NOTE:
1. MIN DEPTH OF PENETRATION SHALL BE DESIGNED TO AVOID POSITIVE DRAIN.
2. DRAIN AND VACUUM PIPE SHALL BE CAP/PLUG SO ROCK DON'T STOP UP THE LINES AND AROMA DOESN'T PENETRATE.
3. DRAIN AND VACUUM PIPE SHAL BE SITE SPECIFIC.
4. ONLY SWEEP BENDS ALLOWED ON VACUUM LINE.
ABOVE AND UNDERGROUND ELECTRICAL RACEWAY DETAILS

LEAD CONDUITS.

8.

SCALE: DATE:

MCC.

END FOR CONDUITS BETWEEN DEMARCATION BOX AND WETWELL

SINGLE CONDUIT RUN

SHOWING COUPLING AND CONNECTOR

INSTALL MALLEABLE SEAL OFF'S AT DEMARCATION BOX

GENERAL ABOVE GROUND CONDUIT RUN

SHALL HAVE ONLY ONE 90° BEND.

MINIMUM SCHEDULE 80 PVC CONDUIT SIZE AS SHOWN.

1.

2.

3.

4.

5.

6.

7.

1/2" PVC PIPE 1.5" X 3" SOLID ALUMINUM SUPPORT BAR (2 TOTAL) WELDED TO POST 1-1/2" OUT MINUS MOUNTING BRACKET WASHERS, BOLTS, NUTS, AND LOCK WASHERS. CONDUIT PENETRATION VERTICAL: BASE UP STANDARD ON TYPE I,桃園 ALUMINUM U-BOLTS (2 TOTAL) BOLTED TO CONCRETE AS INDICATED. CONDUIT PENETRATION HORIZONTAL: BASE LEFT STANDARD ON TYPE I CONDUIT PENETRATION

NOTE: SEE DETAIL S-16.

2.

3.

4.

5.

6.

7.

WEAR MUSCLE Armor LOCTITE WAX BEFORE INSTALLATION OF MALLEABLE SEAL OFF.

SEAL-OFF DETAIL

SEE DEMARCATION BOX DRAWINGS FOR ADDITIONAL INFORMATION

PUMP STATIONS WITHOUT STANDBY GENERATOR

NOT TO SCALE

PUMP STATIONS WITH STANDBY GENERATOR

NOT TO SCALE

ELECTRICAL EQUIPMENT RACK DETAIL

NOT TO SCALE

GENERAL ABOVE GROUND CONDUIT RUN

STUDWALL COUPLING AND CONNECTOR

ABOVE AND UNDERGROUND ELECTRICAL RACEWAY DETAILS

NOT TO SCALE

CONDUIT LAYOUT DETAIL

NOT TO SCALE

SITE LIGHT DETAIL

NOT TO SCALE
NOTES:
1. ACCEPTABLE MANUFACTURERS OF TOWERS ARE ROHN OR UNIVERSAL TOWERS. SEE PUMP STATION SITE DRAWINGS FOR POLE OR TOWER SPECIFICATIONS.
2. YAGI ANTENNA: MANUFACTURER: SCALA, MODEL #: TY-900
3. MOUNTING POLE: MANUFACTURER: SCALA, MODEL #: WPM-2
4. coaxial cable: MANUFACTURER: ANDREW, MODEL #: LDF4-50A
5. COAXIAL SUPPORT HANGERS: MANUFACTURER: ANDREW, MODEL #: 43211
6. coaxial cable ground: MANUFACTURER: TESSCO, MODEL #: 41669
7. WEATHER PROOFING KIT: MANUFACTURER: TESSCO, MODEL #: 18264
8. weathershield: MANUFACTURER: TESSCO, MODEL #: 18264
9. COAXIAL CABLE GROUND: MANUFACTURER: TESSCO, MODEL #: 41669

10. 4" PVC CAPS
11. 6" MIN. CLEARANCE FROM GROUND
12. 36" CENTER TO CENTER
13. 6" MIN.
14. 12" MIN.
15. 24"
16. 18" MAX.
17. 36" CENTER TO CENTER
18. 4" SCH 40 ALUMINUM POST SET IN CONCRETE (WITH MASTIC COATING)
19. 1/2" X 3" SOLID ALUMINUM SUPPORT BARS (2 TOTAL) BOLTED TO POST W/ 5/8" S.S. ANCHOR BOLTS. DRILL 2 HOLES (AS DIMENSIONED ON DETAIL) IN TOP & BOTTOM SUPPORTS ONLY
20. MASTIC SEAL ALL POSTS WHICH ARE EMBEDDED IN CONCRETE.
21. ALL MATERIALS MUST MEET OR EXCEED JEA SPECIFICATIONS FOR SURGE ARRESTER

