

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE
2-24	DRAINAGE PLAN AND PROFILE
25-26	DRAINAGE DETAILS
27-29	DRAINAGE QUANTITIES
30-37	NEW AND REVISED STANDARD PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SISKIYOU COUNTY
AT VARIOUS LOCATIONS
FROM 0.1 MILE EAST OF THOMPSON CREEK
BRIDGE TO 1.6 MILES EAST OF ROUTE 263

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

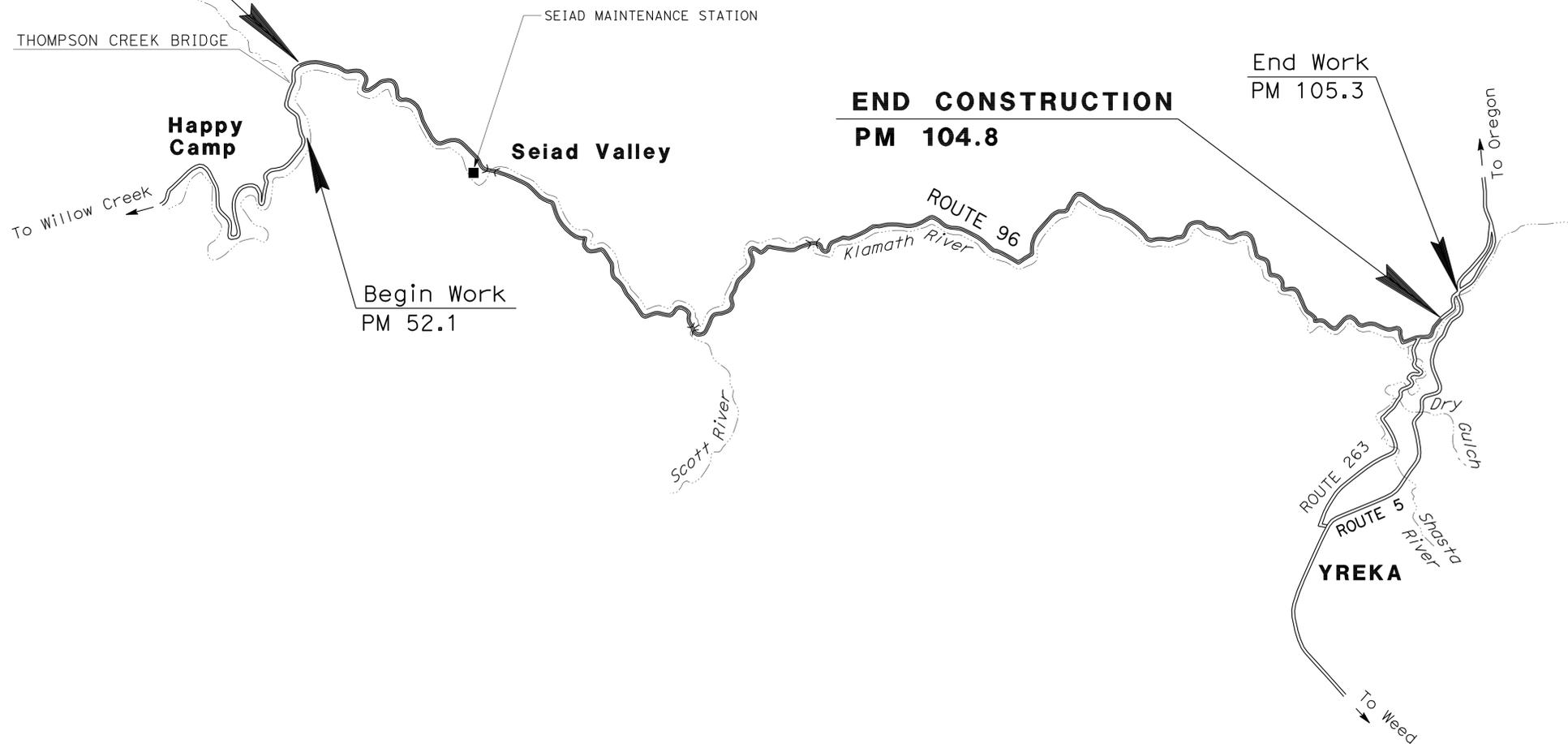
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	1	37





LOCATION MAP

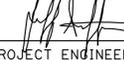
BEGIN CONSTRUCTION
PM 52.6



LOCATIONS OF CONSTRUCTION

- PM 52.61
- PM 54.58
- PM 54.67
- PM 54.81
- PM 55.67
- PM 55.77
- PM 63.69
- PM 63.90
- PM 64.33
- PM 72.64
- PM 79.94
- PM 83.56
- PM 85.01
- PM 87.57
- PM 89.24
- PM 91.72
- PM 93.27
- PM 94.37
- PM 95.72
- PM 95.79
- PM 102.58
- PM 103.78
- PM 104.76

PROJECT MANAGER
JIM WOOD
 DESIGN ENGINEER
KRISTEN KINGSLEY

 01-25-12
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
JANUARY 25, 2012
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
JEFF STEFFAN
 No. 60260
 Exp. 06-31-12
 CIVIL

CONTRACT No.	02-3E0704
PROJECT ID	0200020021

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

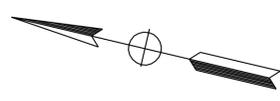
NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	2	37

REGISTERED CIVIL ENGINEER	DATE
JEFF STEFFAN	01-25-12
PLANS APPROVAL DATE	01-25-12

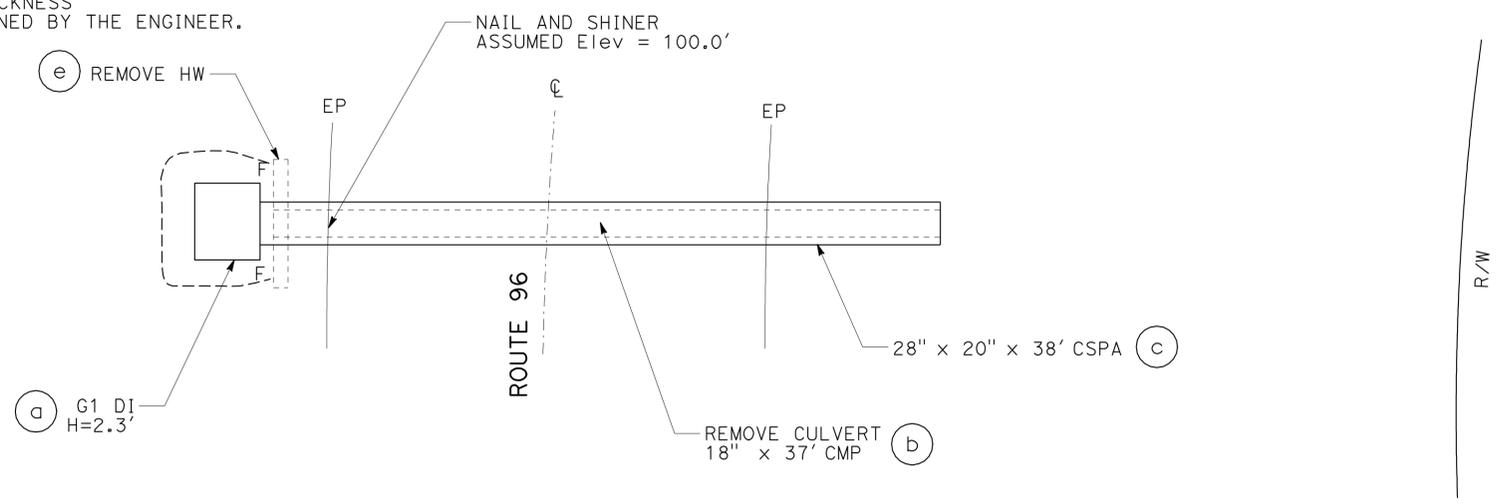
REGISTERED PROFESSIONAL ENGINEER
JEFF STEFFAN
No. 60260
Exp. 6-31-12
CIVIL

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- APPLY MULCH TO ALL DISTURBED AREAS AT A THICKNESS OF 2" MINIMUM. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



LEGEND:

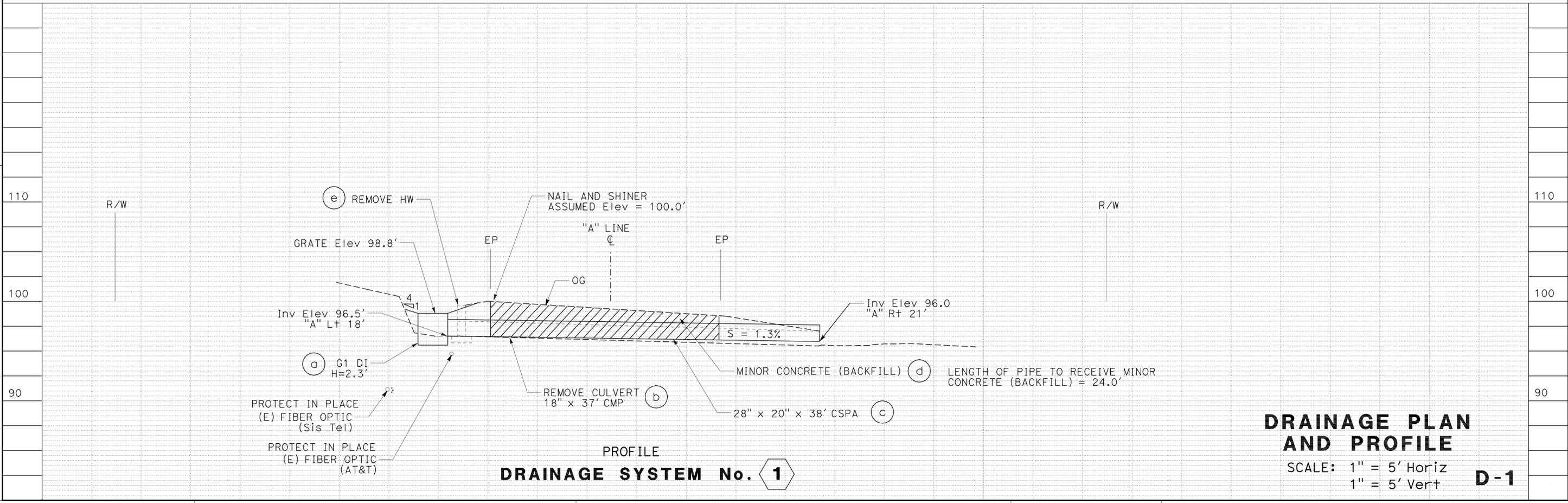
- DRAINAGE SYSTEM No.
- DRAINAGE UNIT
- FLOW DIRECTION
- FLOW LINE

ABBREVIATIONS:

S SLOPE

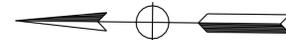
PLAN
DRAINAGE SYSTEM No. 1
PM 52.61

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 KRISTEN KINGSLEY
 FUNCTIONAL SUPERVISOR
 KRISTEN KINGSLEY
 JEFF STEFFAN
 REVISIONS BY
 KRISTEN KINGSLEY
 DATE REVISIONS BY
 JEFF STEFFAN
 DATE REVISIONS BY
 KRISTEN KINGSLEY



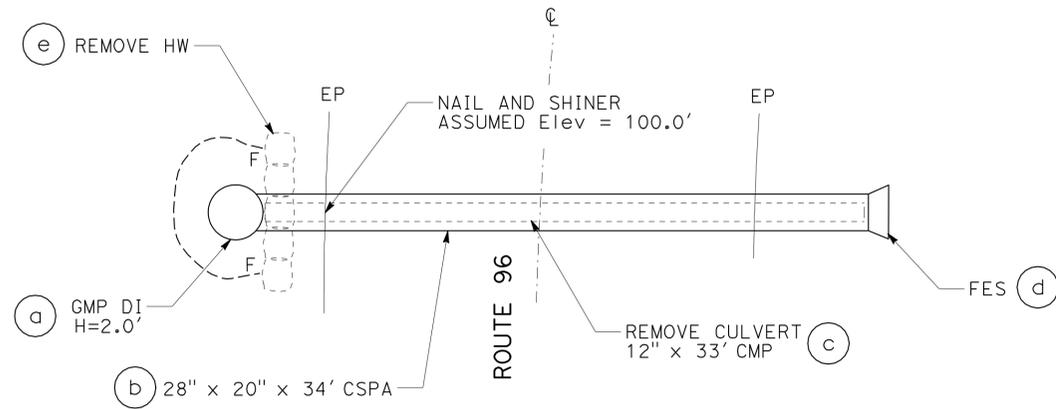
DRAINAGE PLAN AND PROFILE
 SCALE: 1" = 5' Horiz
 1" = 5' Vert
D-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	3	37
			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			JEFF STEFFAN		
PLANS APPROVAL DATE			01-25-12	No. 60260	
			Exp. 6-31-12		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

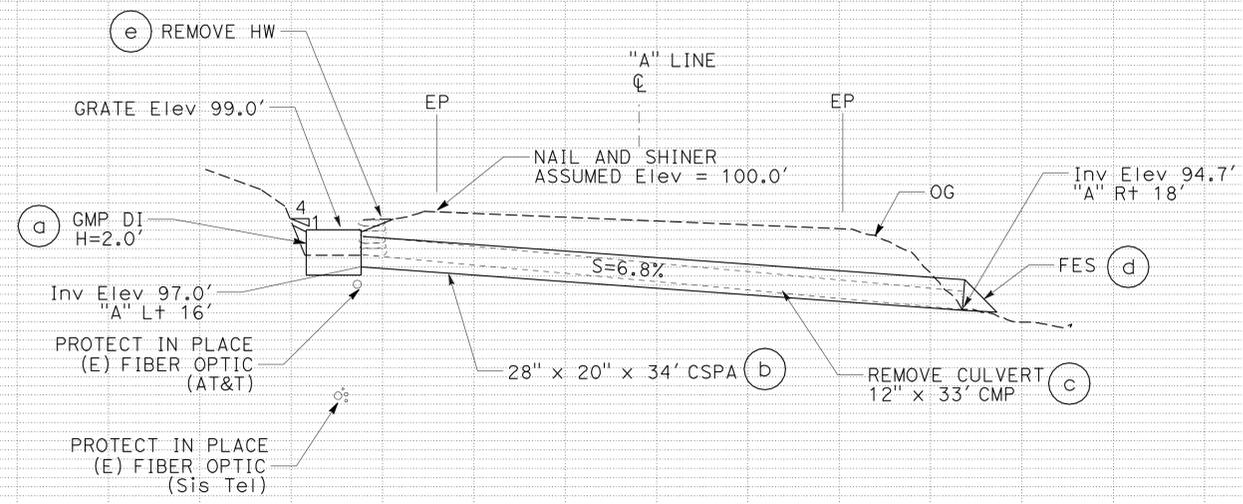


NOTE:

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



PLAN
DRAINAGE SYSTEM No. 2
PM 54.58



PROFILE
DRAINAGE SYSTEM No. 2

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
DESIGN	KRISTEN KINGSLEY	JEFF STEFFAN	01-25-12
CHECKED BY	DESIGNED BY	REVISOR	DATE
KRISTEN KINGSLEY	JEFF STEFFAN	KRISTEN KINGSLEY	01-25-12

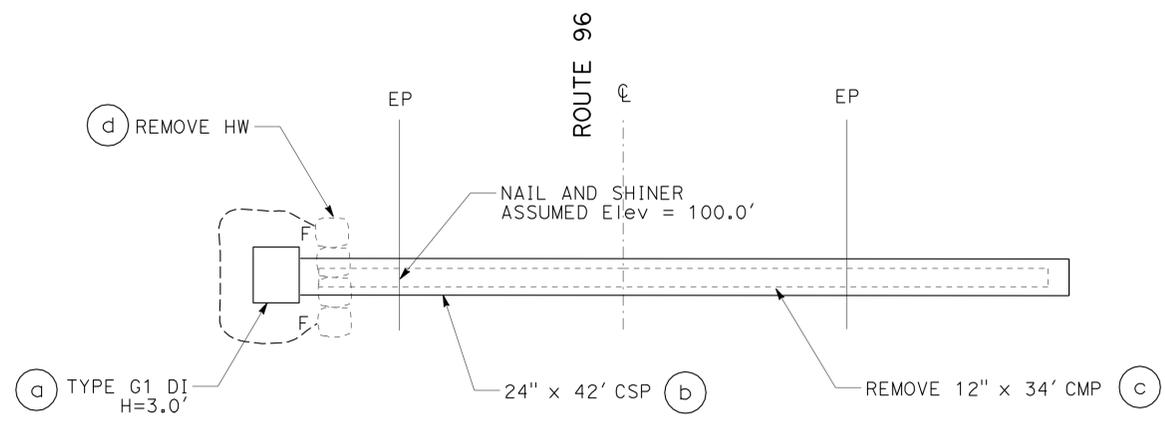
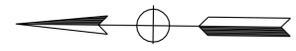
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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 KRISTEN KINGSLEY
 CALCULATED-DESIGNED BY
 CHECKED BY
 JEFF STEFFAN
 KRISTEN KINGSLEY
 REVISED BY
 DATE REVISED
 R/W

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

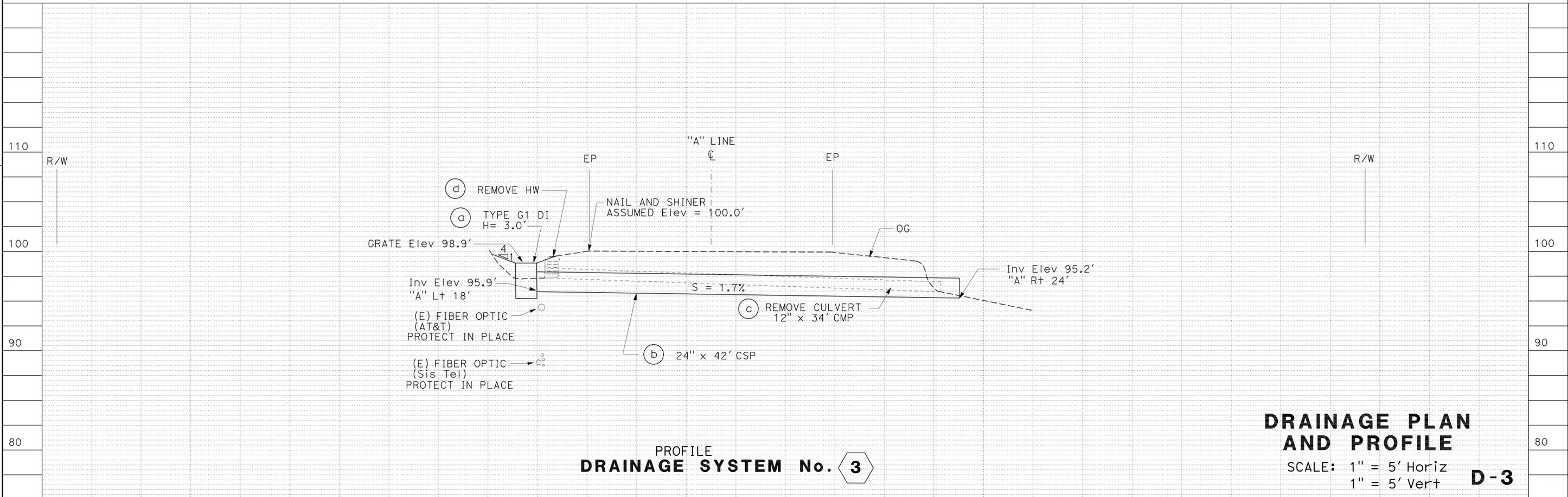
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02	Sis	96	52.6/104.8	4	37

