

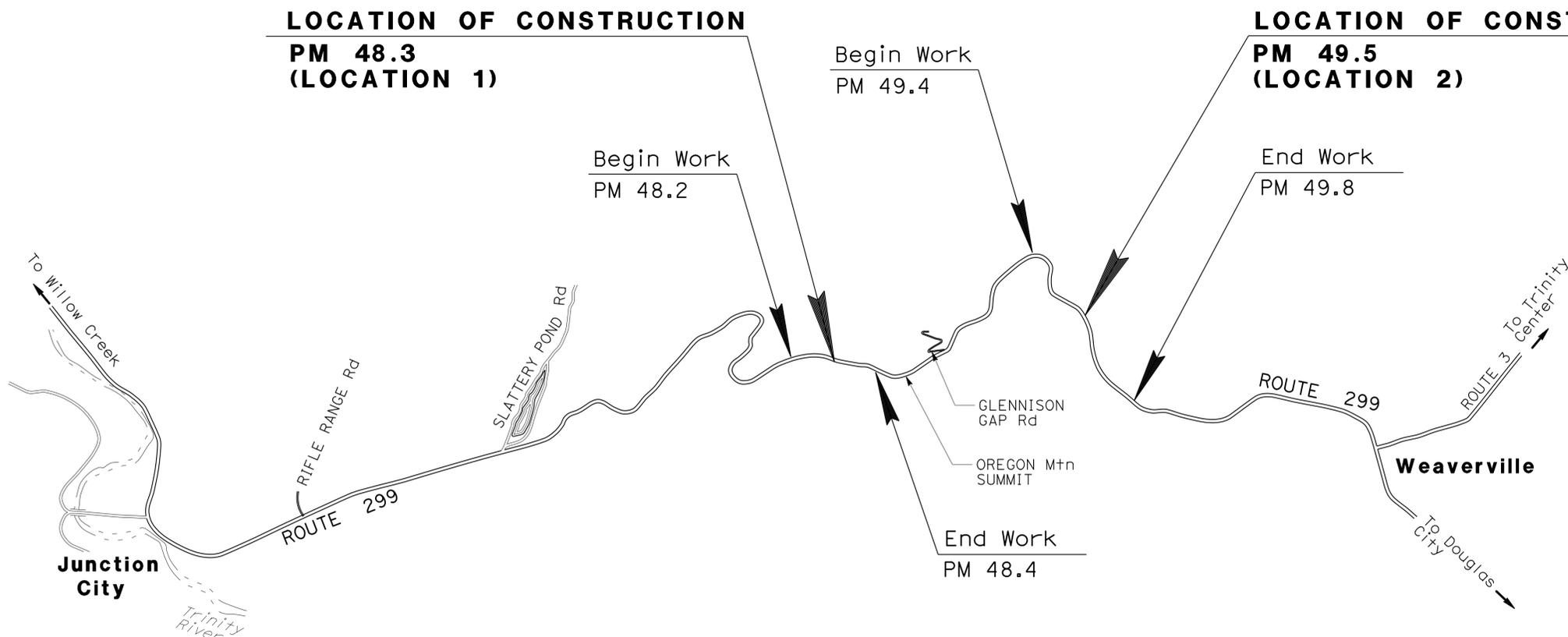
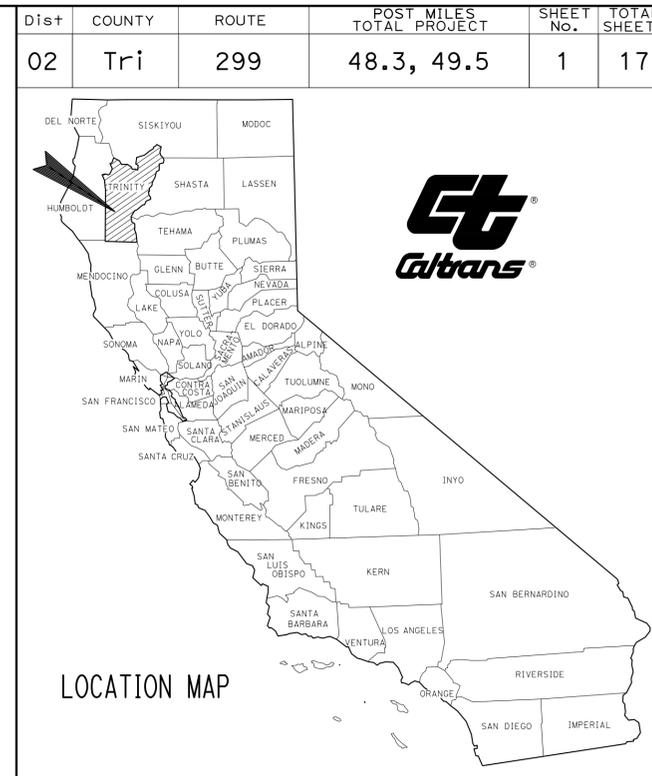
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	CONSTRUCTION DETAILS
4	DRAINAGE DETAILS
5	CONSTRUCTION AREA SIGNS
6	TRAFFIC HANDLING PLAN
7	SUMMARY OF QUANTITIES
8-9	EROSION CONTROL PLANS
10-17	REVISED STANDARD PLANS

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

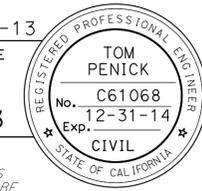
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2010

STATE OF CALIFORNIA ER-19A3(004)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN TRINITY COUNTY NEAR DOUGLAS CITY
AT 0.3 MILE WEST OF GLENNISON GAP ROAD
AND AT 0.9 MILE EAST OF GLENNISON GAP ROAD



PROJECT MANAGER: STEVE ROGERS
 DESIGN ENGINEER: JULIE CASEY

Thomas Penick 09-09-13
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
 September 9, 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.



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

NO SCALE

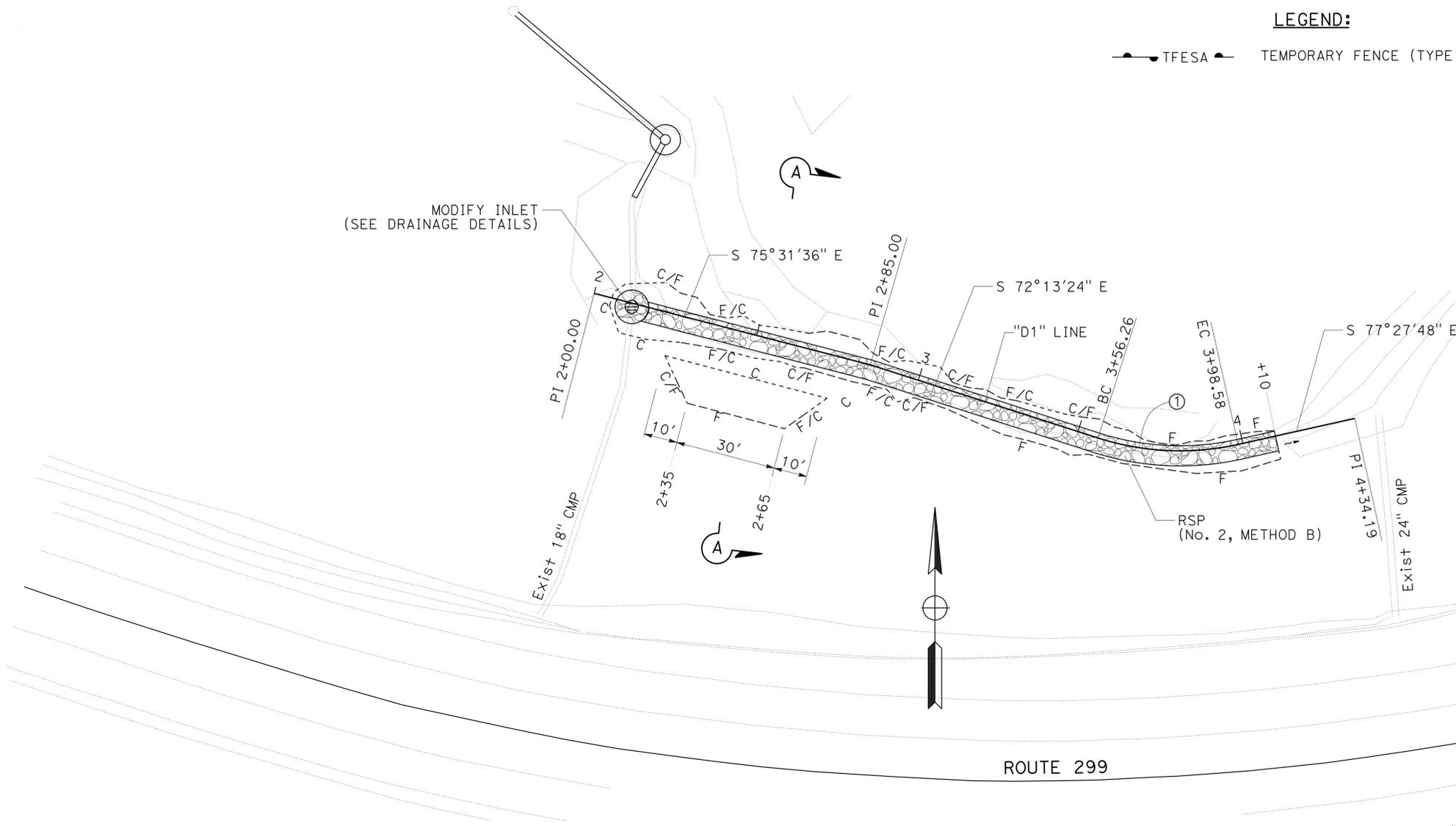
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	2	17

Thomas Penick 09-09-13
 REGISTERED CIVIL ENGINEER DATE
 09-09-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TOM PENICK
 No. C61068
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

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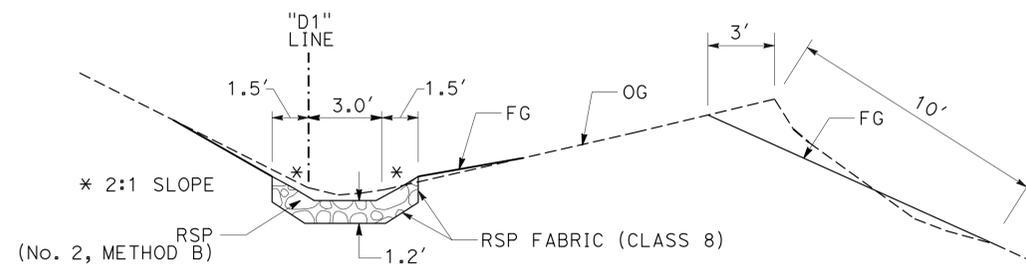
LEGEND:
 TFESA TEMPORARY FENCE (TYPE ESA)



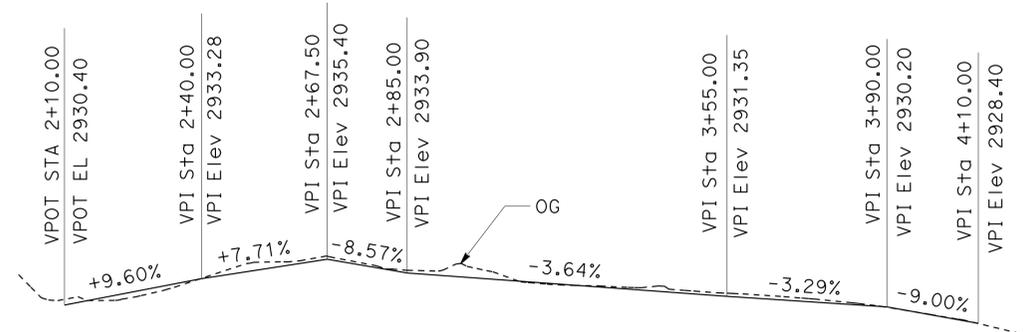
CURVE DATA

No.	⊕	R	Δ	T	L
1		80'	30°18'48"	21.67'	42.33'

PLAN
 PM 48.3
 SCALE: 1" = 20'



SECTION A-A
 "D1" 2+35 TO 2+65
 NO SCALE



PROFILE
 "D1" LINE
 NO SCALE

**LOCATION 1
 CONSTRUCTION DETAILS**
 SCALE: AS SHOWN

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 CALTRANS

FUNCTIONAL SUPERVISOR	JULIE CASEY
CALCULATED/DESIGNED BY	CHECKED BY
TOM PENICK	STEVE ALAWAR
REVISOR	DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	3	17

