

Application

This standard provides general notes for unmetered secondary street lighting service connections including ornamental and other types of lighting services and loads.

Revision Notes

Changed standard title. Added *Application* and *Revision Notes*. Updated *Items Required* and *References*. Updated *Notes* with new design and connection requirements for unmetered municipal-owned kiosks up to 200 A and municipal-owned poles up to 100 A. Changes are marked by green vertical revision lines in the left margin. This revision released concurrently with Standards and Equipment Advisory Information Bulletin 2026-013 *Revised ES53 and ES54 S4-01 Street Lighting Services*.

Items Required

Item	Description	Supplied by
1	Conduit, DB2 grey, 75 mm	BC Hydro
2	Bell end for item 1	BC Hydro
3	Service conduit, 50 mm, for item 1, bend as required	Municipality

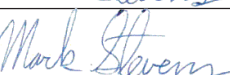
References

BC Hydro Distribution Standards

ES53 S4-01	Legacy Daisy-Chain Street Lighting Services up to 50 A from URD and UD Electrical Installation
ES54 B3-01	Lightweight Service Box Small Non-Traffic Duty
ES54 B7-01	332 Box Service/Junction Box Sidewalk Duty
ES54 F1-02	Single-Phase Low-Profile Transformer Flat Pad
ES54 F1-03	Single-Phase Low-Profile Transformer Pyramid Pad
ES54 H4-01	Duct Separation to Other Utilities
ES54 S0-02	Services General Notes
ES54 S0-04	Secondary Services General Notes
ES54 S1-04	Secondary Single-Phase Services 200 A to 600 A Pad-Mounted Kiosk and Pedestal, Self-Contained and CT-Based Meter Installation

Other BC Hydro Documents

Distribution Instruction S10-4	Distribution Instruction: Electric Service Connections – Voltages
Distribution Instruction L15-3	Distribution Instruction Overhead Street Lighting (Customer Owned)
Secondary Metering	Requirements for Secondary Voltage Revenue Metering (750 V and less)

Designed: M. Kelvin, P. Eng		Professional of Record 2026-05-29  Permit to Practice 1002449	Unmetered Street Lighting Services Public Property Installation	
Checked: M. Kelvin, P. Eng				
Reviewed: M. Stevens, P. Eng				DISTRIBUTION STANDARDS 
Approved: M. Stevens, P. Eng		Issued: 2026-05-29 Effective: 2026-07-01		

External Documents

BCEC	Canadian Electrical Code, Part 1 (CSA C22.1) adopted for BC and endorsed by Technical Safety BC (TSBC)
MMCD E7.9	Master Municipal Construction Document 100 A (120/240 V) Traffic Signal / Street Lighting S.P. (Wiring Diagram)
TSBC IB-EL 2016-03	Information Bulletin: Temporary and Permanent Services for Construction Power

Notes

1. Typical Service Configurations

Following is a summary of typical BC Hydro unmetered street lighting secondary services.

1.1 Legacy Daisy-Chain Street Lighting Services up to 50 A from Underground Distribution (UD) and Underground Residential Distribution (URD) (see ES53 S4-01)

This is the most common type of secondary street lighting service for municipal-owned street lighting. Lighting fixtures are protected by municipal-owned pole-mounted up to 50 A overcurrent protection devices. Ornamental street lighting civil work shall comply with ES54 section S *Services* standards while electrical installations and connections shall comply with ES53 S4-01.

1.2 Pole-Mounted Street Lighting Services Panel up to 100 A 120/240 V (see MMCD E7.9 or equivalent)

A municipal engineer could specify an engineered and certified pole-mounted combo panel to supply multiple street lighting loads or convenience outlets.

1.3 Pad-Mounted Street Lighting Services Kiosk up to 200 A 347/600 V (see ES54 S1-04)

A municipal engineer could specify a free-standing low-profile municipal-owned kiosk in compliance with ES54 S1-04. The service main breaker may be rated up to 200 A with an interrupting capacity of 22 kA minimum.

A three-phase 120/208 V and 347/600 V kiosk 200 A service main breaker shall be rated for an interrupting capacity of 45 kA minimum.

2. Wireways and Pull Boxes

2.1 Utility Wireway

- BC Hydro utility wireways inside a kiosk or combo panel shall comply with ES54 S1-04.
- The customer shall not install auxiliary devices inside a utility wireway. Surge arrestors are exempt.

