

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	80	1.8/2.1	26	
REGISTERED CIVIL ENGINEER			DATE		
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>					
BAY AREA TOLL AUTHORITY 101 EIGHTH STREET OAKLAND, CA 94607			URS CORPORATION 55 SOUTH MARKET STREET SUITE 1500 SAN JOSE, CA 95113-2332		

PROJECT NOTES:

- ① INSTALL NEW TYPE D CABLE IN EXISTING CONDUIT (FOR CMS).
- ② INSTALL NEW TYPE D CABLE IN NEW 2" TYPE 1 CONDUIT (CMS).
- ③ INSTALL NEW TYPE 1 (1 1/2" C) CONDUIT WITH 4 #6 & 1 #8G (120/208V PANEL MPE1). PROVIDE CONDUIT SUPPORT. ROUTE CONDUIT ALONG EXISTING CONDUIT.
- ④ EXISTING TYPE 1 (3/4" C) CONDUIT WITH 4 #10 TO EXISTING PANEL "MTPE" TO BE REMOVED & SALVAGED.
- ⑤ TO EXISTING PANEL K-K (CKT #10, 70A/3 MAIN)(EMERGENCY GENERATOR POWER).
- ⑥ TO EXISTING MAIN SWBD (CKT #2, 175A/3 MAIN)(NORMAL BRANCH POWER).
- ⑦ TO EXISTING UPS PANEL (150A/3 MAIN)(UPS POWER).
- ⑧ AT EXISTING PANEL MPE, INSTALL ONE 50A-3P CIRCUIT BREAKER IN EXISTING SPACES (FOR NEW PANEL-MPE1 FEEDER). SEE SHEET E-23 FOR DETAILS.
- ⑨ INSTALL NEW TYPE 1 (3/4" C) CONDUIT WITH 2 #12 & 1 #12G. (120V, 1-PHASE, CMS CABINET). PROVIDE CONDUIT SUPPORT AS REQUIRED.
- ⑩ ALL WALL AND FLOOR CONCRETE PENETRATIONS SHALL BE CORE-DRILLED AS DIRECTED AND APPROVED BY CALTRANS SUFFICIENTLY LARGE TO ACCOMMODATE CONDUIT PLUS FLUSH MOUNTED END BELL. ALL CORE-DRILLS SHALL BE MADE WATER-TIGHT, SEALED AROUND CONDUIT PER CALTRANS REQUIREMENTS WITH FAST-SETTING EPOXY RESIN THROUGHOUT THE DEPTH OF HOLE.
- ⑪ INSTALL NEW INDICATOR LIGHT CANOPY CABLE.
- ⑫ INSTALL NEW INDICATOR LIGHT BOOTH CABLE.
- ⑬ INSTALL NEW INDICATOR LIGHT PANEL CABLE.
- ⑭ INSTALL NEW CMS COMM CABLE.
- ⑮ INSTALL NEW TYPE 1 (1 1/2" C) CONDUIT WITH 4 #12 & 1 #12G (120V, CMS). PROVIDE CONDUIT SUPPORT AS NECESSARY.
- ⑯ INSTALL NEW SURFACE MOUNTED PANEL - MPE1. 100A BUS, 120/208 V, 3-PHASE WITH 50A-3P MAIN, 24 POLES. SEE SHEET E-24 FOR SCHEDULE.
- ⑰ DISCONNECT EXISTING FEEDERS TO EXISTING MINI TOLL PLAZA AT THE BEGINNING OF DEMOLITION STAGE OR WHEN DIRECTED BY ENGINEER.
- ⑱ ALL ELECTRICAL AND COMMUNICATIONS CIRCUITS TO THE MINI TOLL PLAZA ARE TO BE DISCONNECTED AND REMOVED. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH CALTRANS AND BATA ON ALL REMOVED MATERIALS AND EQUIPMENT.
- ⑲ ROUTE NEW ETHERNET COPPER CABLE FROM CABINET #4 SWITCH TO CABINET #1 SWITCH.
- ⑳ REMOVE AND DISPOSE OF EXISTING INDICATOR LIGHT CONTROL CABLE.
- ㉑ INSTALL NEW CMS CABINET AS SPECIFIED. (SAME AS EXISTING CMS CABINET IN UTILITY TUNNEL). ALL CMS EQUIPMENT AND CABLING SHALL BE FURNISHED, INSTALLED, INTEGRATED AND TESTED BY CONTRACTOR. SEE SHEET E-14, E-16 AND E-18 FOR CMS CABINET DETAILS.