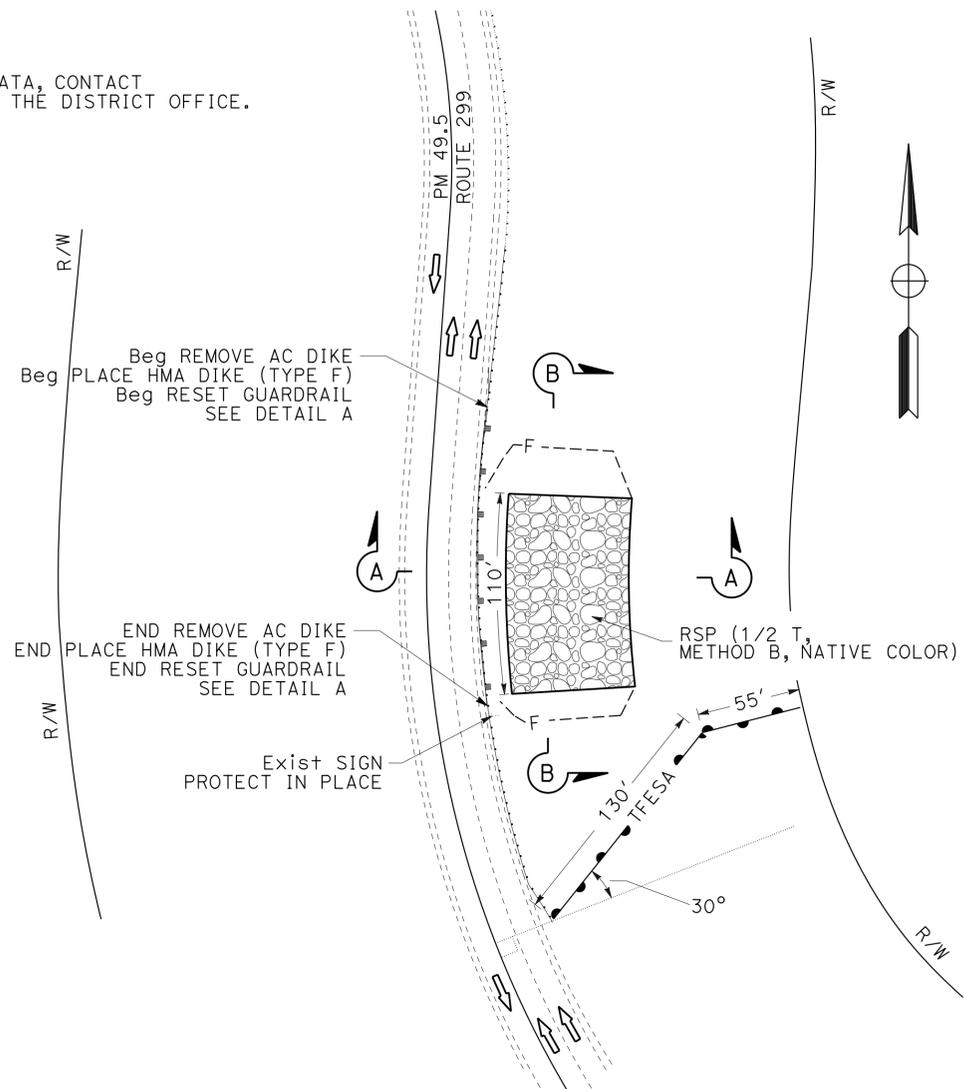
<i>Thomas Penick</i>	09-09-13
REGISTERED CIVIL ENGINEER	DATE
09-09-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
TOM PENICK
No. C61068
Exp. 12/31/14
CIVIL

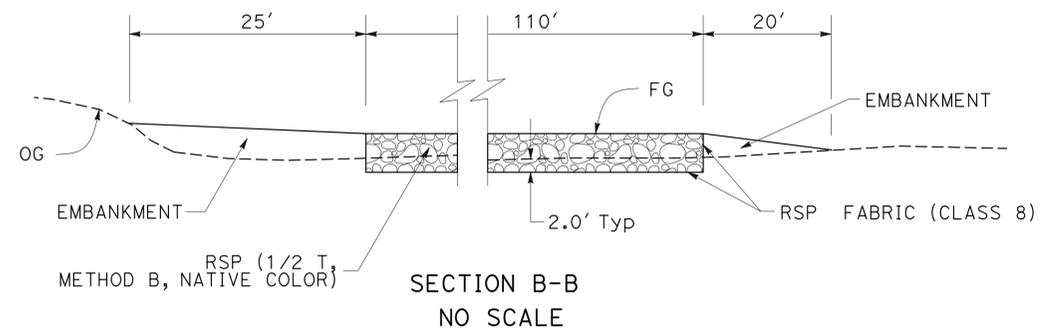
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

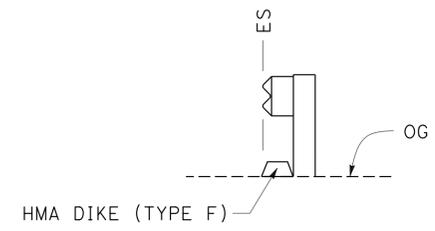
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



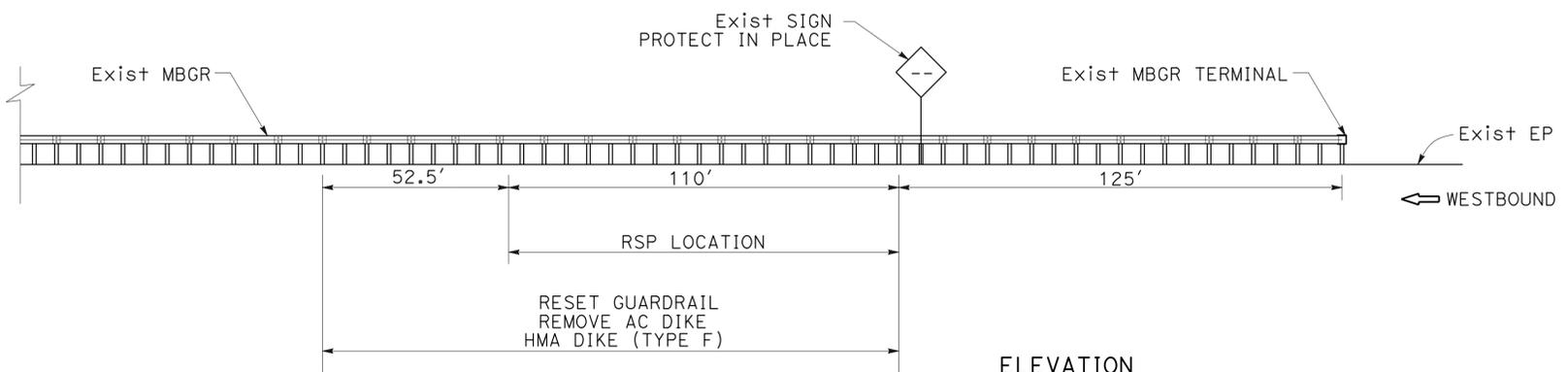
PLAN
02-Tri 299 PM 49.5
SCALE: 1" = 50'