01-25-12
 REGISTERED CIVIL ENGINEER DATE
 01-25-12
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
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REGISTERED PROFESSIONAL ENGINEER
JEFF STEFFAN
 No. 60260
 Exp. 6-31-12
 CIVIL
 STATE OF CALIFORNIA



PLAN
DRAINAGE SYSTEM No. 3
 PM 54.67



**DRAINAGE PLAN
 AND PROFILE**
 SCALE: 1" = 5' Horiz
 1" = 5' Vert
D-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	5	37

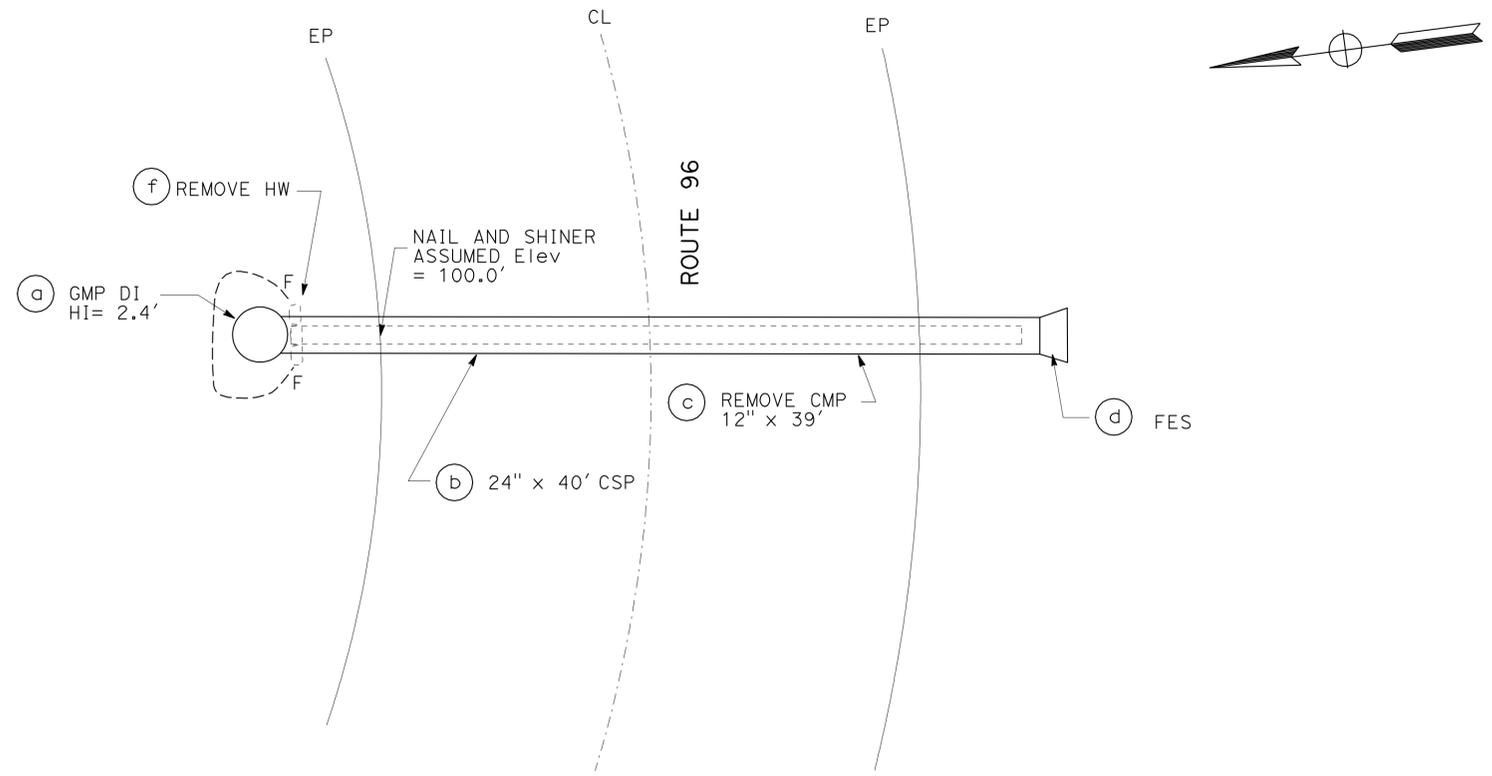
REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		
01-25-12		

REGISTERED PROFESSIONAL ENGINEER JEFF STEFFAN No. 60260 Exp. 6-31-12 CIVIL

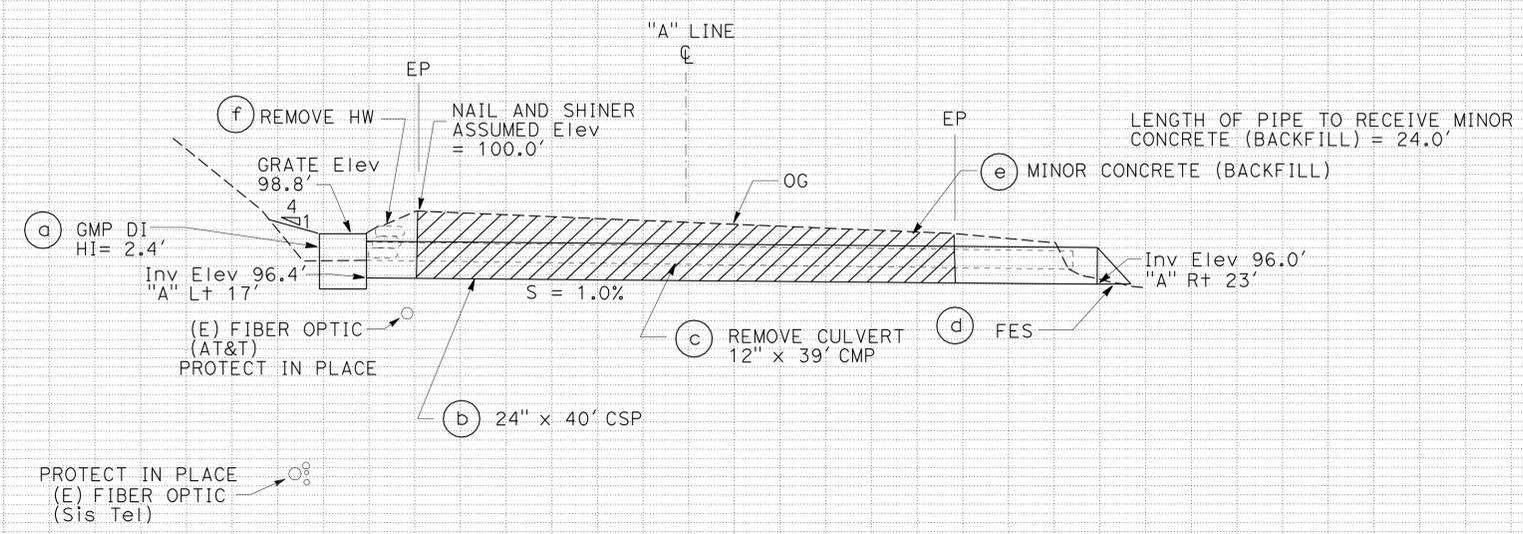
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

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



PLAN
DRAINAGE SYSTEM No. 4
PM 54.81

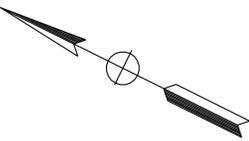


PROFILE
DRAINAGE SYSTEM No. 4

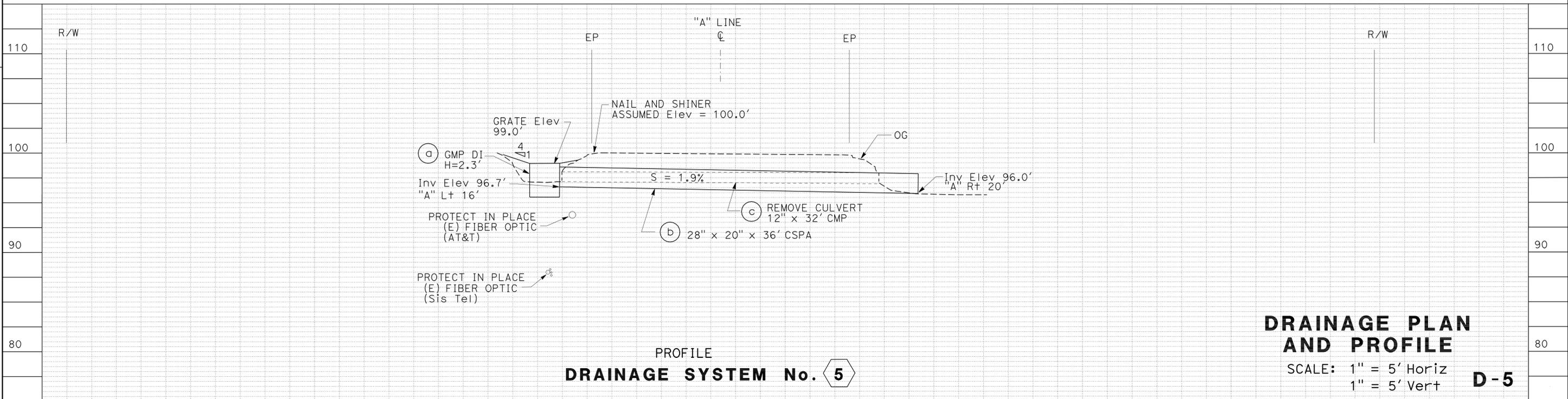
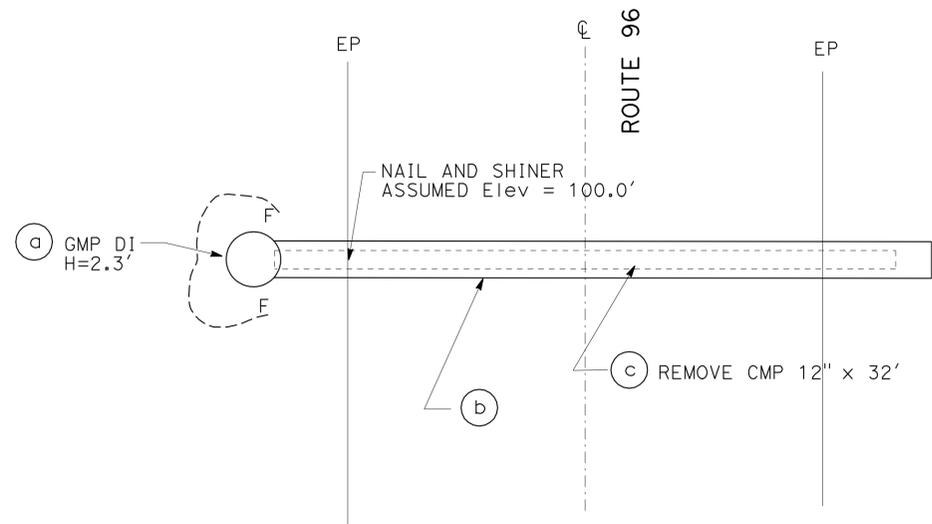
DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	KRISTEN KINGSLEY	JEFF STEFFAN	
DESIGN	CHECKED BY	DESIGNED BY	DATE
		KRISTEN KINGSLEY	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	6	37
			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			JEFF STEFFAN		
PLANS APPROVAL DATE			01-25-12	DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



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



DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert
D-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: KRISTEN KINGSLEY
 JEFF STEFFAN
 KRISTEN KINGSLEY
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 REVISED BY: [Blank]
 DATE REVISED: [Blank]
 R/W: [Blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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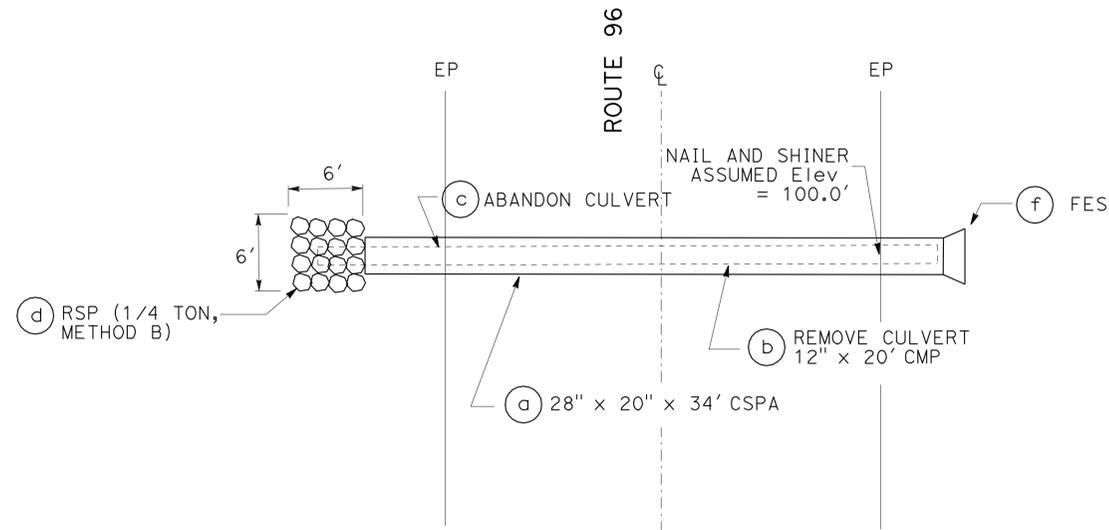
REGISTERED CIVIL ENGINEER	DATE
JEFF STEFFAN	01-25-12
PLANS APPROVAL DATE	
	01-25-12

REGISTERED PROFESSIONAL ENGINEER
JEFF STEFFAN
No. 60260
Exp. 6-31-12
CIVIL

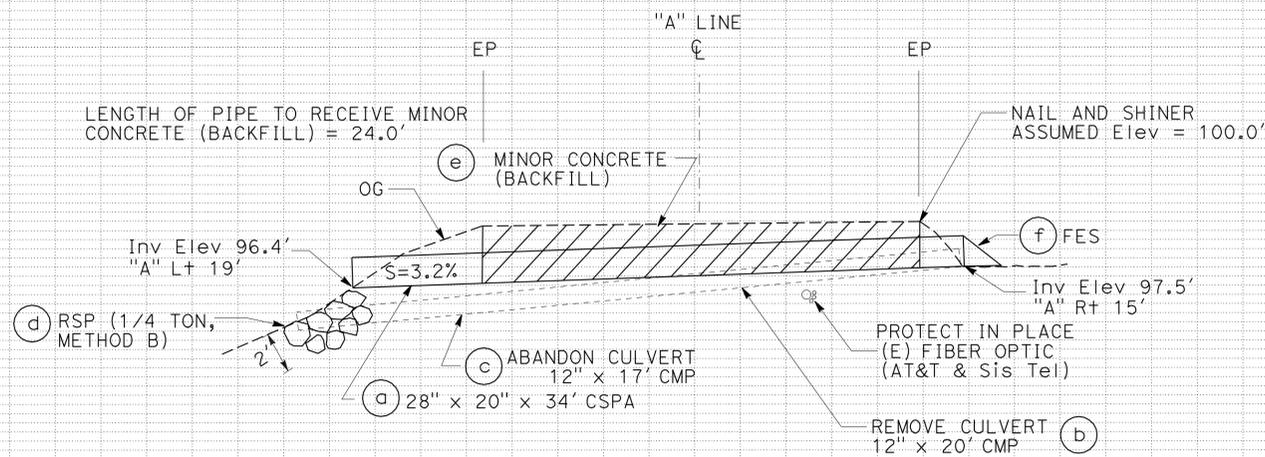
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

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



PLAN
DRAINAGE SYSTEM No. 8
 PM 63.90

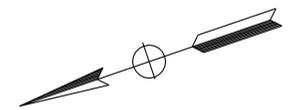


PROFILE
DRAINAGE SYSTEM No. 8

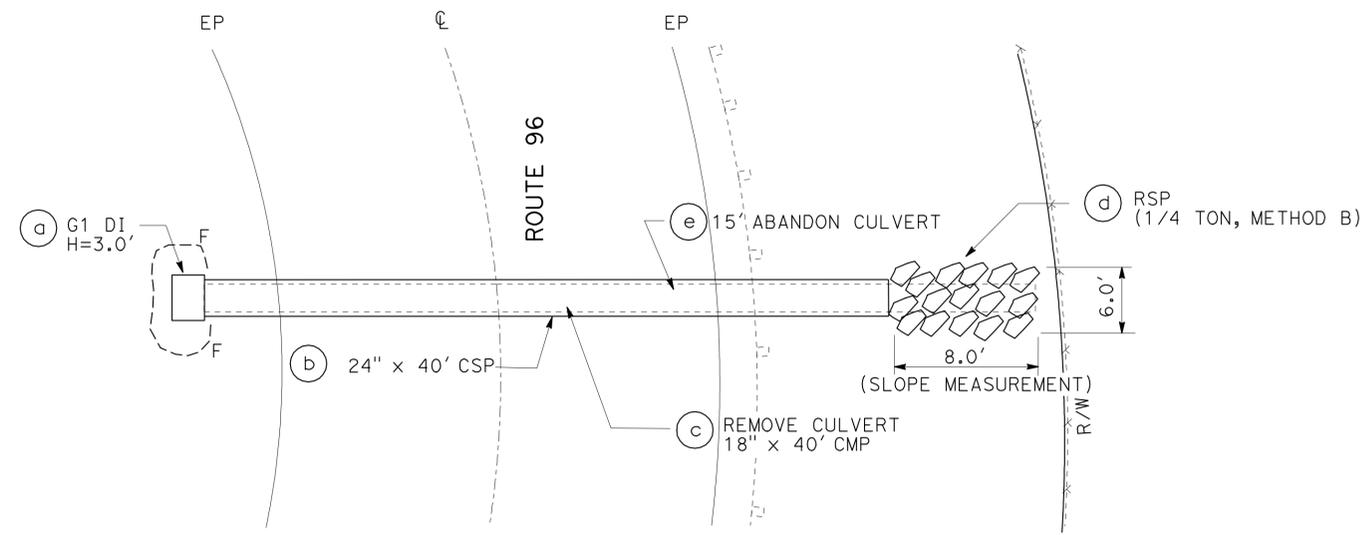
DRAINAGE PLAN AND PROFILE
 SCALE: 1" = 5' Horiz
 1" = 5' Vert
D-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 KRISTEN KINGSLEY
 FUNCTIONAL SUPERVISOR
 KRISTEN KINGSLEY
 CHECKED BY
 KRISTEN KINGSLEY
 DESIGNED BY
 KRISTEN KINGSLEY
 JEFF STEFFAN
 REVISIONS BY
 KRISTEN KINGSLEY
 DATE REVISIONS
 R/W

