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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 15, 2016

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Stanley P. Johnson No. C57793 Exp. 3-31-18 CIVIL STATE OF CALIFORNIA

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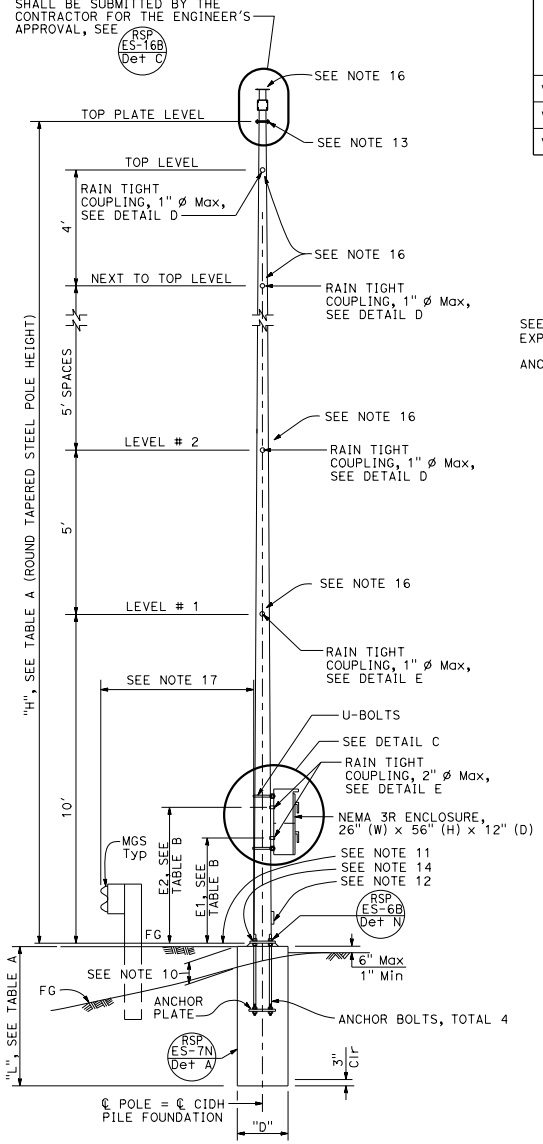
TO ACCOMPANY PLANS DATED _____

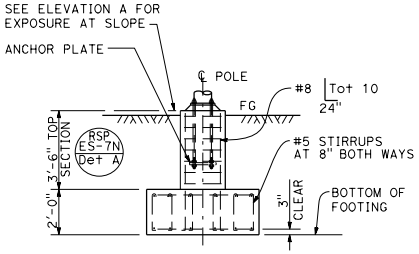


ELEVATION A

TABLE A											
POLE TYPE	POLE DATA				BASE PLATE DATA				CIDH PILE DATA		
	HEIGHT "H"	Min OD BASE	Min OD TOP	THICKNESS	"C"	THICKNESS	ANCHOR BOLTS SIZE	BC = BOLT CIRCLE	"D"	"L" LEVEL GROUND	"L" UP TO 2:1
VDS 30	30′	8"	3 7/8"	0.1793"	1′-1 1/2"	1 1/2"	1 1/2" ø x 3′-0"	1′-0"	2′-6"	6′-0"	8′-0"
VDS 35	35′	8 3/4"	3 11/16"	0.1196"		2"				7′-0"	9′-0"
VDS 40	40′	12"	8 7/8"	0.1793"	1′-6"			1′-4"	3′-0"	9′-0"	11′-0"

TABLE B		
POLE TYPE	COUPLING E1(Max)	COUPLING E2(Max)
VDS 30	3′-6"	4′-9"
VDS 35		
VDS 40		

TABLE C		
SPREAD FOOTING		
GROUND	FOOTING SIZE (LENGTH x WIDTH x DEPTH)	REINFORCEMENT TOP & BOTTOM
LEVEL	8′-6" x 8′-6" x 2′-0"	12 - #5 EW
UP TO 2:1	10′-0" x 10′-0" x 2′-0"	15 - #5 EW

