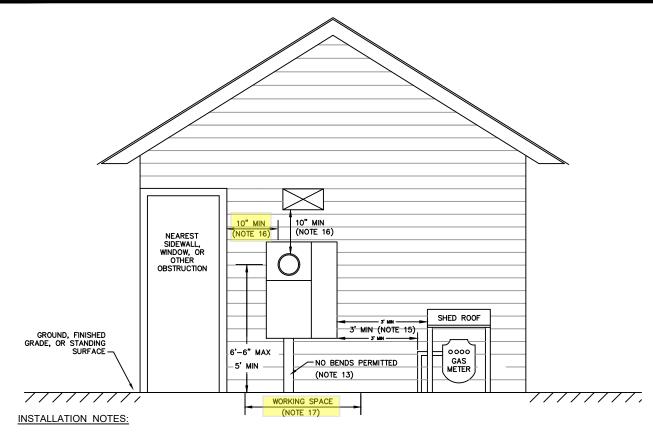


# ELECTRIC RESIDENTIAL SERVICE CONNECTION AGREEMENT

- Prior to any construction for electric facilities, a pre-construction meeting will be required at the job site. Site & elevation plans are required upon submittal to schedule the pre-construction meeting. The District shall approve the location of the service and provide routing from our service point to the main electric service. A District representative will call the contact information listed below to schedule the preconstruction meeting.
- 2. I agree service connections will be done per all District Electric Construction Standards. Site and elevation plans are required upon submittal of a new construction application. (The District specifications most frequently referenced for residential construction are attached to this agreement.) See District Standards GC-1.
- 3. I agree to notify a District representative to schedule an underground open trench inspection prior to backfilling the utility trench. See District Standards UBOX-S1, UBOX-S1A, UR-S, UT-S1, UT-S2 or UT-S3.
- 4. I agree the electric service panel must be installed to District Standards M-1.1, M-1.2, US-1 or OHS-1 in order to be connected. The electric panel must be inspected and approved by the appropriate governing agency before the service will be connected.
- 5. I agree a decorative or recessed enclosure, if needed, will be done per the District Construction Standards M-1A or M-1B.
- 6. I agree a temporary electric service, if needed, will be done per the District Construction Standards OTP-1 or UST-1.
- 7. I agree additional charges may be incurred in order to connect the service if excavation or snow removal is required (District's cost for staff and equipment).
- 8. I understand an electric customer charge will begin from the date the meter is installed, regardless of use.

Signed	Contact Name for pre-construction meeting
Print Name	Contact Phone
Date	



- 1. ALL METER SOCKETS SHALL BE TDPUD APPROVED AND ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE (EUSERC) COMPLIANT.
- 2. ALL METER SOCKETS SHALL BE RING TYPE. RINGLESS SOCKETS ARE NOT ACCEPTABLE.
- 3. METER SOCKETS SHALL BE LEVEL, PLUMB, AND SECURELY FASTENED TO THE STRUCTURE.
- 4. ALL METER SOCKETS WITHOUT A METER INSTALLED SHALL BE COVERED AND SEALED WITH A TRANSPARENT COVER PLATE.
- 5. TERMINALS SHALL BE MARKED WITH A CONDUCTOR RANGE FOR ALUMINUM OR COPPER CONDUCTORS. WHEN ALUMINUM CONDUCTORS ARE USED, THE SOCKET SHALL BE APPROVED AND CLEARLY MARKED FOR THAT USE BY MANUFACTURER.
- 6. CUSTOMER WIRING, GROUNDING ELECTRODE CONDUCTOR, OR GROUNDING CONDUCTORS, OTHER THAN CONDUIT BONDING JUMPERS, SHALL NOT PASS THROUGH OR TERMINATE IN ANY SEALABLE SECTION.
- 7. COMMERCIAL (NON-RESIDENTIAL USE) METER PANELS MUST MEET THE FOLLOWING REQUIREMENTS:
  - A. ALL COMMERCIAL SERVICES USE SHALL HAVE TOPUD APPROVED EUSERC COMPLIANT MANUAL TEST-BYPASS FACILITIES.
  - B. ALL COMMERCIAL SERVICES OVER 200 AMPS REQUIRE CURRENT TRANSFORMER (CT) METERING.
  - C. REMOTE METERS ARE NOT PERMITTED
  - D. LABELING SHALL COMPLY WITH STANDARD M-0.
- 8. A SERVICE DISCONNECT IS <u>NOT</u> PERMITTED ON THE SUPPLY SIDE OF SINGLE METER SOCKETS OR MULTI-METER SOCKET PANELS CONTAINING SIX OR LESS METER SOCKETS.
- 9. A SERVICE DISCONNECT IS <u>REQUIRED</u> FOR MULTI-METER PANELS CONTAINING MORE THAN SIX METERS, PER NATIONAL ELECTRIC CODE (NEC).

#### 10. RESIDENTIAL REQUIREMENTS:

- A. SERVICES GREATER THAN 400 AMPS REQUIRE A CT-RATED METER AND APPROPRIATE SWITCHGEAR.
- B. TEST BYPASS FACILITIES ARE NOT ALLOWED ON RESIDENTIAL SERVICES.
- C. LABELING SHALL COMPLY WITH STANDARD M-0.



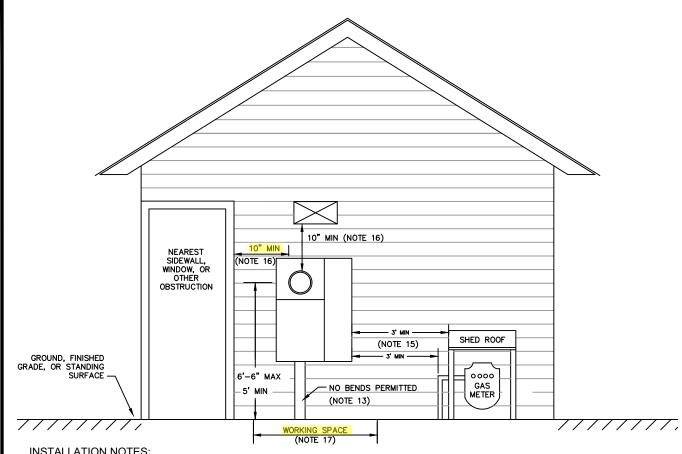
### **ELECTRIC DEPARTMENT**

# Metering

General Requirements

All Meter Locations, Page 1 of 2

Drawn	Design	Approved	Date	Category	Voltage	NI 4 4
JJC	SMS	SMS	3/25/21	Metering	Secondary	M-1.1



