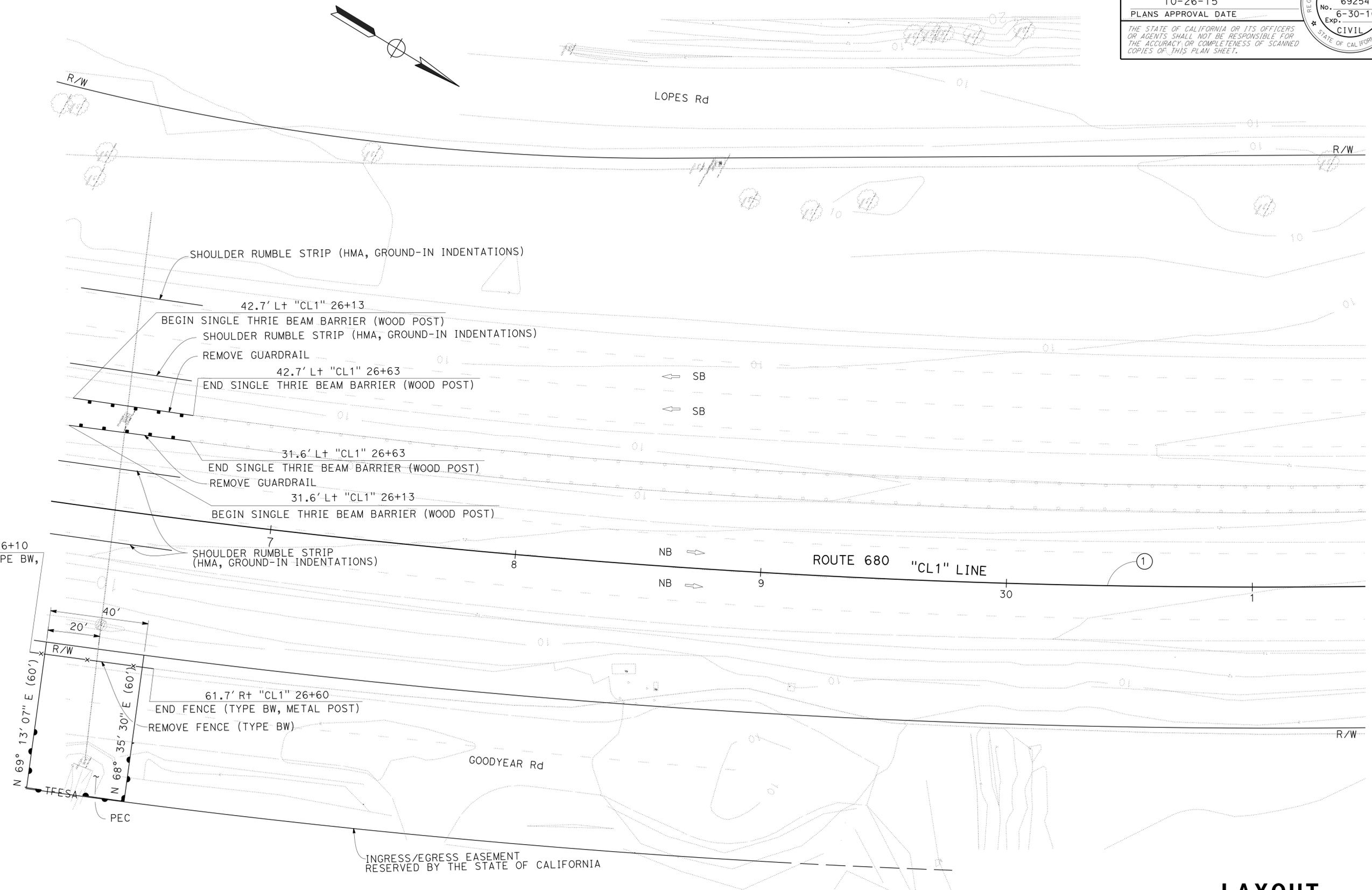
NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No. #	R	Δ	T	L
1	3500'	-15° 51' 43"	487.59'	968.95'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	2	26

REGISTERED CIVIL ENGINEER: *Tam A. Ly* 10-26-15
 No. 69254
 Exp. 6-30-16
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

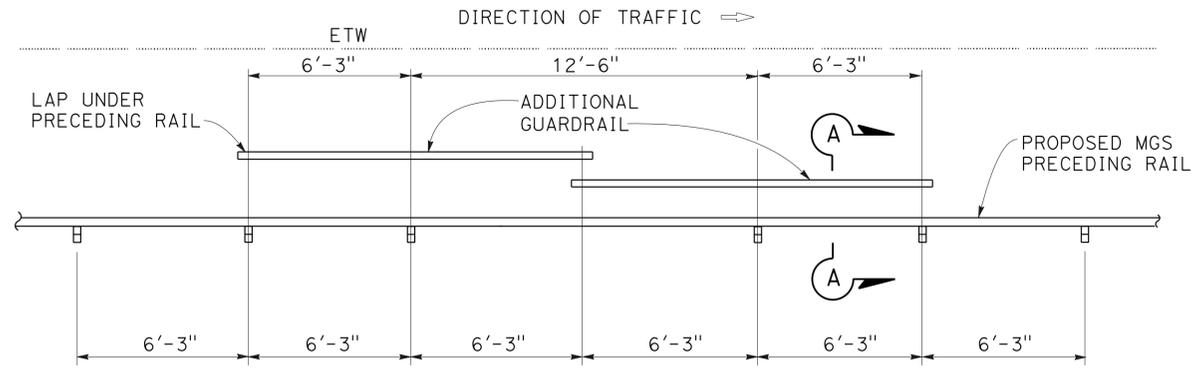


LAYOUT
 SCALE: 1" = 20'

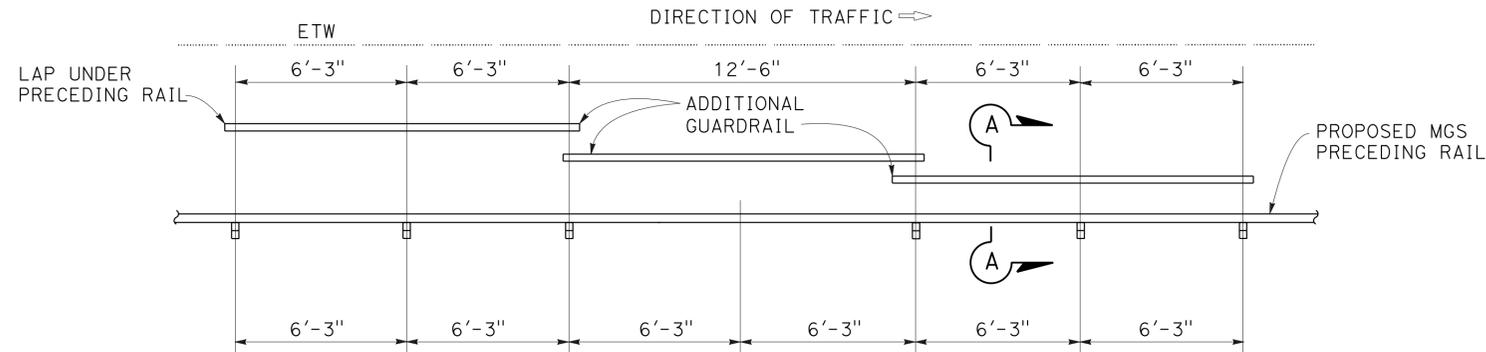
L-1

LAST REVISION | DATE PLOTTED => 19-JUL-2016
 10-21-15 TIME PLOTTED => 13:15

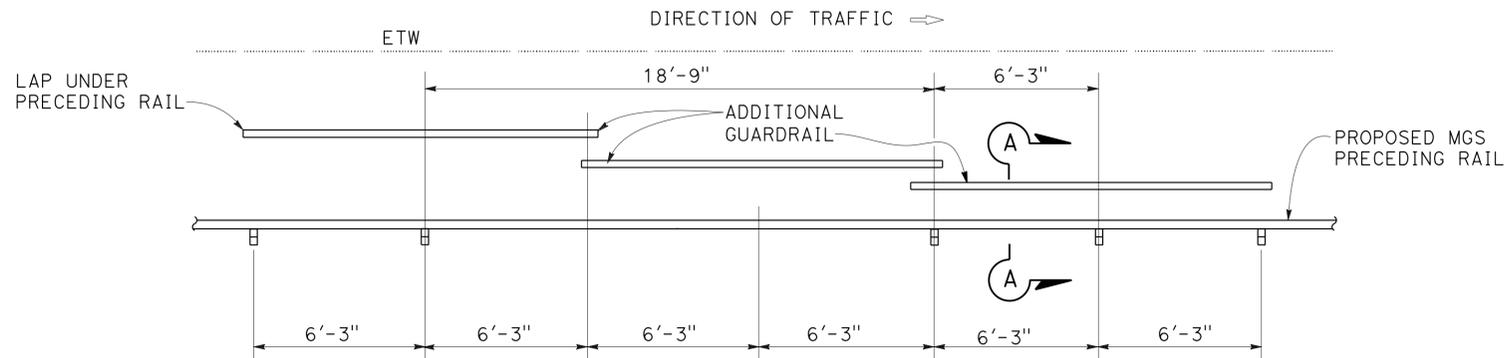
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	3	26
			<i>Tam A. Ly</i> 10-26-15 REGISTERED CIVIL ENGINEER DATE		
			10-26-15 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



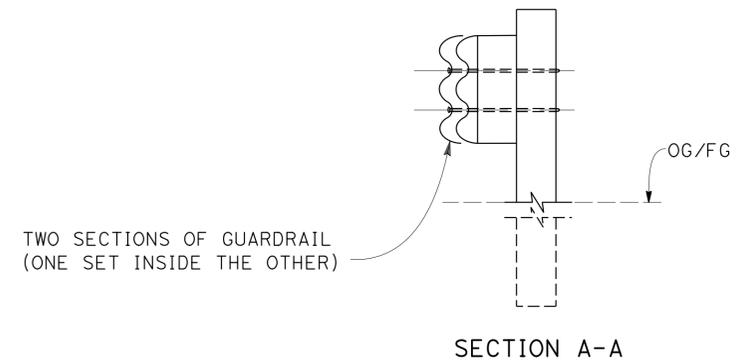
CASE 1
ONE POST OMITTED (SPLICE IN CENTER)



CASE 2
ONE POST OMITTED (SPLICE IN AT POSTS)



CASE 3
TWO POSTS OMITTED



CONSTRUCTION DETAILS
NO SCALE

C-1

TL	10-26-15
REVISOR	DATE
ADRIAN CUSTODIO	KATHLEEN REILLY
CALCULATED/DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	TAM LY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY
 SENIOR WATER POLLUTION CONTROL KAMRAN NAKHJURI
 CALCULATED/DESIGNED BY CHECKED BY
 GANGA TRIPATHI KAMRAN NAKHJURI
 REVISED BY DATE REVISED
 KN 10-26-15

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

NOTE:
 1. TEMPORARY BMP LOCATIONS ARE BASED ON DISTURBED SOIL
 AREAS AND THE STORM WATER FLOW PATTERNS IDENTIFIED
 DURING THE DESIGN PHASE. CONTRACTOR IS RESPONSIBLE
 TO DEVELOP A SWPPP THAT STABILIZES ALL AFFECTED AREAS
 INCLUDING ADDITIONAL DISTURBED AREAS AS A RESULT OF
 CONTRACTOR'S MEANS AND METHODS AND COMPLIES WITH PERMITS,
 LICENSES, AGREEMENTS AND CERTIFICATIONS (PLACS).

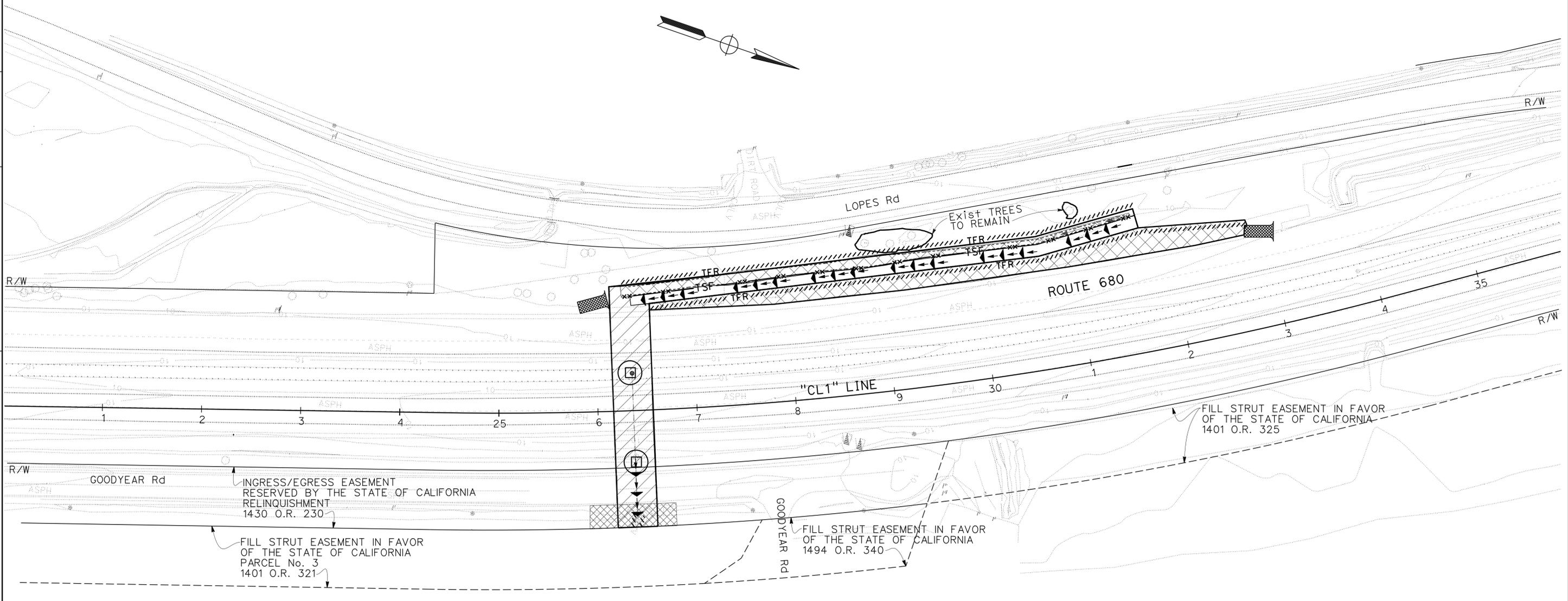
LEGEND:
 TEMPORARY COVER
 TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	4	26

10/26/15
 REGISTERED CIVIL ENGINEER DATE
 10-26-15
 PLANS APPROVAL DATE

Ganga D. Tripathi
 No. 78447
 Exp. 9-30-17
 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.



