

STATE OF CALIFORNIA ACSTP-P299(167)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
PROJECT DESCRIPTION
IN SHASTA COUNTY
AT AND NEAR MONTGOMERY CREEK
FROM 0.3 MILE WEST OF BACKBONE RIDGE
TO BIG BEND ROAD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	1	52

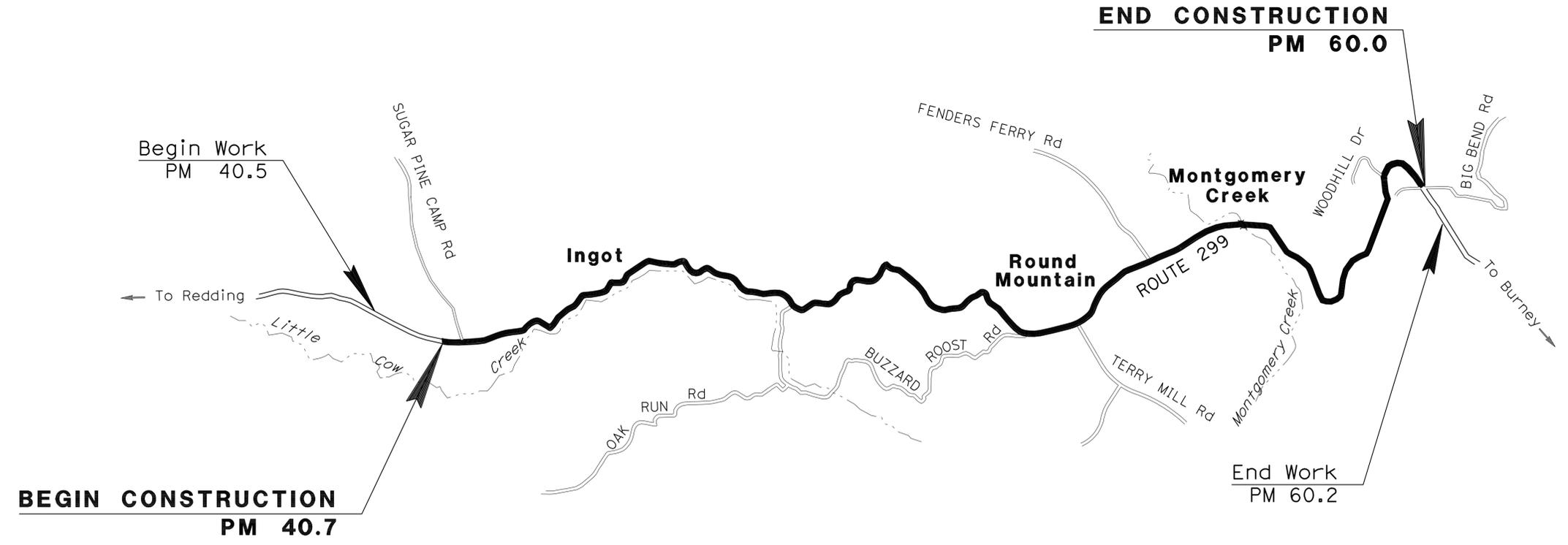
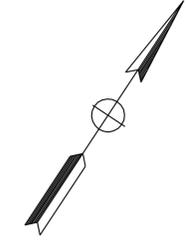


INDEX OF PLANS

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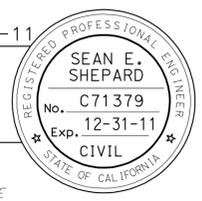
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER PHIL BAKER
 DESIGN ENGINEER JULIE CASEY

Sean Shepard 08-01-11
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
 October 17, 2011
 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.



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

NO SCALE



USERNAME => s124496
 DGN FILE => 22c810ab001.dgn

CONTRACT No.	02-2C8104
PROJECT ID	0200000183

DATE PLOTTED => 29-NOV-2011
 TIME PLOTTED => 1:54:44
 LAST REVISION: 08-01-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	2	52
<i>Sean Shepard</i> 08-01-11 REGISTERED CIVIL ENGINEER DATE					
10-17-11 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:

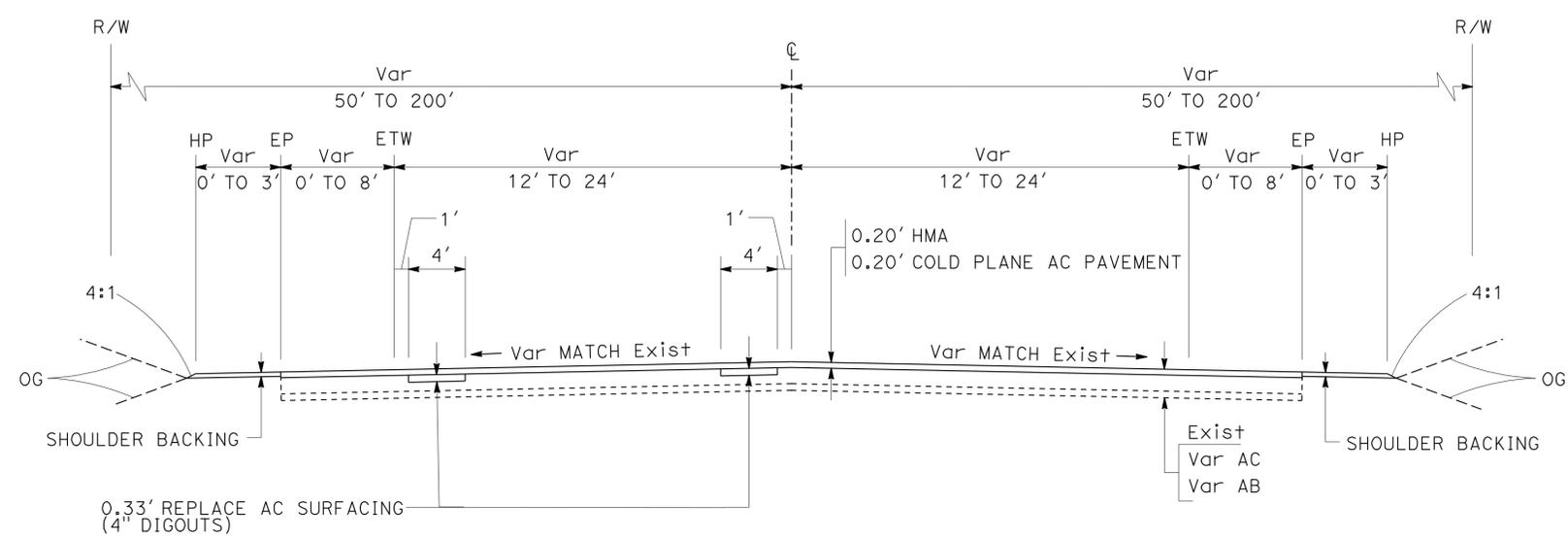
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- FOR COMPLETE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.

ABBREVIATIONS

HMA HOT MIX ASPHALT (DENSE-GRADED)

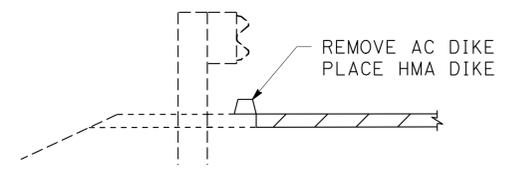
DESIGN DESIGNATION

ADT (2012) = 4850 D = 59%
 ADT (2032) = 6500 T = 10%
 DHV = 700 V = 55 mph



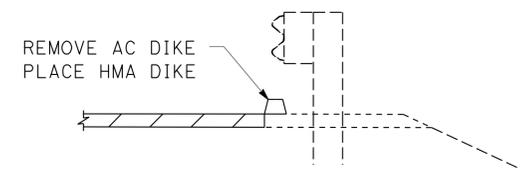
ROUTE 299

PM 40.7 TO 60.0
PAVED SHOULDER WIDTHS LESS THAN 8'



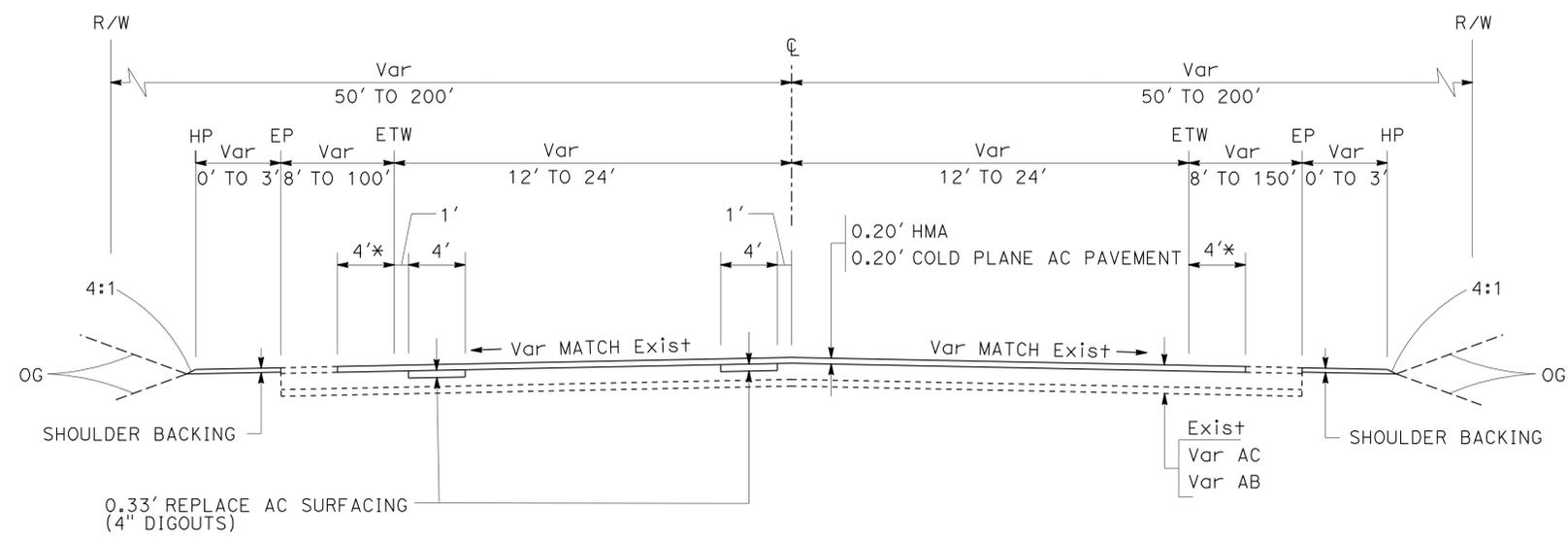
DIKE LOCATION

- PM 48.19 TO 48.24 L+ (TYPE F)
- PM 48.27 TO 48.29 L+ (TYPE F)
- PM 57.81 TO 58.01 L+ (TYPE F)
- PM 58.68 TO 58.84 L+ (TYPE F)
- PM 59.16 TO 59.20 L+ (TYPE F)



DIKE LOCATION

- PM 48.27 TO 48.38 R+ (TYPE D)
- PM 48.48 TO 48.52 R+ (TYPE F)
- PM 50.90 TO 50.98 R+ (TYPE E)
- PM 51.03 TO 51.09 R+ (TYPE E)
- PM 51.21 TO 51.39 R+ (TYPE F)
- PM 51.56 TO 51.59 R+ (TYPE E)
- PM 52.54 TO 52.59 R+ (TYPE F)
- PM 57.30 TO 57.46 R+ (TYPE D)



ROUTE 299

PM 40.7 TO 60.0
PAVED SHOULDER WIDTHS GREATER THAN 8'

* EXCEPT PAVED PULLOUTS

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 CALTRANS
 SEAN SHEPARD
 DANIEL FISHER
 JULIE CASEY
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 CALCULATED/DESIGNED BY: SEAN SHEPARD
 CHECKED BY: DANIEL FISHER
 REVISIONS: 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, 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.

NOTES:

1. SEE SPECIAL PROVISIONS FOR INFORMATION ON REFERENCING DIGOUTS PRIOR TO COLD PLANING.
2. (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
3. FOR SECTIONS. B-B, C-C AND D-D, SEE C-4 SHEET.

LEGEND



COLD PLANE ASPHALT CONCRETE PAVEMENT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	7	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 PLANS APPROVAL DATE

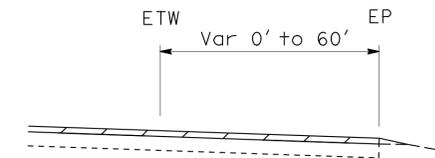
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PAVING CONFORM
 PM 40.7, 50.9, 51.9, & 60.0

PAVED PULLOUTS

POST MILE	Rt/Lt	(N)	(N)
		Approx AREA	Approx LENGTH
		SQYD	FT
44.22	R+	616	475
44.23	L+	1352	480
48.90	R+	1323	370
59.55	R+	2825	1590
TOTAL		6116	2915



EXISTING PAVED PULLOUTS
 PM 44.22, 44.23, 48.90, & 59.55

CONSTRUCTION DETAILS
 NO SCALE
C-1

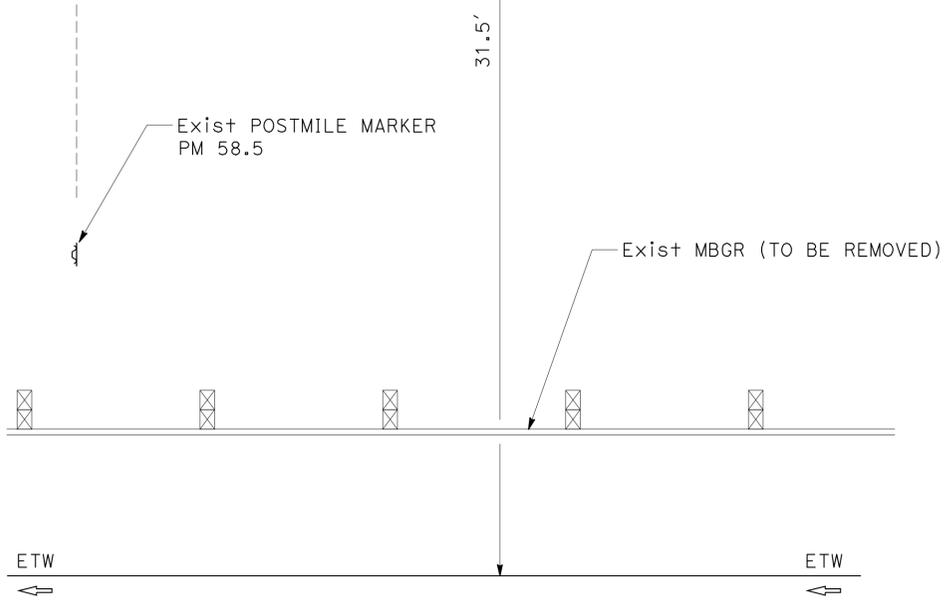
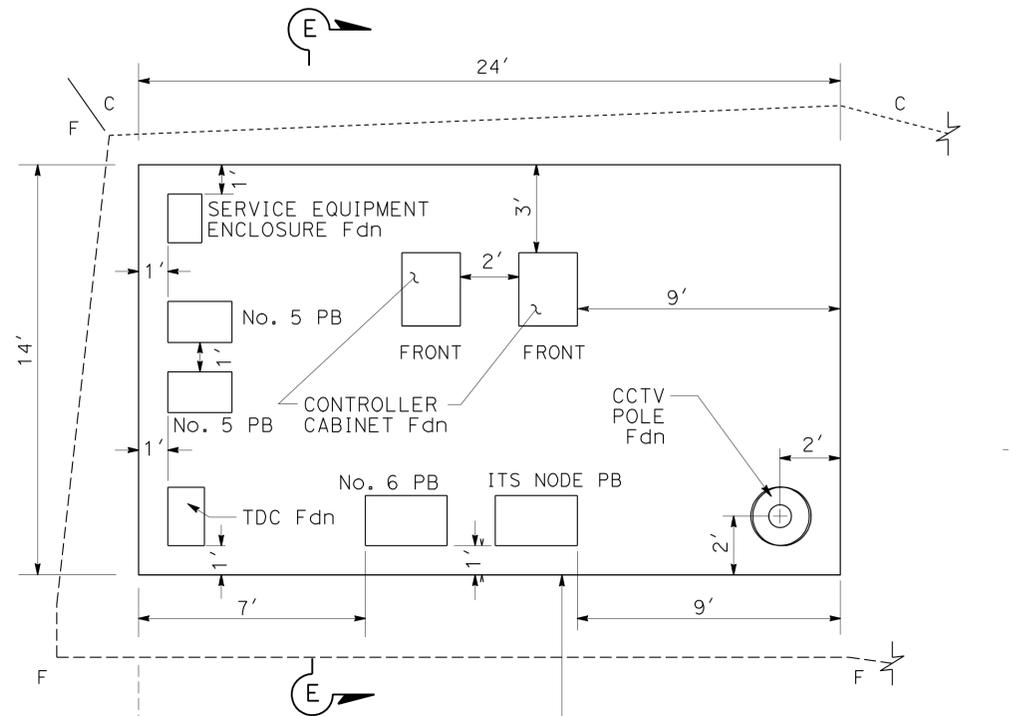
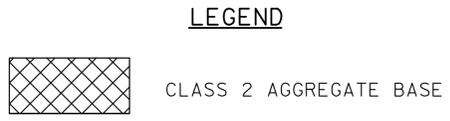
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	10	52

<i>Sean Shepard</i>	08-01-11
REGISTERED CIVIL ENGINEER DATE	
10-17-11	
PLANS APPROVAL DATE	

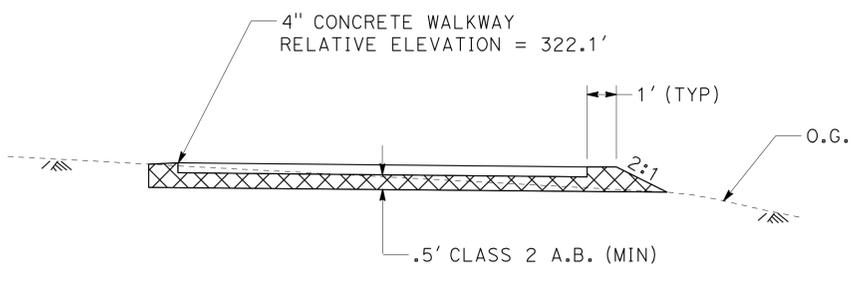
REGISTERED PROFESSIONAL ENGINEER
SEAN E. SHEPARD
No. C71379
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

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

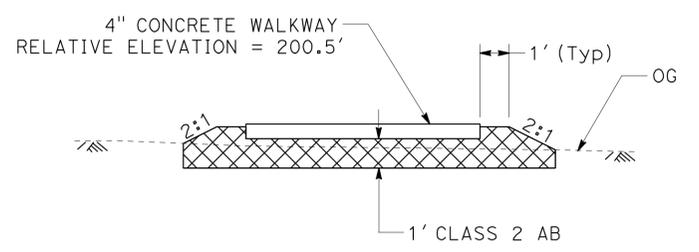
NOTE:
SEE ELECTRICAL SHEETS FOR INFORMATION NOT SHOWN HERE.



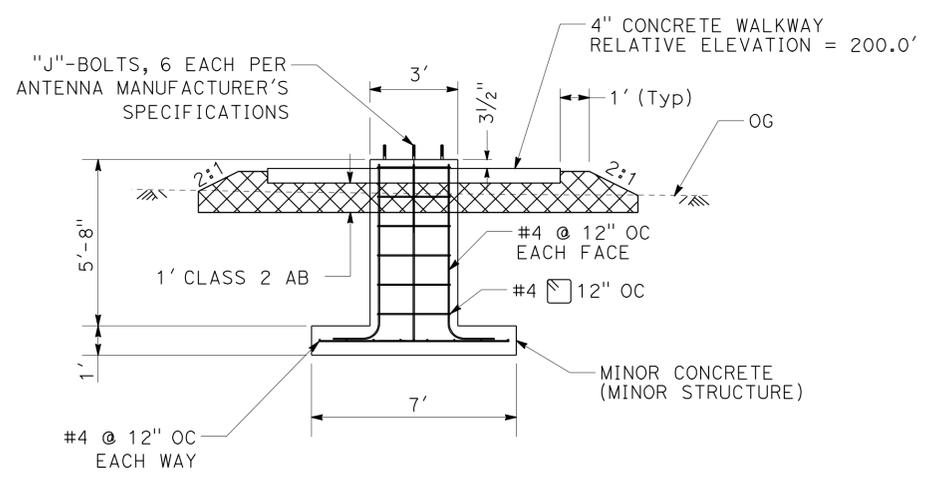
LOCATION 3 - CCTV WALKWAY
POSTMILE 58.5



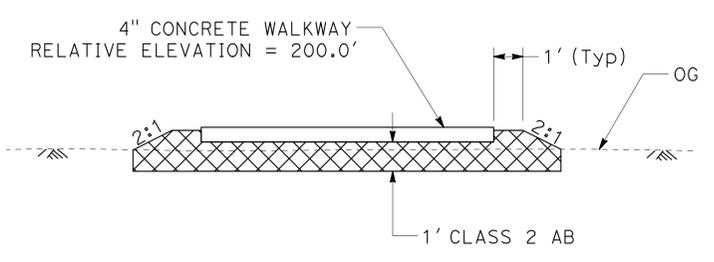
SECTION E-E
LOCATION 3 - PM 58.5



SECTION B-B
LOCATION 2 - PM 54.1



SECTION C-C
LOCATION 2 - PM 54.1



SECTION D-D
LOCATION 2 - PM 54.1

CONSTRUCTION DETAILS
NO SCALE
C-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 SEAN SHEPARD
 DANIEL FISHER
 JULIE CASEY
 REVISIONS: 08-01-11, 10-17-11
 USERNAME => s119571
 DGN FILE => 22c810ga004.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0318
 PROJECT NUMBER & PHASE 02000001831

LAST REVISION: 08-01-11
 DATE PLOTTED => 20-08-2011
 TIME PLOTTED => 10:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	11	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 PLANS APPROVAL DATE

SEAN E. SHEPARD
 No. C71379
 Exp. 12-31-11
 CIVIL

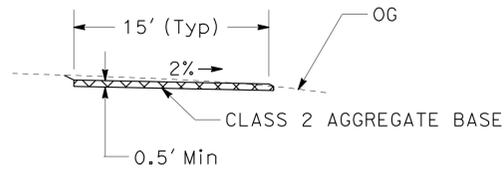
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTES:

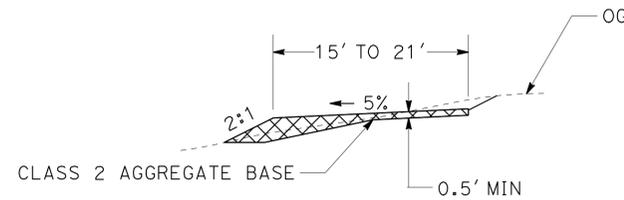
- SEE OTHER CONSTRUCTION DETAILS AND ELECTRICAL SHEETS FOR INFORMATION NOT SHOWN HERE.
- FINISH GRADE ELEVATIONS SPECIFIED ARE RELATIVE TO AN ASSUMED ELEVATION OF 300' AT THE TOP OF THE STEEL BASEPLATE OF THE UPPER TRUCK RAMP SIGN FOUNDATION (SEE SHEET L-3).

LEGEND:

- CLASS 2 AGGREGATE BASE
- 0.25' HMA OVER 0.5' AGGREGATE BASE



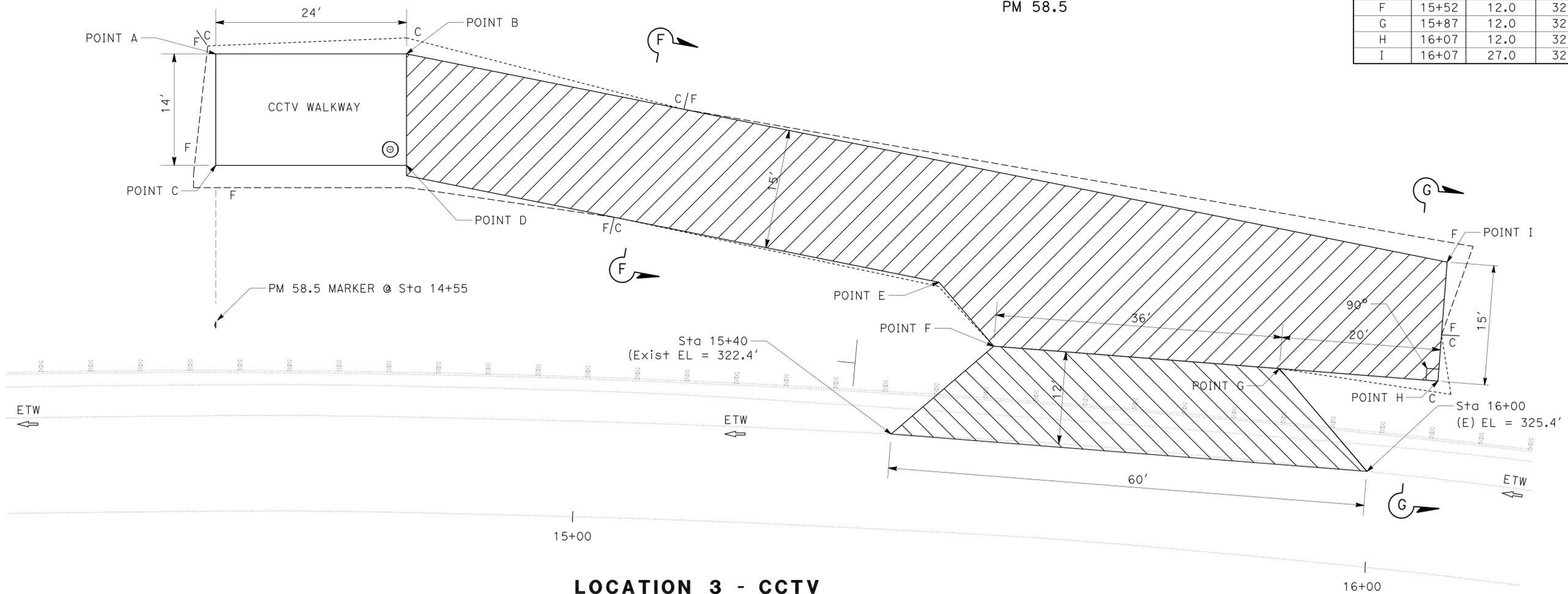
SECTION F-F
PM 58.5



SECTION G-G
PM 58.5

POINT DATA

POINT	Sta	OFFSET (ETW)	Elev
		FT	FT
A	14+55	45.5	322.1
B	14+79	45.5	322.1
C	14+55	31.5	321.96
D	14+79	31.5	321.96
E	15+44	19.4	322.1
F	15+52	12.0	322.9
G	15+87	12.0	324.8
H	16+07	12.0	325.0
I	16+07	27.0	324.3



LOCATION 3 - CCTV
POSTMILE 58.5

CONSTRUCTION DETAILS
NO SCALE
C-5

THIS PLAN ACCURATE FOR CCTV ACCESS DRIVEWAY ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Caltrans

FUNCTIONAL SUPERVISOR: JULIE CASEY
 CHECKED BY: DANIEL FISHER
 DESIGNED BY: SEAN SHEPARD
 REVISIONS: SEAN SHEPARD, DANIEL FISHER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	13	52

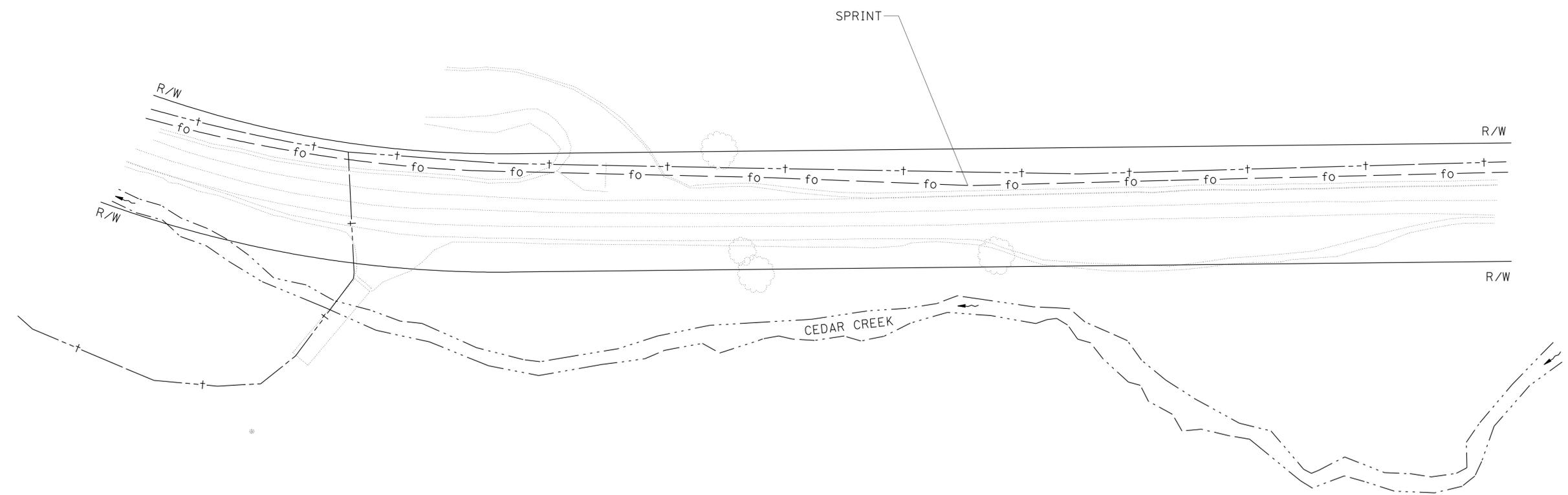
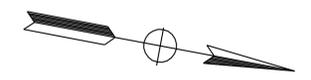
<i>Sean Shepard</i>	08-01-11
REGISTERED CIVIL ENGINEER DATE	
10-17-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
SEAN E. SHEPARD
No. C71379
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 ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTE:
EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.

- LEGEND:**
- -e — - (oh) — OH ELECTRIC (PG&E)
 - -t — - (oh) — OH TELEPHONE (FRONTIER)
 - -t — - — UG TELEPHONE (FRONTIER)
 - fo — — fo — UG FIBER OPTIC (SPRINT AND 360 NETWORKS)



LOCATION 1 - EB HAR ADVISORY SIGN
POSTMILE 48.98 - BEAR GULCH

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY

UTILITY PLAN
SCALE: 1" = 50' **U-1**

SEAN SHEPARD	REVISOR	DATE
DANIEL FISHER	REVISOR	DATE
JULIE CASEY	FUNCTIONAL SUPERVISOR	
	CHECKED BY	
	DESIGNED BY	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

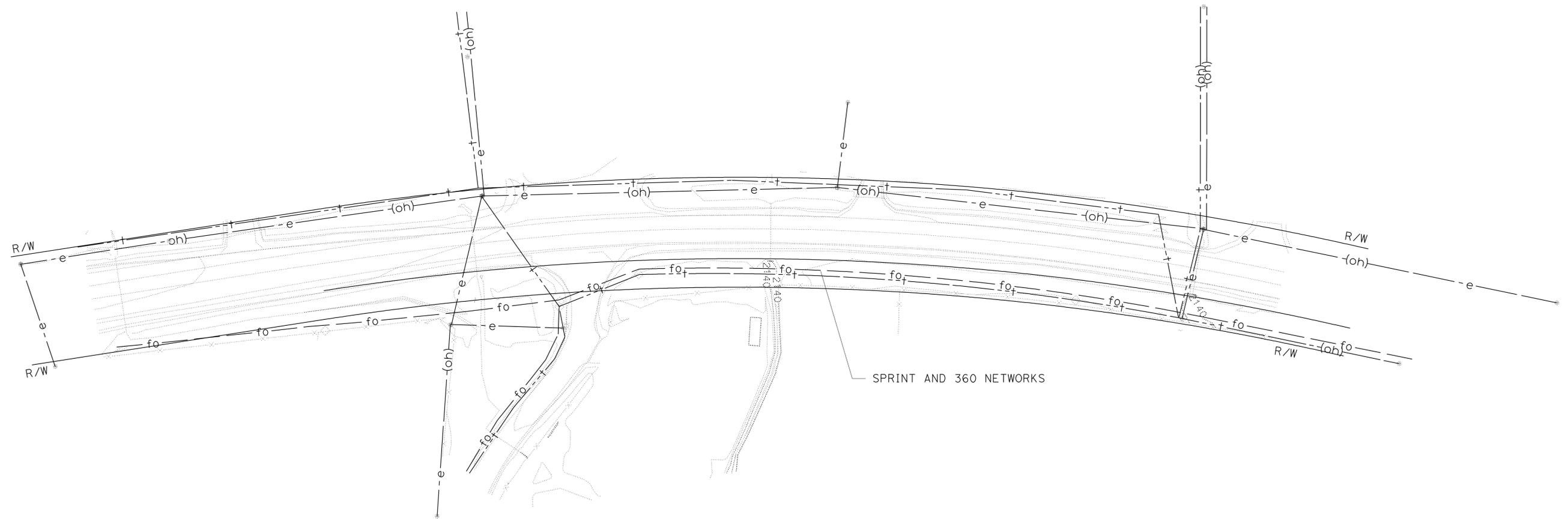
LAST REVISION DATE PLOTTED => 20-00T-2011 08-01-11 TIME PLOTTED => 10:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	14	52
		<i>Sean Shepard</i> 08-01-11			
		REGISTERED CIVIL ENGINEER DATE			
		10-17-11			
		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>					

NOTE:

EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.