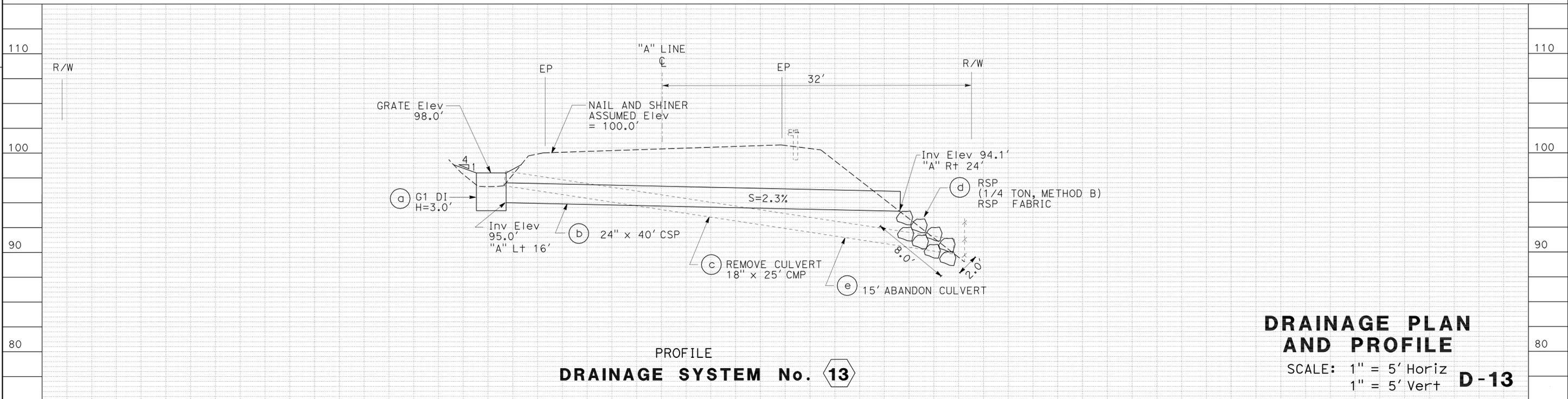
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			JEFF STEFFAN		
PLANS APPROVAL DATE			01-25-12		
			No. 60260		
			Exp. 6-31-12		
			CIVIL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



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



PLAN
DRAINAGE SYSTEM No. 13
PM 85.01



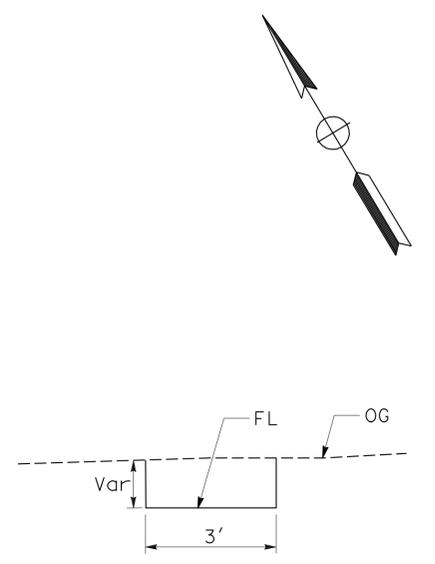
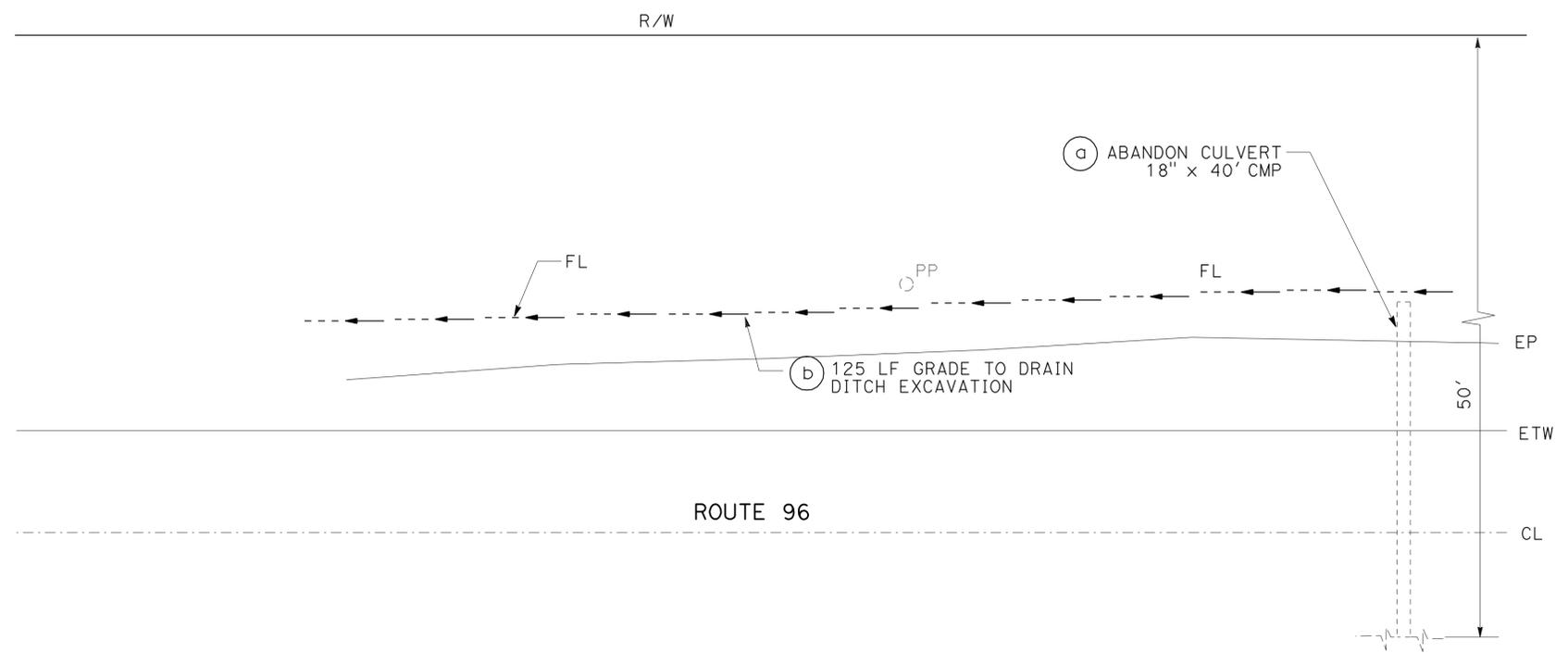
PROFILE
DRAINAGE SYSTEM No. 13

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-13**

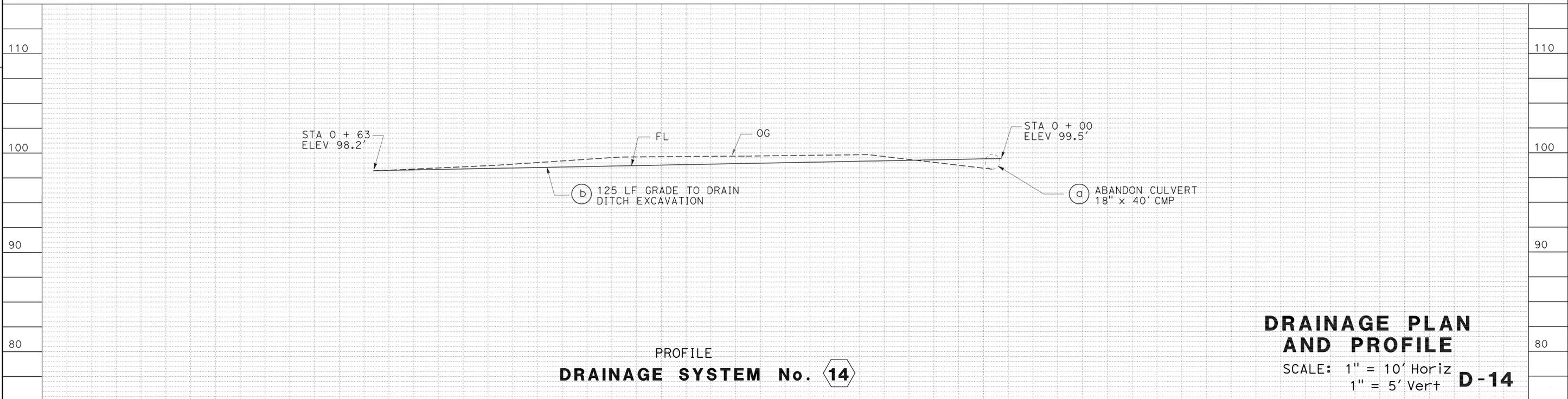
DESIGN	FUNCTIONAL SUPERVISOR	REVISOR	DATE
KRISTEN KINGSLEY	KRISTEN KINGSLEY	JEFF STEFFAN	
CHECKED BY	DESIGNED BY	REVISOR	DATE
		KRISTEN KINGSLEY	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	15	37
			01-25-12	REGISTERED CIVIL ENGINEER DATE	
			01-25-12	PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

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



PLAN
DRAINAGE SYSTEM No. 14
PM 87.57



PROFILE
DRAINAGE SYSTEM No. 14

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 10' Horiz
1" = 5' Vert **D-14**

P:\proj\1\02\3E070\plans\pse\23e070\014.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: KRISTEN KINGSLEY
 CHECKED BY: KRISTEN KINGSLEY
 DESIGNED BY: JEFF STEFFAN
 REVISIONS: KRISTEN KINGSLEY
 DATE: 01-25-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	18	37

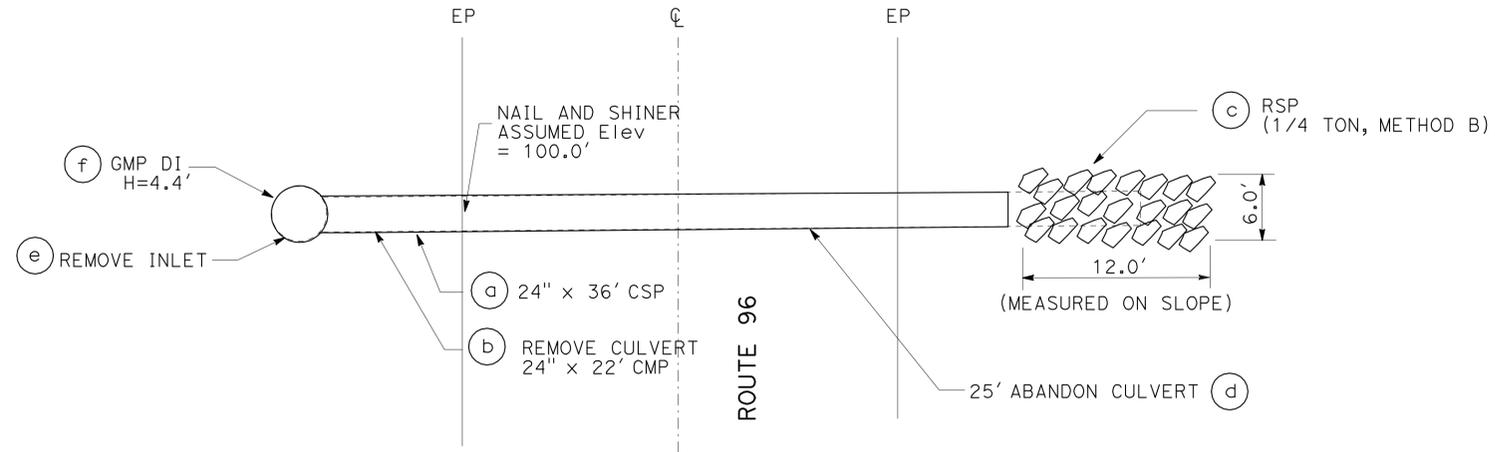
REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		01-25-12

REGISTERED PROFESSIONAL ENGINEER	JEFF STEFFAN
No.	60260
Exp.	6-31-12
CIVIL	

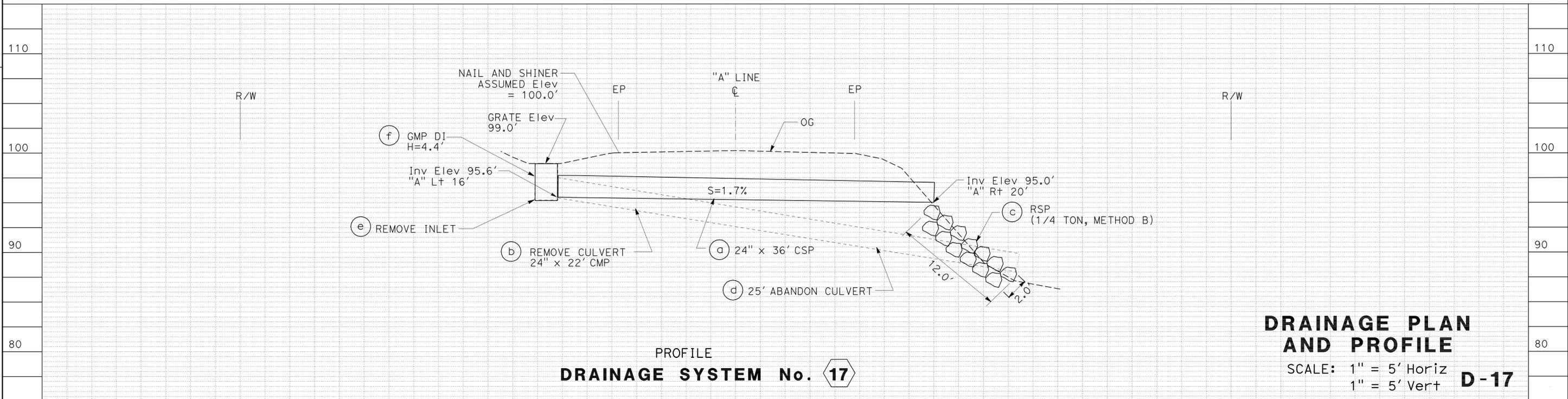
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

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



PLAN
DRAINAGE SYSTEM No. 17
 PM 93.27



PROFILE
DRAINAGE SYSTEM No. 17

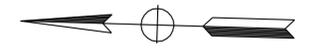
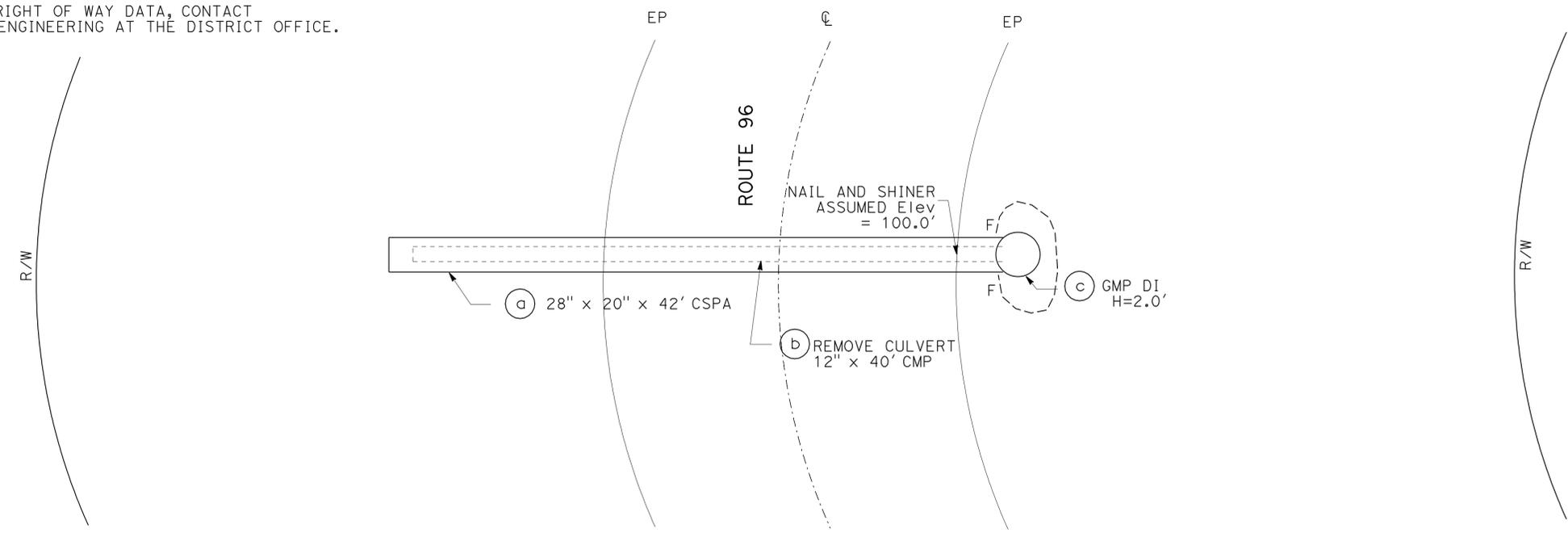
DRAINAGE PLAN AND PROFILE
 SCALE: 1" = 5' Horiz
 1" = 5' Vert **D-17**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: KRISTEN KINGSLEY
 CALCULATED/DESIGNED BY: JEFF STEFFAN
 CHECKED BY: KRISTEN KINGSLEY
 REVISIONS: REVISOR: DATE: REVISION:

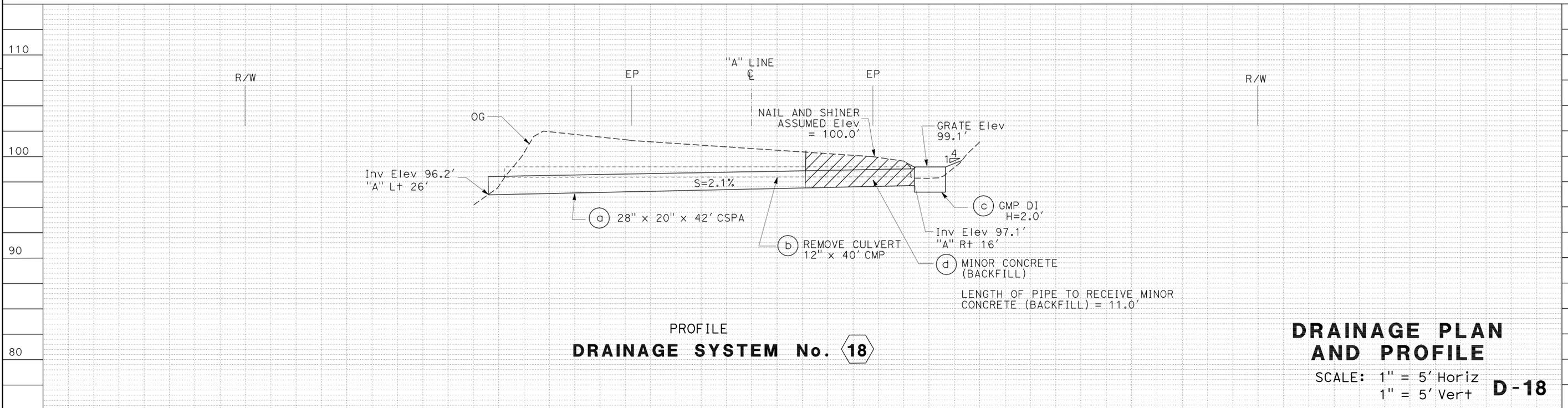
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	19	37
			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			DATE		
01-25-12			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

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



PLAN
DRAINAGE SYSTEM No. 18
PM 94.37



PROFILE
DRAINAGE SYSTEM No. 18

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-18**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	KRISTEN KINGSLEY	JEFF STEFFAN	
	CHECKED BY	DESIGNED BY	
		KRISTEN KINGSLEY	