- 11. ALL METERING EQUIPMENT AND ENCLOSURES SHALL BE READILY ACCESSIBLE BY DISTRICT PERSONNEL DURING NORMAL BUSINESS HOURS FOR METER READING, MAINTENANCE, TESTING, INSTALLATION, OR REMOVAL.
- 12. METERS SHALL BE INSTALLED ON THE GABLE END OF A STRUCTURE, IN A COVERED ENTRY OR OTHER SIMILARLY PROTECTED LOCATION. INSTALLATIONS ON THE SHED SIDE OF THE ROOF ARE NOT ACCEPTABLE. ALL METER LOCATIONS ARE SUBJECT TO DISTRICT APPROVAL.
- 13. RISER CONDUIT SIZE SHALL BE MINIMUM 3" AND NO BENDS PERMITTED IN RISER CONDUT. COMMERCIAL UNDERGROUND SERVICE RISER CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGS). RESIDENTIAL UNDERGROUND SERVICE RISER CONDUITS SHALL BE SCHEDULE 80 PVC OR RGS, AS DETERMINED BY TDPUD PERSONNEL. RGS CONDUIT SHALL BE PROPERLY BONDED, IF USED.
- 14. ALL METER EQUIPMENT EXPOSED TO WEATHER SHALL BE RAINTIGHT IN ACCORDANCE WITH NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA) 3R MINIMUM STANDARD.
- 15. THERE SHALL BE A MINIMUM 3 FEET HORIZONTAL CLEARANCE FROM THE METER AND SERVICE ENTRANCE PANEL TO NATURAL GAS OR PROPANE PIPES AND FACILITIES.
- 16. A MINIMUM 10" CLEARANCE SHALL BE MAINTAINED BETWEEN THE METER AND ADJACENT WALLS CEILINGS, OR SIMILAR OBSTRUCTIONS.
- 17. WORKING SPACE IN FRONT OF METERING EQUIPMENT (INCLUDING CURRENT TRANSFORMER ENCLOSURES) SHALL BE AT LEAST 30" WIDE, 36" DEEP AND 78" HIGH FOR VOLTAGES LESS THAN 250V. FOR VOLTAGES BETWEEN 250-600V. THE WORKING SPACE REQUIRED INCREASES TO 30" WIDE. 42" DEEP AND 78" HIGH. PLANTS. SHRUBS. TREES AND OTHER OBSTRUCTIONS ARE NOT ALLOWED IN THIS SPACE.
- 18. ALL CLEARANCE REQUIREMENTS SHALL BE MET SIMULTANEOUSLY.

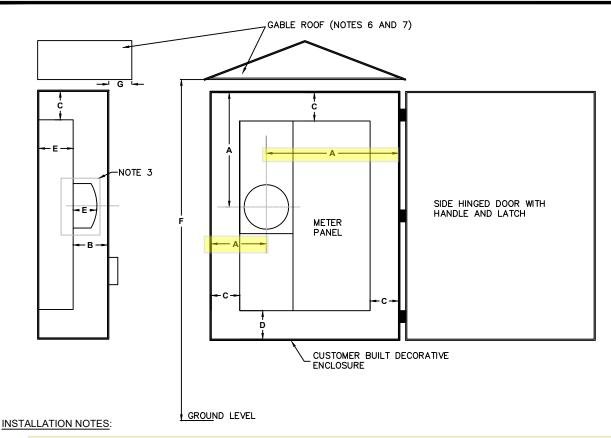


### ELECTRIC DEPARTMENT

### Metering

General Requirements All Meter Locations, Page 2 of 2

N. 4.0	Voltage	Category	Date	Approved	Design	Drawn
M-1.2	Secondary	Metering	3/25/21	SMS	SMS	JJC



- 1. DECORATIVE ENCLOSURES ARE PERMITTED ON RESIDENTIAL METERS ONLY AND REQUIRE DISTRICT NOTIFICATION AND APPROVAL PRIOR TO INSTALLATION. THE FOLLOWING CONDITIONS SHALL BE REQUIRED FOR APPROVAL.
- ALL METERS, METER EQUIPMENT, AND ENCLOSURES SHALL BE READILY ACCESSIBLE BY DISTRICT PERSONNEL DURING NORMAL BUSINESS HOURS FOR METER READING, MAINTENANCE, TESTING, INSTALLATION, OR REMOVAL. METER LOCATIONS ARE SUBJECT TO APPROVAL BY THE DISTRICT. SEE STANDARDS M-0, M-1.1 AND M-1.2 FOR ADDITIONAL REQUIREMENTS.
- 3. ENCLOSURE DOOR SHALL OPEN A FULL 90 DEGREES AT A MINIMUM AND BE SIDE-HINGED. A HASP TYPE LATCH IS PREFERRED FOR SECURING THE ACCESS DOOR TO THE ENCLOSURE. THE ACCESS DOOR SHALL REMAIN UNLOCKED AT ALL TIMES TO ALLOW UNRESTRICTED ACCESS BY THE DISTRICT.
- ACCESS DOOR ON SIDE OF ENCLOSURE MAY BE REQUIRED FOR METER INSTALLATION. CONFIRM REQUIREMENTS WITH DISTRICT PERSONNEL BEFORE INSTALLATION.
- 5. THE DECORATIVE ENCLOSURE SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CUSTOMER OR THE DISTRICT SHALL REQUIRE ITS REMOVAL.
- 6. FUTURE METERING REQUIREMENTS MAY NECESSITATE CUSTOMER MODIFICATION OF THE ENCLOSURE.
- ROOF, IF REQUIRED, SHALL BE OF THE GABLE DESIGN AND MUST EXTEND THE FULL DEPTH OF THE ENCLOSURE. THE ROOF SHALL BE A MINIMUM OF 78" FROM GROUND IF THE ROOF EXTENDS MORE THAN 6" FROM THE FRONT OF ENCLOSURE.
- 8. CLEARANCE REQUIREMENTS (ALL CLEARANCES SHALL BE MET SIMULTANEOUSLY).
  - "A" CLEARANCE FROM CENTER OF METER TO ANY WALL OF ENCLOSURE: 10" MINIMUM
  - "B" CLEARANCE DEPTH FROM FRONT OF PANEL TO CLOSED DOOR: 6" MINIMUM TO 9" MAXIMUM
  - "C" CLEARANCE FROM PANEL EDGE TO SIDE OR TOP WALLS OF ENCLOSURE: 5" MINIMUM
  - "D" CLEARANCE FROM PANEL EDGE TO BOTTOM WALL OF ENCLOSURE: 5" MINIMUM, 18 INCHES MAXIMUM
  - "E" PANEL AND METER DEPTH: 4" MINIMUM
  - "F" HEIGHT OF LOWEST EDGE OF ROOF SHALL BE 78" MINIMUM IF "G" EXCEEDS 6"
  - "G' DEPTH OF ROOF OVERHANG: COORDINATE WITH TDPUD PERSONNEL. SEE "F"

