

## SECTION 653 PEDESTRIAN SIGNAL ASSEMBLIES

### **653-1 Description.**

Install pedestrian signal assemblies as shown in the plans and Design Standards, Index No. 17764.

### **653-2 Materials.**

Use only pedestrian signals currently listed on the Department's Approved Product List (APL). Ensure that all equipment is marked in accordance with Section 603.

### **653-3 Installation.**

**653-3.1 General:** Use pedestrian signal assemblies capable of being maintained, adjusted, or disassembled with ordinary hand tools. Pre-assemble the pedestrian signal (not mounting hardware) prior to installation at the site. Connect the proper signal cable wires to the proper connections in the pedestrian housing in order to provide the proper signal indication display. Conceal all conductors. Construct the pedestrian signal assembly (including the mounting hardware) to be a weathertight unit.

**653-3.2 Placement:** Install the pedestrian signals at a location and mount them in the manner as shown on the plans. Consider the plans to be sufficiently flexible as to allow for unanticipated field conditions at the site. The Engineer will direct all variation from the locations shown. Mount pedestrian signals with bottom of housing not less than 8 feet (standard) or more than 10 feet above the sidewalk level. Position pedestrian signals and all mounting assembly members as either plumb or level, and symmetrically arranged. Properly aim the signals in the line of the pedestrian's vision for the crosswalk being used.

**653-3.3 Installation Sequence:** Install all pedestrian signal assemblies at any intersection as a single operation unless a staged operation is approved by the Engineer. Do not install signals at any intersection until all other signal equipment, including the controller, and pedestrian detectors, are in place and ready for operation, unless completely covered, in accordance with 650-3.8. Ensure that the cover remains in place until the pedestrian signal is placed into operation.

### **653-4 Method of Measurement.**

**653-4.1 General:** Pedestrian signal assemblies will include any hardware necessary to make a complete installation and may include one or more pedestrian signals, as specified in the Contract Documents, including the appropriate mounting hardware.

Measurement for payment will be in accordance with the following work tasks.

**653-4.2 Furnish and Install:** The Contract unit price per assembly for Pedestrian Signal, furnished and installed, (including mounting hardware but not including pedestals) will include all materials and equipment as specified in the Contract Documents, and all labor and materials necessary for a complete and accepted installation.

**653-4.3 Furnish:** The Contract unit price per assembly for Pedestrian Signal, furnished, will include the cost of the assembly including all mounting hardware as specified in the Contract Documents, plus all shipping and handling costs involved in delivery as specified in the Contract Documents.

The Contractor shall deliver the pedestrian signal assembly in a pre-assembled state. The Contractor shall package and ship component parts of the assembly in accordance with the manufacturer's instructions to minimize the potential for damage during shipment.

**653-4.4 Install:** The Contract unit price per assembly for Pedestrian Signal, installed, will consist of all labor necessary to assemble all components for complete and accepted installation. The Engineer will supply pedestrian signal assembly (including all mounting hardware) as specified in the Contract Documents. The Contractor shall furnish all conduit, risers, lead-in-wires, posts or miscellaneous materials needed to complete the installation as specified in the Contract Documents.

**653-5 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section.

Payment will be made under:

Item No. 653- Pedestrian Signals - per assembly.