INDEX OF PLANS

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1	TITLE AND LOCATION MAP
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6-10	CONSTRUCTION DETAILS
11	CONSTRUCTION AREA SIGNS
12-13	STAGE CONSTRUCTION PLANS
14-16	SUMMARY OF QUANTITIES
17-35	NEW OR REVISED STANDARD PLANS

STRUCTURE PLANS

36-39	BARRIER TRANSITION ANCHOR BLOCKS

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

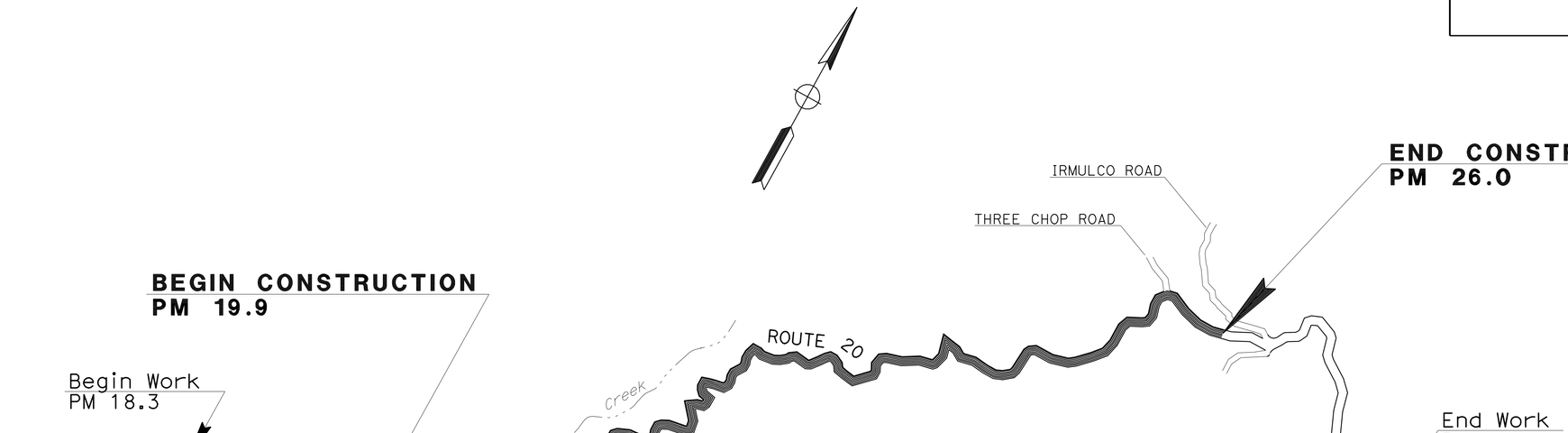
ACHSSTP-P020(165)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	1	39

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN MENDOCINO COUNTY ABOUT 7 MILES WEST OF WILLITS FROM 0.1 MILE WEST TO 6.0 MILES EAST OF JAMES CREEK BRIDGE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



NO SCALE

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

Robert E. Kornman 10/13/11
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL

October 18, 2011
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.	01-490704
PROJECT ID	0100000457

PROJECT MANAGER: GRACE TELL
DESIGN ENGINEER: STEVEN HUGHES

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:41

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s121671 DGN FILE => 149070ab001.dgn | UNIT 0311 | PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	2	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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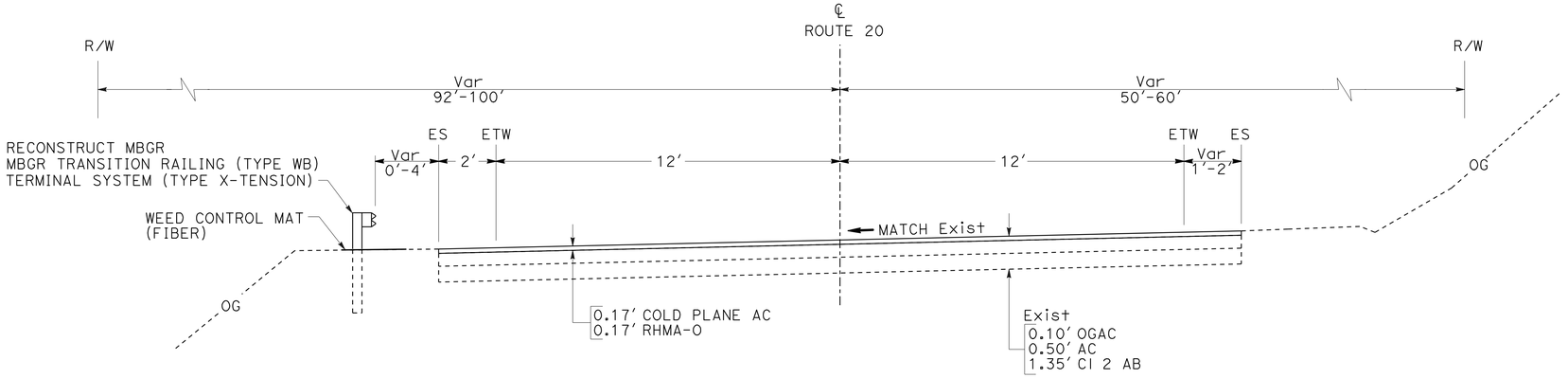
NOTES

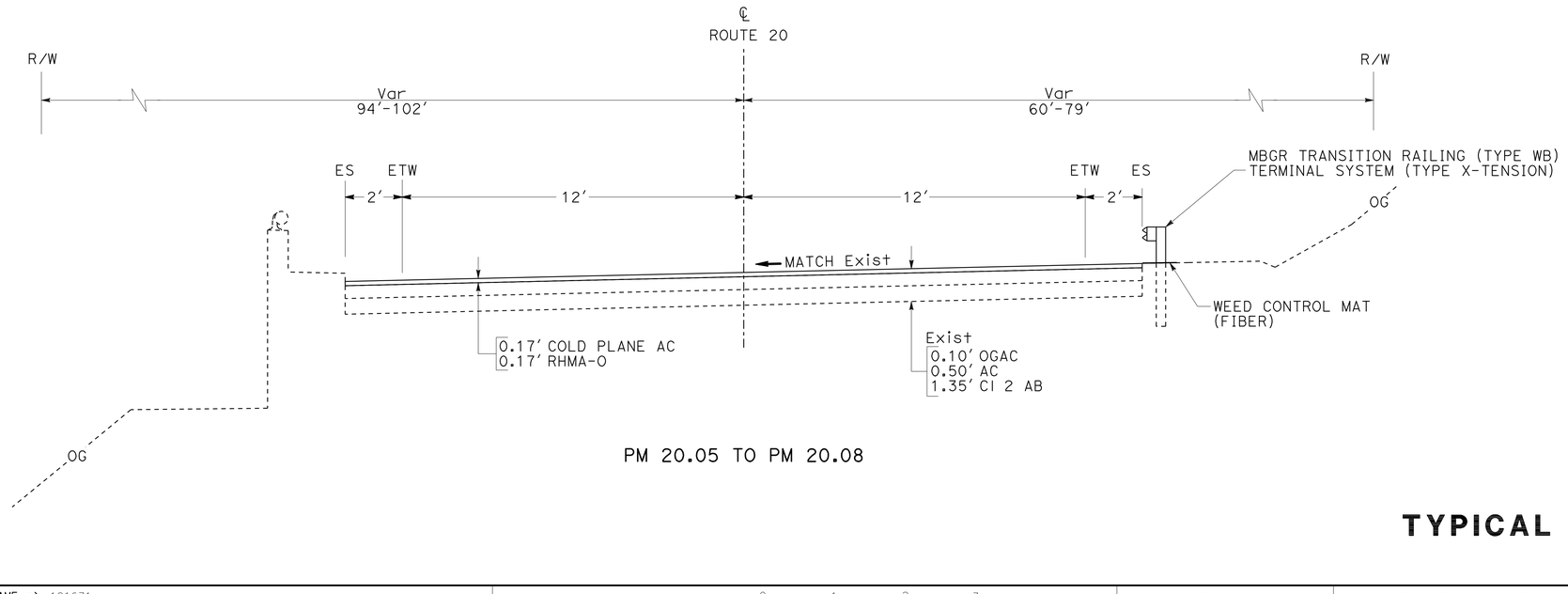
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

LEGEND

RHMA-O = RUBBERIZED HOT MIX ASPHALT (OPEN GRADE)



PM 20.08 TO PM 20.11



PM 20.05 TO PM 20.08

TYPICAL CROSS SECTIONS X-1

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY
CHECKED BY
ED CRAMER
REVISED BY
ROBERT KORNMAN
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ca001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	3	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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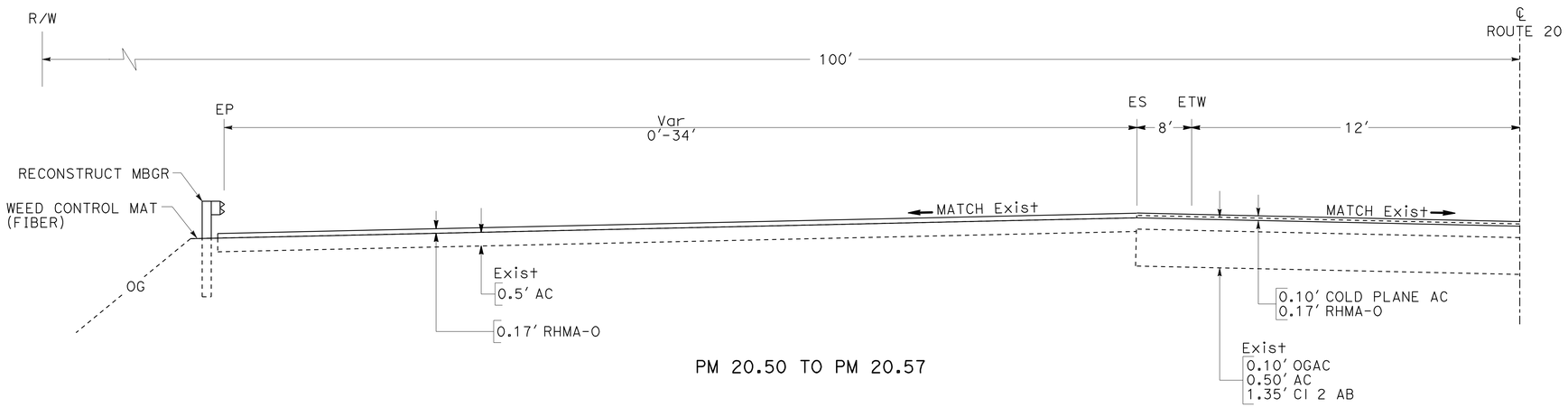
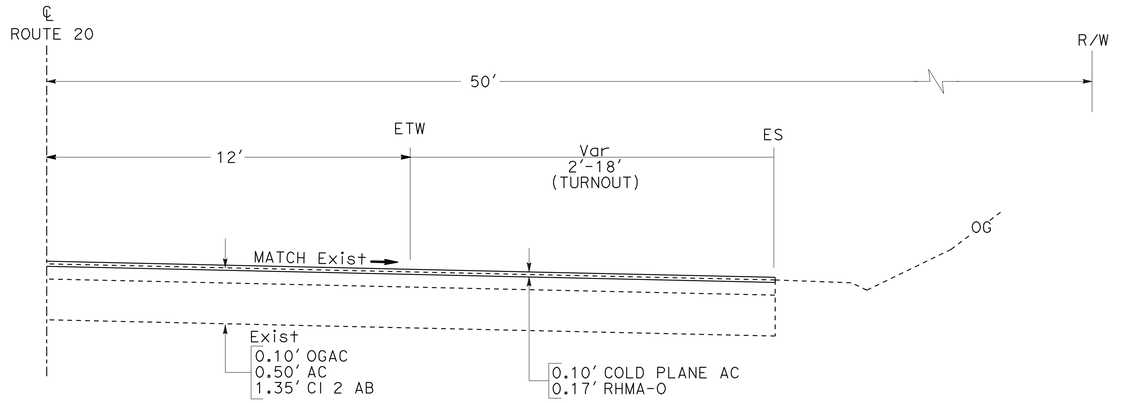
NOTES

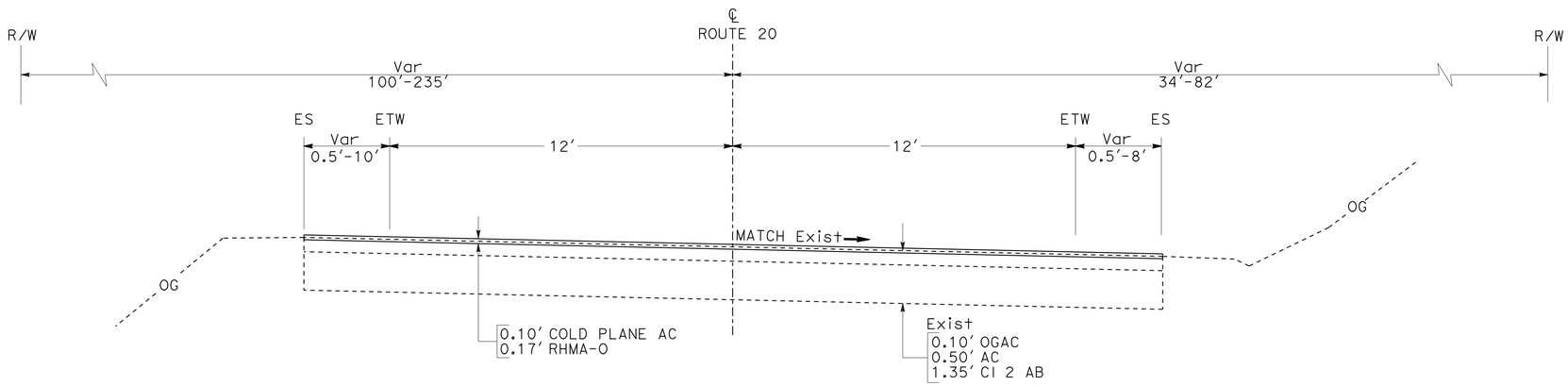
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



PM 20.50 TO PM 20.57



PM 20.44 TO PM 20.49



PM 20.11 TO PM 21.16

TYPICAL CROSS SECTIONS X-2

NO SCALE

REVISED BY | DATE REVISED
ED CRAMER | ROBERT KORNMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 27-JAN-2012 | TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010 | USERNAME => s121671 | DGN FILE => 149070ca002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0313 | PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	4	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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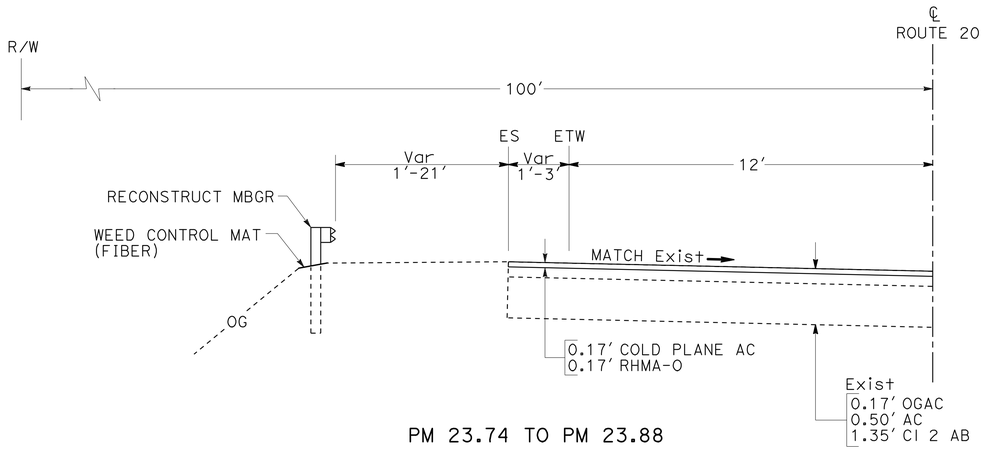
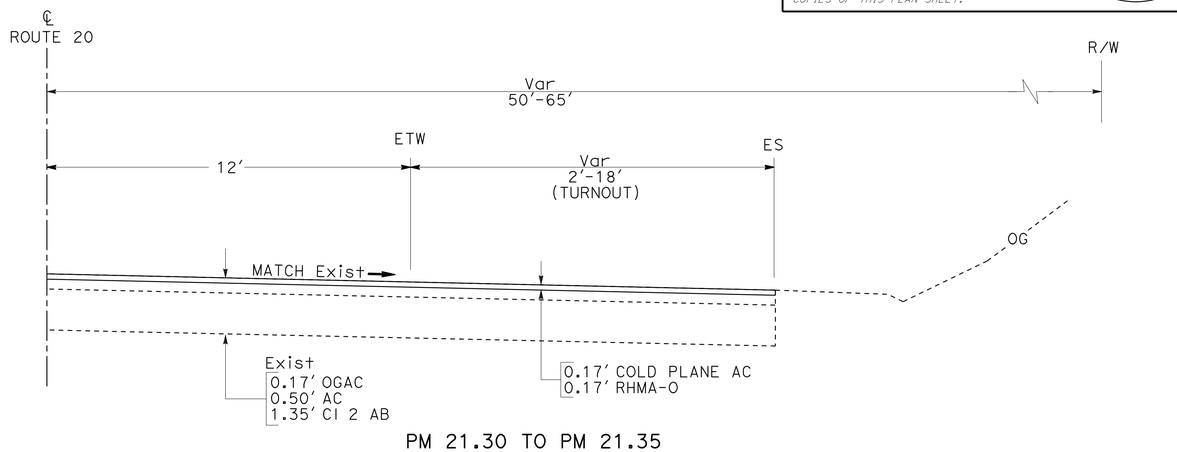
NOTES

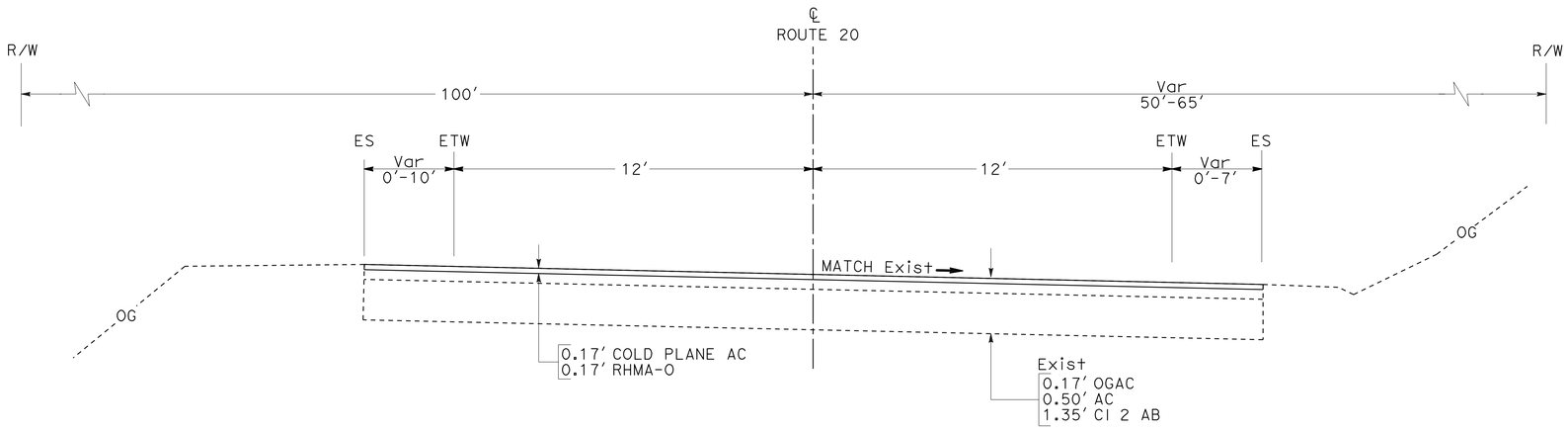
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



PM 23.74 TO PM 23.88



PM 21.30 TO PM 21.35
PM 22.69 TO PM 22.75



PM 21.16 TO PM 21.70
PM 22.21 TO PM 22.80
PM 23.54 TO PM 23.92

SEE SHEET X-4 FOR
PM 21.70 TO PM 22.21
PM 22.80 TO PM 23.54

TYPICAL CROSS SECTIONS X-3

NO SCALE

REVISED BY | DATE REVISED
ED CRAMER | ROBERT KORNMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	5	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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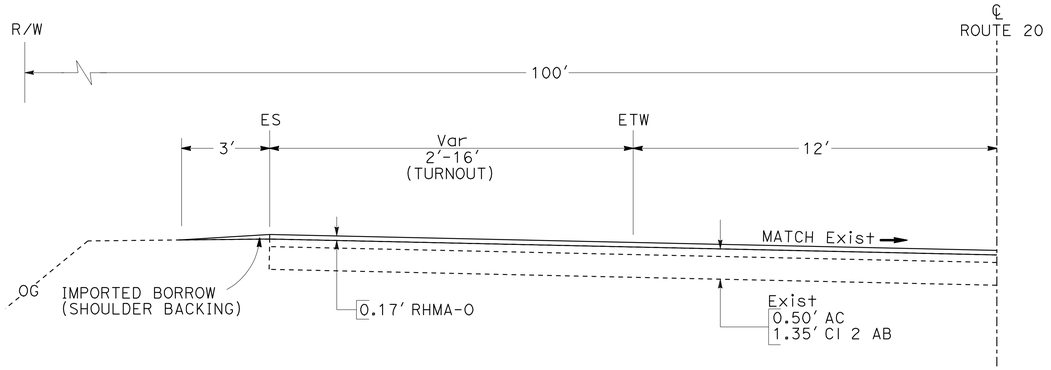
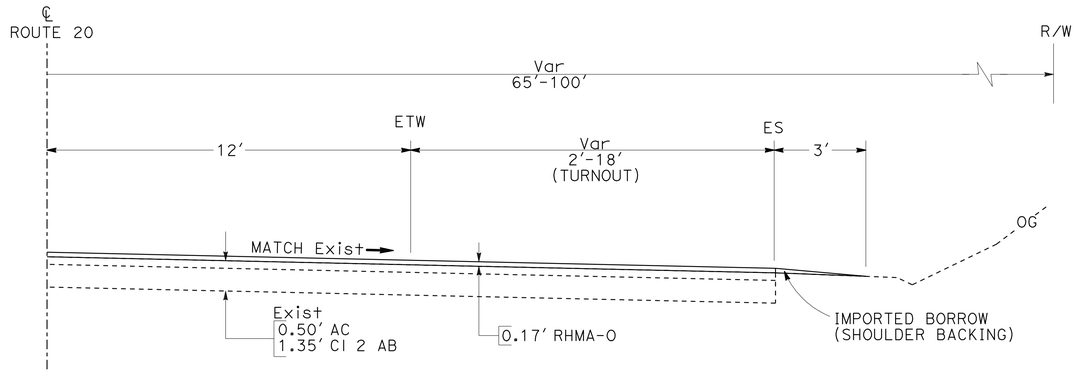
NOTES

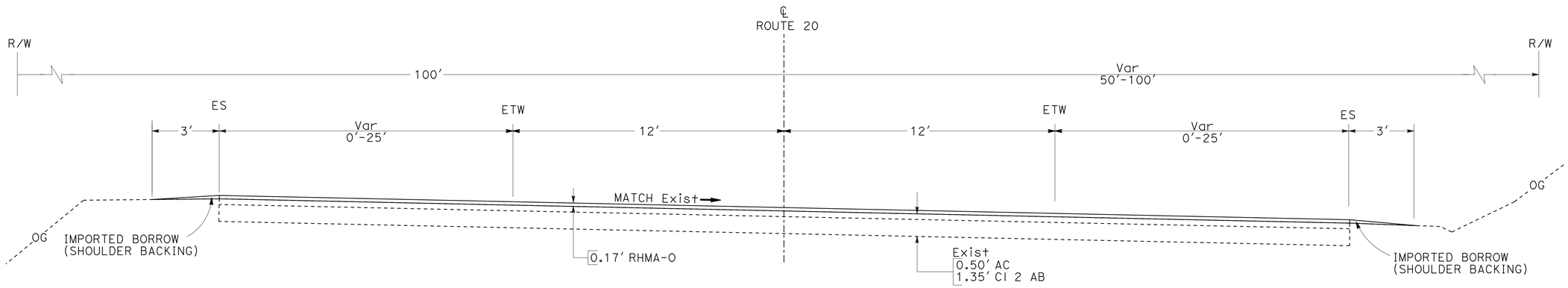
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



PM 25.68 TO PM 25.76



PM 24.11 TO PM 24.17
PM 24.58 TO PM 24.68
PM 25.46 TO PM 25.51



PM 21.70 TO PM 22.21
PM 22.80 TO PM 23.54
PM 23.92 TO PM 25.97

TYPICAL CROSS SECTIONS X-4

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY: ROBERT KORNMAN
CHECKED BY: ED CRAMER
DATE REVISED
REVISED BY

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ca004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	6	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

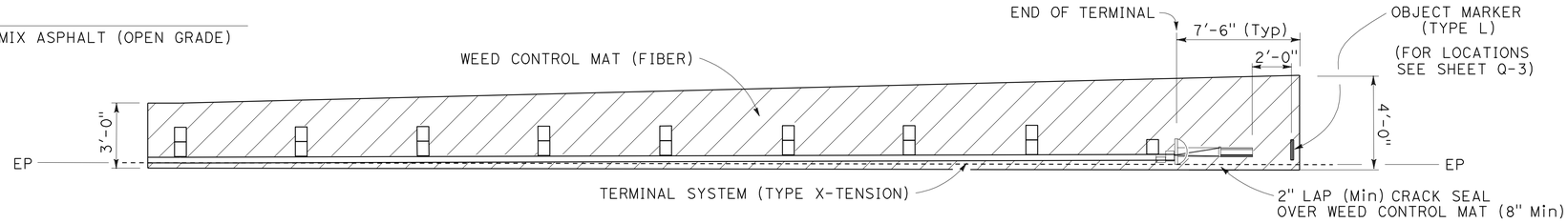
October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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

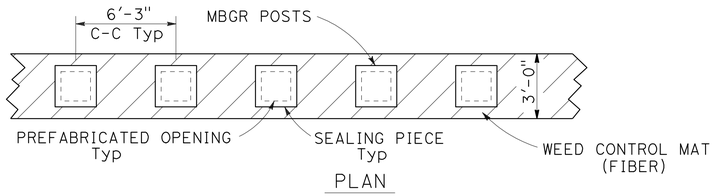
LEGEND

RHMA-O = RUBBERIZED HOT MIX ASPHALT (OPEN GRADE)



PLAN

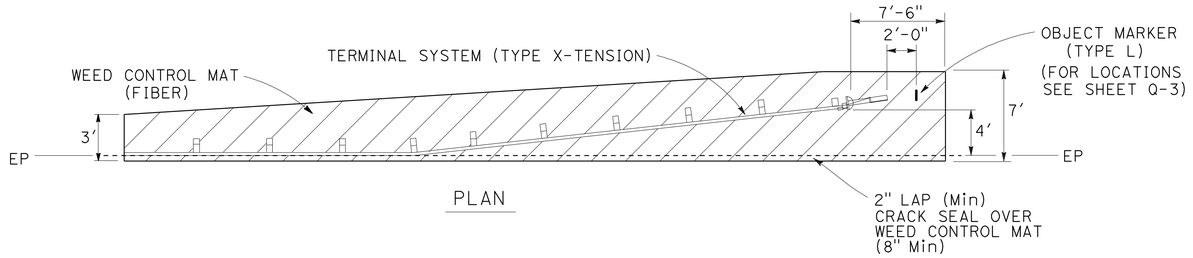
UNDER IN-LINE INSTALLATION TERMINAL SYSTEM (TYPE X-TENSION)



PLAN

UNDER MBGR

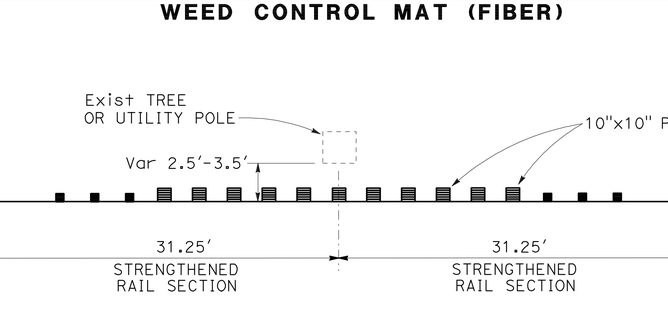
POST SPACING & OTHER DIMENSIONS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR.



