



**Metering**  
**Customer Reference Specification**  
**12kV 3-Phase Service Metering on Customer**  
**Owned Pole (Overhead Supply to UG)**  
**6-09-197**

0000-000-ST-6009  
Custom ID: DCS 6-09  
Revision: 04  
Effective Date: 01/16/2017  
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**6-09-197 - Customer Reference Specification - 12kV 3-Phase Service Metering on Customer-Owned Pole (Overhead Supply to Underground)**

**Overhead Supply to Underground**

A-188077

THIS CUSTOMER REFERENCE SPECIFICATION (CRS) IS PART OF THE  
RULES FOR ELECTRIC METER AND SERVICE INSTALLATION (REMSI) WEBSITE.



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This specification defines the customer's responsibilities and requirements necessary for 12 KV three phase service, overhead supply to underground. All details of this specification must be strictly followed.

The pole location and equipment installation must be approved by the PPL Supervisor- Commercial & Industrial Metering Services and PPL Design Supervisor. Any deviation from this specification must be approved. Unapproved deviations are usually costly for the customer to correct and can result in delays or possible refusal to connect service.

Refer to CRS 6-09-194 for 12kV 3-Phase Service Interrupter Switch on Customer-Owned Pole (Overhead Supply to Overhead).

**Notes:**

1. All facilities, except bill of material item #1 are provided, installed, and maintained by customer. PPL will make metering connections and all connections to the system neutral.
2. Maximum tension in PPL supply conductors is 2000 pounds (total 8000 pounds, 3 phase and neutral).
3. Customer's primary neutral, instrument transformer cases, lightning arresters, conduit and secondary neutral of instrument transformers must be grounded.

Customer must make all grounding connections using compression connectors, and all primary connections using cable-to-flat or stem connectors as appropriate.

4. Conduit(s) for primary cable may approach from any direction, but cable riser must be attached to pole in position shown.
5. The customer should install underground conduit(s) by one of these methods. A spare conduit is recommended, but optional.
  - A. Use 4 or 5 inch hot-dipped galvanized steel conduits (rigid or intermediate grade) directly buried in the earth. All threaded couplings should be tightly joined using plumbers teflon tape or similar joint compound designed to stop water leaks. All bends must be at least 36-inch radius. All steel conduits must have grounding bushings at the switchgear and terminal pole.
  - or -
  - B. Use 4 or 5 inch type EB or DB PVC conduit encased in a concrete envelope as specified in PPL drawing A-168735. All joints should be tightly sealed using the appropriate contact cement or joint compound. All 90° bends must be hot-dipped galvanized steel (rigid or intermediate grade) with at least 36 inch radius. Concrete must also encase steel bends to prevent breakage at steel-to-plastic adaptors resulting from cable pulling tensions.

After installation, the contractor should clean debris from the conduits. Temporarily plug conduits to keep them clean and dry.

6. Conduit riser should fit snug against pole. Riser can be hot-dipped galvanized steel or schedule 80 PVC. Attach riser to pole using two-hole pipe straps at 5-foot intervals. Both the cable riser conduit and spare should be watersealed.



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7. Customer must install at least one lightning arrester per cable terminator. For maximum lightning protection, two arresters per terminator are recommended.
8. Point of Contact (POC) is contained in the PPL EU document "Point of Contact Requirements for High Voltage Customer-Owned Facilities 12kV Supply."