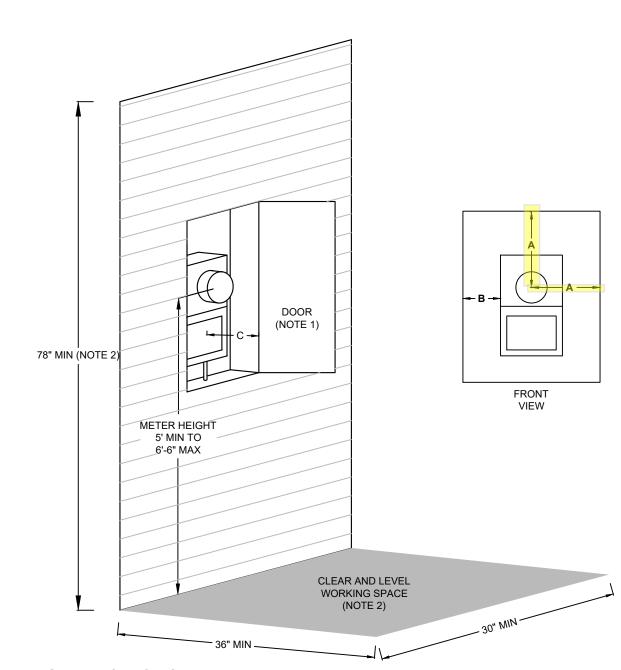


# Metering

**Decorative Residential Meter Enclosures** 

### **ELECTRIC DEPARTMENT**

Drawn	Design	Approved	Date	Category	Voltage	34.4
JJC	SMS	SMS	3/25/21	Metering	Secondary	M-1A



- 1. DOOR SHALL OPEN A MINIMUM OF 90 DEGREES.
- 2. WORKING SPACE SHALL COMPLY WITH REQUIREMENTS IN STANDARD M-1.2.
- 3. CLEARANCE REQUIREMENTS (ALL CLEARANCES SHALL BE MET SIMULTANEOUSLY):

"A" - 10" MINIMUM

"B" - 5" MINIMUM

"C" - 6" MINIMUM TO 9" MAXIMUM DEPTH FROM FRONT OF PANEL TO FACE OF FRAMING



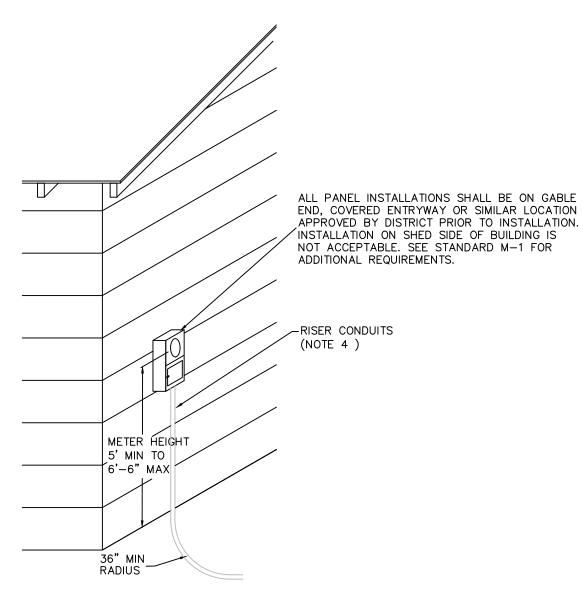
### **ELECTRIC DEPARTMENT**

# Metering

Recessed Residential Meter Enclosures

M 4D	Voltage	Category	Date	Approved	Design	Drawn
── M-1B	Secondary	Metering	3/25/21	SMS	SMS	JJC





- CONNECTION FEE ALLOWS UP TO 125' OF UNDERGROUND CABLE. ADDITIONAL LENGTH SHALL BE BILLED AT DISTRICT COST.
- 2. CUSTOMER SHALL FURNISH AND INSTALL THE SERVICE ENTRANCE CONDUIT.
- 3. REFER TO STANDARDS M-1.1, M-1.2, M-1A, M-2 AND M-3 FOR ADDITIONAL REQUIREMENTS.
- 4. RISER CONDUIT SIZE SHALL BE MINIMUM 3" AND NO BENDS PERMITTED IN RISER CONDUT.
- A. COMMERCIAL UNDERGROUND SERVICE RISER CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGS).
- B. RESIDENTIAL UNDERGROUND SERVICE RISER CONDUITS SHALL BE SCHEDULE 80 PVC OR RGS, AS DETERMINED BY TDPUD PERSONNEL.
- C. RGS SHALL BE BONDED, IF USED

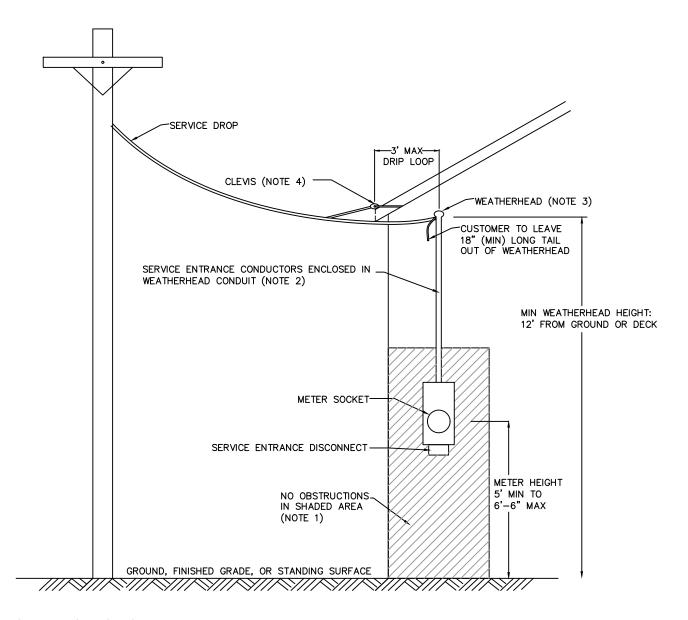


### **ELECTRIC DEPARTMENT**

# **Underground Service Entrance**

Conduit Requirements

Drawn	Design	Approved	Date	Category	Voltage	116.4
JJC	SMS	SMS	3/25/21	Underground	Secondary	US-1