SEAN SHEPARD	REVISOR	DATE
DANIEL FISHER	REVISOR	DATE
CHECKED BY	DESIGNED BY	CALCULATED
JULIE CASEY	DESIGNED BY	CALCULATED
FUNCTIONAL SUPERVISOR		
JULIE CASEY		
DEPARTMENT OF TRANSPORTATION		
DESIGN		
Caltrans		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		



LOCATION 2 - HAR ANTENNA
POSTMILE 54.1 - ROUND MOUNTAIN

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY

UTILITY PLAN
SCALE: 1" = 50' **U-2**

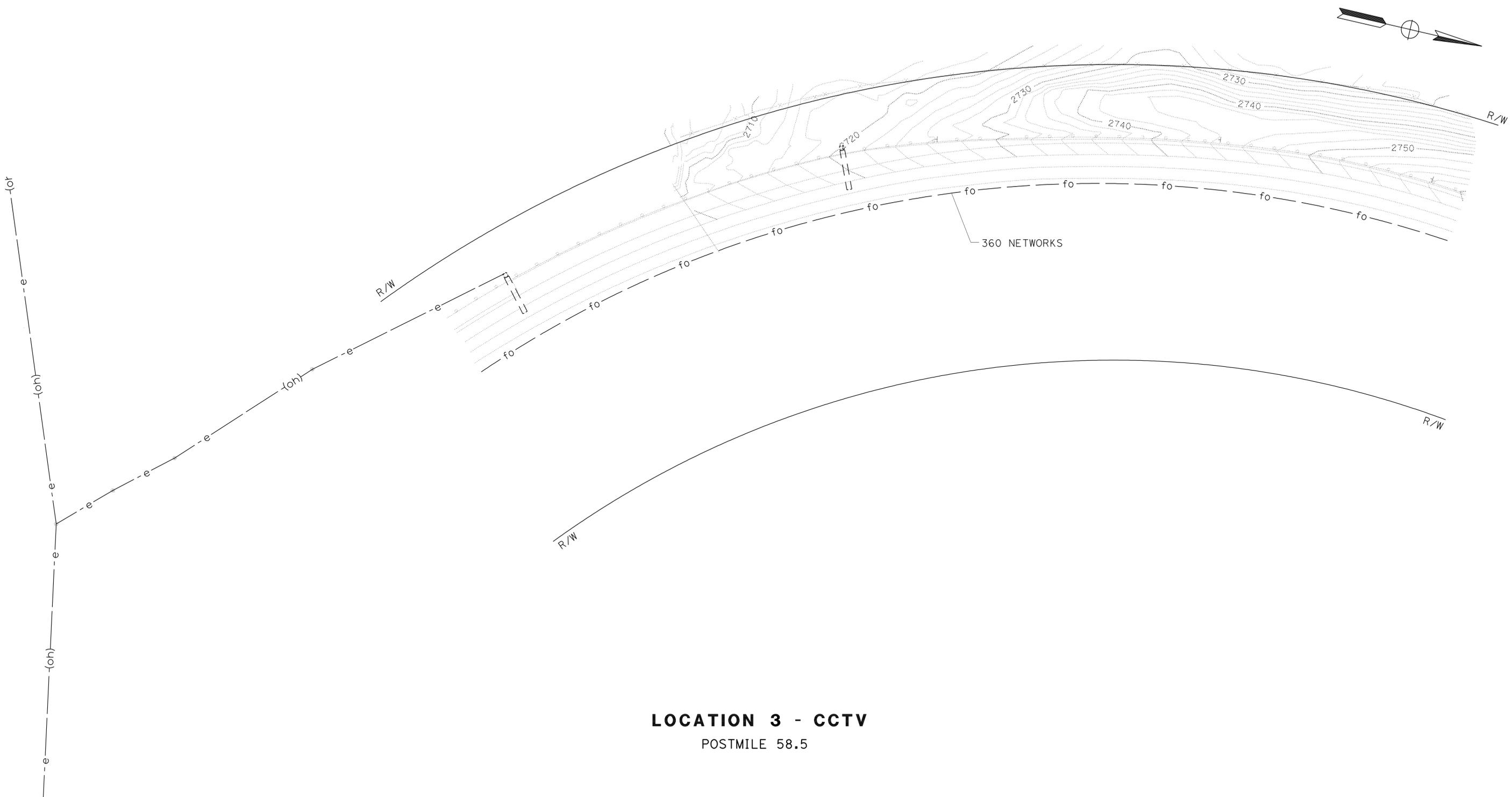
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	15	52

<i>Sean Shepard</i>	08-01-11
REGISTERED CIVIL ENGINEER DATE	
10-17-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
SEAN E. SHEPARD
No. C71379
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

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NOTE:
EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.



LOCATION 3 - CCTV
POSTMILE 58.5

UTILITY PLAN
SCALE: 1" = 50' **U-3**

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	SEAN SHEPARD	REVISOR	
Caltrans	JULIE CASEY	CHECKED BY	DANIEL FISHER	DATE	

LAST REVISION DATE PLOTTED => 20-0CT-2011 TIME PLOTTED => 10:12

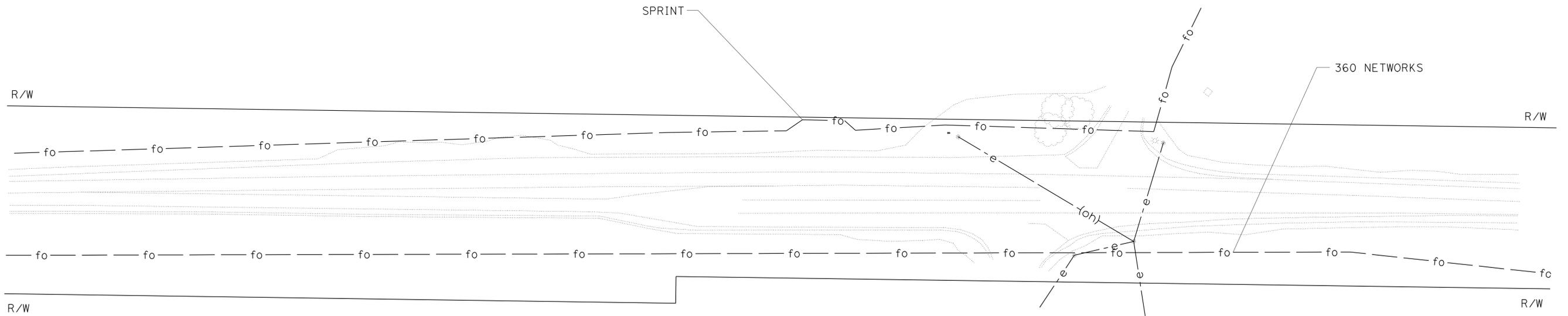
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	16	52

<i>Sean Shepard</i>	08-01-11
REGISTERED CIVIL ENGINEER DATE	
10-17-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
SEAN E. SHEPARD
No. C71379
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

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NOTE:
EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.



LOCATION 4 - WB HAR ADVISORY SIGN
PM 60.0 - HILLCREST

UTILITY PLAN
SCALE: 1" = 50' **U-4**

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY

CALCULATED/DESIGNED BY	SEAN SHEPARD
	DANIEL FISHER
REVISOR	SEAN SHEPARD
	DANIEL FISHER
FUNCTIONAL SUPERVISOR	JULIE CASEY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	
Caltrans DESIGN	

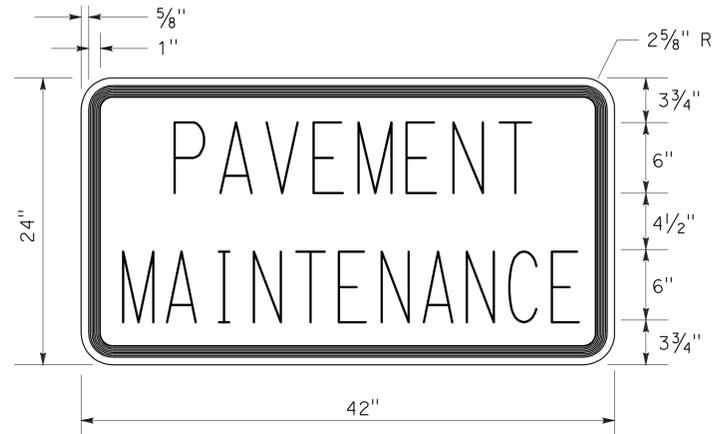
LAST REVISION DATE PLOTTED => 20-0CT-2011 08-01-11 TIME PLOTTED => 10:12

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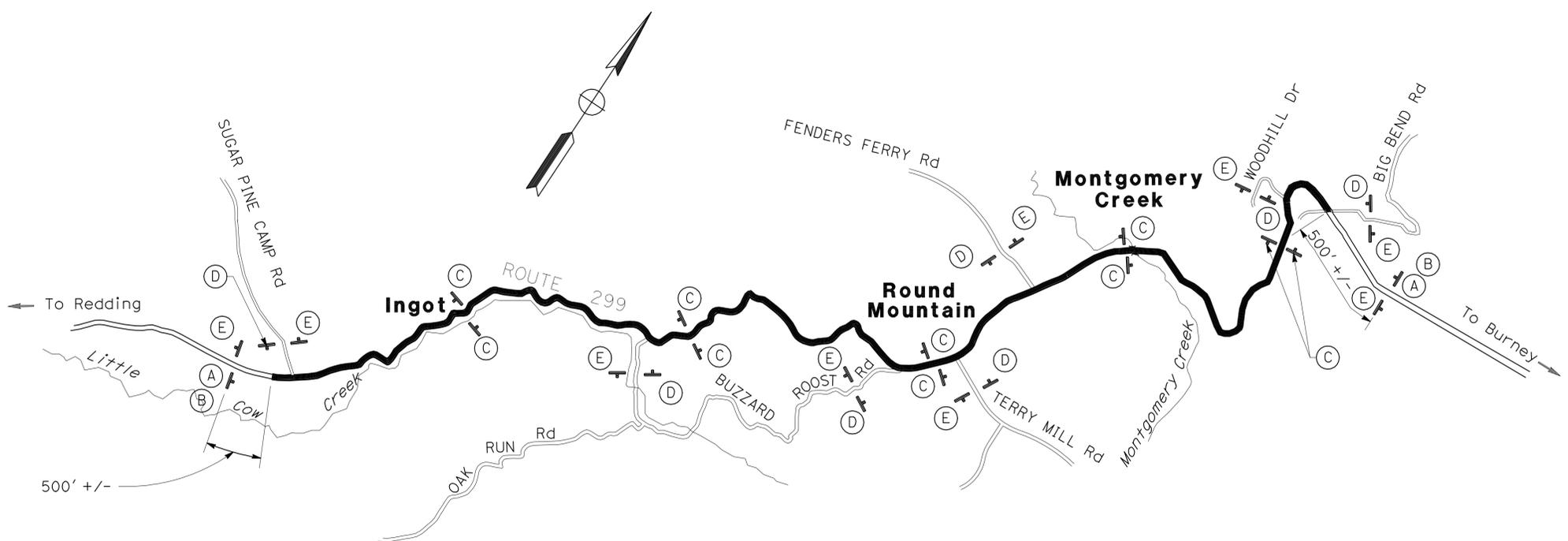
- EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- CALIFORNIA SIGN CODES ARE DESIGNATED (CA), OTHERWISE FEDERAL SIGN CODES ARE SHOWN.

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

TYPE	CODE	PANEL SIZE	SIGN MESSAGE	No. AND SIZE OF POST	No. OF SIGNS	NOTES
(A)	G20-1	36" x 18"	ROAD WORK NEXT 20 MILES	2 - 4" x 6"	2	
(B)	C23B(CA)	42" x 24"	PAVEMENT MAINTENANCE		2	MOUNT BELOW SIGN A
(C)	G20-1	36" x 18"	ROAD WORK NEXT XX MILES	1 - 4" x 4"	10	SPACING = 4 MILES
(D)	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	7	TO BE PLACED 500' +/- FROM INTERSECTION
(E)	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	9	



C23B SIGN PANEL DETAIL



TYPICAL CONSTRUCTION AREA SIGN DETAIL

CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

SEAN SHEPARD
 DANIEL FISHER
 JULIE CASEY
 DESIGN
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

P:\proj\2\02\2c810\plans\pse\22c810nb001.dgn
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR JULIE CASEY
 CALCULATED/DESIGNED BY CHECKED BY
 SEAN SHEPARD DANIEL FISHER
 REVISED BY DATE REVISED
 SEAN SHEPARD DANIEL FISHER

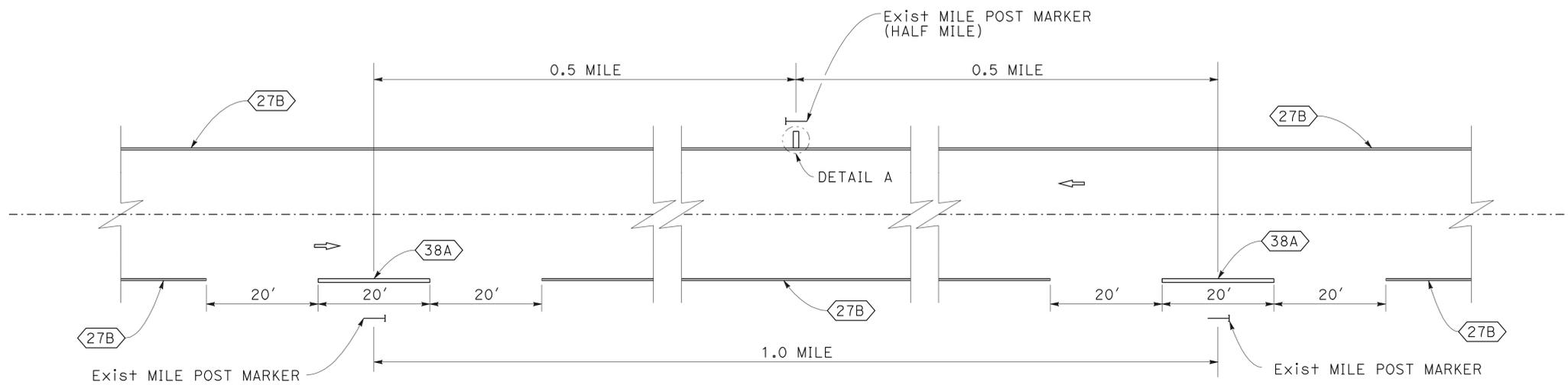
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	18	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 PLANS APPROVAL DATE

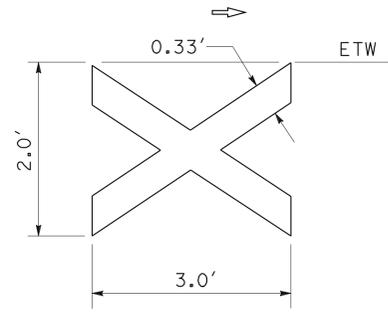
REGISTERED PROFESSIONAL ENGINEER
 SEAN E. SHEPARD
 No. C71379
 Exp. 12-31-11
 CIVIL
 STATE OF CALIFORNIA

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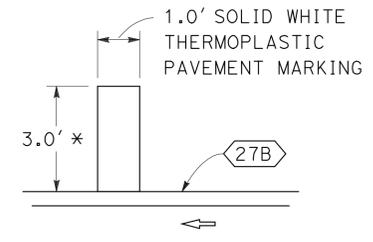
LEGEND
 ⇨ DIRECTION OF TRAFFIC



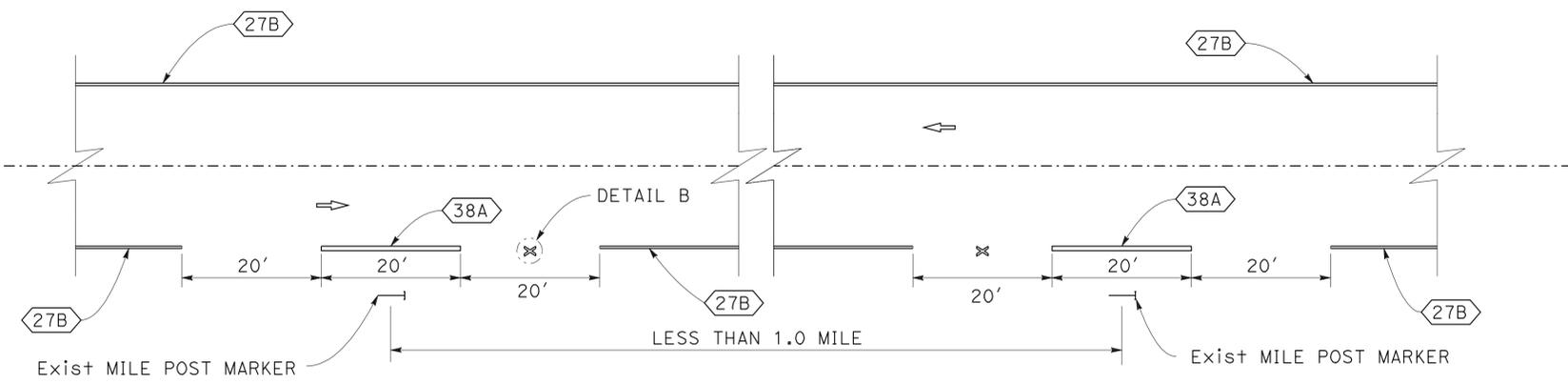
TYPICAL HALF MILE AND MILE POST STRIPE



DETAIL B
 0.33' SOLID WHITE THERMOPLASTIC PAVEMENT MARKING



DETAIL A
 * ACTUAL LENGTH MAY VARY DUE TO PAVEMENT WIDTH



TYPICAL MILE POST STRIPE FOR EQUATIONS
 NO HALF MILE MARK WITHIN AN EQUATION

PAVEMENT DELINEATION DETAILS

NO SCALE

PDD-1

LAST REVISION | DATE PLOTTED => 20-0CT-2011
 08-01-11 | TIME PLOTTED => 10:13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 CALCULATED/DESIGNED BY: SEAN SHEPARD
 CHECKED BY: DANIEL FISHER
 REVISED BY: SEAN SHEPARD
 DATE REVISED: DANIEL FISHER

THERMOPLASTIC PAVEMENT MARKING

PM	EA	SQFT	NOTES
41.55	1	15	TYPE IV (R) ARROW
41.56	1	38	LIMIT LINE
41.56	2	44	STOP
46.15	1	29	LIMIT LINE
46.15	1	22	STOP
46.75	1	15	TYPE IV (R) ARROW
46.79	1	29	LIMIT LINE
46.79	1	22	STOP
46.79	1	15	TYPE IV (L) ARROW
48.87	1	50	LIMIT LINE
48.87	1	22	STOP
51.47	1	42	TYPE VI (L) ARROW
51.48	1	42	TYPE VI (L) ARROW
51.49	1	42	TYPE VI (L) ARROW
52.38	1	42	LIMIT LINE
52.38	1	22	STOP
52.39	1	15	TYPE IV (L) ARROW
53.11	1	37	LIMIT LINE
53.11	1	22	STOP
53.22	1	15	TYPE IV (R) ARROW
53.24	1	60	LIMIT LINE
53.24	1	22	STOP
53.87	1	15	TYPE IV (L) ARROW
53.89	1	28	LIMIT LINE
53.89	1	22	STOP
53.97	1	15	LIMIT LINE
54.00	1	15	TYPE IV (R) ARROW
54.02	1	28	LIMIT LINE
54.02	1	22	STOP
55.42	1	23	LIMIT LINE
55.42	1	22	STOP
56.18	2	54	LIMIT LINE
56.18	2	44	STOP
56.42	1	15	LIMIT LINE
56.42	1	22	STOP
56.50	1	15	LIMIT LINE
56.50	1	22	STOP
56.69	2	30	TYPE IV (R&L) ARROW
56.73	2	30	TYPE IV (R&L) ARROW
56.77	2	30	TYPE IV (R&L) ARROW
56.79	1	23	SLOW
56.79	1	35	SCHOOL
56.79	1	21	XING
56.81	2	96	CROSS WALK LIMIT LINE
56.89	1	50	LIMIT LINE
56.89	1	22	STOP
56.90	1	23	SLOW
56.90	1	35	SCHOOL
56.90	1	21	XING
57.55	2	67	LIMIT LINE
57.55	3	66	STOP
59.49	1	28	LIMIT LINE
59.49	1	22	STOP
59.95	2	30	TYPE IV (L) ARROW
60.00	1	15	TYPE IV (R) ARROW
60.00	2	66	LIMIT LINE
60.00	2	44	STOP
MANY	-	67	MILE POST STRIPE DETAILS
TOTAL	1845		

PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)

POST MILE LIMITS	TYPE D	TYPE G	TYPE H
	EA	EA	EA
40.7 TO 60.0	11,216	729	620
TOTAL	12,565		

THERMOPLASTIC MILE POST STRIPE

DETAIL	EA	APPROX. QTY (SQFT)
A	19	57
B	4	10
TOTALS		67

THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)

POST MILE LIMITS	DETAIL 9	DETAIL 12	DETAIL 19	DETAIL 22	DETAIL 27B	DETAIL 27C	DETAIL 32	DETAIL 38	DETAIL 38A
	LF	LF	LF	LF	LF	LF	LF	LF	LF
40.7 TO 60.0	9926	3538	9926	81,101	197,789	4541	1742	2693	400
TOTAL	311,656								

PAVEMENT DELINEATION QUANTITIES

PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	19	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 PLANS APPROVAL DATE

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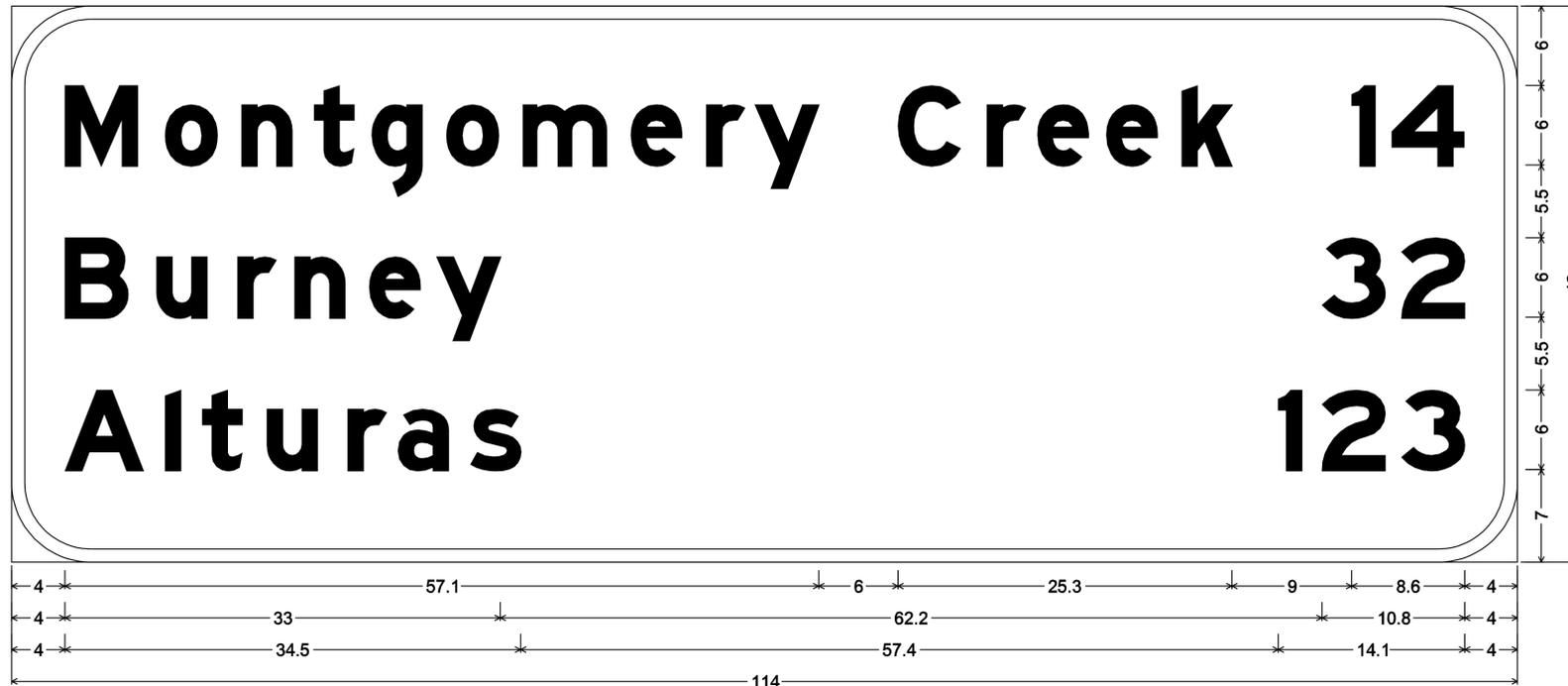
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	20	52

<i>Sean Shepard</i>	08-01-11
REGISTERED CIVIL ENGINEER DATE	
10-17-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
SEAN E. SHEPARD
No. C71379
Exp. 12-31-11
CIVIL
STATE OF CALIFORNIA

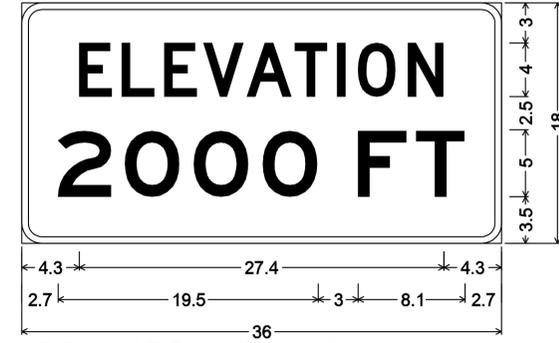
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

NOTE:
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.



6.0" Radius, 1.0" Border, White on Green;
[Montgomery Creek] E Mod; [Burney] E Mod; [Alturas] E Mod; [14] E Mod; [32] E Mod; [123] E Mod;

G5
1-4



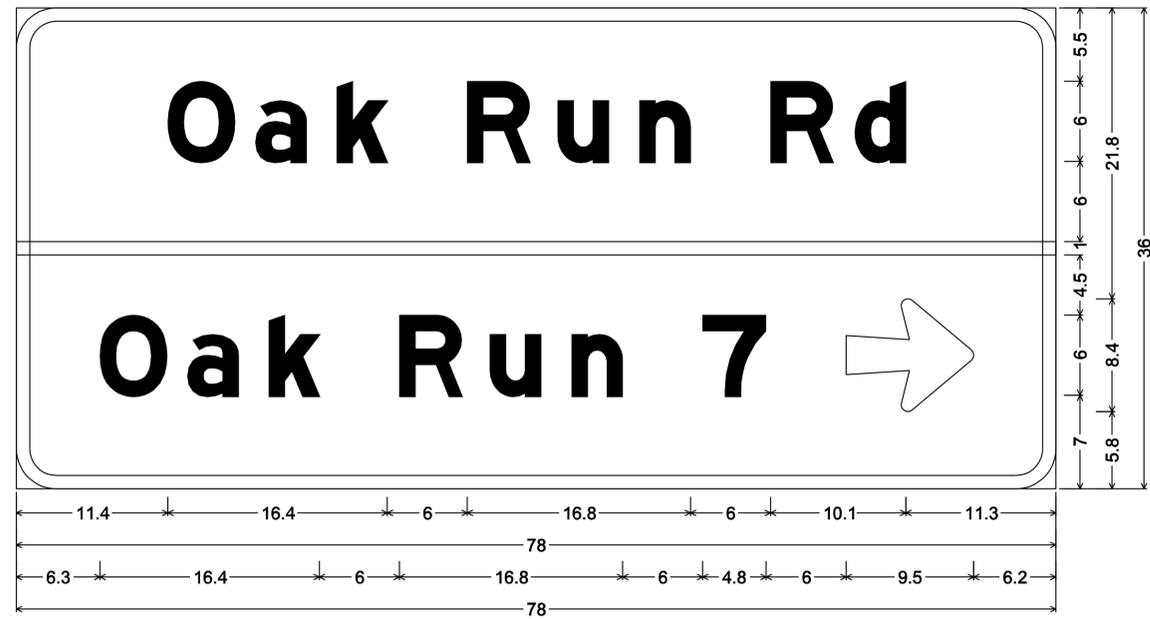
1.5" Radius, 0.5" Border, White on Green;
[ELEVATION] D; [2000 FT] E;

G17
1-8



6.0" Radius, 1.0" Border, White on Green;
[Redding] E Mod; [Weaverville] E Mod; [Eureka] E Mod; [21] E Mod; [67] E Mod; [175] E Mod;

G5
1-2



3.0" Radius, 1.0" Border, White on Green;
[Oak Run Rd] E Mod; [Oak Run] E Mod; [7] E Mod; Arrow 6UC-1L - 9.6" 0°;

G1
1-6

SIGN DETAILS
NO SCALE
SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 SEAN SHEPARD
 DANIEL FISHER
 REVISOR: SEAN SHEPARD
 DATE: 08-01-11
 CALCULATED BY: SEAN SHEPARD
 DESIGNED BY: DANIEL FISHER
 CHECKED BY: DANIEL FISHER
 DATE: 10-17-11

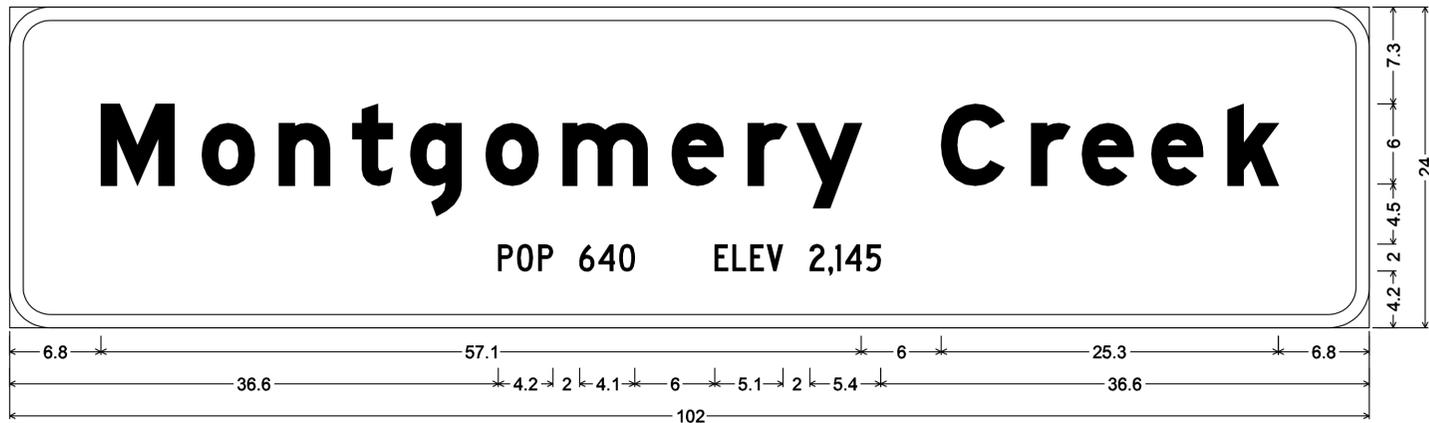
LAST REVISION: 08-01-11 DATE PLOTTED => 20-09-2011 TIME PLOTTED => 10:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	21	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 PLANS APPROVAL DATE

