

Aluminum Streetlight Pole Assemblies, Pedestrian, Westlake



1. Scope

This standard covers the requirements for Westlake pedestrian, aluminum, streetlight pole assemblies, as well as accessories.

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

Stock No.	Description
573700	Westlake pole assembly
573703	Westlake bracket arm
573705	Westlake Saucer

18-inch, LED globe luminaires are outside the scope of this standard and must be ordered separately.

2. Application

The pole assemblies specified in this standard are used primarily in the following downtown corridors: 3rd Ave Transit Corridor, Westlake Park, and Pike and Pine Street Corridor.

Pole assemblies are installed onto 4-bolt, 9-inch bolt-circle streetlight pole foundations, SCL Stock No. 568025. See SCL 5778.20.

A complete streetlight assembly requires one Westlake pole assembly, (Stock No. 573700), two brackets (Stock No. 573703), two saucers (Stock No. 573705), and two 18-inch, LED globe luminaires, Stock No. 014466. See SCL 5724.15.

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3. Industry Standards

Pole 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 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

ASTM B26; Standard Specification for Aluminum Alloy Sand Castings

4. Requirements

4.1 Pole Assemblies

Pole assemblies consist of a finial, a bracket arm frame, and a cast-aluminum decorative base assembly. The supplier shall assemble the pieces as shown in Figure 4.1.

Pole assemblies shall be factory powder-coated “Sherwin Williams DGS-4003, Railroad Green” and AAMA 2604 compliant.

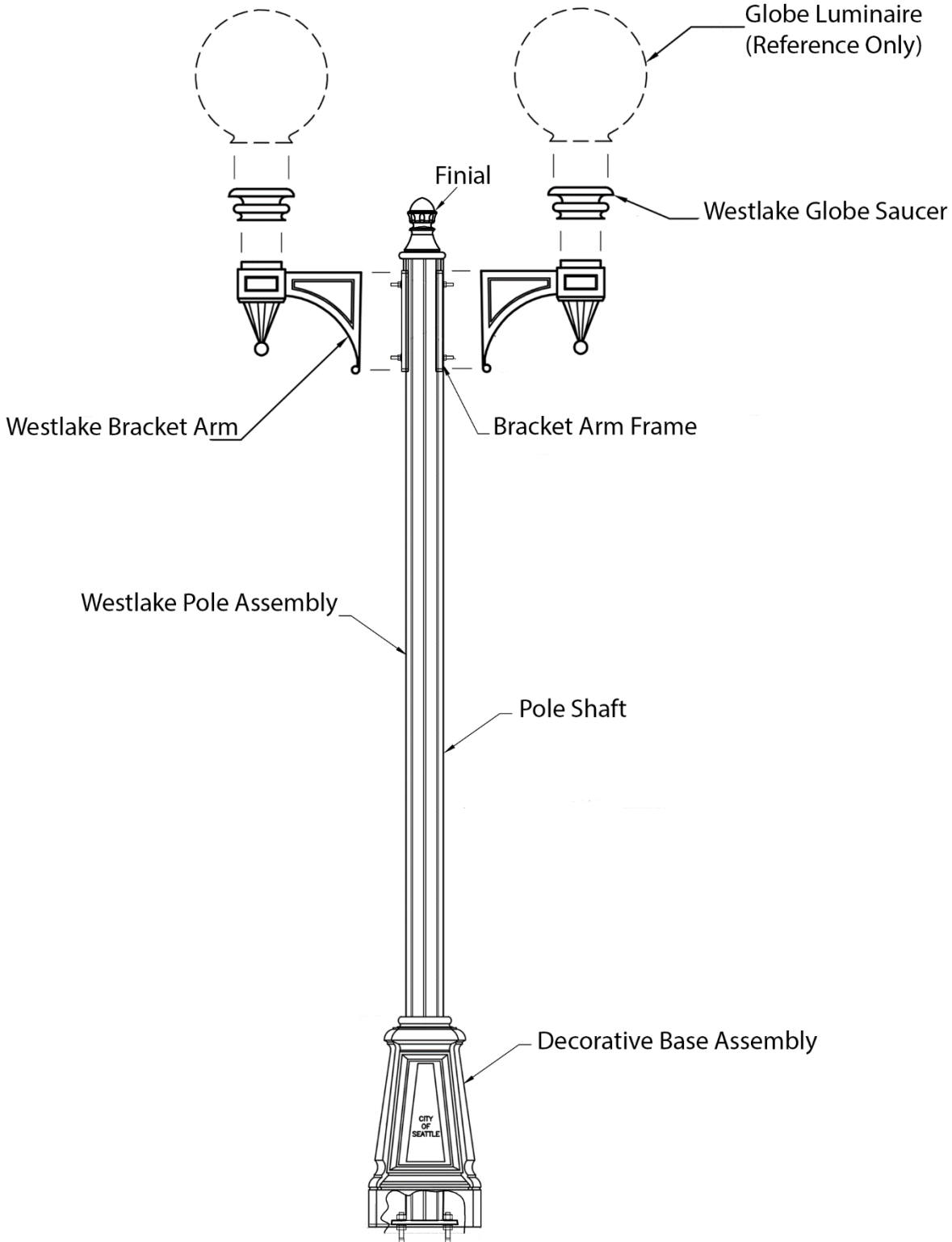
Pole assemblies shall be designed and fabricated to conform to the requirements of AASHTO standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

