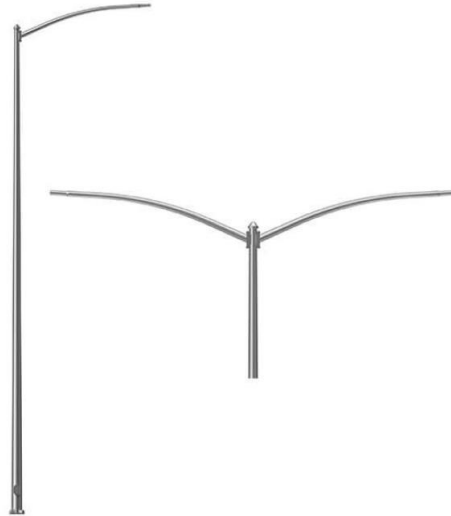


## Steel Streetlight Poles and Arm Assemblies, Waterfront



### 1. Scope

This standard covers the requirements for steel streetlight poles and arm assemblies for the Waterfront Seattle Main Corridor Project.

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

<b>Stock No.</b>	<b>Description</b>
014510	Steel streetlight pole, gray, 15-ft mounting height (cycle track)
014511	Steel streetlight pole, gray, 33-ft mounting height (roadway)
014512	Steel streetlight pole, gray, tandem mount, 33 ft and 15 ft mounting heights
014513	Bracket arm assembly, 4 ft, cycle track pole
014514	Bracket arm assembly, 4 ft, roadway pole
014515	Bracket arm assembly, 6 ft, roadway pole
014516	Bracket arm assembly, 10 ft, roadway pole

### 2. Application

Steel streetlight poles and arm assemblies described in this standard are to be used exclusively by the Waterfront Seattle Project as defined by public works contract PW#2018-085.

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Waterfront streetlight poles and arm assemblies shall be used with appropriate luminaires, and installed on appropriate streetlight foundations, as shown in Table 2.

**Table 2. Corresponding Luminaires and Foundations for Waterfront Steel Streetlight Poles**

Steel Pole Stock No.	Corresponding Luminaire	Foundation
014510	Cycle track luminaire, Stock No. 014506	Precast concrete, 4-bolt, 9-inch bolt circle diameter, Stock No. 568025
014511	Roadway luminaire, Stock No. 014508	Precast concrete, 4-bolt, 11-1/2-inch bolt circle diameter, SCL Stock No. 568028
014512	Roadway and cycle track luminaires	Precast concrete, 4-bolt, 11-1/2-inch bolt circle diameter, Stock No. 568028

### 3. Industry Standards

Steel streetlight pole and arm assemblies shall meet the applicable requirements of the latest revision of the following industry standards:

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

**ASTM A 123**, Standard Specification for Zinc (Hot-Dip Galvanized) on Iron and Steel Products

**ASTM F 2329**, Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners

**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

Steel streetlight pole and arm assemblies shall consist of a tapered, galvanized steel shaft welded to a steel base and complete with pressure-mounted nut cover discs.

#### 4.2 Bracket Arm

Each bracket arm shall be high-strength steel A595 Grade A 55 KSI minimum yield strength, tapered construction.

Bracket arm requirements shall be as shown in Table 4.2.

**Table 4.2. Bracket Arm Requirements**

Stock No.	Span (ft)	Rise	Arm Weight (lb)	Base O.D. (in)	Tenon O.D. (in)
014513	4	Flat	26	2.99	1.63
014514	4	"	26	2.99	2.38
014515	6	"	35	3.29	2.38
014516	10	"	53	3.87	2.38

### 4.3 Poles and Baseplates

Poles shall be fabricated to conform to the requirements of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

The steel pole shaft shall be made of high-strength steel A595 Grade A 55 KSI minimum yield strength.

The shaft shall be tapered.

Baseplate shall be constructed from A36 36 KSI minimum yield strength steel.

The pole cross section shall be round.