- REFER TO STANDARDS M-1.1, M-1.2 AND M-1A FOR CLEARANCE AND OTHER REQUIREMENTS.
- 2. WEATHERHEAD CONDUIT SHALL BE SCHEDULE 80 PVC OR RIGID GALVANIZED STEEL (RGS). RGS SHALL BE BONDED, IF USED. ELECTRICAL METAL TUBING (EMT) IS NOT PERMITTED.
- 3. WEATHERHEAD SHALL HAVE A MINIMUM 36" CLEARANCE TO ANY WINDOW. WEATHERHEAD AND ASSOCIATED CONNECTIONS SHALL NOT BE ENCLOSED AND SHALL REMAIN VISIBLE AT ALL TIMES.
- 4. COORDINATE CLEVIS INSTALLATION WITH TDPUD PERSONNEL. DISTRICT WILL PROVIDE % " ALL-THREAD BOLT AND ASSOCIATED HARDWARE, FOR INSTALLATION BY CUSTOMER.

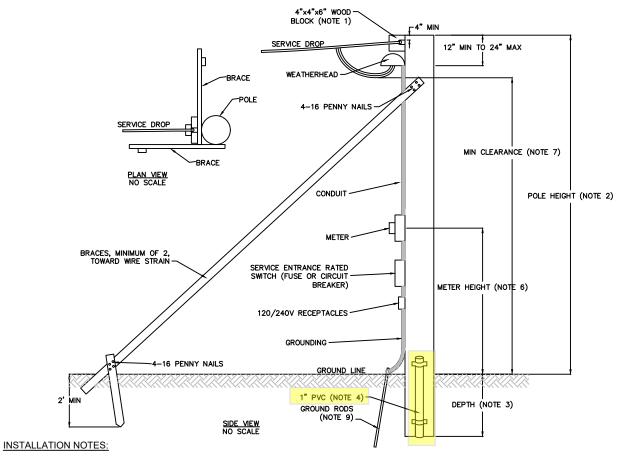


### **ELECTRIC DEPARTMENT**

# **Typical Service Drop Installation**

**Overhead Secondary Connections** 

Drawn	Design	Approved	Date	Category	Voltage	OUE 1
JJC	SMS	SMS	3/25/21	Overhead	Secondary	OHS-1



- 1. WOOD BLOCK NOT REQUIRED WITH PVC CONDUIT AND WEATHERHEAD OR ON GROUNDED METAL POLE.
- 2. INSTALL TIMBER OR POLE TO MEET MINIMUM G.O. 95 CLEARANCE REQUIREMENTS (SEE STANDARD GC-1). POLE HEIGHT SHALL BE 12'-6" MINIMUM TO 25' MAXIMUM.
- 3. REQUIRED SETTING DEPTHS ARE AS FOLLOWS:
  - 16' TIMBER (MINIMUM DIMENSION 4"x6")- 3'-6"
  - 20' POLE 4'
  - 25' POLE 4'-6"
  - 30' POLE 5'
- 4. A 5' LONG 1" DIAMETER PVC PIPE SHALL BE STRAPPED TO POLE BASE TO ALLOW DISTRICT PERSONNEL TO VERIFY SETTING DEPTH.
- 5. RISERS SHALL BE STRAPPED TO POLE WITH A MINIMUM OF 3 CONDUIT STRAPS FOR THE FIRST 10' SECTION OF 2" CONDUIT.
- 6. METER HEIGHT SHALL BE 5' MINIMUM TO 6'-6" MAXIMUM.
- 7. DRIP LOOP SHALL HAVE A MINIMUM CLEARANCE OF 12' ABOVE GRADE.
- 8. TEMPORARY SERVICES ARE <u>NOT</u> PERMITTED ON TREES OR OTHER LIVE GROWTH.
- 9. INSTALL TWO (2) GROUND RODS PER SERVICE LOCATION. GROUND RODS SHALL BE AT LEAST 6' APART. INSTALL CONTINUOUS BONDING JUMPER BETWEEN BOTH GROUND RODS AND THE SERVICE EQUIPMENT.

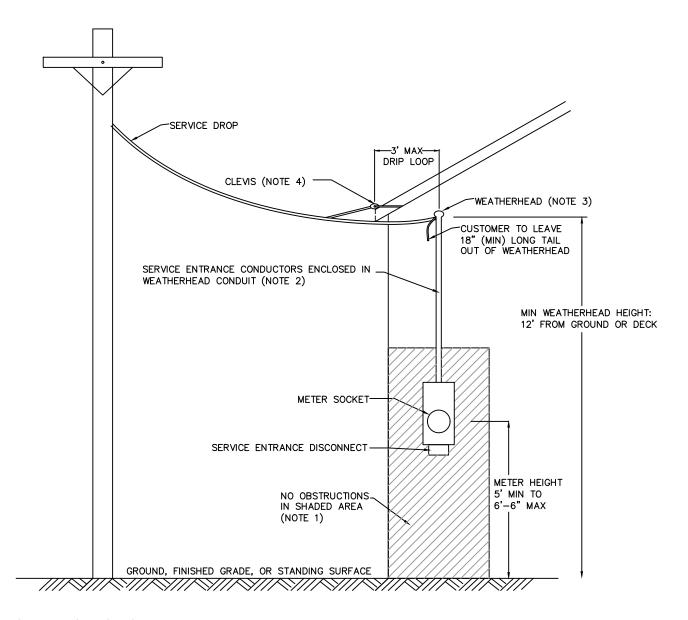


# **Temporary Power Pole**

Overhead Secondary

### **ELECTRIC DEPARTMENT**

Drawn	Design	Approved	Date	Category	Voltage	OTD 4
JJC	SMS	SMS	3/25/21	Overhead	Secondary	OIP-1



- REFER TO STANDARDS M-1.1, M-1.2 AND M-1A FOR CLEARANCE AND OTHER REQUIREMENTS.
- 2. WEATHERHEAD CONDUIT SHALL BE SCHEDULE 80 PVC OR RIGID GALVANIZED STEEL (RGS). RGS SHALL BE BONDED, IF USED. ELECTRICAL METAL TUBING (EMT) IS NOT PERMITTED.
- 3. WEATHERHEAD SHALL HAVE A MINIMUM 36" CLEARANCE TO ANY WINDOW. WEATHERHEAD AND ASSOCIATED CONNECTIONS SHALL NOT BE ENCLOSED AND SHALL REMAIN VISIBLE AT ALL TIMES.
- 4. COORDINATE CLEVIS INSTALLATION WITH TDPUD PERSONNEL. DISTRICT WILL PROVIDE % " ALL-THREAD BOLT AND ASSOCIATED HARDWARE, FOR INSTALLATION BY CUSTOMER.