TEMPORARY WATER POLLUTION CONTROL PLAN
 NO SCALE

APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-1

LAST REVISION DATE PLOTTED => 19-JUL-2016 10-21-15 TIME PLOTTED => 13:15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans WATER QUALITY

FUNCTIONAL SUPERVISOR
 KAMRAN NAKHJIRI

CALCULATED-DESIGNED BY
 CHECKED BY

GANGA TRIPATHI
 KAMRAN NAKHJIRI

REVISED BY
 DATE REVISED

KN
 10-26-15

ABBREVIATION:

BFM BONDED FIBER MATRIX

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

ITEM	UNIT	STATION	QUANTITY
TEMPORARY DRAINAGE INLET PROTECTION	EA	AS SHOWN IN THE PLAN	2
TEMPORARY FIBER ROLL	LF	AS SHOWN IN THE PLAN	1150
TEMPORARY COVER	SQYD	AS SHOWN IN THE PLAN	600
TEMPORARY HYDRAULIC MULCH (BFM)	SQYD	AS SHOWN IN THE PLAN	1950
TEMPORARY SILT FENCE	LF	AS SHOWN IN THE PLAN	600
TEMPORARY CONSTRUCTION ENTRANCE	EA	AS SHOWN IN THE PLAN	2
TEMPORARY CHECK DAM	LF	AS SHOWN IN THE PLAN	100

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

WPCQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	5	26

10-26-15
 REGISTERED CIVIL ENGINEER DATE

10-26-15
 PLANS APPROVAL DATE

Ganga D. Tripathi
 No. 78447
 Exp. 9-30-17
 CIVIL

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

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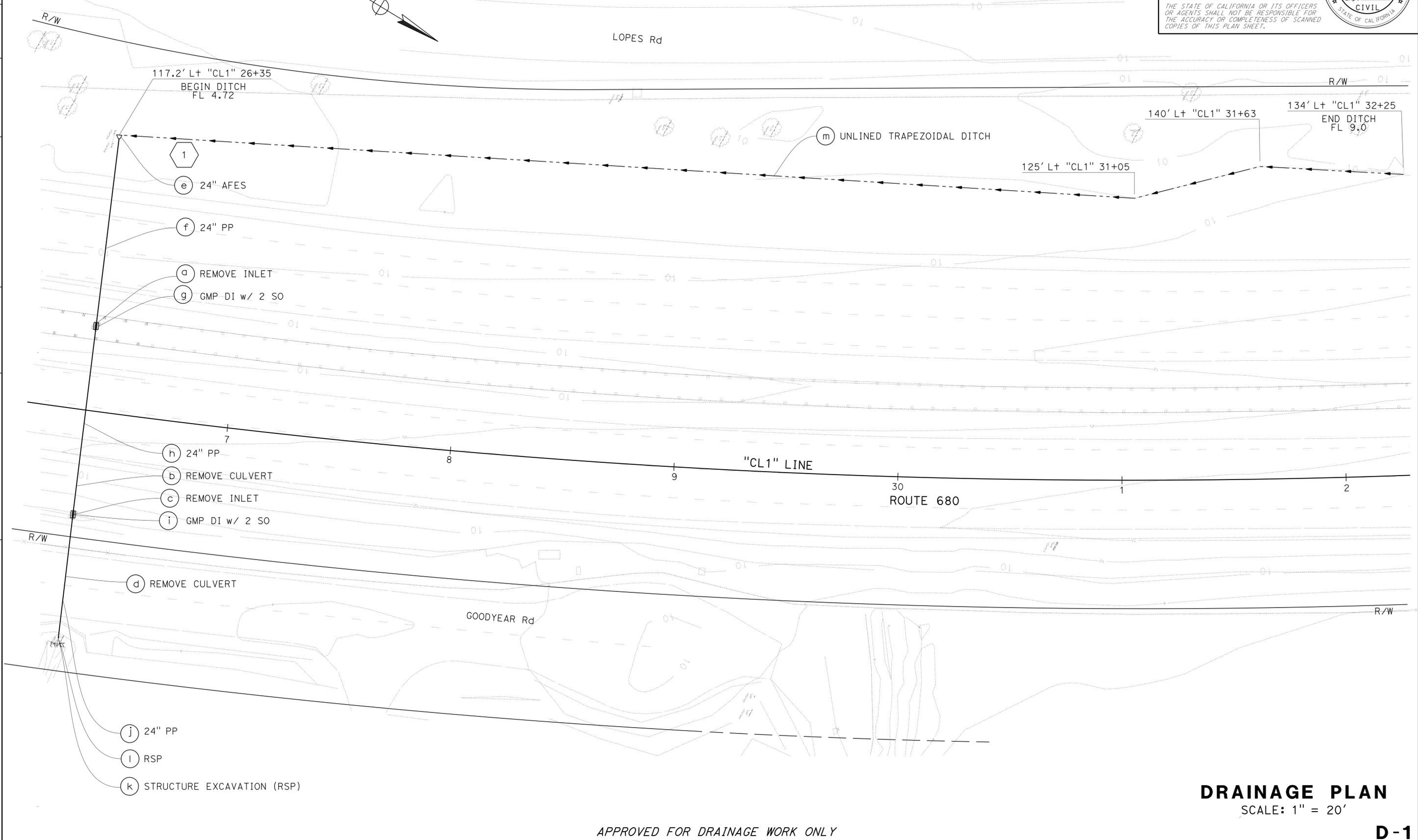
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	6	26
			REGISTERED CIVIL ENGINEER	DATE	
			Tam A. Ly	10-26-15	
			No. 69254		
			Exp. 6-30-16		
			CIVIL		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

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

ABBREVIATIONS:
SO SIDE OPENING
w/ WITH

NOTES:
1. THE PROJECT DATUM: FEET NAD83 NGVD29.
2. LOCATION OF EXISTING DRAINAGE FACILITIES ARE APPROXIMATE ONLY, CONTRACTOR MUST VERIFY LOCATION AND ELEVATION PRIOR TO MODIFYING.
3. OFFSET AND TOP OF GRATE ELEVATIONS FOR PIPE INLETS ARE TAKEN AT THE CENTER OF THE BASE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans



- 1
- e 24" AFES
- f 24" PP
- a REMOVE INLET
- g GMP DI w/ 2 SO
- h 24" PP
- b REMOVE CULVERT
- c REMOVE INLET
- i GMP DI w/ 2 SO
- d REMOVE CULVERT
- j 24" PP
- l RSP
- k STRUCTURE EXCAVATION (RSP)

m UNLINED TRAPEZOIDAL DITCH

DRAINAGE PLAN
SCALE: 1" = 20'

APPROVED FOR DRAINAGE WORK ONLY

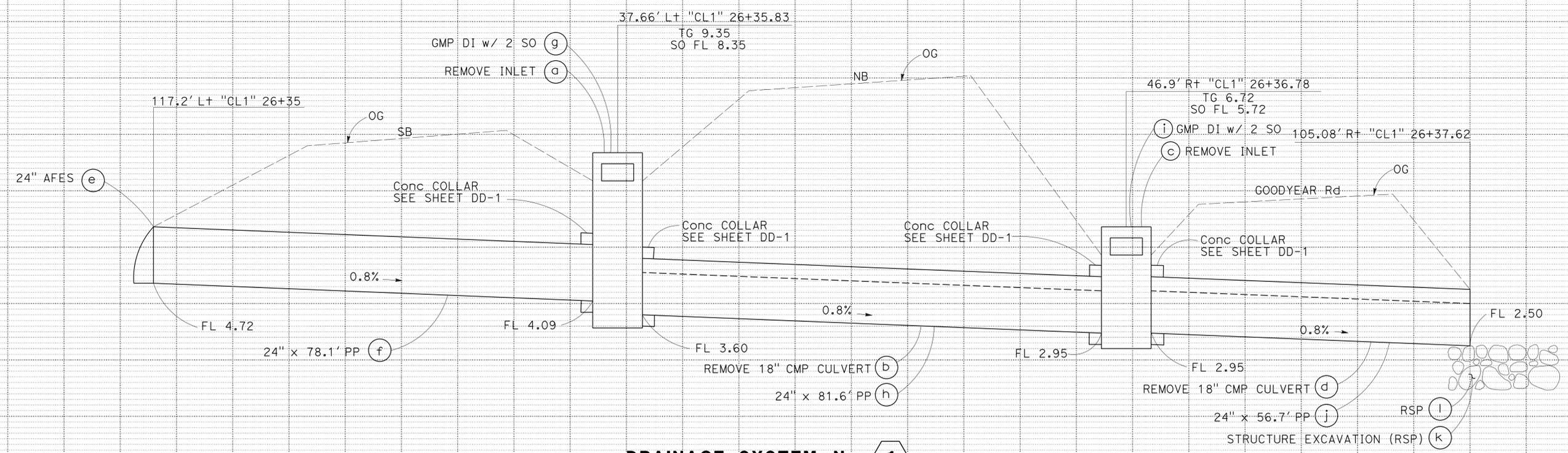
D-1

LAST REVISION DATE PLOTTED => 19-JUL-2016 10-22-15 TIME PLOTTED => 13:16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 TAM LY
 CALCULATED/DESIGNED BY
 ADRIAN CUSTODIO
 CHECKED BY
 KATHLEEN REILLY
 REVISED BY
 DATE REVISED
 10-26-15
 TL

ABBREVIATION:
 SO SIDE OPENING

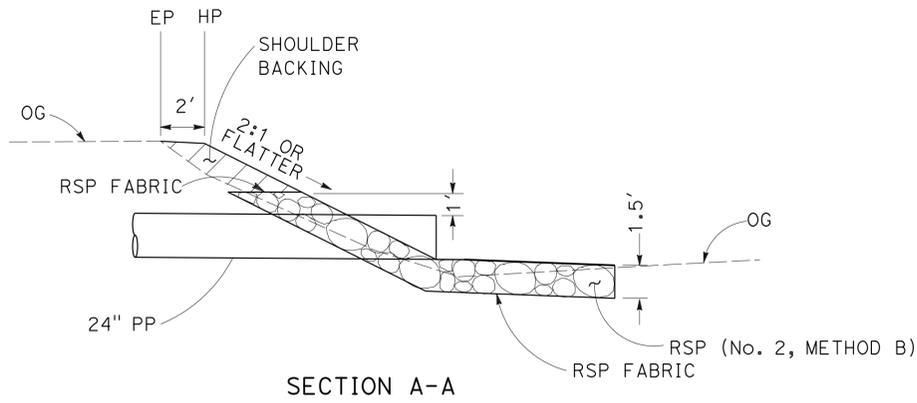
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	7	26
			REGISTERED CIVIL ENGINEER	DATE	
			Tam A. Ly	10-26-15	
			No. 69254	PLANS APPROVAL DATE	
			Exp 6-30-16		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



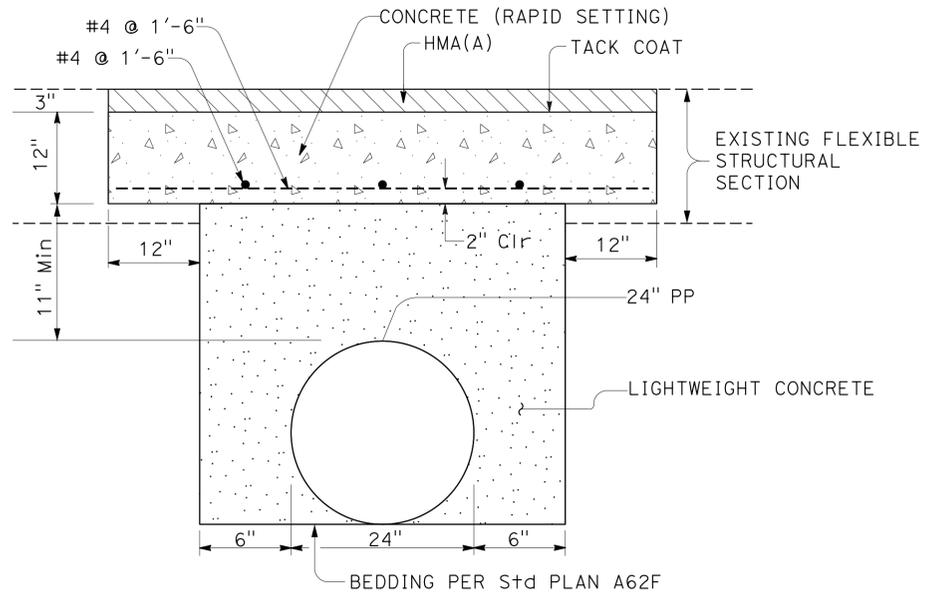
DRAINAGE SYSTEM No. 1

DRAINAGE PROFILES
 SCALE: Horiz 1" = 10'
 Vert 1" = 2'
DP-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	8	26
			REGISTERED CIVIL ENGINEER	DATE	
			Tam A. Ly	10-26-15	
			No. 69254		
			Exp. 6-30-16		
			CIVIL		
<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>					

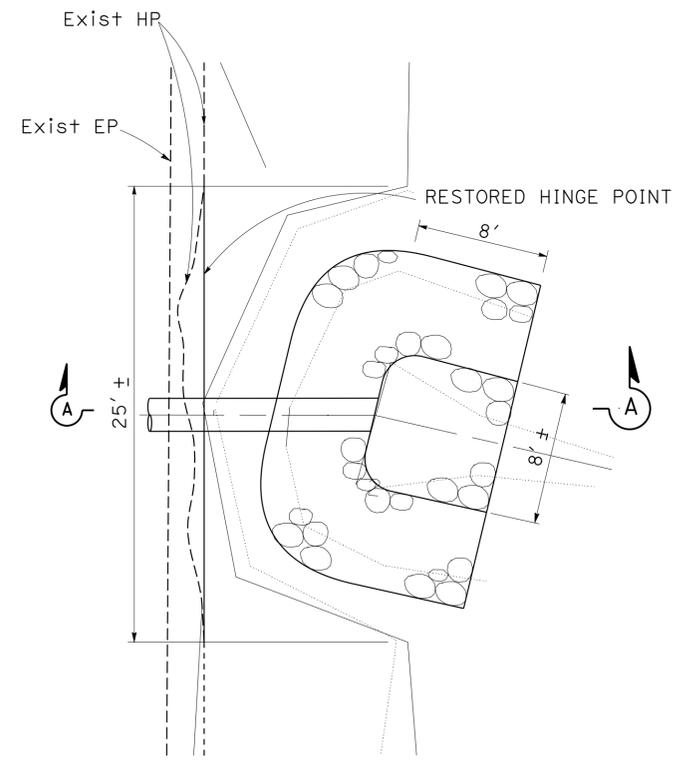


SECTION A-A



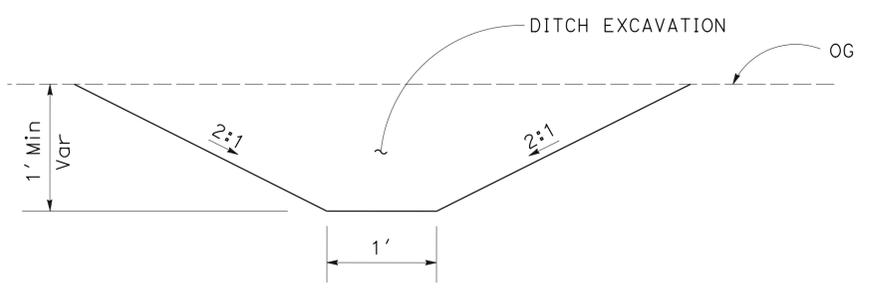
TRENCH BACKFILL DETAIL

1 f h j



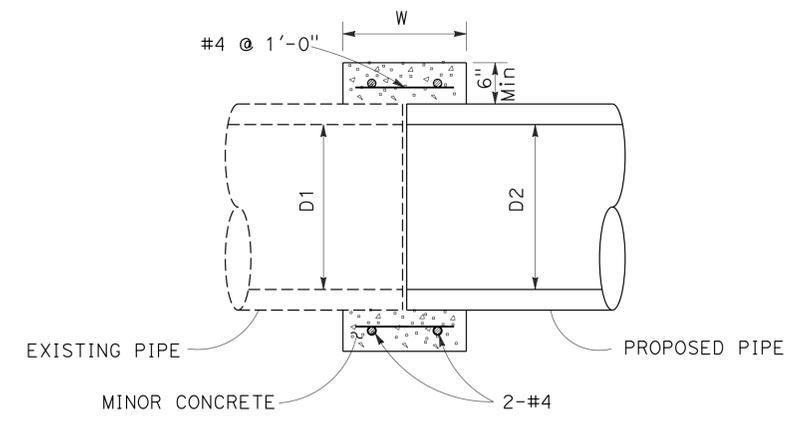
PLAN
RSP (No. 2, METHOD B)

1 l



UNLINED TRAPEZOIDAL DITCH

1 m



CONCRETE COLLAR

NOTES:

1. SECURE CULVERT PIPE TO PREVENT FLOATING DURING CONCRETE POUR.
2. W = 1'-0" WHERE D2 ≤ 2'-0"
3. SQUARE OR ROUND COLLAR OPTIONAL.
4. COLLAR TO BE USED FOR JOINING PROPOSED PIPE TO EXISTING PIPE, PIPES OF DIFFERENT TYPES OR PIPES OF DIFFERENT SIZES.
5. CONCRETE (RAPID SETTING) IS FROM EP TO EP ONLY.

