

**NOTES:**

1. PULLBOX SHALL BE PROVIDED WITH COVER AND SPECIAL CONCRETE FOOTING. COVER SHALL BE FIBERLYTE OR SEE COA APPROVED PRODUCTS LIST AND SHALL HAVE EMBOSSED NO-SKID PATTERN AND BE LABELED "TRAFFIC SIGNAL".
2. TOPS OF PULLBOXES SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OR ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE PULLBOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE BOX SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUND GRADE. WHERE PRACTICAL, PULLBOXES SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULLBOXES SHOWN ADJACENT TO STANDARDS SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
3. ALL COVERS SHALL BE INTERCHANGEABLE BETWEEN BOXES. TOP OUTSIDE EDGE OF ALL CONCRETE COVERS AND PULLBOXES SHALL HAVE A 0.25 INCH MIN. RADIUS.
4. WHEN PULLBOX IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE BOX SHALL BE ADJUSTED SO THAT THE TOP OF THE BOX IS FLUSH WITH THE TOP OF THE SIDEWALK.
5. PULLBOX SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.
6. ALL BENDS SHALL BE FACTORY BENDS.
7. CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2-INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE CITY OF AVONDALE USE.
8. ADDITIONAL CONDUIT ENTRANCES AS SHOWN ON PLANS.
9. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) IN EITHER CONDUIT DUCT BETWEEN ENTRANCE LOCATIONS (PULLBOXES AND/OR VAULTS).
10. PULLBOX SHALL BE FURNISHED WITH FOUR KNOCKOUTS PER SHORT SIDE AND SIX KNOCKOUTS PER LONG SIDE.
11. ADDITIONAL CONDUIT ENTRANCES AS SHOWN ON PLANS.
12. SEE SPECIAL PROVISIONS REGARDING HOLD DOWN BOLTS FOR TRAFFIC COVERS.
13. TERMINATORS FOR COMMUNICATION DUCTS AND LATERAL STUBOUTS MAY BE PROVIDED INSTEAD OF KNOCKOUTS. WHEN KNOCKOUTS ARE USED, SPECIAL CONDUIT TERMINATORS SHALL BE PROVIDED PER THE SPECIAL PROVISIONS.
14. ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM. VARIATIONS ARE ALLOWABLE.
15. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
16. ALL GROUND CONNECTIONS SHALL BE COATED WITH OXIDATION PROHIBITING COMPOUND.
17. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRAVIOLET EXPOSURE.
18. PULL BOXES SHALL BE SPACED EVERY 250 LINEAR FEET.

DETAIL NO.

**A1710**

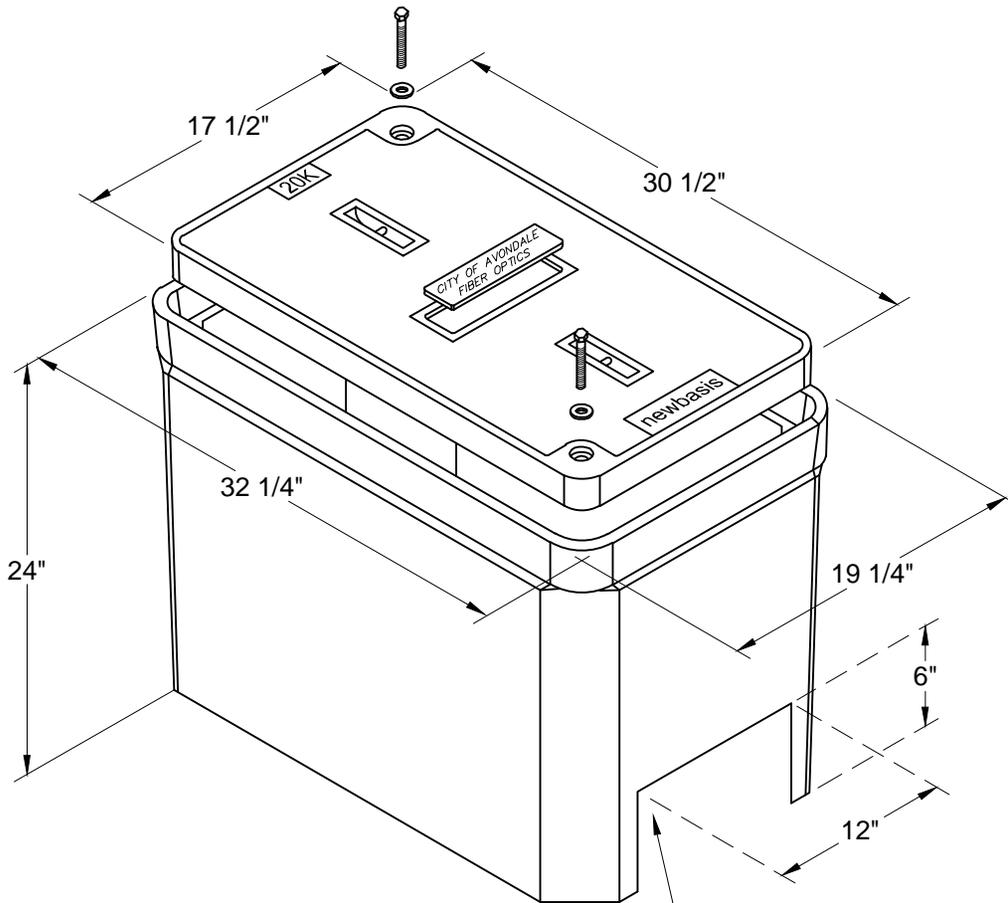
**Avondale**  
STANDARD DETAIL

**TRAFFIC SIGNAL  
JUNCTION BOX DETAIL**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



**INSIDE DIMENSIONS**

| LENGTH  | WIDTH   | DEPTH |
|---------|---------|-------|
| 29 1/4" | 16 1/4" | 22"   |

WINDOW ONE  
EACH END, 6"x12"

**NOTES:**

1. TOPS OF PULL BOXS SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OR ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE PULL BOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE PULL BOX SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADE. WHERE PRACTICAL, PULL BOXS SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULL BOXES SHOWN ADJACENT TO POLES SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
2. WHEN PULL BOX IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE BOX SHALL BE ADJUSTED SO THAT THE TOP OF THE BOX IS FLUSH WITH THE TOP OF THE SIDEWALK.
3. PULL BOX SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.
4. CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2-INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE CITY OF AVONDALE USE.
5. ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM. VARIATIONS ARE ALLOWABLE.
6. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
7. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRAVIOLET EXPOSURE.
8. PLUG EACH CONDUIT END WITH APPROVED WATERPROOF DUCT PLUG.
9. UNSPLICED CABLE SHALL HAVE 100 FEET OF SLACK CABLE. EXCESS CABLES ARE TO BE COILED AND PLACED INSIDE THE PULL BOX.

DETAIL NO.

**A1717**

**Avondale**  
STANDARD DETAIL

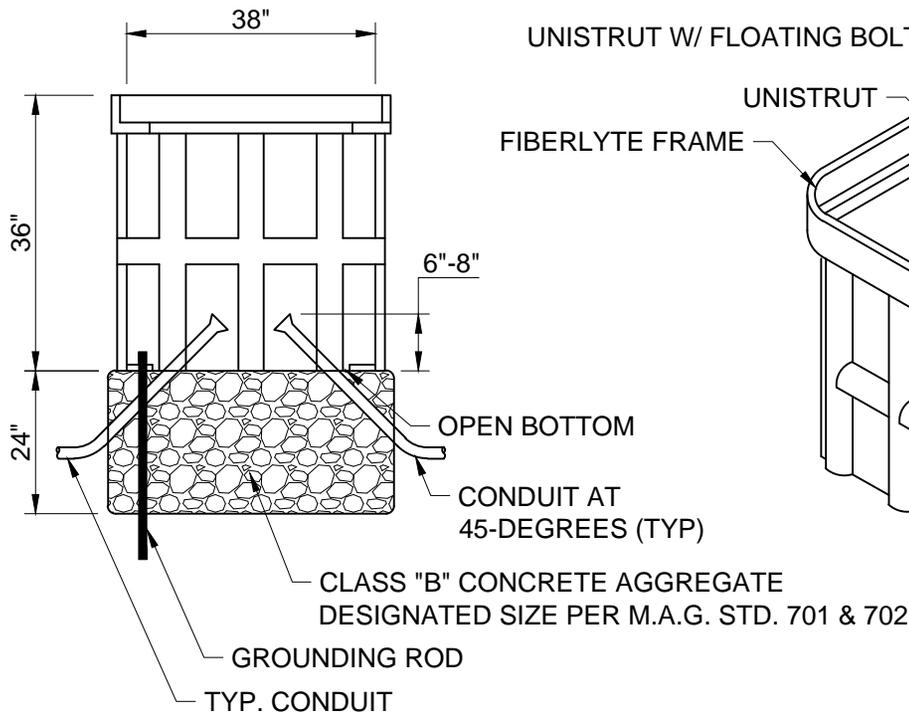
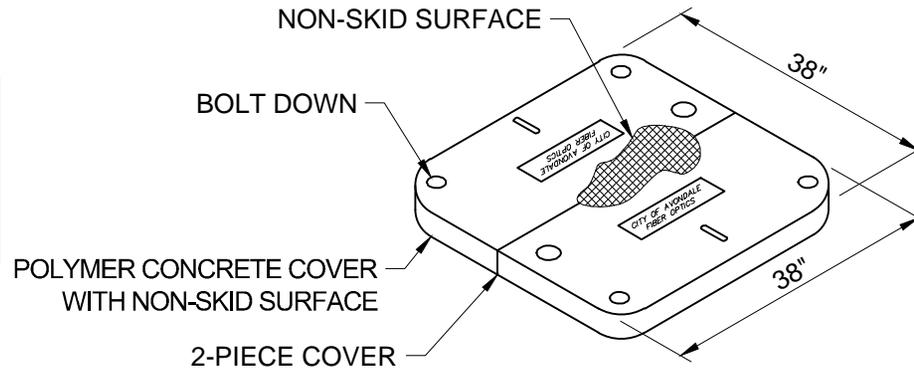
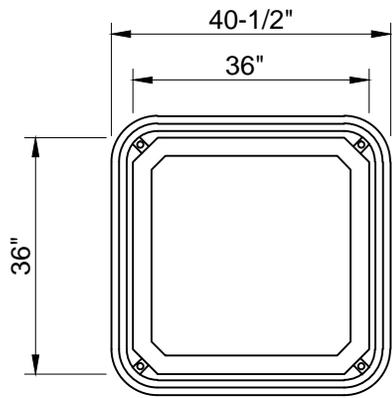
**NO. 7 PULL BOX DETAIL**

APPROVED BY:

*David S. Jones*

DATE:

8.24.16



**NOTES:**

1. TOPS OF VAULTS SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OR ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE VAULT IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE VAULT SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADE. WHERE PRACTICAL, VAULTS SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND VAULTS SHOWN ADJACENT TO POLES SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
2. WHEN VAULT IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE VAULT SHALL BE ADJUSTED SO THAT THE TOP OF THE VAULT IS FLUSH WITH THE TOP OF THE SIDEWALK.
3. VAULT SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.
4. CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2-INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE CITY OF AVONDALE USE.
5. ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM. VARIATIONS ARE ALLOWABLE.
6. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
7. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRAVIOLET EXPOSURE.
8. PLUG EACH CONDUIT END WITH APPROVED WATERPROOF DUCT PLUG.
9. UNSPLICED CABLE SHALL HAVE 100 FEET OF SLACK CABLE. EXCESS CABLES ARE TO BE COILED AND PLACED INSIDE THE VAULT.
10. "CITY OF AVONDALE FIBER OPTIC" SHALL BE THE TITLE EMBOSSED ON THE LID. ROUND AND SQUARE LIDS ARE BOTH ACCEPTABLE.

DETAIL NO.

**A1719-1**

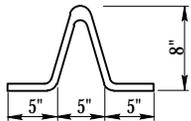
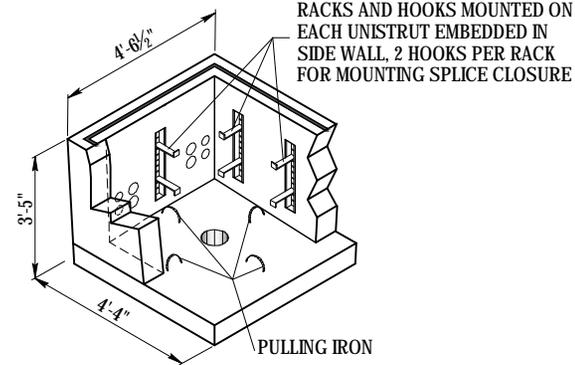
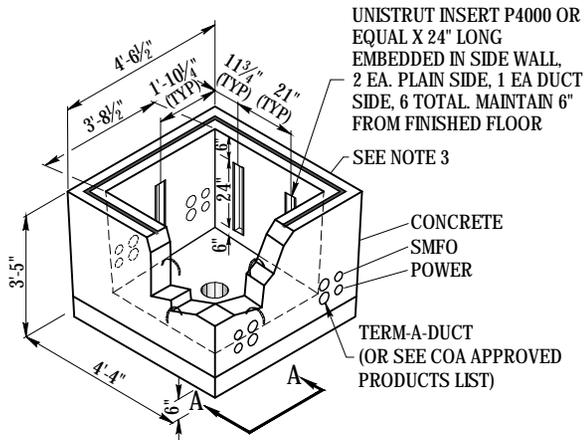
**Avondale**  
STANDARD DETAIL

**FIBER SPLICING VAULT**

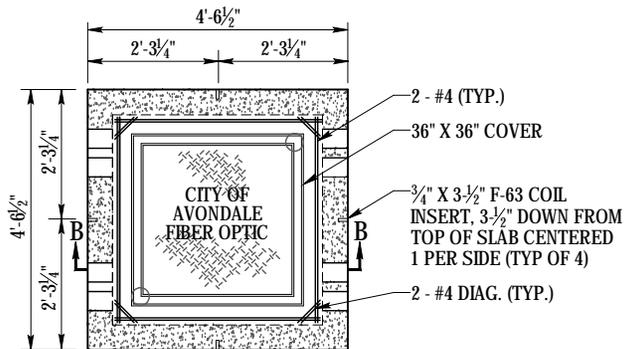
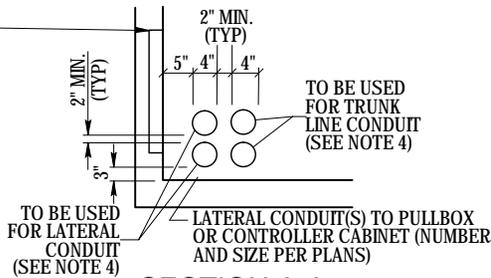
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DATE:

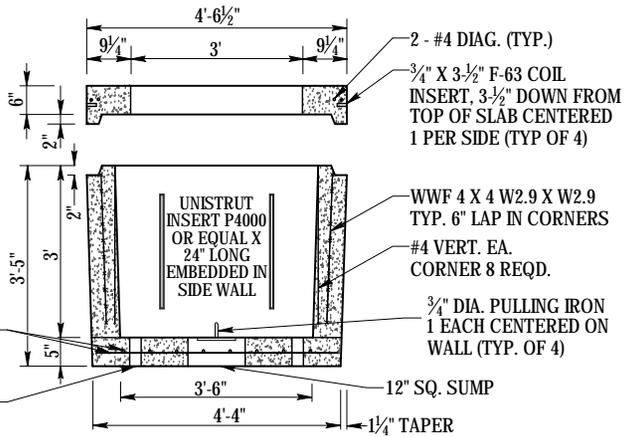
8.24.16



**FIBER OPTIC  
NO. 9 VAULT**  
(3'-6" X 3'-6" X 3' HANDHOLE  
W/ SQ. HINGED COVER)



**PLAN VIEW**



**SECTION B-B VIEW**

**NOTES:**

- PULLING IRONS SHALL BE CAST INTO EACH CORNER OF THE BOTTOM OF PULL BOX.
- ALL NEW PULL BOXES SHALL BE FURNISHED WITH RACKS AND HOOKS INSTALLED.
- PULL BOX SHALL BE INSTALLED WITH A LOCKING LIP WITH SEAL BETWEEN WALL & COVER ASSEMBLY.
- TERM-A-DUCT (OR SEE COA APPROVED PRODUCTS LIST) SHALL ACCEPT A 4" DIA. PVC CONDUIT, UNLESS OTHERWISE SPECIFIED.
- PULL BOX AND LID SHALL BE RATED FOR HS20-44 LIVE LOADING.
- ALL POWER AND COMMUNICATION CABLES SHALL BE TAGGED WITH CABLE IDENTIFICATION.
- "CITY OF AVONDALE FIBER OPTIC" SHALL BE THE TITLE EMBOSSED ON THE LID. ROUND AND SQUARE LIDS ARE BOTH ACCEPTABLE.
- LOCKING LID W/SEAL BETWEEN WALL AND COVER ASSEMBLY.
- SQUARE LID SHALL BE H20 GALVANIZED HINGED 36" X 36" CLEAR 180 DEGREE OPENING. DOOR SHALL BE TORSION SPRING ASSISTED WITH RECESSED LIFTING HANDLE WITH STAINLESS STEEL PENTA BOLT AND CAM LOCK.

**DESIGN CRITERIA:**

|   |  |
|---|--|
| LIVE LOAD                                 | HS 20-44 TRUCK LOADING                   |
| EQUIVALENT LATERAL EARTH PRESSURE         | 30 P.S.F. (DRY)<br>36 P.S.F. (SATURATED) |
| DEPTH: (GROUND SURFACE TO TOP OF MANHOLE) | AT GRADE                                 |
| MINIMUM SOIL BEARING CAPACITY             | 2,000 P.S.F.                             |

**DESIGN SPECS:**

CONCRETE COMPRESSIVE STRENGTH SHALL BE BASED ON 28 DAY TEST AGE AND SHALL REACH F<sub>c</sub> OF 6,000 P.S.I. (DRY CAST).

|                              |               |
|------------------------------|---------------|
| REINFORCING STEEL GRADE 60   | 60,000 P.S.I. |
| WELDED WIRE FABRIC ASTM A185 | 60,000 P.S.I. |

**DESIGN CODES:**

AMERICAN CONCRETE INSTITUTE (ACI) 318-39.

ASTM C857-82 MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND - PRECAST CONCRETE UTILITY STRUCTURES.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) HB-15TH EDITION.

**GENERAL NOTES:**

- ALL JOINTS BETWEEN CONCRETE UNITS SHALL BE SEALED WITH A HIGH QUALITY SEALANT TO ASSURE WATERTIGHT INTEGRITY.
- ALL REINFORCEMENT STEEL TO HAVE EQUAL COVER UNLESS OTHERWISE NOTED.
- WITH PRIOR APPROVAL FROM THE CITY OF AVONDALE, THE CONTRACTOR MAY INSTALL 3'-6" X 3'-6" HANDHOLE-NO FLOOR W/36" SQ. HINGED COVER VAULT OR SEE COA APPROVED PRODUCTS LIST.

DETAIL NO.

**A1719-2**

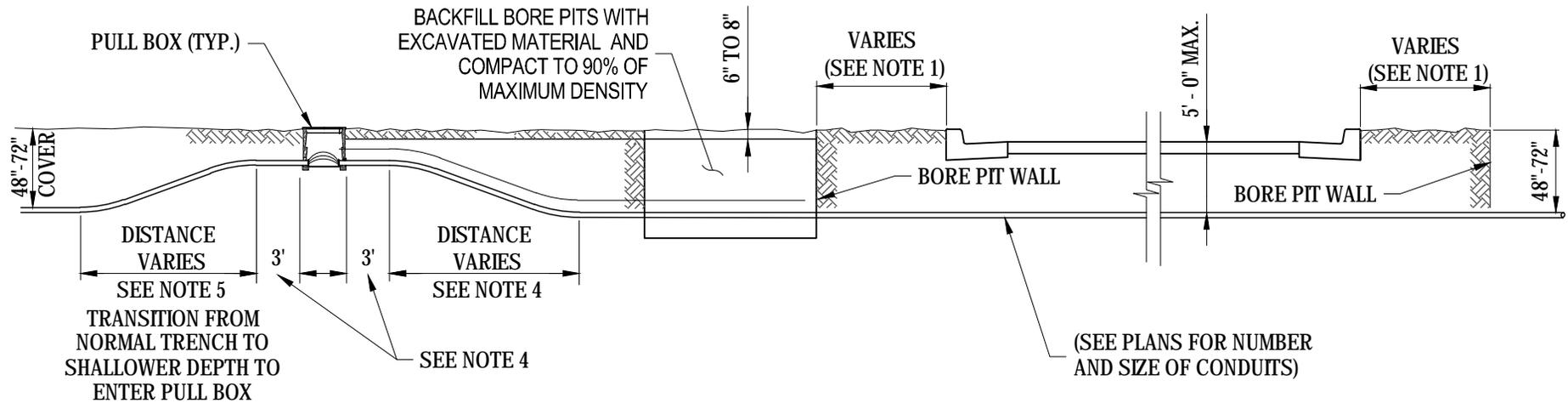
**Avondale**  
STANDARD DETAIL

**NO. 9 VAULT WIRING  
AND COVER DETAIL**

APPROVED BY:

DATE:

*Daniel S. Jones*  
8.24.16



**NOTES:**

1. BORE PIT SHALL BE SET BACK FROM EDGE OF SIDEWALK OR OTHER ROADWAY BOUNDARY FEATURE A DISTANCE EQUAL TO OR GREATER THAN THE DEPTH OF THE CONDUIT.
2. A PULL BOX SHALL BE INSTALLED ON ONE END OF THE CONDUIT.
3. CONDUIT SHALL BE FLAT FOR A MINIMUM OF 3' ON EACH SIDE OF THE NO. 9 PULL BOX BEFORE STARTING A VERTICAL CONDUIT DEFLECTION.
4. CONDUIT ALIGNMENT OFFSETS ARE TO BE ACCOMPLISHED BY A UNIFORM RATE OF CONDUIT DEFLECTION OVER A DISTANCE EQUAL TO OR GREATER THAN TEN (10) TIMES THE OFFSET DISTANCE.
5. SLEEVES SHALL BE NOMINALLY SLOPED TO DRAIN. SLOPE IN SUPER ELEVATED SECTIONS MAY APPROXIMATE ROADWAY CROSS-SLOPE. SPACE IN SLEEVES NOT OCCUPIED BY CONDUIT SHALL REMAIN EMPTY.
6. DIRECTIONAL SHALL FOLLOW MAG STANDARD SPECIFICATIONS SECTION 608.