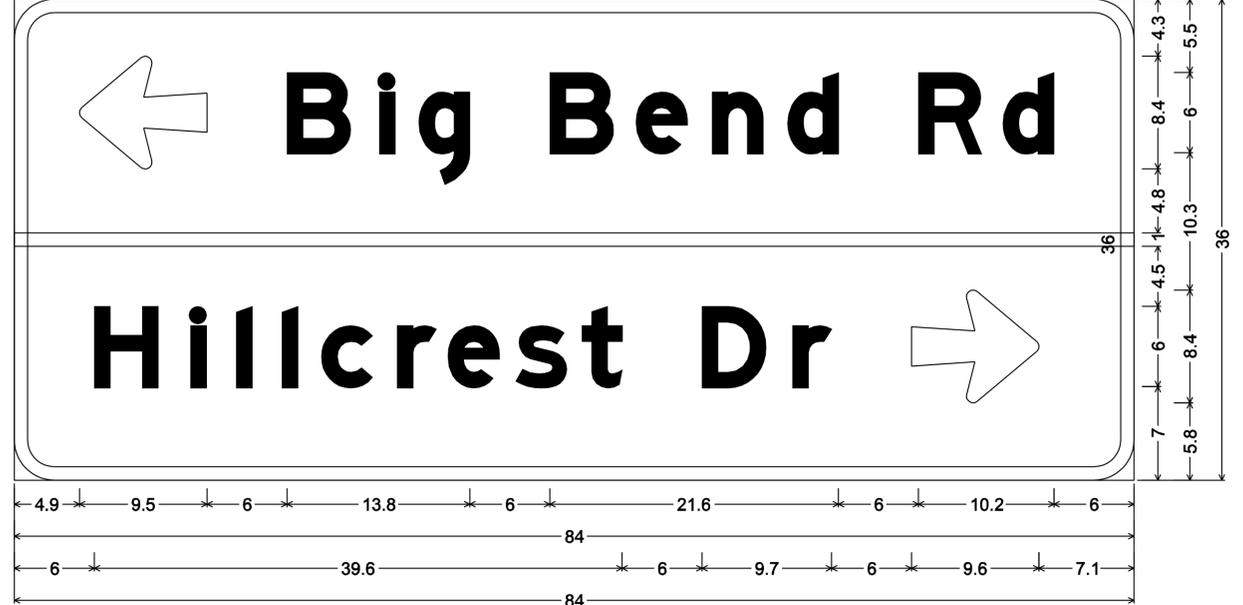
REGISTERED PROFESSIONAL ENGINEER
 SEAN E. SHEPARD
 No. C71379
 Exp. 12-31-11
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 STATE OF CALIFORNIA

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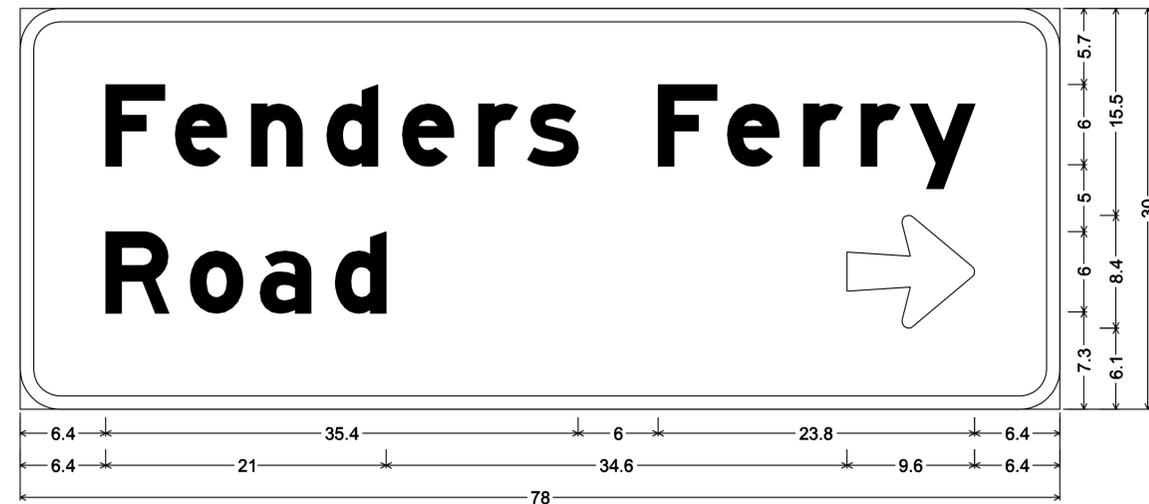
3.0" Radius, 1.0" Border, White on Green;
 [Montgomery Creek] E Mod; [POP 640 ELEV 2,145] C;

G9
 1-12 1-16



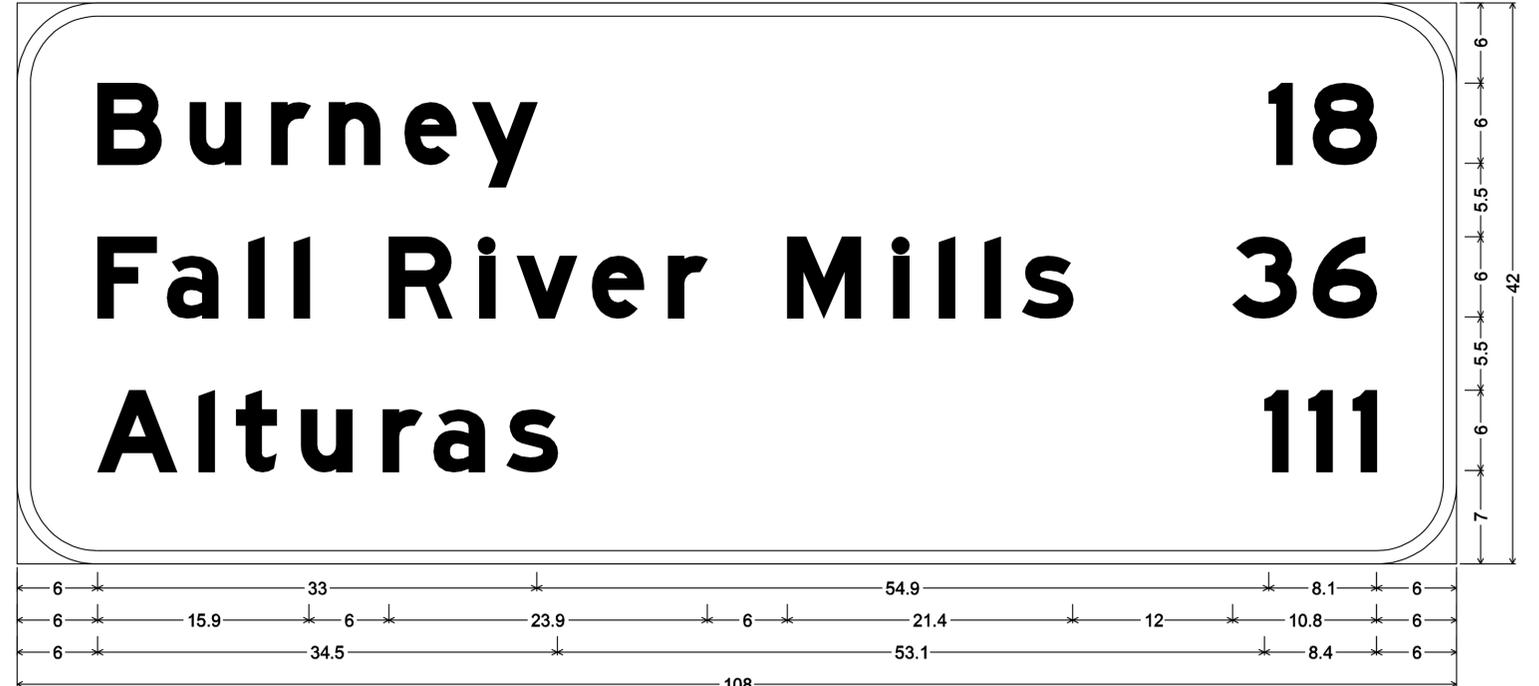
3.0" Radius, 1.0" Border, White on Green;
 Arrow 6UC-1L - 9.6" 180°; [Big Bend Rd] E Mod; [Hillcrest Dr] E Mod; Arrow 6UC-1L - 9.6" 0°;

G8
 1-18



3.0" Radius, 1.0" Border, White on Green;
 [Fenders Ferry] E Mod; [Road] E Mod; Arrow 6UC-1L - 9.6" 0°;

G8
 1-10



6.0" Radius, 1.0" Border, White on Green;
 [Burney] E Mod; [Fall River Mills] E Mod; [Alturas] E Mod; [18] E Mod; [36] E Mod; [111] E Mod;

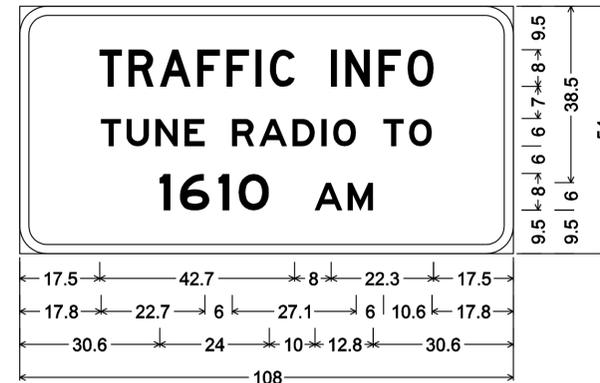
G5
 1-14

SIGN DETAILS
 NO SCALE
SD-2

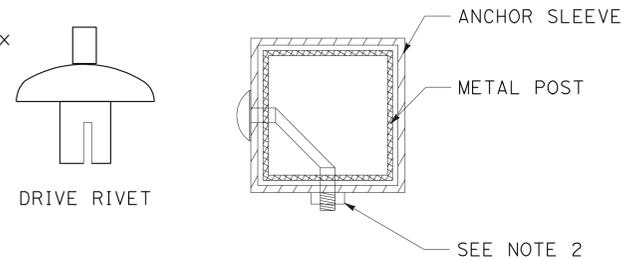
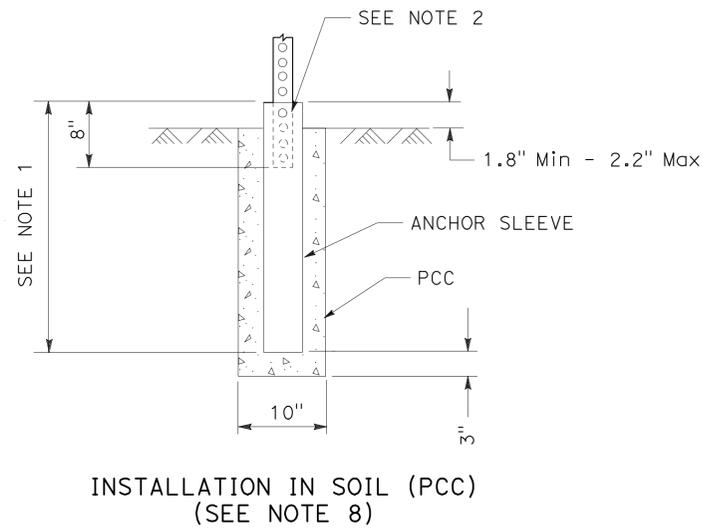
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 Caltrans
 FUNCTIONAL SUPERVISOR: JULIE CASEY
 CALCULATED/DESIGNED BY: SEAN SHEPARD
 CHECKED BY: DANIEL FISHER
 REVISED BY: SEAN SHEPARD
 DATE REVISED:

NOTES:

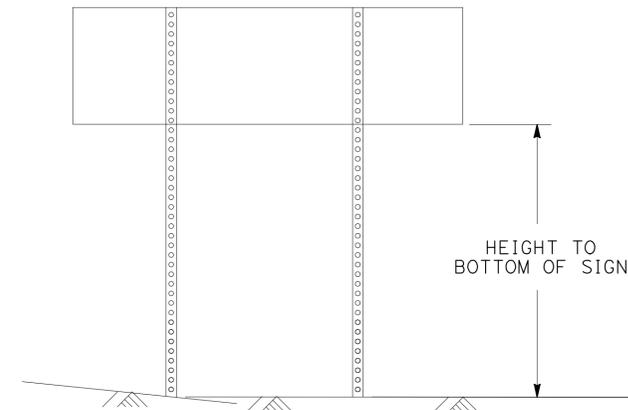
- USE A 2 1/4" Sq TUBE x 30" LONG, 3/16" THICK ANCHOR FOR 2" POSTS.
USE A 3" Sq TUBE x 3' LONG, 3/16" THICK ANCHOR FOR 2-1/2" POSTS.
- USE A 5/16" CORNER BOLT OR TWO DRIVE RIVETS TO FASTEN ASSEMBLED SIGN AND POST INTO ANCHOR. INSTALL CORNER BOLT OR DRIVE RIVETS INTO THE SIDES FACING TRAFFIC.
- REMOVE EXISTING AC OR PCC, DRIVE ANCHOR SLEEVE INTO SOIL AND RECAP WITH LIKE MATERIAL, MATCHING EXISTING THICKNESS.
- 2" POSTS ARE TO BE 1/8" THICK, PERFORATIONS OF 7/16" IN DIAMETER ARE 1" ON CENTER ON ALL SIDES, LENGTHS ARE 10' AND 12'.
- 2-1/2" POSTS ARE TO BE 1/8" THICK, PERFORATIONS OF 7/16" IN DIAMETER ARE 1" ON CENTER ON ALL SIDES, 2-1/2" POSTS ARE 12' AND 14' IN LENGTH.
- FOR DETAILS NOT SHOWN, REFER TO THE STANDARD PLANS.
- 2-1/2" POSTS SHALL BE USED IN SIDEWALK AND HIGH PEDESTRIAN USE PLACEMENTS.
- ALL ANCHOR SLEEVES SHALL BE EMBEDDED IN PCC, EXCEPT FOR INSTALLATIONS IN PAVEMENTS OR SIDEWALKS.



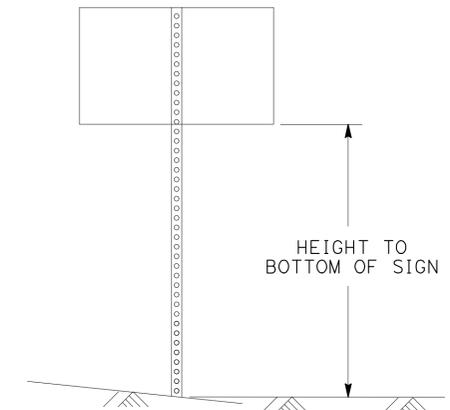
6.0" Radius, 2.0" Border, White on Blue;
 [TRAFFIC INFO] D; [TUNE RADIO TO] E; [1610] E;
 [AM] E;
 MODIFIED D12-1
 1-19



FASTENER DETAILS



TWO POSTS INSTALLATION
 (POST SIZE, SEE CHART BELOW)



SINGLE POST INSTALLATION
 (POST SIZE, SEE CHART BELOW)

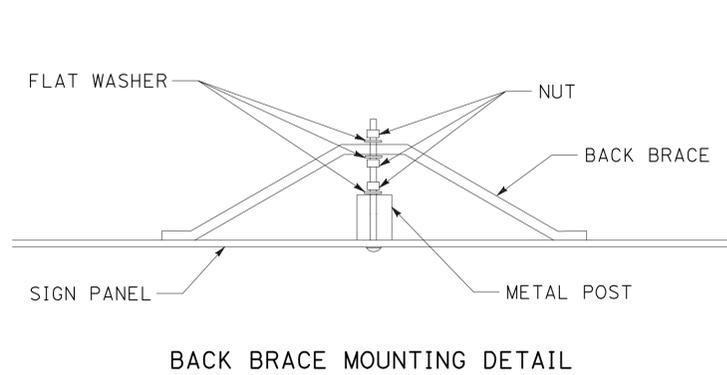
POST SIZE	Max Sq Ft OF SIGN					
	60"	72"	84"	96"	108"	120"
2"	18	16	14	12	10	8
2.5"	35	32	28	24	21	21

HEIGHT TO BOTTOM OF SIGN
 DOUBLE POST GROUND SIGNS
 70 MPH WIND SPEED

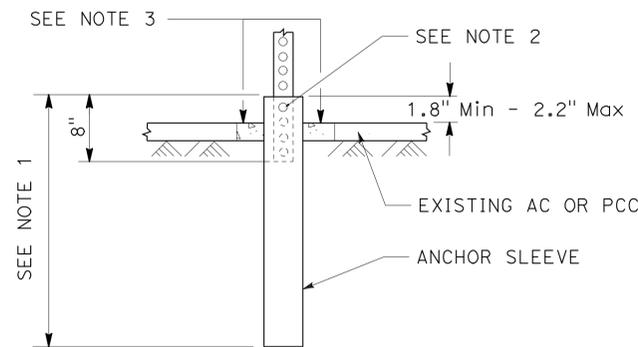
POST SIZE	Max Sq Ft OF SIGN					
	60"	72"	84"	96"	108"	120"
2"	10.5	10	8.7	7.4	6.2	5
2.5"	16	16	16	16	12	12

HEIGHT TO BOTTOM OF SIGN
 SINGLE POST GROUND SIGNS
 70 MPH WIND SPEED

METAL SIGN POST DETAIL



BACK BRACE MOUNTING DETAIL



INSTALLATION IN EXISTING AC OR PCC

METAL SIGN POST INSTALLATION DETAILS

SIGN DETAILS

NO SCALE

SD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 SEAN SHEPARD
 DANIEL FISHER
 JULIE CASEY
 REVISOR BY DATE
 REVISOR BY DATE
 CALCULATED/DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 P:\proj\2102\2c810\plans\pse\22c810ob003.dgn

LAST REVISION: DATE PLOTTED => 20-0CT-2011
 08-01-11 TIME PLOTTED => 10:12

NOTES:

- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
- CALIFORNIA SIGN CODES ARE DESIGNATED BY (CA), OTHERWISE, FEDERAL MUTCD SIGN CODES ARE SHOWN.

ROADSIDE SIGNS

No.	SIGN CODE	PM	Rt/Lt	REMOVE ROADSIDE SIGN	RELOCATE SIGN PANEL	ROADSIDE SIGN - TWO POST	ROADSIDE SIGN - ONE POST	(N) METAL POST LENGTH	(N) METAL POST SIZE	NOTES
				EA	EA	EA	EA	LF		
1-1	G5	42.84	L+	1						
1-2	G5	42.84	L+			1		12	2-2.5"	
1-3	G5	42.95	R+	1						
1-4	G5	42.95	R+			1		12	2-2.5"	
1-5	G1	46.67	L+	1						
1-6	G1	46.67	L+			1		14	2-2.5"	
1-7	G17	52.60	R+	1						
1-8	G17	52.60	R+				1	12	1-2"	INSTALL BACK TO BACK
1-9	G8	55.52	L+	1						
1-10	G8	55.52	L+			1		14	2-2.5"	
1-11	G9	56.34	R+	1						
1-12	G9	56.34	R+			1		12	2-2.5"	
1-13	G5	56.97	R+	1						
1-14	G5	56.97	R+			1		12	2-2.5"	
1-15	G9	57.02	L+	1						
1-16	G9	57.02	L+			1		12	2-2.5"	
1-17	G8	59.89	R+	1						
	G81-61	59.89	R+		1					REUSE WITH SIGN 1-18
1-18	G8	59.89	R+			1		12	2-2.5"	FROM SIGN 1-17
	G81-61	59.89	R+							
TOTAL				9	1	8	1			

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	23	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 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.

ABBREVIATIONS

- FRP FIBERGLASS REINFORCED PLASTIC
 L LENGTH OF SIGN
 D DEPTH OF SIGN
 RSPF REMOVABLE SIGN PANEL FRAME

CONTRACTOR FURNISHED SIGNS

No.	SIGN CODE	SIGN SIZE L x D (In x In)	SINGLE FACED	DOUBLE FACED	SIGN FACING MATERIAL				SIGN PANEL SUBSTRATE MATERIAL (SQFT)										DESCRIPTION (REMARKS)		
					BACKGROUND		LEGEND		PROTECTIVE FILM		ROADSIDE					OVERHEAD					
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	STANDARD	PREMIUM	FRP	SINGLE-SHEET		LAMINATED			ROADSIDE FORMED	LAMINATED TYPE A		FORMED w/o RSPF	FORMED WITH RSPF
												FRAMED ALUMINUM	UNFRAMED ALUMINUM	1" TYPE B	2 1/2" TYPE B	2 1/2" TYPE H					
1-2	G5	84" x 42"	X		GREEN	III	WHITE	III												REDDING 21	
1-4	G5	114" x 42"	X		GREEN	III	WHITE	III												MONTGOMERY CREEK 14	
1-6	G1	78" x 36"	X		GREEN	III	WHITE	III												OAK RUN Rd	
1-8	G17	36" x 18"	X		GREEN	III	WHITE	III												ELEVATION 2000'	
	G17	36" x 18"	X		GREEN	III	WHITE	III												ELEVATION 2000'	
1-10	G8	78" x 30"	X		GREEN	III	WHITE	III												FENDERS FERRY Rd	
1-12	G9	108" x 42"	X		GREEN	III	WHITE	III												BURNEY 18	
1-14	G5	114" x 42"	X		GREEN	III	WHITE	III												MONTGOMERY CREEK 14	
1-16	G9	102" x 24"	X		GREEN	III	WHITE	III												MONTGOMERY CREEK	
1-18	G8	84" x 42"	X		GREEN	III	WHITE	III												BIG BEND Rd	
1-19	D12-1	108" x 54"	X		BLUE	III	WHITE	III												FLASHING BEACON SIGNS "WHEN FLASHING" 2 EA (N)	
TOTAL (SQFT)													180.1	9.0							

SIGN QUANTITIES
SQ-1

x
 x
 x
 x
 x
 x
 x
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 JULIE CASEY
 CALCULATED/DESIGNED BY
 CHECKED BY
 SEAN SHEPARD
 DANIEL FISHER
 REVISED BY
 DATE REVISED

NOTE:

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

REPLACE ASPHALT CONCRETE SURFACING

POST MILE LIMITS	Approx No. OF DIGOUTS	(N)			REPLACE ASPHALT CONCRETE SURFACING CY
		AVERAGE LENGTH	WIDTH	DEPTH	
		LF	LF	LF	
40.7 TO 43.0	164	170	4.0	0.33	1367
43.0 TO 50.9	294	215	4.0	0.33	3088
50.9 TO 51.9					
51.9 TO 55.6	258	115	4.0	0.33	1453
55.6 TO 60.0	276	140	4.0	0.33	1890
TOTAL					7798

ROADWAY ITEMS

POST MILE LIMITS	SHOULDER BACKING		HOT MIX ASPHALT (TYPE A)	TACK COAT	COMMENTS
	TON	SQYD			
40.7 TO 60.0			161		FOR HMA DIKE
40.7 TO 50.9	3514	170,984	24,948	173	GRIND & PAVE
50.9 TO 51.9					GAP FOUNTAIN CURVE
51.9 TO 55.6	1275	67,156	9,385	63	GRIND & PAVE
55.6 TO 60.0	1516	93,732	13,154	74	GRIND & PAVE
TOTAL					6305 331,872 47,487 310

METAL BEAM GUARD RAILING

POST MILE LIMITS (APPROX.)	R+/L+	REMOVE METAL BEAM GUARD RAILING	RECONSTRUCT METAL BEAM GUARD RAILING (STEEL POST)	RECONSTRUCT MBGR (7' STEEL POST)	TRANSITION RAILING (TYPE WB)	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE [IN-LINE] TERMINAL SYSTEM
		LF	LF	LF	EA	EA	EA
43.75	R+	37.5				1	
43.75 to 43.83	R+		387.5				
43.83	R+	37.5					1
45.01 to 45.17	R+		850				
45.17	R+	37.5				1	
45.94	R+	37.5				1	
45.94 to 46.00	R+			437.5			
46.44	R+	37.5					1
46.44 to 46.49	R+		262.5				
46.49	R+	37.5					1
46.79	R+	37.5				1	
46.79 to 46.82	R+		125				
46.83 to 46.85	R+		75				
46.85	R+	37.5				1	
46.93	R+	37.5					1
46.93 to 47.16	R+		1112.5				
47.16	R+	37.5				1	
48.09 to 48.14	R+						
48.14	R+	25			1		
48.15 to 48.18	L+		162.5				
48.18	L+	25			1		
48.27	L+	25			1		
48.27	R+	25			1		
48.27 to 48.39	L+		612.5				
48.27 to 48.30	R+		162.5				
48.39	L+	25			1		
48.36 to 48.39	R+		162.5				
48.48	L+	25			1		
48.39	R+	25			1		
48.48 to 48.52	L+		200				
48.51	L+	37.5					1
48.48	R+	25			1		
48.48 to 48.51	R+		162.5				
48.51	R+	37.5					1
52.5	R+	37.5					1
52.5 to 52.65	R+			825			
57.79	R+	37.5					1
57.79 to 58.03	R+		1262.5				
57.81	L+	37.5				1	
57.81 to 58.01	L+		500	562.5			
58.01	L+					1	
58.48 to 58.53	L+	275					
58.48	L+					1	
58.53	L+						1
58.53 to 58.60	L+		450				
58.6	L+	37.5				1	
58.72	L+	37.5					1
58.72 to 58.88	L+			812.5			
59.2	L+	37.5					1
59.20 to 59.32	L+			600			
59.32	L+	37.5				1	
59.23	R+	37.5				1	
59.23 to 59.31	R+		437.5				
59.38	L+	37.5				1	
59.38 to 59.48	L+		487.5				
59.48	L+						1
TOTAL		1262.5	7412.5	3237.5	8	13	12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	24	52

Sean Shepard 08-01-11
 REGISTERED CIVIL ENGINEER DATE
 10-17-11
 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.

ITS ITEMS

LOCATION	ROADWAY Exc.	AGGREGATE BASE	MINOR Conc	
	CY	CY	Misc CONSTRUCTION CY	
1	0.5	2.5	1.15	
2	1.5	17.0	3.55	
3	22	55.0	4.50	
4	0.5	8.0	1.35	
TOTAL				24.5 82.5 10.55

HOT MIX ASPHALT DIKE

POST MILE LIMITS	L+/R+	REMOVE ASPHALT CONCRETE DIKE	PLACE HOT MIX ASPHALT DIKE (TYPE D)	PLACE HOT MIX ASPHALT DIKE (TYPE E)	PLACE HOT MIX ASPHALT DIKE (TYPE F)
		LF	LF	LF	LF
48.19 TO 48.24	L+	264			264
48.27 TO 48.38	R+	580	580		
48.27 TO 48.29	L+	106			106
48.48 TO 48.52	R+	211			211
50.90 TO 50.98	R+	422		422	
51.03 TO 51.09	R+	317		317	
51.21 TO 51.39	R+	950			950
51.56 TO 51.59	R+	164		164	
52.54 TO 52.59	R+	264			264
57.30 TO 57.46	R+	845	845		
57.81 TO 58.01	L+	1056			1056
58.68 TO 58.84	L+	845			845
59.16 TO 59.20	L+	211			211
TOTALS		6235	1425	903	3907

SUMMARY OF QUANTITIES

Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS		
02	Sha	299	40.7/60.0	25	52		
ART		08-01-11		REGISTERED ELECTRICAL ENGINEER DATE			
10-17-11		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.							

NOTE:

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

NOTES (THIS SHEET):

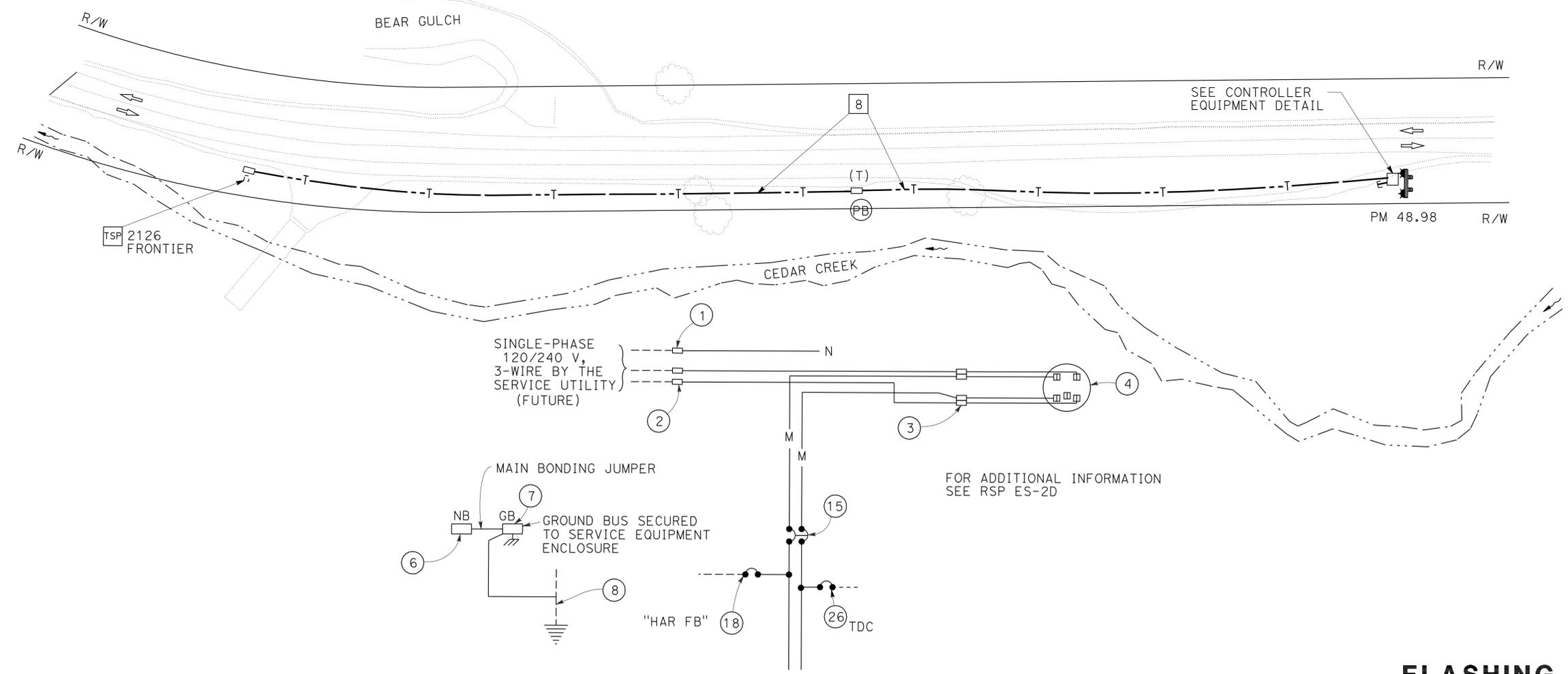
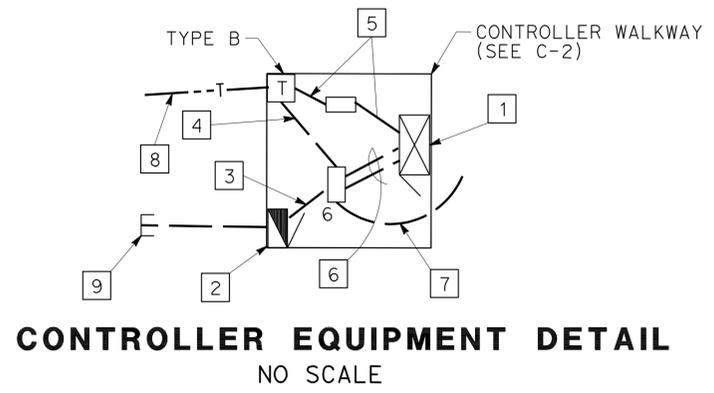
- 1 HAR FLASHING BEACON CONTROLLER ASSEMBLY.
- 2 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. CALTRANS ID No. 02062990048980. SEE WIRING DIAGRAM.
- 3 2"C, 2#8 (Cab), 2#12 (TDC), 1#8 G, 1#12G.
- 4 1/2"C, 2#12 (TDC), 1#12 G.
- 5 2"C, TC.
- 6 3"C, 2#8 (Cab), 3#12 (FB), 1#8 G, 3"C, MT.
- 7 1/2"C, 3#12 (FB), 1#12 G.
- 8 2"C, MT.
- 9 STUB OUT AND CAP 2"C WITH 36" COVER.

