

INDEX OF PLANS

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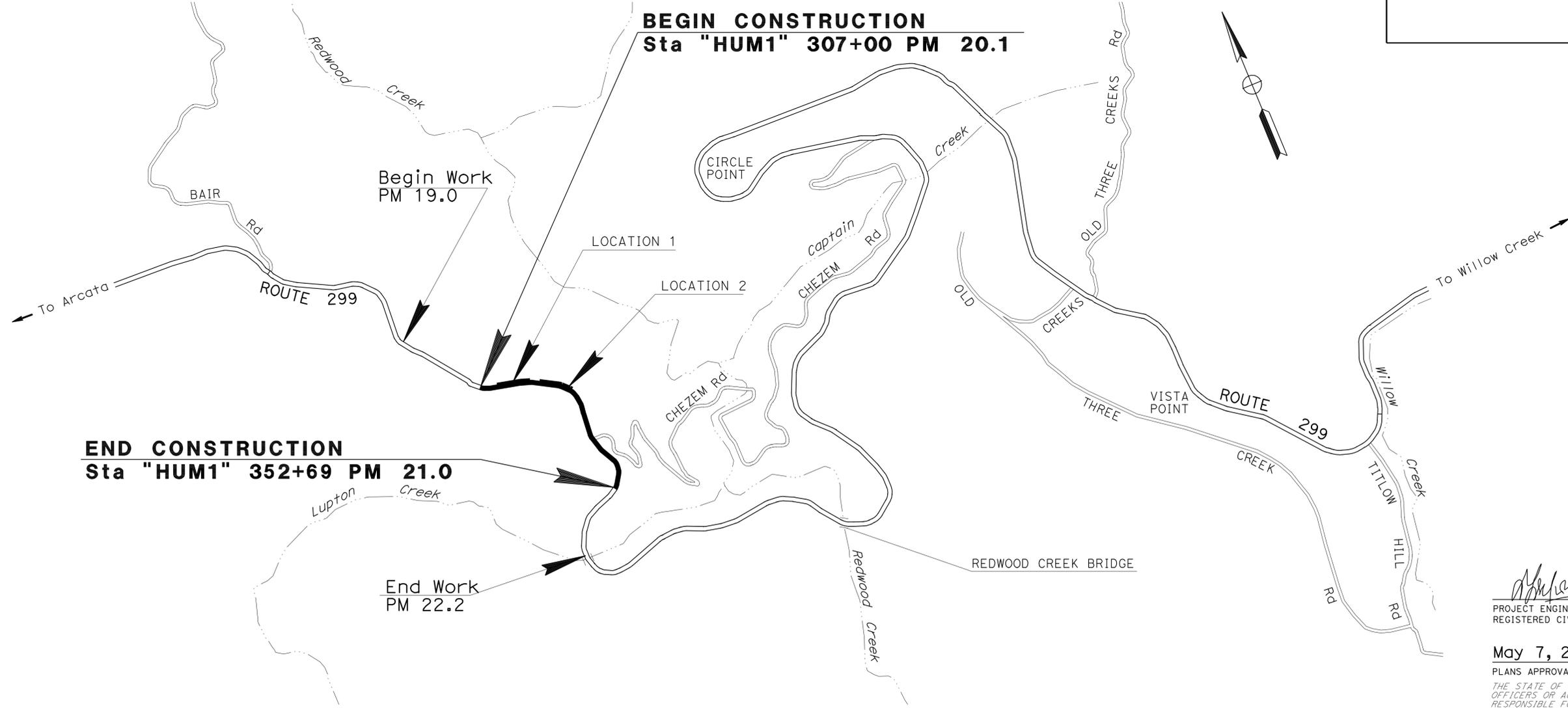
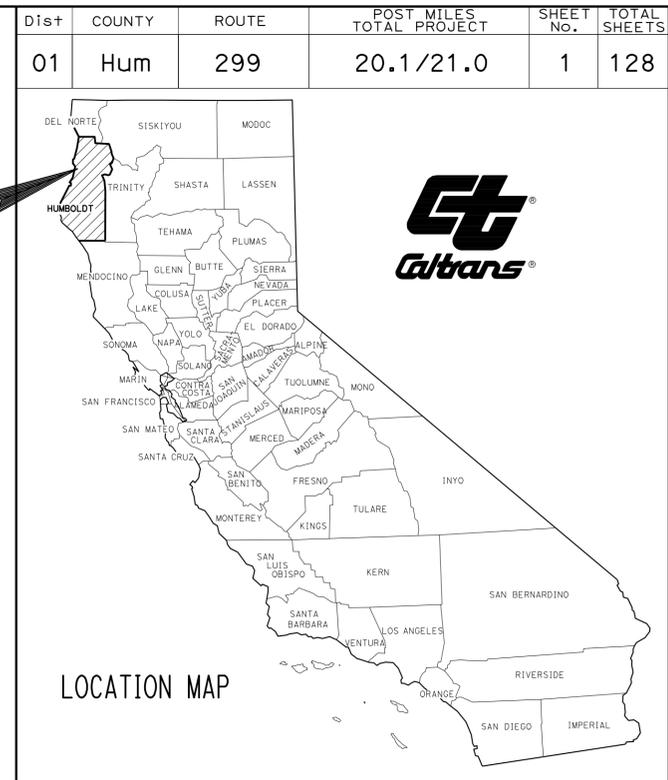
STRUCTURE PLANS

93-110	GREEN POINT SINK RETAINING WALL No. 1, Br No. 04E0028
111-128	GREEN POINT SINK RETAINING WALL No. 2, Br No. 04E0029

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
 ACNH-P299(173)E
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**
IN HUMBOLDT COUNTY
ABOUT 14 MILES EAST OF BLUE LAKE
FROM 0.5 MILE WEST TO 0.3 MILE EAST
OF CHEZEM ROAD #6L200

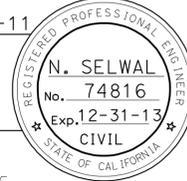
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



NO SCALE

PROJECT MANAGER	RICHARD MULLEN
DESIGN ENGINEER	NESAR FORMOLI

PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE 11-7-11
May 7, 2012
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No.	01-423704
PROJECT ID	0100000172

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING

DESIGN DESIGNATION

ADT (2012)	3,430	D	60%
ADT (2032)	4,090	T	11%
DHV	480	V	55 mph
ESAL	1,575,143	TI ₂₀	9.5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	2	128

REGISTERED CIVIL ENGINEER
 N. SELWAL
 No. 74816
 Exp. 12-31-13
 CIVIL

11-7-11
 DATE

5-7-12
 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.

NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- FOR METAL BEAM GUARD RAILING AND HMA DIKE, SEE LAYOUT SHEETS.
- SUPERELEVATIONS ARE SHOWN ON PROFILES AND SUPERELEVATION SHEETS.

ABBREVIATION:

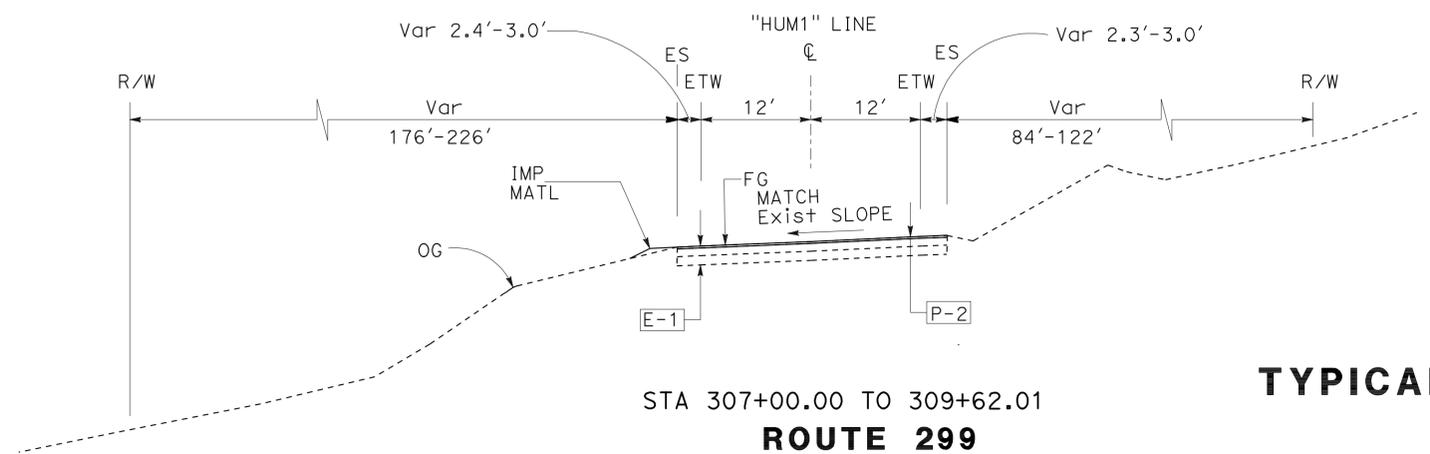
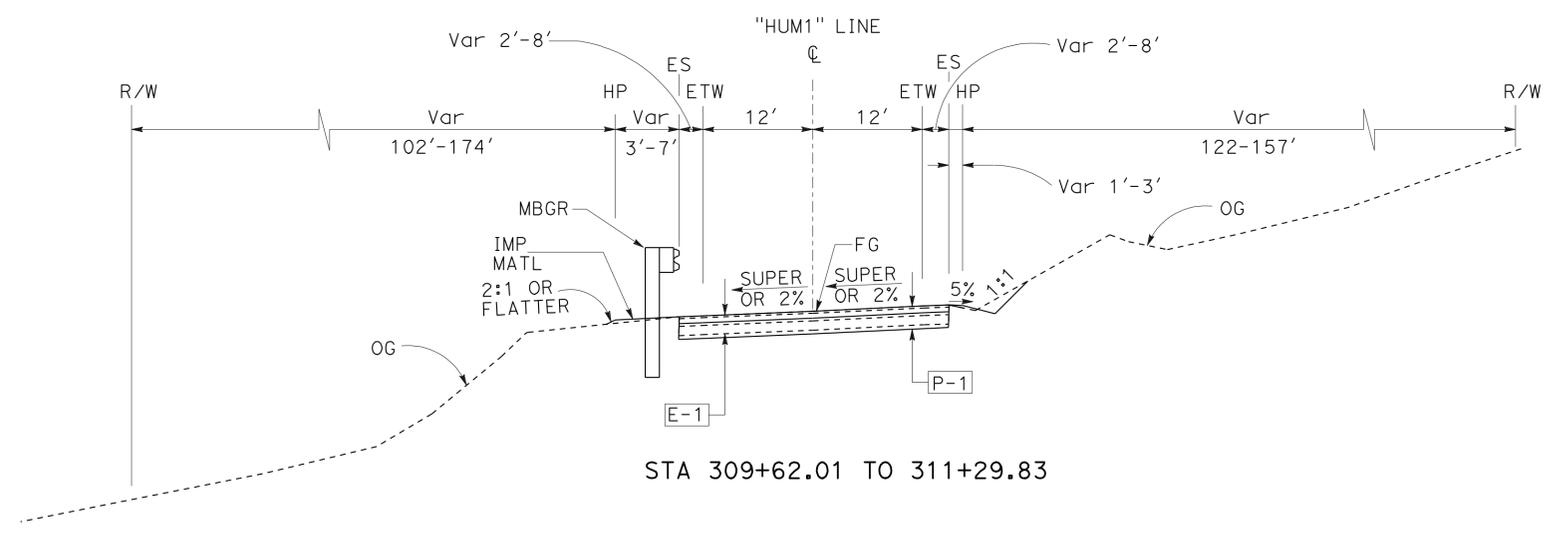
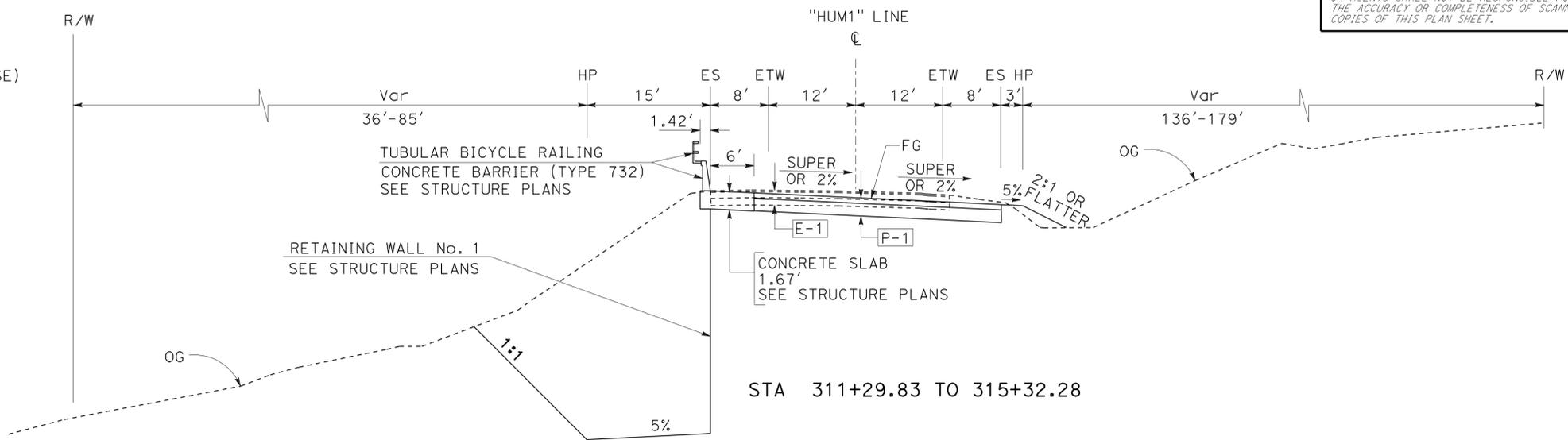
OGAC	OPEN GRADED ASPHALT CONCRETE
HMA-A	HOT MIX ASPHALT (TYPE A)
HMA(OGFC)	HOT MIX ASPHALT (OPEN GRADED FRICTION COURSE)
IMP MATL	IMPORTED MATERIAL (SHOULDER BACKING)
WL	WALL LAY OUT LINE
CP	CATCH POINT
HP	HINGE POINT

TYPICAL Exist STRUCTURAL SECTIONS

E-1	EXIST 0.14' OGAC 0.56' AC (Type B) 0.67' AB
------------	--

TYPICAL STRUCTURAL SECTIONS

P-1	0.10' HMA (OGFC) 0.50' HMA-A 1.15' CL 2 AB
P-2	0.10' HMA (OGFC) 0.10' COLD PLANE AC PAVEMENT



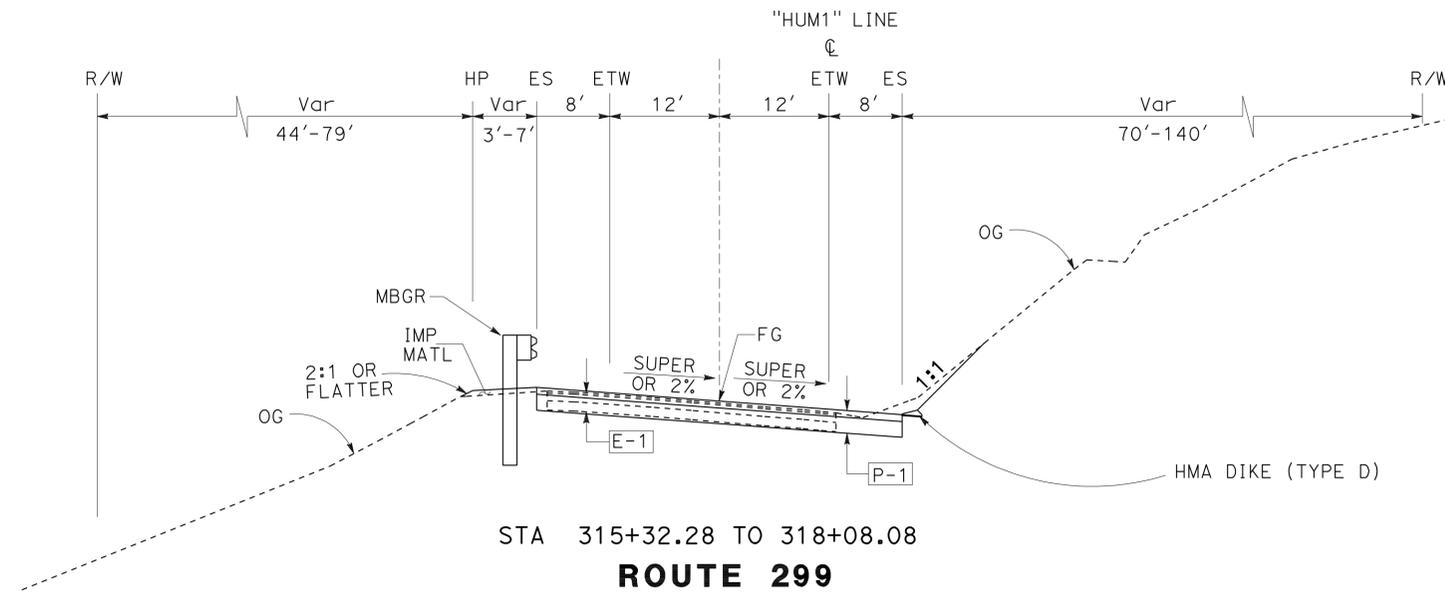
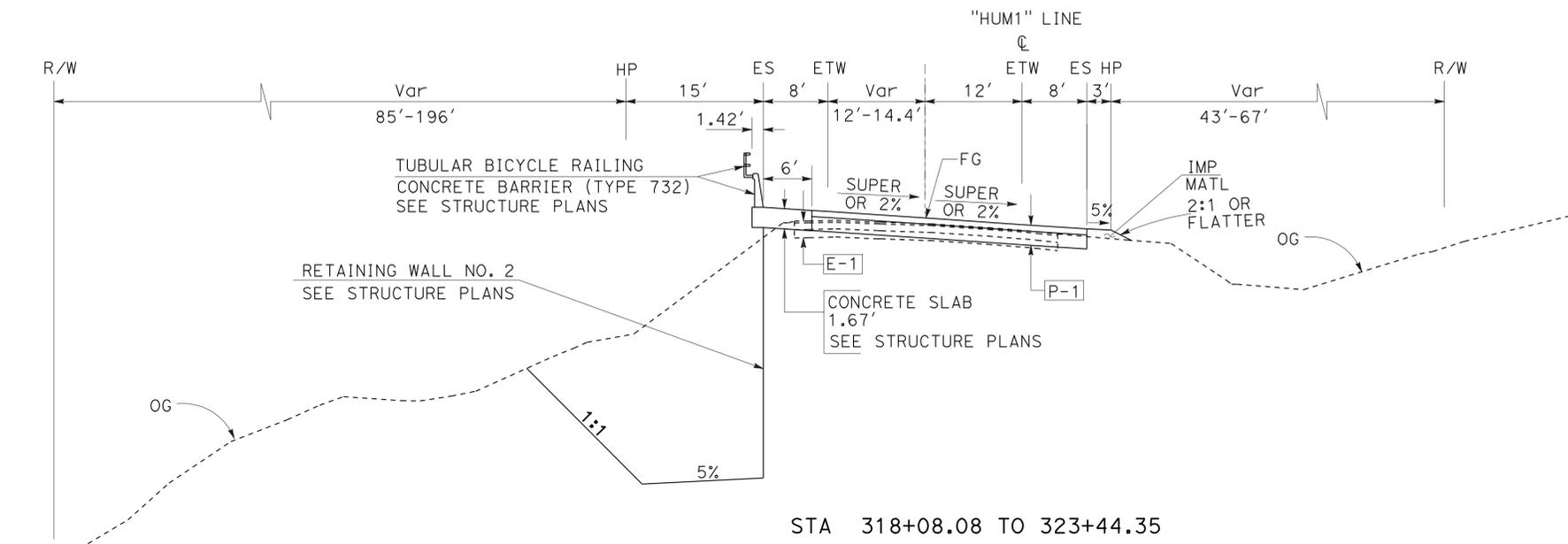
TYPICAL CROSS SECTIONS
 NO SCALE
X-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	3	128

REGISTERED CIVIL ENGINEER	DATE
<i>N. Selwal</i>	11-7-11
PLANS APPROVAL DATE	
5-7-12	

REGISTERED PROFESSIONAL ENGINEER
N. SELWAL
No. 74816
Exp. 12-31-13
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.



TYPICAL CROSS SECTIONS
NO SCALE
X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	NESAR FORMOLI	NARAYAN SELWAL	
NORTH REGION DIVISION OF ENGINEERING	NESAR FORMOLI	NESAR FORMOLI	
	CHECKED BY	DESIGNED BY	

USERNAME => s114937
DGN FILE => 0100000172ca002.dgn

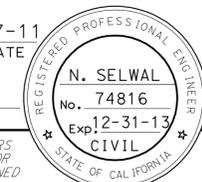
RELATIVE BORDER SCALE IS IN INCHES

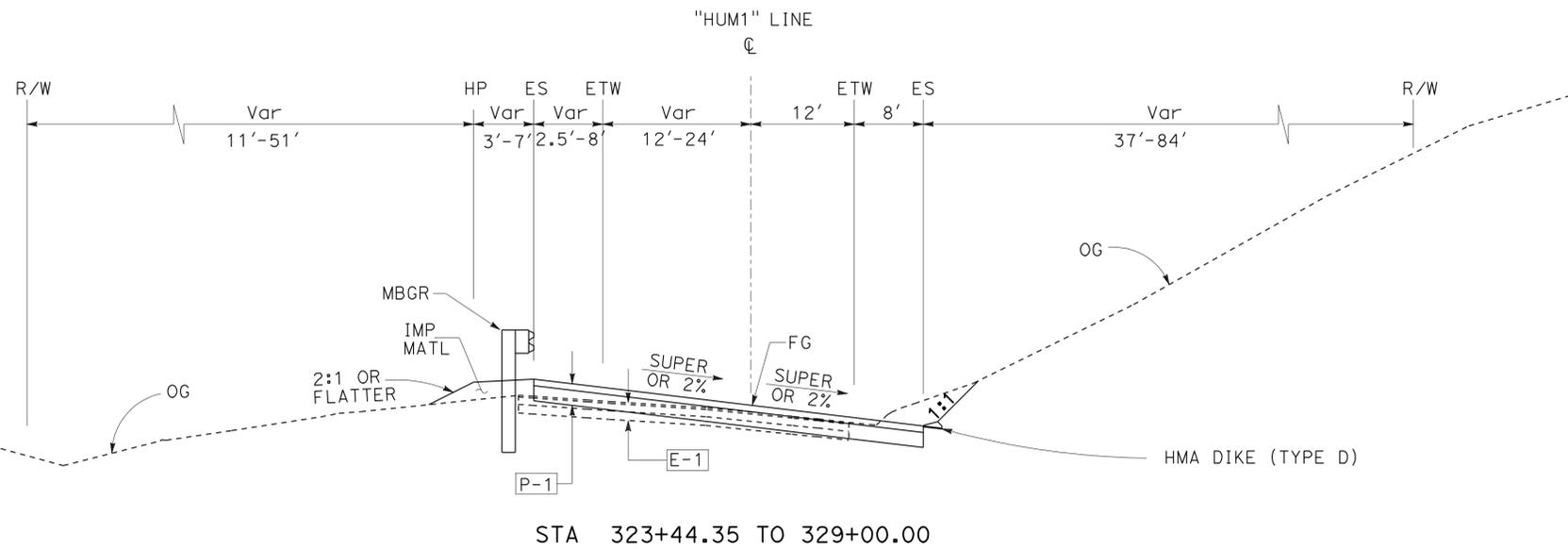
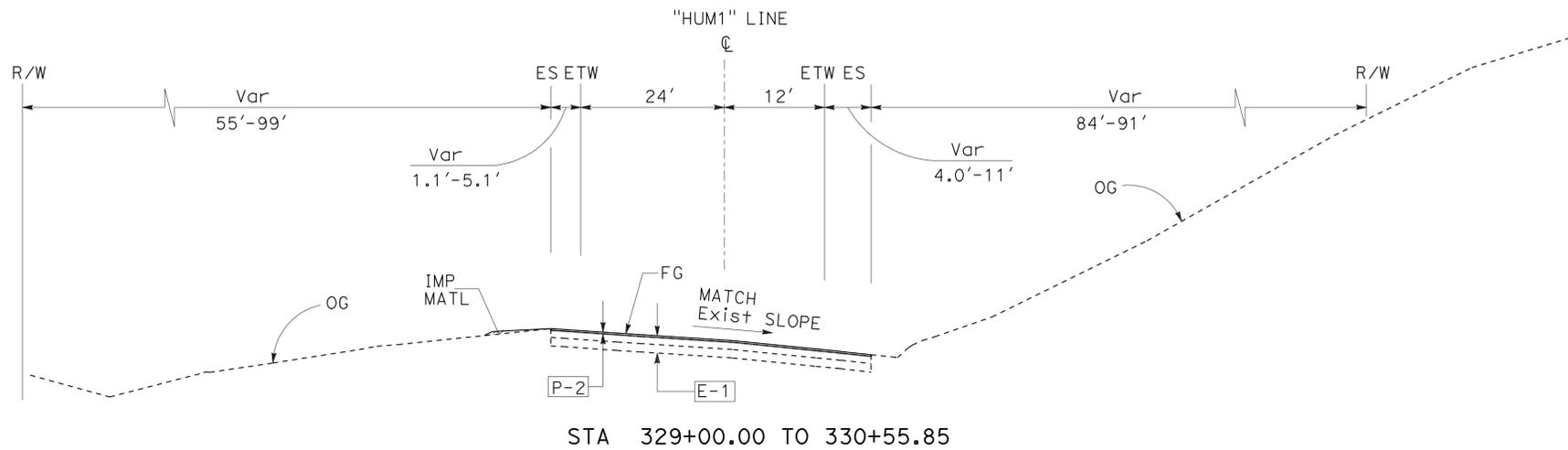
UNIT 0334

PROJECT NUMBER & PHASE

01000001721

LAST REVISION | DATE PLOTTED => 08-MAY-2012
00-00-00 | TIME PLOTTED => 10:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	4	128
			 REGISTERED CIVIL ENGINEER DATE 11-7-11		
			PLANS APPROVAL DATE 5-7-12		
<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>					



ROUTE 299

TYPICAL CROSS SECTIONS

NO SCALE

X-3

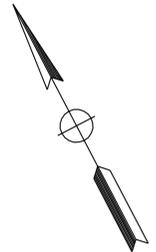
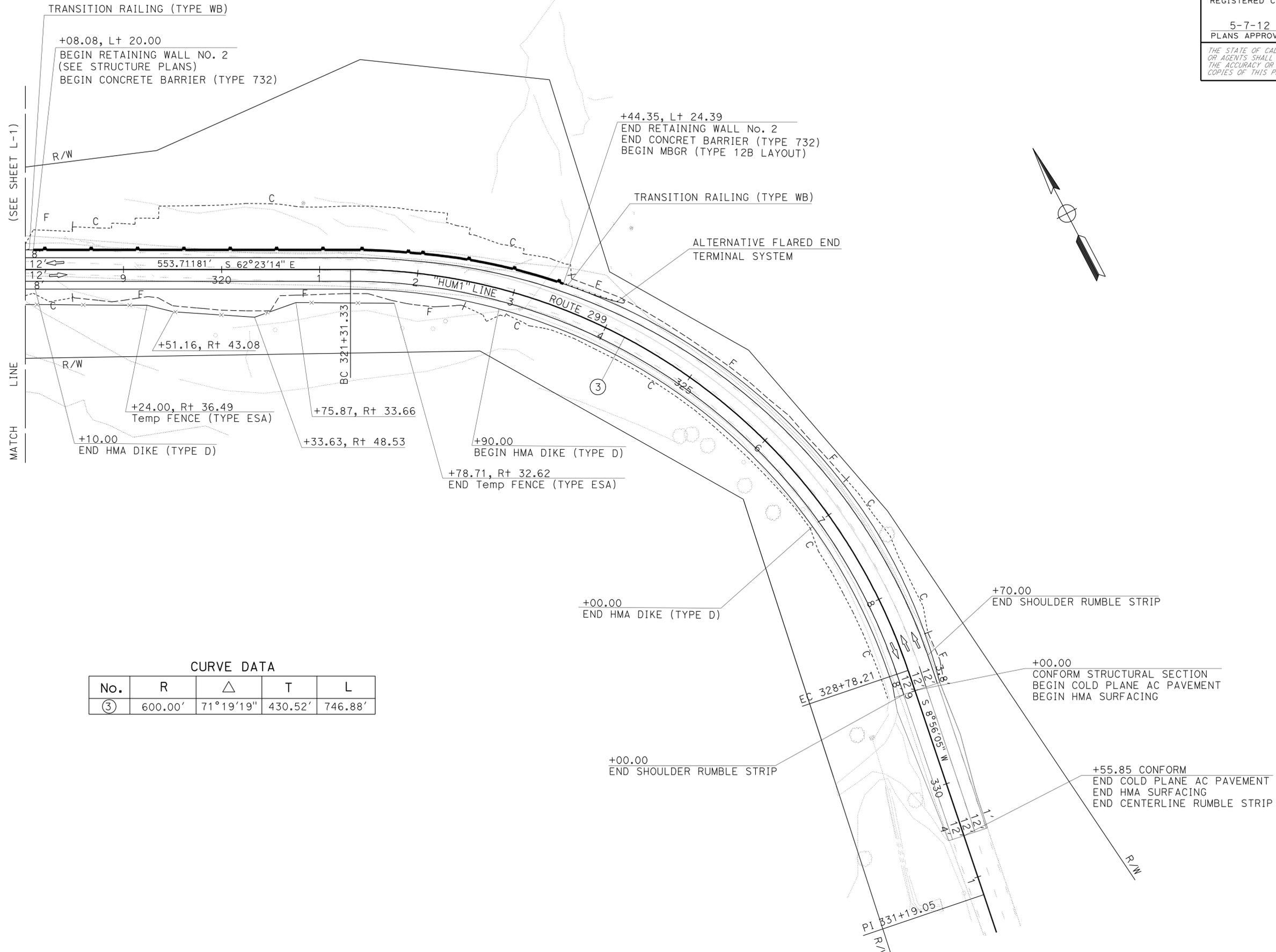
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	NESAR FORMOLI	NARAYAN SELWAL	
NORTH REGION DIVISION OF ENGINEERING	NESAR FORMOLI	NESAR FORMOLI	
	CHECKED BY	DESIGNED BY	



NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	6	128
			11-7-11	REGISTERED CIVIL ENGINEER DATE	
			5-7-12	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>					



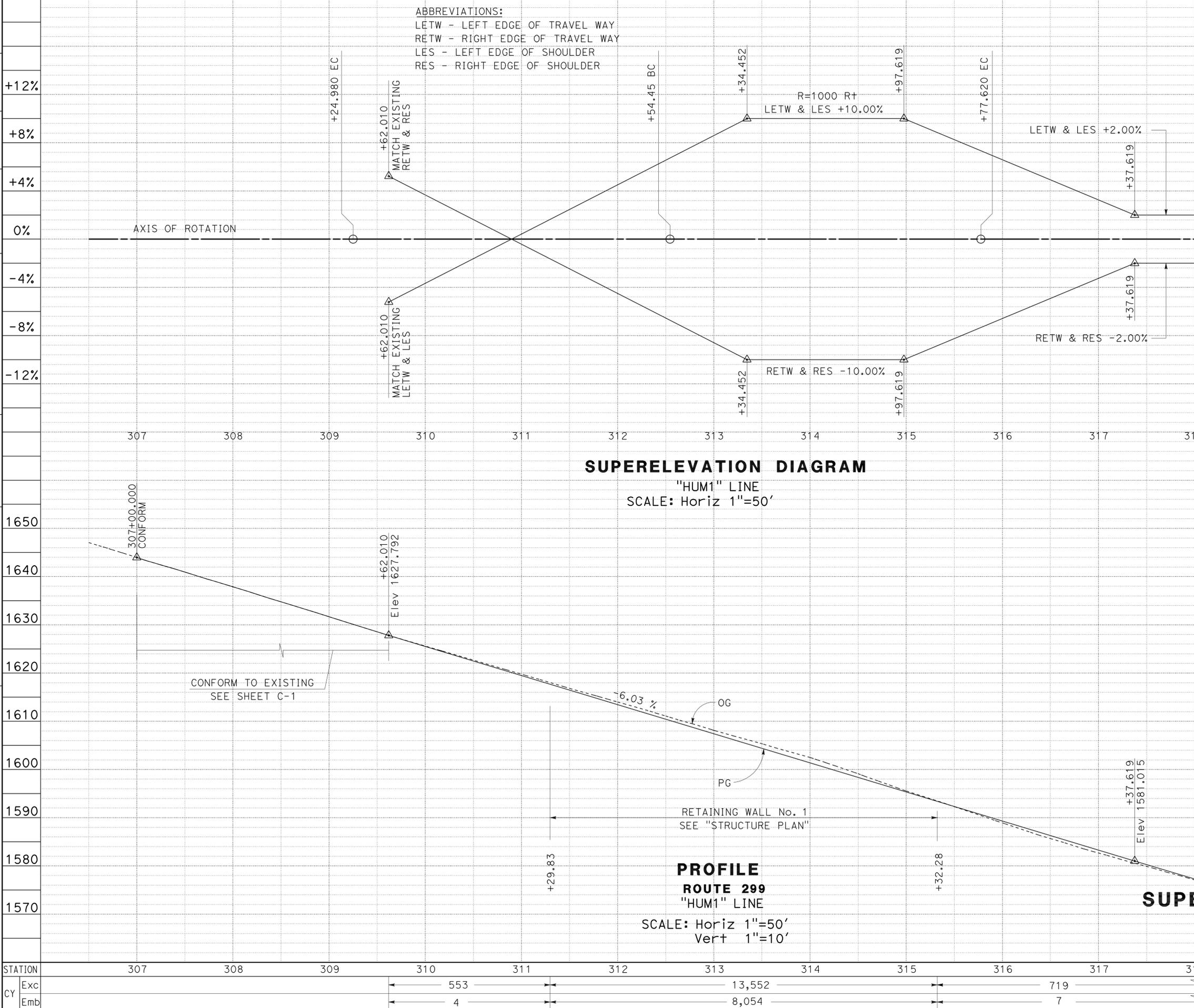
CURVE DATA

No.	R	Δ	T	L
③	600.00'	71°19'19"	430.52'	746.88'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR
 NESAR FORMOLI
 CALCULATED/DESIGNED BY
 CHECKED BY
 NARAYAN SELWAL
 NESAR FORMOLI
 REVISED BY
 DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION DIVISION OF ENGINEERING
 FUNCTIONAL SUPERVISOR: NESAR FORMOLI
 CALCULATED/DESIGNED BY: NARAYAN SELWAL
 CHECKED BY: []
 REVISED BY: []
 DATE REVISED: []



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	7	128

REGISTERED CIVIL ENGINEER: N. SELWAL
 No. 74816
 Exp. 12-31-13
 CIVIL

11-7-11
 DATE

5-7-12
 PLANS APPROVAL DATE

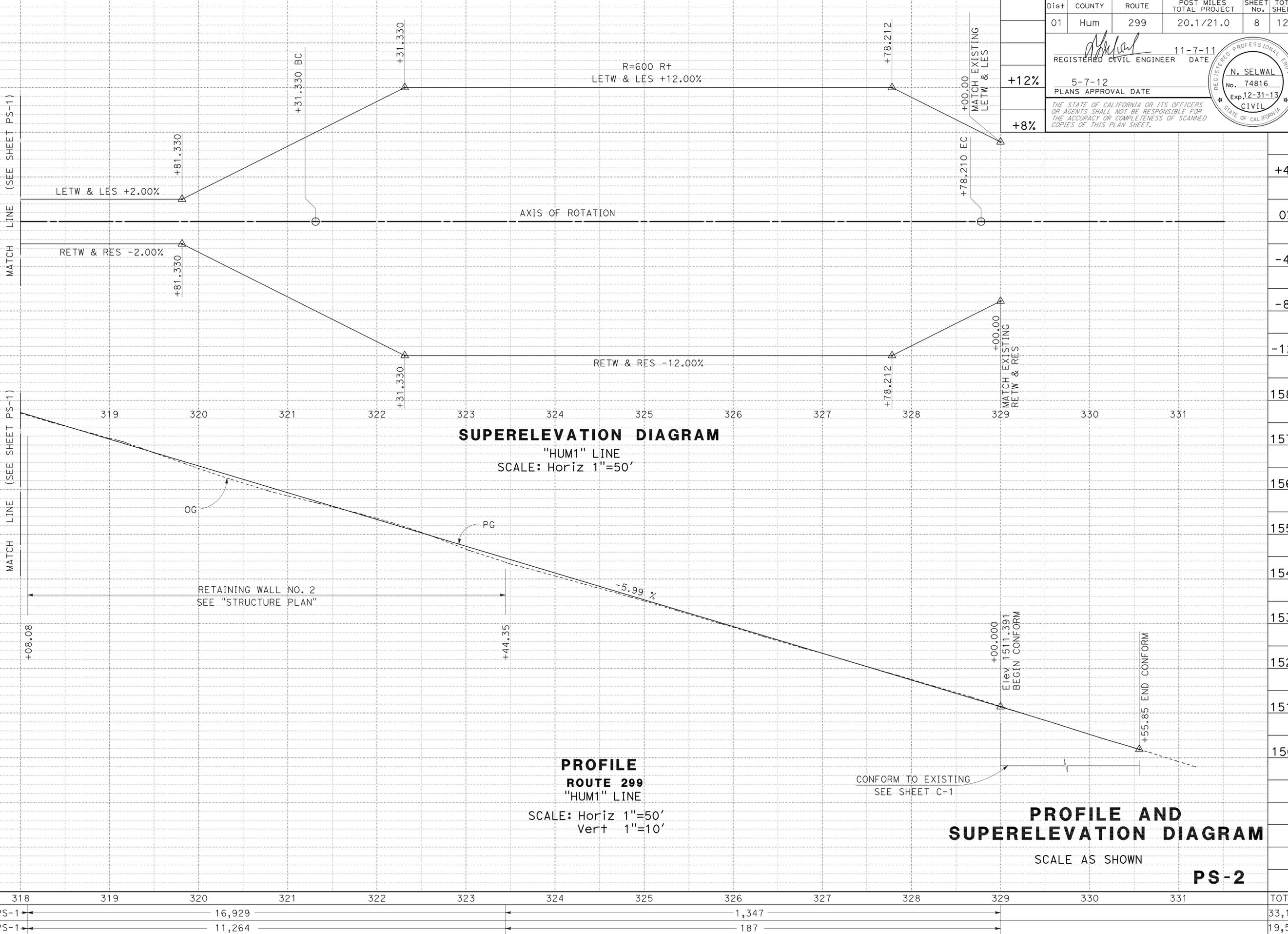
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

BORDER LAST REVISED 7/2/2010	USERNAME => s114937 DGN FILE => 0100000172fb001.dgn	RELATIVE BORDER SCALE IS IN INCHES	UNIT 0334	PROJECT NUMBER & PHASE	01000001721
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00-00-00 DATE PLOTTED => 08-MAY-2012
 TIME PLOTTED => 10:41

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR: NESAR FORMOLI
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 REVISIONS:
 1. Exc SEE SHEET PS-1
 2. Emb SEE SHEET PS-1

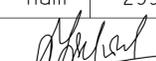
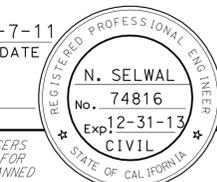


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	8	128
REGISTERED CIVIL ENGINEER <i>N. Selwal</i> No. 74816 Exp. 12-31-13 CIVIL			11-7-11 DATE 5-7-12 PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					

DATE PLOTTED => 08-MAY-2012
 TIME PLOTTED => 10:41

PROFILE AND SUPERELEVATION DIAGRAM
 SCALE AS SHOWN
PS-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	9	128

 REGISTERED CIVIL ENGINEER DATE 11-7-11		
5-7-12 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:

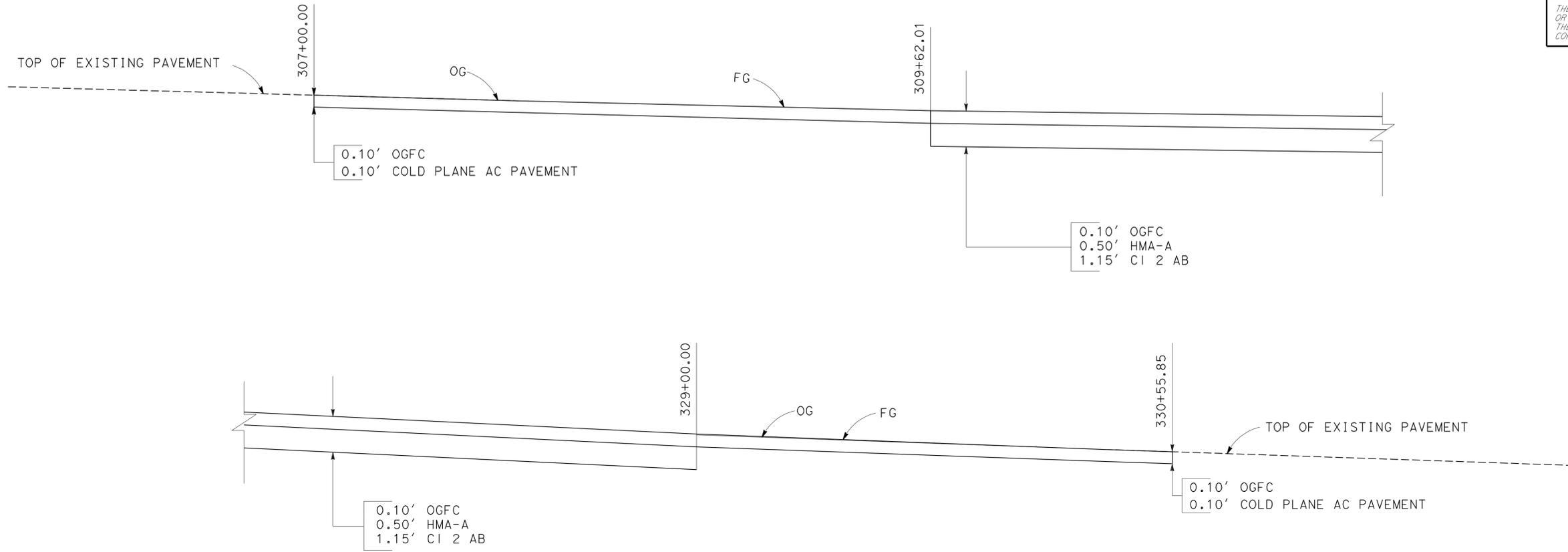
DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

LEGEND:

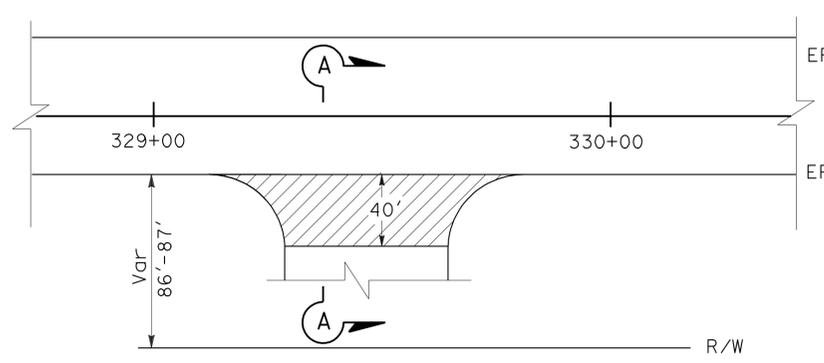
 0.10' COLD PLANE AC PAVEMENT

ABBREVIATIONS:

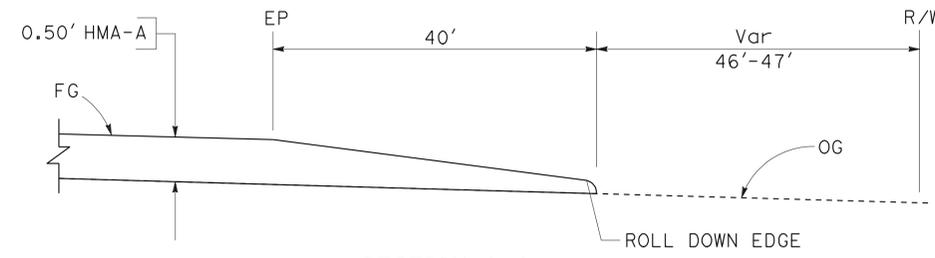
OGFC OPEN GRADED FRICTION COURSE
 HMA-A HOT MIX ASPHALT (TYPE A)



PAVING CONFORM



**DRIVEWAY AT 329+57, Rt
PAVING CONFORM**

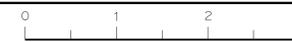


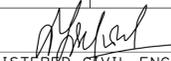
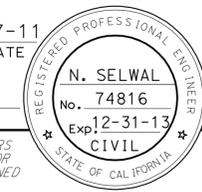
SECTION A-A

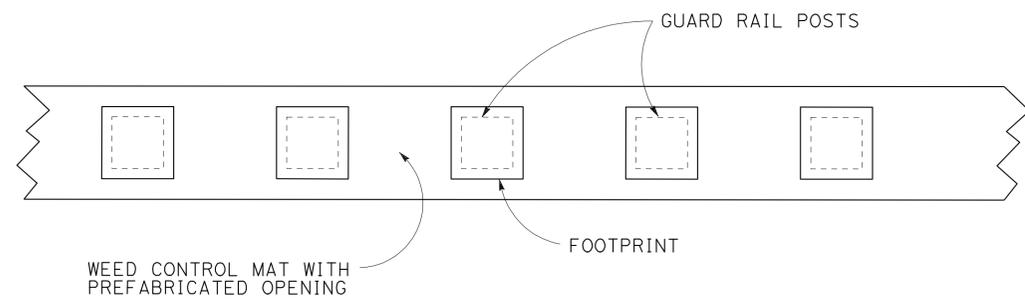
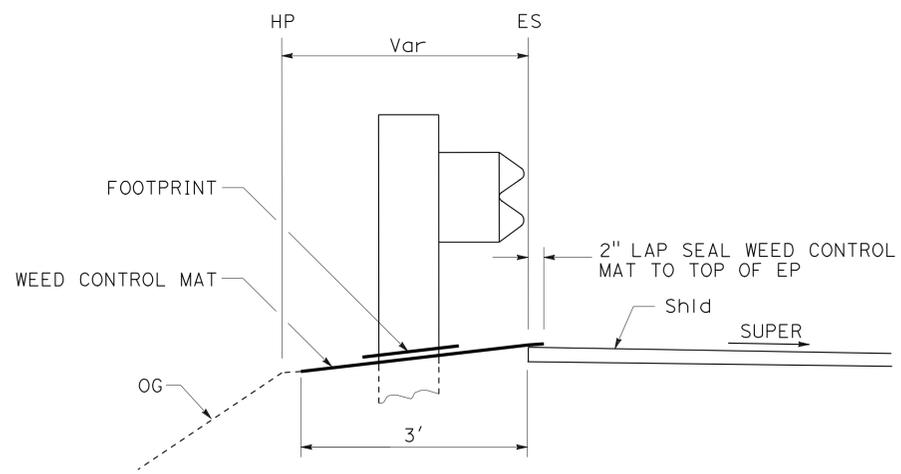
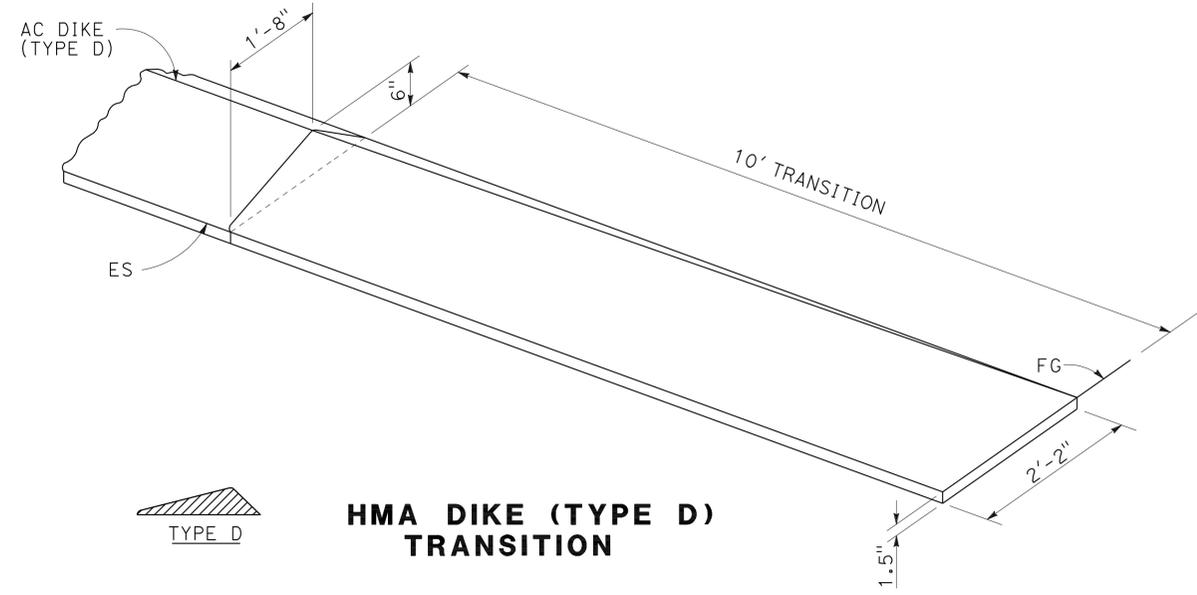
CONSTRUCTION DETAILS

NO SCALE

C-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	10	128
			 REGISTERED CIVIL ENGINEER DATE 11-7-11		
			5-7-12 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>					



PLAN
**METAL BEAM GUARD RAILING
 WEED CONTROL MAT (FIBER)**
 AT WOOD POST

**METAL BEAM GUARD RAILING
 WEED CONTROL MAT (FIBER)**
 WITHOUT DIKE

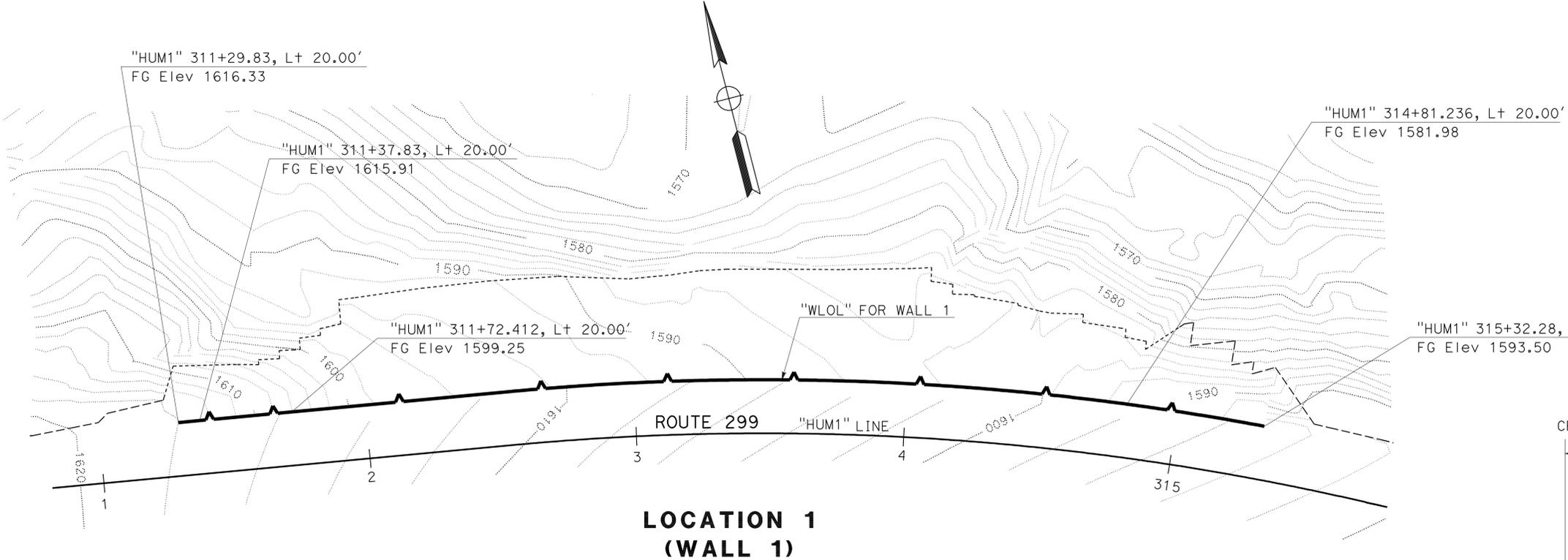
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans®
 NORTH REGION
 DIVISION OF ENGINEERING
 FUNCTIONAL SUPERVISOR
 NESAR FORMOLI
 CALCULATED/DESIGNED BY
 CHECKED BY
 NARAYAN SELWAL
 NESAR FORMOLI
 REVISED BY
 DATE REVISION
 x
 x
 x
 x
 x

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	11	128

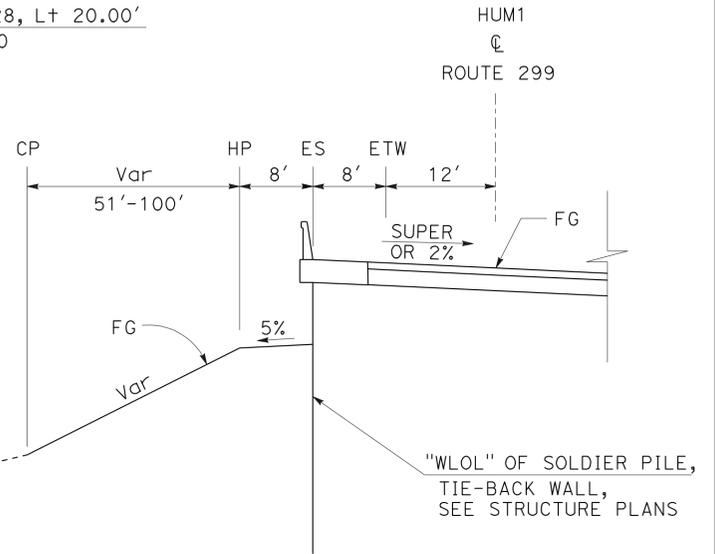
<i>N. Selwal</i>	11-7-11
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
N. SELWAL
No. 74816
Exp. 12-31-13
CIVIL

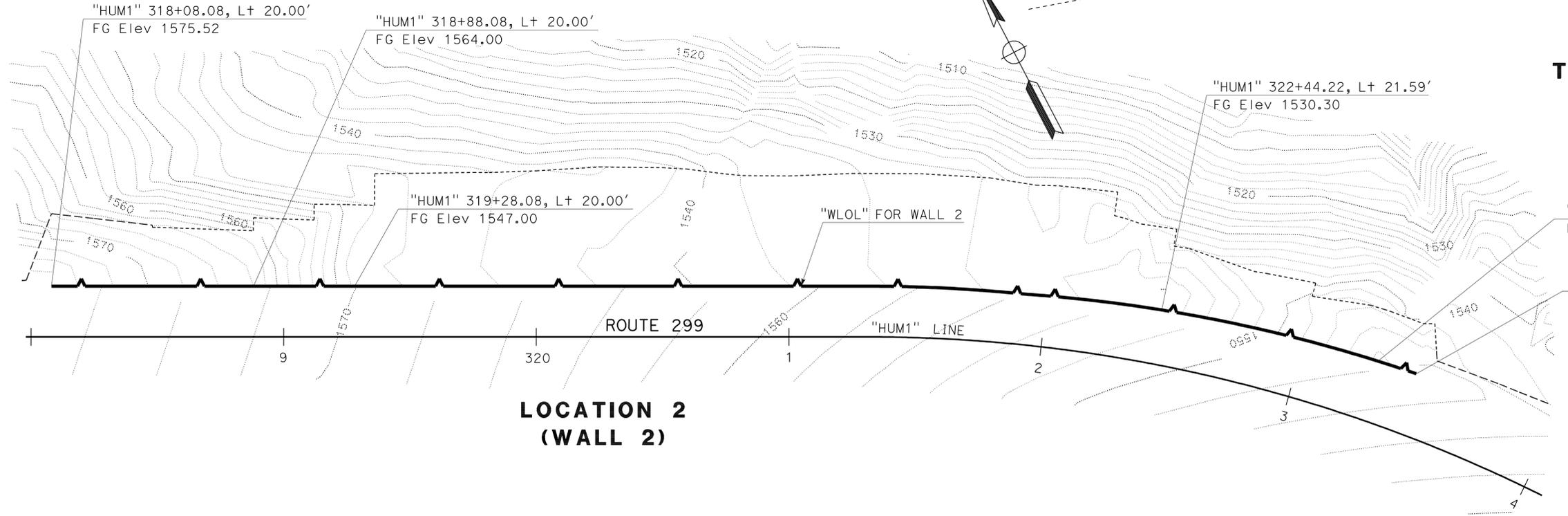
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**LOCATION 1
(WALL 1)**



TYPICAL SECTION



**LOCATION 2
(WALL 2)**

FINISH GRADE AT THE FACE OF WALL

CONSTRUCTION DETAILS
NO SCALE **C-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION DIVISION OF ENGINEERING
NARAYAN SELWAL
NESAR FORMOLI
NESAR FORMOLI
NESAR FORMOLI

USERNAME => s128843
DGN FILE => 0100000172ga003.dgn

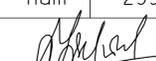
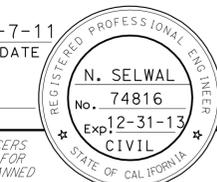
RELATIVE BORDER SCALE IS IN INCHES
0 1 2 3

UNIT 0334

PROJECT NUMBER & PHASE

01000001721

LAST REVISION DATE PLOTTED => 08-MAY-2012
00-00-00 TIME PLOTTED => 13:17

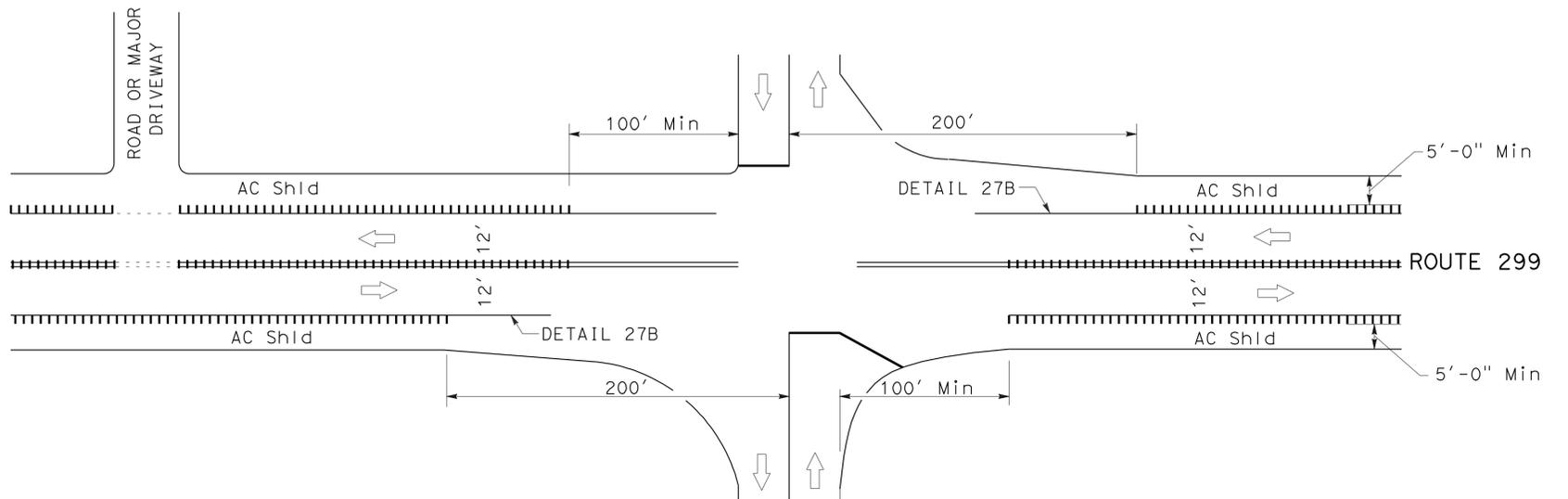
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	12	128
 REGISTERED CIVIL ENGINEER			DATE	11-7-11	
PLANS APPROVAL DATE			DATE	5-7-12	
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

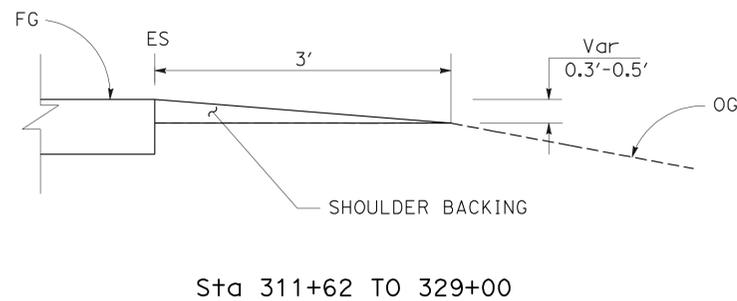
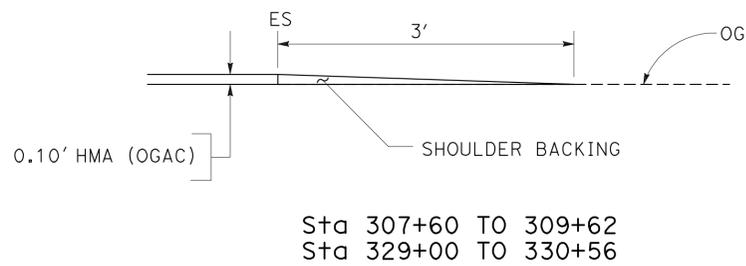
CENTERLINE RUMBLE STRIP MUST BE CONSTRUCTED PRIOR TO INSTALLING FINAL TRAFFIC STRIPES.

LEGEND:

-  DIRECTION OF TRAVEL
-  RUMBLE STRIP (GROUND-IN)



RUMBLE STRIP INTERSECTING ROADS AND MAJOR DRIVEWAYS



SHOULDER BACKING

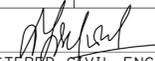
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	NESAR FORMOLI	NARAYAN SELWAL	11-7-11
NORTH REGION DIVISION OF ENGINEERING	NESAR FORMOLI	NESAR FORMOLI	5-7-12
	CHECKED BY	CHECKED BY	

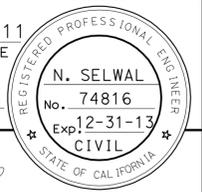
CONSTRUCTION DETAILS

NO SCALE

C-4

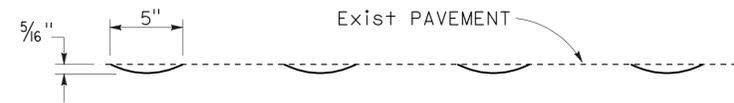


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	13	128
 REGISTERED CIVIL ENGINEER			11-7-11	DATE	
5-7-12 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



NOTE:

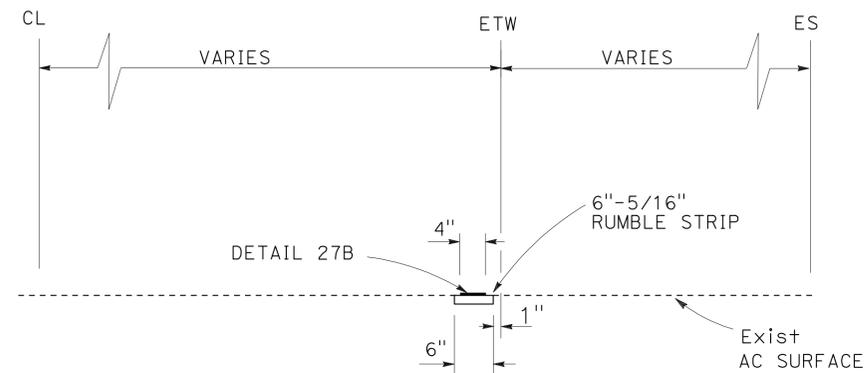
RUMBLE STRIPS, AS SHOWN ON THIS PLAN SHALL NOT BE CONSTRUCTED ON PUBLIC AND PRIVATE ROAD APPROACHES AND MAJOR DRIVEWAYS.



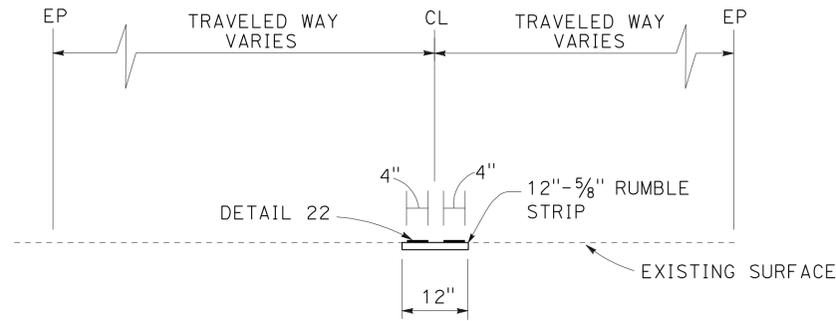
ELEVATION



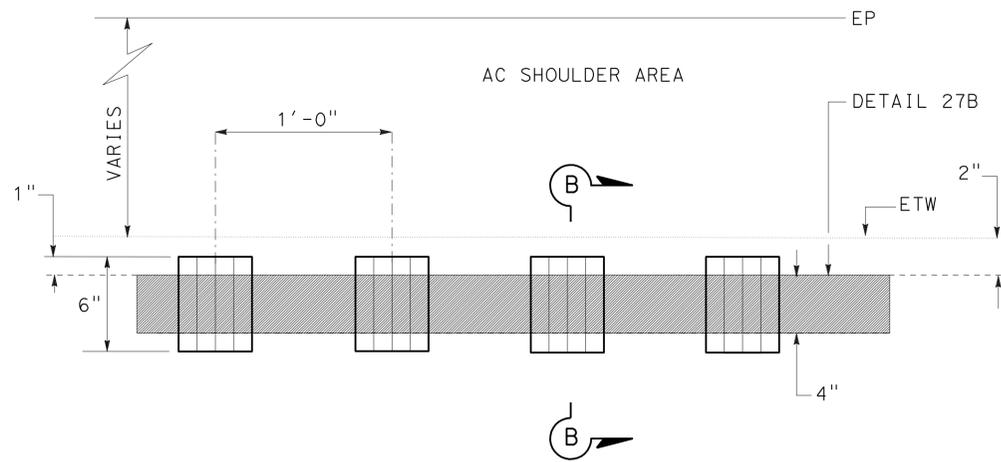
ELEVATION



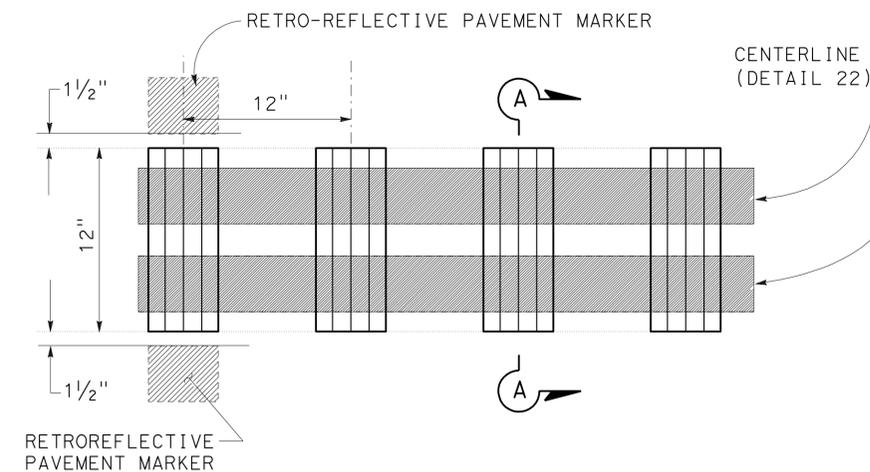
SECTION B-B



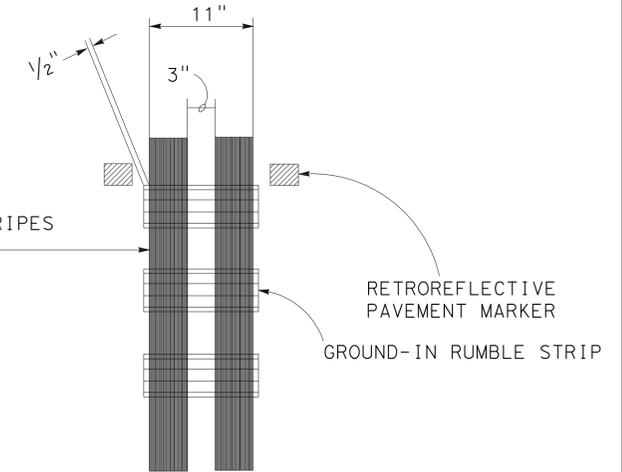
SECTION A-A



SHOULDER RUMBLE STRIP



CENTERLINE RUMBLE STRIP



CONSTRUCTION DETAILS
GROUND-IN RUMBLE STRIP

NO SCALE

C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - NORTH REGION DIVISION OF ENGINEERING

REVISOR BY DATE

NARAYAN SELWAL
NESAR FORMOLI

CALCULATED/DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
NESAR FORMOLI

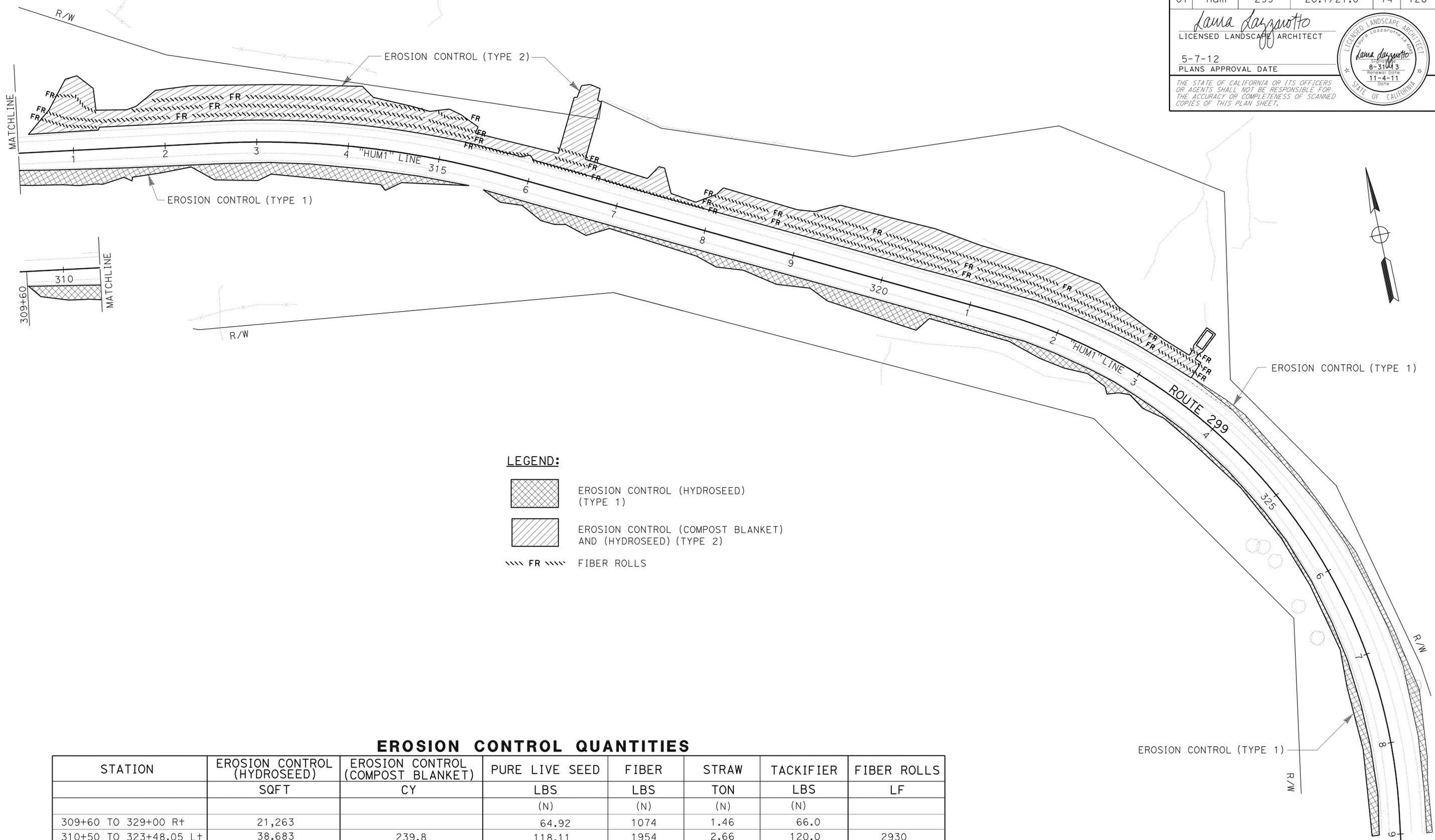
Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	14	128

Laura Lazzarotto
 LICENSED LANDSCAPE ARCHITECT

5-7-12
 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.