PLAN

UNDER FLARED INSTALLATION TERMINAL SYSTEM (TYPE X-TENSION)

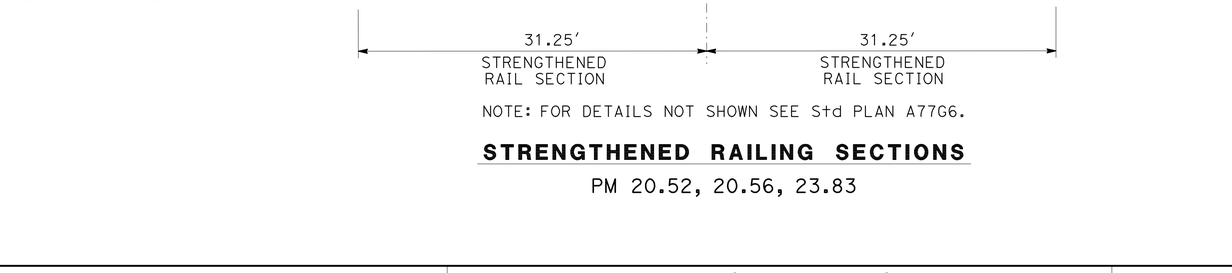
UNPAVED PULLOUT AREAS



PAVED PULLOUT AREAS

NEAR EDGE OF PAVEMENT

WEED CONTROL MAT (FIBER)



NOTE: FOR DETAILS NOT SHOWN SEE Std PLAN A77G6.

STRENGTHENED RAILING SECTIONS

PM 20.52, 20.56, 23.83

CONSTRUCTION DETAILS C-1

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY: TREVOR GOFF
CHECKED BY: ROBERT KORNMAN
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 27-JAN-2012
00-00-00 TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ga001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	7	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

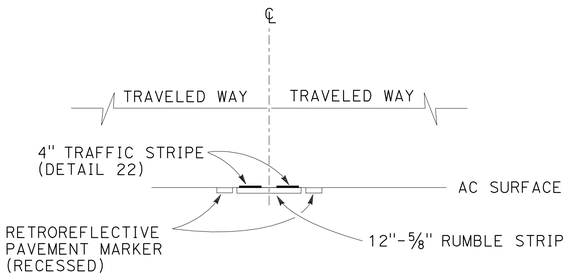
October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

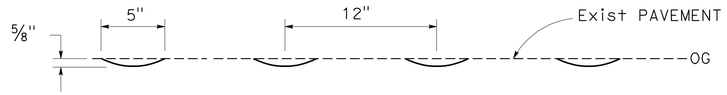
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES

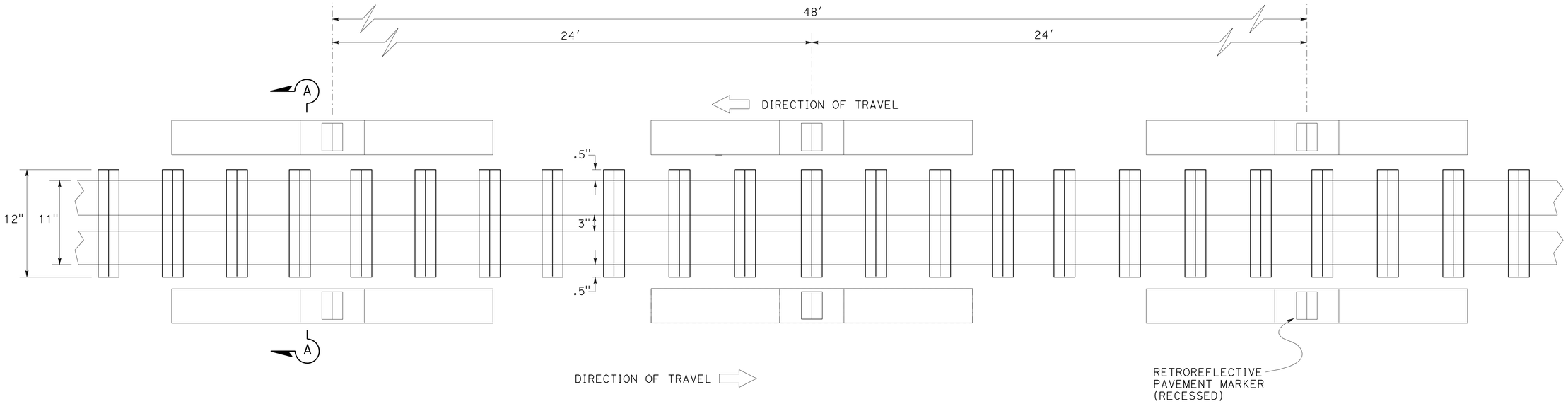
1. SEE SUMMARY OF QUANTITIES FOR LOCATION AND LIMITS.
2. FOR DETAILS NOT SHOWN SEE STANDARD PLANS A20A & A20D.



SECTION A-A



ELEVATION



PLAN

CENTERLINE RUMBLE STRIP
PM 20.05 TO PM 25.97

CONSTRUCTION DETAILS C-2

NO SCALE

REVISED BY | DATE REVISED
ED CRAMER | ROBERT KORNMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 27-JAN-2012 | TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010 | USERNAME => s121671 | DGN FILE => 149070gq002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0313 | PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	8	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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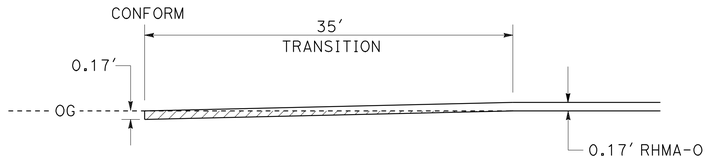
LEGEND

RHMA-O = RUBBERIZED HOT MIX ASPHALT (OPEN GRADE)

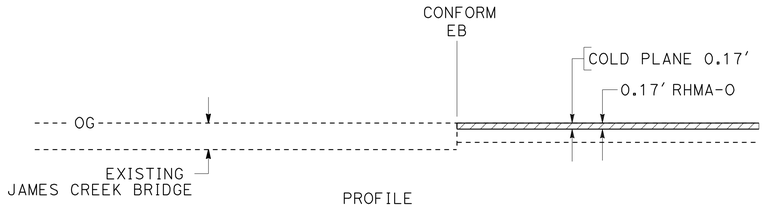
COLD PLANE AC PAVEMENT



PROFILE

CONFORM PUBLIC ROAD

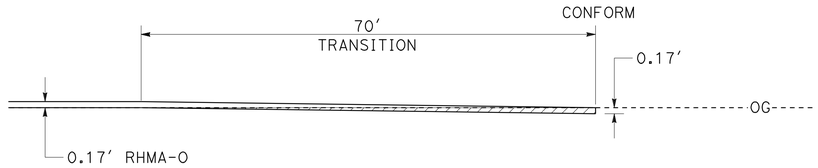
THREE CHOP ROAD, PM 25.70



PROFILE

CONFORM BEGIN AC OVERLAY

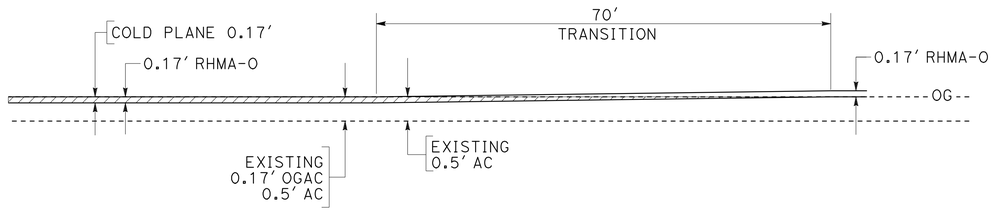
PM 20.05



PROFILE

CONFORM END AC OVERLAY

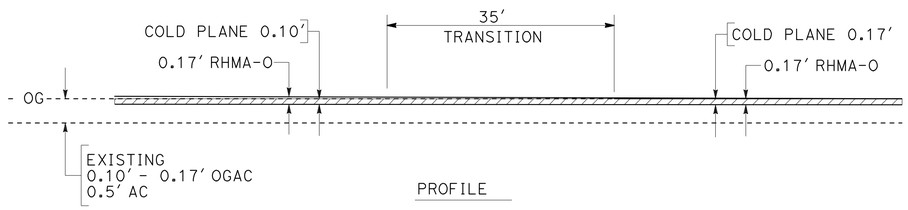
PM 25.96 TO PM 25.97



PROFILE

AT 0.17′ TO EXISTING TRANSITIONS

PM 21.69 TO PM 21.70
PM 22.21 TO PM 22.22
PM 22.79 TO PM 22.80
PM 23.54 TO PM 23.55
PM 23.91 TO PM 23.92



PROFILE

AT 0.17′ TO 0.10′ TRANSITIONS

PM 20.11 TO PM 20.12
PM 21.15 TO PM 21.16

COLD PLANE CONFORMS & TAPERS

CONSTRUCTION DETAILS C-3

NO SCALE

REVISED BY | DATE REVISED
ED CRAMER | ROBERT KORNMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ga003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	9	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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NOTES

1. THE ADDITIONAL HEIGHT OF DIKE SHALL BE EQUIVALENT TO THE DEPTH OF RHMA-O.
2. MAINTAIN ALL DAYLIGHT DIKE DIMENSIONS PER STANDARD PLAN A87B.
3. SEE QUANTITY TABLE FOR LIMITS.

LEGEND

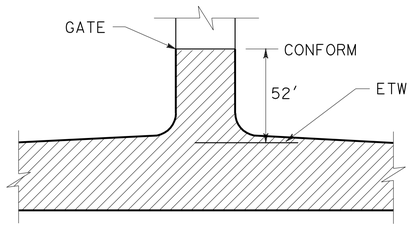
RHMA-O = RUBBERIZED HOT MIX ASPHALT (OPEN GRADE)
W = WIDTH OF ROUTING = WIDTH OF CRACK + 1/4" Min
D = DEPTH OF ROUTING = W + 1/4" Min

LIMITS OF SURFACING

CRACK SEALANT

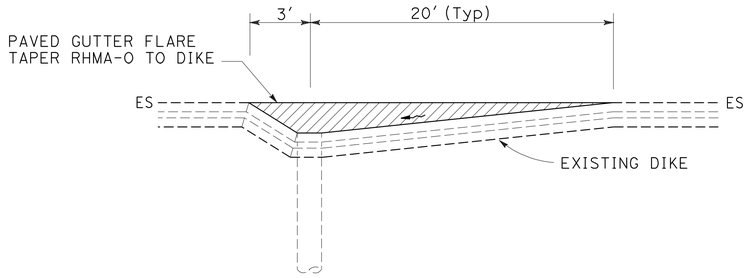
NOTES:

1. ALL CRACKS 1/4" WIDE OR GREATER ARE TO BE ROUTED AND SEALED.
2. IF ANY PART OF CRACK IS 1/4" OR WIDER, THEN THE ENTIRE CRACK WILL BE ROUTED.
3. NO SEALANT WILL BE ALLOWED ON AC PAVEMENT SURFACE.

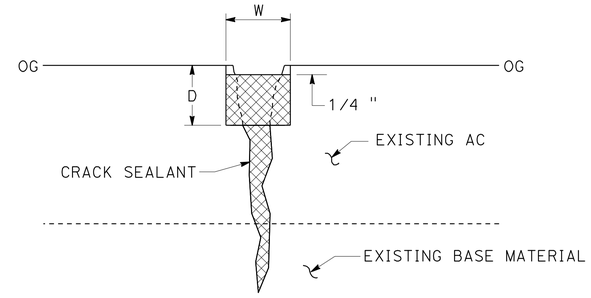


CONNECTION PUBLIC ROAD/LOCAL ROAD LIMITS OF SURFACING

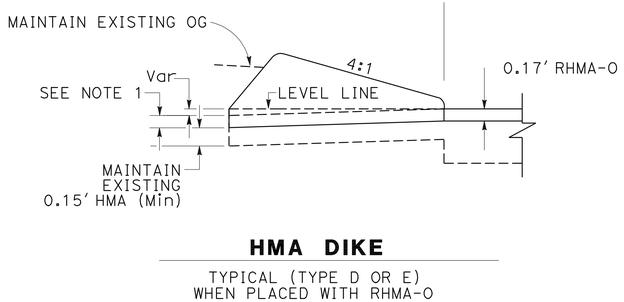
THREE CHOP ROAD PM 25.70 Lt



TYPE 1 OVERSIDE DRAIN LIMITS OF SURFACING

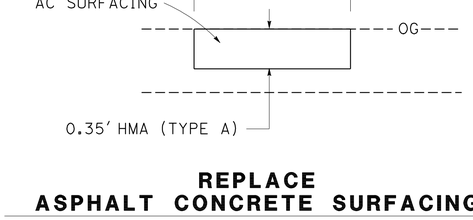


CRACK TREATMENT

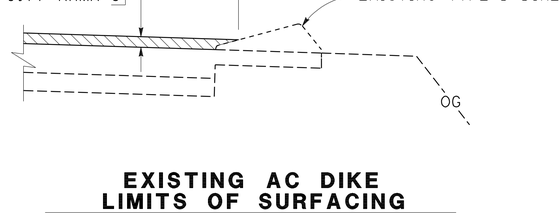


HMA DIKE

TYPICAL (TYPE D OR E)
WHEN PLACED WITH RHMA-O
SEE NOTES 1, 2 & 3



REPLACE ASPHALT CONCRETE SURFACING



EXISTING AC DIKE LIMITS OF SURFACING

CONSTRUCTION DETAILS C-4

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY
CHECKED BY: ROBERT KORNMAN
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 27-JAN-2012
00-00-00 TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ga004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

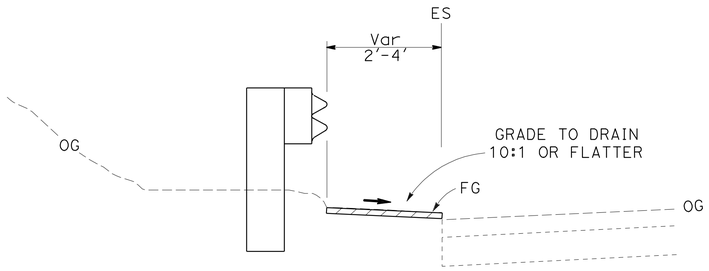
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	10	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

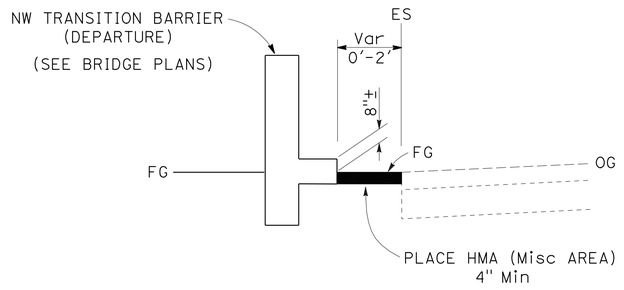
R.E. KORNMAN No. 44028 Exp. 6-30-13 CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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



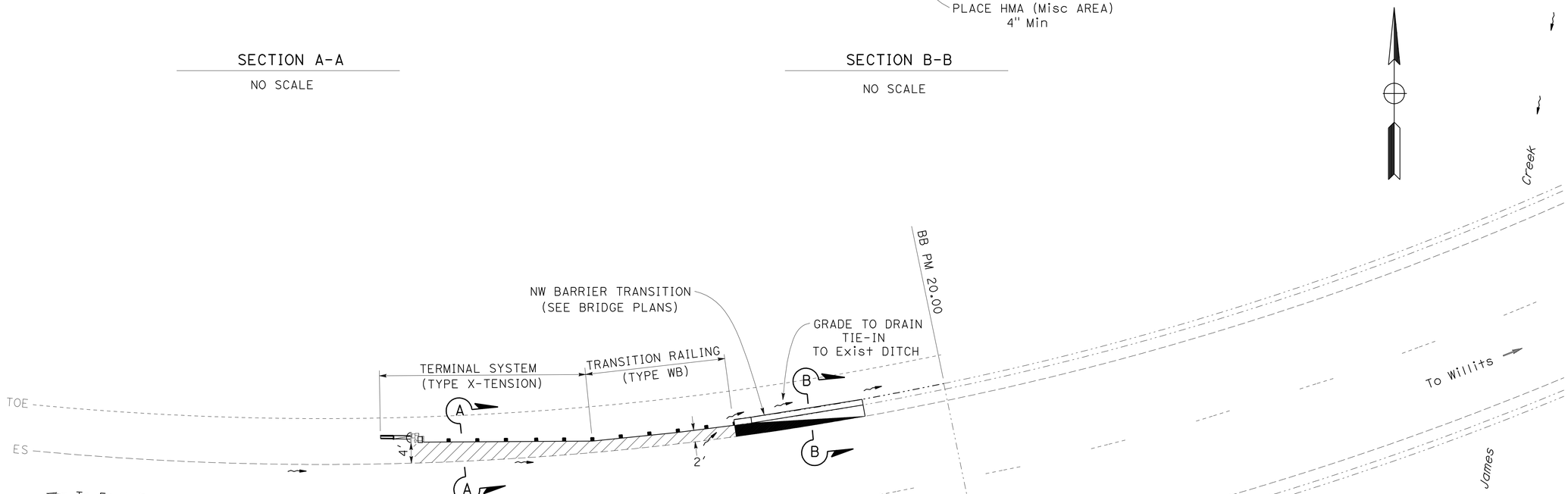
SECTION A-A

NO SCALE



SECTION B-B

NO SCALE



SCALE: 1"=10'

GRADE TO DRAIN AND PLACE HMA (Misc AREA)

NOTE: FOR DETAILS NOT SHOWN, REFER TO Std PLANS A77L1 AND RSP A77J4

CONSTRUCTION DETAILS C-5

SCALE AS SHOWN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY: ROBERT KORNMAN
CHECKED BY: TREVOR GOFF
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42
00-00-00

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ga005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	11	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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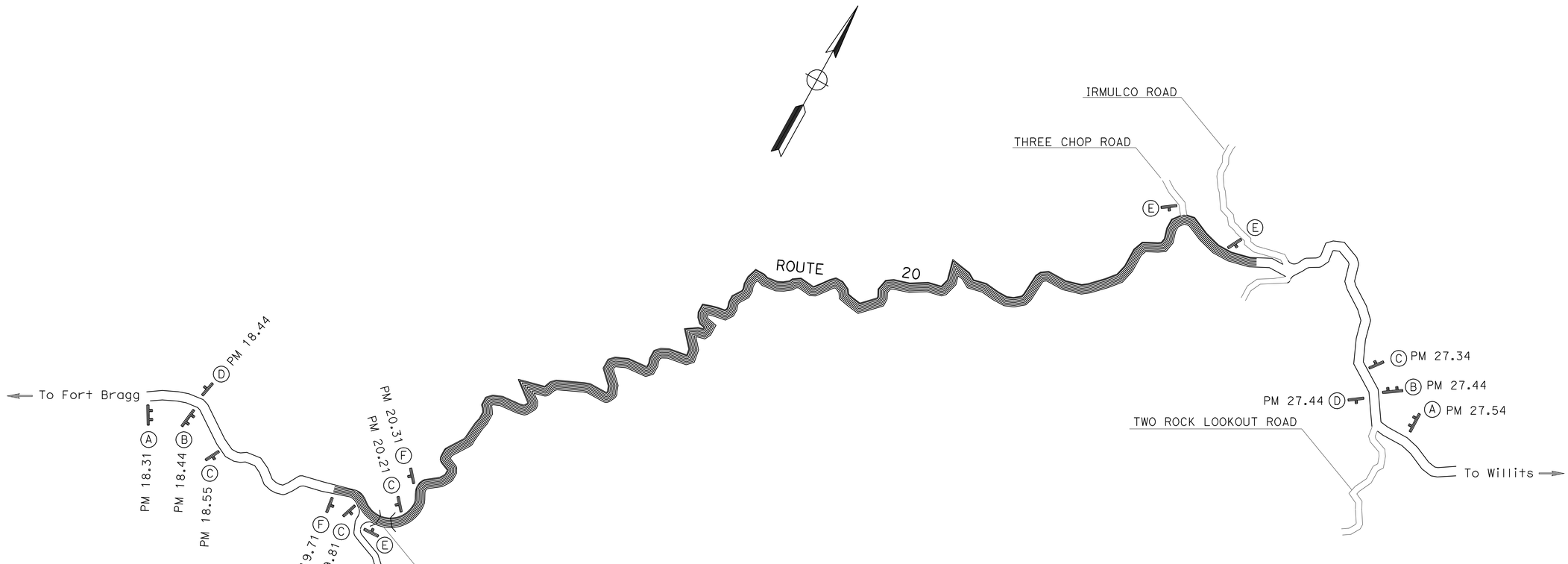
STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

◯	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS
A	C40 (CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	72"x36"	2 - 4"x6"	2
B	G20-1	ROAD WORK NEXT 9 MILES	60"x36"	2 - 4"x6"	2
	C23B (CA)	SAFETY IMPROVEMENT	42"x18"		
C	W11-1	BICYCLE (SYMBOL)	36"X36"	1 - 4"x6"	4
	W16-1	SHARE THE ROAD	30"X24"		
D	G20-2	END ROAD WORK	36"X18"	1 - 4"x4"	2
E	W20-1	ROAD WORK AHEAD	36"X36"	1 - 4"x6"	3
F	C12 (CA)	NARROW LANE	36"X36"	1 - 4"x6"	2
	W13-1	35 MPH	24"X24"		

NOTES:
1. EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. (F) SIGNS TO BE COVERED UNTIL APPROPRIATE CONSTRUCTION STAGE. (SEE STAGING PLANS)



CONSTRUCTION AREA SIGNS
CS-1

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY: TREVOR GOFF
CHECKED BY: ROBERT KORNMAN
REVISED BY | DATE REVISED

LAST REVISION DATE PLOTTED => 27-JAN-2012
00-00-00 TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 1490701a001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	12	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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NOTES

