

SECTION 02752
PEDESTAL POLES

02752.01 GENERAL

A. Description

Pedestal poles shall include, but not necessarily be limited to, furnishing and installing steel pedestal poles and transformer bases as shown on the Plans and in accordance with the Contract Documents or as directed by the Engineer.

B. Related Work Included Elsewhere

1. Electrical conduit and fittings; Section 02731.
2. Concrete foundations; Section 02734.

C. Quality Assurance

The Engineer will inspect all materials and work to ensure compliance with the Contract Documents.

D. Submittals

1. Shop Drawings

Shop drawings shall be submitted as specified in the "General Provisions" for all pedestal poles. The shop drawings shall show the overall dimensions of the poles including transformer bases, details of construction, and bolt circle data.

2. Certificates of Compliance

Certificates of compliance shall be submitted in accordance with the "General Provisions" stating that the material requirements specified in Section 02752.02 have been met and that the fabricator's workmanship has been inspected.

3. Guarantee

The manufacturer shall furnish the Engineer with all warranties on equipment and material offered by the manufacturer as normal trade practice.

02752.02 MATERIALS

A. Materials Furnished by the County

The County will not furnish any materials for pedestal poles.

B. Contractor's Options

Not applicable.

C. Detailed Material Requirements

1. Pole Shaft

Pole shaft shall be cast aluminum alloy meeting the requirements of ASTM B26, Alloy ANSI 356.T6.

2. Anchor Bolts, Locking and Leveling Nuts

Anchor bolts, locking and leveling nuts shall meet the requirements of Section 02734.02.

3. Screws, Nuts, Bolts, and Washers

Screws, nuts, bolts, and washers shall be stainless steel Type 304.

4. Pedestal Base

Pedestal base shall be cast aluminum alloy meeting the requirements of ASTM B 26, Alloy ANSI 356.T6, and the FHWA and AASHTO Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. requirements.

5. Conduit Elbows

Conduit elbows shall meet the requirements of Section 02731.02 and Section 02734.02.

02752.03 EXECUTION

A. Design

Pedestal poles shall be designed to meet the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals.

B. Fabrication

1. Poles

Each pole shall consist of a steel shaft with a steel anchor base, 4 anchor bolts, and a precast cap. The shaft shall be of one piece construction with no transverse welds and a continuous taper of 0.14 inches per foot in diameter (O.D.) for tapered shaft. It shall not have more than one longitudinal continuous welded seam.

2. Monotube Poles

The shaft shall be fabricated of one length and shall have one longitudinal weld with no transverse welds in the fabrication of the shaft. The longitudinal weld shall be finished to form a smooth outside surface and the wall of the shaft shall be uniform in thickness throughout including the welded area. The shaft shall be round or multisided (less than 8 sides not acceptable) in cross section. For tapered shaft design, the shaft shall be uniformly tapered from butt to tip approximately 1 inch diameter for each 7 feet in length (0.14 inches per foot).

3. Anchor Bolts

Each pole shall be supplied with 4 anchor bolts. The anchor bolts shall be 1 inch diameter 40 inches in length with 6 inches of thread on the top and a 4 inch ell bend at lower end.

4. Pedestal Base

All poles shall be furnished with a pedestal base with supporting ears in the bottom of the base for anchor bolts.

The top of the pedestal base shall be designed to receive a pole base plate with 4 bolts of the size noted.

An inspection door shall be provided in the base that shall be fastened to the pedestal base with a single stainless steel bolt of proper size. The size of opening shall be approximately 11 inches by 9 inches to permit work to be performed inside the base. This opening shall not be less than 100 square inches.

The top of the shaft shall be designed to receive a 4 1/2 inch O.D. slipfitter. The total height of the shaft and the pedestal shall be as noted in the Contract Documents.

C. Foundation

Concrete footings or foundations shall be constructed to the dimensions shown on the Plans and meet the requirements of Section 02734.03.

D. Installation

Pole installation shall be as specified in Section 02750.03.

02752.04 METHOD OF MEASUREMENT

Measurement of pedestal poles and transformer bases will be made of the number of each type and size specified and satisfactorily installed.

02752.05 BASIS OF PAYMENT

Payment for pedestal poles and transformer bases will be made at the price bid each for the number of each type and size furnished and installed complete in place. The price bid shall include furnishing and installing all incidentals necessary to complete this item of work as shown and specified in strict accordance with the Contract Documents.

END OF SECTION