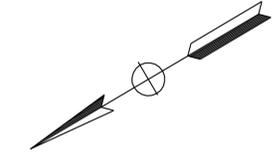
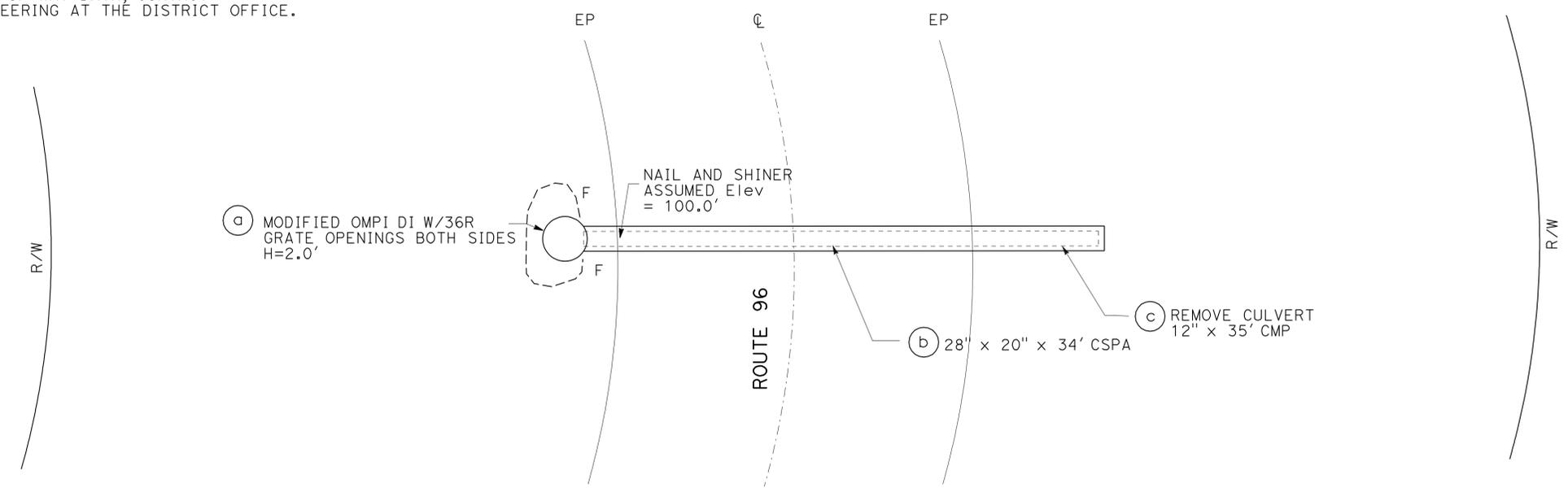
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	21	37

REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		01-25-12

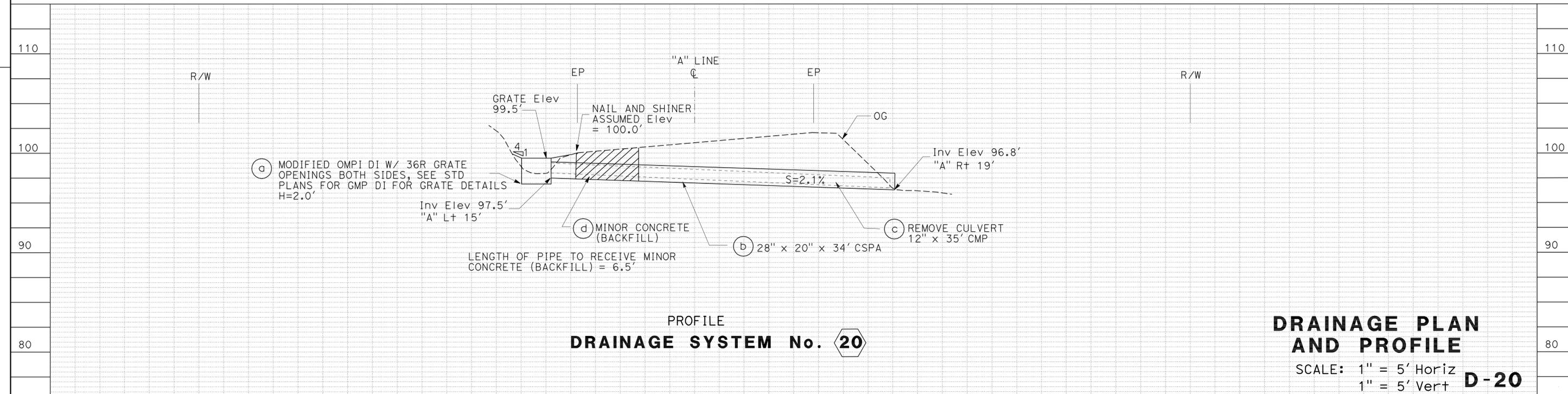
REGISTERED PROFESSIONAL ENGINEER	JEFF STEFFAN
No.	60260
Exp.	6-31-12
CIVIL	

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

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



PLAN
DRAINAGE SYSTEM No. 20
PM 95.79



PROFILE
DRAINAGE SYSTEM No. 20

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-20**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 KRISTEN KINGSLEY
 FUNCTIONAL SUPERVISOR
 KRISTEN KINGSLEY
 JEFF STEFFAN
 REVISIONS BY
 KRISTEN KINGSLEY
 DATE REVISIONS
 JEFF STEFFAN
 DATE REVISIONS
 CALIFORNIA REGISTERED CIVIL ENGINEER
 No. 60260
 Exp. 6-31-12
 CIVIL
 STATE OF CALIFORNIA

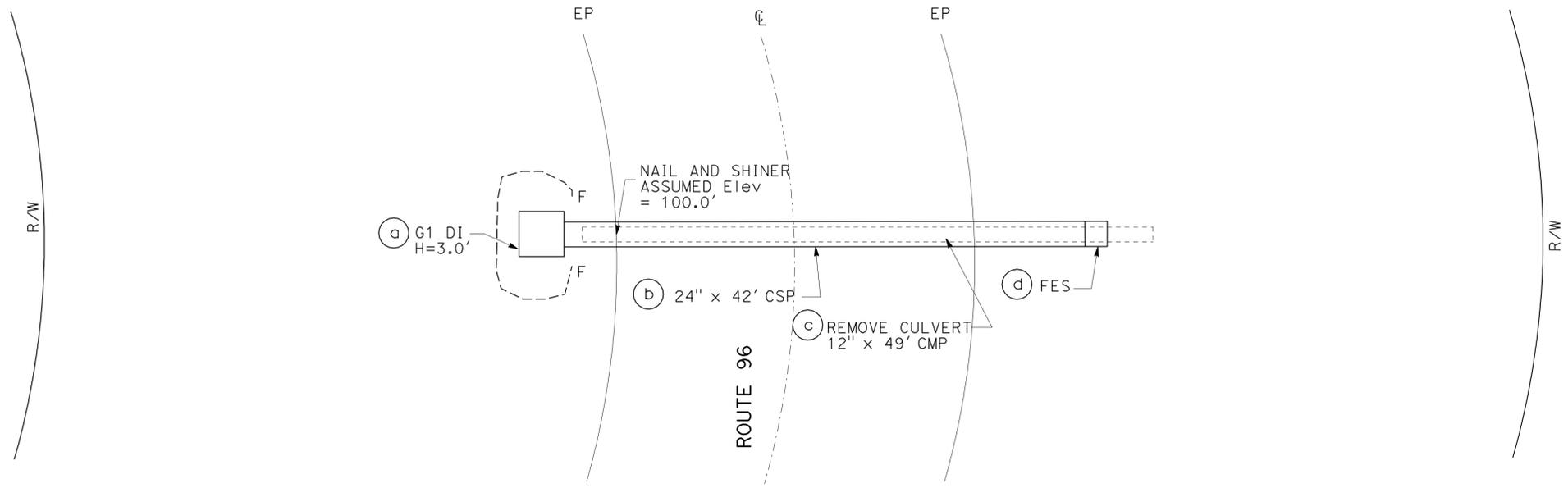
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	22	37

REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		01-25-12

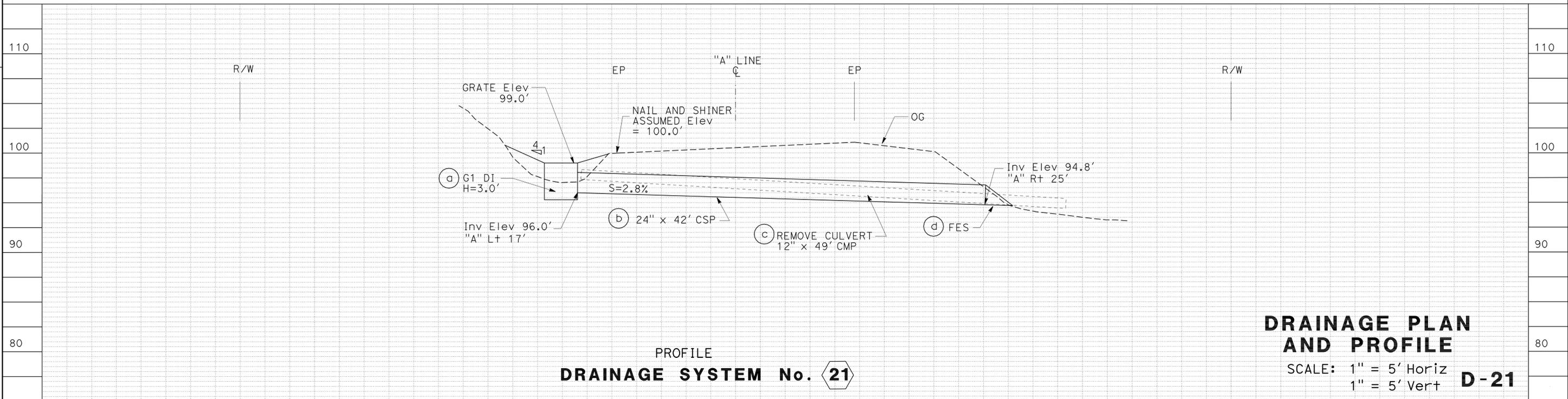
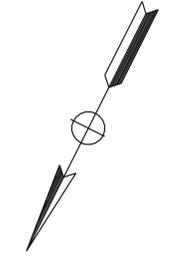
REGISTERED PROFESSIONAL ENGINEER	JEFF STEFFAN
No.	60260
Exp.	6-31-12
CIVIL	

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

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



PLAN
DRAINAGE SYSTEM No. 21
 PM 102.58



PROFILE
DRAINAGE SYSTEM No. 21

DRAINAGE PLAN AND PROFILE
 SCALE: 1" = 5' Horiz
 1" = 5' Vert **D-21**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 KRISTEN KINGSLEY
 FUNCTIONAL SUPERVISOR
 KRISTEN KINGSLEY
 CHECKED BY
 JEFF STEFFAN
 REVISIONS BY
 DATE REVISIONS
 DISTRICT OFFICE

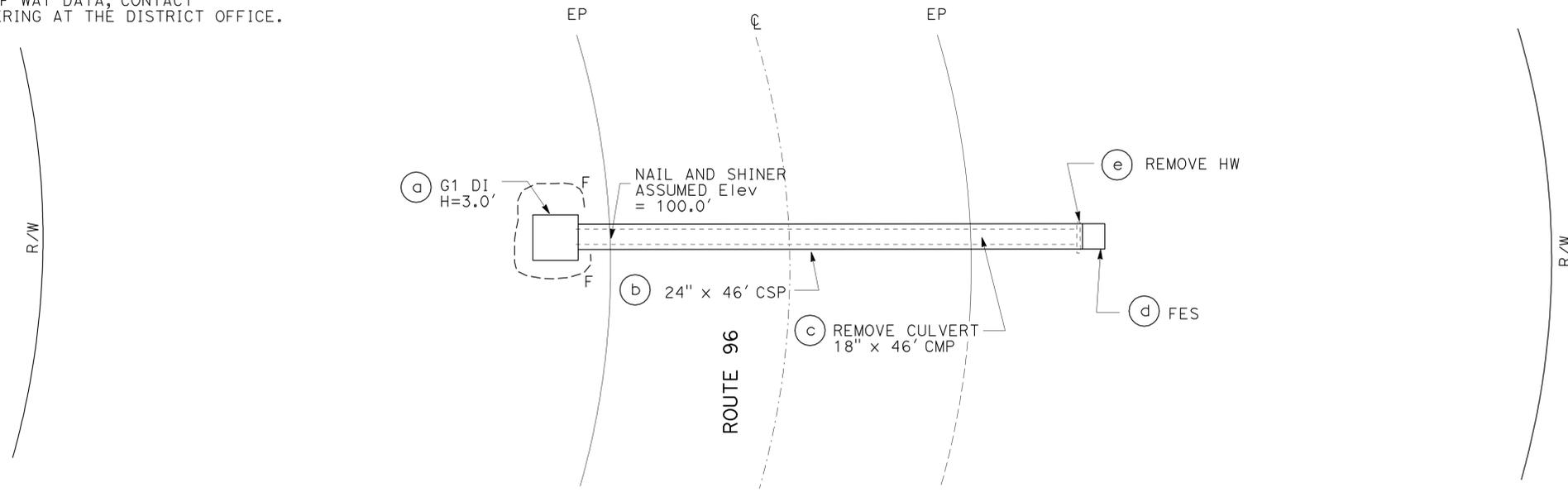
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	23	37

REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		01-25-12

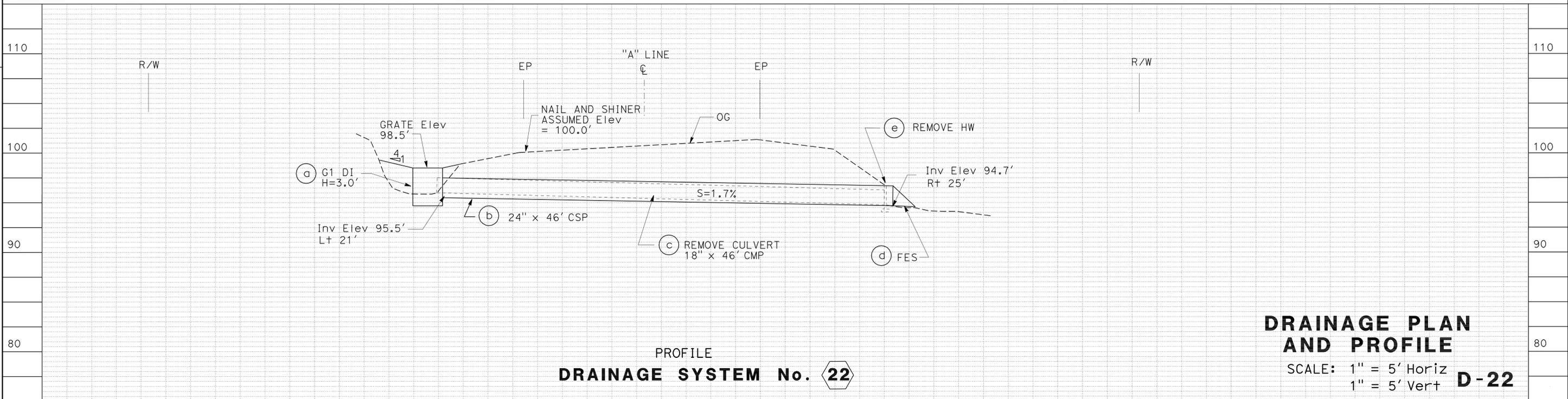
REGISTERED PROFESSIONAL ENGINEER	No.	60260
	Exp.	6-31-12
CIVIL		

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

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



PLAN
DRAINAGE SYSTEM No. 22
PM 103.78



PROFILE
DRAINAGE SYSTEM No. 22

DRAINAGE PLAN AND PROFILE
SCALE: 1" = 5' Horiz
1" = 5' Vert **D-22**

P:\proj\11\02\3E070\plans\pse\23e0701a022.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: KRISTEN KINGSLEY
 JEFF STEFFAN
 KRISTEN KINGSLEY
 REVISIONS: REVISION BY DATE
 CALCULATED/DESIGNED BY CHECKED BY
 DISTRICT OFFICE: 01-25-12

LAST REVISION: DATE PLOTTED => 25-JAN-2012 TIME PLOTTED => 08:35

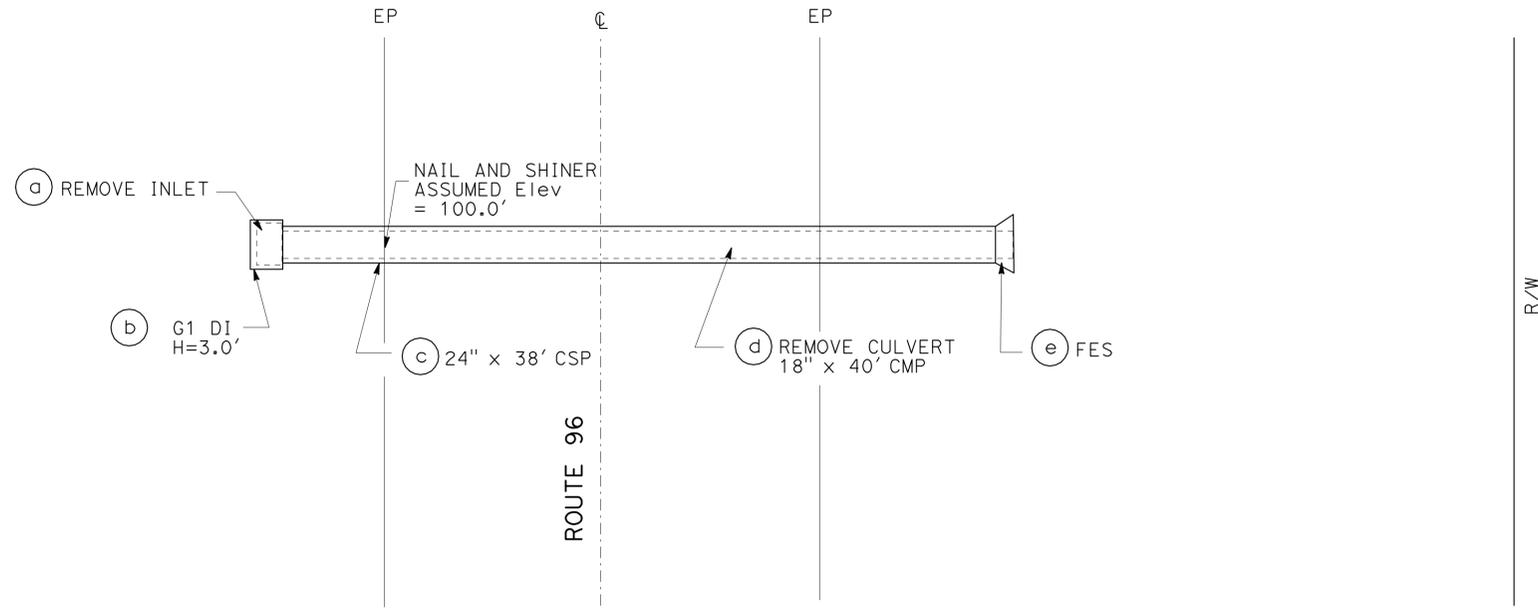
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	24	37