LEGEND:

- EROSION CONTROL (HYDROSEED) (TYPE 1)
- EROSION CONTROL (COMPOST BLANKET) AND (HYDROSEED) (TYPE 2)
- FIBER ROLLS

EROSION CONTROL QUANTITIES

STATION	EROSION CONTROL (HYDROSEED) SQFT	EROSION CONTROL (COMPOST BLANKET) CY	PURE LIVE SEED LBS	FIBER LBS	STRAW TON	TACKIFIER LBS	FIBER ROLLS LF
309+60 TO 329+00 R+	21,263		64.92	1074	1.46	66.0	
310+50 TO 323+48.05 L+	38,683	239.8	118.11	1954	2.66	120.0	2930
323+48.05 TO 329+00 L+	3,661		11.18	185	0.25	11.3	
TOTAL	63,607	239.8	194.21	3213	4.38	197.3	2930

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

EROSION CONTROL PLAN AND QUANTITIES

SCALE: 1" = 50'

EC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: RON FLORY

DESIGNED BY: SHEILA ENRIGHT

CHECKED BY: SHEILA ENRIGHT

REVISOR: LAURA LAZZAROTTO

DATE REVISION: 5-7-12

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN-HYDRAULICS
 FUNCTIONAL SUPERVISOR: TIMOTHY BOESE
 CHECKED BY: KEMSET MOORE
 DESIGNED BY: FERNANDO MANZANERA
 REVISIONS: 10/31/11
 REVISED BY: D.VAIL

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

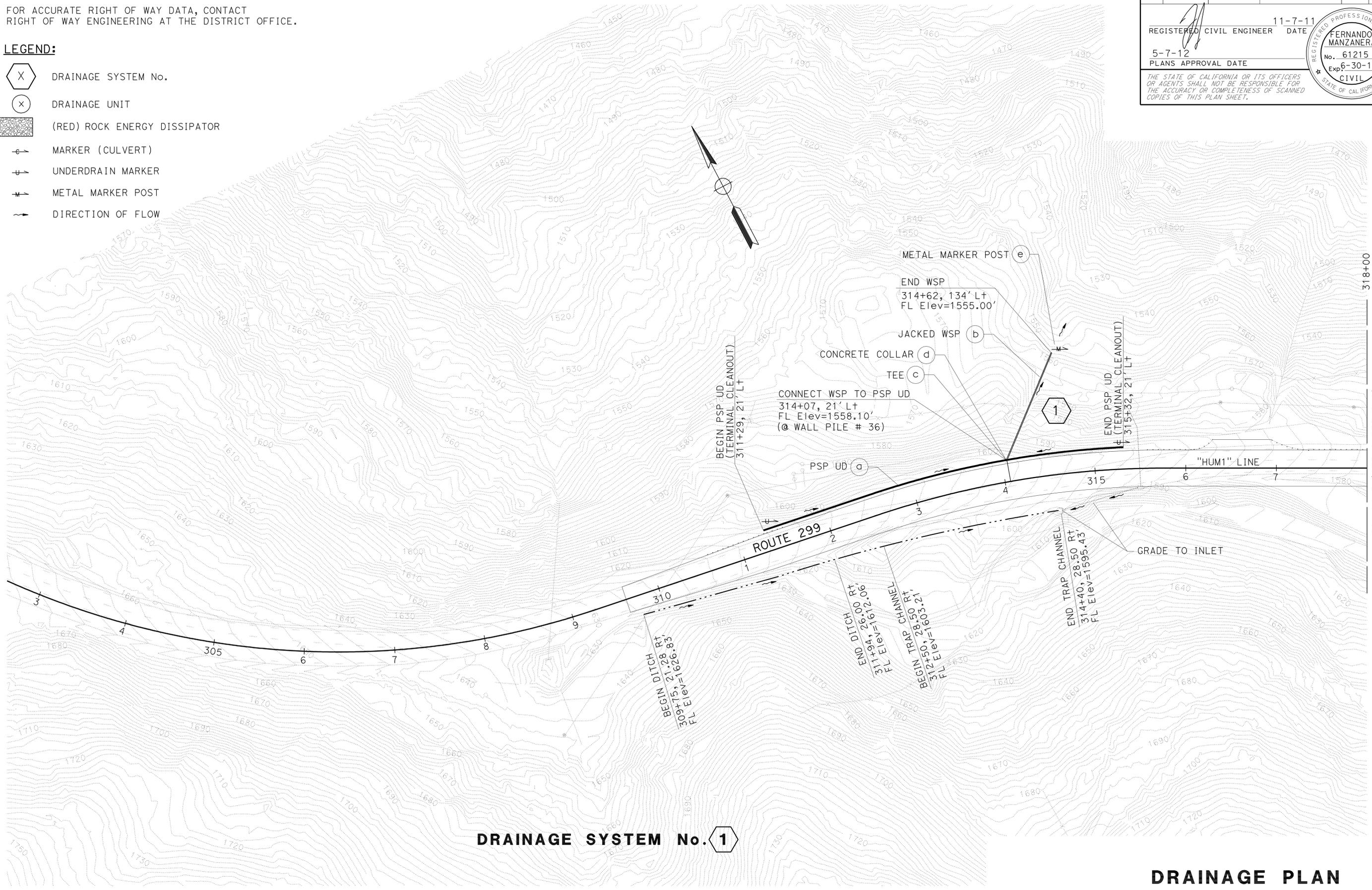
- LEGEND:**
-  DRAINAGE SYSTEM No.
 -  DRAINAGE UNIT
 -  (RED) ROCK ENERGY DISSIPATOR
 -  MARKER (CULVERT)
 -  UNDERDRAIN MARKER
 -  METAL MARKER POST
 -  DIRECTION OF FLOW

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	15	128

11-7-11
 REGISTERED CIVIL ENGINEER DATE
 5-7-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERNANDO MANZANERA
 No. 61215
 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.



DRAINAGE SYSTEM No. 1

DRAINAGE PLAN
 SCALE: 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

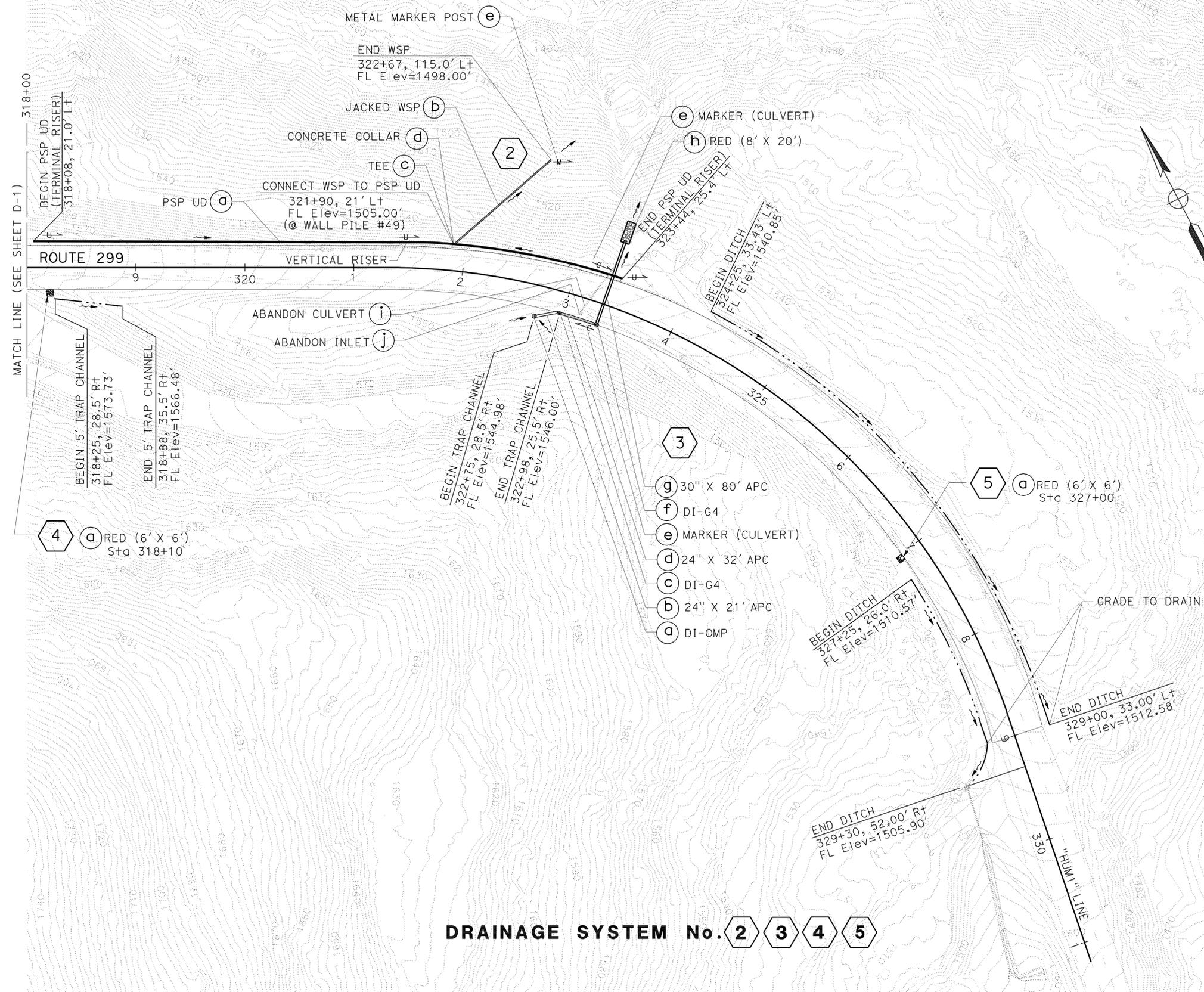
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	16	128

REGISTERED CIVIL ENGINEER	DATE
11-7-11	
5-7-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
FERNANDO MANZANERA
No. 61215
Exp. 6-30-13
CIVIL

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

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



DRAINAGE SYSTEM No. 2 3 4 5

APPROVED FOR DRAINAGE WORK ONLY

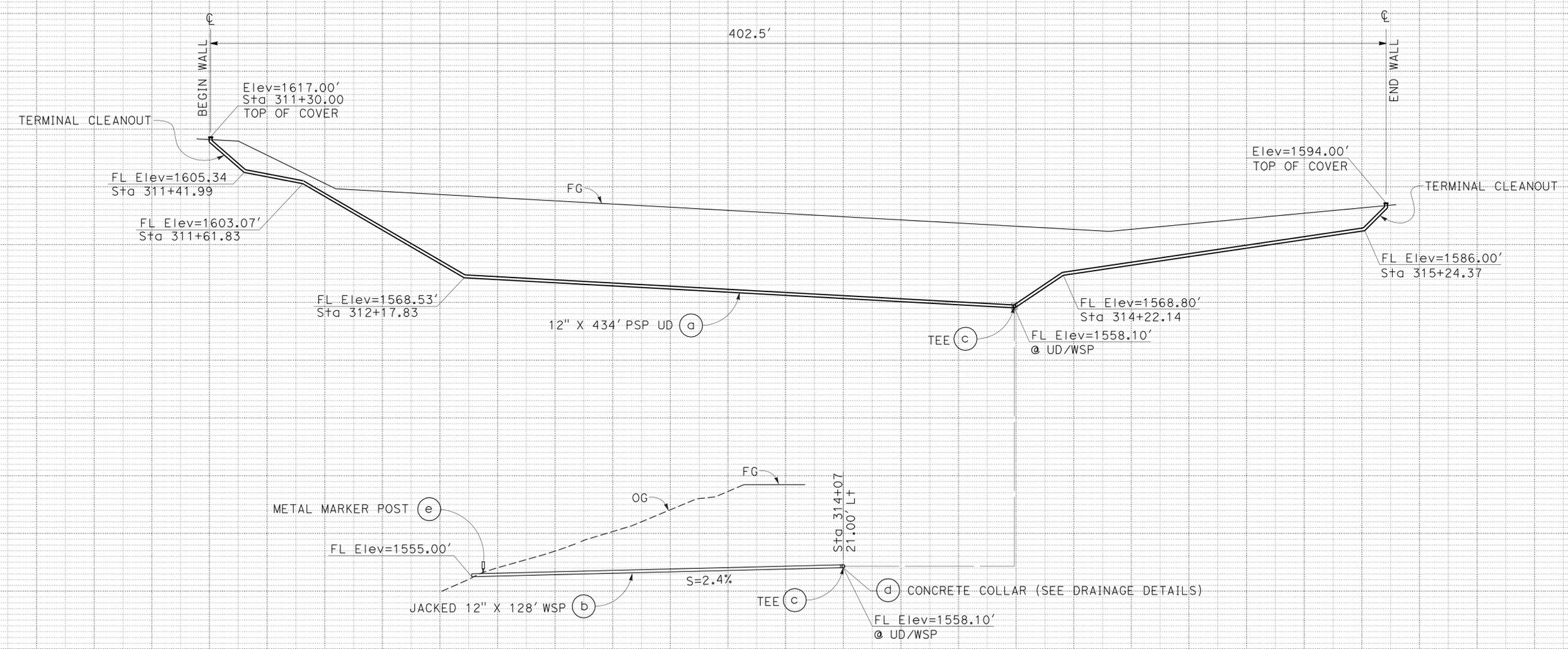
DRAINAGE PLAN
SCALE: 1" = 50'

D-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE
Caltrans DESIGN-HYDRAULICS	TIMOTHY BOESE	FERNANDO MANZANERA	D. VAIL	10/31/11
		CHECKED BY	REVISIONS	
		KEMSET MOORE		

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN-HYDRAULICS
 Caltrans®
 FUNCTIONAL SUPERVISOR: TIMOTHY BOESE
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 FERNANDO MANZANERA
 KEMSET MOORE
 REVISED BY: [blank]
 DATE REVISED: [blank]
 D.VAIL
 10/31/11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	17	128
REGISTERED CIVIL ENGINEER			DATE	11-7-11	
5-7-12			PLANS APPROVAL DATE	[blank]	
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.					



DRAINAGE SYSTEM No. 1
 Sta 314+07

DRAINAGE PROFILES
 SCALE: 1" = 20'
DP-1

LAST REVISION: DATE PLOTTED => 08-MAY-2012
 09-15-11 TIME PLOTTED => 12:29

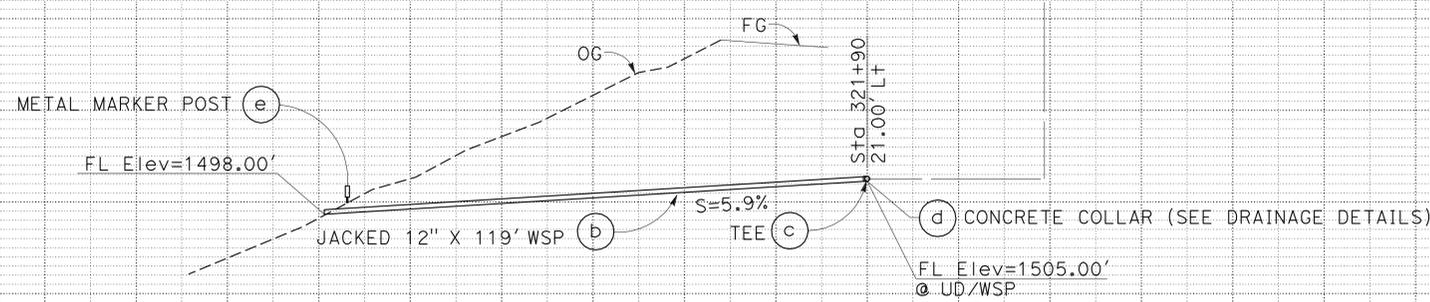
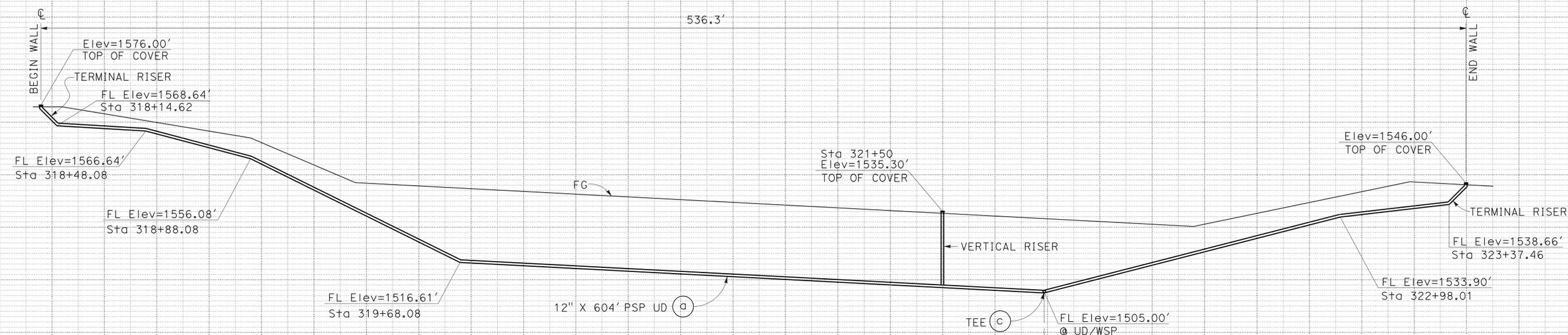
P:\proj\5\01\42370\drafting\clipped\Sheets\01000001721b002.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE
Caltrans	TIMOTHY BOESE	FERNANDO MANZANERA	D. VAIL	10/31/11
	DESIGN-HYDRAULICS	KEMSET MOORE		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	18	128
			REGISTERED CIVIL ENGINEER	DATE	
			5-7-12	11-7-11	
			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.



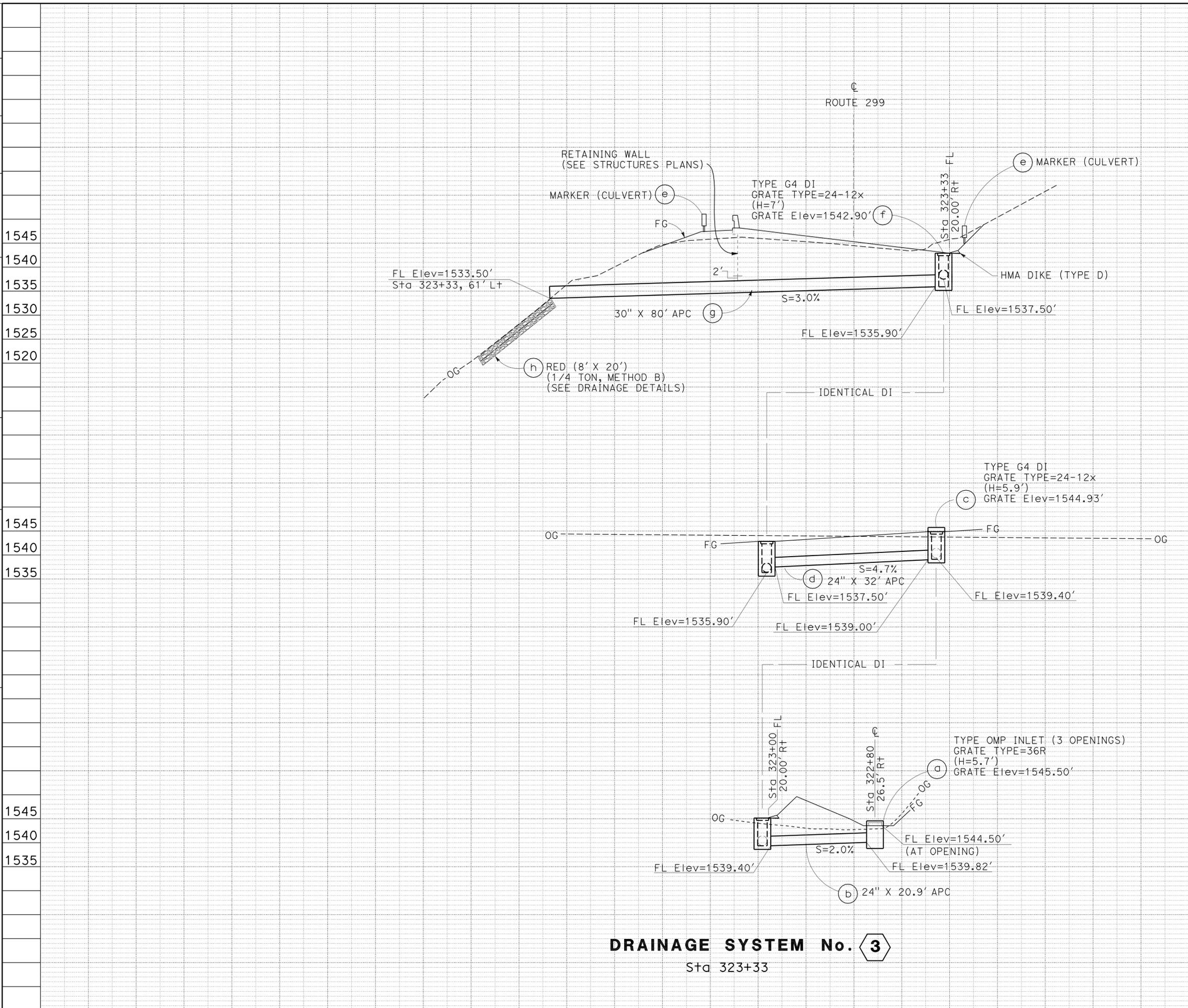
DRAINAGE SYSTEM No. 2

Sta 321+90

DRAINAGE PROFILES
SCALE: 1" = 20'
DP-2

P:\proj\5\01\42370\draft\ing\cl\l\pped\Sheets\01000001721b003.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN-HYDRAULICS
 FUNCTIONAL SUPERVISOR
 TIMOTHY BOESE
 CALCULATED/DESIGNED BY
 CHECKED BY
 FERNANDO MANZANERA
 KEMSET MOORE
 REVISED BY
 DATE REVISED
 D.VAIL
 10/31/11
 USERNAME => s128843
 DGN FILE => 01000001721b003.dgn
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0314
 PROJECT NUMBER & PHASE
 01000001721

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	19	128

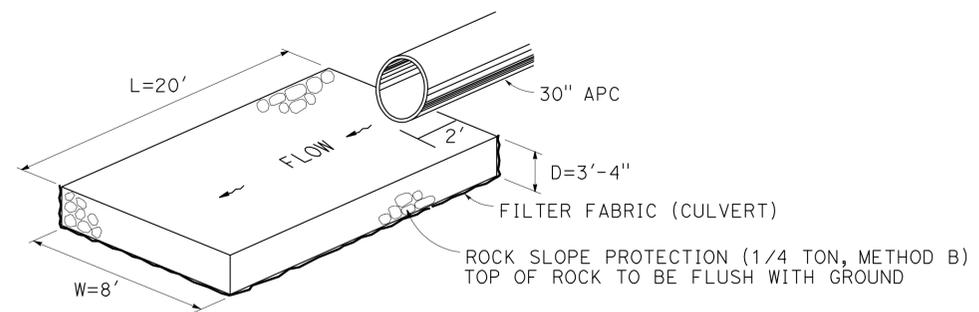


REGISTERED CIVIL ENGINEER DATE 11-7-11
 5-7-12 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

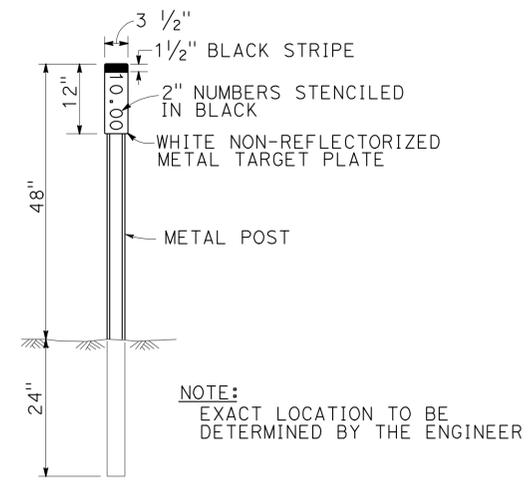
REGISTERED PROFESSIONAL ENGINEER
 FERNANDO MANZANERA
 No. 61215
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA

1545	1545
1540	1540
1535	1535
1530	1530
1525	1525
1520	1520
1545	1545
1540	1540
1535	1535
1545	1545
1540	1540
1535	1535
1545	1545
1540	1540
1535	1535

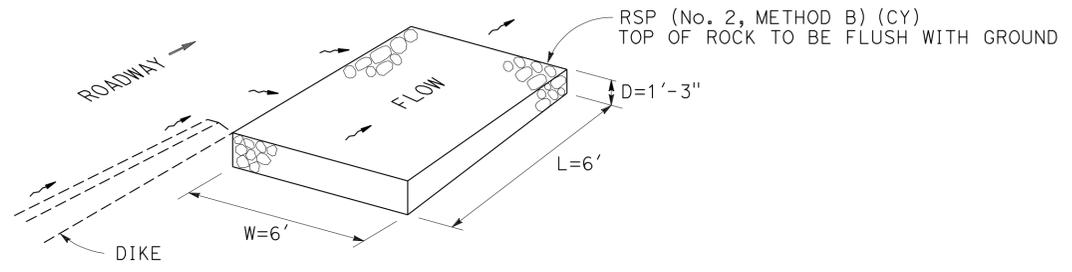
LAST REVISION: DATE PLOTTED => 08-MAY-2012
 09-15-11 TIME PLOTTED => 12:30



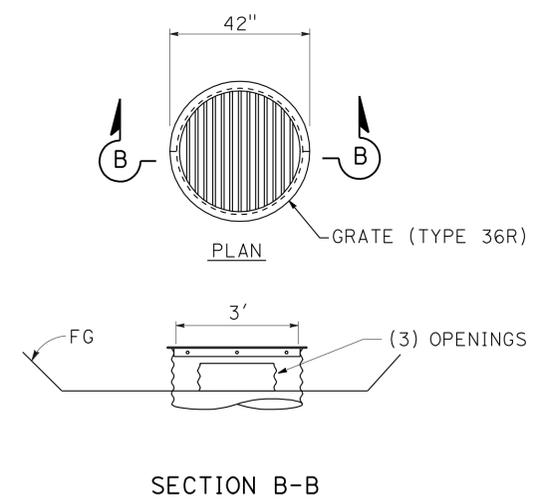
**ROCK ENERGY DISSIPATOR AT DRAINAGE OUTLET
DRAINAGE SYSTEM No. 3**



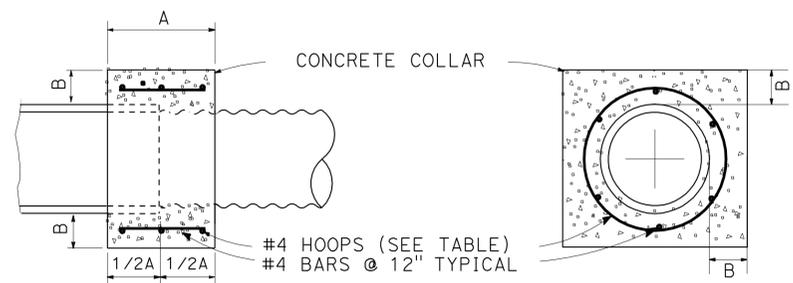
**MARKER (CULVERT)
DRAINAGE SYSTEM No. 3**



**ROCK ENERGY DISSIPATOR AT END OF DIKE
DRAINAGE SYSTEM No. 4 5**



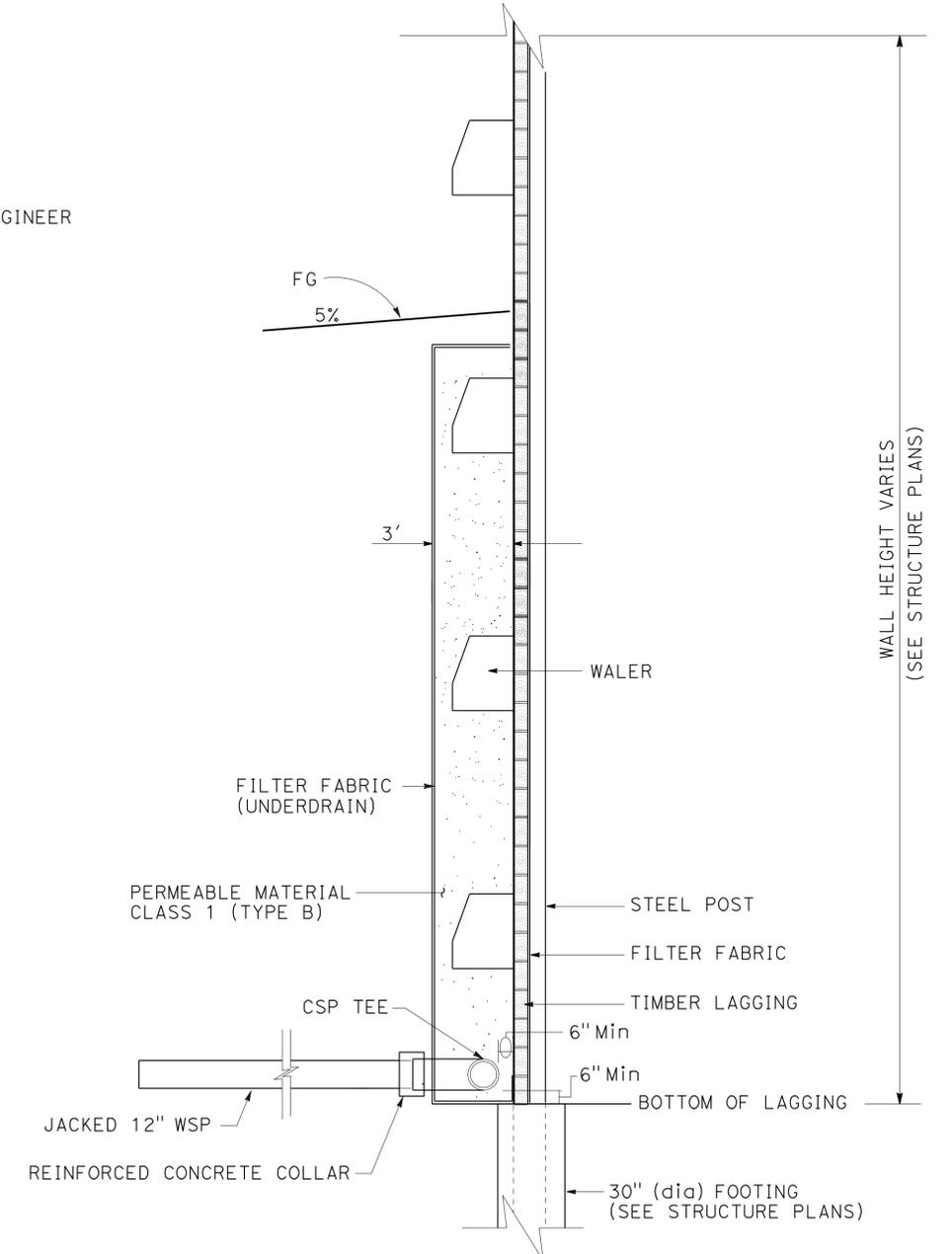
**36" CSP (TYPE OMP)
DRAINAGE SYSTEM No. 3**
NOTE: FOR DETAILS NOT SHOWN, SEE S+D PLAN D75A



DIAMETER	A	B	HOOPS
12" TO 24"	24"	6"	3
30" TO 48"	36"	10"	4
54" TO 72"	48"	12"	5

- NOTES:
1. POSITION PIPE EXTENSION TO PROVIDE FOR A SMOOTH TRANSITION AT THE PIPE FLOWLINE.
 2. PLACE INTERIOR FORM TO PREVENT CONCRETE INTRUSION INTO PIPE INTERIOR.

**REINFORCED CONCRETE COLLAR
DRAINAGE SYSTEM No. 1 2**



**WALL 1 & 2
WALL DRAINAGE DETAIL
DRAINAGE SYSTEM No. 1 2**

**DRAINAGE DETAILS
NO SCALE**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN-HYDRAULICS
FERNANDO MANZANERA
KEMSET MOORE
D. VAIL
10/31/11
TIMOTHY BOESE
REVISIONS: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN-HYDRAULICS
 FUNCTIONAL SUPERVISOR: TIMOTHY BOESE
 CALCULATED/DESIGNED BY: FERNANDO MANZANERA
 CHECKED BY: KEMSET MOORE
 REVISED BY: D.VAIL
 DATE REVISED: 10/31/11

NOTES:

1. ALL CULVERT JOINTS SHALL BE POSITIVE.
2. LENGTHS OF PIPES, DOWNDRAINS AND ANGLES OF ELBOWS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
3. PLASTIC PIPE SHALL BE SMOOTH INTERIOR WALL TYPE WITH WATER TIGHT JOINTS.

APC ALLOWABLE ALTERNATIVES

SYSTEM NUMBER	3
CSP GALVANIZED (0.138" THICK)	X
CSP GALVANIZED (0.079" THICK) POLYMERIC SHEET COATED	X
PLASTIC PIPE (HDPE TYPE S)	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	21	128
REGISTERED CIVIL ENGINEER			DATE	11-7-11	
5-7-12			PLANS APPROVAL DATE	No. 61215 Exp. 6-30-13	
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.					

DRAINAGE SUMMARY TABLE

SYSTEM NUMBER	DRAINAGE UNIT	ITEMS															REMARKS	SYSTEM NUMBER	DRAINAGE UNIT												
		LF	LF	EA	SQYD	CY	SQYD	CY	CY	EA	EA	EA	EA	EA	EA	LF				LBS	LF	LF	CY	CY	EA	EA	FT				
1	a	434			525	435																					WALL DRAINAGE SYSTEM	1	a		
	b		128																								JACKED 12" WSP		b		
	c			1																		0.25					REINFORCED CONCRETE COLLAR		c		
	d																										INSTALL MARKER NEXT TO 12" WSP OUTLET		d		
	e																													e	
2	a	604			1155	970																					WALL DRAINAGE SYSTEM	2	a		
	b		119																								JACKED 12" WSP		b		
	c			1																							REINFORCED CONCRETE COLLAR		c		
	d																					0.25					INSTALL MARKER NEXT TO 12" WSP OUTLET		d		
	e																													e	
3	a														7	236											5.7	INLET TYPE OMP WITH GRATE TYPE 36R	3	a	
	b																										24" APC	b			
	c																										5.9	INLET TYPE G4 WITH GRATE TYPE 24-12x		c	
	d																										24" APC	d			
	e																										CULVERT PADDLE MARKERS	e			
	f																										7	INLET TYPE G4 WITH GRATE TYPE 24-12x		f	
	g																										30" APC	g			
	h					46	18																					ROCK ENERGY DISSIPATOR		h	
	i																											1		ABANDON CULVERT	i
	j																											1		ABANDON INLET	j
4	a																											ROCK ENERGY DISSIPATOR @ END OF DIKE S+a 318+10	4	a	
5	a																											ROCK ENERGY DISSIPATOR @ END OF DIKE S+a 327+00	5	a	
TOTAL		1038	247				46	18	3.4	2	2	5	4	1	7	714	52.9	80	4.3	0.5	1	1									

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

DRAINAGE QUANTITIES
DQ-1

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	W20-1	C23	48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	3
(B)		C40(MOD)	48" X 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	1 - 4" X 6"	2
(C)	G20-2	C14	36" X 18"	END ROAD WORK	1 - 4" X 4"	2
(D)	W11-1		36" X 36"	BICYCLE (SYMBOL)	1 - 4" X 6"	2
	W16-1		24" X 30"	SHARE THE ROAD		

NOTES:

1. EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET THQ-2.

LEGEND:

- (X) CONSTRUCTION AREA SIGN LETTER
- I SIGN - SINGLE POST
- W/FB WITH FLASHING BEACON

(B) C40(Mod)<CA>

TRAFFIC FINES
DOUBLED IN
WORK ZONES

4" D
SERIES
LETTERS

48"X36"

RETROREFLECTIVE WHITE
BACKGROUND WITH BLACK
LEGEND AND BORDER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	22	128

Jeffrey Jewett 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.

REGISTERED PROFESSIONAL ENGINEER

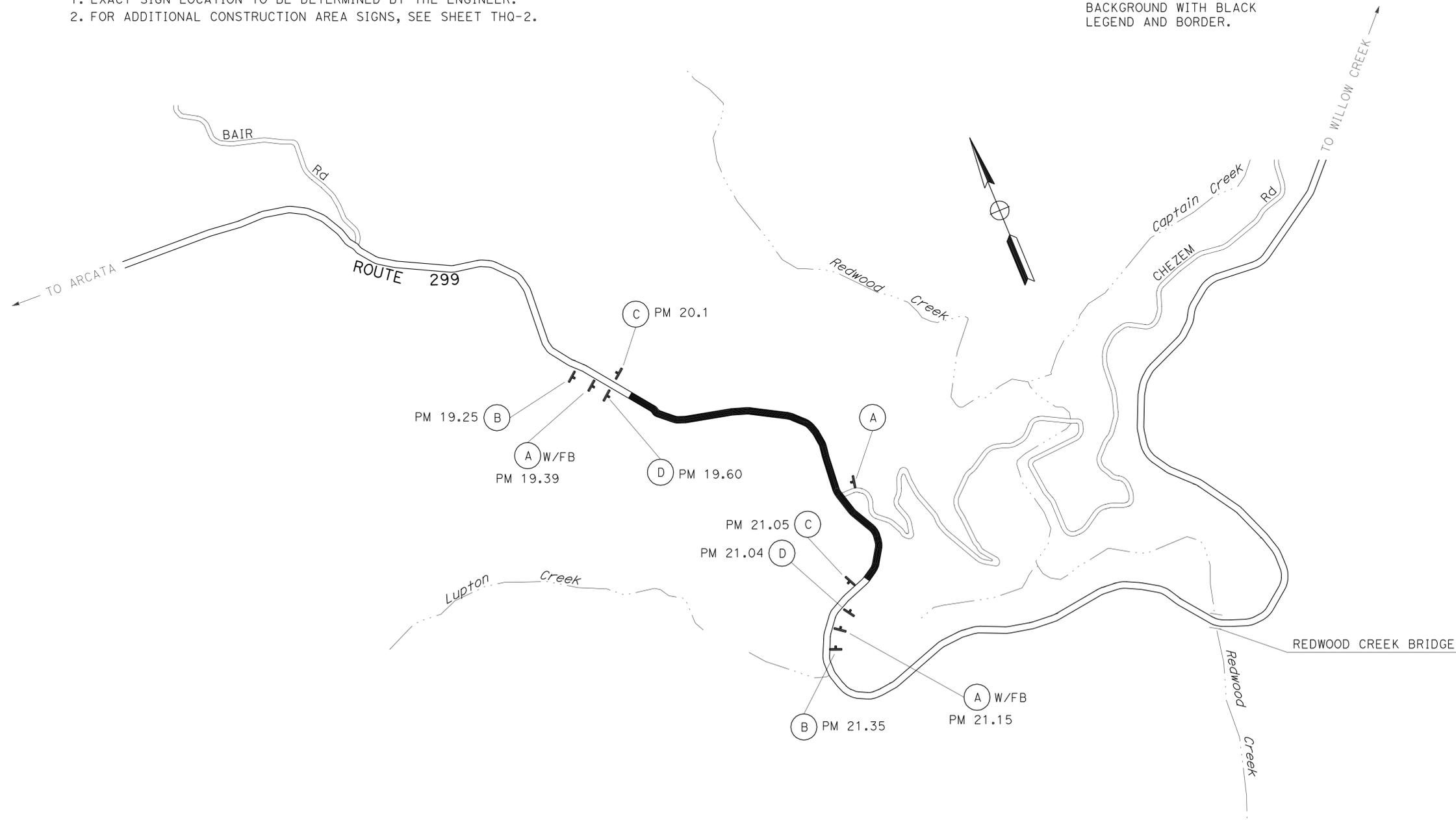
Jeffrey S. Jewett

No. 49233

Exp. 9-30-12

CIVIL

STATE OF CALIFORNIA



CONSTRUCTION AREA SIGNS
NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR: SERGIO ACEVES
 CALCULATED/DESIGNED BY: CHUCK COOK
 CHECKED BY: JEFF JEWETT
 REVISED BY: [] DATE REVISED: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	23	128

Sheri M. Rodriguez 11-7-11
REGISTERED CIVIL ENGINEER DATE

5-7-12
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.

NOTES:

- INDEX NOTES DO NOT REPRESENT AN ORDER OF WORK AS INDICATED.
- CONTRACTOR SHALL PROVIDE TEMPORARY PUBLIC ACCESS TO DRIVEWAYS AND ROADWAY CONNECTIONS THROUGH WORK AT ALL TIMES.
- TEMPORARY RAILING (TYPE K) END TAPER 1:10 OR FLATTER.
- ALL CHANNELIZERS (SURFACE MOUNTED) SHALL BE INSTALLED AT 25' OC UNLESS OTHERWISE SHOWN.
- ALL TRAFFIC PLASTIC DRUMS SHALL BE INSTALLED AT 25' OC UNLESS OTHERWISE SHOWN.
- FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.
- ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA CODES

LEGENDS:

CONSTRUCTION THIS STAGE	TPMP Temp PAVEMENT MARKING (PAINT)	DIRECTION OF TRAFFIC
0.7' THICK TEMPORARY PAVEMENT	CONSTRUCTION AREA SIGN LETTER	FLASHING BEACON
HMA-A HOT MIX ASPHALT - TYPE A	ROADSIDE SIGN NUMBER	SIGN-SINGLE POST
OGFC OPEN-GRADED FRICTION COURSE	COVER ROADSIDE SIGN	<CA> CALIFORNIA SIGN CODE
PAVEMENT DELINEATOR DETAIL NUMBER P=PAINT	RESET ROADSIDE SIGN	Type V ARROW
LIMIT LINE P=PAINT	REMOVE ROADSIDE SIGN	Type VI ARROW
	CHANNELIZER (SURFACE MOUNTED)	TRAFFIC PLASTIC DRUMS
	TEMPORARY RAILING (TYPE K)	TYPE III BARRICADE
		Temp PORTABLE LIGHTING

STAGE 1

THE INTENT OF THIS STAGE IS TO PLACE TEMPORARY STRUCTURAL SECTION AND CONSTRUCT DRAINAGE SYSTEM 3 UNDER ONE-WAY REVERSIBLE TRAFFIC CONTROL PER STD PLAN T-13. EXISTING WESTBOUND PASSING LANE EAST OF THE PROJECT LIMITS TO BE CLOSED USING CHANNELIZERS (SURFACE MOUNTED) SPACED AT 25' OC.

STAGE 1 CONSTRUCTION (WORK TO BE PERFORMED):

- (A1) CLOSE WESTBOUND PASSING LANE, STA 325+60 TO 352+83
- (A2) WIDEN SHOULDERS AND PLACE TEMPORARY PAVEMENT AS SHOWN

STAGE 2

THE INTENT OF THIS STAGE IS TO CONSTRUCT THE SOLDIER PILE RETAINING WALLS AND DRAINAGE SYSTEMS. TRAFFIC WILL BE CONTROLLED WITH A TEMPORARY TRAFFIC SIGNAL. THERE WILL BE A SEPARATED BIKE LANE FOR THE WEST BOUND BICYCLIST THROUGH THE WESTERLY END OF THE PROJECT LIMITS. EASTBOUND BICYCLISTS SHARE THE ROAD WITH TRAFFIC.

STAGE 2 CONSTRUCTION (WORK TO BE PERFORMED):

- (B1) PLACE TEMPORARY RAILING (TYPE K), AND TEMPORARY CRASH CUSHION (ABSORB 350) AS SHOWN
- (B2) INSTALL TEMPORARY TRAFFIC SIGNALS AND TEMPORARY SOLAR FLASHING BEACON SYSTEM
- (B3) INSTALL ADDITIONAL STATIONARY MOUNTED CONSTRUCTION AREA SIGNS
- (B4) CONSTRUCT TEMPORARY ACCESS ROAD
- (B5) CONSTRUCT SOLDIER PILE RETAINING WALLS AND DRAINAGE SYSTEMS
- (B6) CONSTRUCT CONCRETE BARRIER SLAB
- (B7) CONSTRUCT TYPE 732 CONCRETE BARRIER, MBGR & END TREATMENTS

STAGE 3

THE INTENT OF THIS STAGE IS TO RECONSTRUCT ROADWAY STRUCTURAL SECTION UNDER ONE-WAY REVERSIBLE TRAFFIC CONTROL PER STD PLAN T-13. TRAFFIC WILL BE ALLOWED TO RUN ON BASE DURING NON-WORKING HOURS, AT WHICH TIME CENTERLINE SHALL BE ILLUMINATED WITH PLASTIC TRAFFIC DRUMS SPACED AT 25' OC, AND TRAFFIC WILL BE STOPPED BY STOP SIGNS PRIOR TO ENTERING PROJECT LIMITS. SEE STAGE 3 PLANS FOR DETAILS ON TRAFFIC HANDLING.

STAGE 3 CONSTRUCTION (WORK TO BE PERFORMED):

- (C1) RECONSTRUCT ROADWAY STRUCTURAL SECTION, STA 309+62.01 TO 329+00
- (C2) COLD PLANE 0.10' AC, STA 307+00 TO 309+62.01 AND STA 329+00 TO 330+55.85
- (C3) PLACE OGFC
- (C4) PLACE LANDSCAPING ITEMS
- (C5) PLACE FINAL SIGNING AND STRIPING (SEE PAVEMENT DELINEATION AND SIGN PLANS)

INDEX SHEET
STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN
SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
NORTH REGION
DIVISION OF ENGINEERING
FUNCTIONAL SUPERVISOR
TROY ARSENEAU
CALCULATED/DESIGNED BY
CHECKED BY
SHERI RODRIGUEZ
NARAYAN SELWAL
REVISED BY
DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	24	128

<i>Sheri M. Rodriguez</i>	11-7-11
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	SHERI M. RODRIGUEZ
No. 66861	
Exp 09-30-12	
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.

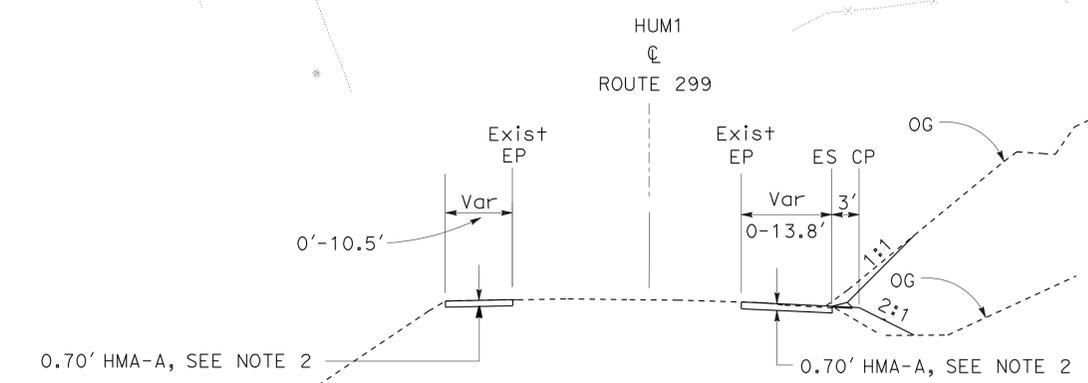
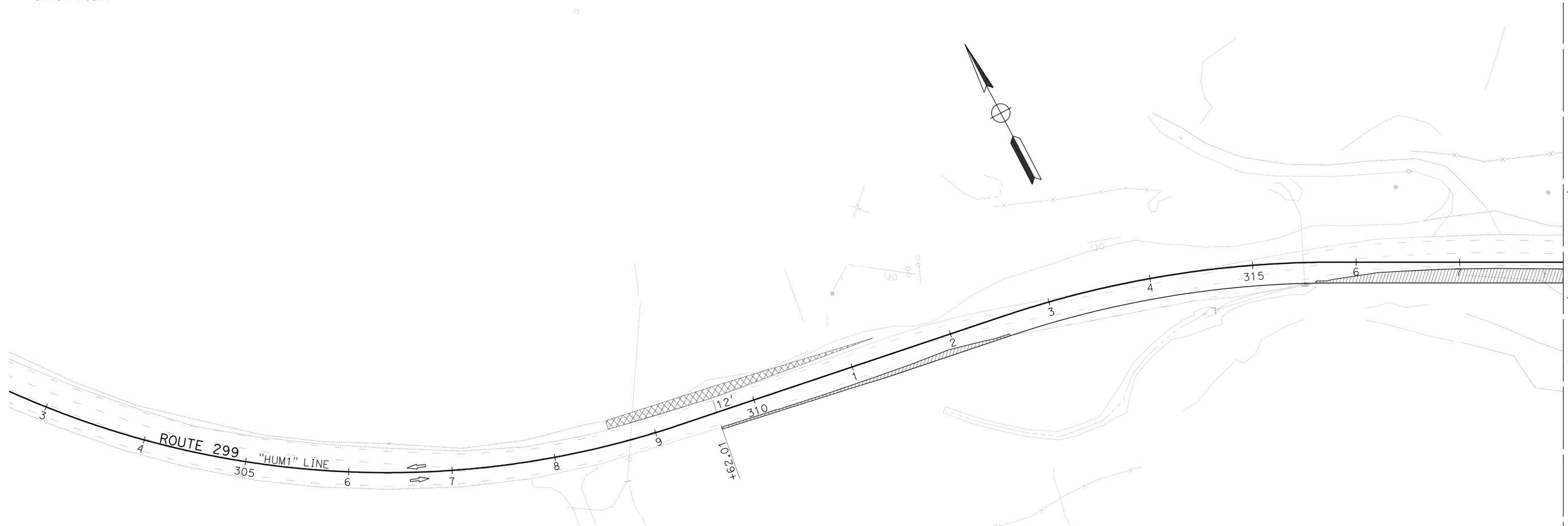
NOTES:

1. CLOSE WESTBOUND PASSING LANE, Sta 328+80 TO Sta 352+83.
2. WIDEN SHOULDERS AND PLACE TEMPORARY STRUCTURAL SECTION (MATCH Exist CROSS SLOPE)
3. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL OR RESET SHALL REMAIN IN PLACE.

ABBREVIATIONS:

- ETW - EDGE OF TRAVELED WAY
 ES - EDGE OF SHOULDER
 CP - CATCH POINT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	TROY ARSENEAU	SHERI RODRIGUEZ	
NORTH REGION DIVISION OF ENGINEERING	CHECKED BY	NARAYAN SELWAL	
	DESIGNED BY		



TYPICAL SECTION

**STAGE 1
 STAGE CONSTRUCTION AND
 TRAFFIC HANDLING PLAN**

NO SCALE **SC-2**

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 08-MAY-2012
 00-00-00 TIME PLOTTED => 12:30

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	25	128

Sheri M. Rodriguez 11-7-11
REGISTERED CIVIL ENGINEER DATE

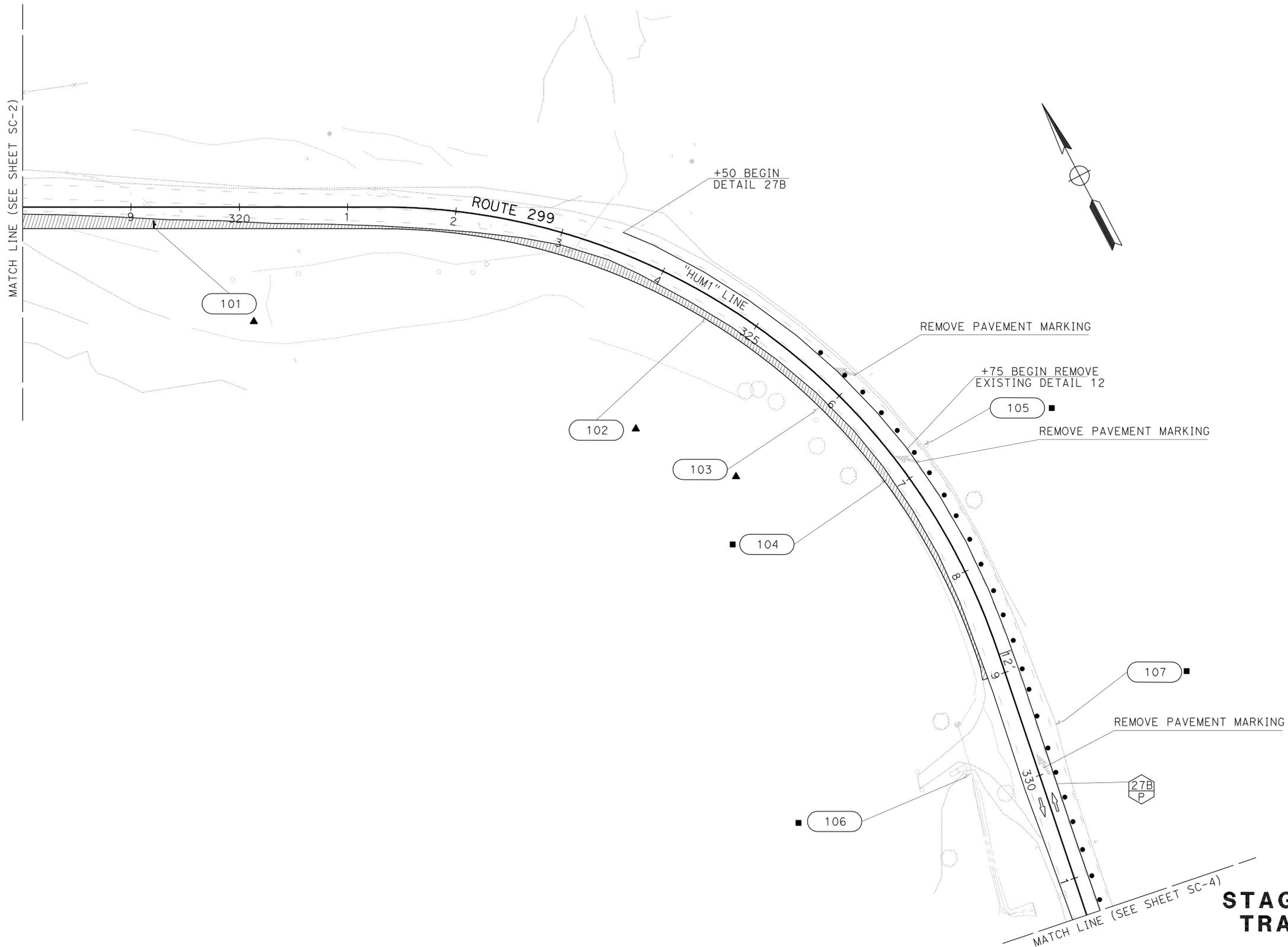
5-7-12
PLANS APPROVAL DATE

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.

NOTES:

1. CLOSE WESTBOUND PASSING LANE, STA 325+60 TO STA 352+83.
2. CHANNELIZERS (SURFACE MOUNTED) SHALL BE INSTALLED AT 25' OC.
3. WIDEN SHOULDERS AND PLACE TEMPORARY STRUCTURAL SECTION (MATCH Exist+ CROSS SLOPE)
4. ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL OR RESET SHALL REMAIN IN PLACE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	TROY ARSENEAU	SHERI RODRIGUEZ	NARAYAN SELWAL
NORTH REGION DIVISION OF ENGINEERING		CHECKED BY	DATE REVISED



APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

**STAGE 1
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**

NO SCALE

SC-3



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	26	128

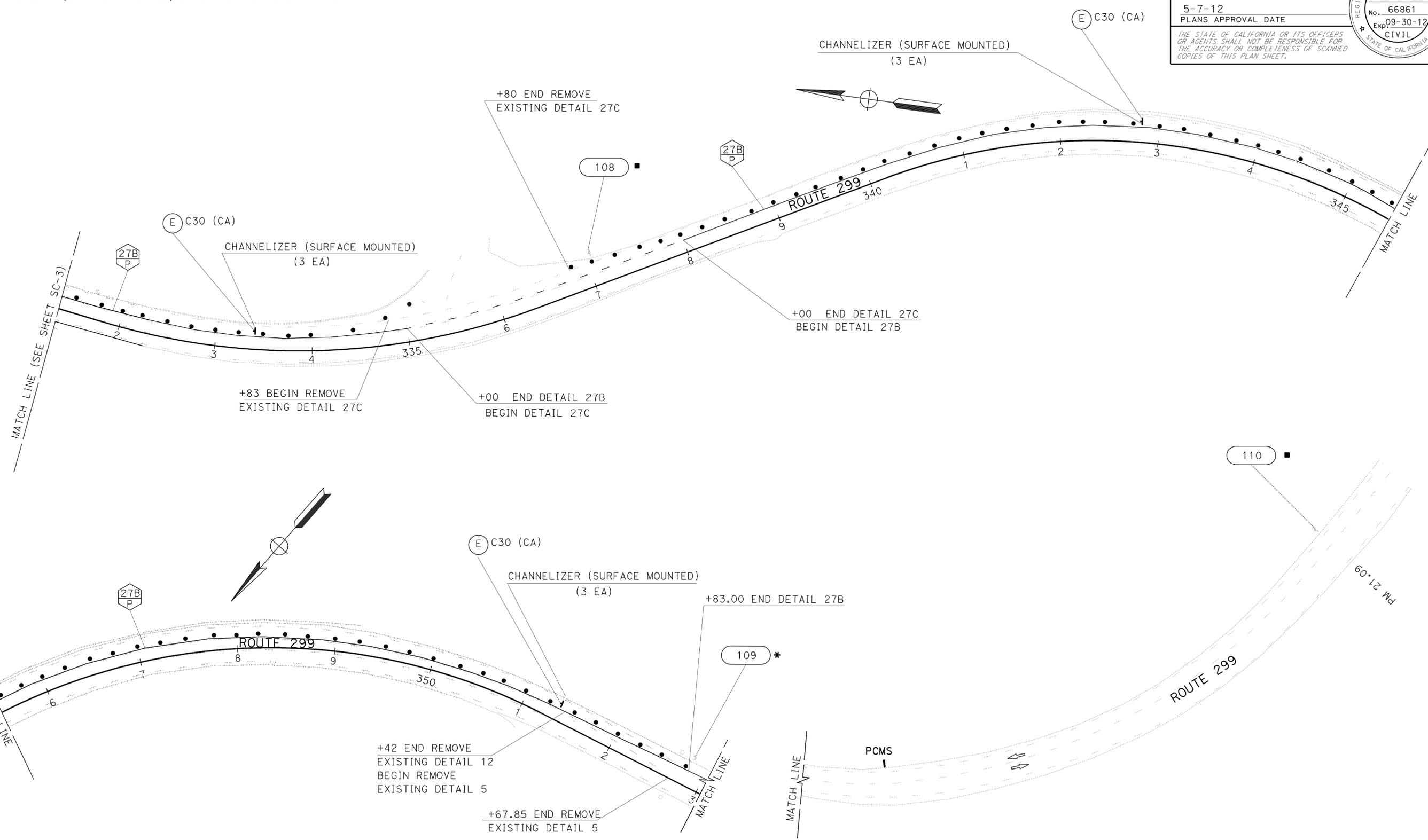
<i>Sheri M. Rodriguez</i>		11-7-11
REGISTERED CIVIL ENGINEER	DATE	
5-7-12		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER
SHERI M. RODRIGUEZ
 No. 66861
 Exp. 09-30-12
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

1. CLOSE WESTBOUND PASSING LANE, Sta 325+60 TO Sta 352+83.
2. CHANNELIZERS (SURFACE MOUNTED) SHALL BE INSTALLED AT 25' OC.



STAGE 1
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN
 NO SCALE
SC-4

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
NORTH REGION DIVISION OF ENGINEERING
FUNCTIONAL SUPERVISOR
TROY ARSENEAU
CALCULATED/DESIGNED BY
CHECKED BY
SHERI RODRIGUEZ
NARAYAN SELWAL
REVISED BY
DATE REVISED

USERNAME => s128843
 DGN FILE => 0100000172ma004.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0042

PROJECT NUMBER & PHASE

01000001721

LAST REVISION DATE PLOTTED => 08-MAY-2012
 00-00-00 TIME PLOTTED => 12:30

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	29	128

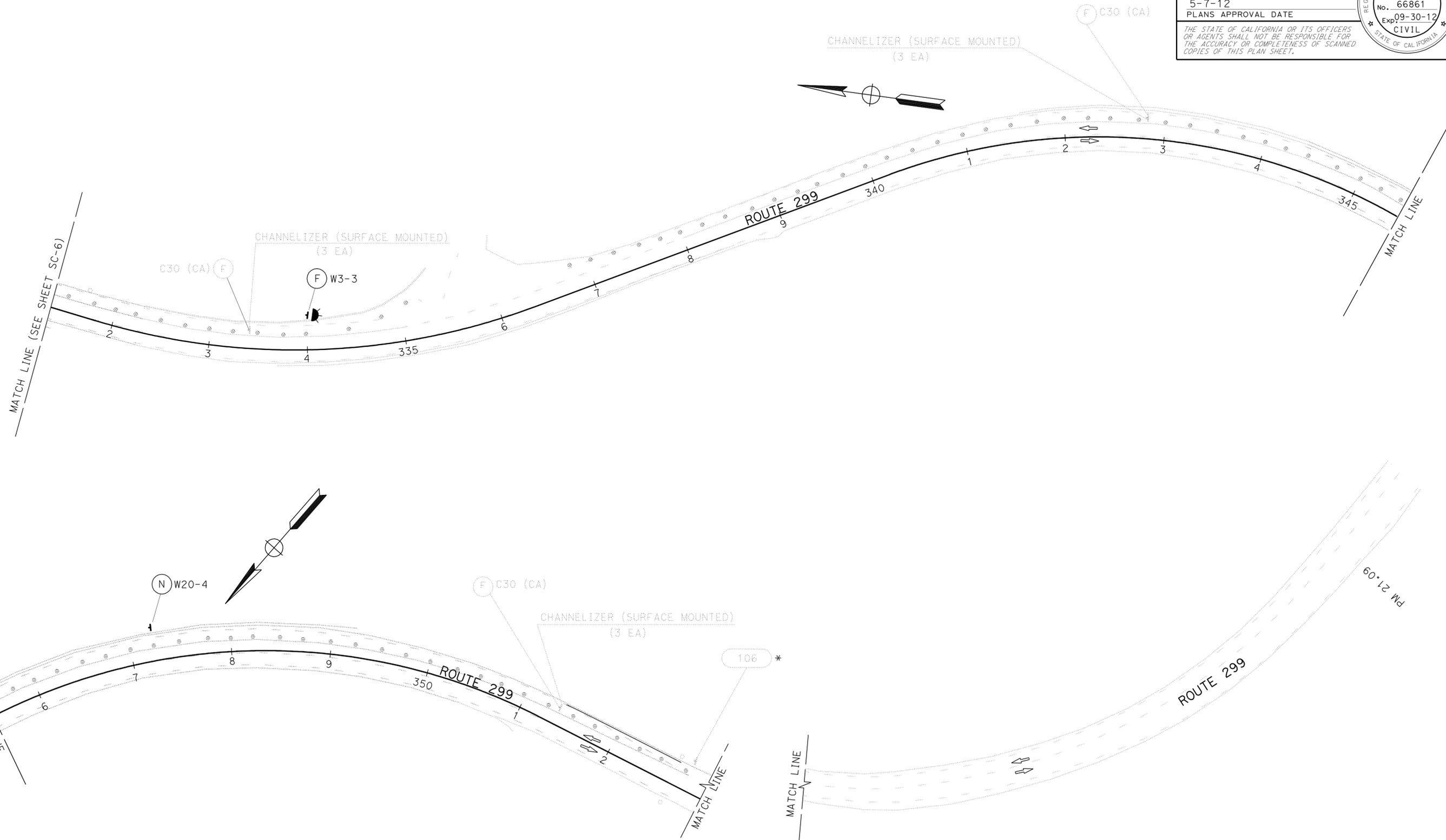
<i>Sheri M. Rodriguez</i> 11-7-11	
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
SHERI M. RODRIGUEZ
No. 66861
Exp. 09-30-12
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.

NOTES:

1. FOR SIGNS NOT SHOWN HERE, SEE CONSTRUCTION AREA SIGNS SHEET CS-1.
2. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.