Pole assemblies shall conform to the details shown in Visco drawing, “City of Seattle Westlake Base (SCL STOCK #573700)”, dated 02/01/2021.

Decorative bases shall conform to the details shown in Visco drawing, “Seattle City Light 5TH AVENUE BASE (SCL STOCK #573700) WESTLAKE BASE (SCL STOCK #573700)”, dated 01/27/2020.

Visco shall inform SCL in writing of all updates to their drawings “City of Seattle Westlake Base (SCL STOCK #573700)” and “Seattle City Light 5TH AVENUE BASE (SCL STOCK #573700) WESTLAKE BASE (SCL STOCK #573700)”.

Figure 4.1. Westlake Pole Assembly

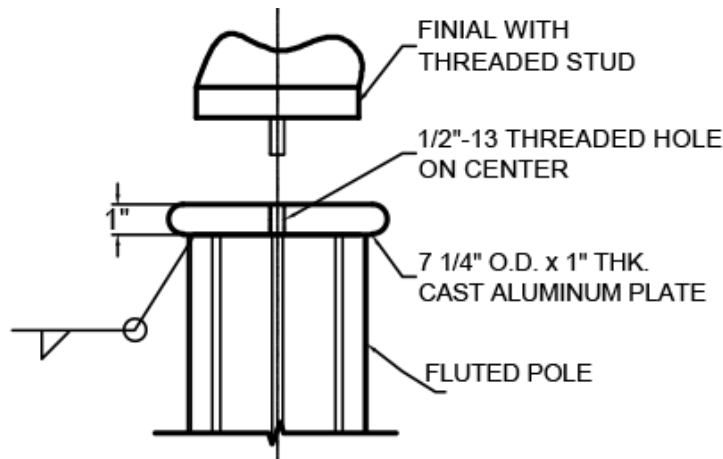


4.2 Finial

Finial assembly shall be as shown in Figure 4.2.

Finial shall be cast aluminum and feature a decorative acorn shape. Top plate shall be cast aluminum alloy grade A356 with dimensions as noted in figure.

Figure 4.2. Finial Details



4.3 Pole Shaft

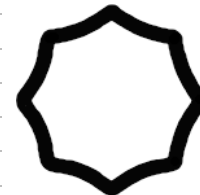
4.3.1.1. General

The pole shaft includes the shaft, a grounding pad, handhole, and an anchor base plate.

The shaft shall be made of high-strength, corrosion-resistant 6063-T4 aluminum alloy. Design and dimensions shall be as shown in Figure 4.3.1.1.

Figure 4.3.1.1. Pole Shaft Design and Dimensions

Cross section	Fluted, 8 curved sections
Mounting height	12'-3"
Pole-top diameter, outside	5-7/8" ± 1/16"
Base diameter, outside	5-7/8" ± 1/16"
Wall thickness	3/16"
Pole length, nominal	12'-2"
Taper	None
Weight, nominal	75 lb



4.3.1.2. Grounding Pad

A tapped grounding pad equipped with either 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.

4.3.1.3. Handhole

Size, minimum	3" W x 5" H
Finish/color	Match pole finish/color
Location	Centered 17" above base

Handholes shall be reinforced to result in no loss of shaft strength.