- ㉒ INSTALL NEW NON-FUSIBLE 30A, 2P, 600V SAFETY SWITCH IN NEMA 3R ENCLOSURE. MOUNT SWITCH ADJACENT TO CMS SIGN AND PROVIDE 1" LIQUIDTIGHT FLEXIBLE CONDUIT CONNECTION BETWEEN CMS PANEL ENCLOSURE AND SAFETY SWITCH.
- ㉓ INSTALL ONE 15A, 1P, 120V CIRCUIT BREAKER FOR CMS CABINET #4 IN (E)SPACE #30.
- ㉔ MODIFY EXISTING GREEN INDICATOR LIGHT AND REPLACE WITH GREEN/FLASHING AMBER LED INDICATOR BULB.
- ㉕ TO EXISTING UPS PANEL (70A/3P MAIN)(UPS POWER).
- ㉖ REMOVE AND DISPOSE OF AS DIRECTED BY THE ENGINEER.
- ㉗ INSTALL NEW TYPE 1 (1 1/2" C) CONDUIT. SEE SHEETS E-32 AND E-33 FOR CONDUIT SCHEDULE.
- ㉘ NOT USED
- ㉙ NOT USED
- ㉚ REMOVE EXISTING INDICATOR LIGHT SWITCH IN TOLL BOOTH AND REPLACE WITH NEW LED PUSH BUTTON INDICATION BOX. SEE SHEETS E-27 TO E-29 FOR INDICATOR LIGHT WIRING DIAGRAM.
- ㉛ INSTALL NEW CMS CONTROLLERS. ROUTE CAT-5E PATCH CABLES FROM EACH CMS CONTROLLER TO NEW ETHERNET SWITCH IN CMS CABINET #1.
- ㉜ INSTALL NEW TYPE 1 (2" C) CONDUIT.
- ㉝ INSTALL NEW 12-PORT FIBER PATCH PANEL IN EXISTING SPARE PANEL AND TERMINATE NEW TYPE D CABLE.
- ㉞ INSTALL NEW TYPE 2 (2" C) CONDUIT.
- ㉟ INSTALL TYPE 1 JUNCTION BOX AS SPECIFIED IN CONTRACT DOCUMENTS.
- ㊱ INSTALL NEW TYPE 1 (1 1/2" C) CONDUIT.
- ㊲ INSTALL NEW TYPE D (12-STRAND) FIBER CABLE.
- ㊳ INSTALL CONDUIT AND PULL (JUNCTION) BOXES AS NEEDED OR REQUIRED TO REACH EACH TOLL BOOTH.
- ㊴ NOT USED
- ㊵ INSTALL NEW TYPE 1 (1" C) CONDUIT WITH 2 #14 & 1 #14G (120V, CMS CABINET 4).
- ㊶ REMOVE AND REPLACE (E) 20A-1P, CIRCUIT BREAKERS #4 AND 6 WITH TWO 15A-1P CIRCUIT BREAKERS FOR CMS CABINETS 5 AND 6. SEE SHEETS E-24 TO E-26 FOR PANEL SCHEDULES.
- ㊷ INSTALL TYPE 1 (1" C) CONDUIT WITH 2 #14 & #14G (120V, CMS CABINET 6).
- ㊸ INSTALL TYPE 1 (1" C) CONDUIT WITH 4 #14 & 2 #14G (120V, CMS CABINETS 5 AND 6).
- ㊹ REPLACE (E) FIVE 20A, 1P CB 4, 6, 8, 10 & 12 WITH 15A, 1P CIRCUIT BREAKERS (FOR CMS CABINETS 13, 14, 15, 16 AND 17). SEE SHEETS E-24 TO E-26 FOR PANEL SCHEDULES.
- ㊺ INSTALL TYPE 1 (1 1/2" C) CONDUIT WITH 8 #14 & 2 #14G (120V, CMS SIGNS 13, 14, 15, 16 AND 17).
- ㊻ REPLACE THREE (E) 20A, 1P CIRCUIT BREAKERS WITH ONE 40A, 3P CIRCUIT BREAKER FOR NEW PANEL - TB4 (120/280V). SEE SHEETS E-24 TO E-26 FOR PANEL SCHEDULES.
- ㊼ INSTALL INDICATOR LIGHT CABLES IN NEW 2" TYPE 1 CONDUIT WITH REQUIRED ELBOWS, ETC. TO INTERFACE WITH RISER.
- ㊽ INSTALL AND TERMINATE INDICATOR LIGHT CABLES TO NEW TERMINAL BLOCKS AND WIRE TO SWITCH PANEL AS SHOWN IN PLANS AND APPROVED BY THE ENGINEER.