LEGEND

- HAR ADVISORY SIGN
- Exist OBJECT MARKER (TYPE PB)
- OBJECT MARKER (TYPE PB) AND PULL BOX PAVING

ABBREVIATIONS:

- Cab CABINET
- TC TELEPHONE CABLE
- BCG BARE COPPER GROUND
- ACC ANTENNA COAXIAL CABLE
- ITS INTELLIGENT TRANSPORTATION SYSTEM



**FLASHING BEACON
(LOCATION 1)**
SCALE: 1" = 50'

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Electrical DESIGN
 ARTURO ROBLES
 ROB STINGER
 REVISIONS: 2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	26	52

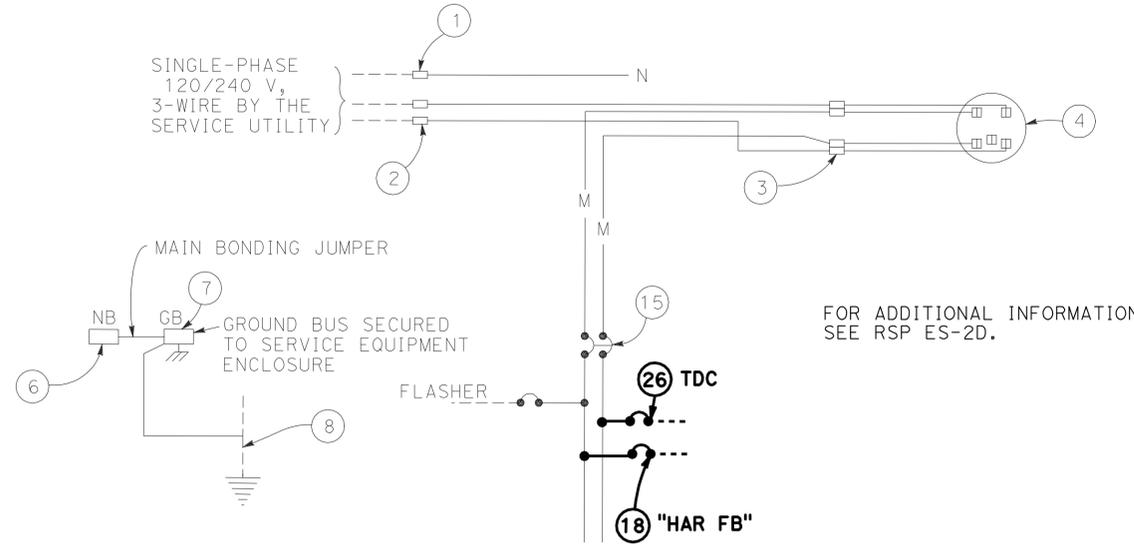
ART		08-01-11
REGISTERED ELECTRICAL ENGINEER		DATE
A.P. ROBLER		
No. E15293		
Exp. 3-31-13		
ELECTRICAL		
10-17-11		PLANS APPROVAL DATE
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		

NOTE:

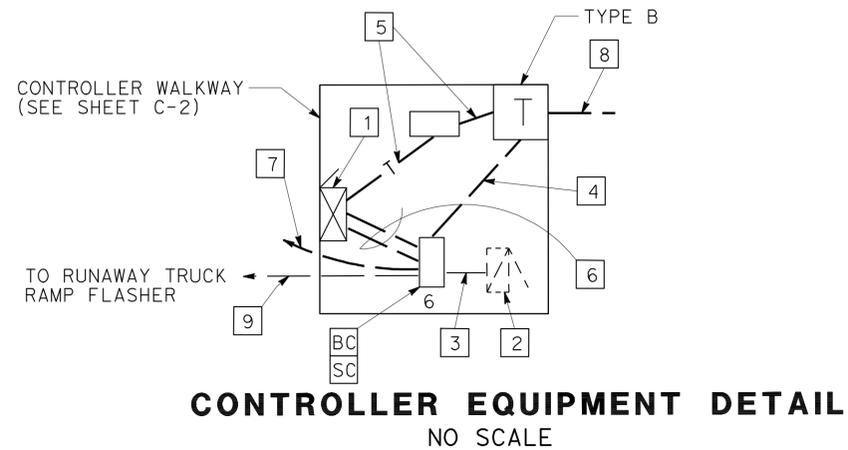
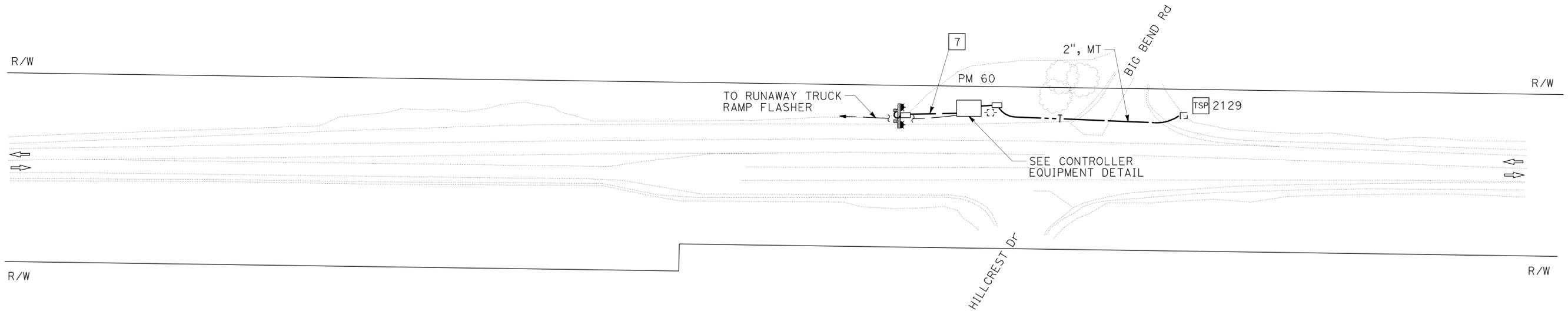
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

NOTES (THIS SHEET):

- 1 HAR FLASHING BEACON CONTROLLER ASSEMBLY.
- 2 Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. SEE WIRING DIAGRAM.
- 3 Exist 1/2"C, REMOVE 2#8 (FLASHER), INSTALL 2#8 (FLASHER), 2#8 (Cab), 2#12 (TDC), 1#8 G, 1#12 G.
- 4 1/2"C, 2#12 (TDC), 1#12 G.
- 5 2"C, TC.
- 6 3"C, 2#8 (Cab), 3#12 (HAR FB), 1#8 G. 3"C, MT.
- 7 1/2"C, 3#12, 1#12 G TO HAR FB.
- 8 2"C, MT.
- 9 Exist 1/2"C, 2#8.



MODIFIED 120/ 240 V SERVICE WIRING DIAGRAM
NO SCALE



CONTROLLER EQUIPMENT DETAIL
NO SCALE

FLASHING BEACON (LOCATION 4)

SCALE: 1" = 50'

E-2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

P:\proj\2\02\2c810_plans\pse\22c810u002.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
ROB STINGER

CALCULATED, DESIGNED BY
CHECKED BY

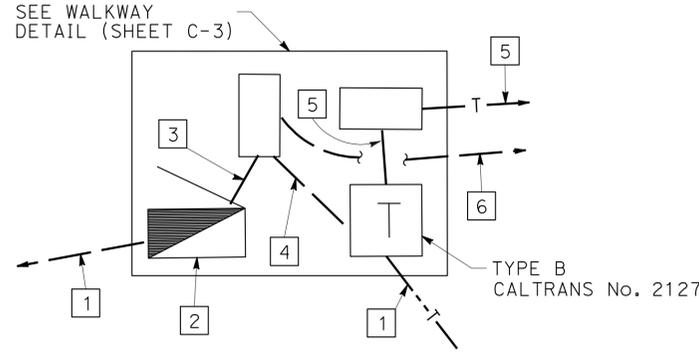
ARTURO ROBLER
ROB STINGER

REVISED BY
DATE REVISED

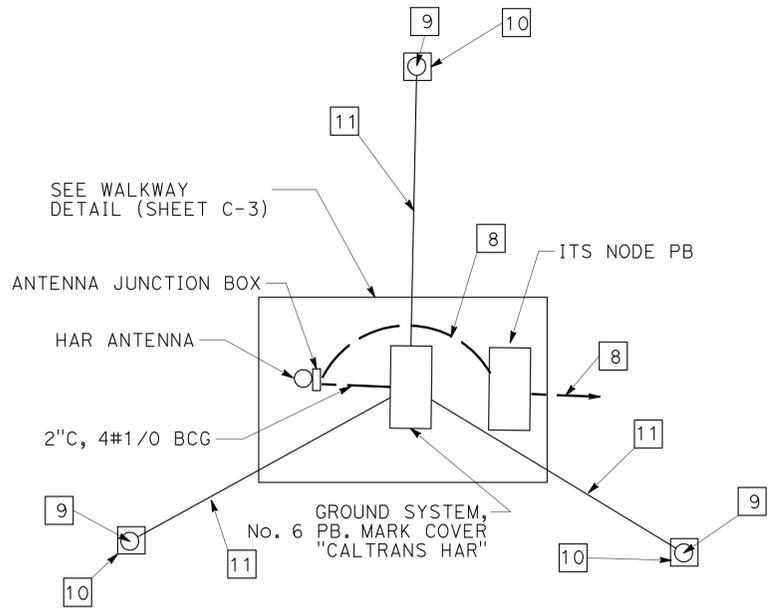
DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	27	52
ART		08-01-11		REGISTERED ELECTRICAL ENGINEER DATE	
10-17-11		PLANS APPROVAL DATE		A.P. ROBLES No. E15293 Exp. 3-31-13 ELECTRICAL	
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.					

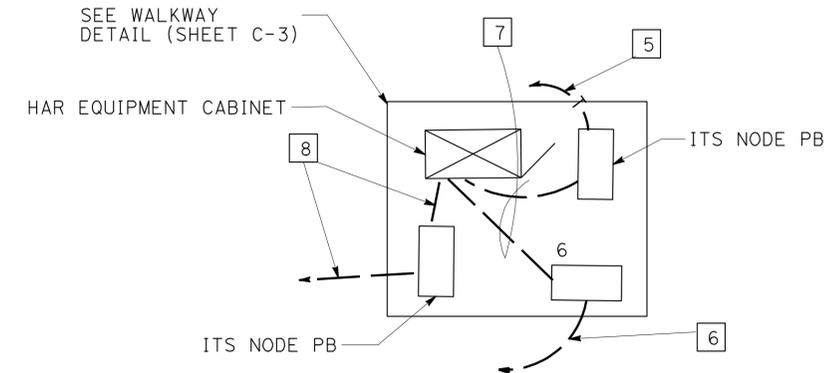
NOTE:
FOR ACCURATE RIGHT OF WAY DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



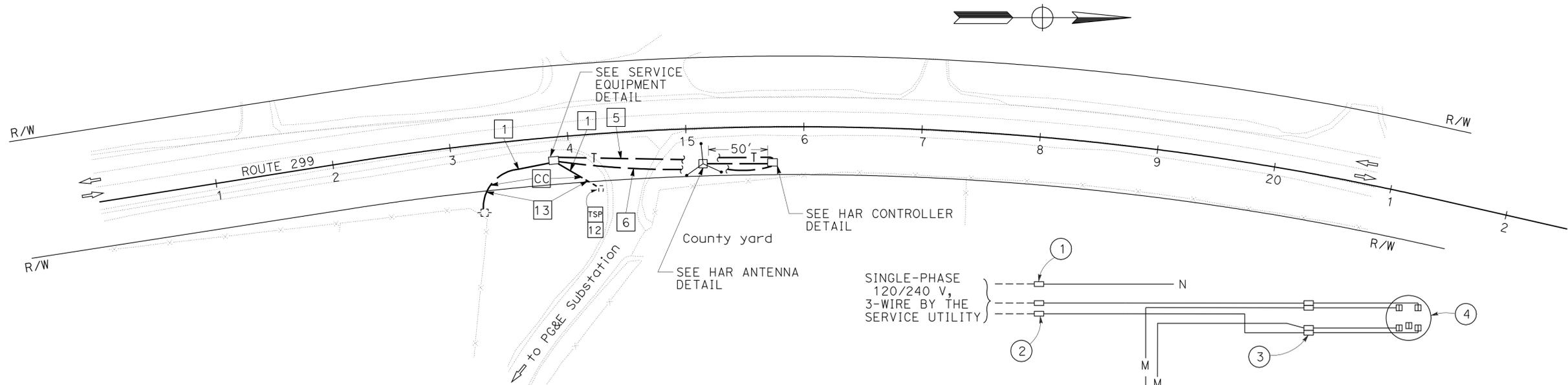
SERVICE EQUIPMENT DETAIL
NO SCALE



HAR ANTENNA DETAIL
NO SCALE

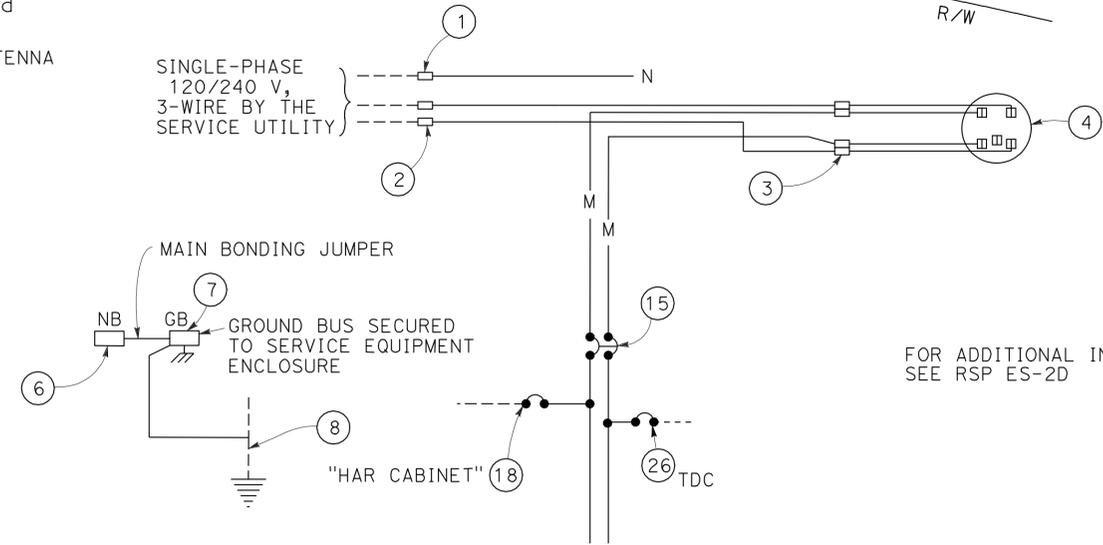


HAR CONTROLLER DETAIL
NO SCALE



NOTES (THIS SHEET):

- | | |
|--|--|
| 1 2" C, MT. | 8 2" C, ACC. |
| 2 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. CALTRANS ID No. 02062990054100. SEE WIRING DIAGRAM. | 9 30' ELECTROLYTIC GROUND ROD. |
| 3 2" C, 2#8 (HAR Cab), 1#8 G, 2#12 (TDC), 1#12 G. | 10 GROUND PB. SEE SHEET E-7. |
| 4 1 1/2" C, 2#12 (TDC), 1#12 G. | 11 BURIED, #1/0 BCG. |
| 5 2" C, TC. | 12 FRONTIER BOX No. 107. |
| 6 2" C, 2#8 (HAR Cab), 1#8 G. | 13 2" C, INSTALLED BY UTILITY COMPANY. |
| 7 3" C, 2#8 (HAR Cab), 1#8 G, 3" C, TC. | |



120/240 V SERVICE WIRING DIAGRAM
NO SCALE

FOR ADDITIONAL INFORMATION,
SEE RSP ES-2D

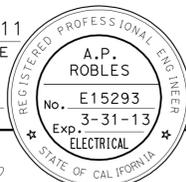
HIGHWAY ADVISORY RADIO

SCALE: 1" = 50'

E-3

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - ELECTRICAL DESIGN
 ARTURO ROBLES
 ROB STINGER
 ROB STINGER
 REVISIONS: 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, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52

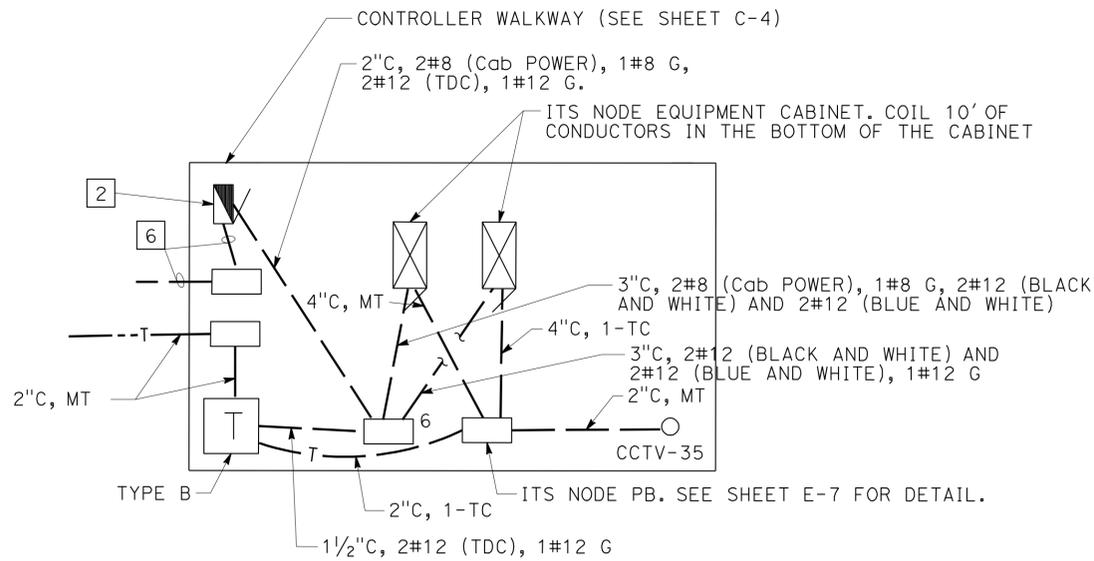
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	28	52
ART		08-01-11		REGISTERED ELECTRICAL ENGINEER DATE	
10-17-11		PLANS APPROVAL DATE			
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NOTE:

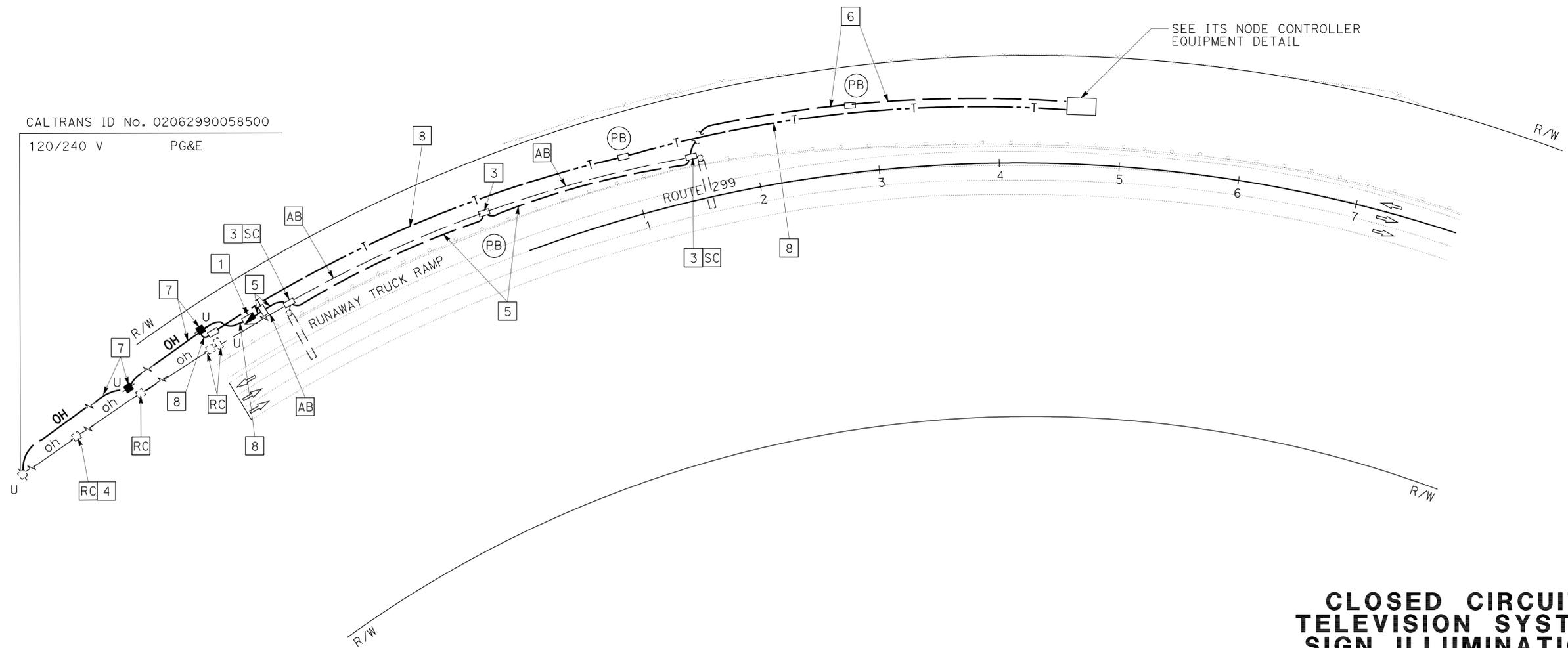
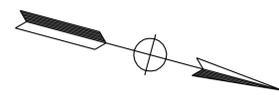
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

NOTES (THIS SHEET):

- 1 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. SEE WIRING DIAGRAM, SHEET E-5.
- 2 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITHOUT METERING SECTION (SUBPANEL). SEE WIRING DIAGRAM, SHEET E-5.
- 3 REPLACE No. 3 PB WITH No. 5 PB.
- 4 Exist TYPE A SERVICE.
- 5 3"C (TYPE 1), 3#4/0 (SUBPANEL), 1#4/0 G. 2#8 (SIGN ILLUMINATION), 1#8 G.
- 6 3"C (TYPE 1), 3#4/0 (SUBPANEL), 1#4/0 G.
- 7 POWER POLE AND CONDUCTORS WILL BE INSTALLED BY PG&E.
- 8 2"C (TYPE 1), MT.



ITS NODE CONTROLLER EQUIPMENT DETAIL



CLOSED CIRCUIT TELEVISION SYSTEM SIGN ILLUMINATION

SCALE: 1" = 50'

E-4

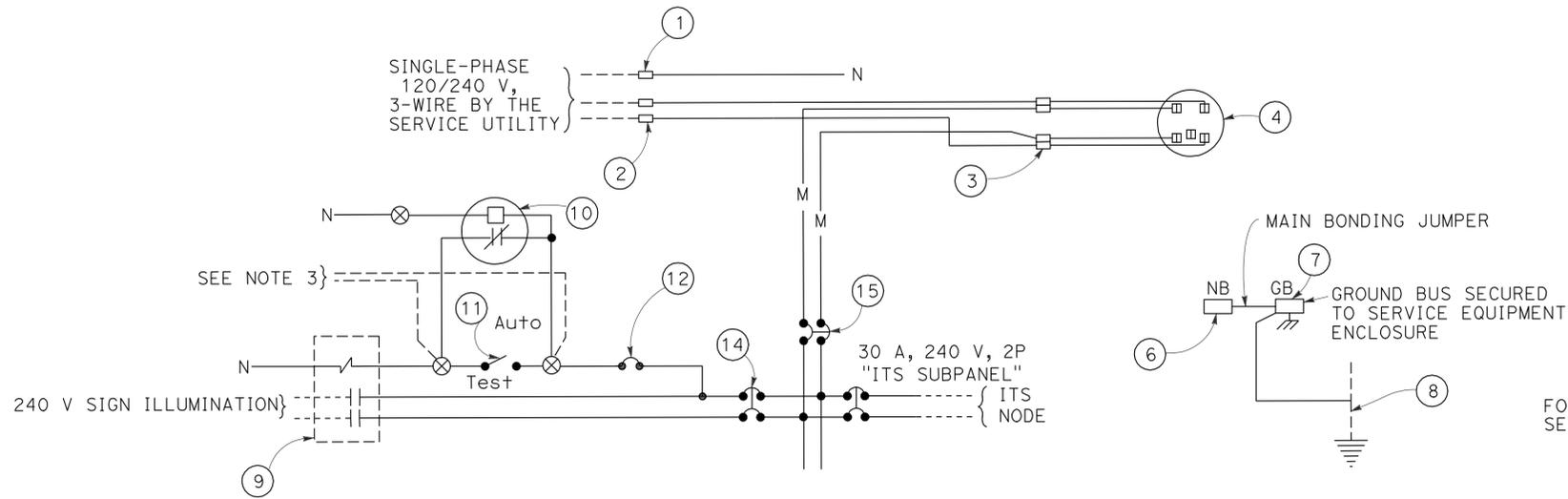
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL DESIGN
 ARTURO ROBLES
 ROB STINGER
 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

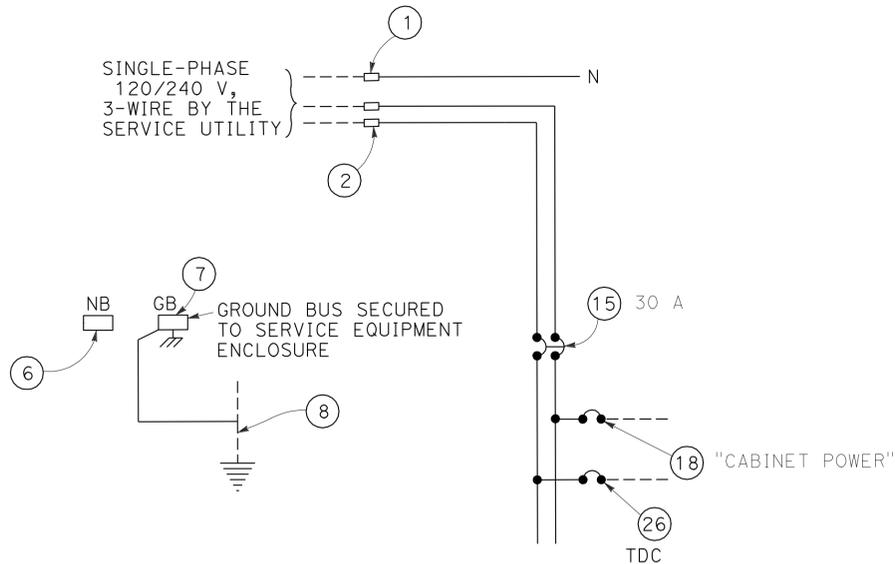
LAST REVISION DATE PLOTTED => 20-0CT-2011 08-01-11 TIME PLOTTED => 12:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	29	52
ART		08-01-11		REGISTERED ELECTRICAL ENGINEER DATE	
10-17-11		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>					



120/ 240 V SERVICE WIRING DIAGRAM

FOR ADDITIONAL INFORMATION
SEE RSP ES-2D AND SHEET E-4.



ITS SUBPANEL WIRING DIAGRAM

**CLOSED CIRCUIT
TELEVISION SYSTEM
(WIRING DIAGRAMS)**

NO SCALE

E-5

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



UNIT 0147

PROJECT NUMBER & PHASE

02000001831

USERNAME => s121614
DGN FILE => 22c810u005.dgn

BORDER LAST REVISED 7/2/2010

P:\proj\2\02\2c810\plans\pse\22c810u005.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
ROB STINGER

CALCULATED,
DESIGNED BY
CHECKED BY

ARTURO ROBLES
ROB STINGER

REVISED BY
DATE REVISED

x

x

x

x

x

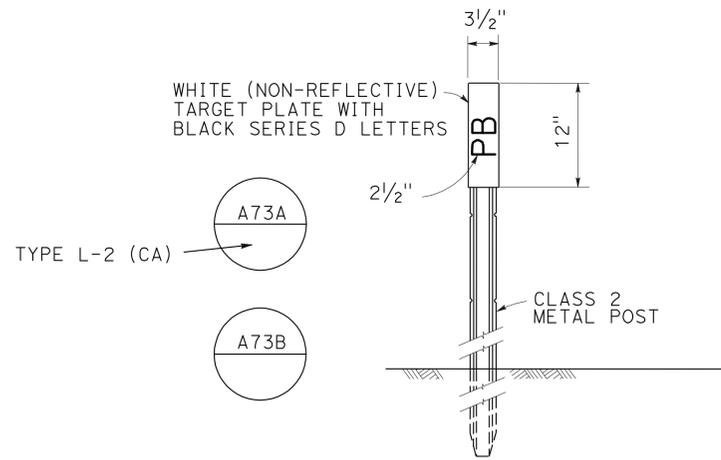
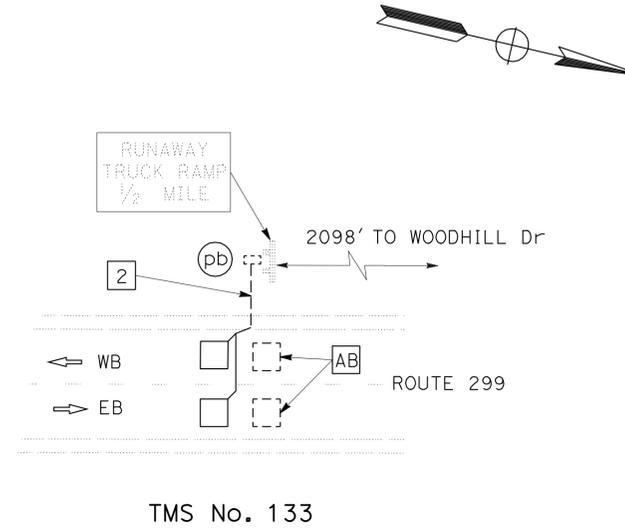
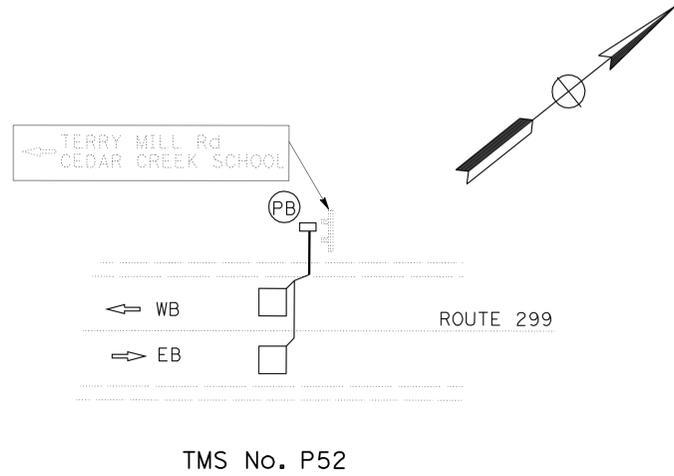
LAST REVISION DATE PLOTTED => 20-0CT-2011
08-01-11 TIME PLOTTED => 11:35

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ART		08-01-11		REGISTERED ELECTRICAL ENGINEER DATE	
10-17-11		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.					

NOTES (THIS SHEET):

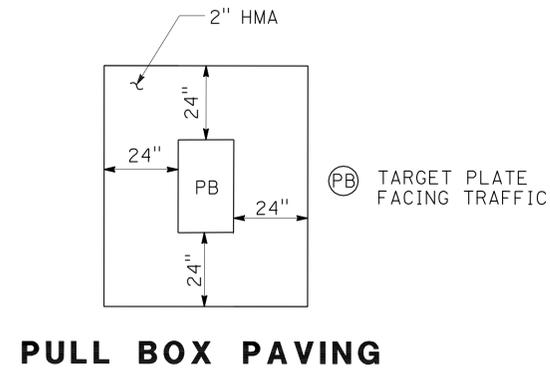
1. EXACT LOCATION OF LOOPS WILL BE DETERMINED BY THE ENGINEER.
2. REUSE CONDUIT. REMOVE Exist LOOP WIRES.
3. COIL 10' OF LOOP WIRES IN PULL BOX.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ROB STINGER
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 ARTURO ROBLES
 REVISIONS: [Blank]
 REVISED BY: [Blank]
 DATE REVISED: [Blank]



NOTE: MARKERS SHALL COMPLY WITH TYPE L-2 MODIFIED WITH A SNOW POLE BRACKET. PLACE MARKER 2" OUTSIDE PULL BOX PAVING ON SIDE AWAY FROM TRAFFIC. SEE PULL BOX PAVING DETAIL.