DRAINAGE DETAILS
NO SCALE

DD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

REVISOR
ADRIAN CUSTODIO
KATHLEEN REILLY

DESIGNER
TAM LY

DATE
10-26-15

ABBREVIATION:

W WATERTIGHT JOINT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	9	26

10-26-15
 REGISTERED CIVIL ENGINEER DATE
 Tam A. Ly
 No. 69254
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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DRAINAGE QUANTITIES

LINE NO.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE CULVERT	REMOVE INLET	STRUCTURE EXCAVATION (RSP)	DITCH EXCAVATION	STRUCTURE EXCAVATION (CULVERT)	STRUCTURE BACKFILL (CULVERT)	CONCRETE (RAPID SETTING)	24" PLASTIC PIPE	36" CSP INLET (0.109" THICK)	24" AFES	LIGHTWEIGHT CONCRETE	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	SAND BEDDING	RSP (No. 2, METHOD B)	RSP FABRIC (CLASS 8)	MISCELLANEOUS IRON AND STEEL	SHOULDER BACKING	HOT MIX ASPHALT (TYPE A)	TACK COAT	MAXIMUM COVER (N)	HEIGHT OF INLET (N)	TRASH RACK (N)	FRAME AND GRATE (N)	PIPE JOINT CLASSIFICATION (N)	DESCRIPTION	STATION	DRAINAGE SYSTEM No.	DRAINAGE UNIT
1	a			1																						REMOVE INLET	37.66' Lt "CL1" 26+35.83	1	a	
	b	85																								REMOVE 18" CMP CULVERT	37.66' Lt "CL1" 26+35.83 TO 46.9' Rt 26+36.78		b	
	c			1																						REMOVE INLET	46.9' Rt "CL1" 26+36.78		c	
	d	56																								REMOVE 18" CMP CULVERT	46.9' Rt "CL1" 26+36.78 TO 105.08' Rt 26+37.62		d	
	e											1														24" AFES	117.2' Lt "CL1" 26+35		e	
	f					63.6	0.5	199.8	78.1				18.7	20.4						3.8	0.1	4.2			W	24" PP	117.2' Lt "CL1" 26+35 TO 37.66' Lt 26+35.83		f	
	g									6.25			0.24				280					6	2	36R		GMP DI w/ 2 SO	37.66' Lt "CL1" 26+35.83		g	
	h					102	0.5	199.8	81.6				50.8	10.2						3.8	0.1	6.9			W	24" PP	37.66' Lt "CL1" 26+35.83 TO 46.9' Rt 26+36.78		h	
	i									4.27			0.24				280					4.02	2	36R		GMP DI w/ 2 SO	46.9' Rt "CL1" 26+36.78		i	
	j					44.9	0.4	143.1	56.7				17.2	4.8						2.6	0.1	3.3			W	24" PP	46.9' Rt "CL1" 26+36.78 TO 105.08' Rt 26+37.62		j	
	k				7											17	33									STRUCTURE EXCAVATION (RSP)	105.08' Rt "CL1" 26+37.62		k	
	l																									RSP	105.08' Rt "CL1" 26+37.62		l	
	m					202																				UNLINED TRAPEZOIDAL DITCH	117.2' Lt "CL1" 26+35 TO 134' Lt 32+25		m	
TOTAL		141	2	7	202	210.5	1.4	542.7	216.4	10.52	1	86.7	0.48	35.4	17	33	560	2.5	10.2	0.3							TOTAL			

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

DRAINAGE QUANTITIES

DQ-1

LAST REVISION DATE PLOTTED => 19-JUL-2016 10-22-15 TIME PLOTTED => 13:16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
TAM LY

CALCULATED/DESIGNED BY
CHECKED BY

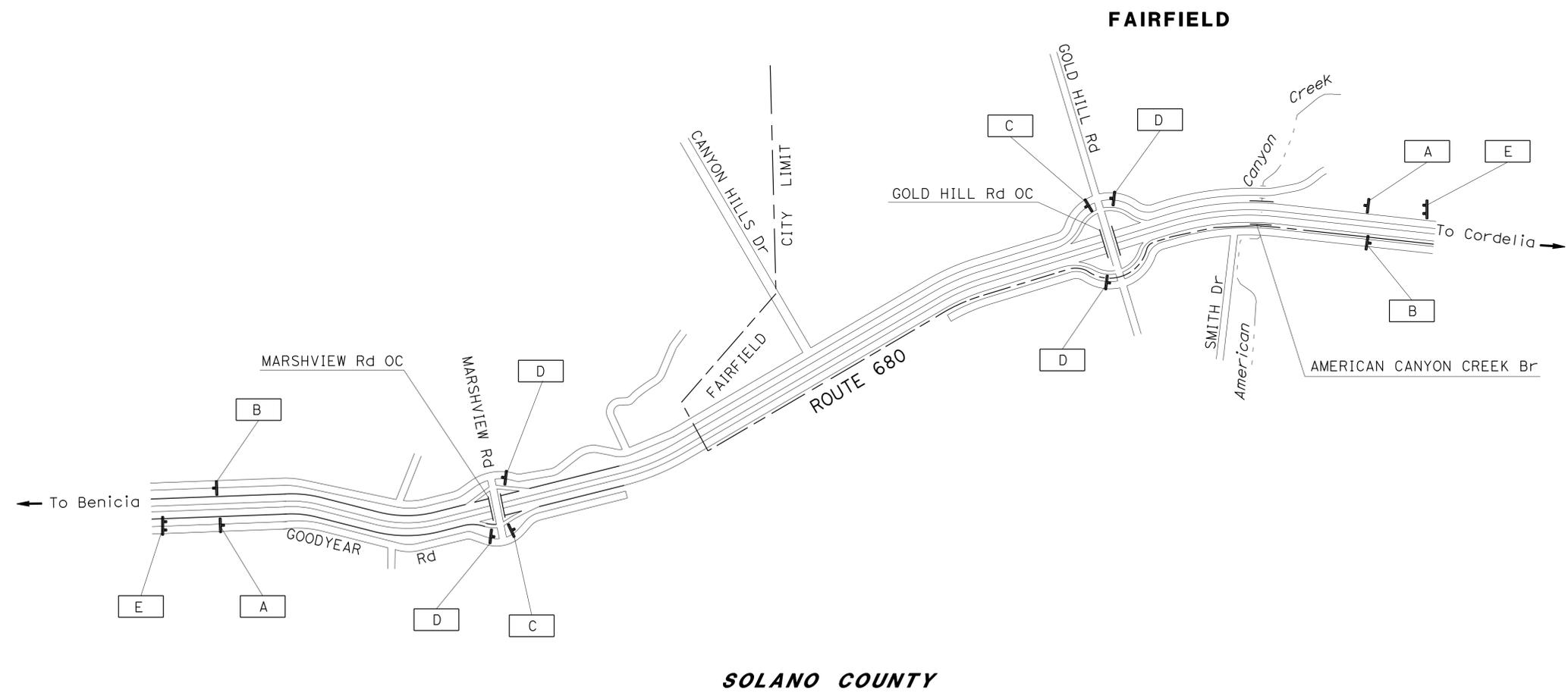
ADRIAN CUSTODIO
TAM LY

REVISOR BY
DATE REVISED

TL
10-26-15

NOTE:
 1. EXACT LOCATION AND POSITION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.

LEGEND:



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	680	R7.7/R7.8	10	26

REGISTERED CIVIL ENGINEER DATE 10-26-15
 Tam A. Ly
 No. 69254
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE 10-26-15

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

CONSTRUCTION AREA SIGNS
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR
 TAM LY

CALCULATED/DESIGNED BY
 CHECKED BY

ADRIAN CUSTODIO
 TAM LY

REVISED BY
 DATE REVISED

TL
 10-26-15

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (N)

SIGN LETTER	SIGN CODE		SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				
A	W20-1		ROAD WORK AHEAD	48" x 48"	1 - 4" x 6"	2
B	G20-2		END ROAD WORK	48" x 24"	1 - 4" x 4"	2
C	W20-1		ROAD WORK AHEAD	36" x 36"	1 - 4" x 6"	2
D	G20-2		END ROAD WORK	36" x 18"	1 - 4" x 4"	4
E		C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144" x 60"	2 - 4" x 6"	2
F		SC6-4(CA)	RAMP CLOSED	48" x 60"	1 - 6" x 6"	2
G	W20-2		DETOUR AHEAD	36" x 36"	1 - 4" x 6"	5
H	M4-8a		END DETOUR	24" x 18"	1 - 4" x 4"	2
I	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	2
	M3-1	G27-2(680)(CA)	ROUTE SHIELD 680 NORTH	36" x 36"		
	M6-3(↑)		UP ARROW	21" x 15"		
J	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	2
	M3-1	G27-2(680)(CA)	ROUTE SHIELD 680 NORTH	36" x 36"		
	M6-1(←)		LEFT ARROW	21" x 15"		
K	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	2
	M3-1	G27-2(680)(CA)	ROUTE SHIELD 680 NORTH	36" x 36"		
	M6-1(→)		RIGHT ARROW	21" x 15"		
L	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	3
	M3-3	G27-2(680)(CA)	ROUTE SHIELD 680 SOUTH	36" x 36"		
	M6-3(↑)		UP ARROW	21" x 15"		
M	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	2
	M3-3	G27-2(680)(CA)	ROUTE SHIELD 680 SOUTH	36" x 36"		
	M6-1(←)		LEFT ARROW	21" x 15"		
N	M4-8		DETOUR	30" x 15"	1 - 4" x 6"	3
	M3-3	G27-2(680)(CA)	ROUTE SHIELD 680 SOUTH	36" x 36"		
	M6-1(→)		RIGHT ARROW	21" x 15"		

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	12	26

10-26-15
 REGISTERED CIVIL ENGINEER DATE
 10-26-15
 PLANS APPROVAL DATE

Tam A. Ly
 No. 69254
 Exp. 6-30-16
 CIVIL

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CONSTRUCTION AREA SIGNS

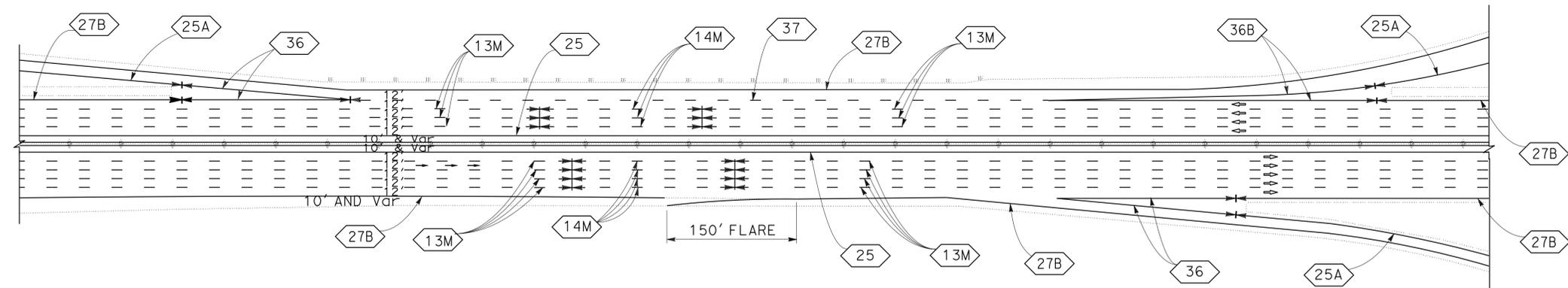
CS-3

LAST REVISION DATE PLOTTED => 19-JUL-2016 10-22-15 TIME PLOTTED => 13:16

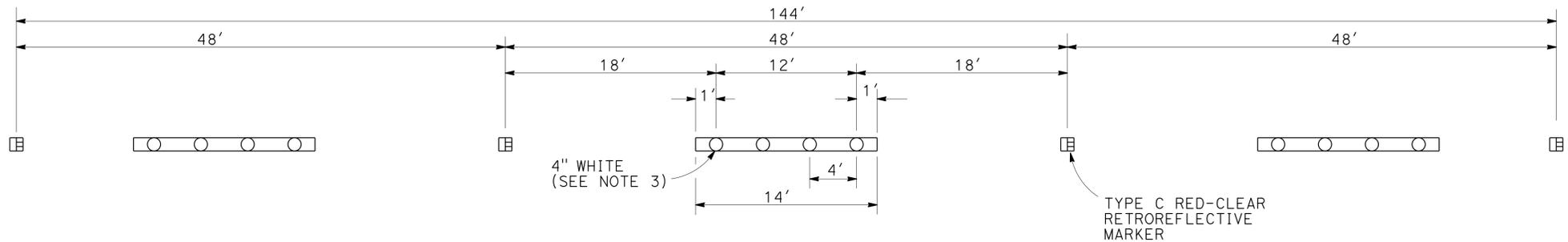
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	13	26

10-26-15
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 Tam A. Ly
 No. 69254
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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TYPICAL STRIPING (MAINLINE)



DETAIL 14M

- NOTES:** (FOR DETAIL 14M)
1. DETAIL 14M IS MODIFIED PAVEMENT DELINEATION DETAIL 14.
 2. FOR DETAILS NOT SHOWN, SEE STANDARD PLAN A20A.
 3. INSTALL 4" WHITE STRIPE AFTER INSTALLING PAVEMENT MARKERS.