PROJECT NOTES

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

RELATIVE BORDER SCALE
IS IN INCHES



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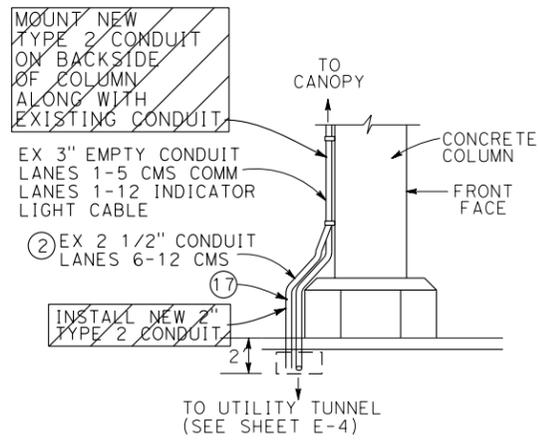
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CALCULATED, DESIGNED BY CHECKED BY
REVISED BY DATE REVISED

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BAY AREA TOLL AUTHORITY 101 EIGHTH STREET OAKLAND, CA 94607	URS CORPORATION 55 SOUTH MARKET STREET SUITE 1500 SAN JOSE, CA 95113-2332
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DETAIL A

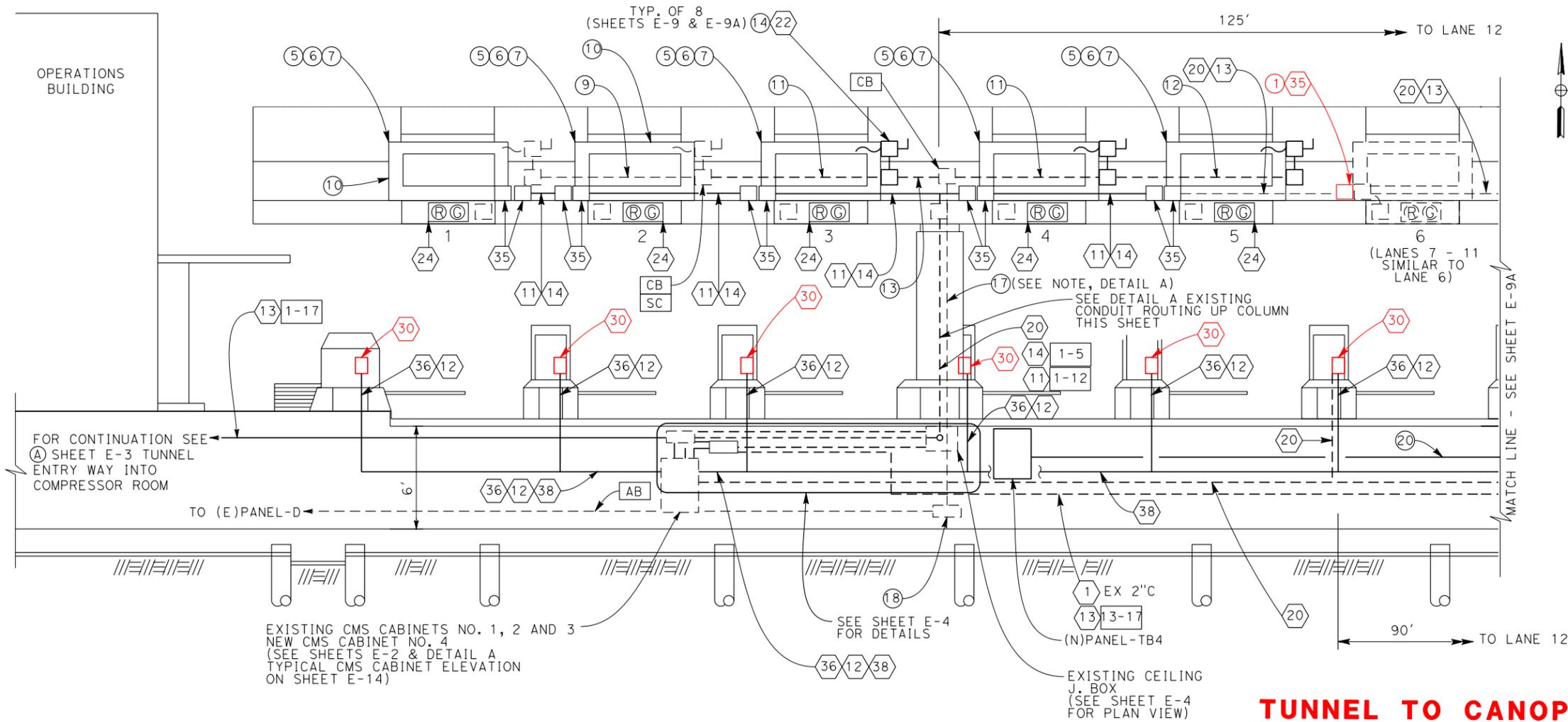
CONDUIT ROUTING UP COLUMN LANES 3 AND 4

NOTE:

CMS POWER SHALL USE EXISTING 1 1/2" C ON NORTH BENT COLUMN (EXISTING EMS CONDUIT) (SEE SHEET E-4)

SHEET NOTES:

- ① CONTRACTOR TO INTERCEPT AND REMOVE EXISTING INDICATOR LIGHT CABLES IN EXISTING JUNCTION BOX. INSTALL NEW INDICATOR LIGHT CABLES FROM INDICATOR LIGHT HOUSING DOWN TO CMS CABINET. SEE SHEET E-27 TO 29 FOR PROPOSED WIRING CONFIGURATION.
- ② EXISTING GREEN, BLACK, & WHITE CABLES TO BE REMOVED.
- ③ FINAL LOCATION OF CONDUIT AND JUNCTION BOX ROUTING AND ATTACHMENT DETAILS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ENGINEER PRIOR TO INSTALLATION.
- ④ ROUTE CONDUIT UP THE BACKSIDE OF THE COLUMN ALONG WITH EXISTING CONDUIT. SEE SHEET E-4 FOR CANOPY PLAN VIEW.
- ⑤ REMOVE AND SALVAGE EXISTING CMS/EMS PANELS IN LANES AS DIRECTED BY CALTRANS AND BATA AND INSTALL NEW CMS PANELS.
- ⑥ SEE SHEETS E-23 TO 26 FOR ELECTRICAL DETAILS.
- ⑦ SEE S-1, S-3, AND S-4 SHEETS FOR CMS PANEL MOUNTING TO CANOPY DETAILS.
- ⑧ INTERCEPT EXISTING CONDUIT, CUT FLUSH AND INSTALL NEW JUNCTION BOX AND TERMINATE CONDUIT IN JUNCTION BOX.
- ⑨ (E)2 #14 & #14G (120V, CMS POWER).
- ⑩ DISCONNECTED (E)SIGN FROM (E)BRANCH CIRCUIT TO ACCOMMODATE REMOVAL. CONNECT (N)SIGN TO NEW BRANCH CIRCUIT (FROM TB4).
- ⑪ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 4 #14 & 1 #14G (120V, CMS POWER).
- ⑫ INSTALL TYPE 2 (1" C) CONDUIT WITH 2 #14 & 1 #14G (120V, CMS POWER).
- ⑬ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 6 #14 & 1 #14G (120V, CMS POWER).
- ⑭ INSTALL TYPE 2 JUNCTION BOX.
- ⑮ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 10 #14 & 2 #14G (120V, CMS POWER).
- ⑯ INSTALL TYPE 1 (1 1/2" C) CONDUIT WITH 10 #14 & 2 #14G (120V, CMS POWER).
- ⑰ INSTALL 10 #14 & 1 #14G (120V, CMS POWER) IN (E)1 1/2" CONDUIT.
- ⑱ INTERCEPT (E)CONDUIT FROM CMS SIGNS AND EXTEND TO (N)PANEL-TB4.
- ⑲ SEE SHEETS E-24 TO E-26 FOR ELECTRICAL PANELBOARD SCHEDULES.
- ⑳ INSTALL TYPE 1 (1" C) CONDUIT WITH 4 #8 & 1 #10G (120/208V POWER)