**TYPICAL CONDUIT DEPTH  
(FOR 48"-72" DEPTH)  
(NTS)**

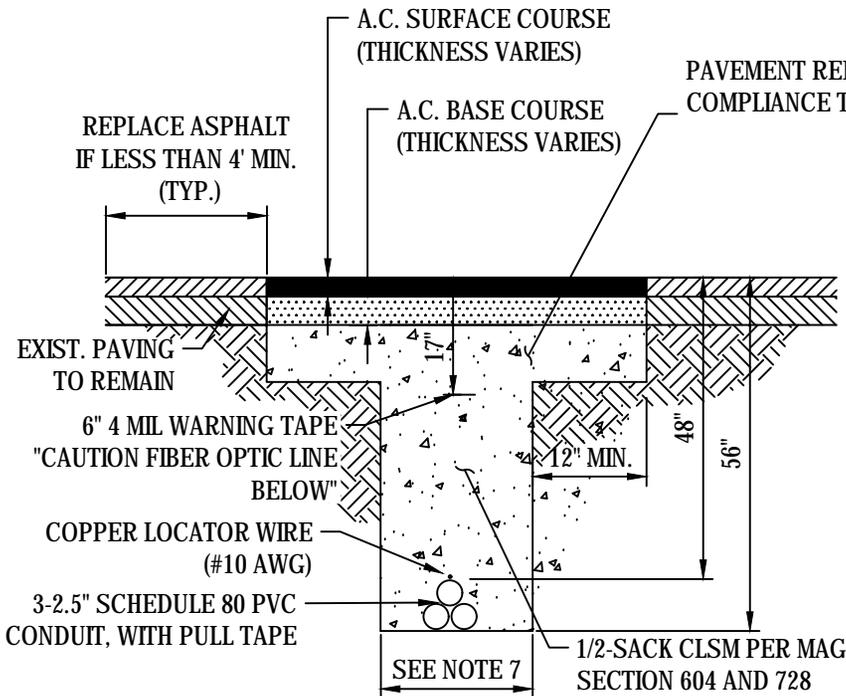
| SLEEVE SIZE        |                              |
|--------------------|------------------------------|
| NUMBER OF CONDUITS | MIN REQUIRED INSIDE DIAMETER |
| 1-3"               | 6"                           |
| 2-3"               | 8"                           |
| 4-2"               | 8"                           |
| 2-2" & 2-4"        | 12"                          |

DETAIL NO.  
**A1719-3**

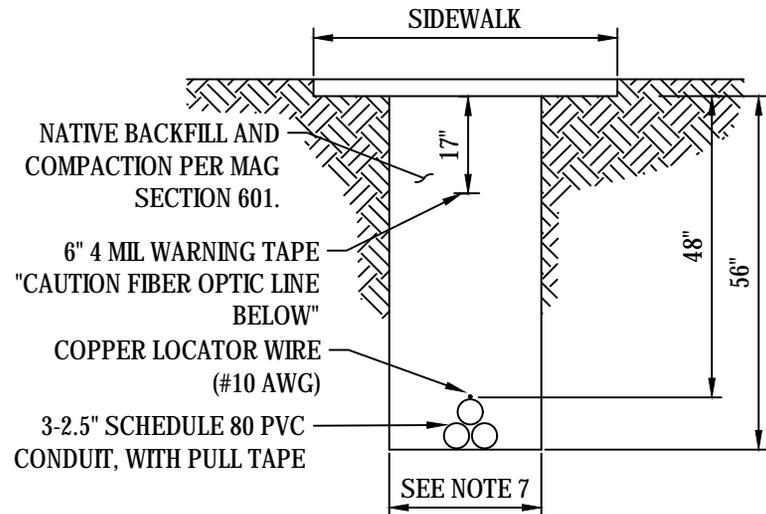
**Avondale**  
STANDARD DETAIL

**DIRECTIONAL BORE DETAILS**

APPROVED BY: *David S. Jones*  
DATE: 8.24.16



**TRENCH SECTION A**  
(PAVED)



**TRENCH SECTION B**  
(UNPAVED)

**NOTES:**

1. TRENCH DEPTH MAY VARY BASED ON CONFLICTS WITH EXISTING UTILITIES.
2. BID ITEM FOR PROVIDING A TRENCH THAT IS A MINIMUM OF 56" DEEP INCLUDES INSTALLING FIBER OPTIC DUCT AND PROVIDING BACKFILL COMPLETE IN PLACE. THIS ITEM SHALL PROVIDE A MINIMUM COVER DEPTH OF 48" OVER THE CONDUIT DUCT. ALL WARNING TAPE, CONDUIT SPACERS, BRICKS AND COMPACTION WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID OF ITEM, TRENCHING (56") AND INSTALLATION OF FIBER OPTIC DUCT, AND BACKFILL, COMPLETE IN PLACE".
3. BORING SHALL BE ALLOWED WITH PRIOR APPROVAL FROM THE CITY.
4. IF THE CONDUIT ROUTING CROSSES AN EXISTING PORTLAND CEMENT CONCRETE DRIVEWAY THE CONDUITS SHALL BE PLACED BY BORING. ALL ASPHALT DRIVEWAYS MAY BE TRENCHED.
5. ALL CONDUIT BENDS SHALL BE CONCRETE ENCASED FOR A MINIMUM OF TWO (2) FEET BEYOND EACH END OF THE BEND.
6. A 1/2 SACK OF CEMENT SLURRY BACKFILL SHALL BE USED THROUGH THE PIPE ZONE WHEN BACKFILLING CONDUITS INSTALLED UNDER EXISTING PAVEMENT
7. TRENCH WIDTH MAY NOMINALLY VARY FROM 18" TO 22" BUT SHALL NOT EXCEED 24" IN WIDTH.
8. A SINGLE CONTINUOUS INSULATED COPPER LOCATOR WIRE #10 AWG SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE CONDUIT RUN.

DETAIL NO.

**A1720-1**

**Avondale**  
STANDARD DETAIL

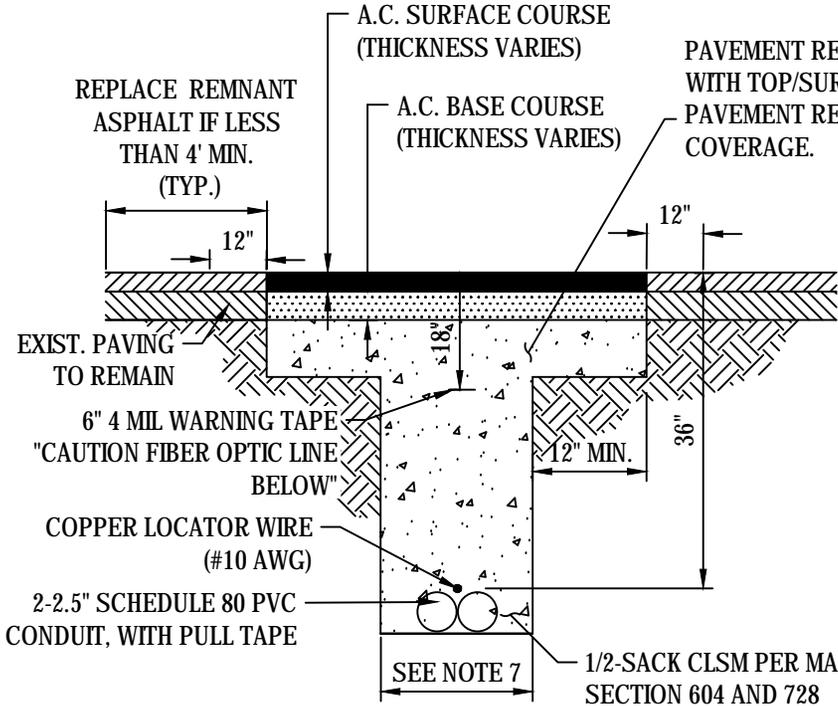
**PRIMARY COMMUNICATIONS  
NETWORK CONDUIT TRENCH DETAIL**

APPROVED BY:

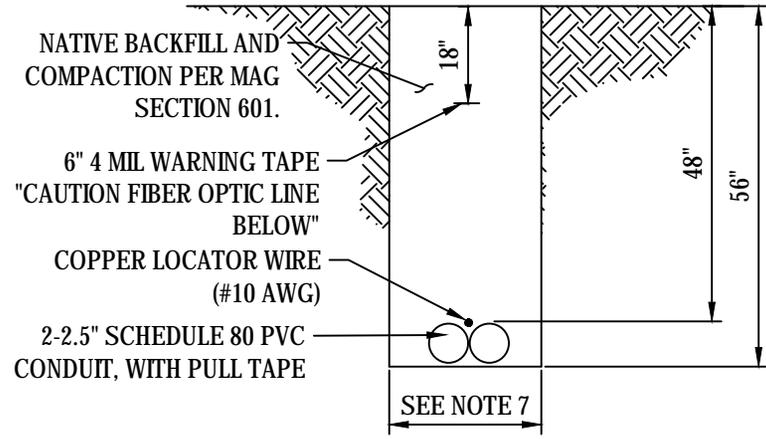
*David J. Jones*

DATE:

1.8.2020



**TRENCH SECTION A**  
(PAVED)



**TRENCH SECTION B**  
(UNPAVED)

**NOTES:**

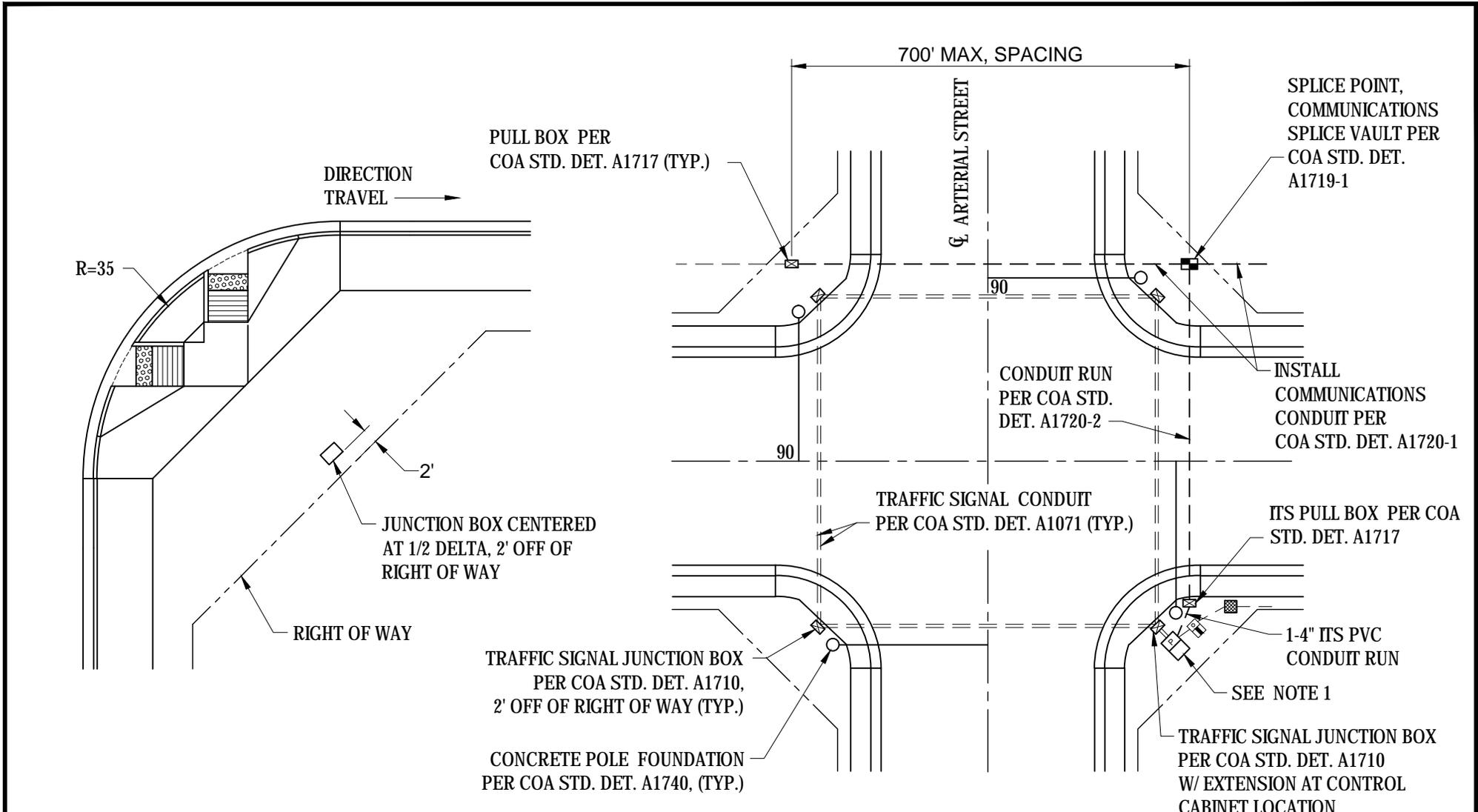
1. TRENCH DEPTH MAY VARY BASED ON CONFLICTS WITH EXISTING UTILITIES, BUT IN NO CASE LESS THAN 36" COVER
2. BID ITEM FOR PROVIDING A TRENCH THAT IS A MINIMUM OF 56" DEEP INCLUDES INSTALLING FIBER OPTIC DUCT AND PROVIDING BACKFILL COMPLETE IN PLACE. THIS ITEM SHALL PROVIDE A MINIMUM COVER DEPTH OF 48" OVER THE CONDUIT DUCT. ALL WARNING TAPE, CONDUIT SPACERS AND COMPACTION WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID OF ITEM, TRENCHING (56") AND INSTALLATION OF FIBER OPTIC DUCT, AND BACKFILL, COMPLETE IN PLACE".
3. BORING PER MAG SPEC 608 MAY BE ALLOWED WITH PRIOR APPROVAL FROM THE CITY.
4. ALL 45° & 90° CONDUIT BENDS SHALL BE CONCRETE ENCASED FOR A MINIMUM OF TWO (2) FEET BEYOND EACH END OF THE BEND.
5. A 1/2 SACK OF CLSM BACKFILL PER MAG SPEC 728 SHALL BE USED THROUGH THE PIPE ZONE WHEN BACKFILLING CONDUITS UNDER EXISTING PAVEMENT.
6. TRENCH WIDTH MAY VARY FROM 18" TO 24".
7. A SINGLE CONTINUOUS INSULATED COPPER LOCATOR WIRE #10 AWG SHALL BE INSTALLED ABOVE THE ENTIRE LENGTH OF THE CONDUIT RUN AND SHALL BE WATER TIGHT, RATED FOR 4G INSTALLATIONS.

DETAIL NO.  
**A1720-2**

**Avondale**  
STANDARD DETAIL

**SECONDARY COMMUNICATIONS  
NETWORK CONDUIT TRENCH DETAIL**

APPROVED BY:  
*David J. Jones*  
DATE:  
1.8.2020

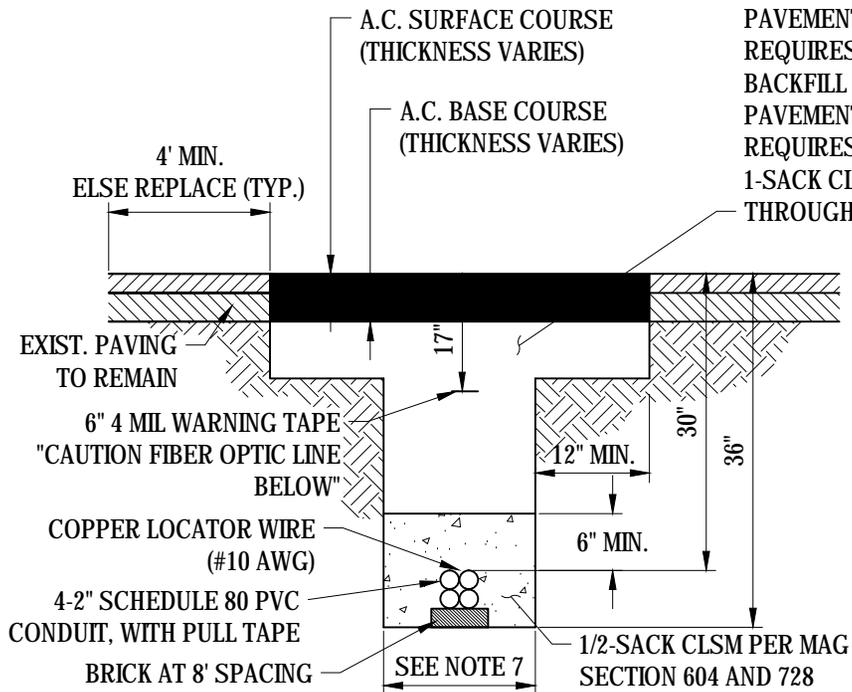


**PULL BOX LOCATION**

**NOTES:**

1. CONTROLLER CABINET LOCATION MAY VARY. ADJUST ITS PULL BOX AND CONDUIT LAYOUT AS NEEDED TO PROVIDE A DIRECT PATH FROM SPLICE POINT TO CONTROLLER CABINET.

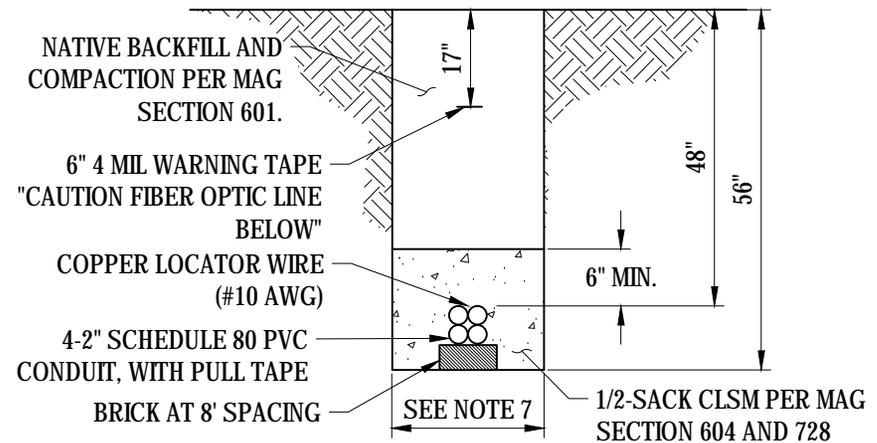
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| DETAIL NO.<br><b>A1730</b> | <b>Avondale</b><br>STANDARD DETAIL | <b>TRAFFIC SIGNAL INTERCONNECT<br/>         CONDUIT INSTALLATION</b> | APPROVED BY: <i>[Signature]</i><br>DATE: 8.24.16 |
|----------------------------|------------------------------------|--|--|



PAVEMENT REPLACEMENT PARALLEL TO THE DIRECTION OF TRAFFIC  
REQUIRES COMPLIANCE TO MAG STD. DET. 200 "T-TOP" MODIFIED WITH A.B.C.  
BACKFILL PER MAG SECTION 601 AND 702.

PAVEMENT REPLACEMENT TRANSVERSE TO THE DIRECTION OF TRAFFIC  
REQUIRES COMPLIANCE TO MAG STD. DET. 200 "T-TOP" MODIFIED WITH  
1-SACK CLSM PER MAG SECTION 604 AND 728 FROM TOP OF PIPE ZONE  
THROUGH SUBGRADE.

**TRENCH SECTION A**  
(PAVED)



**TRENCH SECTION B**  
(UNPAVED)

**NOTES:**

1. TRENCH DEPTH MAY VARY BASED ON CONFLICTS WITH EXISTING UTILITIES.
2. BID ITEM FOR PROVIDING A TRENCH THAT IS A MINIMUM OF 36" DEEP INCLUDES INSTALLING FIBER OPTIC DUCT AND PROVIDING BACKFILL COMPLETE IN PLACE. THIS ITEM SHALL PROVIDE A MINIMUM COVER DEPTH OF 30" OVER THE CONDUIT DUCT. ALL WARNING TAPE, CONDUIT SPACERS, BRICKS AND COMPACTION WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID OF ITEM, "TRENCHING (36") AND INSTALLATION OF FIBER OPTIC DUCT, AND BACKFILL, COMPLETE IN PLACE".
3. BORING SHALL BE ALLOWED WITH PRIOR APPROVAL FROM THE CITY.
4. IF THE CONDUIT ROUTING IS MODIFIED TO CROSS AN EXISTING PORTLAND CEMENT CONCRETE DRIVEWAY THE CONDUITS SHALL BE PLACED BY BORING. ALL ASPHALT DRIVEWAYS MAY BE TRENCHED.
5. ALL CONDUIT BENDS SHALL BE CONCRETE ENCASED FOR A MINIMUM OF TWO (2) FEET BEYOND EACH END OF THE BEND.
6. A 1/2 SACK OF CEMENT SLURRY BACKFILL SHALL BE USED THROUGH THE PIPE ZONE WHEN BACKFILLING CONDUITS INSTALLED IN A TRENCH IN PAVEMENT. CONDUITS SHALL BE SUPPORTED AND ANCHORED IN THE TRENCH PRIOR TO BACKFILLING WITH THE CEMENT SLURRY.
7. TRENCH WIDTH MAY NOMINALLY VARY FROM 18" TO 22" BUT SHALL NOT EXCEED 24" IN WIDTH.
8. A SINGLE CONTINUOUS INSULATED COPPER LOCATOR WIRE #10 AWG SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE CONDUIT RUN.

DETAIL NO.