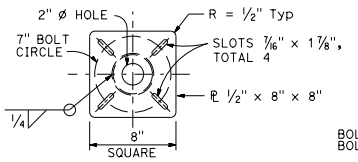


ALTERNATIVE FOOTING

ELEVATION B

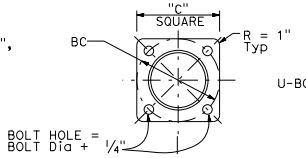
TABLE D - LIMITATION ON ATTACHMENTS *		
LOCATION	MAXIMUM TOTAL EPA PER LEVEL (SQUARE FEET)	MAXIMUM TOTAL WEIGHT (lb)
LEVEL #1	14	200
LEVEL #2		
LEVEL #3	10 ***	
LEVEL #4 (VDS 35 AND VDS 40 ONLY)	2.5	50
LEVEL #5 (VDS 40 ONLY)		
NEXT TO TOP LEVEL		
TOP LEVEL		
ON TOP PLATE LEVEL **		

* MAXIMUM HORIZONTAL EXTENT BEYOND POLE FACE IS 4 FEET.
** MAXIMUM EXTENT ABOVE TOP PLATE IS 3 FEET.
*** 14 IF LEVEL #1 IS ZERO.



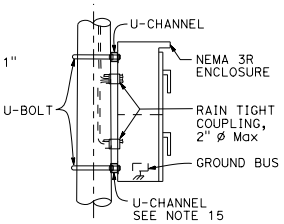
TOP PLATE

DETAIL A

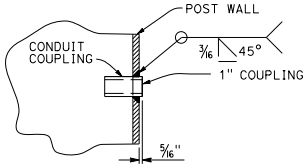


BASE PLATE

DETAIL B

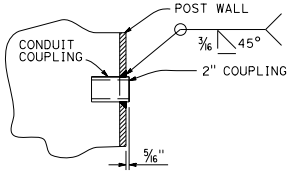


DETAIL C



1" COUPLING

DETAIL D



2" COUPLING

DETAIL E

NOTES:

1. All steel shall be galvanized after fabrication.
2. The foundation shall be treated as level ground condition if the slope inclination is flatter than 4 : 1 (Horizontal : Vertical)
3. For devices mounted and mounting heights, see TABLE B.
4. For wind loading see RSP ES-7M.
5. Materials (Structural Steel):
   a. fy = 55,000 psi (tapered steel tube)
   b. fy = 50,000 psi (unless otherwise noted)
6. Anchor bolts: fy = 55,000 psi
7. Materials (Reinforced Concrete):
   a. f′c = 3,600 psi
   b. fy = 60,000 psi
8. Verify all controlling field dimension before ordering of fabricating any material.
9. When no barriers are used, the NEMA 3R enclosure shall be located on the downstream side and perpendicular to the roadway.

   1′-3" (Max) for sloped finished grade.

11. Bottom of base plate.
12. Handhole. RSP ES-7M Det B / RSP ES-7M Det A
13. Top plate.
    Install a blank flange on the top plate when closed circuit television is not used.
14. RSP ES-7O Elev B
15. U-channel with bracket.
16. Use the manufacturer's Effective Projected Area (EPA) for attachments. Assign attachments to nearest level and sum each level, see Table D for limitations.
17. See RSP A77R1 thru RSP A77R8

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (CLOSED CIRCUIT TELEVISION WITH VEHICLE DETECTION SYSTEM, 30' TO 40' POLE)

NO SCALE

RSP ES-16D DATED JULY 15, 2016 SUPERSEDES RSP ES-16D DATED OCTOBER 30, 2015 AND RSP ES-16D DATED JULY 19, 2013 AND STANDARD PLAN ES-16D DATED MAY 20, 2011 - PAGE 503 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-16D

2010 REVISED STANDARD PLAN RSP ES-16D

6-29-16