ELEVATION VIEW

TUNNEL TO CANOPY CONDUIT ROUTING (SHEET 1 OF 2)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY



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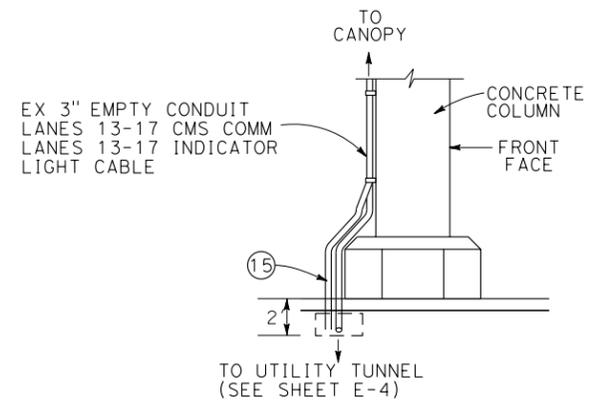
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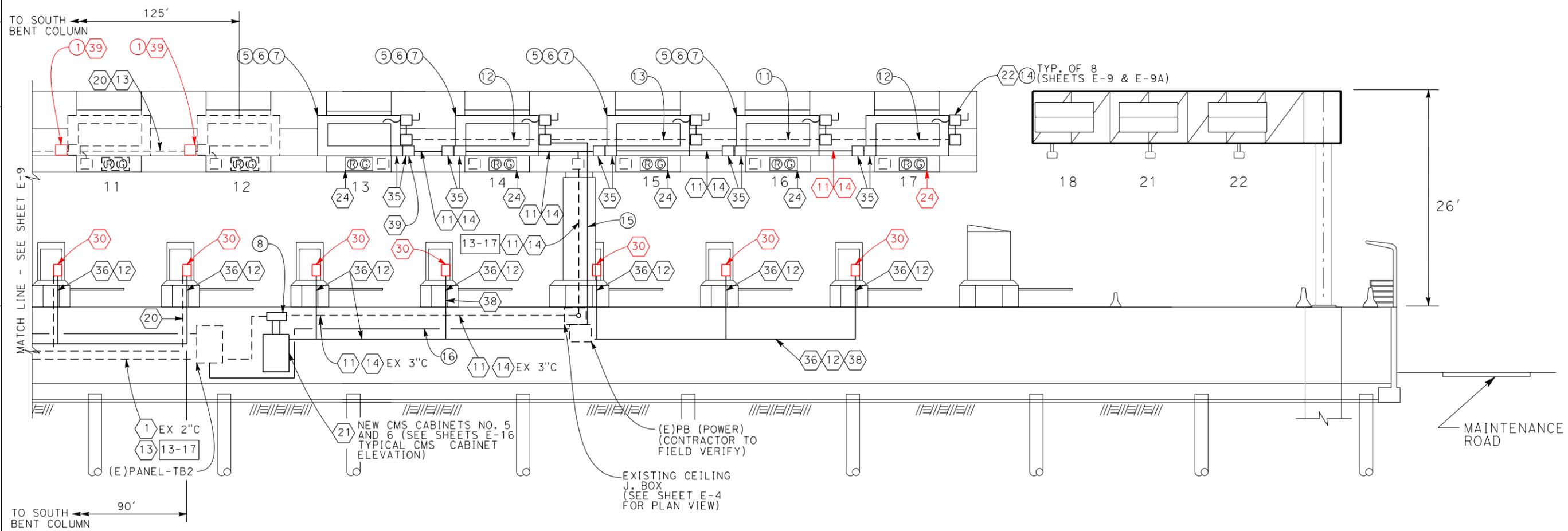
SHEET NOTES:

- ① CONTRACTOR TO INTERCEPT AND REMOVE EXISTING INDICATOR LIGHT CABLES IN EXISTING JUNCTION BOX. INSTALL NEW INDICATOR LIGHT CABLES FROM INDICATOR LIGHT HOUSING DOWN TO CMS CABINET. SEE SHEET E-27 TO 29 FOR PROPOSED WIRING CONFIGURATION.
- ② EXISTING GREEN, BLACK, & WHITE CABLES TO BE REMOVED.
- ③ FINAL LOCATION OF CONDUIT AND JUNCTION BOX ROUTING AND ATTACHMENT DETAILS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ENGINEER PRIOR TO INSTALLATION.
- ④ ROUTE CONDUIT UP THE BACKSIDE OF THE COLUMN ALONG WITH EXISTING CONDUIT. SEE SHEET E-4 FOR CANOPY PLAN VIEW.
- ⑤ REMOVE AND SALVAGE EXISTING CMS/EMS PANELS IN LANES AS DIRECTED BY CALTRANS AND BATA AND INSTALL NEW CMS PANELS.
- ⑥ SEE SHEETS E-23 TO 26 FOR ELECTRICAL DETAILS.
- ⑦ SEE S-1, S-3, AND S-4 SHEETS FOR CMS PANEL MOUNTING TO CANOPY DETAILS.
- ⑧ INTERCEPT EXISTING CONDUIT, CUT FLUSH AND INSTALL NEW JUNCTION BOX AND TERMINATE CONDUIT IN JUNCTION BOX.
- ⑨ (E)2 #14 & #14G (120V, CMS POWER).
- ⑩ DISCONNECTED (E)SIGN FROM (E)BRANCH CIRCUIT TO ACCOMMODATE REMOVAL. CONNECT (N)SIGN TO NEW BRANCH CIRCUIT (FROM TB4).
- ⑪ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 4 #14 & 1 #14G (120V, CMS POWER).
- ⑫ INSTALL TYPE 2 (1" C) CONDUIT WITH 2 #14 & 1 #14G (120V, CMS POWER).
- ⑬ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 6 #14 & 1 #14G (120V, CMS POWER).
- ⑭ INSTALL TYPE 2 JUNCTION BOX.
- ⑮ INSTALL TYPE 2 (1 1/2" C) CONDUIT WITH 10 #14 & 2 #14G (120V, CMS POWER)
- ⑯ INSTALL TYPE 1 (1 1/2" C) CONDUIT WITH 10 #14 & 2 #14G (120V, CMS POWER)
- ⑰ INSTALL 10 #14 & 1 #14G (120V, CMS POWER) IN (E)1 1/2" CONDUIT.
- ⑱ INTERCEPT (E)CONDUIT FROM CMS SIGNS AND EXTEND TO (N)PANEL-TB4.
- ⑲ SEE SHEETS E-24 TO E-26 FOR ELECTRICAL PANELBOARD SCHEDULES.
- ⑳ INSTALL TYPE 1 (1" C) CONDUIT WITH 4 #8 & 1 #10G (120/208V POWER)



DETAIL A

CONDUIT ROUTING UP COLUMN LANES 14 AND 15



ELEVATION VIEW

TUNNEL TO CANOPY CONDUIT ROUTING (SHEET 2 OF 2)

