

Special Specification 8045

Decorative Traffic Signal Pole



1. DESCRIPTION

Furnish, fabricate, and install decorative traffic signal pole as shown on the plans. A decorative traffic signal pole is the complete assemblage of poles, parts, fixtures, equipment, and miscellaneous components erected as shown on the plans and in accordance with this Special Specification, forming a complete and independent lighting and signal pole unit.

2. MATERIALS

Use new materials as shown on the plans and in accordance with the following:

- Item 416, "Drilled Shaft Foundations"
- Item 421, "Hydraulic Cement Concrete"
- Item 441, "Steel Structures"
- Item 442, "Metal for Structures"
- Item 449, "Anchor Bolts"
- Item 618, "Conduit"
- Item 620, "Electrical Conductors."

- 2.1. **Submittals.** Furnish two sets of submittals of the decorative traffic signal pole to the Engineer. Provide load calculations sealed by a licensed professional engineer in the State of Texas for the pole shaft and mast arm. Do not begin work or purchase materials before these submittals are approved.
- 2.2. **Pole Shaft.** Provide a cast aluminum 12-fluted tapered-mandrel formed shaft with nominal height of 22 ft. Pole shaft must support the mast arm and all equipment for typical wind load expected at location of installation. Provide a nominal mounting height of 18 ft. for the mast arm. The finish must be bronze textured powder coat paint with thermosetting resins to provide discoloration-resistant finish in accordance with ASTM D 2244, luster retention in accordance with ASTM D 523, humidity-proof in accordance with ASTM D 2247, and at least 2,000 hr. for salt-spray resistant finish in accordance with ASTM B 117.
- 2.3. **Ornamental Base Assembly.** The base must be cast aluminum. Provide a base 40 in. high and 36 in. in diameter at the bottom. All connecting hardware must be stainless steel. Base assembly must match the finish and color of the traffic signal pole.
- 2.4. **Mast Arm.** Provide a mast arm to match the material, finish, and color of the traffic signal pole. Length of mast arm must be as shown on the plans. Match the style as shown on the plans.

3. CONSTRUCTION

Perform work as shown on the plans, in conformance with manufacturer's requirements, and in accordance with this Specification.

Use established industry and utility safety practices when installing poles located near overhead or underground utilities. Consult with the appropriate utility company before beginning work.

Prevent scarring or marring of poles and arms. Replace damaged components. Repair damaged painted areas of decorative signal pole in conformance with manufacturer's recommendations.

Stake, install, and align each signal pole assembly as shown on the plans. The Department may shift pole assembly's location, if necessary, to secure a more desirable location or to avoid conflict with utilities.

Construct foundations for signal pole assemblies in accordance with Item 416 and as shown on the plans.

Furnish and install components of decorative traffic signal pole as shown on the plans. Install anchor bolts and coat anchor bolt threads in accordance with Item 449. Erect structures after foundation concrete has attained its design strength as shown on the plans and in accordance with Item 421. Tighten anchor bolts in accordance with Item 449. Do not place grout between base plate and foundation.

4. MEASUREMENT

This Item will be measured as each decorative traffic signal pole installed.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Decorative Traffic Signal Pole" of the types specified.

This price is full compensation for furnishing and installing, poles, anchor bolts, internal conductors, connections, equipment, labor, tools, and incidentals.

New drilled shaft foundations will be paid for under Item 416. New conduit will be paid for under Item 618. New conductors will be paid for under Item 620. New ground boxes will be paid for under Item 624, "Ground Boxes." New electrical services will be paid for under Item 628, "Electrical Services."