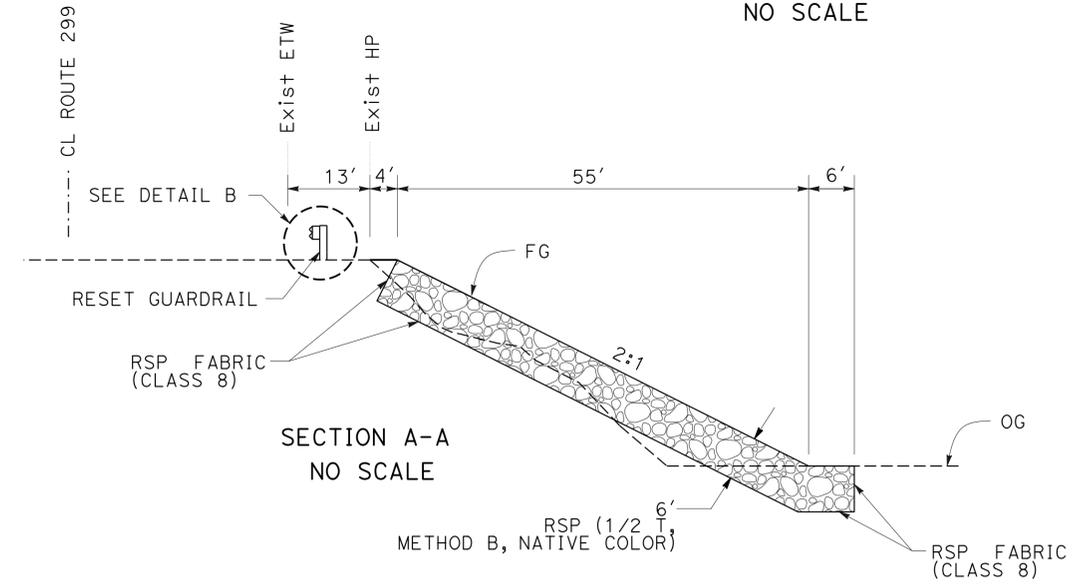
SECTION B-B
NO SCALE



DETAIL B
DIKE POSITIONING
NO SCALE



ELEVATION
DETAIL A
LOCATION OF WORK
NO SCALE

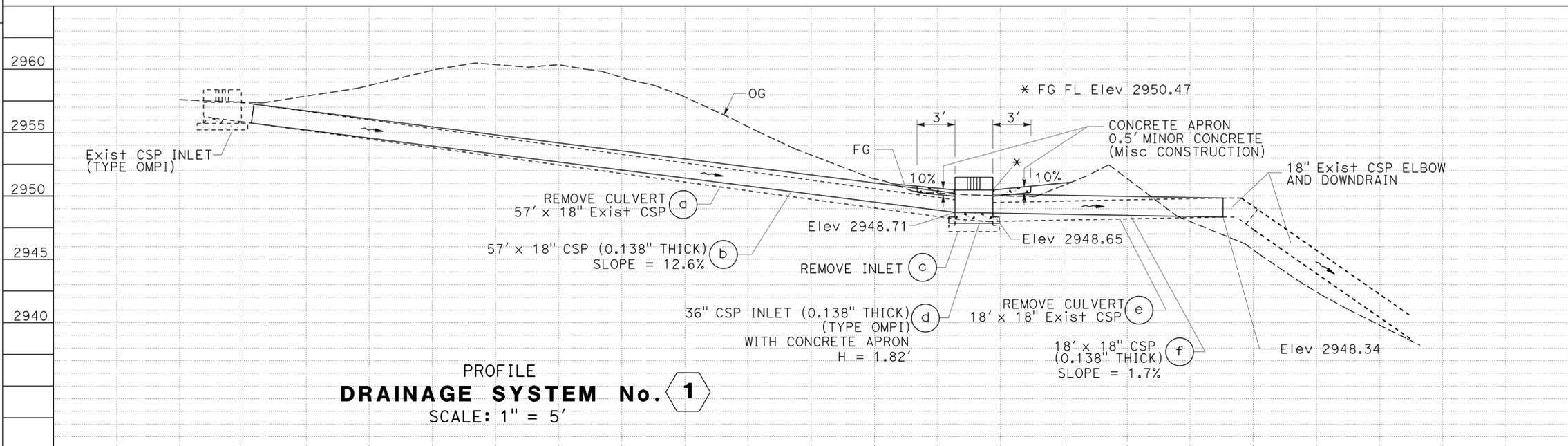
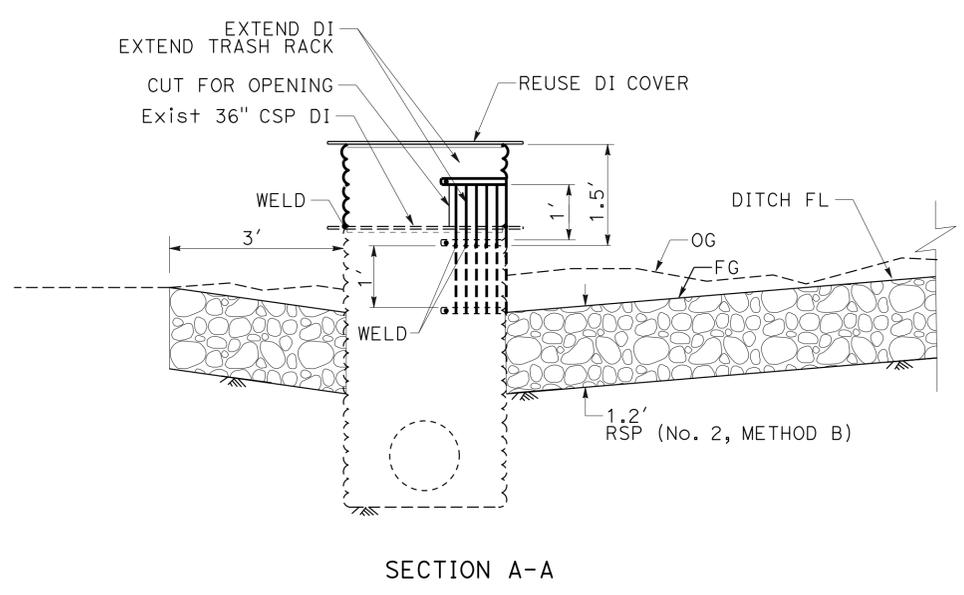
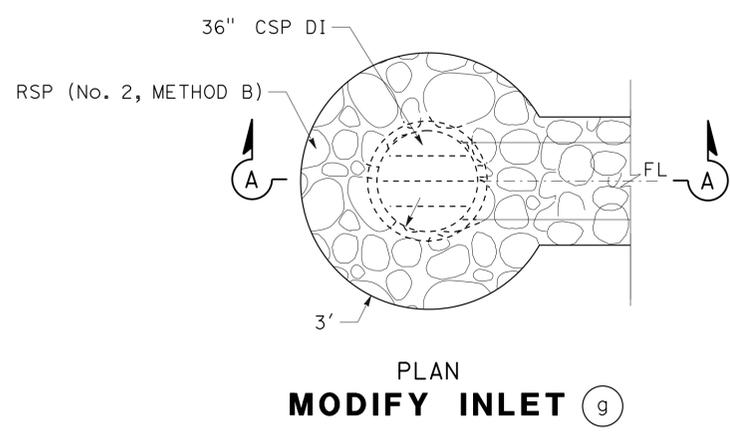
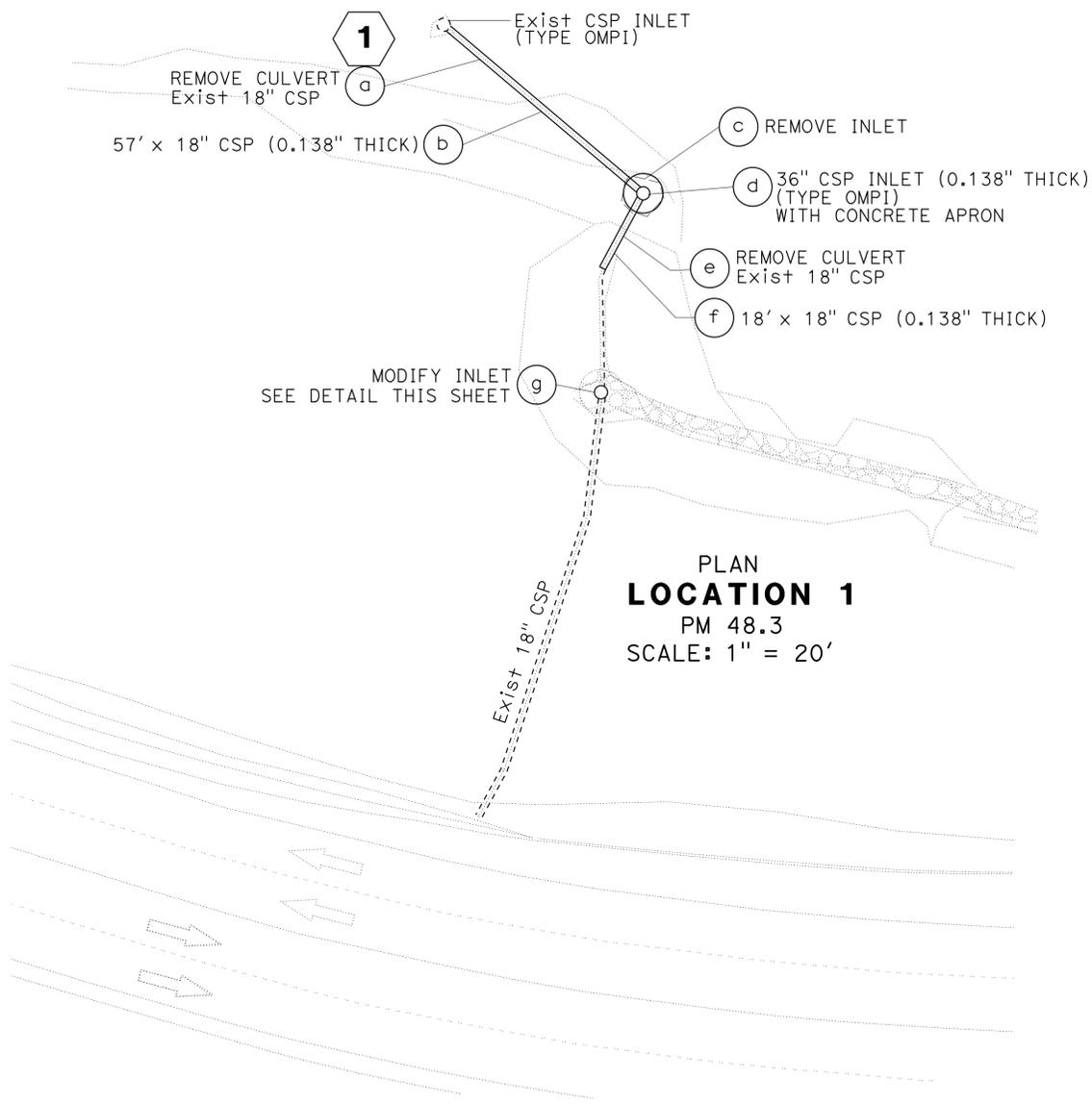


SECTION A-A
NO SCALE

LOCATION 2
CONSTRUCTION DETAILS
SCALE: AS SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 TOM PENICK
 STEVE ALAWAR
 REVISED BY: [Blank] DATE REVISED: [Blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	4	17
<i>Thomas Penick</i> REGISTERED CIVIL ENGINEER		09-09-13 DATE			
09-09-13 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>			



DRAINAGE DETAILS
 SCALE: AS SHOWN
DD-1

P:\proj\1\02\4E610\plans\pse\24e610\c001.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Et Caltrans

LAST REVISION DATE PLOTTED => 10-SEP-2013
 09-09-13 TIME PLOTTED => 09:37

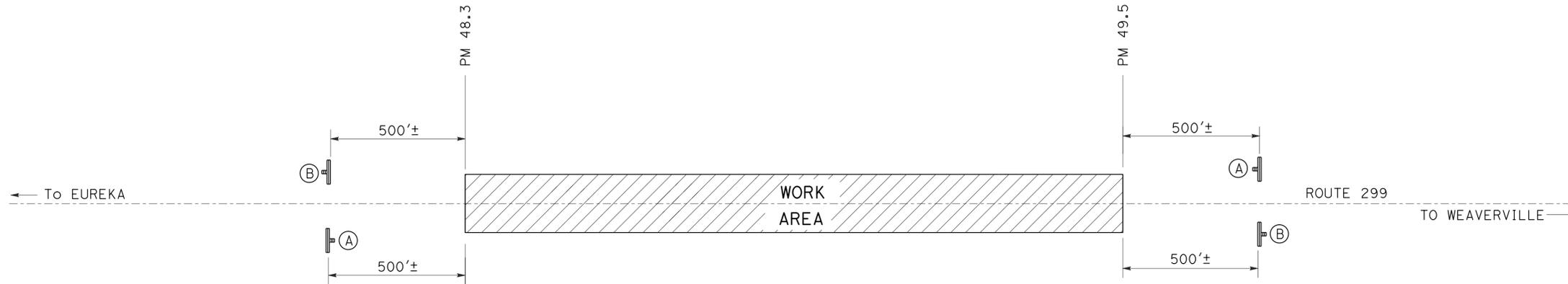
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	5	17

Thomas Penick 09-09-13
 REGISTERED CIVIL ENGINEER DATE
 09-09-13
 PLANS APPROVAL DATE

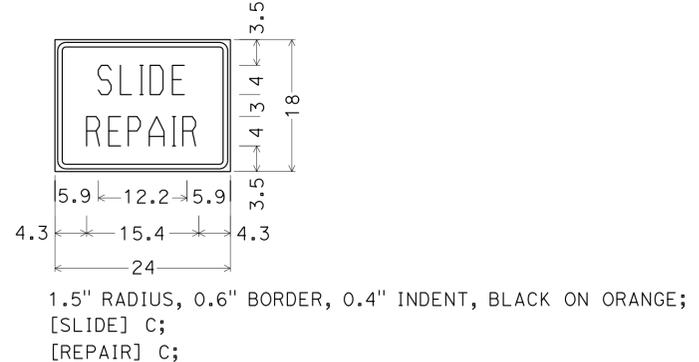
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NOTES:

- EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- SIGNS SHOWN WITH (CA) INDICATE CALIFORNIA SIGN CODE, OTHERWISE FEDERAL SIGN CODES ARE SHOWN.



CONSTRUCTION AREA SIGNS



**CONSTRUCTION AREA SIGNS
(STATIONARY MOUNTED)**

SYMBOL	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER AND SIZE OF POST	No. OF SIGNS
(A)	W20-1 W7-3aP C23B(CA)	48" x 48" 30" x 24" 24" x 18"	ROAD WORK AHEAD NEXT 2 MILES SLIDE REPAIR	1 - 6" x 6"	2
(B)	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Julie Casey
 Functional Supervisor
 Steve Alawar
 Checked By
 Tom Penick
 Revised By
 Steve Alawar
 Date Revised

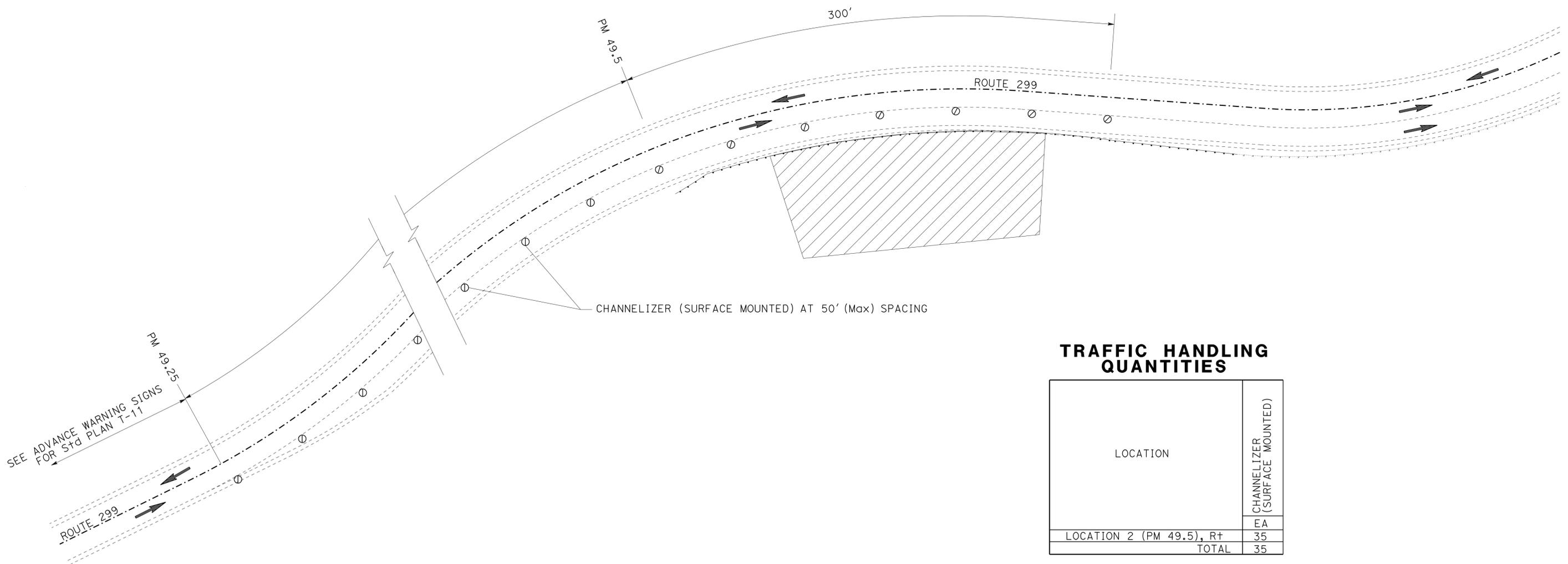
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	6	17
<i>Thomas Penick</i> REGISTERED CIVIL ENGINEER		09-09-13 DATE			
09-09-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

1. EXACT LOCATION OF ALL SIGNS TO BE DETERMINED BY THE ENGINEER.
2. CALIFORNIA SIGN CODES ARE DESIGNATED BY (CA), OTHERWISE FEDERAL SIGN CODES ARE SHOWN.
3. SEE STANDARD PLAN T-11 FOR TRAFFIC CONTROL DETAILS NOT SHOWN.