1. EXACT LOCATION OF K-RAILING AND CHANNELIZERS TO BE DETERMINED BY THE ENGINEER.

LEGEND

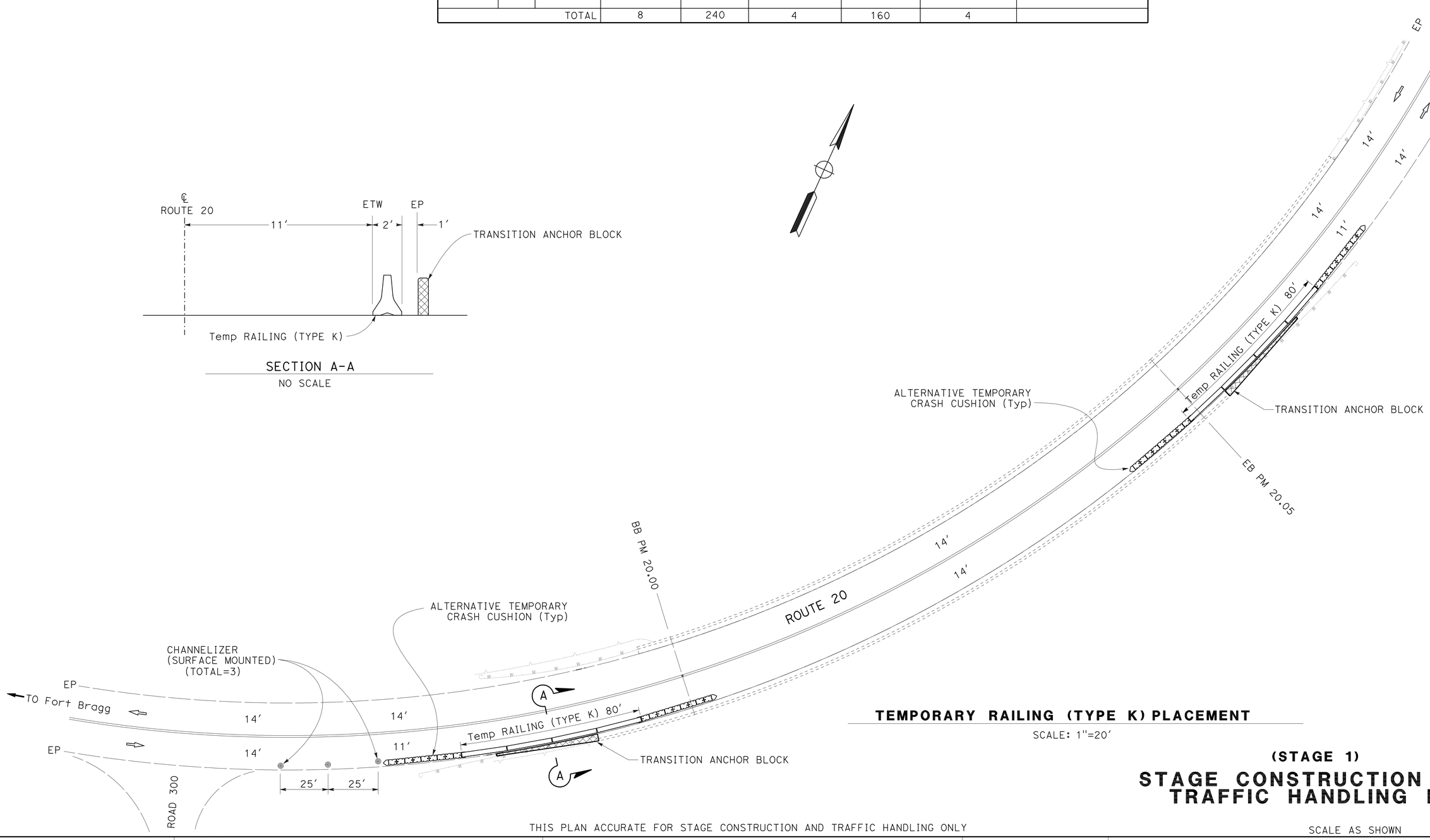
● = CHANNELIZER (SURFACE MOUNTED)

▨ = TRANSITION ANCHOR BLOCK (SEE STRUCTURE PLANS)

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES

LOCATION (PM)	L†/R†	LOCATION	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY RAILING (TYPE K)	ALTERNATIVE TEMPORARY CRASH CUSHION	RESET TEMPORARY RAILING (TYPE K)	RELOCATE ALTERNATIVE TEMPORARY CRASH CUSHION	REMARKS
			EA	LF	EA	LF	EA	
20.00	R†	APPROACH	3	80	2			STAGE 1, PIN K-RAIL
20.05	R†	DEPARTURE		80	2			STAGE 1, PIN K-RAIL
20.00	L†	DEPARTURE				80	2	STAGE 2, PIN K-RAIL
20.05	L†	APPROACH	5	80		80	2	STAGE 2, PIN K-RAIL
		TOTAL	8	240	4	160	4	

SECTION A-A
NO SCALE



TEMPORARY RAILING (TYPE K) PLACEMENT

SCALE: 1"=20′

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING ONLY

(STAGE 1)

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN SC-1

SCALE AS SHOWN

REVISED BY | DATE REVISED
ROBERT KORNMAN | ED CRAMER
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION | DATE PLOTTED => 27-JAN-2012
00-00-00 | TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010 | USERNAME => s121671 | DGN FILE => 149070ma001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0313 | PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	13	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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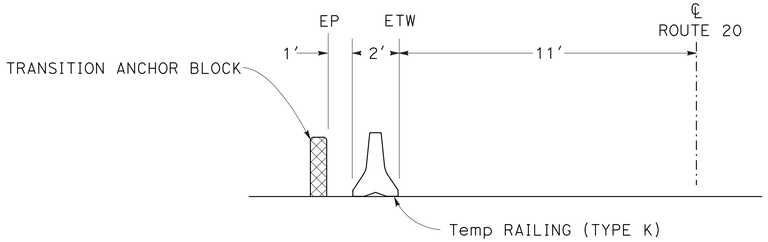
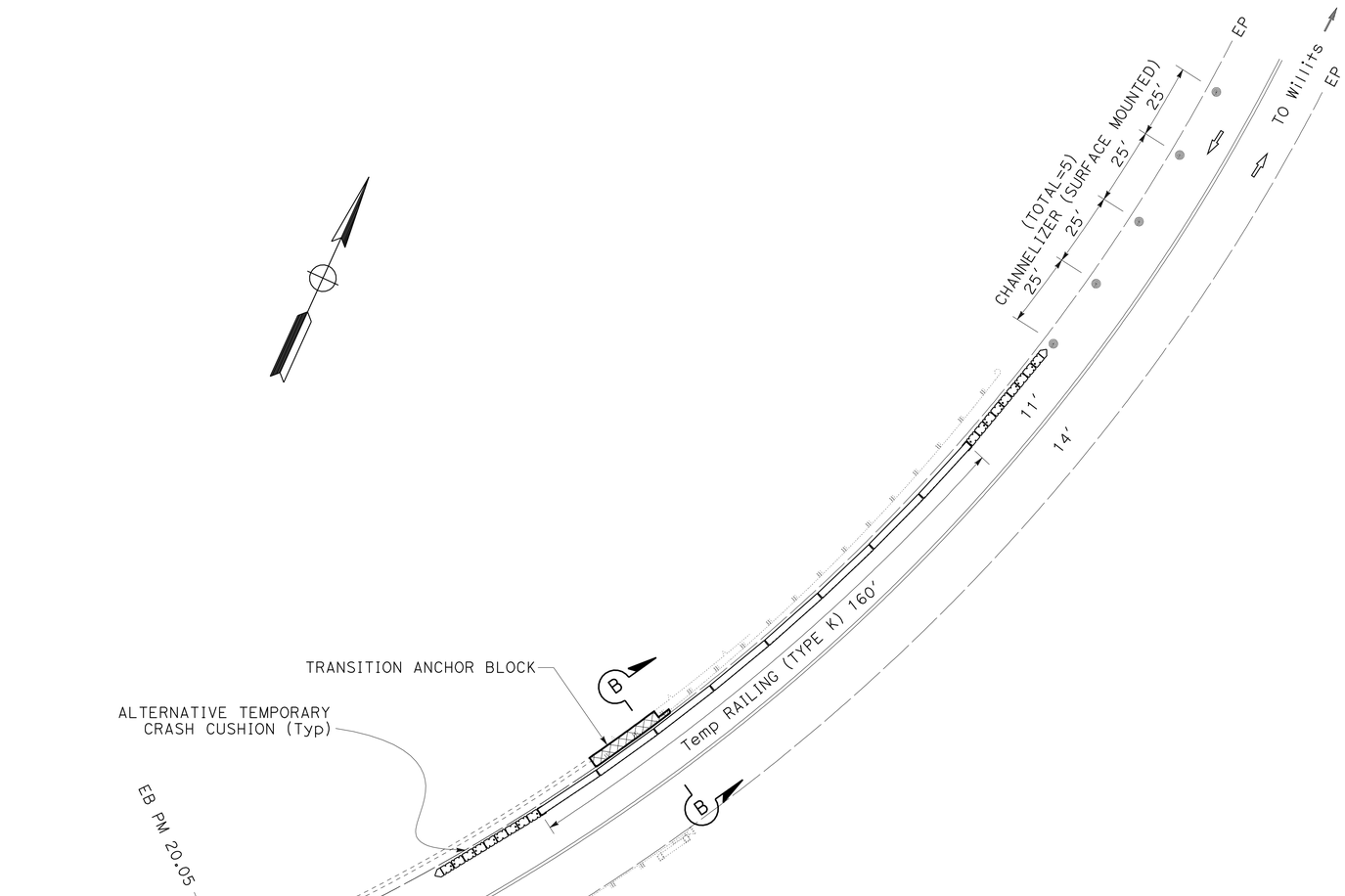
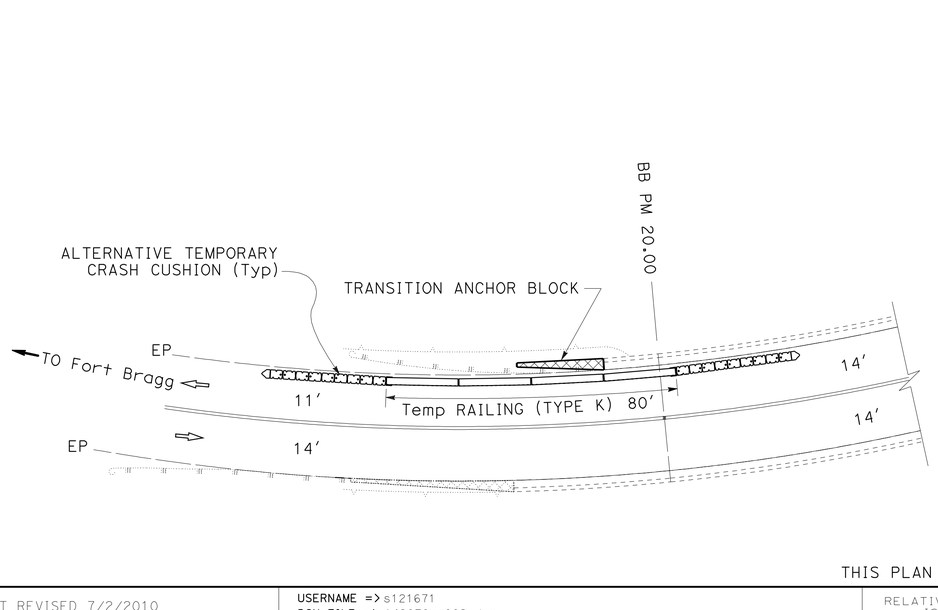


SECTION B-B
NO SCALE





TEMPORARY RAILING (TYPE K) PLACEMENT

SCALE: 1"=20′

(STAGE 2)

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN SC-2

SCALE AS SHOWN

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY: ROBERT KORNMAN
CHECKED BY: ED CRAMER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42
00-00-00

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070ma002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	14	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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ROADWAY

LOCATION (PM)		AVERAGE WIDTH	RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)	TACK COAT	IMPORTED MATERIAL (SHOULDER BACKING)	COLD PLANE AC PAVEMENT	COMMENTS
FROM	TO	LF	TON			SQYD	
20.05	20.39	28.7	547.4	1.71		5724.7	WEST CONFORM, BEGIN COLD PLANE
20.39	20.42	32.0	53.9	0.17		563.2	
20.42	20.47	35.4	99.3	0.31		1038.4	TURNOUT R†
20.47	20.53	31.7	106.7	0.33		1115.8	TURNOUT R†
20.53	20.56	45.9	77.2	0.24		807.8	PULLOUT L†
20.56	20.94	27.1	577.7	1.80		6041.5	
20.94	21.06	31.0	208.7	0.65		2182.4	
21.06	21.08	34.0	38.1	0.12		398.9	
21.08	21.21	30.7	223.9	0.70		2341.4	
21.21	21.28	37.5	147.3	0.46		1540.0	
21.28	21.42	29.6	232.5	0.72		2431.1	TURNOUT R†
21.42	21.63	32.4	381.7	1.19		3991.7	
21.63	21.70	26.9	105.6	0.33		1156.1	END COLDPLANE
21.70	21.85	26.9	260.3	0.60	54.6		
21.85	21.98	30.5	255.8	0.59	47.3		
21.98	22.19	28.7	388.8	0.90	76.4		
22.19	22.21	33.5	43.2	0.10	7.3		
22.21	22.23	33.5	37.6	0.12		457.1	BEGIN COLDPLANE
22.23	22.35	29.0	195.2	0.61		2041.6	
22.35	22.39	32.0	71.8	0.22		750.9	
22.39	22.43	41.4	92.9	0.29		971.5	
22.43	22.59	29.2	262.1	0.82		2740.9	
22.59	22.68	36.9	186.3	0.58		1948.3	
22.68	22.80	26.4	177.7	0.55		1909.0	TURNOUT R†, END COLDPLANE
22.80	22.83	26.4	51.1	0.12	11.0		
22.83	23.06	28.6	424.4	0.99	83.7		
23.06	23.14	36.8	189.9	0.44	29.1		PULLOUT L†
23.14	23.16	29.7	38.3	0.09	7.3		
23.16	23.37	28.3	383.4	0.89	76.4		
23.37	23.40	39.9	77.2	0.18	11.0		PULLOUT L†
23.40	23.42	28.3	36.5	0.08	7.3		
23.42	23.45	31.0	60.0	0.14	11.0		
23.45	23.51	29.3	113.4	0.26	21.9		
23.51	23.53	36.2	46.7	0.11	7.3		PULLOUT L†
23.53	23.54	32.2	20.8	0.05	3.7		
23.54	23.61	32.2	126.4	0.39		1383.9	BEGIN COLDPLANE
23.61	23.64	33.1	55.7	0.17		582.6	
23.64	23.72	28.7	128.8	0.40		1347.0	
23.72	23.74	37.6	42.2	0.13		441.2	PULLOUT L†
23.74	23.92	28.7	289.8	0.90		3085.6	END COLDPLANE
23.92	24.10	28.7	333.3	0.77	65.5		
24.10	24.12	37.5	48.4	0.11	7.3		TURNOUT R†
24.12	24.15	46.4	89.8	0.21	11.0		TURNOUT R†
24.15	24.26	28.8	204.4	0.47	40.0		
24.26	24.31	26.8	86.5	0.20	18.2		
24.31	24.36	45.2	145.8	0.34	18.2		PULLOUT L†
24.36	24.39	30.3	58.6	0.14	11.0		
24.39	24.49	28.5	183.9	0.43	36.4		
24.49	24.62	31.5	264.2	0.61	47.3		TURNOUT R†
24.62	24.72	36.3	234.2	0.54	36.4		TURNOUT R†
24.72	24.75	27.8	53.8	0.12	11.0		
24.75	24.90	29.1	281.6	0.65	54.6		
24.90	24.93	47.9	92.7	0.22	11.0		PULLOUT L†
24.93	25.19	25.6	429.4	1.00	94.6		
25.19	25.31	27.4	212.1	0.49	43.7		
25.31	25.35	37.1	95.7	0.22	14.6		PULLOUT L†
25.35	25.38	27.4	53.0	0.12	11.0		
25.38	25.42	35.0	90.3	0.21	14.6		
25.42	25.45	38.2	73.9	0.17	11.0		PULLOUT L†
25.45	25.49	39.5	101.9	0.24	14.6		
25.49	25.63	27.8	251.1	0.58	50.9		TURNOUT R†
25.63	25.64	37.3	24.1	0.06	3.7		PULLOUT L†
25.64	25.68	36.1	93.2	0.22	14.6		
25.68	25.76	56.8	293.2	0.68	29.1		TURNOUT/3 CHOP Rd PULLOUT L†
25.76	25.87	29.0	205.8	0.48	40.0		
25.87	25.91	32.0	82.6	0.19	14.6		
25.91	25.96	37.5	121.0	0.28	18.2		
25.96	25.97	34.0	21.9	0.06		264.4	EAST PROJECT LIMIT CONFORM
		TOTAL	11082.7	29.26	1198.4	47257.0	

SUMMARY OF QUANTITIES
Q-1

REVISED BY | DATE REVISED
ED CRAMER | ROBERT KORNMAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | STEVEN HUGHES
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION | DATE PLOTTED => 27-JAN-2012
00-00-00 | TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070pa001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	15	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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EROSION CONTROL

LOCATION (PM)		L+/R+	EROSION CONTROL (COMPOST BLANKET)	(N) AREA
FROM	TO		CY	SQYD
19.97	20.02	R+	1.8	64
19.97	20.02	L+	1.5	53
20.05	20.07	R+	1.2	42
20.08	20.11	L+	2.4	84
20.51	20.60	L+	7.0	250
23.74	23.88	L+	11.2	400
		TOTAL	25.1	893

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

TEMPORARY CONSTRUCTION SITE BMP

LOCATION (PM)		L+/R+	TEMPORARY FIBER ROLL (6")	TEMPORARY SILT FENCE	TEMPORARY GRAVEL BAG BERM	TEMPORARY DRAINAGE INLET PROTECTION	COMMENTS
FROM	TO		LF	LF	LF	EA	
19.97	20.02	L+		123		1	
19.97	20.02	R+		150		1	
20.05	20.07	R+		118		1	
20.08	20.11	L+		138		1	
20.44	20.53	L+	584			1	
23.74	23.88	L+	950			1	
19.97	25.97	R+/L+			106		
		TOTAL	1534	529	106	6	

HMA DIKE / Misc HMA

LOCATION (PM)		L+/R+	REMOVE AC DIKE	PLACE HMA DIKE		PLACE HMA (Misc AREA)	HOT MIX ASPHALT (TYPE A)
				TYPE D	TYPE E		
FROM	TO		LF	LF	LF	SQYD	TON
20.00	20.01	L+				2.6	0.56
23.48	23.51	L+	147	147			12.80
23.74	23.78	L+	189		189		8.23
24.49	24.51	L+	82		82		3.57
24.91	24.93	L+	110	110			9.58
		TOTAL	528	257	271	2.6	34.74

REPLACE AC SURFACING

LOCATION (PM)		L+/R+	LENGTH	WIDTH	QUANTITY	COMMENTS
FROM	TO		LF	LF	CY	
21.70	21.77	R+	376	12	59	
21.72	21.92	L+	1075	12	167	
21.82	21.85	R+	167	12	26	
21.89	21.96	R+	360	12	56	
22.15	22.17	L+	130	12	20	
22.15	22.22	R+	357	12	56	
22.43	22.44	L+	46	12	7	
22.84	22.89	R+	289	12	45	
22.88	22.91	L+	142	12	22	
22.95	23.03	L+	447	12	70	
22.95	23.01	R+	331	12	51	
23.08	23.10	R+	116	12	18	
23.13	23.19	L+	318	12	50	
23.26	23.31	L+	235	12	37	
23.30	23.37	L+	383	12	60	
23.43	23.55	L+	634	12	99	
23.43	23.44	R+	30	12	5	
23.48	23.51	R+	135	12	21	
23.54	23.55	R+	66	12	10	
24.11	24.12	R+	30	12	5	
24.12	24.15	L+	185	12	29	
24.19	24.23	L+	237	12	37	
24.21	24.22	R+	30	12	5	
24.28	24.34	L+	327	12	51	
24.37	24.42	R+	284	12	44	
24.49	24.83	L+	1793	12	279	
24.49	24.76	R+	1401	12	218	
24.79	24.80	R+	60	12	9	
24.84	24.85	L+	40	12	7	
24.84	24.85	R+	40	12	7	
24.99	25.06	R+	346	12	54	
24.99	25.14	L+	797	12	124	
25.30	25.33	L+	150	12	23	
25.33	25.38	R+	269	12	42	
25.37	25.40	L+	153	12	24	
25.42	25.43	R+	48	12	7	
25.47	25.71	R+	1275	12	199	
25.51	25.52	L+	75	12	12	
25.58	25.65	L+	396	12	62	
25.80	25.83	L+	135	12	21	
25.83	25.86	R+	138	12	21	
25.87	25.96	L+	490	12	76	
				TOTAL	2235	

NOTE: EXACT LOCATION AND LIMITS FOR REPLACE ASPHALT CONCRETE SURFACING WILL BE DETERMINED BY THE ENGINEER.

TRAFFIC STRIPE AND PAVEMENT MARKERS

LOCATION (PM)		DIRECTION	DETAIL No.	DETAIL LENGTH	THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)		CENTERLINE RUMBLE STRIP	REMOVE THERMOPLASTIC TRAFFIC STRIPE	COMMENTS
					8" SOLID	4" SOLID						
					WHITE	WHITE	YELLOW	TYPE D	TYPE G			
FROM	TO			LF	LF			EA		Sta		
20.05	25.97		22	31,258			62,516	2608		312.58		
20.05	20.44	EB	27B	2080		2080						
20.45	20.47	EB	38	120	120				6			
20.48	21.29	EB	27B	4258		4258						
21.31	21.33	EB	38	120	120				6			
21.34	22.69	EB	27B	7082		7082						
22.70	22.74	EB	38	192	192				9			
22.75	24.11	EB	27B	7216		7216						
24.13	24.15	EB	38	120	120				6		120	
24.17	24.62	EB	27B	2399		2399						
24.63	24.71	EB	38	408	408				18		408	
24.72	25.44	EB	27B	3786		3786						
25.46	25.50	EB	38	216	216				10		216	
25.51	25.97	EB	27B	2429		2429						
20.05	25.69	WB	27B	29,755		29,755						
25.70	25.75	WB	38	264	264				12		264	
25.76	25.97	WB	27B	1109		1109						
			SUBTOTAL			60114	62516	2608	67			
			TOTAL		1440	122630		2675		312.58	1008	

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

FUNCTIONAL SUPERVISOR: STEVEN HUGHES
CALCULATED-DESIGNED BY:
CHECKED BY:
REVISED BY:
DATE REVISED:
ED CRAMER
ROBERT KORNMAN

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070pa002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	16	39

Robert E. Kornman 10/13/11
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
R.E. KORNMAN
No. 44028
Exp. 6-30-13
CIVIL
STATE OF CALIFORNIA

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

LEGEND

ATS - ATTACHED TO STRUCTURE
ET - TERMINAL SYSTEM (TYPE ET)
SFT - END ANCHOR ASSEMBLY (TYPE SFT)
SRT - TERMINAL SYSTEM (TYPE SRT)
CAA - CABLE ANCHOR ASSEMBLY (BREAKAWAY)
TWB - TRANSITION RAILING (TYPE WB)
XT - TERMINAL SYSTEM (TYPE X-TENSION)

METAL BEAM GUARD RAILING

LOCATION	LOCATION (PM)		L+/R+	DESCRIPTION					REMOVE MBGR	MBGR (WOOD POST)	RECONSTRUCT MBGR (WOOD POST)	RECONSTRUCT MBGR (7' POST)	STRENGTHENED RAILING SECTION (N)	TRANSITION RAILING (TYPE WB)	TERMINAL SYSTEM (TYPE X-TENSION)	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	GUARD RAILING DELINEATOR	OBJECT MARKER (TYPE L)	OBJECT MARKER (TYPE P)	RESET MARKER	RESET ROADSIDE SIGN (ONE POST)	REMOVE MARKER	WEED CONTROL MAT (FIBER)	COMMENTS/ STRUCTURE NAME	MBGR LAYOUT TYPE	LOCATION
	FROM	TO		EXISTING LENGTH	EXISTING LEADER	EXISTING TRAILER	PROPOSED LEADER	PROPOSED TRAILER	LF				EA										SQYD			
1	19.99	20.00	R+	75	CAA	ATS	XT	TWB	75					1	1		2	1	1		1	1	35	JAMES CREEK BRIDGE, SW CORNER, FLARED LEADER	12B	1
2	19.99	20.00	L+	62.5	CAA	ATS	XT	TWB	62.5					1	1		2			1				JAMES CREEK BRIDGE, NW CORNER, ADJUST SPACING TO SPAN Exist CULVERT, FLARED LEADER	12BB	2
3	20.05	20.07	R+	75	ATS	CAA	TWB	XT	75					1	1		2						26	JAMES CREEK BRIDGE, SE CORNER, INLINE TRAILER	12AA	3
4	20.08	20.11	L+	150	ATS	CAA	TWB	XT	62.5		87.5			1	1		3	1	1			1	65	JAMES CREEK BRIDGE, NE CORNER, FLARED TRAILER	12B	4
5	20.51	20.60	L+	438	ET	SRT	XT	SFT	87.5	75	250	100	4		1	1	10	1					160	REMOVE SRT ADD SFT & MBGR, REMOVE ET, INLINE LEADER SEE Const DETAIL FOR STRENGTHENED SECTION	16H	5
6	23.78	23.88	L+	713	ET	SRT	XT	XT	87.5	12.5	625		2		2		20	1		1			257	REMOVE WASHERS, SEE Const DETAIL FOR STRENGTHENED SECTION, INLINE LEADER, FLARED TRAILER, ADD 12.5' NEW MBGR TO LEADER	16A	6
			TOTAL						450	87.5	962.5	100	6	4	7	1	39	4	2	2	1	2	543			

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

SUMMARY OF QUANTITIES
Q-3

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: TREVOR GOFF
CHECKED BY: ROBERT KORNMAN
FUNCTIONAL SUPERVISOR: STEVEN HUGHES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 27-JAN-2012
TIME PLOTTED => 15:42

BORDER LAST REVISED 7/2/2010
USERNAME => s121671
DGN FILE => 149070pa003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0313
PROJECT NUMBER & PHASE 01000004571

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	17	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-11 — CIVIL — STATE OF CALIFORNIA