- LEGEND:**
- +— CHANGE OF PAVEMENT DELINEATION DETAILS
 - || G DELINEATOR (CLASS 1) TYPE G
 - || F DELINEATOR (CLASS 1) TYPE F
- NOTE:**
1. ALL PAVEMENT DELINEATION SHALL BE PLACED ON THE SAME ALIGNMENT AND LOCATIONS AS EXISTING PAVEMENT DELINEATION.

TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS

LOCATION PM	DIRECTION	DESCRIPTION	DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER			TEMPORARY TRAFFIC STRIPE (PAINT)
				4" YELLOW	4" WHITE	4" WHITE (BROKEN 36-12)	NON-REFLECTIVE TYPE A	RETROREFLECTIVE		
								TYPE C	TYPE H	
R7.7	NB	0.4 MILE NORTH OF MARSHVIEW Rd OC	14M			50	4	2		50
			25	50					2	50
			27B		50					50
	SB	1.9 MILES SOUTH OF GOLD HILL Rd OC	14M			50	4	2		50
			25	50					2	50
			27B		50					50
		GOODYEAR Rd	21	100						
SUBTOTAL				200	100	100	8	4	4	300
TOTAL					300	100	8	8		300

PAVEMENT DELINEATION PLAN AND QUANTITIES

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ADRIAN CUSTODIO
 TAM LY
 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 TAM LY
 DESIGN

LAST REVISION | DATE PLOTTED => 19-JUL-2016
 10-22-15 | TIME PLOTTED => 13:16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	680	R7.7/R7.8	14	26

Tam A. Ly 10-26-15
 REGISTERED CIVIL ENGINEER DATE
 10-26-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Tam A. Ly
 No. 69254
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
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ROADWAY QUANTITIES

STATION	REMOVE FENCE (TYPE BW)	FENCE (TYPE BW, METAL POST)	REMOVE GUARDRAIL	SINGLE THRIE BEAM BARRIER (WOOD POST)	TEMPORARY FENCE (TYPE ESA)	TREATED WOOD WASTE*	SHOULDER RUMBLE STRIP (HMA, GROUND-IN INDENTATIONS)
	LF					LB	STA
61.7' R+ "CL1" 26+10 TO 61.7' R+ "CL1" 26+60	50	50					
31.6' L+ "CL1" 26+13 TO 31.6' L+ "CL1" 26+63			50	50		700	
42.7' L+ "CL1" 26+13 TO 42.7' L+ "CL1" 26+63			50	50		700	
92.7' R+ "CL1" 26+15 TO 92.4' R+ "CL1" 26+55					90		
AS SHOWN IN THE PLAN							2
TOTAL	50	50	100	100	90	1400	2

* FROM REMOVE GUARDRAIL

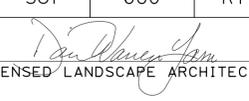
SUMMARY OF QUANTITIES

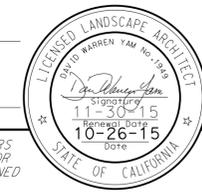
Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 TAM LY
 CALCULATED/DESIGNED BY
 CHECKED BY
 ADRIAN CUSTODO
 KATHLEEN REILLY
 REVISED BY
 DATE REVISED
 TL
 10-26-15



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	15	26


 LICENSED LANDSCAPE ARCHITECT
 10-26-15
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



EROSION CONTROL (TYPE 1)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	ROLLED EROSION CONTROL PRODUCT (NETTING)	NETTING	TYPE A	
STEP 2	HYDROSEED	SEED	MIX 1	53 LB/ACRE
		FIBER	COMBINATION	2,000 LB/ACRE
STEP 3	HYDROMULCH	FIBER	COMBINATION	2,000 LB/ACRE
		TACKIFIER	GUAR	200 LB/ACRE

EROSION CONTROL (TYPE 2)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH	REMARKS
		DESCRIPTION	TYPE			
STEP 1	COMPOST	COMPOST	MEDIUM	405 CY/ACRE		3" COMPOST INCORPORATED IN TOP 9" OF SOIL
STEP 2	INCORPORATE MATERIALS	COMPOST			9"	
STEP 3	ROLLED EROSION CONTROL PRODUCT (NETTING)	NETTING	TYPE A			
STEP 4	FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	TYPE 1 FIBER ROLL INSTALLATION		
STEP 5	HYDROSEED	SEED	MIX 1	53 LB/ACRE		
		FIBER	COMBINATION	2,000 LB/ACRE		
STEP 6	HYDROMULCH	FIBER	COMBINATION	2,000 LB/ACRE		
		TACKIFIER	GUAR	200 LB/ACRE		

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
NASSELLA PULCHRA (PURPLE NEEDLEGRASS)	85	10
HORDEUM BRACHYANTHERUM (MEADOW BARLEY)	85	10
LUPINUS BICOLOR (PYGMY-LEAF LUPINE)	80	6
LOTUS PURSHIANUS (PURSHINGS LOTUS)	80	3
VULPIA MICROSTACHYS (SMALL FESCUE)	90	5
ACHILLEA MILLEFOLIUM ¹ (WHITE YARROW)	85	7
ESCHSCHOLZIA CALIFORNICA (CALIFORNIA POPPY)	80	10
ERIOPHYLLUM CONFERTIFLORUM (GOLDEN YARROW)	80	2

¹ SEED PRODUCED IN CALIFORNIA ONLY.

FIBER ROLLS

SEQUENCE	ITEM	MATERIAL		REMARKS
		DESCRIPTION	TYPE	
IN EC TYPE 2 AREAS FIBER ROLLS MUST BE INSTALLED AFTER RECP (NETTING) AND BEFORE HYDROSEED.	FIBER ROLLS	FIBER ROLL	TYPE B 8" TO 10" Dia	TYPE 1 FIBER ROLL INSTALLATION

EROSION CONTROL QUANTITY

SHEET	DESCRIPTION	ROLLED EROSION CONTROL PRODUCT (NETTING)	HYDROSEED	HYDROMULCH	COMPOST	INCORPORATE MATERIALS	FIBER ROLLS
		SQFT					
EC-1	EROSION CONTROL (TYPE 1)	4,500	4,500	4,500			
	EROSION CONTROL (TYPE 2)	10,675	10,675	10,675	10,675	10,675	650
	TOTAL	15,175	15,175	15,175	10,675	10,675	650

EROSION CONTROL LEGEND AND QUANTITIES

ECL-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 WATER QUALITY
 SENIOR LANDSCAPE ARCHITECT
 DAVID W. YAM
 CALIE TSUI
 DAVID YAM
 CT
 10-26-15
 REVISOR
 DATE
 DESIGNED BY
 CHECKED BY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION WATER QUALITY

SENIOR LANDSCAPE ARCHITECT DAVID W YAM

CHECKED BY DAVID YAM

DESIGNED BY CALIE TSUI

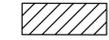
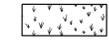
REVISOR BY DAVID YAM

DATE 10-26-15

CT

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

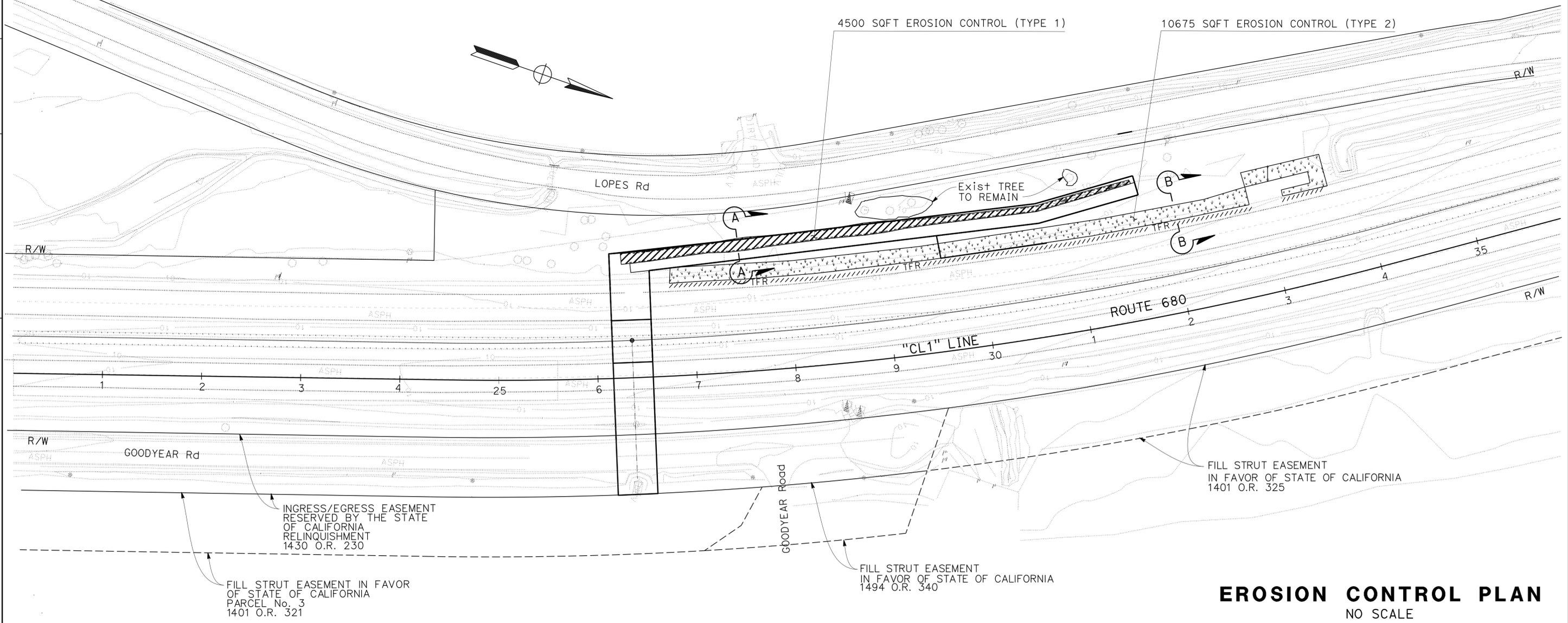
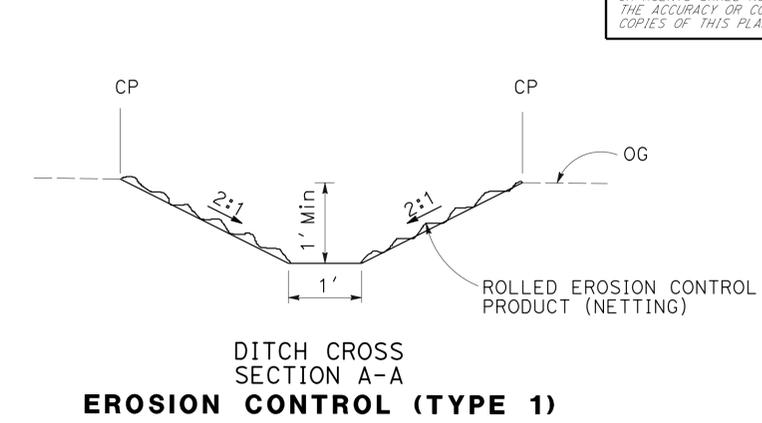
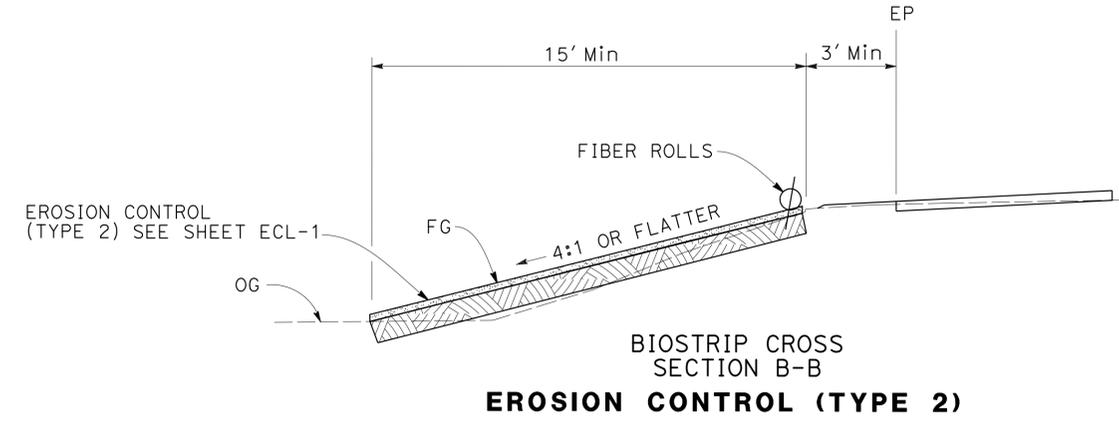
LEGEND:

-  EROSION CONTROL (TYPE 1)
-  EROSION CONTROL (TYPE 2)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	16	26

10-26-15
PLANS APPROVAL DATE

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APPROVED FOR EROSION CONTROL WORK ONLY

EROSION CONTROL PLAN
NO SCALE

EC-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	17	26

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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TO ACCOMPANY PLANS DATED 10-26-15

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

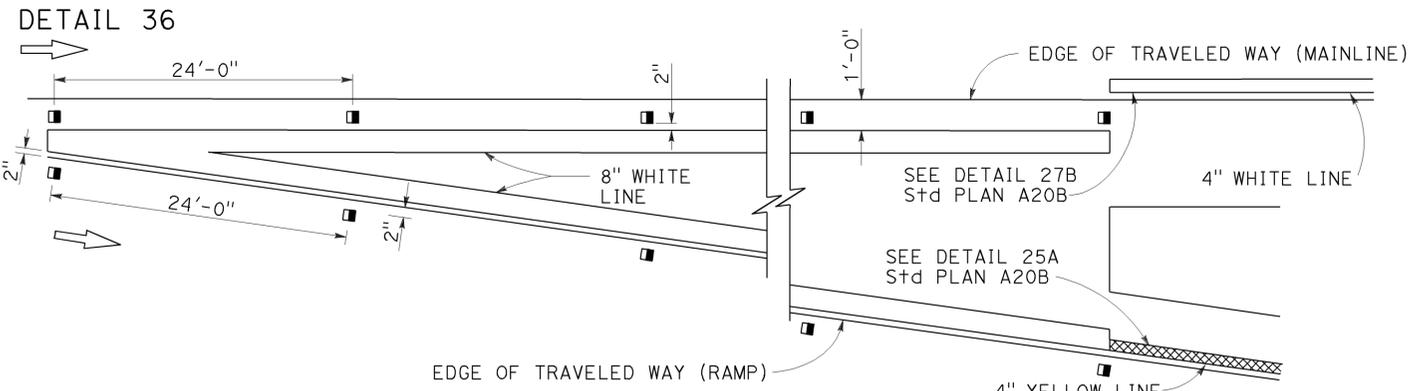
	M
Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD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