LEGEND:

- WORK AREA
- TRAFFIC DIRECTION
- CHANNELIZER (SURFACE MOUNTED)



TRAFFIC HANDLING QUANTITIES

LOCATION	CHANNELIZER (SURFACE MOUNTED)
LOCATION 2 (PM 49.5), R+	EA 35
TOTAL	35

LOCATION 2 TRAFFIC HANDLING PLAN

NO SCALE

TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]
 TOM PENICK
 STEVE ALAWAR
 REVISOR BY: [blank] DATE: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	7	17

Thomas Penick 09-09-13
 REGISTERED CIVIL ENGINEER DATE
 09-09-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TOM PENICK
 No. C61068
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

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

MAINTAINING EXISTING TMS ELEMENTS DURING CONSTRUCTION

ELEMENT	LOCATION	DESCRIPTION
HAR FLASHER	Tri-299-PM 48.10	ON OREGON MOUNTAIN SUMMIT OFF EB SHOULDER FOR EB & WB TRAFFIC
CCTV	Tri-299-PM 48.12	ON OREGON MOUNTAIN SUMMIT OFF EB SHOULDER
RWIS	Tri-299-PM 48.12	ON OREGON MOUNTAIN SUMMIT OFF EB SHOULDER
ROADWAY SENSORS	Tri-299-PM 48.24	1 EB & 1 WB ROADWAY SENSOR & 1 WB SUBSURFACE PROBE

ROADWAY QUANTITIES

LOCATION	ROCK SLOPE PROTECTION (1/2 T, METHOD B, NATIVE COLOR)	ROCK SLOPE PROTECTION (No. 2, METHOD B)	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	DITCH EXCAVATION	ROADWAY EXCAVATION	RSP EXCAVATION (N)	EMBANKMENT (N)	REMOVE AC DIKE	MINOR HOT MIX ASPHALT	PLACE HMA DIKE (TYPE F)	RESET GUARDRAIL	TEMPORARY FENCE (TYPE ESA)	TREATED WOOD WASTE
	CY	CY	SQYD	CY	CY	CY	CY	LF	TON	LF	LF	LF	LB
LOCATION 1 (PM 48.3), R+		56	215	80	10		10						
LOCATION 2 (PM 49.5), R+	1650		1145			550	550	163	2.2	163	163	185	500
TOTAL	1650	56	1360	80	10	550	560	163	2.2	163	163	185	500

DRAINAGE QUANTITIES

DRAINAGE SYSTEM No.	DESCRIPTION	18" CORRUGATED STEEL PIPE (.138" THICK) *	REMOVE CULVERT	REMOVE INLET	36" CORRUGATED STEEL PIPE INLET (.138" THICK)	MODIFY INLET	MINOR CONCRETE (Misc CONSTRUCTION)	MISCELLANEOUS IRON & STEEL
		LF	LF	EA	LF	EA	CY	LB
1	a		57					
	b	57						
	c			1				
	d				3.5		1.4	177
	e		18					
	f	18						
	g					1		
TOTAL		75	75	1	3.5	1	1.4	177

* USE DOWNDRAIN JOINT CLASSIFICATION

SUMMARY OF QUANTITIES
Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 LANDSCAPE ARCHITECTURE

PROJECT LANDSCAPE ARCHITECT
 RON FLORY

DESIGNED BY
 CHECKED BY

J. PATRICK SULLIVAN
 RON FLORY

REVISOR
 DATE

REVISOR
 DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Tri	299	48.3/49.5	8	17

J. Patrick Sullivan, AIA
 LICENSED LANDSCAPE ARCHITECT
 #3125
 Signature
 07-31-14
 Renewal Date
 09-09-13
 Date

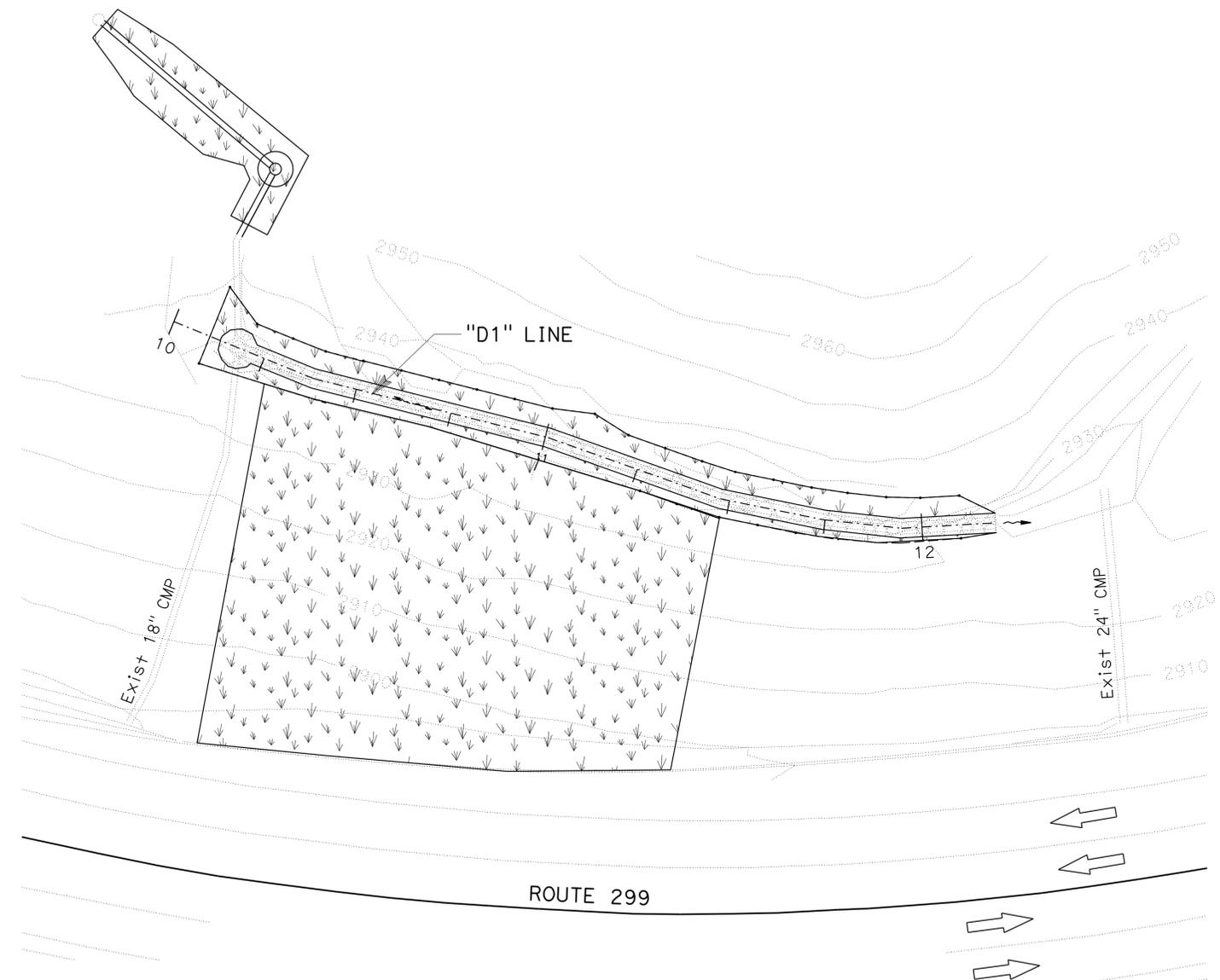
09-09-13
 PLANS APPROVAL DATE

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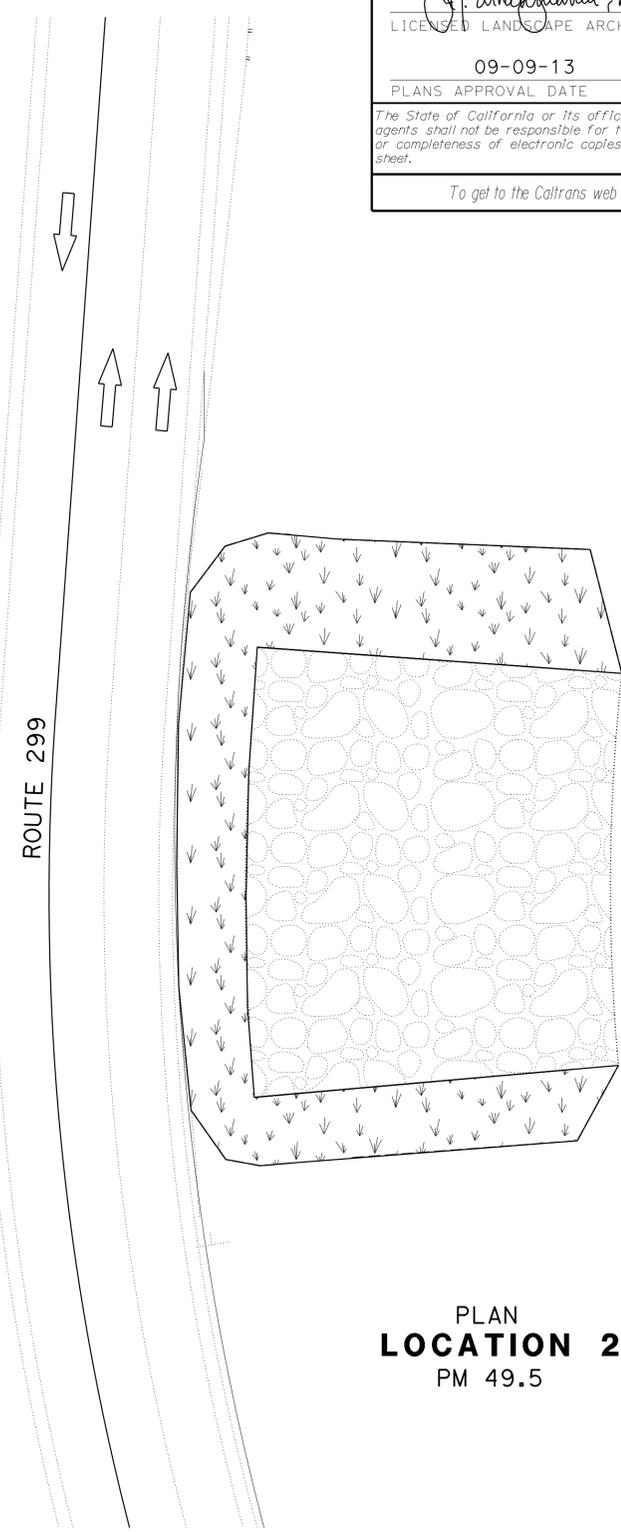
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>

LEGEND

-  ROLLED EROSION CONTROL PRODUCT (BLANKET)
-  EROSION CONTROL (DRY SEED)



PLAN
LOCATION 1
 PM 48.3



PLAN
LOCATION 2
 PM 49.5



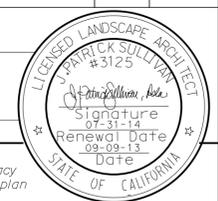
EROSION CONTROL DETAILS
 SCALE: 1" = 20'
ECD-1

APPROVED FOR LANDSCAPE WORK ONLY



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Tri	299	48.3/49.5	9	17


 LICENSED LANDSCAPE ARCHITECT
 09-09-13
 PLANS APPROVAL DATE



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 To get to the Caltrans web site, go to: <http://www.dot.ca.gov>

NOTES:

- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
- ROLLED EROSION CONTROL BLANKET (PRODUCT) AND EROSION CONTROL (DRY SEED) SHALL BE APPLIED TO ALL DISTURBED SOIL AREAS.