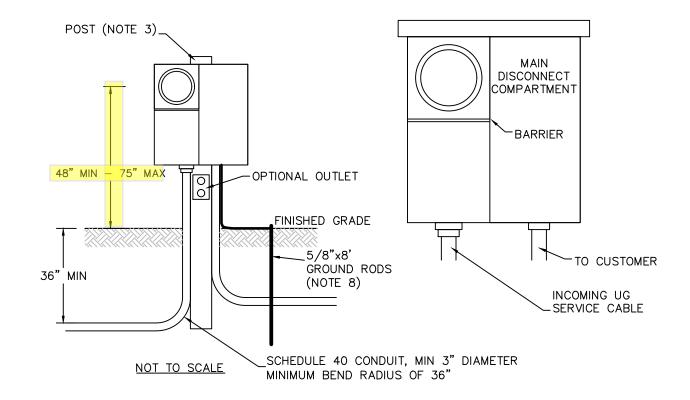


### **ELECTRIC DEPARTMENT**

# **Typical Service Drop Installation**

**Overhead Secondary Connections** 

Drawn	Design	Approved	Date	Category	Voltage	OUE 1
JJC	SMS	SMS	3/25/21	Overhead	Secondary	OHS-1



#### **GENERAL NOTES:**

- 1. ALL METER SOCKETS SHALL BE APPROVED BY TDPUD AND MEET ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE (EUSERC) REQUIREMENTS.
- 2. ALL METER SOCKETS SHALL HAVE BE RING TYPE. RINGLESS SOCKETS ARE NOT ACCEPTABLE.
- 3. METER SOCKETS SHALL BE LEVEL, PLUMB, AND SECURELY FASTENED TO THE POST. POST SHALL HAVE MINIMUM DIMENSIONS OF 4"x6" BY 10' LONG, FULLY TREATED. POST SETTING DEPTH IS 48" MINIMUM IN GROUND.
- 4. ALL METER SOCKETS WITHOUT A METER INSTALLED SHALL BE COVERED AND SEALED WITH A TRANSPARENT COVER PLATE.
- 5. TERMINALS SHALL BE MARKED WITH A CONDUCTOR RANGE FOR ALUMINUM OR COPPER CONDUCTORS. WHEN ALUMINUM CONDUCTORS ARE USED, THE SOCKET SHALL BE APPROVED AND CLEARLY MARKED FOR THAT USE BY MANUFACTURER.
- 6. CUSTOMER WIRING, GROUNDING ELECTRODE CONDUCTOR, OR GROUNDING CONDUCTORS, OTHER THAN CONDUIT BONDING JUMPERS, SHALL NOT PASS THROUGH OR TERMINATE IN ANY SEALABLE SECTION.
- 7. COMMERCIAL (NON-RESIDENTIAL USE) METER PANELS MUST MEET THE FOLLOWING REQUIREMENTS:
  - A. ALL COMMERCIAL SERVICES USE SHALL HAVE EUSERC COMPLIANT MANUAL TEST-BYPASS FACILITIES
  - B. ALL COMMERCIAL SERVICES OVER 200 AMPS REQUIRE CURRENT TRANSFORMER (CT) METERING
  - C. REMOTE METERS ARE NOT PERMITTED
- 8. INSTALL TWO (2) GROUND RODS PER SERVICE LOCATION. GROUND RODS SHALL BE AT LEAST 6' APART. INSTALL CONTINUOUS BONDING JUMPER BETWEEN BOTH GROUND RODS AND THE SERVICE EQUIPMENT.

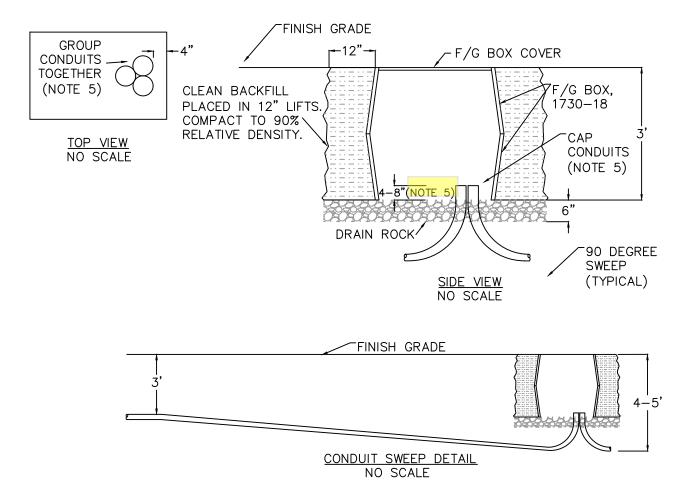


# **Underground Temporary Service**

General Requiremenets

### **ELECTRIC DEPARTMENT**

Drawn	Design	Approved	Date	Category	Voltage	LICT 4
JJC	SMS	SMS	3/25/21	Metering	Services	UST-1



- CUSTOMER TO CONFIRM WITH TDPUD PERSONNEL APPROPRIATE TYPE OF SECONDARY OR COMMUNICATION BOX CONSTRUCTION PRIOR TO INSTALLATION.
- EXCAVATE TO A MINIMUM OF 12" BEYOND THE OUTSIDE DIMENSION OF THE BOX. INSTALL BOX ON A MINIMUM OF 6" DRAIN ROCK BEDDING.
- 3. INSTALL CLEAN BACKFILL (SCREEN AS REQUIRED) AND COMPACT IN 12" LIFTS. NO ROCKS OVER 3" IN SIZE ARE PERMITTED IN CLEAN BACKFILL. COMPACT TO A MINIMUM OF 90% RELATIVE DENSITY. COMPACTION TESTING AND DOCUMENTATION OF RESULTS TO BE PERFORMED AS REQUESTED BY THE DISTRICT.
- 4. THE COMPLETED INSTALLATION OF A SECONDARY OR PUD COMM BOX CONSISTS OF TWO (2) MODEL 1730-18 (OR 1324-15 IF SPECIFIED) F/G BOXES JOINED TOGETHER AS SHOWN WITH A CORRESPONDING SIZE COVER MARKED "ELECTRIC" OR "PUD COMM" AS APPROPRIATE.
- 5. INSTALL THE ENDS OF ALL CONDUIT STUBS VERTICALLY INTO THE BOX, PLUMB AND LEVEL. CUTS ARE NOT PERMITTED ON THE BENT PART OF CONDUIT SWEEPS. LENGTH OF CONDUIT STUBS TO BE DETERMINED WITH TDPUD PERSONNEL. INSTALL BELL ENDS ON ALL CONDUIT SWEEPS STUBBED IN BOX.