**A1731**

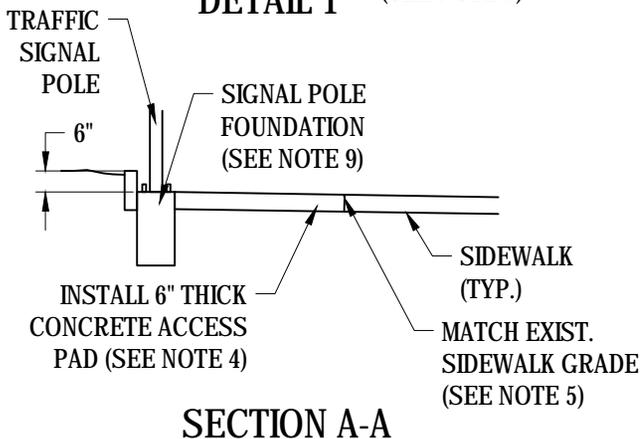
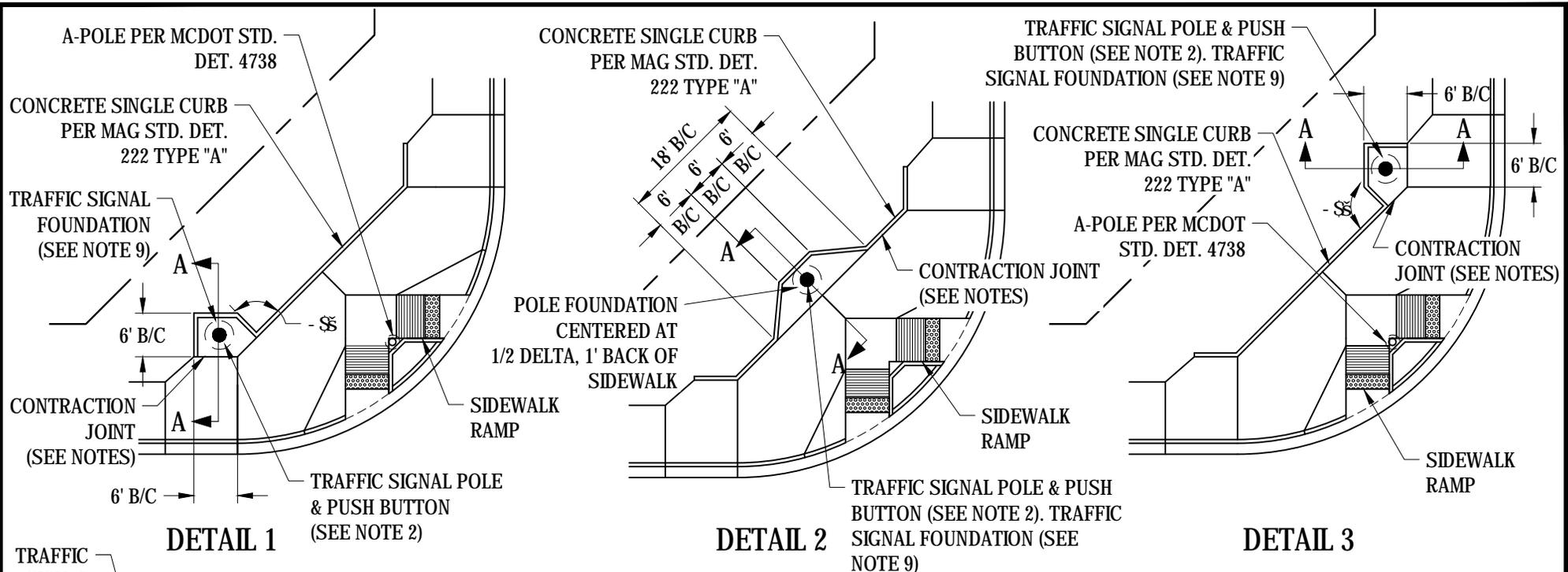
**Avondale**  
STANDARD DETAIL

**TRAFFIC SIGNAL INTERCONNECT  
CONDUIT TRENCH DETAIL**

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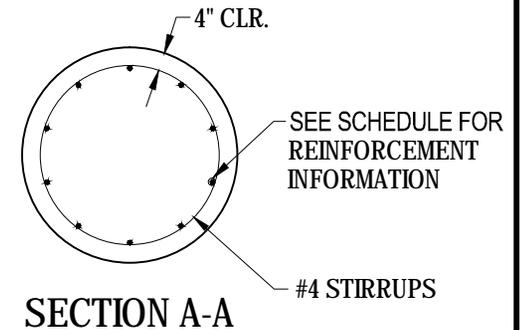
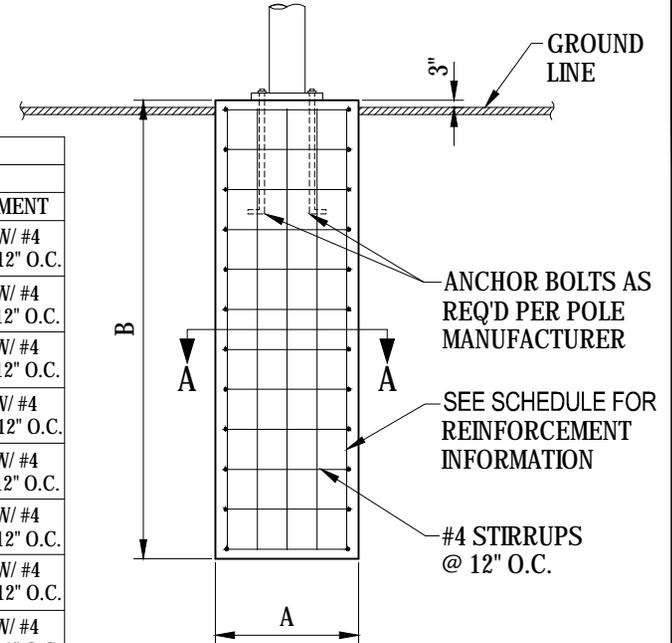
DATE:

*Daniel S. Jones*  
8.24.16



- NOTES:**
1. INSTALL CONCRETE ACCESS PAD IN ACCORDANCE TO THE REQUIREMENTS SPECIFIED IN MAG STD. DET. 230 FOR SIDEWALK CONSTRUCTION.
  2. THE CONCRETE ACCESS PAD SHALL PROVIDE A MINIMUM 30"X48" CONCRETE SURFACE ADJACENT TO THE ADA PUSH BUTTON AS SHOWN.
  3. ALL CONCRETE SHALL BE CLASS B PER MAG STD. SPECIFICATION SECTION 725.
  4. SLOPE CONCRETE ACCESS PADS 1.5% TOWARDS SIDEWALK FOR DRAINAGE PURPOSES.
  5. INSTALL CONTRACTION JOINT BETWEEN CONCRETE ACCESS PAD AND SIDEWALK RAMP. IF SIDEWALK IS EXISTING, INSTALL EXPANSION JOINT IN LIEU OF CONTRACTION JOINT.
  6. GRADE SOILS AT 6:1 MAX. SLOPE AT PERIMETER OF CONCRETE ACCESS PAD TO MATCH EXISTING, UNLESS OTHERWISE NOTED.
  7. THE TYPICAL DETAILS SHOWN ON THIS SHEET MAY REQUIRE MODIFICATIONS TO ACCOMMODATE EXISTING FIELD CONDITIONS AS DIRECTED BY THE CITY INSPECTOR.
  8. NEW CONCRETE ACCESS PAD SHALL NOT COVER OR INTERFERE WITH TRAFFIC SIGNAL OR PEDESTRIAN POLE MOUNTINGS.
  9. TOP OF SIGNAL POLE FOUNDATION SHALL MATCH CONCRETE ACCESS PAD (SEE SECTION A-A).

| ALLOWABLE PASSIVE SOIL PRESSURE | 100 PSF / FT |        |  | 150 PSF / FT |        |  | 200 PSF / FT |        |  |
|---------------------------------|--------------|--------|--|--------------|--------|--|--------------|--------|--|
| MAXIMUM PASSIVE SOIL PRESSURE   | 1,000 PSF    |        |  | 1,500 PSF    |        |  | 2,000 PSF    |        |  |
| FOOTING DIMENSIONS              | A            | B      | REINFORCEMENT                          | A            | B      | REINFORCEMENT                          | A            | B      | REINFORCEMENT                          |
| 35' MAST ARM                    | 3'-0"        | 20'-0" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 3'-0"        | 15'-6" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 3'-0"        | 13'-0" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 18 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 18 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 18 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |
| 40' MAST ARM                    | 3'-0"        | 21'-3" | 9 - #8 BAR W/ #4 STIRRUPS AT 12" O.C.  | 3'-0"        | 16'-6" | 9 - #8 BAR W/ #4 STIRRUPS AT 12" O.C.  | 3'-0"        | 13'-9" | 9 - #8 BAR W/ #4 STIRRUPS AT 12" O.C.  |
|                                 |              |        | 12 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 12 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 12 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 16 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 16 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 16 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |
| 45' MAST ARM                    | 3'-6"        | 20'-4" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 3'-6"        | 15'-9" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 3'-6"        | 13'-3" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |
| 55' MAST ARM                    | 4'-0"        | 19'-9" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 4'-0"        | 15'-3" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. | 4'-0"        | 12'-9" | 10 - #8 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 13 - #7 BAR W/ #4 STIRRUPS AT 12" O.C. |
|                                 |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |              |        | 17 - #6 BAR W/ #4 STIRRUPS AT 12" O.C. |



**NOTE:**

1. THE FOOTING DESIGN DOES NOT APPLY TO TRAFFIC SIGNALS LOCATED NEAR THE TOP OF ESCARPMENTS OR RIDGES OR IN THE UPPER HALF OF HILLS WITH ABRUPT GRADE CHANGES EXCEEDING 15 VERTICAL FEET.
2. FOOTING SIZES & REINFORCEMENT SHALL BE CONSTRUCTED USING THE "100 PSF/FT" VALUES (OUTLINED IN BOLD) UNLESS A GEOTECHNICAL EXPLORATION & RECOMMENDATION ALLOWS FOR HIGHER SOIL CAPACITIES.
3. THE FOUNDATION DESIGN IS ADEQUATE TO SUPPORT SIGNAL POLES MANUFACTURED BY VALMONT INDUSTRIES, OR AN APPROVED EQUAL PROVIDED THE MAXIMUM LOADING SHOWN ON THIS DETAIL IS NOT EXCEEDED. IF THE LOADS ARE EXCEEDED, THE CONTRACTOR SHALL HAVE THE FOUNDATION ANALYZED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF ARIZONA.

DETAIL NO.

**A1740**

**Avondale**  
STANDARD DETAIL

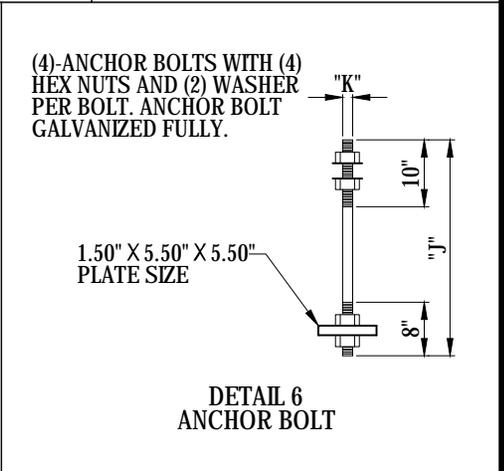
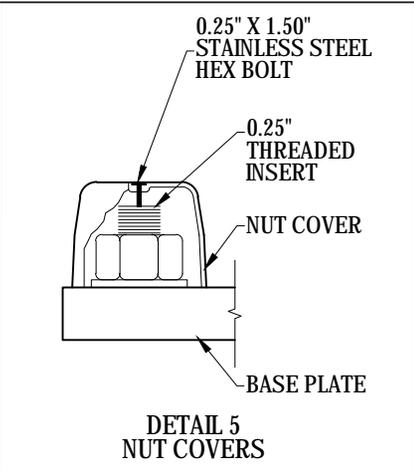
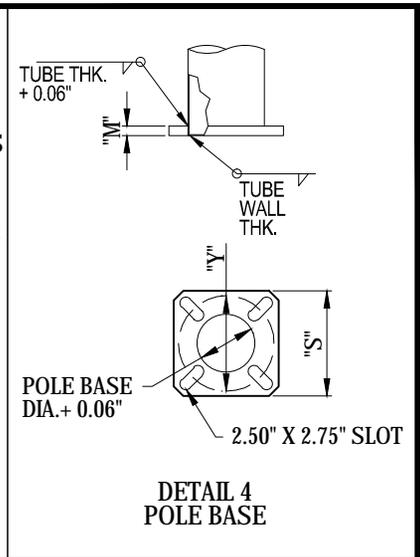
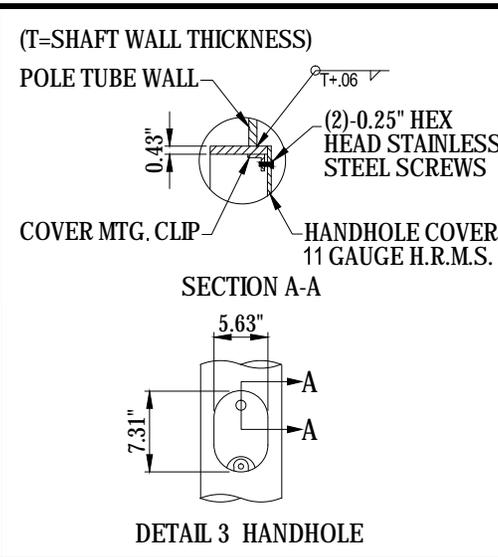
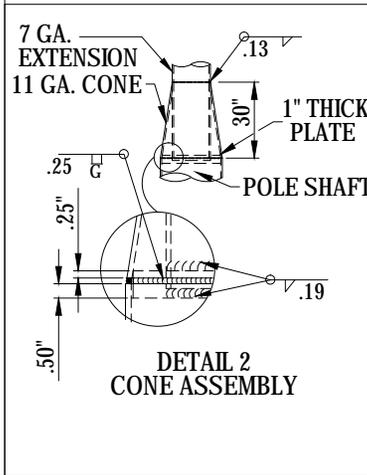
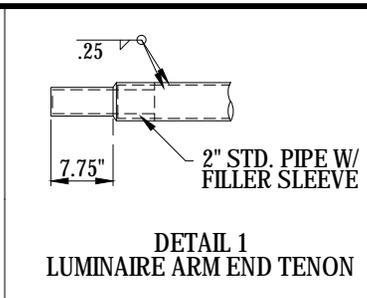
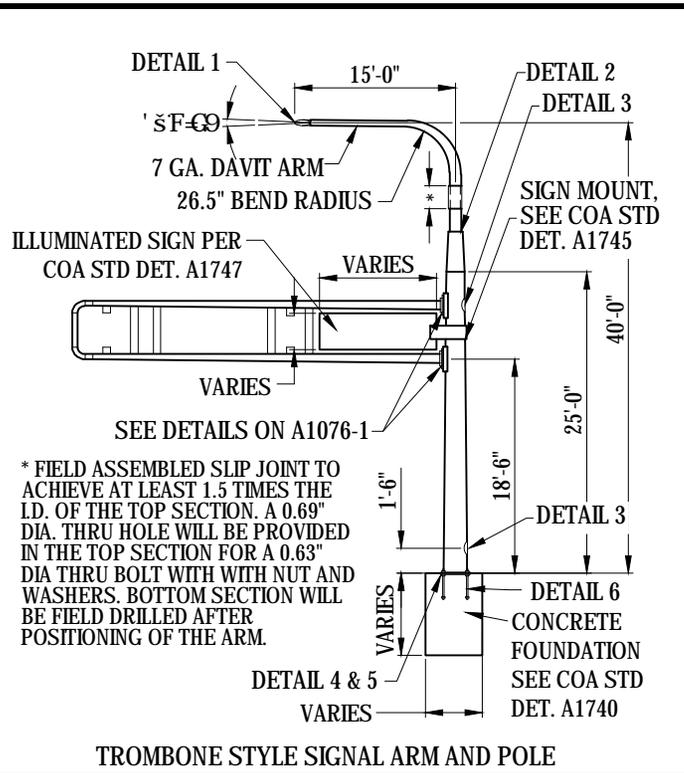
**TROMBONE STYLE TRAFFIC  
SIGNAL POLE FOUNDATION**

APPROVED BY:

*[Signature]*

DATE:

8.24.16



- NOTES:**
1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES, (I.E. BOLT CIRCLE WITH POLE MANUFACTURER).
  2. VERIFY IN FIELD ALL EXISTING CONDITIONS SHOWN ON DRAWINGS.
  3. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE STAMP (AND SIGNATURE) OF AN ENGINEER REGISTERED IN ARIZONA.
  4. THE POLE MANUFACTURER SHALL BE RESPONSIBLE FOR SPECIFYING ALL ANCHOR BOLT INFORMATION (I.E. DIAMETER, EMBEDMENT LENGTH, BOLT CIRCLE, MATERIAL ETC.) ENSURING THE ANCHOR BOLTS ARE CAPABLE OF TRANSFERRING ALL APPLICABLE LOADS INTO THE FOUNDATION WITHOUT EXCEEDING THE MAXIMUM LOAD REQUIREMENTS SPECIFIED ON THIS DETAIL.
  5. REFER TO CITY OF AVONDALE SUPPLEMENT TO MAG SPECIFICATIONS AND DETAILS PART 900 TRAFFIC SIGNALS FOR SPECIFIC DESIGN DATA, FOUNDATION WORK, FOUNDATION CONCRETE AND SPECIAL INSPECTIONS.
  6. SEE COA STANDARD DETAIL A1742 FOR POLE AND MAST ARM SCHEDULE.

DETAIL NO.  
**A1741**

**Avondale**  
STANDARD DETAIL

**TROMBONE STYLE SIGNAL  
POLE DETAILS**

APPROVED BY: *Daniel S. Jones*

DATE: 8.24.16

TABLE 1: POLE AND MAST ARM SCHEDULE

| POLE TYPE | QTY. | SIGNAL ARM SPAN (FT) | POLE DATA |          |        |        | BASE PLATE DATA |          |                   |        | ANCHOR BOLT DATA |            |                 | MAST ARM DATA  |               |       |             |
|-----------|------|----------------------|-----------|----------|--------|--------|-----------------|----------|-------------------|--------|------------------|------------|-----------------|----------------|---------------|-------|-------------|
|           |      |                      | BASE DIA. | TOP DIA. | LENGTH | (THK.) | SQUARE "S"      | THK. "M" | BOLT CIRCLE RANGE |        | DIAMETER "K"     | LENGTH "J" | BOLT CIRCLE "Y" | FIXED END DIA. | FREE END DIA. | GAUGE | LENGTH (FT) |
|           |      |                      |           |          |        |        |                 |          | BC1               | BC2    |                  |            |                 |                |               |       |             |
| Q         | 1    | 35                   | 13.00"    | 9.50"    | 25'-0" | 0.25"  | 25.00"          | 2.00"    | 23.50"            | 24.50" | 2.25"            | 70"        | 24.00"          | 9.18"          | 4.00"         | 3     | 37          |
| Q         | 1    | 40                   | 15.50"    | 12.00"   | 25'-0" | 0.44"  | 25.00"          | 2.00"    | 23.50"            | 24.50" | 2.25"            | 70"        | 24.00"          | 12.44"         | 6.54"         | 3     | 42          |
| R         | 1    | 45                   | 15.50"    | 12.00"   | 25'-0" | 0.44"  | 25.00"          | 2.00"    | 23.50"            | 24.50" | 2.25"            | 70"        | 24.00"          | 13.00"         | 6.42"         | 3     | 47          |
| R         | 1    | 50                   | 17.00"    | 13.50"   | 25'-0" | 0.44"  | 25.00"          | 2.00"    | 23.50"            | 24.50" | 2.25"            | 70"        | 24.00"          | 13.84"         | 6.54"         | *     | 52          |
| R         | 4    | 55                   | 17.00"    | 13.50"   | 25'-0" | 0.44"  | 25.00"          | 2.00"    | 23.50"            | 24.50" | 2.25"            | 70"        | 24.00"          | 14.54"         | 6.54"         | *     | 57          |

\* SEE DETAIL 4 ON COA STD. DET. A1075

DETAIL NO.

**A1742**

**Avondale**  
STANDARD DETAIL

**POLE AND MAST ARM SCHEDULE**

APPROVED BY:



DATE:

8.24.16



| MATERIALS |     |                            |  |        |
|-----------|-----|----------------------------|--|--------|
| ITEM      | QTY | DESCRIPTION                | MATERIAL                               | PART # |
| 1         | 1   | BASE PLATE                 | C10X15.5 CHANNEL, 2.6" FLANGE, STEEL   |        |
| 2         | 20  | ANGLE CUP                  | 2 X 2 X 3/8" X 1.5" LONG, ANGLE, STEEL |        |
| 3a        | 1   | TOP OUTSIDE CLAMP PLATE    | 17" X 8.5" X 3/8" THICK, STEEL PLATE   |        |
| 3b        | 1   | TOP INSIDE CLAMP PLATE     | 17" X 12" X 3/8" THICK, STEEL PLATE    |        |
| 3c        | 4   | LARGE GUSSET               | 5" X 2.5" X 3/8" THICK, STEEL PLATE    |        |
| 3d        | 2   | END PLATE                  | 13" X 12" X 3/8" THICK, STEEL PLATE    |        |
| 3e        | 2   | SMALL GUSSET               | 2.5" X 2.5" X 3/8" THICK, STEEL PLATE  |        |
| 3f        | 1   | BOTTOM OUTSIDE CLAMP PLATE | 17" X 8.5" X 3/8" THICK, STEEL PLATE   |        |
| 3g        | 1   | BOTTOM INSIDE CLAMP PLATE  | 17" X 12" X 3/8" THICK, STEEL PLATE    |        |

NOTES:

1. SIGNS TO BE 6 FT. HORIZONTAL AND 12 FT. VERTICAL FROM HIGH VOLTAGE WIRES.
2. SIGNS TO BE U.L. LABELED AND COMPLY WITH ART. 600, NEC.
3. SIGNS TO BE ON SEPARATE CIRCUIT WITH UNDERGROUND FEEDER.
4. PROVIDE PEDESTRIAN PROTECTION DURING SIGN ERECTION PER SEC. 3306, IBC
5. STRUCTURAL ALUMINUM 6061-T6, Fb=19000. PSL
6. RED HEAD THRU BOLT WEDGE ANCHORS OR SEE COA APPROVED PRODUCTS LIST PER ICBO # ER-1372, INSTALL PER MANUF. SPECIFICATION.
7. HILTI HY 150 EPOXY ADHESIVE OR SEE COA APPROVED PRODUCTS LIST PER ICBO 5193 INSTALL PER MANUF. SPECIFICATION.
8. HILTI KWIK BOLT-II OR SEE COA APPROVED PRODUCTS LIST PER ICBO 4627 INSTALL PER MANUF. SPECIFICATION.
9. PREDRILL ALL HOLES 1/8" Ø SMALLER THAN DIAMETER OF LAG SCREWS AND COVER WITH MASTIC
10. DESIGN WIND LOAD 90 MPH EXP. "C".