NO SCALE

E-9A

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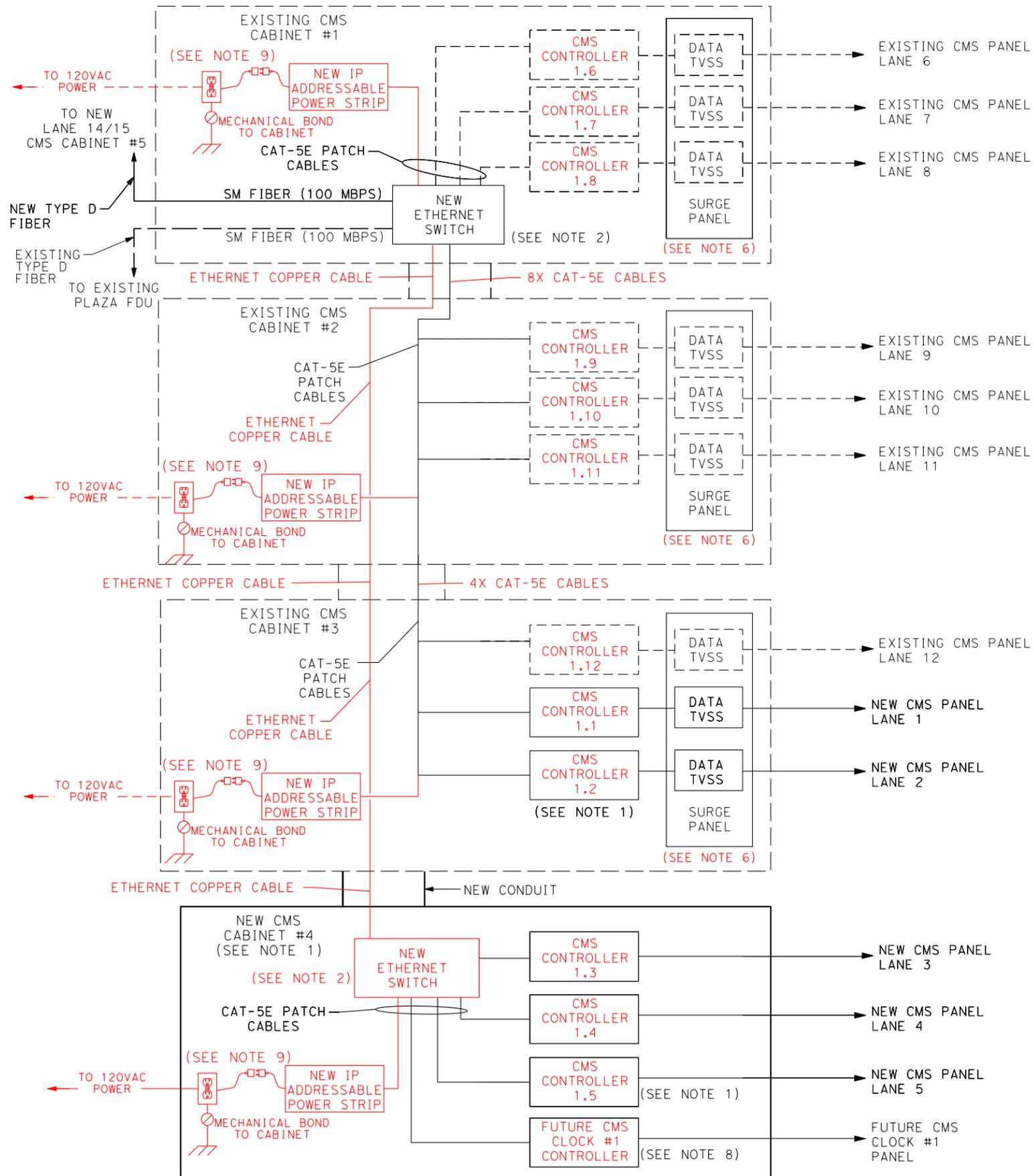
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NOTES:

- LANE 1 AND 2 CMS CONTROLLERS SHALL BE INSTALLED IN EXISTING CMS PLAZA CABINET #3 AND LANE 3, 4 AND 5 CMS CONTROLLER SHALL BE INSTALLED IN NEW CMS PLAZA CABINET #4 AS SHOWN ON PLANS.
- REPLACE EXISTING GARRETCOM ETHERNET SWITCH IN CMS PLAZA CABINET #1 WITH NEW SWITCH (SAME MANUFACTURER) WITH MINIMUM 14 10/100 MBPS PORTS AND 2 FIBER 100 MBPS PORTS. OLD SWITCH SHALL BE RETURNED TO BATA FOR USE AS A SPARE SWITCH.
- ALL ETHERNET SWITCHES SHALL BE RACK MOUNTED (NO SHELVES) AND LOCATED IN CMS CABINET AS SHOWN IN CMS CABINET ELEVATION VIEW (SHEET E-14 AND E-16).
- REMOVE AND SALVAGE EXISTING LINKSYS ETHERNET SWITCH IN CMS PLAZA CABINET #2 AND EXISTING GARRETCOM ETHERNET SWITCH IN CMS CABINET 1 AND RETURN TO BATA.
- ALL CABLING IN CMS CABINETS SHALL BE INSTALLED AND NEATLY DRESSED AND SECURED IN CABINETS. SPARE COILED CABLING SHALL BE PROVIDED IN JUNCTION BOXES.
- CONTRACTOR TO REMOVE AND SALVAGE EXISTING TVSS. OLD TVSS SHALL BE RETURN TO BATA.
- SEE SHEETS E-4 AND E-5 FOR CMS CABINET LOCATIONS.
- FUTURE CMS CLOCK CONTROLLER TO BE INSTALL UNDER SEPARATE CONTRACT. SHOWN ONLY FOR INFORMATIONAL PURPOSES ONLY.
- DO NOT CONNECT POWER STRIP TO GFCI. CONNECT TO CABINET POWER SOURCE DIRECTLY BY MEANS OF A SEPARATE NEMA 5-15 SOCKET.