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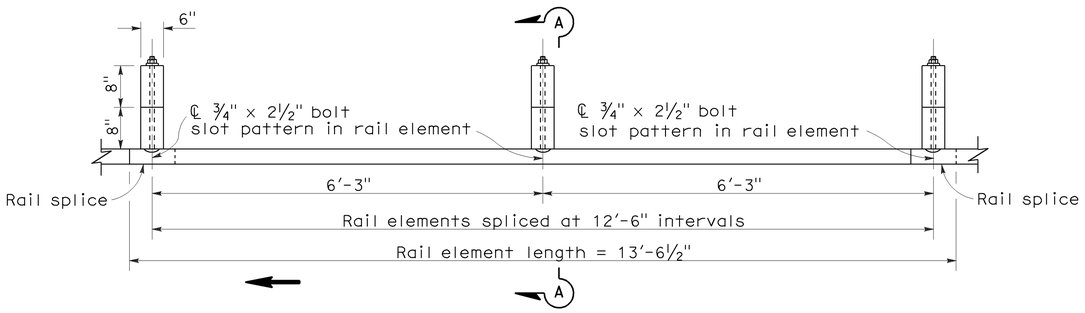
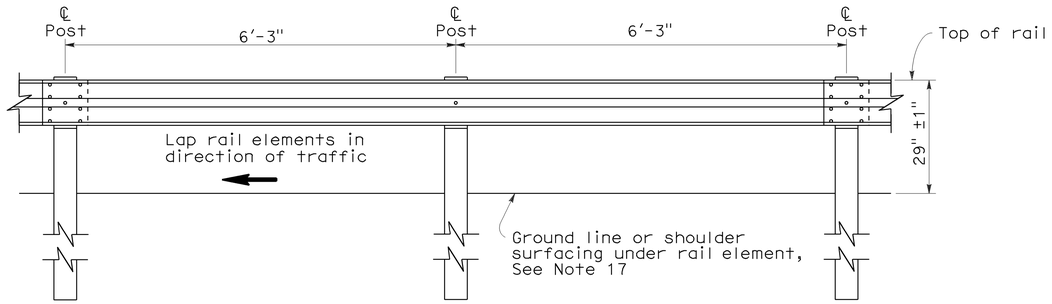
To accompany plans dated October 18, 2011

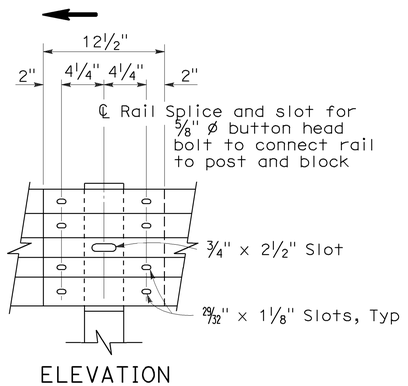


PLAN



ELEVATION

METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS



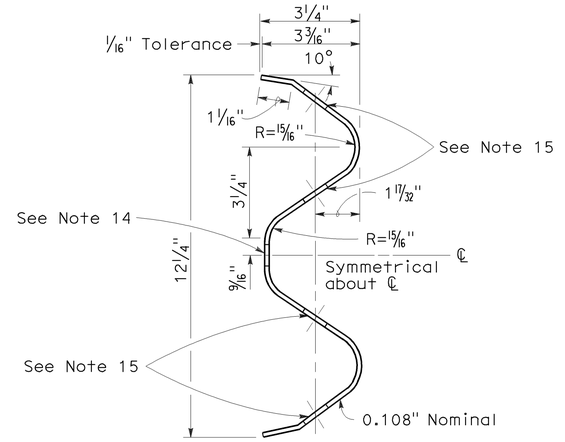
ELEVATION

RAIL ELEMENT SPLICE DETAIL

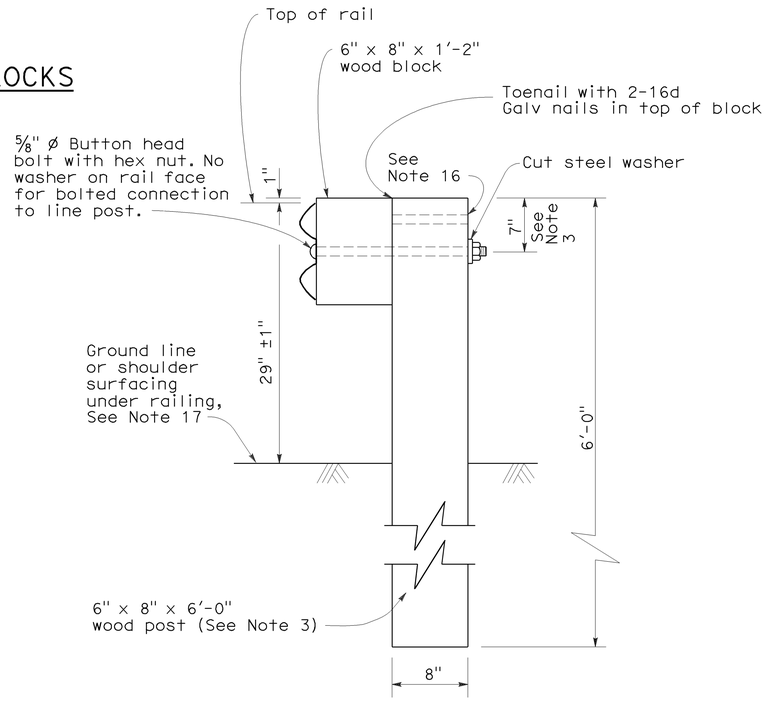
a) Connect the over lapped end of the rail elements with ⅝" ø x 1⅜" button head oval shoulder splice bolts inserted into the 29/32" x 1⅛" slots and bolted together with ⅝" ø recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.

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.



SECTION THRU RAIL ELEMENT



SECTION A-A

TYPICAL WOOD LINE POST INSTALLATION

See Note 4

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

RSP A77A1 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77A1 DATED MAY 1, 2006 - PAGE 41 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77A1

2006 REVISED STANDARD PLAN RSP A77A1

3-10-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	18	39

To accompany plans dated October 18, 2011

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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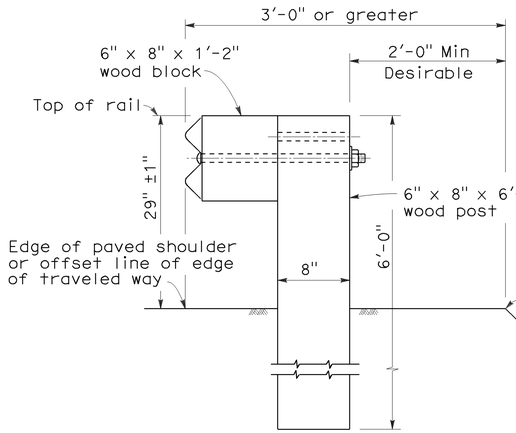
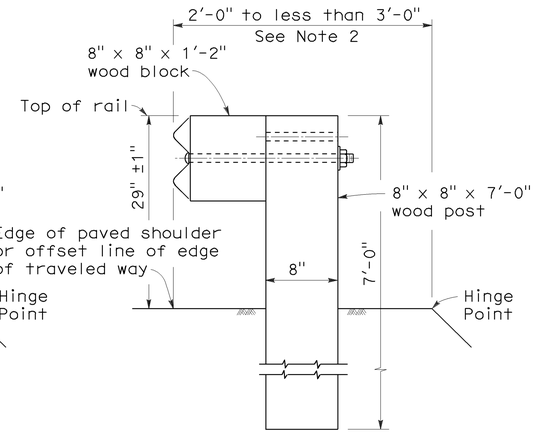
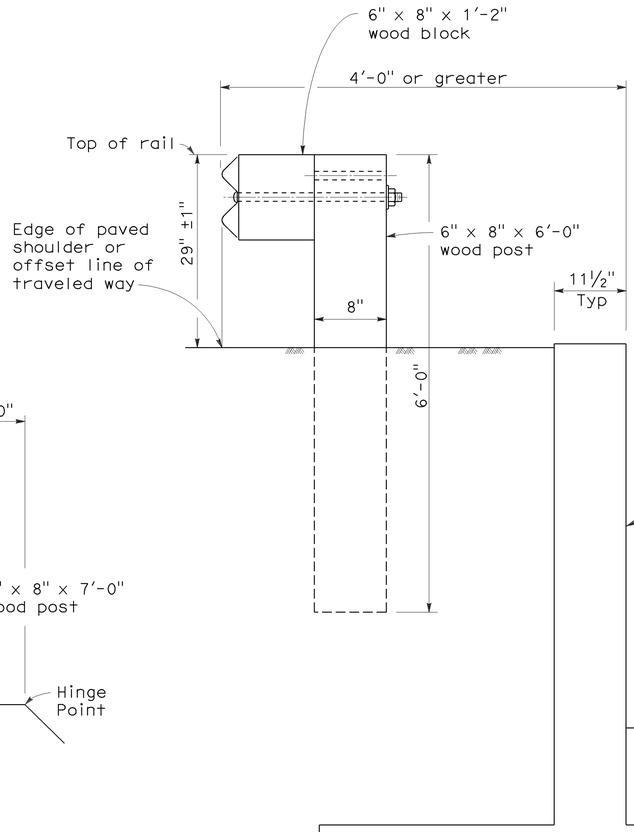


DETAIL A
TYPICAL ROADWAY INSTALLATION
See Note 1

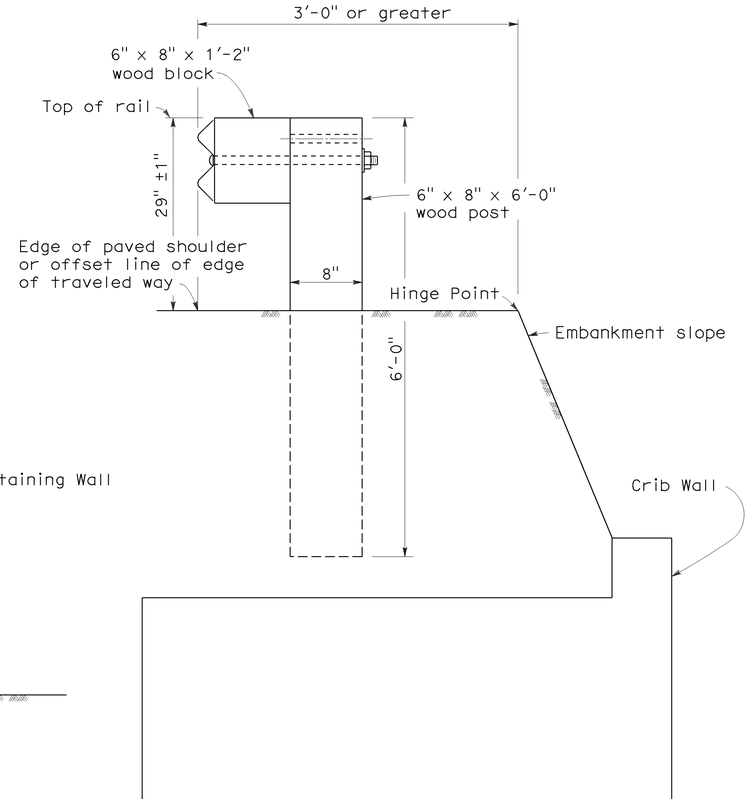


DETAIL B
NARROW ROADWAY INSTALLATION
See Note 1

POST EMBEDMENT



DETAIL C



DETAIL D

INSTALLATION AT EARTH RETAINING WALLS

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77C3

2006 REVISED STANDARD PLAN RSP A77C3

3-10-11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	19	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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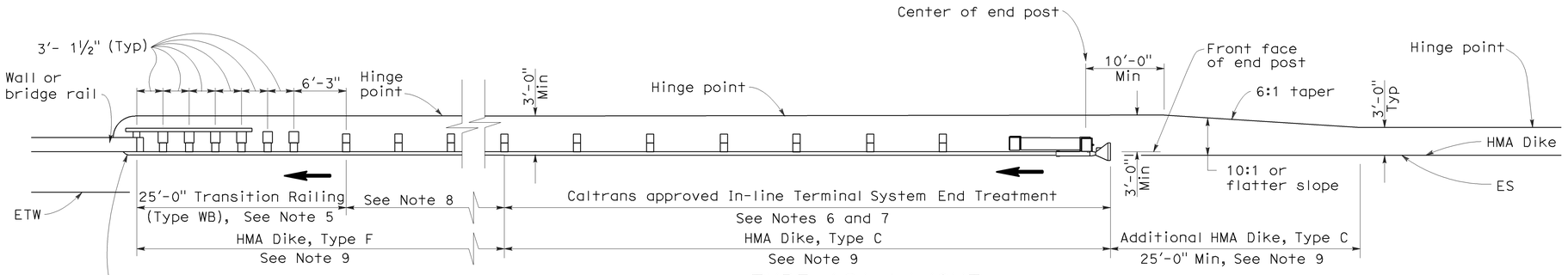
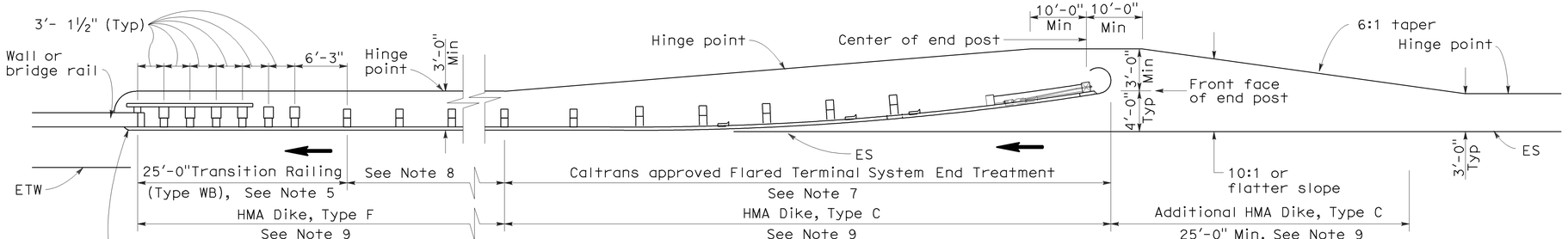
To accompany plans dated October 18, 2011



TYPE 12A LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10



TYPE 12B LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by →.
5. For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system end treatment to be used will be shown on the Project Plans.
8. Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. Type 12A or Type 12B Layouts are typically used:
    a. To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
    b. To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
    c. To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
    d. To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
11. See Revised Standard Plan RSP A77F3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
12. For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77J1 and RSP A77J2 and Connection Detail FF on Standard Plans A77K1 and A77K2.
13. For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR STRUCTURE APPROACH

NO SCALE

RSP A77F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F1
DATED MAY 1, 2006 - PAGE 54 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F1

2006 REVISED STANDARD PLAN RSP A77F1

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	20	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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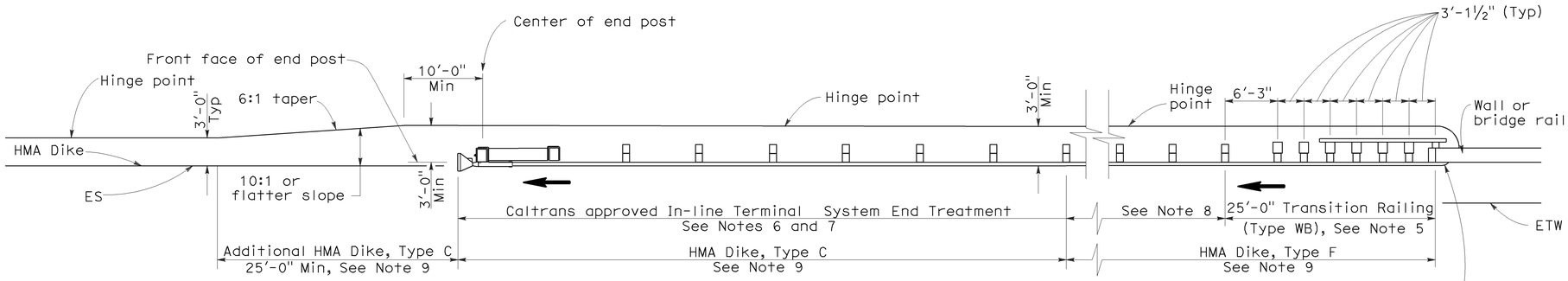
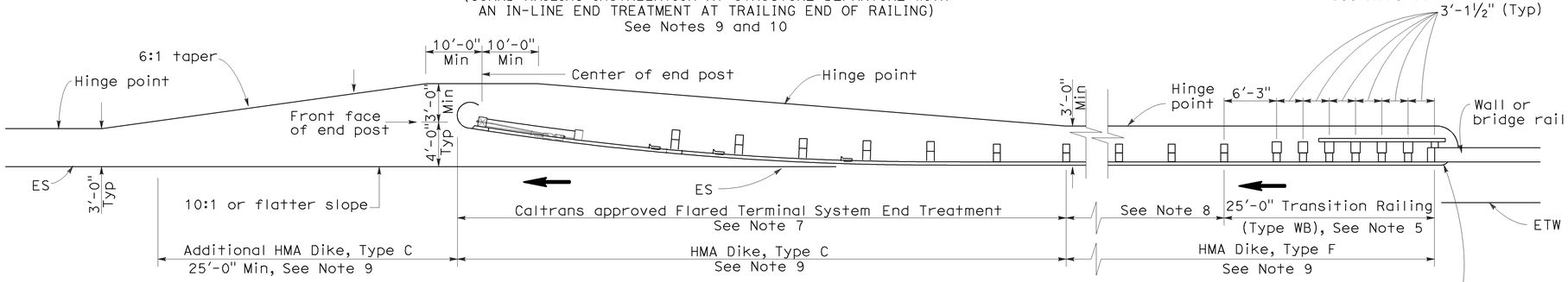
To accompany plans dated October 18, 2011



TYPE 12AA LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH AN IN-LINE END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10



TYPE 12BB LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE DEPARTURE WITH A FLARED END TREATMENT AT TRAILING END OF RAILING)
See Notes 9 and 10

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. For Transition Railing (Type WB) details for Types 12AA and 12BB Layouts, see Standard Plan A77J4.
6. In-line Terminal System Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. Dependent on site conditions (embankment height, side slopes, other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatments.
9. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
10. Type 12AA or Type 12BB Layouts are typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
11. For additional details of typical connections to bridge rail, see Connection Detail CC on Revised Standard Plan RSP A77J2 and Connection Detail HH on Standard Plans A77k2.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR STRUCTURE DEPARTURE

NO SCALE

RSP A77F4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F4
DATED MAY 1, 2006 - PAGE 57 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F4

2006 REVISED STANDARD PLAN RSP A77F4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	21	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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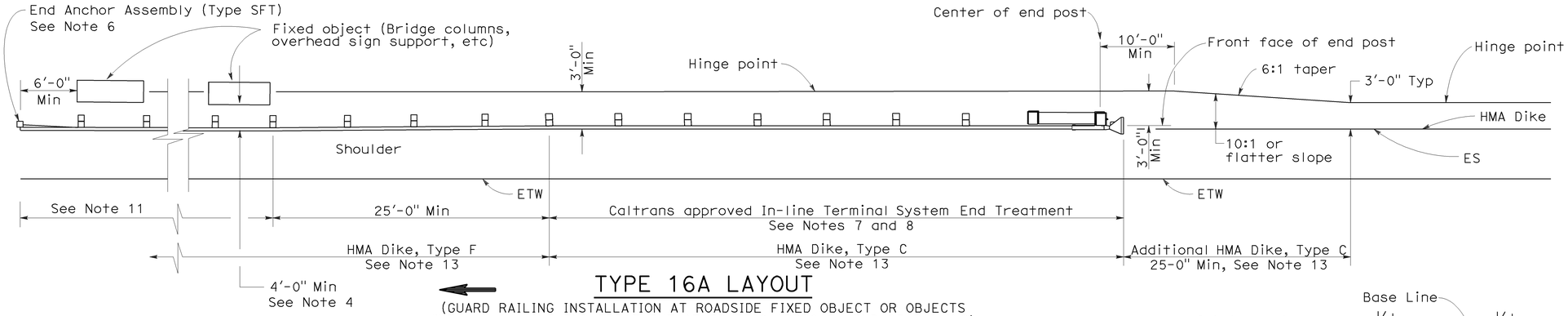
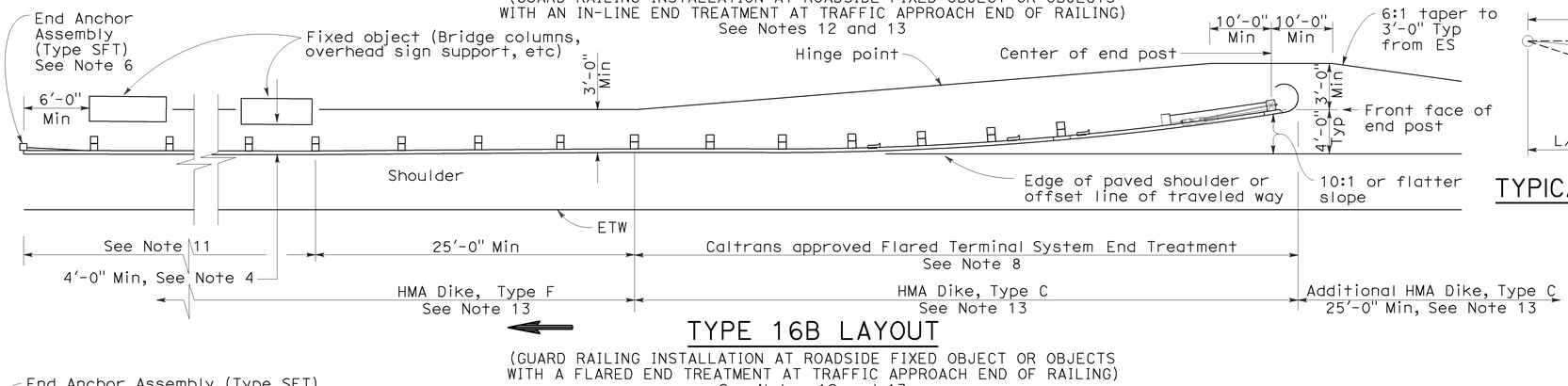
To accompany plans dated October 18, 2011



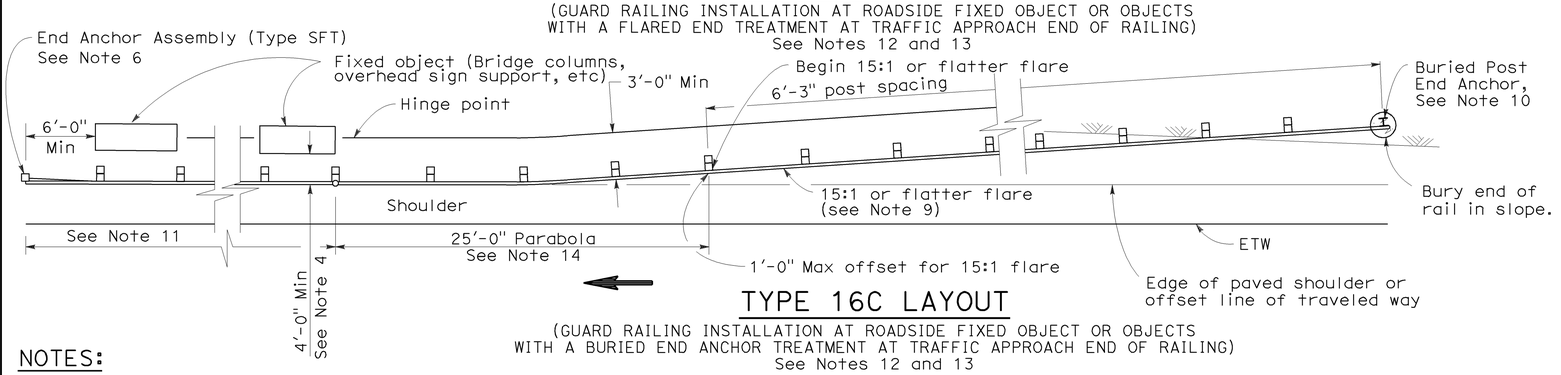
TYPE 16A LAYOUT

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



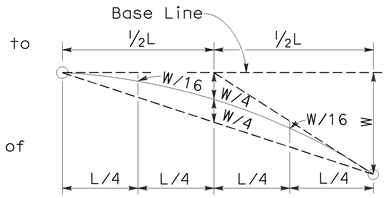
TYPE 16B LAYOUT

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

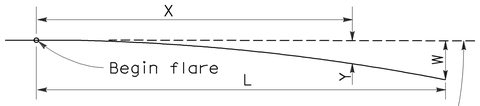


TYPE 16C LAYOUT

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



TYPICAL PARABOLIC LAYOUT

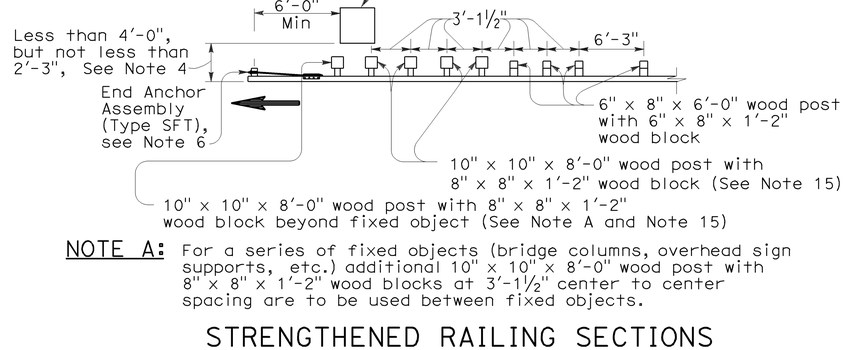


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

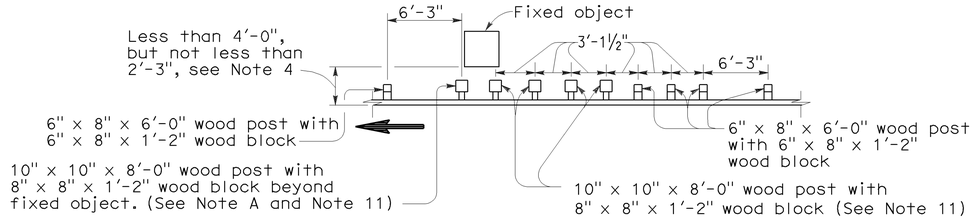
NO SCALE

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

REVISED STANDARD PLAN RSP A77G3

2006 REVISED STANDARD PLAN RSP A77G3

12-10-07



Note A. For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	22	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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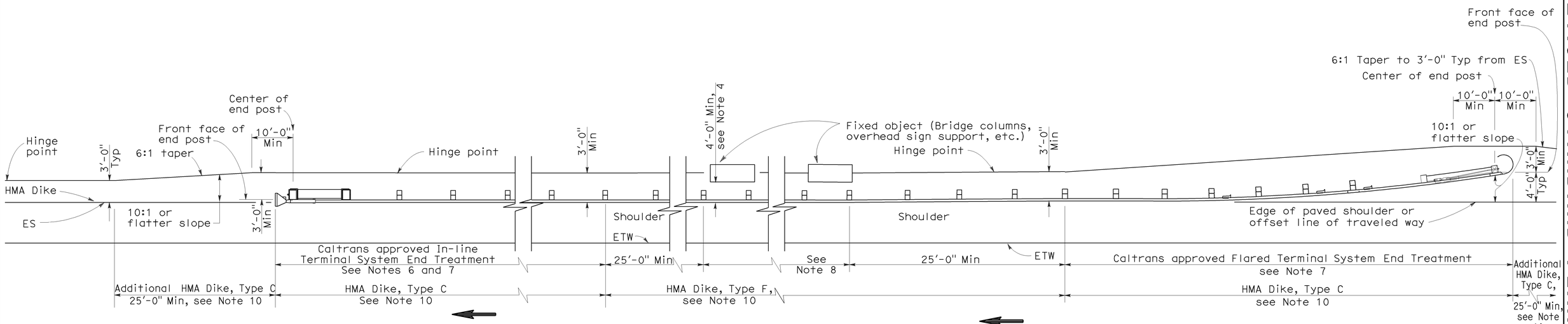
To accompany plans dated October 18, 2011