**STAGE 2
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN
NO SCALE
SC-7**

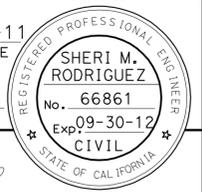
APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	TROY ARSENEAU	SHERI RODRIGUEZ	
NORTH REGION DIVISION OF ENGINEERING		NARAYAN SELWAL	
	CHECKED BY	DESIGNED BY	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	30	128

<i>Sheri M. Rodriguez</i>	11-7-11
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

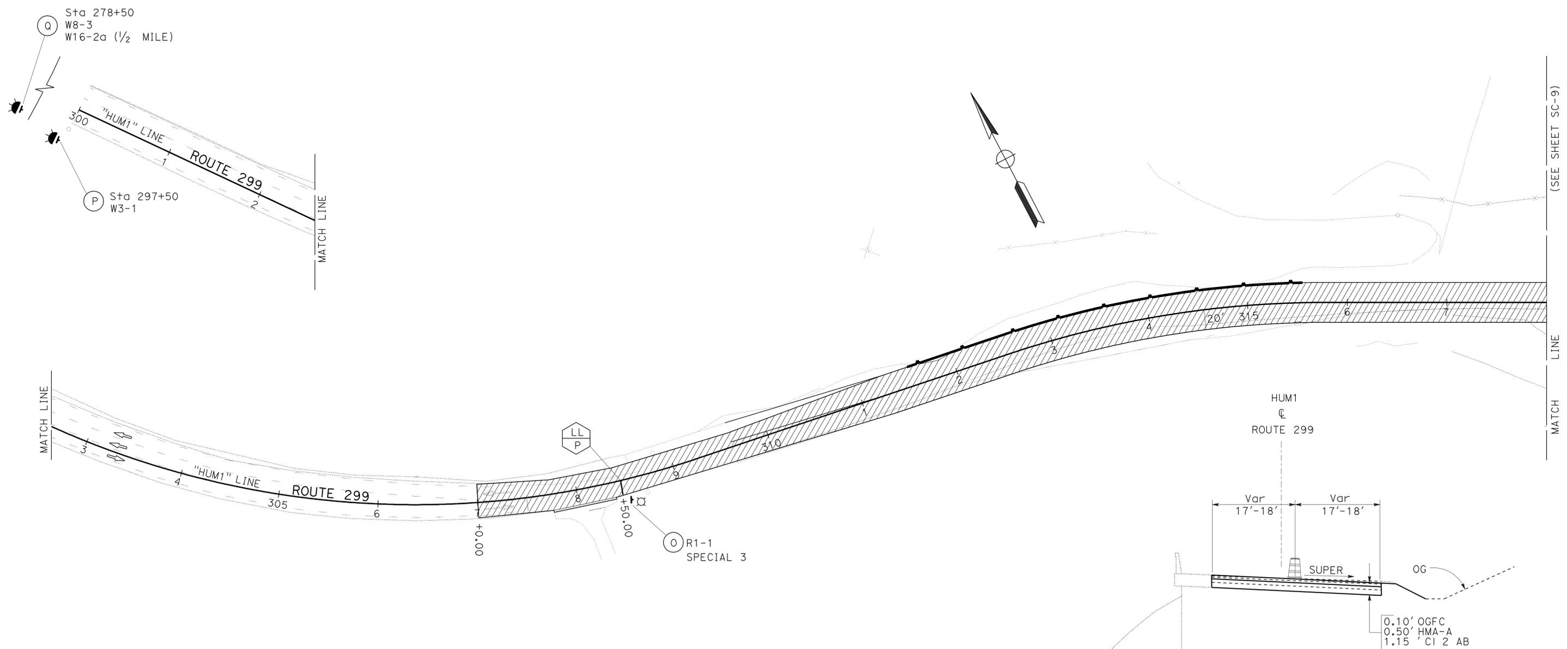
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTES:

1. STOP BARS SHALL BE ILLUMINATED.
2. WHEN TWO-WAY TRAFFIC IS RUNNING ON BASE, CENTERLINE SHALL BE ILLUMINATED WITH TRAFFIC PLASTIC DRUMS AT 25' OC.
3. ALL SIGNS INSTALLED AS PART OF STAGE 2 NOT INDICATED ON THESE PLANS SHALL BE REMOVED.
4. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 NORTH REGION DIVISION OF ENGINEERING
 Sheri M. Rodriguez
 Narayan Selwal
 Troy Arsenneau
 Functional Supervisor
 Calculated/Designed By
 Checked By
 Revised By
 Date Revised
 SHERI RODRIGUEZ
 NARAYAN SELWAL
 TROY ARSENEAU
 TROY ARSENEAU
 TROY ARSENEAU



TYPICAL SECTION

**STAGE 3
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**

NO SCALE

SC-8

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	31	128

Sheri M. Rodriguez 11-7-11
REGISTERED CIVIL ENGINEER DATE

5-7-12
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.

NOTES:

1. STOP BARS SHALL BE ILLUMINATED.
2. WHEN TWO-WAY TRAFFIC IS RUNNING ON BASE, CENTERLINE SHALL BE ILLUMINATED WITH TRAFFIC PLASTIC DRUMS AT 25' OC.
3. ALL SIGNS INSTALLED AS PART OF STAGE 2 NOT INDICATED ON THESE PLANS SHALL BE REMOVED.
4. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	TROY ARSENEAU	SHERI RODRIGUEZ	SHERI RODRIGUEZ
NORTH REGION DIVISION OF ENGINEERING		NARAYAN SELWAL	NARAYAN SELWAL
			DATE REVISED

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

**STAGE 3
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN
NO SCALE
SC-9**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	32	128

<i>Sheri M. Rodriguez</i>		11-7-11
REGISTERED CIVIL ENGINEER	DATE	
5-7-12		
PLANS APPROVAL DATE		

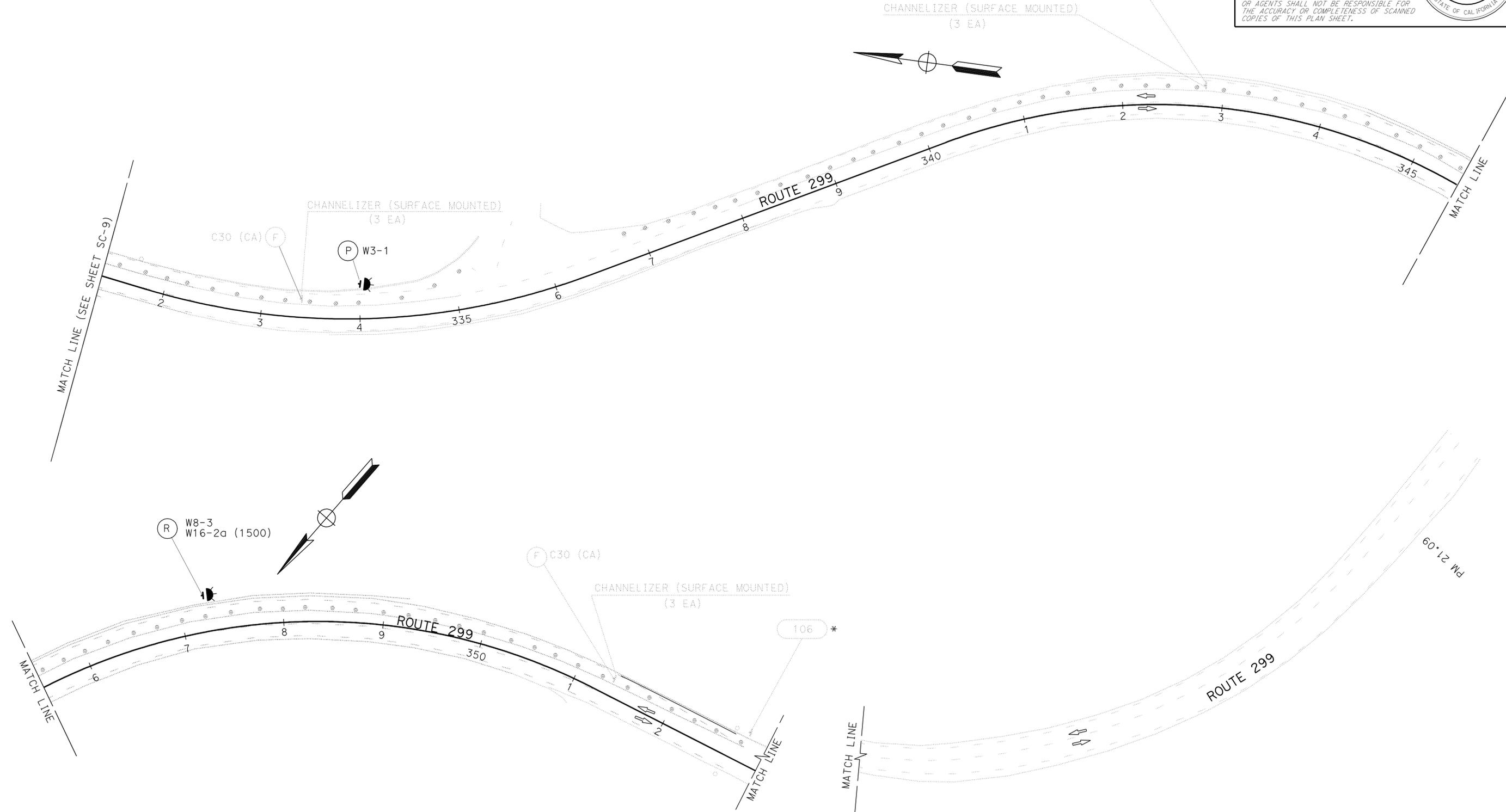
SHERI M. RODRIGUEZ	
No. 66861	Exp. 09-30-12
CIVIL	

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.

NOTES:

1. STOP BARS SHALL BE ILLUMINATED.
2. WHEN TWO-WAY TRAFFIC IS RUNNING ON BASE, CENTERLINE SHALL BE ILLUMINATED WITH TRAFFIC PLASTIC DRUMS AT 25' OC.
3. ALL SIGNS INSTALLED AS PART OF STAGE 2 NOT INDICATED ON THESE PLANS SHALL BE REMOVED.
4. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	TROY ARSENEAU	SHERI RODRIGUEZ	DATE
NORTH REGION DIVISION OF ENGINEERING		NARAYAN SELWAL	REVISOR
			DATE



**STAGE 3
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**
NO SCALE
SC-10

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 08-MAY-2012
00-00-00 TIME PLOTTED => 13:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	33	128

<i>N. Selwal</i>	11-7-11
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

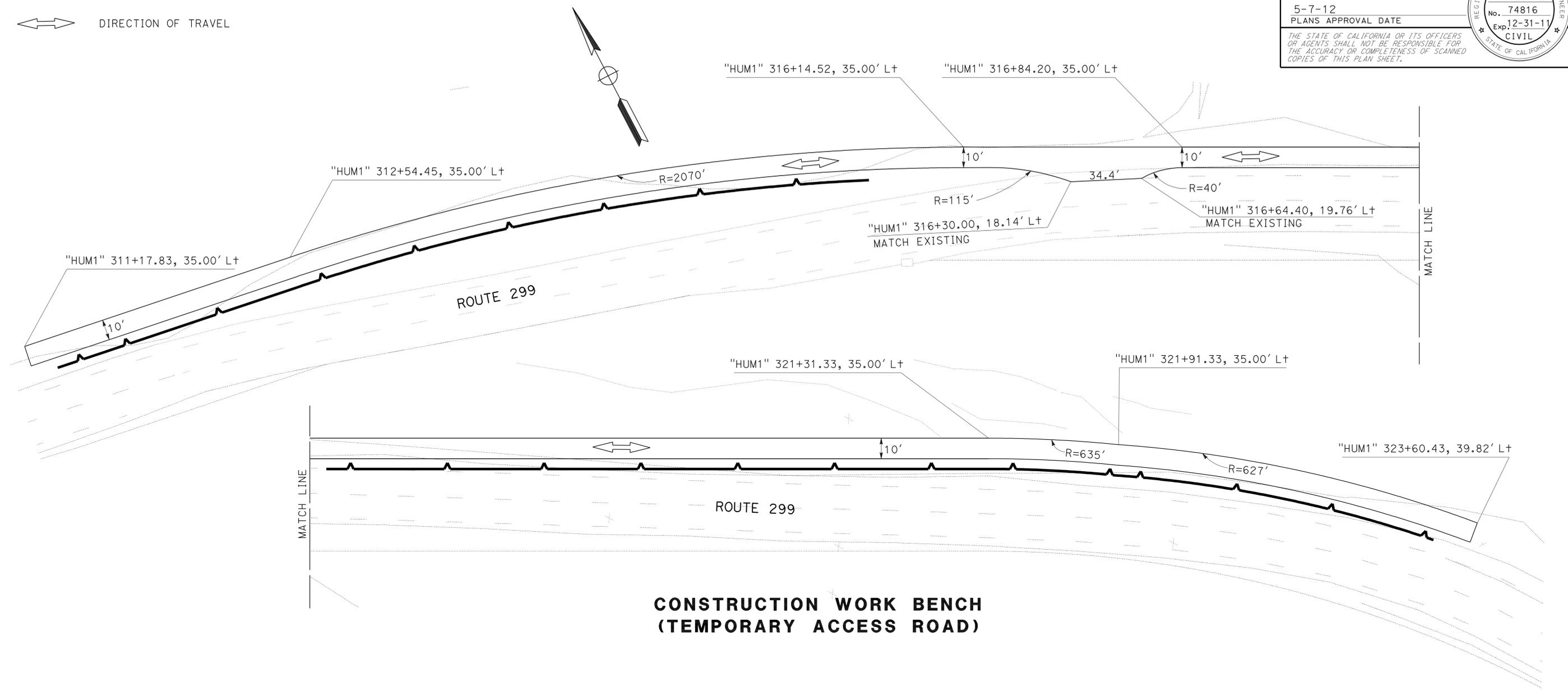
REGISTERED PROFESSIONAL ENGINEER
 N. SELWAL
 No. 74816
 Exp. 12-31-11
 CIVIL
 STATE OF CALIFORNIA

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.

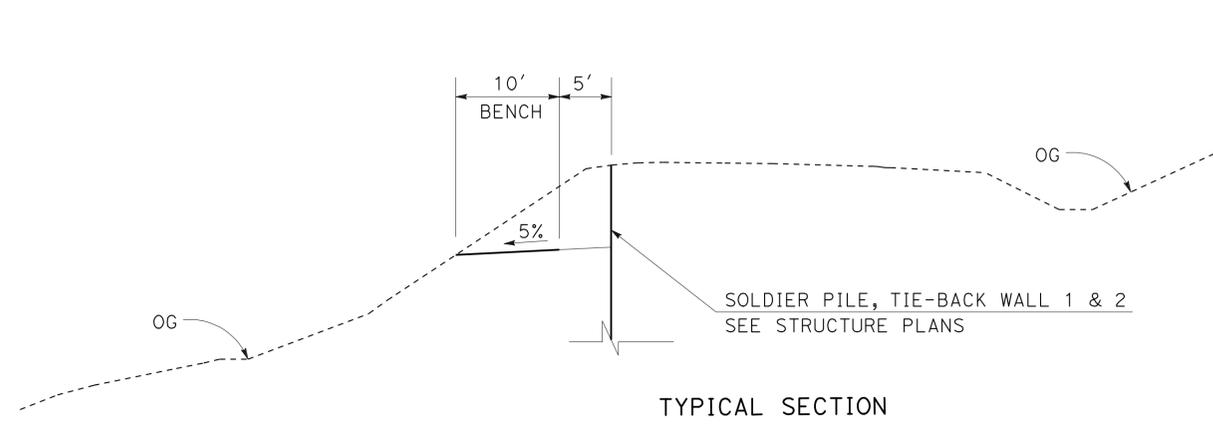
LEGEND:

 SOLDIER PILE TIE-BACK WALL LAYOUT LINE

 DIRECTION OF TRAVEL



**CONSTRUCTION WORK BENCH
(TEMPORARY ACCESS ROAD)**



STAGE CONSTRUCTION DETAILS
NO SCALE

SCD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	NESAR FORMOLI	NESAR FORMOLI	NARAYAN SELWAL
NORTH REGION DIVISION OF ENGINEERING		CHECKED BY	DATE REVISOR

LAST REVISION DATE PLOTTED => 08-MAY-2012 00-00-00 TIME PLOTTED => 13:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	34	128

Sheri M. Rodriguez 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.

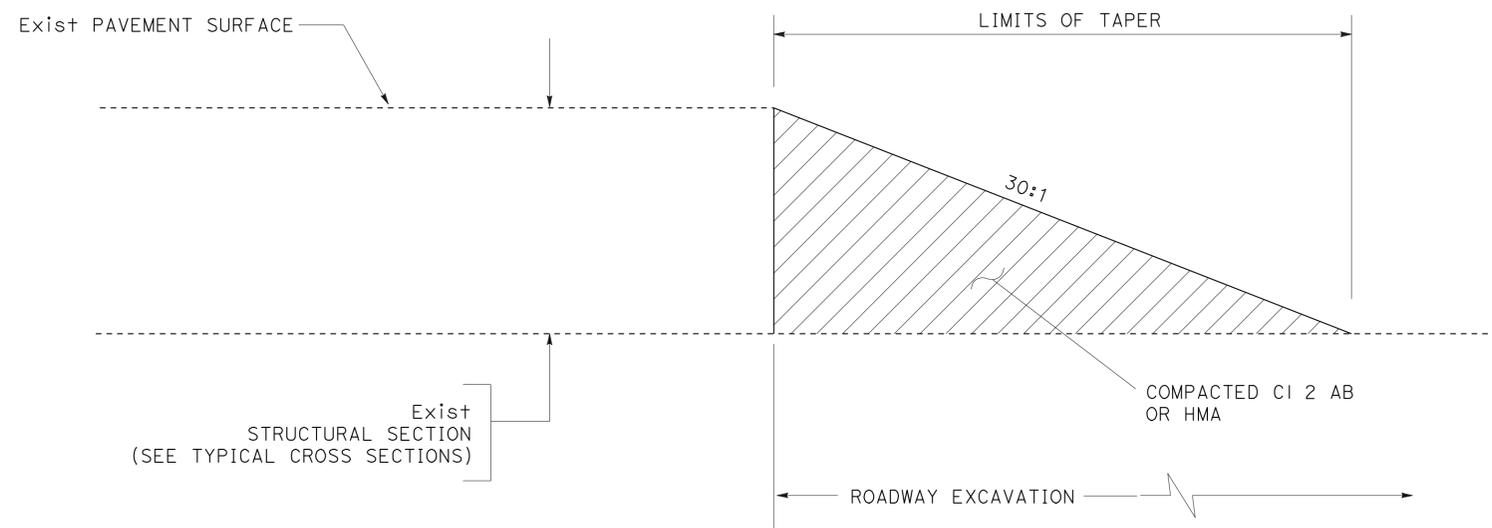
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR
 TROY ARSENEAU

CALCULATED/DESIGNED BY
 CHECKED BY

SHERI RODRIGUEZ
 NARAYAN SELWAL

REVISED BY
 DATE REVISED



TEMPORARY TAPER DETAIL

TEMPORARY RAILING (TYPE K)

STATION		STAGE	LF
FROM	TO		
311+05	315+95	2	480
311+10	323+75	2	1265
TOTAL			1745

TEMPORARY CRASH CUSHION (ABSORB 350)

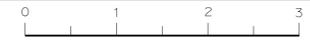
STATION	STAGE	EA
310+70	2	1
315+95	2	1
323+70	2	1
TOTAL		3

STAGE CONSTRUCTION DETAILS AND QUANTITIES

NO SCALE

SCD-2

APPROVED FOR STAGE CONSTRUCTION WORK ONLY



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	35	128

Sheri M. Rodriguez 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.

ROADSIDE SIGNS

SIGN NUMBER	SIGN CODE	STAGE 1		STAGE 2		STAGE 3		"FINAL"		REMARKS
		ROADSIDE SIGN		ROADSIDE SIGN		ROADSIDE SIGN		CONSTRUCTION AREA SIGN		
		RESET ROADSIDE SIGN (EACH)	REMOVE ROADSIDE SIGN (EACH)	RESET ROADSIDE SIGN (EACH)	REMOVE ROADSIDE SIGN (EACH)	RESET ROADSIDE SIGN (EACH)	REMOVE ROADSIDE SIGN (EACH)	REMOVE SIGN	SIGN TO REMAIN	
101	W1-2R W13-1 (40)	1							X	
102	S3-1 (400)	1							X	
103	W8-5	1								
104	R4-1		1							
105	R4-1		1							
106	W4-2R		1							
107	W4-2R		1							
108	W75 <CA>		1							
109	R4-3								X	COVER THE SIGN
110	R68 (CA)		1							
201	R68 (CA)			1			1	X		
202	W1-6R			1			1	X		
203	W8-5			1			1	X		
204	W1-2 W13-1 (35)			1			1	X		
SUB-TOTAL		3	6	4			4			

SUMMARY OF QUANTITIES OF ROADSIDE SIGN

	REMOVE ROADSIDE SIGN (EACH)			RESET ROADSIDE SIGN (EACH)		
	STAGE 1	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3
SUB-TOTAL	6	-	4	3	4	-
TOTAL	10			7		

NOTE:- FOR ADDITIONAL ROADSIDE SIGN QUANTITIES, SEE SHEET SQ-1

TRAFFIC HANDLING QUANTITIES

THQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

NORTH REGION
DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR
TROY ARSENEAU

CALCULATED/DESIGNED BY
CHECKED BY

SHERI RODRIGUEZ
NARAYAN SELWAL

REVISED BY
DATE REVISED

USERNAME => s114926
DGN FILE => 0100000172mf001.dgn

BORDER LAST REVISED 7/2/2010



LAST REVISION DATE PLOTTED => 08-MAY-2012
00-00-00 TIME PLOTTED => 11:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	36	128

Sheri M. Rodriguez 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.

NOTES:

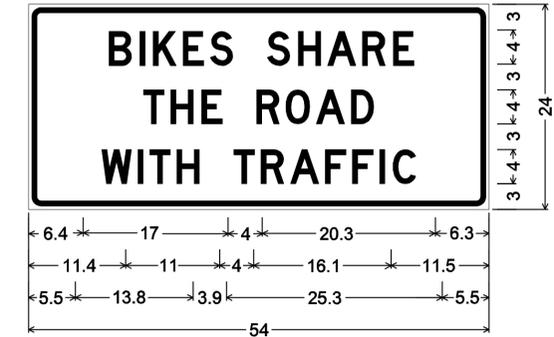
1. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER
2. SIGNS SHOWN WITH (CA) INDICATE CALIFORNIA MUTCD SIGN CODE, OTHERWISE FEDERAL SIGN CODES ARE SHOWN.
3. PCMS MESSAGE AND LOCATION TO BE DETERMINED BY THE ENGINEER
4. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.
5. ALL SIGNS EXCEPT REGULATORY, SHALL BE BLACK ON WHITE

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

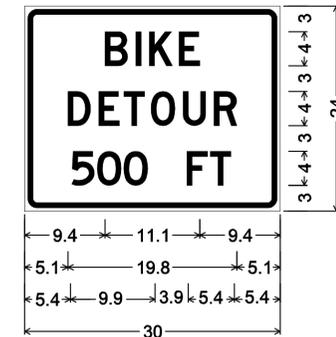
2	EA
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ADDITIONAL CONSTRUCTION AREA SIGNS

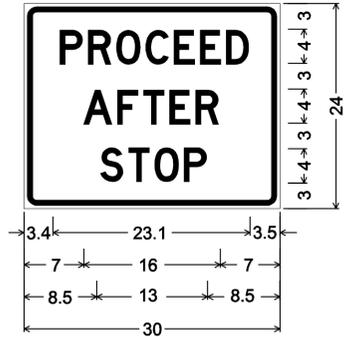
SIGN LETTER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	MOUNT TYPE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS	REMARKS
(E)	C30 (CA)		LANE CLOSED	PORTABLE		3	
(F)	W3-3	36" X 36"	SIGNAL AHEAD SYMBOL	STATIONARY	1-6" X 8"	2	FLASHING BEACON
(G)	SPECIAL 1	54" X 24"	BIKES SHARE THE ROAD WITH TRAFFIC	STATIONARY	1-4" X 6"	1	
(H)	SPECIAL 2	30" X 24"	BIKE DETOUR 500 FT	STATIONARY	1-4" X 4"	1	
(I)	R10-6	24" X 36"	STOP HERE ON RED	STATIONARY	1-4" X 6"	2	
(J)	M4-8a	24" X 18"	END DETOUR	STATIONARY	1-4" X 4"	1	
(K)	W1-4R	36" X 36"	REVERSE CURVE SYMBOL	STATIONARY	1-4" X 6"	1	
(L)	W11-1 W16-7p (L)	36" X 36" 30" X 18"	BICYCLE TRAFFIC SYMBOL DIAGONAL ARROW PLAQUE	STATIONARY	1-4" X 6"	1	
(M)	R5-6	24" X 24"	NO BICYCLES SYMBOL	STATIONARY	1-4" X 4"	1	
(N)	W20-4	36" X 36"	ONE LANE ROAD AHEAD	STATIONARY	1-6" X 8"	2	FLASHING BEACON
(O)	R1-1 SPECIAL 3	36" X 36" 30" X 24"	STOP PROCEED AFTER STOP	STATIONARY	1-4" X 6"	2	
(P)	W3-1	36" X 36"	STOP AHEAD SYMBOL	STATIONARY	1-6" X 8"	2	FLASHING BEACON
(Q)	W8-3 W16-2a (1/2 MILE)	36" X 36" 30" X 18"	PAVEMENT ENDS 1/2 MILE	STATIONARY	1-6" X 8"	1	FLASHING BEACON
(R)	W8-3 W16-2a (1500)	36" X 36" 30" X 18"	PAVEMENT ENDS 1500 FT	STATIONARY	1-6" X 8"	1	FLASHING BEACON



Special - SPEC 1;
 1.5" Radius, 0.6" Border, Black on Orange
 [BIKES SHARE] D; [THE ROAD] D;
 [WITH TRAFFIC] D;



Special - SPEC 2;
 1.5" Radius, 0.6" Border, Black on Orange
 [BIKE] D; [DETOUR] D;
 [500 FT] D;



Special - SPEC 3;
 1.5" Radius, 0.6" Border, Black on White
 [PROCEED] D; [AFTER] D;
 [STOP] D;

TRAFFIC HANDLING DETAILS AND QUANTITIES

THQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 NORTH REGION DIVISION OF ENGINEERING
 FUNCTIONAL SUPERVISOR: TROY ARSENEAU
 CALCULATED/DESIGNED BY: SHERI RODRIGUEZ
 CHECKED BY: NARAYAN SELWAL
 REVISED BY: DATE
 REVISIONS:



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	37	128

Sheri M. Rodriguez 11-7-11
REGISTERED CIVIL ENGINEER DATE

5-7-12
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.

REMOVE PAVEMENT MARKER

STATION		STAGE	TYPE	EA
FROM	TO			
326+75	351+42	1	G	52
308+50	325+60	2	D	144
TOTAL				196

REMOVE THERMOPLASTIC PAVEMENT MARKING

STATION	L+/R+	STAGE	DESCRIPTION	SQFT
325+90	L+	1	TYPE VI ARROW	99
326+90	L+	1	TYPE VI ARROW	99
329+95	L+	1	TYPE VI ARROW	99
TOTAL				297

REMOVE THERMOPLASTIC TRAFFIC STRIPE

STATION		STAGE	DETAIL	LF
FROM	TO			
326+75	351+42	1	12	624
334+83	336+80	1	27C	42
309+85	324+60	2	27B	1475
TOTAL				2141

REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE

STATION		STAGE	DETAIL	LF
FROM	TO			
351+42	352+68	1	5	60
308+50	325+60	2	22	3420
TOTAL				3480

TEMPORARY TRAFFIC STRIPE (PAINT)

STATION		STAGE	DETAIL	LF
FROM	TO			
323+50	335+00	1	27B	1150
335+00	338+00	1	27C	300
338+00	352+83	1	27B	1483
309+70	310+70	2	27B	100
324+10	325+10	2	27B	100
TOTAL				3133

TEMPORARY PAVEMENT MARKING (PAINT)

STATION	LT/RT	STAGE	DESCRIPTION	SQ FT
307+20	L+	2	TYPE V ARROW	33
307+20	R+	2	TYPE V ARROW	33
307+85	R+	2	KEEP	24
308+15	R+	2	CLEAR	27
308+50	R+	2	LIMIT LINE	12
325+60	L+	2	LIMIT LINE	12
326+00	L+	2	TYPE V ARROW	33
326+00	R+	2	TYPE V ARROW	33
329+07	L+	3	LIMIT LINE	12
TOTAL				219

CHANNELIZER - PLASTIC DRUM - BARRICADE

STATION		STAGE	CHANNELIZER (SURFACE MOUNTED)	TRAFFIC PLASTIC DRUM	TYPE III BARRICADE
FROM	TO		EA	EA	EA
325+60	352+83	1	116		
309+85	324+60	2	60		
310+20	310+70	2		4	
311+00		2			3
324+10		2			3
324+10	325+60	2		6	
309+62	329+00	3		78	
TOTAL			176	88	6

TRAFFIC HANDLING QUANTITIES

THQ-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
NORTH REGION
DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR
TROY ARSENEAU

REVISOR
SHERI RODRIGUEZ

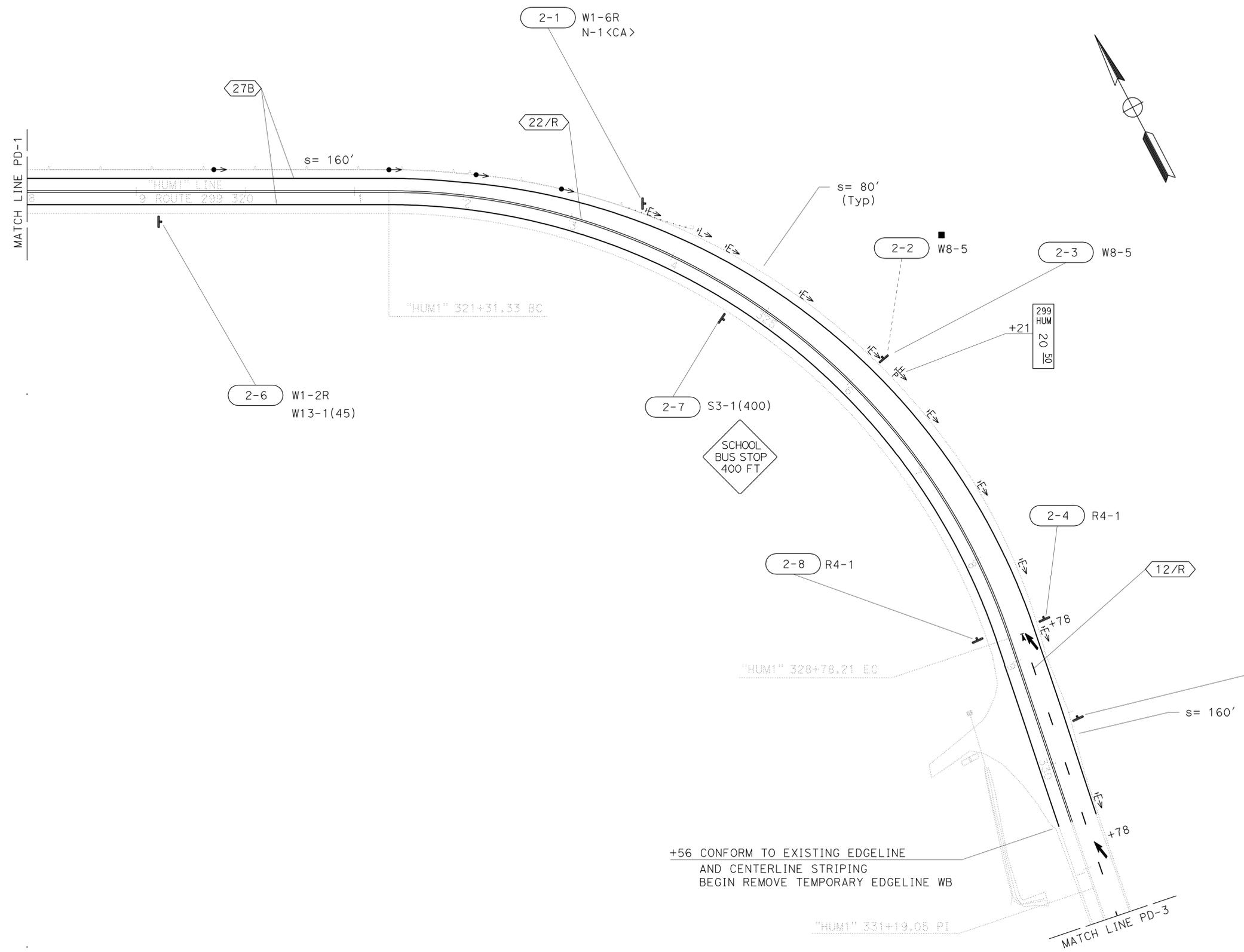
DESIGNER
NARAYAN SELWAL

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	39	128

 REGISTERED CIVIL ENGINEER DATE 11-7-11	
PLANS APPROVAL DATE 5-7-12	

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	CHUCK COOK	REVISOR	CHUCK COOK
TRAFFIC	SERGIO ACEVES	CHECKED BY	JEFF JEWETT	DATE	REVISOR



+56 CONFORM TO EXISTING EDGELINE AND CENTERLINE STRIPING BEGIN REMOVE TEMPORARY EDGELINE WB

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1" = 50'

PD-2

LAST REVISION DATE PLOTTED => 08-MAY-2012 TIME PLOTTED => 11:11

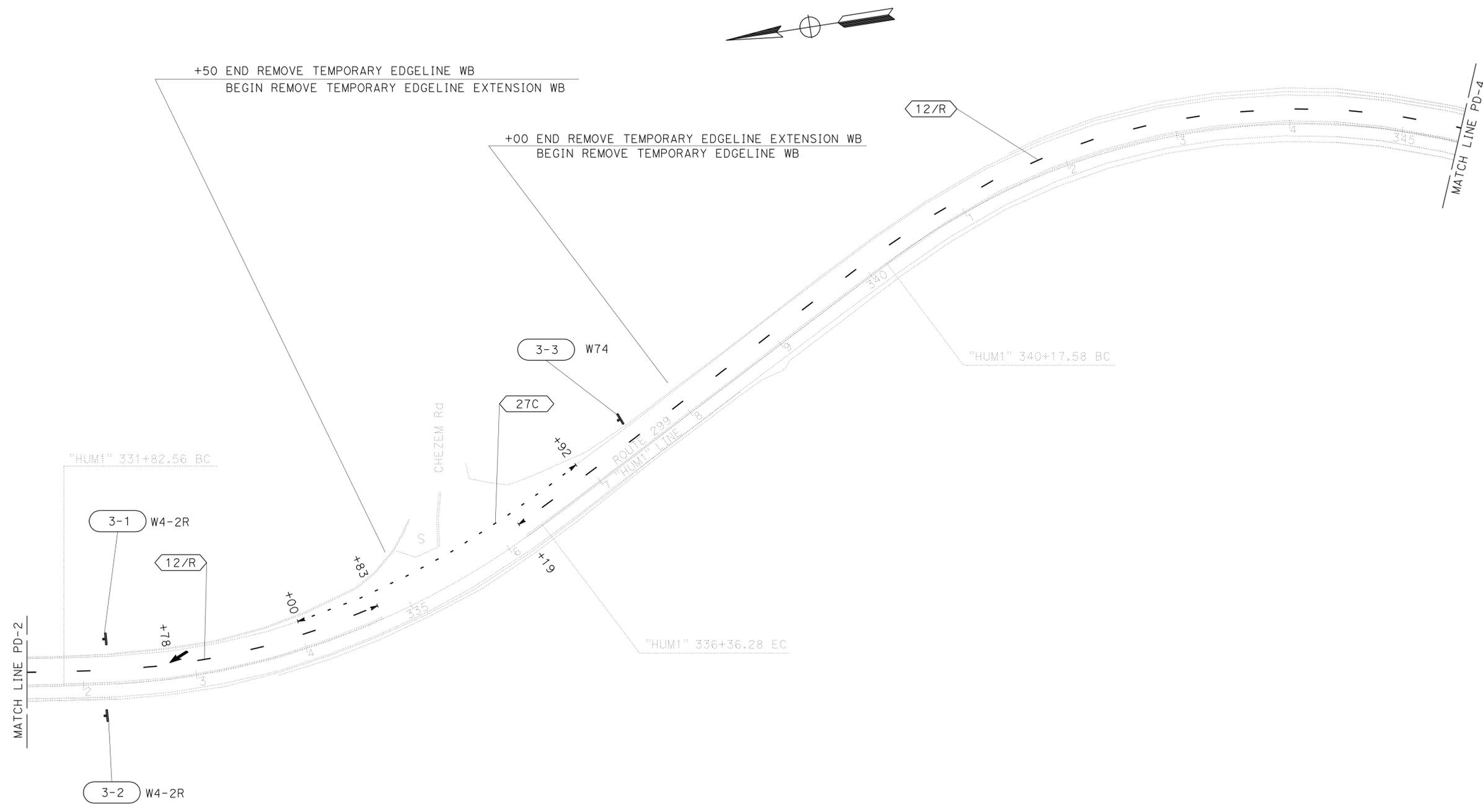
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	40	128

<i>Jeffrey Jewett</i>	11-7-11
REGISTERED CIVIL ENGINEER	DATE
5-7-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
<i>Jeffrey S. Jewett</i>
No. 49233
Exp. 9-30-12
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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	TRAFFIC	CHUCK COOK	JEFF JEWETT
	TRAFFIC	CALCULATED/DESIGNED BY	CHECKED BY
	SERGIO ACEVES		



PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1" = 50'

PD-3

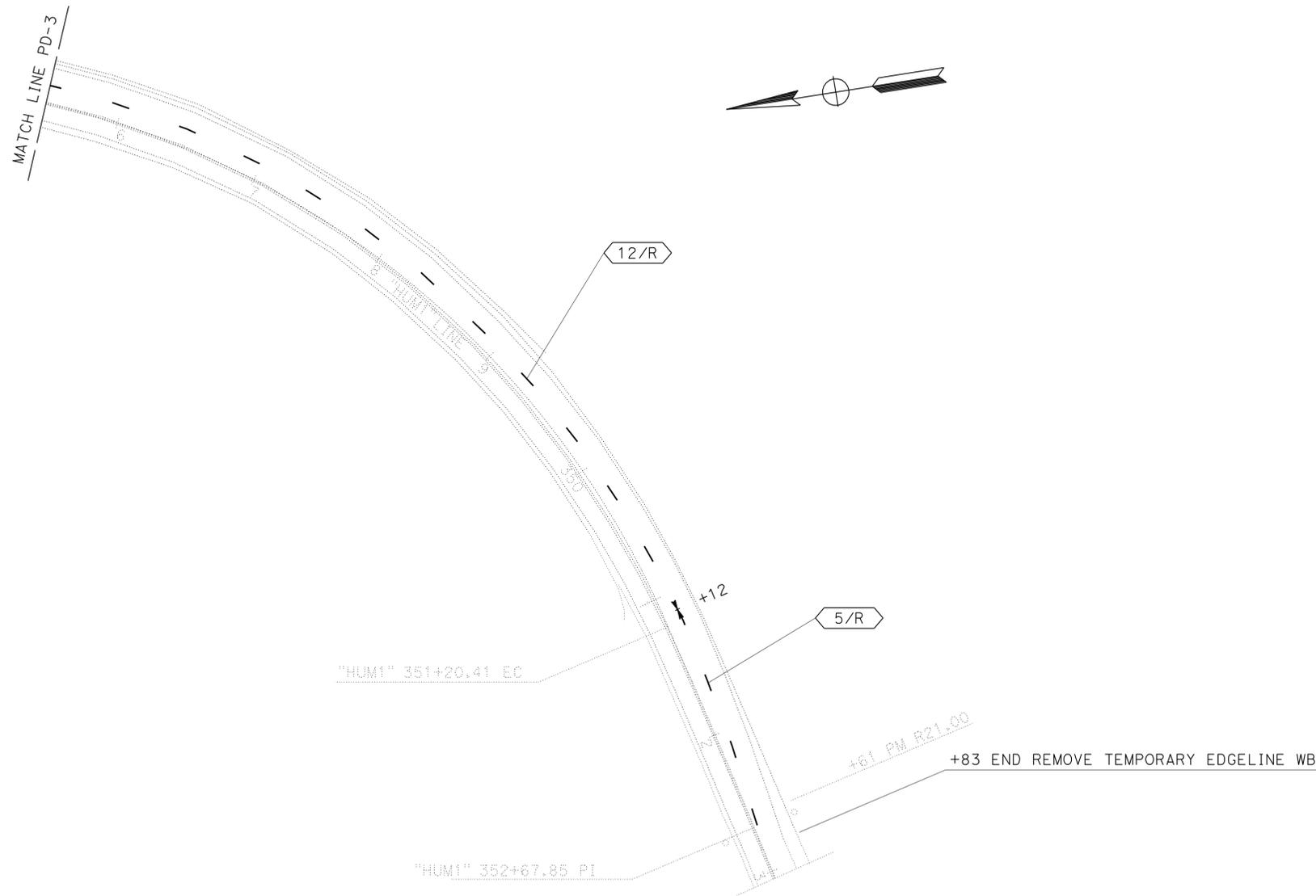
APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	41	128

Jeffrey Jewett 11-7-11
 REGISTERED CIVIL ENGINEER DATE
 5-7-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Jeffrey S. Jewett
 No. 49233
 Exp. 9-30-12
 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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHUCK COOK	REVISOR BY	
Caltrans	SERGIO ACEVES	CHECKED BY	JEFF JEWETT	DATE	
TRAFFIC					

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

**PAVEMENT DELINEATION
AND SIGN PLAN**

SCALE: 1" = 50'

PD-4



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	42	128

Jeffrey S Jewett 11-7-11
 REGISTERED CIVIL ENGINEER DATE
 5-7-12
 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.

4" THERMOPLASTIC TRAFFIC STRIPE

DETAIL NUMBER	LINEAR FEET
22	4712
27B	4712
TOTAL	9424

THERMOPLASTIC PAVEMENT MARKING

DESCRIPTION	NUMBER	SQUARE FEET
TYPE VI ARROW	3	126
TOTAL		126

4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36 - 12)

DETAIL NUMBER	LINEAR FEET
5	156
12	2098
TOTAL	2254

PAVEMENT MARKER

DETAIL NUMBER	RETROREFLECTIVE (RECESSED)	
	TYPE D	TYPE G
	EACH	EACH
12		51
22	187	
SUBTOTAL	187	51
TOTAL	238	

REMOVE PAINTED TRAFFIC STRIPE

DESCRIPTION	LINEAR FEET
RIGHT EDGELINE	1833
RIGHT EDGELINE EXTENSION	60
TOTAL	1893

4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12 - 3)

DETAIL NUMBER	LINEAR FEET
27C	292
TOTAL	292

DELINEATOR - OBJECT MARKER - HIGHWAY POST MARKER

SHEET NUMBER	DELINEATOR (CLASS 1)	CONCRETE BARRIER DELINEATOR 16"	OBJECT MARKER (TYPE L-1)	HIGHWAY POST MARKER
	TYPE E (EACH)	TYPE E (EACH)	(EACH)	(EACH)
PD-1	3	3	1	
PD-2	9	4	1	1
TOTAL	12	7	2	1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 CHUCK COOK
 JEFF JEWETT
 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 SERGIO ACEVES
 TRAFFIC
 Caltrans

PAVEMENT DELINEATION QUANTITIES

PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	43	128

Jeffrey Jewett 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.

ROADSIDE SIGN QUANTITIES

SIGN NUMBER (SHT-NO.)	SIGN CODE		PANEL SIZE	"C" DIM IN FEET	POST SIZE AND LENGTH	ROADSIDE SIGN	REMOVE ROADSIGN SIGN	RESET ROADSIGN SIGN
	FEDERAL	CALIFORNIA	INCHES		4"x6"	ONE POST (EACH)	(EACH)	(EACH)
1-1		G69(AHEAD)	48 x 36	5	14'	1		
2-1	W1-6R	N-1	48 x 24 18 x 18	4	14'	1		
2-2	W8-5						1	
2-3	W8-5		36 x 36	5	14'	1		
2-4	R4-1		36 x 48	5	14'	1		
2-5	W1-2L W13-1(45)		36 x 36 30 x 30	4	16'	1		
2-6	W1-2R W13-1(45)		36 x 36 30 x 30	4	16'	1		
2-7	S3-1(400)		36 x 36	5	14'	1		
2-8	R4-1		36 x 48	5	14'	1		
3-1	W4-2R		36 x 36	5	14'	1		
3-2	W4-2R		36 x 36	5	14'	1		
3-3		W74	36 x 36	5	14'	1		
SUB-TOTAL						11	1	0
SHEET TOTAL FROM THQ-1						0	10	7
TOTAL						11	11	7

NOTES:

- EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
- POST LENGTHS GIVEN ARE APPROXIMATE.
- "C" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC
 FUNCTIONAL SUPERVISOR: SERGIO ACEVES
 CHECKED BY: JEFF JEWETT
 DESIGNED BY: CHUCK COOK
 REVISIONS: REVISIONED BY: DATE REVISIONED:



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	45	128

11-7-11
 REGISTERED CIVIL ENGINEER DATE
 5-7-12
 PLANS APPROVAL DATE

N. SELWAL
 No. 74816
 Exp. 12-31-11
 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.

NOTES:

- * SHRINKAGE & SWELLING FACTORS ARE NOT INCLUDED.
- * * SEE ROADWAY ITEMS TABLE FOR PROJECT TOTALS.
- (N)- NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

ROADWAY ITEMS

LOCATION	ROADWAY EXCAVATION *	EMBANKMENT * (N)	SHOULDER BACKING	CLASS 2 AGRREGATE BASE	HOT MIX ASPHALT (TYPE A)	HOT MIX ASPHALT (OPEN GRADED)	COLD PLANE ASPHALT CONCRETE PAVEMENT	TACK COAT	DESCRIPTION
	CY	CY	TON	CY	TON	TON	SQYD	TON	
307+60.00 TO 309+62.01	-	-	25			60	896	0.41	CONFORM ON WEST END
311+62.01 TO 329+00.00	33,100	430	128	3,500	3,042	609		37.64	
329+00.00 TO 330+55.85	-	-	7			79	1,179	0.47	CONFORM ON EAST END
RETAINING WALL NO. 1 "311+29.83 TO 315+32.28		8,050							BACKFILL UP TO FG AT THE FACE OF WALL1, SEE SHEET C-3
RETAINING WALL NO. 2 "318+08.08 TO 315+44.35 HMA DIKE		11,030			45				BACKFILL UP TO FG AT THE FACE OF WALL2, SEE SHEET C-3
TOTAL	33,100	19,510	160	3,500	3,087	748	2,075	38.52	

DIKE

LOCATION	DIRECTION	PLACE HMA DIKE (TYPE D)	HOT MIX ASPHALT (TYPE A) **
	L+/R+	LF	TON
314+60.00 TO 318+10.00	R+	350	21
322+90.00 TO 327+00.00	R+	410	24
TOTAL		760	45

RUMBLE STRIP
(HMA, GROUND-IN INDENTATIONS)

LOCATION	DIRECTION	SHOULDER	CENTERLINE
		LF	LF
307+60.00 TO 330+55.85	C	-	2,356
310+20.00 TO 328+70.00	L+	1,850	-
310+70.00 TO 329+00.00	R+	1,830	-
TOTAL		3,680	2,356
TOTAL (STATION)		36.80	23.56

METAL BEAM GUARD RAILING

LOCATION	TRANSITION RAILING (TYPE WB)	ALTERNATIVE FLARED TERMINAL SYSTEM	END CAP (TYPE TC)	(N)	WEED CONTROL MAT (FIBER)
	EA	EA	EA	LAYOUT TYPE	SQYD
310+66.50 TO 311+29.83, L+	1	1	1	12BB	21
315+32.28 TO 315+93.87, L+	1	1	1	12B	21
317+44.94 TO 318+08.08, L+	1	1	1	12BB	21
323+44.35 TO 324+06.00, L+	1	1	1	12B	21
TOTAL	4	4	4	-	84

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

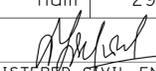
TEMPORARY FENCE (TYPE ESA)

LOCATION	L+/R+	LF
309+67.80 TO 314+54.50	R+	479
311+54.13 TO 315+66.12	L+	356
317+00.00 TO 321+78.71	R+	480
TOTAL		1,315

SUMMARY OF QUANTITIES

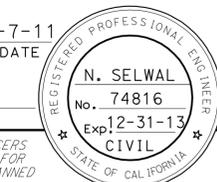
Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	46	128

 11-7-11
 REGISTERED CIVIL ENGINEER DATE

5-7-12
 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.



TEMPORARY REINFORCED SILT FENCE

LOCATION	LF
311+00.00 TO 315+60.00	460
317+60.00 TO 323+60.00	600
TOTAL	1,060

TEMPORARY EROSION CONTROL BLANKET

LOCATION	SQYD
311+29.00 TO 323+44.00	160
TOTAL	160

TEMPORARY FIBER ROLL

LOCATION	LF
311+29.00 TO 323+44.00	410
TOTAL	410

TEMPORARY SILT FENCE

LOCATION	LF
318+00.00 TO 324+00.00	600
TOTAL	600

TEMPORARY GRAVEL BAG BERM

LOCATION	LF
311+00.00 TO 323+00.00	995
TOTAL	995

TEMPORARY CONTRUCTION ENTRANCE

LOCATION	EA
316+00.00 TO 318+00.00	4
TOTAL	4

TEMPORARY COVER

LOCATION	SQYD
309+62.80 TO 329+00.00	4,070
TOTAL	4,070

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION	EA
314+61.00	1
315+50.00	1
323+12.00	1
TOTAL	3

TEMPORARY CONCRETE WASHOUT BIN

LOCATION	EA
307+00.00 TO 330+55.85	6
TOTAL	6

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING
 NARAYAN SELWAL
 Nesar Formoli
 Nesar Formoli
 Nesar Formoli



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 NORTH REGION
 DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR
 NESAR FORMOLI

CALCULATED-DESIGNED BY
 CHECKED BY

NARAYAN SELWAL
 NESAR FORMOLI

REVISED BY
 DATE REVISED

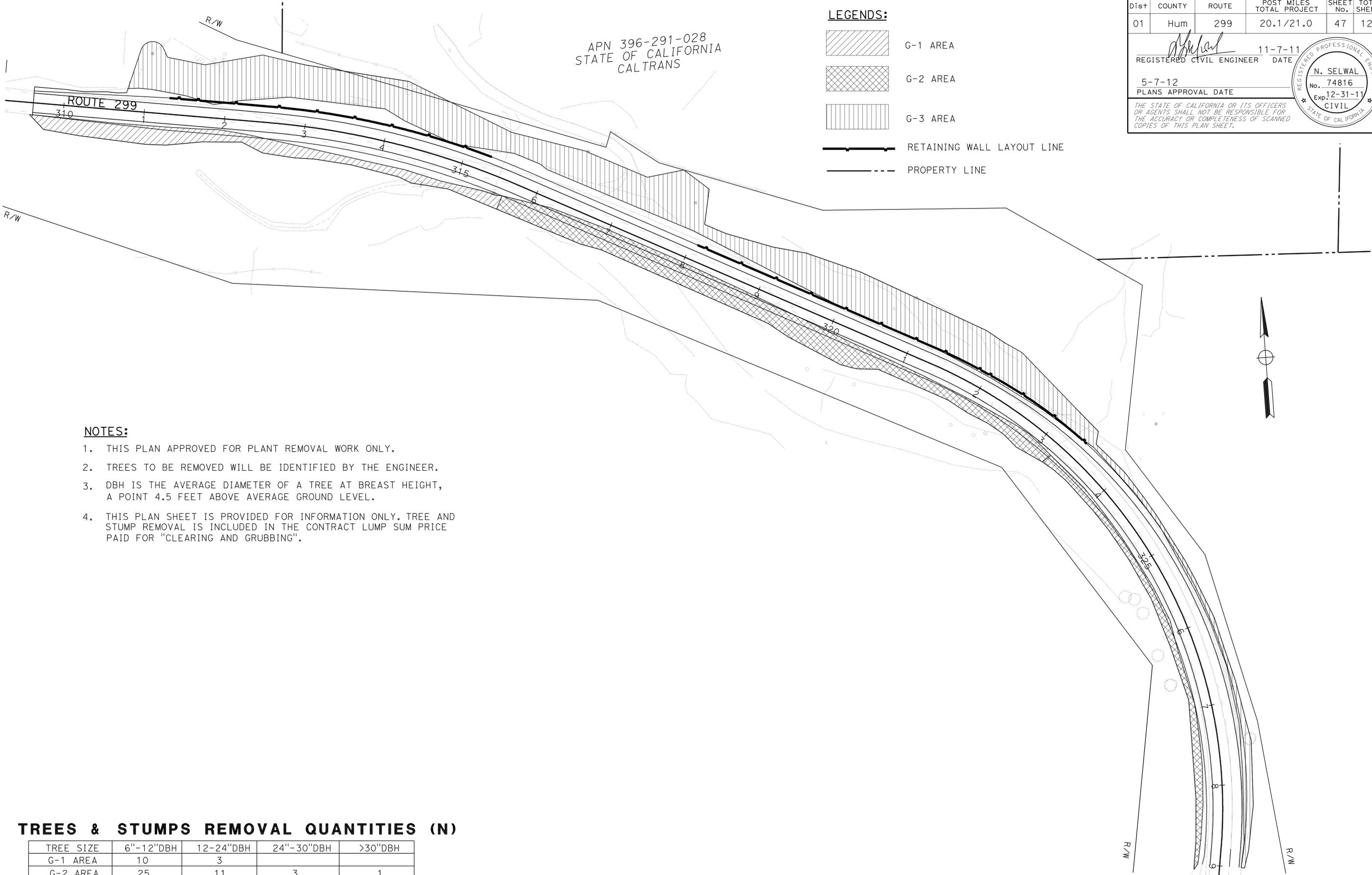
APN 396-291-028
 STATE OF CALIFORNIA
 CALTRANS

LEGENDS:

-  G-1 AREA
-  G-2 AREA
-  G-3 AREA
-  RETAINING WALL LAYOUT LINE
-  PROPERTY LINE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	47	128

REGISTERED CIVIL ENGINEER DATE 11-7-11
 5-7-12 PLANS APPROVAL DATE
 N. SELWAL No. 74816 Exp. 12-31-11 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.



NOTES:

1. THIS PLAN APPROVED FOR PLANT REMOVAL WORK ONLY.
2. TREES TO BE REMOVED WILL BE IDENTIFIED BY THE ENGINEER.
3. DBH IS THE AVERAGE DIAMETER OF A TREE AT BREAST HEIGHT, A POINT 4.5 FEET ABOVE AVERAGE GROUND LEVEL.
4. THIS PLAN SHEET IS PROVIDED FOR INFORMATION ONLY. TREE AND STUMP REMOVAL IS INCLUDED IN THE CONTRACT LUMP SUM PRICE PAID FOR "CLEARING AND GRUBBING".

TREES & STUMPS REMOVAL QUANTITIES (N)

TREE SIZE	6"-12"DBH	12-24"DBH	24"-30"DBH	>30"DBH
G-1 AREA	10	3		
G-2 AREA	25	11	3	1
G-3 AREA	25	19	6	1
SUB-TOTAL	60	33	9	2
TOTAL	104			

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

PLANT REMOVAL PLAN

NO SCALE

PR-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	48	128

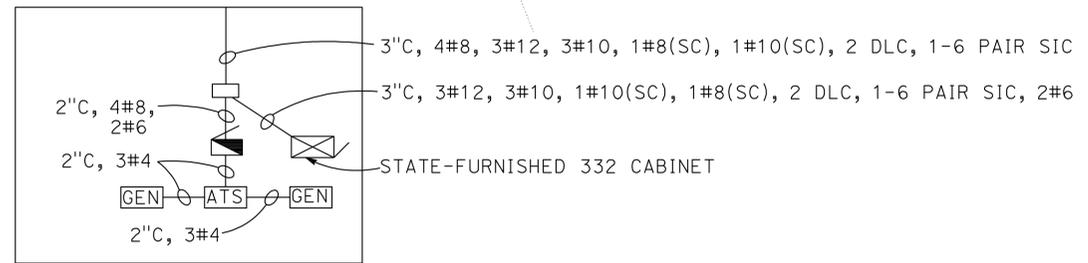
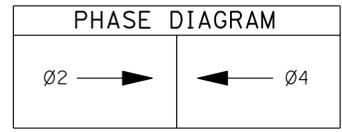
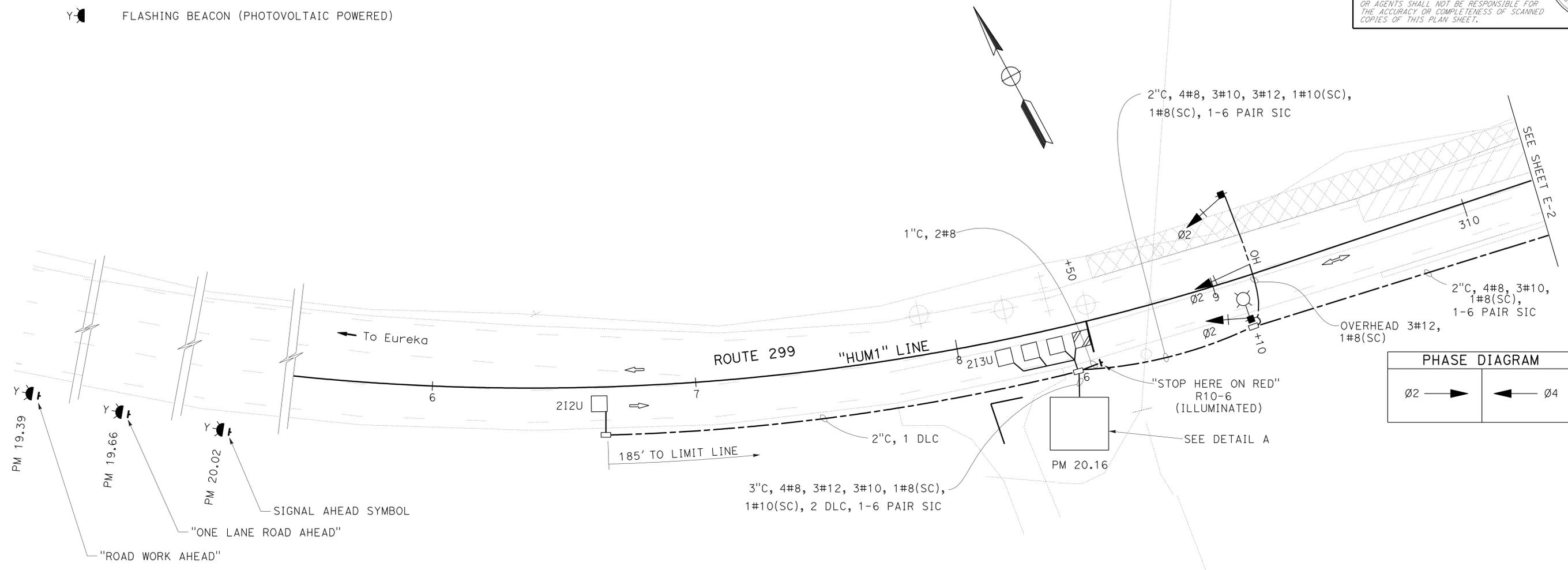
Brian T. Finck
 REGISTERED ELECT ENGINEER 11-7-11 DATE
 5-7-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 BRIAN T. FINCK
 No. 17756
 Exp. 6-30-12
 ELECT

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:**
- (SC) SIGNAL COMMON
 - ATS AUTOMATIC TRANSFER SWITCH
 - GEN GENERATOR
 - C CONTACTOR
 - ▽ AUTO-TEST SWITCH
 - Y-FLASHER FLASHING BEACON (PHOTOVOLTAIC POWERED)

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



DETAIL A
 NO SCALE

TEMPORARY SIGNAL SYSTEM
 SCALE: 1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL
 FUNCTIONAL SUPERVISOR: TROY ARSENEAU
 CALCULATED/DESIGNED BY: BRIAN FINCK
 CHECKED BY: TONY PEREZ
 REVISOR: BRIAN FINCK
 DATE: 11-7-11
 REVISOR: TONY PEREZ
 DATE: 11-7-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	49	128

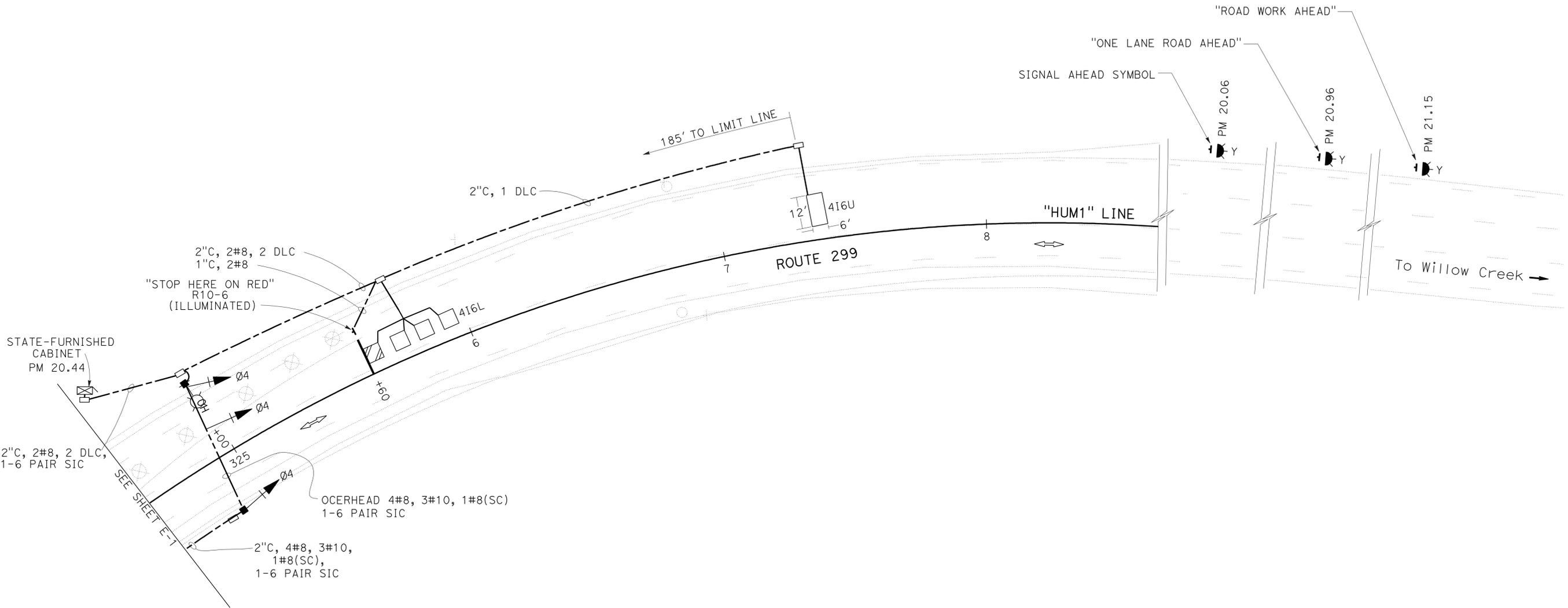
<i>Brian T. Finck</i>		11-7-11
REGISTERED ELECT ENGINEER	DATE	
5-7-12		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER	BRIAN T. FINCK
No.	17756
Exp.	6-30-12
ELECT	

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

NOTE:

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



TEMPORARY SIGNAL SYSTEM
SCALE: 1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

E-2

DESIGNED BY	BRIAN FINCK
CHECKED BY	TONY PEREZ
FUNCTIONAL SUPERVISOR	TROY ARSENEAU
DEPARTMENT OF TRANSPORTATION	ELECTRICAL

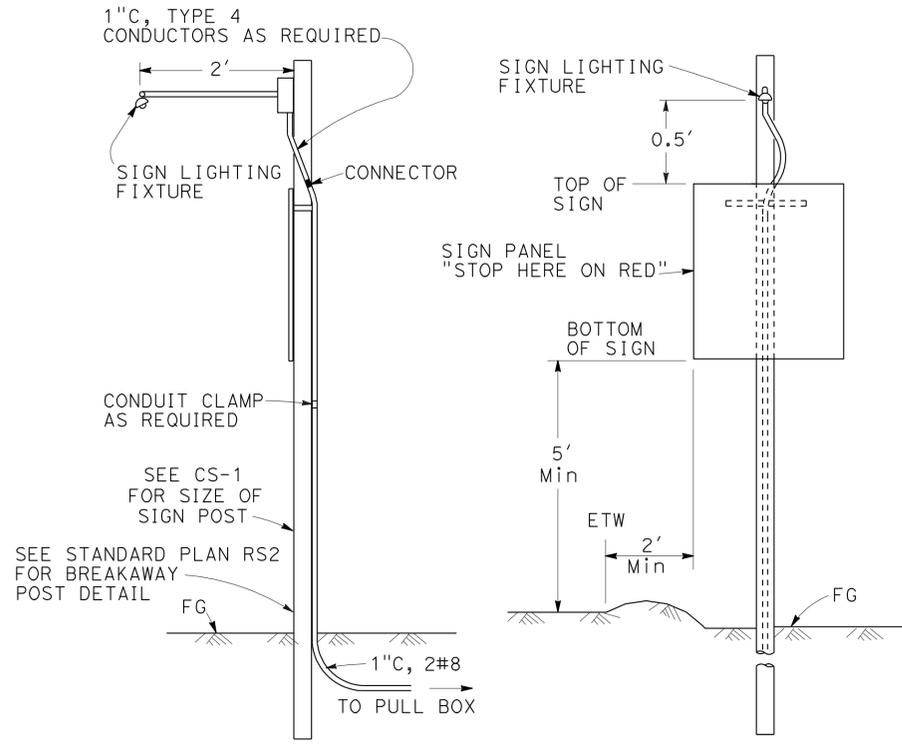
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	50	128

Brian T. Finck 11-7-11
REGISTERED ELECT ENGINEER DATE

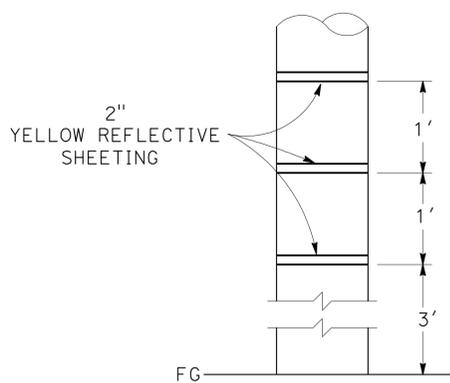
5-7-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BRIAN T. FINCK
No. 17756
Exp. 6-30-12
ELECT
STATE OF CALIFORNIA

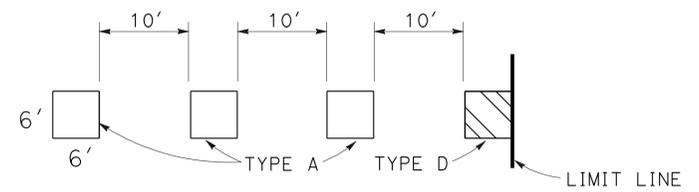
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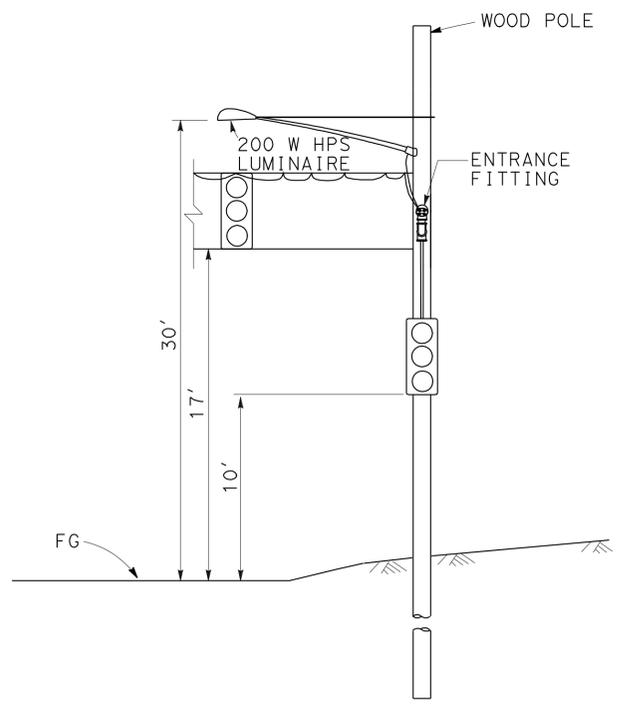
SIDE VIEW FRONT VIEW
TYPICAL SIGN ILLUMINATION



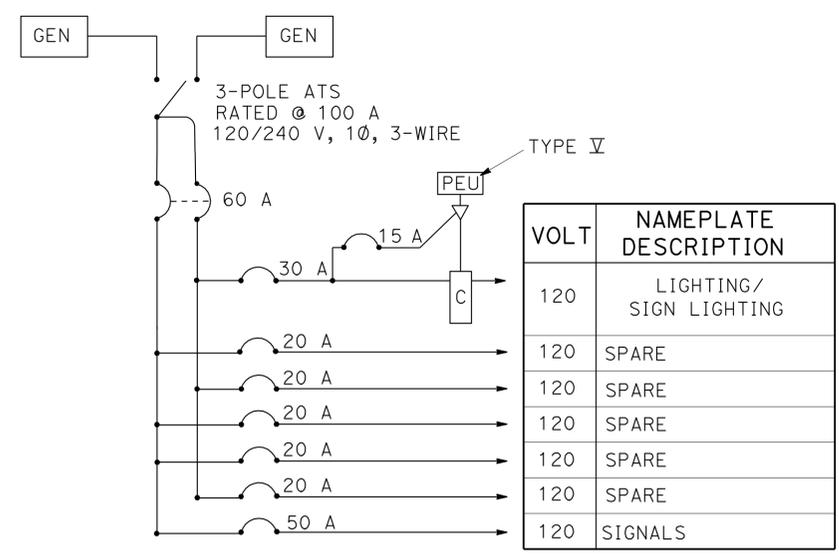
REFLECTIVE MARKING FOR WOOD POLE/POST



LOOP DETAIL



TEMPORARY TRAFFIC SIGNAL



SERVICE WIRING DIAGRAM
TYPE III-AF SERVICE EQUIPMENT ENCLOSURE

TEMPORARY SIGNAL SYSTEM
NO SCALE

APPROVED FOR ELECTRICAL WORK ONLY

P:\proj\5\01\42370\drctf\ing\cl\ipped\Sheets\0100000172ua003.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL
 FUNCTIONAL SUPERVISOR TROY ARSENEAU
 CALCULATED/DESIGNED BY CHECKED BY
 BRIAN FINCK TONY PEREZ
 REVISED BY DATE REVISED
 BORDER LAST REVISED 7/2/2010

USERNAME => s109858
DGN FILE => 0100000172ua003.dgn



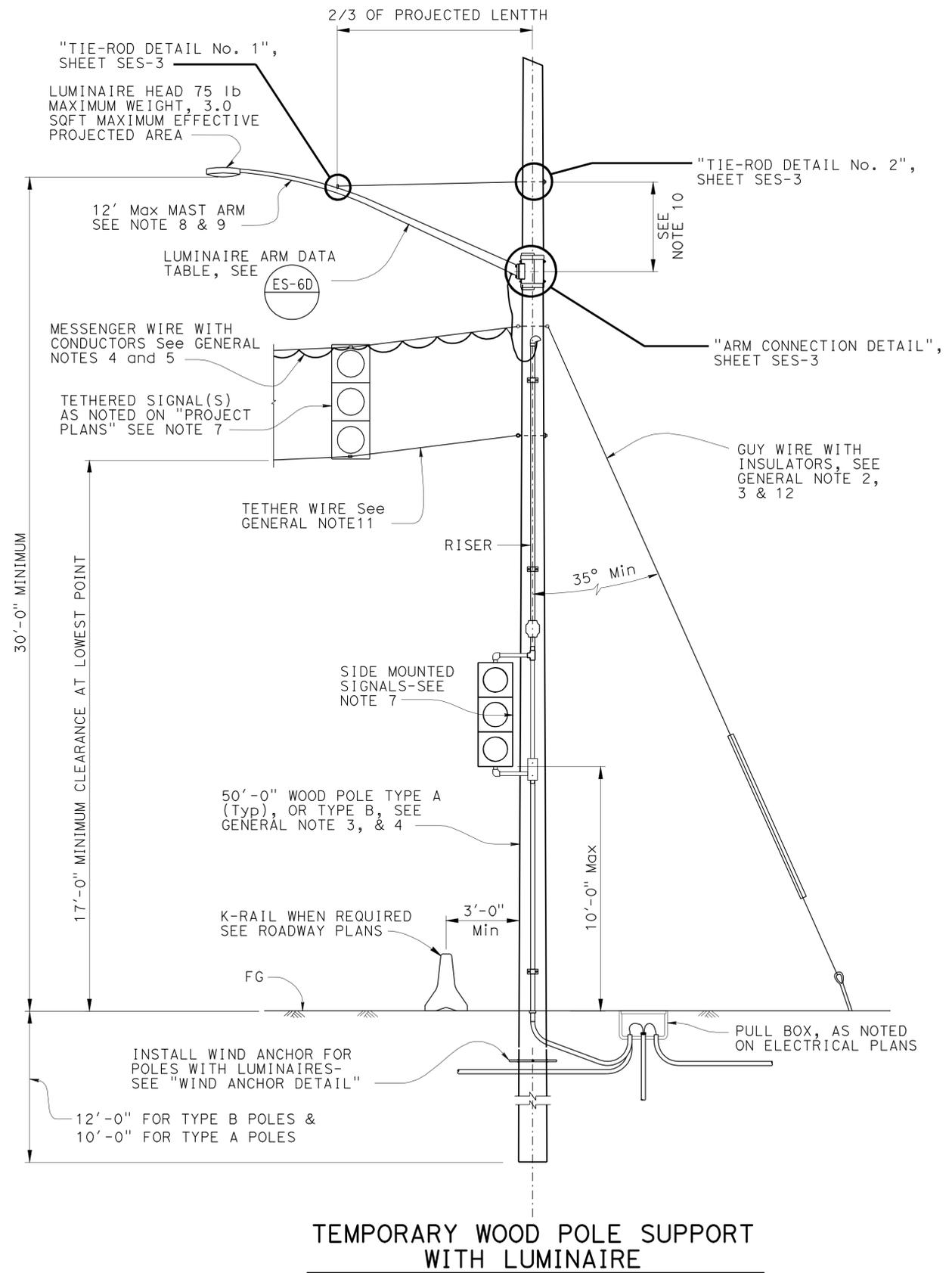
UNIT 0045 PROJECT NUMBER & PHASE 01000001721

LAST REVISION DATE PLOTTED => 10-MAY-2012
 00-00-00 TIME PLOTTED => 10:21

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	52	128

REGISTERED CIVIL ENGINEER		DATE
5-7-12		
PLANS APPROVAL DATE		
No. C61373		
Exp. 6/30/13		
CIVIL		

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TEMPORARY WOOD POLE SUPPORT WITH LUMINAIRE

NO SCALE

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

DESIGN NOTES:

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

GROUP LOAD COMBINATIONS:

- I Dead Load
- II Dead Load + Wind Load
- III Dead Load + 0.5 (Wind Load) + Ice Load, Wind Load = 20 psf Max
- IV Fatigue: Not used

LOADING

Wind Loadings: 85 mph (3-second gust)
Wind Recurrence interval: 10 years
Combined height, exposure, and elevated terrain factor = 1.03
(Exposure C, structure is located on or over the top half of a 30' Maximum tall ridge, hill or escarpment)

BASIC DESIGN VALUES:

Southern Pine Timber Poles:
Fb = 1850 Tapered treated round pole
Fv = 110 psi ASTM D2899 Standard
Fcp = 230 psi
Fc = 950 psi
E = 1500 x 10³ psi

TREATMENT

To conform with Section 86 Standard Specifications

SPECIFICATIONS

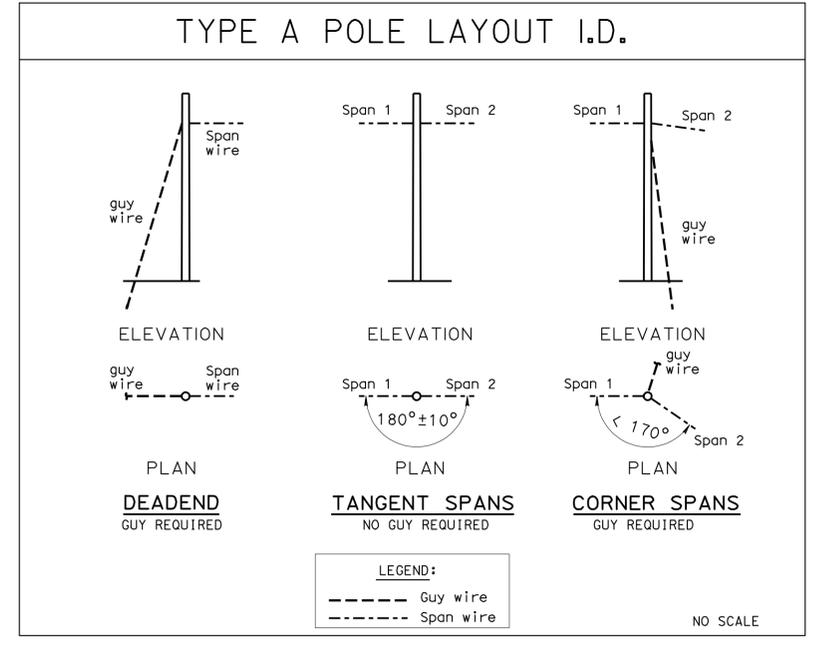
Caltrans Standard Specifications 2006
ANSI Wood Poles
ASTM A475, Utility Grade, 7 -strand wires
Termination efficiency factor 0.80

FOUNDATION DESIGN NOTES:

1. Pole embedment depth design is based on Broms' approximate procedure as described in Article 13.6 of AASHTO LTS-5.
2. Standard embedment depth is calculated based on level ground assumption (up to slope 1V:4H).
3. Embedment depth is calculated based on Cohesionless Soil with the following properties: $\phi = 30$ deg, $\gamma = 120$ pcf. Soil is assumed to be unsaturated.
4. An overload factor of 2.0 and an undercapacity factor of 0.7 were used for safety factor of 2.86.
5. If pole is located on or near a steep slope (up to 1H:2V) add 2 feet extra embedment.
6. Allowable vertical bearing pressure at the end bearing of poles is 3200 psf.
7. The Contractor is to field verify the soil conditions indicated on FOUNDATION DESIGN NOTES 3 and 6.

