

ITEM 683

TRAFFIC SIGNAL SUPPORTS
PEDESTAL POLES

683.1 Description. This Item shall govern for the complete signal support which includes a steel shaft extended through the base, foundation, ground rod, pole cap, and bell bottom and all other wire outlet, conduit, access door, etc., as herein specified and/or shown on the drawings.

Pedestal poles shall be the "Pedestal pole shaft extending through bases" as indicated on the drawings or mentioned in the specifications.

All pedestal pole assemblies as supplied must conform to the detailed drawings and/or requirements in the drawings as to height, general design and finish.

The pole assembly shall be designed to support a 150 pound axial load with 11 square feet of signal head area rigidly mounted at the top of the shaft.

In addition to dead load, each assembly shall be designed to withstand wind and ice loads on the specified pedestrian signal head and sign area and on all surfaces of the support in accordance with the American Association of State Highway and Transportation Official's "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" and other specifications of this body as may be pertinent. Unless otherwise shown on the drawings, 100 mph wind speeds shall be used for design.

Allowable unit stresses in each component of the assembly shall be as provided in the AASHTO Specification.

Pole assemblies required to be hot-dip galvanized shall be in accordance with ASTM A123 to provide proper filling, venting and draining during the cleaning and galvanizing operations.

All parts of the same type shall be interchangeable.

683.2 Parts.

Shaft. The shaft shall be fabricated from one piece of new 4" standard black pipe with a minimum wall thickness of 0.237 inches and shall not weigh less than 10.79 pounds per foot.

The height of the shaft shall be as indicated on the drawings. All shafts shall have a cap and a bell bottom base, and the shaft shall be extended through the bases, set in an excavated hole as shown on the drawings.

A 2-1/2" x 1/4" steel strap shall be welded in accordance with the American Welding Society (Latest Edition) on the bottom pipe-end to provide extra support of the pole when set. The steel strap shall not extend beyond the outside diameter of the pipe and shall have a continuous weld to the pipe on the contacted surfaces.

683.3 Foundation. All concrete used shall be Class "B₂" concrete. Concrete foundation for pedestal poles shall, as a minimum, include:

- A. 4'-6" deep by 24" diameter foundation, with 24" x 36" concrete head for the extended type shaft as shown on the drawings.
- B. Ground Rod. Shall be a minimum 5/8" x 8'-0" long copperweld rod.
- C. Hot-Dipped Galvanizing. After completion of all fabrication work the pole shall be hot-dip galvanized in accordance with ASTM A123.

683.4 Measurement and Payment. The basis of payment for Traffic Signal Supports Pedestal Poles shall be each by specified size as they appear on the bid sheets. Payment shall be full compensation for furnishing and/or installing of material and all other labor, tools, equipment and incidentals necessary to complete the work.

There are line code(s), description(s), and unit(s) for this Item.

END OF ITEM 683