LANES 1-12 CMS SYSTEM SCHEMATIC

NO SCALE

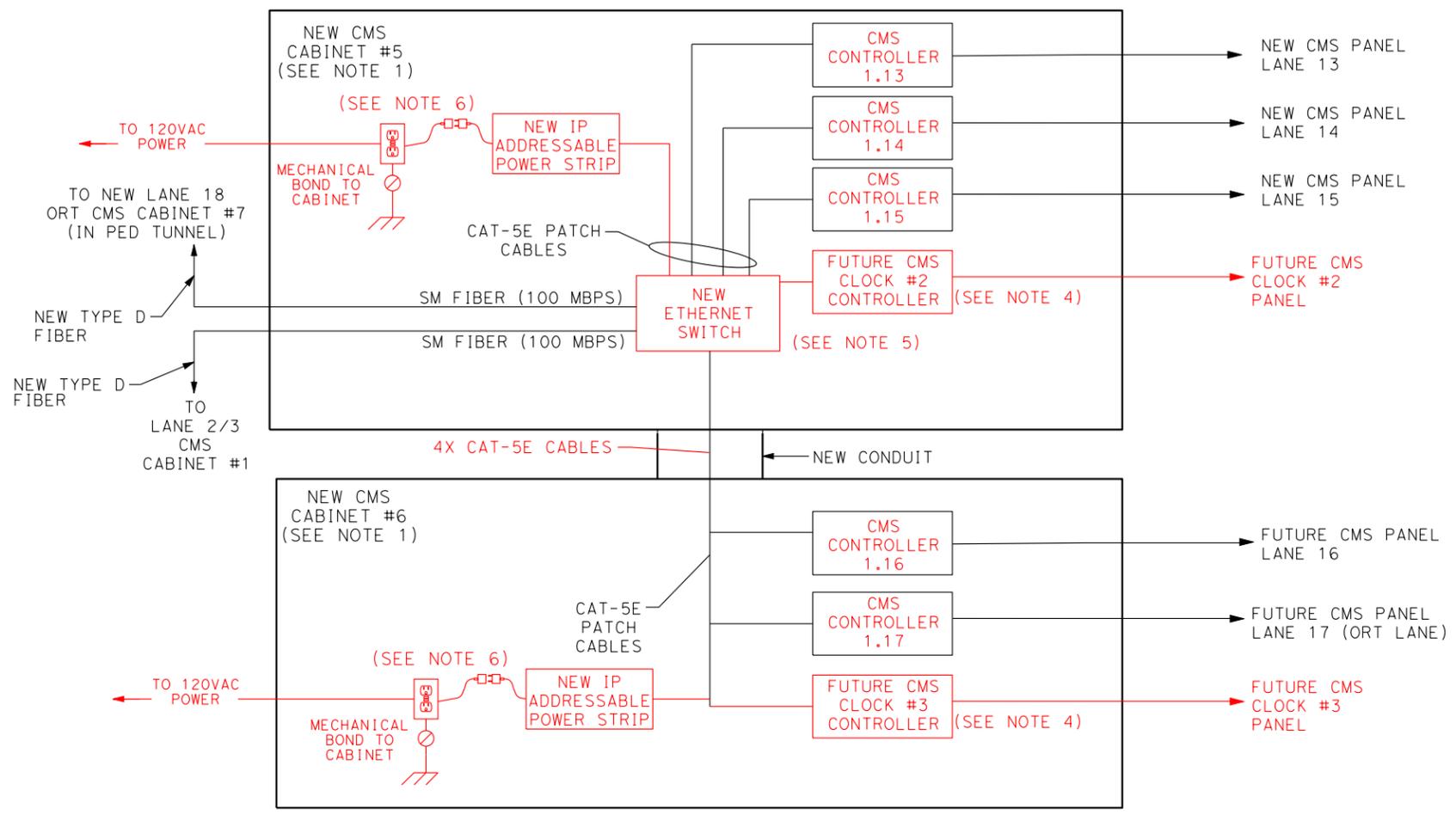
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 REVISIONS: 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 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.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	80	1.8/2.1	40	

REGISTERED CIVIL ENGINEER	DATE
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.	
BAY AREA TOLL AUTHORITY 101 EIGHTH STREET OAKLAND, CA 94607	URS CORPORATION 55 SOUTH MARKET STREET SUITE 1500 SAN JOSE, CA 95113-2332



- NOTES:**
- LANES 13, 14 AND 15 CMS CONTROLLERS SHALL BE INSTALLED IN CMS CABINET #5 AND LANES 16 AND 17 CMS CONTROLLERS SHALL BE INSTALLED IN CMS CABINET #6. CMS PANELS FOR LANES 16 AND 17 WILL BE INSTALLED BY OTHERS.
 - ALL CABLING IN CMS CABINETS SHALL BE INSTALLED AND NEATLY DRESSED AND SECURED IN CABINETS. SPARE COILED CABLING SHALL BE PROVIDED IN JUNCTION BOXES.
 - CONTRACTOR TO INSTALL, CONNECT, AND INTEGRATE ALL EQUIPMENT IN CMS CABINETS (I.E., TRANSFORMERS, BREAKERS, ETC.)
 - FUTURE CMS CLOCK CONTROLLER TO BE INSTALL UNDER SEPARATE CONTRACT. SHOWN ONLY FOR INFORMATIONAL PURPOSES ONLY.
 - NEW GARRETCOM ETHERNET SWITCH WITH MINIMUM 14 10/100 MBPS PORTS AND 2 FIBER 100 MBPS PORTS.
 - DO NOT CONNECT POWER STRIP TO GFI. CONNECT TO CABINET POWER SOURCE DIRECTLY BY MEANS OF A SEPARATE NEMA 5-15 SOCKET.

LANES 13-17 CMS SYSTEM SCHEMATIC

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY



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BORDER LAST REVISED 4/11/2008

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR
LARRY JONES
CALCULATED/DESIGNED BY
CHECKED BY
REVISOR
DATE
REVISED BY
DATE