GENERAL NOTES:

1. TYPE A refers to CLASS 2 POLE & TYPE B refers to H2 POLE.
2. TYPE A poles shall be stabilized using guy wires, breast blocks or rakes at each dead end, corner, drop or line deviation more than 10° from straight line and shall be attached to pole as nearly as practical to the center of conductors load, 3'-0" maximum. The direction of the guy shall counteract the resultant of unbalanced force applied to pole. See TYPE A POLE LAYOUT ID, otherwise see note 3.
3. Where space or conflict prevent guy installation, TYPE B poles may be used with specified embedment depth.
4. Overhead line construction not specifically covered here shall conform to the provisions of General Order No. 95 Of Public Utilities Commission.
5. All overhead cables shall be sagged with 17'+0.5% of span length minimum overhead clearance and sag of 5.0% ± 0.5%.
6. Conductors shall be suspended from 3/8" Ø 7 strand messenger span-wire as follows: Continuous lashing wire, No spare wire conductors allowed except as noted. Bundled vertical dimension shall not exceed 1.5". Maximum OH span shall not exceed 60'-0".
7. Install attachments shown if indicated on the Electrical Plans. When specific connection detail is not shown, mount attachments per manufacturer recommended methods that do not require loss of cross section.
8. Attach luminaire arm and combination of attachments as specified at locations where indicated on the Electrical Plans.
9. All attachments shall be mounted with stainless steel straps or other manufacturers methods without drilling holes in pole, except as shown on this sheet. Any other drilling into pole will require the Engineer's approval.
10. Install tie rod 6" below specified "N Rise" dimension on the "Standard Plans".
11. 1/4" tether wire with 5.0% ± 0.5% sag where required.
12. For additional details, see Sheets SES-3 thru SES-5.



BRANCH CHIEF : JAMES SAGAR

DESIGN	BY VICTOR LOPEZ	CHECKED LANCE WARREN
DETAILS	BY BOB EDWARDS	CHECKED VICTOR LOPEZ
QUANTITIES	BY X	CHECKED X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

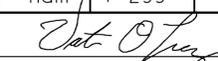
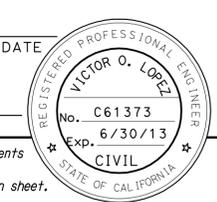
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

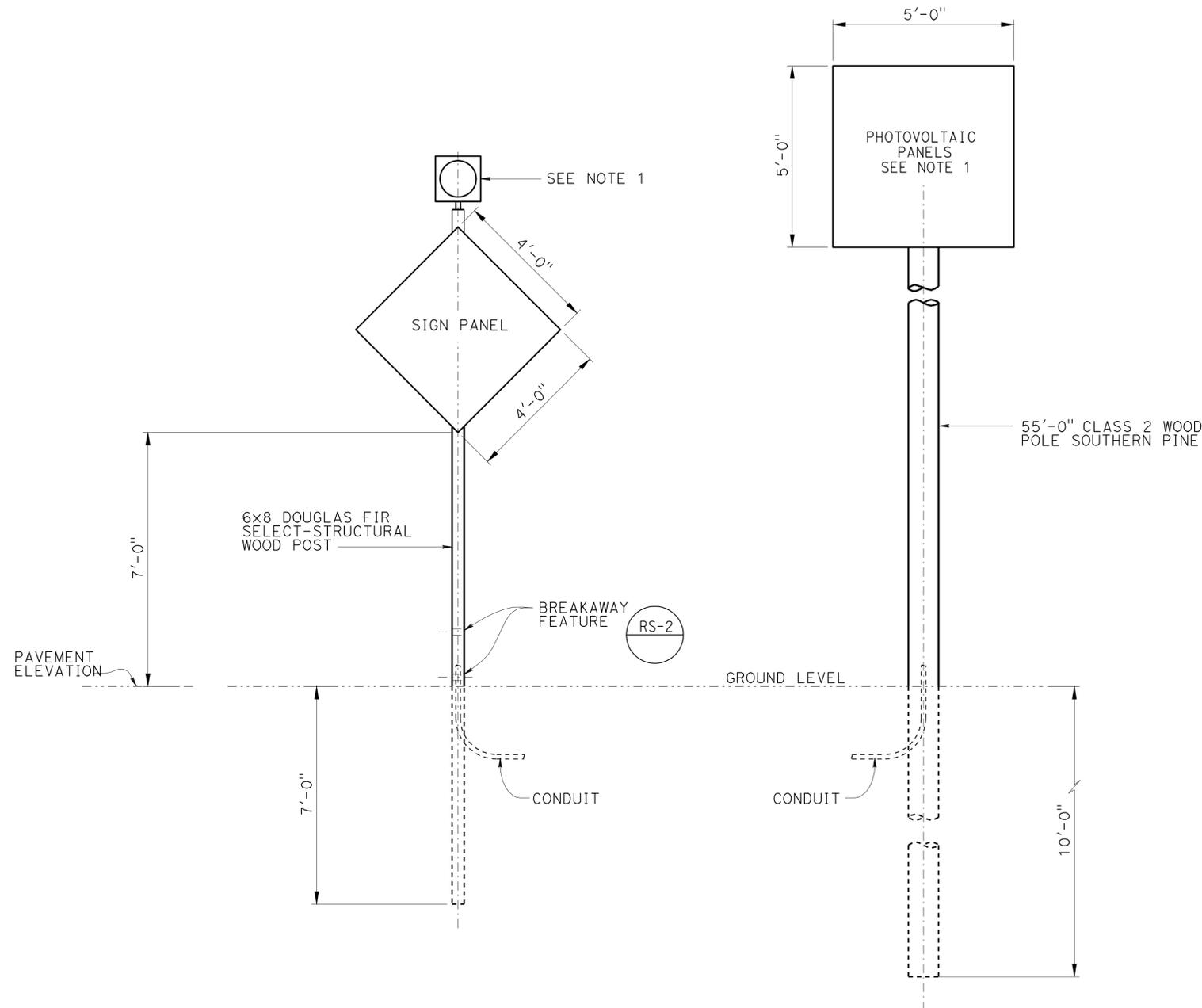
BRIDGE NO.	N/A
POST MILE	Varies

TEMPORARY WOOD POLE SIGNAL & LIGHTING

SES-1

USERNAME => s109858 DATE PLOTTED => 10-MAY-2012 TIME PLOTTED => 10:25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	53	128
 REGISTERED CIVIL ENGINEER			DATE		
			5-7-12	PLANS APPROVAL DATE	
					
<small>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.</small>					



FLASHING BEACON
(PHOTOVOLTAIC POWERED)
NO SCALE

NOTES:

1. Attach electrical components and combination of attachments as specified in Electrical Plans and per the manufacture's recommendations.

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

BRANCH CHIEF : JAMES SAGAR

DESIGN	BY VICTOR LOPEZ	CHECKED LANCE WARREN
DETAILS	BY BOB EDWARDS	CHECKED VICTOR LOPEZ
QUANTITIES	BY X	CHECKED X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
SPECIAL DESIGN BRANCH

BRIDGE NO.	N/A
POST MILE	Varies

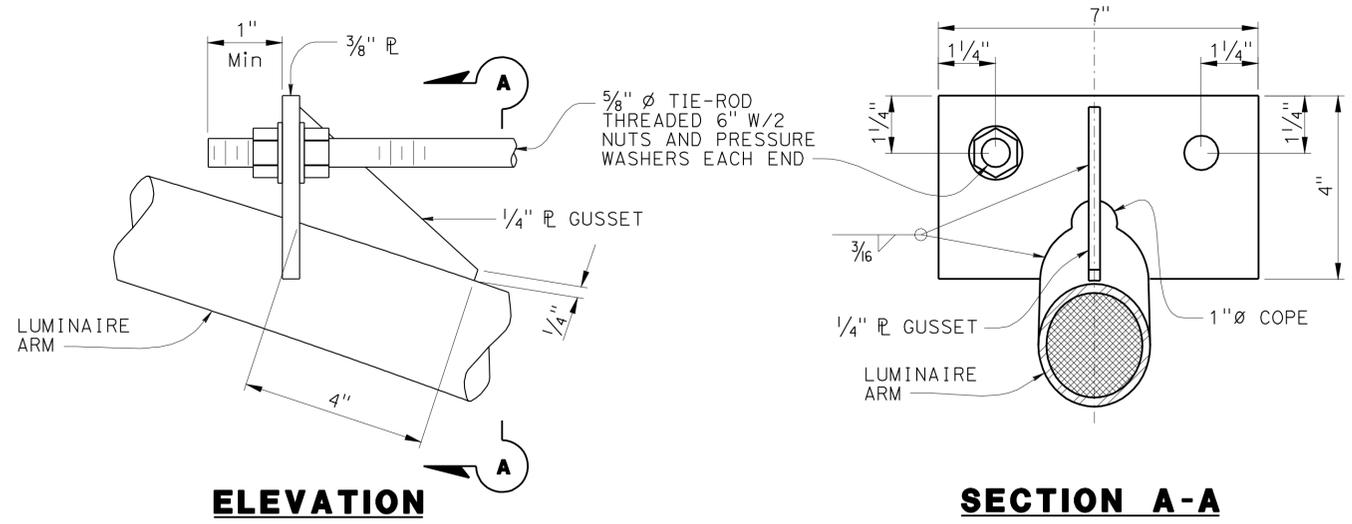
**TEMPORARY WOOD POLE
MISCELANEOUS POLES**

SES-2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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			REGISTERED CIVIL ENGINEER DATE 5-7-12 PLANS APPROVAL DATE		
<small>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.</small>					

NOTES:

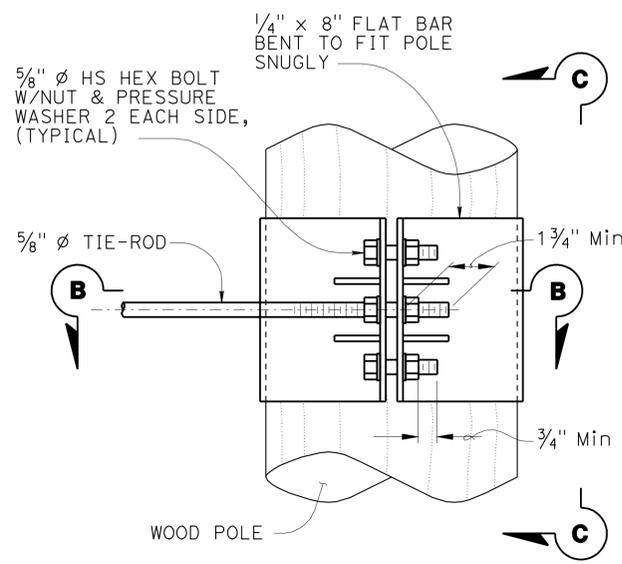
- All hardware and steel shall be galvanized after fabrication.
- Arm base connection details shall be in compliance with Standard Plans Detail Sheet ES-6D with noted modifications.
- 2000 lb Min capacity strap system shall be used for top and bottom of plate.
- The Contractor shall verify pole dimensions at Tie-Rod attachment height. Fabricate 8" flat bar with "L" Dimension to maintain an open gap between encasement in finished installation.



ELEVATION

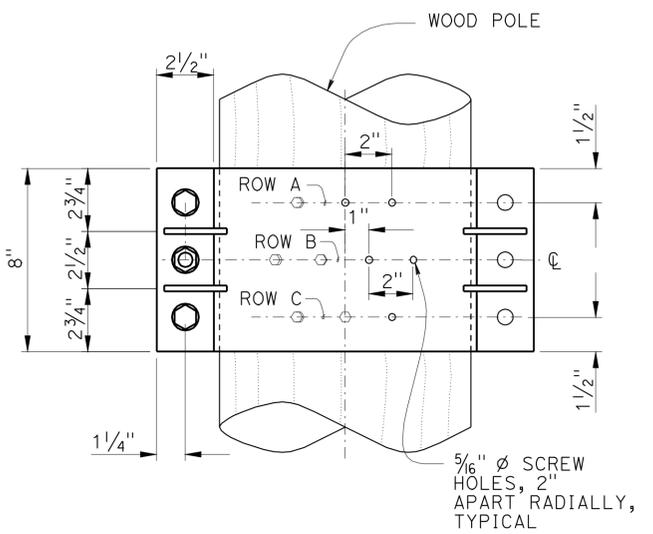
SECTION A-A

TIE-ROD DETAIL No. 1

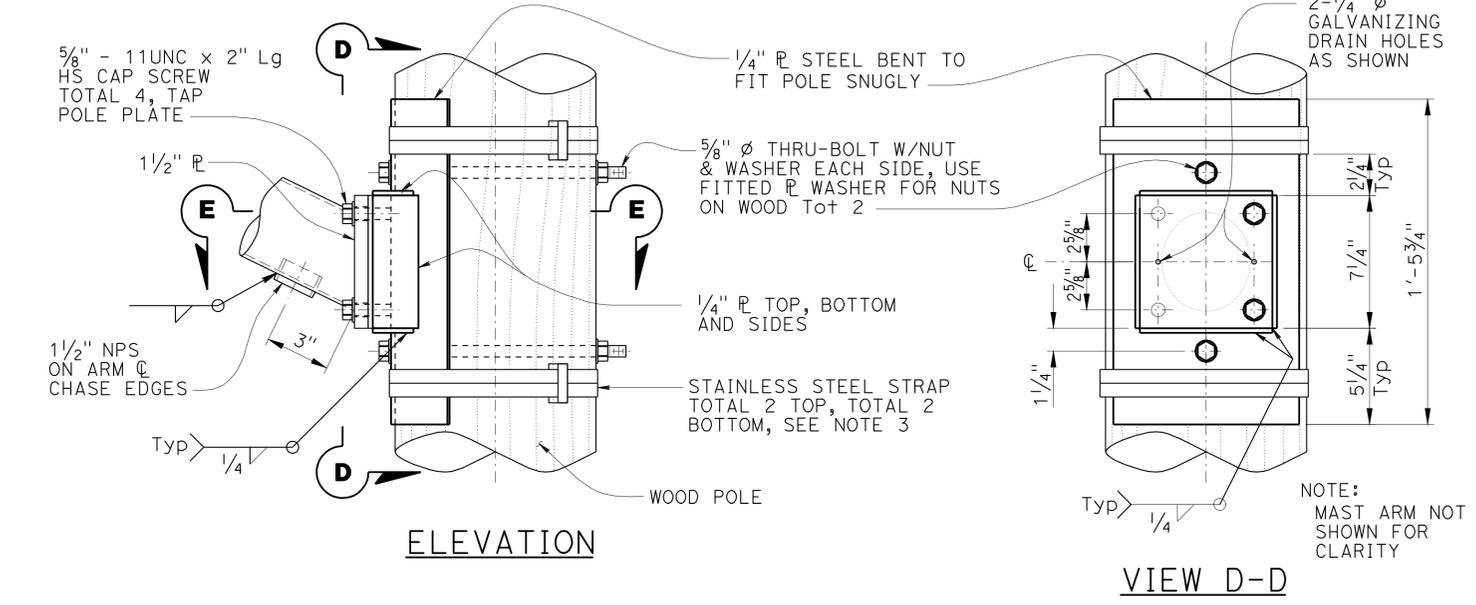


ELEVATION

NOTE: Not all screw and bolt heads shown for clarity.



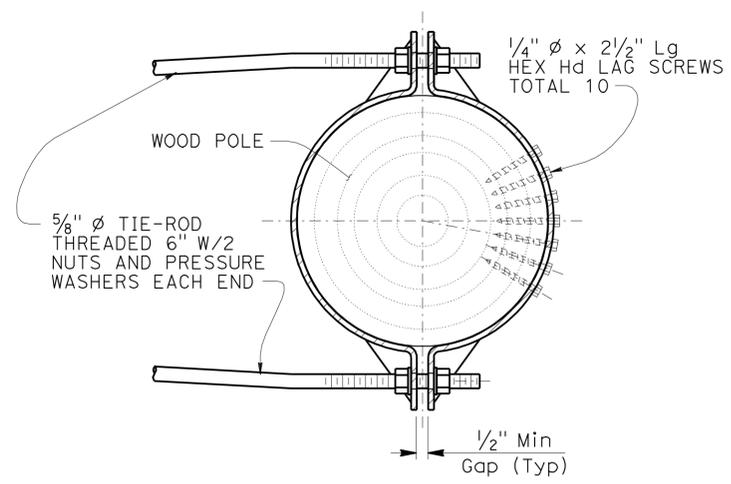
VIEW C-C



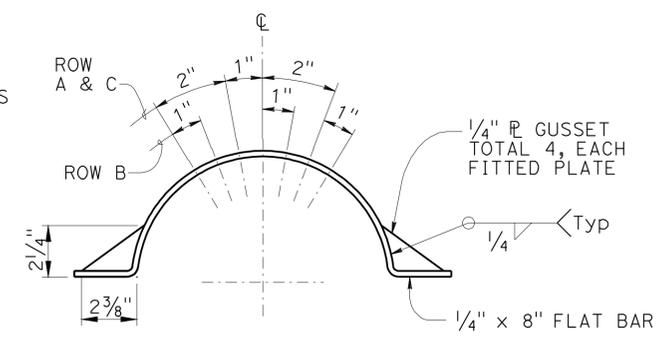
ELEVATION

VIEW D-D

ARM CONNECTION DETAILS



SECTION B-B



LAG SCREW AND GUSSET PLATE LAYOUT

TIE-ROD DETAILS No. 2

NO SCALE

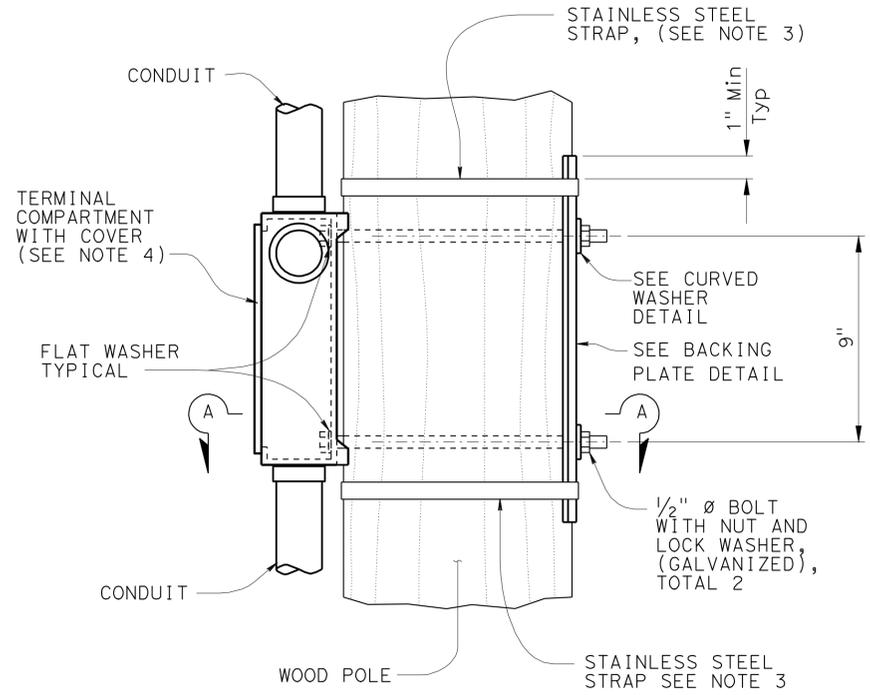
NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

BRANCH CHIEF: JAMES SAGAR	DESIGN BY VICTOR LOPEZ	CHECKED LANCE WARREN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO. N/A	TEMPORARY WOOD POLE MISCELLANEOUS DETAILS 1	SES-3
	DETAILS BY BOB EDWARDS	CHECKED VICTOR LOPEZ			POST MILE Varies		
	QUANTITIES BY X	CHECKED X					

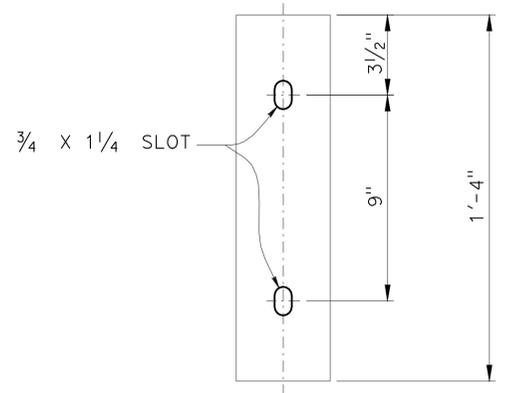
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	55	128

REGISTERED CIVIL ENGINEER DATE _____
 5-7-12
 PLANS APPROVAL DATE
 No. C61373
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

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ELEVATION
3" = 1'-0"

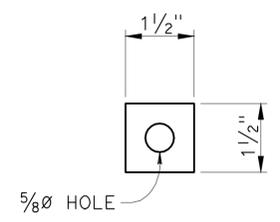


ELEVATION

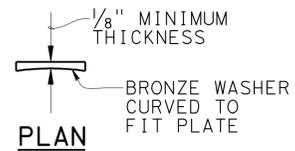


PLAN

**BACKING PLATE
DETAIL**
3" = 1'-0"



ELEVATION

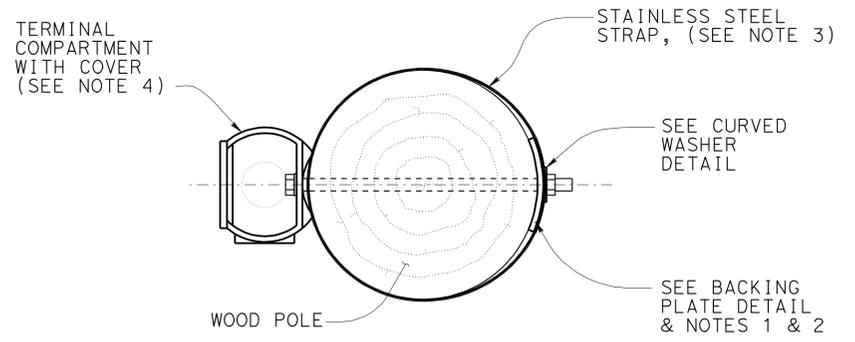


PLAN

**CURVED WASHER
DETAIL**
6" = 1'-0"

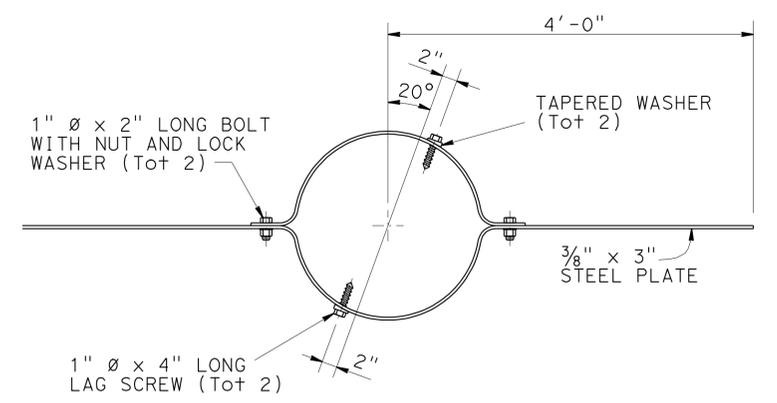
NOTES:

1. The Contractor shall verify pole dimensions at terminal compartment for fabrication of backing plate and curved washer.
2. Backing plate shall be galvanized after fabrication.
3. 3/4" x 0.044" minimum, rounded edge stainless steel straps, double wrapped with 2" long bend under stainless steel strap buckle.
4. For details not shown see RSP ES-4D.



SECTION A-A
3" = 1'-0"

**SIDE MOUNTING
TERMINAL COMPARTMENT**



WIND ANCHOR

To be installed perpendicular to mast arms and 2'-0" Min below grade

NO SCALE

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

BRANCH CHIEF : JAMES SAGAR	DESIGN	BY VICTOR LOPEZ	CHECKED LANCE WARREN
	DETAILS	BY BOB EDWARDS	CHECKED VICTOR LOPEZ
	QUANTITIES	BY X	CHECKED X

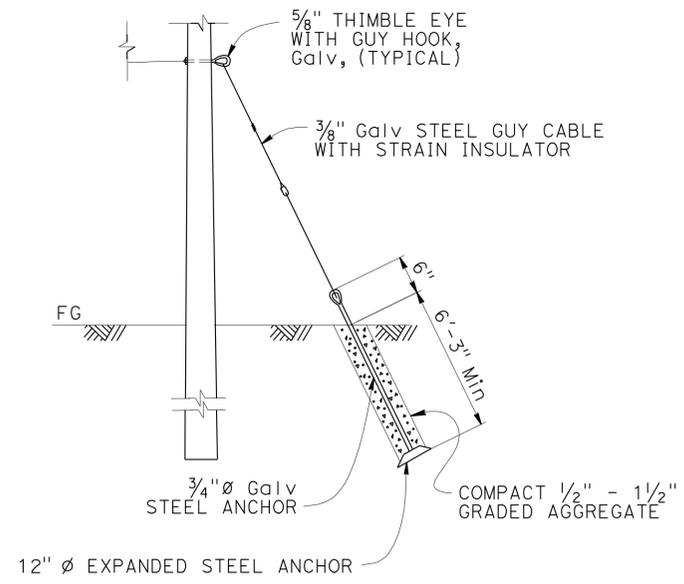
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DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN	N/A
	SPECIAL DESIGN BRANCH	POST MILE
		Varies

MOUNTINGS FOR SIGNAL HEADS	SES-4
MISCELLANEOUS DETAILS 2	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	56	128

REGISTERED CIVIL ENGINEER DATE _____
 5-7-12
 PLANS APPROVAL DATE _____
 No. C61373
 Exp. 6/30/13
 CIVIL
 STATE OF CALIFORNIA

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EXPANSION ANCHOR DETAIL

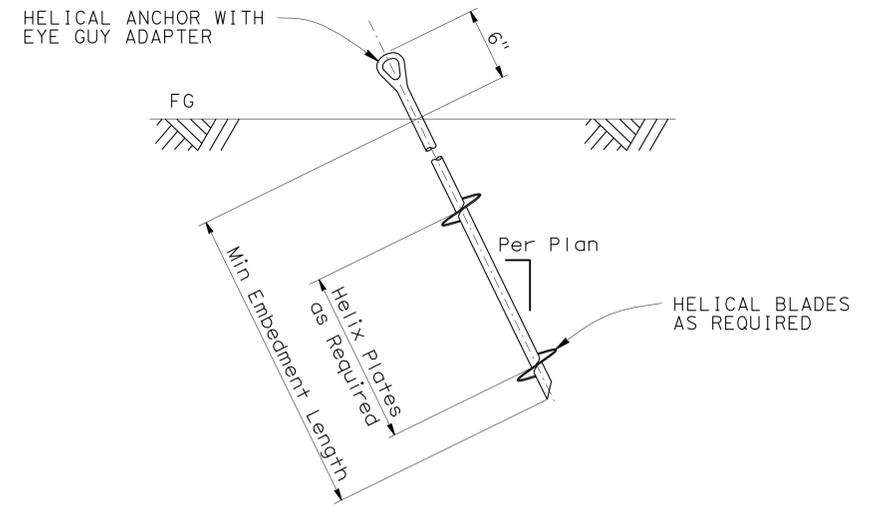
HELICAL ANCHOR SPECIFICATIONS TABLE

Type	Helix Plate Diameter*	Allowable Min Tension Cap., "Q _a "	Embedment (Minimum)	Installation Torque (Min)**, "T"
Tension	12"	3200 lb	6'-3"	970 ft-lb

SPECIFICATION NOTES:

- During installation the torque will be continuously monitored and recorded. If a drop in torque is recorded, the anchor must then continue to be inserted past the soft soil layer until Minimum Installation Torque is achieved.
- Anchors and Hardware to be installed per the manufacturers specifications.

* Number of helical plates is not specified; Contractors choice.
 ** Adjust accordingly if required, See Note 3.



ALTERNATIVE HELICAL ANCHOR INSTALLATION DETAIL

(See Helical Anchor Specifications Table)

NOTES:

- The Contractor shall verify soil condition, slope, and adjust anchoring to satisfy basic design requirements per FOUNDATION DESIGN NOTES on SES-1 sheet.
- Use of alternative Guy Wire Installation Detail requires that the soil bearing capacity be verified by the Contractor.
- The Contractor shall determine the most appropriate value for k₊ based on soil conditions and shall adjust the Min Installation Torque based on the revised k₊. A k₊ value of 10 was assumed for the Min Installation Torque shown in the table.
 The Helical Installation torque Formula is Q_u = k₊*T where,
 Q_u = Q_a*FS = Ultimate Helical Anchor Capacity (lb)
 FS = Factor of Safety = 3.0
 Q_a = Allowable Helical Anchor Capacity (lb)
 k₊ = Empirical Torque Factor (ft⁻¹)
 T = Min Installation Torque (ft-lb)
- Requests made by Helical Anchor Installation Contractor to reduce the minimum embedment length and Helix diameter require the Engineer's approval.
- The Contractor shall locate and mark all of the substructures and utilities. Installation of anchors underneath utilities or subsurface structures is prohibited. Horizontal clearances of anchors shall be determined by the Engineer during construction.

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

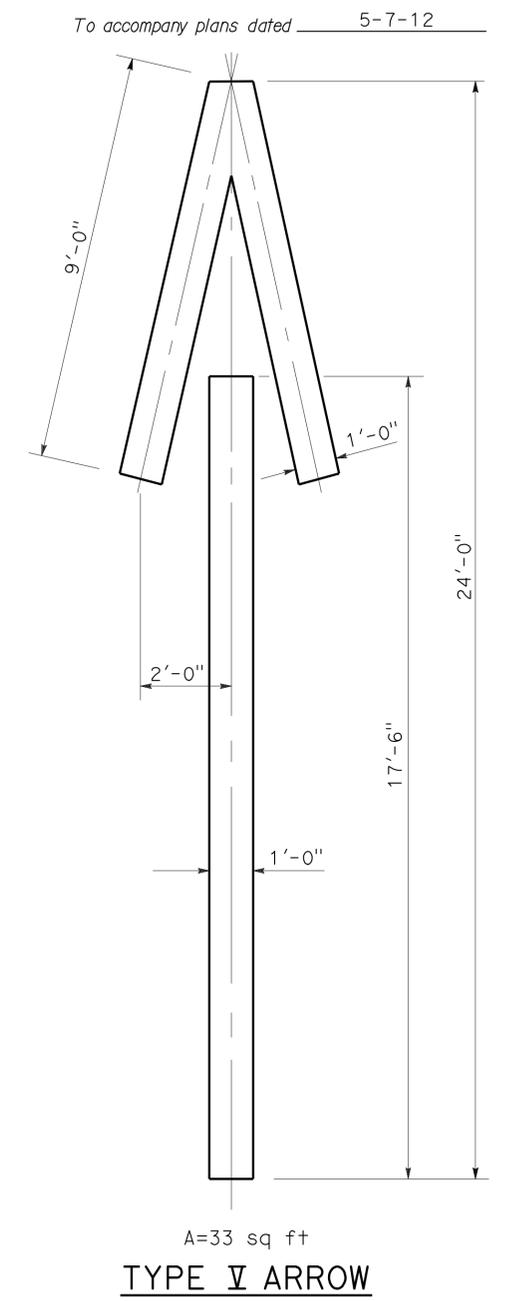
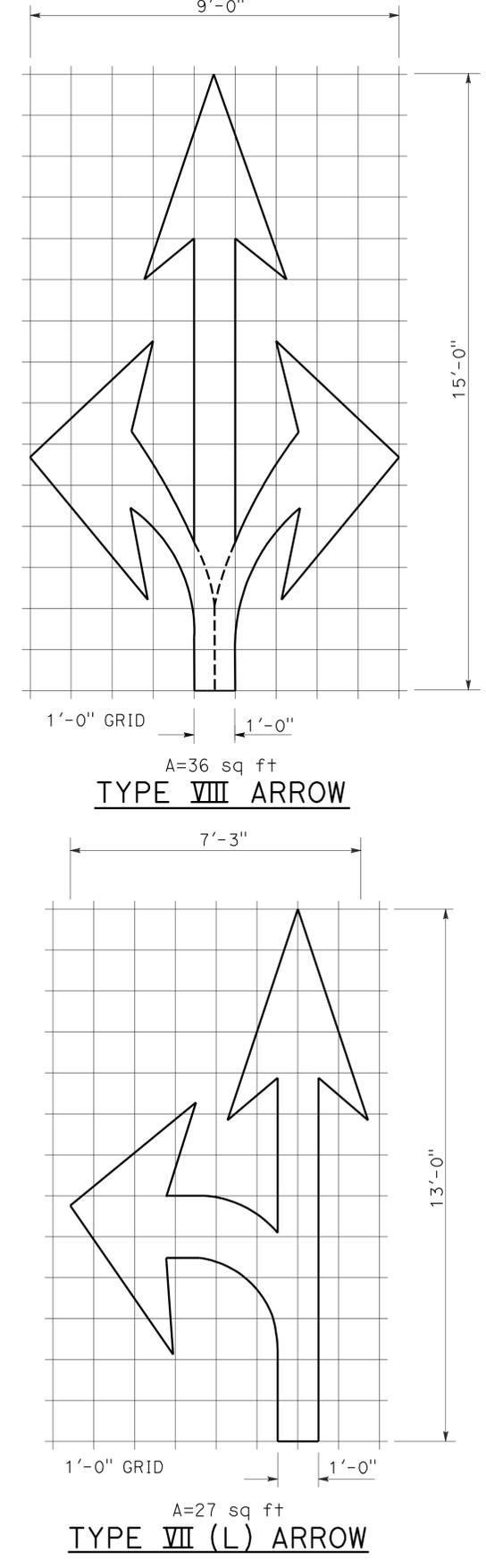
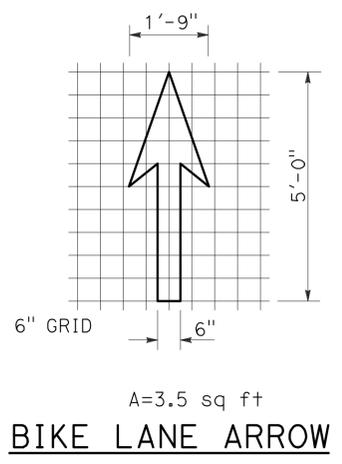
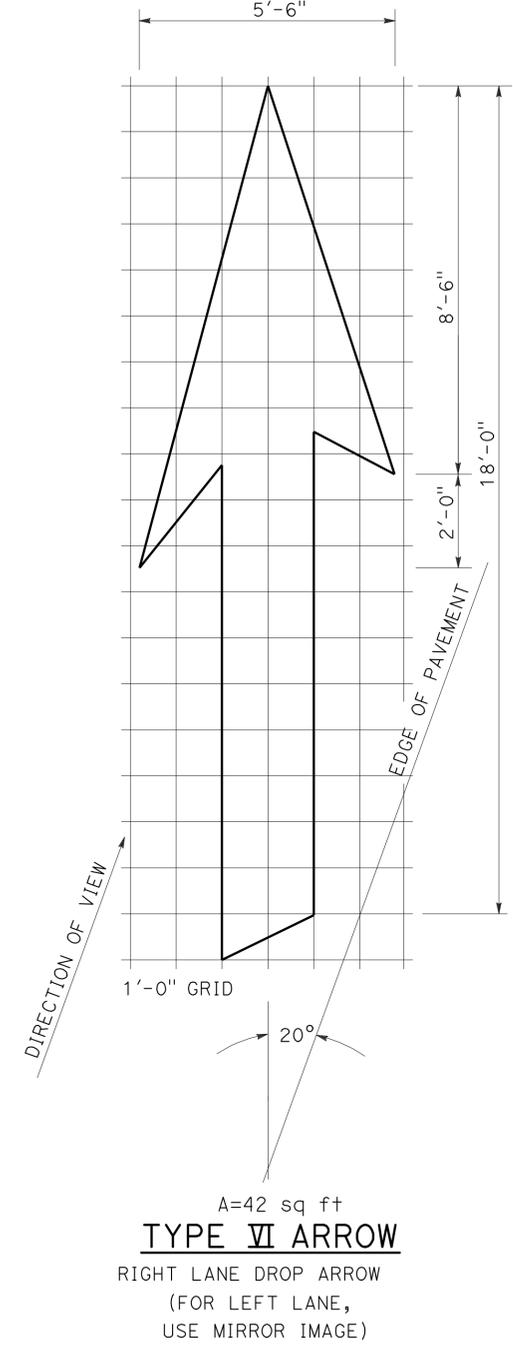
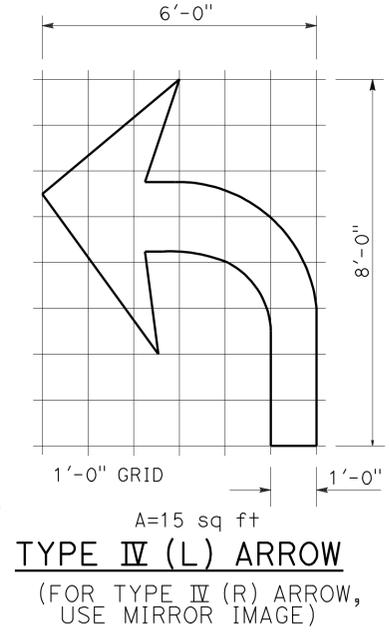
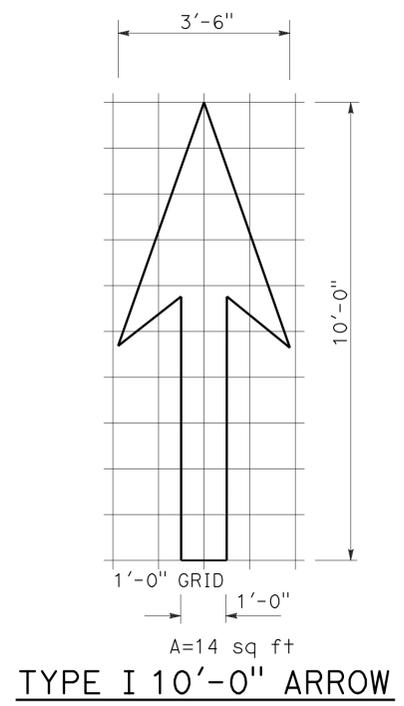
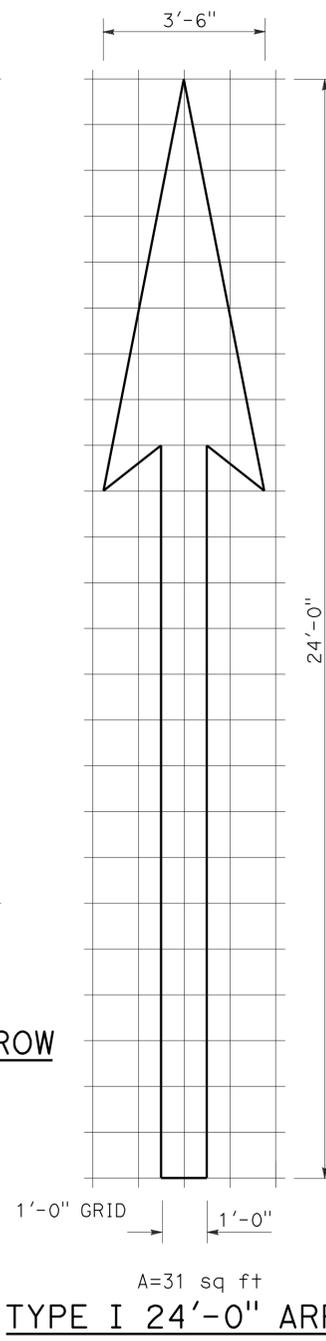
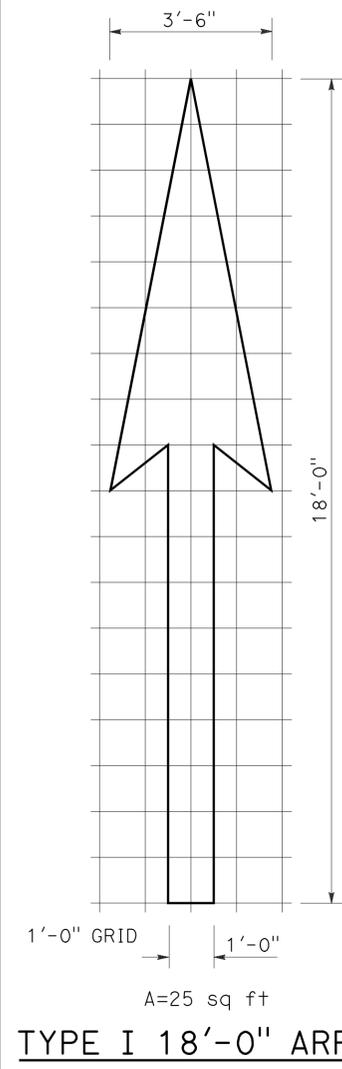
NO SCALE

BRANCH CHIEF: JAMES SAGAR	DESIGN	BY VICTOR LOPEZ	CHECKED LANCE WARREN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN SPECIAL DESIGN BRANCH	BRIDGE NO.	N/A	TEMPORARY WOOD POLE GUY WIRE DETAILS	SES-5
	DETAILS	BY BOB EDWARDS	CHECKED VICTOR LOPEZ			POST MILE	Varies		
	QUANTITIES	BY X	CHECKED X						

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	57	128

Roberto L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Roberto L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA



NOTE:
MINOR VARIATIONS IN DIMENSIONS
MAY BE ACCEPTED BY THE ENGINEER.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
DATED MAY 1, 2006 - PAGE 9 OF THE STANDARD PLANS BOOK DATED MAY 2006.

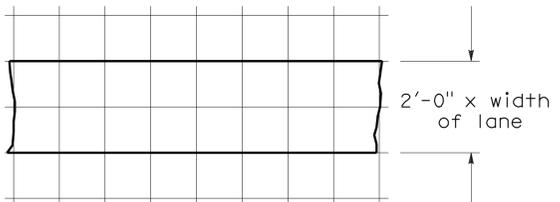
2006 REVISED STANDARD PLAN RSP A24A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	58	128

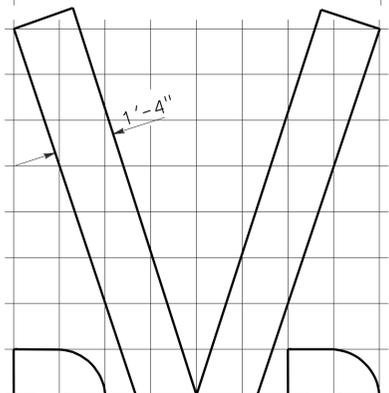
Donald E. Howe
 REGISTERED CIVIL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 Donald E. Howe
 No. C46402
 Exp. 3-31-09
 CIVIL
 STATE OF CALIFORNIA

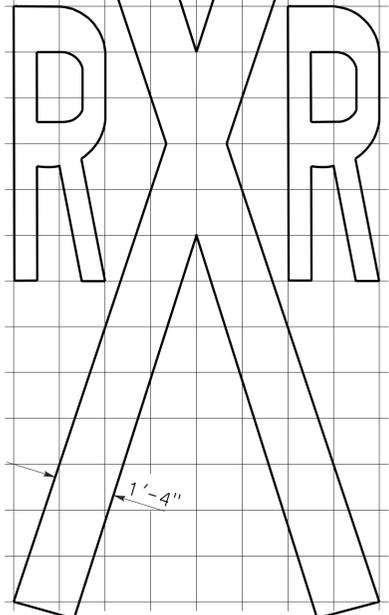
To accompany plans dated 5-7-12



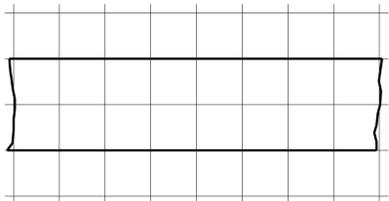
8'-0"



6'-0"
20'-0"



14'-0"

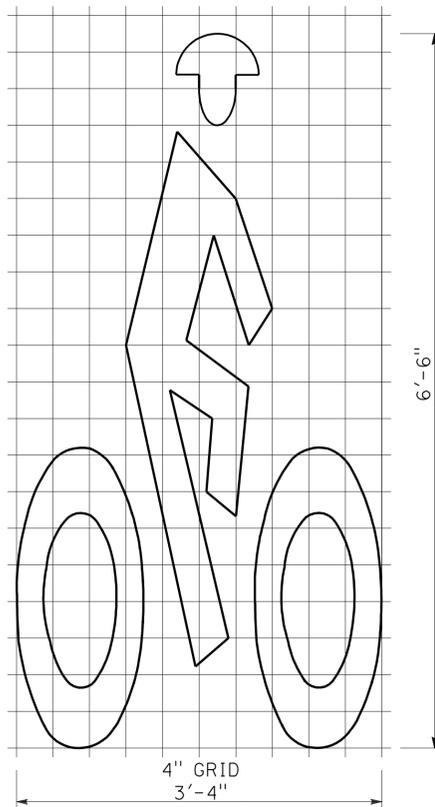


2'-0" x width of lane

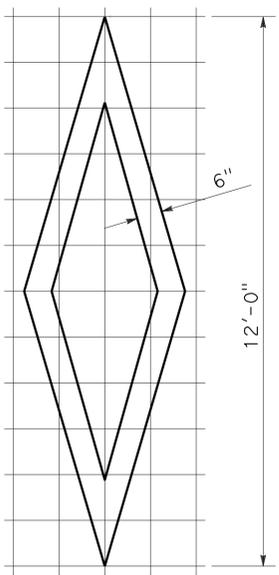
1'-0" GRID
A=70 sq ft *

RAILROAD CROSSING SYMBOL

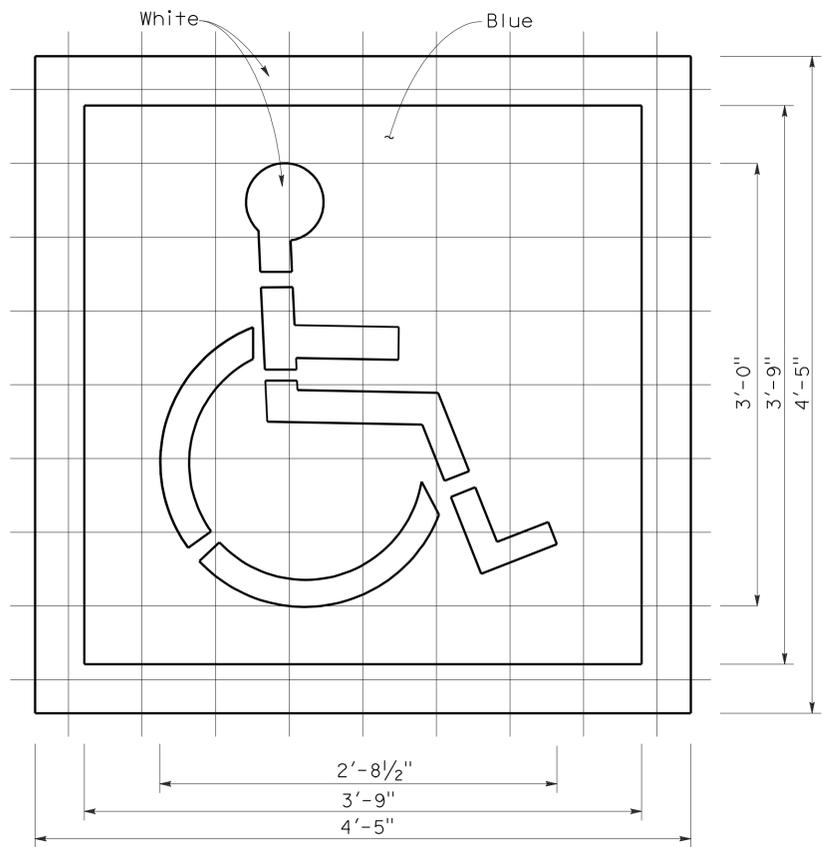
*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



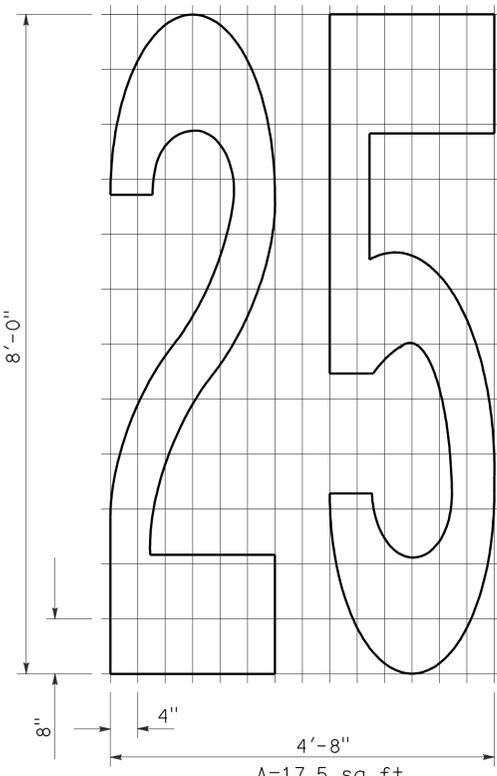
4" GRID
3'-4"
A=7 sq ft
BIKE LANE SYMBOL



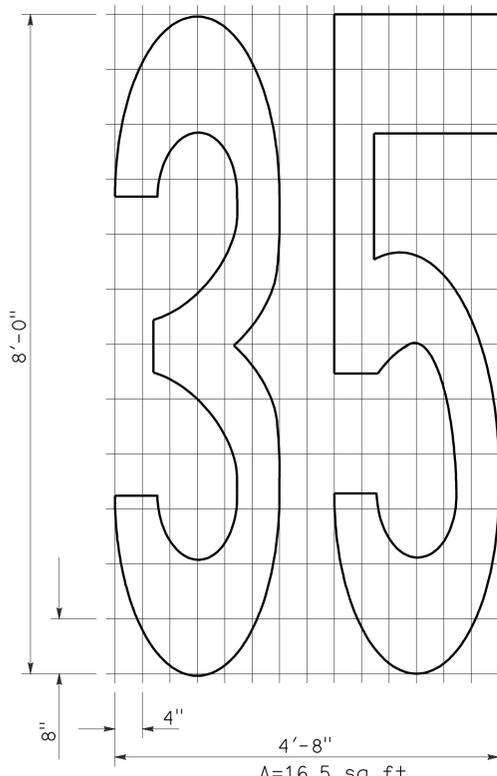
1'-0" GRID
3'-3"
A=11 sq ft
DIAMOND SYMBOL



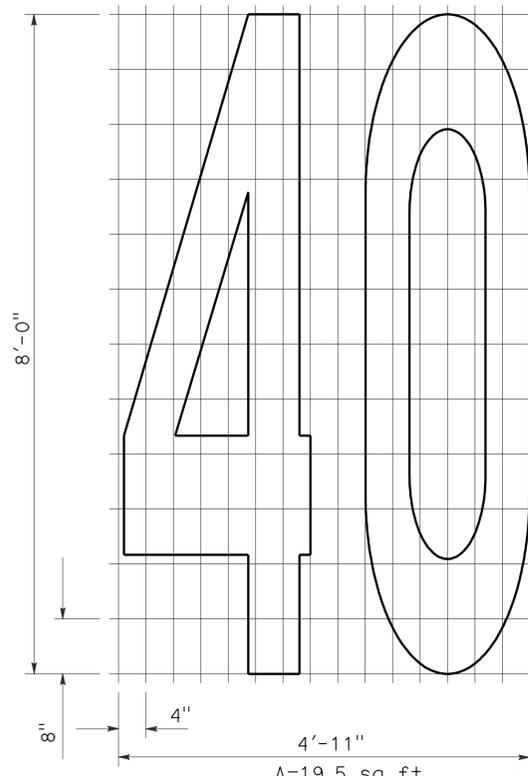
6" GRID
A (White) = 9 sq ft
A (Blue) = 14 sq ft
INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING



4'-8"
A=17.5 sq ft

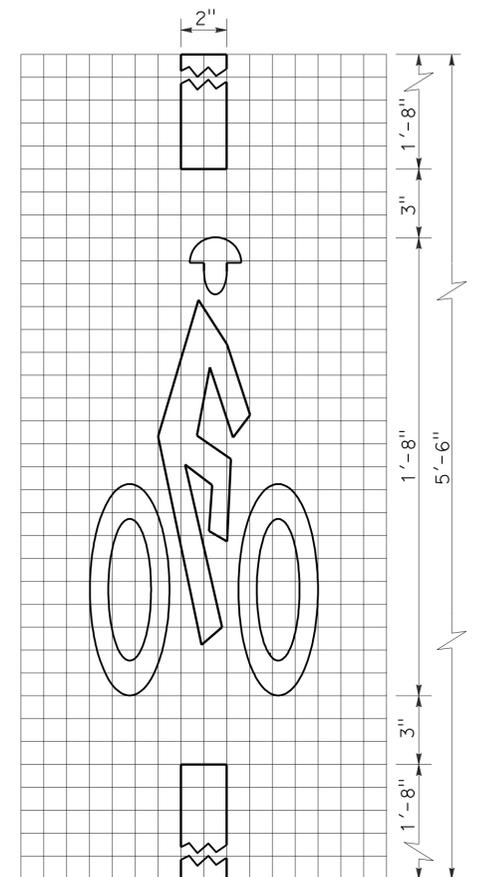


4'-8"
A=16.5 sq ft



4'-11"
A=19.5 sq ft

NUMERALS



1" GRID
10"
A=2 sq ft
BICYCLE LOOP DETECTOR SYMBOL

NOTE:
1. Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS SYMBOLS AND NUMERALS

NO SCALE

2006 REVISED STANDARD PLAN RSP A24C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	59	128

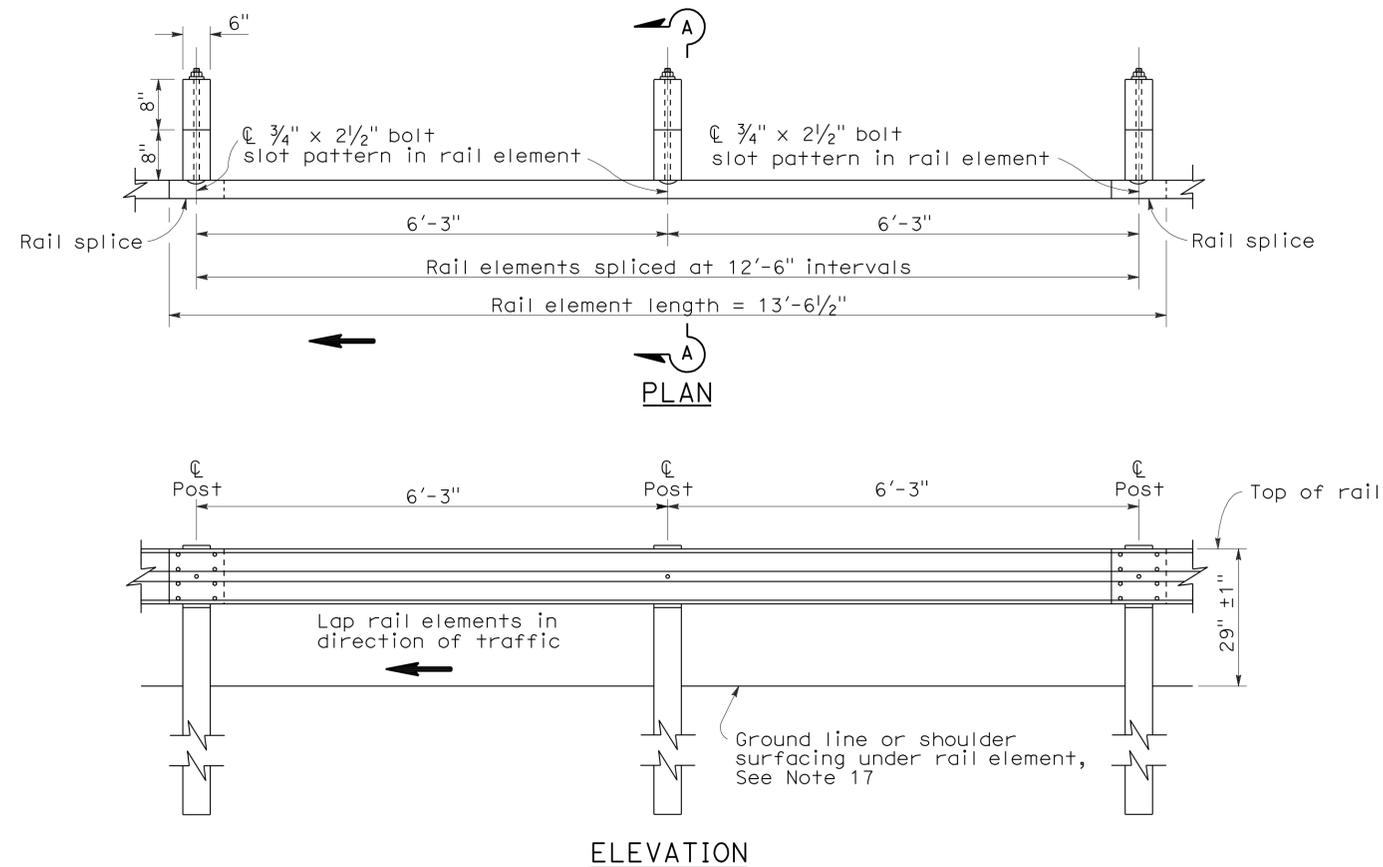
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REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

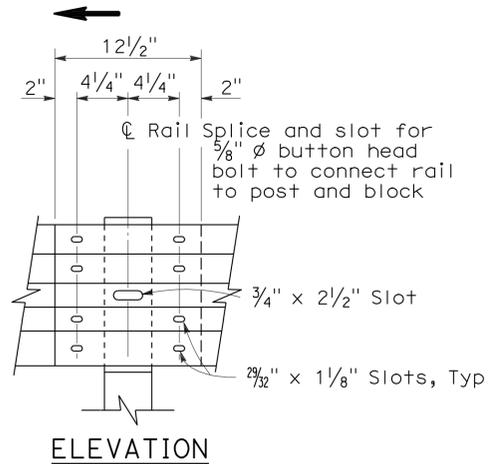
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To accompany plans dated 5-7-12

2006 REVISED STANDARD PLAN RSP A77A1

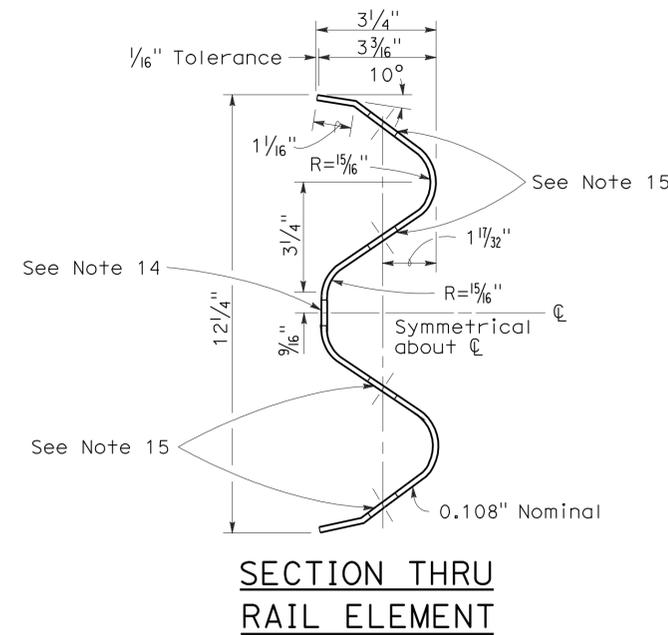


METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS

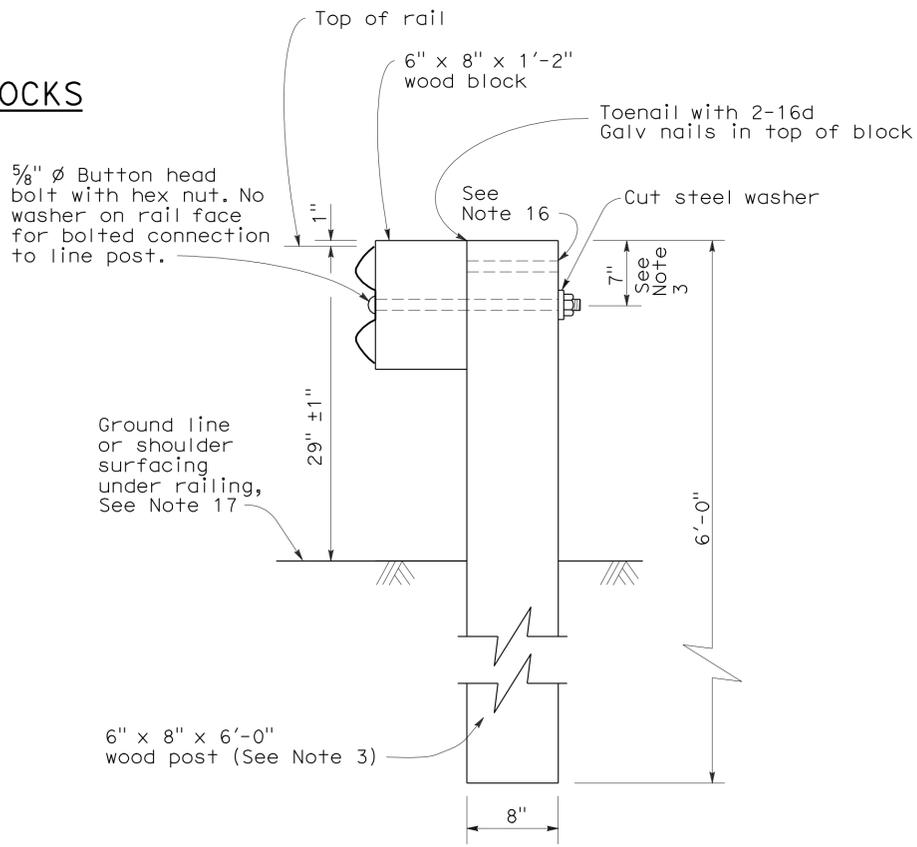


RAIL ELEMENT SPLICE DETAIL

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



SECTION THRU RAIL ELEMENT



SECTION A-A TYPICAL WOOD LINE POST INSTALLATION

See Note 4

NOTES:

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

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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

To accompany plans dated 5-7-12

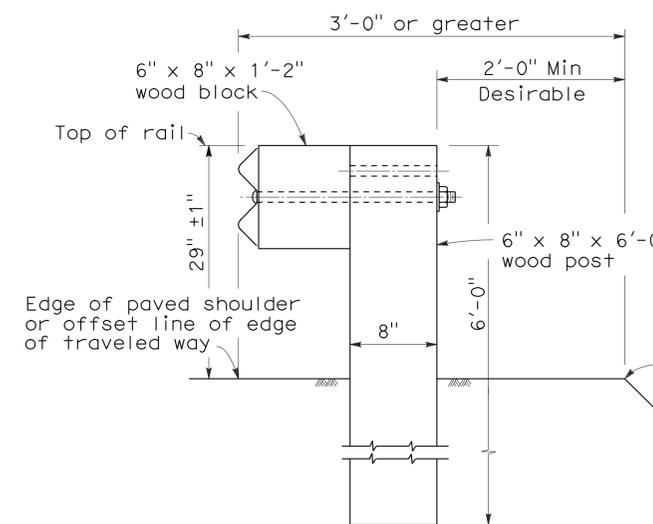
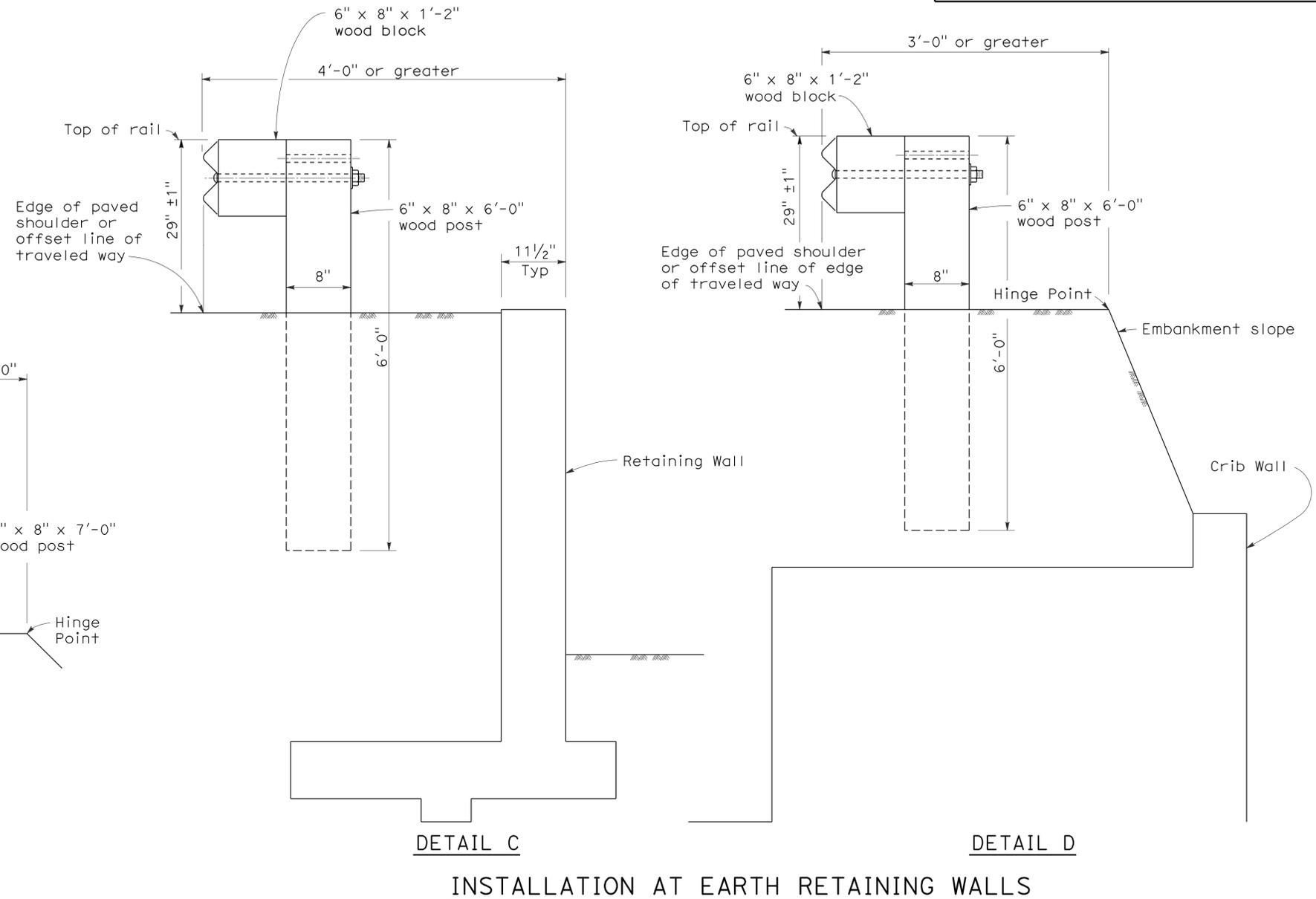
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	60	128

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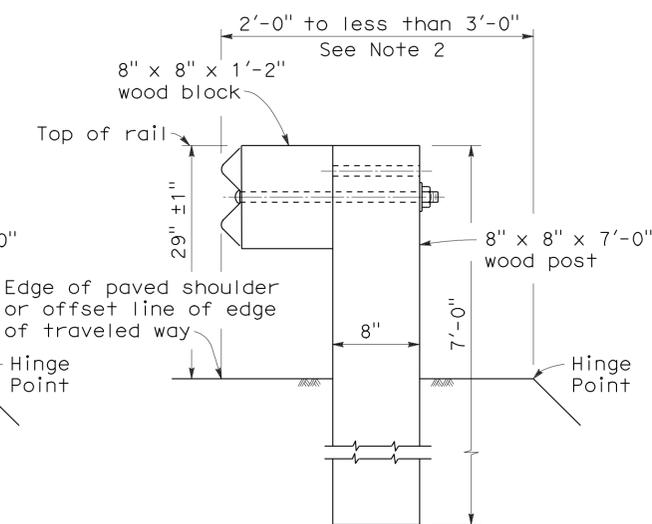
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DETAIL A
TYPICAL ROADWAY
INSTALLATION
See Note 1



DETAIL B
NARROW ROADWAY
INSTALLATION
See Note 1

POST EMBEDMENT

DETAIL C
INSTALLATION AT EARTH RETAINING WALLS
DETAIL D

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.