DETAIL NO.

**A1745-1**

**Avondale**  
STANDARD DETAIL

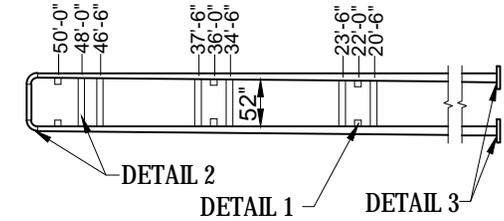
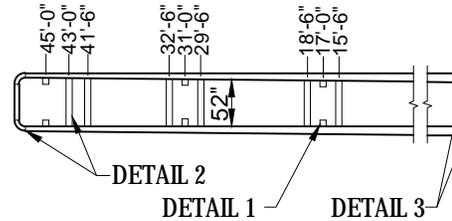
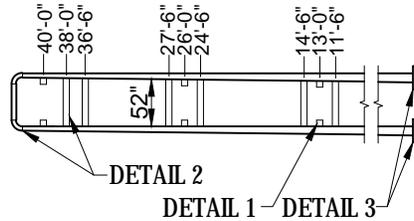
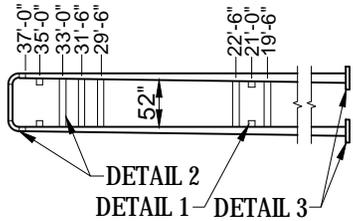
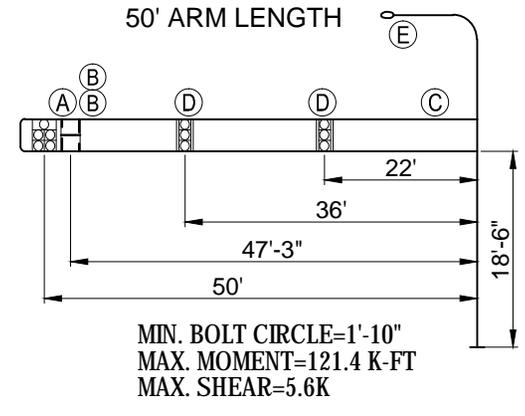
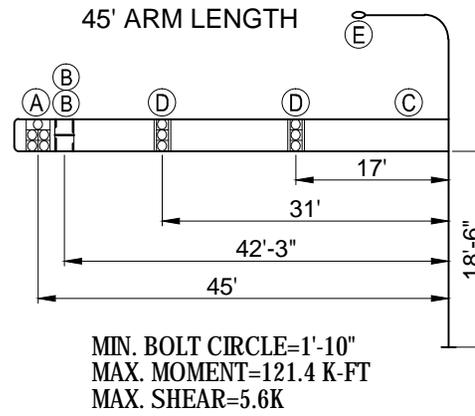
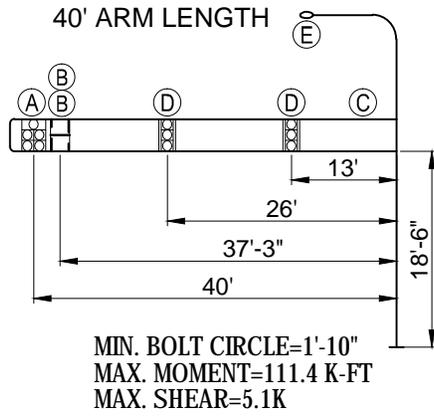
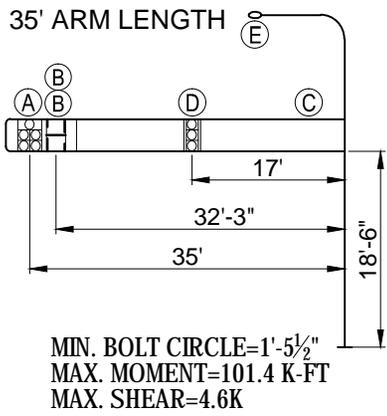
**ILLUMINATED SIGN POLE  
MOUNTING DETAIL**

APPROVED BY:

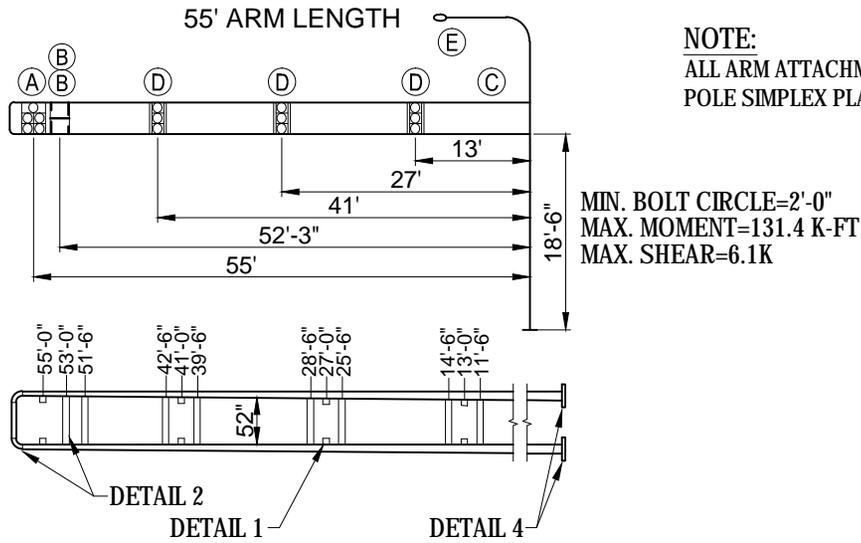


DATE:

8.24.16



**NOTE:**  
ALL ARM ATTACHMENTS DIMENSIONED FROM  
POLE SIMPLEX PLATE



| MATERIAL DATA   |                  |                  |
|---|------------------|------------------|
| COMPONENT   | ASTM DESIGNATION | MIN. YIELD (KSI) |
| TUBE - 0.25", 0.44" WALL  | A572 GR.65       | 65               |
| TUBE - 3 GA. & 7 GA.  | A595 GR.A        | 55               |
| PIPE  | -                | 36               |
| BASE PLATE & SIGNAL ARM ATTACHMENT  | A36              | 36               |
| ANCHOR BOLTS  | F 1554           | 55               |
| SIGNAL ARM CONNECTING BOLTS   | A325             | -                |
| FINISH COAT: TGIC OR URATHANE POLYESTER POWDER<br>COLOR: COCOA BROWN VALMONT SPEC: F-264D |                  |                  |

**DESIGN CRITERIA:**  
1994 AASHTO STANDARD  
SPECIFICATIONS FOR STRUCTURAL  
SUPPORTS FOR HIGHWAY SIGNS,  
LUMINAIRES, AND TRAFFIC SIGNALS

**WIND VELOCITY:**  
80 MPH ISOTACH

| LOADING CHART |                                |                  |              |
|---------------|--------------------------------|------------------|--------------|
| DEVICE        | DESCRIPTION                    | DFC: 5F95 H.H.L. | WEIGHT (LBS) |
| (A)           | 12"-5 SEC. SIGNAL W/ BACKPLATE | 13.72            | 100          |
| (B)           | 24" X 24" SIGN                 | 4.00             | 15           |
| (C)           | 48" X 120" SIGN                | 40.00            | 400          |
| (D)           | 12"-3 SEC. SIGNAL W/ BACKPLATE | 8.67             | 60           |
| (E)           | LUMINAIRE                      | 3.30             | 55           |

DETAIL NO.

**A1746**

**Avondale**  
STANDARD DETAIL

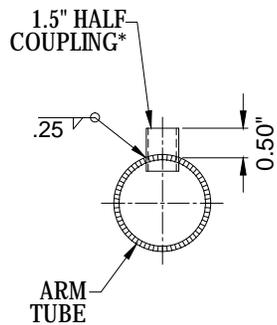
**TROMBONE STYLE**  
**SIGNAL MAST ARM**

APPROVED BY:

*David S. Jones*

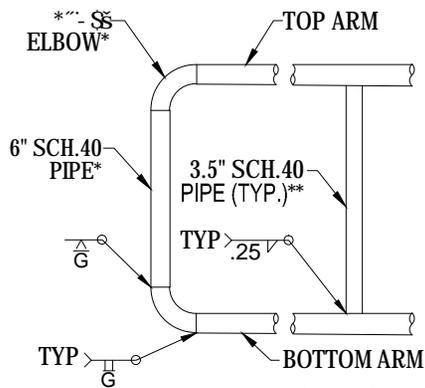
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8.24.16



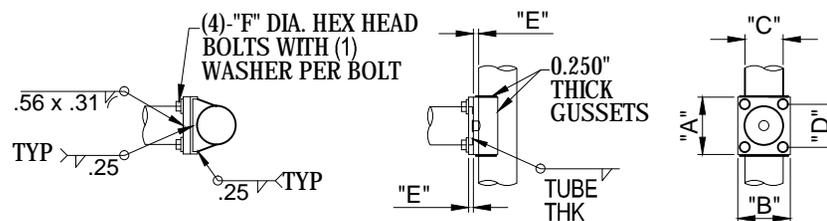
\* USE 8"x1.5" ALL THREAD PIPE WITH 1.5" HEX NUT IRON ZINC TO SECURE SIGNAL HEAD.

DETAIL 1  
SIGNAL ARM COUPLING



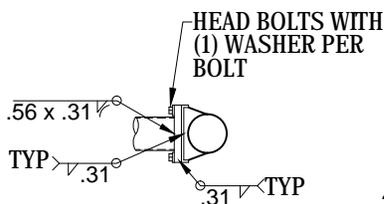
\* USE 3.5" FOR 35' ARM  
\*\* USE 3" FOR 35' ARM

DETAIL 2  
CONNECTING ELBOW & TYP. STRUT

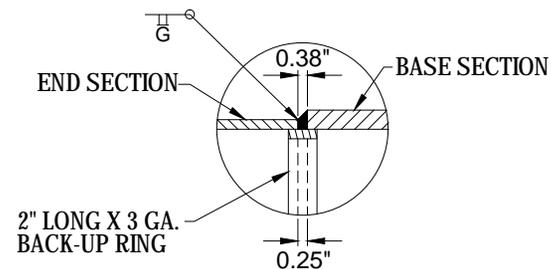


| SIGNAL ARM ATTACHMENT DATA |        |        |        |        |       |               |
|----------------------------|--------|--------|--------|--------|-------|---------------|
| MAST ARM LENGTH            | "A"    | "B"    | "C"    | "D"    | "E"   | "F"           |
| 35'-0"                     | 16.25" | 15.00" | 11.00" | 12.25" | 1.50" | 1.50" x 3.25" |
| 40'-0"                     | 17.25" | 16.00" | 12.00" | 13.25" | 1.75" | 1.50" x 3.75" |
| 45'-0"                     | 17.25" | 16.00" | 12.00" | 13.25" | 1.75" | 1.50" x 3.75" |

DETAIL 3  
SIGNAL ARM ATTACHMENT



DETAIL 4  
SIGNAL ARM ATTACHMENT (50' AND 55' ARM LENGTH)



| ARM SECTION DATA |              |        |             |       |
|------------------|--------------|--------|-------------|-------|
| ARM              | BASE SECTION |        | END SECTION |       |
|                  | LENGTH       | THK.   | LENGTH      | GAUGE |
| 45'-0"           | 5'-11"       | 0.250" | 46'-1"      | 3     |
| 55'-0"           | 10'-11"      | 0.250" | 46'-1"      | 3     |

WELDED SIGNAL ARM SPLICE

DETAIL NO.

**A1746-1**

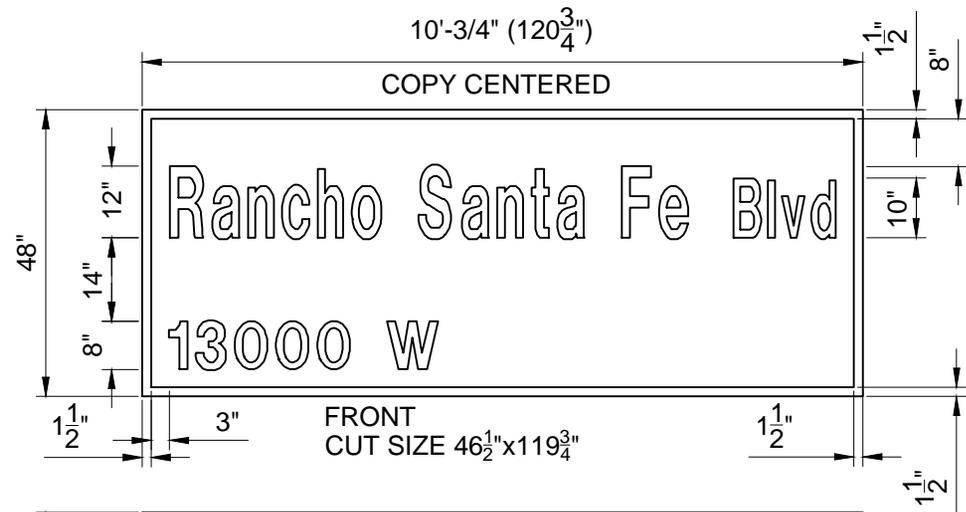
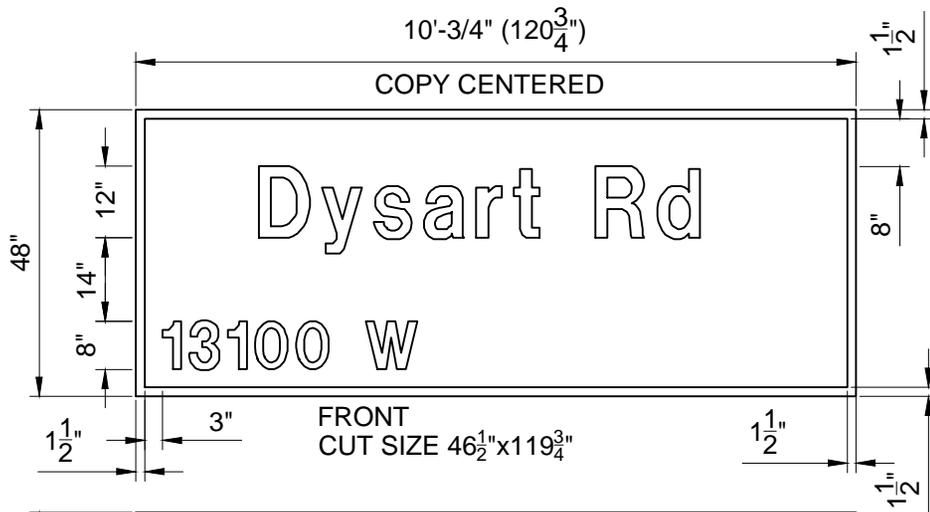
**Avondale**  
STANDARD DETAIL

**TROMBONE STYLE SIGNAL  
POLE DETAILS**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



**DOUBLE FACE INTERNALLY ILLUMINATED STREET NAME SIGN**

**FACES:** WHITE POLY CARBONATE, VINYL DECORATIONS APPLIED 1ST SURFACE.

**VINYL(S):** 3M DIAMOND GRADE #3990 WHITE APPLIED. 3M EC FILM #1177 APPLIED (COPY & LOGO BOX REVERSED OUT). DIGITAL GRAPHIC PRINTED ON CLEAR VINYL (LOGO). GRAFFITI RESISTANT FILM #1160 APPLIED (ENTIRE FACE).

**FONT(S):** CLEARVIEWONE CD-45 STANDARD SPACING (PREFERRED FONT). CLEARVIEWONE UC-35 STANDARD OR MODIFIED SPACING (USE THIS FONT WHEN A CONDENSED VERSION IS NECESSARY).

**CABINET:** ALUMINUM MMG12, 12" DEEP RETURNS, PRIME AND PAINT CHOCOLATE BROWN TO MATCH SIGNAL POLE AND MAST ARM.

**RETAINERS:** 1 1/2" ALUMINUM, HINGED @ TOP WITH PROP ROD, SECURED @ BOTTOM. PAINT TO MATCH CABINET.

**ILLUMINATION:** GE TUBULAR L.E.D.

**ELECTRICAL:** 2.4 AMPS @ 120 VOLTS.

**INSTALLATION:** USE WITH DETAIL A1746-1

DETAIL NO.

**A1747**

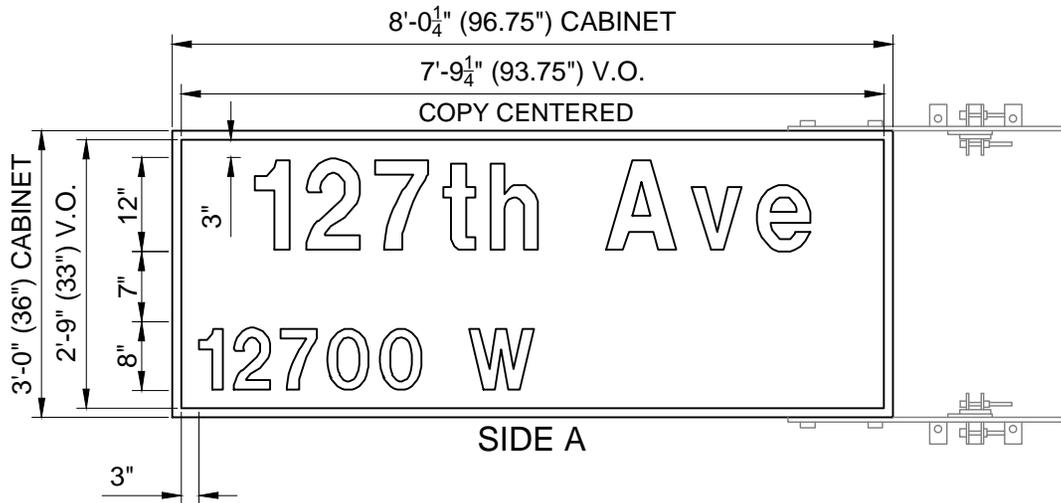
**Avondale**  
STANDARD DETAIL

**ILLUMINATED STREET NAME SIGNS  
FOR TROMBONE STYLE SIGNAL POLE**

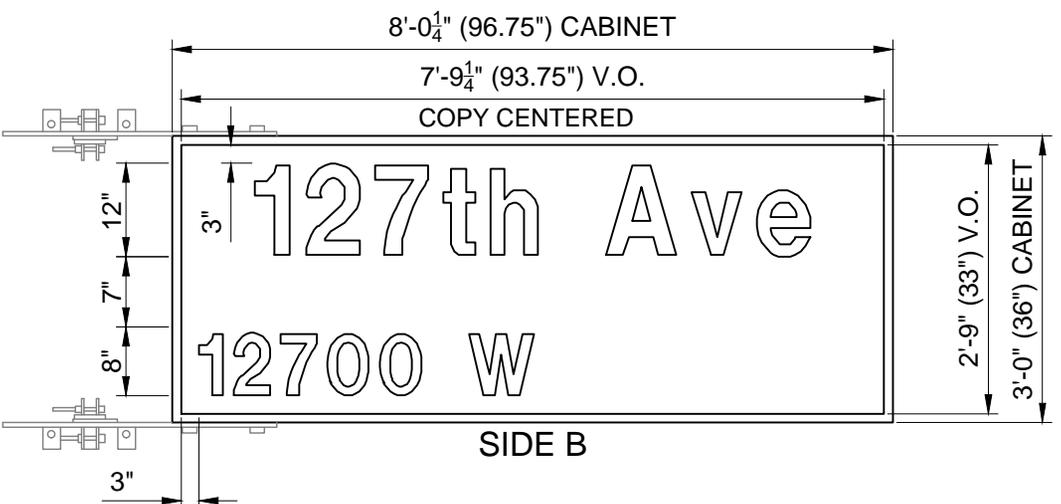
APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



SIDE A



SIDE B

**DOUBLE FACE INTERNALLY ILLUMINATED STREET NAME SIGN**

**FACES:** WHITE POLY CARBONATE, VINYL DECORATIONS APPLIED 1ST SURFACE.

**VINYL(S):** 3M DIAMOND GRADE #3990 WHITE APPLIED. 3M EC FILM #1177 APPLIED (COPY & LOGO BOX REVERSED OUT). DIGITAL GRAPHIC PRINTED ON CLEAR VINYL (LOGO). GRAFFITI RESISTANT FILM #1160 APPLIED (ENTIRE FACE).

**FONT(S):** CLEARVIEWONE CD-45 STANDARD SPACING (PREFERRED FONT). CLEARVIEWONE UC-35 STANDARD OR MODIFIED SPACING (USE THIS FONT WHEN A CONDENSED VERSION IS NECESSARY).

**CABINET:** ALUMINUM MMG12, 12" DEEP RETURNS, PRIME AND PAINT CHOCOLATE BROWN TO MATCH SIGNAL POLE AND MAST ARM.

**RETAINERS:** 1 1/2" ALUMINUM, HINGED @ TOP WITH PROP ROD, SECURED @ BOTTOM. PAINT TO MATCH CABINET.

**ILLUMINATION:** GE TUBULAR L.E.D.

**ELECTRICAL:** 2.4 AMPS @ 120 VOLTS.

**MOUNTING:** (2) FLAGMOUNT CLAMPS, PAINTED TO MATCH CABINET.

DETAIL NO.