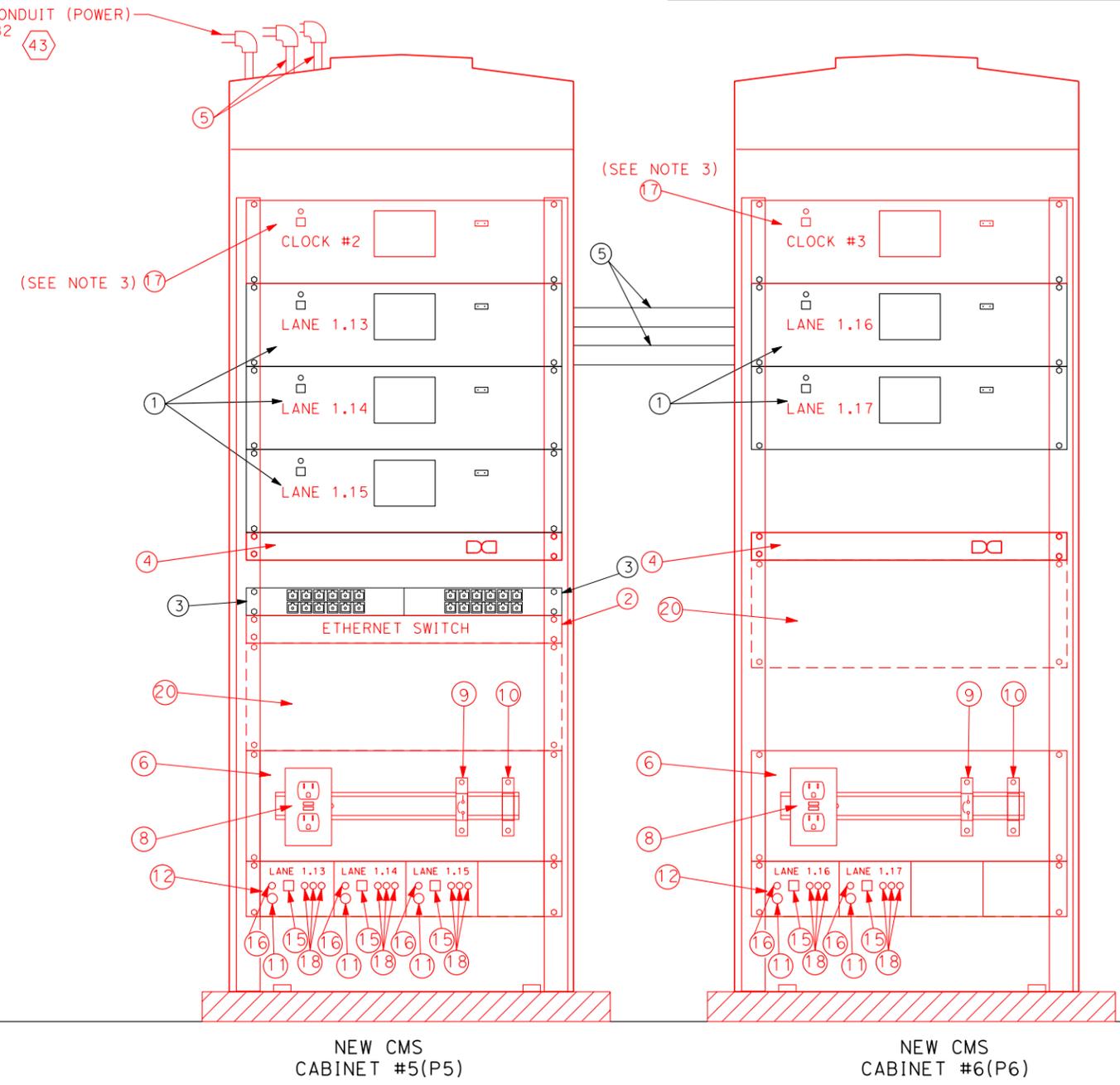
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00-00-00 TIME PLOTTED => 8:14:07 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	80	1.8/2.1	41	

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	
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BAY AREA TOLL AUTHORITY 101 EIGHTH STREET OAKLAND, CA 94607	URS CORPORATION 55 SOUTH MARKET STREET SUITE 1500 SAN JOSE, CA 95113-2332

ITEM	COMPONENT	ITEM	COMPONENT	ITEM	COMPONENT
①	NEW CMS CONTROLLER	⑦	NOT USED	⑬	NOT USED
②	NEW 14-PORT GARRETTCOM ETHERNET SWITCH (RACK MOUNTED)	⑧	NEW 15 AMP GFCI OUTLET	⑭	NOT USED
③	NEW 12-PORT FIBER PATCH (CONNECTOR) PANEL (X2)	⑨	ONE (1) NEW 2 AMP BREAKER (120 VAC)	⑮	ONE (1) NEW PANEL MOUNT DPDT TOGGLE SWITCH
④	NEW RACK MOUNTABLE IP ADDRESSABLE POWER STRIP	⑩	ONE (1) NEW CLASS 3, 100 WATT 1:1, 120 VAC TRANSFORMER	⑯	NEW PANEL MOUNT BLUE LED INDICATOR LIGHT (120VAC) FOR POWER INDICATION
⑤	TYPE 1 CONDUIT (2-INCH)	⑪	ONE (1) NEW PANEL MOUNT 1/2 AMP PUSH BUTTON BREAKER (120 VAC)	⑰	FUTURE CMS CLOCK CONTROLLER
⑥	NEW ELECTRICAL PANEL	⑫	INSTALL NEW PULL OUT DRAWER FOR WIRING OF NEW INDICATOR LIGHT RELAYS. SEE SHEET E-34 FOR CABINET DRAWER LAYOUT.	⑱	REMOVE EXISTING 170 POWER DISTRIBUTION PANEL

ITEM	COMPONENT
⑳	REMOVE EXISTING 170 POWER DISTRIBUTION PANEL



NOTES:

1. INSTALL WEATHERPROOF LB FITTING OR CONDULET INTO CABINET.
2. ALL CABINET EQUIPMENT AND CONDUIT LOCATIONS SHOWN ON PLANS AND DETAILS ARE APPROXIMATE. FINAL LOCATION OF ALL EQUIPMENT AND MATERIALS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
3. FUTURE CMS CLOCK CONTROLLER TO BE INSTALL UNDER SEPARATE CONTRACT. SHOWN ONLY FOR INFORMATIONAL PURPOSES ONLY.
4. DO NOT CONNECT POWER STRIP TO GFI. CONNECT TO CABINET POWER SOURCE DIRECTLY BY MEANS OF A SEPARATE NEMA 5-15 SOCKET.

