

Overhead Secondary Spans

1. Scope

This standard covers the information necessary to install overhead secondary span conductors between wood poles in the Seattle City Light (SCL) Looped Radial Distribution System.

2. Application

This standard provides direction to SCL engineers, crews, and approved contractors for the installation of overhead secondary span conductors between wood poles.

For LR bracket installation, see SCL 0100.11.

For secondary service drops installation and clearances, see SCL 0130.30

For secondary service bridle installation, see SCL 0130.20.

3. Requirements

3.1 Vertical Clearances between Secondary Span and Communication Cable

Vertical clearances between the secondary span conductor and communication cable, at the pole and anywhere in the span, shall be as shown in Table 3.1.

Table 3.1 Vertical Clearances between Secondary Span and Communication Cable

Location	Clearance, Minimum (in)
At pole attachments	40
In the span (between poles)	30

3.2 Installation

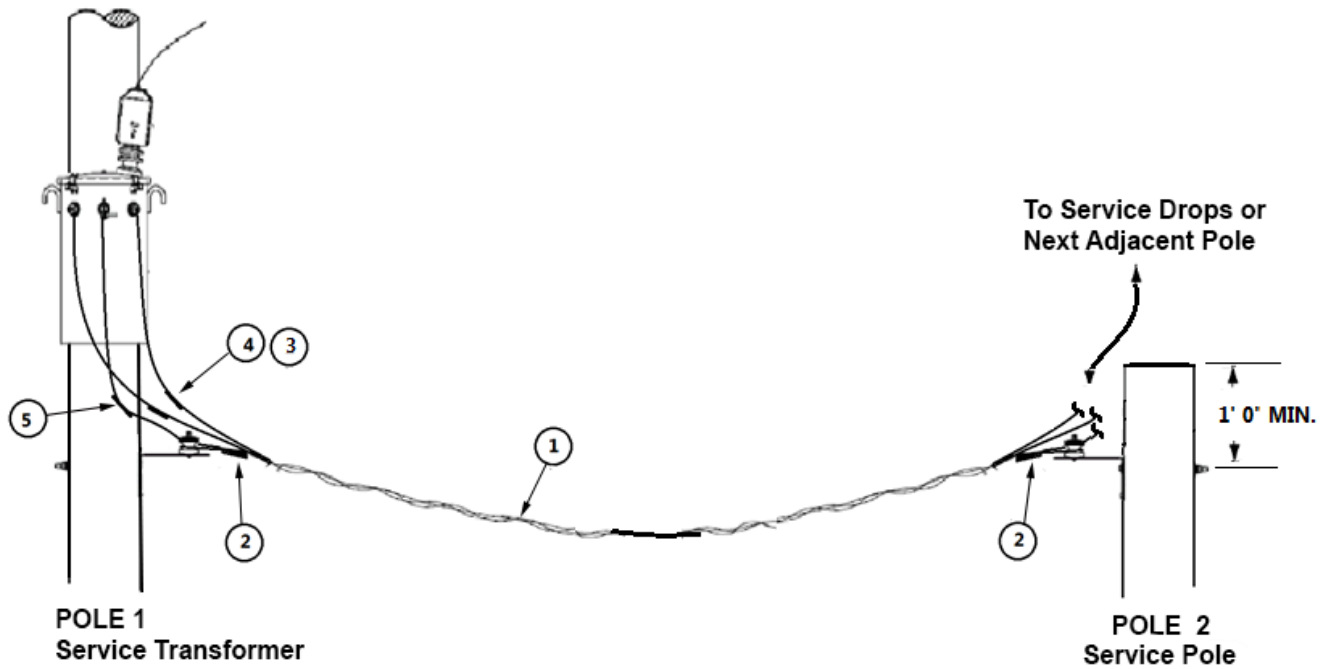
Secondary span conductors shall be installed at a minimum of 1 ft from the top of service pole. See Figure 3.2.

SCL or its approved contractor shall make all electrical connections of secondary span wire.

See Section 5, Material Lists, for corresponding materials shown in the figure.



Figure 3.2. Secondary Span Installation, Profile View



4. Construction Notes

Run continuous secondary conductors when possible.