REGISTERED CIVIL ENGINEER	DATE	01-25-12
PLANS APPROVAL DATE		

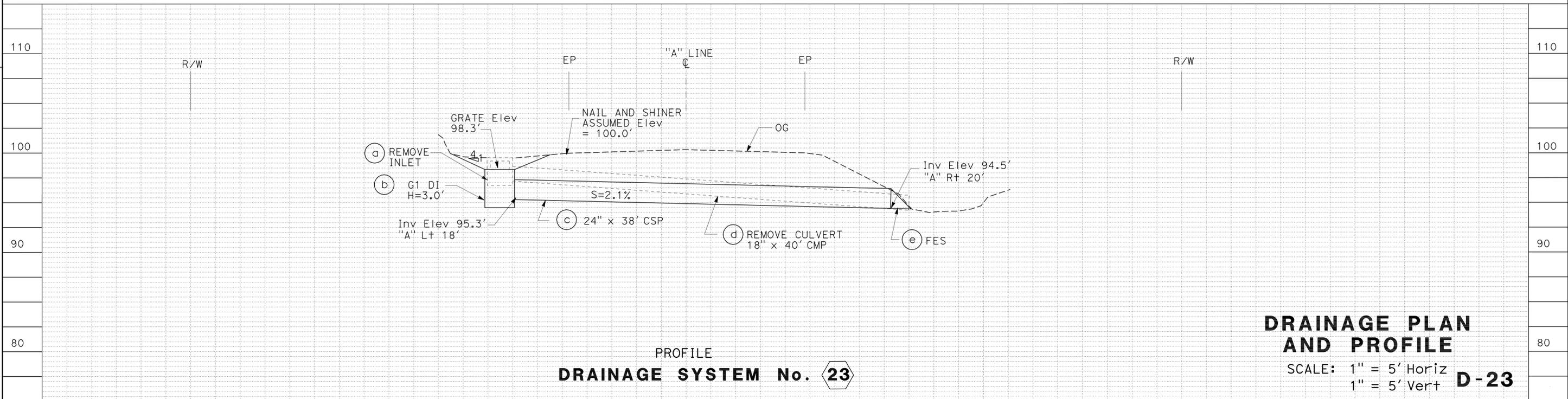
REGISTERED PROFESSIONAL ENGINEER	JEFF STEFFAN
No.	60260
Exp.	6-31-12
CIVIL	

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

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



PLAN
DRAINAGE SYSTEM No. 23
 PM 104.76



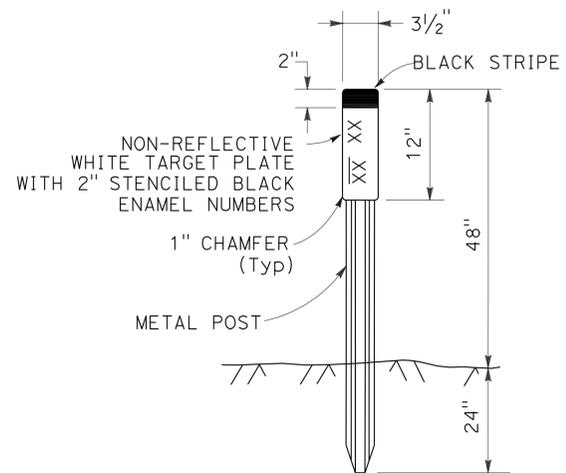
PROFILE
DRAINAGE SYSTEM No. 23

DRAINAGE PLAN AND PROFILE
 SCALE: 1" = 5' Horiz
 1" = 5' Vert **D-23**

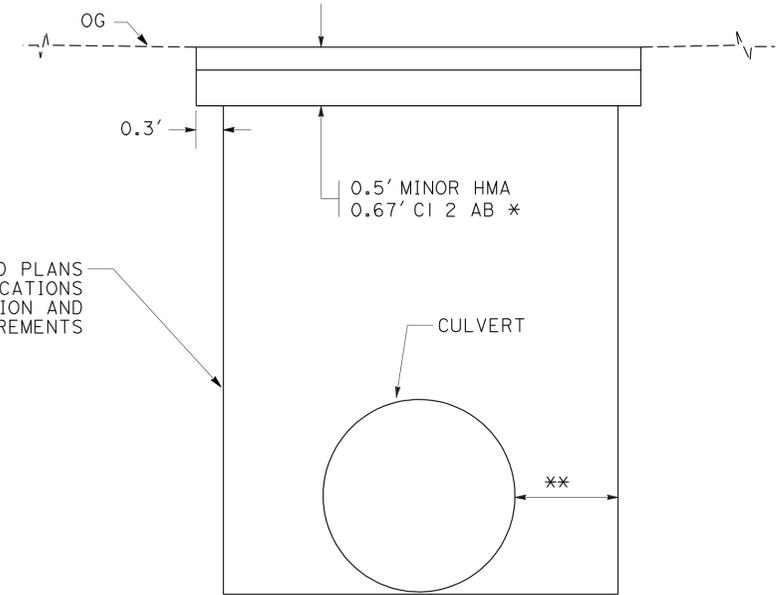
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
DESIGN	KRISTEN KINGSLEY	JEFF STEFFAN	
CALCULATED/DESIGNED BY	CHECKED BY	REVISOR	DATE
		KRISTEN KINGSLEY	

DATE PLOTTED => 25-JAN-2012
 TIME PLOTTED => 08:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	25	37
			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			DATE		
			01-25-12	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



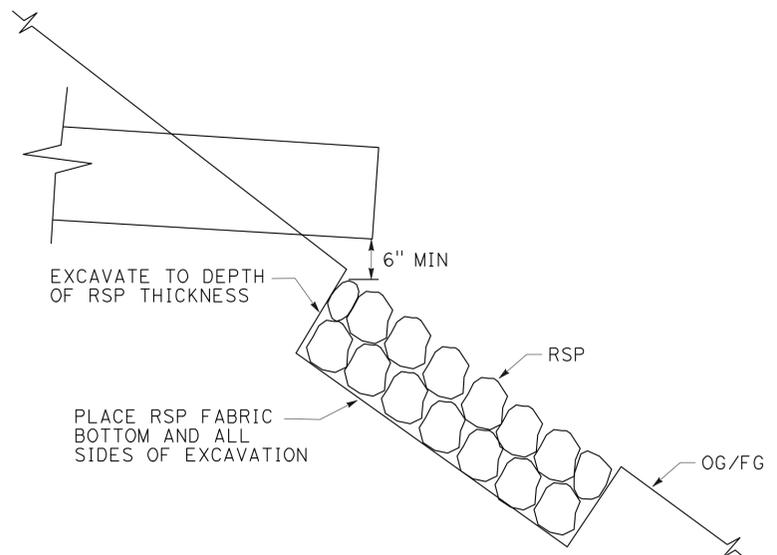
MARKER (CULVERT)



SEE STANDARD PLANS AND STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL REQUIREMENTS

ROADWAY STRUCTURAL SECTION
ALL LOCATIONS

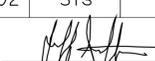
- * DELETE CLASS 2 AB FROM DETAIL FOR THOSE LOCATIONS AND PORTIONS OF LOCATIONS WHERE MINOR CONCRETE (BACKFILL) IS SPECIFIED.
- ** REDUCE WIDTH OF TRENCH TO 0.5' EACH SIDE OF CULVERT WHEN MINOR CONCRETE (BACKFILL) IS SPECIFIED.

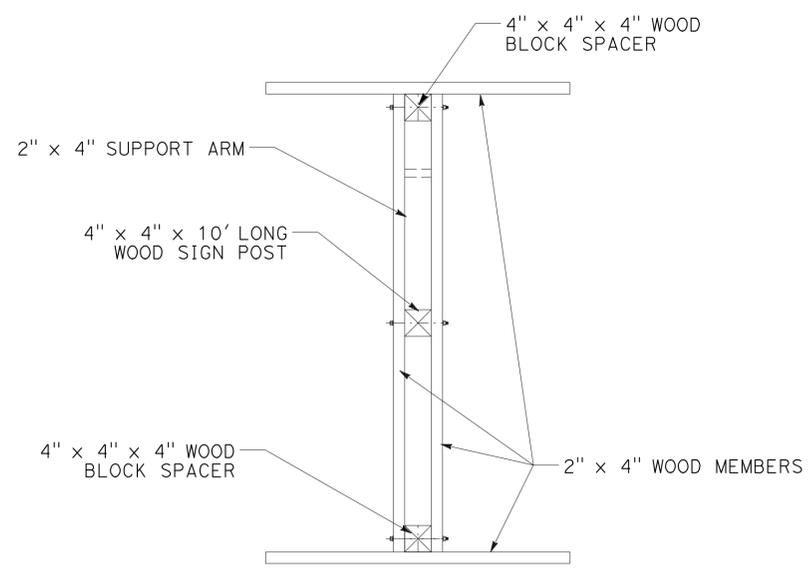


RSP DETAIL

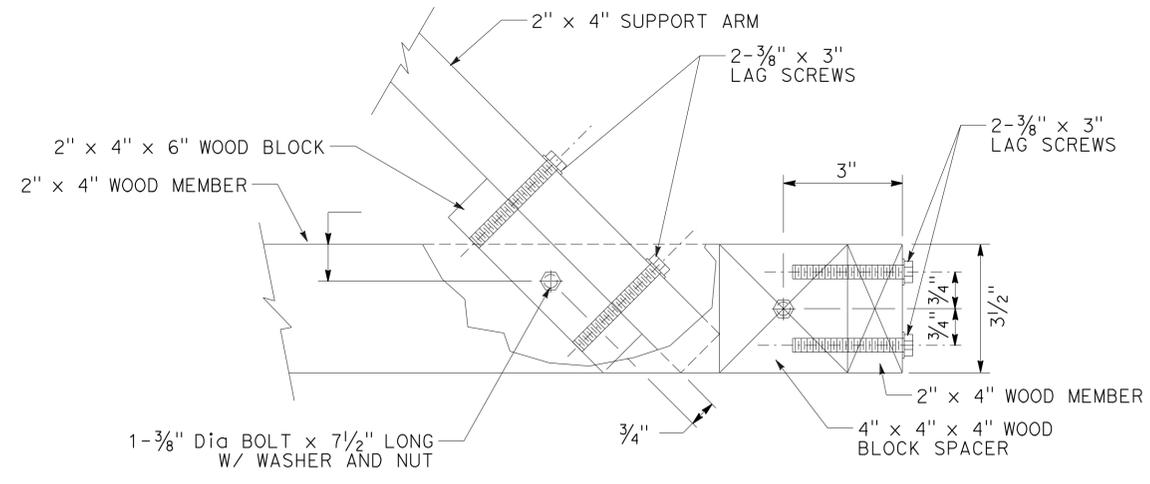
DESIGN	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JEFF STEFFAN	REVISOR	DATE
DEPARTMENT OF TRANSPORTATION	KRISTEN KINGSLEY	CHECKED BY	KRISTEN KINGSLEY	DATE	REVISOR
STATE OF CALIFORNIA					

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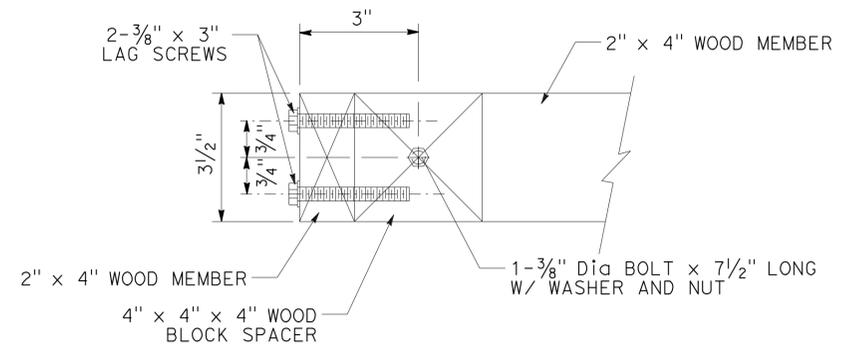
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	26	37
			01-25-12	DATE	
REGISTERED CIVIL ENGINEER			JEFF STEFFAN		
PLANS APPROVAL DATE			01-25-12	No. 60260	
				Exp. 6-31-12	
				CIVIL	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



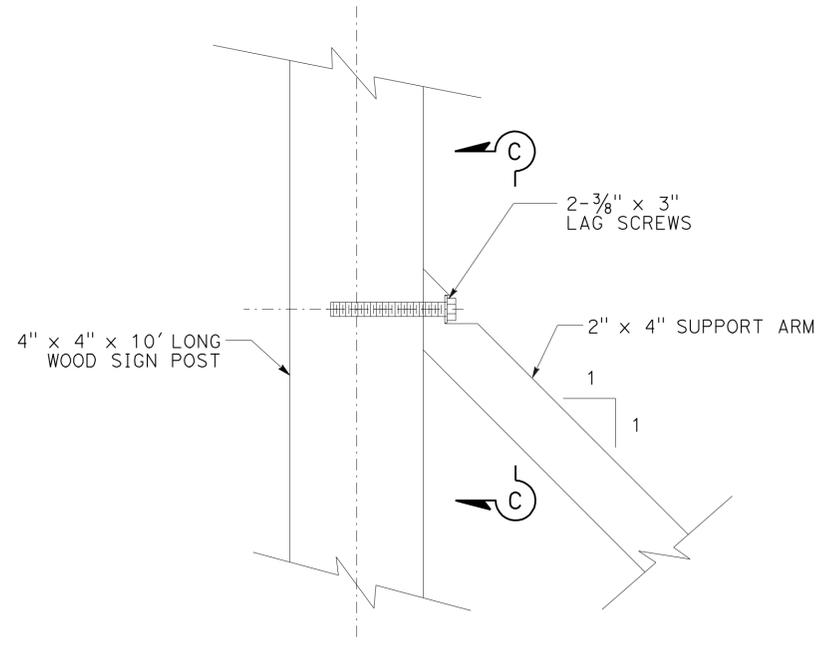
SECTION B-B



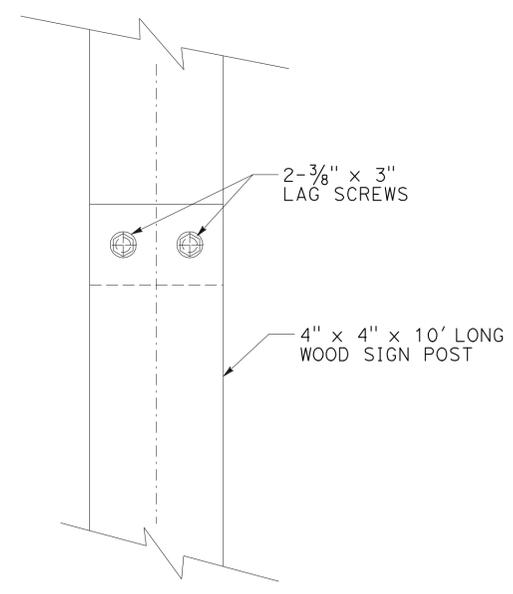
ARM FOOTING DETAIL



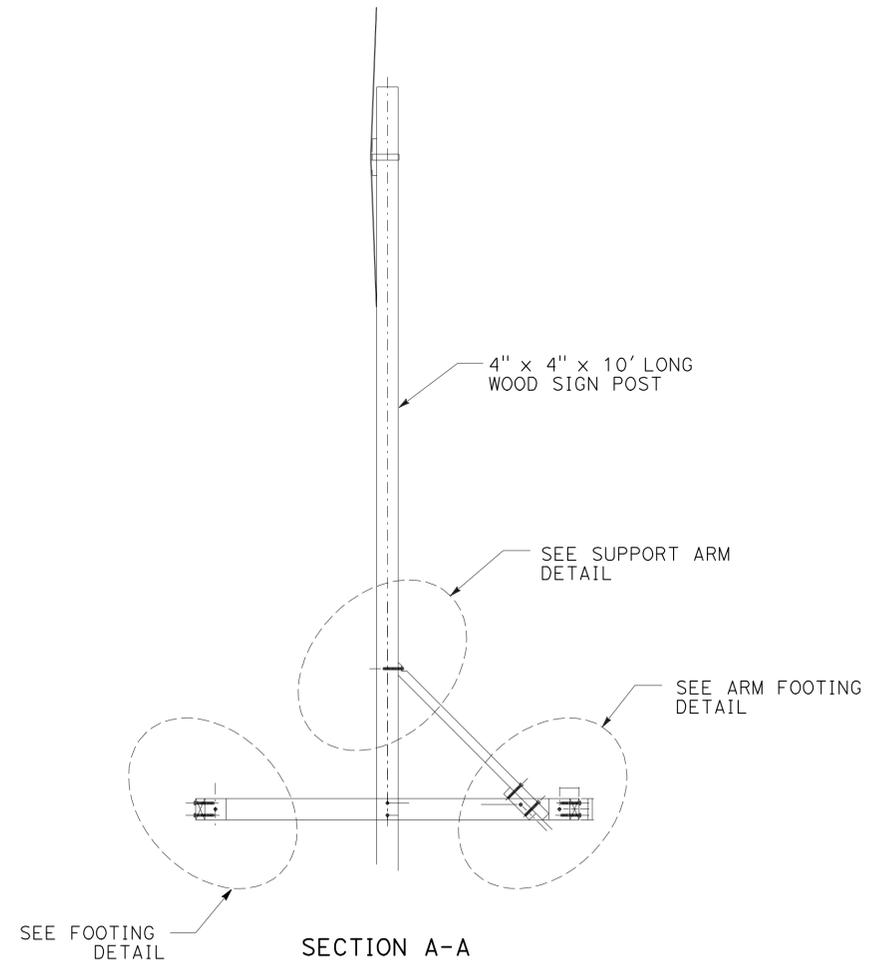
FOOTING DETAIL



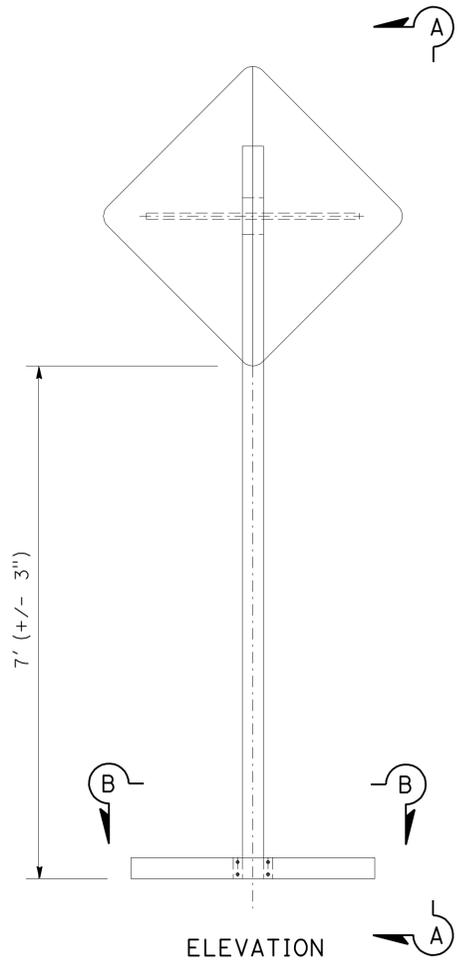
SUPPORT ARM DETAIL



SECTION C-C



SECTION A-A



ELEVATION

TEMPORARY SIGN SUPPORT FOR CONSTRUCTION AREA SIGNS (SINGLE POST)

DRAINAGE DETAILS
NO SCALE

DD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 JEFF STEFFAN
 KRISTEN KINGSLEY
 KRISTEN KINGSLEY
 KRISTEN KINGSLEY
 USERNAME => s115152
 DGN FILE => 23e0701c002.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0157
 PROJECT NUMBER & PHASE 02000200211

DATE PLOTTED => 25-JAN-2012
 TIME PLOTTED => 08:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	27	37

01-25-12
 REGISTERED CIVIL ENGINEER DATE
 01-25-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JEFF STEFFAN
 No. 60260
 Exp. 6-31-12
 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:**
- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
 - ALL JOINT TYPES SHALL BE POSITIVE.