Handhole covers shall be painted to match the pole color and attached with 1/4"-20 x 3/4" flat Allen-head stainless steel screws.

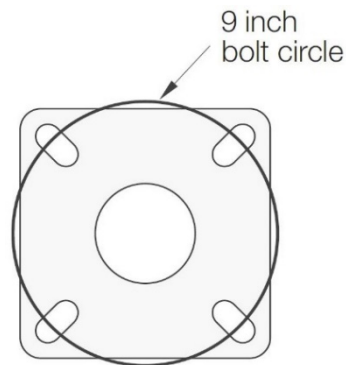
Handhole covers shall be weatherproof.

4.3.1.4. Anchor Base Plate

Anchor base plates shall be:

- 1-inch thick
- Made of aluminum alloy
- Welded to the pole shaft; fixed, not hinged
- Sized to accommodate four, 3/4-inch anchor bolts spaced 90 degrees apart on a 9-inch bolt circle

Figure 4.3.1.4. Anchor Base Plate Detail



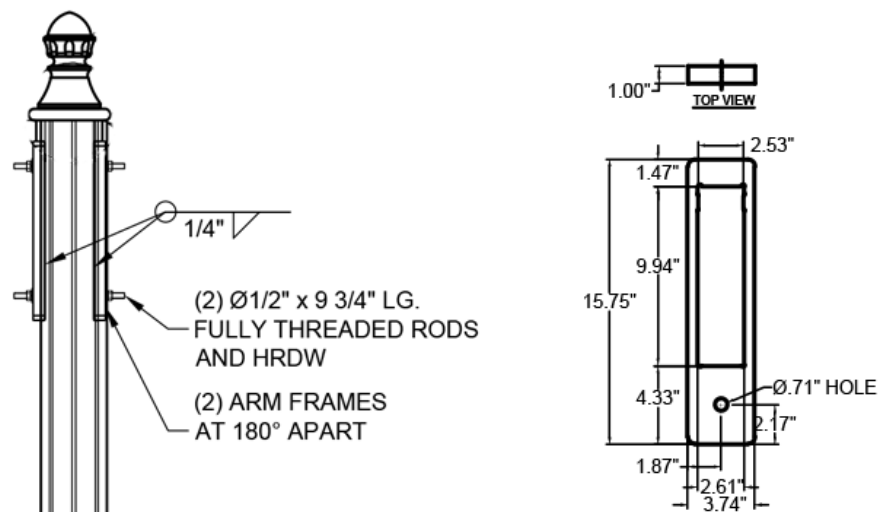
4.4 Bracket Arm Frames

Bracket arm frames shall be made of 1-inch thick 6061-T6 aluminum alloy.

Bracket arm frames shall have physical dimensions as shown in Figure 4.4.

Bracket arm frames shall be fastened to the pole shaft as shown in Figure 4.4.

