

**ITEM 686.820031M MAST ARM TRAFFIC SIGNAL POLE COMBINATION ANCHOR
BASE (9.1m)**

DESCRIPTION

Under this item the CONTRACTOR shall furnish steel traffic signal poles as shown on the plans and as ordered by the ENGINEER.

MATERIAL

The steel poles herein specified are to be used for suspending traffic signal heads and luminaires.

Poles shall be the anchor base type and shall be either round or multisided, continuously tapered construction 11.7mm per meter of length. The pole shall have a steel base electrically welded to the butt end of the pole. The anchor base shall telescope the butt end of the pole shaft and shall be continuously welded on the inside bottom and outside top. The pole shall be 9.1m in length "3" gauge steel with a butt diameter of 280mm and a bolt circle of 381mm and have a minimum yield of 379,225 kPa in accordance with the latest ASTM specification.

The entire structure shall be hot dip galvanized in accordance with ASTM A123. The pole shall be one piece having no transverse joints or welds and no more than one longitudinal seam which shall be continuously welded and ground or rolled flush. Pole shall be of uniform cross section. The pole diameter shall be uniform at any cross section and the pole shall be straight. The poles shall be furnished with galvanized cast iron or aluminum removable pole caps and anchor bolt covers. Anchor bolt covers shall be attached to the base and pole by hex head bolts.

Galvanizing shall be in accordance with ASTM A123 specifications. Poles shall be furnished with a cast aluminum 10mm dia. "J" hook bolted, or a 10mm dia. galvanized steel "J" hook welded, inside the top of the pole and at an elevation 152mm above the point of attachment of the mast arms. A grounding nut having 13mm #13 tapped hole shall be located on the inside of the shaft above the handhole. The poles shall have a 102mm x 203mm reinforced handhole frame and removable cover located 305mm to 381mm from the butt end of the pole. Pole shall be furnished with 4-45mm x 2286mm, 413,700 kPa anchor bolts. Each anchor bolt shall be threaded 152mm minimum on the top end and supplied with galvanized hexagon nuts and washers and lock nuts for this end. Anchor bolts shall be threaded 152mm minimum at the base end and be provided with a 102mm x 102mm x 25mm SQ steel nut for this end. The top 305mm of the anchor bolts shall be hot dip galvanized. The pole shall be supplied with 2 brackets placed at right angles for attaching mast arms and at the elevation as shown on the plans. The bracket shall be continuously welded to the pole through the use of gusset plates, and shall be tapped to receive 32mm high strength bolts in accordance with ASTM A325 as shown on the plans. The bracket shall be as shown on the plans. The pole shall be fitted with a simplex fitting (2 bolt type) as shown on the plans or as directed by the ENGINEER. All welding shall be in accordance with the NYS Steel Construction Manual. All material shall be in conformance with NYSDOT Standard Specifications, Section 724-03 Material Requirements Section A, latest revision..

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BASIS OF ACCEPTANCE

Acceptance of poles covered by this specification will be based on manufacturer's certification of compliance with the specification requirements signed by an officer of the company. Detailed drawings of the poles shall be submitted with the certifications.

CONSTRUCTION DETAILS

Poles shall be as specified on the Plans, Standard Sheets and as directed by the ENGINEER. Pole shall include attachment of fittings as specified on the Plans and Standard Sheets as follows:

- a. Anchor bolt covers
- b. Weatherheads and couplings, as required
- c. Wire entrance
- d. Pole cap

METHOD OF MEASUREMENT

Poles will be measured for payment as the number of each unit furnished in accordance with the contract documents or as directed by the ENGINEER.

BASIS OF PAYMENT

The unit bid price for each pole shall include all the items specified in the construction details, anchor bolts, and any other items required.

Payment will be made under:

<u>Item No.</u>	<u>Item</u>	<u>Pay Unit</u>
686.820031M	Mast Arm Traffic Signal Pole Combination Anchor Base (9.1m)	EA