**A1749**

**Avondale**  
STANDARD DETAIL

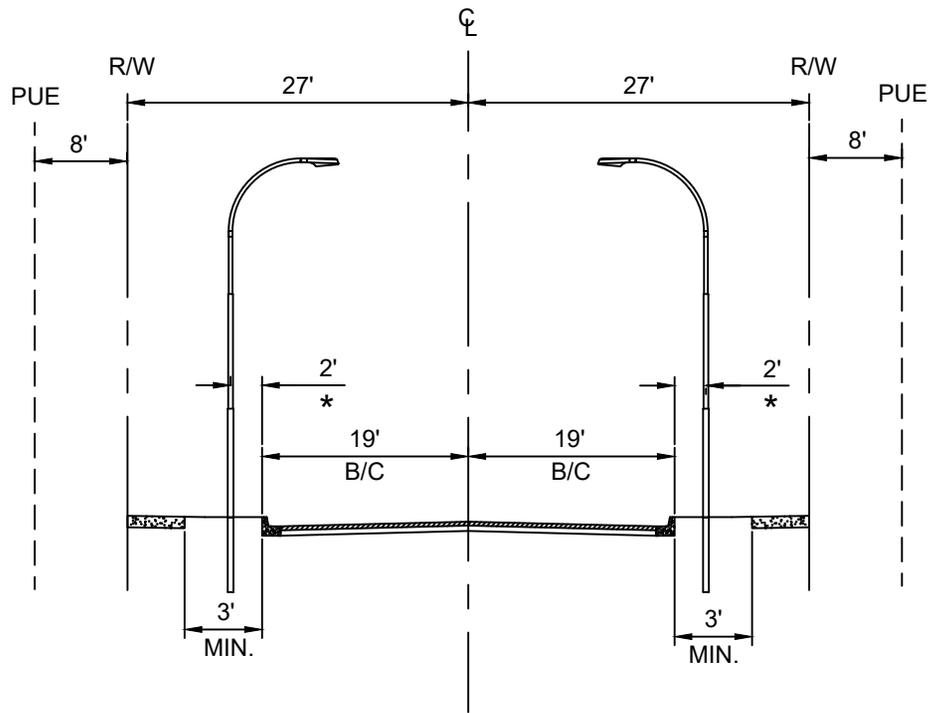
**ILLUMINATED STREET NAME SIGNS  
FOR ADOT STYLE SIGNAL POLE**

APPROVED BY:

*David S. Jones*

DATE:

8.24.16



A1100 LOCAL STREETSCAPE SECTION

\* DIMENSION TO CENTER OF POLE

DETAIL NO.

**A1780**

**Avondale**  
STANDARD DETAIL

**PREFERRED STREET LIGHT  
LOCATION (LOCALS)**

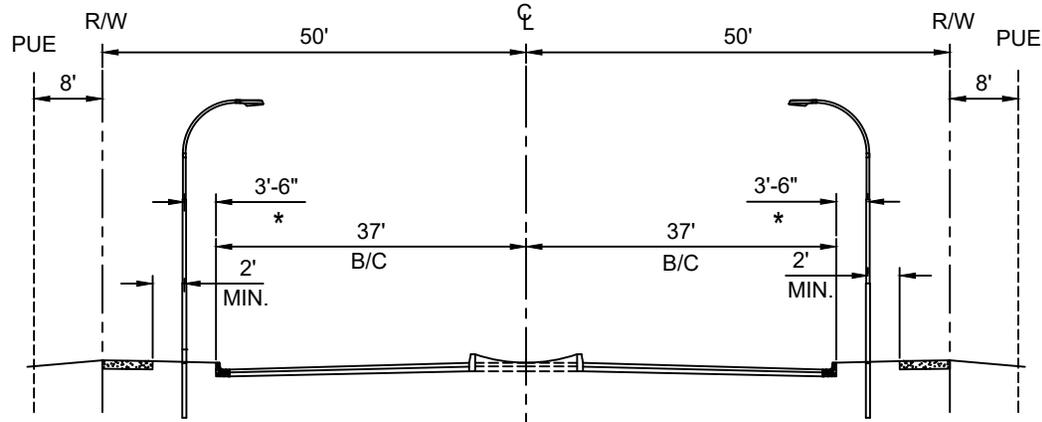
APPROVED BY:

*David Jones*

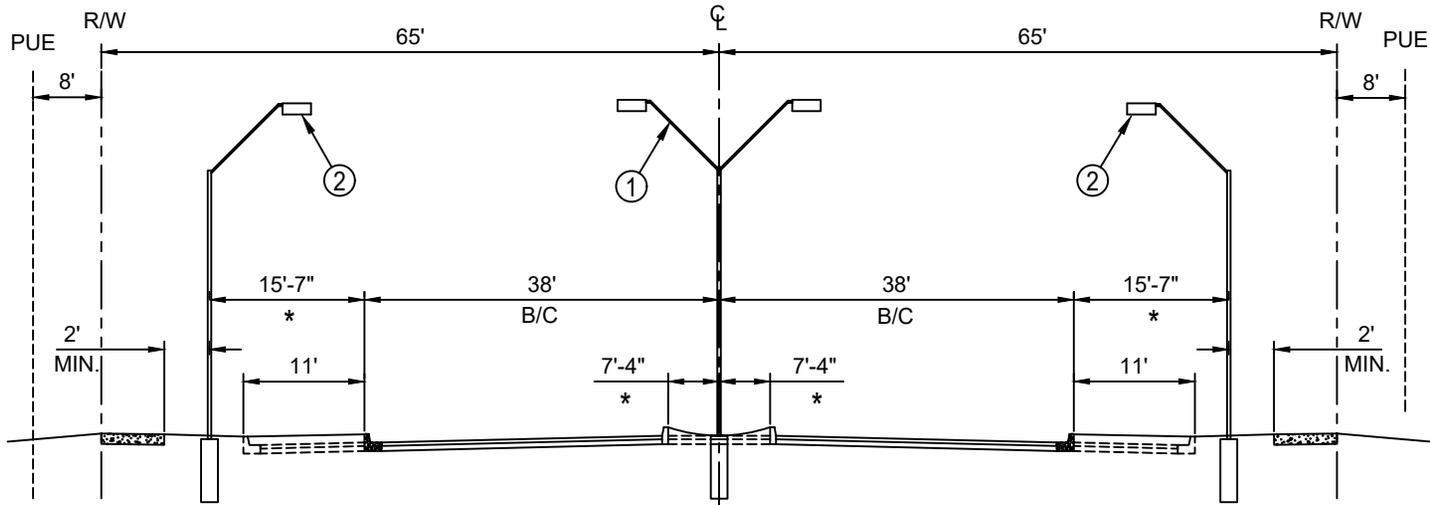
DATE:

1.8.2020





A1103 MINOR ARTERIAL SECTION



A1105 PHASED ARTERIAL OUTSIDE WIDENING SECTION

- ① MEDIAN PLACEMENT IS THE PREFERRED LOCATION FOR STREET LIGHTS.
- ② ALTERNATE PLACEMENT OF STREET LIGHTS IS BEHIND CURB AND GUTTER.

\* DIMENSION TO CENTER OF POLE

DETAIL NO.

**A1782**

**Avondale**  
STANDARD DETAIL

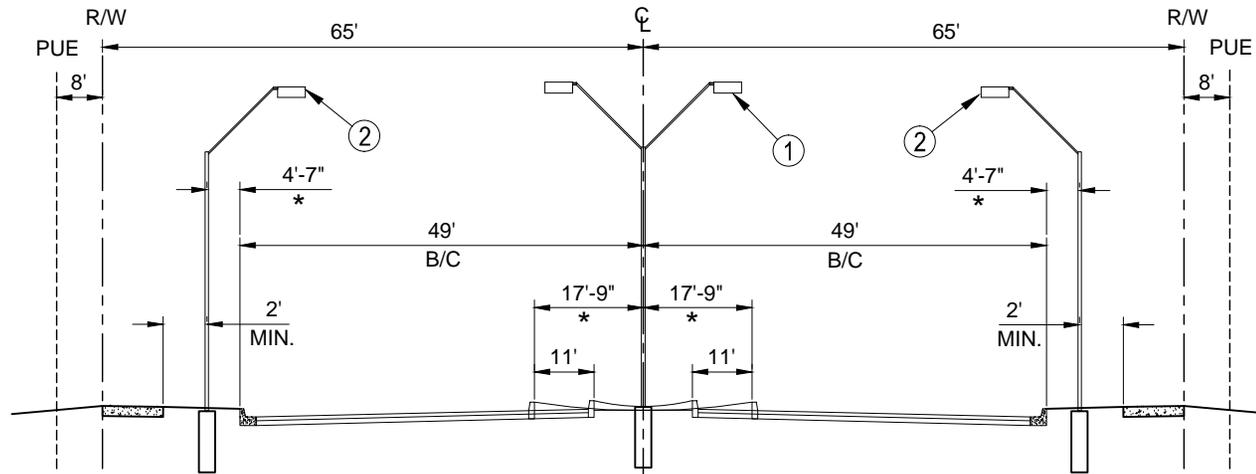
**PREFERRED STREET LIGHT LOCATION  
(COLLECTOR / ARTERIAL)**

APPROVED BY:

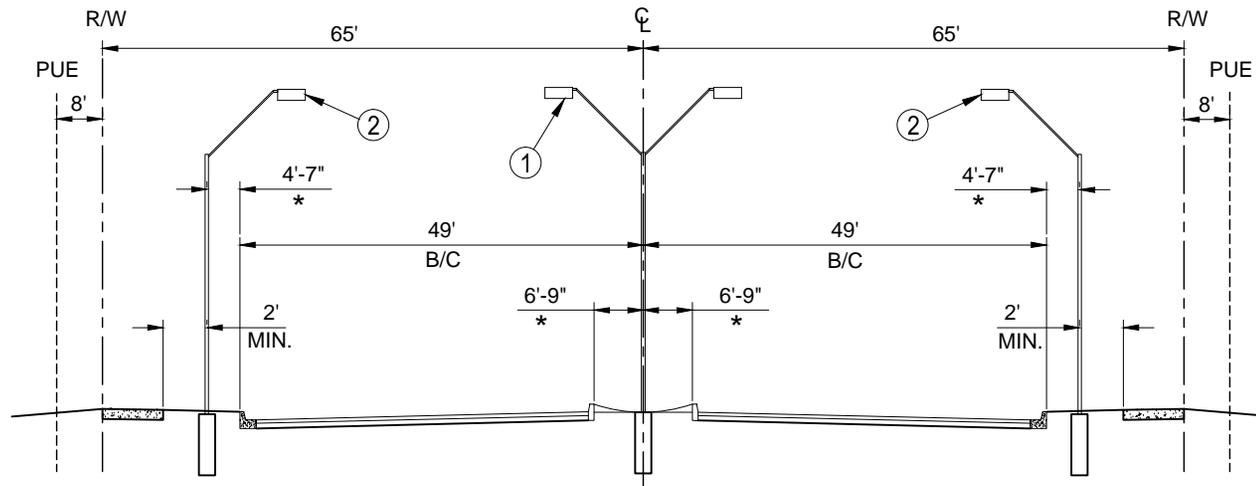
*David Jones*

DATE:

1.8.2020



A1104 PHASED ARTERIAL INSIDE WIDENING SECTION



A1106 ARTERIAL SECTION

- ① MEDIAN PLACEMENT IS THE PREFERRED LOCATION FOR STREET LIGHTS.
- ② ALTERNATE PLACEMENT OF STREET LIGHTS IS BEHIND CURB AND GUTTER.

\* DIMENSION TO CENTER OF POLE

DETAIL NO.

**A1783**

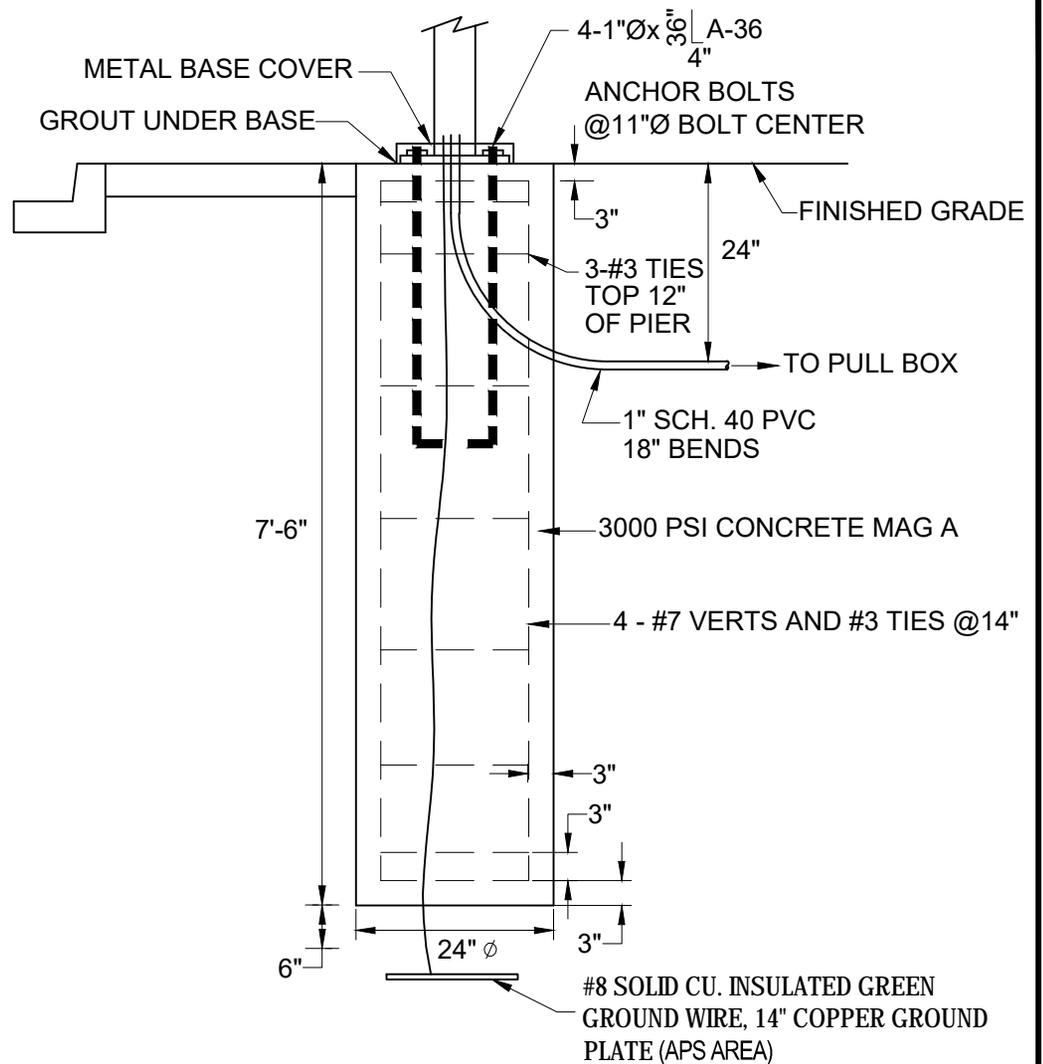
**Avondale**  
STANDARD DETAIL

**PREFERRED STREET LIGHT  
LOCATION (ARTERIALS)**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



**NOTES:**

1. REINF A615 GRADE 60 EXCEPT #3 GRADE 40
2. TOP OF FOUNDATION SHALL BE FINISHED WITH A SMOOTH SURFACE WITH A 1" CHAMFERED EDGE.
3. POLE FOUNDATION SHALL CURE FOR 14 DAYS BEFORE INSTALLING LIGHT POLES.
4. ALL FINISHED POLE FOUNDATIONS SHALL BE AT SIDEWALK GRADE.
5. ANCHOR BOLTS SHALL BE FULLY GALVINIZED PER ASTM A-153.
6. CONCRETE PLACEMENT SHALL FOLLOW MAG SPECIFICATIONS.
7. DO NOT FREEFALL CONCRETE IN EXCESS OF 5'.
8. A VIBRATOR SHALL BE USED TO DISTRIBUTE CONCRETE & REDUCE AIRVOIDS.
9. MAXIMUM SLUMP SHALL NOT EXCEED 5".
10. GROUT BASE AFTER POLE HAS BEEN LEVELED.
11. HCD%6C: : CI B85HCB'G<5@<5J9'5'8'<< CCB5H 69'BD@579K<9B POURING CONCRETE. REMOVE FORM AFTER CONCRETE HAS CURED.

DETAIL NO.

**A1784-1**

**Avondale**  
STANDARD DETAIL

**ARCHITECTURAL (SHOE BOX)  
STYLE STREET LIGHT FOUNDATION**

APPROVED BY:

*David S. Jones*

DATE:

8.24.16

**SPECIFICATONS:**

**DESIGN CRITERIA:** POLE SHALL BE DESIGNED FOR 100 MPH STEADY WINDS

**POLE SHAFT:** THE POLE SHAFT IS FABRICATED FROM A WELDABLE GRADE HOT-ROLLED SQUARE TUBING THAT MEETS OR EXCEEDS THE REQUIREMENTS OF ASTM A500B. IT HAS A MINIMUM YIELD STRENGTH OF 46,000 PSI.

**ANCHOR BASE:** THE BASE PLATE IS FABRICATED FROM A STRUCTURAL QUALITY HOT-ROLLED CARBON PLATE THAT MEETS OR EXCEEDS THE REQUIREMENTS OF ASTM A36. IT HAS A MINIMUM YIELD STRENGTH OF 36,000 PSI.

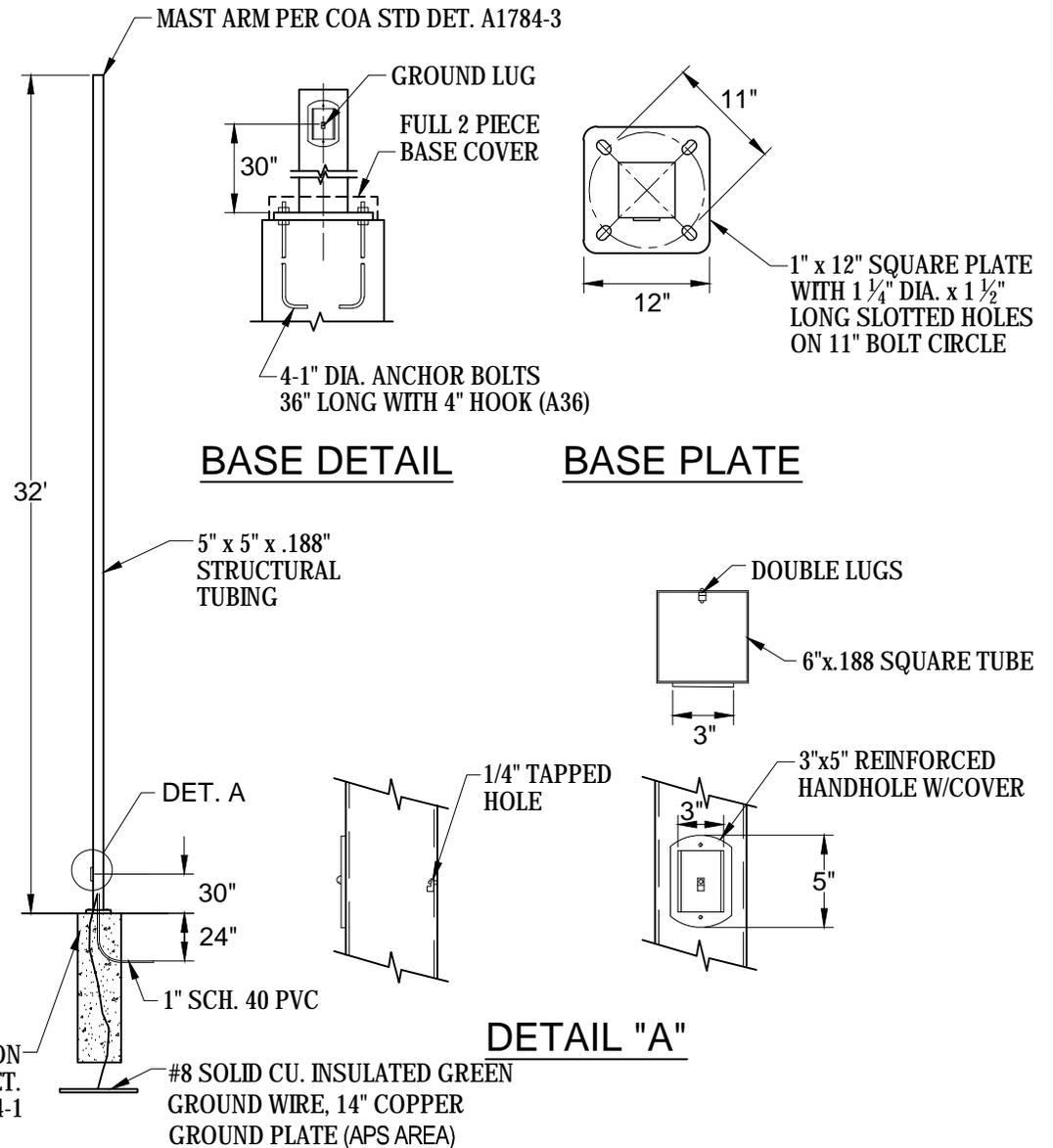
**ANCHOR BOLTS:** ANCHOR BOLTS ARE FABRICATED FROM HOT-ROLLED CARBON STEEL BAR THAT MEET OR EXCEED REQUIREMENTS OF ASTM A36. EACH BOLT HAS AN "L" BEND ON ONE END AND A MINIMUM 4" THREAD ON THE OTHER, WITH 2 NUTS AND 2 WASHERS (ASSEMBLED). THE ANCHOR BOLT IS HOT-DIPPED GALVANIZED PER ASTM A153.