Figure 4.4. Bracket Arm Frame Details



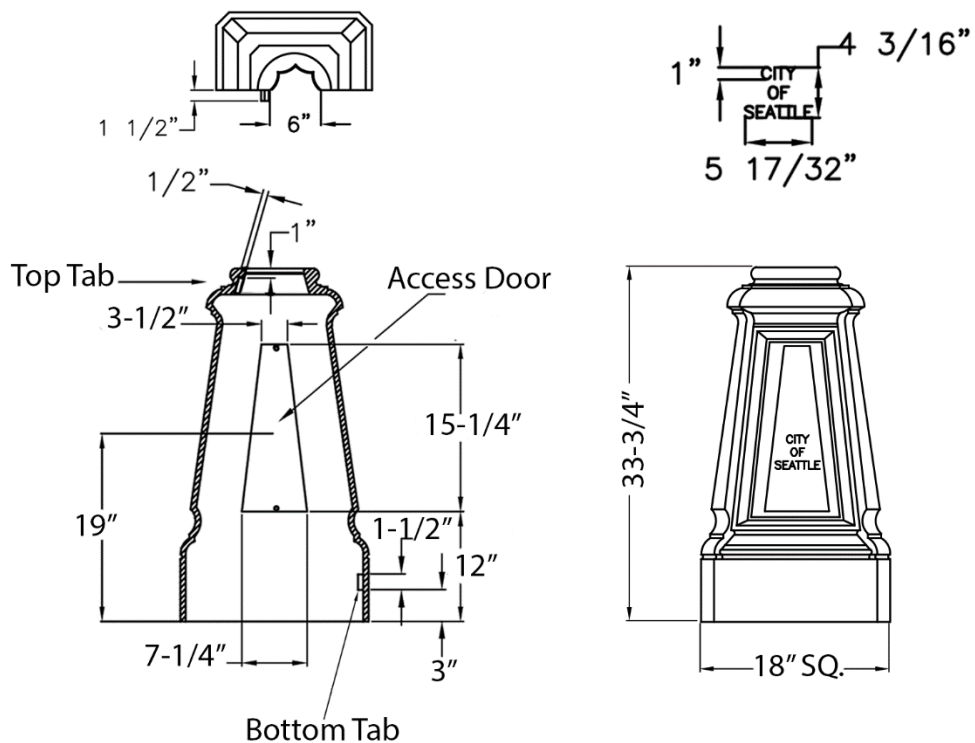
4.5 Decorative Base Assembly

Decorative base assemblies are composed of two casting halves and one access door.

Decorative base assemblies shall have the following attributes:

- Cast aluminum alloy grade A356
- Designed and have physical dimension as shown in Figure 4.6
- Base assembly casting halves and access door shall be assembled by the supplier and secured with 1/4"-20 x 3/4" Allen head stainless steel cap screws
- Nominal weight: 100 lb
- Access door shall be:
 - Centered approximately 19" from bottom of base assembly
 - Trapezoidal shaped with height of 15-1/4"
 - Labeled according to Figure 4.6

Figure 4.5. Decorative Base Assembly



4.6 Bracket Arm

Bracket arms shall conform to Figure 4.6a–4.6d.

Bracket arms shall be of 356-T6 cast aluminum.

Figure 4.6a. Bracket Arm Detail, Dimensions, Nominal (Front View)

