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

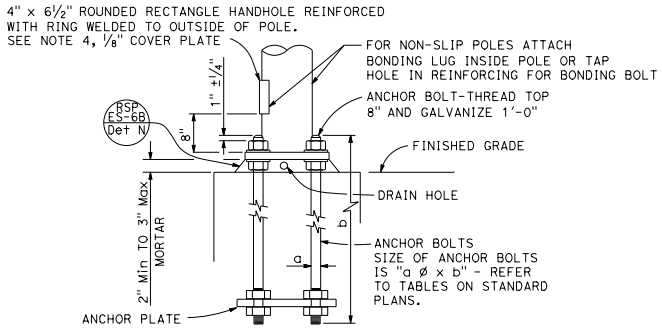
REGISTERED CIVIL ENGINEER

July 15, 2016
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED _____




## HANDHOLE AND ANCHORAGE
DETAIL A

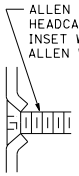
## IDENTIFICATION NUMBER

1. Attach a stamped metal tag with pole's identification number above the handhole. ¼" high number, minimum.
2. Attach a stamped metal tag with mast arm's identification number to the bottom of the signal mast arm near the pole plate. ¼" high number, minimum.

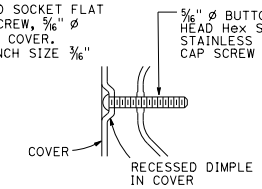
Type — Load case (Use SL for special load case) — Design wind velocity (mph) — Signal mast arm length (ft) (Near handhole: Maximum signal mast arm length for pole type; Near pole plate: Installed signal mast arm length) — Standard plan year — Only for poles or mast arms using Detail F — Only for poles or mast arms using RSP ES-7O

26A - 3 - 100 - 45 - 10 - F or FB

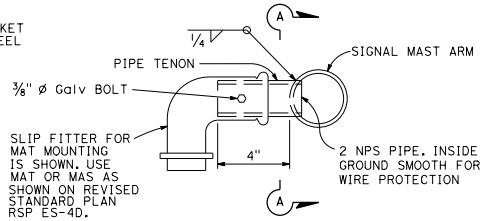
## SAMPLE IDENTIFICATION NUMBER



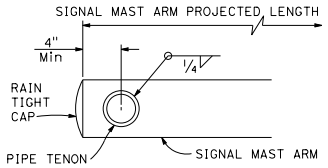

## TYPICAL DETAIL
DETAIL B-1




## ALTERNATIVE DETAIL
DETAIL B-2



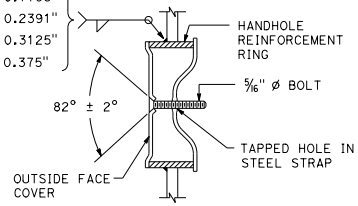

## SIDE TENON
DETAIL S-1



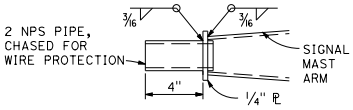

## SECTION A-A

## PIPE TENONS
DETAIL S

| WELD SIZE | WALL THICKNESS |
|---|---|
| 3/16" | 0.1196" |
| ¼" | 0.1793" |
| 5/16" | 0.2391" |
| 3/8" | 0.3125" |
| 7/16" | 0.375" |



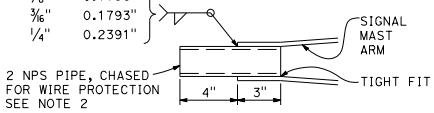

## TAMPER RESISTANT HANDHOLE COVER
DETAIL B



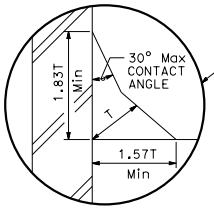

## TIP TENON
DETAIL TL

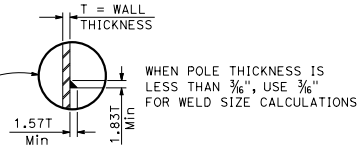
This detail supersedes Detail S when so designated

| WELD SIZE | WALL THICKNESS |
|---|---|
| ⅛" | 0.1196" |
| 3/16" | 0.1793" |
| ¼" | 0.2391" |

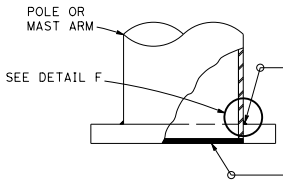



## TIP TENON
DETAIL TS




## DETAIL F
Fatigue resistant weld at socket type connection see Elevation A for inner weld




| WELD SIZE | WALL THICKNESS |
|---|---|
| ¼" | 0.1196" |
| 5/16" | 0.1793" |
| 3/8" | 0.2391" |
| 7/16" | 0.3125" |

| | |
|---|---|
| ⅛" | 0.1196" |
| 3/16" | 0.1793" |
| ¼" | 0.2391" |
| 5/16" | 0.3125" |

## ELEVATION A

## NOTES:

1. Provide a Hex nut, leveling nut and 2 washers for each bolt.
2. Luminaire mast arms shall be round, tapered steel tubes, taper of 0.1375" to 0.143-inch per foot with an end section 2⅜" OD for mounting hardware. Extensions of 2 NPS Standard pipe and 7" long may be used at the option of the manufacturer. When low pressure sodium luminaires are required, the extension shall be 1'-3".
3. Signal mast arms shall be round, tapered steel tubes, maximum taper 0.143-inch per foot.
4. Handhole reinforcement ring shall be ¼" x 2" for 0.1196" to 0.2391" thick poles, ⅜" x 2" for 0.3125" to 0.375" thick poles.
5. Handholes shall be located on the downstream side of traffic.
6. Detail F, fatigue resistant weld, is required at socket welded signal mast arm plate and pole base plate.
7. Cap screws shall be tightened by the turn-of-nut method ⅓ turn from a snug tight condition. No washer will be required.
8. Outside diameter, wall thickness, and corresponding section properties of poles and mast arms as shown in the Standard Plans are minimums. Unless otherwise specified, alternative sections shall require approval by the Engineer.
9. Design: AASHTO Standard Specifications for Structural Support for Highway Signs, Luminaires, and Traffic Signals, 6th Edition. Basic Wind Speed = 100 mph (3 seconds gust). Yearly Mean Wind Velocity = 15.6 mph.
10. Materials (Structural steel):
    fy = 55,000 psi (tapered steel tube and anchor bolts)
    fy = 50,000 psi (unless otherwise noted)
11. Materials (Reinforced concrete):
    f'c = 3,625 psi
    fy = 60,000 psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

# ELECTRICAL SYSTEMS (SIGNAL AND LIGHTING STANDARD, DETAIL No. 1)

NO SCALE

RSP ES-7M DATED JULY 15, 2016 SUPERSEDES RSP ES-7M DATED OCTOBER 30, 2015 AND STANDARD PLAN ES-7M DATED MAY 20, 2011 - PAGE 474 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-7M**

**2010 REVISED STANDARD PLAN RSP ES-7M**

6-20-16