**HANDHOLE:** THE HANDHOLE CONSISTS OF A 3"x5" OVAL REINFORCED FRAME WITH 16 GAUGE COVER, STEEL ATTACHMENT BAR AND 1/4" SCREW. A GROUNDING LUG IS INSTALLED INSIDE THE POLE SHAFT OPPOSITE THE HANDHOLE OPENING. THE HANDHOLE IS WELDED IN THE POLE SHAFT AND LOCATED AT 30" ABOVE THE BASE.

**FINISH:** THE POLE IS SAND BLASTED TO A NEAR WHITE FINISH AND TREATED WITH AN IRON PHOSPHATE SOLUTION. A HIGH QUALITY POLYESTER POWDER (BRONZE) IS THEN ELECTROSTATICALLY APPLIED AND CURED TO A MINIMUM 4 MIL. THICKNESS.

**NOTES:**

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGE SHALL BE REMOVED PRIOR TO PAINTING.
2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.

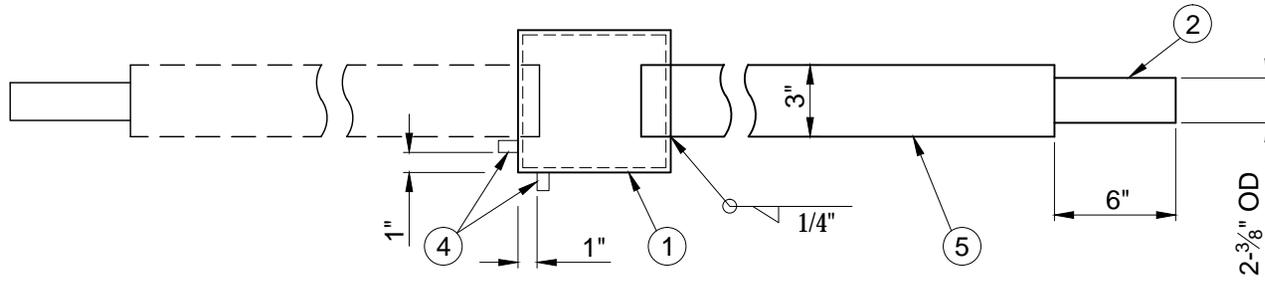


DETAIL NO.  
**A1784-2**

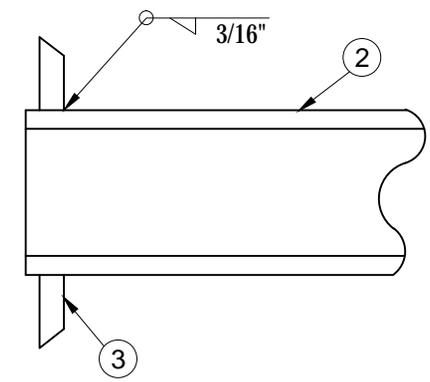
**Avondale**  
STANDARD DETAIL

**ARCHITECTURAL (SHOE BOX)  
STYLE STREET LIGHT POLE**

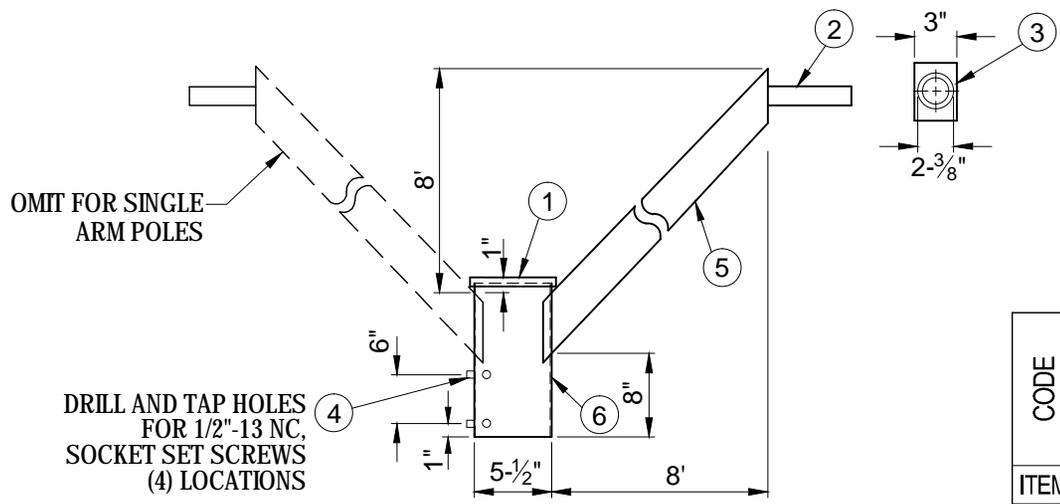
APPROVED BY: *David S. Jones*  
DATE: 8.24.16



**TOP VIEW**



**DETAIL OF JOINT BETWEEN PIPE AND PLATE AT END OF TUBE**



**SIDE VIEW**

OMIT FOR SINGLE ARM POLES

DRILL AND TAP HOLES FOR 1/2"-13 NC, SOCKET SET SCREWS (4) LOCATIONS

**NOTES:**

1. ALL WIRE ENTRANCE AND EXIT HOLES SHALL BE FREE OF BURRS AND ROUGH EDGES.
2. THE MAST ARM IS SAND BLASTED TO A NEAR WHITE FINISH AND TREATED WITH AN IRON PHOSPHATE SOLUTION. A HIGH QUALITY POLYESTER POWDER (BRONZE) IS THEN ELECTROSTATICALLY APPLIED AND CURED TO A MINIMUM 4 MIL. THICKNESS.

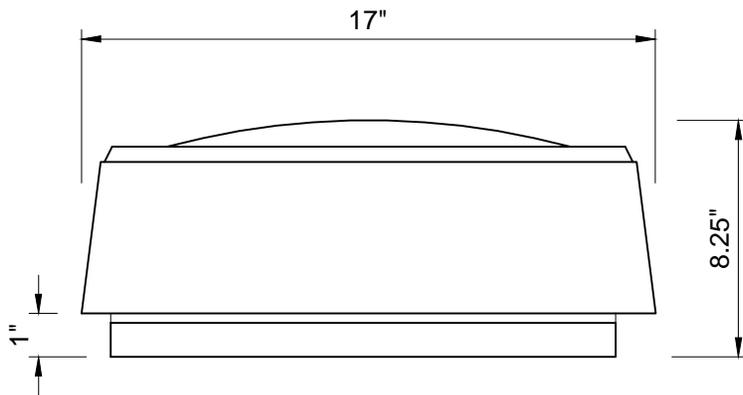
| CODE | SINGLE ARM | MATERIAL LIST  |
|------|------------|--|
| ITEM | QTY.       | DESCRIPTION  |
| ①    | 1          | CAP, METAL 5-1/2" x 5-1/2" x 3/4"                                    |
| ②    | 1          | PIPE, STEEL, 2" SCHEDULE 40, 6-1/2" LONG (MAX. 2-3/8" O.D.) (42 KSI) |
| ③    | 1          | PLATE, 3" x 4.243" x 3/16"   |
| ④    | 4          | SET SCREW, HEXAGON, 1/2 - 1/3 NC x 1/2", ZINC PLATED                 |
| ⑤    | 1          | TUBE, 3" x 3" x 11'-6", 0.188 WALL STEEL (ASTM A-500, GRADE B)       |
| ⑥    | 1          | TUBE, 5-1/2" x 5-1/2" x 12", 0.188 WALL STEEL (ASTM A-500, GRADE B)  |

DETAIL NO.  
**A1784-3**

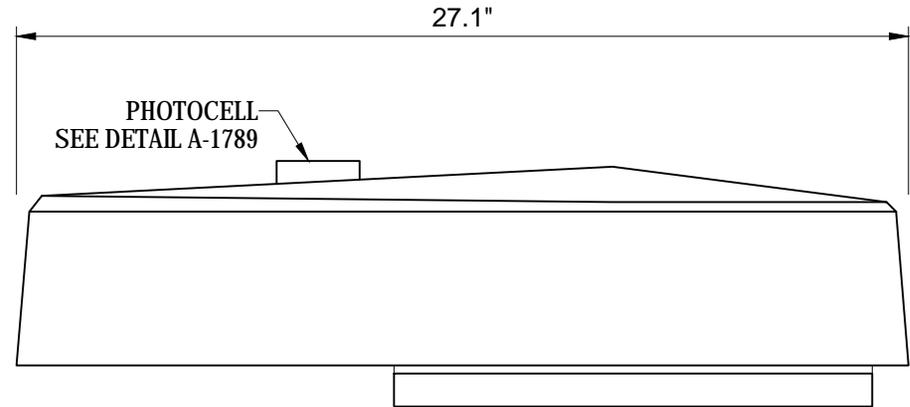
**Avondale**  
STANDARD DETAIL

**ARCHITECTURAL (SHOE BOX)  
STYLE STREET LIGHT MAST ARM**

APPROVED BY: *[Signature]*  
DATE: 8.24.16



FRONT



SIDE

NOTES:

1. HOUSING SHALL BE FORMED ALUMINUM ON UPPER PORTION OF UNIT. DOOR FRAME TO BE MANUFACTURED OF EXTRUDED ALUMINUM WITH HINGES AND TWO QUICK RELEASE LATCHES. UNIT SHALL HAVE PLUG IN STARTER.
2. EXTERNAL FINISH SHALL BE OF THERMOSET ENAMEL, BRONZE IN COLOR.
3. ALL FIXTURES SHALL BE SUPPLIED WITH PHOTOCELL SOCKET, PHOTOCELL AND LAMP.
4. ALL FIXTURES SHALL HAVE A DECAL SHOWING WATTAGE OF FIXTURE WITH 2" BLACK LETTERING ON YELLOW BACKGROUND ATTACHED BETWEEN LENS AND POLE ON BOTTOM OF FIXTURE. THIS DECAL SHALL BE VISIBLE FROM THE STREET.

APPROVED MANUFACTURERS ARE:

*GE LIGHTING SYSTEMS*

TSP 25S0A2FMC35DB, 120/208/240/277 VOLT BALLAST (250 WATT)

*AMERICAN ELECTRIC LIGHTING*

153\_25S\_CA\_MT1\_R3\_FG\_LC\_EC\_PC, 120/208/240/277 VOLT BALLAST (250 WATT)

OR SEE COA APPROVED PRODUCTS LIST

DETAIL NO.

**A1784-4**

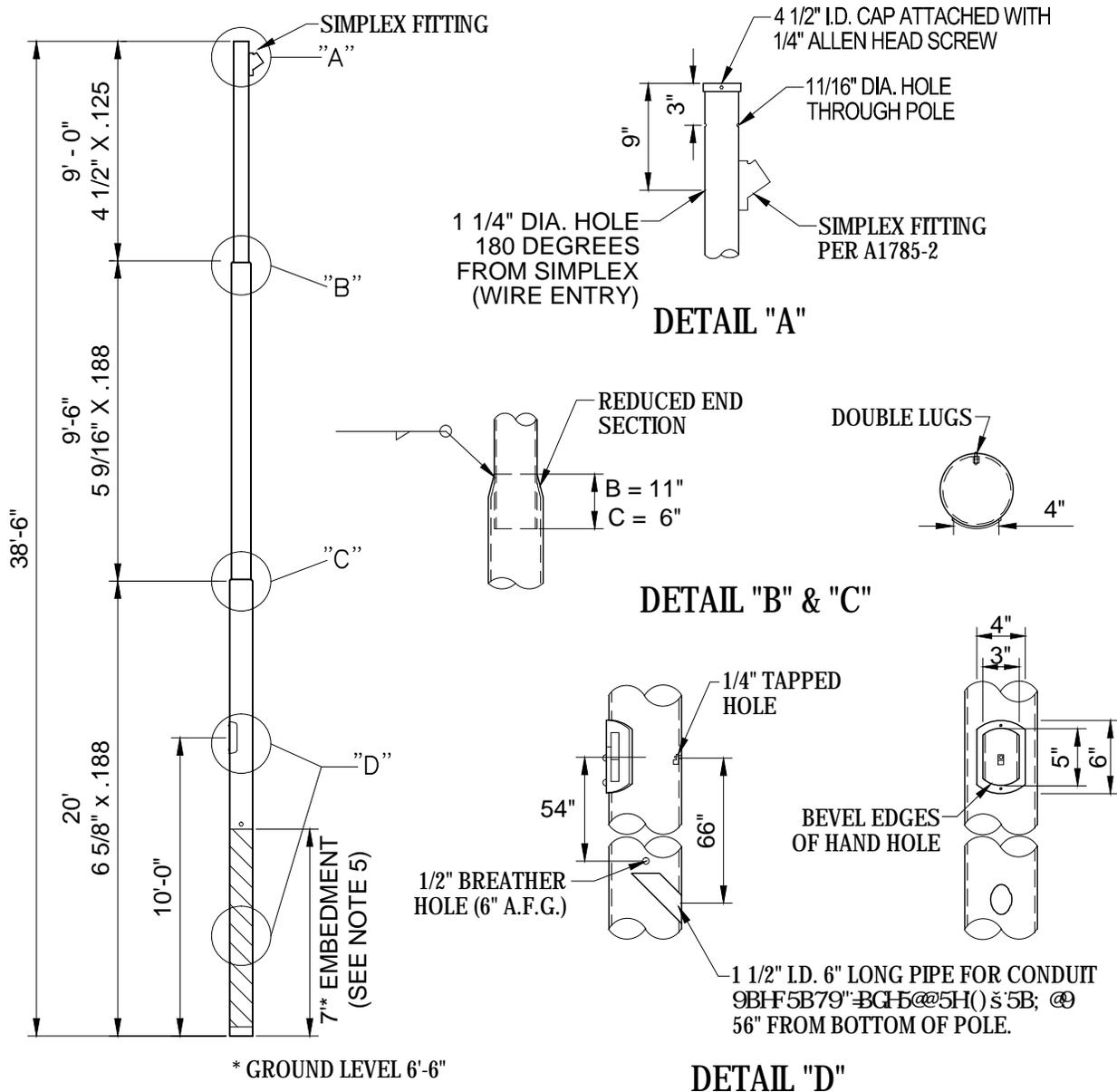
**Avondale**  
STANDARD DETAIL

**ARCHITECTURAL (SHOE BOX)  
STYLE STREET LIGHT FIXTURE**

APPROVED BY:

DATE:

8.24.16



**NOTES:**

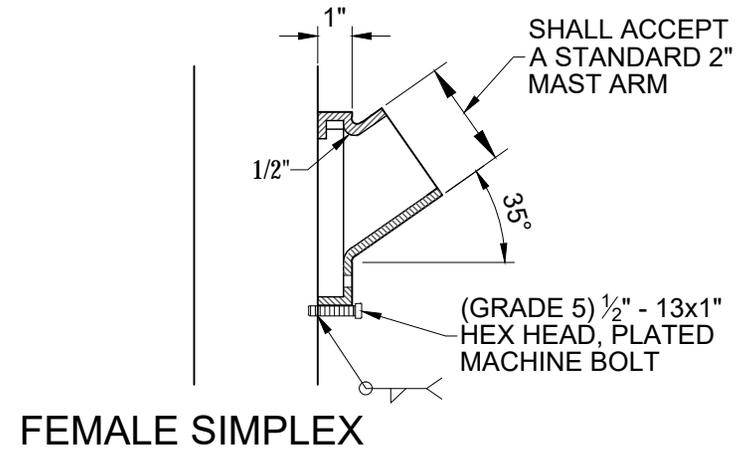
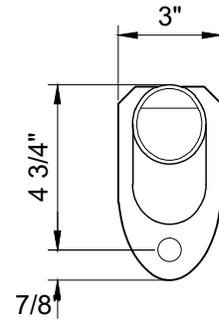
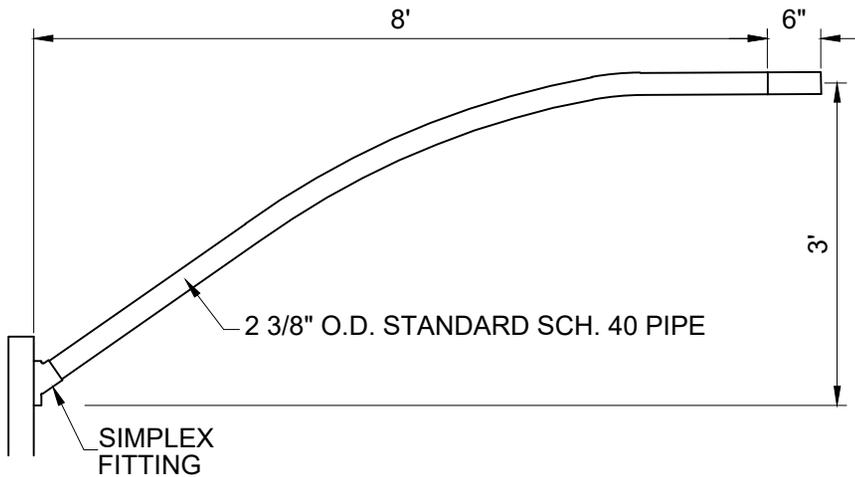
1. CONDUIT ENTRANCE TO BE MADE OF 1 1/2" MIN. I.D. PIPE. IT SHALL BE FLUSH WITH FACE OF POLE AND WELDED AT A 45 DEGREE ANGLE. REMOVE ALL BURRS.
2. THE HAND HOLE TO BE 5" X 3" WITH 1 1/2" RADII. THE HAND HOLE COVER TO BE 4" X 6" X 16 GAUGE WITH 2" RADII AND BENT SLIGHTLY SMALLER THAN THE POLE. THE COVER IS TO BE SECURED WITH (2) 1/4" STAINLESS STEEL TAMPER PROOF SCREWS, SUPPLIED BY MANUFACTURER.
3. AFTER FABRICATION, THE POLE SHALL BE SANDBLASTED TO REMOVE ALL LOOSE SCALE, RUST, CORROSION PRODUCTS, GREASE, DIRT, AND OTHER FOREIGN PRODUCTS. CLEAN POLE TO A MINIMUM OF "COMMERCIAL GRADE" SSPC SP-6.
4. AFTER SANDBLASTING THE POLE SHALL BE GALVANIZED PER ASTM A123, LATEST EDITION, ZINC (HOT GALVANIZED) COATING ON THE PRODUCTS FABRICATED FROM ROLLED, PRESSED AND FORGED STEEL, PLATES, BARS AND STRIPS AND APS "GUIDELINES FOR THE GALVANIZING OF TUBULAR TRANSMISSION POLES".
5. AFTER GALVANIZING, THE BOTTOM 7 FEET OF POLE SHALL BE CONFORMABLY HALF LAP TAPED WITH CORROSION PROTECTION TAPE PER COA SPECIFICATIONS. THIS TAPE SHALL BE UNIFORM AND WITHOUT FOLDS, WRINKLES OR GAPS.
6. POLE CONFORMS TO STRUCTURAL REQUIREMENTS PER NOTE 6 OF APS EM-339 SPECIFICATION (REV. 4)

DETAIL NO.  
**A1785-1**

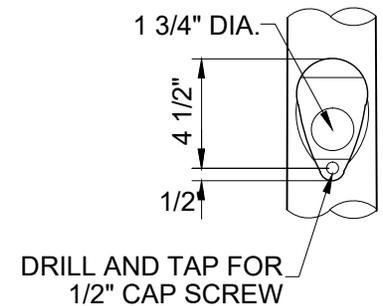
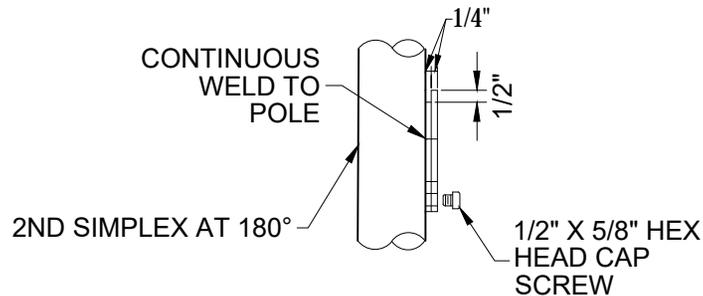
**Avondale**  
STANDARD DETAIL

**APS STREET  
LIGHT POLE**

APPROVED BY: *[Signature]*  
DATE: 8.24.16



FEMALE SIMPLEX



MALE SIMPLEX

NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR SEE COA APPROVED PRODUCTS LIST.
4. USE WITH A1785-1.

DETAIL NO.