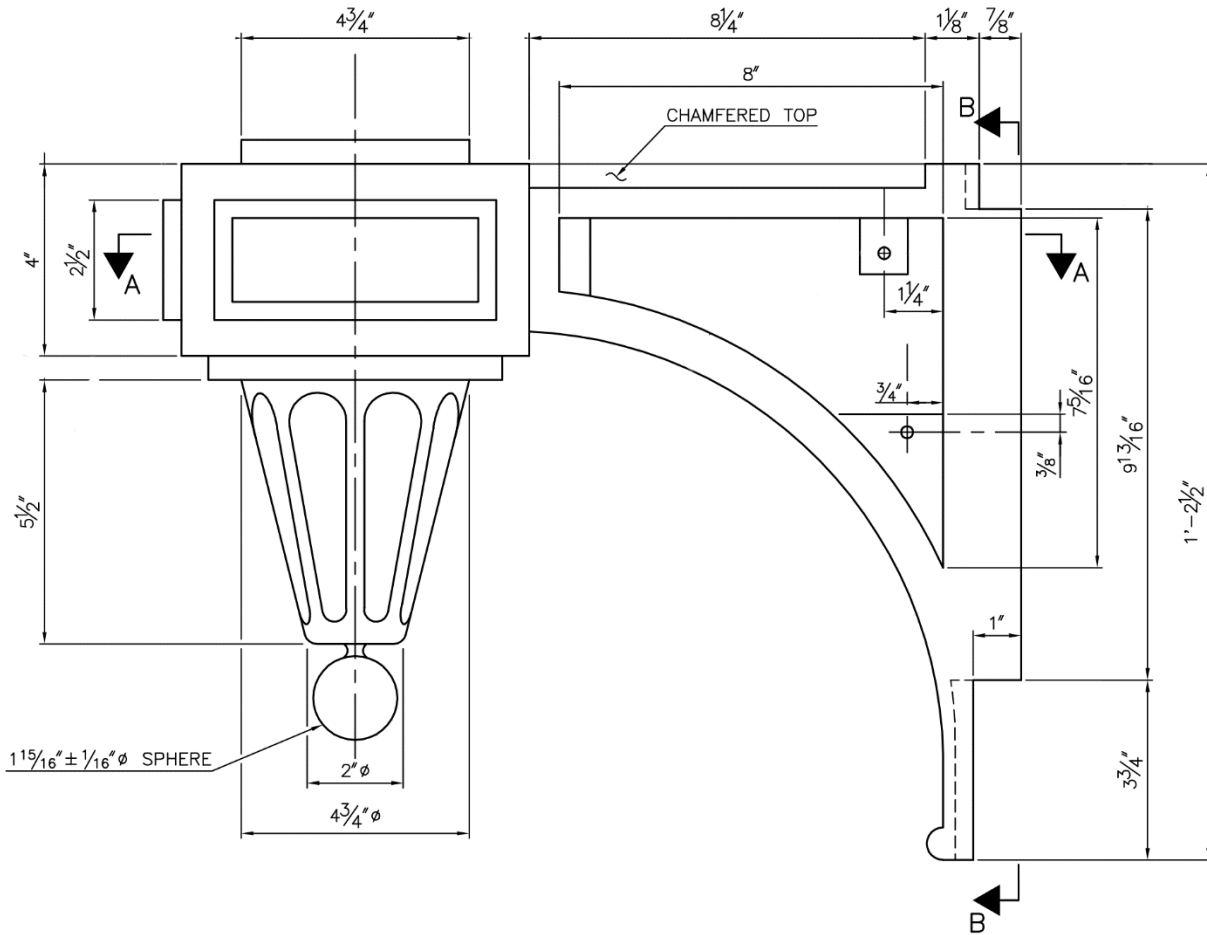


Figure 4.6b. Bracket Arm Detail, Dimensions, Nominal (Top View)