Item	Qty.	Bill of Material	CID No. or Drawing No.
<b>Material Supplied by PPL</b>			
1	1	Bracket, 3-phase cluster mount, aluminum	1017555
2	3	Instrument transformer, voltage	Meter Dept.
	3	Instrument transformer, current	Meter Dept.
	*	Meter mounting and material	Meter Dept.
	*	Ft., wire, from meter to instrument transformers	Meter Dept.
	1	Bolt, machine, 5/8" x length to suit, galv.	M&E
	1	Insulator, pin type, porcelain, 12 kV	118111
	1	Pin, steel, for insulator, wood mounting	111580
<b>Material Supplied by Customer</b>			
3	1	Pole, wood, (class 3 min.) length as specified	
4	2	Crossarm, wood, 3-1/2" x 4-1/2" x 8' long	
	3	Bolt, double arming, 5/8" x length to suit, galv.	
	6	Washer, 2-1/4" sq. for 5/8" bolt, galv.	
	4	Brace, crossarm, flat, 28" long	
	4	Bolt, carriage, 3/8" x 5" long, galv.	
	2	Screw, lag, 1/2" x 4" long, galv.	
	3	Bracket, for lightning arresters	
5	3	Assembly, deadend, 12 KV	
6	1	Guy, 1/2" H.S. steel, 7 strand, with attachment HDWE	(Note 2)
7	1	Gain, pole	
8	1	Pin, insulator, steel, wood mounting	
	1	Insulator, pin type	
9	3	Pin, insulator, steel, steel mounting	
	3	Insulator, pin type, neutral	
10	*	Ft., wire, #4 or #6 CU, bare, solid	
	6	Connector, terminal, size and type as required	