Tape all connections with plastic tape or apply heat shrink sleeves. Tape with a minimum of three layers of plastic electrical tape (Stock No. 736655). Heat shrink tubing may be used in place of plastic tape for straight splices only.

Secondary span may be attached to the same spool insulator as the neutral or service drop wires.

5. Material Lists

Table 5a. Secondary Conductor, Overhead

Fig	Compatible Unit	ID	Quantity						
3.2	Wire, 350 Quadruplex Secondary	CNDOSEC1-350QP	-----						
3.2	Wire, 4/0 Triplex Secondary	CNDOSEC1-4/0TP	-----						
3.2	Wire, 4/0 Quadruplex Secondary	CNDOSEC1-4/0QP	-----						
3.2	Wire, 1/0 Triplex Secondary	CNDOSEC1-1/0TP	-----						
3.2	Wire, 1/0 Quadruplex Secondary	CNDOSEC1-1/0QP	-----						
3.2	Wire, #2 Triplex Secondary	CNDOSEC1-#2TP	-----						
3.2	Wire, #2 Quadruplex Secondary	CNDOSEC1-#2QP	-----						

#	Material Description	ID	1	2	3	4	5	6	7
1	#2 AWG quadruplex	600734	1	-	-	-	-	-	-
1	#2 AWG triplex	600672	-	1	-	-	-	-	-
1	1/0 AWG quadruplex	600735	-	-	1	-	-	-	-
1	1/0 AWG triplex	600664	-	-	-	1	-	-	-
1	4/0 AWG quadruplex	600738	-	-	-	-	1	-	-
1	4/0 AWG triplex	600669	-	-	-	-	-	1	-
1	350 kcmil quadruplex	600741	-	-	-	-	-	-	1

Table 5b. Secondary Connectors, Overhead

Fig	Compatible Unit	ID	Quantity						
3.2	Wire, 350 Quadruplex Secondary	CNDOSEC1-350QPC							
3.2	Wire, 4/0 Triplex Secondary	CNDOSEC1-4/0TPC							
3.2	Wire, 4/0 Quadruplex Secondary	CNDOSEC1-4/0QPC							
3.2	Wire, 1/0 Triplex Secondary	CNDOSEC1-1/0TPC							
3.2	Wire, 1/0 Quadruplex Secondary	CNDOSEC1-1/0QPC							
3.2	Wire, #2 AWG Triplex Secondary	CNDOSEC1-#2TPC							
3.2	Wire, #2 AWG Quadruplex Secondary	CNDOSEC-#2QPC							
#	Material Description	ID							
2	Neutral service wedge clamp (#6-#2)	581340	2	2	-	-	-	-	-
2	Neutral service wedge clamp (#4-1/0)	581342	-	-	2	2	-	-	-
2	Neutral service wedge clamp (2/0-4/0)	581344	-	-	-	-	2	2	2
3	Connector, comp., insulated (yellow-yellow)	650569	-	-	-	2	-	-	-
3	Connector, comp., insulated (yellow-red)	650565	-	2	3	-	-	-	-
3	Connector, comp., insulated (red-red)	650564	3	-	-	-	-	-	-
4	Connector, comp., bare (4/0-477 kcmil)	650138	-	-	-	-	4	3	4
5	Connector, comp., neutral messenger, #4 AWG	650501	-	1	-	-	-	-	-
5	Connector, comp., neutral messenger, #2 AWG	650502	1	-	-	1	-	-	-
5	Connector, comp., neutral messenger, 1/0	650503	-	-	1	-	-	-	-

6. References

- SCL Construction Standard 0100.11**; “LR Bracket Installation”
- SCL Construction Standard 0130.20**; “Secondary Service Bridle”
- SCL Construction Standard 0130.30**; “Secondary Service Drops”

7. Sources

- IEEE C2-2017**; National Electric Safety Code (NESC); 2017
- Lu, Curtis**; SCL Standards Engineer, subject matter expert for 0130.10 (curtis.lu@seattle.gov)
- Neuansourinh, Ponet**; SCL Standards Engineer, subject matter expert, and originator of 0130.10 (ponet.neuansourinh@seattle.gov)
- Perander, Eivind**; SCL North Distribution Supervisor and subject matter expert for 0130.10 (eivind.perander@seattle.gov)
- SCL Construction Standard D13-1** (canceled); “Secondary Service Details”