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77C3

2006 REVISED STANDARD PLAN RSP A77C3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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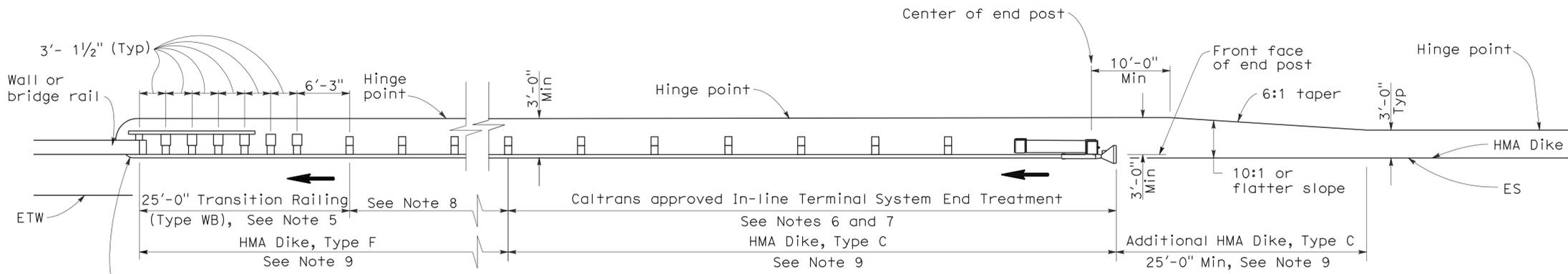
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June 6, 2008
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
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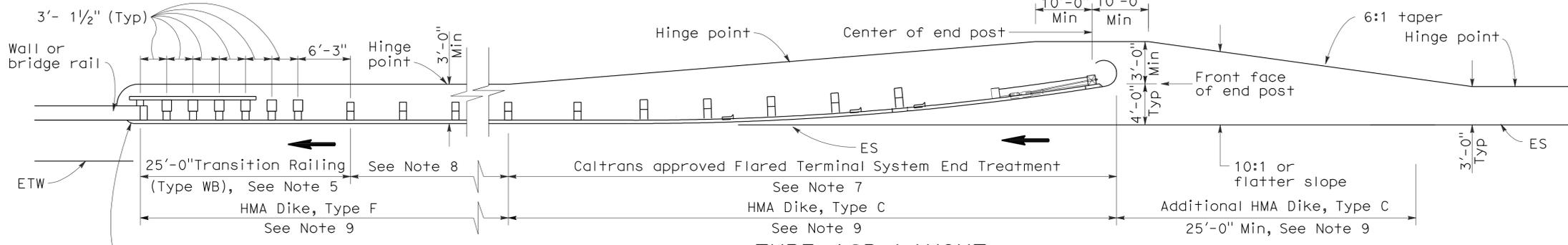
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To accompany plans dated 5-7-12



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:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or 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.
- Direction of adjacent traffic indicated by \rightarrow .
- For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- 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.

- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
 - 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.
 - 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.
 - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
 - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- 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.

- 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.
- For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

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**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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	62	128

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

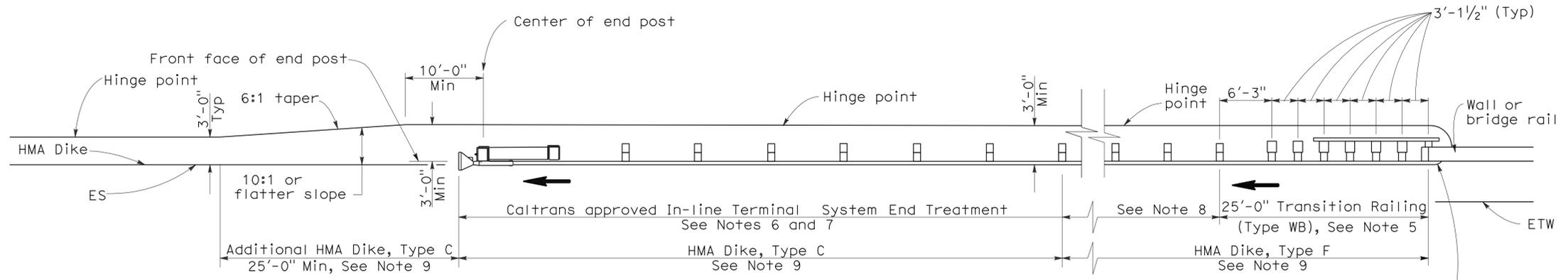
June 6, 2008
PLANS APPROVAL DATE

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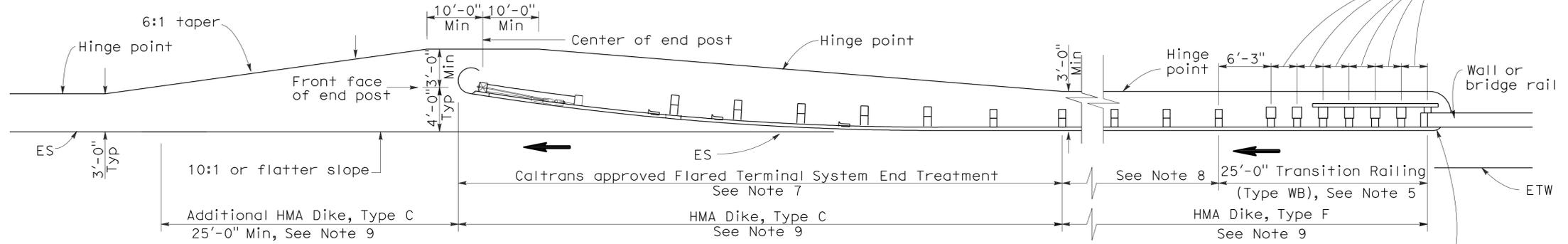
To accompany plans dated 5-7-12

2006 REVISED STANDARD PLAN RSP A77F4



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:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For Transition Railing (Type WB) details for Types 12AA and 12BB Layouts, see Standard Plan A77J4.
- In-line Terminal System Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system to be used will be shown on the Project Plans.
- 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.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- 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.
- 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.

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**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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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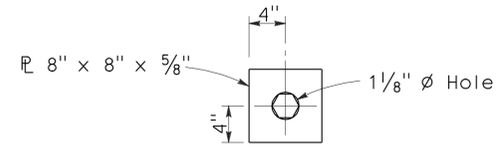
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

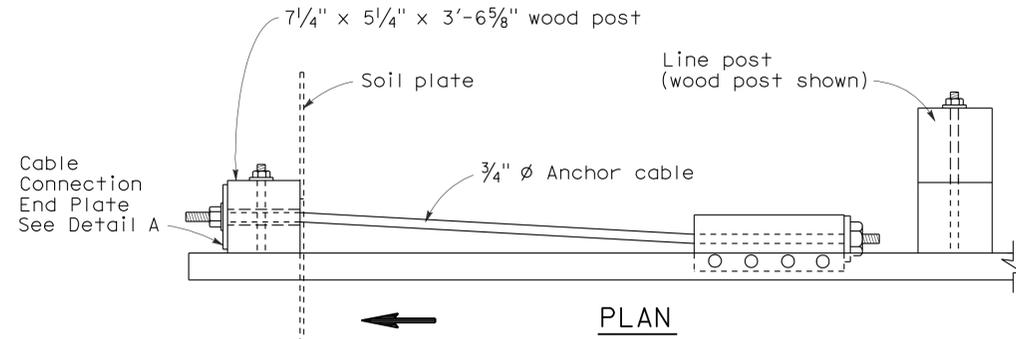
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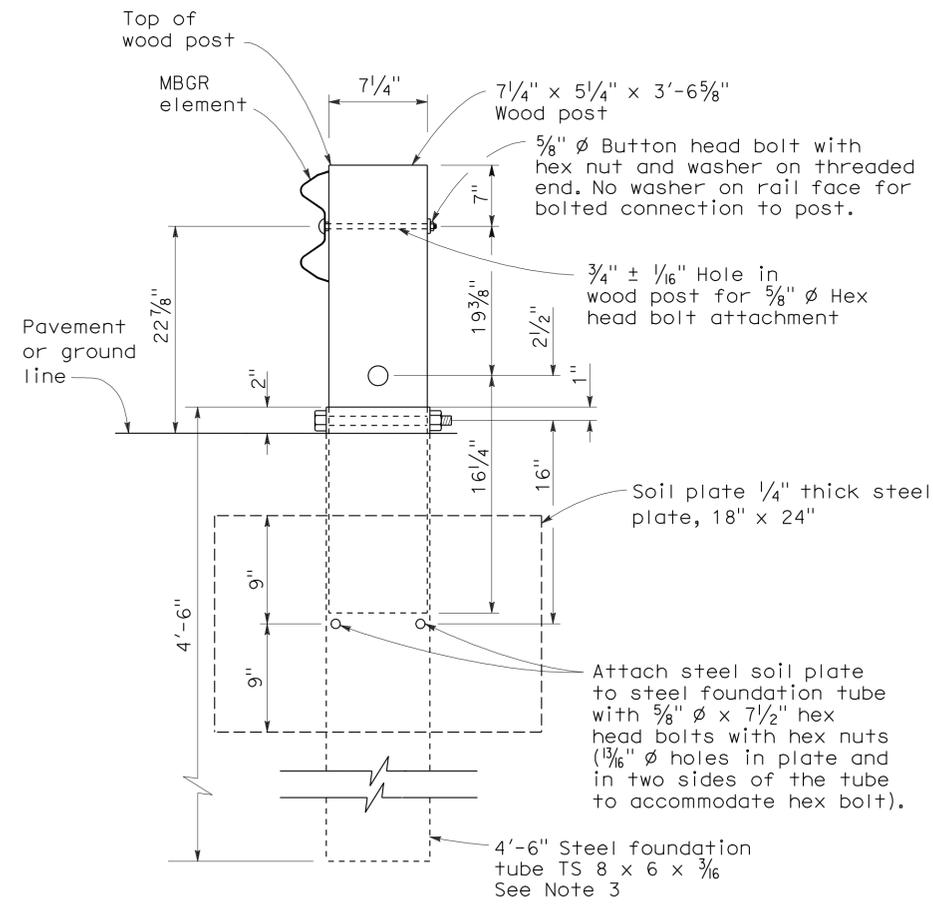
To accompany plans dated 5-7-12



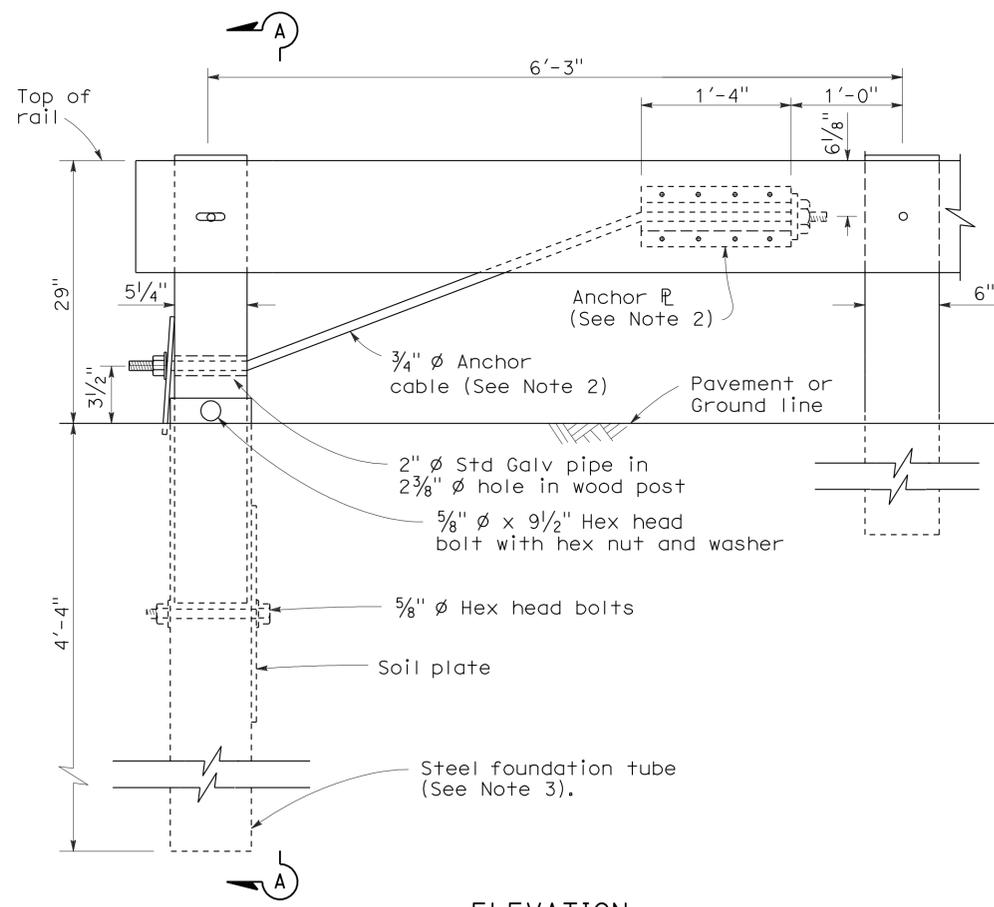
DETAIL A
CABLE CONNECTION
END PLATE



PLAN



SECTION A-A



ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)
See Note 1

NOTES:

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

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77H1

2006 REVISED STANDARD PLAN RSP A77H1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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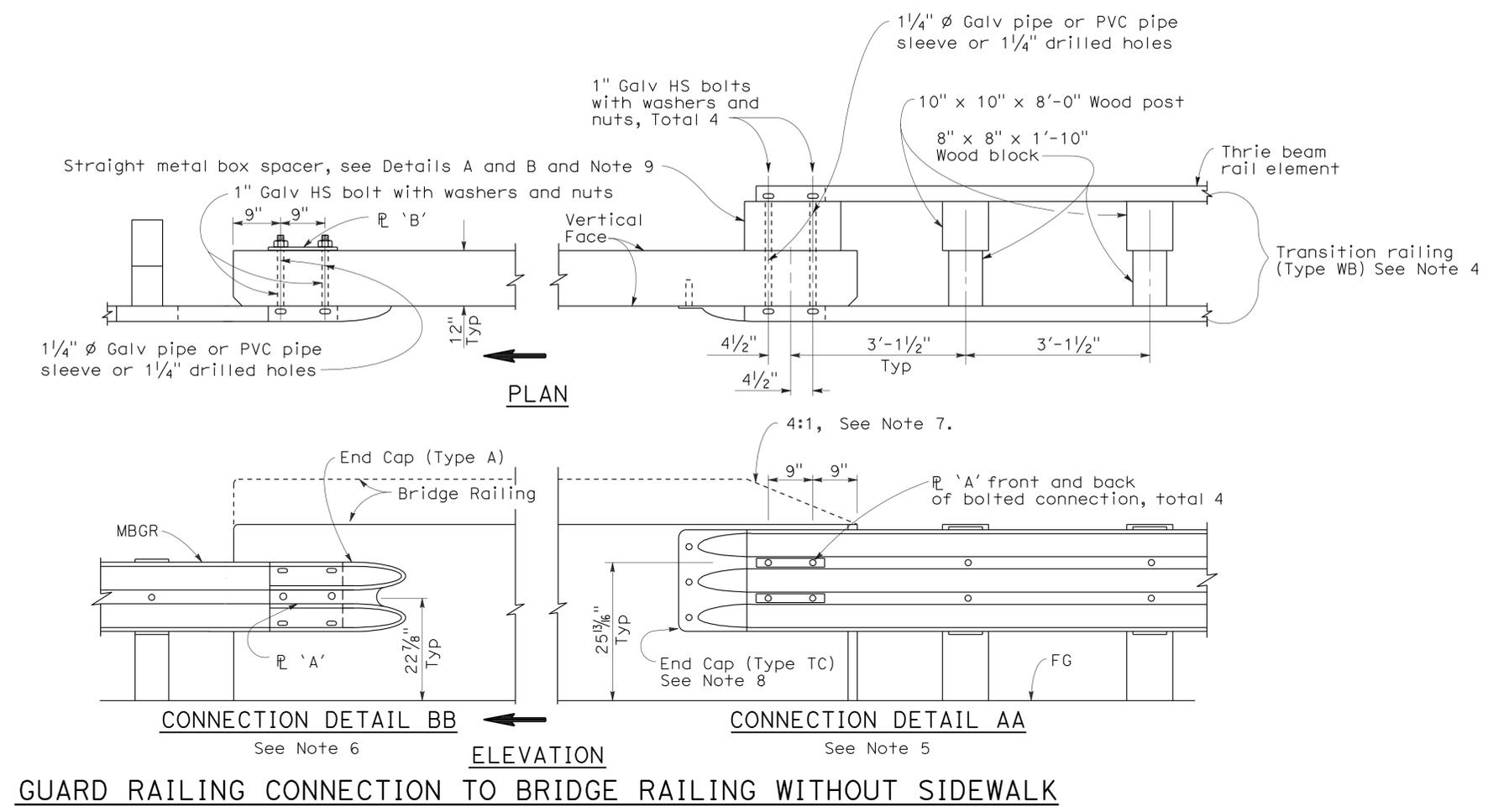
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May 20, 2011
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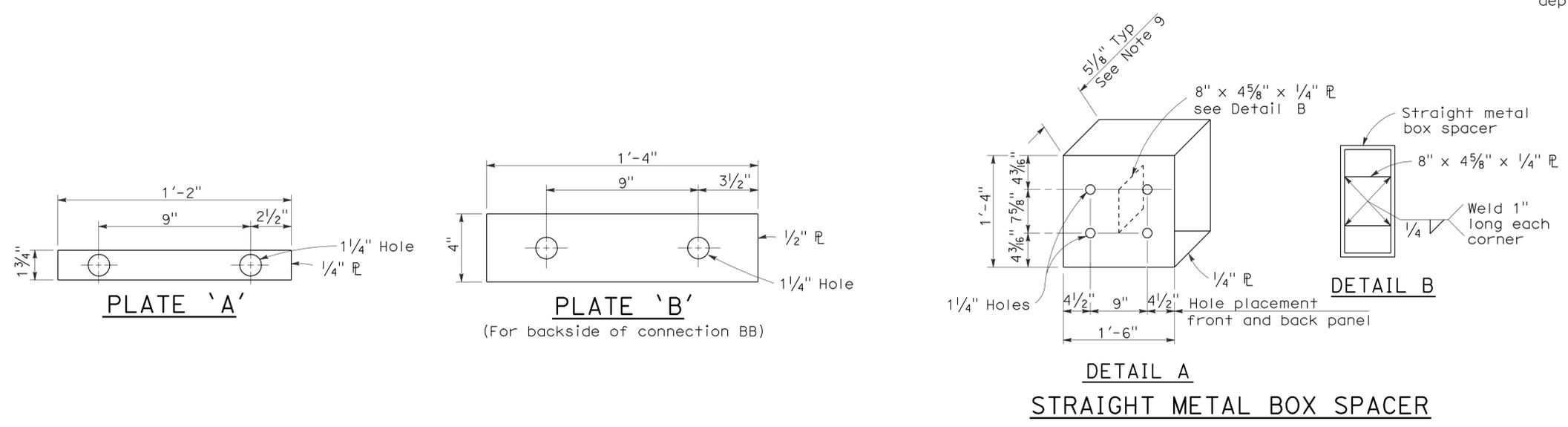
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- NOTES:**
1. See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
 2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
 3. Direction of adjacent traffic indicated by \rightarrow .
 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 BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD 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, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
 8. For details of End Cap (Type TC), see Standard Plan A77J4.
 9. See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.



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**METAL BEAM GUARD RAILING
CONNECTIONS TO
BRIDGE RAILINGS
WITHOUT SIDEWALKS
DETAILS No.1**

NO SCALE

RSP A77J1 DATED MAY 20, 2011 SUPERSEDES RSP A77J1 DATED JUNE 6, 2008 AND STANDARD PLAN A77J1 DATED MAY 1, 2006 - PAGE 72 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	65	128

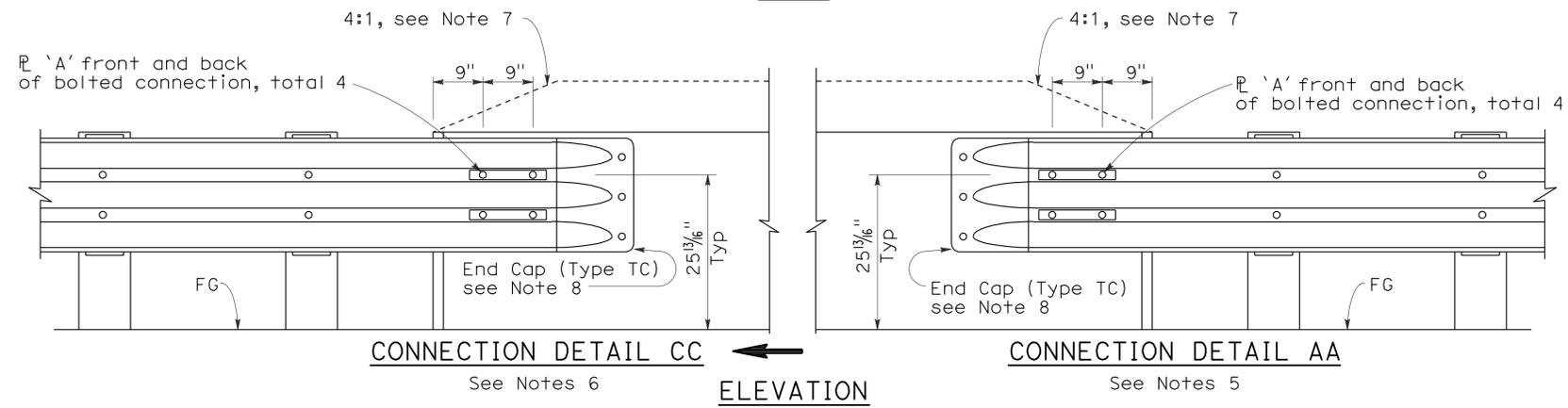
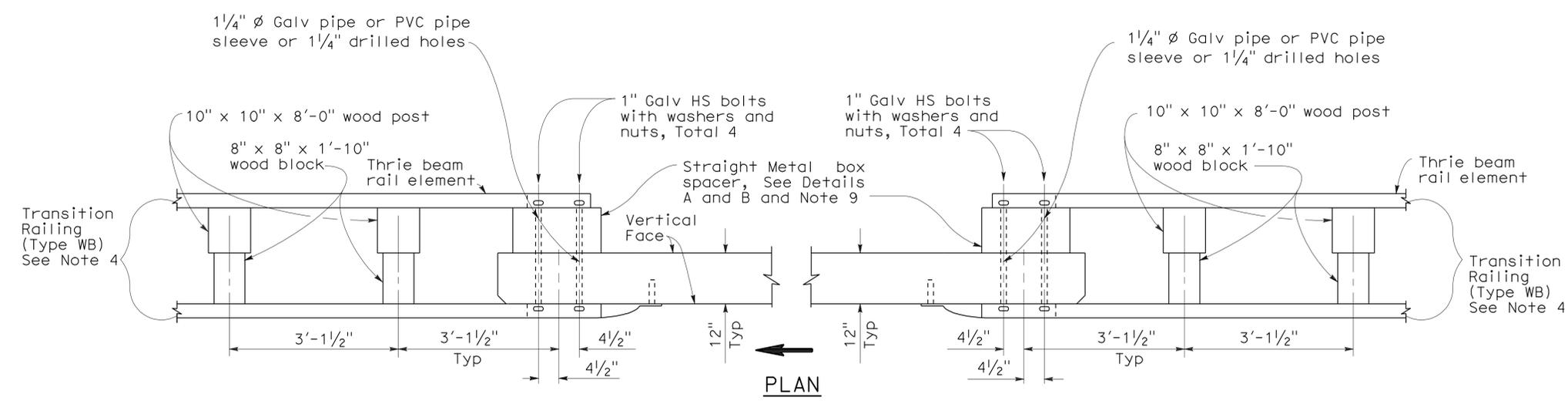
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June 6, 2008
PLANS APPROVAL DATE

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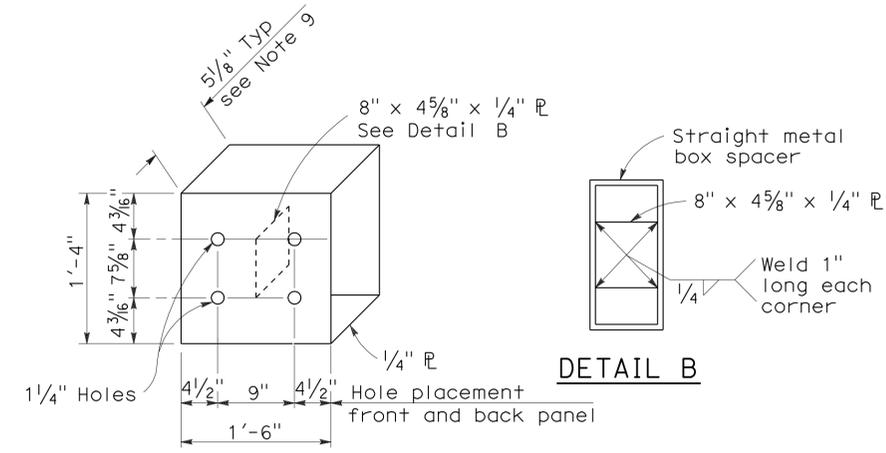
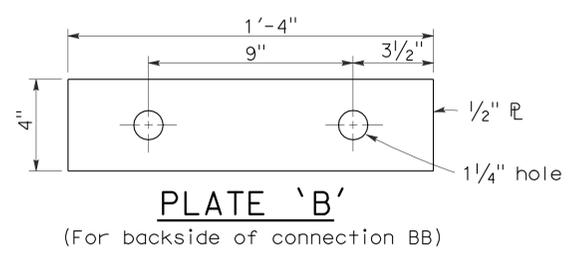
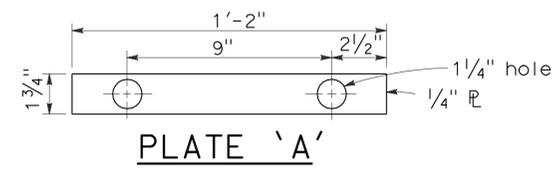
To accompany plans dated 5-7-12



GUARD RAILING CONNECTION TO BRIDGE RAILING WITHOUT SIDEWALK

NOTES:

- See Revised Standard Plan RSP A77J1 for additional connection details to bridges without sidewalks.
- Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
- Direction of adjacent traffic indicated by →.
- 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.
- 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.
- 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.
- 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.
- For details of End Cap (Type TC), see Standard Plans A77J4.
- See Standard Plans A77J4 for additional details regarding depth dimension for straight metal box spacer.



**DETAIL A
STRAIGHT METAL BOX SPACER**

STATE OF CALIFORNIA
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**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.

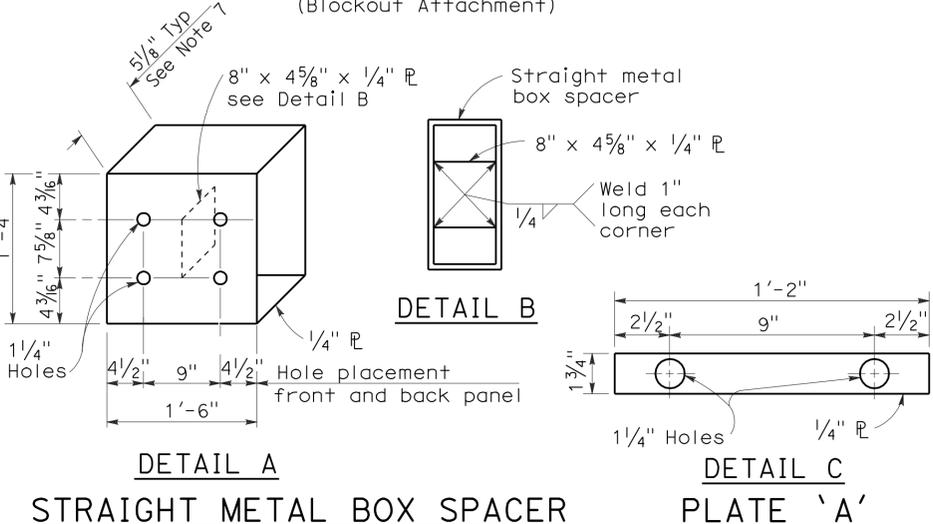
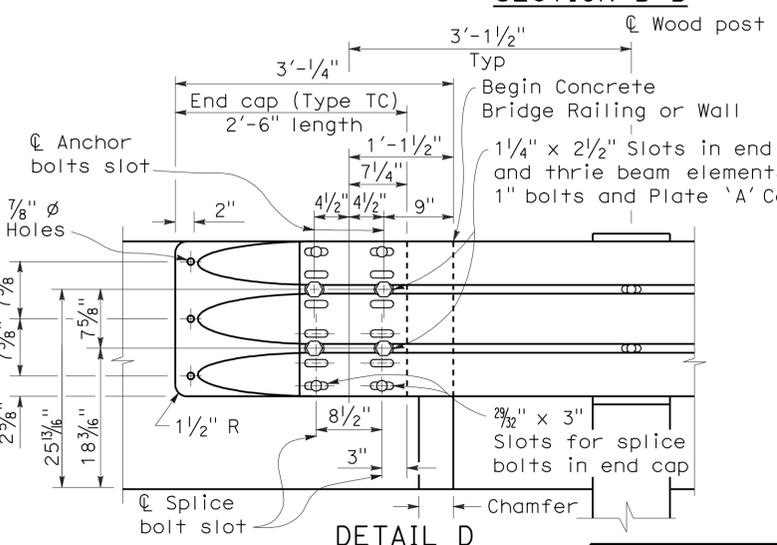
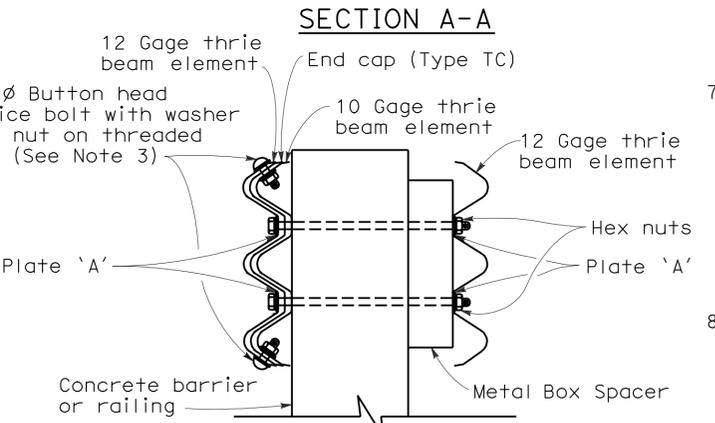
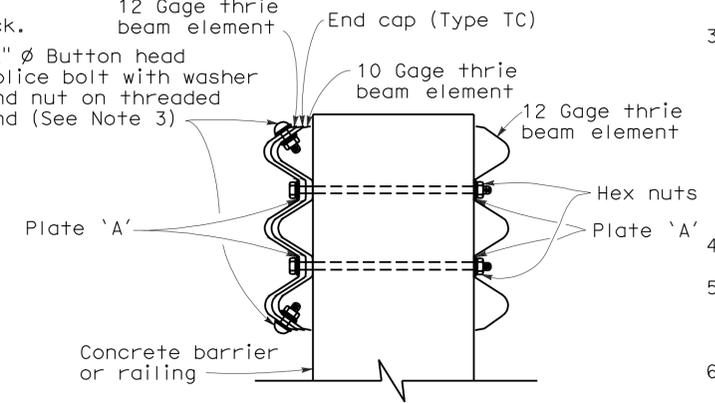
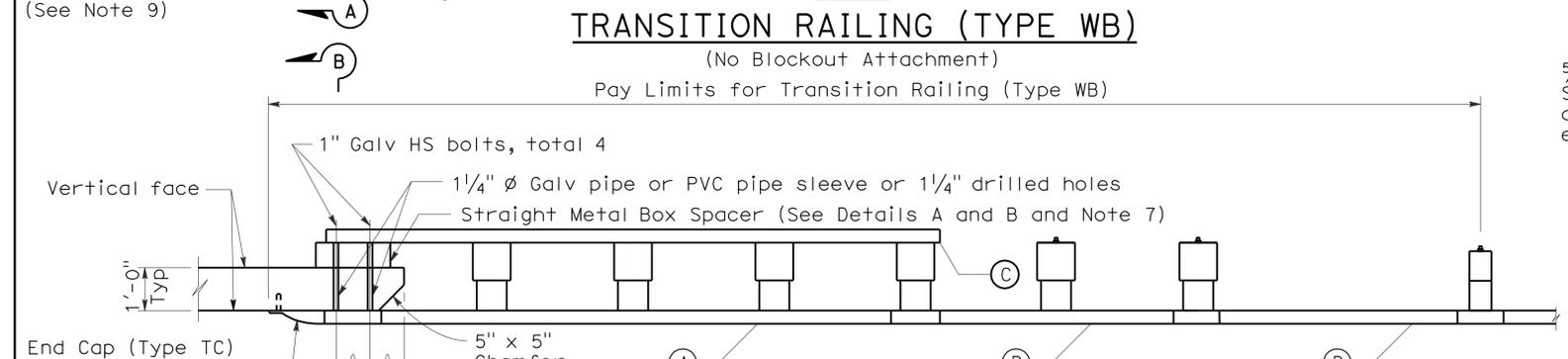
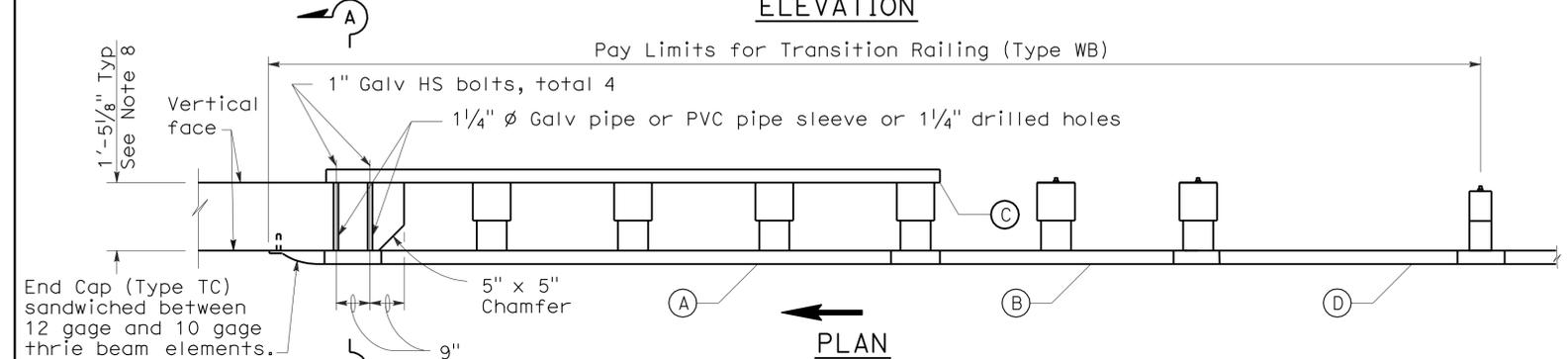
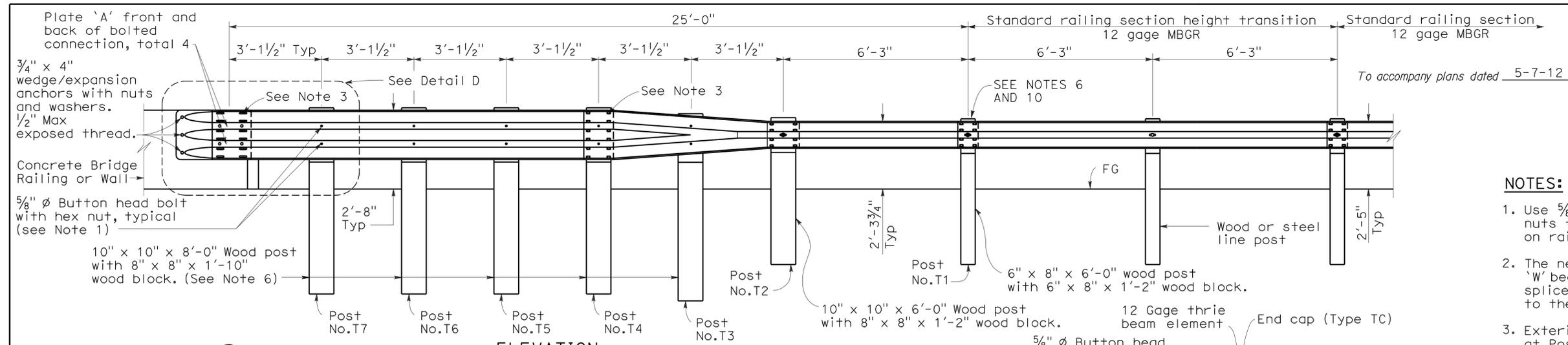
REVISED STANDARD PLAN RSP A77J2

2006 REVISED STANDARD PLAN RSP A77J2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	66	128

Randell D. Hiatt
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 Exp. 6-30-11
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May 20, 2011
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- 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'-3 1/2" length)
- 10 gage = 0.135" thick
12 gage = 0.108" thick

- NOTES:**
1. Use 5/8" 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 7/32" x 1/8" slot size. Interior splice bolt holes at these locations may be increased up to 1/4" 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 5/8" to 1 1/2" 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 17 1/8". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2", 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 17 1/8", 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'-3 3/4" 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.

2006 REVISED STANDARD PLAN RSP A77J4

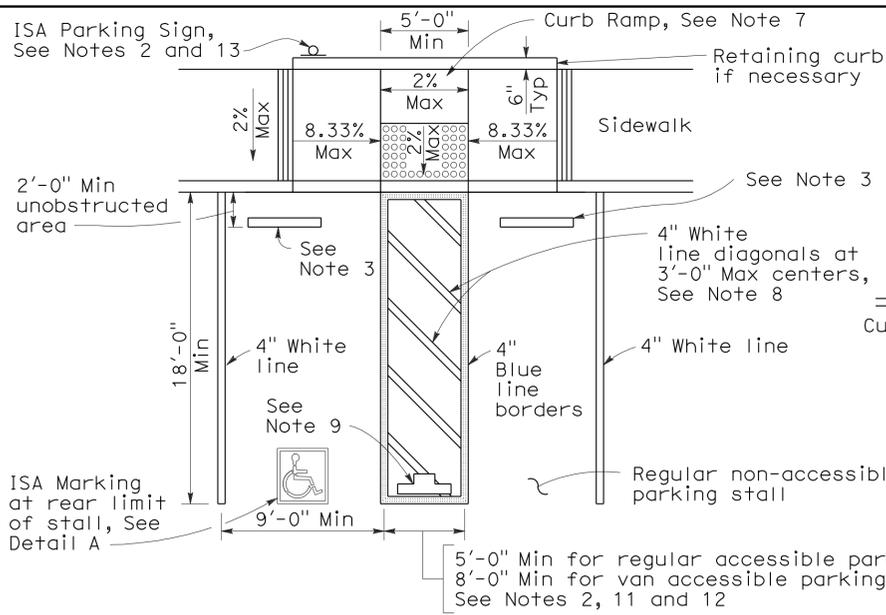
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	67	128

H. David Cordova
 REGISTERED CIVIL ENGINEER
 No. C41957
 Exp. 3-31-10
 CIVIL
 STATE OF CALIFORNIA

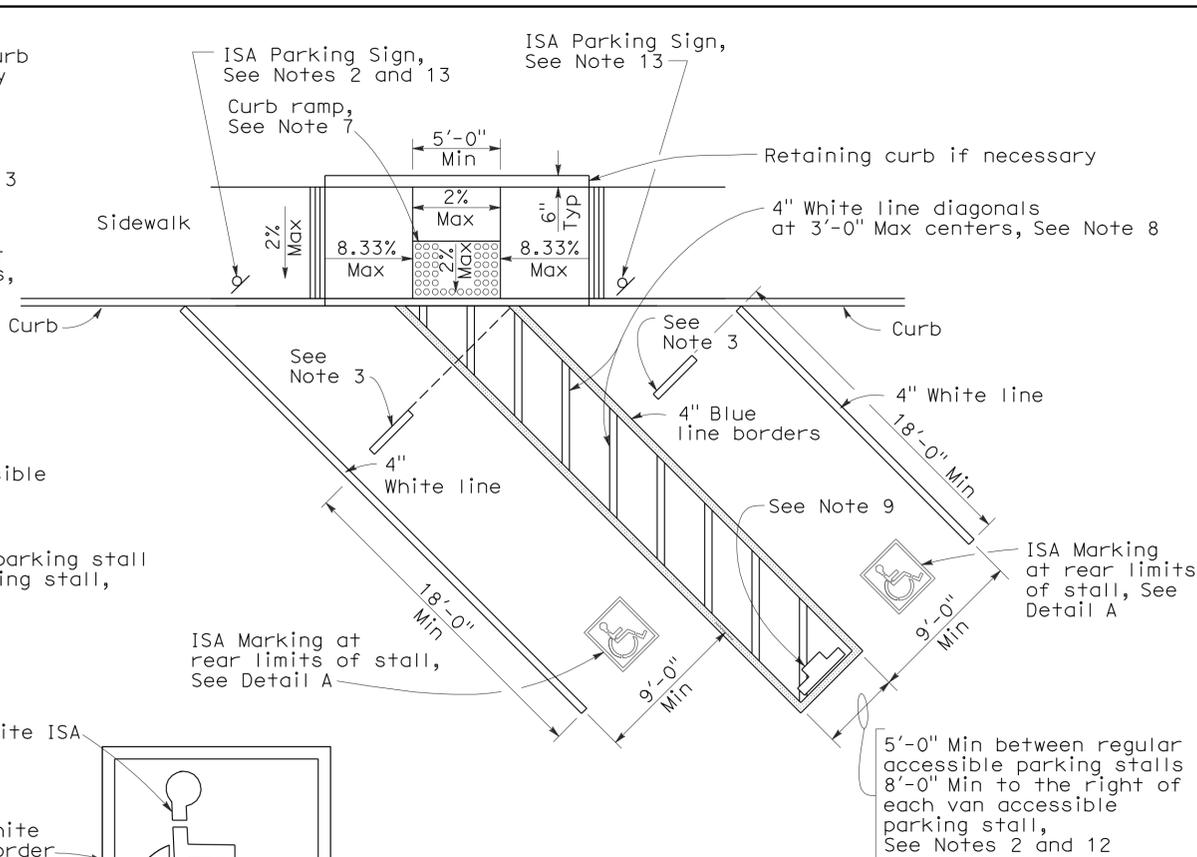
June 6, 2008
 PLANS APPROVAL DATE

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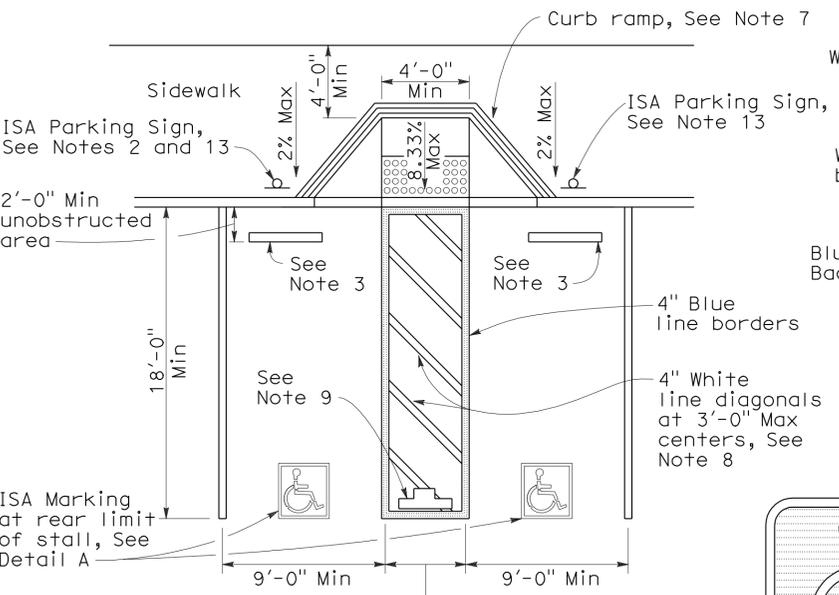
To accompany plans dated 5-7-12



SINGLE PARKING STALL



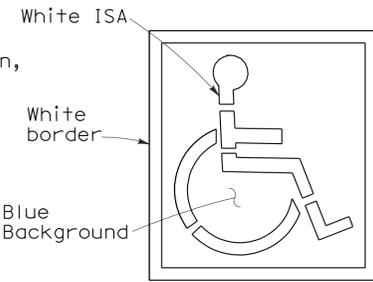
DIAGONAL DOUBLE PARKING STALLS



DOUBLE PARKING STALL

TABLE A

Total Number of Parking Spaces or Stalls	Minimum Number of Disabled Accessible Parking Spaces or Stalls
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1000	2 percent of total
Greater than 1001	20 plus 1 for each 100 or fraction thereof over 1001



ISA MARKING
See Revised Std Plan RSP A24C

DETAIL A



SIGN R99 (CA)



PLAQUE R99B (CA)

SIGN R99 (CA) with PLAQUE R99B (CA)
See Note 6



SIGN R99C (CA)
See Note 6



SIGN R100B (CA)
See Note 10



SIGN R7-8b
See Notes 2 and 6

NOTES:

1. Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility.
2. One in every eight accessible off-street parking stalls, but not less than one, shall be served by an accessible aisle of 8'-0" minimum width and shall be signed van accessible. The R7-8b sign shall be mounted below the R99B (CA) plaque or the R99C (CA) sign.
3. In each parking stall, a curb or bumper shall be provided and located to prevent encroachment of vehicles over the required width of walkways. Parking stalls shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.
4. Surface slopes of accessible off-street parking stalls shall be the minimum possible and shall not exceed 2 percent in any direction.
5. Table A shall be used to determine the required number of accessible parking stalls in each parking lot or garage.
6. Where Plaque R99B (CA), Sign R99C (CA) or Sign R7-8b are installed, the bottom of the sign or plaque panel shall be a minimum of 7'-0" above the surrounding surface.
7. Curb ramps shall conform to the details shown on Revised Standard Plan RSP A88A.
8. Blue paint, instead of white may be used for marking accessibility aisles in areas where snow may cause white markings to not be visible.
9. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high and located so that it is visible to traffic enforcement officials. See Revised Standard Plan RSP A90B for details of the "NO PARKING" pavement marking.
10. A R100B (CA) sign shall be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall. The sign shall include the address where the towed vehicle may be reclaimed and the telephone number of the local traffic law enforcement agency.
11. Where a single (non-van) accessible parking space is provided, the loading and unloading access aisle shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
12. Where a van accessible parking space is provided, the loading and unloading access aisle shall be 8'-0" wide minimum, and shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
13. Accessible Parking Only Sign shall be Sign R99C (CA) or Sign R99 (CA) with Plaque R99B (CA).

OFF-STREET PARKING SIGNS

(Parking lot or garage)
See Note 6

ACCESSIBLE PARKING OFF-STREET

NO SCALE
RSP A90A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A90A
DATED MAY 1, 2006 - PAGE 117 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A90A

2006 REVISED STANDARD PLAN RSP A90A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	68	128

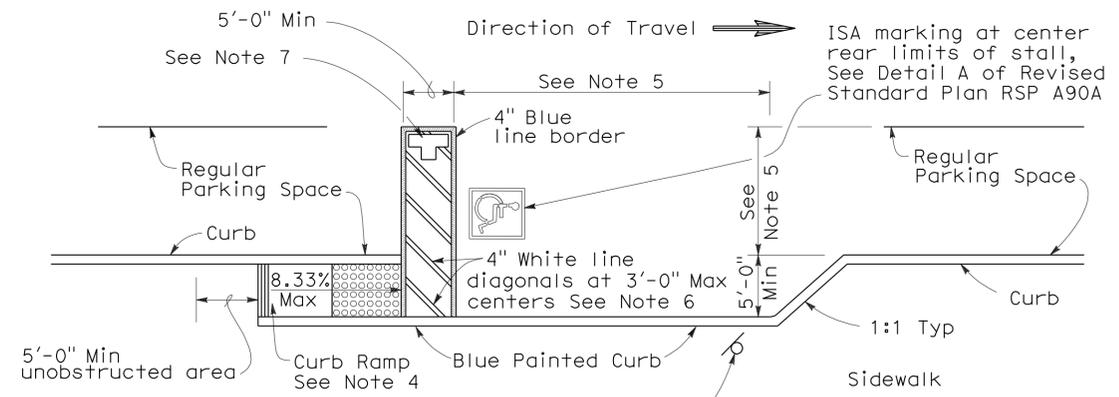
H. David Cordova
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

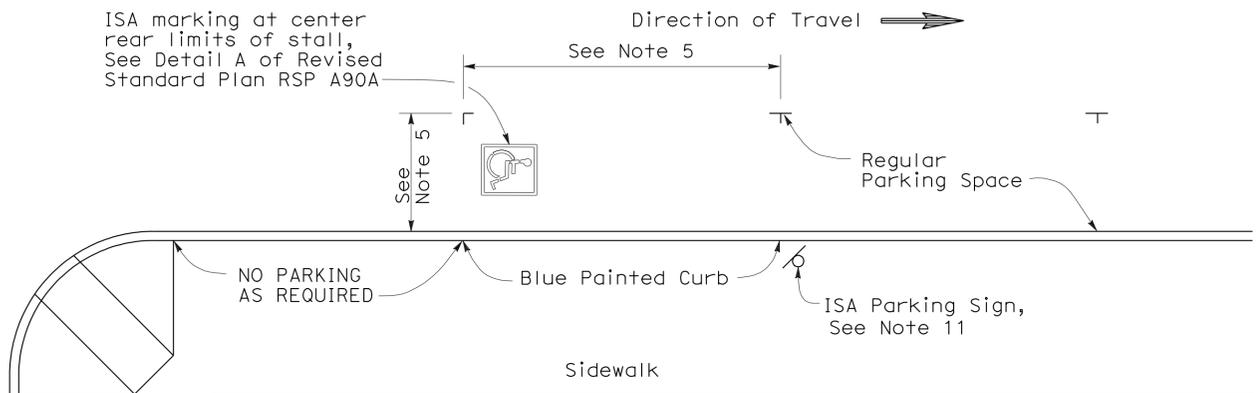
Hector David Cordova
No. C41957
Exp. 3-31-10
CIVIL
STATE OF CALIFORNIA

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To accompany plans dated 5-7-12



CONVENTIONAL
(See Note 9)



RESTRICTED RIGHT OF WAY WIDTH
ON-STREET PARKING
(Parallel parking)
(See Note 10)

**NO
PARKING**

PAVEMENT MARKING
See Note 7



SIGN R99 (CA)



SIGN R99C (CA)
See Note 3



PLAQUE R99B (CA)
SIGN R99 (CA) with PLAQUE R99B (CA)
See Note 3

NOTES:

1. Parking spaces shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.
2. Surface slopes of accessible on-street parking spaces shall be the minimum feasible.
3. Where Plaque R99B (CA) or Sign R99C (CA) are installed, the bottom of the sign or plaque panel shall be a minimum of 7'-0" above the surrounding surface.
4. Curb ramps shall conform to the details shown on Revised Standard Plan RSP A88A.
5. Accessible on-street parking spaces shall not be smaller in length or width than that specified by the local jurisdiction for other parking spaces, but not less than 20'-0" in length and not less than 8'-0" in width.
6. Blue paint, instead of white may be used for marking accessibility aisles in areas where snow may cause white markings to not be visible.
7. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials. See Standard Plan A24E for square foot area for painting the words "NO PARKING".
8. There shall be no obstructions on the sidewalk adjacent to and for the full length of the parking space, except for the ISA parking sign shown.
9. The Conventional detail should be the primary choice of accessible on-street parking. However, if the sidewalk lacks adequate space to construct a standard curb ramp, the Restricted Right of Way detail should be used.
10. If the Restricted Right of Way width detail is selected and it conflicts with a bus stop or other uses, this detail may apply to the other end of the block.
11. Accessible Parking Only Sign shall be Sign R99C (CA) or Sign R99 (CA) with Plaque R99B (CA).

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ACCESSIBLE PARKING
ON-STREET**

NO SCALE

RSP A90B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A90B
DATED MAY 1, 2006 - PAGE 118 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A90B

ISA = International Symbol of Accessibility

2006 REVISED STANDARD PLAN RSP A90B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	69	128

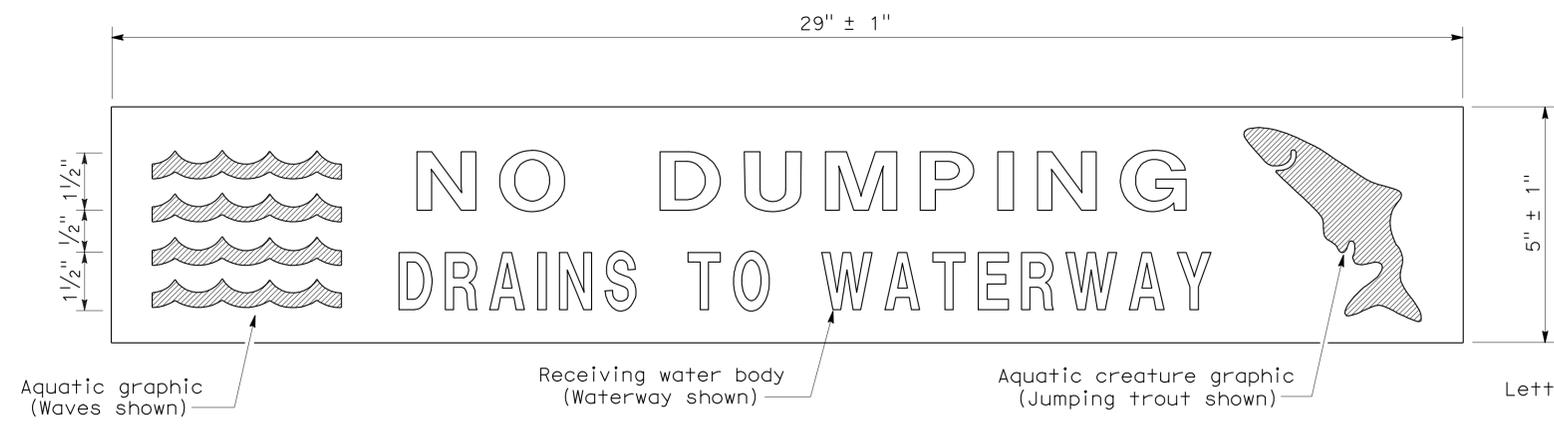
Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

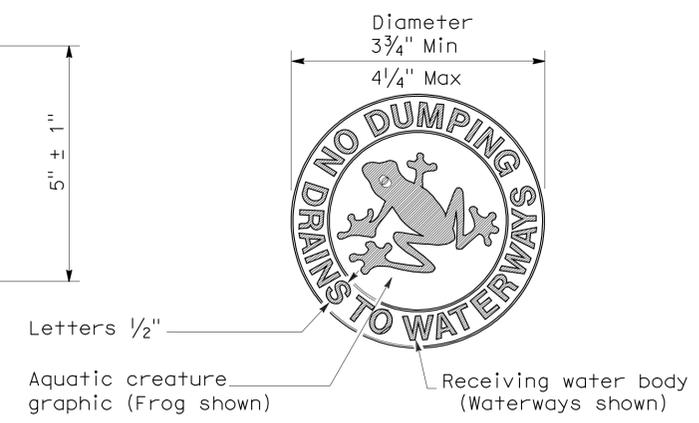
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

To accompany plans dated 5-7-12



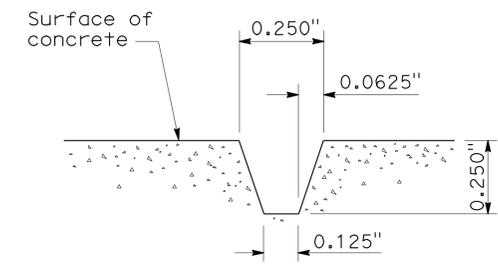
PLAN
DRAINAGE INLET MARKER
(PREFABRICATED THERMOPLASTIC)



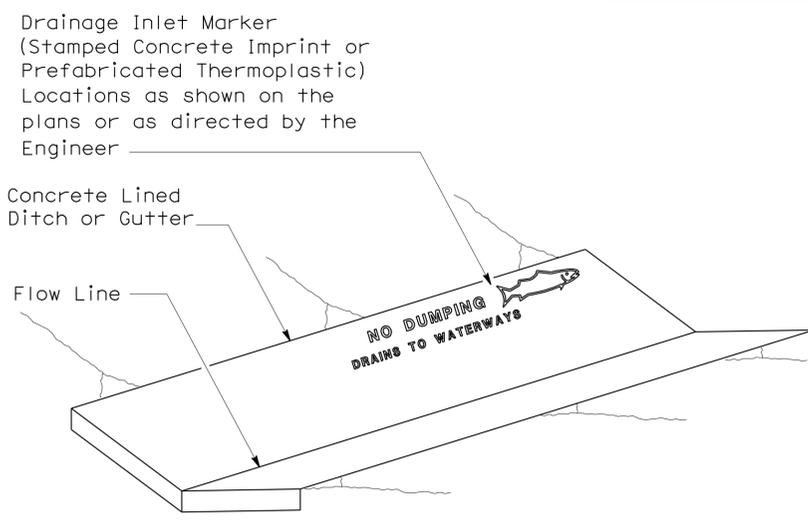
PLAN
DRAINAGE INLET MARKER
(MEDALLION)



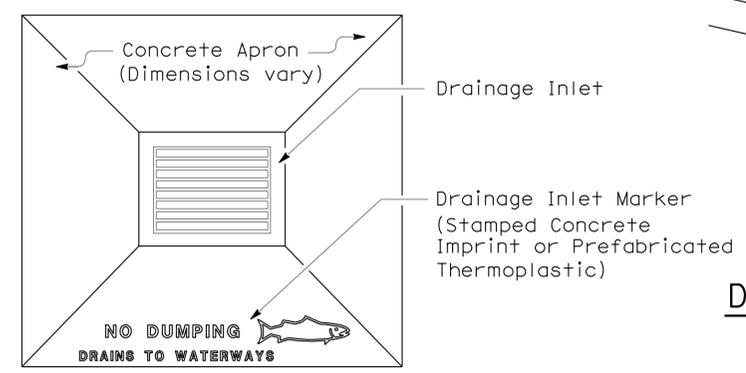
PLAN
DRAINAGE INLET MARKER
(STAMPED CONCRETE IMPRINT)



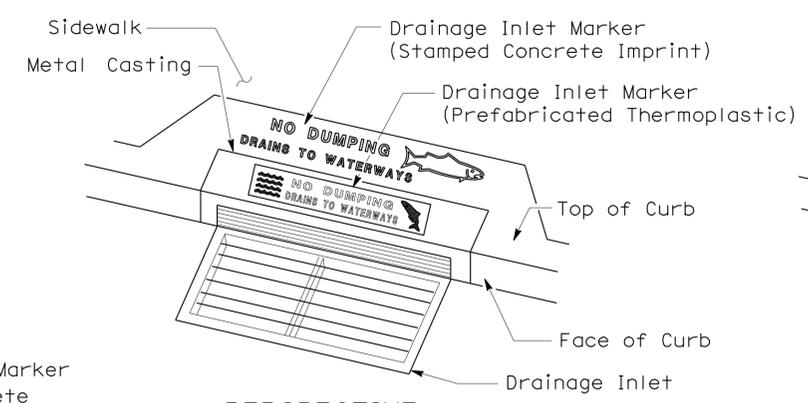
SECTION A-A
STAMPED CONCRETE
IMPRINT DETAIL



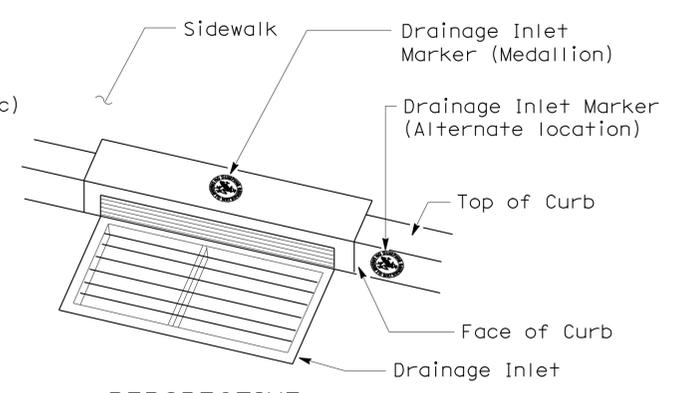
PERSPECTIVE
DRAINAGE INLET MARKER ON
CONCRETE LINED DITCH



PLAN
DRAINAGE INLET MARKER ON
DRAINAGE INLET APRON

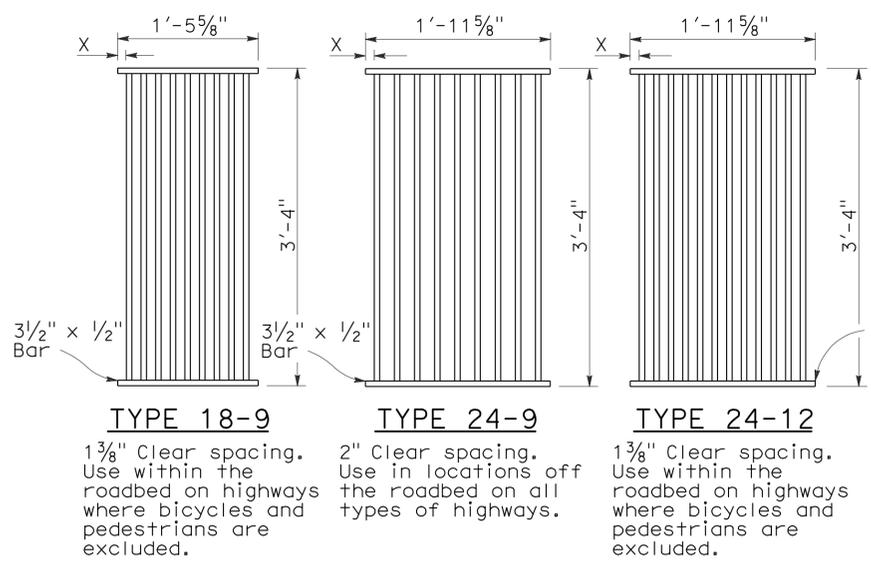


PERSPECTIVE
DRAINAGE INLET MARKER ON
DRAINAGE INLET

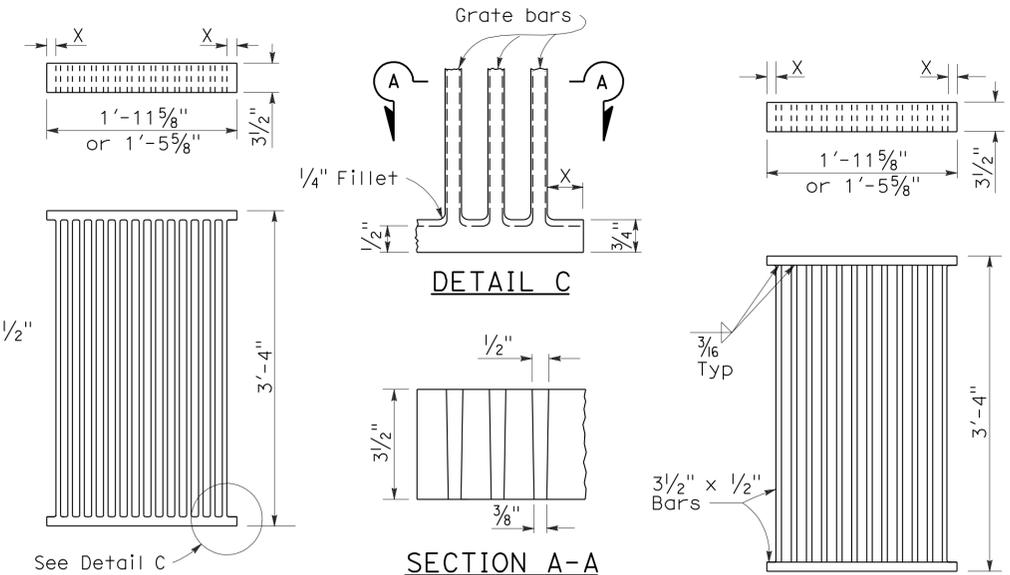


PERSPECTIVE
DRAINAGE INLET MARKER (MEDALLION)
ON DRAINAGE INLET

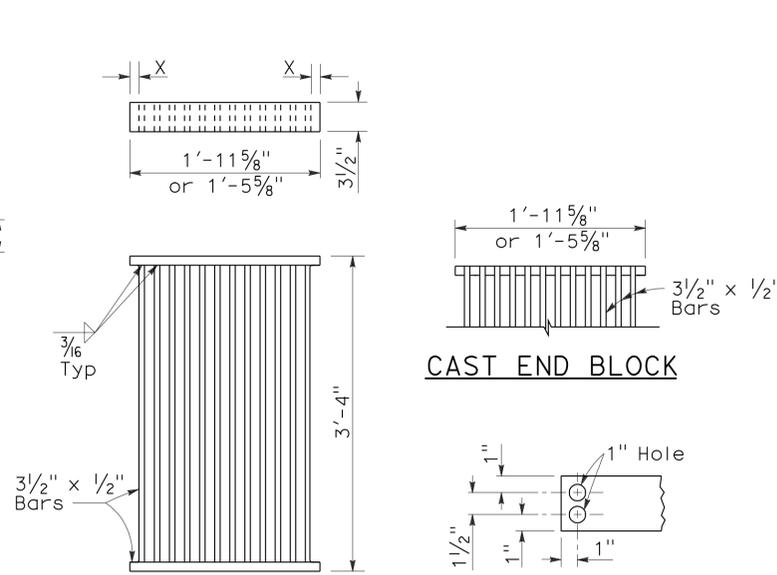
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DRAINAGE INLET MARKERS
NO SCALE
NSP D71 DATED APRIL 3, 2009 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.