SEQUENCE / APPLICATION RATES (N)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE (N)
		DESCRIPTION	TYPE	
STEP 1	EROSION CONTROL (DRY SEED) APPLICATION	PURE LIVE SEED	MIX	96 LB/ACRE
STEP 2	EROSION CONTROL (DRY APPLIED) APPLICATION	SLOW RELEASE FERTILIZER	GRANULAR	100 LB/ACRE
STEP 3	ROLLED EROSION CONTROL PRODUCT (BLANKET) APPLICATION	ROLLED EROSION CONTROL PRODUCT (BLANKET)	TYPE A	SQFT

EROSION CONTROL (DRY SEED) TOTALS

MATERIAL		TOTALS	EROSION CONTROL (DRY SEED)
DESCRIPTION	TYPE		
PURE LIVE SEED	MIX	42.31 LBS (N)	
SLOW RELEASE FERTILIZER	GRANULAR	45 LBS (N)	
LOCATION ONE (TOTAL)			10,400
LOCATION TWO (TOTAL)			10,200
TOTAL SQFT			20,600

SEED MIX (N)

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (N) (SLOPE MEASUREMENT)
ACHILLEA MILLEFOLIUM (COMMON YARROW)	50	2
ELYMUS GLAUCUS (CALIFORNIA WILD RYE)	70	25
FESTUCA IDAHOENSIS (WESTERN FESCUE)	70	25
LOTUS PURSHIANUS (PURSHING)	70	2
LUPINUS NANA (DWARF LUPINES)	60	2
POA SECUNDA (BLUE PINE GRASS)	60	15
VULPIA MICROSTACHYS (SMALL FESCUE)	80	25
TOTAL		96

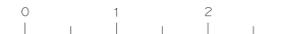
ROLLED EROSION CONTROL PRODUCT (BLANKET) TOTALS

SHEET	LOCATION	DESCRIPTION	ROLLED EROSION CONTROL PRODUCT (BLANKET)
			SQFT
ECD-1	LOCATION ONE	ROLLED EROSION CONTROL PRODUCT	10,400
ECD-1	LOCATION TWO	ROLLED EROSION CONTROL PRODUCT	10,200
TOTAL			20,600

EROSION CONTROL QUANTITIES

ECQ-1

APPROVED FOR LANDSCAPE WORK ONLY



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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 LANDSCAPE ARCHITECTURE
 PROJECT LANDSCAPE ARCHITECT
 RON FLORY
 CALCULATED/DESIGNED BY
 J. PATRICK SULLIVAN
 CHECKED BY
 RON FLORY
 DATE
 REVISED BY
 DATE REVISED

P:\proj\02\4E610\plans\pse\24e610va001.dgn

	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,	
	S	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
	S	
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	
Tel	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	
	T	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWL	WINGWALL LAYOUT LINE	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	10	17

Grace M. Tsushima
 REGISTERED CIVIL ENGINEER

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July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 09-09-13

UNIT OF MEASUREMENT SYMBOLS:

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

TABLE A

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

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

TABLE B

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

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	11	17

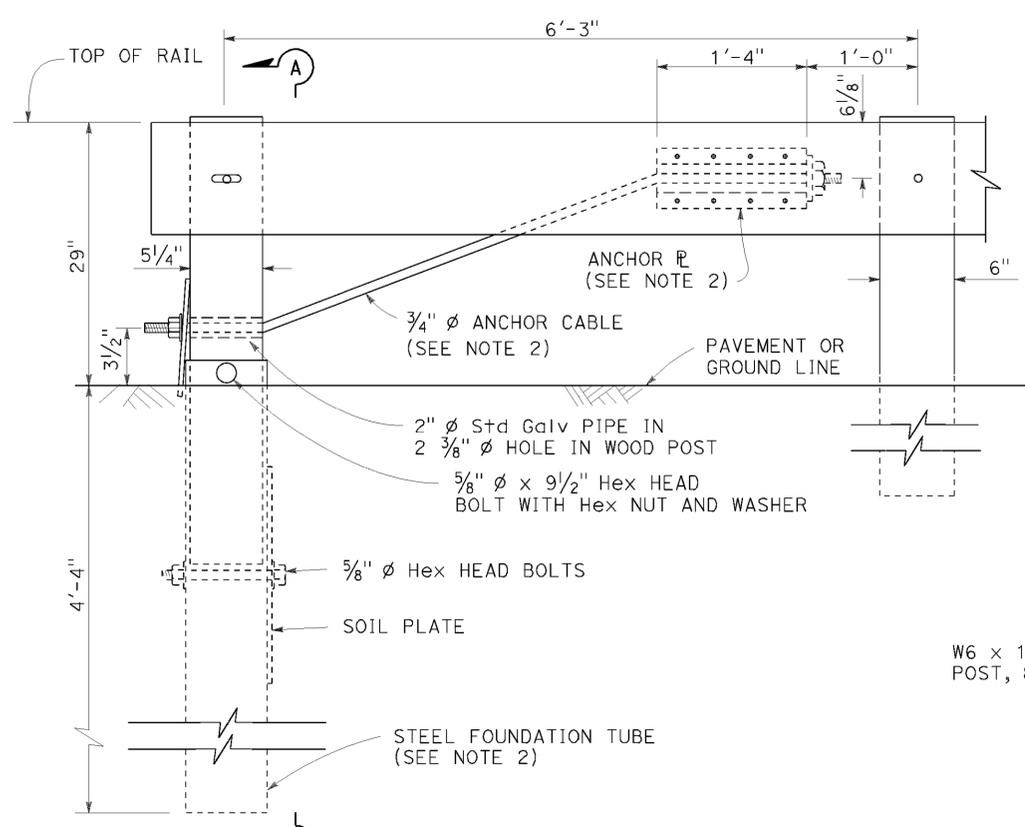
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

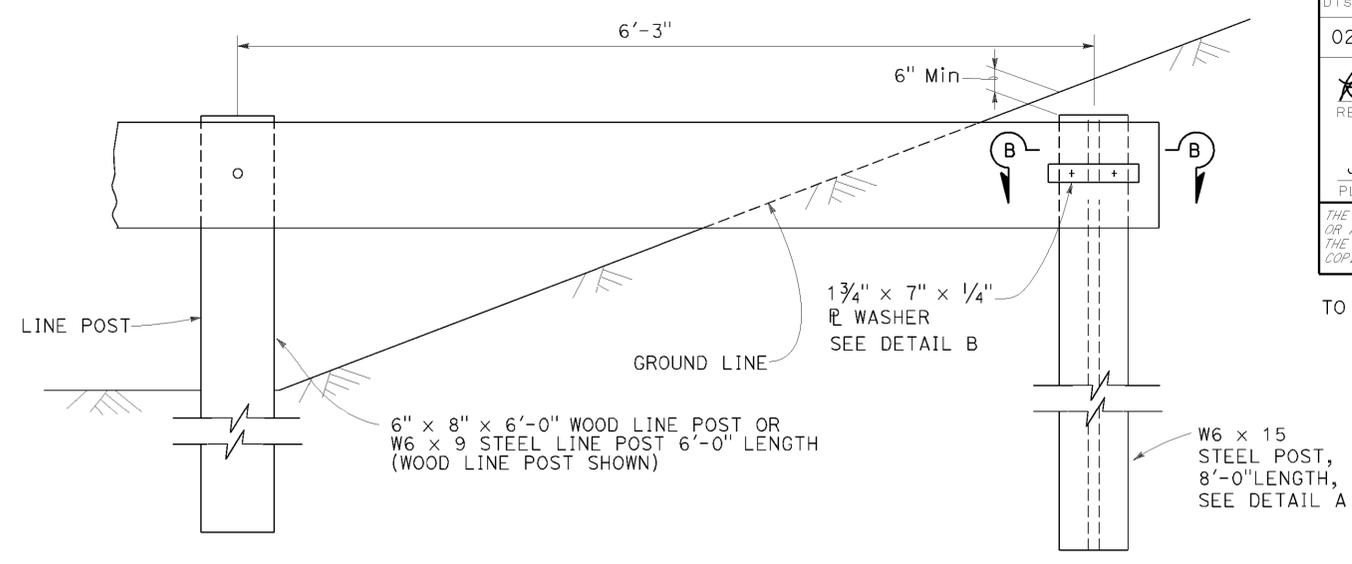
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TO ACCOMPANY PLANS DATED 09-09-13

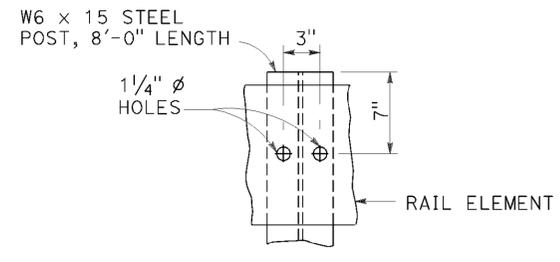
REGISTERED PROFESSIONAL ENGINEER
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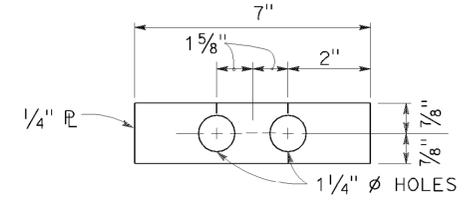
**ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)**



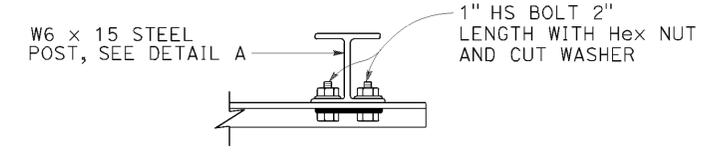
BURIED POST END ANCHOR



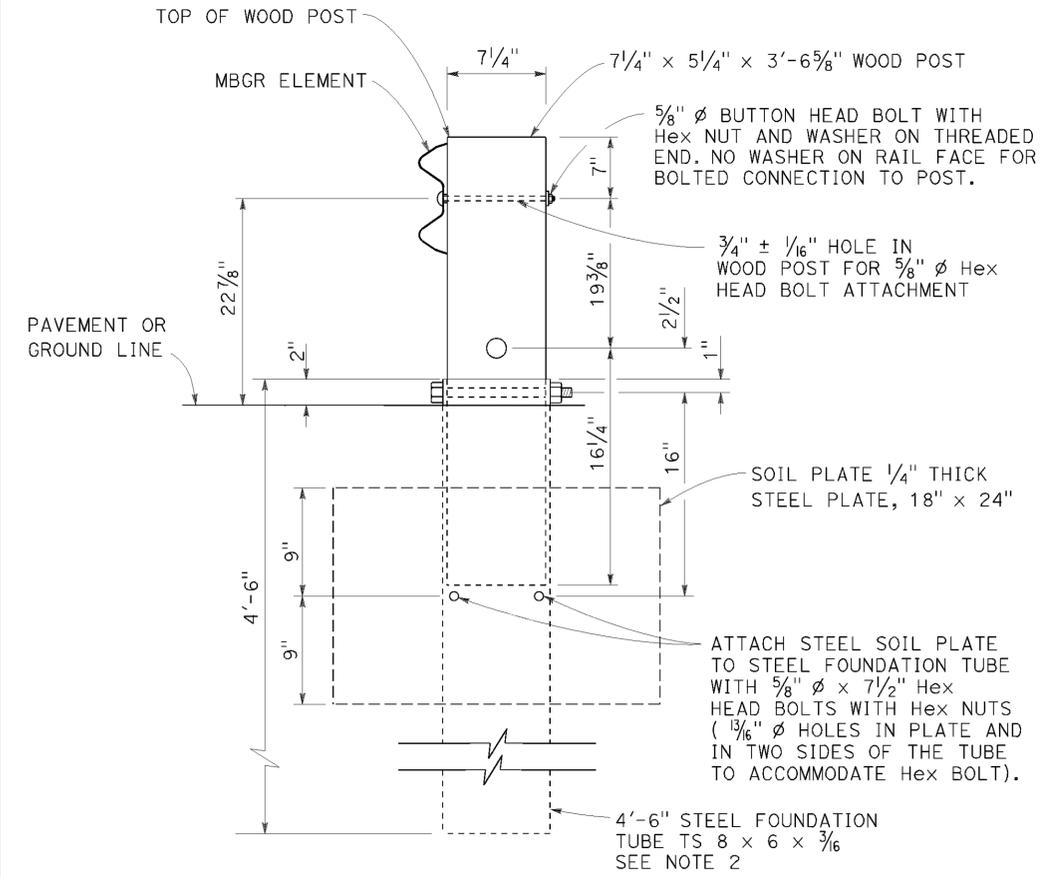
DETAIL A



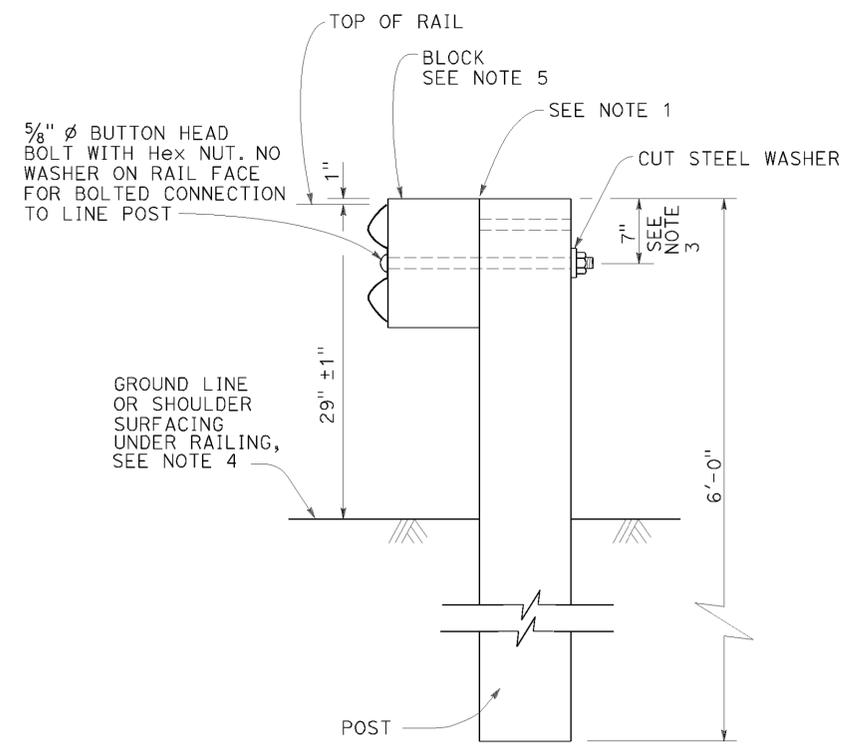
DETAIL B



SECTION B-B



SECTION A-A



**TYPICAL LINE
POST INSTALLATION**

NOTES:

1. For wood post and wood block, toenail with 2-16d Galv nails in top of block. For steel post and notched wood or plastic block, notched face of block faces steel post.
2. 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.
3. To connect railing to 27" 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.
4. Install posts in soil.
5. See Revised Standard Plans RSP A77N1 and RSP A77N2 for details.
6. Holes excavation in the slope to construct the buried post end anchor shall be backfilled with selected earth, placed in layers approximately 1'-0" thick. Each layer shall be moistened and thoroughly compacted.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
RECONSTRUCT INSTALLATION**

NO SCALE

RSP A77L3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L3

P:\proj\1024E610\plans\pse\24e610va002.dgn

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DGN FILE => 24e610va002.dgn

2010 REVISED STANDARD PLAN RSP A77L3

DATE PLOTTED => 10-SEP-2013
TIME PLOTTED => 09:38

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	12	17

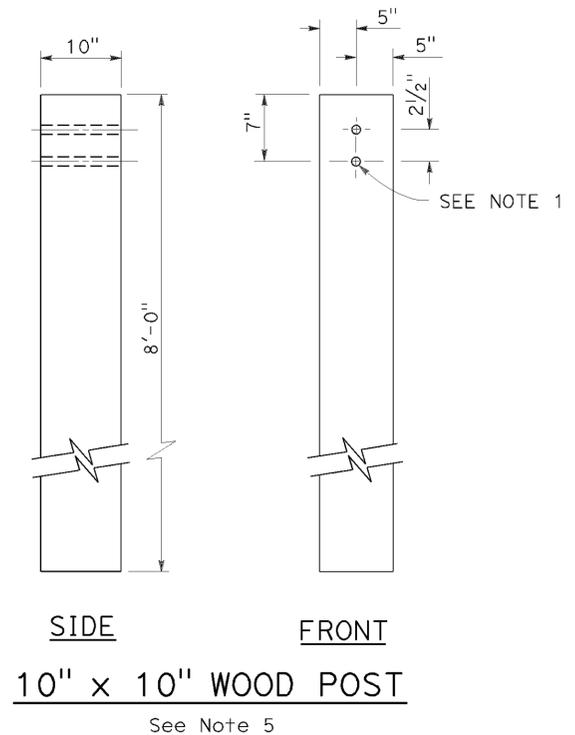
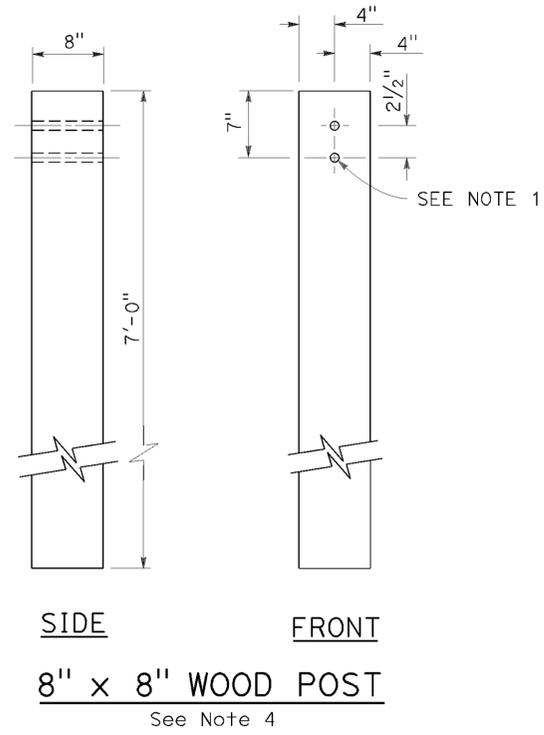
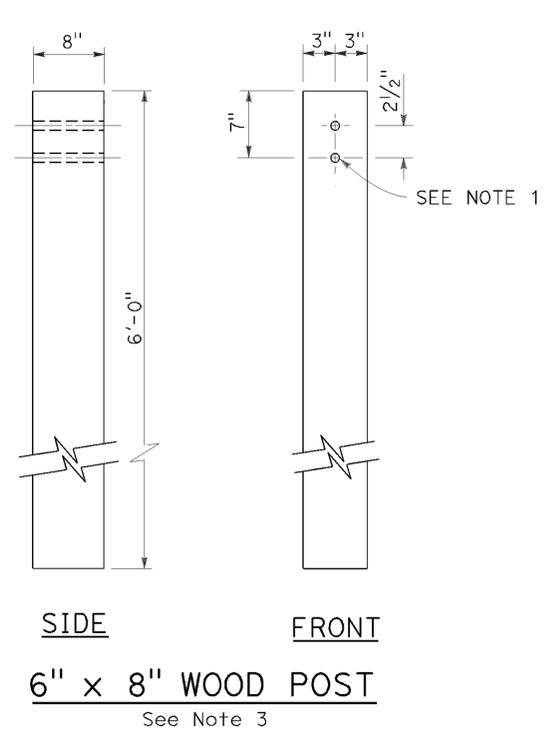
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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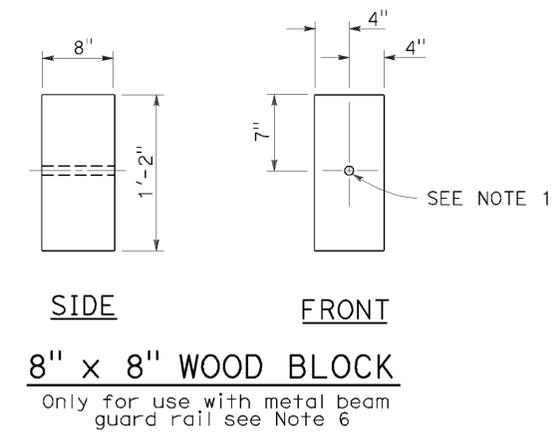
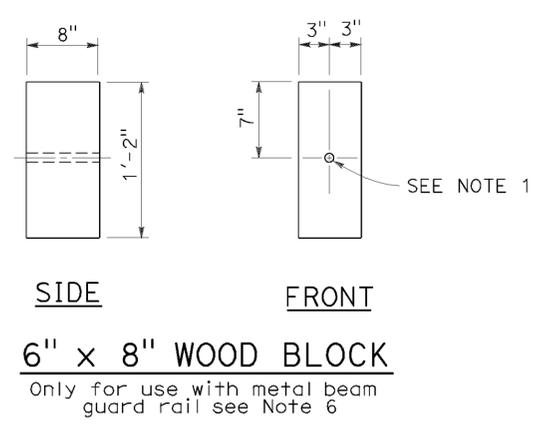
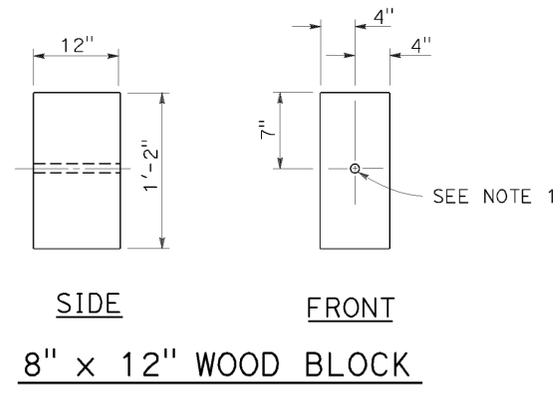
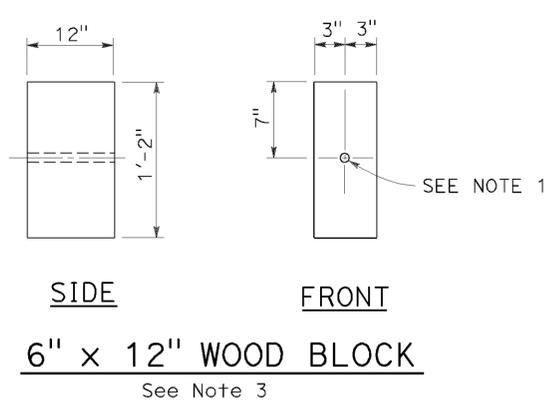
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 09-09-13



NOTES:

1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

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2010 REVISED STANDARD PLAN RSP A77N1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	13	17

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

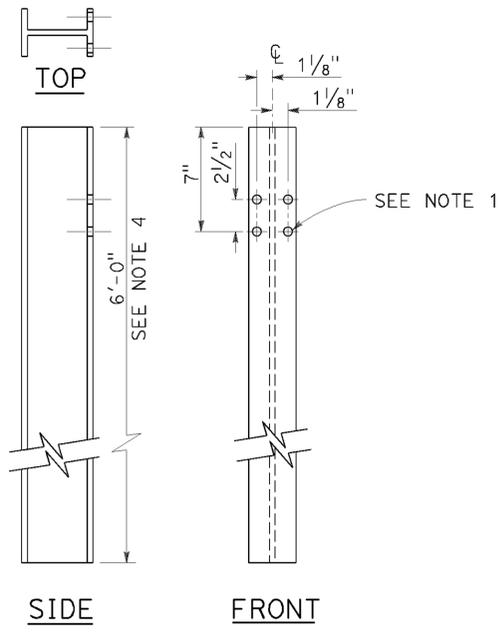
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
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STATE OF CALIFORNIA

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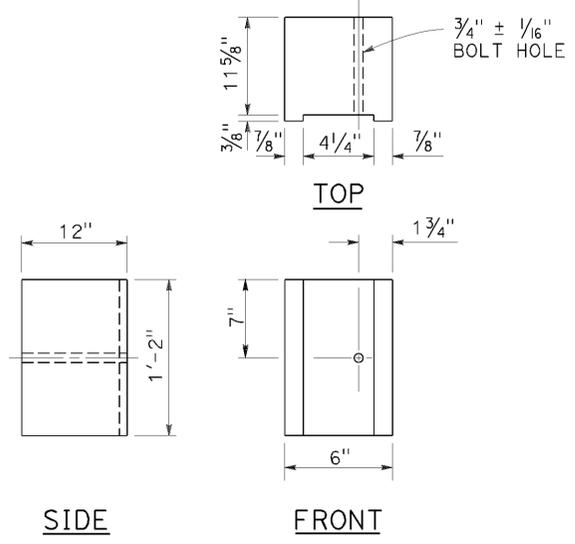
TO ACCOMPANY PLANS DATED 09-09-13

NOTES:

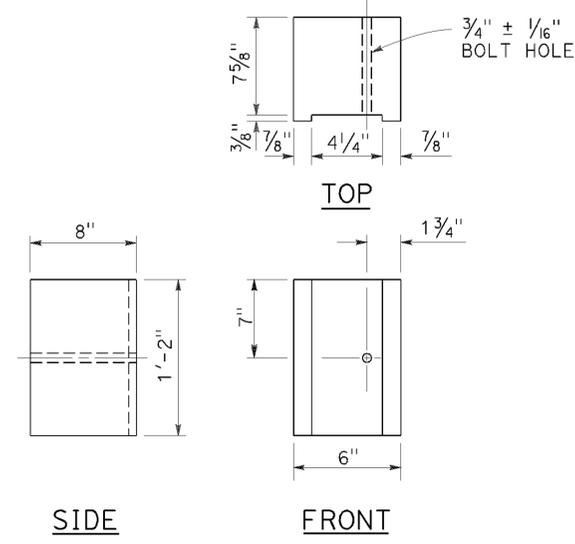
1. All holes in steel post shall be 1 3/16" Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. 7'-0" length posts to be used for narrow roadway installation. See Revised Standard Plan RSP A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.