OBJECT MARKER (TYPE PB)



TRAFFIC MONITORING STATION

NO SCALE

E-6

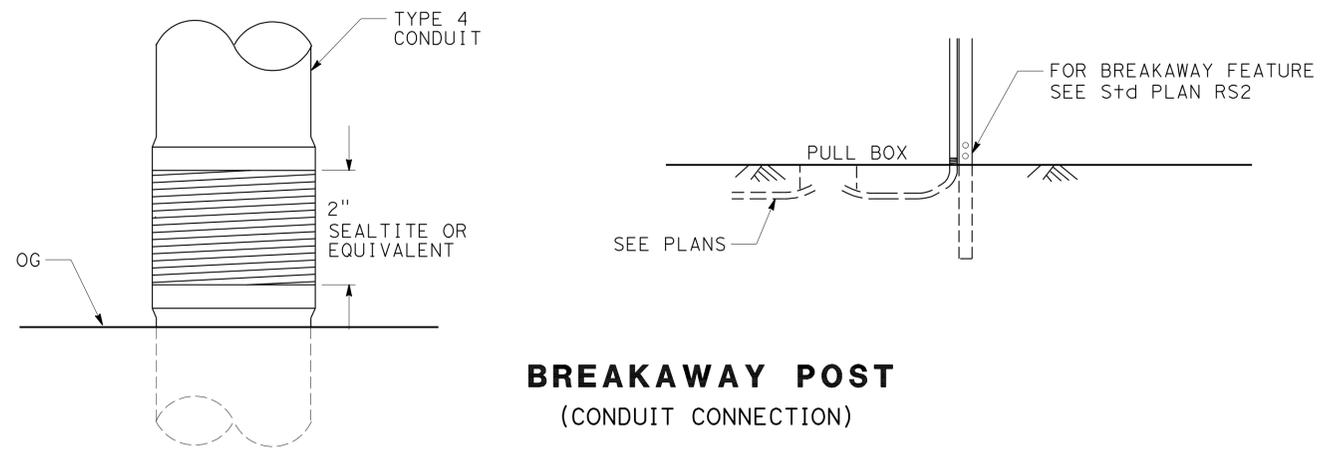
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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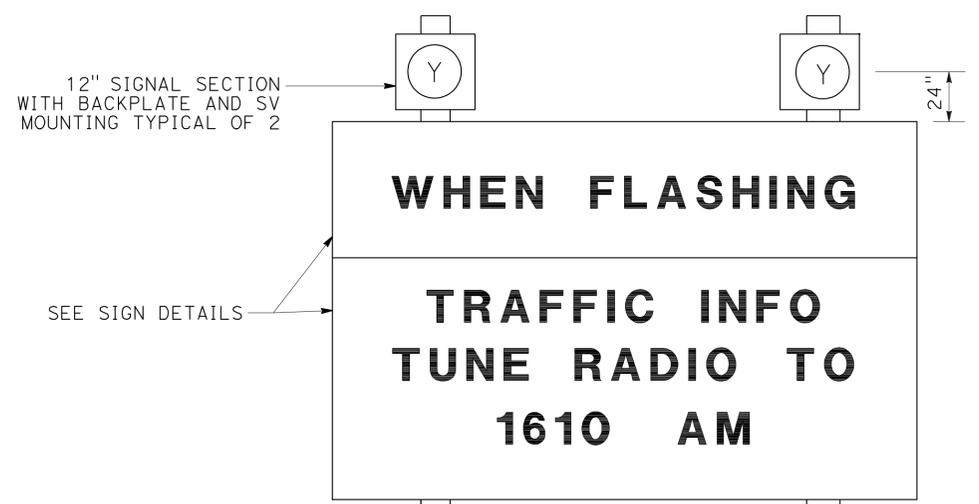
ART	08-01-11
REGISTERED ELECTRICAL ENGINEER	DATE
10-17-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
A.P. ROBLES
No. E15293
Exp. 3-31-13
ELECTRICAL

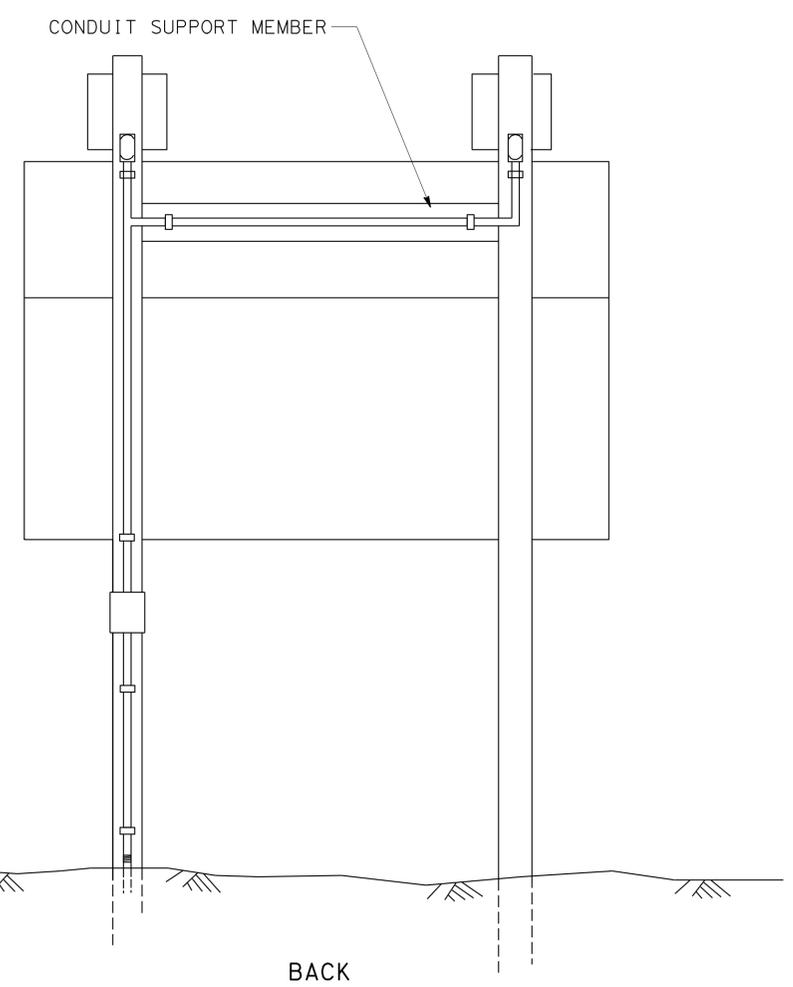
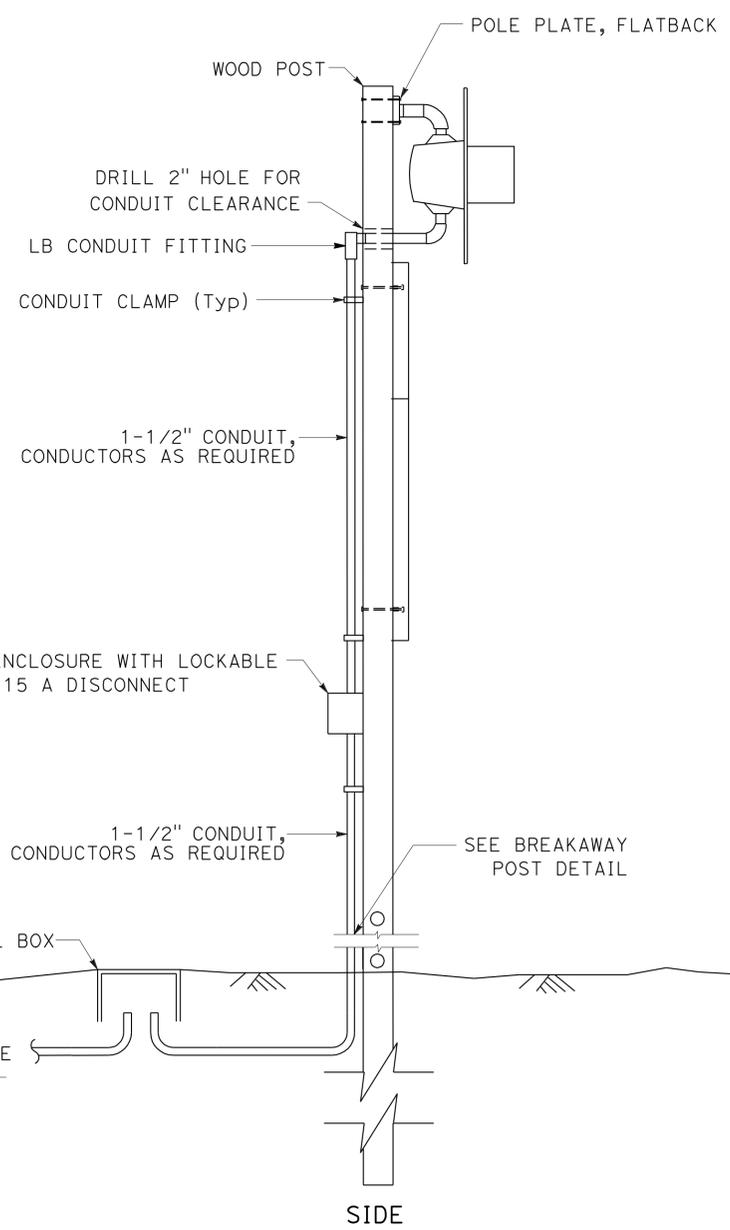
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BREAKAWAY POST
(CONDUIT CONNECTION)



HIGHWAY ADVISORY RADIO SIGN INSTALLATION



HIGHWAY ADVISORY RADIO (DETAILS)

NO SCALE **E-8**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



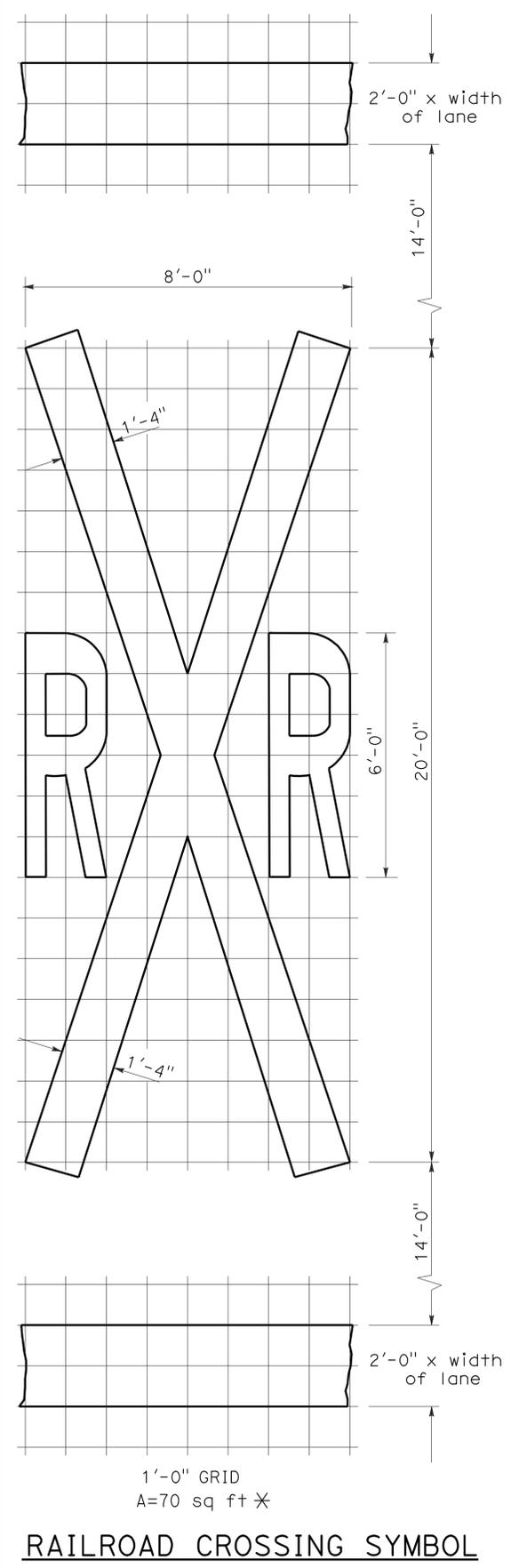
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN
ARTURO ROBLES
ROB STINGER
FUNCTIONAL SUPERVISOR
CALCULATED/DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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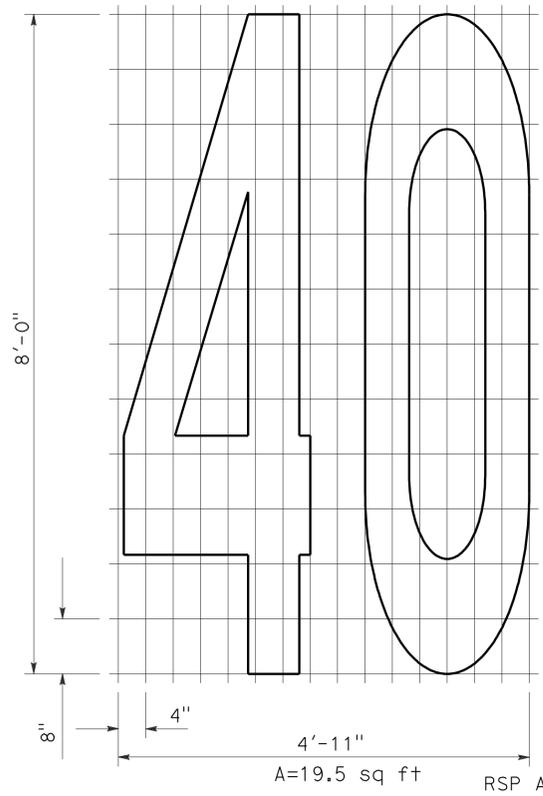
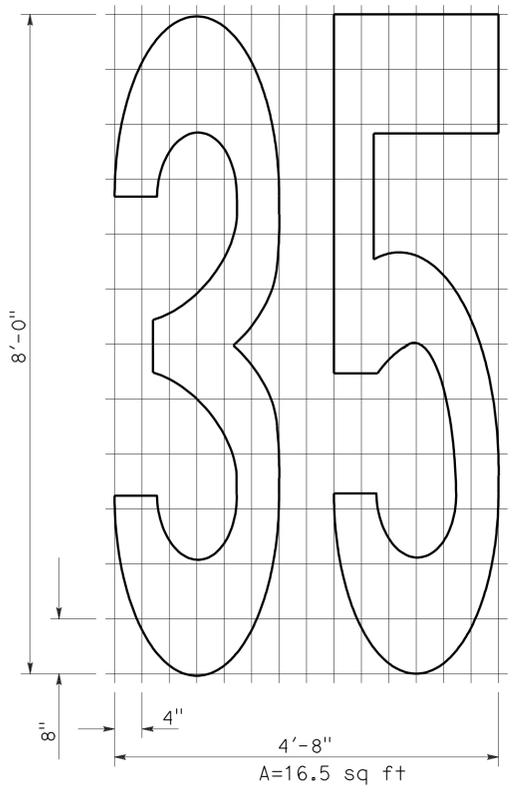
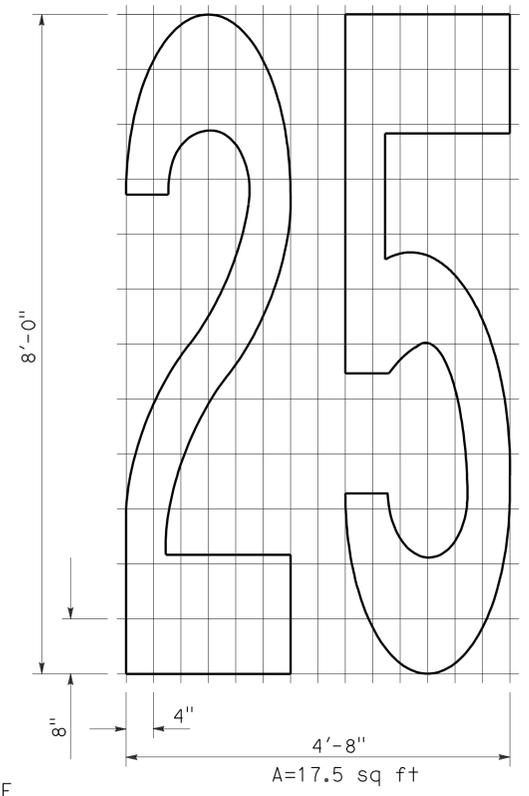
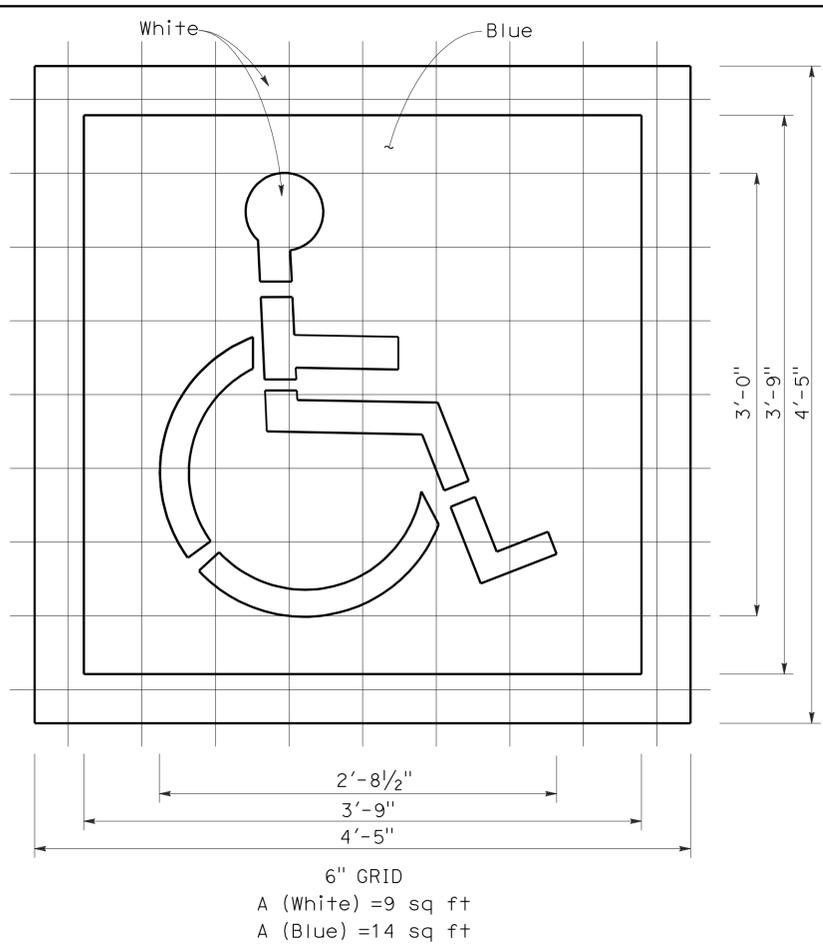
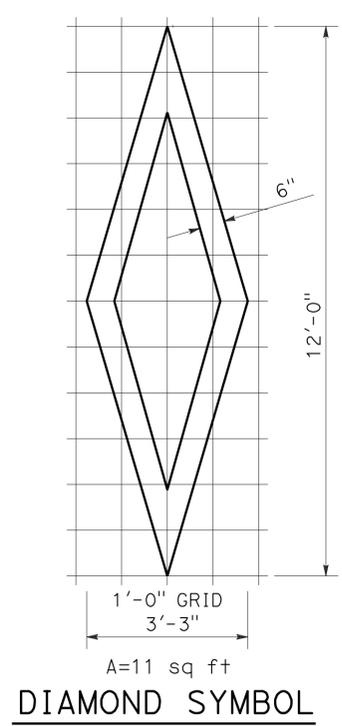
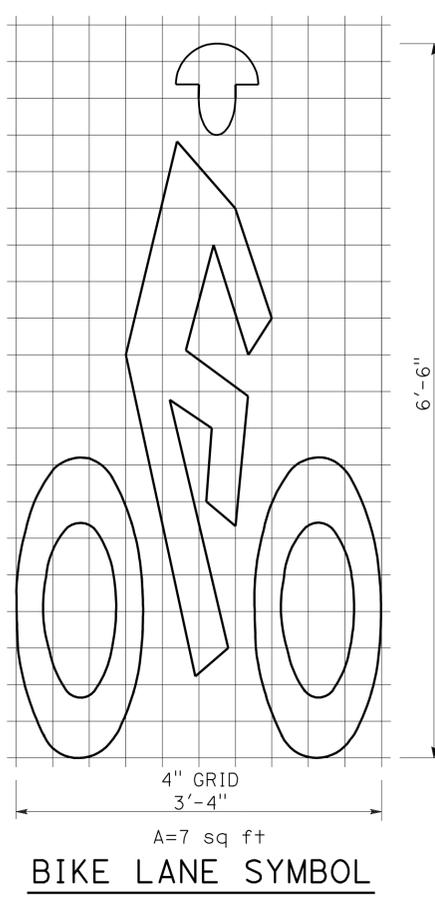
Donald E. Howe
 REGISTERED CIVIL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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

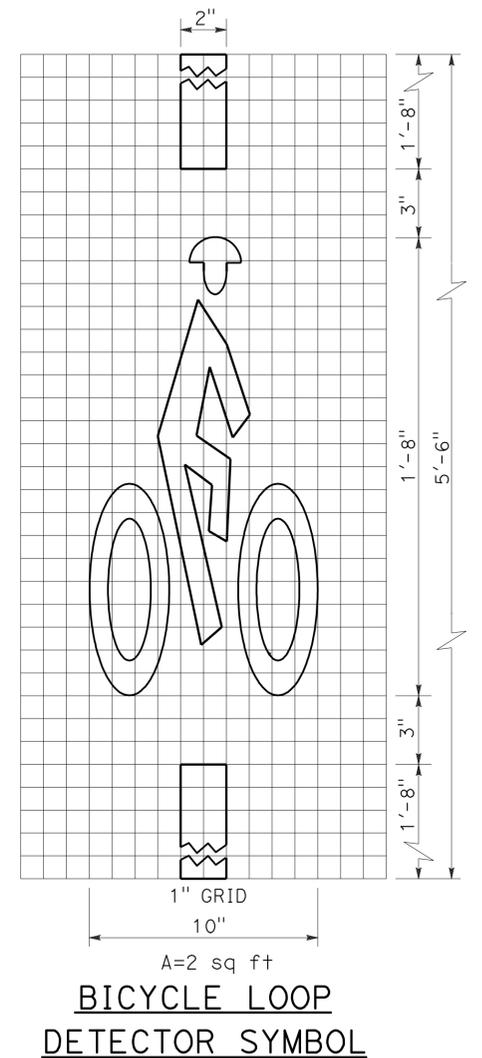
To accompany plans dated 10-17-11



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



NUMERALS



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

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A24C

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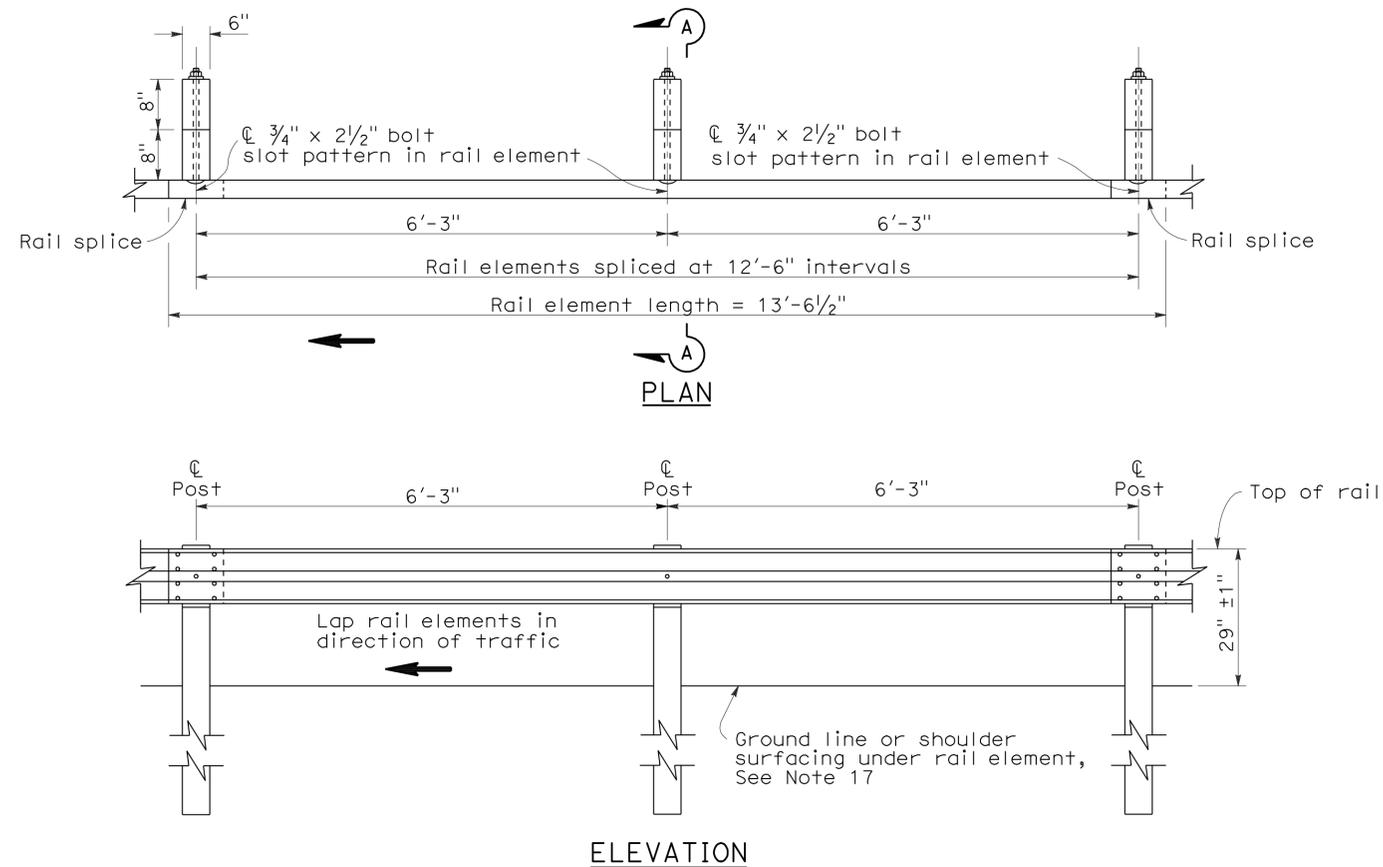
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

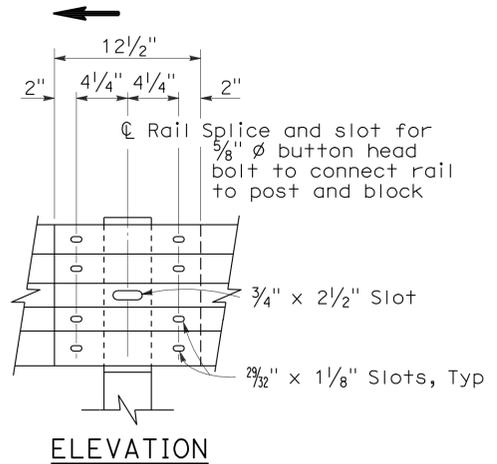
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 10-17-11

2006 REVISED STANDARD PLAN RSP A77A1

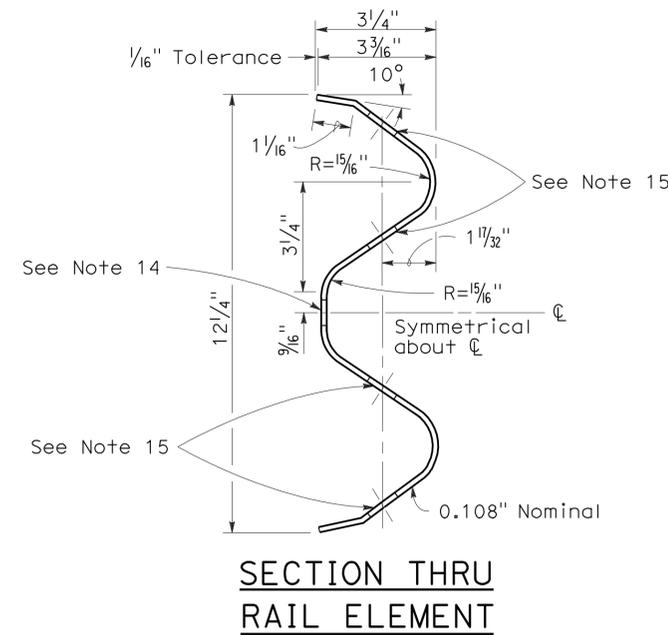


METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS

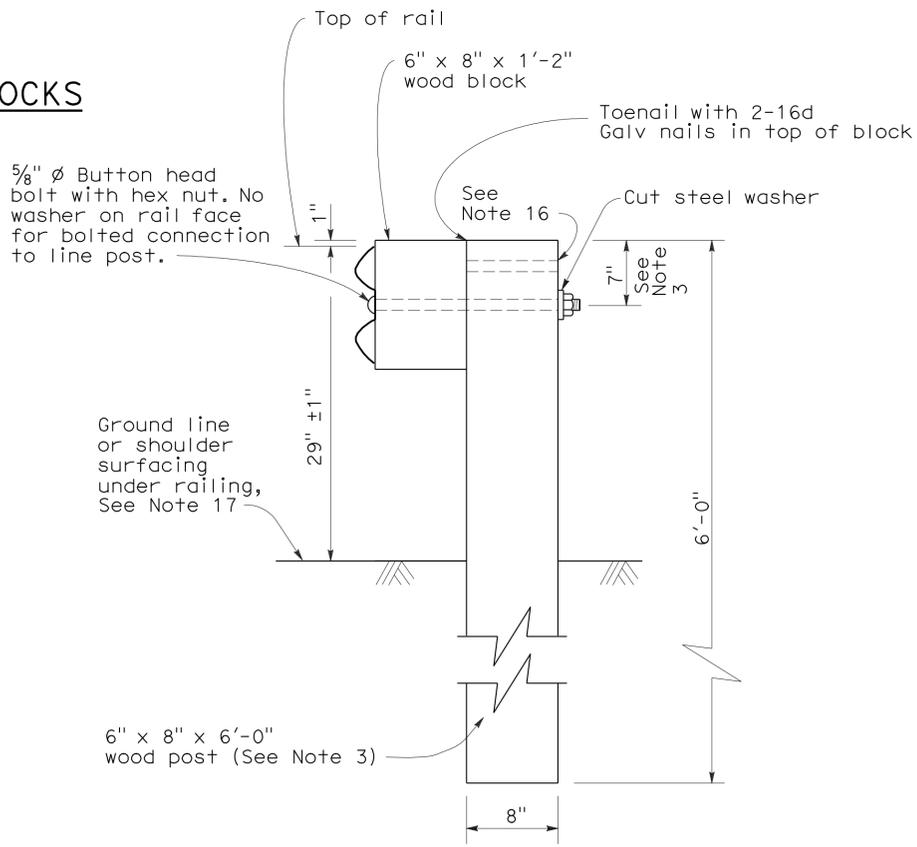


RAIL ELEMENT SPLICE DETAIL

- Connect the overlapped 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.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77A1