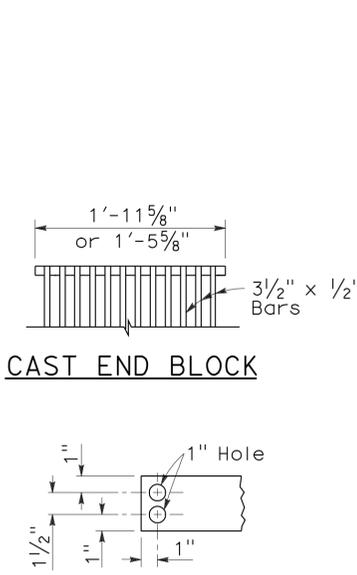
RECTANGULAR GRATE DETAILS
(See table below)



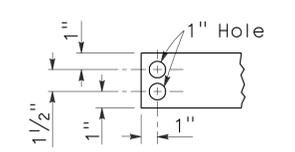
ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE



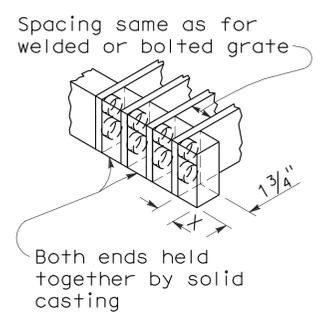
ALTERNATIVE WELDED GRATE



CAST END BLOCK

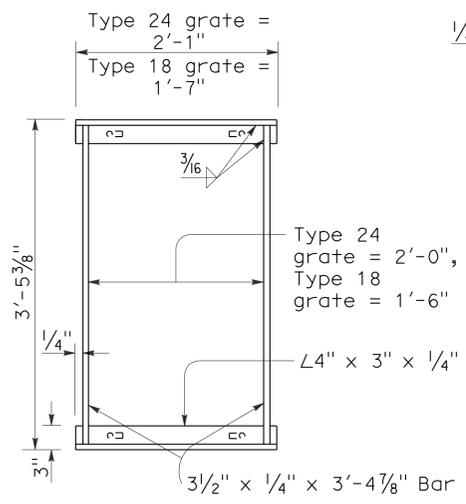


END OF BAR

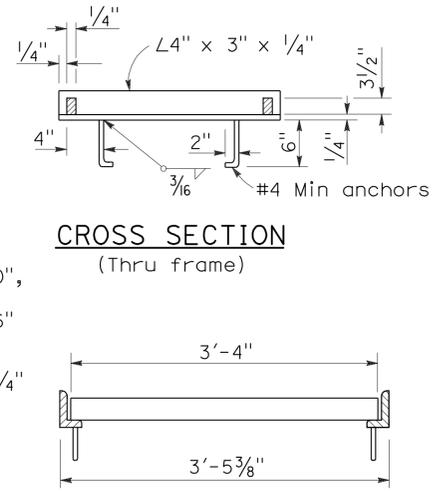


ALTERNATIVE CAST NODULAR IRON OR CAST STEEL END BLOCK GRATE

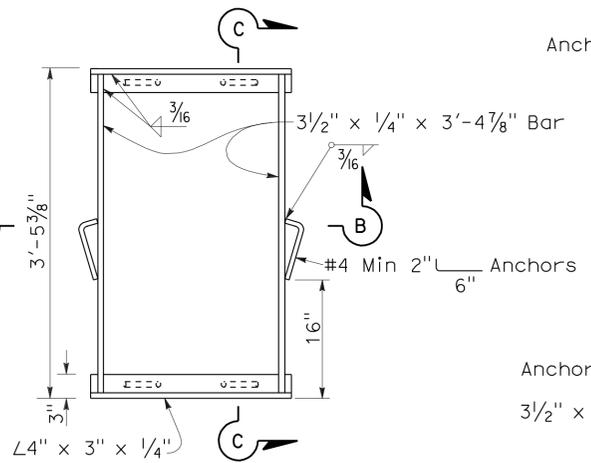
- NOTES:**
1. Grate type numbers refer to approximate width of grate in inches and number of bars, respectively.
 2. Contractor has the option of using cast nodular iron, cast steel, welded, bolted, or cast end block grate.
 3. See Special Provisions for requirements pertaining to galvanizing or asphalt dipping of grates and frames.
 4. Rounded top of bars optional on all grates.
 5. Pipe inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
 6. Full penetration butt welds may be substituted for the fillet welds on all anchors.
 7. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
 8. Grate and frame weights are based on welded grates (weights of face angles, steps, protection bars, etc. are not included).



TYPICAL FRAME

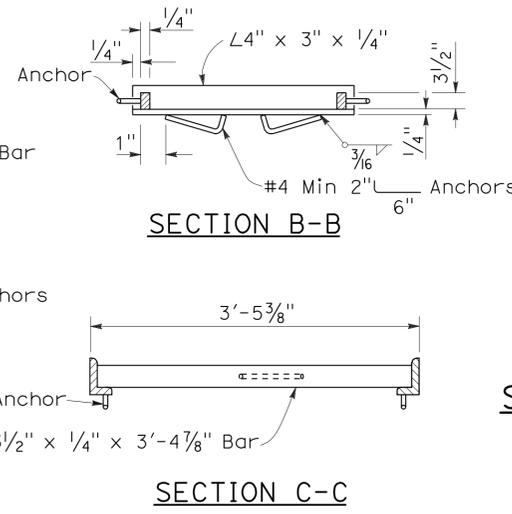


LONGITUDINAL SECTION
(Thru frame and grate)



TYPICAL FRAME

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



SECTION B-B

SECTION C-C

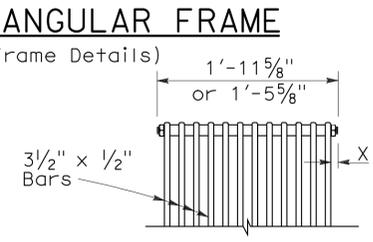
RECTANGULAR FRAME DETAILS
(For all rectangular grates)

GRATE BAR SPACING TABLE

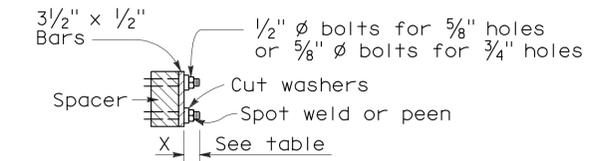
TYPE	NO. OF BARS	CLEAR BAR SPACING	X
18-9	9	1 3/8"	1 1/16"
24-9	9	2"	1 9/16"
24-12	12	1 3/8"	1 1/4"

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	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

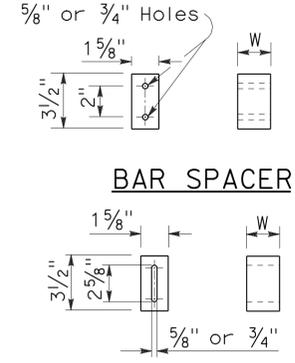


BOLTED END BLOCK



BOLTING DETAIL

ALTERNATIVE BOLTED GRATE



BAR SPACER

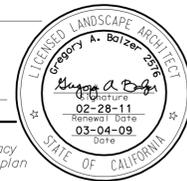
ALTERNATIVE SPACER
W = 1 3/8" or 2"

BASIS FOR MISC IRON & STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS

(See General Notes, No 8)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	71	128

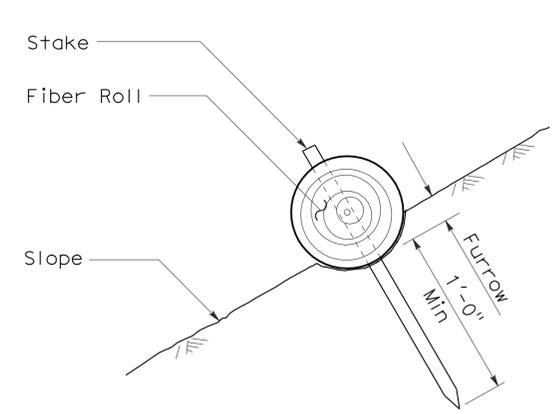
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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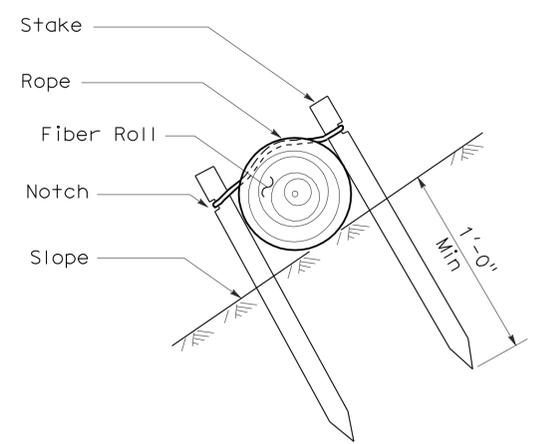
To accompany plans dated 5-7-12

NOTES:

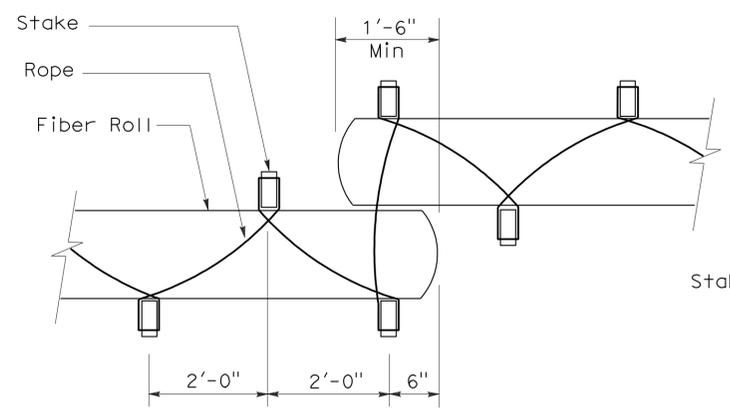
1. Fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



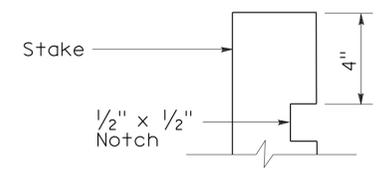
SECTION
FIBER ROLL
(TYPE 1)



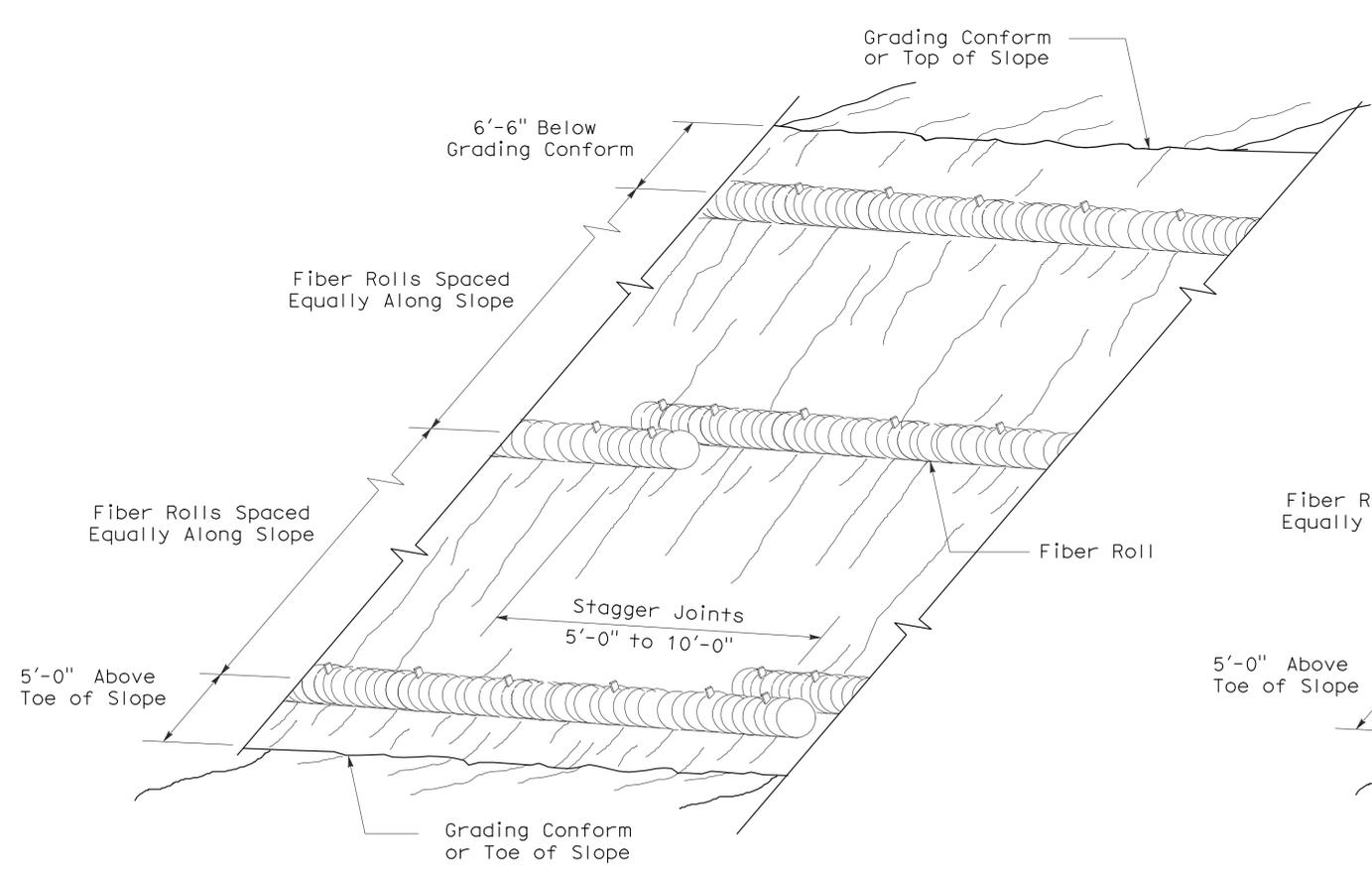
SECTION



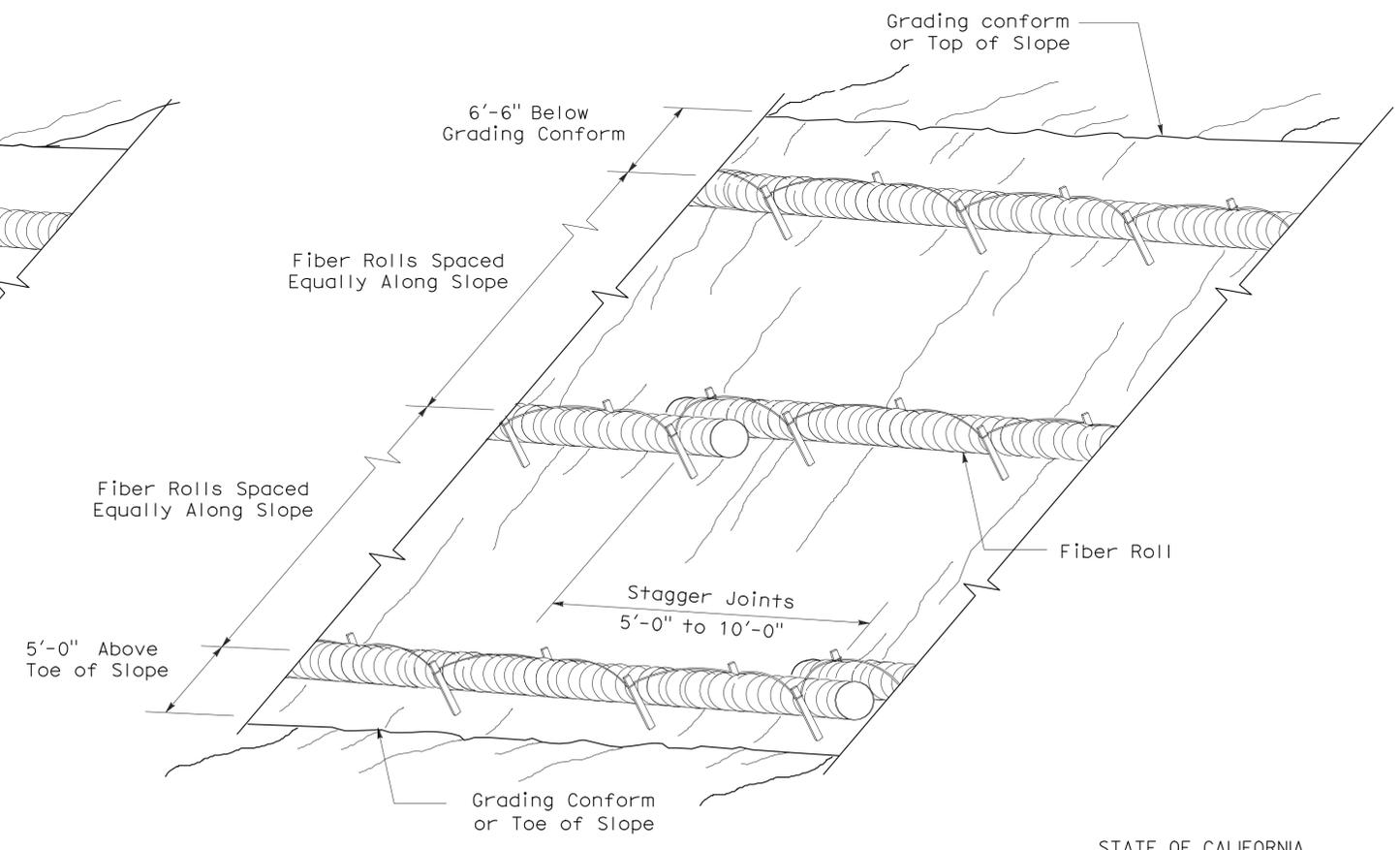
PLAN
FIBER ROLL
(TYPE 2)



ELEVATION
STAKE NOTCH DETAIL



PERSPECTIVE
FIBER ROLL (TYPE 1)



PERSPECTIVE
FIBER ROLL (TYPE 2)

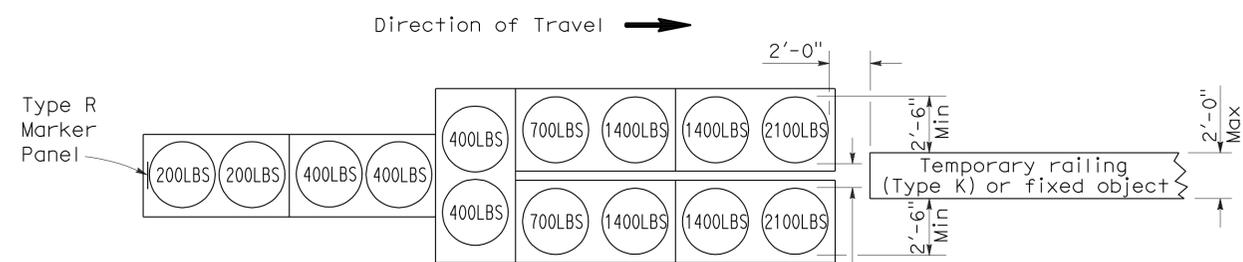
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
EROSION CONTROL DETAILS
(FIBER ROLL)

NO SCALE
RNSP H51 DATED APRIL 3, 2009 SUPERSEDES NSP H51 DATED DECEMBER 1, 2006 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED NEW STANDARD PLAN RNSP H51

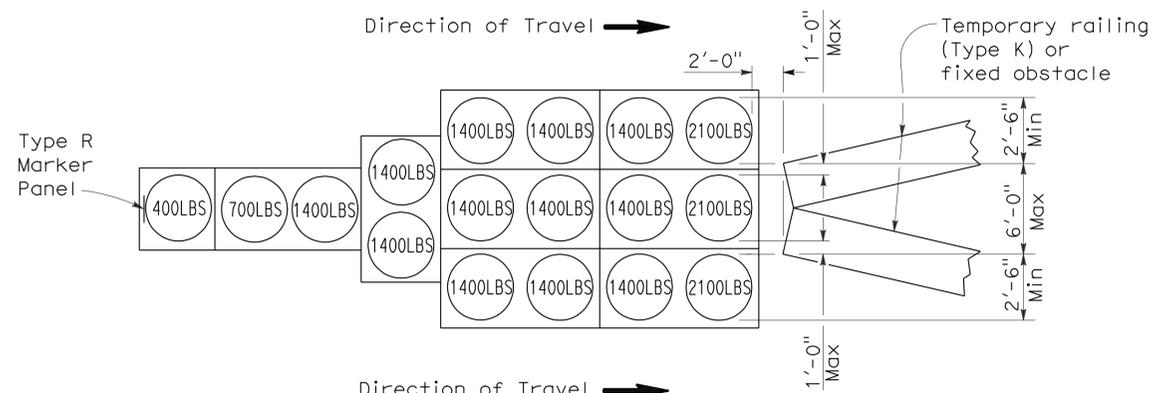
To accompany plans dated 5-7-12

2006 REVISED STANDARD PLAN RSP T1A



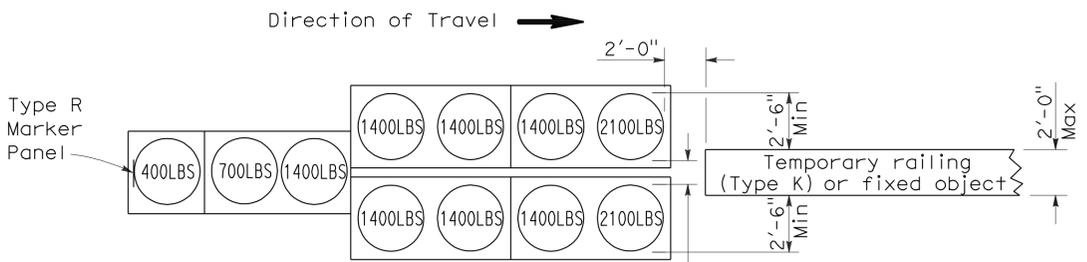
ARRAY 'TU14'

Approach speed 45 mph or more



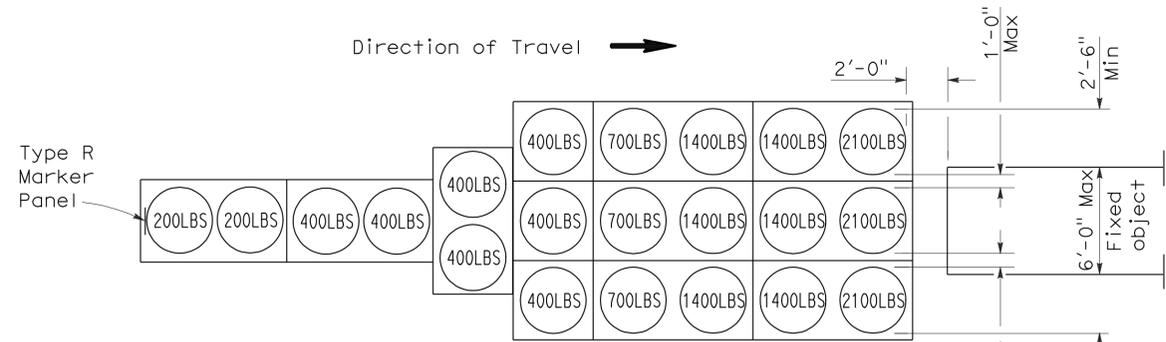
ARRAY 'TU17'

Approach speed less than 45 mph



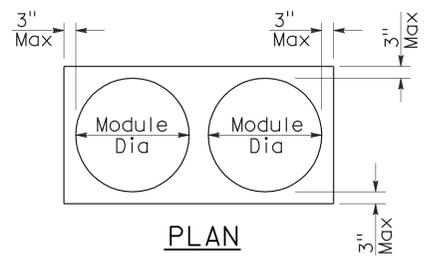
ARRAY 'TU11'

Approach speed less than 45 mph

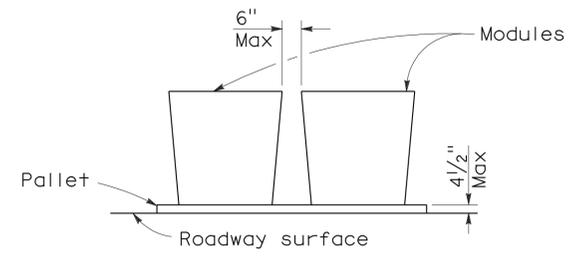


ARRAY 'TU21'

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.

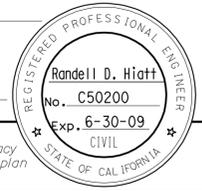
REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	73	128

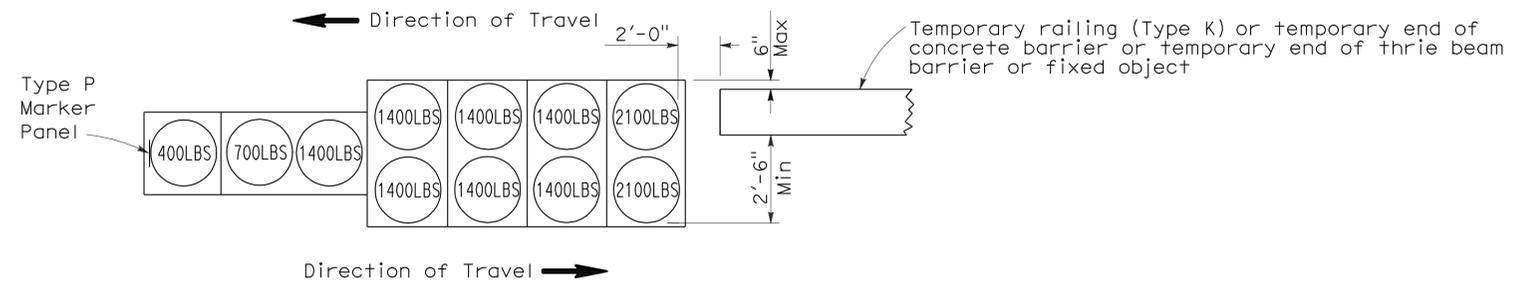
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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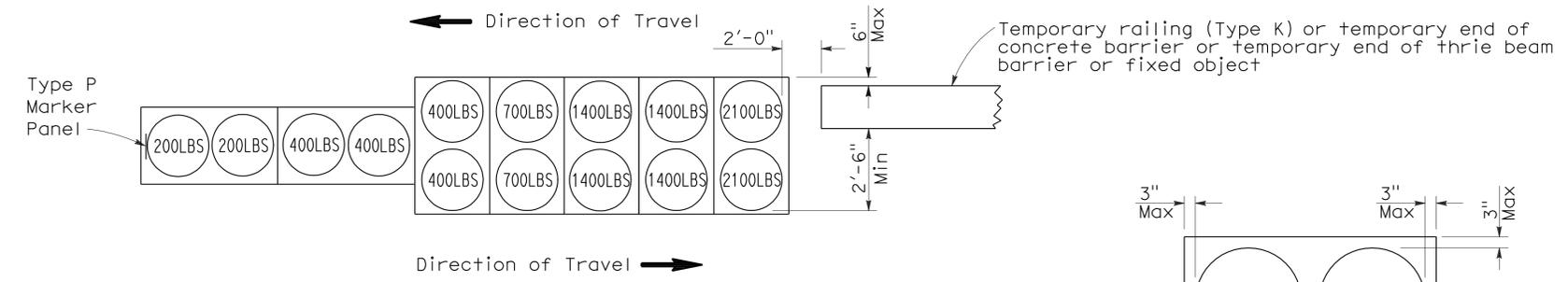


To accompany plans dated 5-7-12



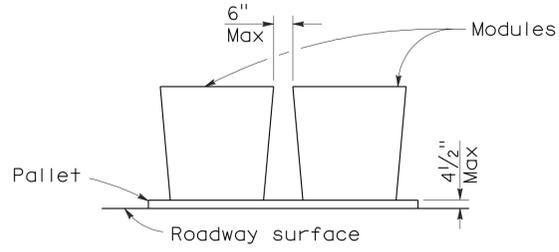
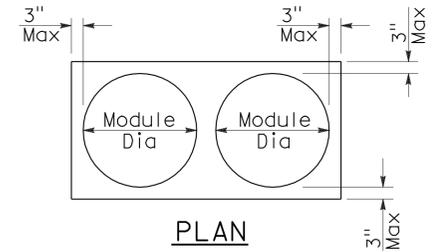
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL
See Note 7

NOTES:

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

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	74	128

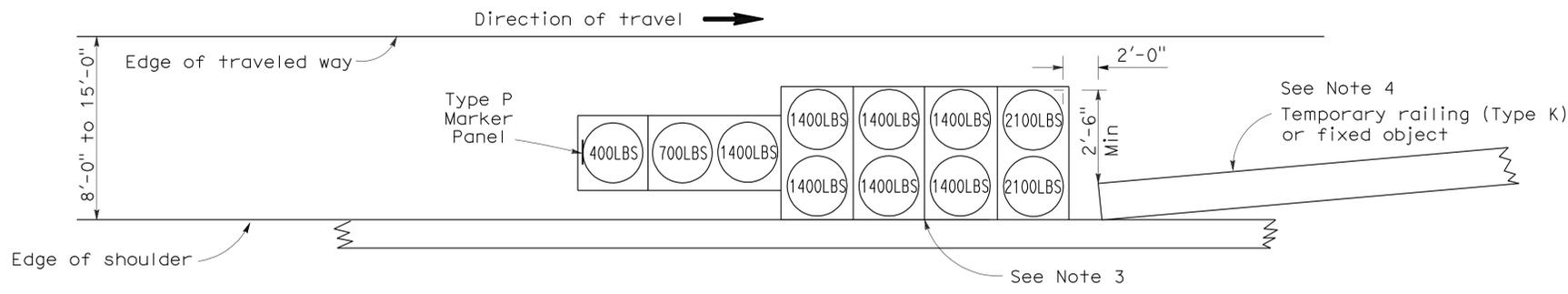
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

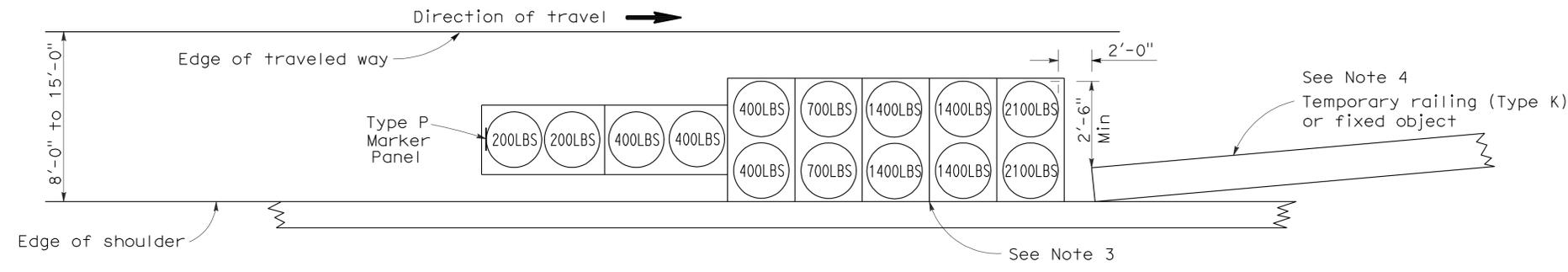
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

To accompany plans dated 5-7-12



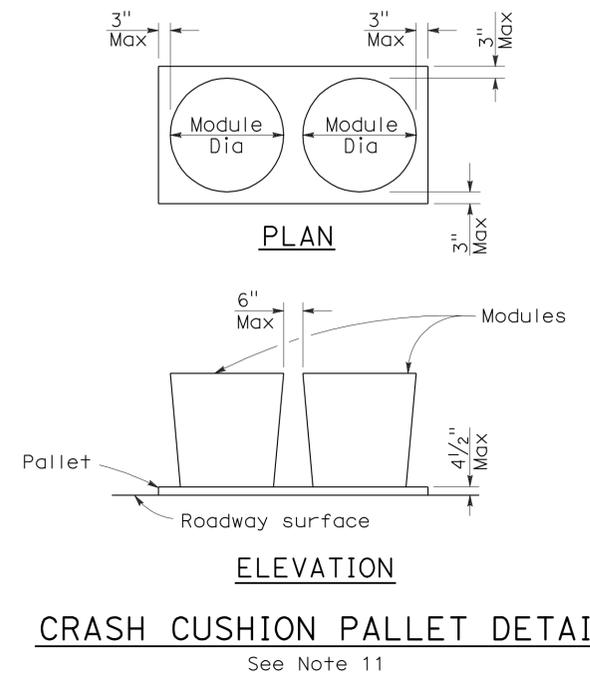
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

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.



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

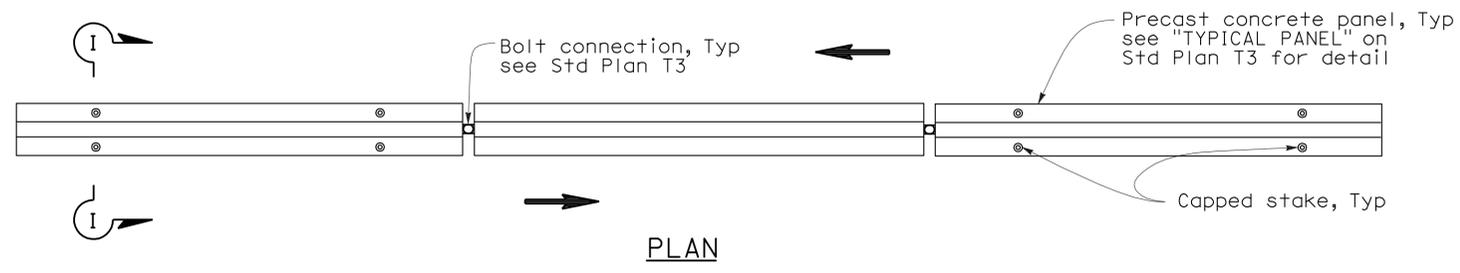
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.1/21.0	75	128

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

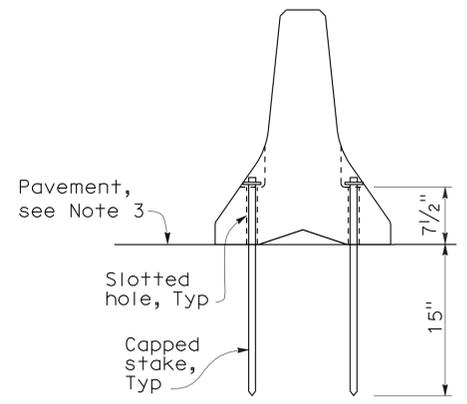
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 5-7-12



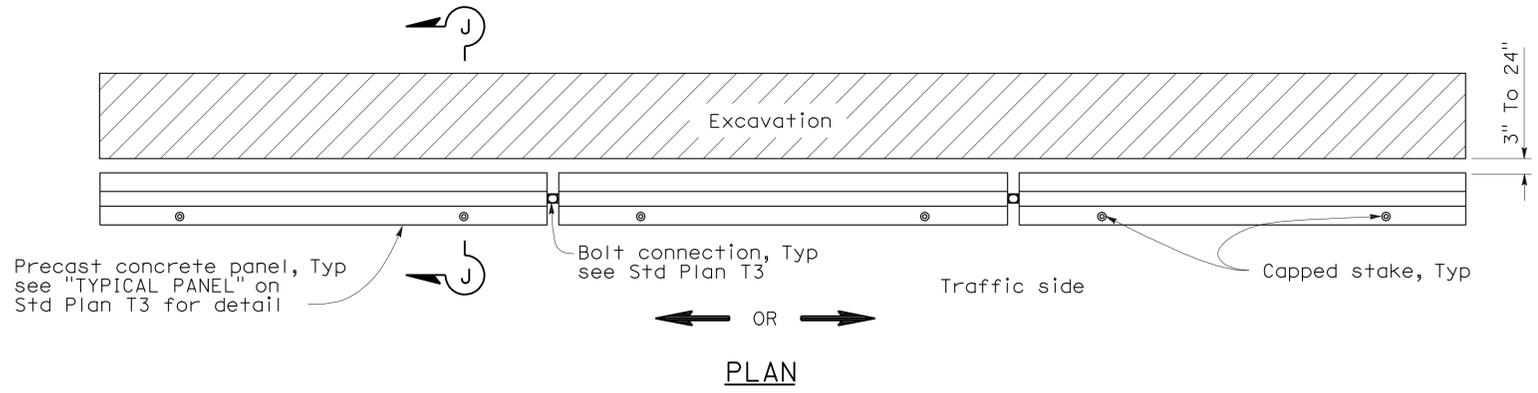
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



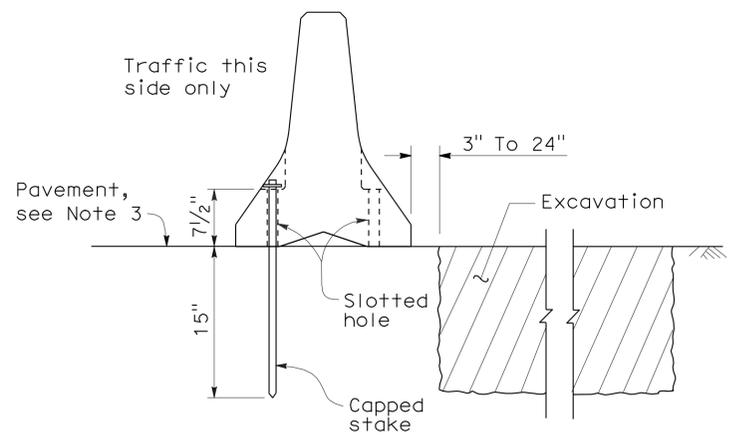
SECTION I-I

NOTES:

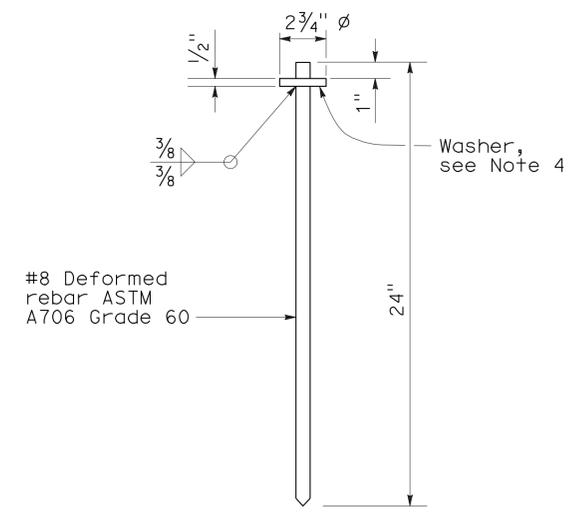
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of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



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

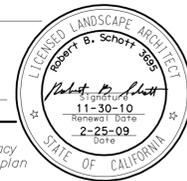
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY RAILING
(TYPE K)**
NO SCALE

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

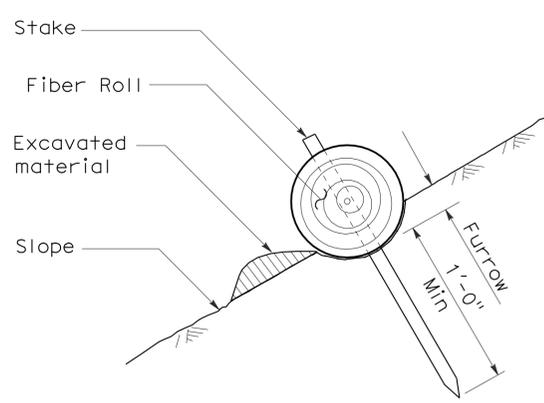
2006 NEW STANDARD PLAN NSP T3A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	77	128

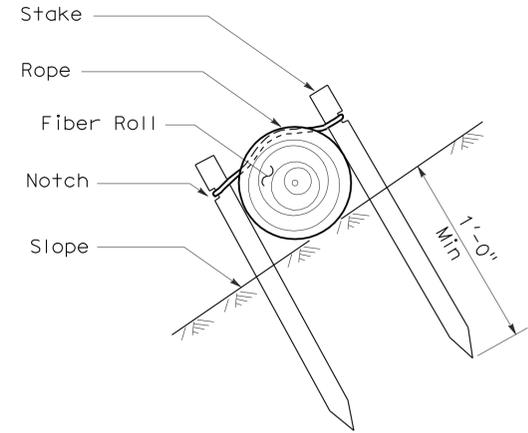
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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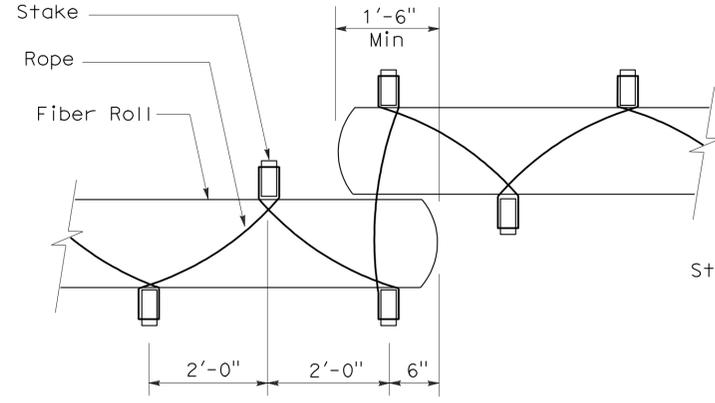
To accompany plans dated 5-7-12



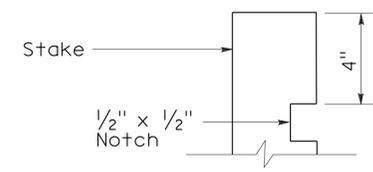
SECTION
TEMPORARY FIBER ROLL
(TYPE 1)



SECTION
TEMPORARY FIBER ROLL
(TYPE 2)

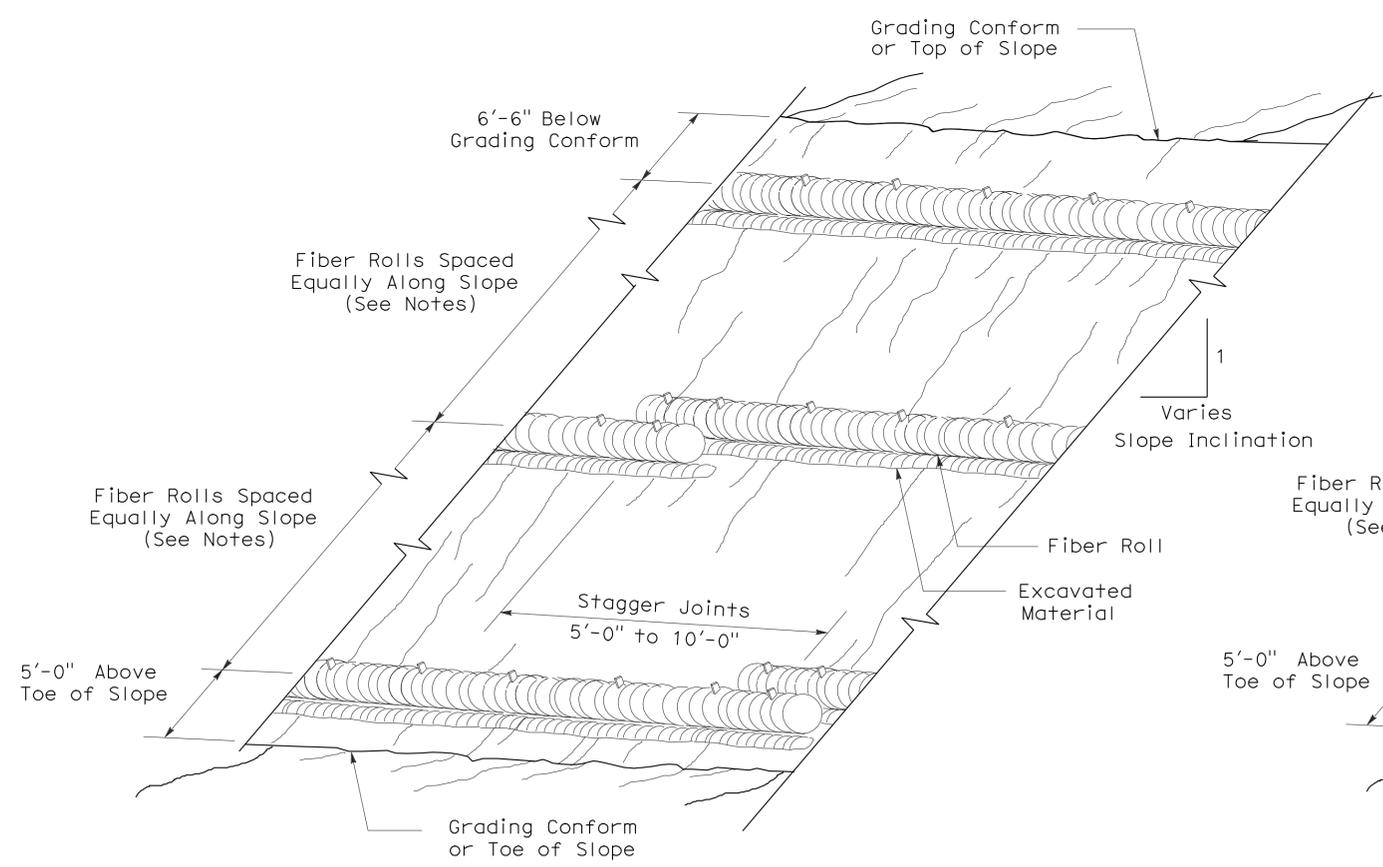


PLAN
TEMPORARY FIBER ROLL
(TYPE 2)

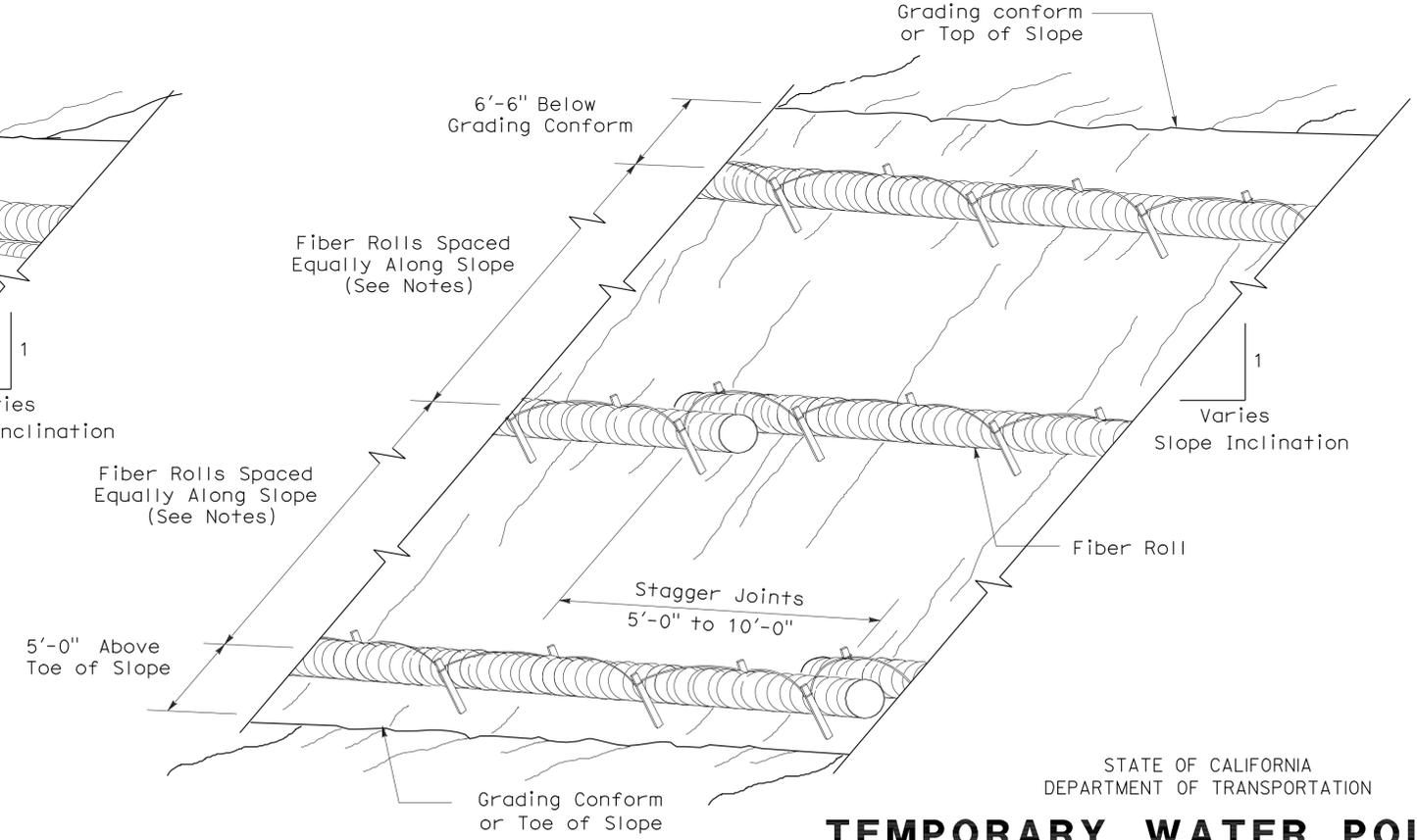


ELEVATION
STAKE NOTCH DETAIL

- 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

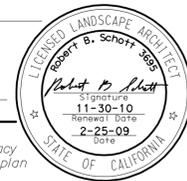
RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
 DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

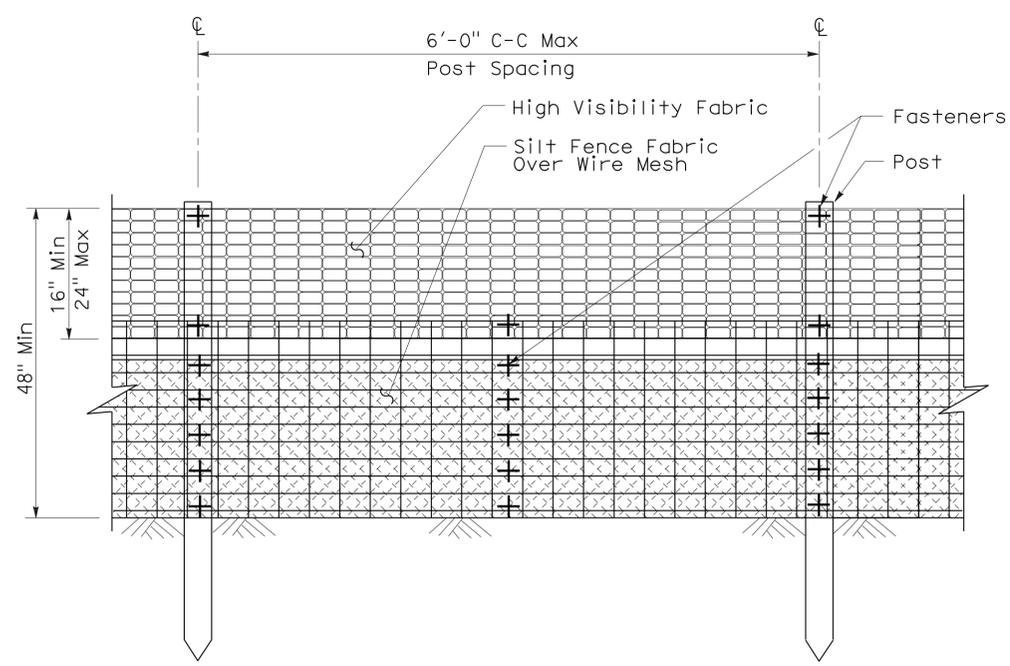
2006 REVISED STANDARD PLAN RSP T56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	78	128

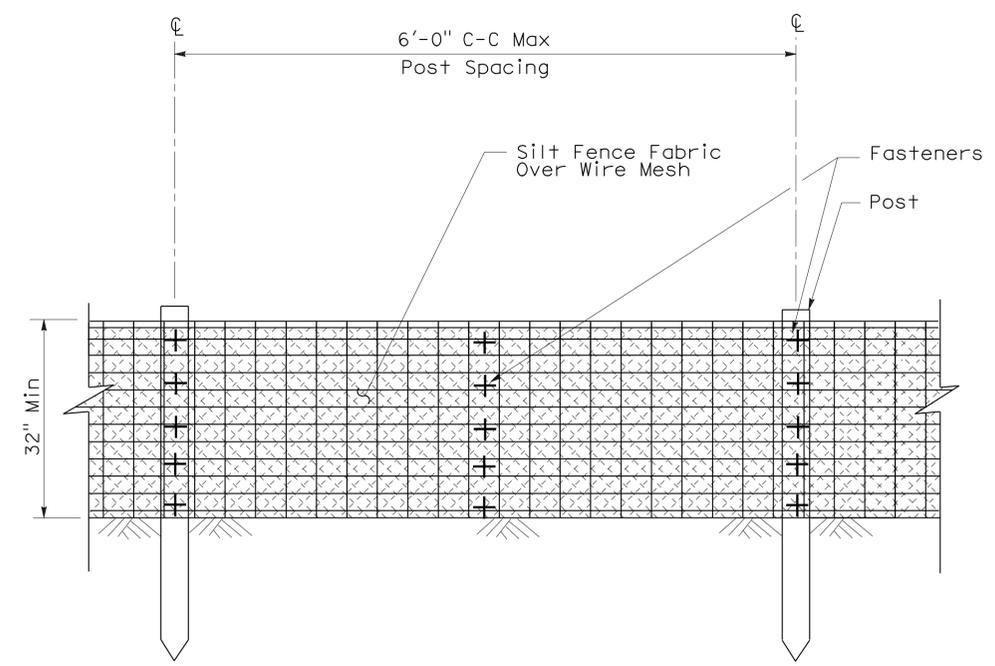
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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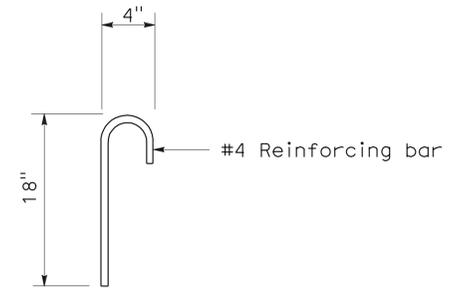
To accompany plans dated 5-7-12



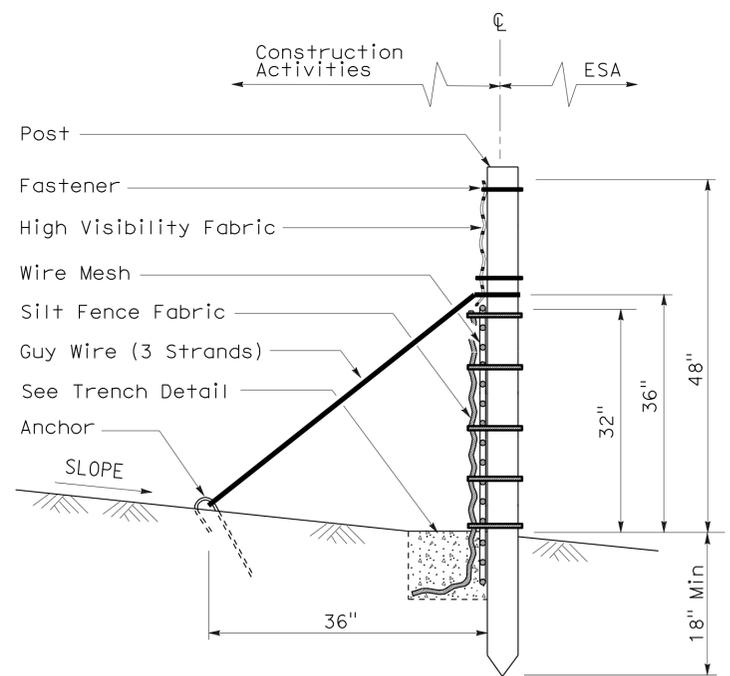
ELEVATION



ELEVATION

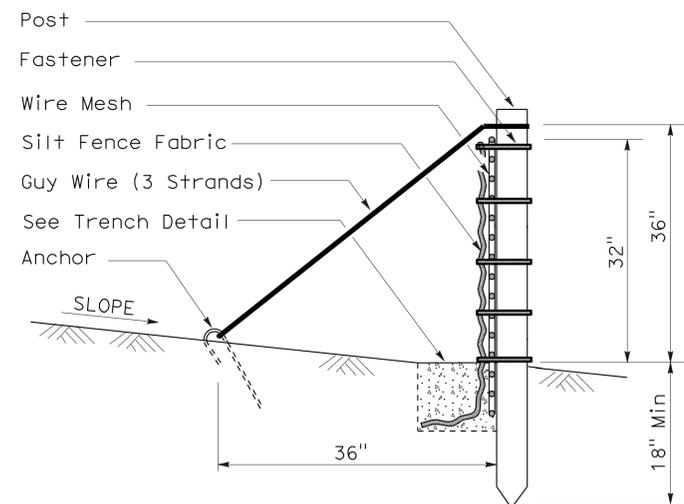


ANCHOR



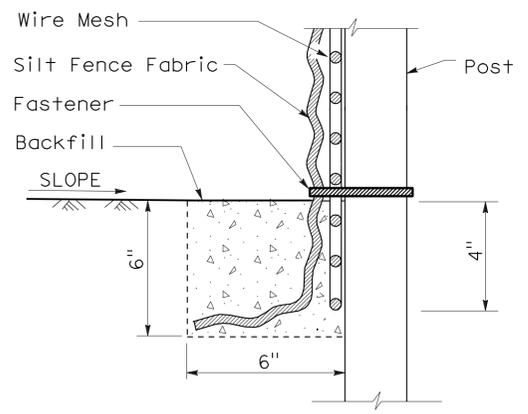
SECTION

TEMPORARY REINFORCED SILT FENCE (TYPE 1)



SECTION

TEMPORARY REINFORCED SILT FENCE (TYPE 2)



SECTION
TRENCH DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY REINFORCED SILT FENCE)
 NO SCALE
 NSP T60 DATED APRIL 3, 2009 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T60

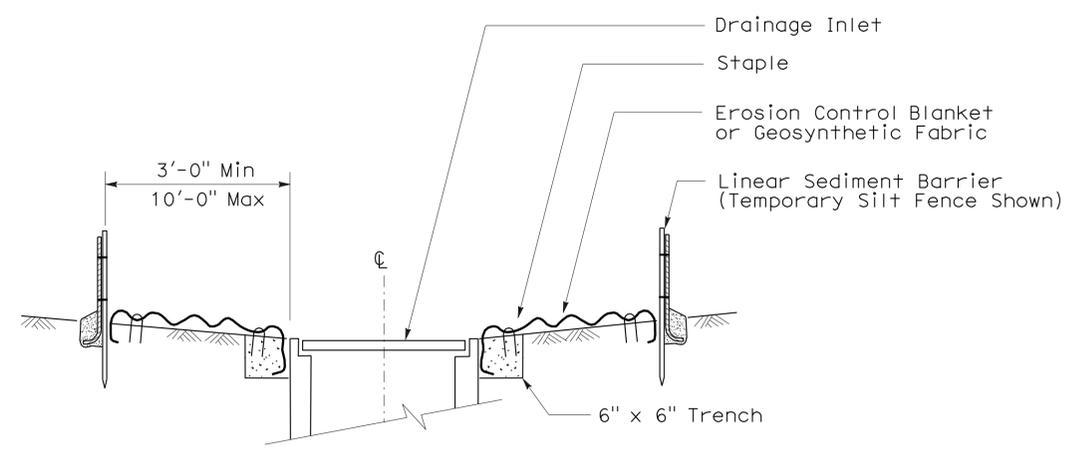
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	79	128

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
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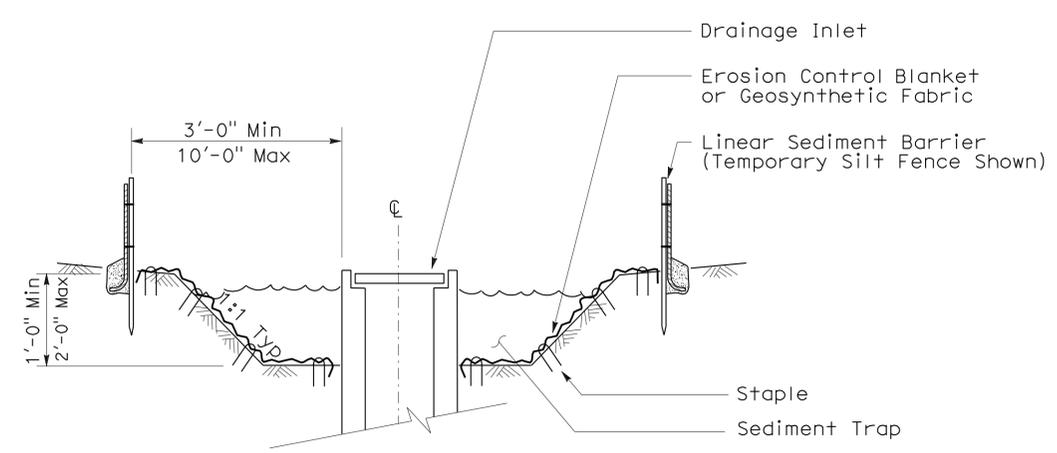


To accompany plans dated 5-7-12

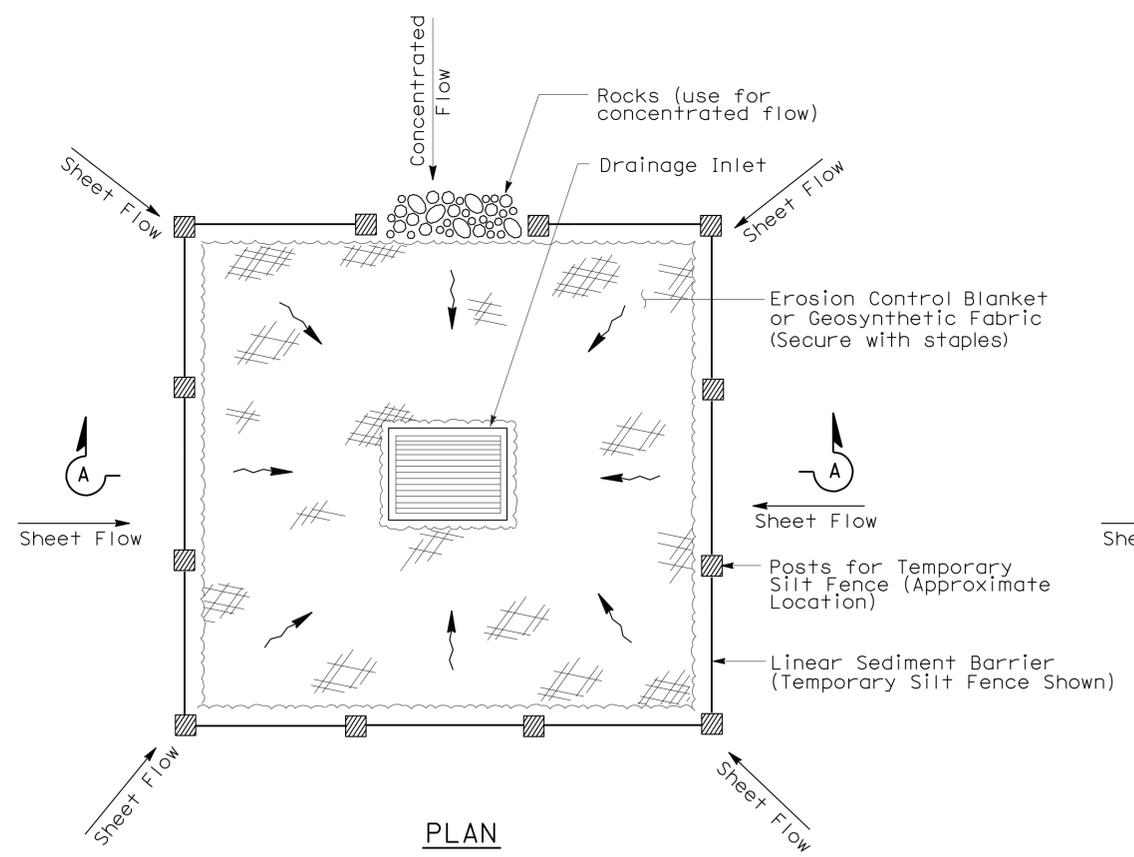
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