2.2 Utility Service Boxes, Transformers, and Service Ducts

- The customer shall supply and cover civil materials and the cost of installation. Service boxes and transformer pads are supplied by BC Hydro and are billed as part of the BC Hydro service connection charge.
- A BC Hydro designer determines the size and number of supply service cables and ducts and the location of BC Hydro service boxes and transformer pads.
- The municipal-owned service conduits shall be graded gradually from the exit out of the service box, or the transformer or pad, to the standard trenching depth.
- See ES54 S0-04 as applicable for service boxes, ducts, cable pulling, and ornamental and other types of street lighting loads.
- The municipal customer or contractor shall not enter an existing service box or transformer without a BC Hydro representative being present.

3. Consulting Agreement

- Agreement shall be obtained from the BC Hydro district or area manager for any variation from this standard.
- The customer shall obtain approval from the local electricity safety officer for materials and methods used during installation, and for final inspection of the installation.

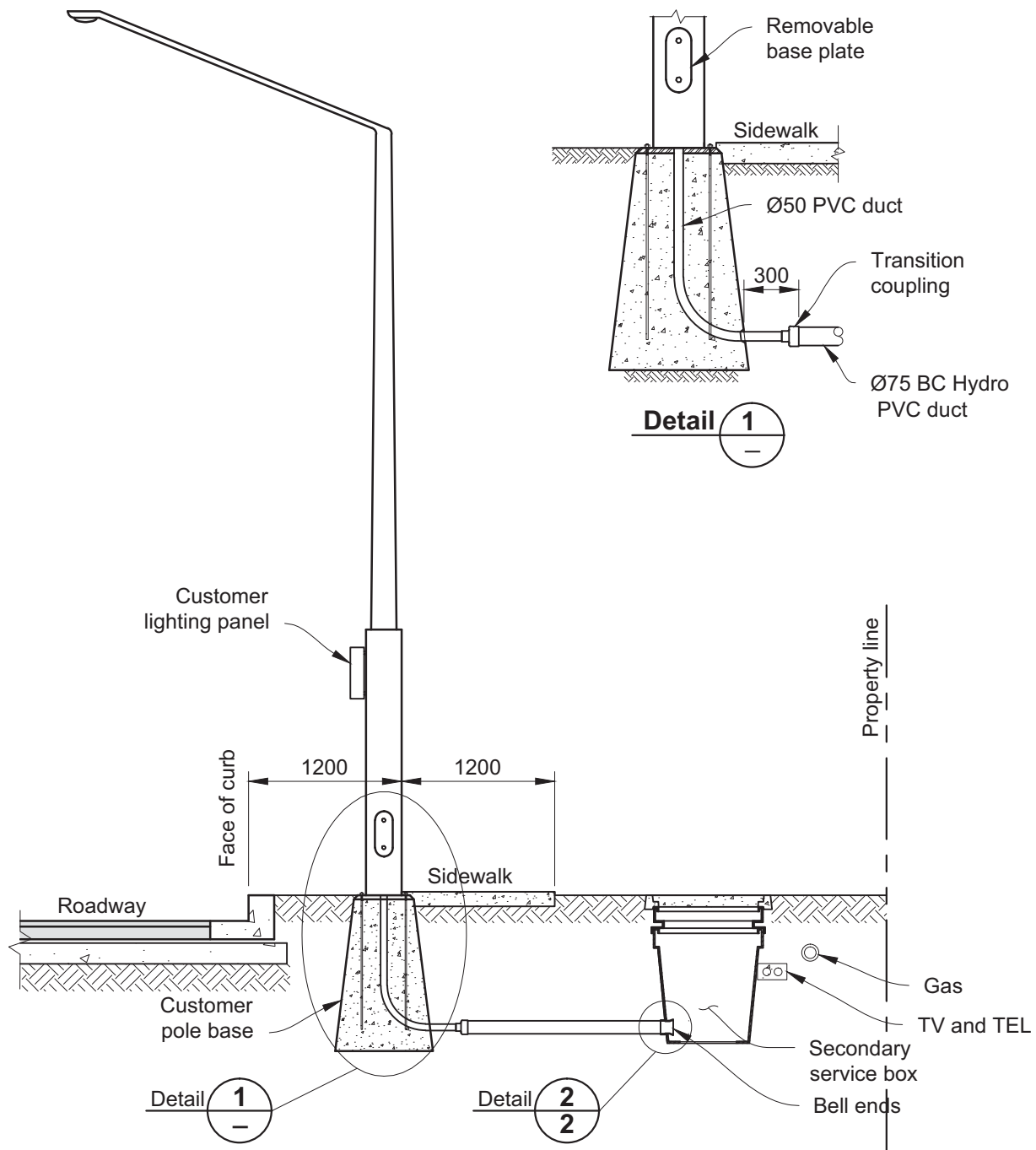
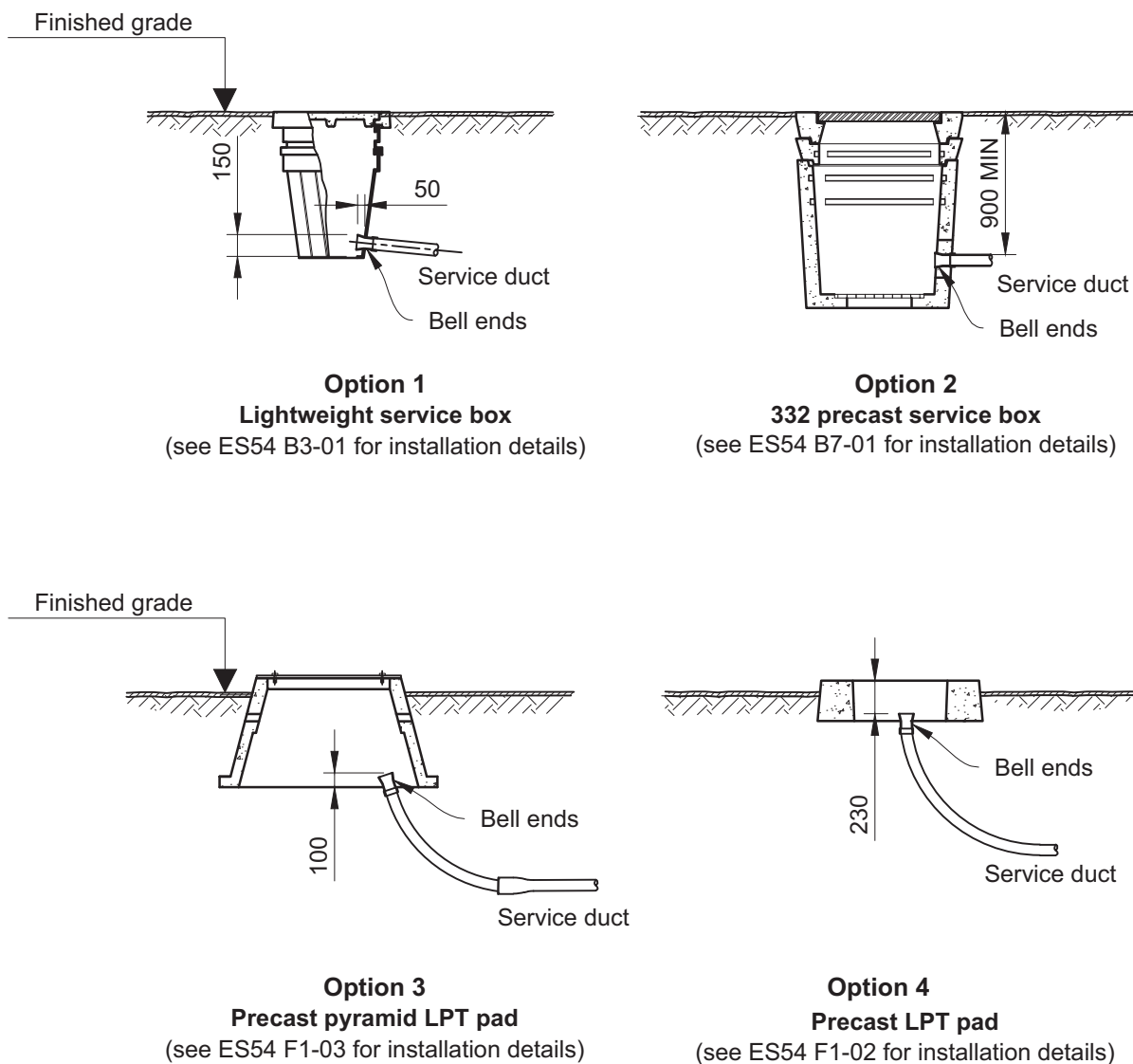


Figure 1 – Street lighting cross section



Detail 2
1

Figure 2 – Typical street lighting entrance details