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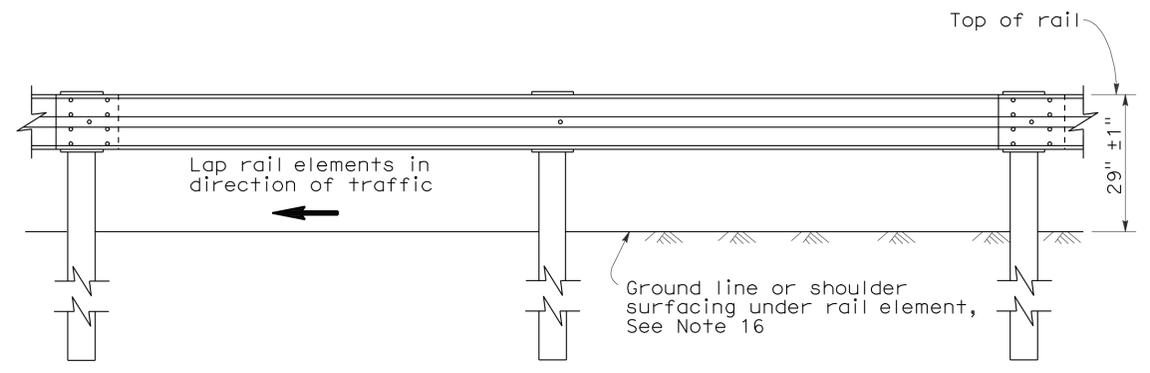
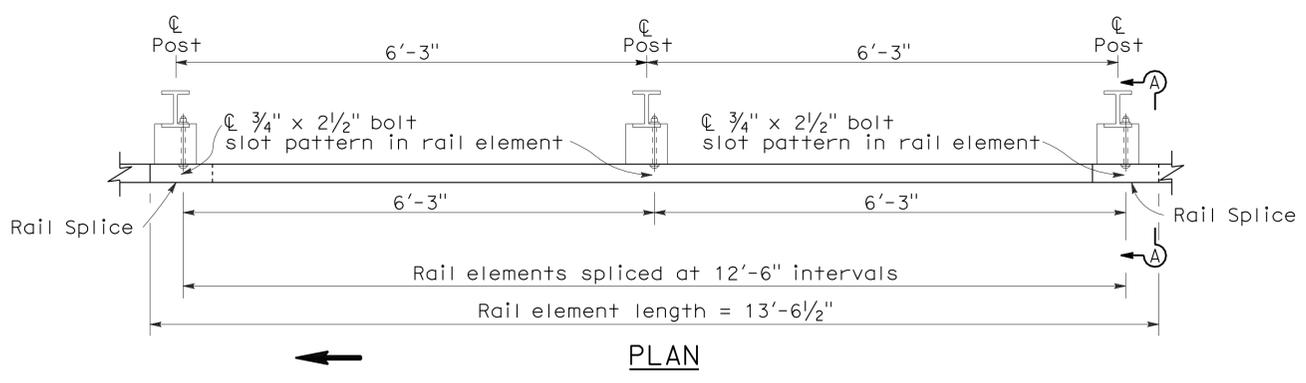
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

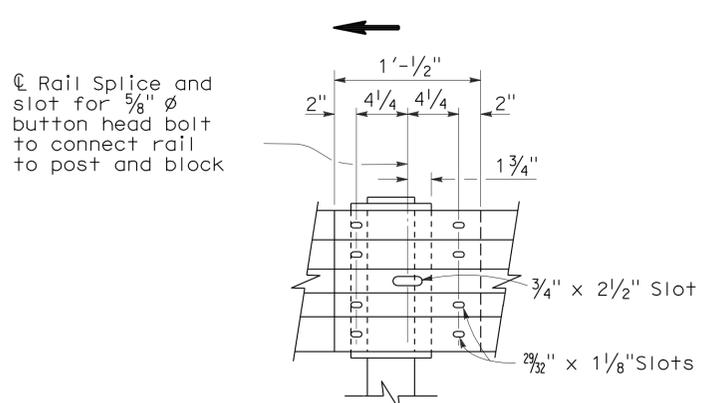
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To accompany plans dated 10-17-11

2006 REVISED STANDARD PLAN RSP A77A2

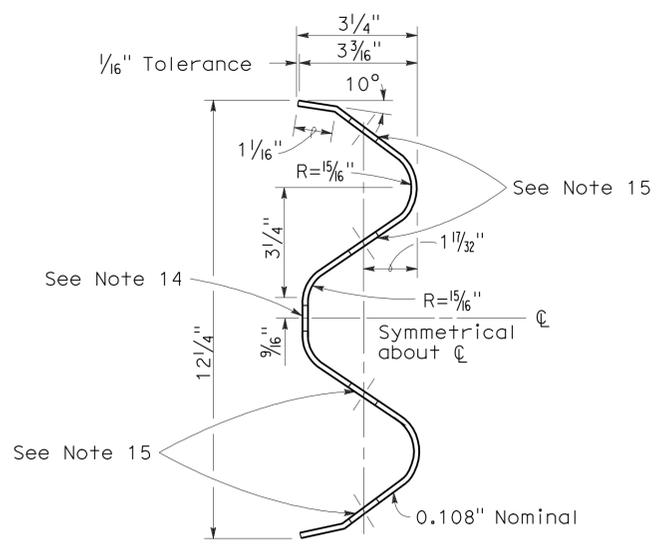


METAL BEAM GUARD RAILING WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS

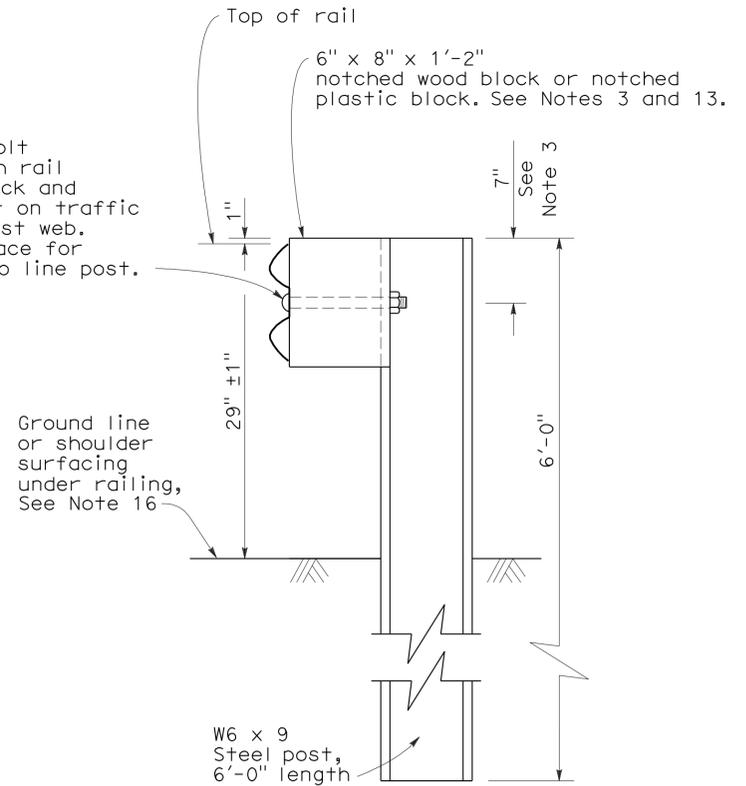


**ELEVATION
RAIL ELEMENT SPLICE DETAIL**

- Connect the overlapped end of the rail elements with $\frac{5}{8}$ " ϕ x $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{2}{32}$ " x $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " 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 STEEL LINE
POST INSTALLATION**

See Note 4

NOTES:

- For details of wood post installations, see Standard Plan A77A1.
- For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- For details of steel posts and notched wood blocks used to construct guard railing, see Standard Plan A77C2.
- 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 dike positioning and guard railing delineation details, see Standard Plan A77C4.
- Direction of adjacent traffic indicated by \rightarrow .
- Notched face of block faces steel post.
- 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".
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
STANDARD RAILING SECTION
(STEEL POST WITH NOTCHED
WOOD OR NOTCHED
RECYCLED PLASTIC BLOCK)**

NO SCALE

To accompany plans dated 10-17-11

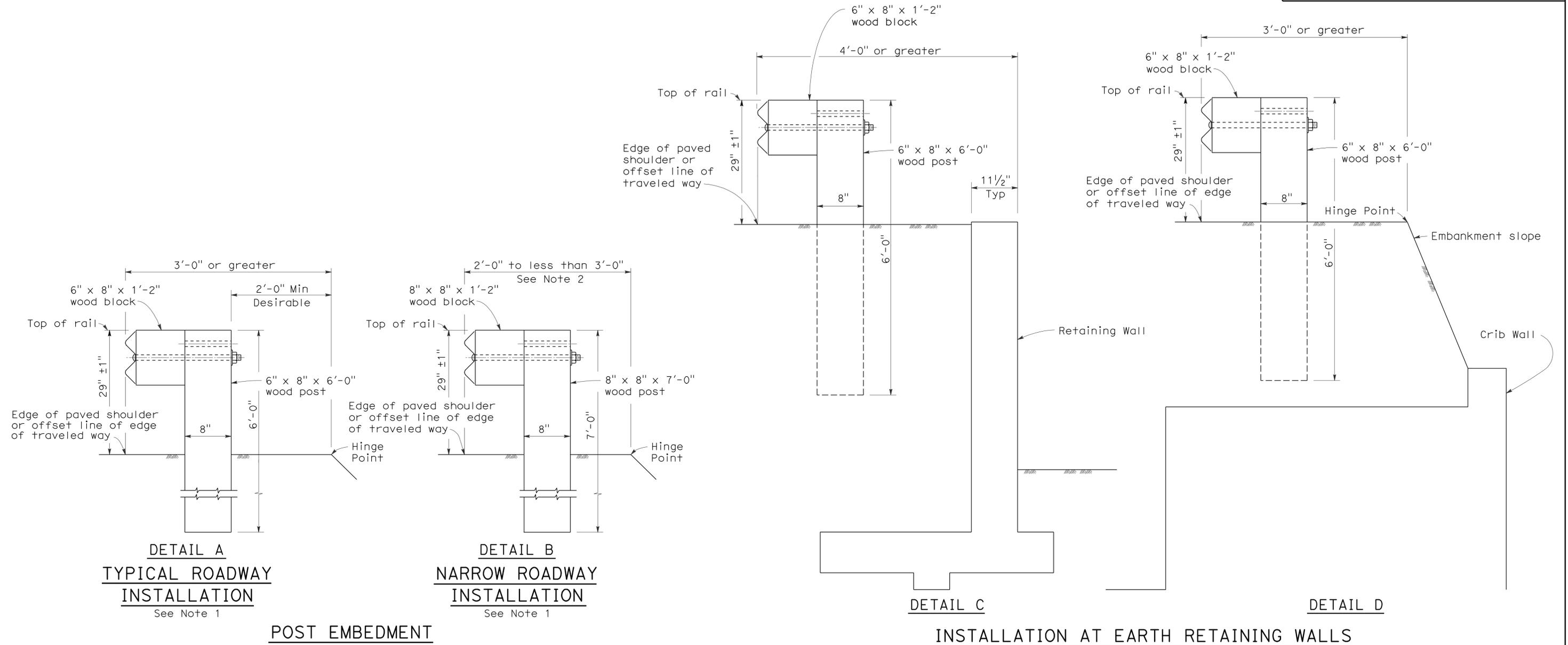
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	36	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

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

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NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP A77C3

2006 REVISED STANDARD PLAN RSP A77C3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	37	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

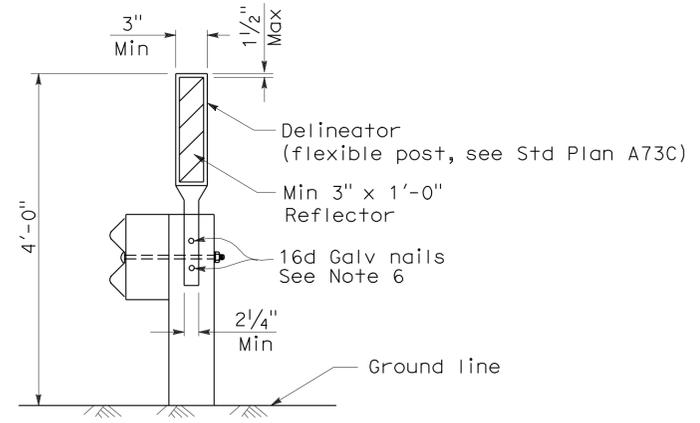
May 20, 2011
PLANS APPROVAL DATE

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.

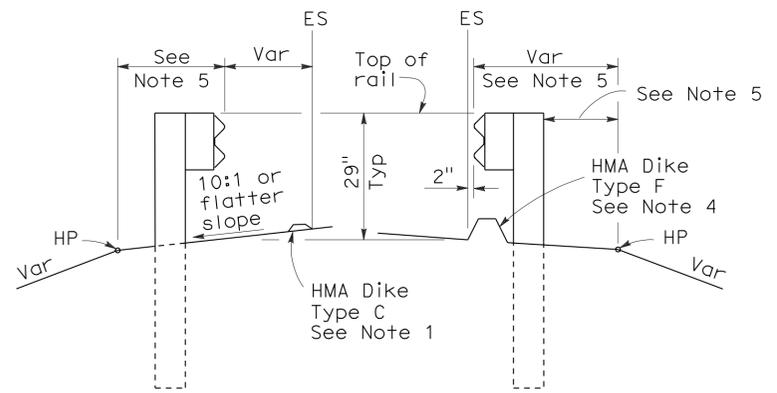
To accompany plans dated 10-17-11

NOTES:

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Standard Plans A87A and A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.
6. For steel line posts, use 1/4" - 20 self-tapping screws in 0.22" diameter holes or 1/4" bolts in 3/32" diameter holes.



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL RAILING DELINEATION
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77C4 DATED MAY 20, 2011 SUPERSEDES RSP A77C4 DATED JUNE 6, 2008 AND STANDARD PLAN A77C4 DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

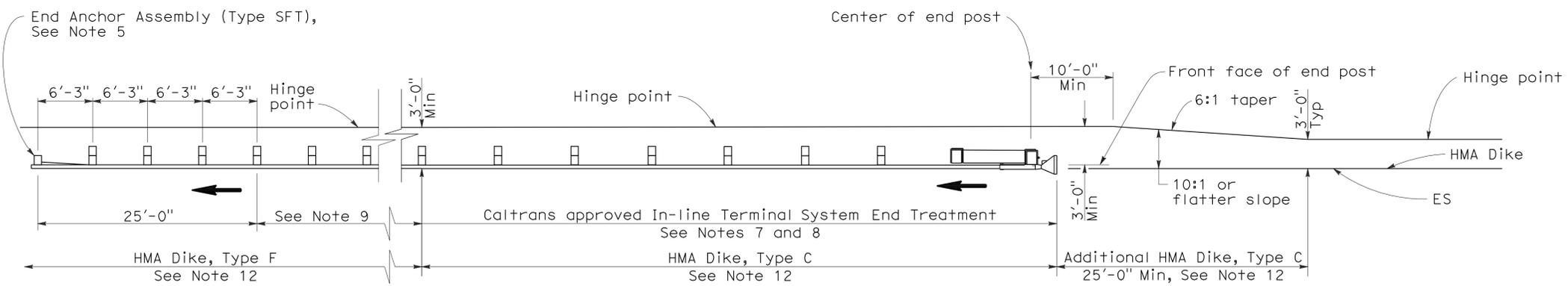
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	38	52

RANDALL D. HIATT
 REGISTERED CIVIL ENGINEER
 No. C50200
 Exp. 6-30-09
 CIVIL
 STATE OF CALIFORNIA

June 6, 2008
 PLANS APPROVAL DATE

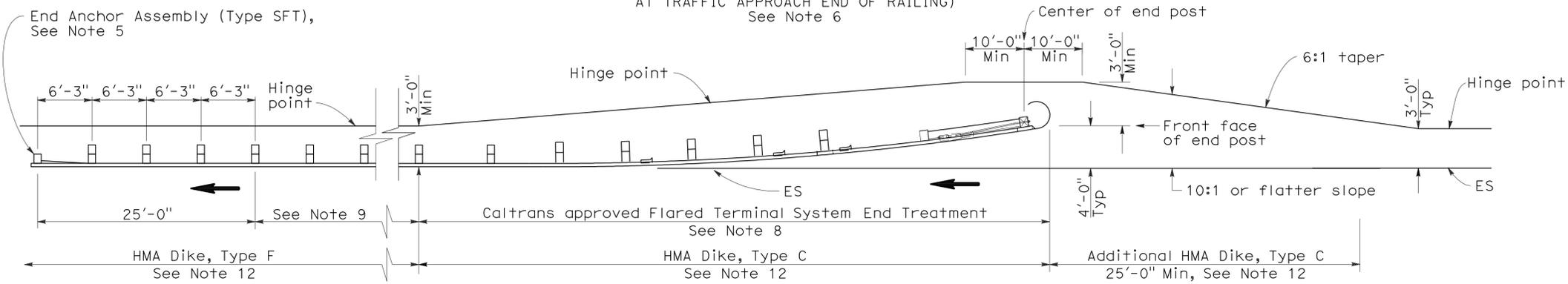
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To accompany plans dated 10-17-11



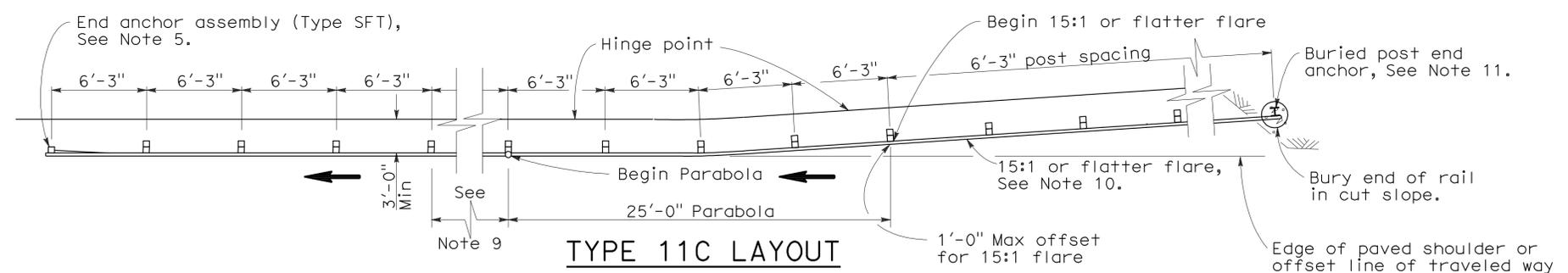
TYPE 11A LAYOUT

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6



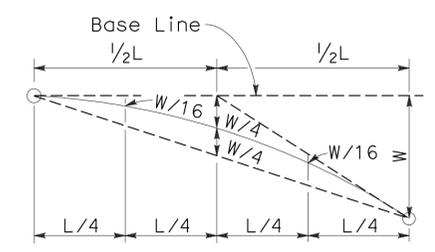
TYPE 11B LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6

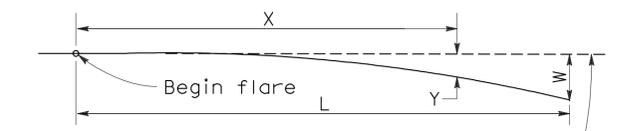


TYPE 11C LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 6 and 12



TYPICAL PARABOLIC LAYOUT

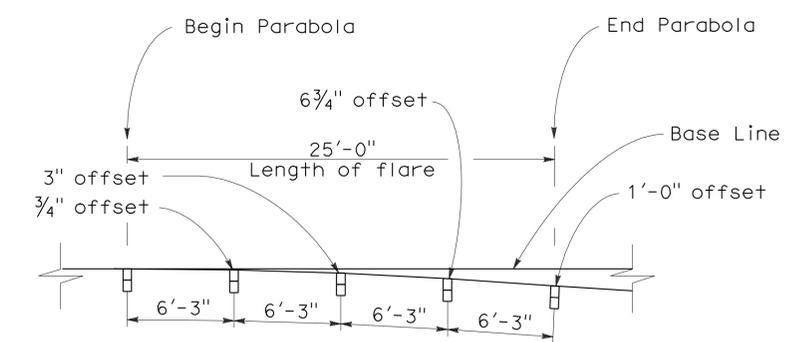


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

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

PARABOLIC FLARE OFFSETS



TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

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 recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
- 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 and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR EMBANKMENTS
NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1
DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E1

2006 REVISED STANDARD PLAN RSP A77E1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	40	52

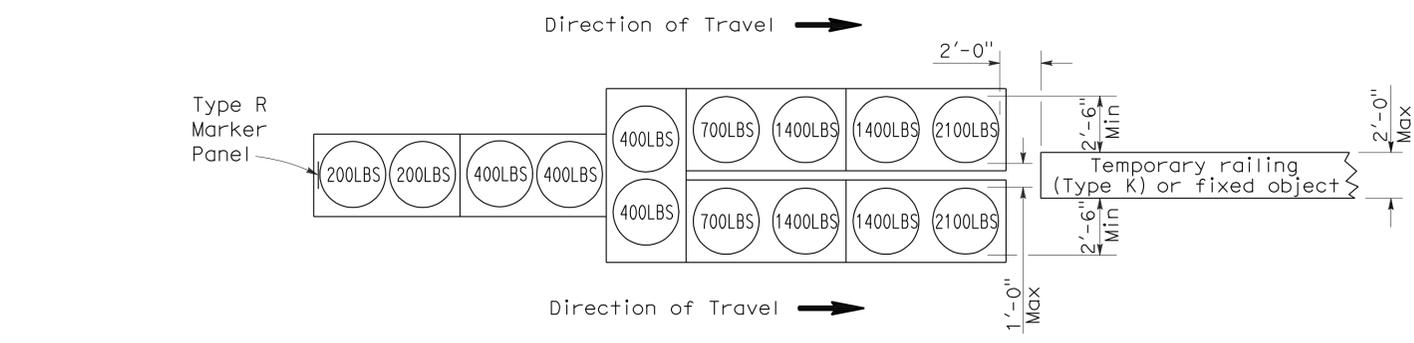
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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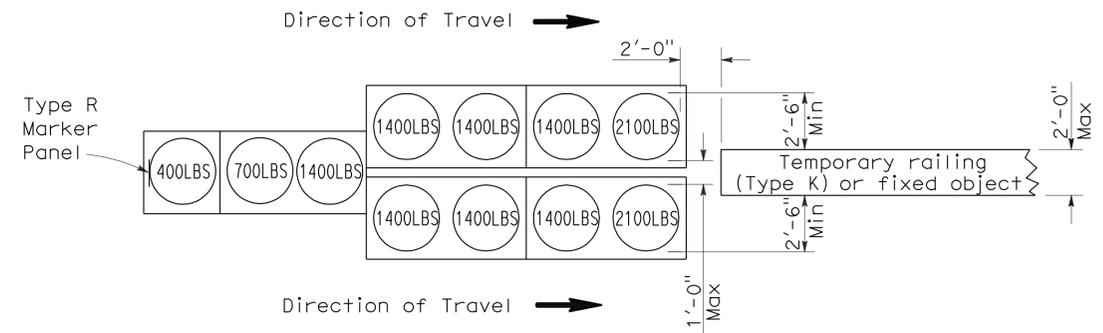
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 10-17-11



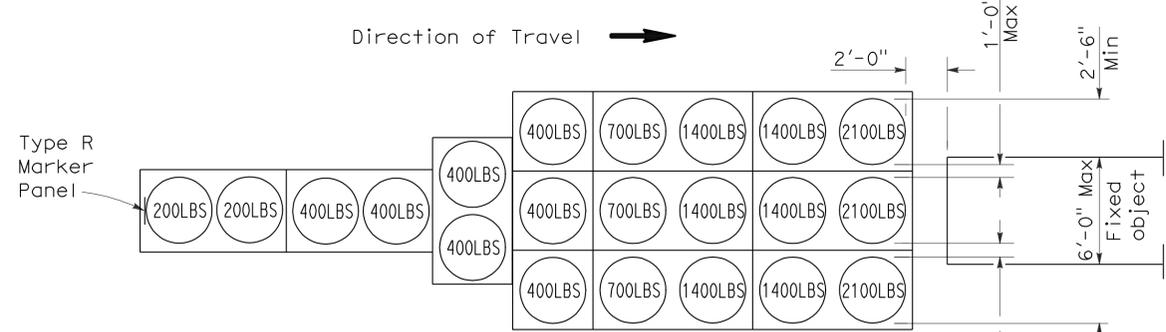
ARRAY 'TU14'

Approach speed 45 mph or more



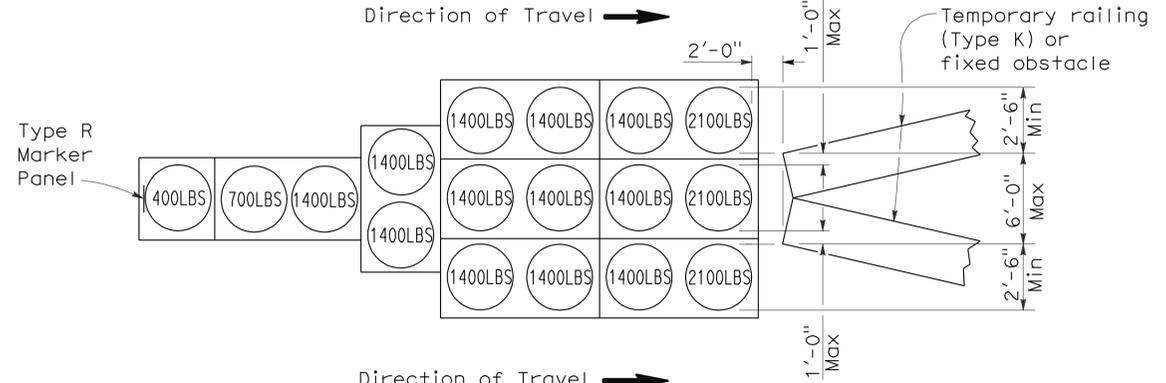
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more

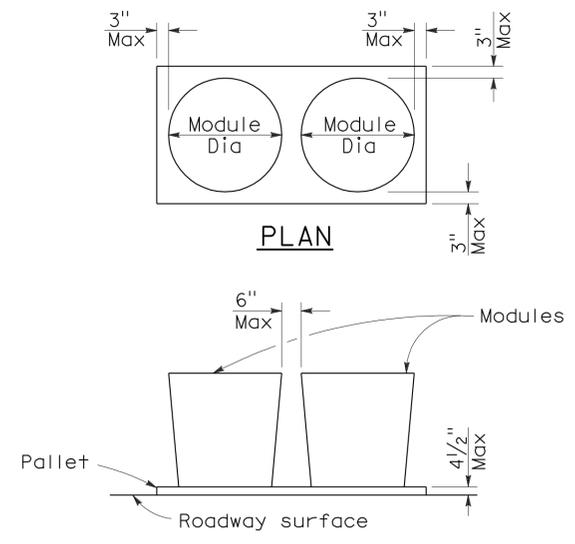


ARRAY 'TU17'

Approach speed less than 45 mph

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.



CRASH CUSHION PALLET DETAIL
See Note 7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**
NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

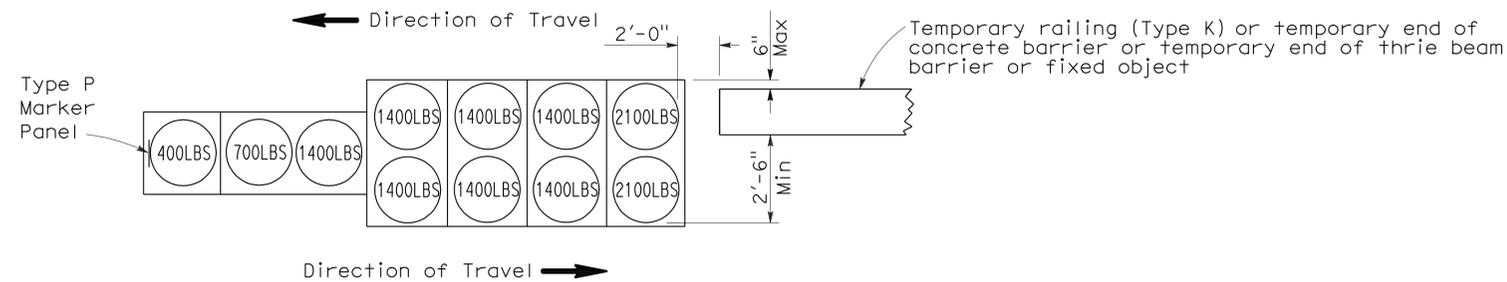
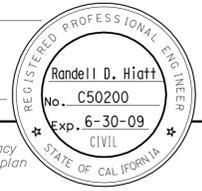
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	41	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

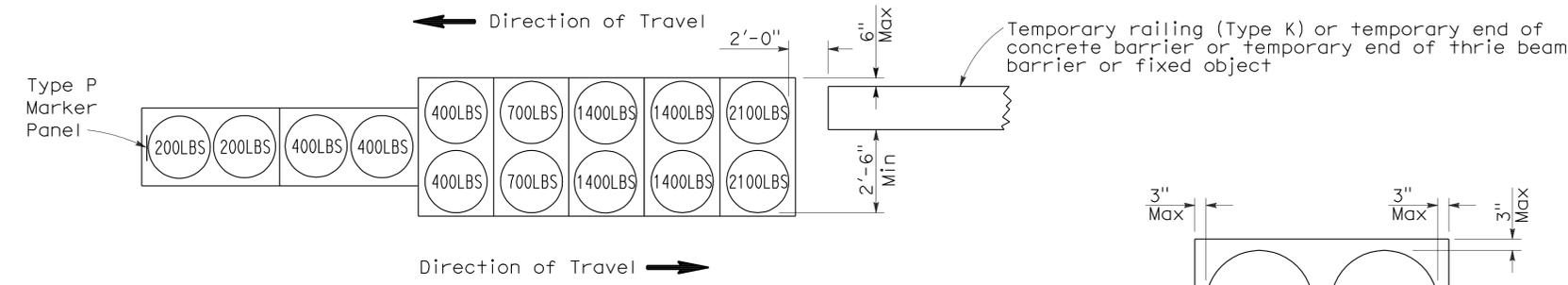
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 10-17-11



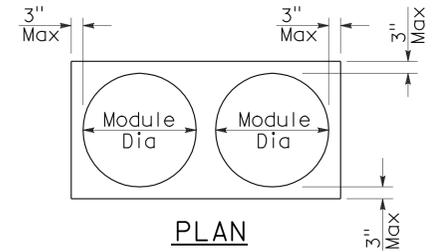
ARRAY 'TB11'

Approach speed less than 45 mph

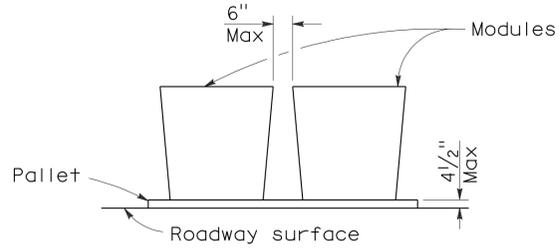


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

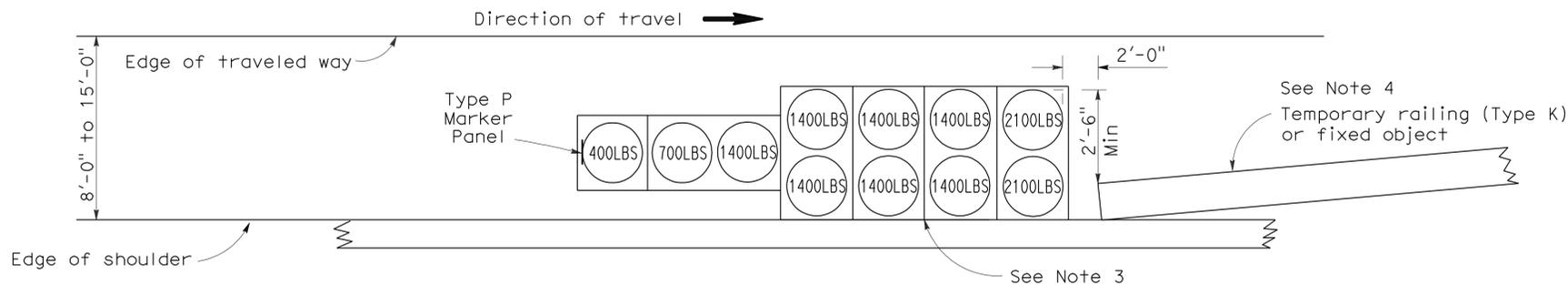
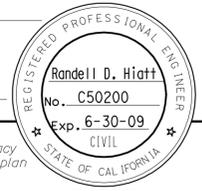
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	42	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

