

Streetlight Poles, Pedestrian, Aluminum, Square, Anchor Base Type



1. Scope

This standard covers the requirements for 4-inch square aluminum, pedestrian streetlight poles.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Mounting Height (ft)	Color	Base
013417	16	Dark bronze	Fixed
013418	20	Dark bronze	Fixed
013419	14	Light gray	Fixed
013420	14	Dark bronze	Hinged

2. Application

Square pedestrian streetlight poles are used to mount entablature-style luminaires using a one-piece extruded support arm.

Square pedestrian streetlight poles are installed onto a 4-bolt, 9-inch bolt-circle streetlight pole foundation, SCL Stock No. 568025.

Hinged-base poles, SCL Stock No. 013420, are intended for installation on stairways with steep inclines.



3. Industry Standards

Square pedestrian streetlight poles shall meet the applicable requirements of the latest revision of the following industry standards:

AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals

ASTM A 153; Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A 307; Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

ASTM B 117; Standard Practice for Operating Salt Spray Apparatus

ASTM D 2247; Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity

4. Requirements

4.1 General

Square pedestrian streetlight poles shall be designed and fabricated to conform to the requirements of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals.

Square pedestrian streetlight poles consist of an aluminum shaft welded to an aluminum alloy base with pressure-mounted nut cover discs.

4.2 Shaft

The aluminum shaft shall be made of high-strength, corrosion-resistant 6061 aluminum alloy.

16-ft Mounting Height, Stock Nos. 013417 and 013419

Cross section	Square
Mounting height, nominal	16 ft
Pole-top	4 ± 1/8 in square
Base	4 ± 1/8 in square
Wall thickness, minimum	0.125 in

20-ft Mounting Height, Stock No. 013418

Cross section	Square
Mounting height	20 ft
Pole-top diameter	4 ± 1/8 in
Base diameter	4 ± 1/8 in
Wall thickness, minimum	0.166 in

14-ft Mounting Height, Stock No. 013420

Cross section	Square
Mounting height, nominal	14 ft
Pole-top diameter	4 ± 1/8 in
Base diameter	4 ± 1/8 in
Wall thickness, nominal	0.125 in

4.3 Grounding

A tapped grounding pad equipped with a 1/4-20 x 1/2 or 3/8-16 x 1 stainless-steel screw shall be provided and located on the interior of the pole opposite the handhole or directly adjacent to the handhole.

4.4 Handhole

Table 4.4. Handhole Specifications

Size, minimum	2 in W x 4 in H
Finish/Color	Match pole finish/color
Location	
nominal	Centered 18 in above base
maximum	Centered 30 in above base

The handhole shall be reinforced so as to result in no loss of shaft strength.

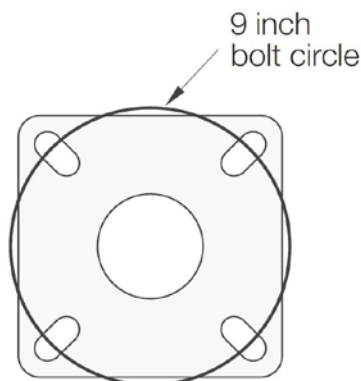
The handhole shall have a vandal-proof aluminum cover painted to match the pole color and attached with stainless-steel screws. The aluminum cover shall be weatherproof.

4.5 Anchor Base Plate

The anchor base plate shall be fixed, except for Stock No. 013420, which shall be hinged.

The anchor base plate shall be sized to accommodate four 3/4-in anchor bolts spaced 90 degrees apart on a 9-in bolt circle. Tamper-resistant aluminum nut cover discs shall be included.

Figure 4.5. Anchor Base Detail



4.6 Fixture Mounting

Square pedestrian streetlight poles shall be designed to support end-mounted luminaries using one-piece extruded aluminum arm with internal bolt guides.

4.7 Finish

The pole's outer surface shall be powder coated gray or dark bronze with a minimum thickness of 100 microns. Finish shall meet spray requirements of ASTM B 117 and the humidity resistance requirements of ASTM D 2247.

4.8 Pole Top Cap

Pole top cap shall be cast aluminum and supplied with stainless steel screws.

4.9 Anchor Bolts

None required.

5. Packaging

Square pedestrian streetlight poles shall be protected with a spiral wrapping of heavy waterproof material for protection during shipping and outside storage. A method shall be provided for easy removal of the wrapping.

Shipping containers shall be legibly marked with:

- Manufacturer name
- Manufacturer's catalog number
- Product description
- Quantity contained
- Seattle City Light stock number

6. Issuance

EA

7. Approved Manufacturers

7.1 16-ft Square, Dark Bronze Aluminum Streetlight Pole, Stock No. 013417

Manufacturer:	Valmont Industries, Inc.
Catalog Number:	S-1600-40-40-6-Y-4-DDB
<i>where:</i>	
S	= cross section, square
1600	= nominal mounting height, 16 ft
40	= top diameter, 4 in
40	= butt diameter, 4 in
6	= wall thickness, 0.188 in
Y	= shape of shaft, square straight
4	= base or mounting, 4-bolt anchor base
DDB	= finish, powder-coat dark bronze

7.2 20-ft Square, Dark Bronze Aluminum Streetlight Pole, Stock No. 013418

Manufacturer:	Valmont Industries, Inc.
Catalog Number:	S-2000-40-40-6-Y-4-DDB
<i>where:</i>	
S	= cross section, square
2000	= nominal mounting height, 20 ft
40	= top diameter, 4 in
40	= butt diameter, 4 in
6	= wall thickness, 0.188 in
Y	= shape of shaft, square straight
4	= base or mounting, 4-bolt anchor base
DDB	= finish, powder-coat dark bronze

7.3 14-ft Square, Light Gray Aluminum Streetlight Pole, Stock No. 013419

Manufacturer:	Valmont Industries, Inc.
Catalog Number:	S-1400-40-40-4-Y-4-DCG
<i>where:</i>	
S	= cross section, square
1400	= nominal mounting height, 14 ft
40	= top diameter, 4 in
40	= butt diameter, 4 in
4	= wall thickness, 0.125 in
Y	= shape of shaft, square straight
4	= base or mounting, 4-bolt anchor base
DCG	= finish, powder-coat light gray

7.4 14-ft Square, Dark Bronze Aluminum Streetlight Pole, Stock No. 013420

Manufacturer:	Valmont Industries, Inc.
Catalog Number:	S-1400-40-40-4-Y-H-DDB
<i>where:</i>	
S	= cross section, square
1400	= nominal mounting height, 14 ft
40	= top diameter, 4 in
40	= butt diameter, 4 in
4	= wall thickness, 0.125 in
Y	= shape of shaft, square straight
H	= base or mounting, hinged
DDB	= finish, powder-coat dark bronze

8. Sources

Borek, Tom; SCL engineer and subject matter expert for 5754.07
(tom.borek@seattle.gov)

Chao, Yaochiem; SCL engineer, originator, and subject matter expert for 5754.07
(yaochiem.chao@seattle.gov)

DR4107; Valmont, dated 02/06/12

Li, Jesse; SCL engineer and subject matter expert for 5754.07 (jesse.li@seattle.gov)

SPC7077; Valmont 8' to 18' Square Non-Tapered Aluminum Pole, 4-bolt Anchor Base,
dated 12/11

SPC7085; Valmont 8' to 20' Square Straight Hinged Base Poles, dated 08/07

www.valmont.com