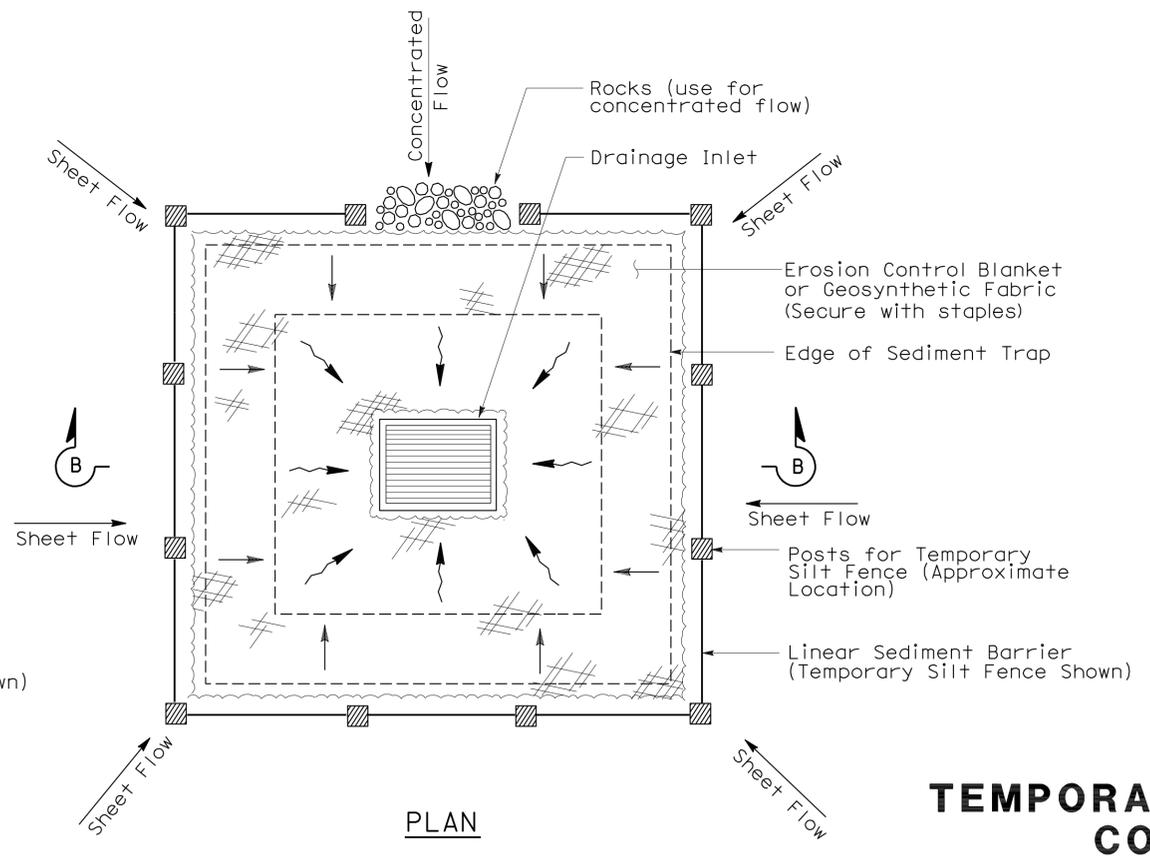
SECTION A-A



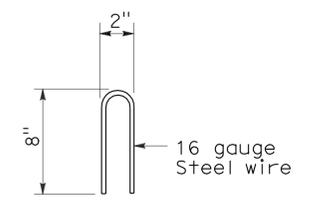
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



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



STAPLE DETAIL

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

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T61

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	80	128

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

August 15, 2008
 PLANS APPROVAL DATE

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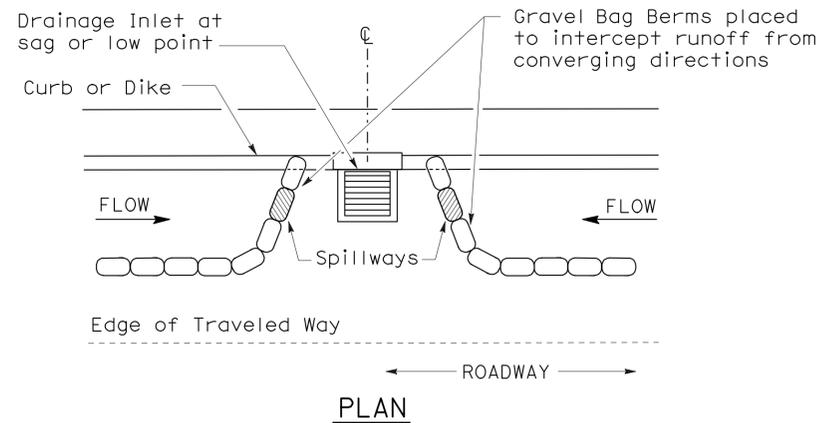
To accompany plans dated 5-7-12

2006 NEW STANDARD PLAN NSP T62

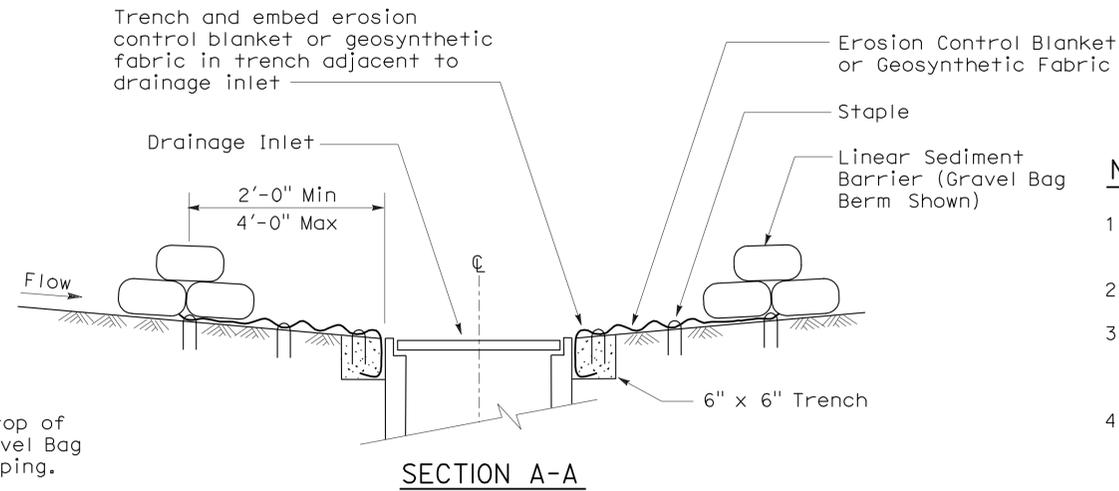
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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



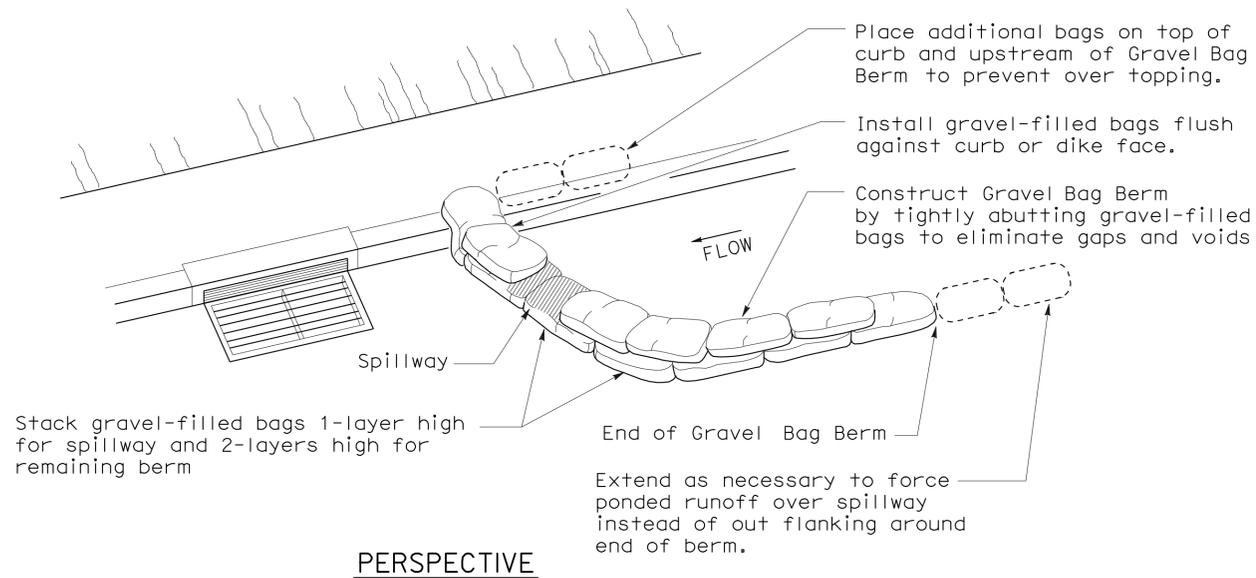
**PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)**



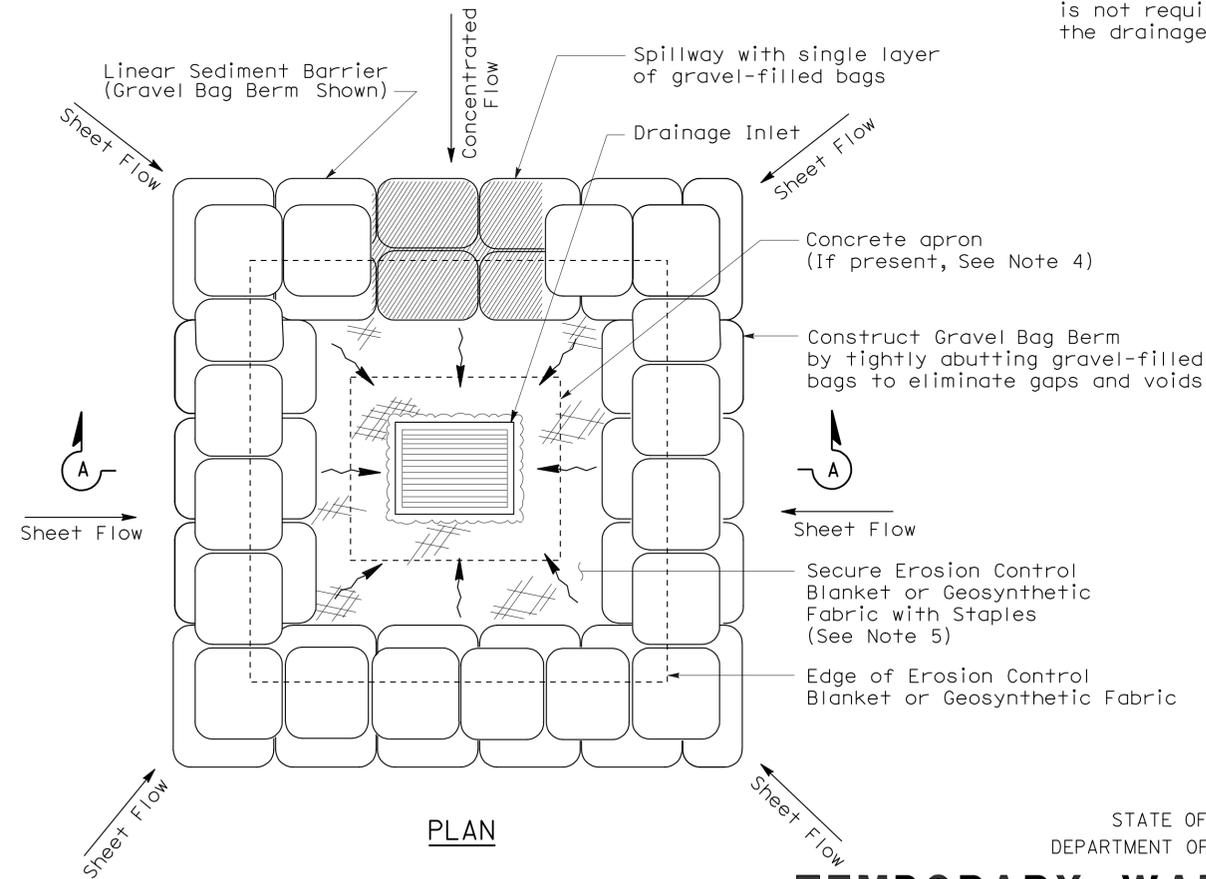
SECTION A-A

NOTES:

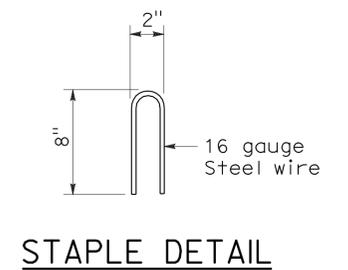
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



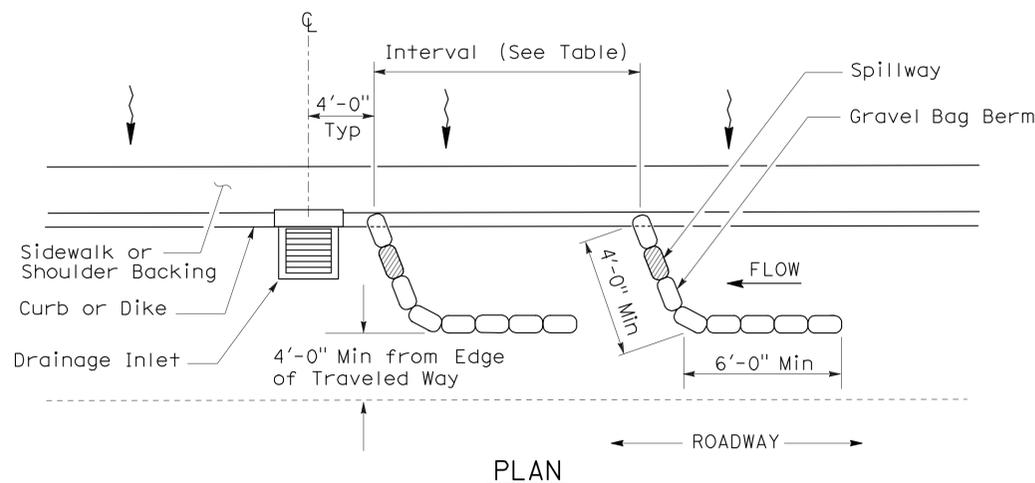
PERSPECTIVE



**PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)**



STAPLE DETAIL



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

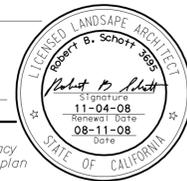
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY WATER POLLUTION
CONTROL DETAILS
(TEMPORARY DRAINAGE
INLET PROTECTION)**

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	81	128

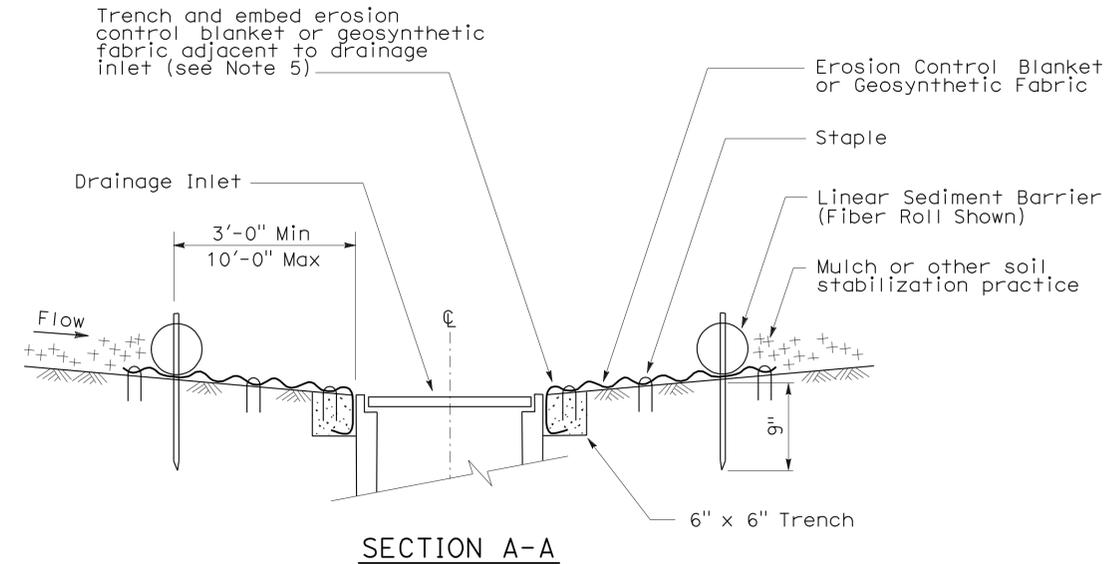
August 15, 2008
 PLANS APPROVAL DATE

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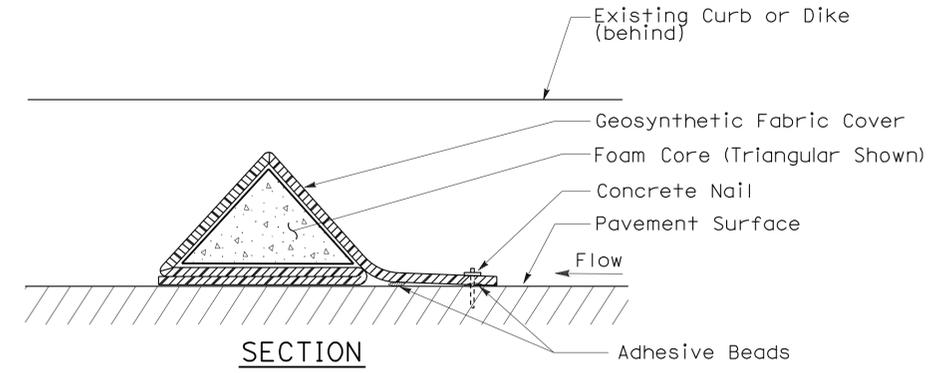


FLEXIBLE SEDIMENT BARRIER SPACING TABLE

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'



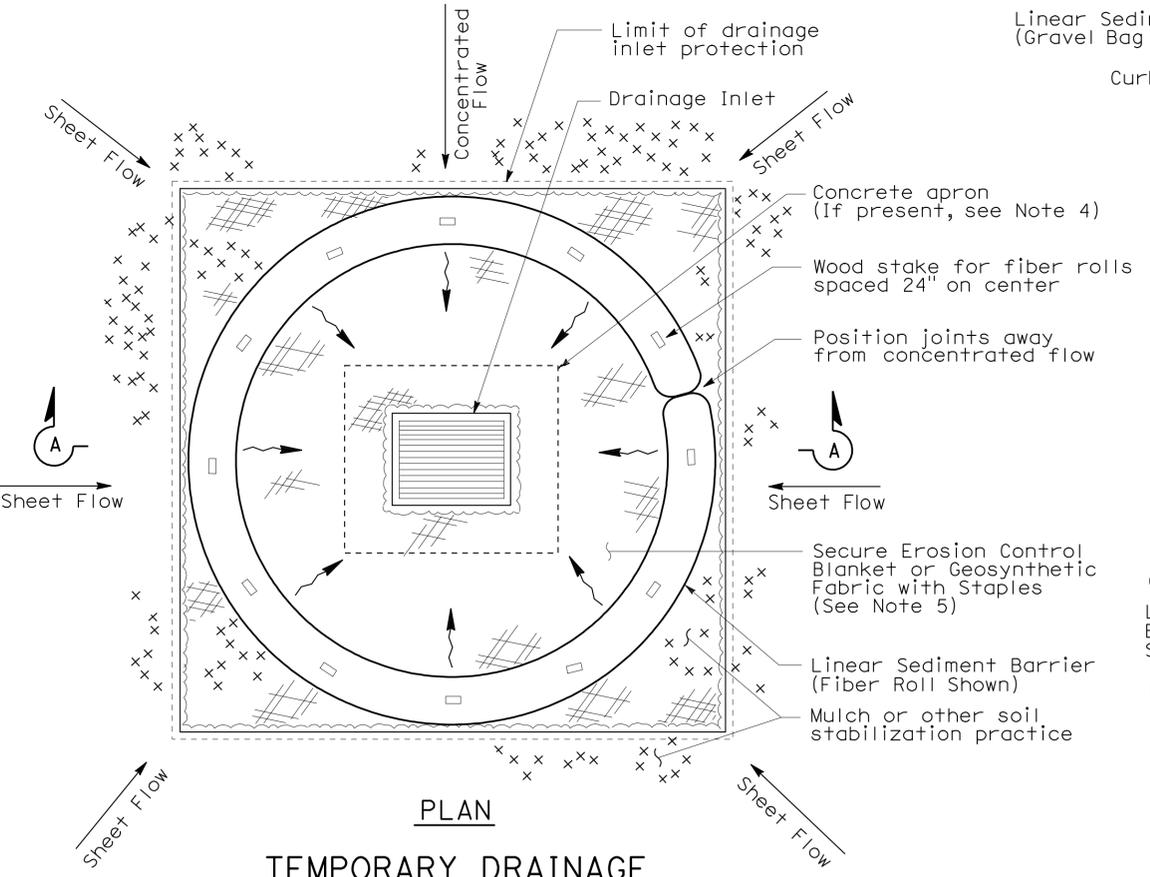
SECTION A-A



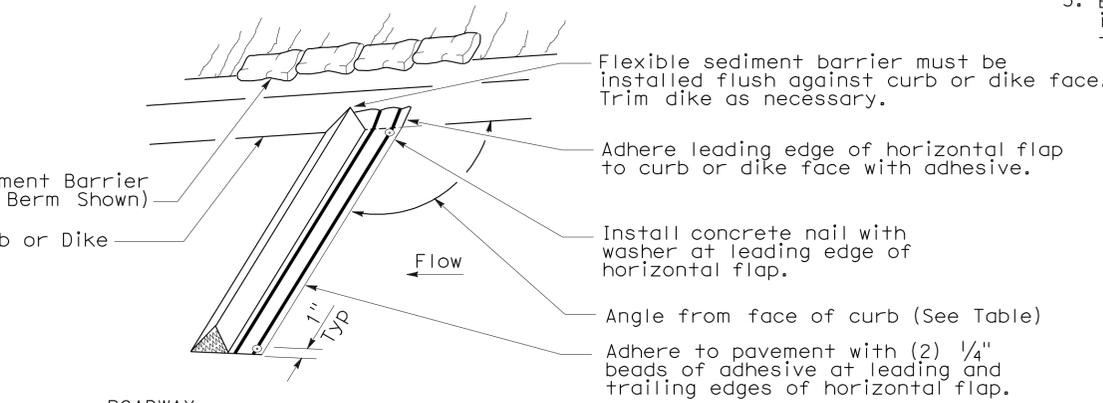
SECTION FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

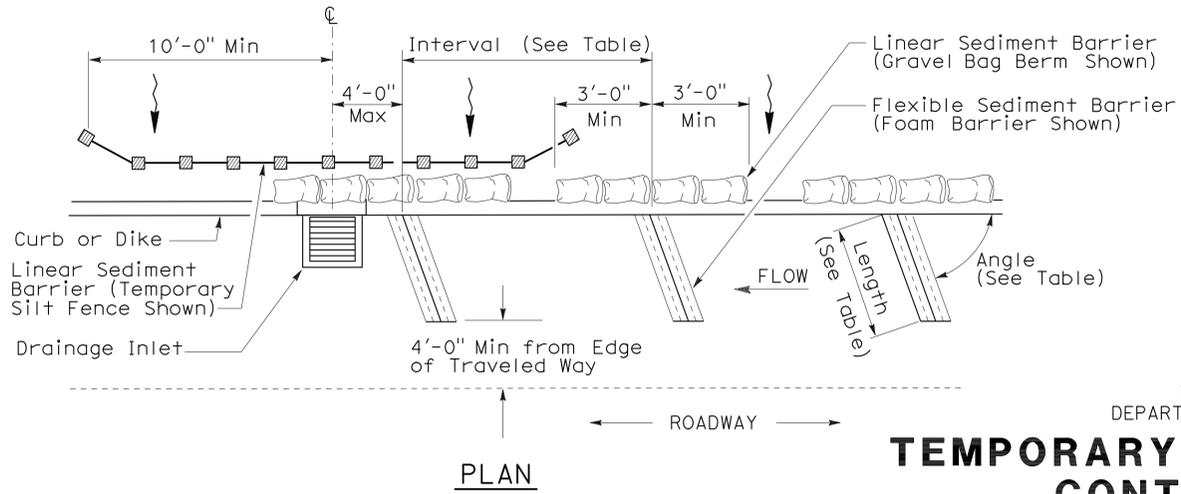
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



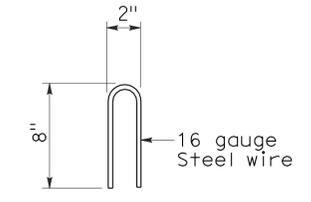
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



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



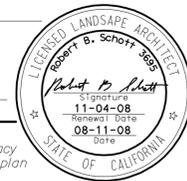
STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

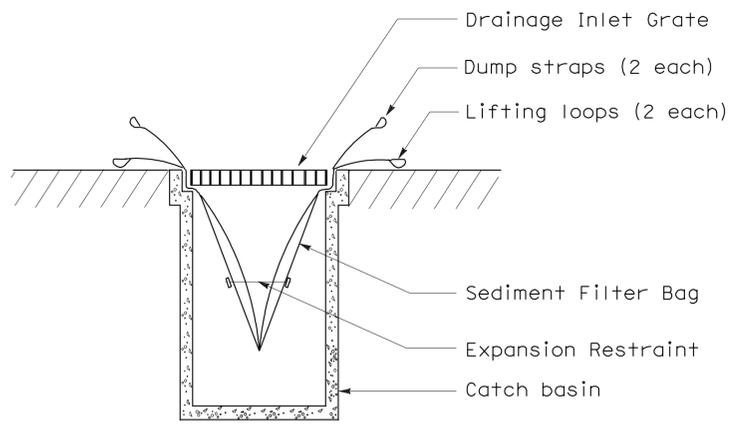
2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	82	128

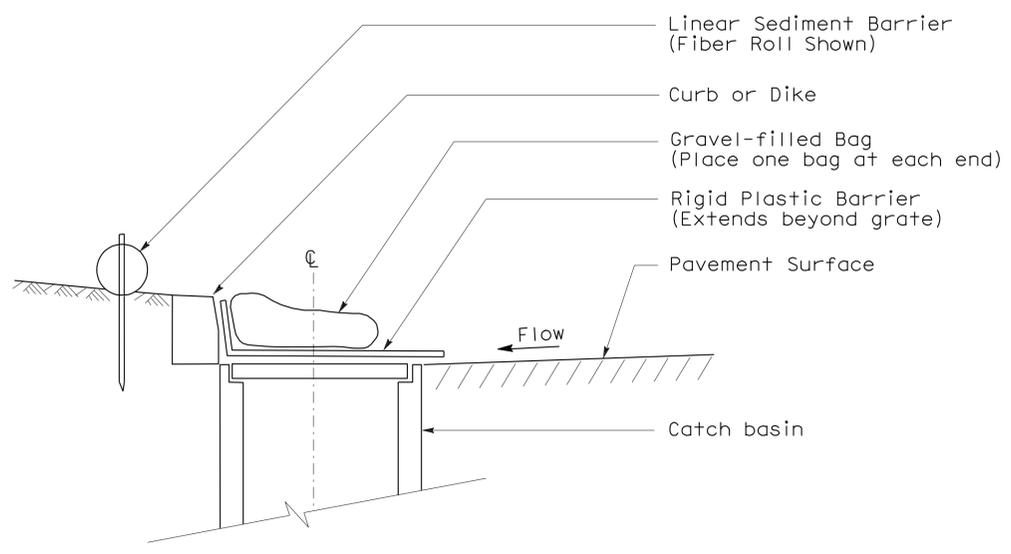
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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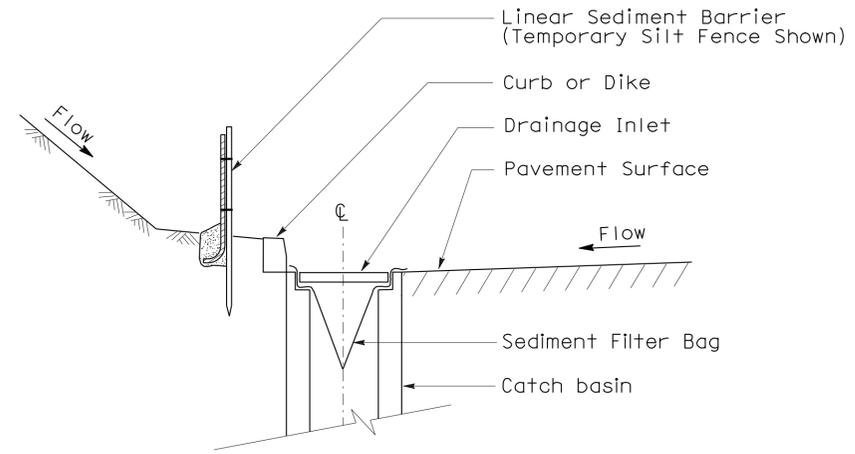
To accompany plans dated 5-7-12



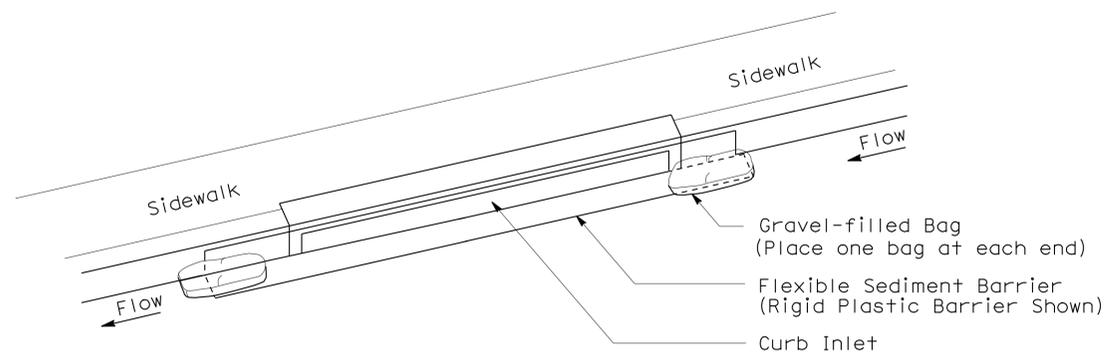
SECTION B-B
SEDIMENT FILTER BAG DETAIL



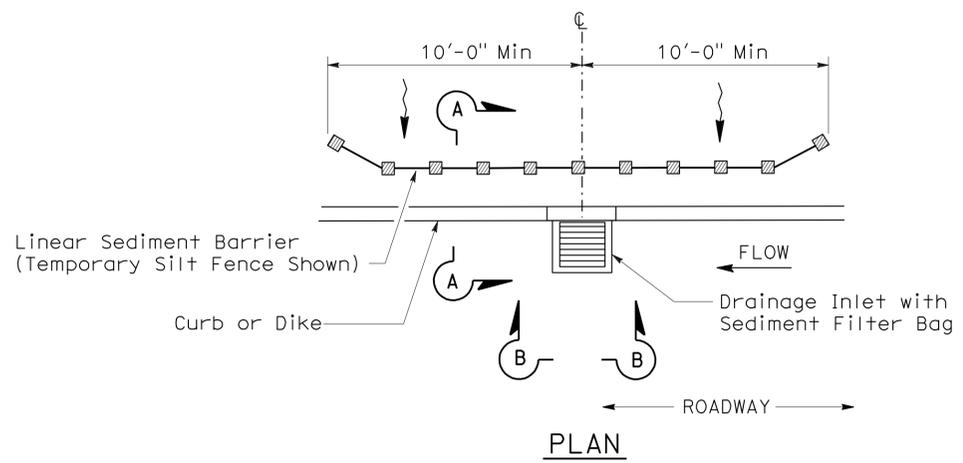
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



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



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

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

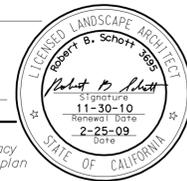
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

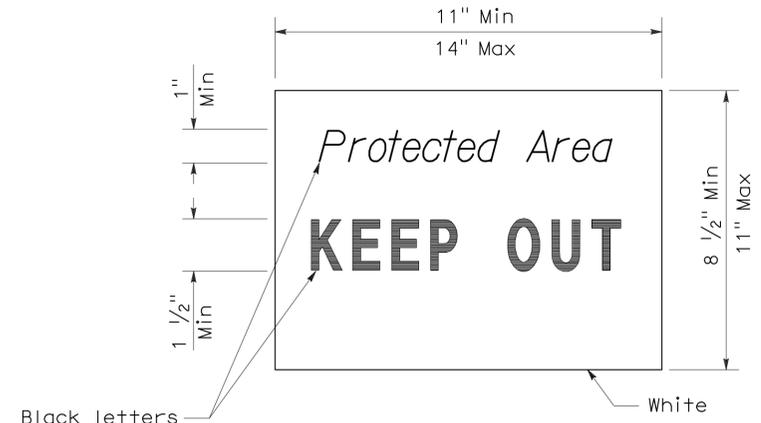
2006 NEW STANDARD PLAN NSP T64

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	83	128

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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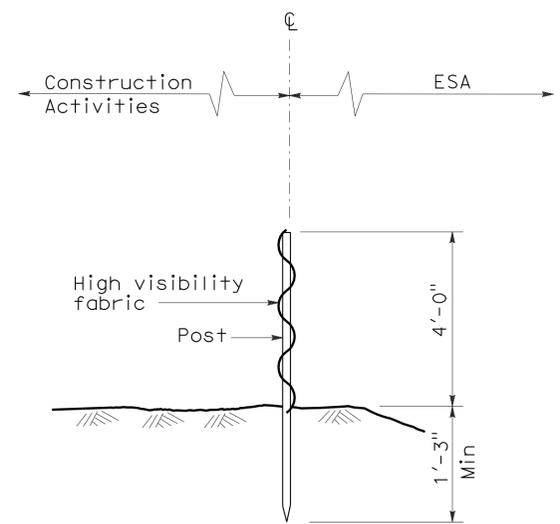
To accompany plans dated 5-7-12



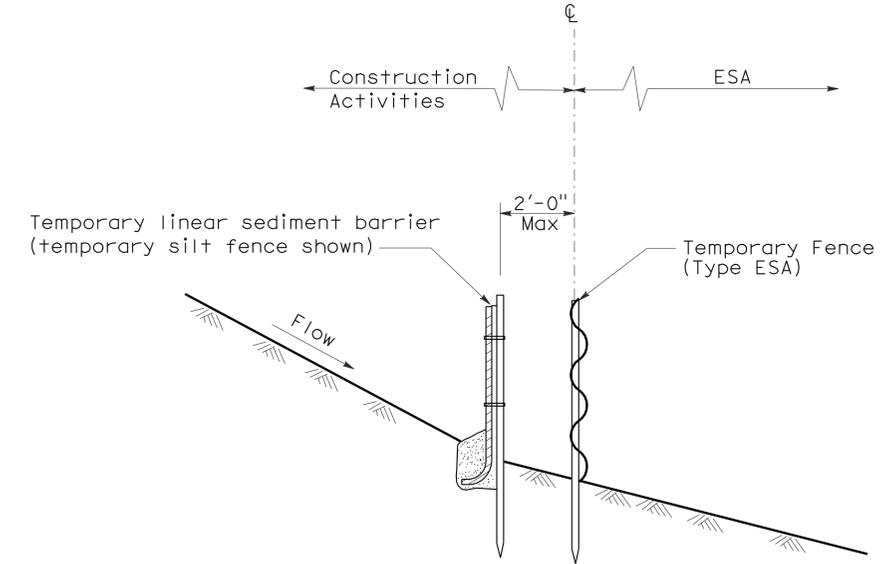
SIGN DETAIL

NOTE:

1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.

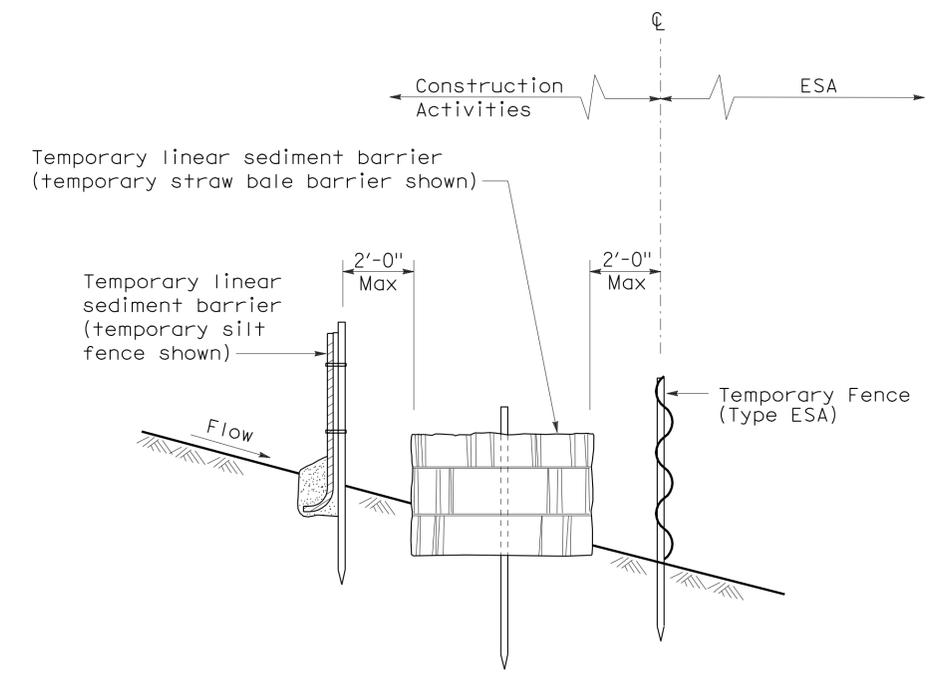


SECTION TEMPORARY FENCE (TYPE ESA)



SECTION PLACEMENT DETAIL FOR TEMPORARY LINEAR SEDIMENT BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1)



SECTION PLACEMENT DETAIL FOR TEMPORARY SILT FENCE AND TEMPORARY STRAW BALE BARRIER USED WITH TEMPORARY FENCE (TYPE ESA)

(See Note 1)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

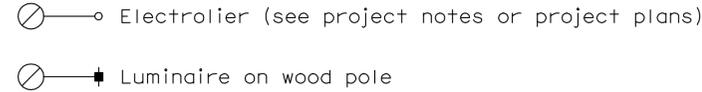
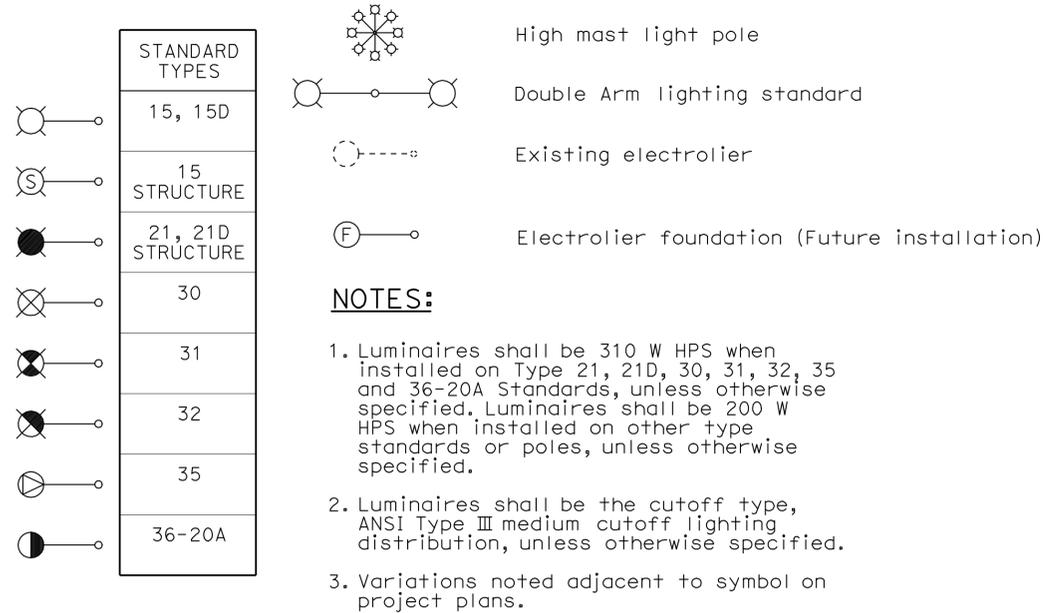
TEMPORARY WATER POLLUTION CONTROL DETAILS [TEMPORARY FENCE (TYPE ESA)]

NO SCALE

NSP T65 DATED APRIL 3, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T65

ELECTROLIERS



STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	84	128

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

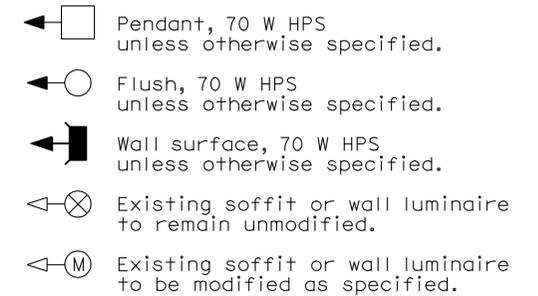
October 5, 2007
PLANS APPROVAL DATE

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

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 5-7-12

SOFFIT AND WALL MOUNTED LUMINAIRES



NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	85	128

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 No. E14512
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To accompany plans dated 5-7-12

CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
		Communication conduit
		Telephone conduit
		Fire alarm conduit
		Fiber optic conduit
		Conduit termination
		Conduit riser in/on structure or service pole

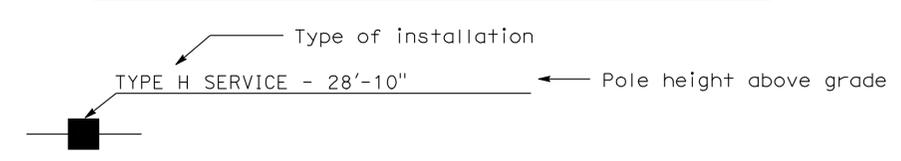
SIGNAL EQUIPMENT

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

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

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

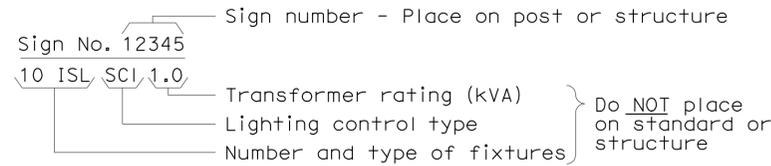
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

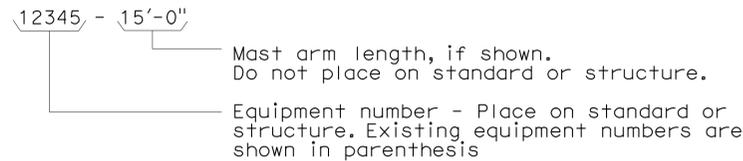
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

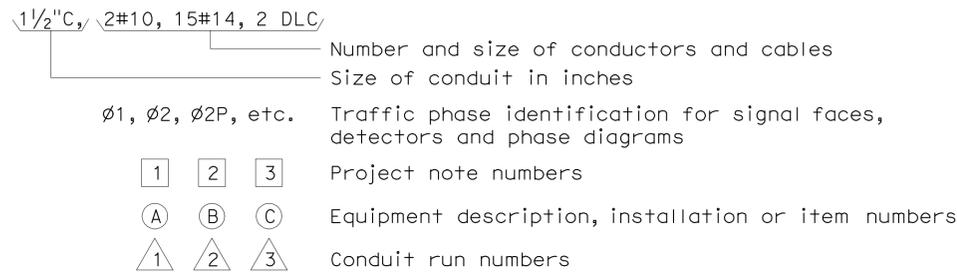
ILLUMINATED SIGN IDENTIFICATION NUMBER:



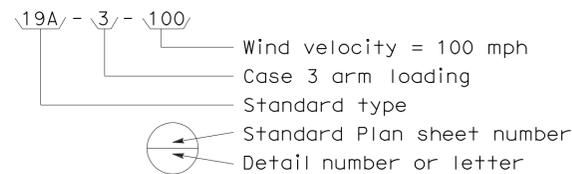
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



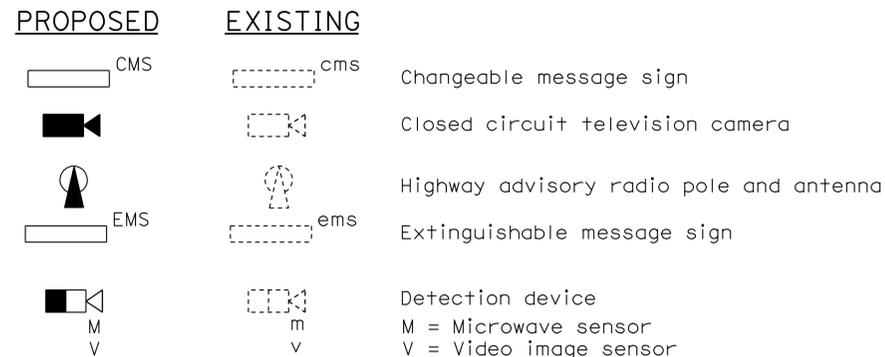
CONDUIT AND CONDUCTOR IDENTIFICATION:



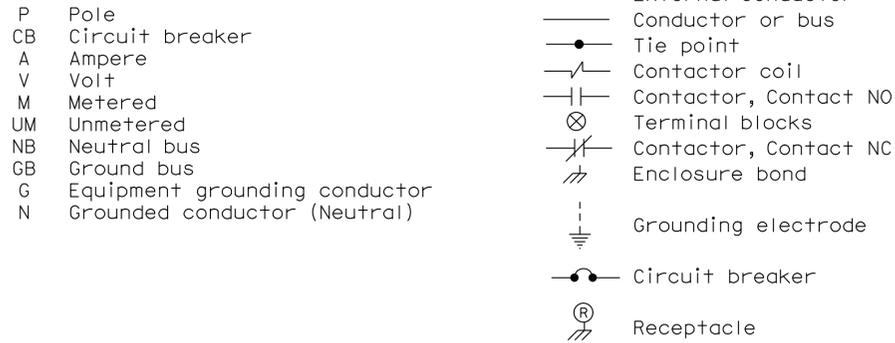
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



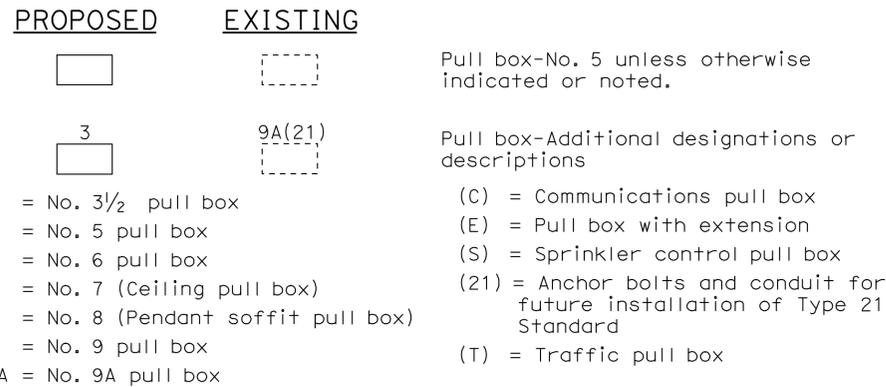
MISCELLANEOUS EQUIPMENT



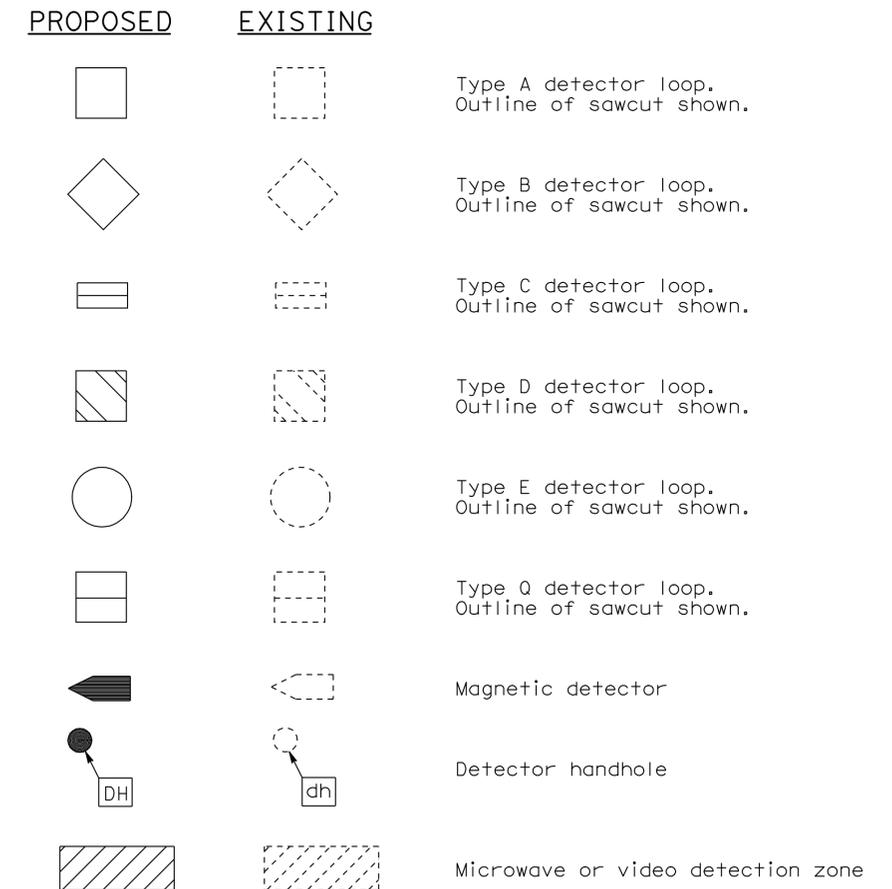
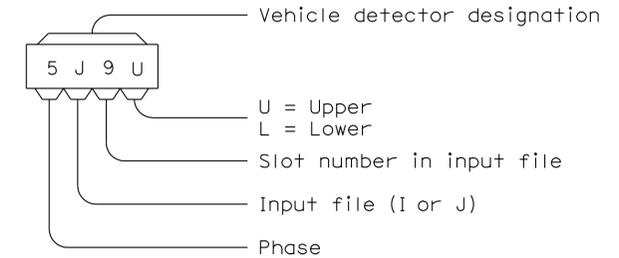
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	87	128

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007
 PLANS APPROVAL DATE

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

NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

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

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

To accompany plans dated 5-7-12

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

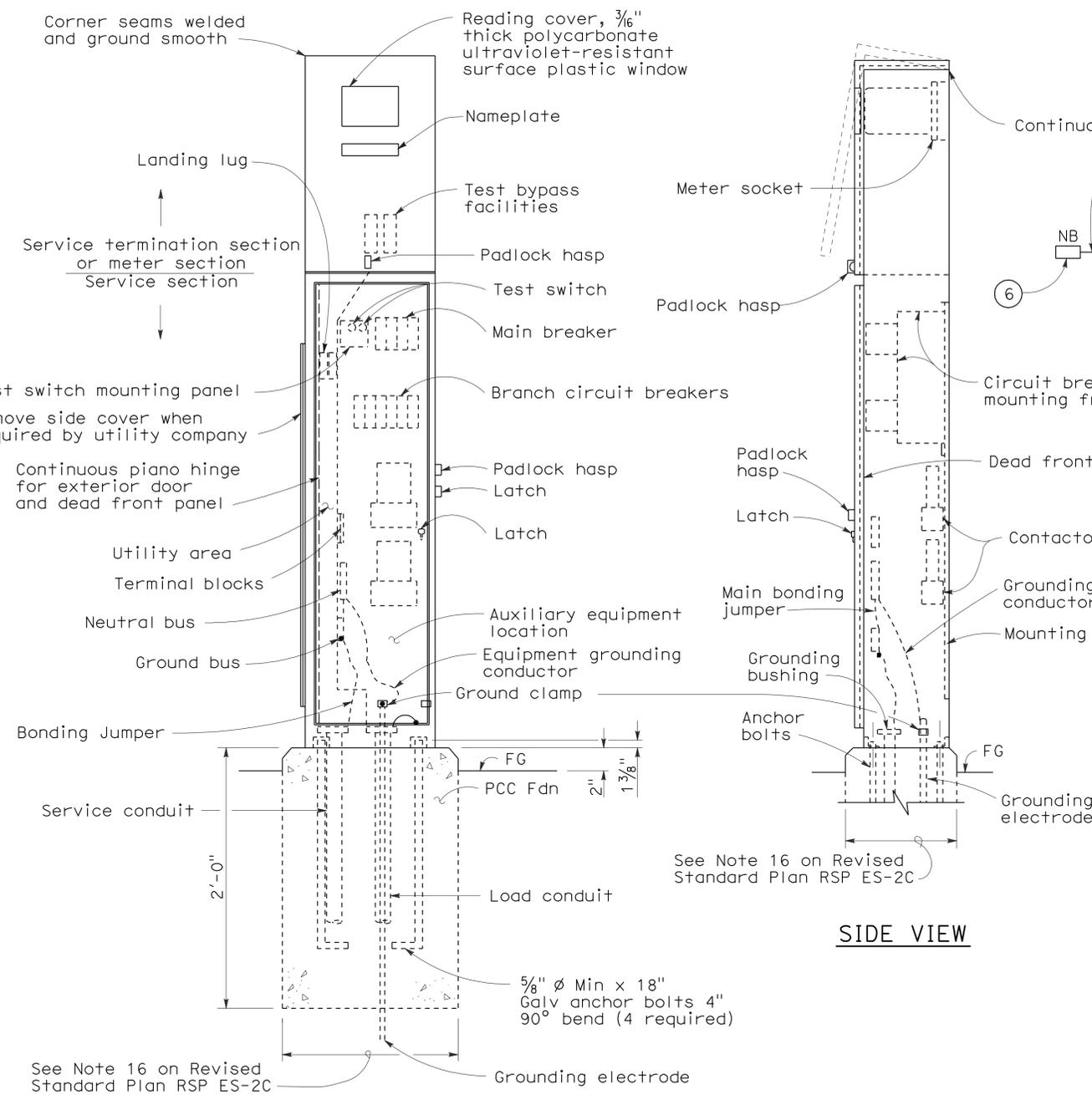
NO SCALE

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

REVISED STANDARD PLAN RSP ES-2C

2006 REVISED STANDARD PLAN RSP ES-2C

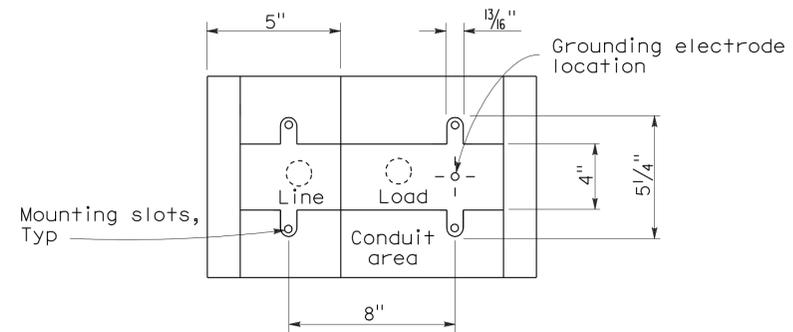
2006 REVISED STANDARD PLAN RSP ES-2D



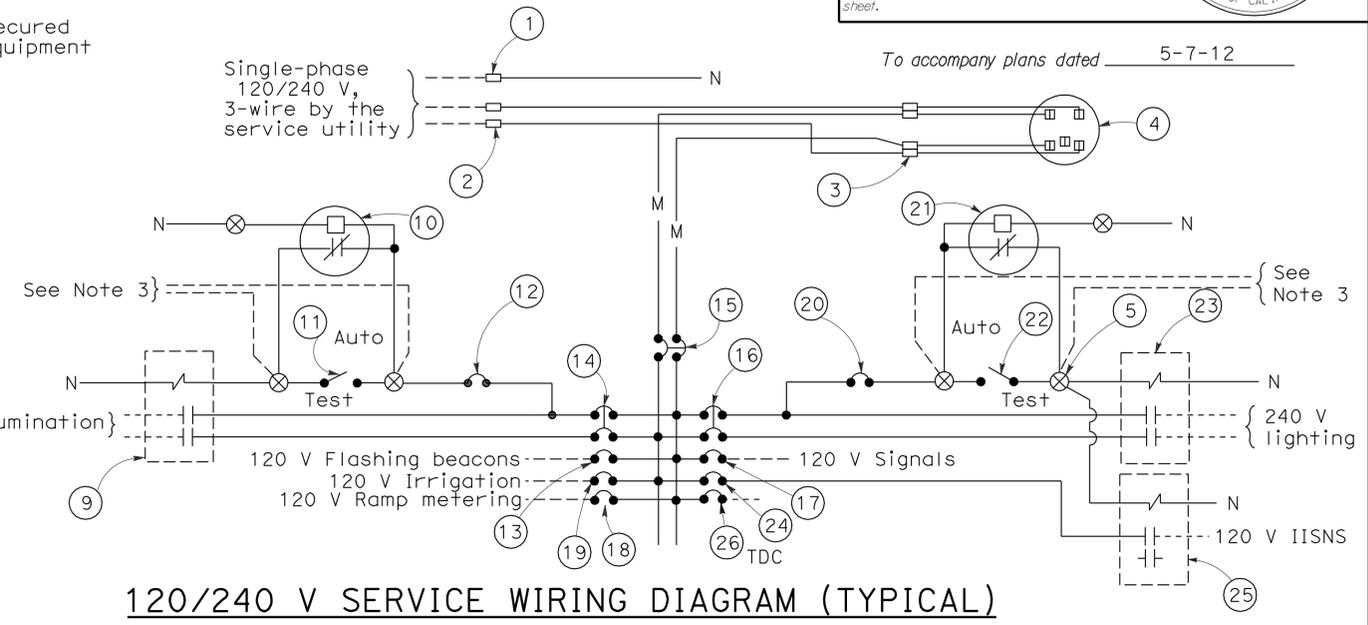
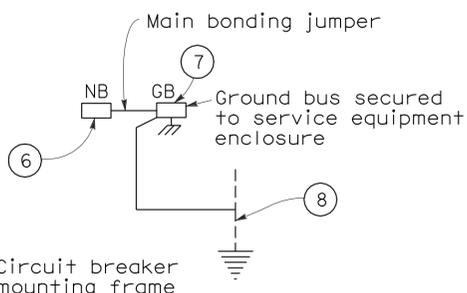
TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)

FRONT VIEW

SIDE VIEW



BASE FOR TYPE III-A SERVICE EQUIPMENT ENCLOSURE



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

TYPE III-A SERVICE (120/240 V) EQUIPMENT LEGEND					
ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
1	Neutral lug		14	30 A, 240 V, 2P, CB	Sign Illumination
2	Landing lug (Note 6)		15	100 A, 240 V, 2P, CB	Main Breaker
3	Test bypass facility		16	30 A, 240 V, 2P, CB	Lighting
4	Meter socket and support		17	50 A, 120 V, 1P, CB	Signals
5	Terminal blocks		18	30 A, 120 V, 1P, CB	Ramp Metering
6	Neutral bus		19	20 A, 120 V, 1P, CB	Irrigation
7	Ground bus		20	15 A, 120 V, 1P, CB	Lighting Control
8	Grounding electrode		21	Photoelectric unit (Note 7)	
9	30 A, 2PNO Contactor	Sign Illumination	22	15 A, 1P, Test switch	Lighting Test Switch
10	Photoelectric unit (Note 7)		23	60 A, 2PNO Contactor	Lighting
11	15 A, 1P, Test switch	Sign Illumination Test Switch	24	15 A, 120 V, 1P, CB	IISNS
12	15 A, 120 V, 1P, CB	Sign Illumination Control	25	30 A, 2PNO Contactor	IISNS
13	15 A, 120 V, 1P, CB	Flashing Beacon	26	20 A, 120 V, 1P, CB	Telephone Demarcation Cabinet

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

- Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
- Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
- Connect to remote test switch mounted on lighting standards, sign post or structure when required.
- Items No. 1 and 6 shall be isolated from the service equipment enclosure.
- Meter sockets shall be 5 clip type.
- The landing lug shall be suitable for multiple conductors.
- Type I photoelectric control shall be used unless otherwise indicated on the plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

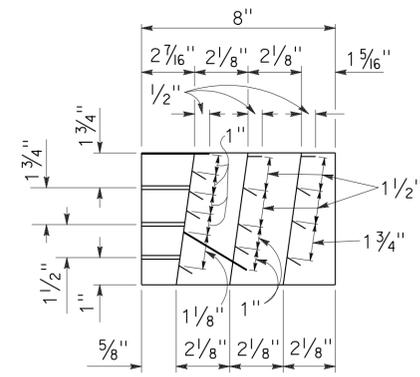
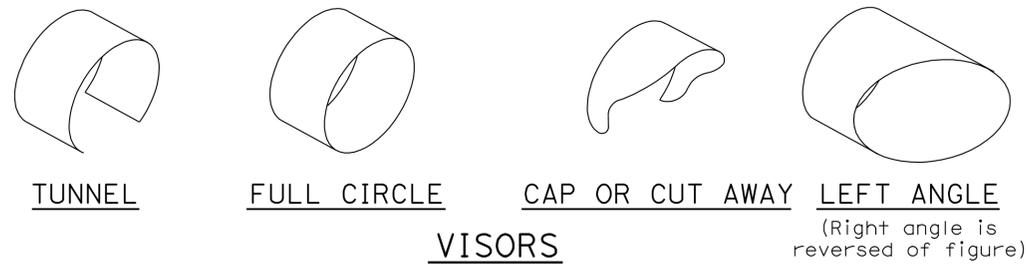
ELECTRICAL SYSTEMS (SERVICE EQUIPMENT AND TYPICAL WIRING DIAGRAM, TYPE III - A SERIES)

NO SCALE

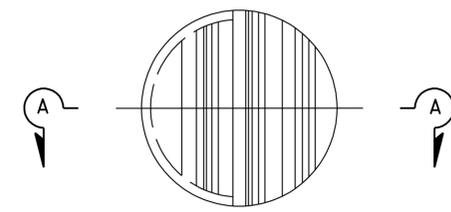
RSP ES-2D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2D DATED MAY 1, 2006 - PAGE 406 OF THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	89	128

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
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 REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-10
 ELECTRICAL
 STATE OF CALIFORNIA

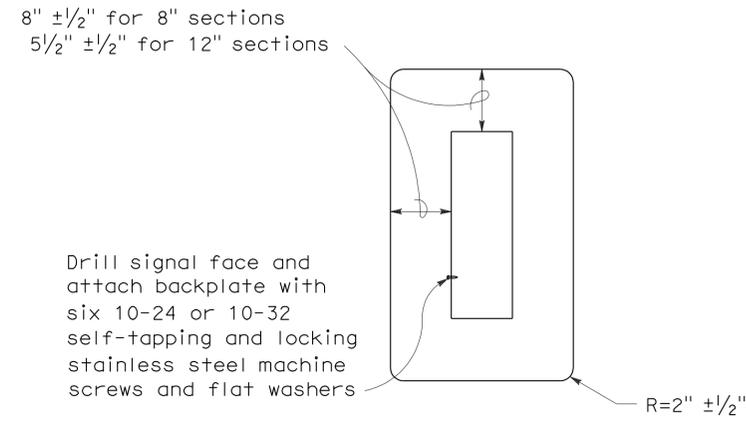


SECTION A-A



FRONT VIEW
DIRECTIONAL LOUVER

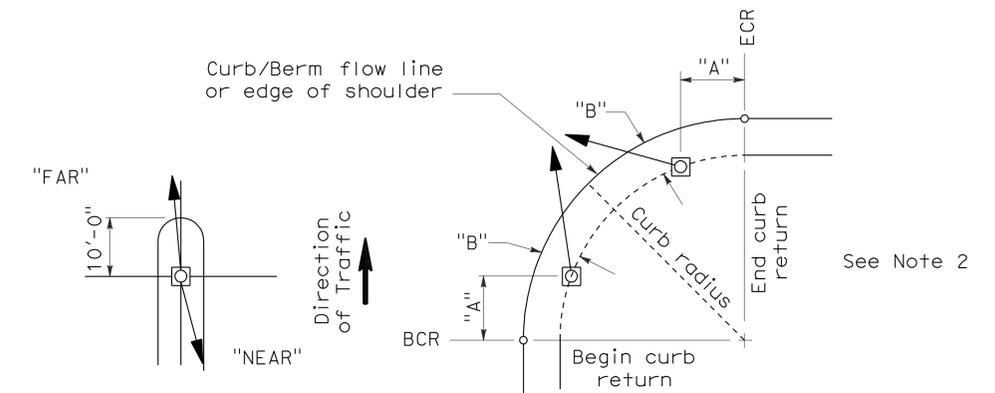
Directional louvers shall be oriented as directed by the Engineer and secured in place with one plated brass machine screw and nut.



8" AND 12" SECTIONS

BACKPLATE

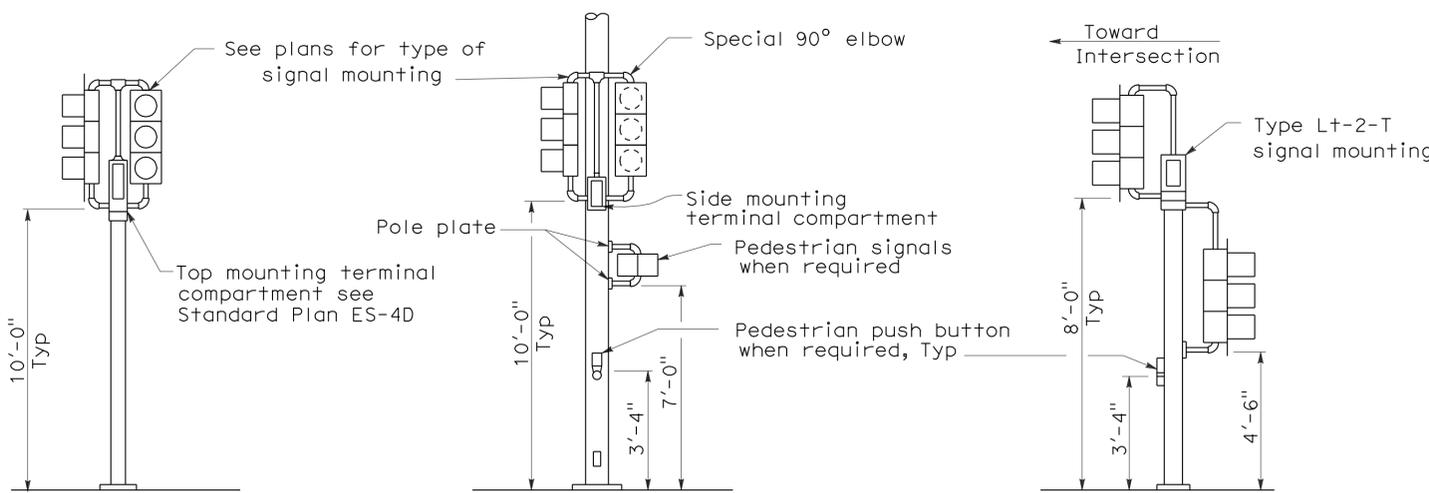
1/16" minimum thickness
 3001-14 aluminum, or plastic when specified



NOTES:

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

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS



TOP MOUNTED SIGNALS (TV)

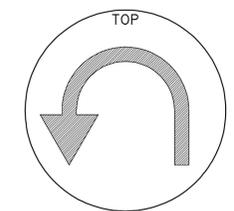
Type 1-A, 1-B, 1-C and 1-D standard as indicated on the plans

SIDE MOUNTED SIGNALS (SV AND SP)

Normally used on standards with luminaire or signal mast arm

LEFT TURN LANE SIGNAL

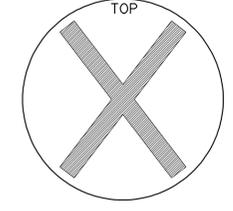
Type 1-A, 1-B, 1-C and 1-D standard as indicated on plans



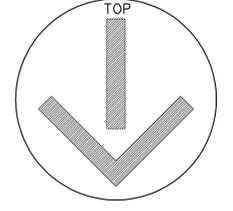
U-TURN SIGNAL FACE



BICYCLE SIGNAL FACE



LANE CONTROL SIGNAL FACE



LANE CONTROL SIGNAL FACE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)
 NO SCALE

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

REVISED STANDARD PLAN RSP ES-4C

2006 REVISED STANDARD PLAN RSP ES-4C

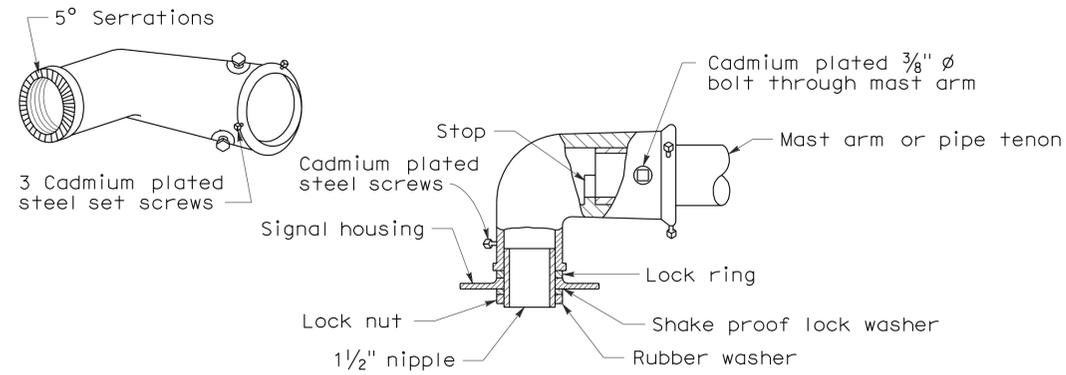
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	90	128

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

June 6, 2008
 PLANS APPROVAL DATE

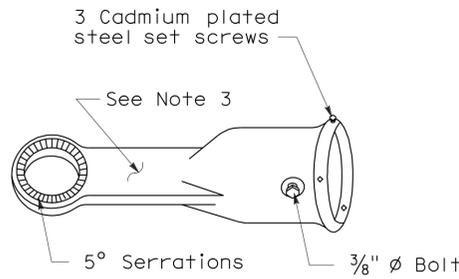
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To accompany plans dated 5-7-12



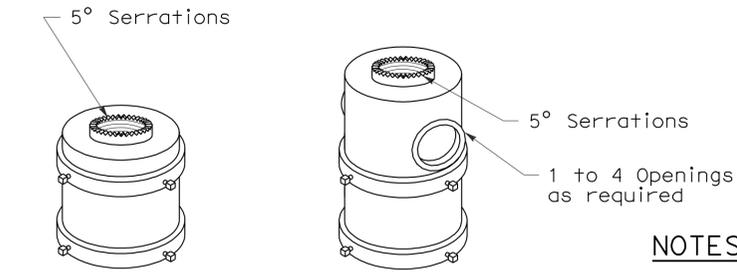
MAST ARM MOUNTING - TYPE "MAT"

For 2 NPS pipe, see Note 1.