**A1785-2**

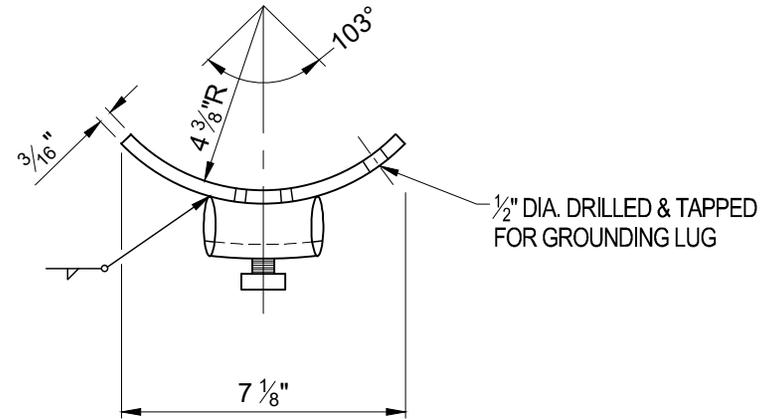
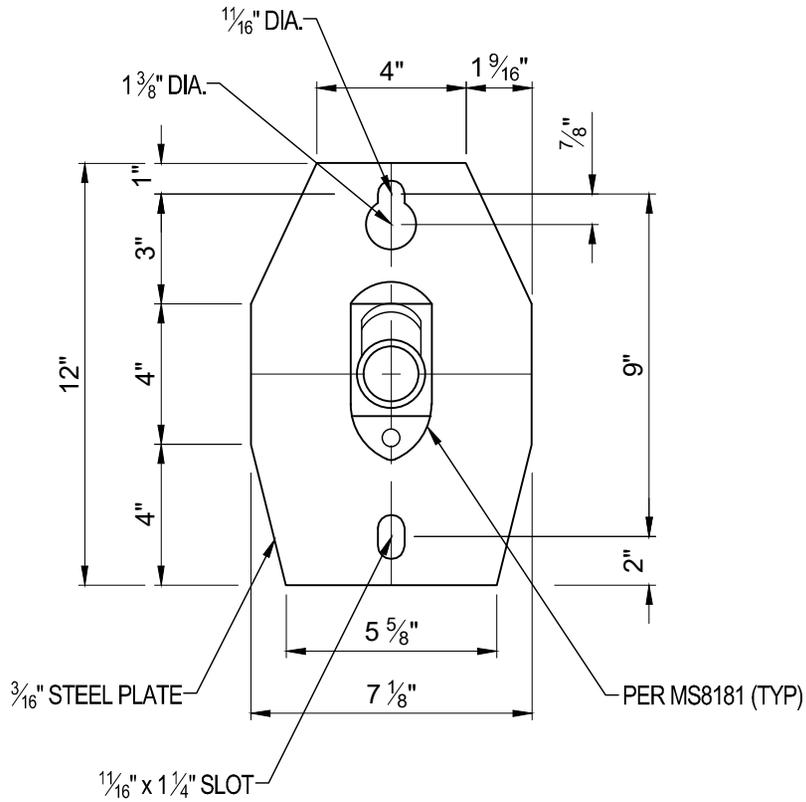
**Avondale**  
STANDARD DETAIL

**APS STREET LIGHT  
MAST ARM**

APPROVED BY:

DATE:

8.24.16



**NOTES:**

1. BRACKET AND INSTALLATION SHALL MEET ALL APS REQUIREMENTS.
2. REMOVE BURRS AND SHARP EDGES.
3. STEEL SHALL BE ASTM A36 LATEST EDITION.
4. BOLTS AND NUTS SHALL BE ASTM A307 LATEST EDITION.
5. FABRICATION SHALL CONFORM TO ASTM A143 LATEST EDITION.
6. WELDING SHALL CONFORM TO ANSI/AWS D1.1 WELD SHALL BE CAPABLE OF TRANSFERRING THE ULTIMATE ALLOWABLE LOAD FOR THE SIMPLEX FOOT TO THE PLATE ON WHICH IT IS MOUNTED.
7. ALL COMPONENTS SHALL BE GALVANIZED PER ASTM A123 OR A153 LATEST EDITIONS (WHICHEVER APPLIES) AND ASTM A143 LATEST EDITION.

DETAIL NO.

**A1785-3**

**Avondale**  
STANDARD DETAIL

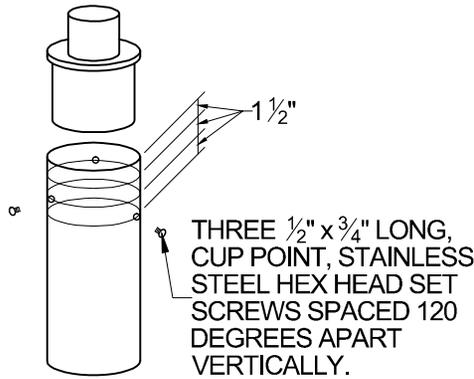
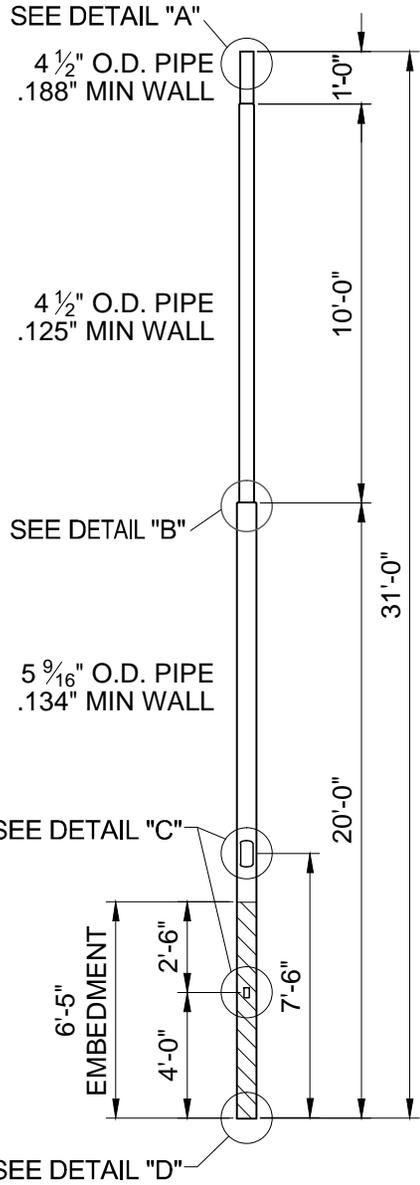
**APS WOOD POLE BRACKET**

APPROVED BY:

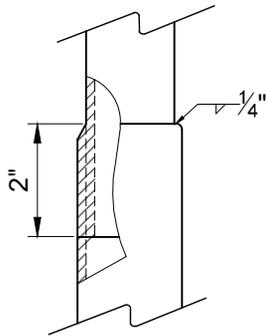
*David S. Jones*

DATE:

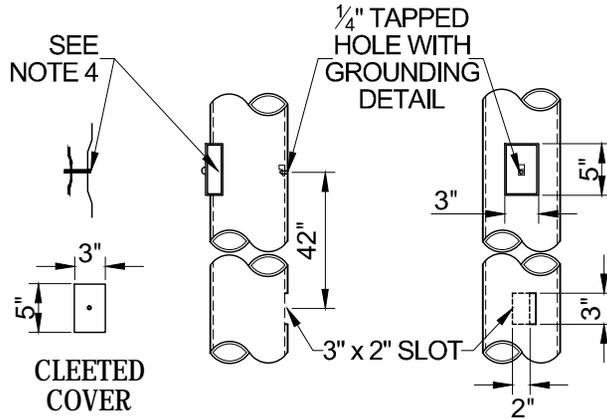
8.24.16



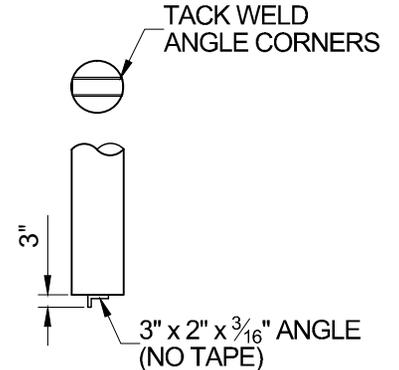
**DETAIL "A"**  
**POLE TOP**



**DETAIL "B"**  
**CRIMP**



**DETAIL "C"**  
**HANDHOLE**



**DETAIL "D"**  
**POLE BOTTOM**

**NOTES:**

1. ALL PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 42,000 PSI.
2. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED.
3. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
4. HANDHOLE COVER WILL BE SECURED WITH 1/4" x 2" LONG HEX HEAD FULLY THREADED STAINLESS STEEL BOLTS, PER ASTM F593.
5. POLE AND MAST ARM SHALL BE CLEANED TO THE MINIMUM OF "COMMERCIAL GRADE" SSPC SP-6.
6. AFTER BLASTING, THE POLE AND MAST ARM SHALL BE GALVANIZED PER ASTM A123
7. AFTER THE POLE HAS BEEN GALVANIZED, THE POLE BUTT SHALL BE CONFORMABLY HALF LAP TAPED WITH CORROSION PROTECTION TAPE, PER COA SPECIFICATIONS, FROM A POINT 2" BELOW THE BREATHER HOLE TO THE BOTTOM OF THE POLE. TAPE SHALL BE UNIFORM AND WITHOUT FOLDS, WRINKLES OR GAPS. THE LOWER SECTION SHOULD OVERLAP THE UPPER SECTION BY AT LEAST ONE LAP. NO STRUCTURE SHALL BE EXPOSED BETWEEN LAPS.
8. FINISH COAT SHALL BE URECAL 9179 (GRAY) OF 96104 (BLACK), OR SEE COA APPROVED PRODUCTS LIST, APPLIED FROM THE TOP OF THE POLE TO A POINT ONE FOOT BELOW THE BREATHER HOLE. MINIMUM DRY COAT THICKNESS TO BE 2 MILS.
9. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
10. POLE SHALL BE SUPPLIED WITH TA2 ALUMINUM GROUNDING LUG.

DETAIL NO.

**A1786-1**

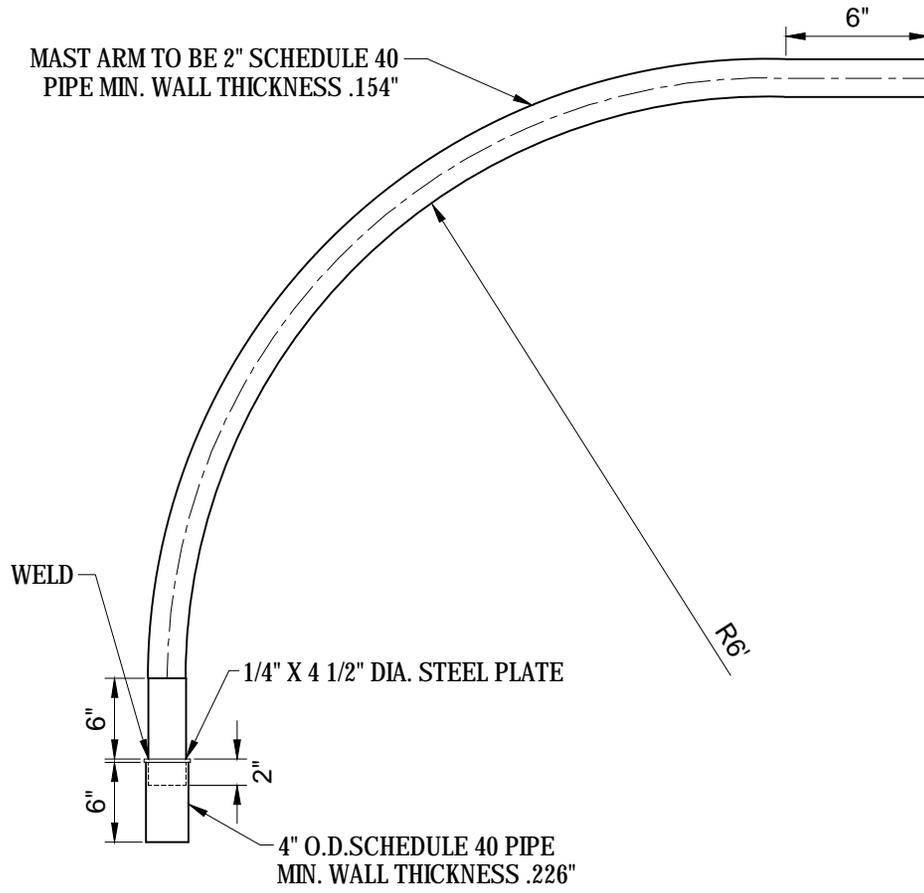
**Avondale**  
STANDARD DETAIL

**SRP STREET LIGHT  
POLE (31'-0")**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



**NOTES:**

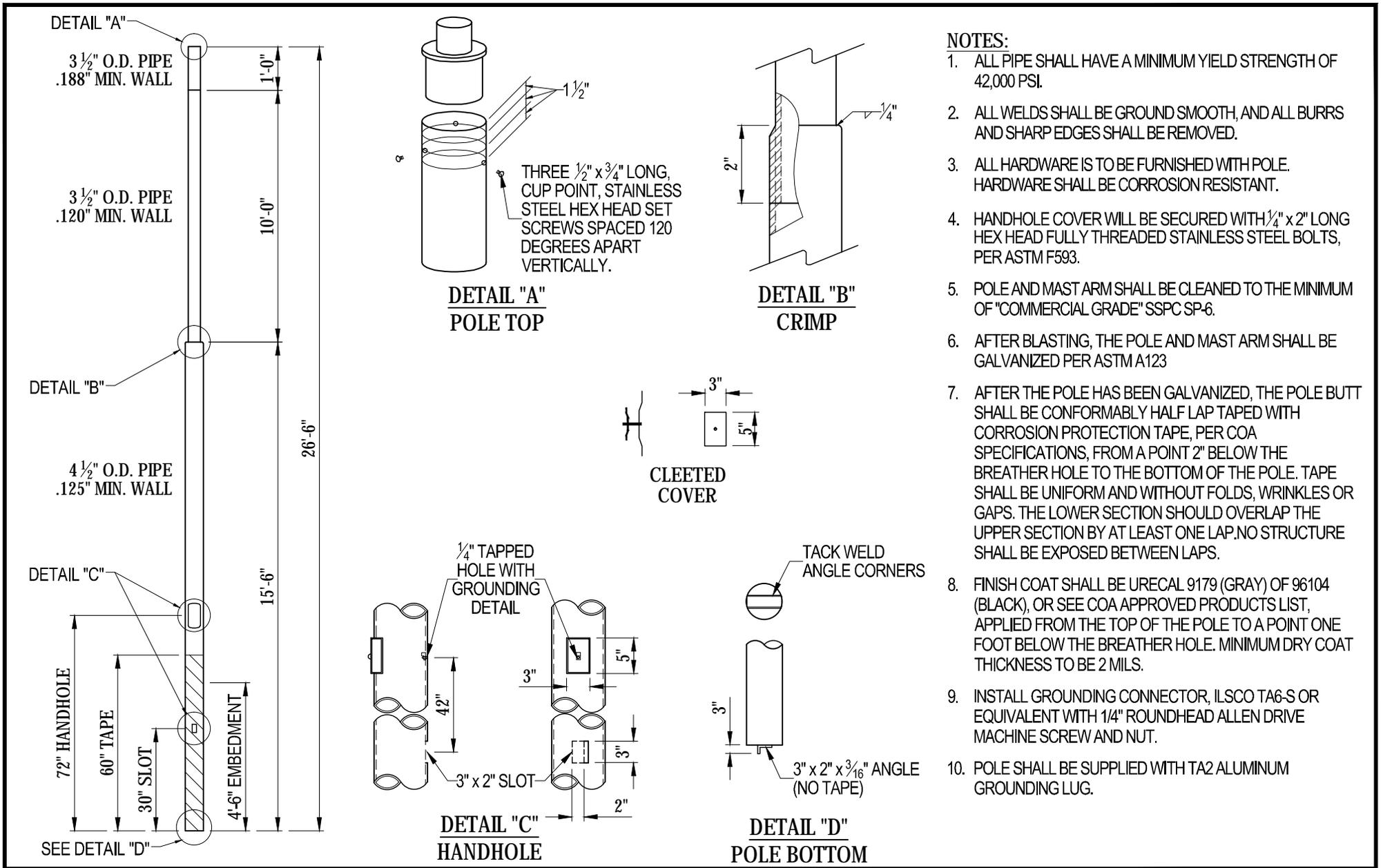
1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. FINISH COAT SHALL BE GALVANIZED PER ASTM A-123.
4. USE WITH A1786-1.

DETAIL NO.  
**A1786-2**

**Avondale**  
STANDARD DETAIL

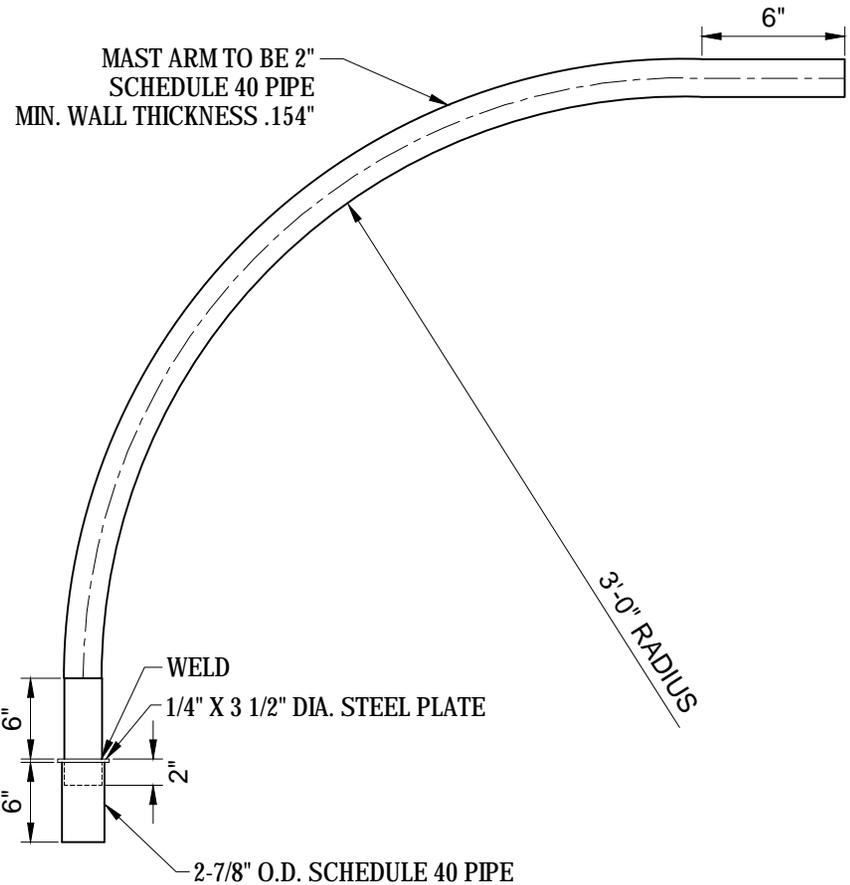
**SRP STREET LIGHT MAST  
ARM FOR 31'-0" POLE**

APPROVED BY: *David S. Jones*  
DATE: 8.24.16



**NOTES:**

1. ALL PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 42,000 PSI.
2. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED.
3. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
4. HANDHOLE COVER WILL BE SECURED WITH 1/4" x 2" LONG HEX HEAD FULLY THREADED STAINLESS STEEL BOLTS, PER ASTM F593.
5. POLE AND MAST ARM SHALL BE CLEANED TO THE MINIMUM OF "COMMERCIAL GRADE" SSPC SP-6.
6. AFTER BLASTING, THE POLE AND MAST ARM SHALL BE GALVANIZED PER ASTM A123
7. AFTER THE POLE HAS BEEN GALVANIZED, THE POLE BUTT SHALL BE CONFORMABLY HALF LAP TAPED WITH CORROSION PROTECTION TAPE, PER COA SPECIFICATIONS, FROM A POINT 2" BELOW THE BREATHER HOLE TO THE BOTTOM OF THE POLE. TAPE SHALL BE UNIFORM AND WITHOUT FOLDS, WRINKLES OR GAPS. THE LOWER SECTION SHOULD OVERLAP THE UPPER SECTION BY AT LEAST ONE LAP. NO STRUCTURE SHALL BE EXPOSED BETWEEN LAPS.
8. FINISH COAT SHALL BE URECAL 9179 (GRAY) OF 96104 (BLACK), OR SEE COA APPROVED PRODUCTS LIST, APPLIED FROM THE TOP OF THE POLE TO A POINT ONE FOOT BELOW THE BREATHER HOLE. MINIMUM DRY COAT THICKNESS TO BE 2 MILS.
9. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
10. POLE SHALL BE SUPPLIED WITH TA2 ALUMINUM GROUNDING LUG.



**NOTES:**

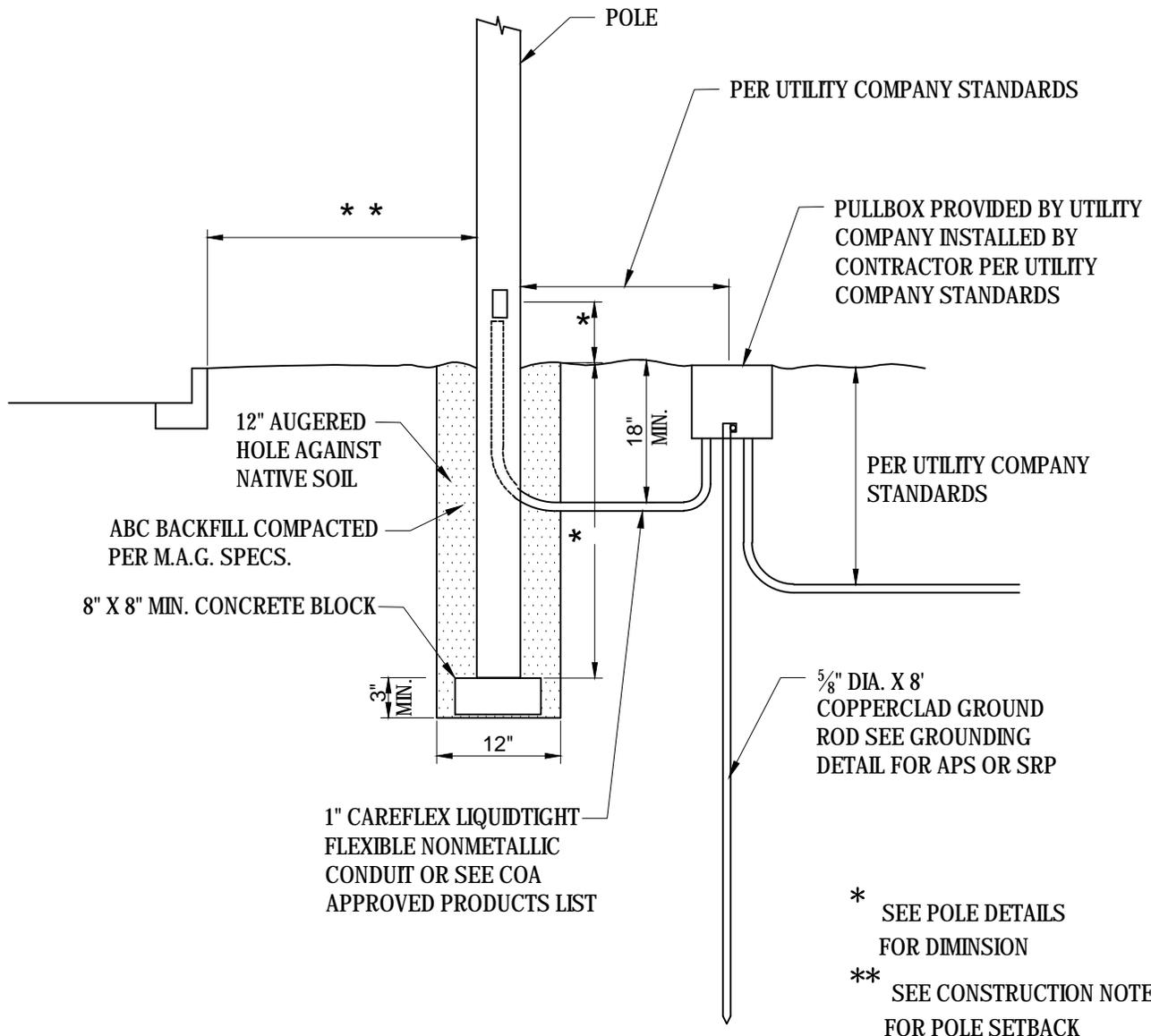
1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. FINISH COAT SHALL BE GALVANIZED PER ASTM A-123.
4. USE WITH A1786-3.