Pole shaft and baseplate dimensions shall be as shown in Table 4.3

**Table 4.3. Pole Shaft and Baseplate Dimensions**

Stock No.	Length, Nominal	Base Diameter (in)	Bolt Circle	Weight, nominal (lb)
014510	15 ft-6 in	5.9	9 in, (4) 1-in anchor bolts	168
014511	33 ft-6 in	8.6	11 ft-6 in, (4) 1-in anchor bolts	334
014512	33 ft-6 in	8.6	11 ft-6 in, (4) 1-in anchor bolts	334

### 4.4 Grounding

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

### 4.5 Handhole

The handhole shall be reinforced so as to result in no loss of shaft strength. The handhole shall be attached with stainless steel screws. The cover shall be weatherproof.

**Table 4.5. Handhole Specifications**

Size, minimum	5-in x 7-1/2-in
Finish	Match pole finish/color
Location	Centered 18-in above base plate

### 4.6 Pole Top Cap

A removable flat pole top cap held in place with a mounting clip and a 1/4-inch stainless steel hex head screw shall be used.

### 4.7 Bolt Cover

Each pole shall be provided with a cast aluminum bolt cover in the round cross section with a flat top with an opening made to coordinate with pole shaft diameter. Bolt cover shall be painted to match the pole.

### 4.8 Finish

The outer surface of the pole and arm assembly shall be powder coated RAL 7024 gray 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.

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## 5. Packaging

Steel streetlight pole and arm assemblies shall be protected with a spiral wrapping of heavy waterproof material for protection during shipping and installation. When necessary, a rip cord shall be provided for easy removal of wrapping.

Shipping containers shall be legibly marked with:

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

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## 6. Issuance

EA

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## 7. Approved Manufacturers

### 7.1 Steel Streetlight Pole, 15 ft Mounting Height, Waterfront, Stock No. 014510

<b>Manufacturer:</b>	<b>Valmont</b>
Catalog Number:	<b>SWF-DS32-15'MH-XX'PED-FPGV-LAB</b>

where:

SWF = Seattle Waterfront Project

DS32 = pole model

15'MH = mounting height, 15 ft

XX'PED = length, bracket arm assembly

FPGV = finish, graphite gray (RAL 7024)

LAB = less anchor bolts

### 7.2 Steel Streetlight Pole, 33 ft Mounting Height, Waterfront, Stock No. 014511

<b>Manufacturer:</b>	<b>Valmont</b>
Catalog Number:	<b>SWF-DS32-33'MH-XX'PED-FPGV-LAB</b>

where:

SWF = Seattle Waterfront Project

DS32 = pole model

33'MH = mounting height, 33 ft

XX'PED = length, bracket arm assembly

FPGV = finish, graphite gray (RAL 7024)

LAB = less anchor bolts

### 7.3 Steel Streetlight Pole, Tandem Mount, 33 ft and 15 ft Mounting Height, Waterfront, Stock No. 014512

<b>Manufacturer:</b>	<b>Valmont</b>
Catalog Number:	<b>SWF-DS32-33'MH-XX'SL / XX'PED-FPGV-LAB</b>

where:

SWF = Seattle Waterfront Project

DS32 = pole model

33'MH = mounting height, 33 ft

XX'SL / XX'PED = length, bracket arm assemblies

FPGV = finish, graphite gray (RAL 7024)

LAB = less anchor bolts

### 7.4 Bracket Arm Assembly, 4 ft, Cycle Track, Waterfront, Stock No. 014513

<b>Manufacturer:</b>	<b>Valmont</b>
Catalog Number:	<b>4'PED-FPGV</b>

**7.5 Bracket Arm Assembly, 4 ft, Roadway, Waterfront, Stock No. 014514**

**Manufacturer:** Valmont  
**Catalog Number:** 4'SL-FPGV

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**7.6 Bracket Arm Assembly, 6 ft, Roadway, Waterfront, Stock No. 014515**

**Manufacturer:** Valmont  
**Catalog Number:** 6'SL-FPGV

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**7.7 Bracket Arm Assembly, 10 ft, Roadway, Waterfront, Stock No. 014516**

**Manufacturer:** Valmont  
**Catalog Number:** SWF-10'SL-FPGV

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**8. Sources**

**City of Seattle, Steel Street Light Pole with Bracket Arm**, Standard Plan No. 572,  
Rev Date: Aug 2014

**Valmont; Drawing No. WA383008P1** – Seattle Waterfront Lighting; SCL Lighting  
Structures, October 24, 2018

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