11	1	Crossarm, wood, 3-1/2" x 4-1/2" x 8' long	
	1	Bolt, machine, 5/8" x length to suit, galv.	
	1	Washer, 2-1/4" sq. for 5/8" bolt	
	2	Brace, crossarm, flat, 28" long	
	2	Bolt, carriage, 3/8" x 5" long, galv.	
	1	Screw, lag, 1/2" x 4" long, galv.	

\* As Required



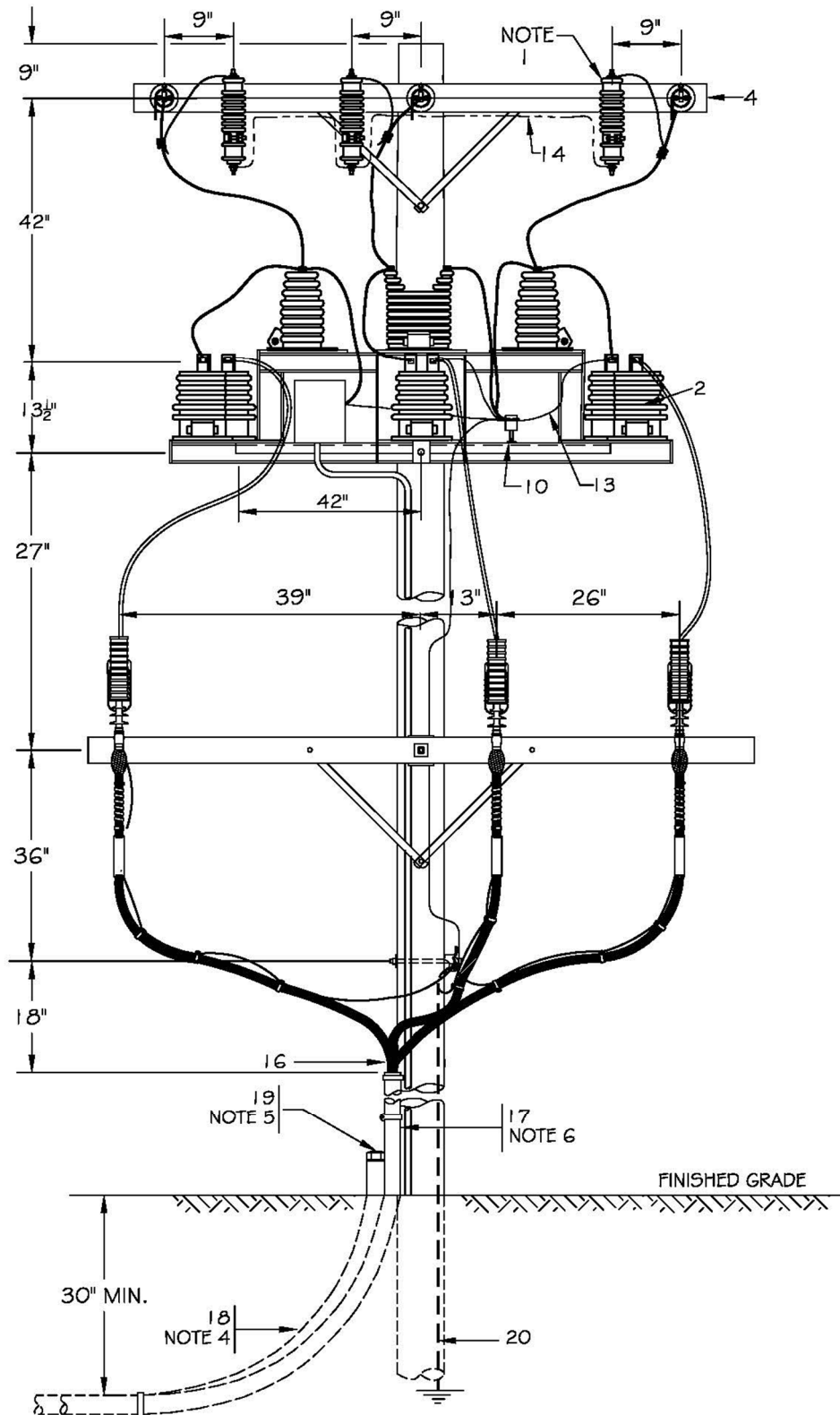
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Item	Qty.	Bill of Material	CID No. or Drawing No.
<b>Material Supplied by Customer</b>			
12	3	Bracket, for lightning arrester	
	3	Arrester, lightning, for 12 KV, 4 wire system	
	3	Bracket, for terminator	
	3	Terminator, cable, outdoor, 15 KV	
13	*	Ft. wire, #6 CU, bare	
	*	Connectors as required	
14	*	Ft. wire, #6 CU, solid, HDPE or bare with molding	
	*	Connectors as required	
15	1	Deadend assembly, neutral	
16	3	Grip, cable supporting	
	*	Bushing, grounding, size to suit conduit	
17	*	Conduit, 4" or 5"	(Note 6)
	*	Straps, conduit, with screw lags	
18	*	Bend, 90°, 4" or 5", steel, galv.	(Note 6)
19	1	Cap, conduit	
20	1	Rod, ground 1/2" dia. X 8' long, steel, copper clad	
21	1	Lot, 1-1/4" and 1" rigid metal conduit, 1-1/4" and 1" flexible metal weatherproof conduit, junction boxes and fittings	
22	6	Arrester, lightning	