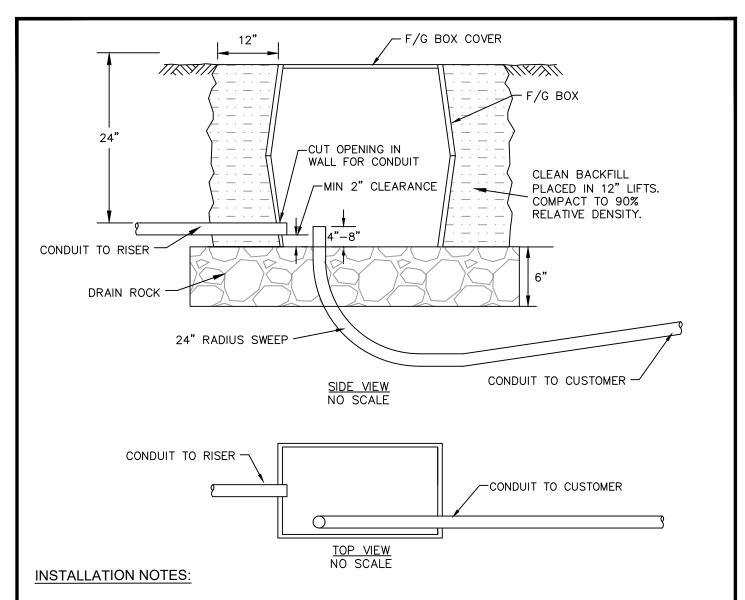


### **ELECTRIC DEPARTMENT**

# **Secondary & PUD Communication Box**

Fiberglass Box Installation Detail
Non-Traffic Use Only

	1					
Drawn	Design	Approved	Date	Category	Voltage	LIBOV 04
JJC	SMS	SMS	3/25/21	Vaults & Boxes	Site Work	UBOX-S1



- 1. CUSTOMER TO CONFIRM WITH TDPUD PERSONNEL APPROPRIATE TYPE OF SECONDARY OR COMMUNICATION BOX CONSTRUCTION PRIOR TO INSTALLATION.
- 2. EXCAVATE TO A MINIMUM OF 12 INCHES BEYOND THE OUTSIDE DIMENSION OF THE BOX. INSTALL BOX ON A MINIMUM OF 6" DRAIN ROCK BEDDING.
- 3. INSTALL CLEAN BACKFILL (SCREEN AS REQUIRED) AND COMPACT IN 12" LIFTS. NO ROCKS OVER 3" IN SIZE ARE PERMITTED IN CLEAN BACKFILL. COMPACT TO A MINIMUM OF 90% RELATIVE DENSITY. COMPACTION TESTING AND DOCUMENTATION OF RESULTS TO BE PERFORMED AS REQUESTED BY THE DISTRICT.
- 4. INSTALL THE ENDS OF ALL CONDUIT SWEEPS VERTICALLY INTO THE BOX, PLUMB AND LEVEL. CUTS ARE <u>NOT PERMITTED</u> ON THE BENT PART OF CONDUIT SWEEPS. LENGTH OF CONDUIT STUBS TO BE DETERMINED WITH TDPUD PERSONNEL. INSTALL BELL ENDS ON ALL CONDUITS AND SWEEPS STUBBED IN BOX.

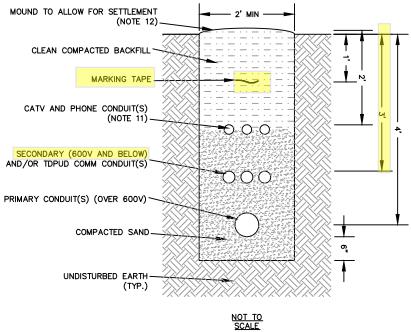


### **ELECTRIC DEPARTMENT**

# **Drain Box - Fiberglass**

Installation Detail
Non-Traffic Use Only

LIDOV CAA	Voltage	Category	Date	Approved	Design	Drawn
UBOX-S1A	Site Work	Vaults & Boxes	3/25/21	SMS	SMS	JJC



- 1. ALL ELECTRIC AND PUD COMMUNICATION CONDUIT SHALL BE SCHEDULE 40 PVC. ELECTRIC CONDUIT SWEEPS SHALL BE FACTORY-MADE SCHEDULE 40 PVC. HEATED CONDUIT BENDS ARE NOT ACCEPTABLE.
- 2. A MAXIMUM OF 270 DEGREES OF ACCUMULATED BENDS SHALL BE ALLOWED IN ANY RUN OF CONDUIT.
- 3. TRENCH SHALL BE GRADED TRUE AND AS FREE OF ROCKS AS POSSIBLE.
- 4. INSTALL 6" DEEP SAND BEDDING BEFORE LAYING CONDUIT IN TRENCH. CRUSHED CINDERS <u>DO NOT</u> QUALIFY AS SAND BEDDING.
  AFTER LAYING THE CONDUIT, DISTRICT PERSONNEL MUST INSPECT THE CONDUIT PRIOR TO PLACING ANY BACKFILL MATERIAL.
  BACKFILL CONDUITS WITH 12" OF SAND AS SHOWN AND COMPACT THE TRENCH. DISTRICT PERSONNEL MUST RE-INSPECT THE SAND BACKFILLED CONDUIT TRENCH.
- 5. AFTER THE DISTRICT'S SECOND INSPECTION, INSTALL CLEAN BACKFILL (SCREEN AS REQUIRED) AND COMPACT IN 12" LIFTS. NO ROCKS OVER 3" IN SIZE ARE PERMITTED IN CLEAN BACKFILL.
- 6. COMPACT ALL BACKFILL MATERIAL TO A MINIMUM OF 90% RELATIVE DENSITY. COMPACTION TESTING AND DOCUMENTATION OF RESULTS TO BE PERFORMED AS REQUESTED BY THE DISTRICT.
- 7. DISTRICT-OWNED WATER SERVICE LATERALS ARE PERMITTED IN JOINT TRENCH WITH MINIMUM 18" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.
- 8. CUSTOMER-OWNED UTILITIES INCLUDING WATER AND SEWER SERVICE LATERALS ARE <u>NOT PERMITTED IN JOINT TRENCH.</u> A MINIMUM SEPARATION OF 3' OF <u>UNDISTURBED</u> EARTH SHALL EXIST BETWEEN INSIDE EDGE OF THE CUSTOMER-OWNED UTILITY TRENCH AND JOINT TRENCH CONTAINING TDPUD ELECTRIC CONDUITS.