REFERENCES:
1. SEE PUMP STATION SITE DRAWINGS FOR POLE OR TOWER SPECIFICATIONS.
2. YAGI ANTENNA: MANUFACTURER: SCALA, MODEL #: TY-900
3. MOUNTING POLE: MANUFACTURER: SCALA, MODEL #: WPM-2
4. COAXIAL CABLE SHALL BE ONE CONTINUOUS CABLE: MANUFACTURER: ANDREW, MODEL #: LDF4-50A
5. COAXIAL CABLE CONNECTORS: MANUFACTURER: ANDREW, MODEL #: L4TNM-PSA
6. COAXIAL SUPPORT HANGERS: MANUFACTURER: ANDREW, MODEL #: 43211
7. COAXIAL CABLE GROUND: MANUFACTURER: TESSCO, MODEL #: 41669
8. WEATHER PROOFING KIT: MANUFACTURER: TESSCO, MODEL #: 18264
9. TOWER BASE IS TO BE DESIGNED PER MANUFACTURER RECOMMENDATIONS.
10. ACCEPTABLE MANUFACTURERS OF TOWERS ARE ROHN OR UNIVERSAL TOWERS.

JEA STANDARD PUMP STATION ELECTRICAL DETAILS
SCADA INSTALLATION
ALTERNATE POLE SCADA INSTALLATION DETAIL
SCADA INSTALLATION DETAIL
NOT TO SCALE
NOT TO SCALE
**TABLE 4A**

**CONDUCT AND SERVICE BOX REQUIREMENTS FOR UNDERGROUND COMMERCIAL SERVICES FROM AN OVERHEAD POLE**

<table>
<thead>
<tr>
<th>SERVICE SIZE</th>
<th>CONDUCT BOX SIZE</th>
<th>SERVICE BOX SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>301A - 150A</td>
<td>24&quot; x 18&quot; x 36&quot;</td>
<td>30&quot; x 15&quot; x 36&quot;</td>
</tr>
<tr>
<td>801A - 1800A</td>
<td>36&quot; x 60&quot; x 36&quot;</td>
<td>42&quot; x 24&quot; x 36&quot;</td>
</tr>
</tbody>
</table>

**NOTES:**
1. ALL CONDUCTS TO BE SCH-40 PVC WITH CHAMFERED EDGES REQUIRED. CONDUCT BOX AND NUMBER DOES NOT HAVE TO MATCH CUSTOMER SERVICE BOX SIZE, TYPE, AND NUMBER.
2. CUSTOMER SERVICE BOXES MUST MEET THE FOLLOWING SPECIFICATIONS.
3. JEA WILL INSTALL CABLE GUARD ON JEA POLE AND COVER CUSTOMER’S SERVICE WIRE ORIENTED SUCH THAT THE FRONT OF JEA POLE IS TOWARDS THE PUMP STATION SITE.
4. JEA WILL MAKE ALL CONNECTIONS TO THE CUSTOMER’S SERVICE WIRE IN THE POLE RISER. CLEAR FROM PHONE OR COMMUNICATION CABLES, OR ANY OTHER EQUIPMENT, FROM FINISHED GRADE TO CONNECTIONS TO OVERHEAD FACILITIES. CALL JEA DISTRIBUTION ENGINEER IF LOCATION IS REQUIRED.
5. THE JEA WILL INSTALL MANHOLE CEMENT MANHOLE WITH TOP OF COVER.

**MATERIAL SPECIFICATIONS:**

1. **CONDUCT BOX:** 
   1. REINFORCED CONCRETE BOX WITH MAXIMUM THICKNESS OF TWO INCHES.
   2. BODY: REINFORCED PLASTIC CONCRETE CONSISTING OF FIBERGLASS AND ISOPHOLIC RESIN. THE BASE WILL HAVE A FLANGE OF TWO INCHES FROM THE INSIDE WALL.
   3. TOP: COMPRESSION MOLDED POLYMER CONCRETE WITH MINIMUM THICKNESS OF TWO INCHES.

2. **SERVICE BOX:**
   1. 100 AMP MAXIMUM SERVICE SIZE.
   2. THE CUSTOMER MAY PICK A CLEAR SIDE OF THE JEA POLE FOR THE JEA TO EXTEND UP AND INSTALL CONDUIT TO KEEP WATER OUT OF MANHOLE.
   3. THE CUSTOMER MUST PICK A CLEAR SIDE OF THE JEA POLE FOR THE JEA TO EXTEND UP AND INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX.
   4. THE CUSTOMER MUST INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX ON JEA POLE AND COVER CUSTOMER’S SERVICE BOX AND CONNECT TO CUSTOMER’S SERVICE WIRE.