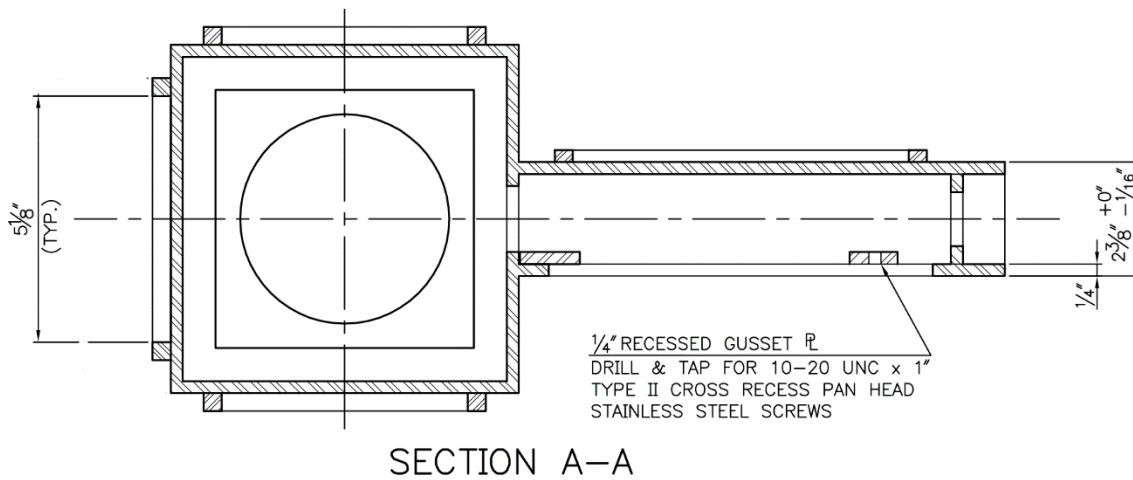


Figure 4.6c. Bracket Arm Openings, Dimensions, Nominal

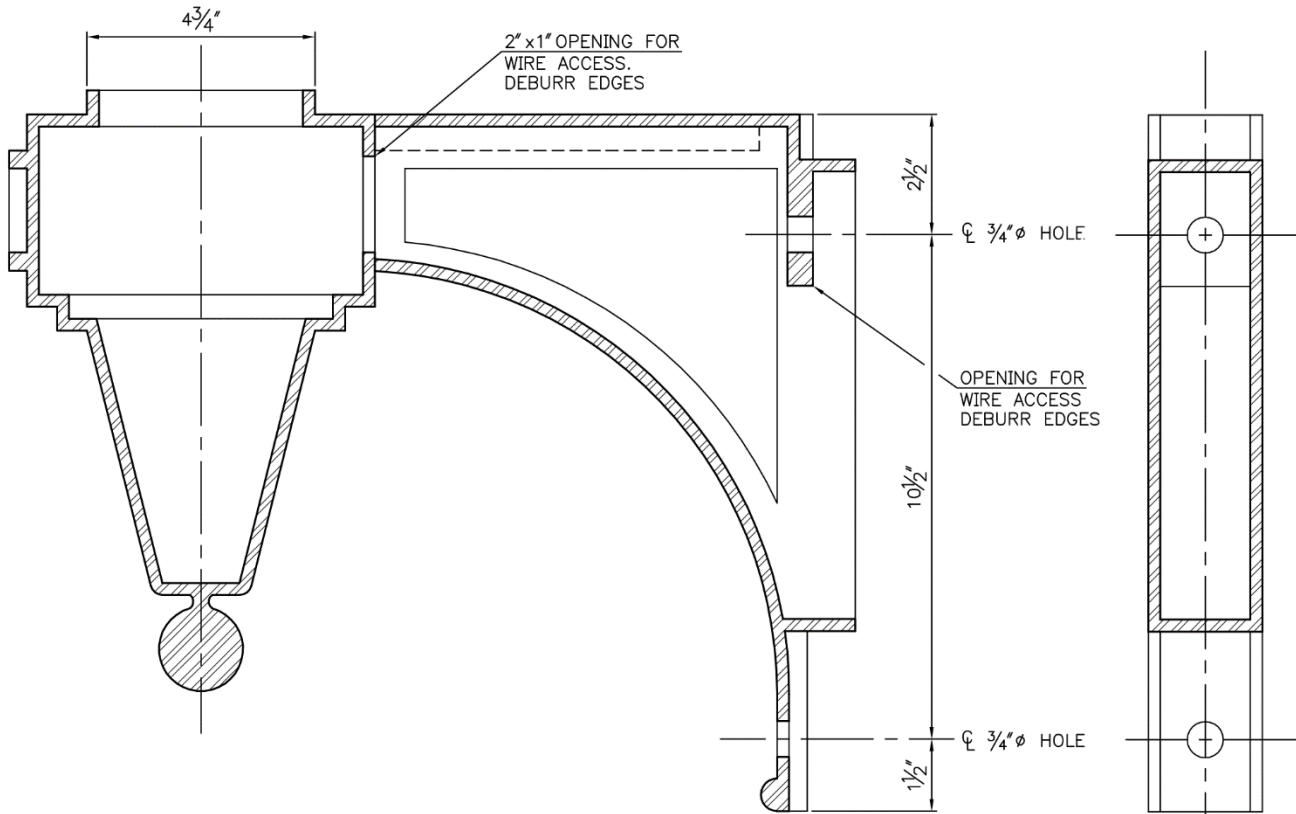
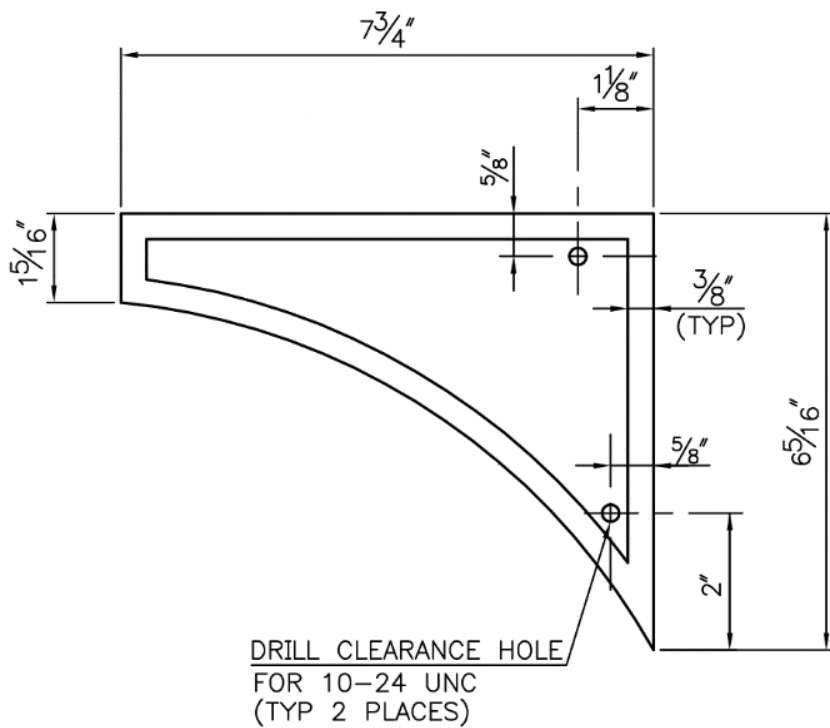