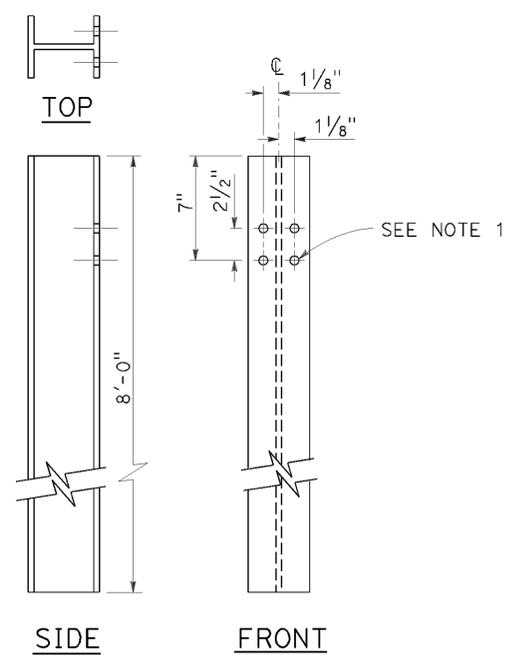
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



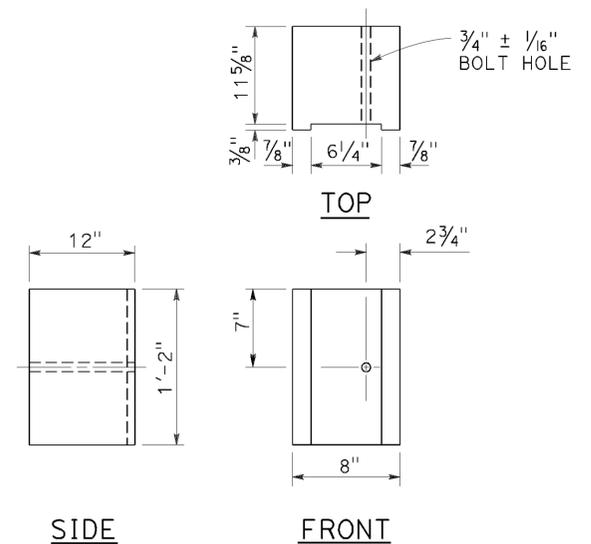
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



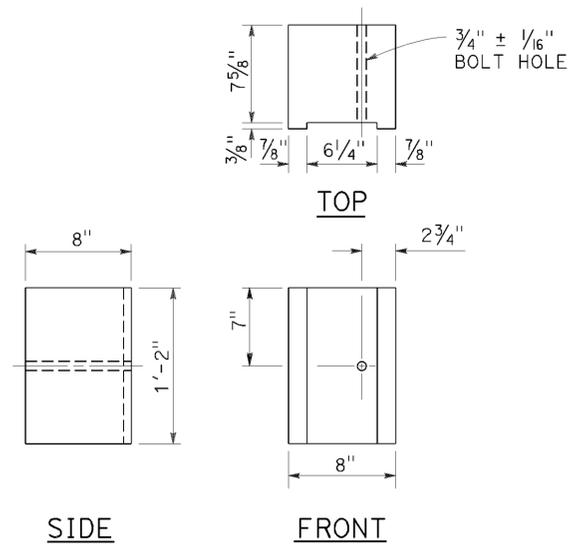
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**W6 x 15
STEEL POST**
See Note 6



**8" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



**8" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS**

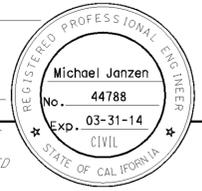
NO SCALE

RSP A77N2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

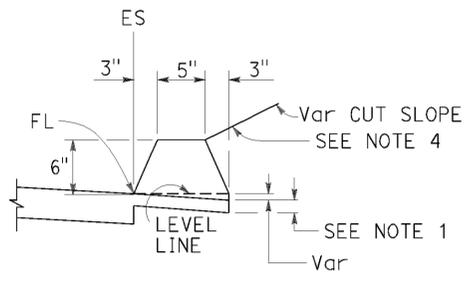
REVISED STANDARD PLAN RSP A77N2

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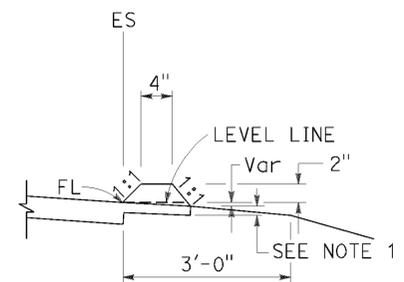
2010 REVISED STANDARD PLAN RSP A77N2



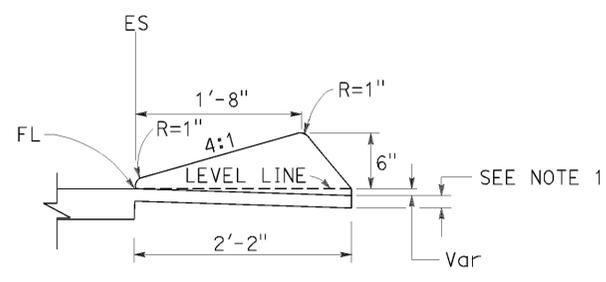
TO ACCOMPANY PLANS DATED 09-09-13



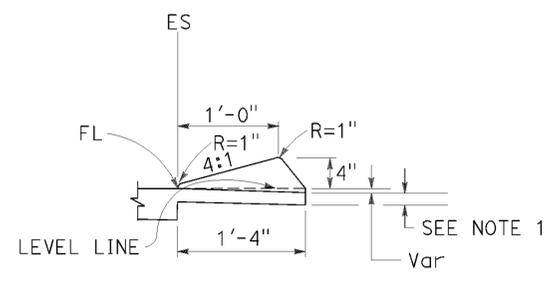
TYPE A
See Note 3



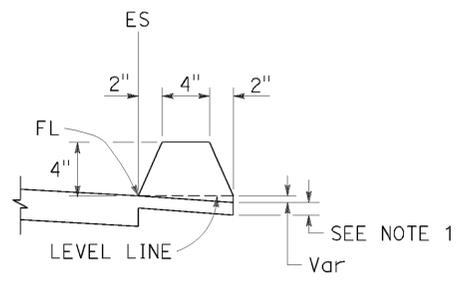
TYPE C



TYPE D

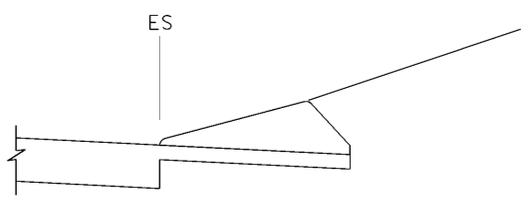


TYPE E

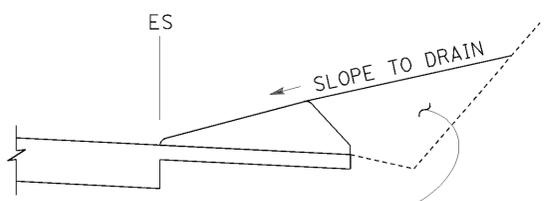


TYPE F
See Note 5

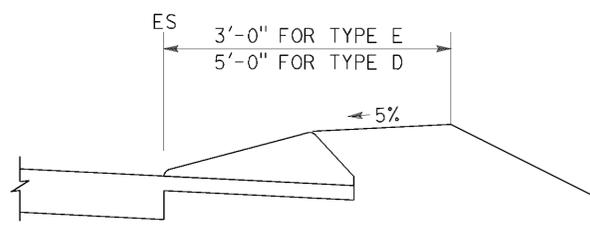
DIKES



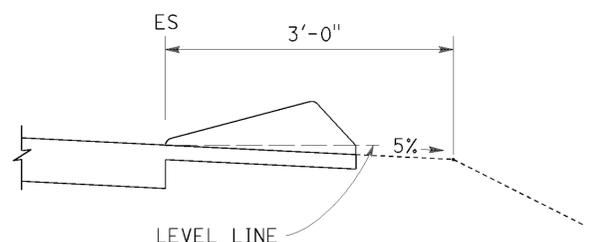
CASE C-1
Cut Slope



CASE C-2
Cut Slope



CASE F



CASE R
See Note 2

TYPE D AND E BACKFILL DETAILS

NOTES:

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

DIKE QUANTITIES

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

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT DIKES

NO SCALE

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

REVISED STANDARD PLAN RSP A87B

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2010 REVISED STANDARD PLAN RSP A87B

TO ACCOMPANY PLANS DATED 09-09-13

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

NO SCALE

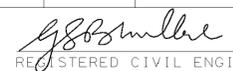
RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

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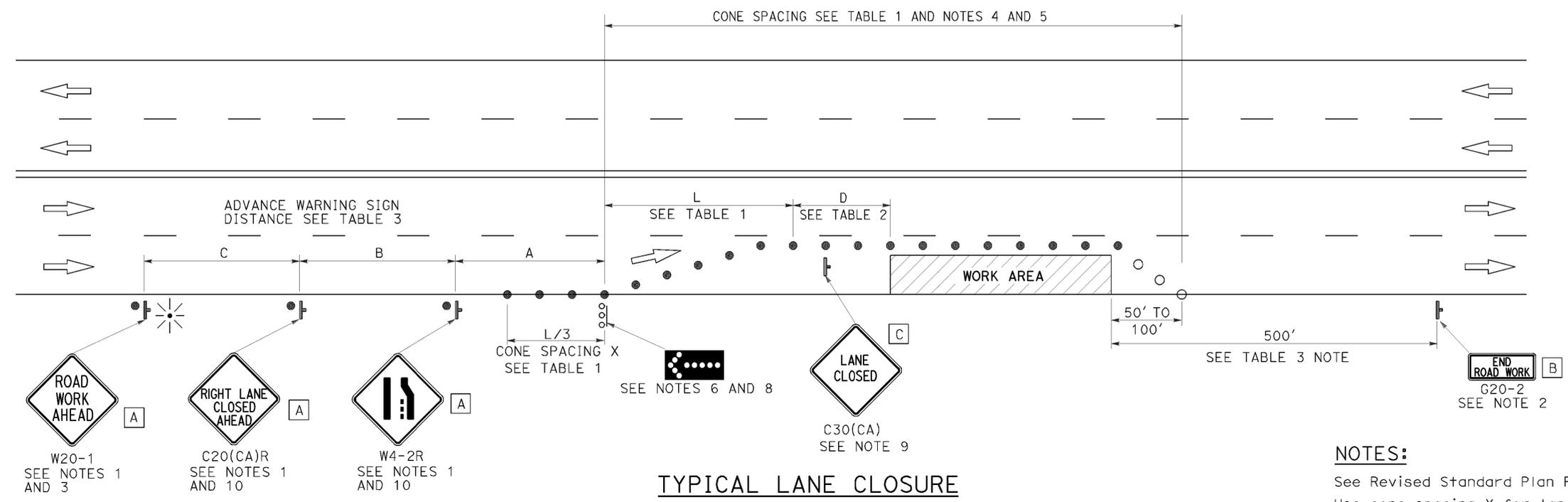
2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	299	48.3, 49.5	16	17


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 09-09-13



TYPICAL LANE CLOSURE

NOTES:

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

NOTES:

1. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. 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.
4. All cones used for lane 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 closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. 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.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