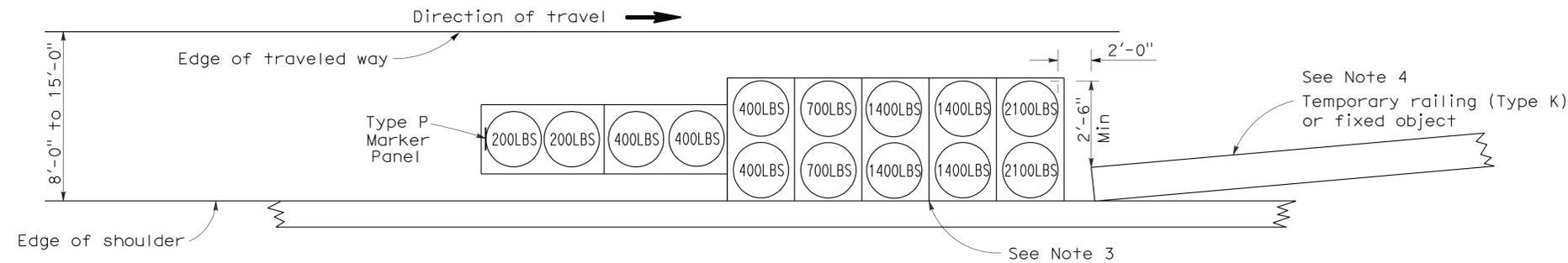
June 6, 2008
PLANS APPROVAL DATE

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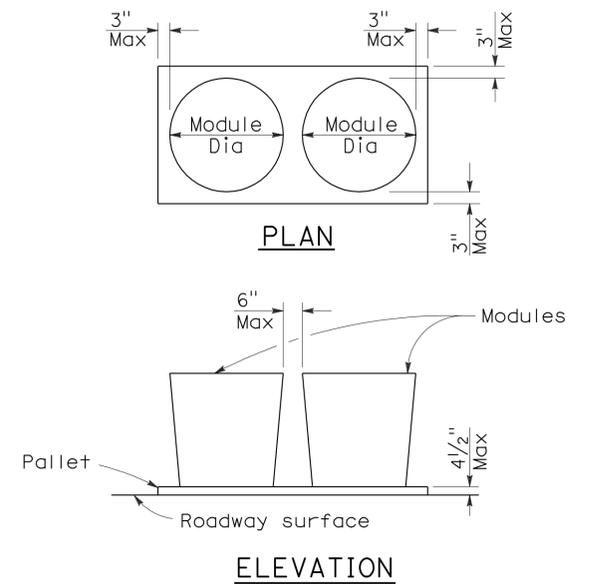
To accompany plans dated 10-17-11



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Sha	299	40.7/60.0	43	52

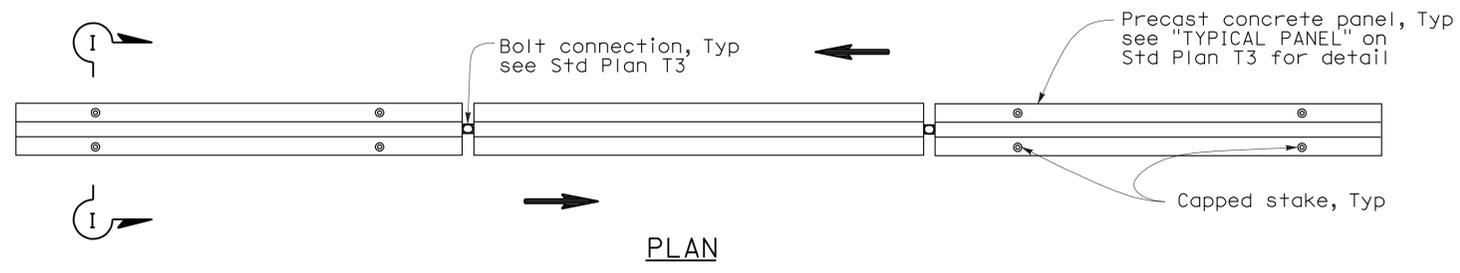
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

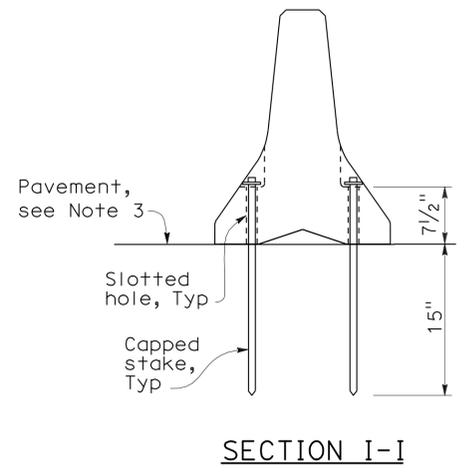
Randell D. Hiatt
No. C50200
Exp. 6-30-11
CIVIL
STATE OF CALIFORNIA

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To accompany plans dated 10-17-11

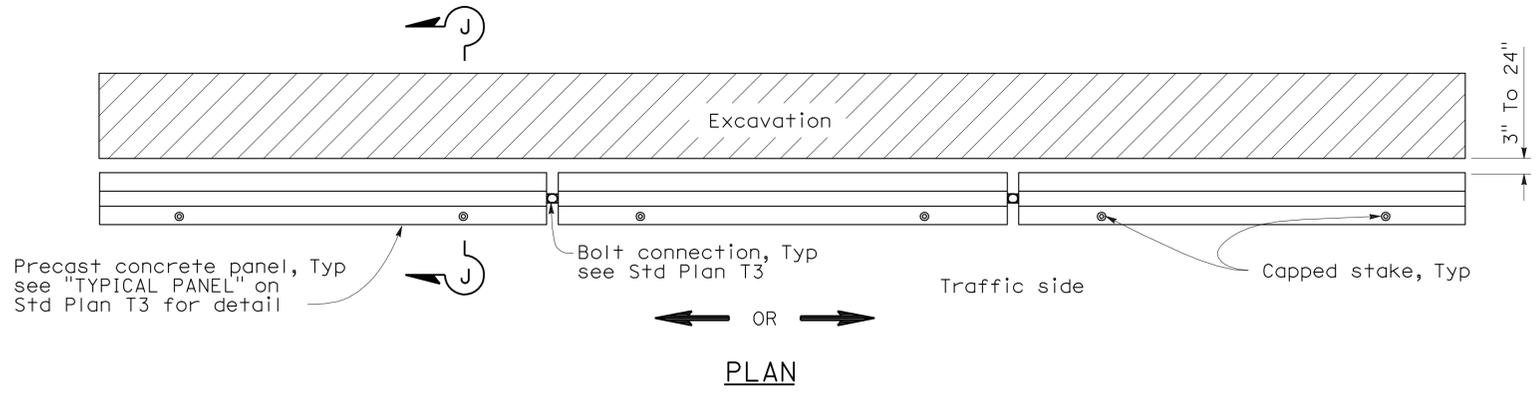


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

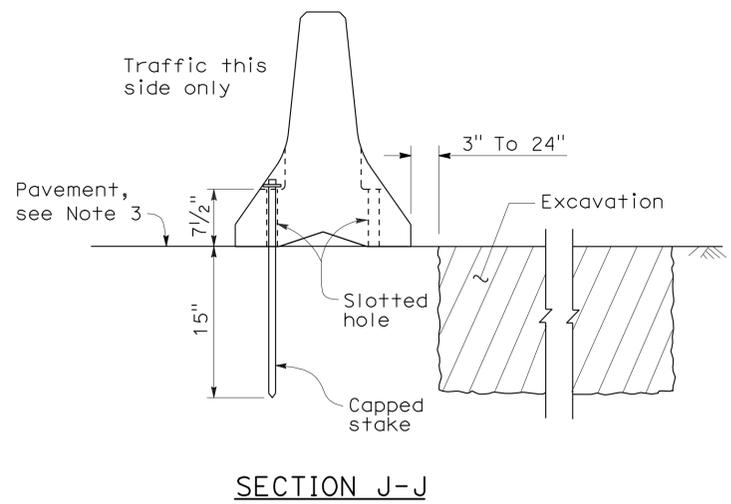


NOTES:

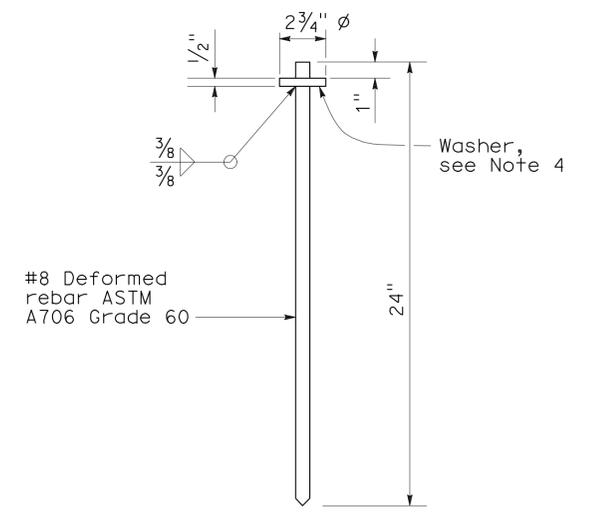
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of 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

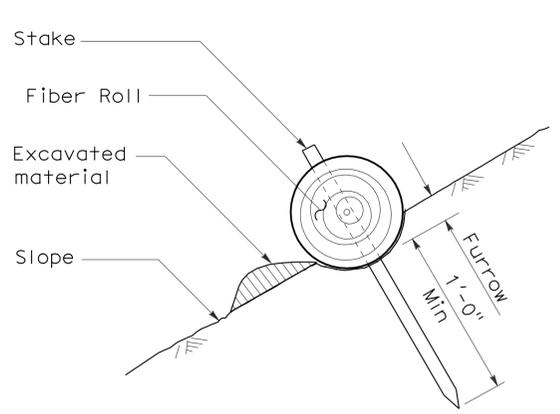
NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

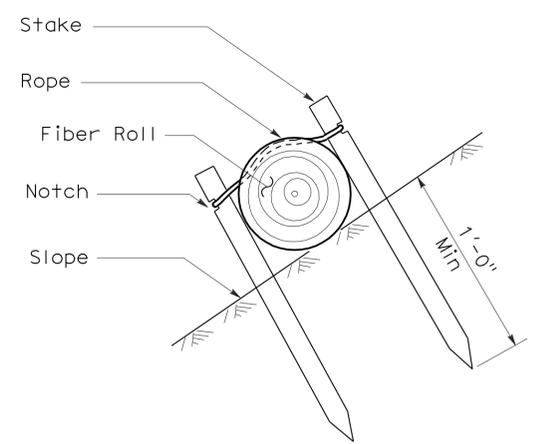
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	44	52

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 April 3, 2009
 PLANS APPROVAL DATE
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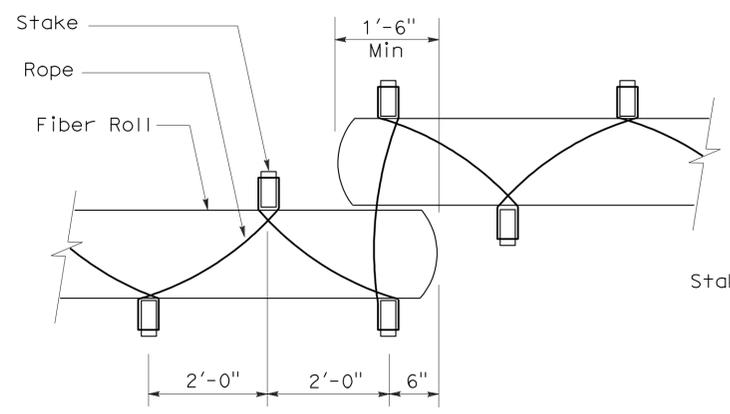
To accompany plans dated 10-17-11



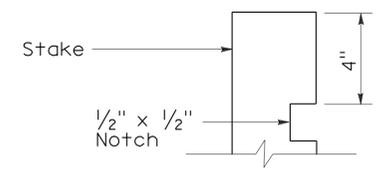
SECTION
TEMPORARY FIBER ROLL
(TYPE 1)



SECTION
TEMPORARY FIBER ROLL
(TYPE 2)

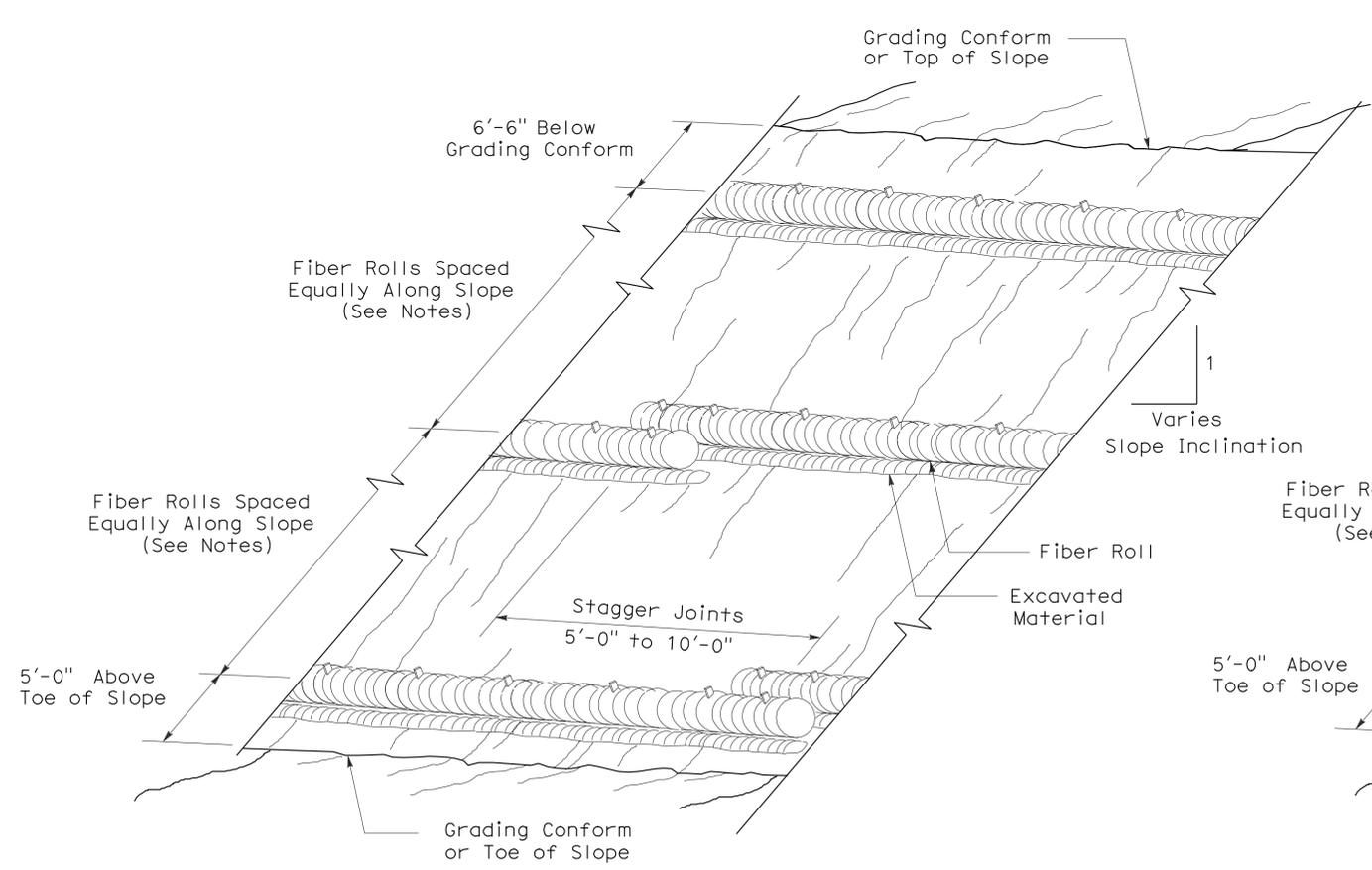


PLAN

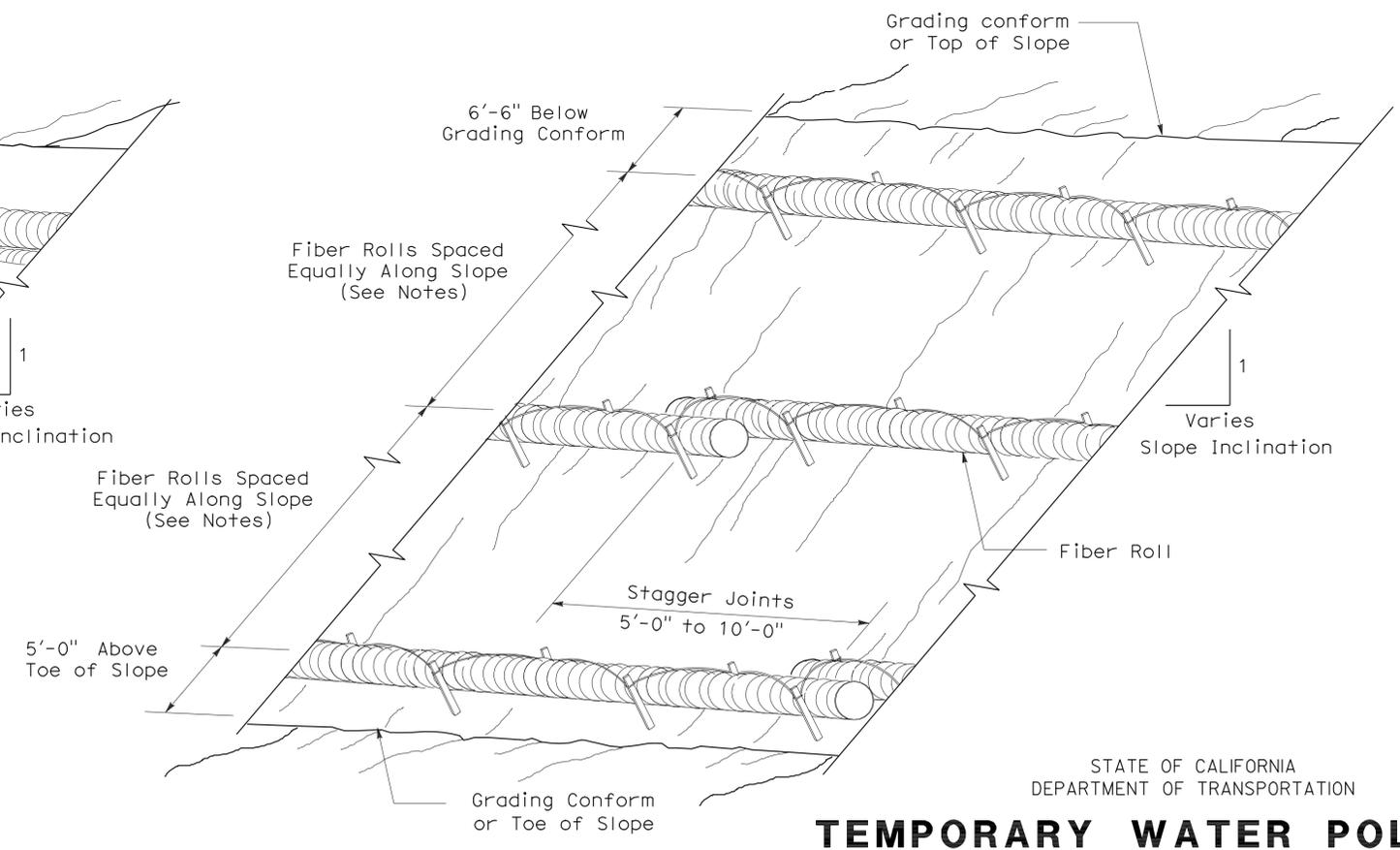


ELEVATION
STAKE NOTCH DETAIL

- 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)

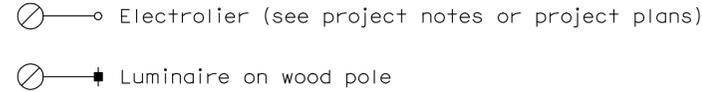
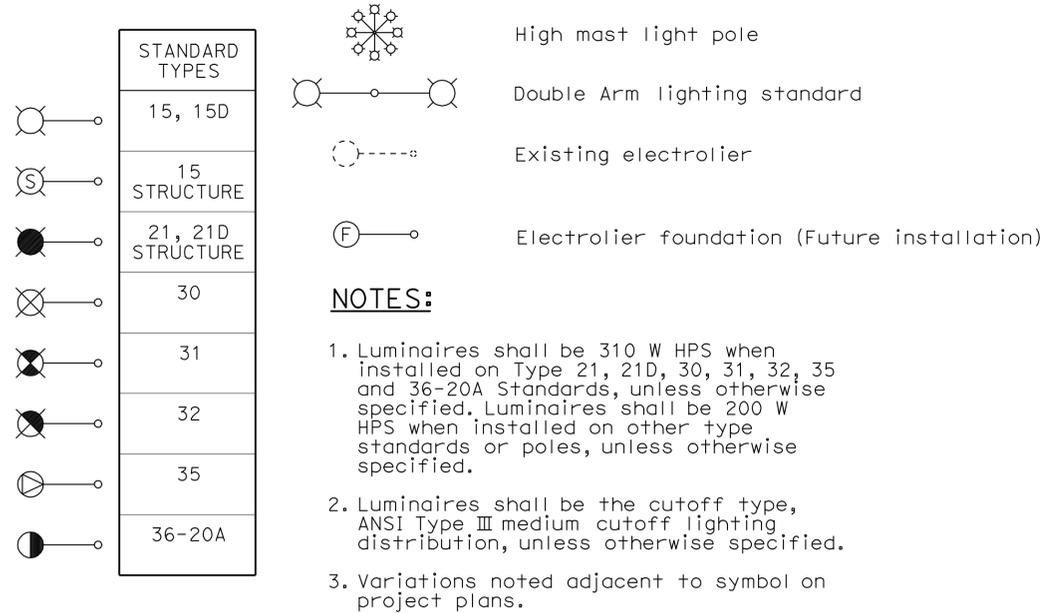


PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY FIBER ROLL)
 NO SCALE

2006 REVISED STANDARD PLAN RSP T56

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, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
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		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
02	Sha	299	40.7/60.0	45	52

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

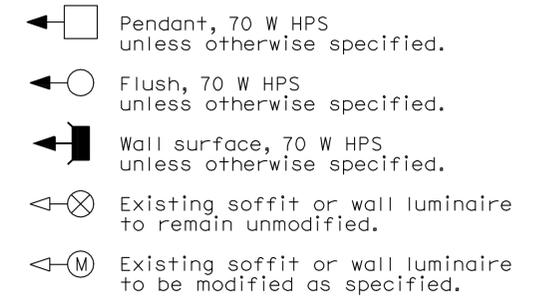
October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 10-17-11

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
02	Sha	299	40.7/60.0	46	52

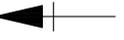
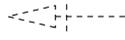
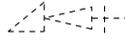
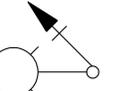
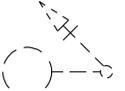
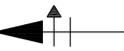
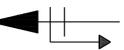
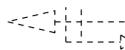
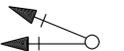
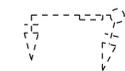
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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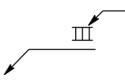
CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination 
		Conduit riser in/on structure or service pole

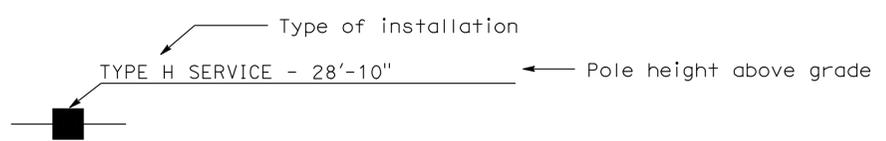
SIGNAL EQUIPMENT

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

SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	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

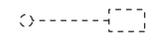
POLE-MOUNTED SERVICE DESIGNATION



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:

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

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

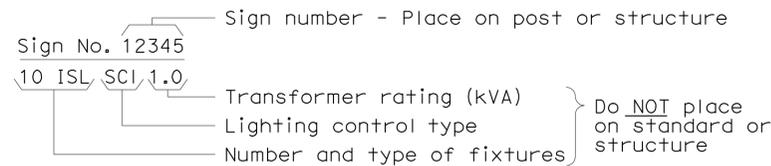
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

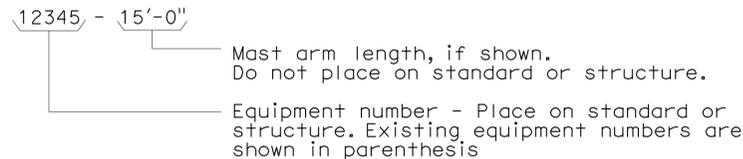
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

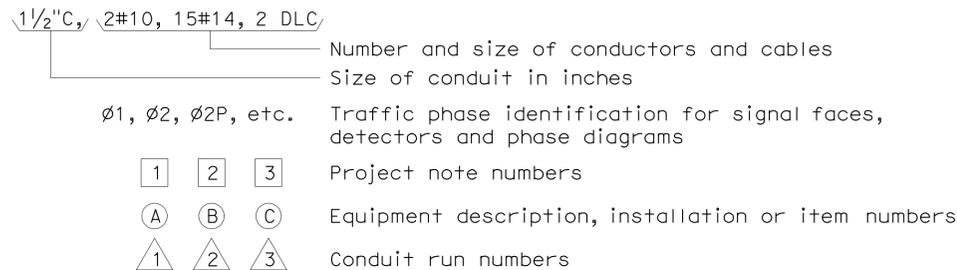
ILLUMINATED SIGN IDENTIFICATION NUMBER:



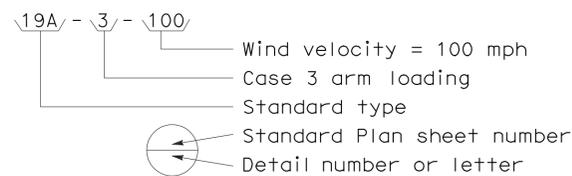
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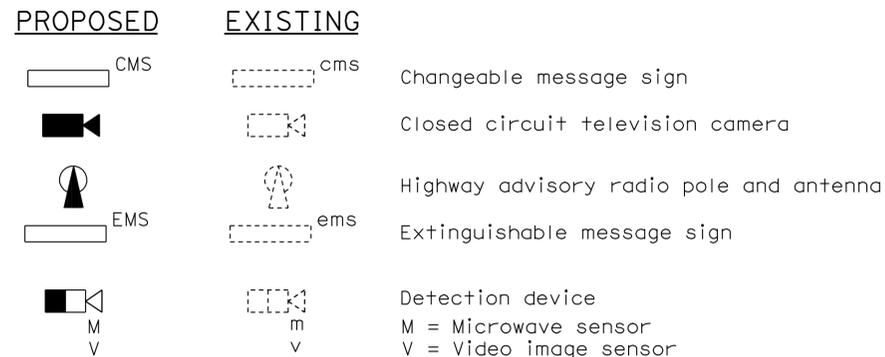
CONDUIT AND CONDUCTOR IDENTIFICATION:



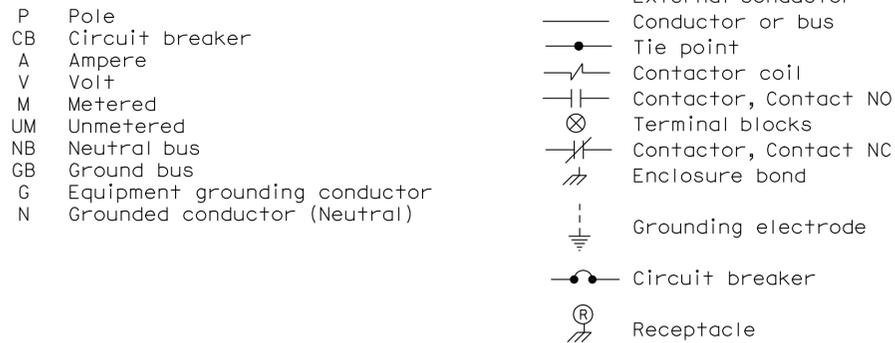
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



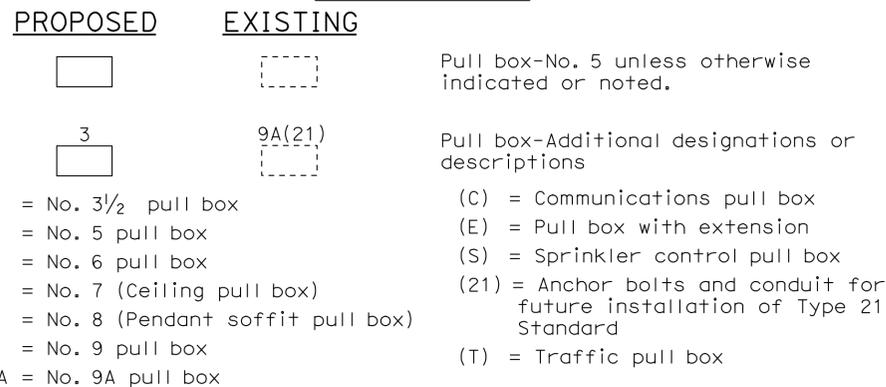
MISCELLANEOUS EQUIPMENT



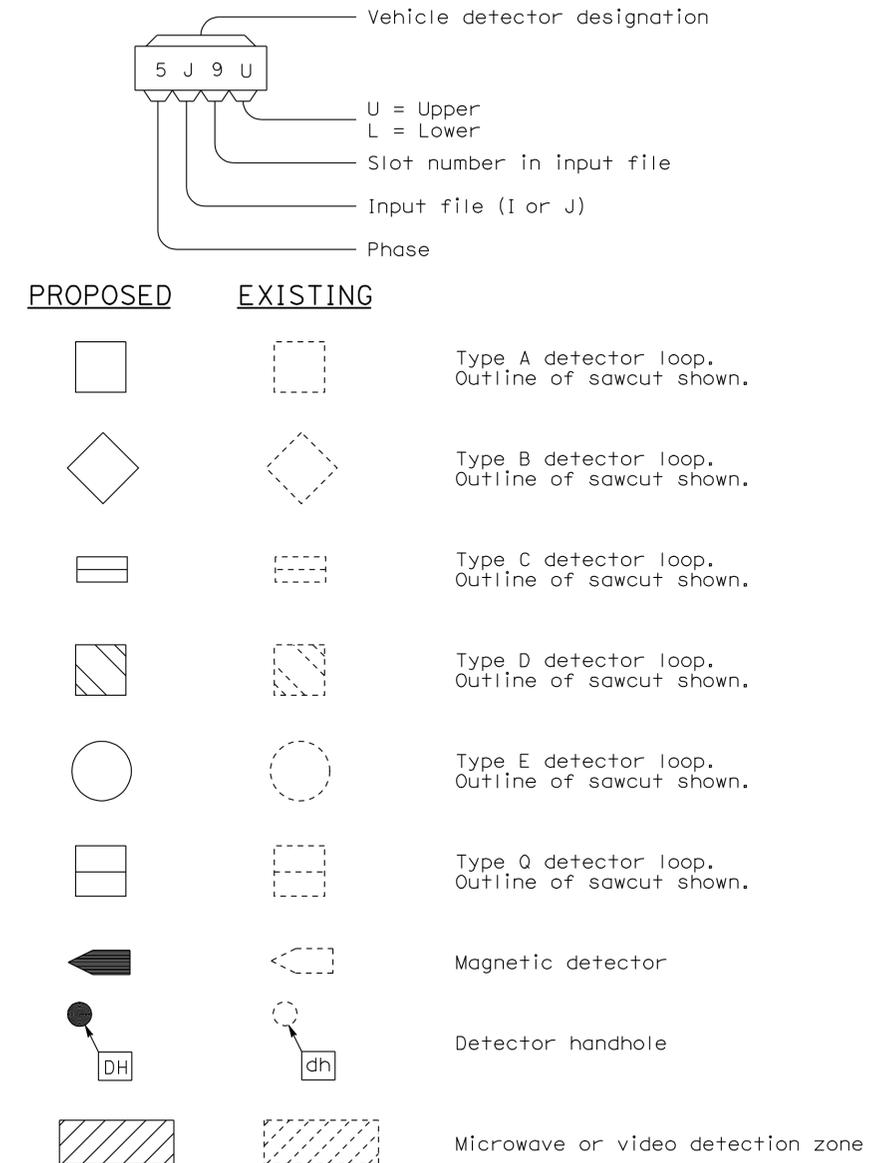
WIRING DIAGRAM LEGEND



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.