Figure 4.6d. Bracket Arm Access, Dimensions, Nominal

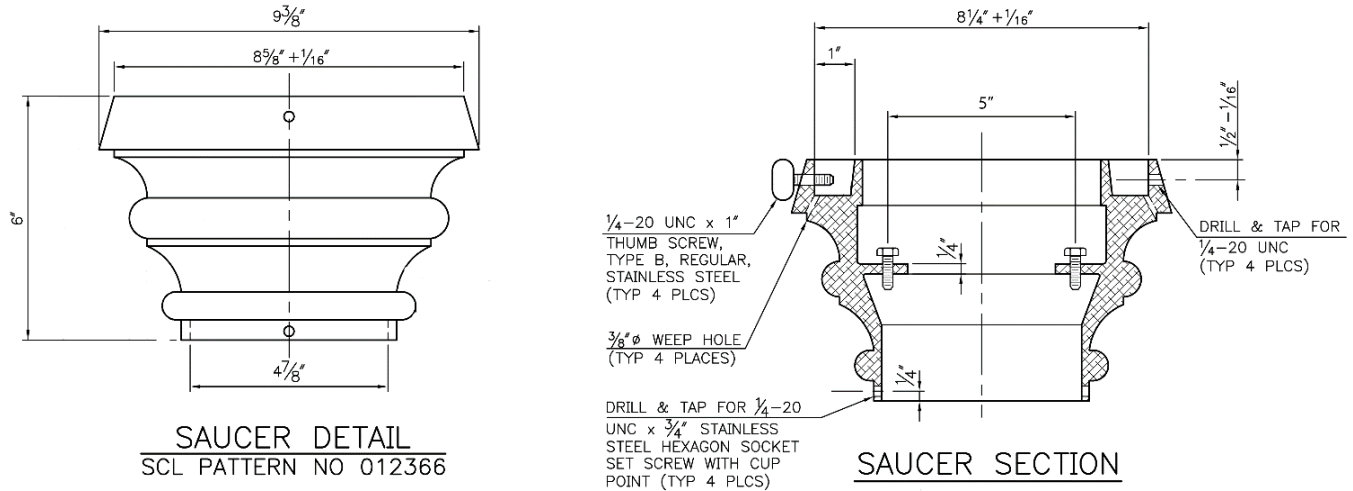


4.7 Saucer

Saucers shall conform to Figure 4.7.

Saucers shall be made of 356-T6 cast aluminum.

Figure 4.7. Saucer Details, Dimensions, Nominal



5. Packaging

Pole assemblies, brackets and saucers shall be protected during shipping, outdoor storage, and installation.

Each pole assembly or shipping containers shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- SCL stock number
- Quantity
- SCL purchase order number

6. Issuance

Stock unit: EA

7. Approved Manufacturers

Stock No.	Description	Visco	Travis Pattern & Foundry
573700	Westlake Pole Assembly	VI-X-SEA2-OF/12'2"-SA-AB-RRG	-
573703	Westlake Bracket Arm	-	573703 Westlake Bracket Arm
573705	Westlake Saucer	-	573705 Westlake Saucer

8. References

AAMA 2604, Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coating on Aluminum Extrusions and Panels, 2005 (2020 latest revision)

City of Seattle, City Light Department, "Westlake Saucer Details," November 10, 2004

City of Seattle, City Light Department, "Westlake 2-Globe Light Bracket Arm, Revision O," November 10, 2004

SCL Material Standard 5724.15, "Globe Fixtures"

SCL Material Standard 5778.20, "Footings, Precast Concrete for Residential Streetlight Poles"

Visco drawing, "City of Seattle Westlake Base (SCL Stock #573700)," February 1, 2021

Visco drawing, "Seattle City Light 5TH AVENUE BASE (SCL STOCK #573700) WESTLAKE BASE (SCL STOCK #573700)," January 27, 2020

9. Sources

Borek, Tom, SCL Streetlight Engineer and subject matter expert for 5721.30

SCL Stock Catalog page 57-11, August 19, 2014

Travis Pattern & Foundry, 573705 Westlake Saucer, March 04, 2014

www.visco-light.com

Wang, Quan; SCL Standards Engineer, originator, and subject matter expert for 5721.30