

Communication Enclosures on SCL Wood Poles



1. Scope

This standard covers requirements for the communication installation of pole-mounted enclosures, and associated equipment on Seattle City Light (SCL) wood poles.

2. Application

This standard provides installation details and requirements for SCL engineers to provide to communication companies.

3. Codes and Permits

All necessary permits and franchises shall be obtained by the agency installing or owning the attachment, including, but not limited to, street use and environmentally related permits.

Installation must meet all applicable codes, this standard, and all other relevant SCL construction standards. In case of conflict the most stringent requirement will prevail.

4. Equipment Requirements

All proposed installations shall be reviewed by the SCL Joint Use Engineering Unit. Any deviations from the requirements of this standard must have prior approval from Joint Use Engineering. The assigned Joint Use engineer will determine if the pole is structurally adequate during the engineering field review.

The communication enclosure owner shall be responsible for applying visual mitigation measures as the need arises or when required by the appropriate authority.

The equipment shall meet the following requirements:

- Only one communication enclosure shall be allowed on each pole.
- The maximum allowable size for pole-mounted enclosures shall be 19 cubic feet in volume with a maximum height of 48 inches, width of 26 inches, depth of 26 inches and weight of 750 lb.
- Enclosures shall not be mounted on switch poles, corner poles, or dead-end poles. Setting additional poles in lead with an existing pole line for the purpose of accommodating communication power supplies or equipment is against SCL policy.
- All devices that require electric service shall have an external service disconnect installed. The external service disconnect shall isolate all electric service including any battery backups.
- Electric service equipment shall meet NEC codes and be permitted and inspected by the authority having jurisdiction.

5. Equipment Metering

Metering requirements shall be determined by SCL Customer Care.

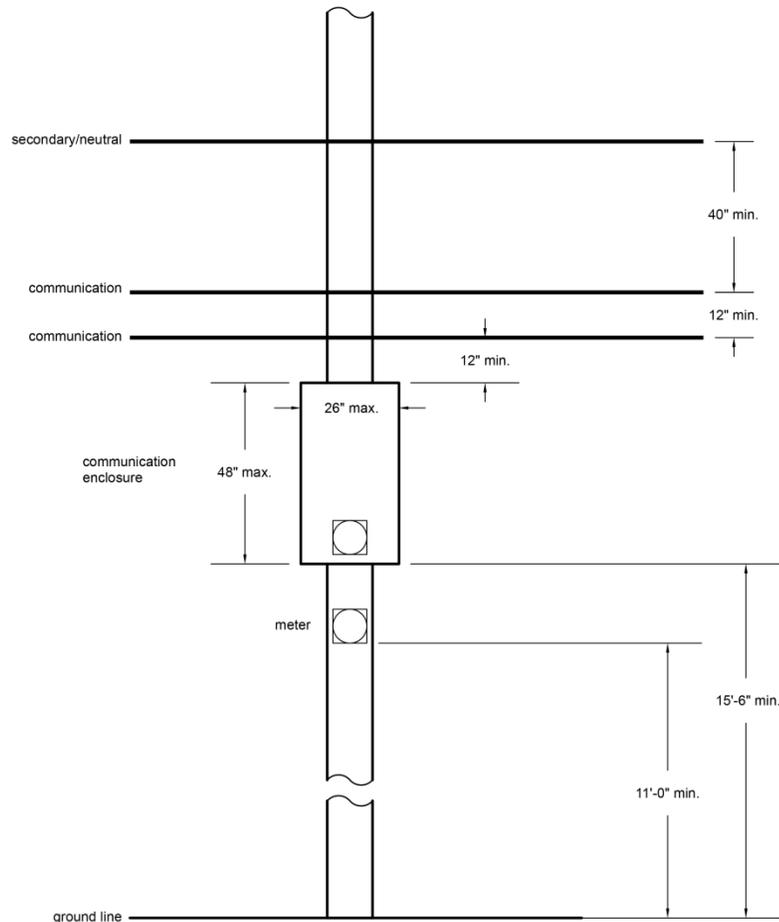
Meter equipment must meet the requirements described in SCL DU13-4/NMT-30.

Meter enclosure may be either built into, or located below, the communication enclosure.

6. Location

All communication enclosures shall be located on the pole below the communication attachments. Communication enclosures shall be located on the street side of the pole. All conduits shall be installed on the face of the pole. The meter enclosure shall be located a minimum of 11 feet above the ground line. See Figure 6 for details.

Figure 6. Communication Enclosure Attachment on SCL Wood Pole



7. Clearances

All equipment installed on power poles must meet NESC code. The location of the enclosure must meet the following requirements:

- Enclosures must have a minimum clearance of 15 ft-6 in above the traveled lane.
- A minimum clearance of 40 in below lowest SCL secondary hardware or conductor, including secondary drip loops.
- A minimum clearance of 4-1/2 in between the enclosure and the pole.
- A minimum clearance of 12 in below any communication attachment.
- A minimum clearance of 12 in above or below a meter.

8. Conduit Installation

All conduits and feed lines over 2-in nominal diameter shall be installed on standoff brackets. Standoff bracket installation shall conform to SCL U7-10/NDK-70.

Standoff brackets used shall be Stock No. 686796 or preapproved equivalent, and may be purchased from SCL Stores.

Code or permit conditions may require a thicker wall conduit or different material for conduits between 2 ft below the ground line to 8 ft above the ground line.

A minimum space of 4-1/2 in (for climbing) shall be maintained between the pole and the closest part of the conduit.

All conduit risers shall be rigid steel conduit unless otherwise specified for the first 10 ft above the ground line, and shall be Schedule 40 PVC conduit above 10 ft.

The electric service conduit shall be fed continuously into the enclosure or meter and shall be of sufficient length to reach the SCL secondary conductor.

The electric service conduit shall include a weatherhead and coupler, and be pre-wired with an extra 3 ft of code-sized wire coiled at weatherhead.

9. Grounding and Bonding

All conductive equipment attached to the pole shall be properly grounded and bonded per the National Electrical Safety Code (NESC). A copper ground wire, #4 AWG minimum size shall be installed from equipment to pole ground using an irreversible connection. Where a pole ground does not exist, one shall be installed at the base of the pole. This installation shall meet or exceed the requirements of SCL D16-2.

10. Identification

Identification of attachments is necessary to assist in repair of third-party cables, communication cabinets, conduit risers and other pole attachments.

All communication attachments and enclosures shall have an identification tag as specified in SCL D2-1.1. All communication enclosures shall legibly display the customer's three-digit SCL number, company's internal identification number for the specific enclosure, and an emergency contact phone number.

11. Ownership Rights

Seattle City Light shall maintain all ownership rights of any pole approved for installation, and may require that equipment be removed or relocated if it is deemed necessary for SCL business purposes.

12. References

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Lu, Curtis, SCL Electric Power Systems Engineer and subject matter expert for 0094.01
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National Electric Code (NEC), NFPA-70, 2011 Edition, National Fire Protection Association, Quincy, MA, 2010

National Electrical Safety Code (NESC), C2-2012 Edition; Institute of Electrical and Electronics Engineers (IEEE), Inc., New York, NY, 2011

SCL Construction Standard D2-1.1; "Attachments on Standard Utility Poles,"
November 2009

SCL Construction Standard D2-1.3 (Canceled); "Cable TV Power Supply Attachments,"
February 2005

SCL Construction Guideline D16-2; "Grounding Rod Installation," December 2006

SCL Construction Guideline DU13-4/NMT-30; "Meter Base Arrangements," April 2004

SCL Construction Standard U7-10/NDK-70; "Conduit Risers on Poles"; January 2014

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