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	48	52

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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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 10-17-11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

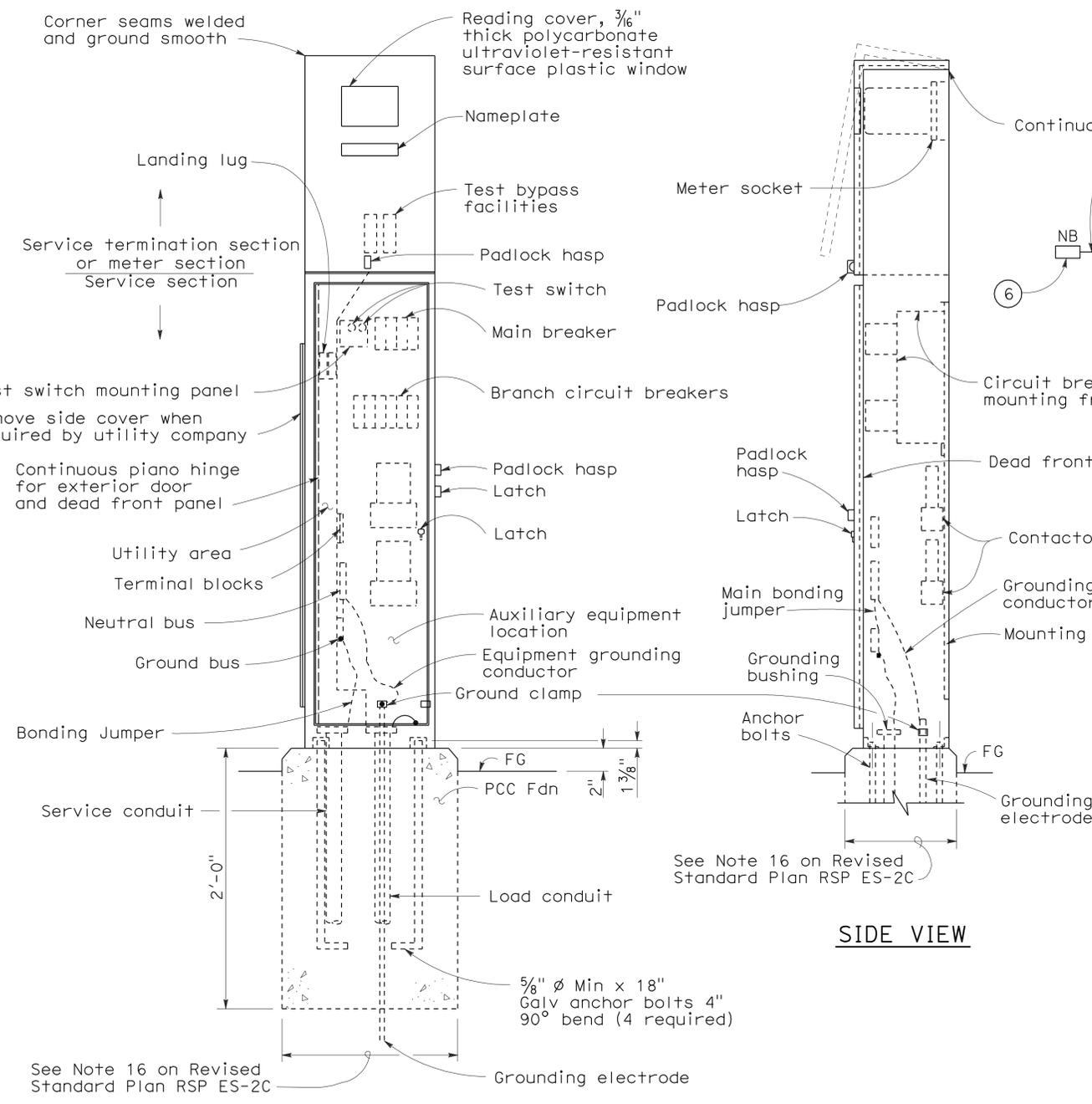
**ELECTRICAL SYSTEMS
(SERVICE EQUIPMENT NOTES
TYPE III SERIES)**

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

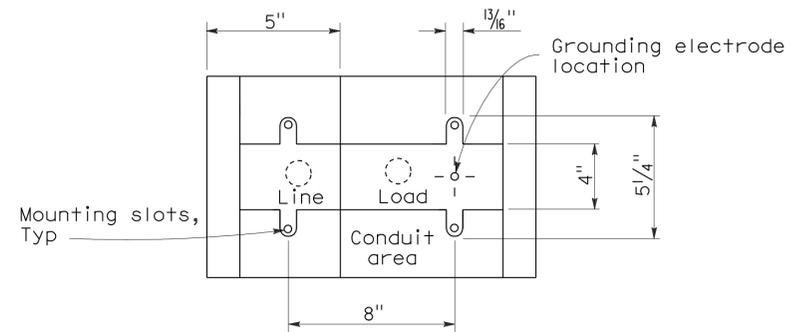
2006 REVISED STANDARD PLAN RSP ES-2C



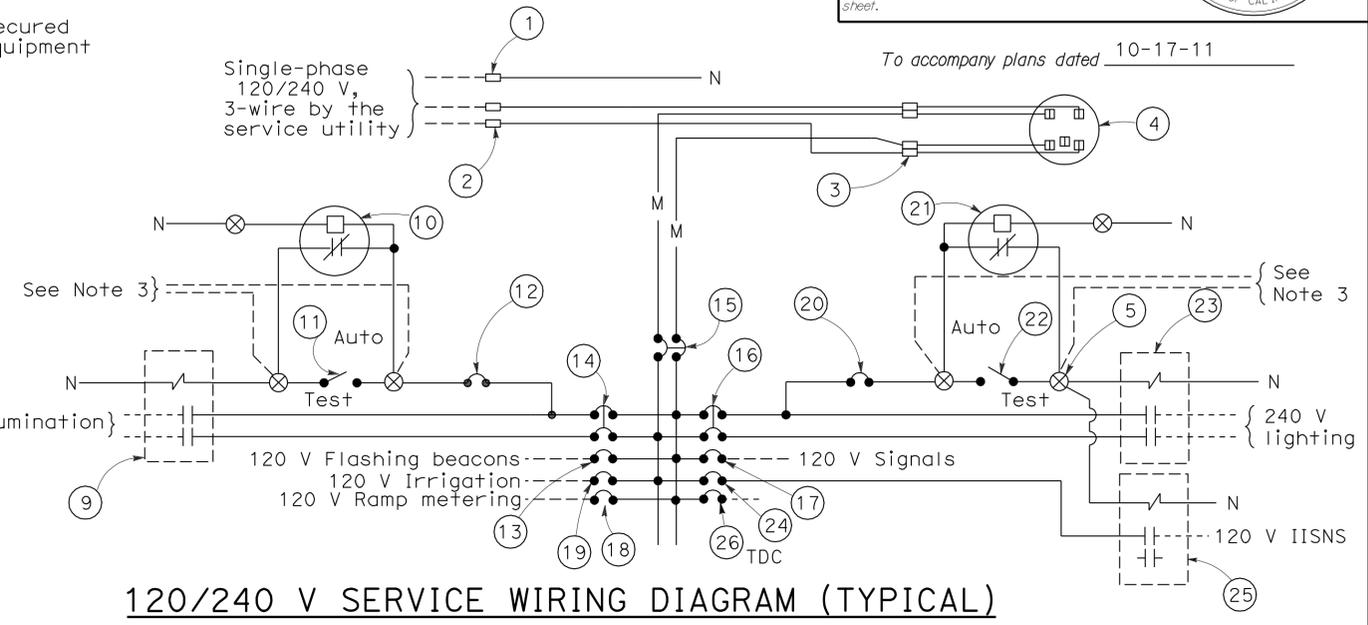
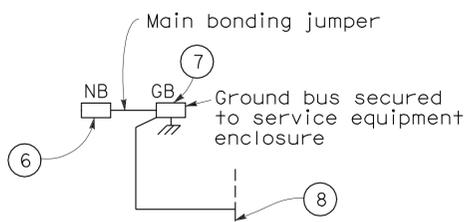
TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)

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.

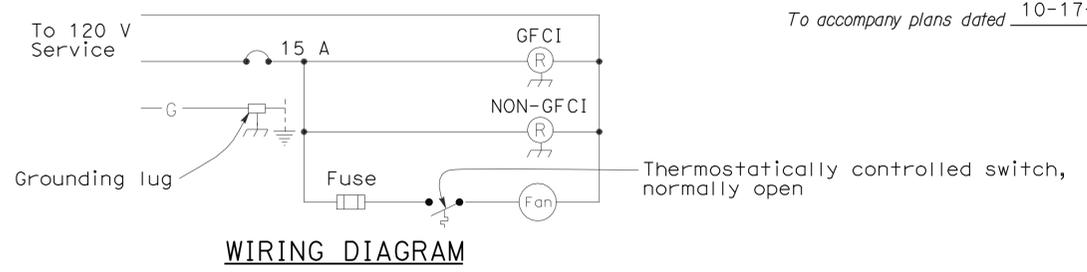
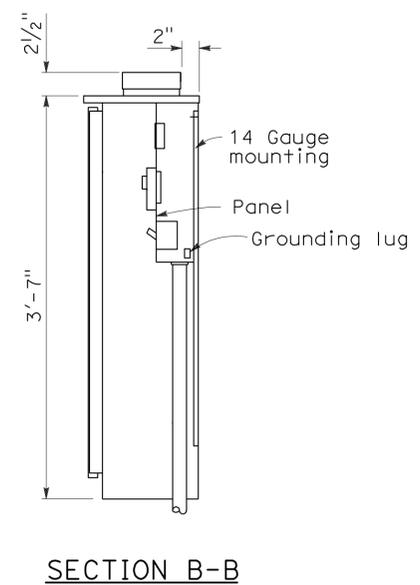
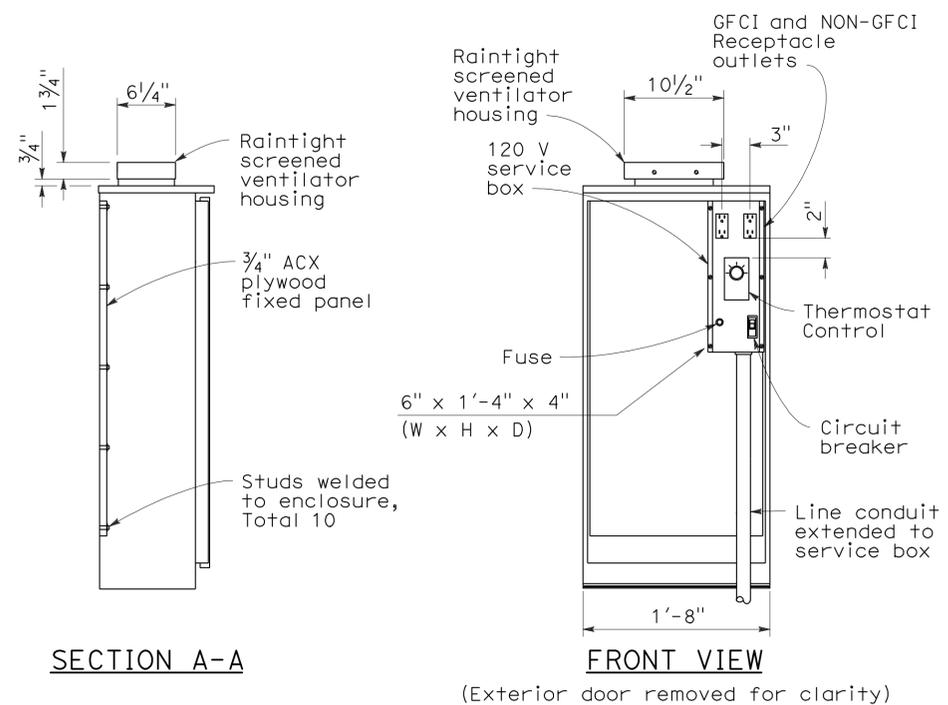
2006 REVISED STANDARD PLAN RSP ES-2D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	50	52

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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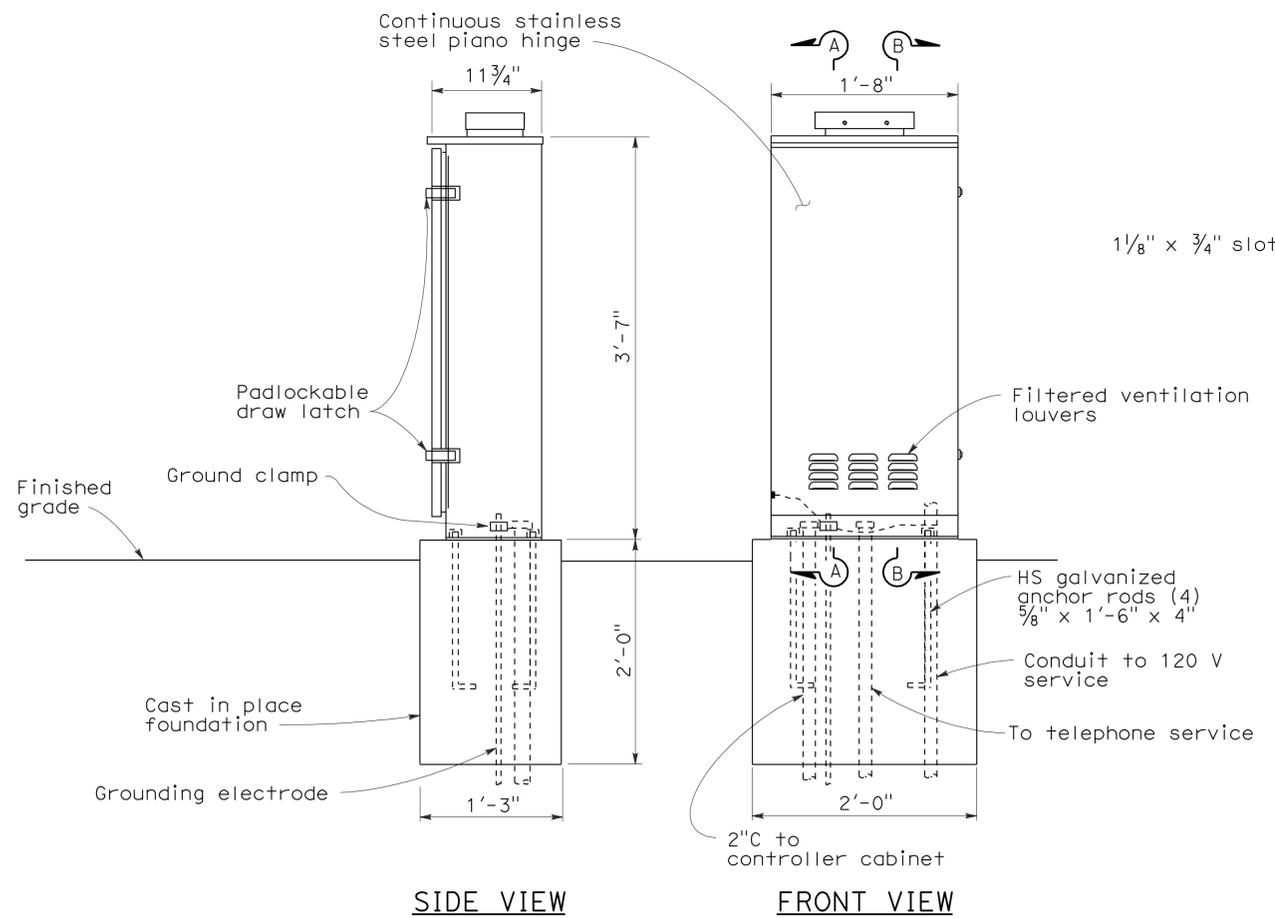
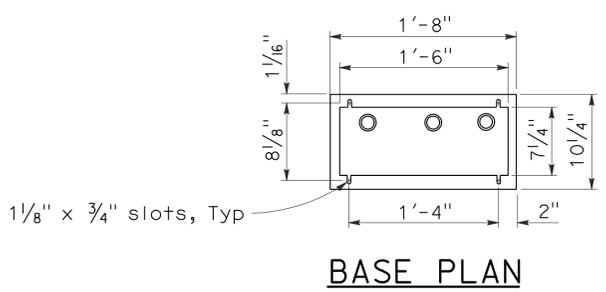
REGISTERED PROFESSIONAL ENGINEER
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

To accompany plans dated 10-17-11



NOTES:

- Telephone demarcation cabinet shall be furnished with a mounting panel, outlets, circuit breaker and deadfront plates in place. Dimensions are nominal.
- An approved mastic or caulking compound shall be placed on the foundation prior to placing the cabinet to seal openings between the bottom of the cabinet and the foundation.
- In unpaved areas, a raised PCC pad shall be placed in front of the telephone demarcation cabinet. Pad shall be 2'-0" x 1'-10" x 4" thick, with 2" above the finished grade.
- All conduits shall be bonded to the enclosure.
- Telephone demarcation cabinet:
 - Material shall be anodized aluminum (1/8" thick).
 - Fabrication shall conform to the requirements of the Standard Specifications.
 - The exterior door shall be side hung and secured with a padlockable draw latch, the padlock hole shall be a minimum diameter of 7/16" to receive a padlock.
 - Ventilation louvers shall be located on the door.
 - Fan shall be mounted in a ventilator housing.
 - Fan shall be thermostatically controlled and adjustable to turn on between 80°F and 130°F.
 - Fan circuit shall be fused at 175 percent of the fan motor capacity.
 - Fan capacity shall be at least 25 cubic feet per minute.
 - Fasten fixed mounting panels with nuts, lock and flat washers to 3/16" ø x 1" studs welded to enclosure.



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (TELEPHONE DEMARICATION
 CABINET, TYPE B)**

NO SCALE

RSP ES-3E DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-3E
 DATED MAY 1, 2006 - PAGE 414 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-3E

2006 REVISED STANDARD PLAN RSP ES-3E

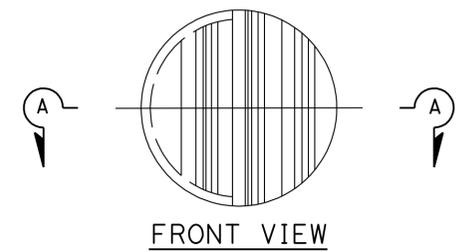
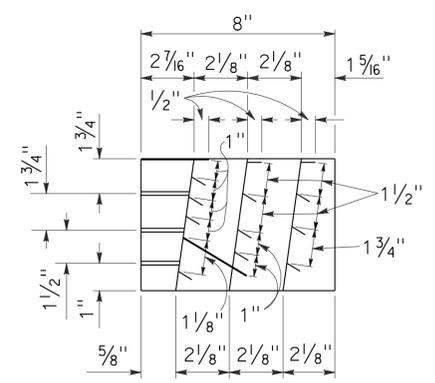
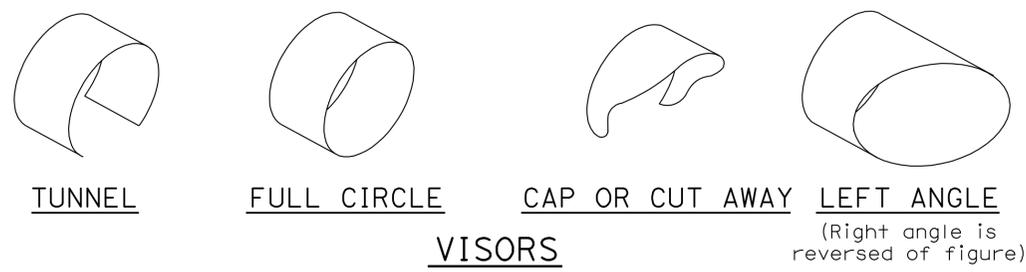
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	51	52

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
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 ELECTRICAL
 STATE OF CALIFORNIA

June 6, 2008
 PLANS APPROVAL DATE

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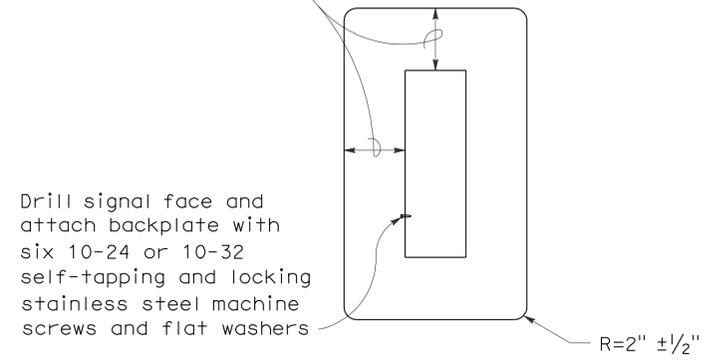
To accompany plans dated 10-17-11



DIRECTIONAL LOUVER

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

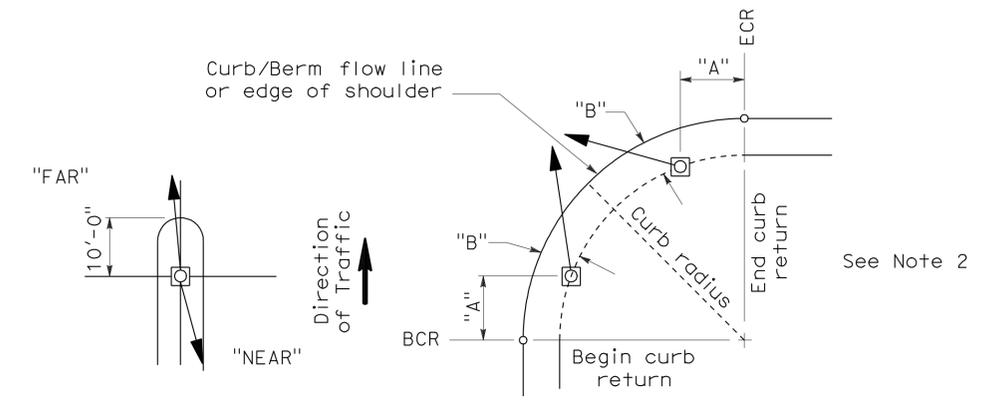
8" ± 1/2" for 8" sections
 5 1/2" ± 1/2" for 12" sections



8" AND 12" SECTIONS

BACKPLATE

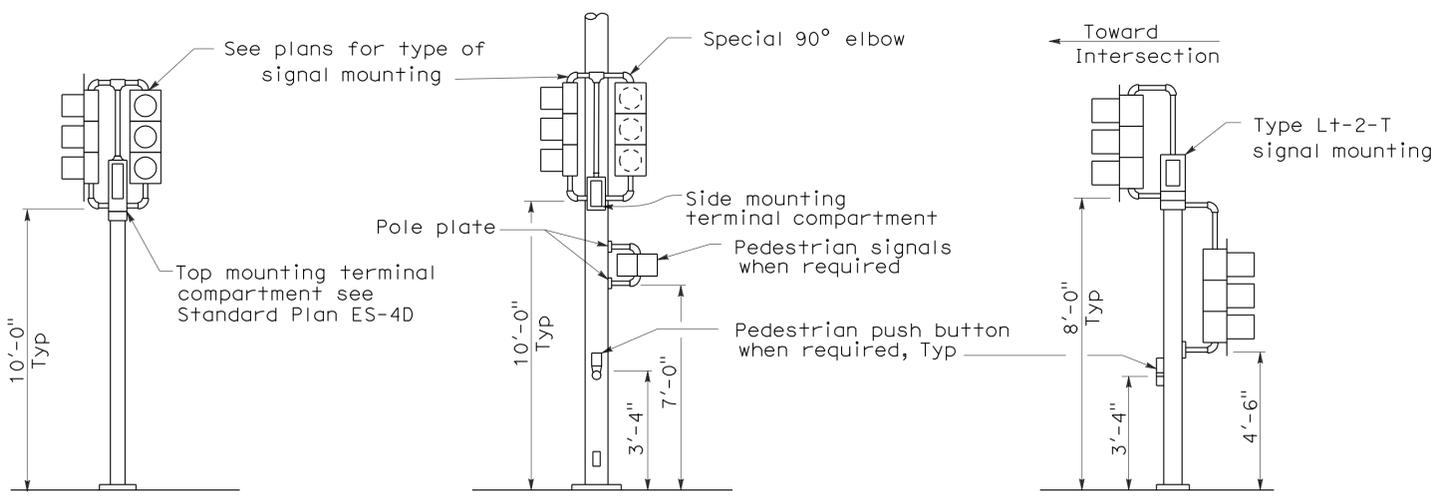
1/16" minimum thickness
 3001-14 aluminum, or plastic when specified



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

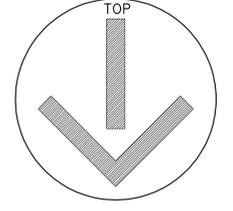
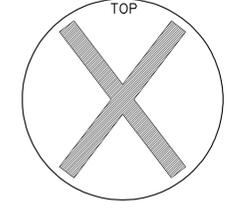
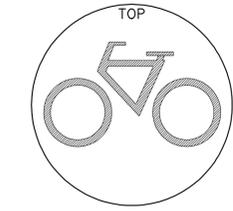
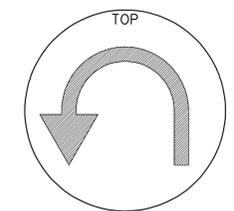
SIDE MOUNTED SIGNALS (SV AND SP)

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

TYPICAL SIGNAL INSTALLATIONS



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

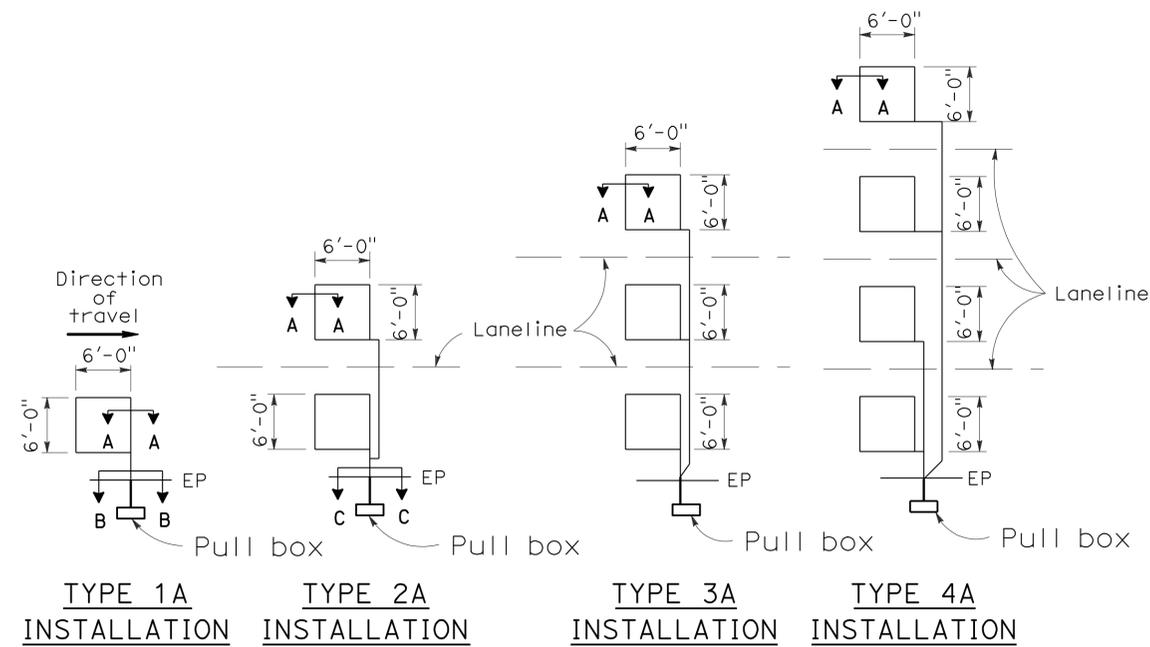
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	299	40.7/60.0	52	52

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

LOOP INSTALLATION PROCEDURE

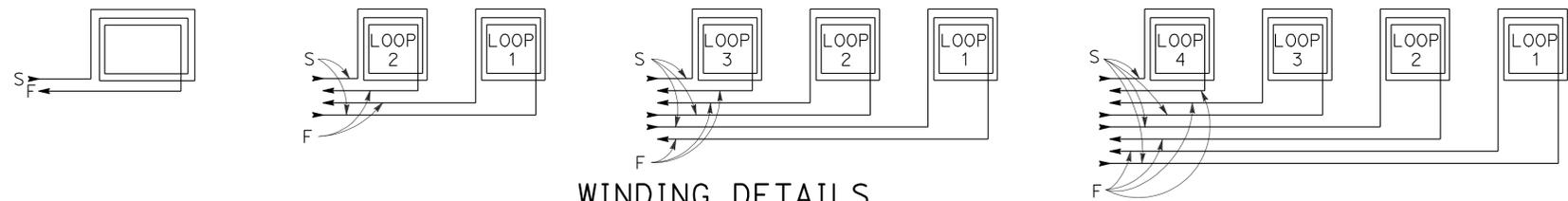
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no 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.



SAWCUT DETAILS

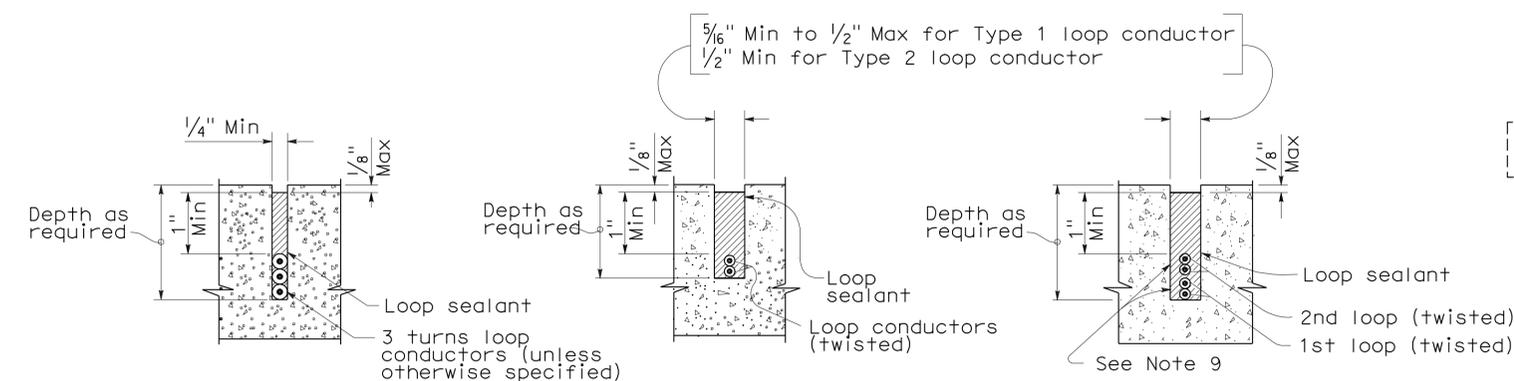
(Type A loop detector configurations illustrated)

- 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)

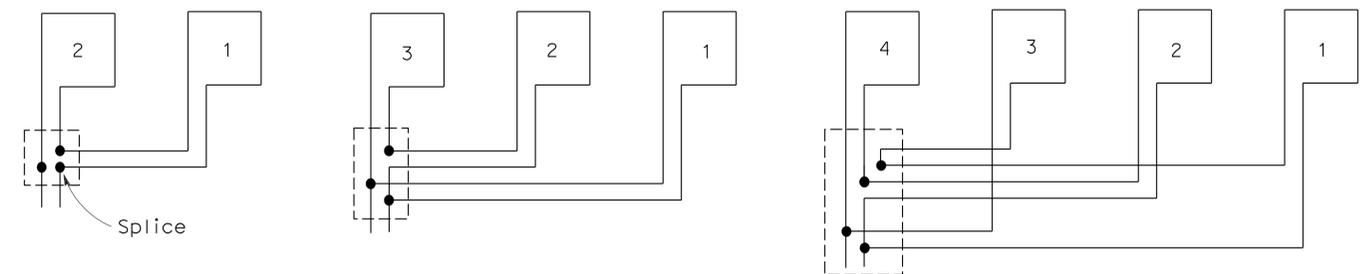


WINDING DETAILS

See Notes 6 and 7



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



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

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.

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A