MAST ARM MOUNTING - TYPE "MAS"

For 2 NPS pipe. See Note 1.

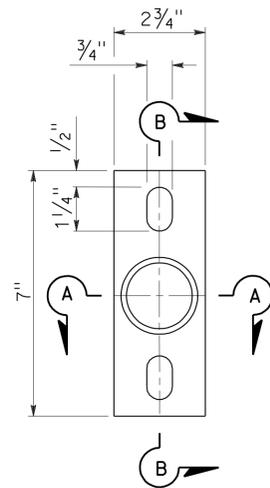


For one mounting For multiple mountings

TOP MOUNTINGS

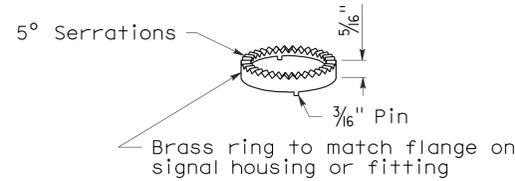
For 4 NPS pipe, see Note 2.

SIGNAL SLIP FITTERS



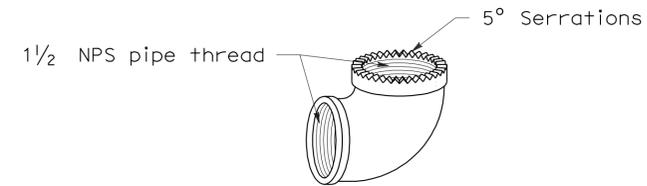
POLE PLATE

For side mountings



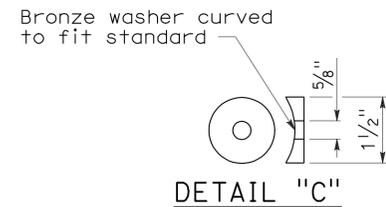
LOCK RING

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



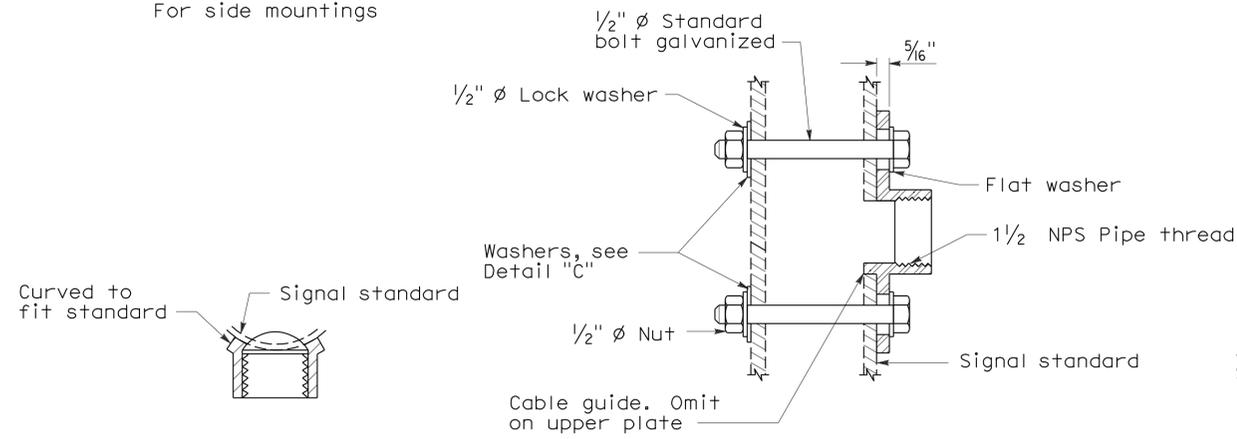
SPECIAL 90° ELBOW

One for each signal head, except those with special slip fitter mounting

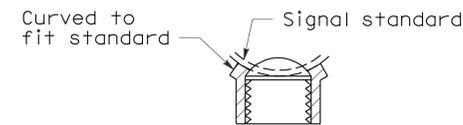


DETAIL "C"

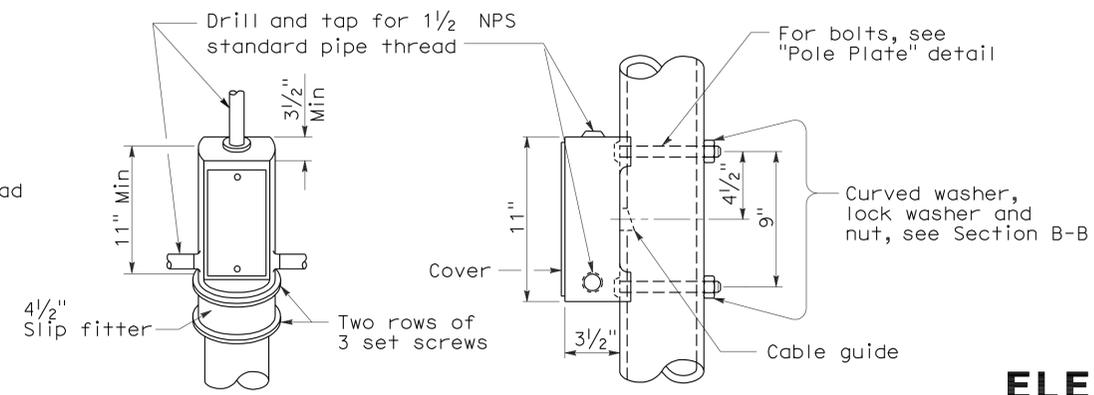
MISCELLANEOUS MOUNTING HARDWARE



SECTION B-B



SECTION A-A



TOP MOUNTING

SIDE MOUNTING

TERMINAL COMPARTMENTS

ELECTRICAL SYSTEMS (SIGNAL HEADS AND MOUNTINGS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-4D

2006 REVISED STANDARD PLAN RSP ES-4D

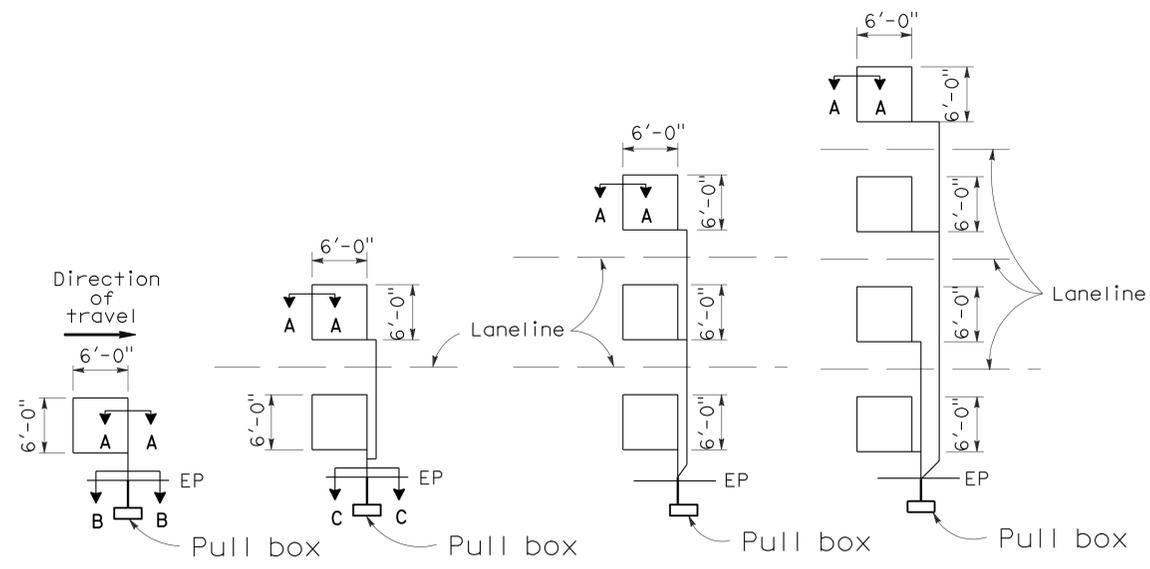
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	91	128

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

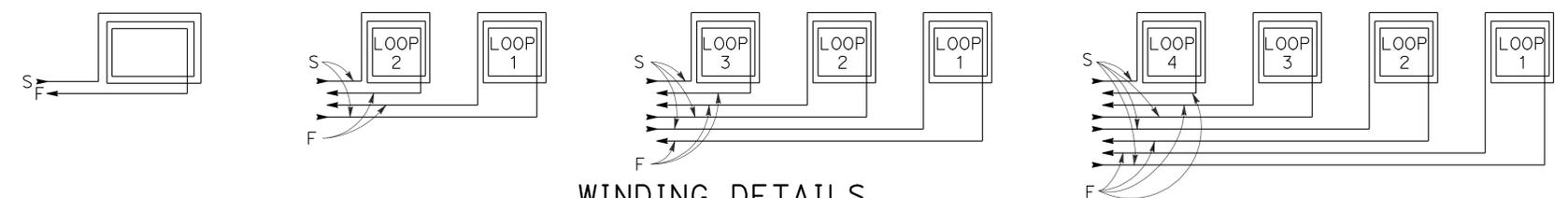
LOOP INSTALLATION PROCEDURE

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



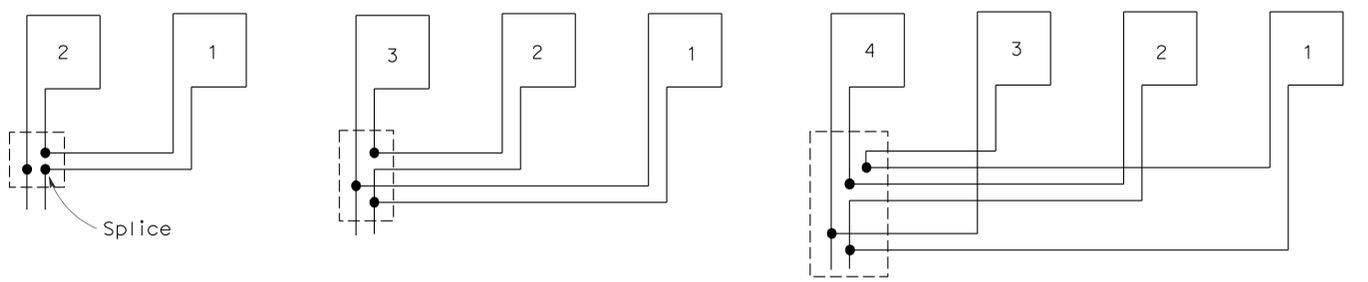
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION
SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



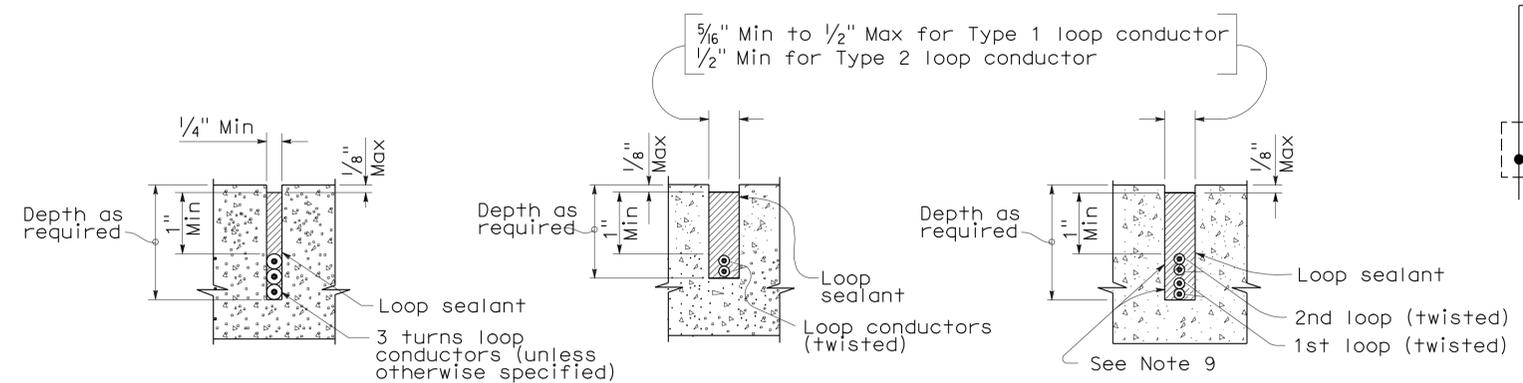
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



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

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

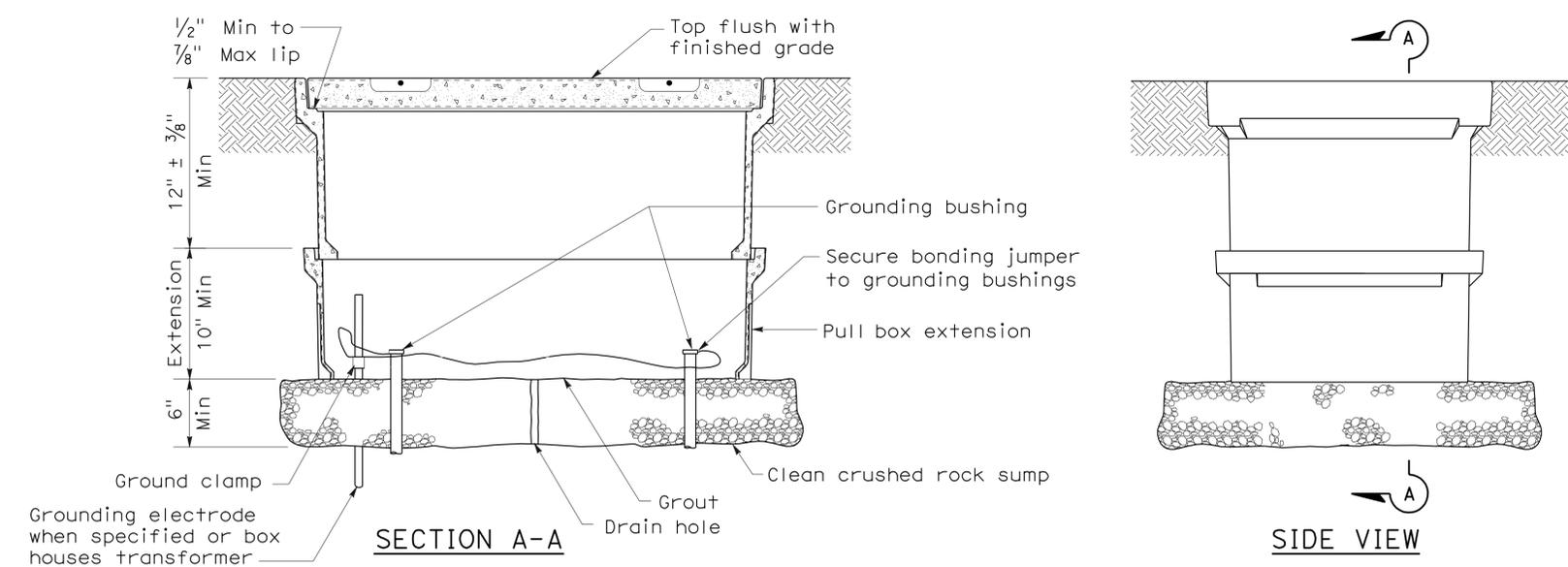
RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-5A

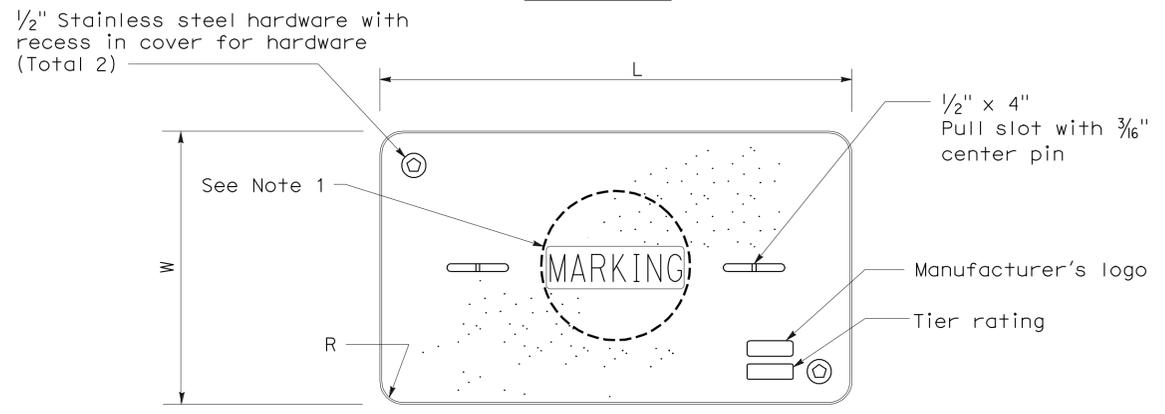
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Hum	299	20.1/21.0	92	128

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 January 20, 2012
 PLANS APPROVAL DATE
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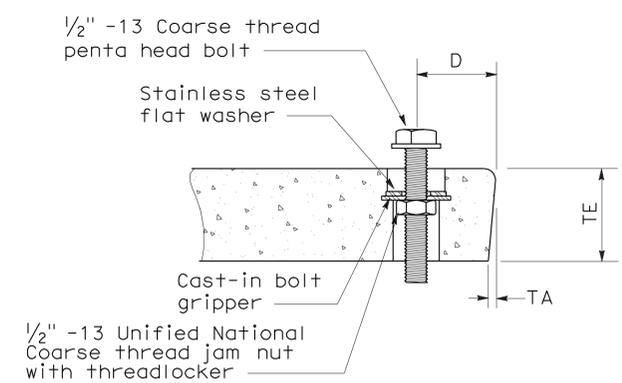
To accompany plans dated 5-7-12



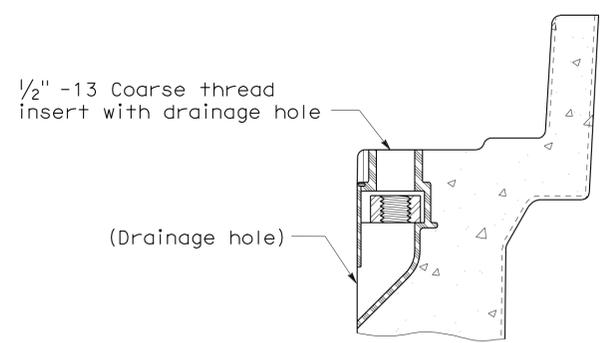
INSTALLATION DETAILS
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
(Or similar)



TYPICAL THREADED INSERT
(Or similar)

NOTES ON PULL BOXES:

- Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
 - "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
 - "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
- The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions (L and W) plus 1/8" or greater.
- Covers and boxes must be interchangeable with California Standard. When interchanged with a standard, the top surfaces must be flush within 1/8". Top outside radius of covers and pull boxes must have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.

PULL BOX	PULL BOX			COVER						
	Minimum Depth Box	Minimum Depth Extension	Maximum Weight	L	W	R	TE	TA	D	Maximum Weight
No. 3/2	12"	N/A	40 lb	1' - 3 3/8"	10 1/8"	1 3/8"	2"	1/8"	1 3/4"	30 lb
No. 5	12"	10"	55 lb	1' - 11 1/4"	1' - 1 3/4"	1 3/8"	2"	1/8"	1 3/4"	60 lb
No. 6	12"	10"	70 lb	2' - 6 1/2"	1' - 5 1/2"	1 3/8"	2"	1/8"	2"	85 lb

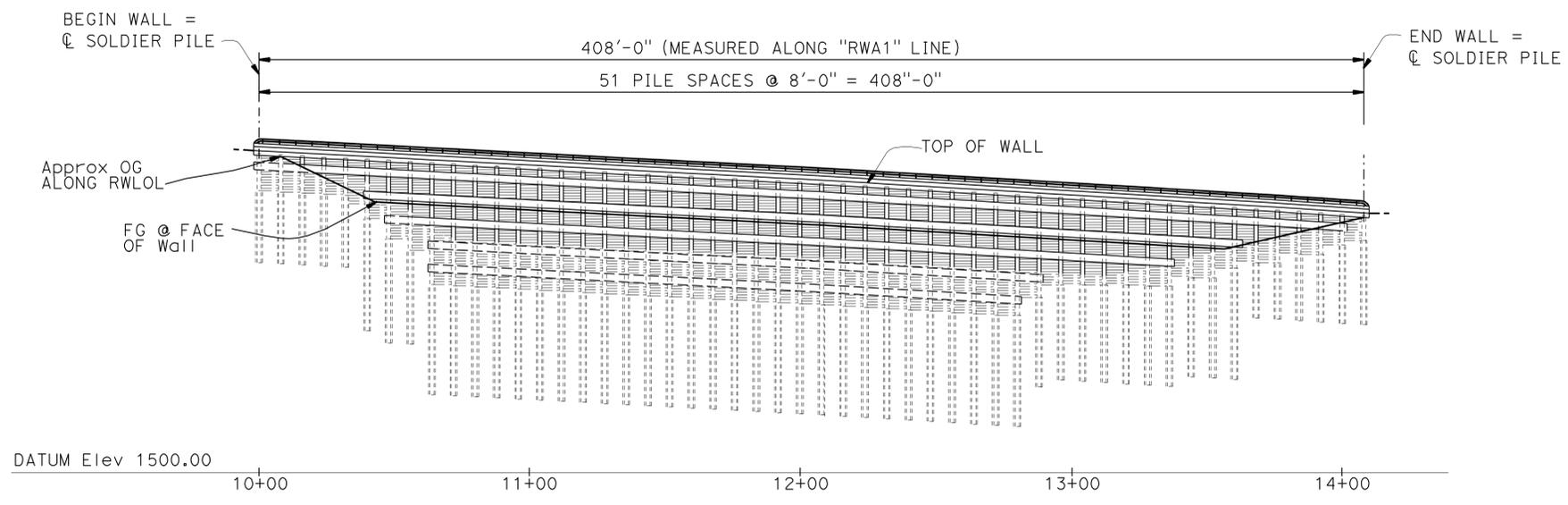
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(PULL BOX)
NO SCALE

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

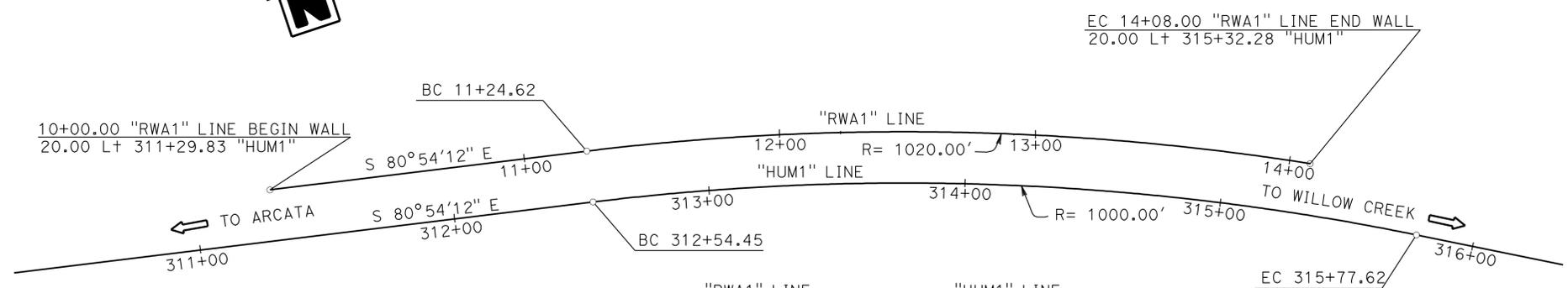
2006 NEW STANDARD PLAN NSP ES-8A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Hum	299	20.2/20.5	93	128

REGISTERED CIVIL ENGINEER DATE 10-27-11
 Lewis L Shen
 No. 56921
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA
 5-7-12
 PLANS APPROVAL DATE
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MIRROR ELEVATION
1" = 30'

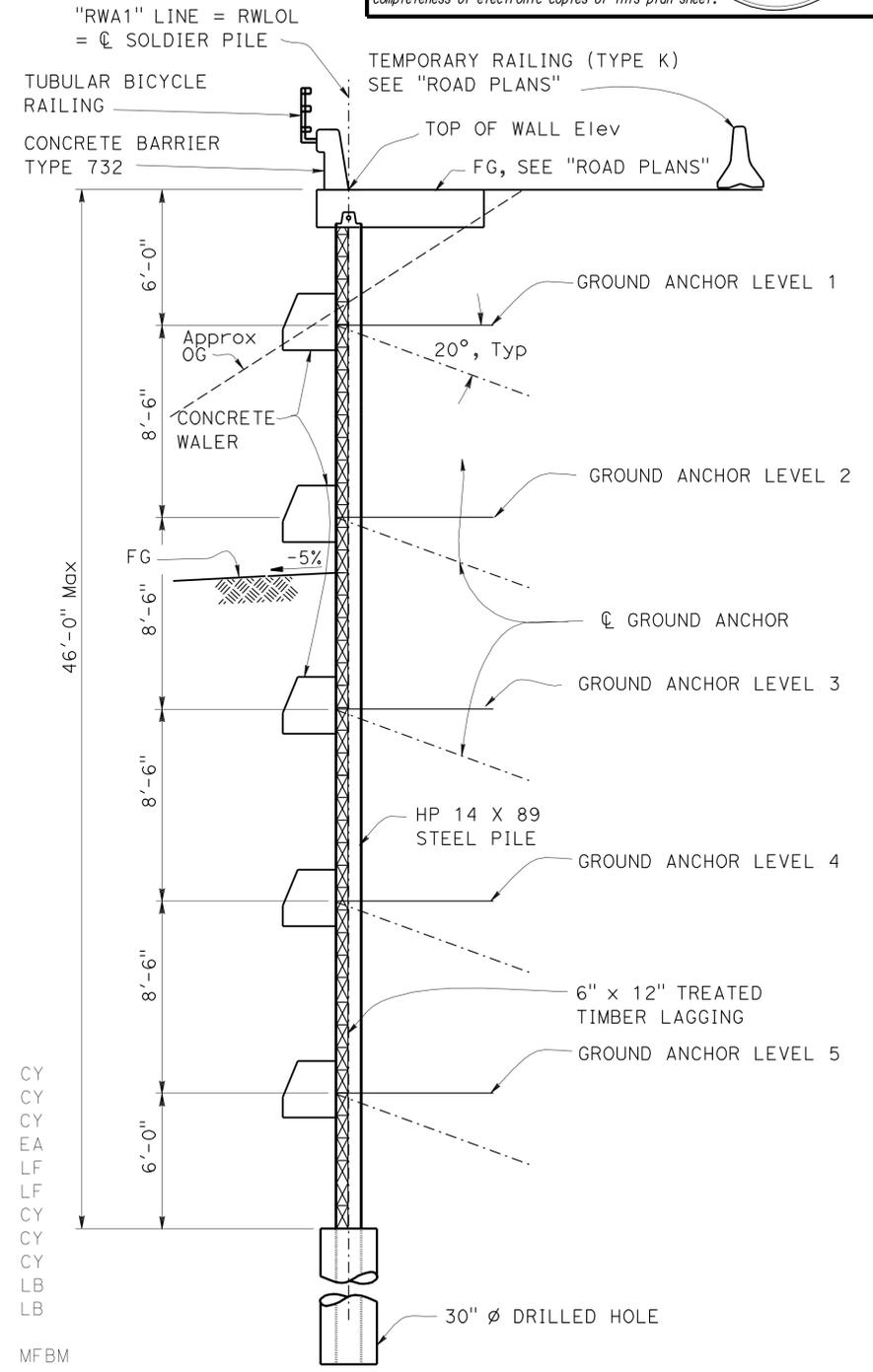


PLAN
1" = 30'

EC 14+08.00 "RWA1" LINE END WALL
20.00 L+ 315+32.28 "HUM1"

"RWA1" LINE	"HUM1" LINE
R=1020.00	R=1000.00
Δ=15°55'05"	Δ=18°30'58"
T=142.61'	T=163.00'
L=283.3'	L=323.17'

QUANTITIES	
STRUCTURE EXCAVATION (SOLDIER PILE WALL)	510 CY
STRUCTURE BACKFILL (SOLDIER PILE WALL)	255 CY
LEAN CONCRETE BACKFILL	320 CY
GROUND ANCHOR	181 EA
STEEL SOLDIER PILE (HP 14 X 89)	3,648 LF
30" DRILLED HOLE	3,648 LF
STRUCTURAL CONCRETE, RETAINING WALL	305 CY
STRUCTURAL CONCRETE, BARRIER SLAB	189 CY
CONCRETE BACKFILL (SOLDIER PILE WALL)	345 CY
BAR REINFORCING STEEL (RETAINING WALL)	96,500 LB
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	28,500 LB
TIMBER LAGGING	83 MFBM
CLEAN AND PAINT STEEL SOLDIER PILING	LUMP SUM
TUBULAR BICYCLE RAILING	412 LF
CONCRETE BARRIER (TYPE 732)	412 LF



TYPICAL SECTION
1/4" = 1'-0"

Joseph E. Downing
DESIGN ENGINEER

DESIGN	BY Mike Bergman	CHECKED Quang Nguyen	LOAD FACTOR DESIGN	LIVE LOADING:
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen	LAYOUT	BY Mike Bergman
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen	SPECIFICATIONS	BY Dave Klein

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO.	04E0028
POST MILE	20.2

GREEN POINT SINK RETAINING WALL NO. 1
GENERAL PLAN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	299	20.2/20.5	94	128

REGISTERED CIVIL ENGINEER DATE 10-27-11
 Lewis L Shen
 No. 56921
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA
 5-7-12
 PLANS APPROVAL DATE
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GENERAL NOTES

DESIGN: BRIDGE DESIGN SPECIFICATIONS - April 2000 (LFD)
 (1996 AASHTO with Interims and Revisions by CALTRANS)
 FHWA Geotechnical Engineering Circular No. 4 - June 1999

SOIL PARAMETERS:

(For determination of design lateral earth pressures)
 $\phi = 34^\circ$, $\gamma = 140$ pcf 0 ft - 26 ft
 $\phi = 18^\circ$, $\gamma = 120$ pcf 26 ft - 54 ft
 $\phi = 30^\circ$, $\gamma = 120$ pcf, C = 500 psf 54 ft - 82 ft
 $\phi = 34^\circ$, $\gamma = 145$ pcf, C = 1000 psf 82 ft & below

REINFORCED CONCRETE

$f'_c = 4.0$ ksi (Concrete compressive strength at 28 days)
 $f_y = 60$ ksi (Yield strength of reinforcement)

STRUCTURAL STEEL:

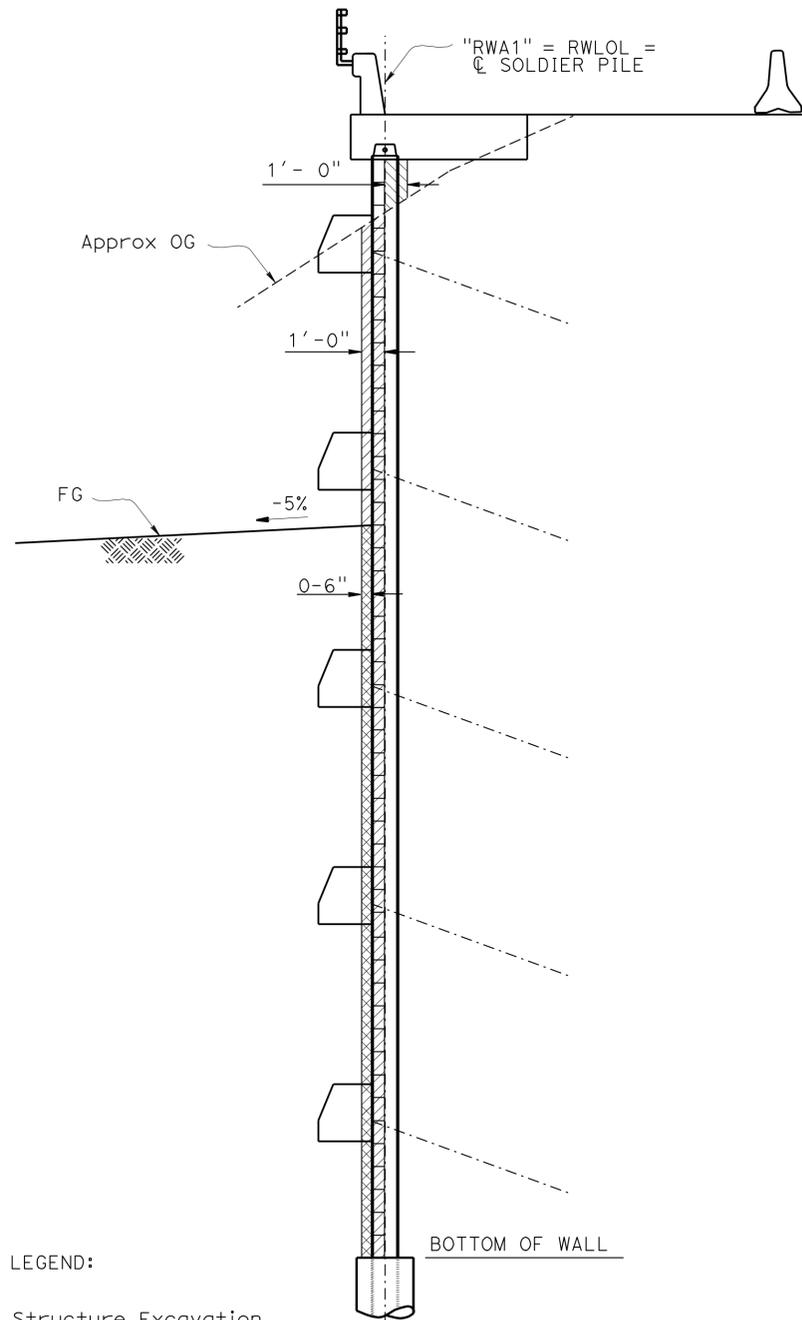
$f_y = 50$ ksi

STRUCTURAL TIMBER:

Treated Douglas Fir, Grade No. 1 or better
 Timber to be full sawn

PRESTRESSING STEEL: (GROUND ANCHORS)

Strands - ASTM designation A416
 T = Design Force per Ground Anchor = 170 kip
 f_{pu} = Minimum tensile strength of prestressing steel (ksi)
 A_s (Min) = Minimum cross sectional area of prestressing steel in Ground Anchor tendon. (in²)
 A_s (Min) = $\frac{1.5 T}{0.75 f_{pu}}$



LEGEND:

- Structure Excavation, Soldier Pile Wall
- Structure Backfill, Soldier Pile Wall

NOTE:
 For limits of roadway excavation and backfill, see "ROAD PLANS"

LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL

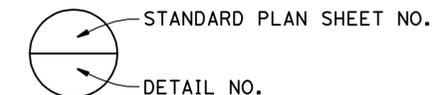
1/4" = 1'

INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	STRUCTURE PLAN NO. 1
4	STRUCTURE PLAN NO. 2
5	FOUNDATION PLAN
6	TYPICAL SECTION
7	WALL DETAILS NO. 1
8	WALL DETAILS NO. 2
9	GROUND ANCHOR DETAILS
10	TUBULAR BICYCLE RAILING DETAILS
11	LOG OF TEST BORINGS 1 OF 8
12	LOG OF TEST BORINGS 2 OF 8
13	LOG OF TEST BORINGS 3 OF 8
14	LOG OF TEST BORINGS 4 OF 8
15	LOG OF TEST BORINGS 5 OF 8
16	LOG OF TEST BORINGS 6 OF 8
17	LOG OF TEST BORINGS 7 OF 8
18	LOG OF TEST BORINGS 8 OF 8

STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- B11-55 CONCRETE BARRIER TYPE 732



DESIGN	BY Mike Bergman	CHECKED Quang Nguyen
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen

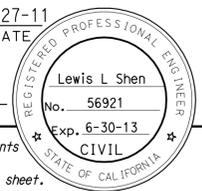
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

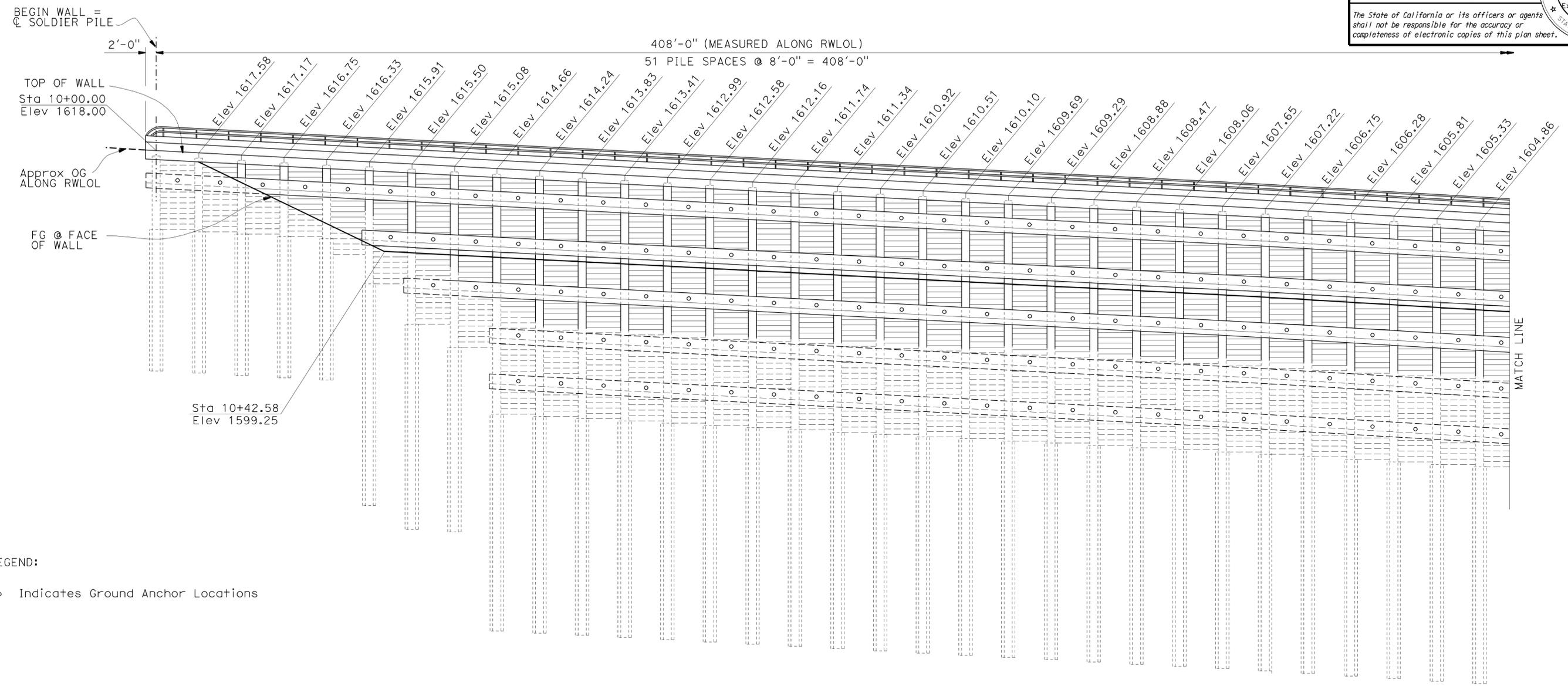
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 3

BRIDGE NO.	04E0028
POST MILE	20.2

GREEN POINT SINK RETAINING WALL NO. 1

INDEX TO PLANS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	299	20.2/20.5	95	128
 REGISTERED CIVIL ENGINEER			10-27-11	DATE	
5-7-12			PLANS APPROVAL DATE		
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LEGEND:
 ○ Indicates Ground Anchor Locations

PILE LENGTH	40'-0"					63'-0"			67'-0"			85'-0"																				
	PILE 1-5					PILE 6			PILE 7-8			PILE 9-36																				
DATUM Elev 1500.00																																
PILE NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
NUMBER OF LAGGING	13	13	13	13	16	21	28	32	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44

PART MIRRORED ELEVATION
 1" = 10'

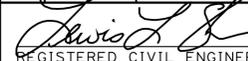
DESIGN	BY Mike Bergman	CHECKED Quang Nguyen
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen

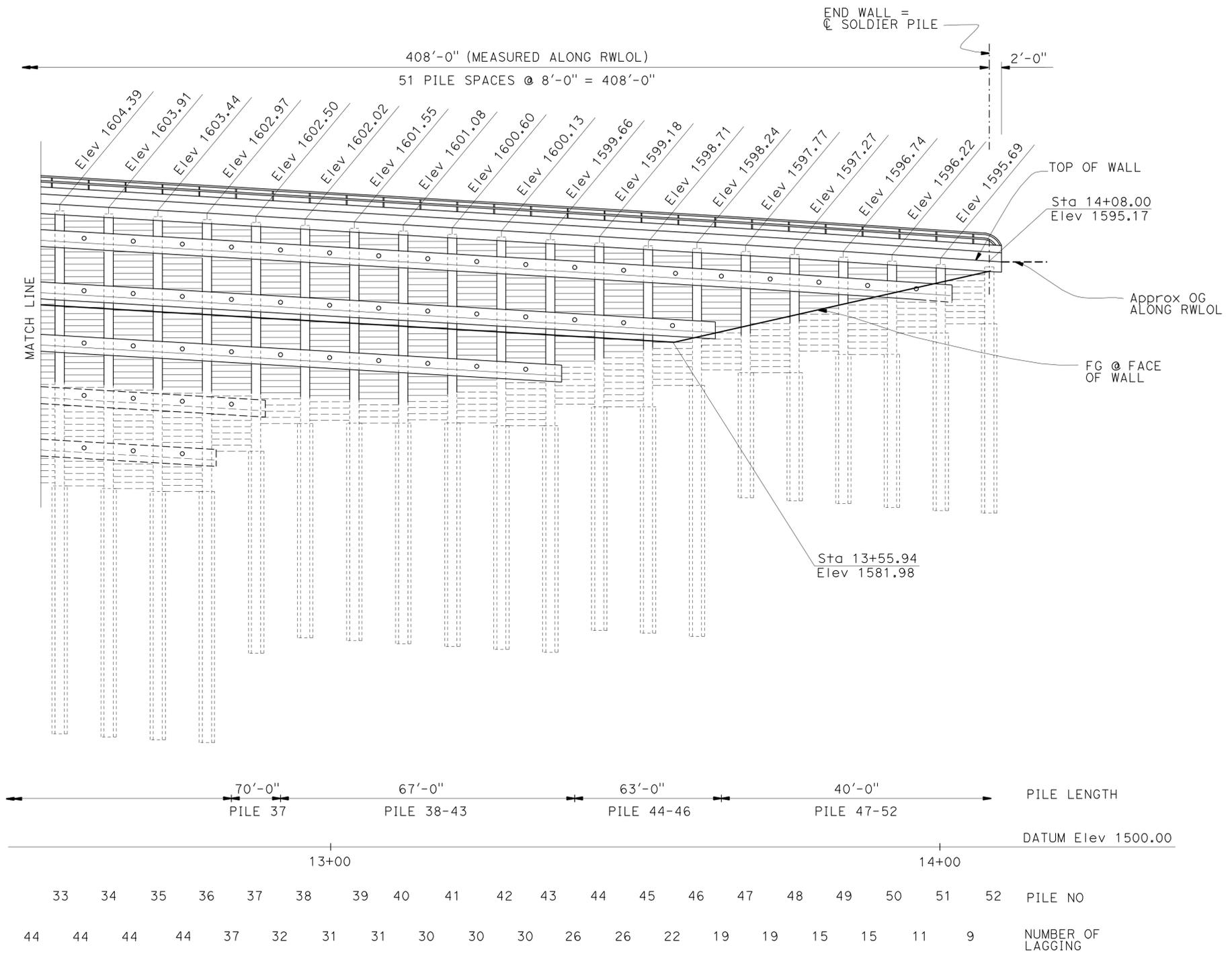
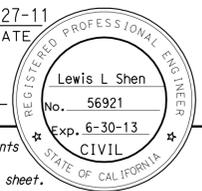
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO.	04E0028
POST MILE	20.2

GREEN POINT SINK RETAINING WALL NO. 1
STRUCTURE PLAN NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	299	20.2/20.5	96	128
 REGISTERED CIVIL ENGINEER			10-27-11	DATE	
5-7-12			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



LEGEND

○ Indicates Ground Anchor Locations

PART MIRRORED ELEVATION
1" = 10'

DESIGN	BY Mike Bergman	CHECKED Quang Nguyen
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

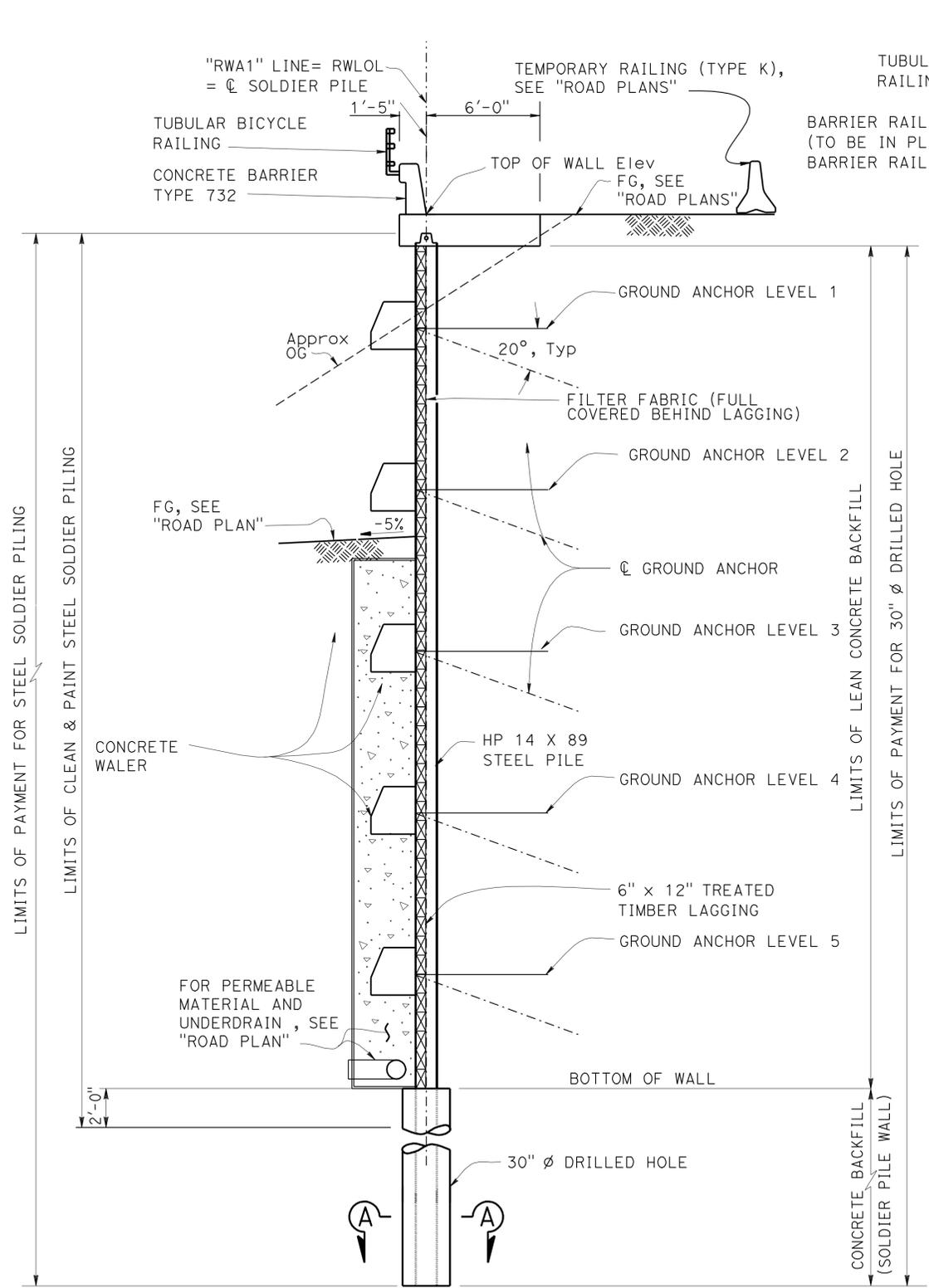
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO.	04E0028
POST MILE	20.2

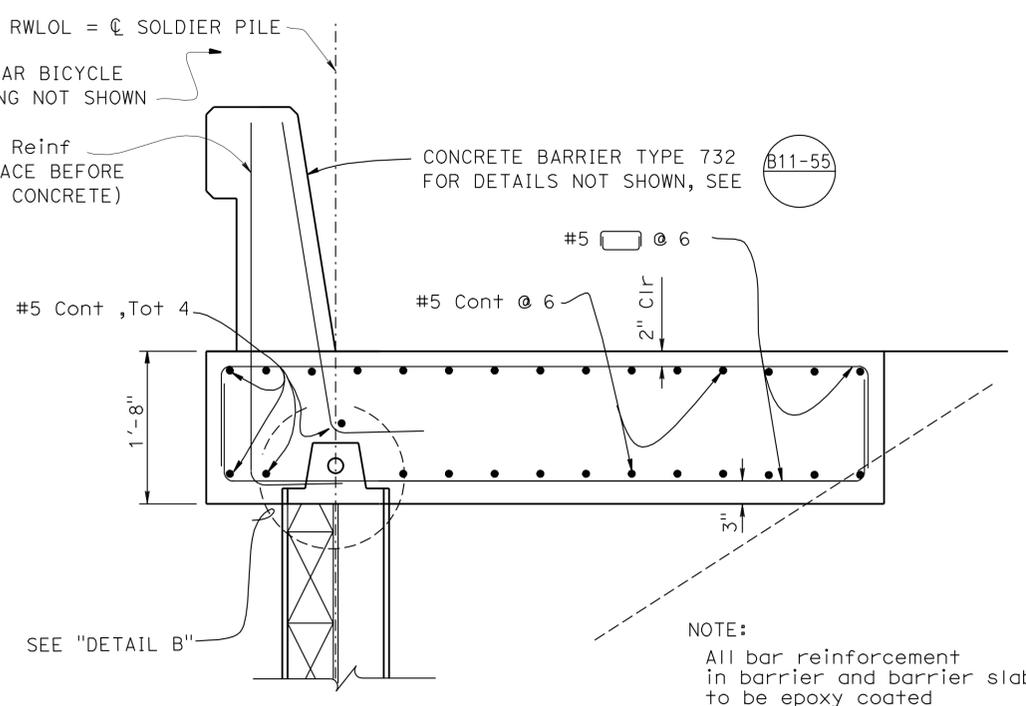
GREEN POINT SINK RETAINING WALL NO. 1
STRUCTURE PLAN NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUMB	299	20.2/20.5	98	128

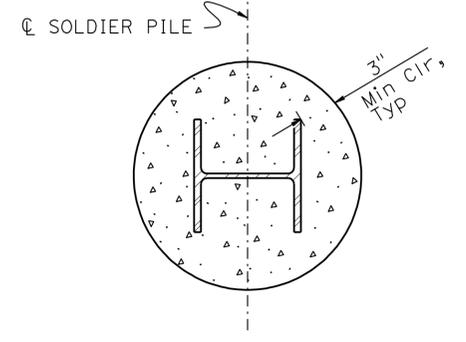
REGISTERED CIVIL ENGINEER DATE 10-27-11
 Lewis L Shen
 No. 56921
 Exp. 6-30-13
 CIVIL
 STATE OF CALIFORNIA
 5-7-12
 PLANS APPROVAL DATE
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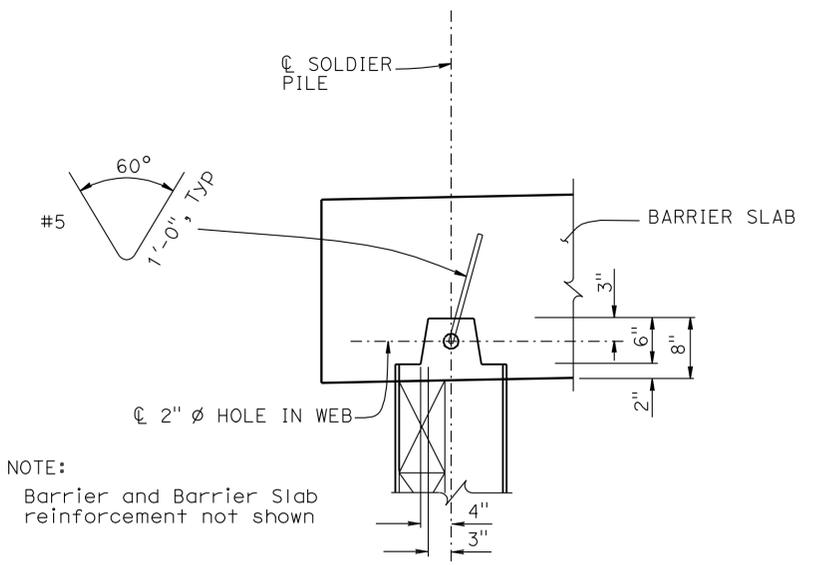
TYPICAL SECTION
1/4" = 1'-0"



PART TYPICAL SECTION
1" = 1'-0"



SECTION A-A
NO SCALE



DETAIL B
1" = 1'-0"

DESIGN	BY Mike Bergman	CHECKED Quang Nguyen
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen

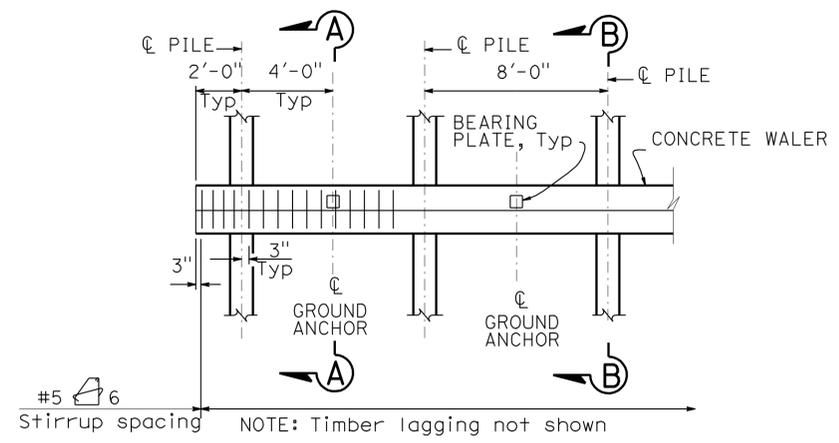
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 3

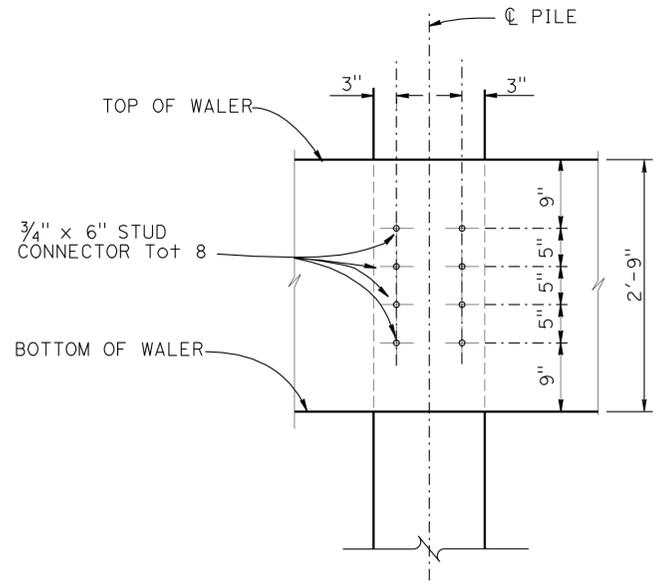
BRIDGE NO.	04E0028
POST MILE	20.2

GREEN POINT SINK RETAINING WALL NO. 1
TYPICAL SECTION

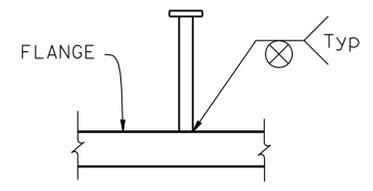
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	HUM	299	20.2/20.5	99	128
 REGISTERED CIVIL ENGINEER			DATE		
5-7-12 PLANS APPROVAL DATE					
REGISTERED PROFESSIONAL ENGINEER Lewis L. Shen No. 56921 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA					
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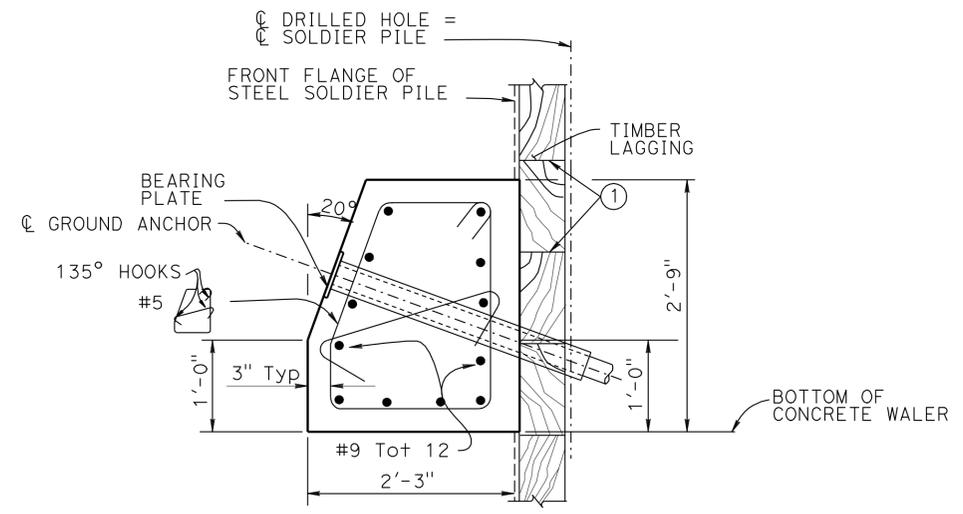
PART ELEVATION
NO SCALE



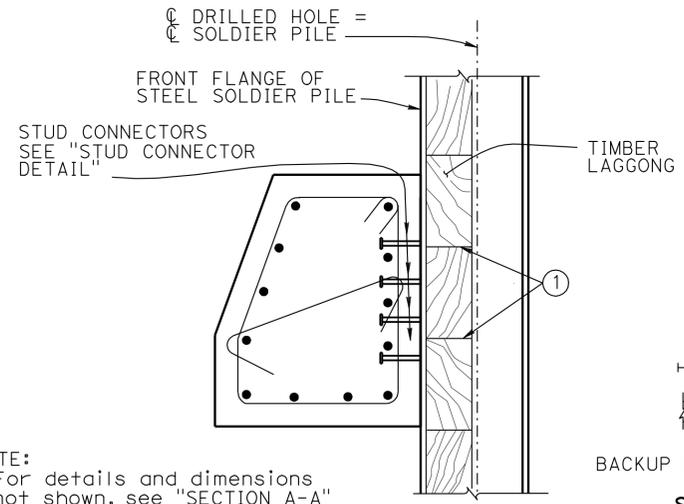
STUD CONNECTOR PLACEMENT
NO SCALE



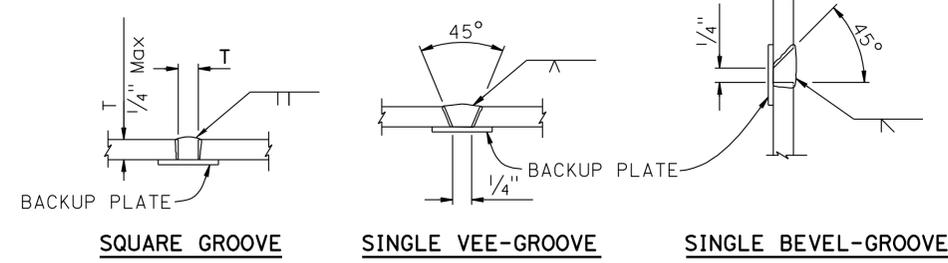
STUD CONNECTOR DETAIL
NO SCALE



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



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



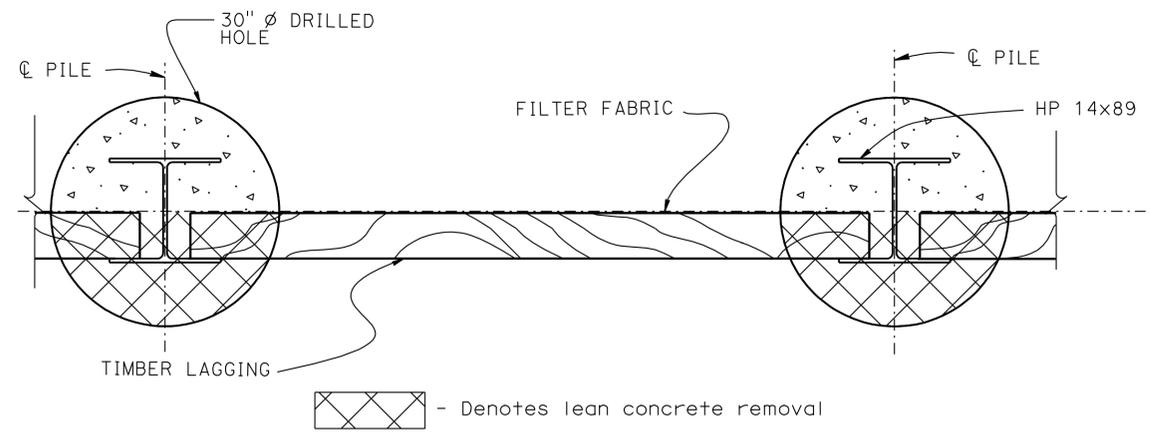
PILE WELDING DETAIL-BUTT JOINTS

- NOTES:
1. Single Vee-Groove and Square Groove permitted for all positions.
 2. Single Bevel-Groove permitted for horizontal joints only.

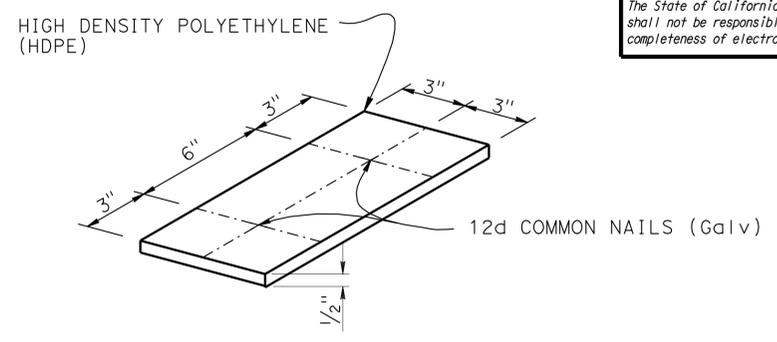
- NOTES:
1. Omit gap between lagging members at joints behind concrete waler.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Mike Bergman	CHECKED Quang Nguyen	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO.	GREEN POINT SINK RETAINING WALL NO. 1 WALL DETAILS NO. 1		
	DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen			04E0028			
	QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen			POST MILE 20.2			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3578	PROJECT NUMBER & PHASE: 0100000172-0	CONTRACT NO.: 01-423701	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
				0	1	2	3	REVISION DATES	SHEET 7 OF 18

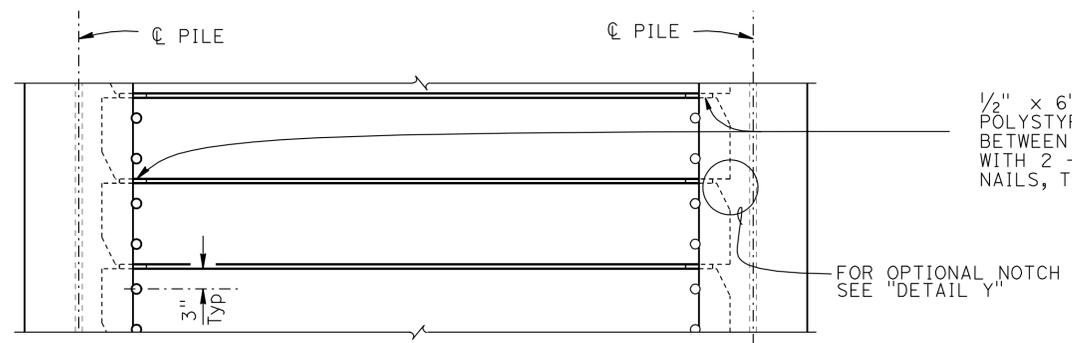
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Humboldt	299	20.2/20.5	100	128
			10-27-11		
			REGISTERED CIVIL ENGINEER		
			DATE		
			5-7-12		
			PLANS APPROVAL DATE		
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REGISTERED PROFESSIONAL ENGINEER Lewis L. Shen No. 56921 Exp. 6-30-13 CIVIL STATE OF CALIFORNIA					



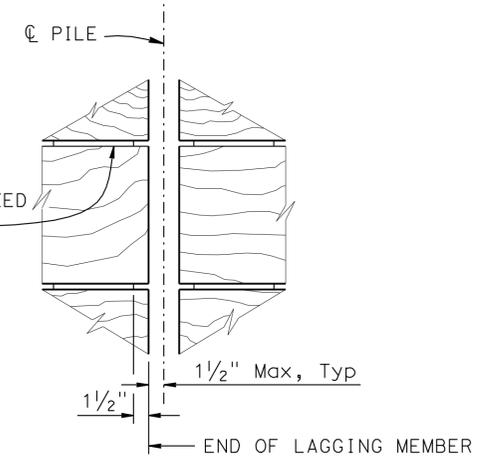
PART PLAN AT LAGGING
1" = 1'-0"



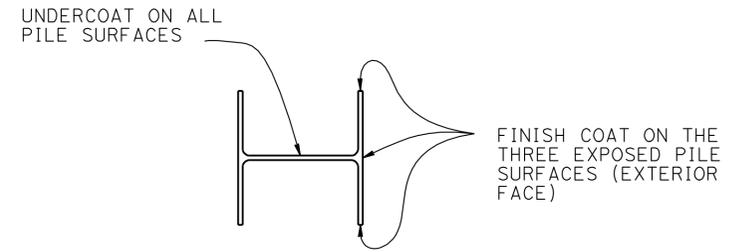
SHIM DETAILS
NO SCALE



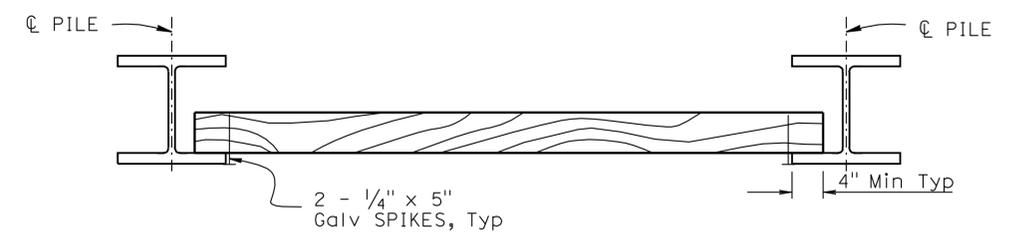
PART ELEVATION



PART ELEVATION

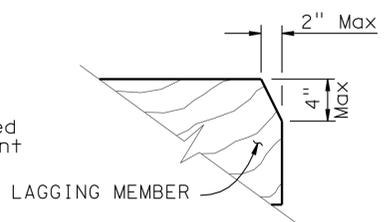


LIMITS OF CLEAN & PAINT STEEL SOLDIER PILE
NO SCALE



PART PLAN OF LAGGING MEMBER

NOTE:
Diagonally opposite corners may be clipped to facilitate placement



DETAIL Y

LAGGING DETAILS
NO SCALE

DESIGN	BY Mike Bergman	CHECKED Quang Nguyen
DETAILS	BY Shadi Motalebi	CHECKED Quang Nguyen
QUANTITIES	BY Mike Bergman	CHECKED Quang Nguyen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO.	04E0028
POST MILE	20.2

GREEN POINT SINK RETAINING WALL NO. 1
WALL DETAIL NO. 2