EXCEPTION: SINGLE FAMILY RESIDENTIAL WATER SERVICE LATERALS ARE PERMITTED IN SECONDARY SERVICE (240V OR LESS) JOINT TRENCH WITH MINIMUM 12" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.

- 9. ALL CONDUITS SHALL BE PROVEN FREE AND CLEAR OF DIRT, ROCKS, ETC., BY MEANS OF A MANDREL.
- 10. FURNISH AND INSTALL A WOVEN POLYESTER, PRE-LUBRICATED PULL TAPE, PRINTED WITH SEQUENTIAL FOOT MARKINGS IN ALL CONDUITS. NO SPLICES ARE ALLOWED IN THE PULL TAPE. MINIMUM TENSILE STRENGTH REQUIREMENTS ARE AS FOLLOWS:

  ELECTRIC CONDUIT: 2500 POUNDS

  COMMUNICATIONS CONDUIT: 2"C. AND LARGER 1000 POUNDS, 1"C. 500 POUNDS
- 11. CATV AND PHONE SHOWN FOR ILLUSTRATION ONLY. CONTACT APPROPRIATE UTILITY FOR SPECIFICATIONS.
- 12. CONSTRUCTION OUTSIDE ROADWAY SHOWN. REFER TO STANDARD UT-S4 FOR CONSTRUCTION REQUIREMENTS INSIDE ROADWAY AREAS.

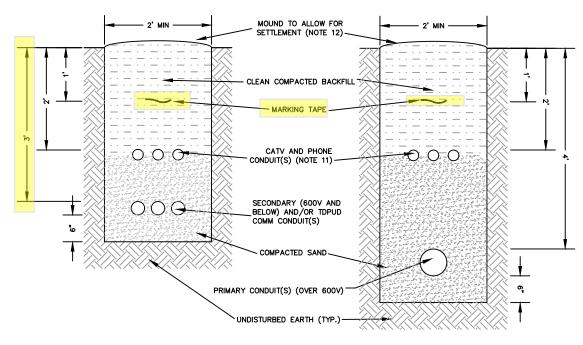


#### **ELECTRIC DEPARTMENT**

### **Joint Trench Construction Details**

Primary Electric, Secondary Electric & Communication Conduits

LIT C4	Voltage	Category	Date	Approved	Design	Drawn
7 01-81	Site Work	Trenching	3/25/21	SMS	SMS	JJC



#### NOT TO SCALE

#### **INSTALLATION NOTES**

- 1. ALL ELECTRIC AND PUD COMMUNICATION CONDUIT SHALL BE SCHEDULE 40 PVC. ELECTRIC CONDUIT SWEEPS SHALL BE FACTORY-MADE SCHEDULE 40 PVC. HEATED CONDUIT BENDS ARE NOT ACCEPTABLE.
- 2. A MAXIMUM OF 270 DEGREES OF ACCUMULATED BENDS SHALL BE ALLOWED IN ANY RUN OF CONDUIT.
- 3. TRENCH SHALL BE GRADED TRUE AND AS FREE OF ROCKS AS POSSIBLE.
- 4. INSTALL 6" DEEP SAND BEDDING BEFORE LAYING CONDUIT IN TRENCH. CRUSHED CINDERS **DO NOT** QUALIFY AS SAND BEDDING.
  AFTER LAYING THE CONDUIT, DISTRICT PERSONNEL MUST INSPECT THE CONDUIT PRIOR TO PLACING ANY BACKFILL MATERIAL.
  BACKFILL CONDUITS WITH 12" OF SAND AS SHOWN AND COMPACT THE TRENCH. DISTRICT PERSONNEL MUST RE-INSPECT
  THE SAND BACKFILLED CONDUIT TRENCH.
- 5. AFTER THE DISTRICT'S SECOND INSPECTION, INSTALL CLEAN BACKFILL (SCREEN AS REQUIRED) AND COMPACT IN 12" LIFTS. NO ROCKS OVER 3" IN SIZE ARE PERMITTED IN CLEAN BACKFILL.
- 6. COMPACT ALL BACKFILL MATERIAL TO A MINIMUM OF 90% RELATIVE DENSITY. COMPACTION TESTING AND DOCUMENTATION OF RESULTS TO BE PERFORMED AS REQUESTED BY THE DISTRICT.
- 7. DISTRICT-OWNED WATER SERVICE LATERALS ARE PERMITTED IN JOINT TRENCH WITH MINIMUM 18" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.
- 8. CUSTOMER-OWNED UTILITIES INCLUDING WATER AND SEWER SERVICE LATERALS ARE NOT PERMITTED IN JOINT TRENCH. A MINIMUM SEPARATION OF 3' OF <u>UNDISTURBED</u> EARTH SHALL EXIST BETWEEN INSIDE EDGE OF THE CUSTOMER-OWNED UTILITY TRENCH AND JOINT TRENCH CONTAINING TOPUD ELECTRIC CONDUITS.

EXCEPTION: SINGLE FAMILY RESIDENTIAL WATER SERVICE LATERALS ARE PERMITTED IN SECONDARY SERVICE (240V OR LESS) JOINT TRENCH WITH MINIMUM 12" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.

- 9. ALL CONDUITS SHALL BE PROVEN FREE AND CLEAR OF DIRT, ROCKS, ETC., BY MEANS OF A MANDREL.
- 10. FURNISH AND INSTALL A WOVEN POLYESTER, PRE-LUBRICATED PULL TAPE, PRINTED WITH SEQUENTIAL FOOT MARKINGS IN ALL CONDUITS. NO SPLICES ARE ALLOWED IN THE PULL TAPE. MINIMUM TENSILE STRENGTH REQUIREMENTS ARE AS FOLLOWS: ELECTRIC CONDUIT: 2500 POUNDS

COMMUNICATIONS CONDUIT: 2"C. AND LARGER - 1000 POUNDS, 1"C. - 500 POUNDS

- 11. CATV AND PHONE SHOWN FOR ILLUSTRATION ONLY. CONTACT APPROPRIATE UTILITY FOR SPECIFICATIONS.
- 12. CONSTRUCTION OUTSIDE ROADWAY SHOWN. REFER TO STANDARD UT-S4 FOR CONSTRUCTION REQUIREMENTS INSIDE ROADWAY AREAS.