DRAINAGE QUANTITIES

DRAINAGE PLAN SHEET No.	POST MILE	DRAINAGE SYSTEM No.	DRAINAGE UNIT	DESCRIPTION																											
				ABANDON CULVERT	REMOVE CULVERT	REMOVE HEADWALL	REMOVE INLET	MINOR HOT MIX ASPHALT	MINOR CONCRETE (MINOR STRUCTURE)	HEIGHT OF INLET	MINOR CONCRETE (N)	24" CORRUGATED (BACKFILL) PIPE (0.079" THICK)	28" X 20" CORRUGATED STEEL PIPE ARCH (0.079" THICK)	36" CORRUGATED STEEL INLET (0.079" THICK)	24" STEEL FLARED END PIPE	DITCH EXCAVATION	ROCK SLOPE PROTECTION (1/4 TON, METHOD B)	ROCK SLOPE PROTECTION FABRIC (METHOD B)	MISCELLANEOUS PROTECTION AND STEEL	MARKER (CULVERT)	24" ALTERNATIVE PIPELINER (0.079" THICK)	ANCHOR ASSEMBLY	CLASS 2 AGGREGATE BASE	MULCH	SAND BACKFILL						
				LF	LF	EA	EA	TON	CY	FT	CY	LF	LF	LF	EA	CY	CY	SQYD	LB	EA	LF	LF	EA	CY	CY	CY					
D-1	52.61	1	a						0.95	2.3									263											G1 DI	
			b		37																										
			c					5.2					39								2					2					
			d								12.3																				
			e			1																									
D-2	54.58	2	a						0.35	2.0				2.3					236										GMP DI		
			b					5.2					34								2				3.6	2					
			c		33																										
			d												1																
			e			1																									
D-3	54.67	3	a						0.95	3.0									263										G1 DI		
			b					5.2				42									2				3.6	2					
			c		34																										
			d			1																									
D-4	54.81	4	a						0.35	2.4				2.9					236										GMP DI		
			b					5.2				40									2					2					
			c		39																										
			d												1																
			e								14.2																				
			f			1																									
D-5	55.67	5	a						0.35	2.3				2.8					236										GMP DI		
			b					5.2				36									2				3.6	2					
			c		32																										
D-6	55.77	6	a						0.95	2.9									263										G1 DI		
			b					5.2				34									2				3.6	2					
			c		34																										
			d			1																									
D-7	63.69	7	a						0.35	2.5				3.0					236										GMP DI		
			b					5.2				52									2				3.6	2					
			c		51																										
D-8	63.90	8	a						5.2				34								2						2				
			b		20																										
			c		17																										0.5
			d																												
			e								12.5																				
			f												1																
SHEET TOTAL				17	280	5		41.6	4.25		39.0	168	143	11.0	3			2.7	9.3	1733	16				18.0	16	0.5				

DRAINAGE QUANTITIES DQ-1

P:\proj\1102\3E070\plans\pse\23e0701d001.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

BORDER LAST REVISED 7/2/2010

USERNAME => s115152
 DGN FILE => 23e0701d001.dgn

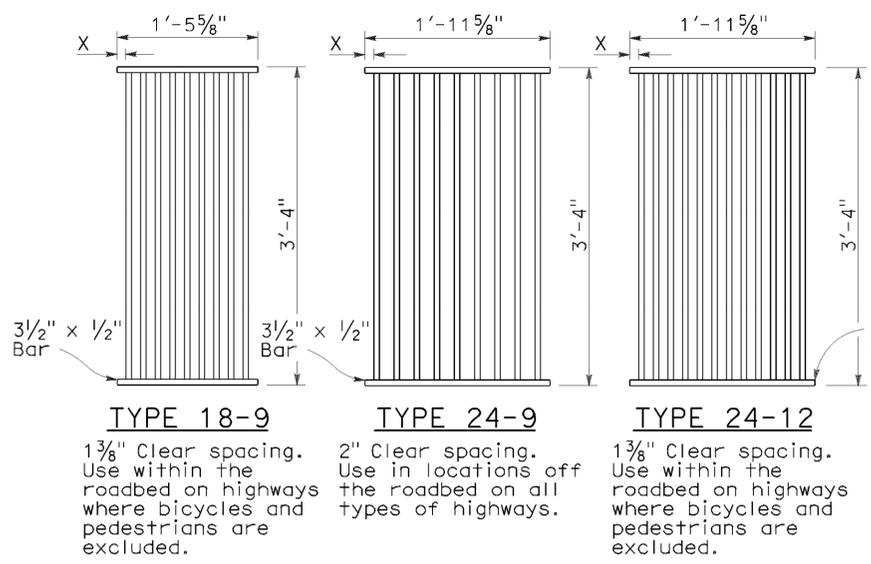


UNIT 0157

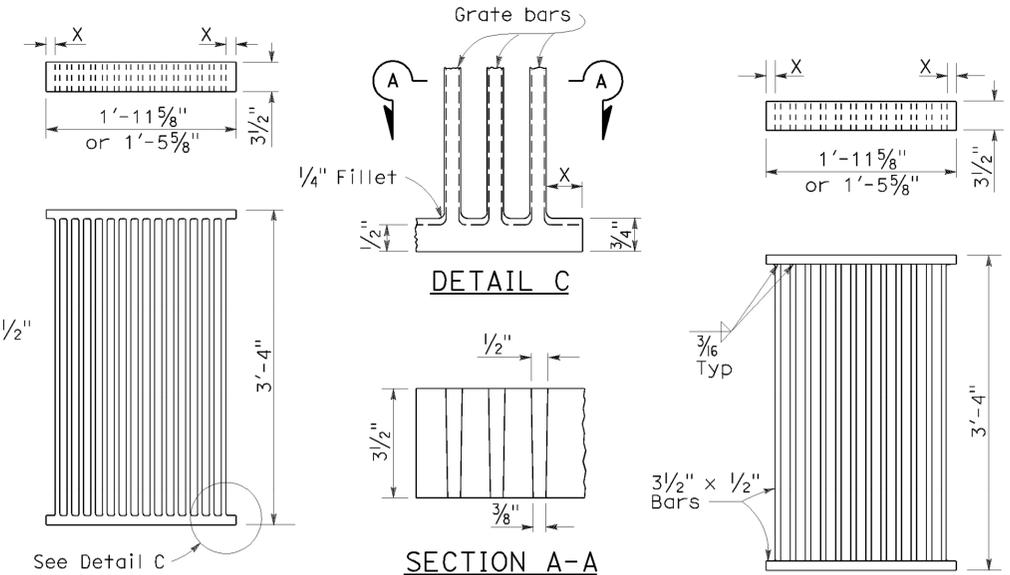
PROJECT NUMBER & PHASE

02000200211

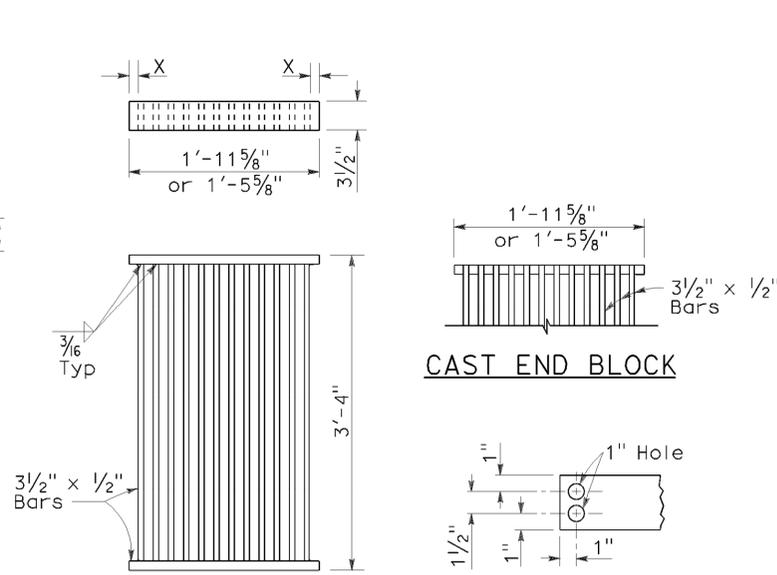
DATE PLOTTED => 25-JAN-2012
 TIME PLOTTED => 08:35



RECTANGULAR GRATE DETAILS
(See table below)

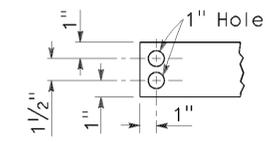


ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE

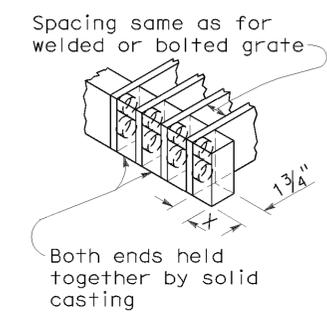


ALTERNATIVE WELDED GRATE

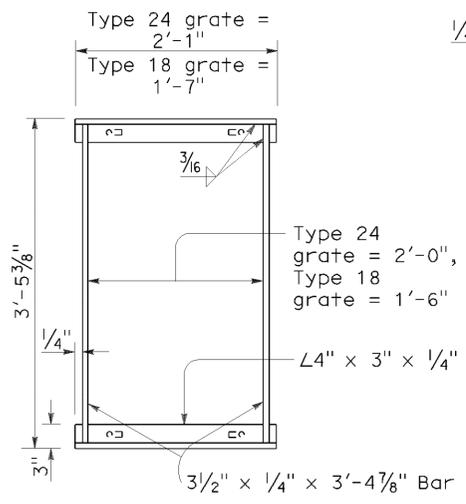
CAST END BLOCK



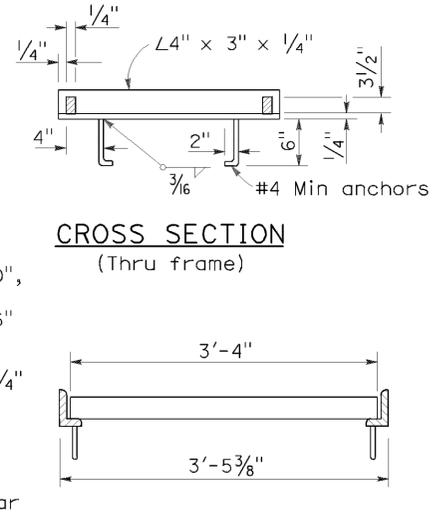
END OF BAR



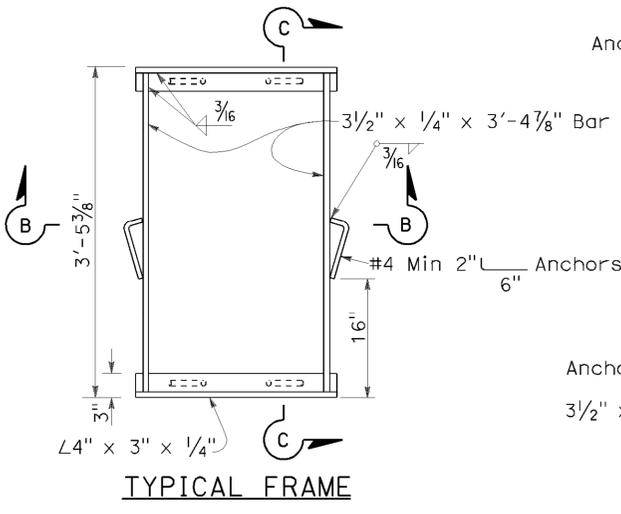
ALTERNATIVE CAST NODULAR IRON OR CAST STEEL END BLOCK GRATE



TYPICAL FRAME

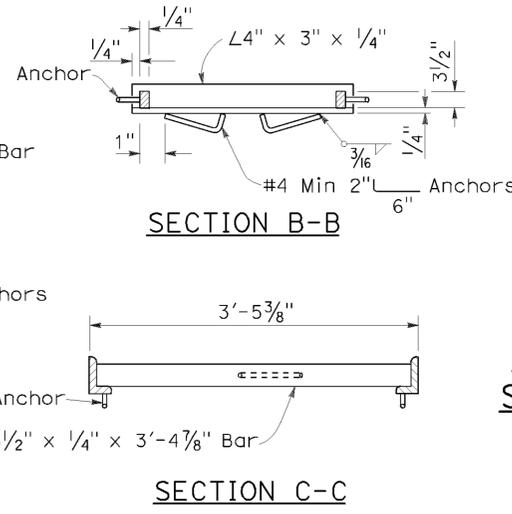


LONGITUDINAL SECTION (Thru frame and grate)



TYPICAL FRAME

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



SECTION B-B

SECTION C-C

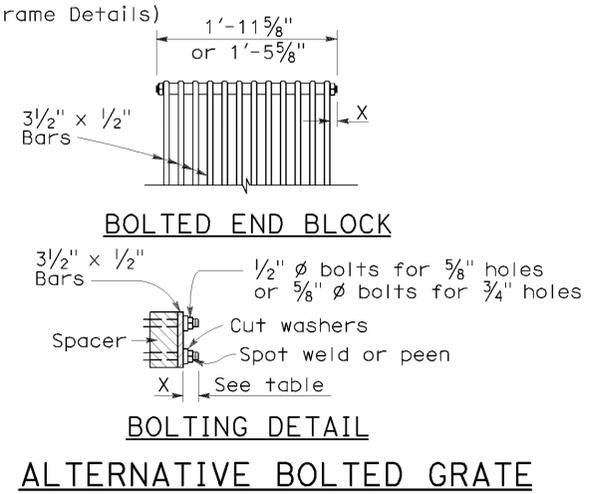
RECTANGULAR FRAME DETAILS
(For all rectangular grates)

GRATE BAR SPACING TABLE

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

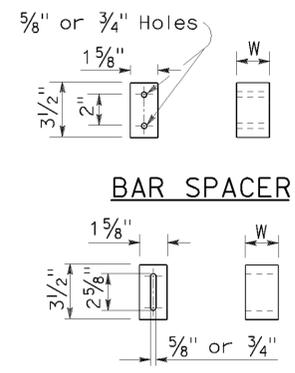
INLET TYPE	COVER TYPE	WEIGHT LB
OS	PLATE	174
OL-7	PLATE	170
OL-10	PLATE	170
OL-14	PLATE	170
OL-21	PLATE	170
OCPI	PLATE	112
OCPI	PLATE	112
OCPI	REDWOOD	42
OMP	PLATE	177
OMPI	PLATE	177

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



BOLTING DETAIL

ALTERNATIVE BOLTED GRATE



BAR SPACER

ALTERNATIVE SPACER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

GRATE DETAILS

NO SCALE

RSP D77A DATED JANUARY 18, 2008 SUPERSEDES STANDARD PLAN D77A
DATED MAY 1, 2006 - PAGE 155 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP D77A

2006 REVISED STANDARD PLAN RSP D77A

ANNULAR AND HELICAL PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W OR A	PIPE WALL THICKNESS		BAND THICKNESS		BAR AND STRAP (CSP ONLY)				ANGLE									
				CSP	CAP	CSP	CAP	STRAP THICKNESS	BOLTS Dia	BAR Dia	BAR YIELD STRENGTH	DIMENSIONS		BOLTS (No.- Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND			
												CSP	CAP	CSP	CAP	CSP	CAP	CSP	CAP	CSP	
TWO PIECE INTEGRAL FLANGE	1 1/2' x 1/4"	6"-10"	7"	0.052"-0.079"	0.048"-0.060"	0.052"	0.060"								2-3/8"	2-3/8"					
				12"-18"	7"	0.052"-0.079"		0.064"									2-1/2"				
				2 2/3" x 1/2"	12"-24"	7"	0.052"-0.079"	0.060"-0.105"	0.064"	0.060"								2-1/2"	2-1/2"		
UNIVERSAL	2 2/3" x 1/2"	THROUGH 36"	12"	0.052"-0.138"	0.060"-0.135"	0.052"	0.060"						2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	3-1/2"		
		42"-60"	12"	0.052"-0.168"	0.075"-0.164"	0.052"	0.060"						2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"		
		THROUGH 72"	12"	0.052"-0.168"	0.164"	0.052"	0.105"	0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"		
		78"-84"	16 1/4"	0.168"		0.079"		DOUBLE 0.079"	1/2"	7/8"	32 ksi										
ANNULAR	2 2/3" x 1/2"	THROUGH 36"	7"	0.064"-0.138"	0.060"-0.135"	0.052"	0.060"	0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"	2" x 2" x 3/16"	2-1/2"	2-1/2"	3-3/8"	3-3/8"	3-1/2"		
		42"-72"	12"	0.064"-0.168"	0.075"-0.164"	0.052"	0.105"	0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"		
		78"-84"	12"	0.168"		0.079"		0.109"	1/2"	7/8"	45 ksi		2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"		
	3" x 1"	48"-90"	14"	0.064"-0.109"		0.052"		0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"		
		96"-120"	14"	0.079"-0.109"		0.052"		0.109"	1/2"	7/8"	45 ksi		2" x 2" x 3/16"		3-1/2"		4-3/8"				
		42"-108"	14"		0.060"-0.135"		0.060"					2" x 2" x 3/16"		3-1/2"		3-3/8"					
HELICAL	2 2/3" x 1/2"	THROUGH 36"	12"	0.052"-0.138"	0.060"-0.135"	0.052"	0.060"	0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	3-1/2"		
		42"-72"	12"	0.052"-0.168"	0.075"-0.164"	0.052"	0.060"	0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"		
		78"-84"	12"	0.168"		0.079"		0.109"	1/2"	7/8"	45 ksi		2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"		
	3" x 1"	48"-90"	14"	0.064"-0.109"		0.052"		0.079"	1/2"	7/8"	32 ksi		2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"		
		96"-120"	14"	0.079"-0.109"		0.052"		0.109"	1/2"	7/8"	45 ksi		2" x 2" x 3/16"		3-1/2"		4-3/8"				
		42"-108"	14"		0.060"-0.135"		0.060"					2" x 2" x 3/16"		3-1/2"		3-3/8"					
HUGGER	2 2/3" x 1/2"	REROLLED END	12"-54"	4"	0.052"-0.109"		0.052"						2 1/2" x 1 1/2" x 3/16"	2 1/2" x 1 1/2" x 3/16"	1-1/2"				3-1/2"		
			60"-66"	4"	0.109"		0.064"							2 1/2" x 1 1/2" x 3/16"	2 1/2" x 1 1/2" x 3/16"	1-1/2"			3-1/2"		
			36"-48"	4"	0.138"		0.064"							2 1/2" x 1 1/2" x 3/16"	2 1/2" x 1 1/2" x 3/16"	1-1/2"			3-1/2"		
			THROUGH 72"	10 1/2"	0.052"-0.168"		0.052"		0.079"	1/2"	7/8"	32 ksi									
			78"-84"	10 1/2"	0.168"		0.079"		0.109"	1/2"	7/8"	45 ksi									
	3" x 1"	REROLLED END	48"-90"	10 1/2"	0.064"-0.109"		0.052"		0.079"	1/2"	7/8"	32 ksi									
			96"-120"	10 1/2"	0.079"-0.109"		0.052"		0.109"	1/2"	7/8"	45 ksi									
	5" x 1"	REROLLED END	48"-66"	7 1/2"	0.064"-0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi	2 1/2" x 1 1/2" x 3/16"	2 1/2" x 1 1/2" x 3/16"	1-1/2"					3-1/2"	
			72"-90"	7 1/2"	0.064"-0.079"		0.064"		0.079"	1/2"	7/8"	32 ksi	2 1/2" x 1 1/2" x 3/16"	2 1/2" x 1 1/2" x 3/16"	1-1/2"					3-1/2"	
			48"-90"	7 1/2"	0.064"-0.138"		0.064"		0.079"	1/2"	7/8"	32 ksi									
48"-120"			12" SEE	0.064"-0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi										
48"-84"			12" NOTE	0.138"		0.064"		0.079"	1/2"	7/8"	32 ksi										
		90"-120"	12" 11	0.138"		0.064"		DOUBLE 0.079"	1/2"	7/8"	32 ksi										

SPIRAL RIB PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W	PIPE WALL THICKNESS		BAND THICKNESS		BAR AND STRAP (SSRP ONLY)				ANGLE						
				SSRP	ASRP	SSRP	ASRP	STRAP THICKNESS	BOLTS Dia	BAR Dia	BAR YIELD STRENGTH	DIMENSIONS		BOLTS (No.- Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND
												SSRP	ASRP	SSRP	ASRP	SSRP	ASRP	SSRP
ANNULAR	2 2/3" x 1/2" * REROLLED END	24"-36"	12"	0.064"-0.109"	0.060"-0.105"	0.052"	0.060"	0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
		42"-60"	12"	0.064"-0.109"	0.075"-0.105"	0.052"	0.105"	0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
		66"-72"	12"	0.064"-0.109"		0.052"		0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
		78"-114"	12"	0.079"-0.109"		0.079"		0.109"	1/2"	7/8"	45 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
HUGGER	2 2/3" x 1/2" * REROLLED END	24"-72"	10 1/2"	0.064"-0.109"		0.052"		0.079"	1/2"	7/8"	32 ksi							
		78"-84"	10 1/2"	0.109"		0.079"		0.109"	1/2"	7/8"	45 ksi							

* See Note 14.