TYPE 16H LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AND AN IN-LINE TREATMENT AT THE ENDS OF RAILING)
See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ⟶ .
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard PLans, typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G6 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G6
DATED MAY 1, 2006 - PAGE 64 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G6

2006 REVISED STANDARD PLAN RSP A77G6

12-10-07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	23	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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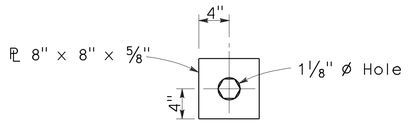
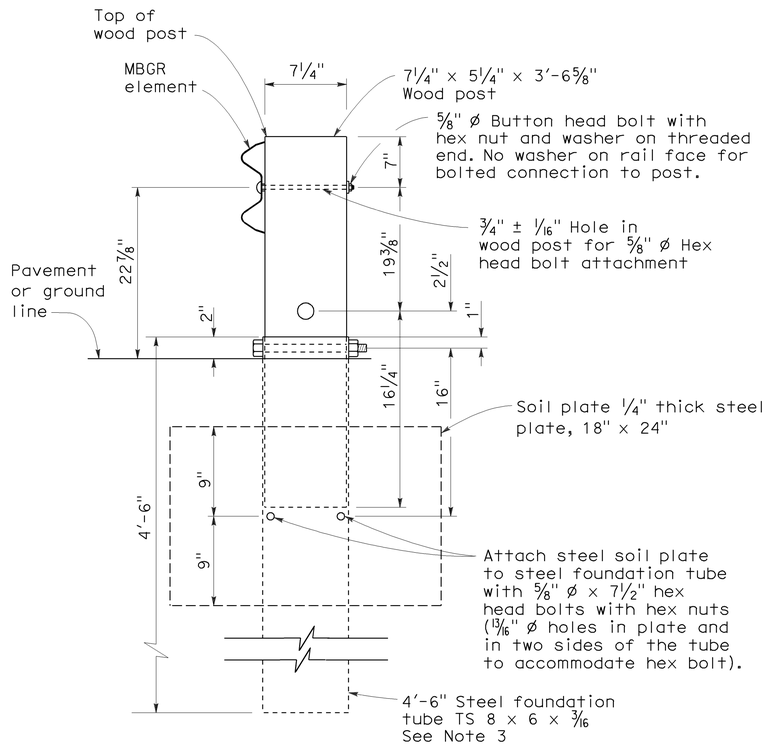
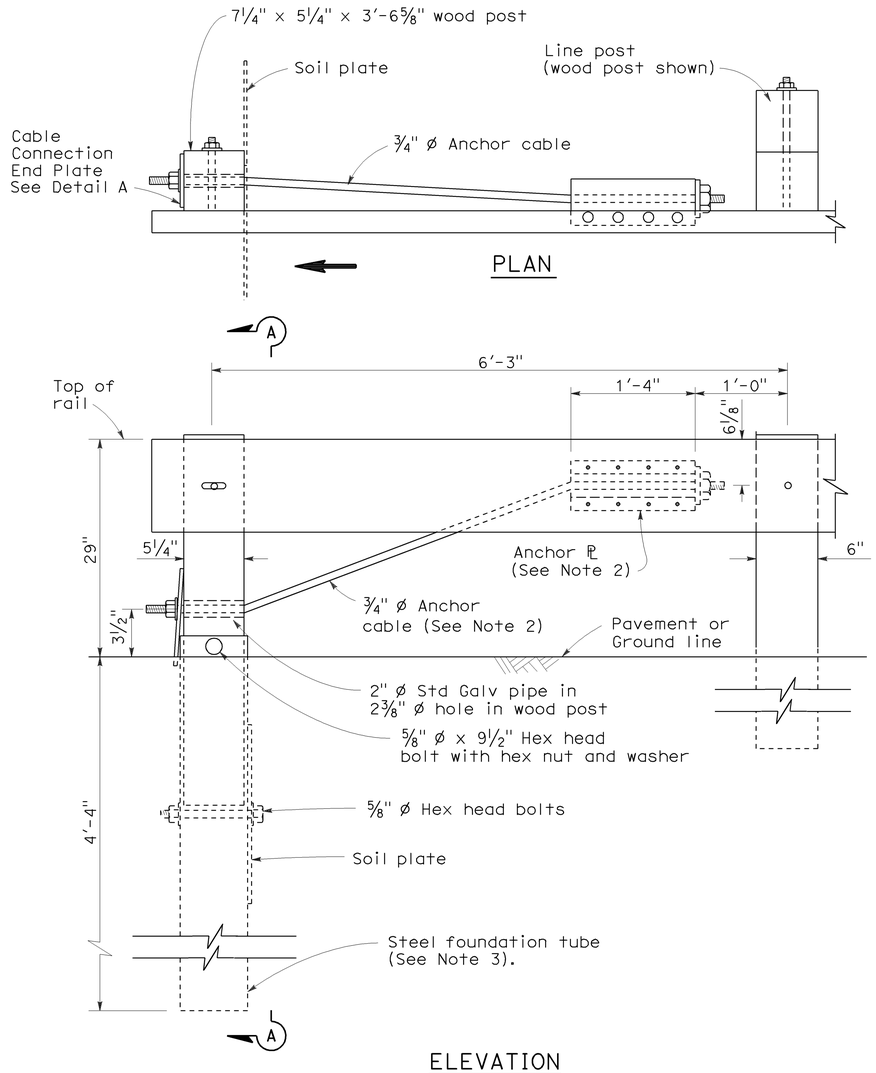
To accompany plans dated October 18, 2011



DETAIL A
CABLE CONNECTION
END PLATE



SECTION A-A



ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)
See Note 1

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL RAILING
END ANCHOR ASSEMBLY (TYPE SFT)

NO SCALE

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

REVISED STANDARD PLAN RSP A77H1

2006 REVISED STANDARD PLAN RSP A77H1

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	24	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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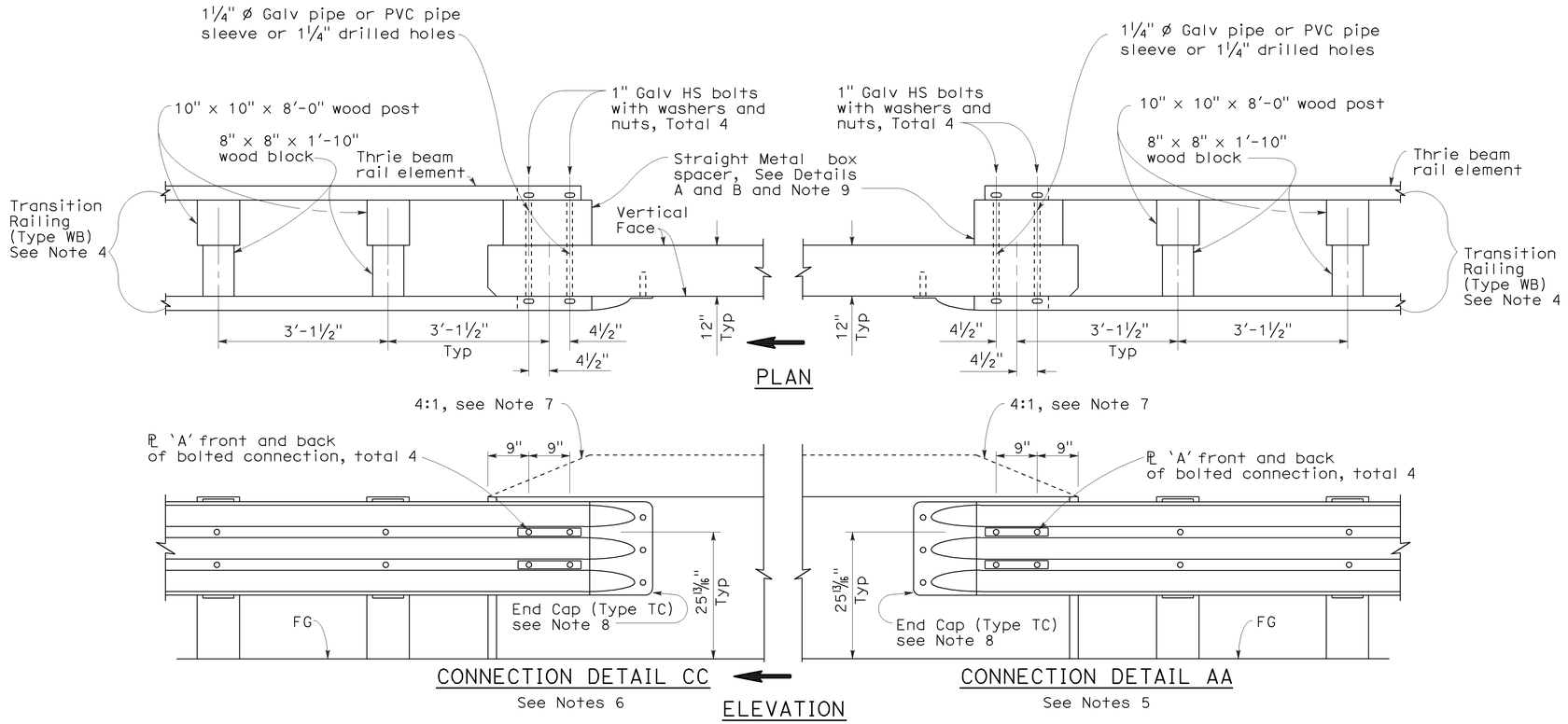
To accompany plans dated October 18, 2011



GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

1. See Revised Standard Plan RSP A77J1 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
3. Direction of adjacent traffic indicated by ⟹.
4. For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
5. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
6. For typical use of Connection Detail CC, see Layout Types 12AA and 12BB on Standard Plan A77F4 and Layout Type 12CC on Standard Plan A77F5.
7. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA and connection Detail CC, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam railing.
8. For details of End Cap (Type TC), see Standard Plans A77J4.
9. See Standard Plans A77J4 for additional details regarding depth dimension for straight metal box spacer.

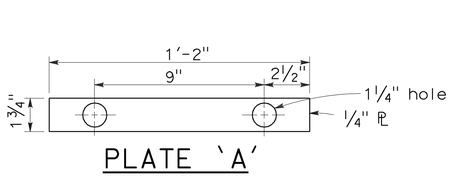


PLATE 'A'

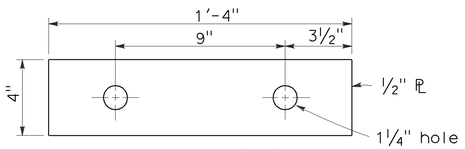
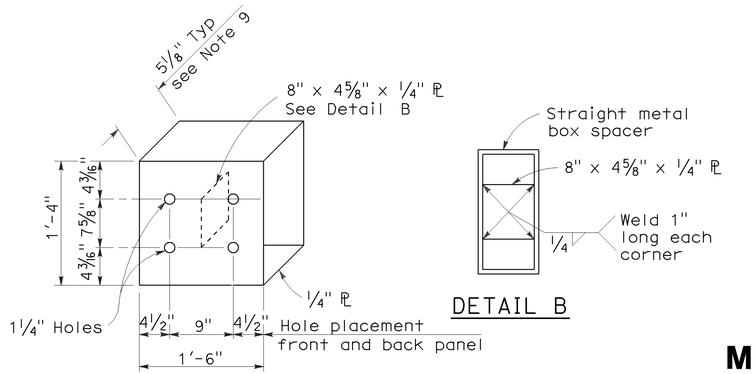


PLATE 'B'
(For backside of connection BB)



DETAIL A

DETAIL B

STRAIGHT METAL BOX SPACER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS No.2

NO SCALE

RSP A77J2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J2
DATED MAY 1, 2006 - PAGE 73 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J2

2006 REVISED STANDARD PLAN RSP A77J2

12-10-07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	25	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-11 — CIVIL — STATE OF CALIFORNIA

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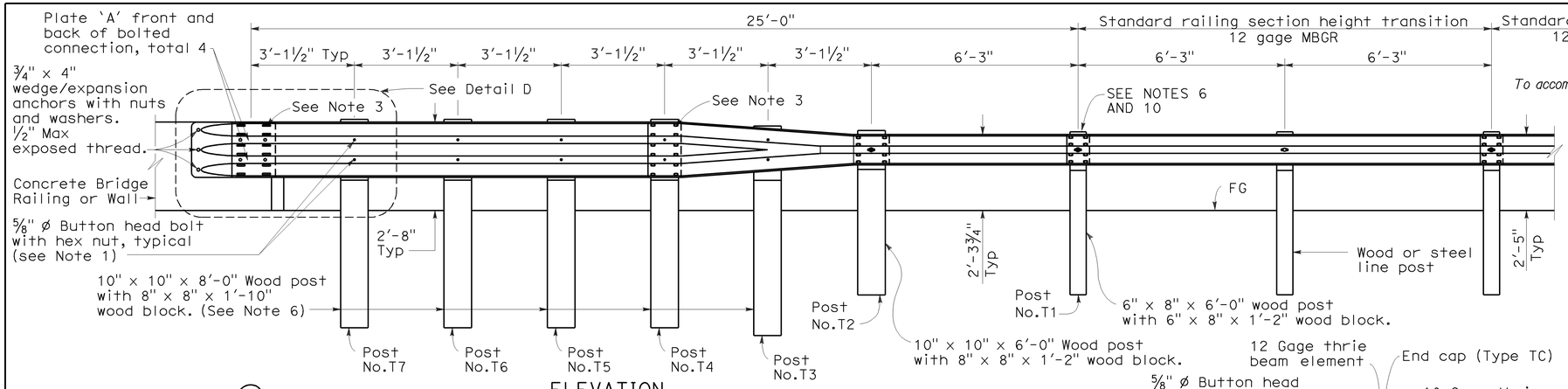
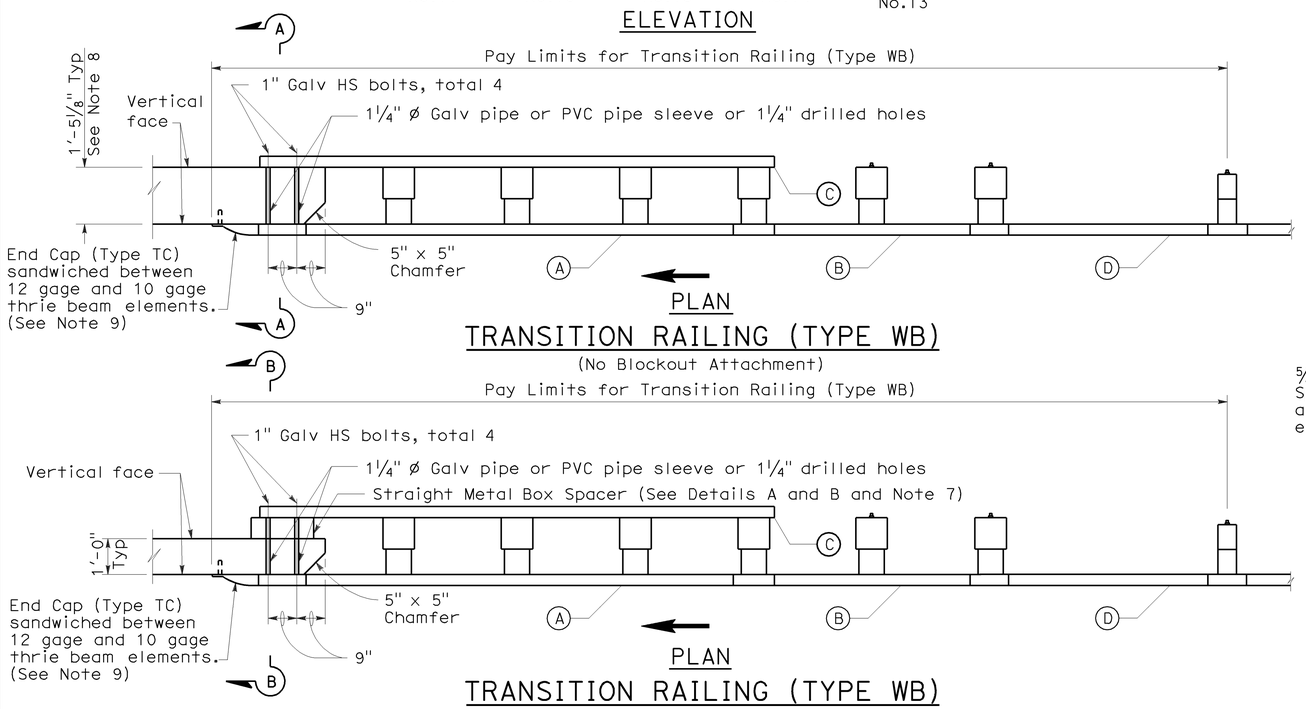
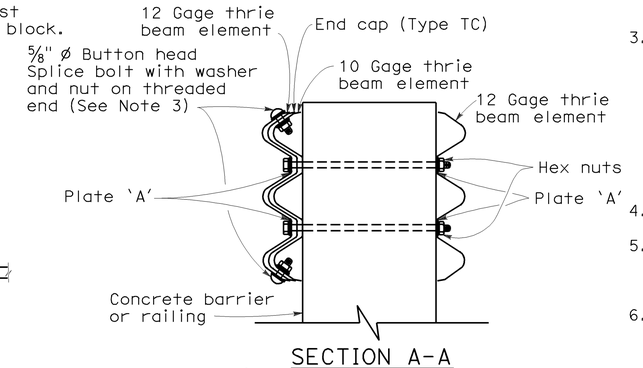
October 18, 2011
To accompany plans dated

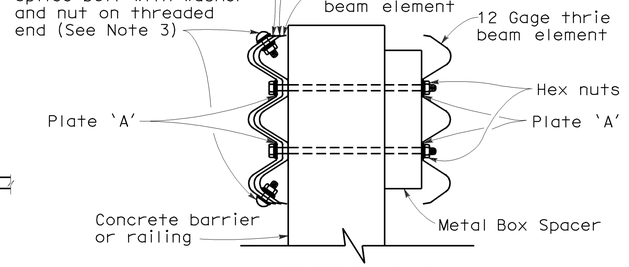


ELEVATION

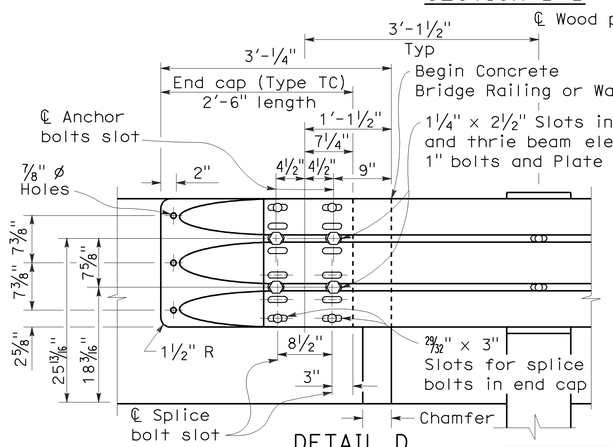




SECTION A-A



SECTION B-B



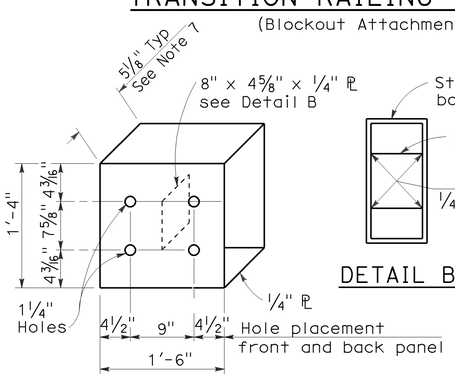
DETAIL D

LEGEND

- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
- (B) One 10 gage "W" beam to thrie beam element.
- (C) One 12 gage thrie beam element.
- (D) One 10 gage "W" beam rail element (7'-3½" length)

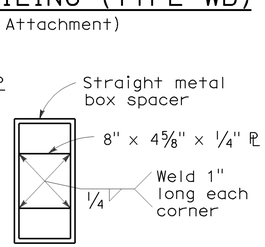
  10 gage = 0.135" thick

  12 gage = 0.108" thick

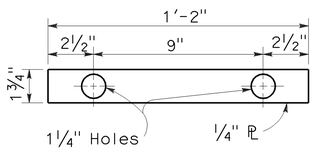


DETAIL A

STRAIGHT METAL BOX SPACER



DETAIL B



DETAIL C

PLATE 'A'

NOTES:

1. Use ⅝" ø Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
2. The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
3. Exterior splice bolt holes for rail element splices at Post No. T4 and the connection to the concrete barrier or railing shall be the standard ²⁹⁄₃₂" x 1⅛" slot size. Interior splice bolt holes at these locations may be increased up to 1¼" ø. Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No. T4 and the connection to the concrete barrier or railing.
4. Direction of adjacent traffic indicated by ⟵.
5. The top elevation of Posts No. T2 through No. T7 shall not project more than 1" above the top elevation of the rail element.
6. Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing with height transition ratio of 120:1 or an approved Caltrans end treatment attached to Post No. T1.
7. The depth of the metal box spacer varies from the 5⅛" to 1½" and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17⅞". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1½", metal plates similar to Plate 'A' are to be used as spacers.
8. Where the width of the concrete railing or wall is greater than 17⅞", wood blocks are to be used to fill the space created between the backside of Posts No. T4 through No. T7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
9. End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.
10. Conform standard railing section height to 2'-3¾" at Post No. T1 using height transition ratio of 120:1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TRANSITION RAILING (TYPE WB)

NO SCALE

RSP A77J4 DATED MAY 20, 2011 SUPERSEDES
RSP A77J4 DATED JUNE 5, 2009, RSP A77J4 DATED JUNE 6, 2008
AND STANDARD PLAN A77J4 DATED MAY 1, 2006 -
PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J4

2006 REVISED STANDARD PLAN RSP A77J4

5-14-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	26	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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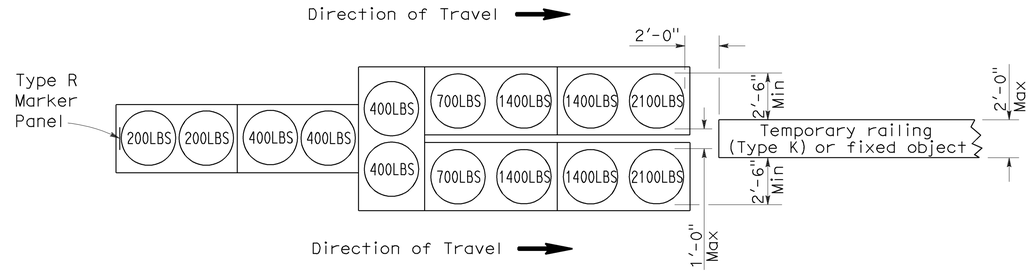
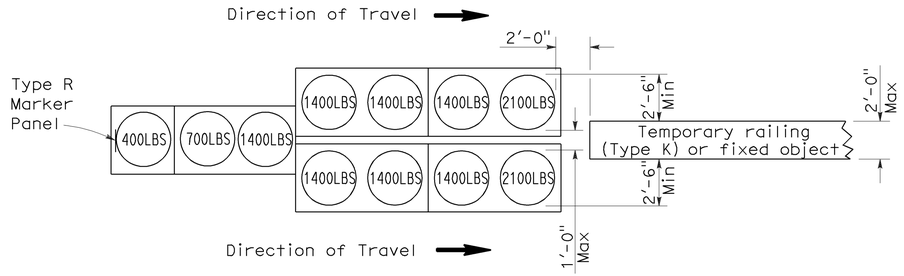
To accompany plans dated October 18, 2011



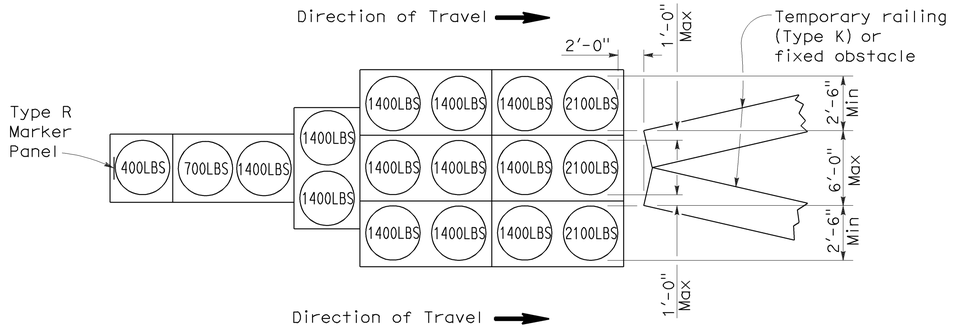
ARRAY 'TU14'