DETAIL NO.  
**A1786-4**

**Avondale**  
STANDARD DETAIL

**SRP STREET LIGHT MAST  
ARM FOR 26'-6" POLE**

APPROVED BY: *David S. Jones*  
DATE: 8.24.16



\* SEE POLE DETAILS FOR DIMINSION

\*\* SEE CONSTRUCTION NOTES FOR POLE SETBACK

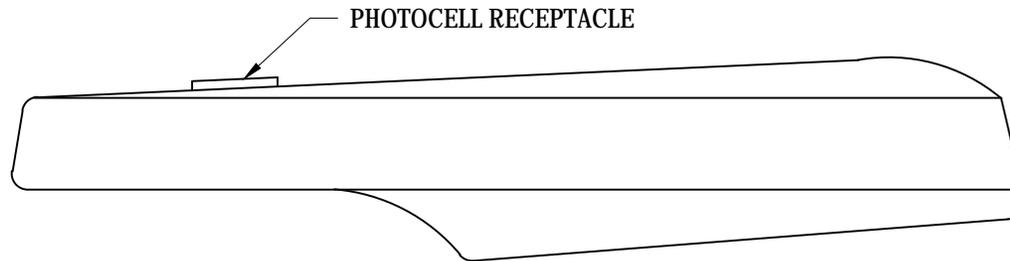
DETAIL NO.  
**A1787**

**Avondale**  
STANDARD DETAIL

**STREET LIGHT EMBEDMENT  
DETAIL**

APPROVED BY: *David S. Jones*

DATE: 8.24.16



FIXTURE HOUSING SHALL BE OF DIE CAST ALUMINUM WITHOUT SEAMS OR WELDS ON UPPER HALF OF UNIT. ALL ELECTRICAL COMPONENTS SHALL BE SECURELY ATTACHED TO THE UPPER HALF OF THE UNIT. LOWER HALF OF HOUSING SHALL BE HINGED ON INTEGRALLY CAST PIN HINGE AND SECURED WITH LATCH FOR ONE HANDED OPERATION. FIXTURE SHALL INCLUDE REMOVABLE BALLAST TRAY. EXTERNAL FINISH SHALL BE BAKED ENAMEL, COLOR TO MATCH POLE, APPLIED BY ELECTROSTATIC PROCESS.

MOUNTING SHALL BE BY INTEGRAL SLIP FITTER FOR 1-3/8" TO 2-3/8" DIAMETER MAST ARMS.

FIXTURE SHALL MEET I.E.S. TYPE II OR III MEDIUM CUT-OFF.

APPROVED MANUFACTURERS:

GENERAL ELECTRIC

100 WATT HPS - M2AC10S0A2GMC22

150 WATT HPS - M2AC15S0A2GMC32

250 WATT HPS - M2AC25S0A2GMC32

OR CITY APPROVED EQUAL

ALL FIXTURES MUST BE SUPPLIED WITH PHOTOCELL RECEPTACLE, PHOTOCELL AND LAMP.

FIXTURE SHALL HAVE A PLUG-IN STARTER/IGNITOR AND A HPF MULTI-TAP BALLAST.

ALL FIXTURES SHALL HAVE A DECAL SHOWING WATTAGE OF FIXTURE WITH 2" BLACK LETTERING ON YELLOW BACKGROUND ATTACHED BETWEEN LENS AND POLE ON BOTTOM OF FIXTURE. THIS DECAL SHALL BE VISIBLE FROM THE STREET.

DETAIL NO.

**A1788**

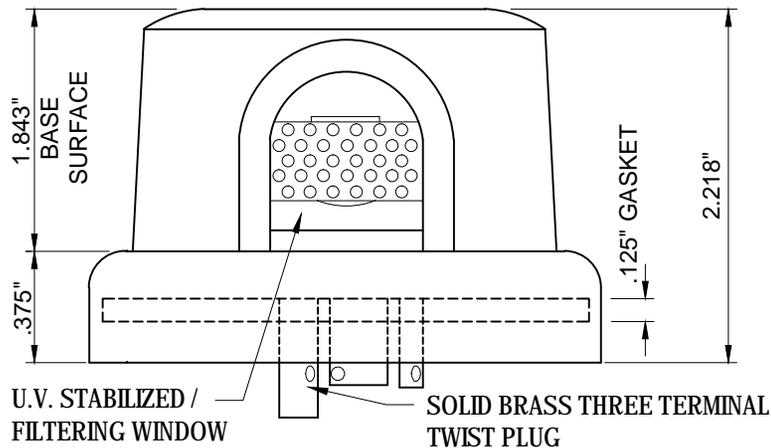
**Avondale**  
STANDARD DETAIL

**HPS COBRA HEAD FIXTURE**

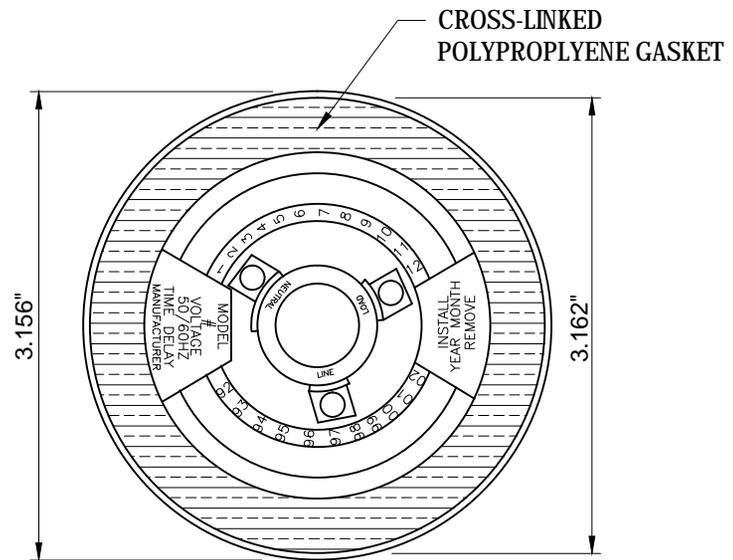
APPROVED BY:

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*David S. Jones*  
8.24.16



**NORTH SIDE VIEW**



**BOTTOM VIEW**

**NOTES:**

**PHYSICAL:**

SIZE SEE DRAWING  
 WEIGHT APPROX. 7 OZ. GROSS  
 CHASSIS MOLDED PHENOLIC WITH 3 POLE TWISTLOCK PLUG WITH CROSS LINKED POLYETHYLENE GASKET.  
 HOUSING U.V. STABILIZED  
 POLYPROPYLENE WITH ACRYLIC WINDOW WITH ULTRAVIOLET INHIBITOR.  
 COLOR DARK BRONZE

**ELECTRICAL:**

SUPPLY VOLTAGE 105-285 VOLTS, 50/60HZ AC  
 RATINGS LOAD 1800VA MAX. SPST, N.C.  
 INRUSH CURRENT 130 AMPERES AT 120 VOLTS 65 AMPERES AT 240 VOLTS  
 OPERATING LEVELS H FB'CB'5J9F5; 9% 7" - " & 7 TURN ON MAXIMUM 1.8FC RATIO AVERAGE 3  
 CONTROL POWER 3.2 WATTS, MAX. (2.75 AVERAGE) AT 240 VAC.  
 DIELECTRICAL STRENGTH 5 KV MIN. BETWEEN ANY CURRENT CARRYING PART AND METAL MOUNTING SURFACE.  
 LIGHT ARRESTOR DELUXE-CONTROLLED TYPE EXPULSION ENCLOSED 2.0 KV SPARK OVER MIN. TYPE 10,000 AMPS FOLLOW THROUGH  
 PHOTOCELL HERMETICALLY SEALED CDS CELL, MINIMUM SURFACE AREA .75 SQUARE INCHES  
 TIME DELAY OFF CYCLE ONLY, 3 TO 30 SECONDS

**ENVIRONMENTAL**

AMBIENT TEMPERATURE RANGE -65 DEGREES FAHRENHEIT TO +158 DEGREES FAHRENHEIT  
 MOISTURE RESISTANCE 100% RELATIVE HUMIDITY

**APPROVED MANUFACTURERS:**

**FISHER PIERCE**

120V 7762-EPSTD  
 240V 7772-EPSTD

**PRECISION**

120V 8662-ELTD  
 240V 8672-ELTD

DETAIL NO.

**A1789**

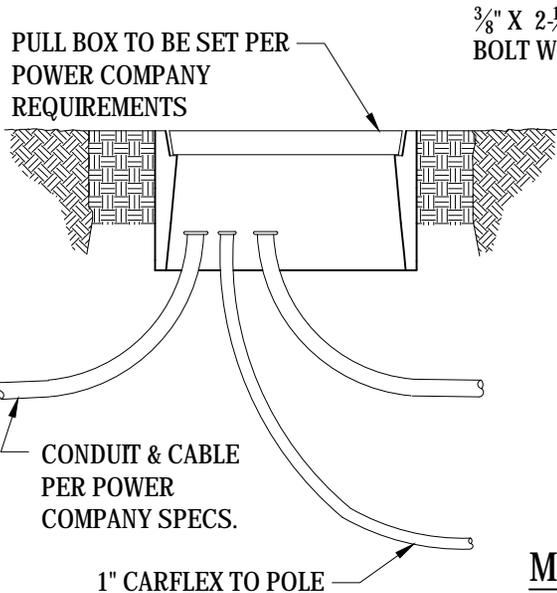
**Avondale**  
 STANDARD DETAIL

**PHOTOCELL**

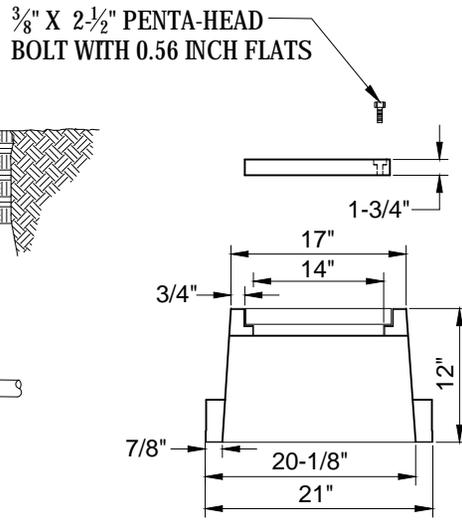
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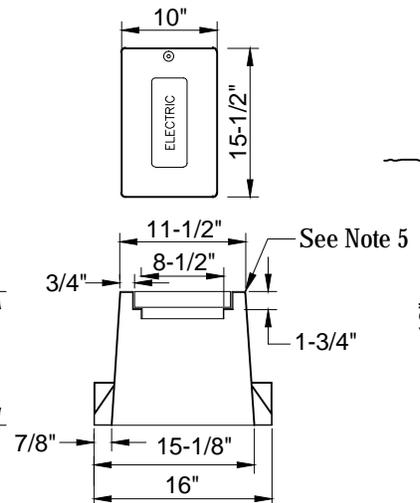
*David S. Jones*  
 8.24.16



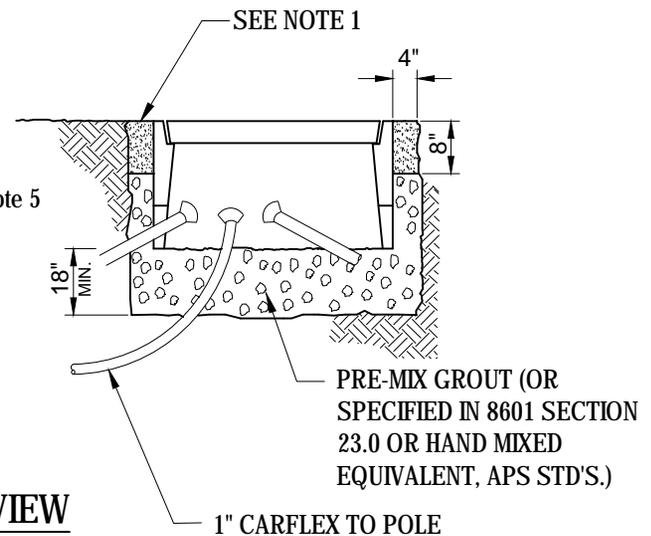
**JUNCTION BOX  
INSTALLATION SRP AREA**



**MID-SECTION SIDE VIEW**



**MID-SECTION END VIEW**

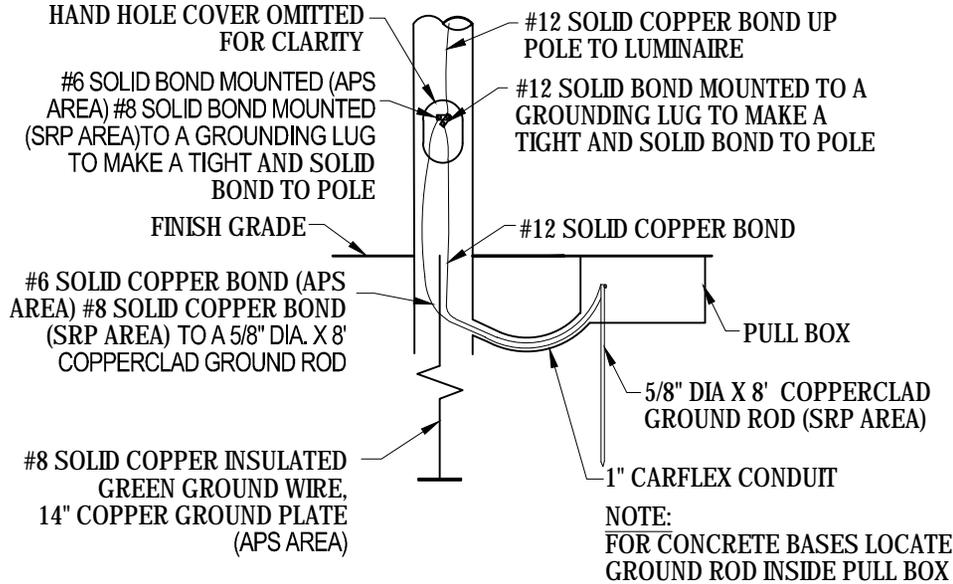


**JUNCTION BOX  
INSTALLATION APS AREA**

**NOTES:**

1. BACKFILL WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACT.
2. WHERE PULL BOXES ARE INSTALLED IN CONCRETE AREAS, 1/2" PRE-MOLDED EXPANSION JOINT SHALL BE INSTALLED AROUND PULL BOX.
3. CONDUCTORS SHALL HAVE A MINIMUM OF 36" SLACK FROM CONDUIT AND BELL.
4. WHERE A PULL BOX EXTENSION IS NEEDED, TWO PULL BOXES MAY BE STACKED ONE ON TOP OF ANOTHER.
5. HANDHOLES ARE TO BE INSTALLED FLUSH WITH FINAL GRADE.
6. INSTALL THIS NONTRAFFIC-BEARING HANDHOLE OUTSIDE OF CONCRETED AREAS, OR PEDESTRIAN AND VEHICULAR TRAFFIC AREAS.
7. COMPACTION BENEATH AND AROUND HANDHOLE SHALL BE A MINIMUM OF 85 PERCENT OF THE MAXIMUM DENSITY PER MAG SPECIFICATIONS..
8. DIMENSIONS ARE APPROXIMATE DUE TO VARIATIONS BETWEEN MANUFACTURERS.
9. THIS HANDHOLE IS SUITABLE FOR USE WITHOUT JUNCTION BARS OR WITH THE TWO-POSITION JUNCTION BARS OR FOR MAINTENANCE OF HANDHOLES EXISTING WITH FOUR-POSITION JUNCTION BARS.

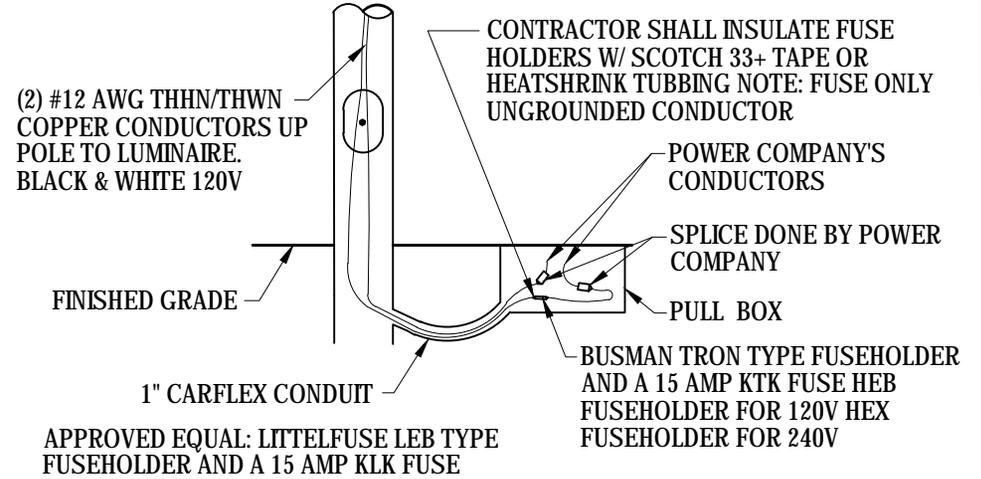
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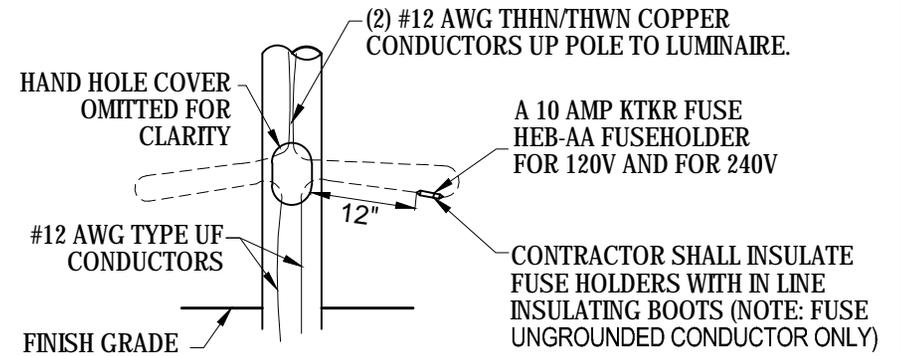
**POLE GROUNDING DETAIL**

**NOTES:**

1. ALL SPLICES SHALL BE DONE USING A BLACKBURN WR-7, WR-9, WR-189, OR WR-279 H TYPE CRIMP CONNECTOR. CRIMPING SHALL BE DONE USING A BURNDY TOOL NO. OS-50 WITH 5/8" DIE SHALL BE USED TO CRIMP THE WR-7 WR-9. A BURNDY TOOL NO. MD6-8 WITH O DIE SHALL BE USED TO CRIMP THE WR-189. A BURNDY TOOL NO. MD6-8 WITH D3 DIE SHALL BE USED TO CRIMP THE WR-279.
2. ALL POLES (APS AREA) SHALL BE WIRED USING TWO (2) #12 AWG TYPE THHN/THWN SOLID COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) #12 SOLID BARE COPPER BOND WIRE. WIRES SHALL RUN FROM THE LUMINAIRE TO A MINIMUM OF TWELVE (12) INCHES BELOW POLE HAND HOLE, FOR TERMINATION.
3. ALL POLES (SRP AREA) SHALL BE WIRED USING TWO (2) #12 AWG TYPE THHN/THWN SOLID COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) #12 SOLID BARE OR GREEN COPPER BOND WIRE. BOND WIRE SHALL RUN FROM THE LUMINAIRE TO A MINIMUM OF TWELVE (12) INCHES BELOW POLE HAND HOLE, FOR TERMINATION. CONDUCTORS SHALL RUN FROM LUMINAIRE TO PULL BOX.
4. ALL STREETLIGHT CONDUCTORS AND BOND WIRES SHALL BE COPPER. CONDUCTORS FROM PULL BOX TO HAND HOLE SHALL BE AWG TYPE UF INSULATION. CONDUCTORS FROM HAND HOLE TO LUMINAIRE SHALL BE AWG TYPE THHN/THWN. ALL CONDUCTORS SHALL BE STRANDED AND ALL BOND WIRES SHALL BE SOLID.



**POLE FUSING DETAIL (SRP)**



**POLE FUSING DETAIL (APS)**

NOTE: IN ADDITION TO FUSING BEHIND HAND HOLE, INSTALL 15 AMP KTK FUSE(S) IN ADJACENT PULL BOX.

APPROVED MANUFACTURER: LITTELFUSE LEB TYPE FUSEHOLDER AND A 10 AMP KTKR FUSE, OR SEE COA APPROVED PRODUCTS LIST.

DETAIL NO.  
**A1791**

**Avondale**  
STANDARD DETAIL

**FUSING AND GROUNDING  
DETAILS**

APPROVED BY: *Daniel S. Jones*  
DATE: 8.24.16