14. All profiles of Spiral Rib Pipe (3/4" x 3/4" ribs at 7 1/2" pitch and 3/4" x 1" ribs at 11 1/2" pitch in both steel and aluminum and 3/4" x 1" ribs at 8 1/2" pitch in steel only) shall be manufactured with rerolled ends. Corrugation profile of the rerolled ends shall be 2 2/3" x 1/2" annual corrugations with a minimum of two full corrugations at each end.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	31	37

Raymond Don Tsztou
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Raymond Don Tsztou
No. C37332
Exp. 6-30-08
CIVIL
STATE OF CALIFORNIA

- NOTES: To accompany plans dated 01-25-12
- All ferrous metal coupling band connection hardware shall be galvanized or electroplated in accordance with the Standard Specifications.
 - For helically corrugated coupling bands, the connection angles may be oriented parallel to the pipe axis, provided connecting holes are slotted lengthwise sufficiently to allow adjustment for the helix angle.
 - Tension strap may be connected to band with either spot welds or fillet welds that develop minimum required strength of strap.
 - Use 1 1/4" gage line dimension on attached angle leg for rivets and spot welds.
 - Band thickness shall not be less than:
 - 3 standard thicknesses lighter than the thickness of the pipe for Corrugated Steel Pipe.
 - 2 standard thicknesses lighter than the thickness of the pipe and in no case lighter than 0.060" for Corrugated Aluminum Pipe.
 - Dimensions, thicknesses and strengths shown are minimum.
 - For pipe arches use same width band as for round pipe of equal periphery.
 - Fillet welds of equivalent strength may be substituted for spot welds or rivets.
 - Spot welds shall develop minimum required strength of strap.
 - Pipe with rerolled ends having at least two 2 2/3" x 1/2" annular corrugations at each end with or without an upturned flange may be connected with any of the annular coupling bands shown for pipe of the same diameter and wall thickness and having 2 2/3" x 1/2" corrugations.
 - In the case of H-12 huggerbands, two piece bands are required for diameters through 96" and three piece bands are required for diameters 102" through 120".
 - Two piece bands are required for pipes greater than 42" diameter.
 - The 2 1/4" x 2" x 0.109" thick galvanized die-formed angle connector may be used in lieu of the 2" x 2" x 3/16" angle connector for standard joints only on pipes through 72" diameter.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CORRUGATED METAL PIPE
COUPLING DETAILS No. 5
STANDARD JOINT**
NO SCALE

RSP D97E DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN D97E
DATED MAY 1, 2006 - PAGE 187 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP D97E

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2006 REVISED STANDARD PLAN RSP D97E

ANNULAR AND HELICAL PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W OR A	PIPE WALL THICKNESS		BAND THICKNESS		BAR AND STRAP (CSP ONLY)				ANGLE							
				CSP	CAP	CSP	CAP	STRAP THICKNESS	BOLTS Dia	BAR Dia	BAR YIELD STRENGTH	DIMENSIONS		BOLTS (No. - Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND	
												CSP	CAP	CSP	CAP	CSP	CAP	CSP	CAP
TWO PIECE INTEGRAL FLANGE	1 1/2" x 1/4"	6"-10"	7"	0.064"-0.079"	0.060"	0.064"	0.060"							2-3/8"	2-3/8"				
	2 2/3" x 1/2"	12"-24"	12"		0.060"-0.105"		0.060"								3-1/2"				
UNIVERSAL	2 2/3" x 1/2"	THROUGH 36"	12"	0.064"-0.138"	0.060"-0.135"	0.064"	0.060"	0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"	
		42"-60"	16 1/4"	0.064"-0.168"	0.060"-0.164"	0.064"	0.060"	DOUBLE 0.079"	1/2"	7/8"	32 ksi	2" x 2" x 1/4"	2" x 2" x 1/4"	4-1/2"	4-1/2"	5-3/8"	5-3/8"		
ANNULAR	2 2/3" x 1/2"	THROUGH 36"	12"	0.064"-0.138"	0.060"-0.135"	0.064"	0.060"					2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"	
		42"-60"	12"	0.064"-0.079"		0.064"							2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"
		42"-60"	12"	0.109"-0.168"	0.135"-0.164"	0.064"	0.075"						2" x 2" x 1/4"	2" x 2" x 1/4"	3-1/2"	3-1/2"	5-3/8"	5-3/8"	
		66"-72"	24"		0.164"		0.105"						2" x 2" x 1/4"	2" x 2" x 1/4"		5-1/2"		5-1/2"	
		66"-84"	24"	0.109"-0.168"		0.064"							2" x 2" x 1/4"		5-1/2"		7-3/8"		
		42"-54"	12"		0.060"-0.105"		0.060"						2" x 2" x 3/16"		3-1/2"		3-3/8"		
	3" x 1"	48"-60"	14"	0.064"-0.079"		0.064"							2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"
		48"-60"	14"	0.109"		0.064"							2" x 2" x 3/16"		3-1/2"		5-3/8"		
		66"-120"	25"	0.064"-0.109"		0.064"							2" x 2" x 3/16"		5-1/2"		9-3/8"		
		42"-60"	14"		0.060"-0.105"		0.060"						2" x 2" x 3/16"		3-1/2"		5-3/8"		
		42"-60"	14"		0.135"		0.075"						2" x 2" x 1/4"		3-1/2"		5-3/8"		
		66"-96"	25"		0.060"-0.135"		0.060"						2" x 2" x 1/4"		5-1/2"		7-3/8"		
	HELICAL	2 2/3" x 1/2"	THROUGH 36"	12"	0.064"-0.138"	0.060"-0.135"	0.064"	0.060"					2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
			42"-54"	12"		0.060"-0.105"		0.060"					2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	
42"-60"			12"	0.064"-0.079"		0.064"							2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"
42"-60"			12"	0.109"-0.168"	0.135"-0.164"	0.064"	0.075"						2" x 2" x 1/4"	2" x 2" x 1/4"	3-1/2"	3-1/2"	5-3/8"	5-3/8"	
66"-84"			24"	0.109"-0.168"		0.064"							2" x 2" x 1/4"	2" x 2" x 1/4"	5-1/2"	5-1/2"	7-3/8"	7-3/8"	
66"-72"			24"		0.164"		0.105"						2" x 2" x 1/4"	2" x 2" x 1/4"		5-1/2"		5-3/8"	
3" x 1"		48"-60"	14"	0.064"-0.079"		0.064"							2" x 2" x 3/16"		3-1/2"		3-3/8"		5-1/2"
		48"-60"	14"	0.109"		0.064"							2" x 2" x 3/16"		3-1/2"		5-3/8"		
		66"-120"	25"	0.064"-0.109"		0.064"							2" x 2" x 3/16"		5-1/2"		9-3/8"		
		42"-60"	14"		0.060"-0.105"		0.060"						2" x 2" x 3/16"		3-1/2"		5-3/8"		
		42"-60"	14"		0.135"		0.075"						2" x 2" x 1/4"		3-1/2"		5-3/8"		
		66"-96"	25"		0.060"-0.135"		0.060"						2" x 2" x 1/4"		5-1/2"		7-3/8"		
		96"-108"	25"		0.135"		0.075"						2" x 2" x 1/4"		5-1/2"		7-3/8"		
HUGGER	2 2/3" x 1/2" REROLLED END	THROUGH 48"	10 1/2"	0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi								
		54"-66"	10 1/2"	0.109"		0.064"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
		THROUGH 54"	10 1/2"	0.064"-0.079"		0.064"		0.079"	1/2"	7/8"	32 ksi								
		THROUGH 60"	10 1/2"	0.138"		0.079"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
		66"-72"	10 1/2"	0.138"		0.109"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
	3" x 1" REROLLED END	THROUGH 72"	10 1/2"	0.168"		0.109"		DOUBLE 0.109"	1/2"	7/8"	45 ksi								
		48"-84"	10 1/2"	0.109"		0.079"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
		48"-90"	10 1/2"	0.064"-0.079"		0.064"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
		96"-102"	10 1/2"	0.079"		0.079"		DOUBLE 0.079"	1/2"	7/8"	32 ksi								
		90"-120"	10 1/2"	0.109"		0.109"		DOUBLE 0.109"	1/2"	7/8"	45 ksi								

SPIRAL RIB PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W	PIPE WALL THICKNESS		BAND THICKNESS		BAR AND STRAP (SSRP ONLY)				ANGLE						
				SSRP	ASRP	SSRP	ASRP	STRAP THICKNESS	BOLTS Dia	BAR Dia	BAR YIELD STRENGTH	DIMENSIONS		BOLTS (No.- Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND
												SSRP	ASRP	SSRP	ASRP	SSRP	ASRP	SSRP
ANNULAR	2 2/3" x 1/2" * REROLLED END	24"-36"	12"	0.064"-0.109"	0.060"-0.105"	0.064"	0.060"	0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
		42"-60"	12"	0.064"-0.079"	0.075"-0.105"	0.064"	0.075"	0.079"	1/2"	7/8"	32 ksi	2" x 2" x 3/16"	2" x 2" x 3/16"	3-1/2"	3-1/2"	3-3/8"	3-3/8"	5-1/2"
		42"-60"	12"	0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi	2" x 2" x 1/4"		3-1/2"		5-3/8"		
		66"-84"	24"	0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi	2" x 2" x 1/4"		5-1/2"		7-3/8"		
HUGGER	2 2/3" x 1/2" * REROLLED END	24"-54"	10 1/2"	0.064"-0.079"		0.064"		0.079"	1/2"	7/8"	32 ksi							
		24"-48"	10 1/2"	0.109"		0.064"		0.079"	1/2"	7/8"	32 ksi							
		54"-66"	10 1/2"	0.109"		0.064"		Double 0.079"	1/2"	7/8"	32 ksi							

* See Note 13.

13. All profiles of Spiral Rib Pipe (3/4" x 3/4" ribs at 7/2" pitch and 3/4" x 1" ribs at 1 1/2" pitch in both steel and aluminum and 3/4" x 1" ribs at 8/2" pitch in steel only) shall be manufactured with rerolled ends. Corrugation profile of the rerolled ends shall be 2 2/3" x 1/2" annual corrugations with a minimum of two full corrugations at each end.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	32	37

Raymond Don Tszto
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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Raymond Don Tszto
REGISTERED PROFESSIONAL ENGINEER
No. C37332
Exp. 6-30-08
STATE OF CALIFORNIA

To accompany plans dated 01-25-12

NOTES:

- All ferrous metal coupling band connection hardware shall be galvanized or electroplated in accordance with the Standard Specifications.
- For helically corrugated coupling bands, the connection angles may be oriented parallel to the pipe axis, provided connecting holes are slotted lengthwise sufficiently to allow adjustment for the helix angle.
- Tension strap may be connected to band with either spot welds or fillet welds that develop minimum required strength of strap.
- Use 1/4" gage line dimension on attached angle leg for rivets and spot welds.
- Band thickness shall not be less than:
 - 3 standard thicknesses lighter than the thickness of the pipe for Corrugated Steel Pipe.
 - 2 standard thicknesses lighter than the thickness of the pipe and in no case lighter than 0.060" for Corrugated Aluminum Pipe.
- Dimensions, thicknesses and strengths shown are minimum.
- For pipe arches use same width band as for round pipe of equal periphery.
- Fillet welds of equivalent strength may be substituted for spot welds or rivets.
- Spot welds shall develop minimum required strength of strap.
- Pipe with rerolled ends having at least two 2 2/3" x 1/2" annular corrugations at each end with or without an upturned flange may be connected with any of the annular coupling bands shown for pipe of the same diameter and wall thickness and having 2 2/3" x 1/2" corrugations.
- In the case of H-12 huggerbands, two piece bands are required for diameters through 96" and three piece bands are required for diameters 102" through 120".
- Two piece bands are required for pipes greater than 42" diameter.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CORRUGATED METAL PIPE COUPLING DETAILS No. 6 POSITIVE JOINT
NO SCALE

RSP D97F DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN D97F
DATED MAY 1, 2006 - PAGE 188 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP D97F

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2006 REVISED STANDARD PLAN RSP D97F

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	33	37

Raymond Don Tsztoo
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Raymond Don Tsztoo
No. C37332
Exp. 6-30-08
CIVIL
STATE OF CALIFORNIA

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ANNULAR AND HELICAL PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W OR A	PIPE WALL THICKNESS				BAR AND STRAP (CSP ONLY)			ANGLE									
				CSP		CAP		STRAP THICKNESS	BOLTS Dia	BAR Dia	DIMENSIONS		BOLTS (No.- Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND			
				CSP	CAP	CSP	CAP				CSP	CAP	CSP	CAP	CSP	CAP	CSP			
TWO PIECE INTEGRAL FLANGE	1 1/2' x 1/4"	6"	7"	0.064"-0.168"		0.052"														
	1 1/2' x 1/4"	8"-10"	7"	0.064"-0.168"		0.060"-0.164"		0.064"	0.060"											
ANNULAR	2 2/3" x 1/2"	THROUGH 24"	12"	0.064"-0.168"		0.060"-0.164"		0.064"	0.060"											
HUGGER	2 2/3" x 1/2" REROLLED END	THROUGH 24"	10 1/2"	0.064"-0.168"				0.064"		0.079"	1/2"	7/8"								

- NOTES: To accompany plans dated 01-25-12
- All ferrous metal coupling band connection hardware shall be galvanized or electro-plated in accordance with the Standard Specifications.
 - For helically corrugated coupling bands, the connection angles may be oriented parallel to the pipe axis, provided connecting holes are slotted lengthwise sufficiently to allow adjustment for the helix angle.
 - Tension strap may be connected to band with either spot welds or fillet welds that develop minimum required strength of strap.
 - Use 1/4" gage line dimension on attached angle leg for rivets and spot welds.
 - Band thickness shall not be less than:
 - 3 standard thicknesses lighter than the thickness of the pipe for Corrugated Steel Pipe.
 - 2 standard thicknesses lighter than the thickness of the pipe and in no case lighter than 0.060" for Corrugated Aluminum Pipe.
 - Dimensions, thicknesses and strengths shown are minimum.
 - For pipe arches use same width band as for round pipe of equal periphery.
 - Fillet welds of equivalent strenght may be substituted for spot welds or rivets.
 - Spot welds shall develop minimum required strength of strap.
 - Pipe with rerolled ends having at least two 2 2/3" x 1/2" annular corrugations at each end with or without an upturned flange may be connected with any of the annular coupling bands shown for pipe of the same diameter and wall thickness and having 2 2/3" x 1/2" corrugations.
 - For downdrain applications, two piece integral flange couplers shall have factory applied sleeve type rubber gaskets with a minimum length of 7" measured along the length of the pipe.

SPIRAL RIB PROFILE

COUPLING TYPE	PIPE CORRUGATION	PIPE SIZE	W	PIPE WALL THICKNESS				BAR AND STRAP (SSRP ONLY)			ANGLE									
				SSRP		ASRP		STRAP THICKNESS	BOLTS Dia	BAR Dia	DIMENSIONS		BOLTS (No.- Dia)		RIVETS ANGLE TO BAND		SPOT WELDS ANGLE TO BAND			
				SSRP	ASRP	SSRP	ASRP				SSRP	ASRP	SSRP	ASRP	SSRP	ASRP	SSRP			
ANNULAR	2 2/3" x 1/2" * REROLLED END	24"	12"	0.064"-0.168"		0.060"-0.164"		0.064"	0.060"											
HUGGER	2 2/3" x 1/2" * REROLLED END	24"	10 1/2"	0.064"-0.168"				0.064"		0.079"	1/2"	7/8"								

* See Note 12.

