

SECTION 653 PULL BOXES AND JUNCTION BOXES

653.1 Description

- (1) This section describes furnishing and installing pull boxes and junction boxes.

653.2 Materials

653.2.1 Pull Boxes

- (1) Furnish pull boxes made of corrugated steel pipe conforming to the material requirements of 521.2.2 with annular corrugations.
- (2) Furnish manhole frame and solid lid conforming to 611.2. Use locking type covers in all pavement roadway locations. Install locking type covers on all 12-inch (300 mm) pull boxes.

653.2.2 Junction Boxes

- (1) Furnish junction boxes made by an approved cast iron manufacturer and having a hot dipped zinc coating. The covers shall be heavy duty, with a hot dip zinc coating, and equipped with watertight neoprene gasket and recessed, hex head, stainless steel cover bolts.
- (2) Furnish grounding lugs, mechanical connectors, that are UL listed and approved for copper wire. Use stainless steel for both inside and outside mechanical connections to the junction box. Provide engineer-approved protection that totally and permanently seals connections with a silicone or rubberized caulking compound. The grounding lug is not required in junction boxes when less than 50 volt AC is encountered.

653.3 Construction

- (1) Under the Pull Boxes Steel and Pull Boxes Steel Communications bid items, furnish and install pull boxes with manhole frames and solid lids. The contractor may extend pull boxes as the plan details show using the same material as the pull box. Saw extensions parallel to the annular ring and clamp to the pull box using a band manufactured for this purpose.
- (2) Also under the Pull Boxes Steel Communications bid items, use covers stamped with "WISDOT COMMUNICATIONS" as the plans show.
- (3) Under the Junction Boxes bid items, furnish and install junction boxes including grounding lugs with stainless steel mechanical connection and wiring if the plans show. Provide moisture drains in the bottom of all junction boxes.

653.4 Measurement

- (1) The department will measure the Pull Boxes Steel, Pull Boxes Steel Communications, and Junction Boxes bid items as each individual box acceptably completed.

653.5 Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid items:

| <u>ITEM NUMBER</u> | <u>DESCRIPTION</u> | <u>UNIT</u> |
|--------------------|--|-------------|
| 653.0100 - 0150 | Pull Boxes Steel (inch) | EACH |
| 653.0190 | Pull Boxes Steel Communications (inch) | EACH |
| 653.0200 - 0299 | Junction Boxes (size) | EACH |

- (2) Payment for the Pull Boxes Steel and Pull Boxes Steel Communications bid items is full compensation for providing all materials, drain duct, and fittings, including the pipe, manhole frames, locking type covers, and bricks; for any pull box extensions the plans do not specify; for conduit extensions less than 10 feet long including fittings into a new or existing pull box; for grounding lugs and stainless steel mounting hardware; for coarse aggregate; and for all excavating, backfilling, and disposing of surplus material.
- (3) Payment for the Junction Boxes bid items is full compensation for providing all materials, drain duct and fittings, including the junction box with cover, grounding lugs and stainless steel mounting hardware, and wiring if required, supports, grout, and temporary asphalt; for any pavement cutting and grouting; and for disposing of surplus material.