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

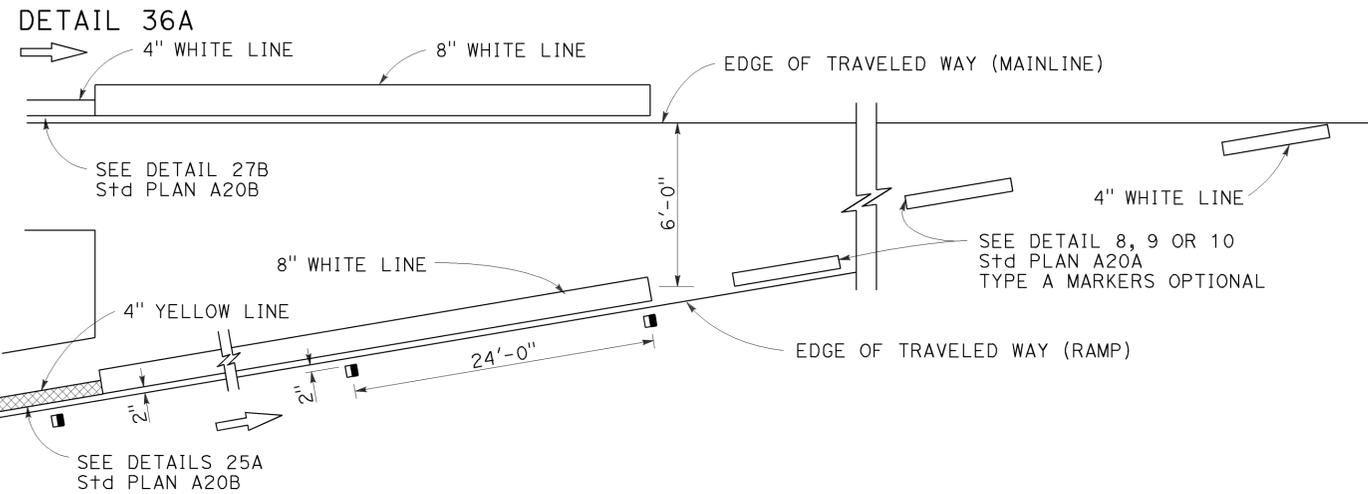
	S
S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
⊥	STATION LINE
SM	SELECTED MATERIAL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

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

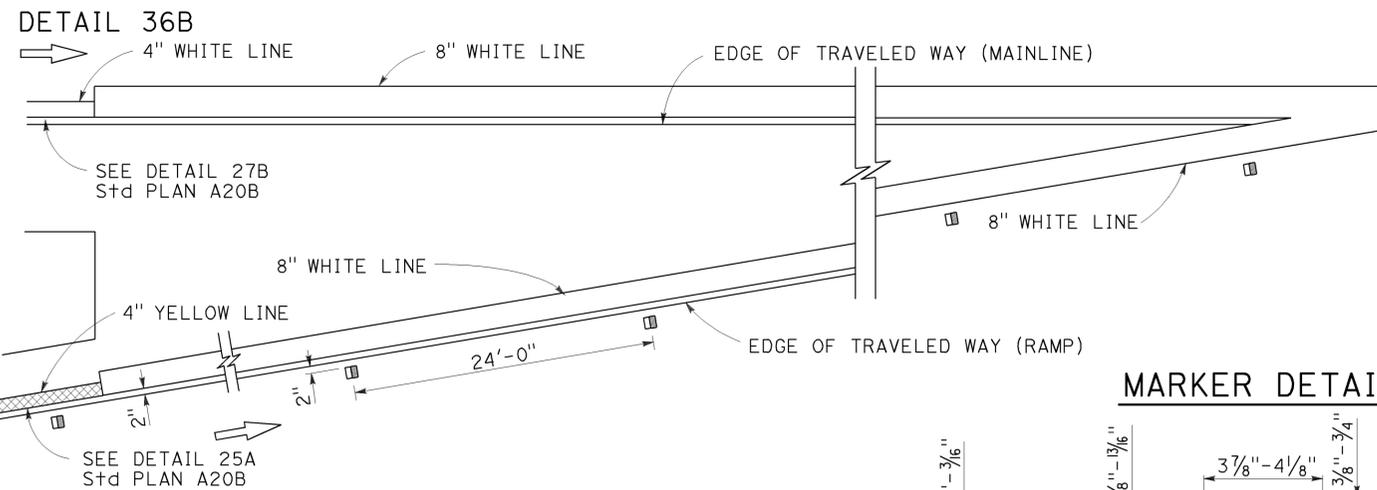
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

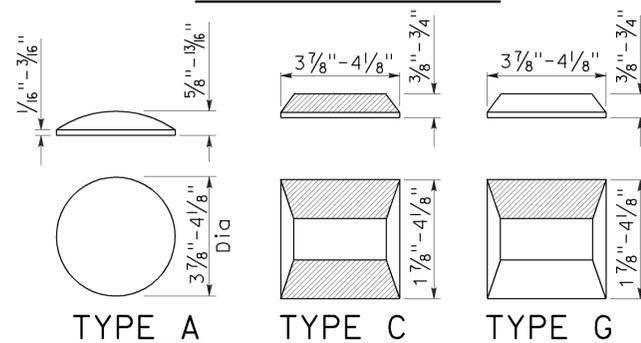


MARKER DETAILS

LEGEND:

MARKERS

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



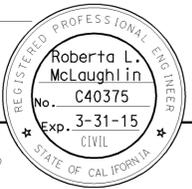
RETROREFLECTIVE FACE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	680	R7.7/R7.8	18	26

Roberta L. McLaughlin
REGISTERED CIVIL ENGINEER

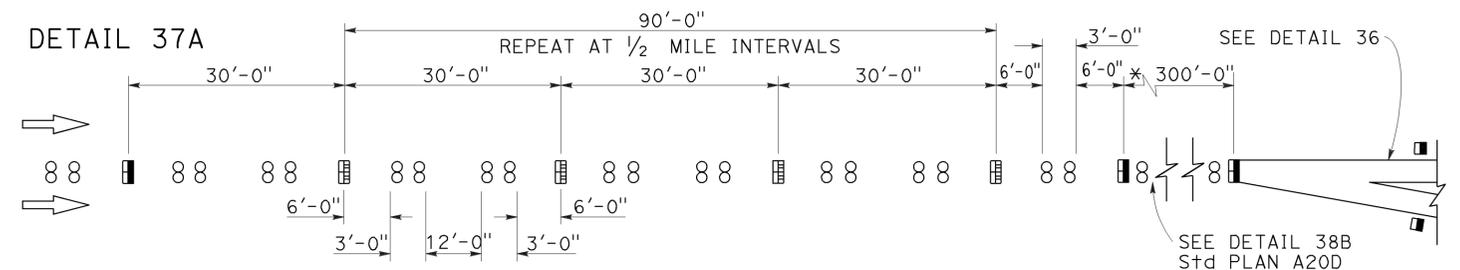
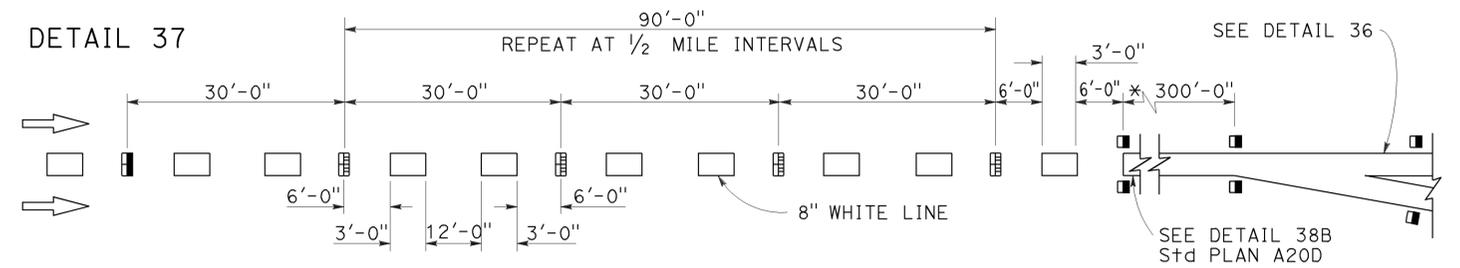
July 19, 2013
PLANS APPROVAL DATE

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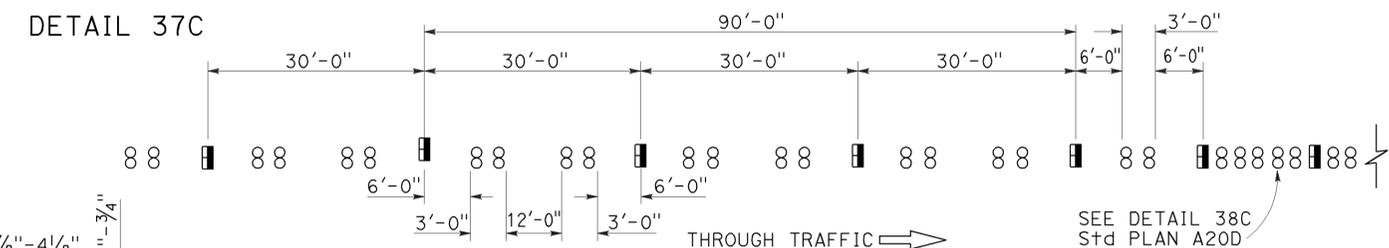
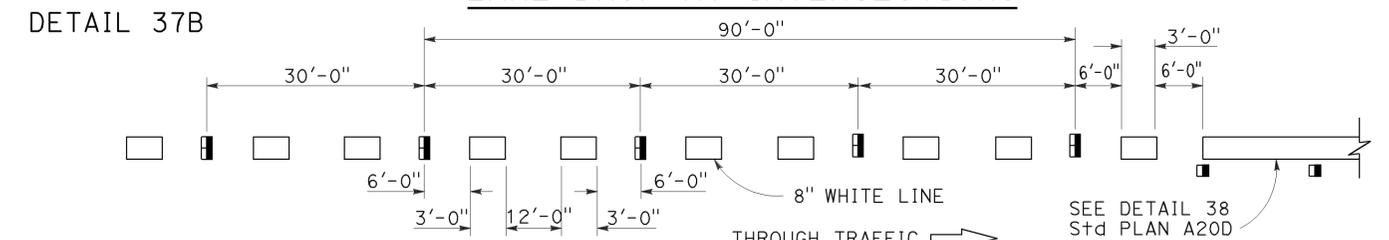
TO ACCOMPANY PLANS DATED 10-26-15

LANE DROP AT EXIT RAMP



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

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A20C

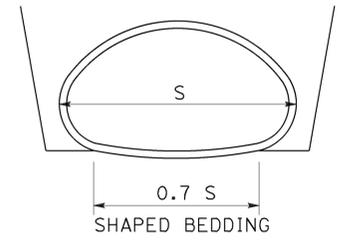
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	19	26

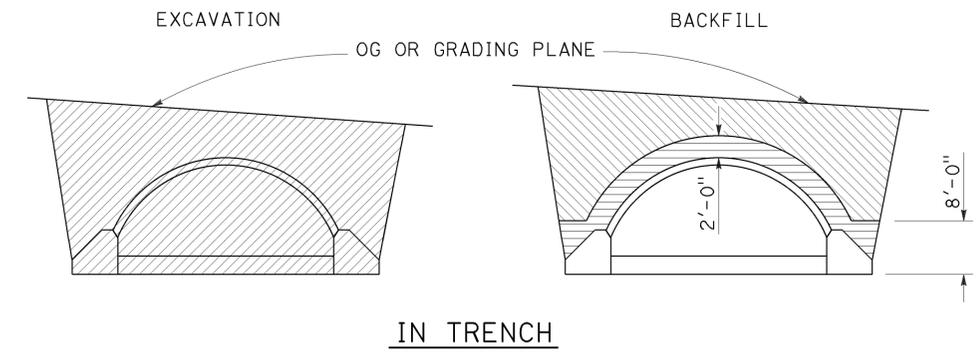
REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Carl M. Duan
 No. C59976
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

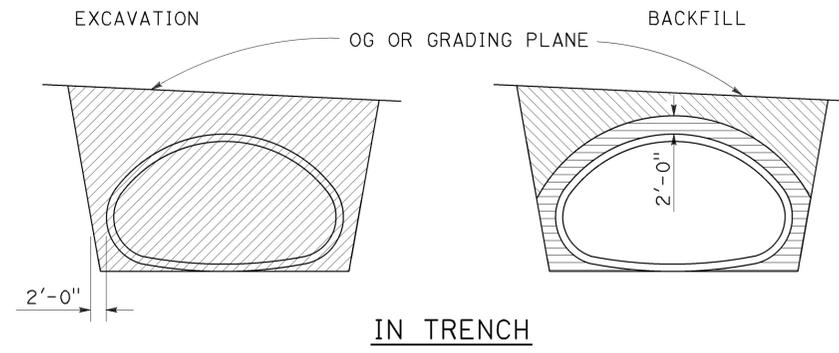
TO ACCOMPANY PLANS DATED 10-26-15



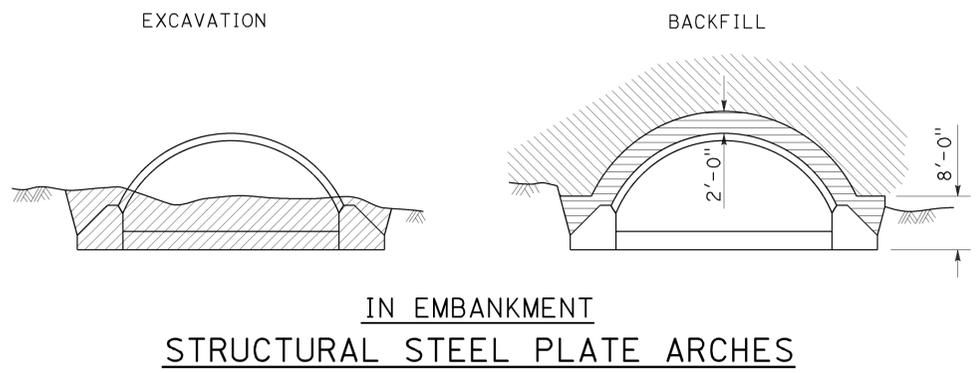
SHAPED BEDDING
S = Larger than 84"



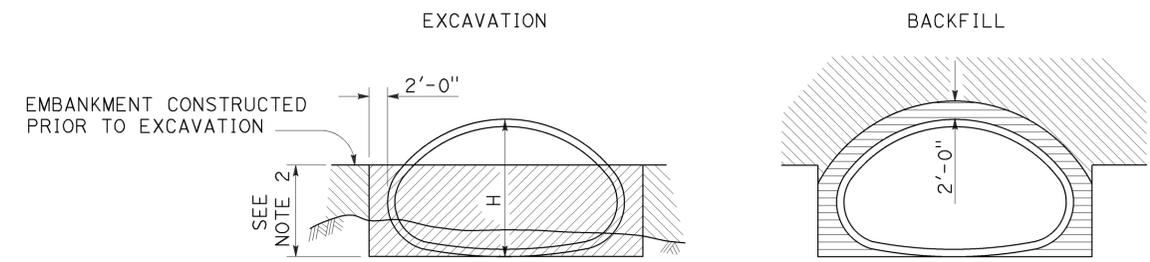
IN TRENCH



IN TRENCH



IN EMBANKMENT
STRUCTURAL STEEL PLATE ARCHES



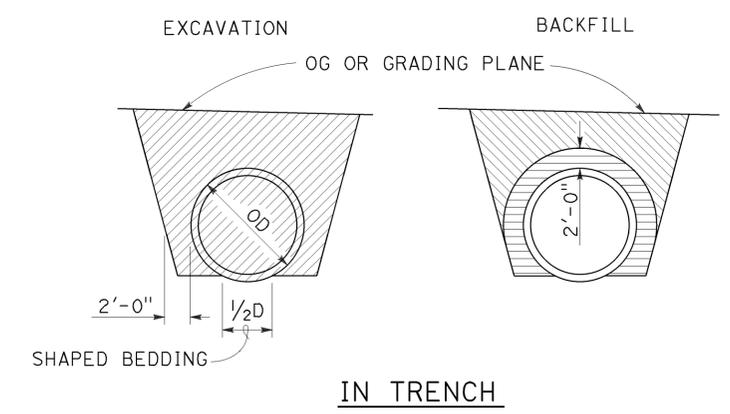
IN EMBANKMENT
STRUCTURAL STEEL PLATE PIPE ARCHES
AND VEHICULAR UNDERCROSSING

NOTES:

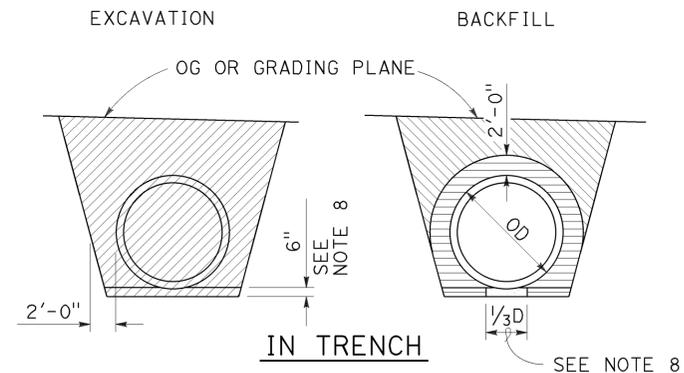
1. PIPES: 30" minimum for diameters up to and including 42" then 2/3 diameter but no more than 60" required. CORRUGATED METAL PIPE ARCHES: 30" maximum.
2. 2/3 H up to 60" maximum.
3. Slope or shore excavation sides as necessary.
4. Backfill shall be placed full width of excavation except as noted.
5. Diagrams do not apply to overside drains.
6. Dimensions shown are minimum.
7. Construction strutting of structural steel plate pipe, arches and vehicular undercrossing to be used when shown on the project plans. When shown, see Standard Plan D88A for strutting requirements.
8. Excavation below pipe and 80% relative compaction requirements for plastic pipes only.
9. D is the inside diameter (ID) of the pipe.

LEGEND

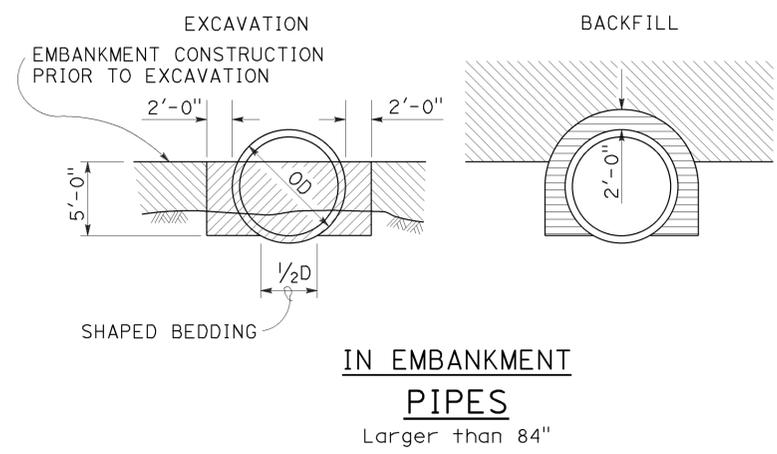
	STRUCTURE EXCAVATION (CULVERT)		ROADWAY EMBANKMENT
	STRUCTURE BACKFILL (CULVERT) 95% RELATIVE COMPACTION		STRUCTURE BACKFILL (CULVERT) 80% RELATIVE COMPACTION



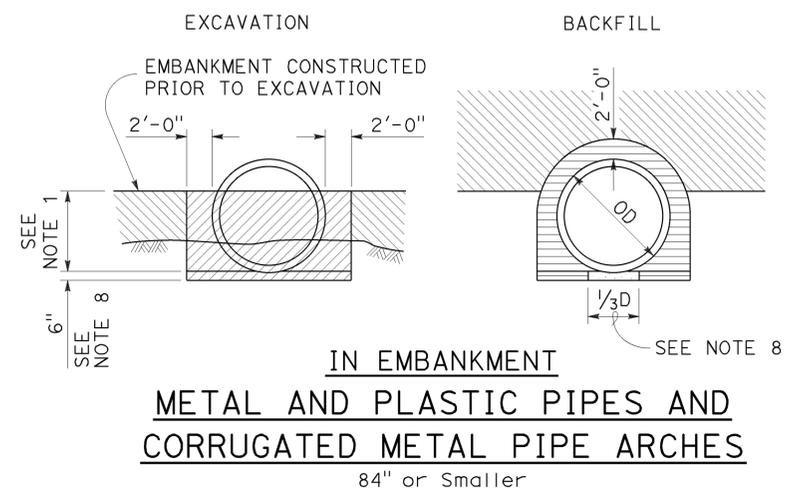
IN TRENCH



IN TRENCH



IN EMBANKMENT
PIPES
Larger than 84"



IN EMBANKMENT
METAL AND PLASTIC PIPES AND
CORRUGATED METAL PIPE ARCHES
84" or Smaller

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EXCAVATION AND BACKFILL
METAL AND PLASTIC CULVERTS
NO SCALE

RSP A62F DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN A62F DATED MAY 20, 2011 - PAGE 26 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A62F

2010 REVISED STANDARD PLAN RSP A62F

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	20	26

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

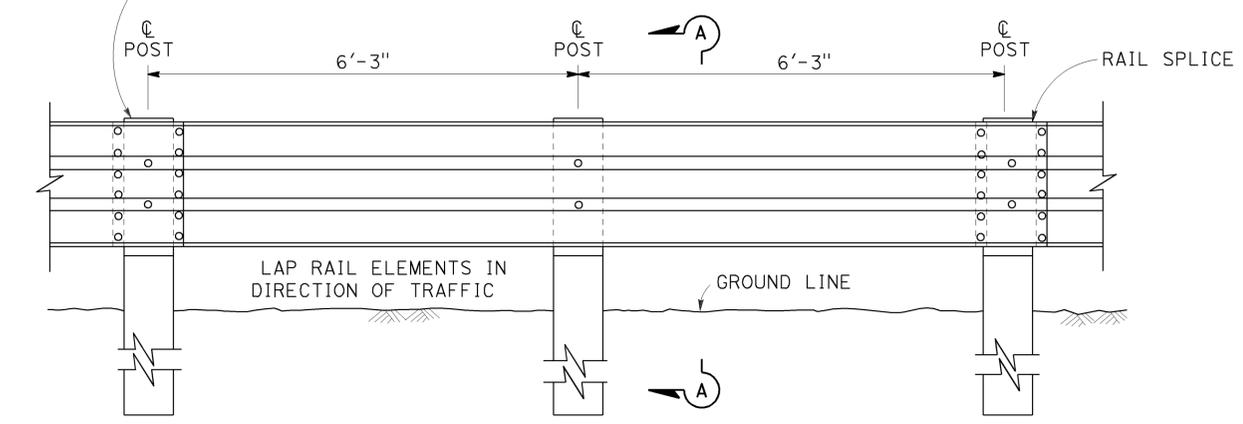
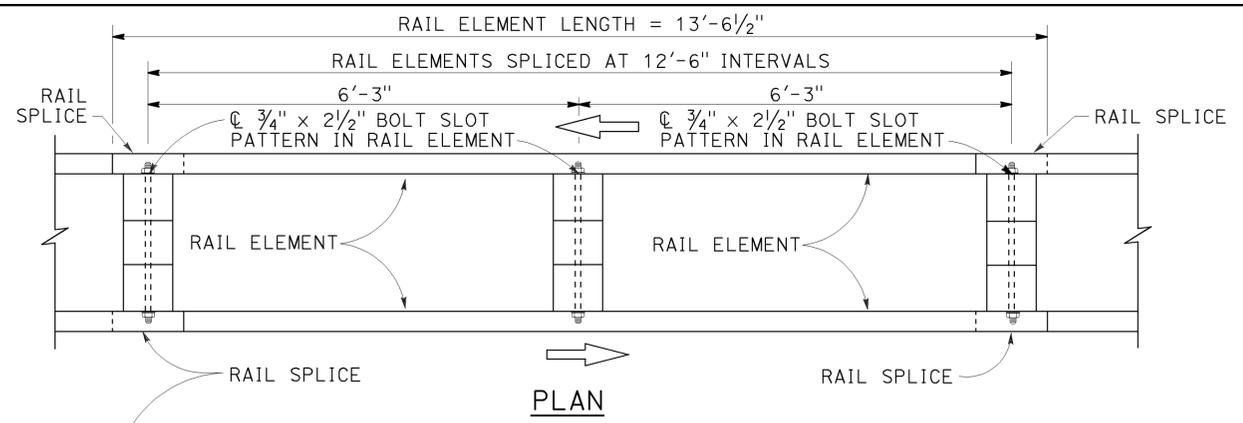
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

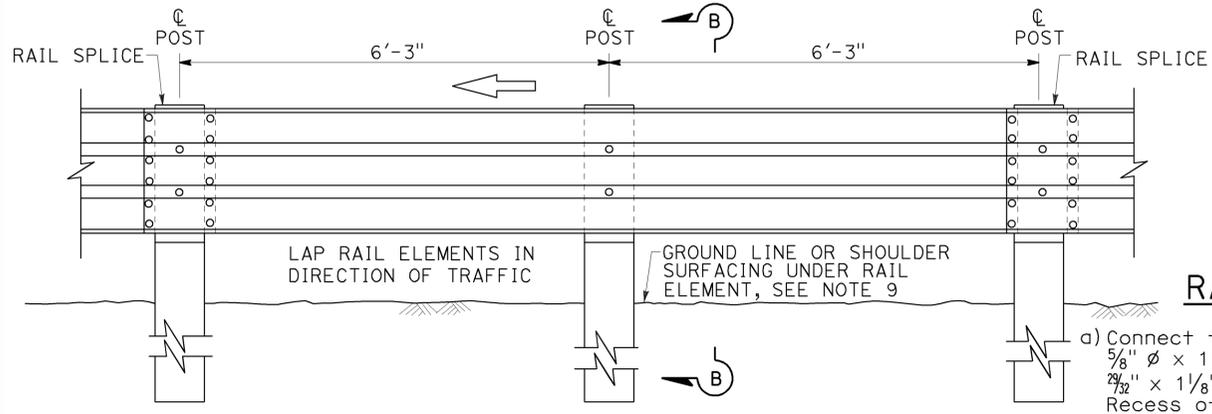
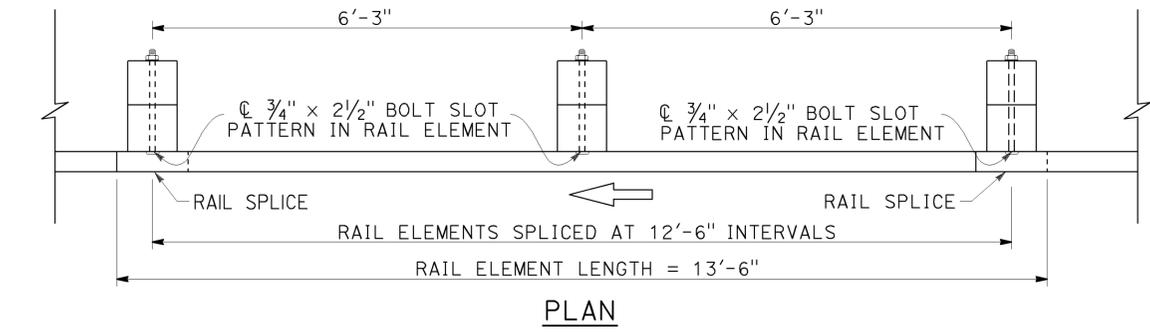
TO ACCOMPANY PLANS DATED 10-26-15

NOTES:

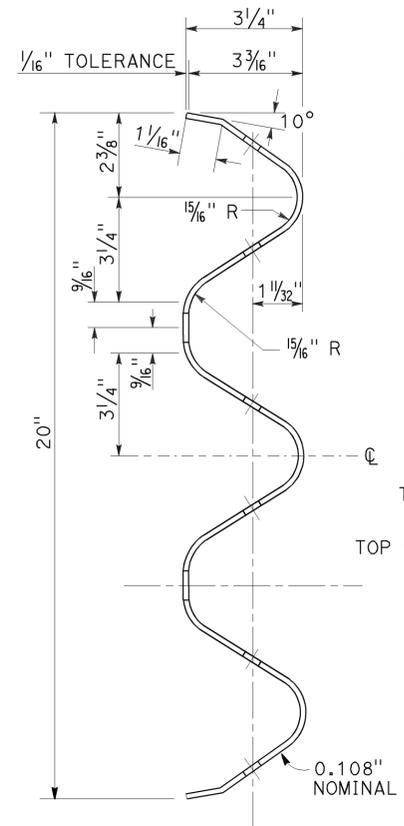
1. For details of steel post thrie beam barrier, see Standard Plan A78B.
2. For details of standard hardware, posts and blocks used to construct thrie beam barrier, see Standard Plan A78C1 and Revised Standard Plan RSP A78C2.
3. Thrie beam barrier post spacing to be 6'-3" center to center, except as otherwise noted.
4. Top of barrier rail to be 2'-8" above ground line or shoulder surfacing under the rail element.
5. For barrier end treatments and barrier connections, see Standard Plans A78E3 and A78G, and Revised Standard Plans RSP A78E1, RSP A78E2 RSP A77Q1, RSP A77Q2 and RSP A78H.
6. For connection to Concrete Barrier (Type 60), see Standard Plans A78I.
7. For details of thrie beam barrier on bridge see Standard Plan A78D2. For details of thrie beam barrier at fixed object, see Revised Standard Plan RSP A78D1.
8. Median barrier delineation to be used when required by the Special Provisions. Spacing of barrier markers to match spacing of raised pavement markers on adjacent median edgeline pavement delineation.
9. Install posts in soil.