3. **SERVICES TO CUSTOMER:**
   1. 100 AMP MAXIMUM SERVICE SIZE.
   2. THE CUSTOMER WILL MAINTAIN THE WARNING TAPE, CONDUIT AND CONDUCTORS SHOWN.
   3. THE CUSTOMER MUST INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX ON JEA POLE AND COVER CUSTOMER’S SERVICE BOX AND CONNECT TO CUSTOMER’S SERVICE WIRE.
   4. THE CUSTOMER MUST INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX ON JEA POLE AND COVER CUSTOMER’S SERVICE BOX AND CONNECT TO CUSTOMER’S SERVICE WIRE.

4. **WARNINGS:**
   1. 100 AMP MAXIMUM SERVICE SIZE.
   2. THE CUSTOMER WILL MAINTAIN THE WARNING TAPE, CONDUIT AND CONDUCTORS SHOWN.
   3. THE CUSTOMER MUST INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX ON JEA POLE AND COVER CUSTOMER’S SERVICE BOX AND CONNECT TO CUSTOMER’S SERVICE WIRE.
   4. THE CUSTOMER MUST INSTALL CONDUIT TO CUSTOMER’S SERVICE BOX ON JEA POLE AND COVER CUSTOMER’S SERVICE BOX AND CONNECT TO CUSTOMER’S SERVICE WIRE.

5. **LOAD RATING:**
   1. MAINLY BODY SHALL BE OF ONE PIECE CONSTRUCTION WITH A SLOPED COVER.
   2. MAINLY SHELLS SHELL SHALL BE 4 FEET X 4 FEET X 4 FEET.

6. **MANHOLE LOCK RATING:**
   1. LOAD RATING: N, M, & R REQUIRED.
   2. LOAD RATING: MAINHOLE IS ACCORDING WITH ASTM C 472-17 TO STRENGTHEN MANHOLE STRUCTURAL DESIGN LOADS. CONCRETE MANHOLE COVER SPECIFICATIONS SHALL BE IN ACCORDANCE WITH COMMITTEE RECOMMENDED GUIDELINE RULE 3.6 DATED 6-15-87.

7. **MANHOLE MATERIALS:**
   1. MANHOLE TO BE COMPRESSION MOLDED POLYMER CONCRETE.
   2. MANHOLE BOX TO BE 2 GROUND RODS SPACED 90° ELBOW.

8. **CONSTRUCTION:**
   1. MATERIALS TO BE USED AS SHOWN.
   2. CONDUCTORS IN SERVICE BOX.

9. **TECHNICAL SPECIFICATIONS:**
   1. MATERIALS TO BE USED AS SHOWN.
   2. CONDUCTORS IN SERVICE BOX.

10. **ELECTRICAL NOTES:**
    1. CUSTOMER MUST INSTALL 3 PHASE-4 WIRE FOR CUSTOMER’S POINT OF SERVICE.
PRELIMINARY ELECTRICAL SYSTEM WITHIN A MEASURED GROUND RESISTANCE OF 5 OHMS OR LESS.
GROUNDING METHODS AND MATERIALS SHALL BE NEW AND UNDAMAGED.

INSULATED GROUND CONDUCTORS shall be SOFT DRAWN, TH. PLATED STRANDED COPPER CONDUCTORS.
INSULATED GROUND CONDUCTORS shall be Type TW or THW, and green colored according to the requirements of UL 83. Insulated ground conductor shall be SOFT DRAWN, TIN PLATED, STRANDED COPPER CONFORMING TO THE REQUIREMENTS OF IEEE 837 AND UL 467. Insulated ground conductor shall be COPPER CLAD MIN 13MIL, COLD DRAWN CARBON STEEL MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF IEEE 837. Grounding conductor shall be GREEN COLORED.

GROUNDED GROUNDING COMPONENTS AND MATERIALS SHALL BE NEW AND UNDAMAGED.
GROUNDING CONDUCTORS SHALL BE BARE #2/0 AWG, SOFT DRAWN, TH. PLATED STRANDED COPPER CONDUCTOR.
GROUNDING CONDUCTORS SHALL BE COATED MIN 13MIL, COLD DRAWN CARBON STEEL MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF IEEE 837.
GROUNDING CONDUCTORS SHALL BE SINGLE OR TWO-HOLE, HEAVY-DUTY, TIN PLATED COPPER BARS CONFORMING TO THE REQUIREMENTS OF IEEE 837.