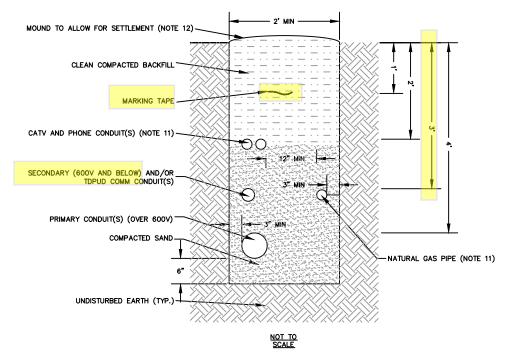


#### ELECTRIC DEPARTMENT

### **Joint Trench Construction Details**

Primary or Secondary Electric & Communication Conduits

LIT CO	Voltage	Category	Date	Approved	Design	Drawn
01-52	Site Work	Trenching	3/25/21	SMS	SMS	JJC



- 1. ALL ELECTRIC AND PUD COMMUNICATION CONDUIT SHALL BE SCHEDULE 40 PVC. ELECTRIC CONDUIT SWEEPS SHALL BE FACTORY-MADE SCHEDULE 40 PVC. HEATED CONDUIT BENDS ARE NOT ACCEPTABLE.
- 2. A MAXIMUM OF 270 DEGREES OF ACCUMULATED BENDS SHALL BE ALLOWED IN ANY RUN OF CONDUIT.
- 3. TRENCH SHALL BE GRADED TRUE AND AS FREE OF ROCKS AS POSSIBLE.
- 4. INSTALL 6" DEEP SAND BEDDING BEFORE LAYING CONDUIT IN TRENCH. CRUSHED CINDERS **DO NOT** QUALIFY AS SAND BEDDING. AFTER LAYING THE CONDUIT, DISTRICT PERSONNEL MUST INSPECT THE CONDUIT PRIOR TO PLACING ANY BACKFILL MATERIAL. BACKFILL CONDUITS WITH 12" OF SAND AS SHOWN AND COMPACT THE TRENCH. DISTRICT PERSONNEL MUST RE-INSPECT THE SAND BACKFILLED CONDUIT TRENCH.
- 5. AFTER THE DISTRICT'S SECOND INSPECTION, INSTALL CLEAN BACKFILL (SCREEN AS REQUIRED) AND COMPACT IN 12" LIFTS. NO ROCKS OVER 3" IN SIZE ARE PERMITTED IN CLEAN BACKFILL.
- COMPACT ALL BACKFILL MATERIAL TO A MINIMUM OF 90% RELATIVE DENSITY. COMPACTION TESTING AND DOCUMENTATION OF RESULTS TO BE PERFORMED AS REQUESTED BY THE DISTRICT.
- 7. DISTRICT-OWNED WATER SERVICE LATERALS ARE PERMITTED IN JOINT TRENCH WITH MINIMUM 18" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.
- CUSTOMER-OWNED UTILITIES INCLUDING WATER AND SEWER SERVICE LATERALS ARE <u>NOT</u> PERMITTED IN JOINT TRENCH. A MINIMUM SEPARATION OF 3' OF <u>UNDISTURBED</u> EARTH SHALL EXIST BETWEEN INSIDE EDGE OF THE CUSTOMER-OWNED UTILITY TRENCH AND JOINT TRENCH CONTAINING TDPUD ELECTRIC CONDUITS.

EXCEPTION: SINGLE FAMILY RESIDENTIAL WATER SERVICE LATERALS ARE PERMITTED IN SECONDARY SERVICE (240V OR LESS) JOINT TRENCH WITH MINIMUM 12" HORIZONTAL SEPARATION BETWEEN INSIDE EDGES OF PIPE AND CONDUIT.

- 9. ALL CONDUITS SHALL BE PROVEN FREE AND CLEAR OF DIRT, ROCKS, ETC., BY MEANS OF A MANDREL.
- 10. FURNISH AND INSTALL A WOVEN POLYESTER, PRE-LUBRICATED PULL TAPE, PRINTED WITH SEQUENTIAL FOOT MARKINGS IN ALL CONDUITS. NO SPLICES ARE ALLOWED IN THE PULL TAPE. MINIMUM TENSILE STRENGTH REQUIREMENTS ARE AS FOLLOWS: ELECTRIC CONDUIT: 2500 POUNDS

COMMUNICATIONS CONDUIT: 2"C. AND LARGER - 1000 POUNDS. 1"C. - 500 POUNDS

- 11. CATV, PHONE, AND NATURAL GAS SHOWN FOR ILLUSTRATION ONLY. CONTACT APPROPRIATE UTILITY FOR SPECIFICATIONS.
- 12. CONSTRUCTION OUTSIDE ROADWAY SHOWN. REFER TO STANDARD UT-S4 FOR CONSTRUCTION REQUIREMENTS INSIDE ROADWAY AREAS.



### **ELECTRIC DEPARTMENT**

### Joint Trench Construction Details

Primary Electric, Secondary Electric
Communication Conduit & Natural Gas Pipe

Drawn	Design	Approved	Date	Category	Voltage	LIT Co
JJC	SMS	SMS	3/25/21	Trenching	Site Work	01-53

- 1. THE DISTRICT WILL MARK THE RISER LOCATION ON THE POLE.
- 2. WHEN BOTH PUD COMMUNICATIONS AND ELECTRICAL PRIMARY OR SECONDARY RISERS ARE INSTALLED AT THE SAME RISER LOCATION, ATTACH THE PUD COMMUNICATIONS RISER TO THE BACK SIDE OF THE RISER BRACKETS.
- 3. MINIMUM RADIUS FOR GALVANIZED RIGID CONDUIT (GRC) SWEEPS:
  PRIMARY (>600V) 48" RADIUS
  SECONDARY/COMM 36" RADIUS (24" RADIUS WITH DISTRICT APPROVAL)
- 4. DRAIN BOX MAY BE REQUIRED FOR RISERS AS DIRECTED BY THE DISTRICT. SEE STANDARDS UBOX-S1A AND UBOX-S2A.
- 5. TELEPHONE AND CATV ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONFIRM DETAILS WITH APPROPRIATE UTILITY.



### **ELECTRIC DEPARTMENT**

### **Riser Pole Construction**

Primary, Secondary, and PUD Communications Conduit

Drawn	Design	Approved	Date	Category	Voltage	LID 0
JJC	SMS	SMS	3/25/21	Risers	Site Work	UR-S

UR-S.DWG