DOUBLE THRIE BEAM BARRIER
(Wood post and blocks)
See Note 1

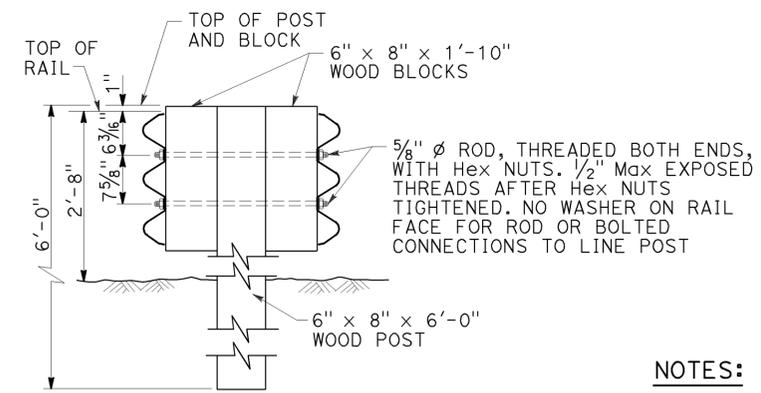


SINGLE THRIE BEAM BARRIER
(Wood post and blocks)
See Note 1

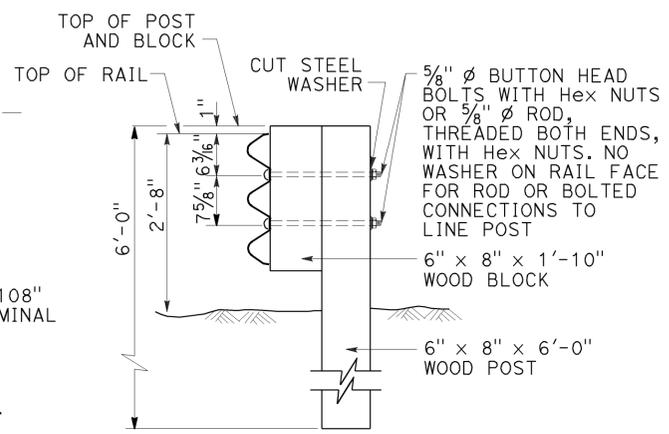


ELEVATION RAIL ELEMENT SPLICE DETAIL

- a) Connect the overlapped ends of the thrie beam rail elements with 5/8" ϕ x 1 1/4" button head oval shoulder bolts inserted into the 29/32" 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 12 bolts and nuts are to be used at each rail splice connection.
- b) The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- c) 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. Where a return cap is to be attached to the ends of rail elements, a total of 8 of the above described splice bolts and nuts are to be used.

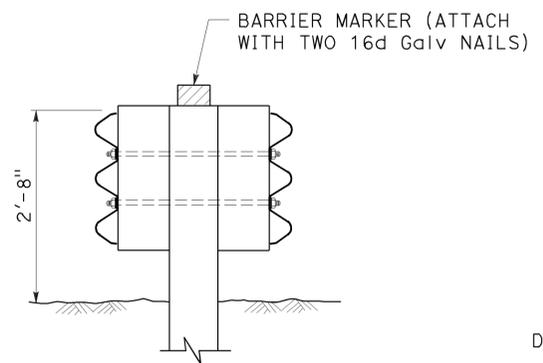
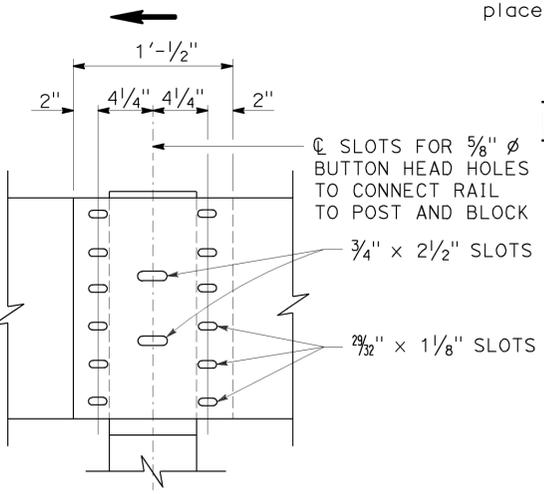


TYPICAL WOOD LINE POST INSTALLATION



TYPICAL WOOD LINE POST INSTALLATION

Where bolts are used, install so that the threaded end of the bolts and nuts are placed away from traffic side of rail.



THRIE BEAM BARRIER DELINEATION
See Note 8

THRIE BEAM BARRIER STANDARD BARRIER RAILING SECTION (WOOD POST WITH WOOD BLOCK)

NO SCALE

RSP A78A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A78A DATED MAY 20, 2011 - PAGE 89 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A78A

2010 REVISED STANDARD PLAN RSP A78A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	21	26

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

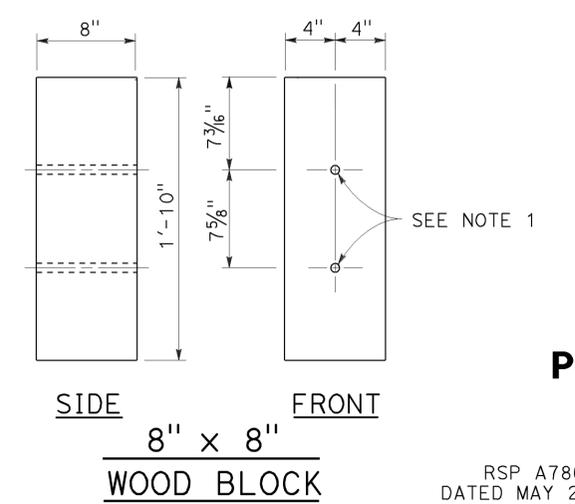
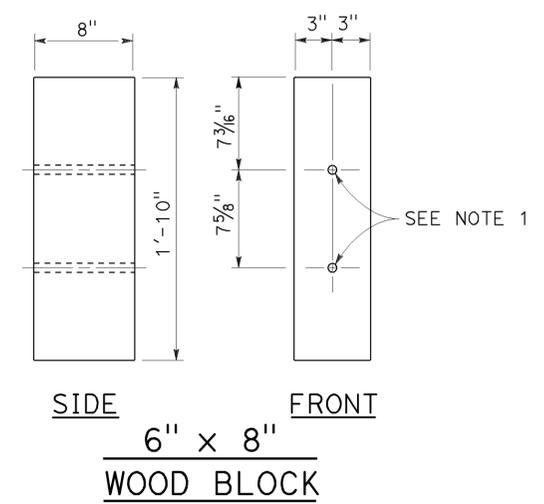
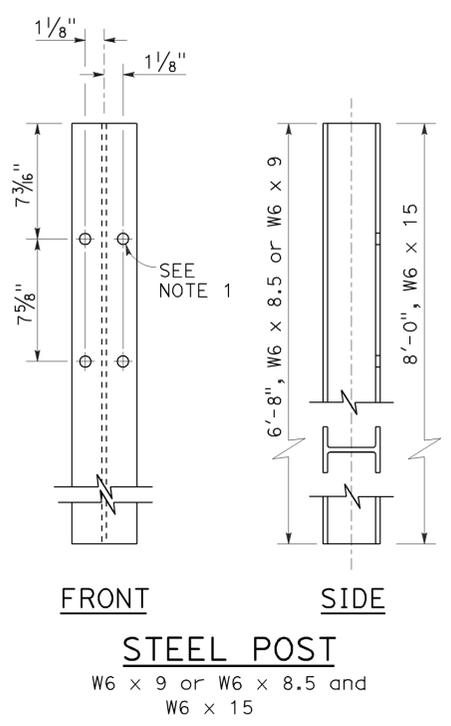
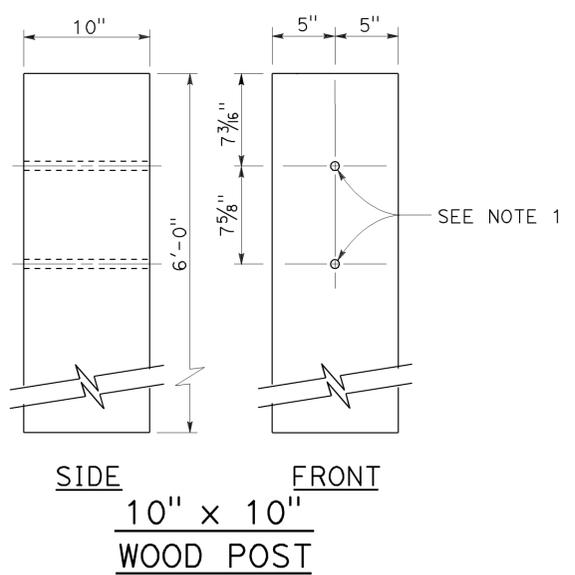
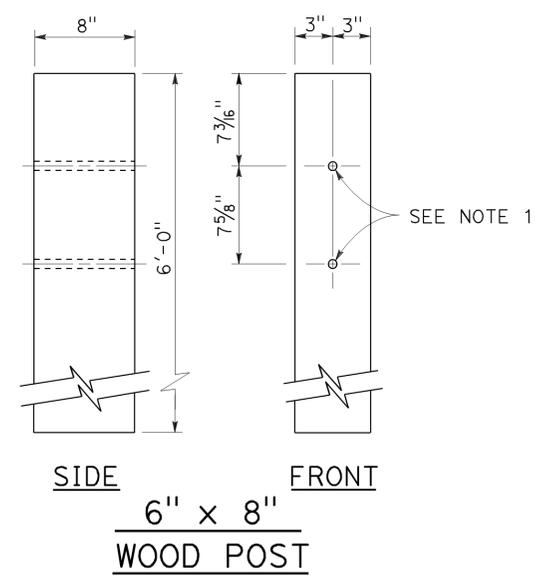
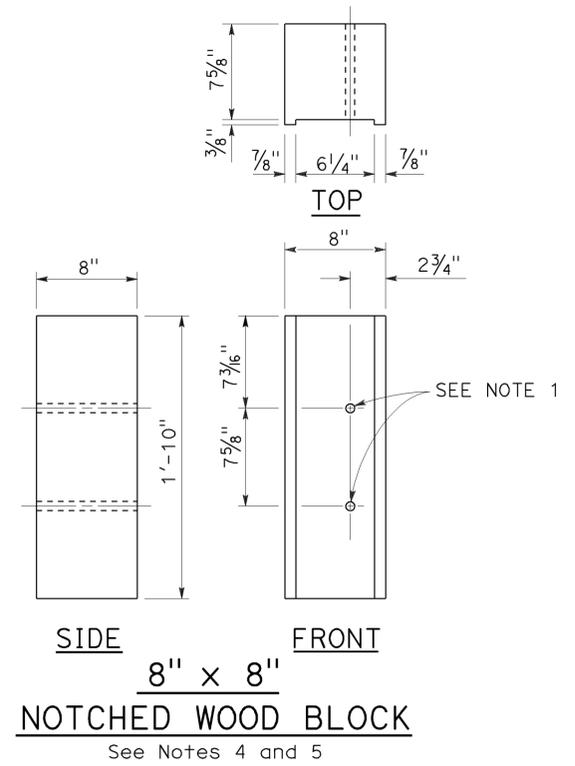
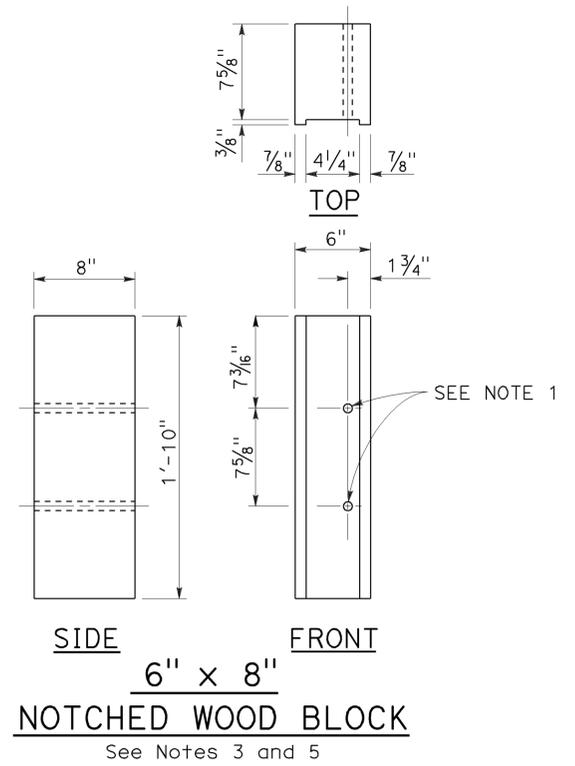
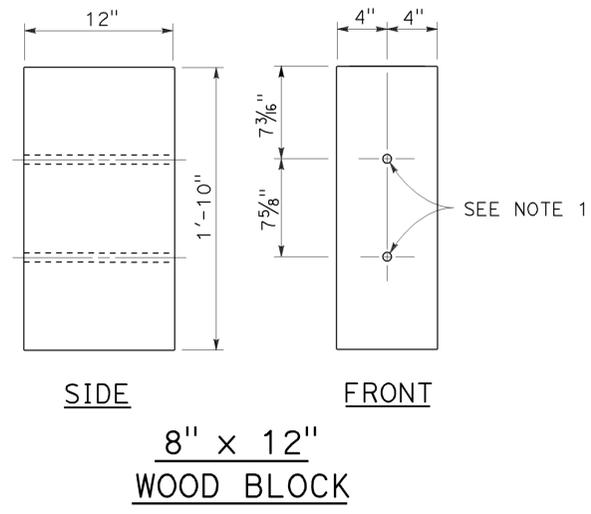
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REGISTERED PROFESSIONAL ENGINEER
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CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 10-26-15

NOTES:

1. All holes in steel post to be $\frac{13}{16}$ " Dia maximum. Holes in wood posts and wood blocks to be $\frac{3}{4}$ " Dia $\pm \frac{1}{16}$ ".
2. Dimensions shown for wood post are nominal.
3. For use with W6 x 8.5 or W6 x 9 steel post.
4. For use with W6 x 15 steel post.
5. Notched face of block faces steel post.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**THRIE BEAM BARRIER
POST AND BLOCK DETAILS**

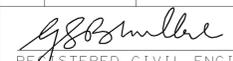
NO SCALE

RSP A78C2 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A78C2
DATED MAY 20, 2011 - PAGE 92 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A78C2

2010 REVISED STANDARD PLAN RSP A78C2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	23	26


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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TO ACCOMPANY PLANS DATED 10-26-15