12. All profiles of Spiral Rib Pipe (3/4" x 3/4" ribs at 7 1/2" pitch and 3/4" x 1" ribs at 11 1/2" pitch in both steel and aluminum and 3/4" x 1" ribs at 8 1/2" pitch in steel only) shall be manufactured with rerolled ends. Corrugation profile of the rerolled ends shall be 2 2/3" x 1/2" annual corrugations with a minimum of two full corrugations at each end.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**CORRUGATED METAL PIPE
COUPLING DETAILS No. 7
DOWNDRAIN**

NO SCALE

RSP D97G DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN D97G
DATED MAY 1, 2006 - PAGE 189 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP D97G

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2006 REVISED STANDARD PLAN RSP D97G

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	34	37

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

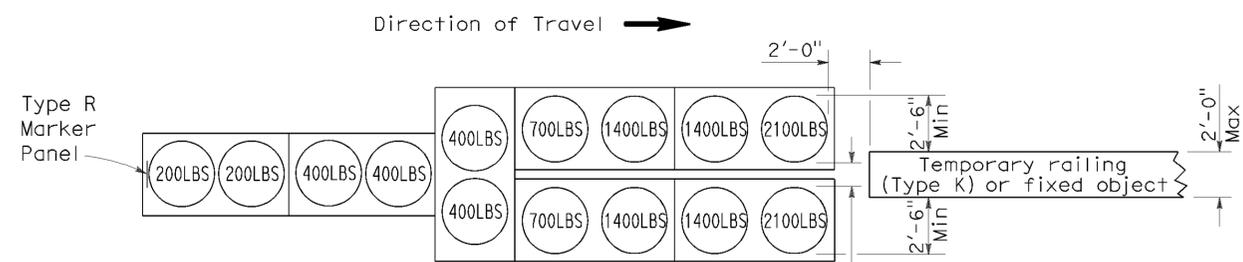
June 6, 2008
PLANS APPROVAL DATE

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Exp. 6-30-09
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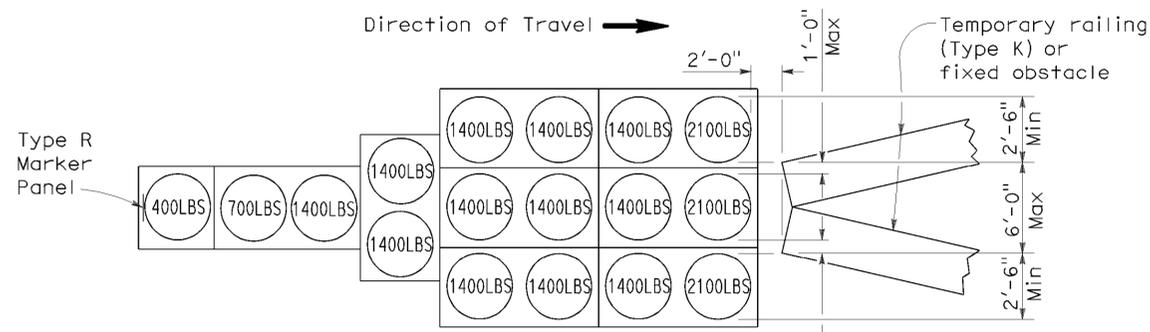
To accompany plans dated 01-25-12

2006 REVISED STANDARD PLAN RSP T1A



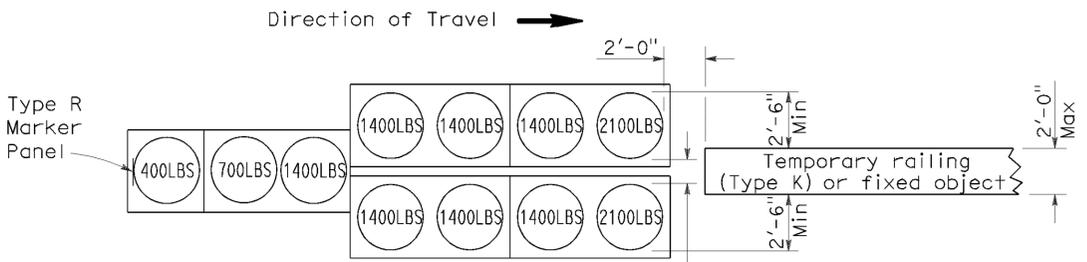
ARRAY 'TU14'

Approach speed 45 mph or more



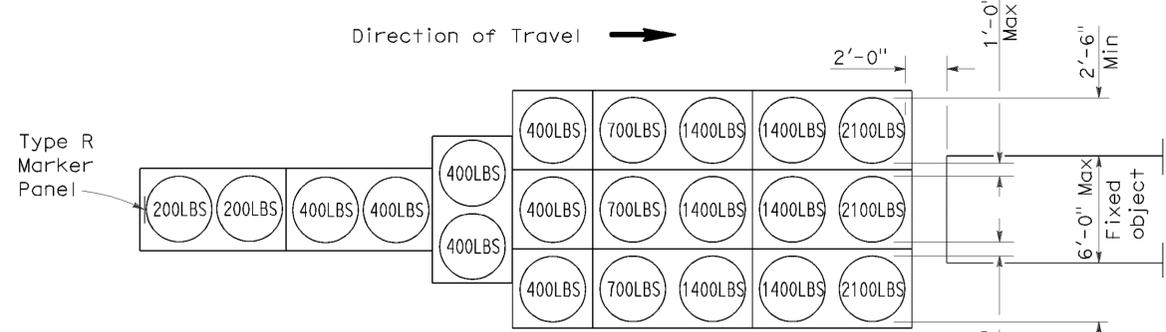
ARRAY 'TU17'

Approach speed less than 45 mph



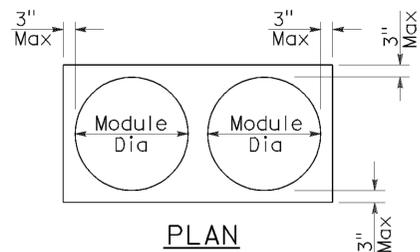
ARRAY 'TU11'

Approach speed less than 45 mph

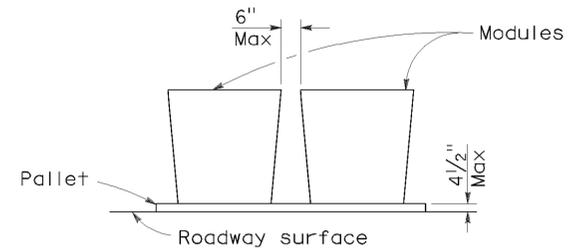


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	35	37

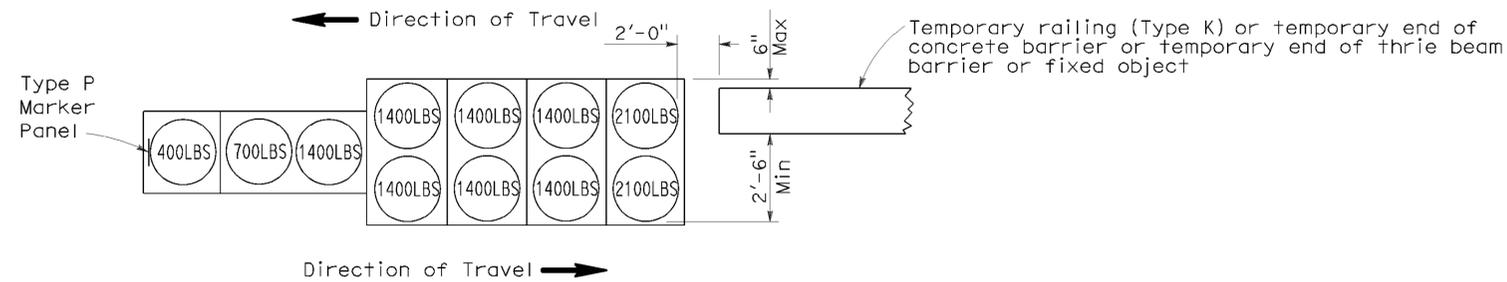
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

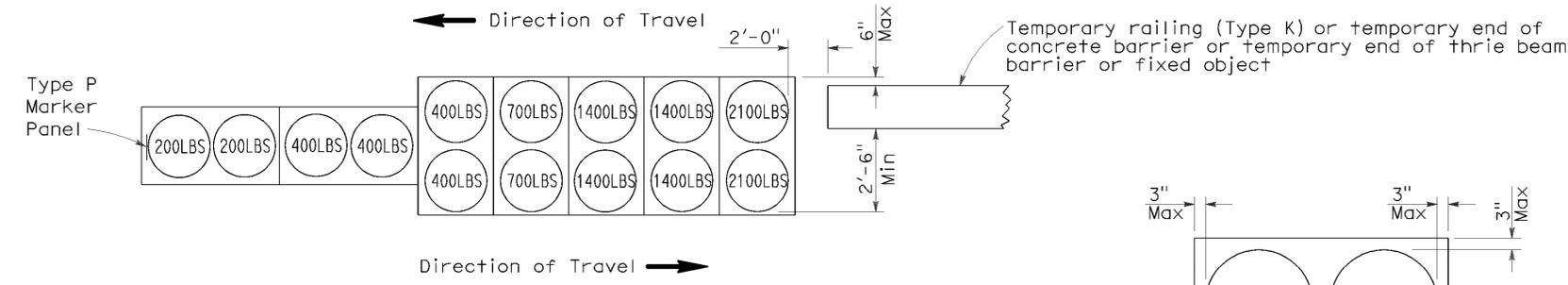
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To accompany plans dated 01-25-12



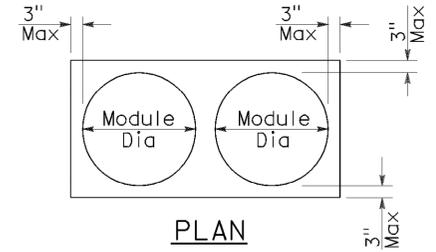
ARRAY 'TB11'

Approach speed less than 45 mph

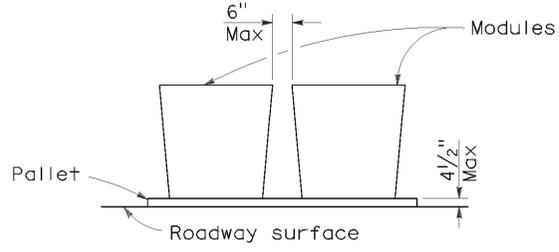


ARRAY 'TB14'

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 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

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2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sis	96	52.6/104.8	36	37

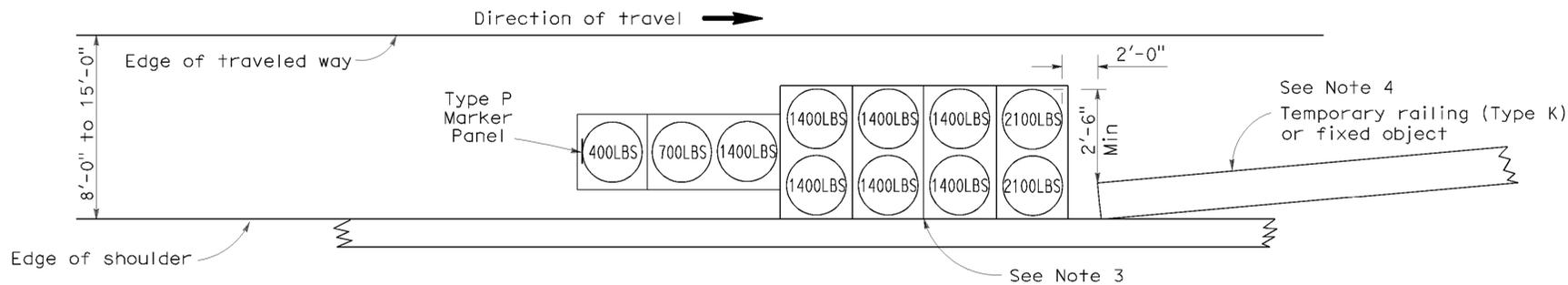
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

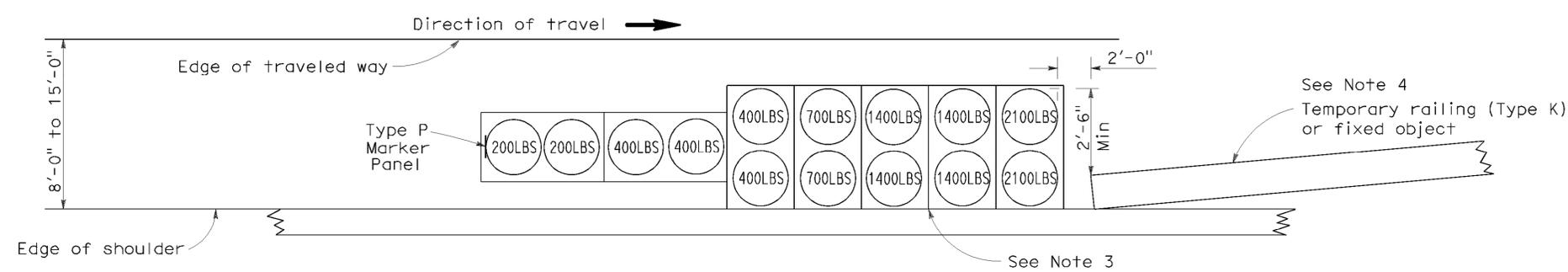
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

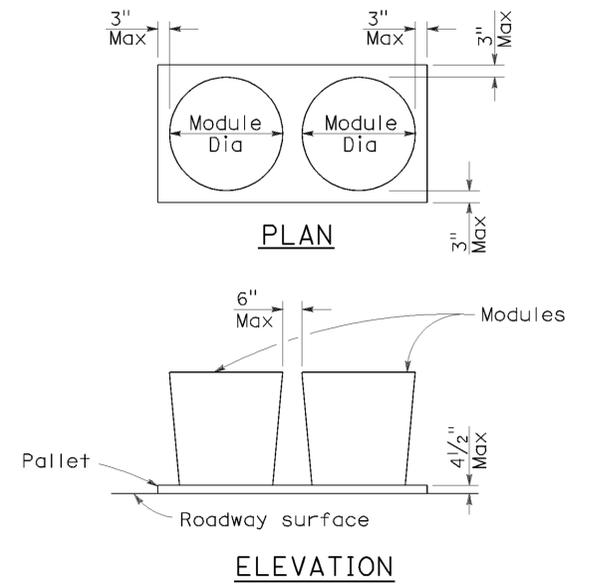
To accompany plans dated 01-25-12



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- (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.
- All sand weights are nominal.
- 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.
- 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.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- 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.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- 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

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sis	96	52.6/104.8	37	37

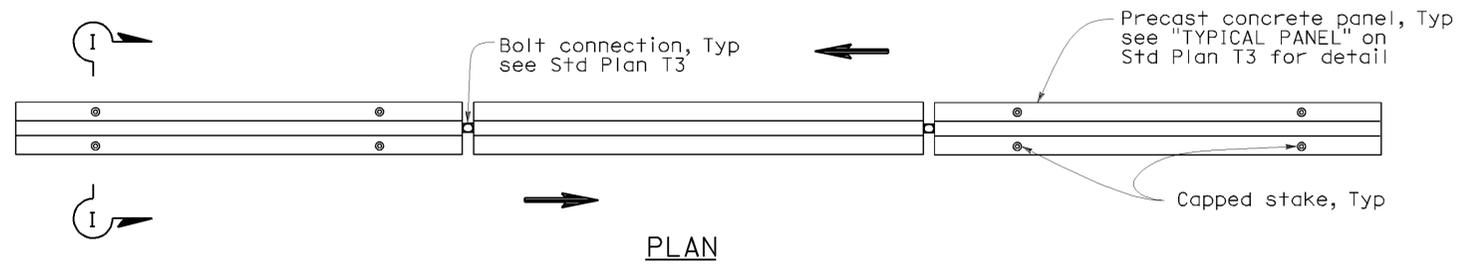
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

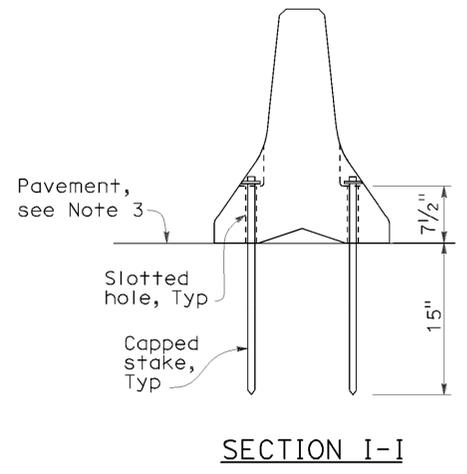
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 01-25-12



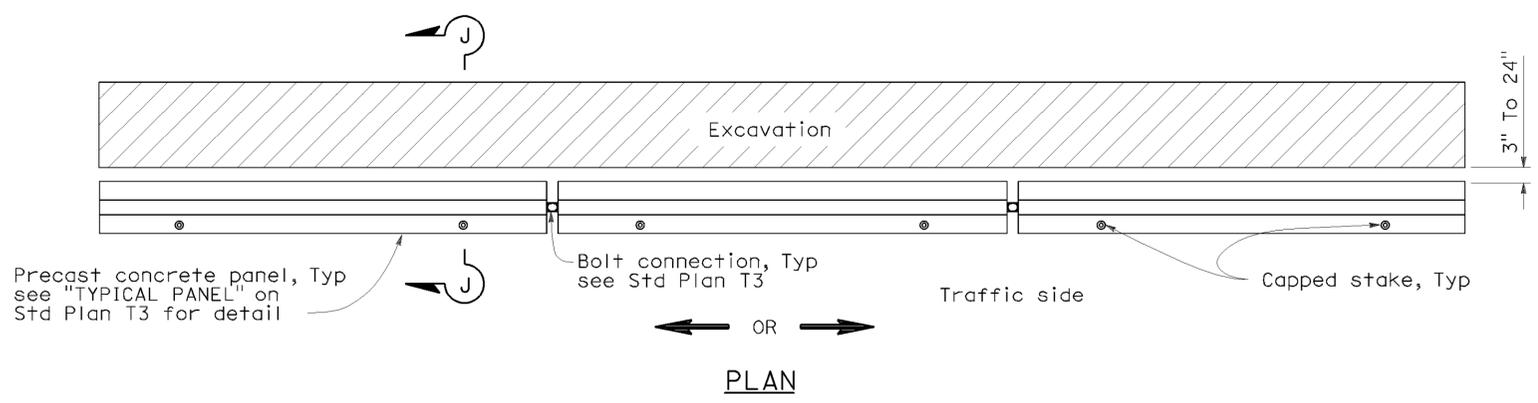
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



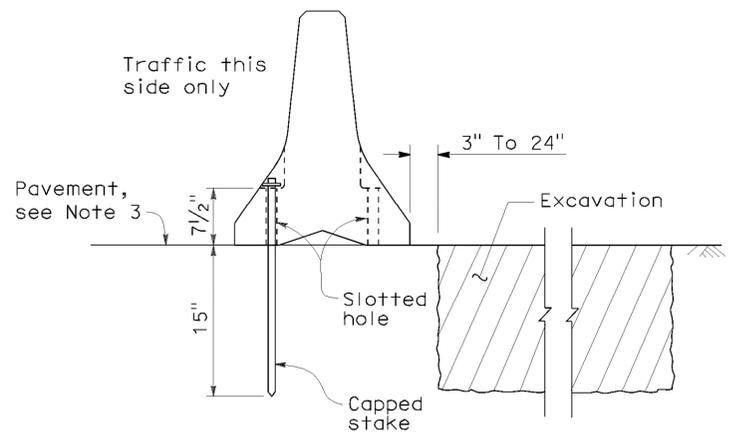
SECTION I-I

NOTES:

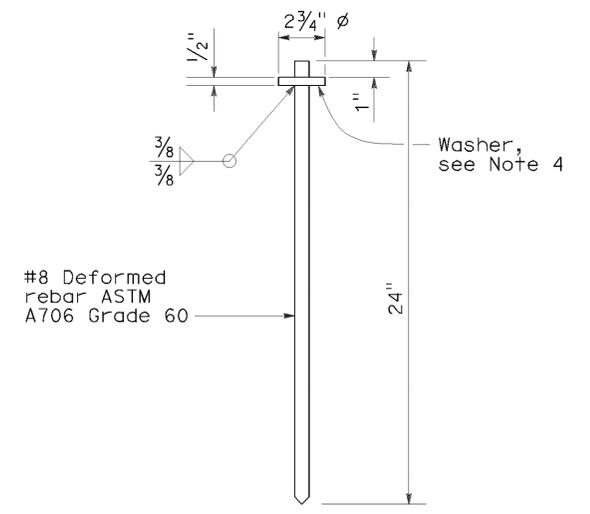
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of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



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



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

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2006 NEW STANDARD PLAN NSP T3A