DETAIL A
LANES 13-17 CMS CABINET ELEVATION
 SEE SHEET E-4 FOR CMS CABINET LOCATIONS

LANES 13-17 CMS CABINETS ELEVATION VIEW

NO SCALE

E-16

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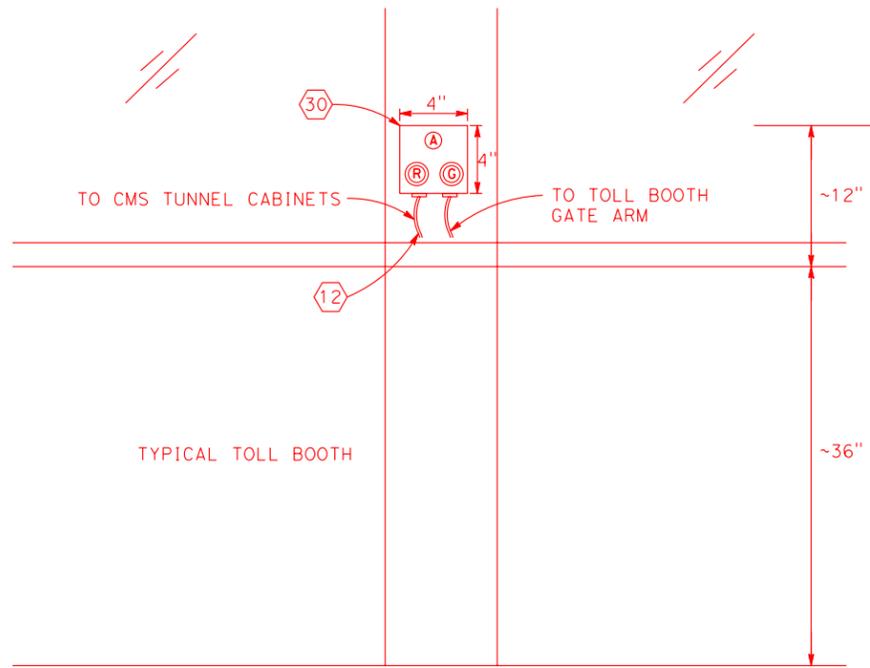
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EA 0G420K

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 CONSULTANT FUNCTIONAL SUPERVISOR LARRY JONES
 REVISIONS: 00-00-00 DATE PLOTTED => 3/16/2010 TIME PLOTTED => 8:14:12 AM

BORDER LAST REVISED 4/11/2008

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala	80	1.8/2.1	56	
REGISTERED CIVIL ENGINEER DATE					
PLANS APPROVAL DATE					
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NEW TOLL BOOTH INDICATOR LIGHT SWITCH BOX

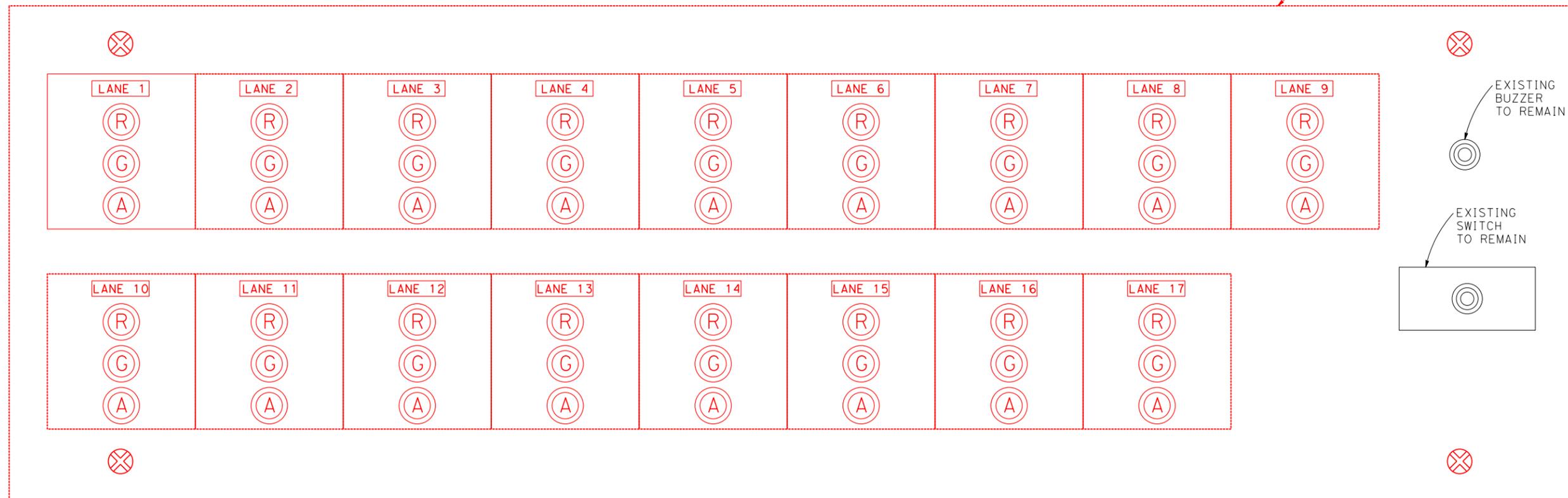
LEGEND

- (R) PANEL MOUNT MOMENTARY RED LED ILLUMINATED PUSH BUTTON SWITCH
- (G) PANEL MOUNT MOMENTARY GREEN LED ILLUMINATED PUSH BUTTON SWITCH
- (A) PANEL MOUNT MOMENTARY AMBER LED ILLUMINATED PUSH BUTTON SWITCH
- (A) AMBER INDICATOR LED LIGHT

NOTES:

1. SIZE OF CONSOLE SWITCH PANEL WILL BE FIELD DETERMINED BY CONTRACTOR TO ACCOMMODATE NUMBER OF LANES AND EXISTING CONSOLE DIMENSIONS.
2. SEE SHEET E-3 FOR LOCATION.
3. SEE SHEETS E-27 TO E-29 FOR PROPOSED WIRING CONFIGURATION.
4. CONTRACTOR TO LABEL PUSH BUTTON SWITCH WITH R, G, AND A LETTERS FOR RED, GREEN, AND AMBER LANE INDICATION.

NEW INDICATOR LIGHT SWITCH CONSOLE



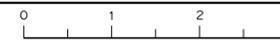
NEW INDICATOR LIGHT SWITCH CONSOLE PANEL

INDICATOR LIGHT SWITCH CONSOLE PANEL AND TOLL BOOTH INDICATOR SWITCH BOX

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RELATIVE BORDER SCALE IS IN INCHES



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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

 CONSULTANT FUNCTIONAL SUPERVISOR LARRY JONES
 REVISIONS: REVISION BY, DATE REVISED, CALCULATED/DESIGNED BY, CHECKED BY

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