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

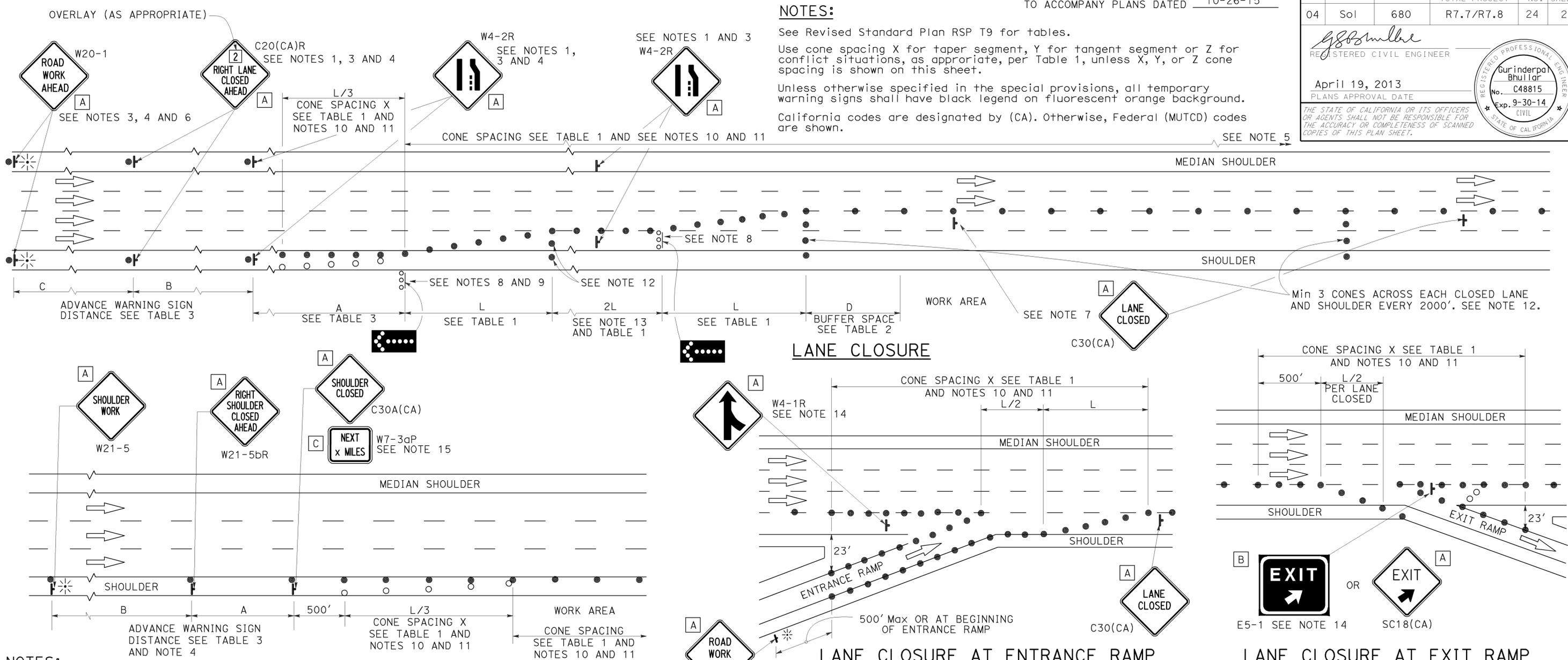
REVISED STANDARD PLAN RSP T9

2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	24	26

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

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



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

- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA)L and W4-2L signs shall be used.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

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

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

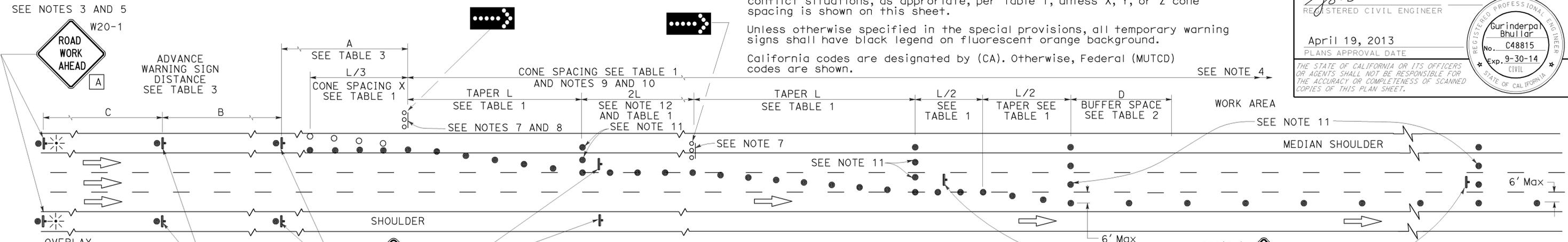
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SoI	680	R7.7/R7.8	25	26

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

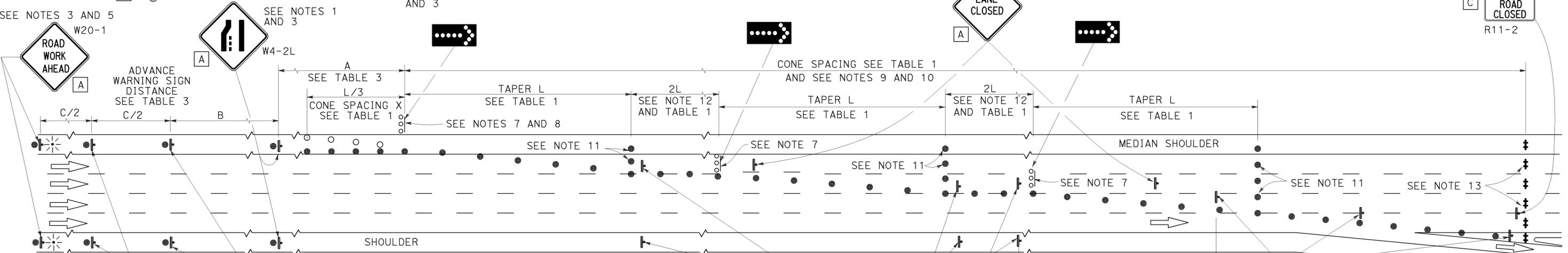
April 19, 2013
 PLANS APPROVAL DATE

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



LANE CLOSURE WITH PARTIAL SHOULDER USE



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT ___ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 18"
- C 48" x 30"

LEGEND

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURES ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A
 DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10A

2010 REVISED STANDARD PLAN RSP T10A

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

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

LEGEND

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

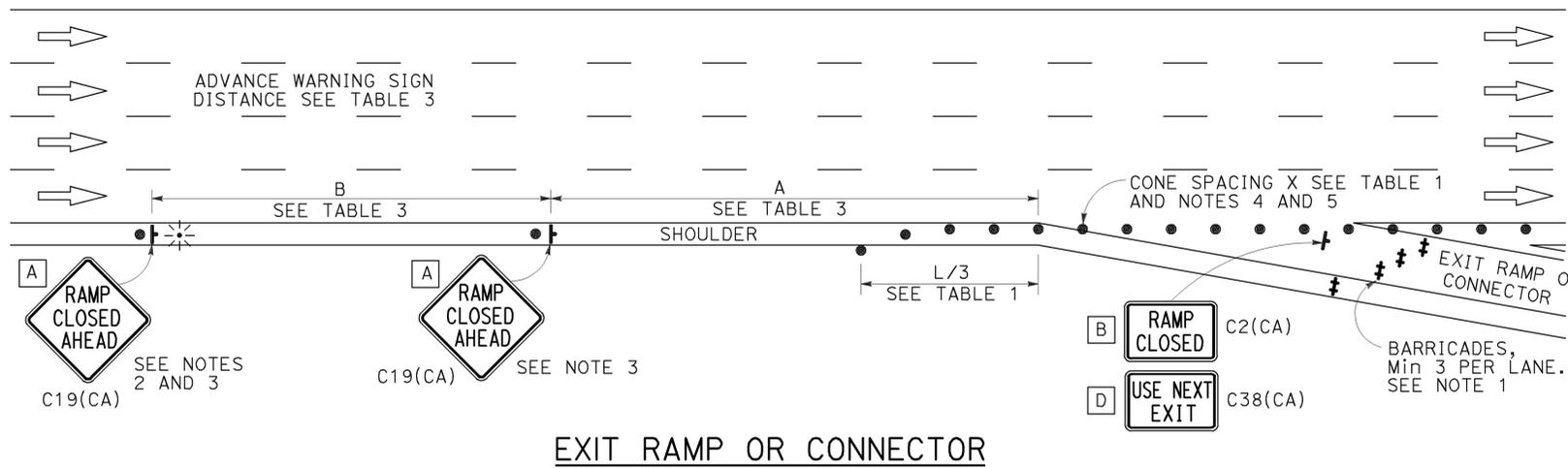
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	680	R7.7/R7.8	26	26

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

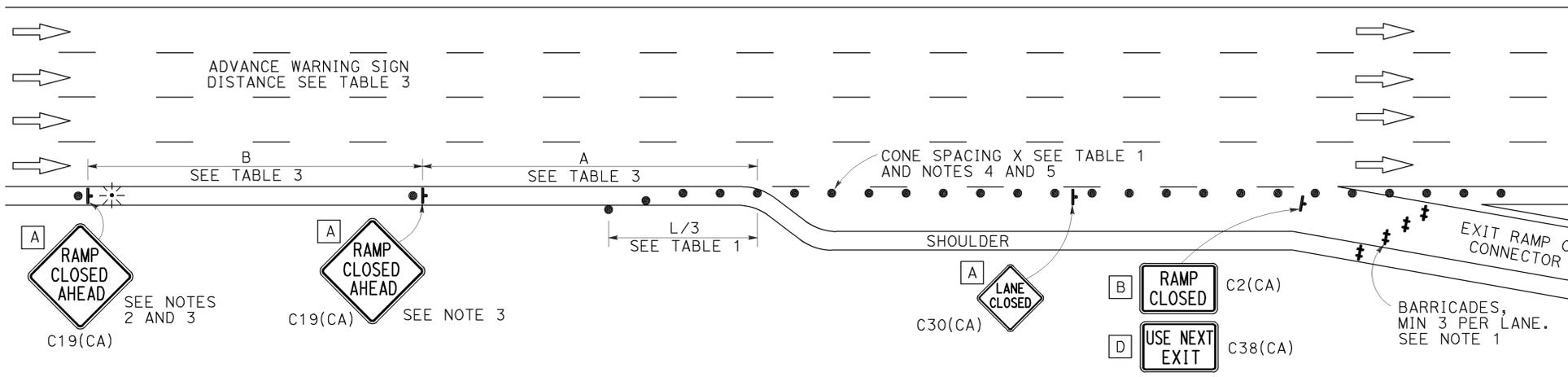
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TO ACCOMPANY PLANS DATED 10-26-15

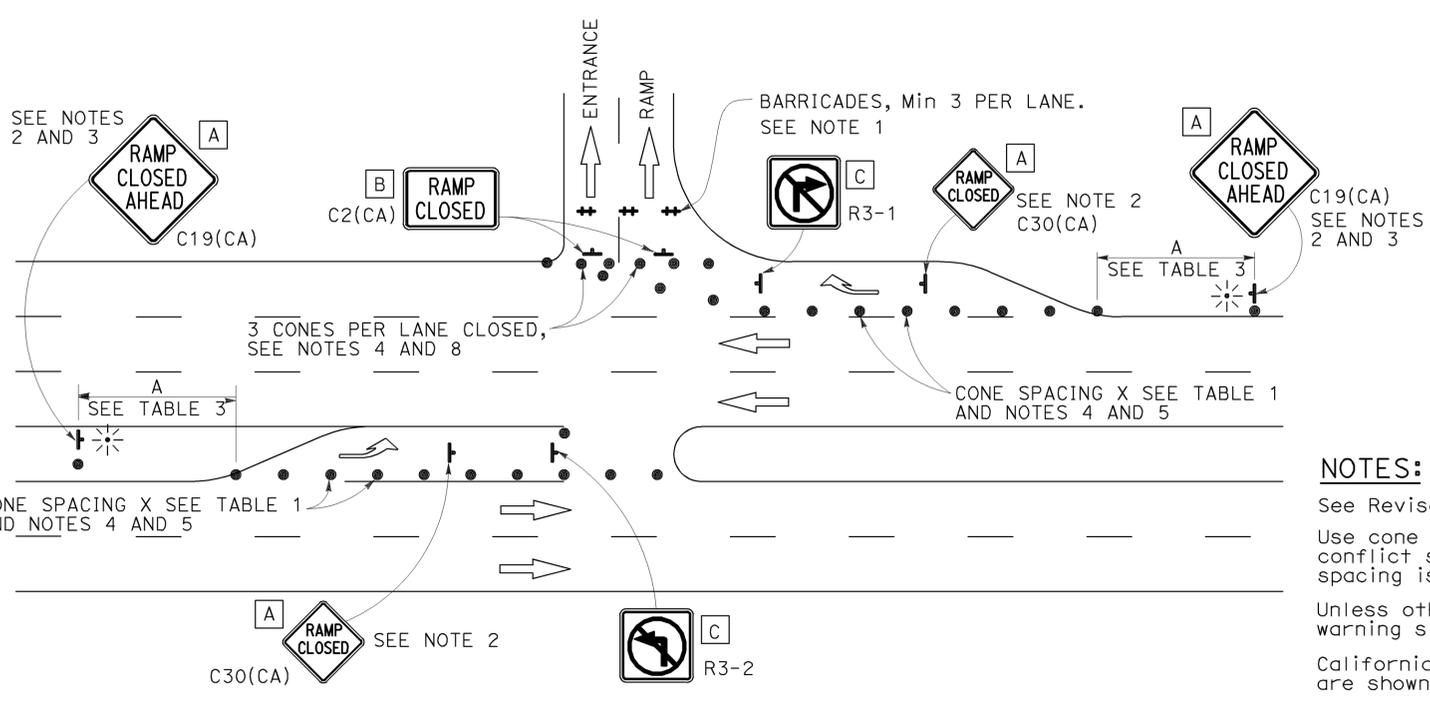
2010 REVISED STANDARD PLAN RSP T14



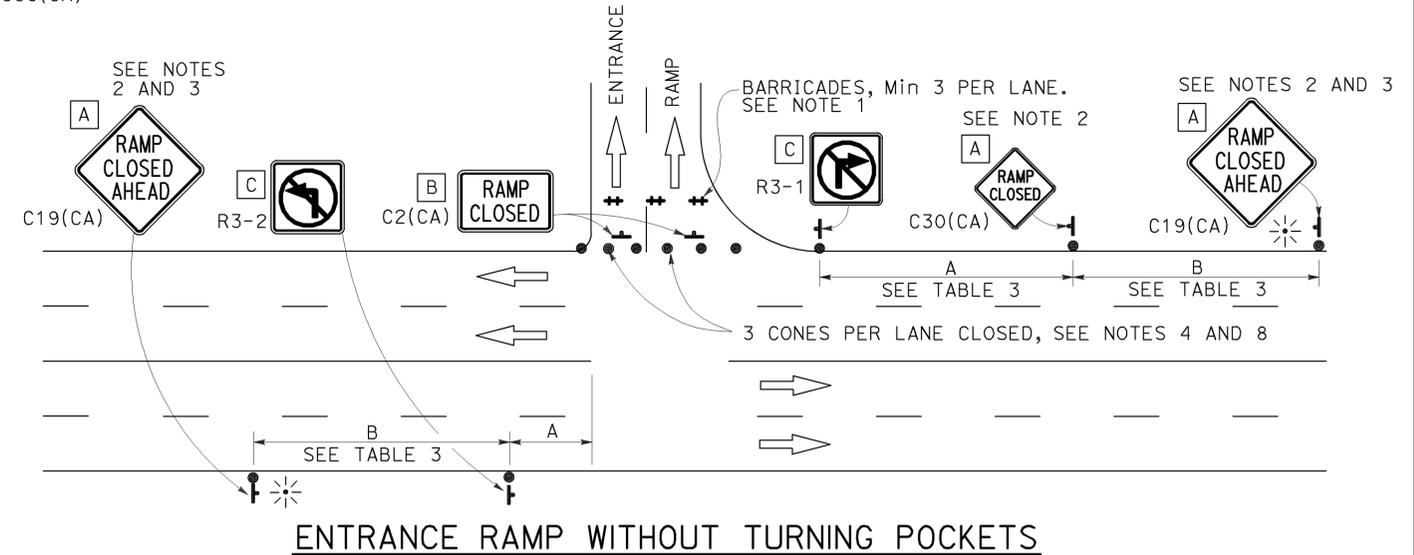
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

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

NOTES:

1. Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
2. In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
3. Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

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

REVISED STANDARD PLAN RSP T14