Approach speed 45 mph or more



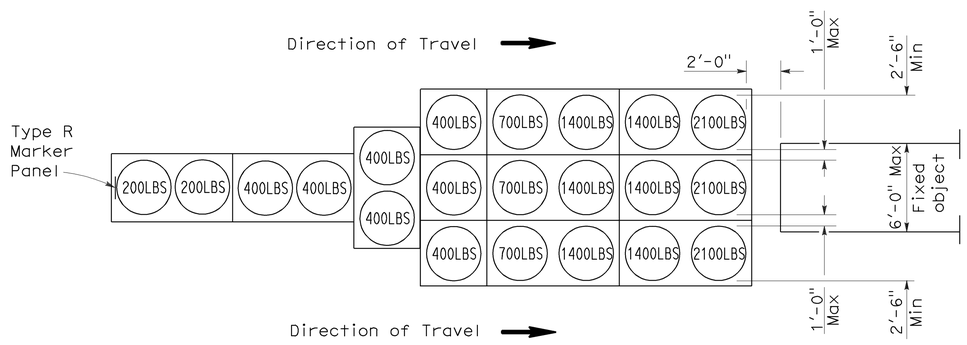
ARRAY 'TU11'

Approach speed less than 45 mph



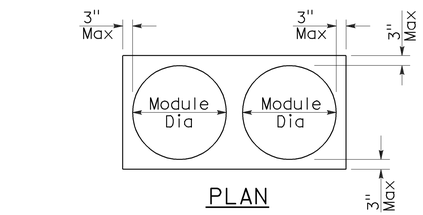
ARRAY 'TU17'

Approach speed less than 45 mph

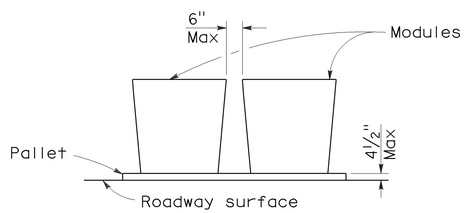


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	27	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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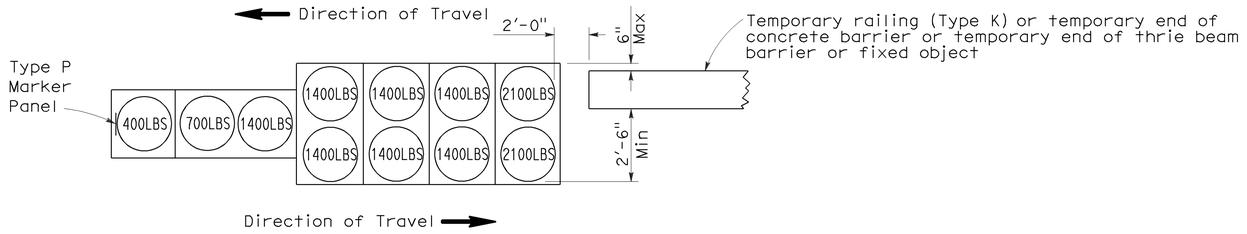
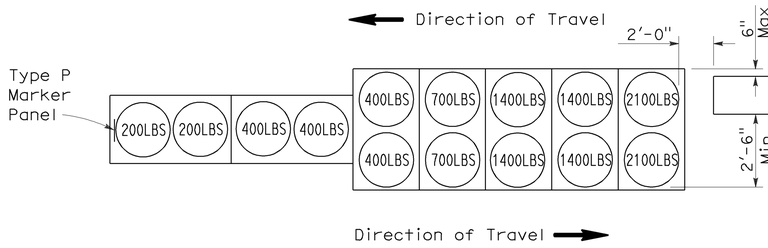
To accompany plans dated October 18, 2011



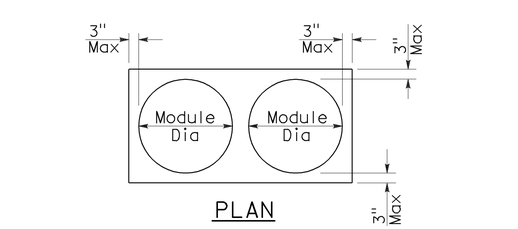
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	28	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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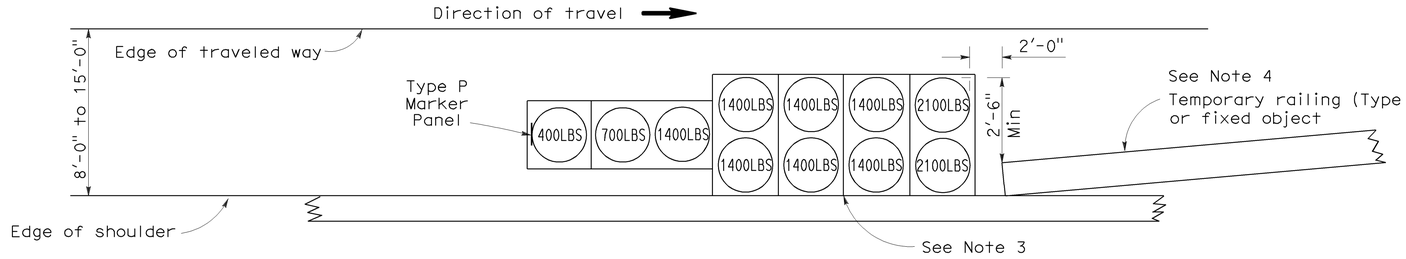
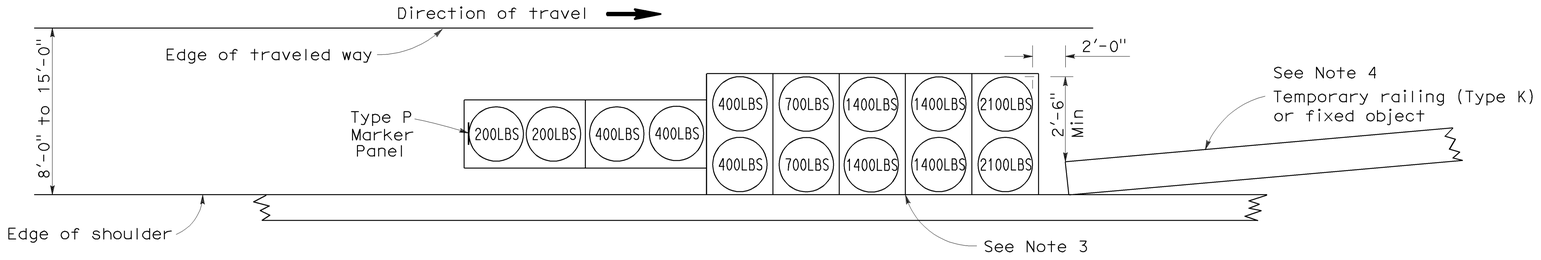
To accompany plans dated October 18, 2011



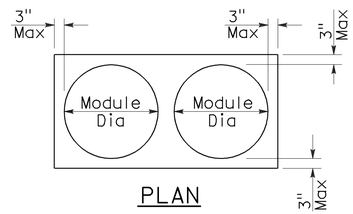
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

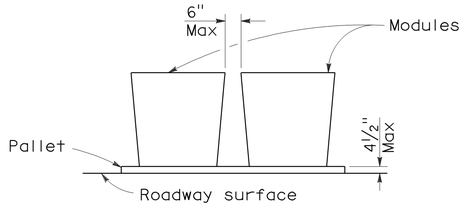


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	29	39

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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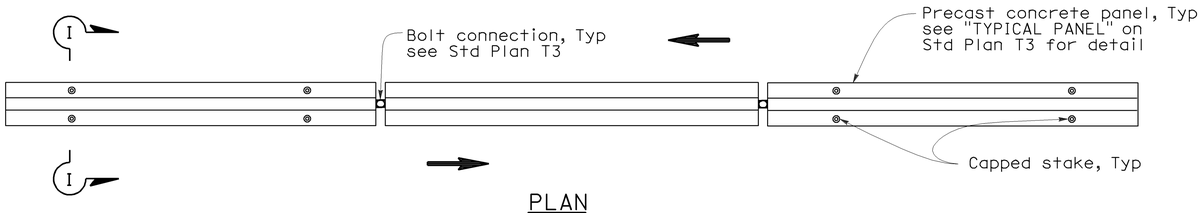
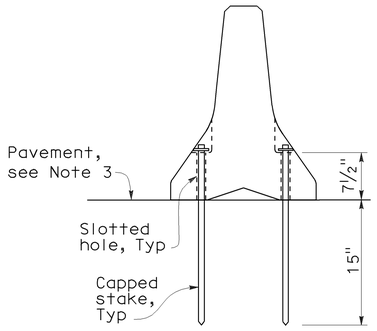
To accompany plans dated October 18, 2011



PLAN

RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC

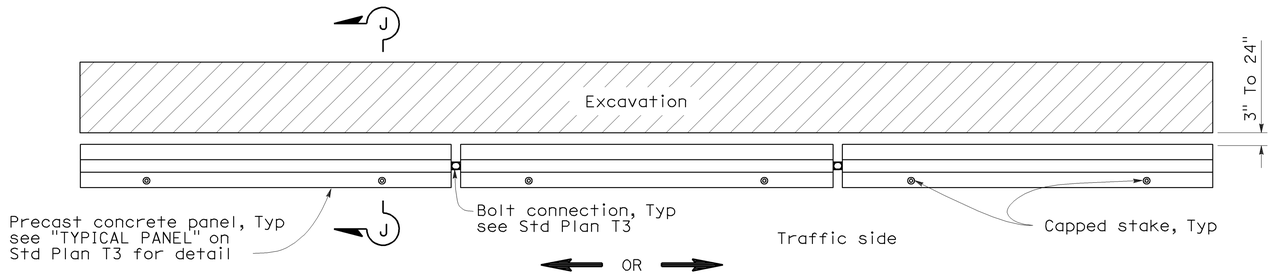
See Note 1



SECTION I-I

NOTES:

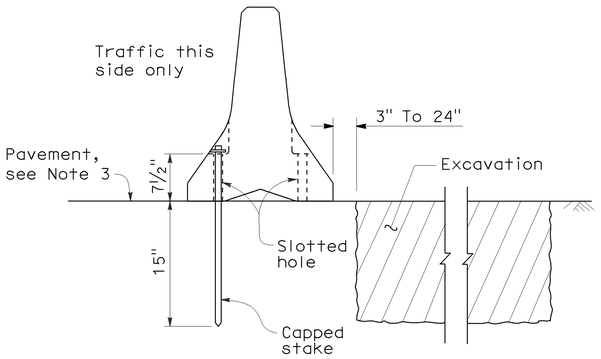
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of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



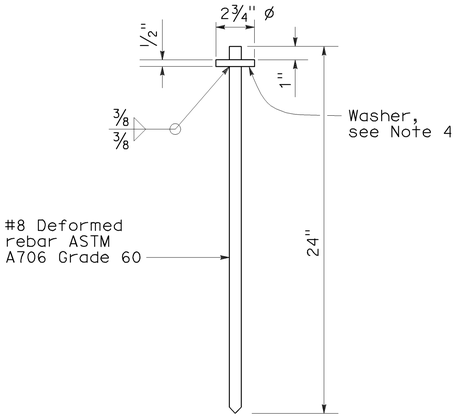
PLAN

RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION

See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY RAILING (TYPE K)

NO SCALE

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

NEW STANDARD PLAN NSP T3A

2006 NEW STANDARD PLAN NSP T3A

8-31-10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	30	39

Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Greg W. Edwards — No. C36386 — Exp. 6-30-08 CIVIL — STATE OF CALIFORNIA

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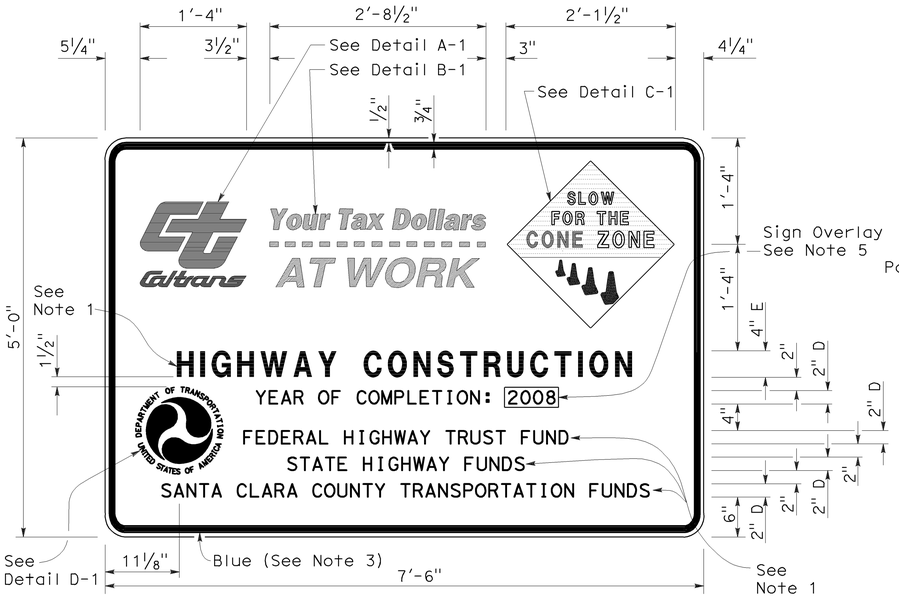
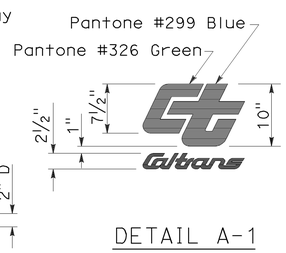
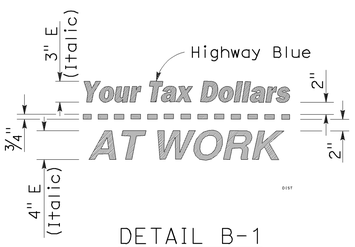
To accompany plans dated October 18, 2011



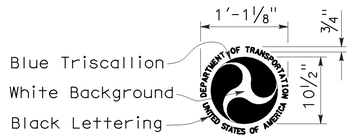
TYPE 1



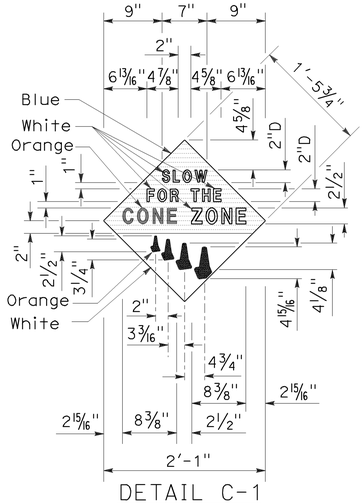
DETAIL A-1



DETAIL B-1
(See Note 3)



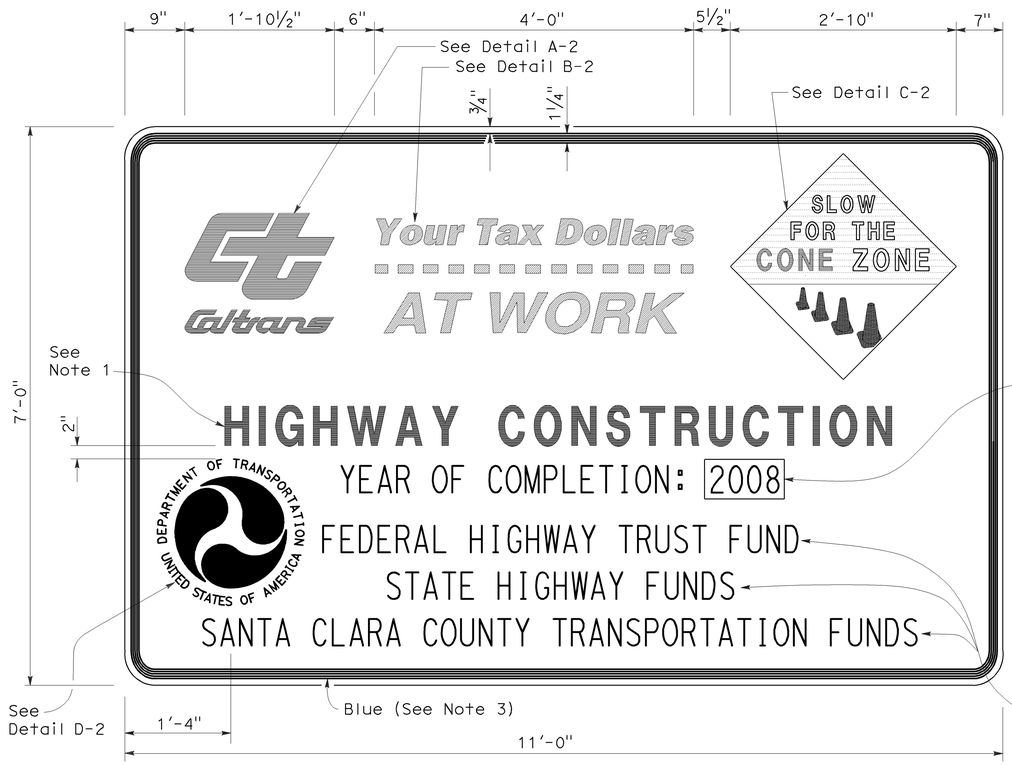
DETAIL D-1
(See Note 6)



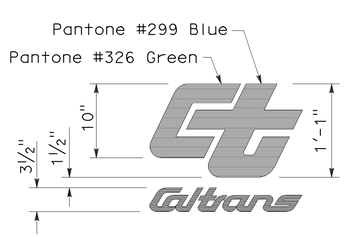
DETAIL C-1
(See Note 4)

NOTES:

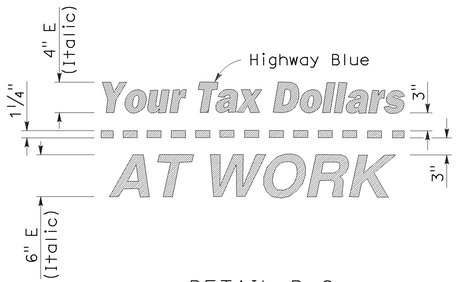
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



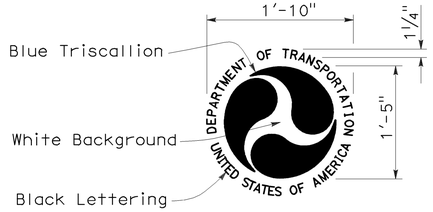
TYPE 2



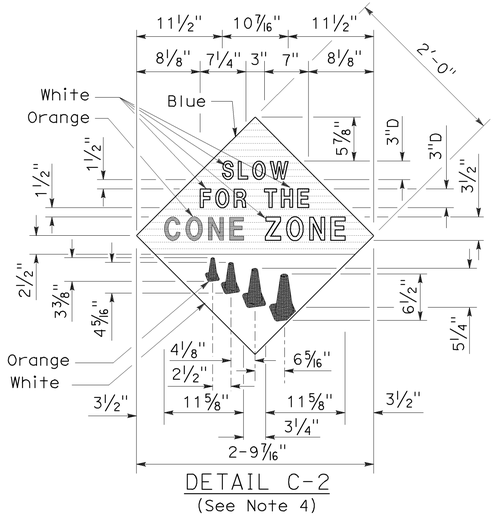
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	31	39

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3695 — Renewal Date 11-30-10 — Date 2-25-09 — STATE OF CALIFORNIA

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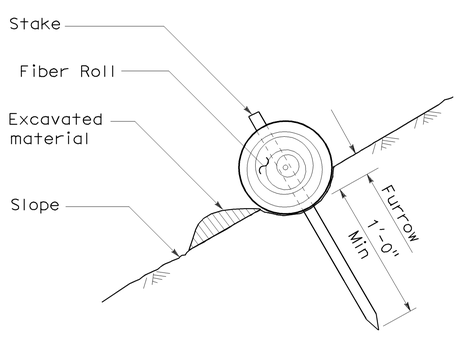
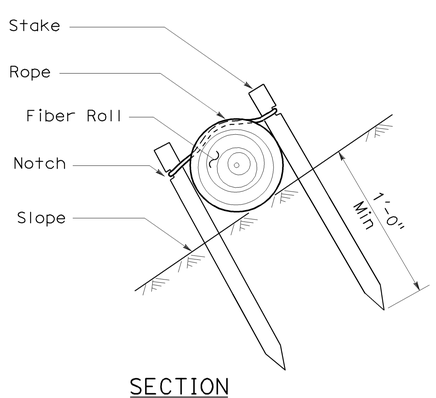
To accompany plans dated October 18, 2011

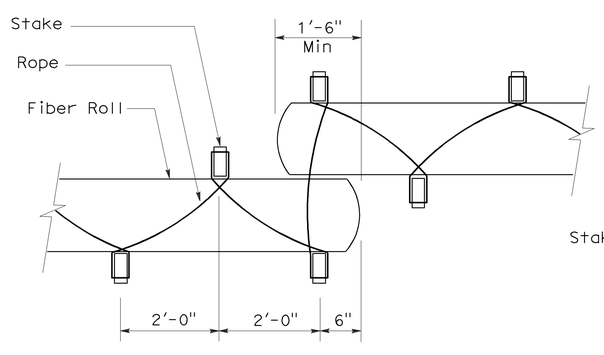


SECTION

TEMPORARY FIBER ROLL (TYPE 1)

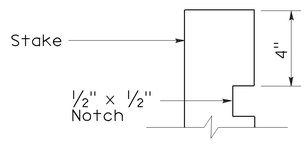


SECTION



PLAN

TEMPORARY FIBER ROLL (TYPE 2)

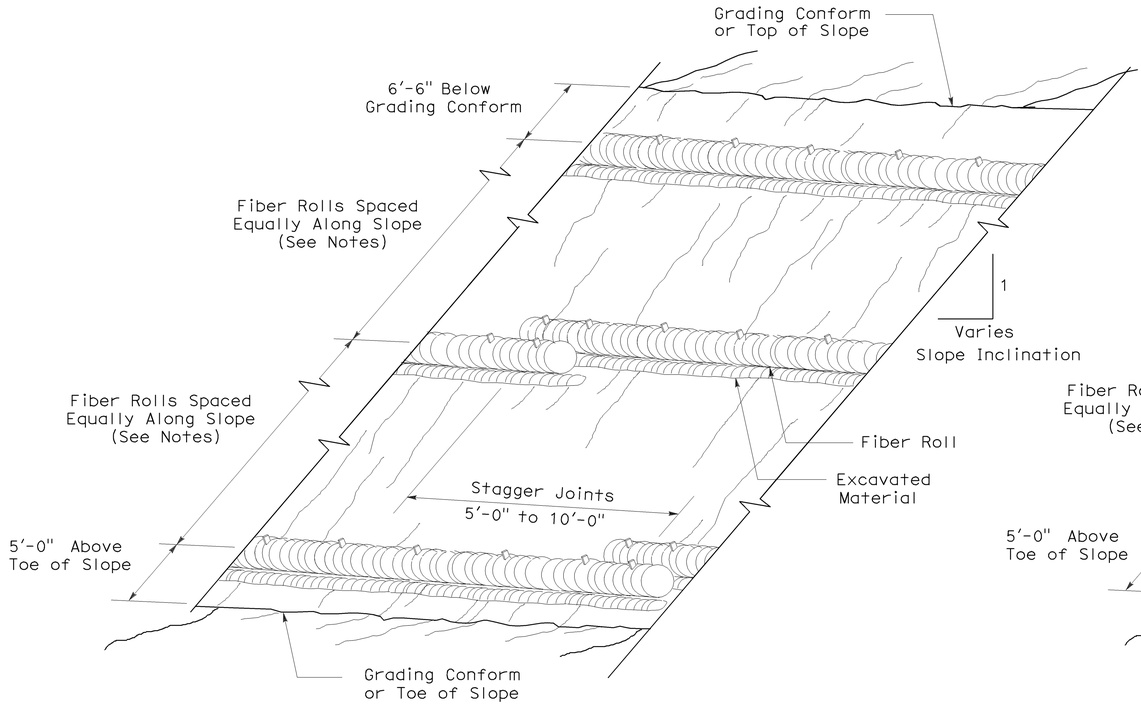


ELEVATION

STAKE NOTCH DETAIL

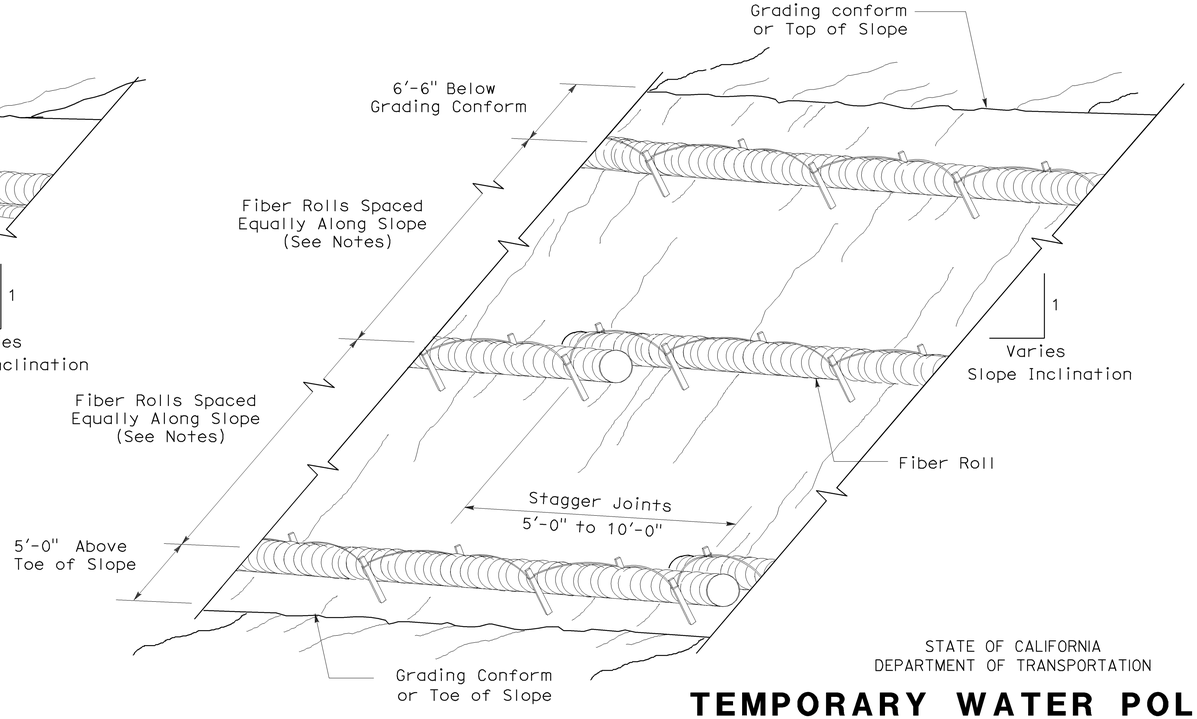
NOTES:

1. Temporary fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)

NO SCALE

RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

2006 REVISED STANDARD PLAN RSP T56

2-23-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	32	39

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS Approval DATE

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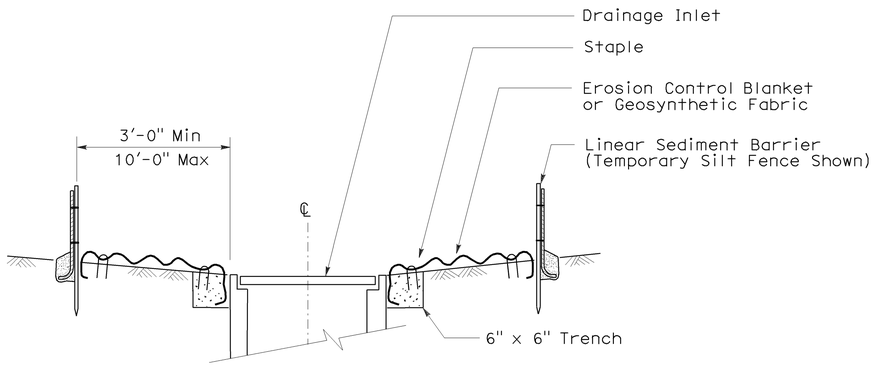
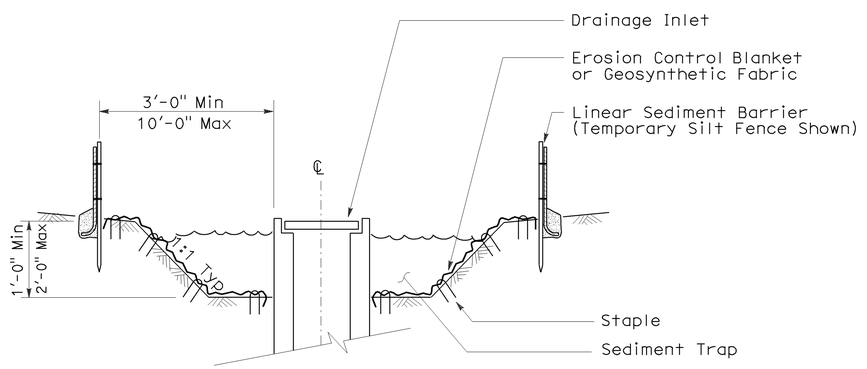
LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3695 — Registered Date 11-04-08 — Renewal Date 08-11-08 — Date — STATE OF CALIFORNIA

To accompany plans dated October 18, 2011



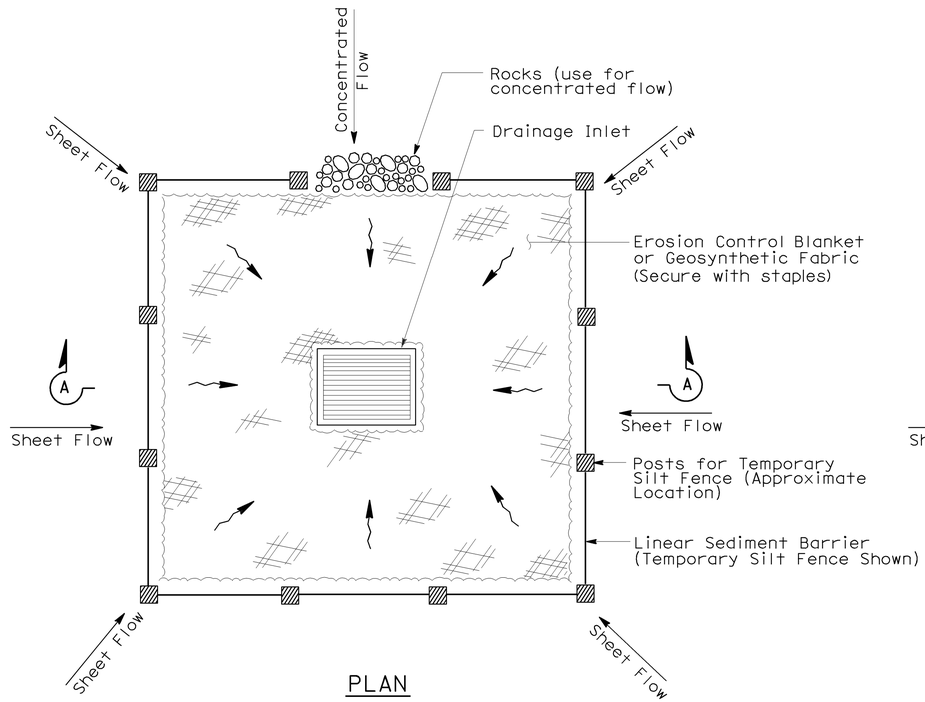
SECTION A-A



SECTION B-B

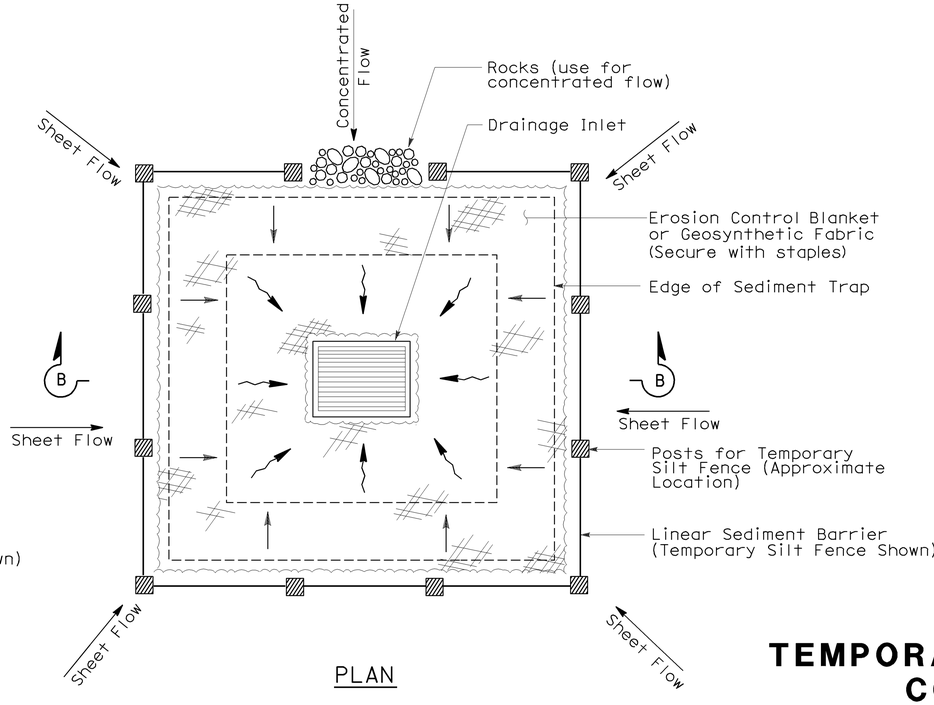
NOTES:

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



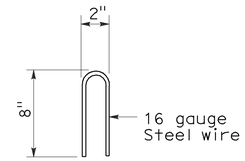
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



PLAN

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



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

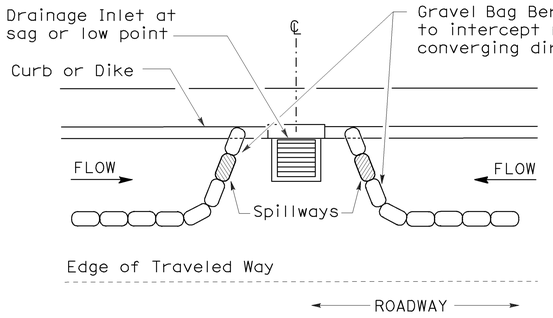
NO SCALE

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

NEW STANDARD PLAN NSP T61

2006 NEW STANDARD PLAN NSP T61

7-11-08



PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	33	39

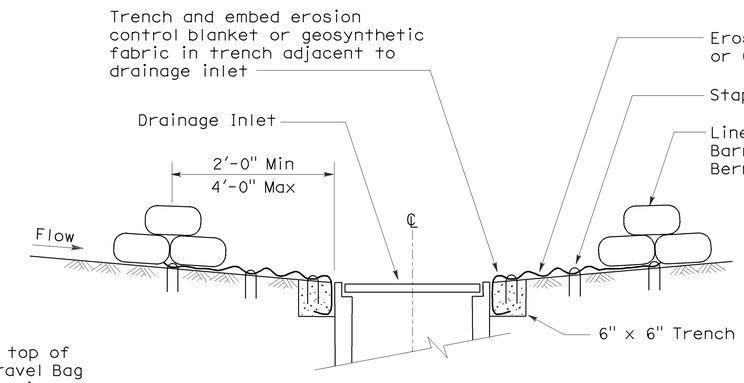
Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3695 — Registered Date 11-04-08 — Renewal Date 08-11-08 — Date — STATE OF CALIFORNIA

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

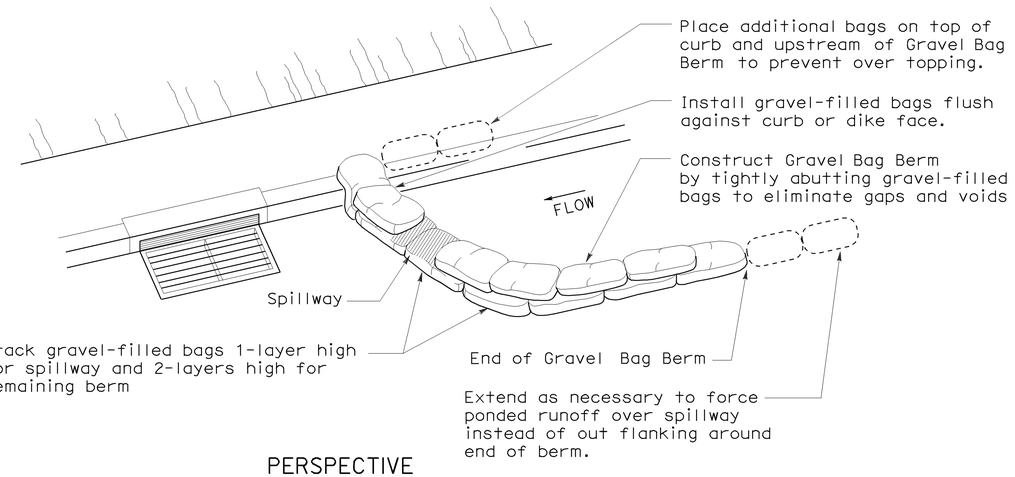
To accompany plans dated October 18, 2011



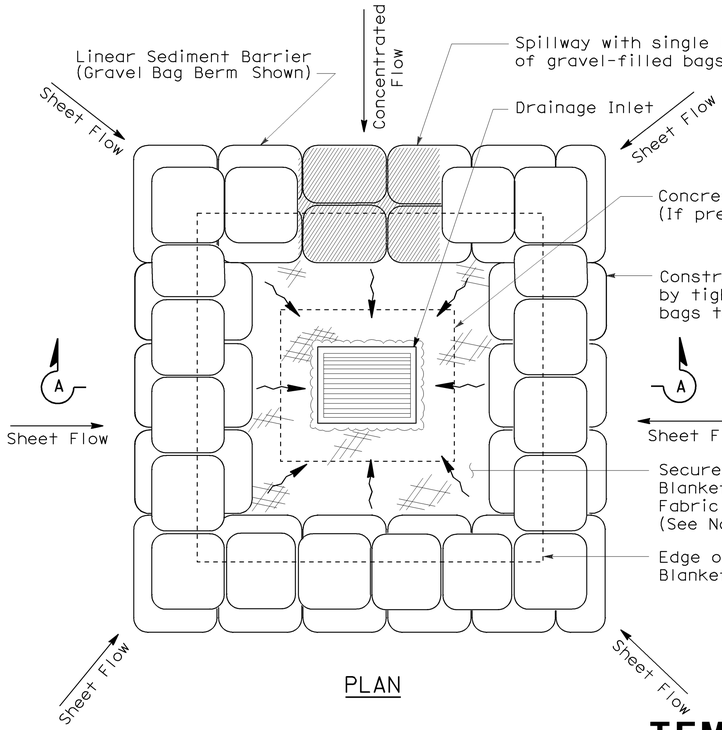
SECTION A-A

NOTES:

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

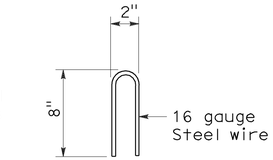


PERSPECTIVE

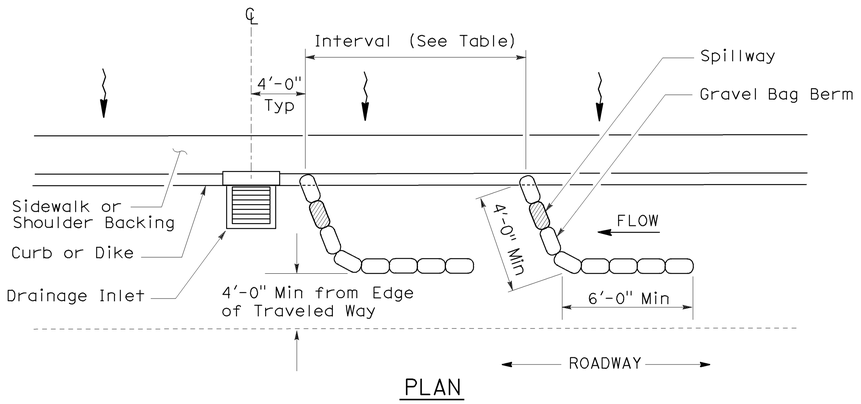


PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T62

2006 NEW STANDARD PLAN NSP T62

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	34	39

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

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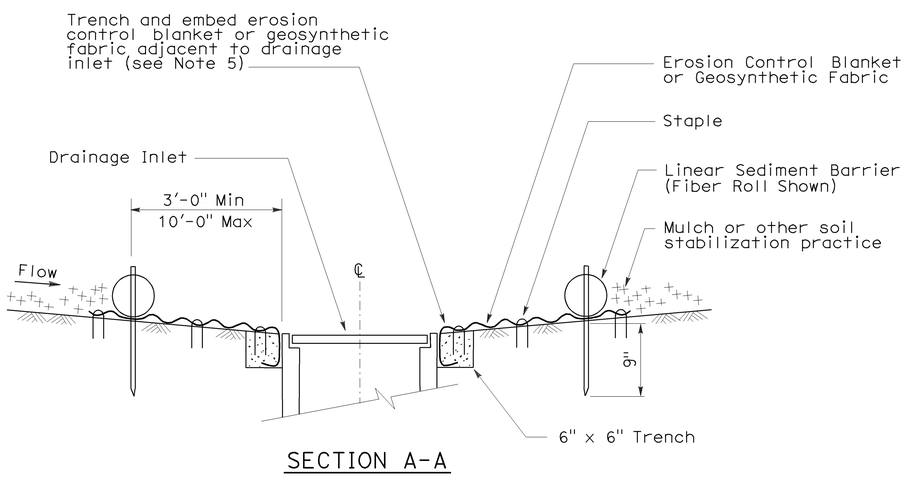
LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3695 — Registration Date 11-04-08 — Renewal Date 08-11-08 — Date — STATE OF CALIFORNIA

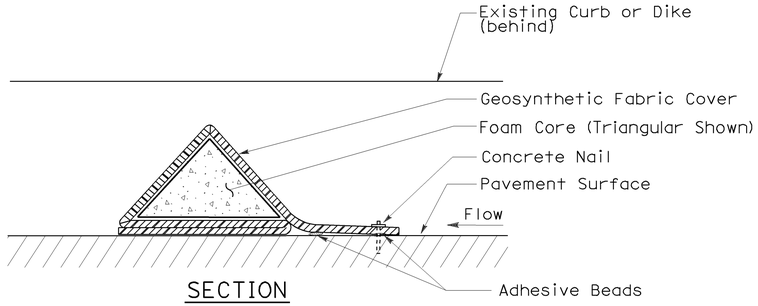
To accompany plans dated October 18, 2011

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

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

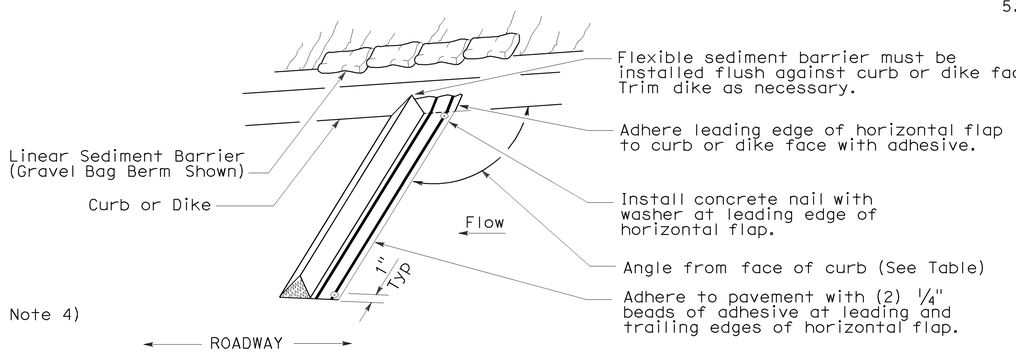


SECTION A-A



SECTION

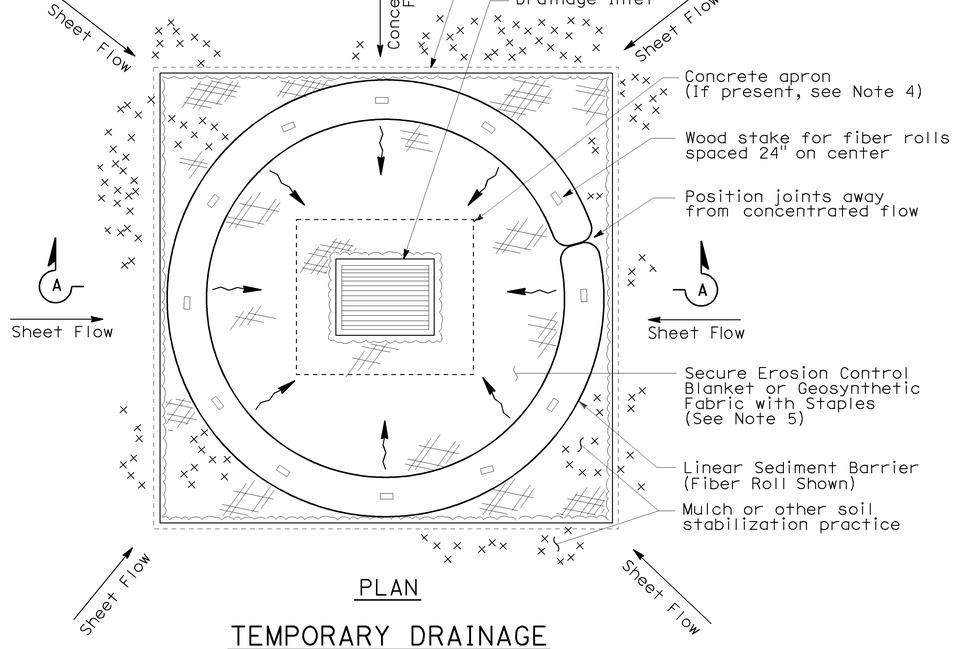
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)



PERSPECTIVE

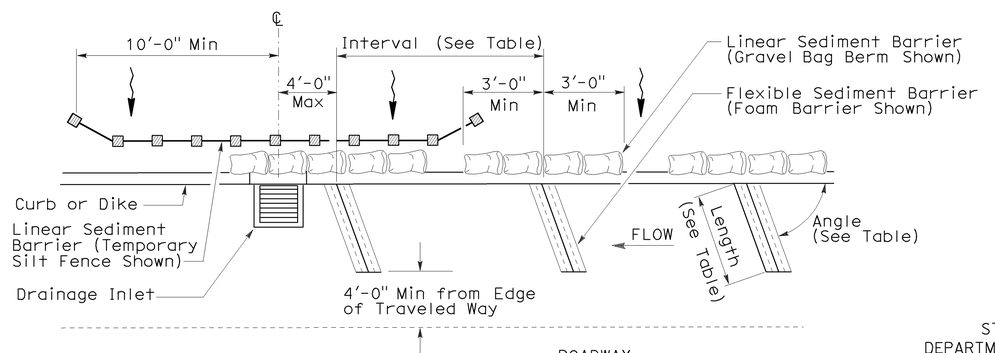
NOTES:

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



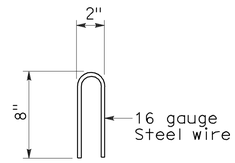
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PLAN

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



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T63

2006 NEW STANDARD PLAN NSP T63

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	20	19.9/26.0	35	39

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
Robert B. Schott 3695
Robert B Schott
Registered
11-04-08
Renewal Date
08-11-08
Date
STATE OF CALIFORNIA

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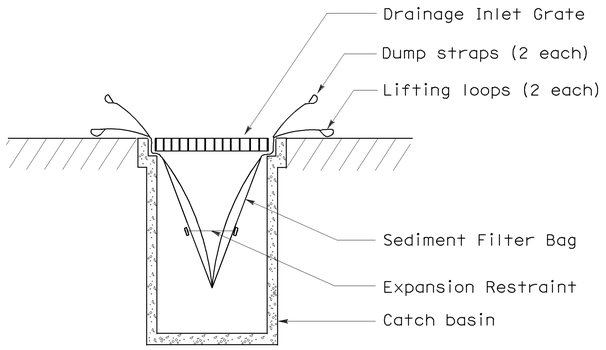
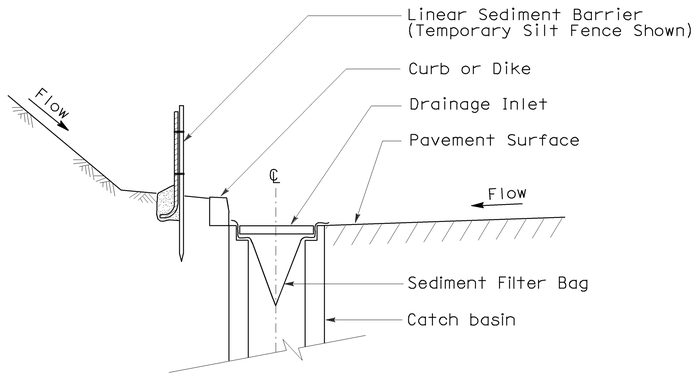
To accompany plans dated October 18, 2011

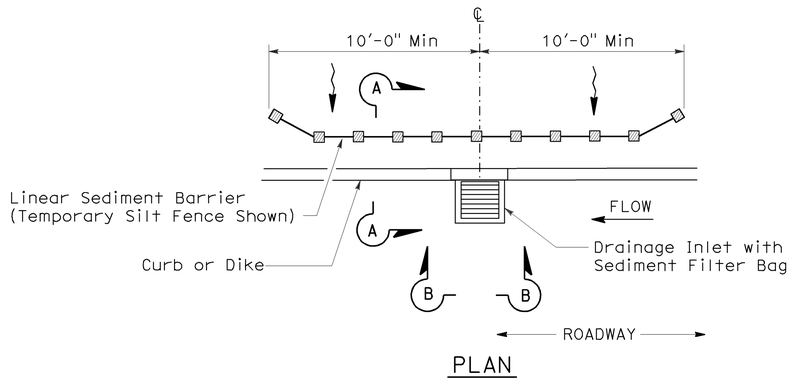


SECTION B-B

SEDIMENT FILTER BAG DETAIL

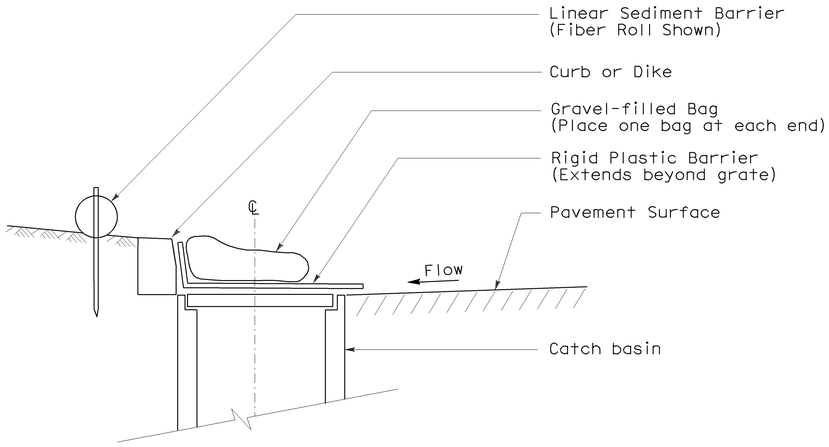


SECTION A-A



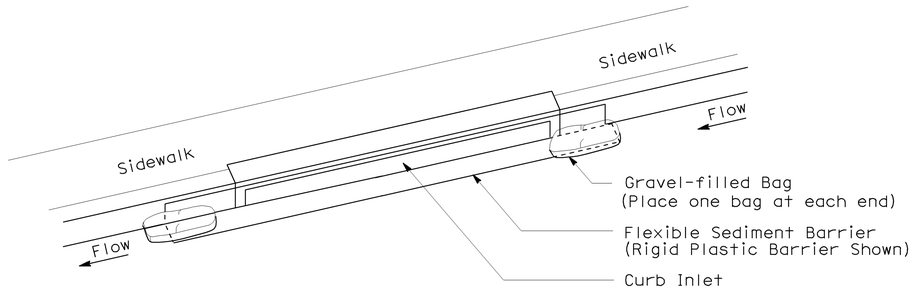
PLAN

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



SECTION

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



PERSPECTIVE

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

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

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	36	39

Genaro M. Doria 10-8-2011
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GENARO M. DORIA No. C63583 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA

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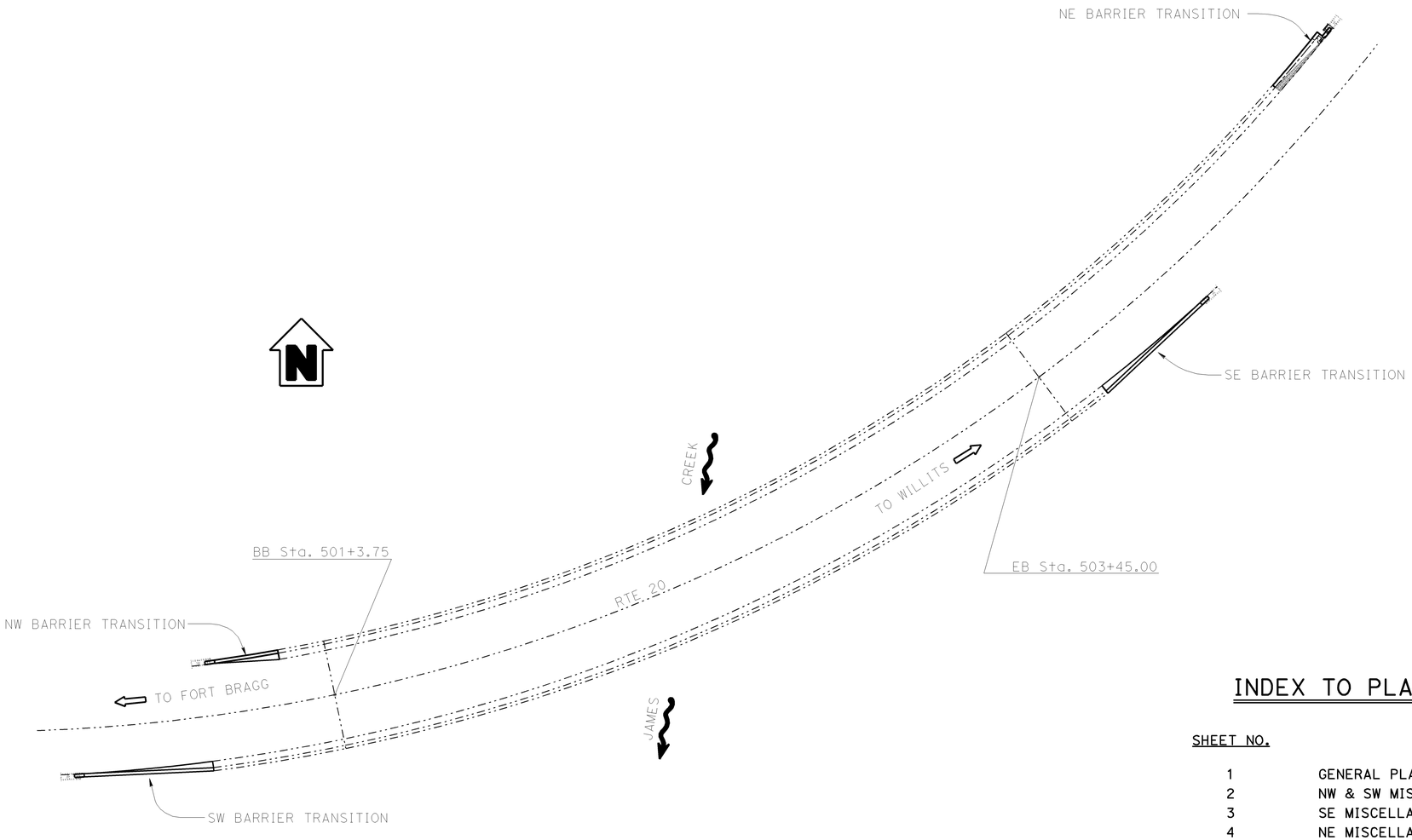
STANDARD PLANS DATED MAY 2006

A10A	ACRONYMS AND ABBREVIATIONS (A-L)
A10B	ACRONYMS AND ABBREVIATIONS (M-Z)
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
A77J4	METAL BEAM GUARD RAILING (TYPE WB)

LEGEND

Indicates existing structure

Indicates new construction



INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	NW & SW MISCELLANEOUS DETAILS
3	SE MISCELLANEOUS DETAILS
4	NE MISCELLANEOUS DETAILS

QUANTITIES

CONCRETE BARRIER (TRANSITION)	134 LF

JAMES SAGAR
DESIGN ENGINEER

DESIGN	BY GENARO DORIA	CHECKED NIRANJEN KANEPATHIPILLAI	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE			
DETAILS	BY P C WELLS	CHECKED GENARO DORIA	LAYOUT	BY GENARO DORIA	CHECKED BOB KORNMAN		
QUANTITIES	BY GENARO DORIA	CHECKED NIRANJEN KANEPATHIPILLAI	SPECIFICATIONS	BY JIM CORRADO	PLANS AND SPECS COMPARED X		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGNS BRANCH

BRIDGE NO. 10-0102
POST MILE 20.0

JAMES CREEK BRIDGE BARRIER TRANSITION
GENERAL PLAN

UNIT: 3619
PROJECT NUMBER & PHASE: 0100000457
CONTRACT NO.: 01-490701

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
4-28-11	5-9-11			1	4

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10)

FILE => 01-490701aagp01.dgn

USERNAME => s1243393 DATE PLOTTED => 18-OCT-2011 TIME PLOTTED => 13:54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	37	39

Genaro M. Doria 10-8-2011
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GENARO M. DORIA No. C63583 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA

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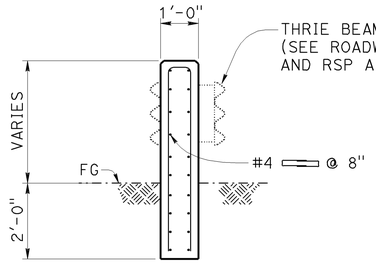
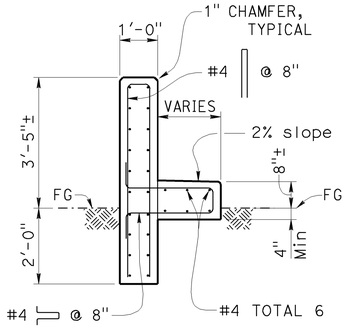
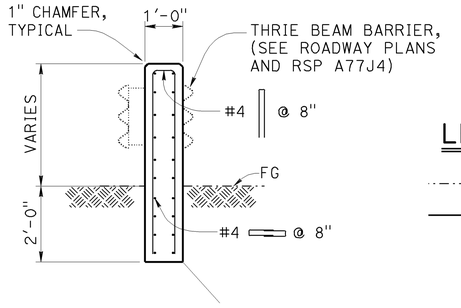


SECTION A-A
½" = 1'-0"



SECTION B-B
½" = 1'-0"



SECTION C-C
½" = 1'-0"

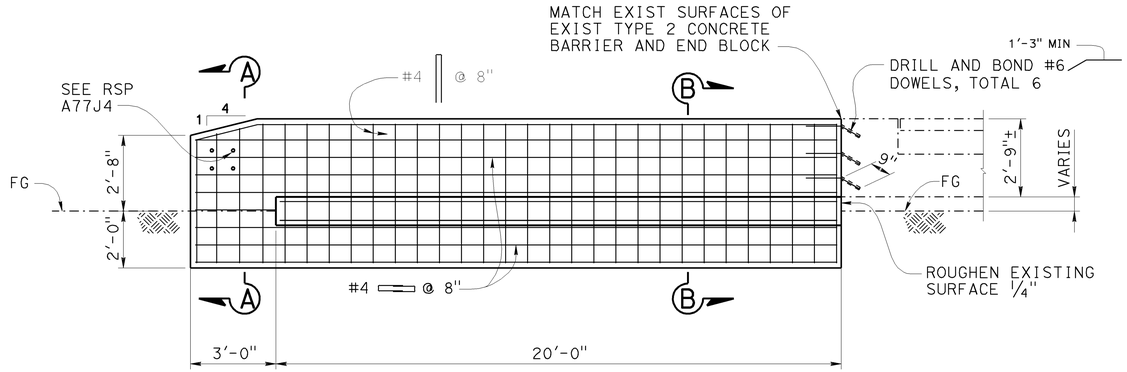
LEGEND

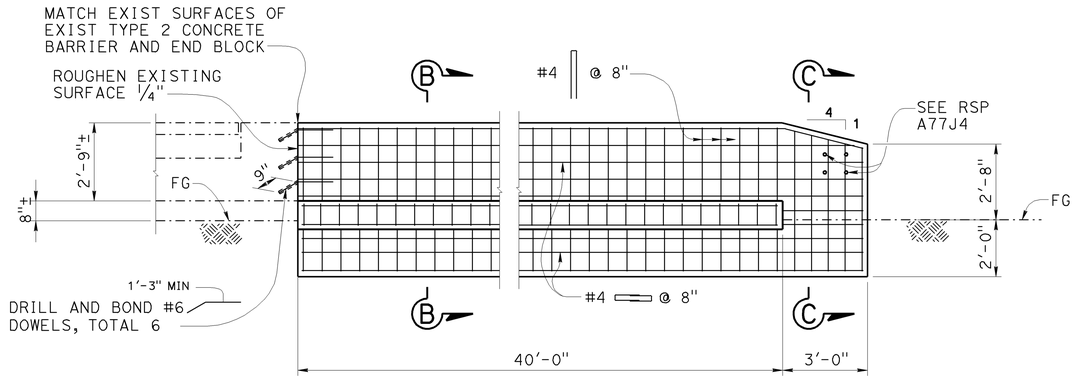
Indicates existing structure

Indicates new construction

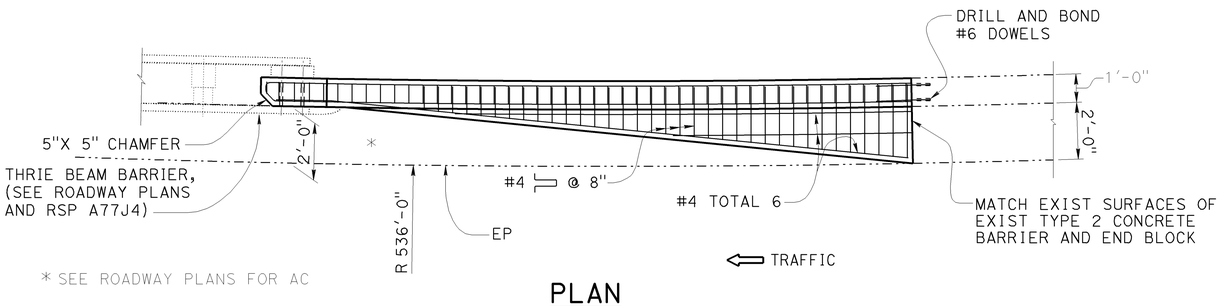
NOTES:

1. For limits of excavation and backfill, see 2006 Standard Plans A62C, SECTION E-E.
2. Minimum 2" cover, typical.
3. All plates and bolts are galvanized.





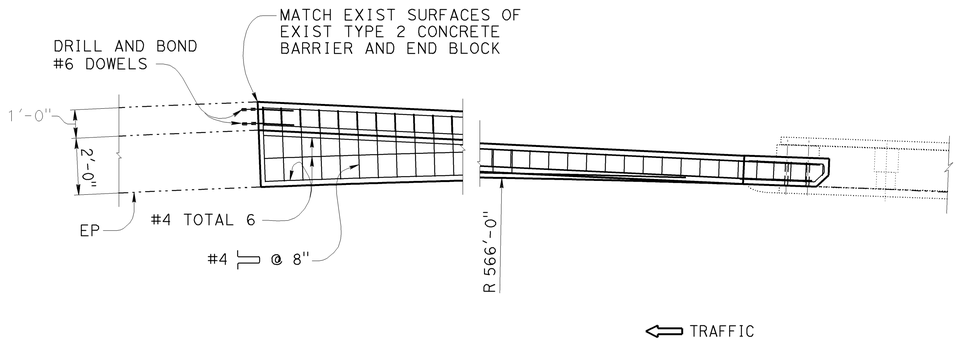
ELEVATION



PLAN

NORTHWEST TRANSITION BARRIER (DEPARTURE)
⅜" = 1'-0"

ELEVATION



PLAN

SOUTHWEST TRANSITION BARRIER (APPROACH)
⅜" = 1'-0"

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

	BY	CHECKED
DESIGN	G DORIA	N KANEPATHIPILLAI
DETAILS	P WELLS	G DORIA
QUANTITIES	G DORIA	N KANEPATHIPILLAI

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

BRIDGE NO. 10-0102
POST MILE 20.0

JAMES CREEK BRIDGE BARRIER TRANSITION
NW & SW MISCELLANEOUS DETAILS

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 0100000457 CONTRACT NO.: 01-490701

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
4-21-11	4-29-11	5-02-11		2	4

FILE => spec_des-br-proj/misc/paul/hold$REQUEST

USERNAME = s124393 DATE PLOTTED => 18-OCT-2011 TIME PLOTTED => 13:54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	38	39

Genaro M. Doria 10-8-2011
REGISTERED CIVIL ENGINEER DATE

October 18, 2011
PLANS APPROVAL DATE

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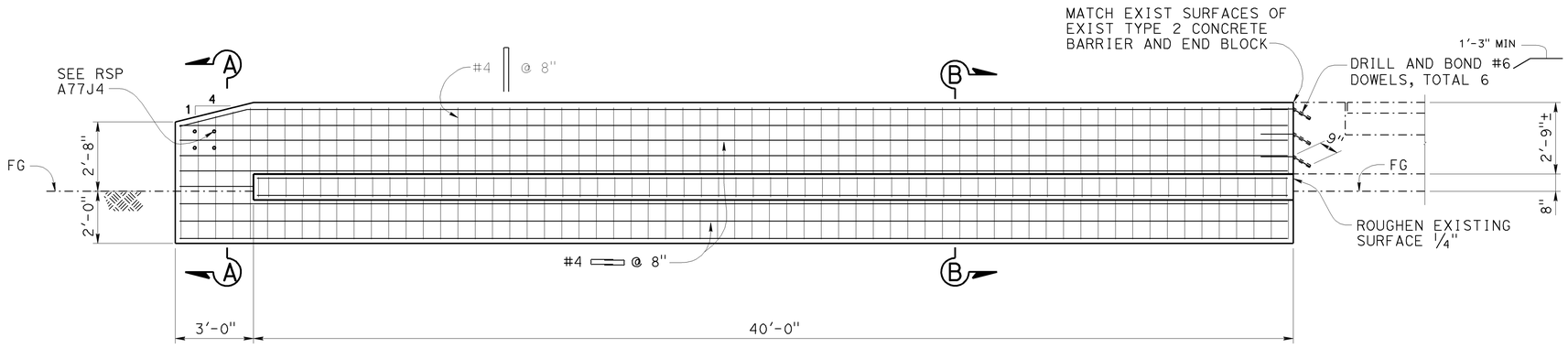
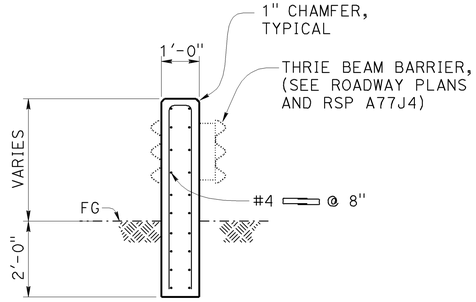
REGISTERED PROFESSIONAL ENGINEER
GENARO M. DORIA
No. C63583
Exp. 9/30/12
CIVIL
STATE OF CALIFORNIA



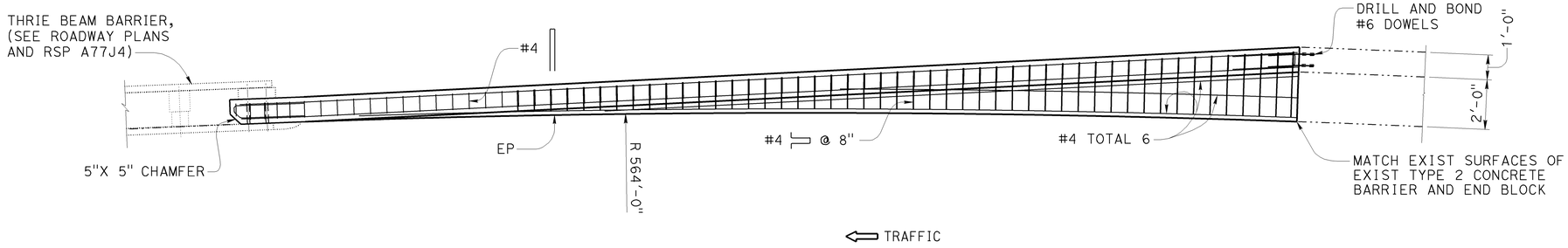
ELEVATION
3/8" = 1'-0"



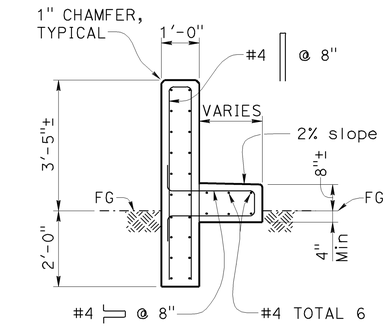
SECTION A-A
1/2" = 1'-0"

LEGEND
Indicates existing structure

Indicates new construction



PLAN
3/8" = 1'-0"



SECTION B-B
1/2" = 1'-0"

NOTES:

1. For limits of excavation and backfill, see 2006 Standard Plans A62C, SECTION E-E.
2. Minimum 2" cover, typical.
3. All plates and bolts are galvanized.

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

SOUTHEAST TRANSITION BARRIER DEPARTURE

DESIGN	BY G DORIA	CHECKED NIRANJEN KANEPATHIPILLAI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO. 10-0102
DETAILS	BY P C WELLS	CHECKED G DORIA			POST MILE 20.0
QUANTITIES	BY G DORIA	CHECKED NIRANJEN KANEPATHIPILLAI			

JAMES CREEK BRIDGE BARRIER TRANSITION

SE MISCELLANEOUS DETAILS

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3919
PROJECT NUMBER & PHASE: 0100000457
CONTRACT NO.: 01-490701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
4-22-11	5-03-11			3	4

FILE => 01-490701kmsc02.dgn

USERNAME => s1243393 DATE PLOTTED => 18-OCT-2011 TIME PLOTTED => 13:54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	20	19.9/26.0	39	39

Genaro M. Doria — REGISTERED CIVIL ENGINEER — 10-8-2011 DATE

October 18, 2011
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GENARO M. DORIA — No. C63583 — Exp. 9/30/12 — CIVIL — STATE OF CALIFORNIA

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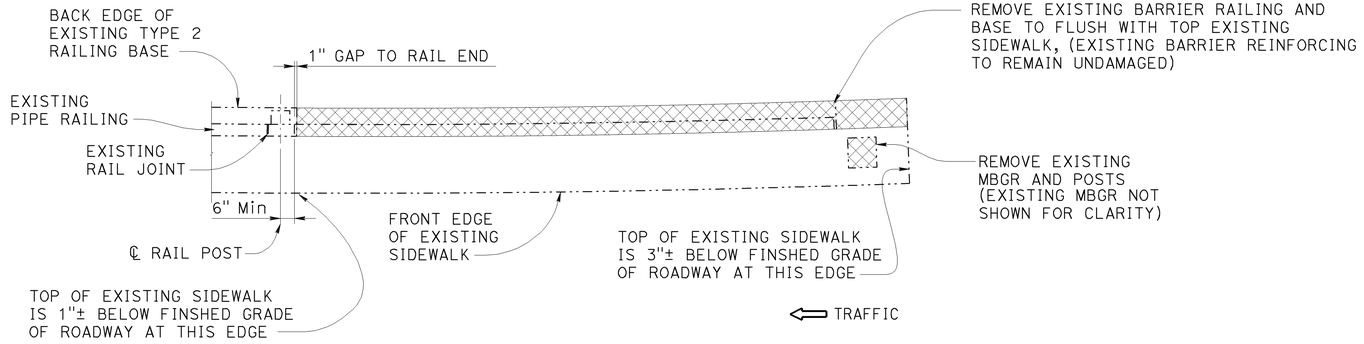


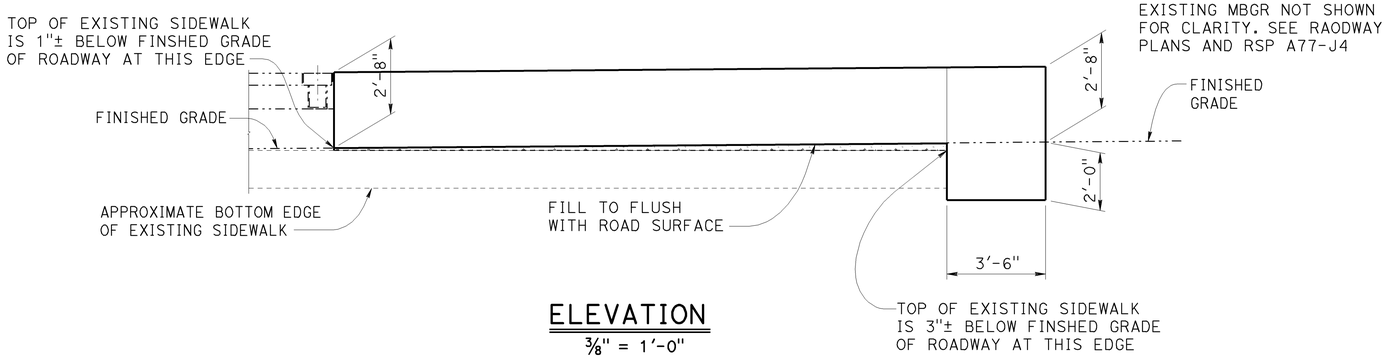
DEMOLITION PLAN

3/8" = 1'-0"

LEGEND

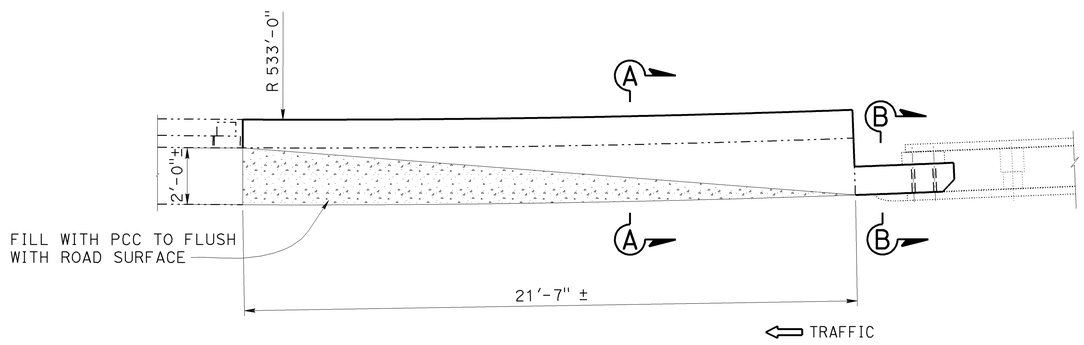
Indicates existing structure

Indicates new construction



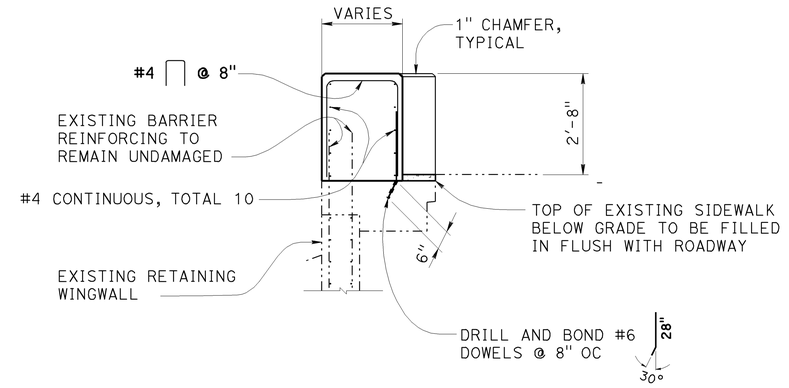
ELEVATION

3/8" = 1'-0"



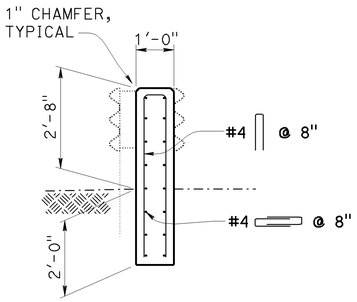
PLAN

3/8" = 1'-0"



SECTION A-A

1/2" = 1'-0"



SECTION B-B

1/2" = 1'-0"

NOTES:

1. For limits of excavation and backfill, see 2006 Standard Plans A62C, SECTION E-E.
2. Minimum 2" cover, typical.
3. All plates and bolts are galvanized.

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

NORTHEAST TRANSITION BARRIER APPROACH

DESIGN	BY G DORIA	CHECKED NIRANJEN KANEPATHIPILLAI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO. 10-0102
DETAILS	BY P C WELLS	CHECKED G DORIA			POST MILE 20.0
QUANTITIES	BY G DORIA	CHECKED NIRANJEN KANEPATHIPILLAI			

JAMES CREEK BRIDGE BARRIER TRANSITION

NE MISCELLANEOUS DETAILS

STRUCTURES DESIGN SPECIAL DESIGN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 0100000457
CONTRACT NO.: 01-490701

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
4-24-11	5-9-11			4	4

FILE => 01-490701kmsc03.dgn

USERNAME => s124393 DATE PLOTTED => 18-OCT-2011 TIME PLOTTED => 13:54