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

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

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

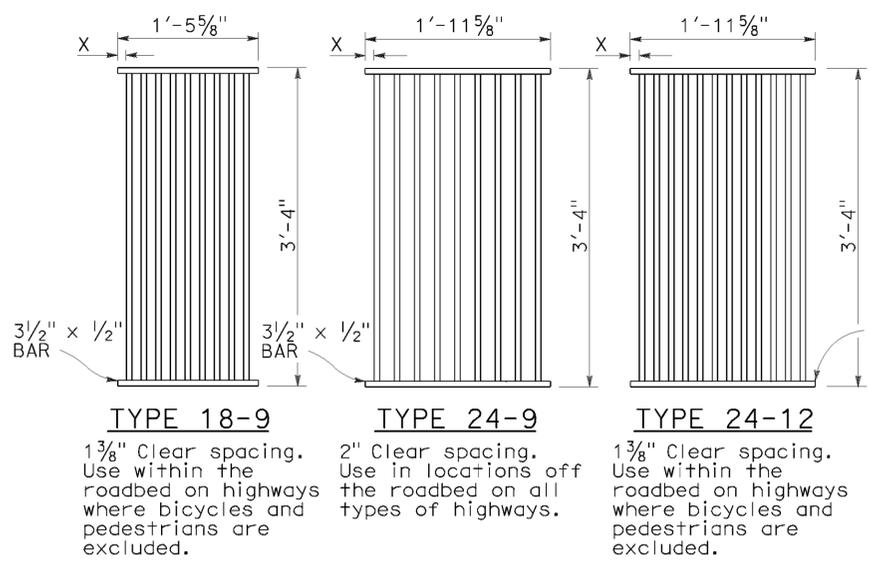
NO SCALE

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

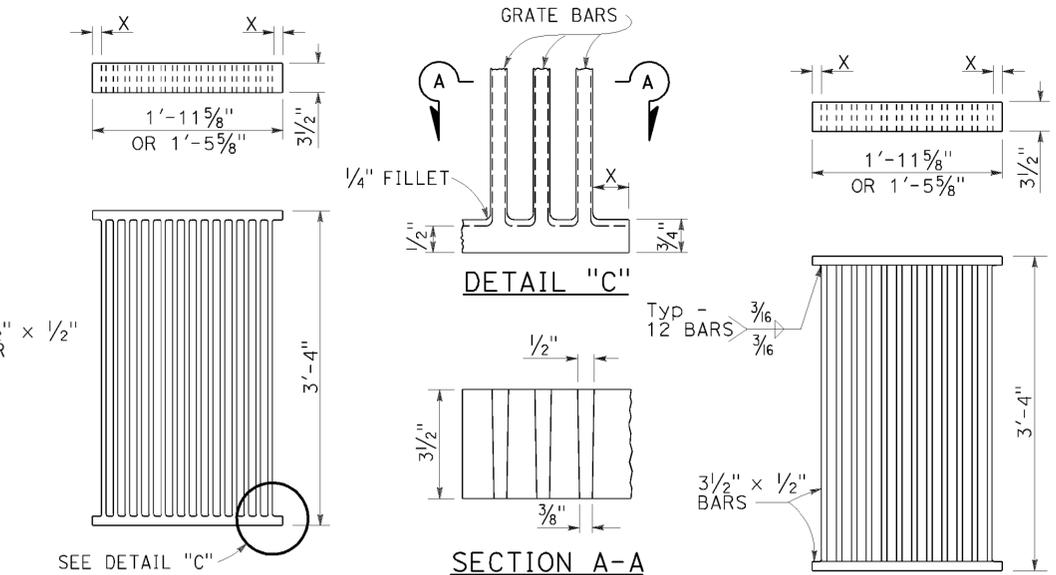
REVISED STANDARD PLAN RSP T11

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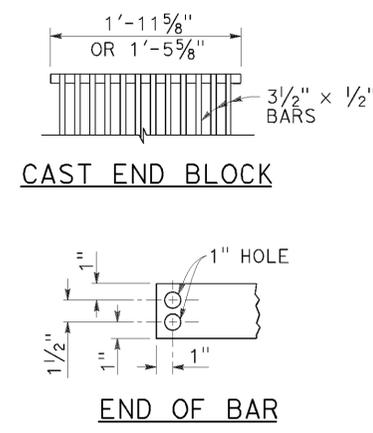
2010 REVISED STANDARD PLAN RSP T11



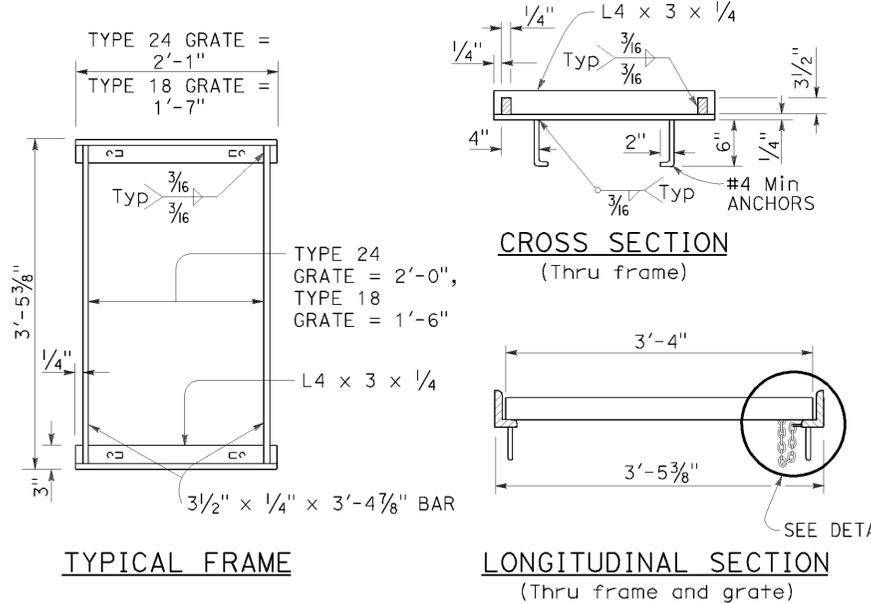
RECTANGULAR GRATE DETAILS
(See table below)



ALTERNATIVE CAST DUCTILE IRON GRATE OR CAST CARBON STEEL GRATE
ALTERNATIVE WELDED GRATE



CAST END BLOCK
END OF BAR

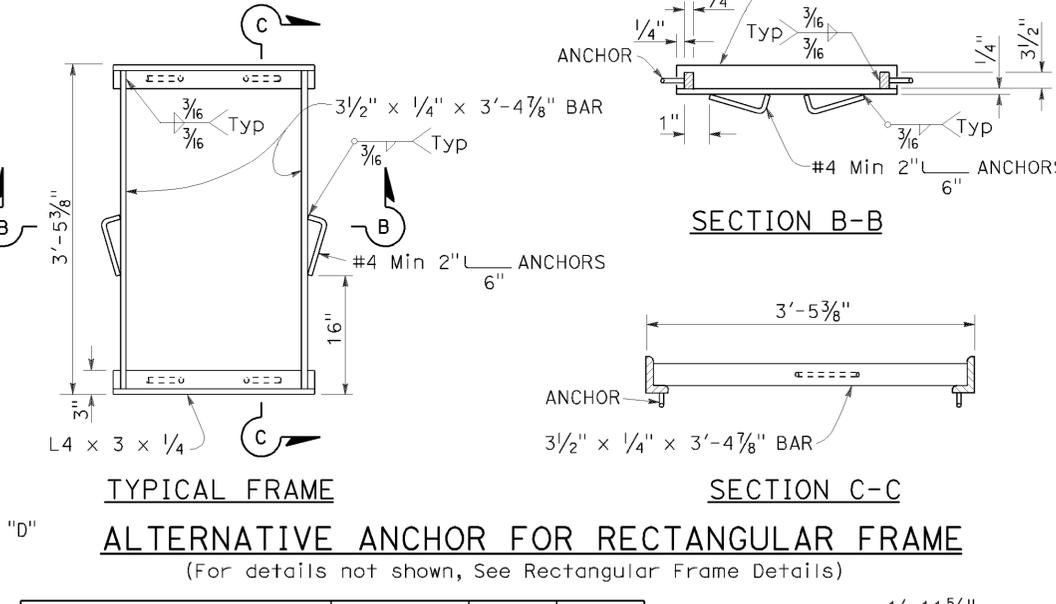


RECTANGULAR FRAME DETAILS
(For all rectangular grates)

GRATE BAR SPACING TABLE

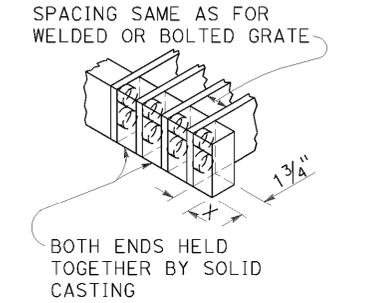
TYPE	NO. OF BARS	CLEAR BAR SPACING	X
18-9	9	1 3/8"	1 1/16"
24-9	9	2"	1 9/16"
24-12	12	1 3/8"	1 1/4"

INLET TYPE	COVER TYPE	WEIGHT LB
OS	PLATE	174
OL-7	PLATE	170
OL-10	PLATE	170
OL-14	PLATE	170
OL-21	PLATE	170
OCPI	PLATE	112
OCPI	REDWOOD	42
OMP	PLATE	177
OMPI	PLATE	177

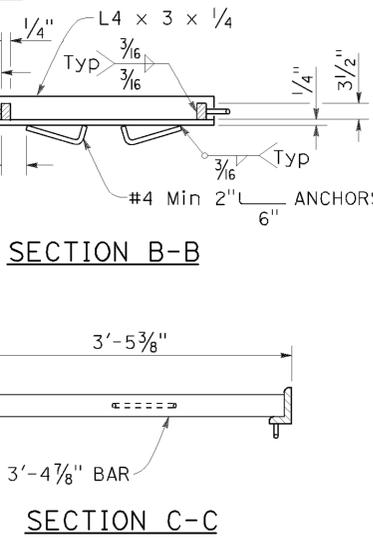


TYPICAL FRAME
ALTERNATIVE ANCHOR FOR RECTANGULAR FRAME
(For details not shown, See Rectangular Frame Details)

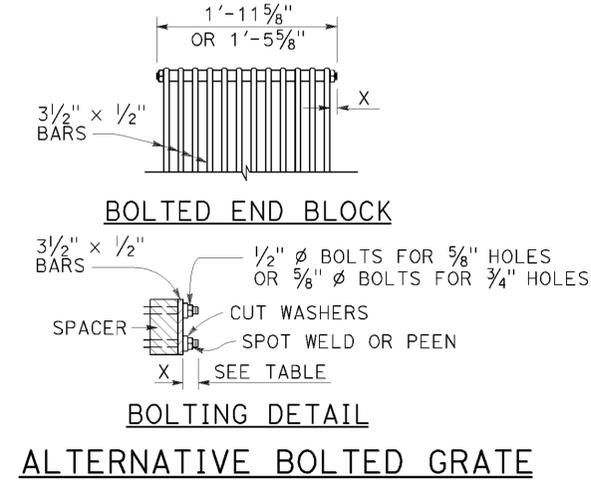
INLET TYPE	GRATE TYPE	NO. OF GRATES	WEIGHT LB
GDO	24-12	2	634
GOL-7	24-12	1	326
GOL-10	24-12	1	326
G0,G1,G2,G3,G4 (TYPE 24)	24-9	1	263
	24-12	1	326
G4 (TYPE 18),G5,G6	18-9	1	249
GT1	18-9	2	498
GT2	18-9	2	498
GT3	24-12	2	652
GT4	24-12	2	652
TRASH RACK			22
GRATE CHAIN			3



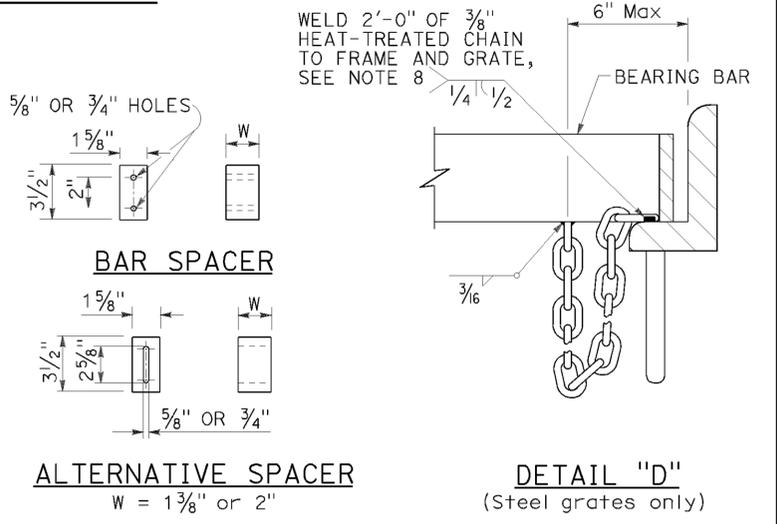
ALTERNATIVE CAST DUCTILE IRON OR CAST CARBON STEEL END BLOCK GRATE



SECTION B-B
SECTION C-C



BOLTED END BLOCK
BOLTING DETAIL
ALTERNATIVE BOLTED GRATE



BAR SPACER
ALTERNATIVE SPACER
DETAIL "D"
(Steel grates only)

- TO ACCOMPANY PLANS DATED 09-09-13
- NOTES:**
- Grate type numbers refer to approximate width of grate in inches and number of bars, respectively.
 - Contractor has the option of using cast ductile iron, cast carbon steel, welded, bolted, or cast end block grate.
 - Rounded top of bars optional on all grates.
 - Pipe inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
 - Complete joint penetration butt welds may be substituted for the fillet welds on all anchors.
 - Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
 - Grate and frame weights are based on welded grates (weights of face angles, steps, protection bars, etc. are not included).
 - Connect chain to grate and frame only at locations shown on the plans. When chain is required, do not use cast ductile iron grates.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
GRATE DETAILS No. 1
NO SCALE

RSP D77A DATED APRIL 19, 2013 SUPERSEDES RSP D77A DATED JULY 20, 2012 AND STANDARD PLAN D77A DATED MAY 20, 2011 - PAGE 164 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D77A

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USERNAME => s115152
DGN FILE => 24e610va008.dgn

2010 REVISED STANDARD PLAN RSP D77A

DATE PLOTTED => 10-SEP-2013
TIME PLOTTED => 09:38

BASIS FOR MISC IRON & STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS
(See Note 7)