\* As Required

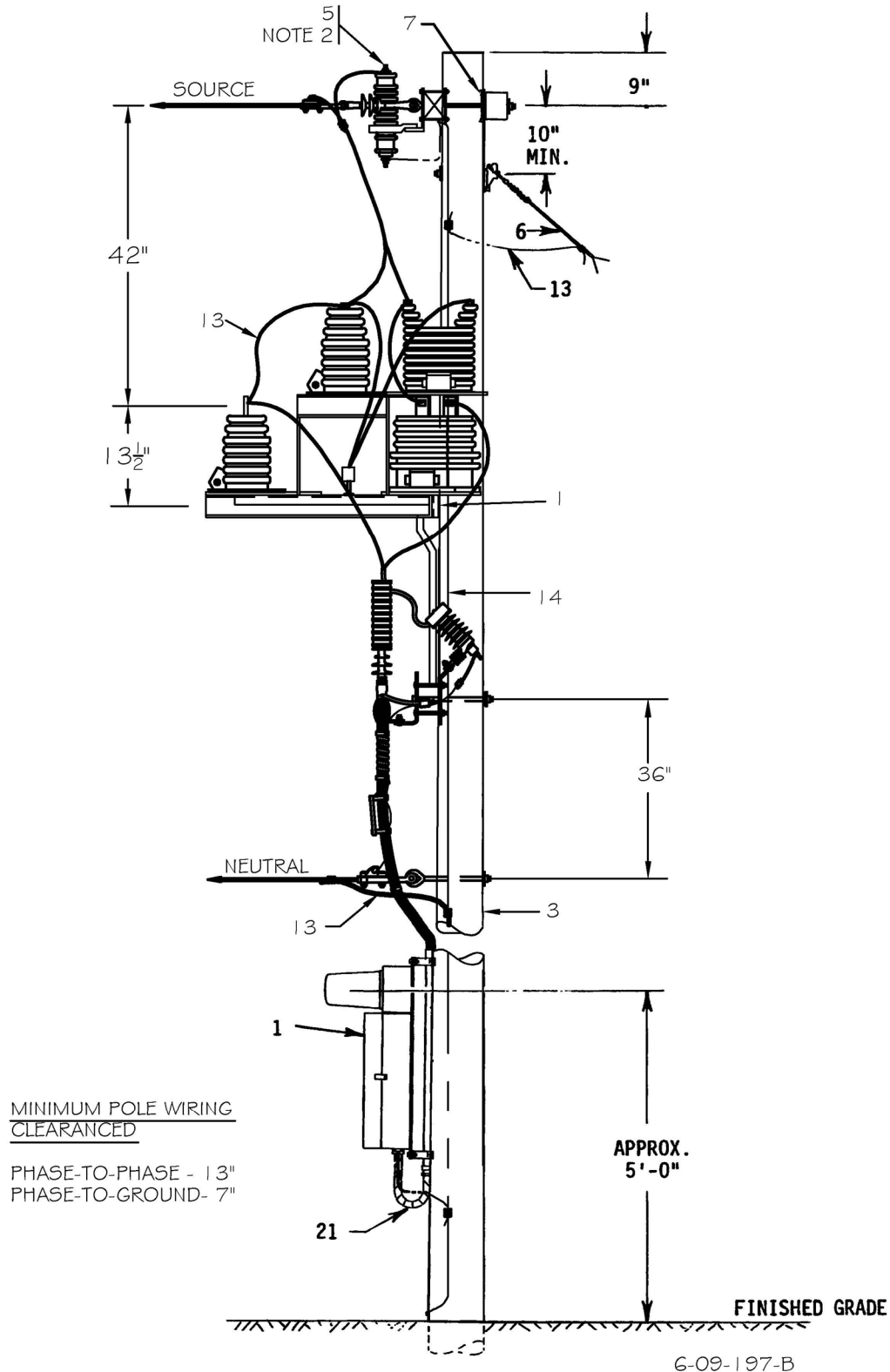
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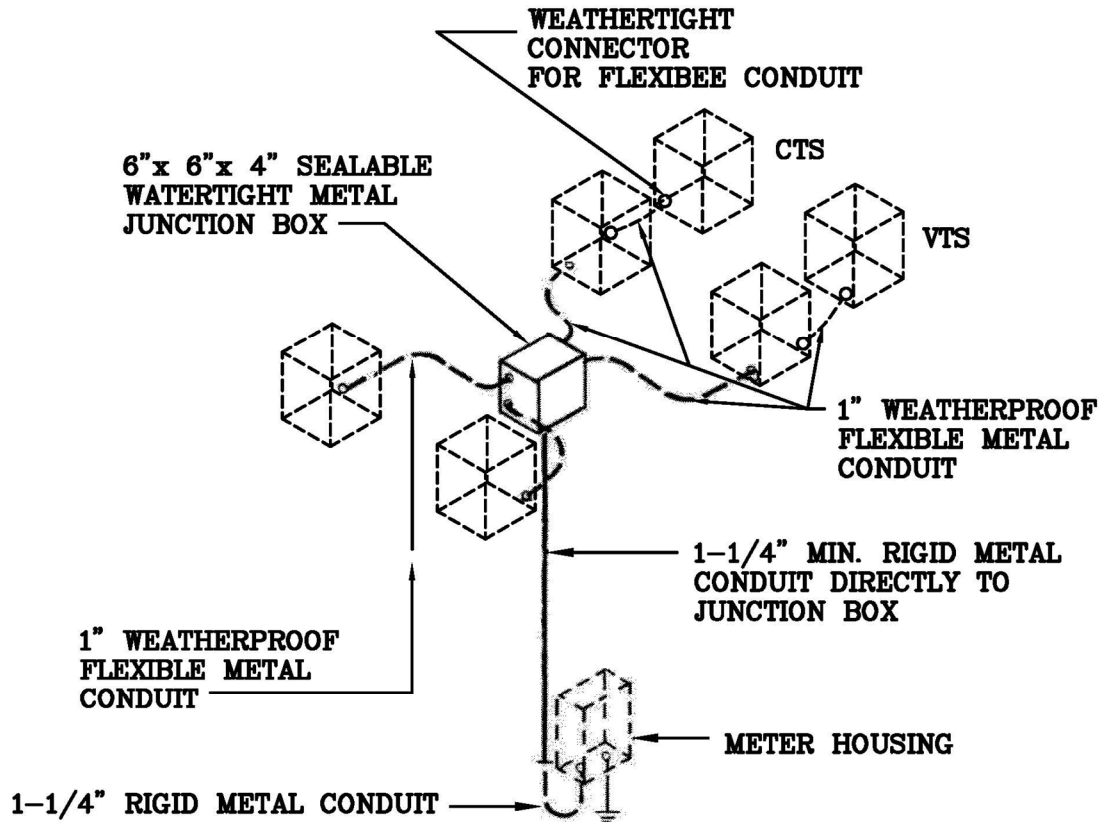


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