

ROAD COMMISSION FOR OAKLAND COUNTY

SPECIAL PROVISION
FOR
PUSHBUTTON SUPPORT POST

RCOC/TOC

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RCOC20SP820M

ORG:05-07-21

REV: 03-01-25

a. Description

This work consists of installing a pushbutton support post according to the plans and sections 820, 1004, and 921 of the Standard Specification for Construction except as herein provided.

The sign post shall be designed to support a pedestrian pushbutton and pushbutton sign.

b. Materials

The sign post shall be formed of square tubing conforming to specifications for steel sheets, ASTM A653-94, structural quality, grade 50. The cold forming shall provide a tube rating of 60,000 psi minimum yield strength. The shape of the top post shall be formed of 12 gage (0.105 inches) steel, 2.25 inches square. The top post shall be 6'6" long. The shape of the bottom section shall be formed of 12 gage (0.105 inches) 2.50 inches square. The bottom section shall be 24" long. There shall be a 12 gage (0.105 inches) by 4 Inches long by 2" square insert provided that will fit into the top of the post to accept a rain cap. The rain cap shall be aluminum and be in the shape of a pyramid to fit over the 2" square insert. The length of each post shall be as specified with a permissible length tolerance of + ¼ inch. There shall be a permissible variation of wall thickness of + 0.011 inches and – 0.008 inches. The length of each tube shall not vary in straightness by more than 1/16 inch in 3 feet.

1. Assembly

The 6' 6" square tube assembly shall be provided with two holes, 7/16 inch in diameter. One hole shall be drilled 2 inches from the top of one end, the other hole drilled 10 inches from the opposite end, both on the same side of the tube. The 2-foot tube shall have one hole drilled 2 inches down from one end. The 4-inch insert shall have a hole drilled ¾ inch from one end. This will allow the insert to fit into the top of the 2.25" square tube and allow 1 ¼ inch to protrude from the top of the 6' 6" tube that will allow the rain cap to be press fit over an insert. There shall be no other holes in the tubes.

The 2 foot by 2.50-inch length of square tube shall be installed in a concrete foundation 24 inches set 6 inches below grade. There shall be 4 inches protruding above grade. This end shall include the 7/16-inch hole. The 6' 6" and 2' section shall slip fit into each other and held in place with on ¾" steel drive rivet. The 4" by 2" square tube insert shall also fit into the top of the 2.25" square tube and be held in place by one 3/8" stainless steel drive rivet.

Provide Concrete Grade 3500.

The contractor may request approval of precast foundations. The request must include submittal of a shop drawing and certifications. The precast foundation must follow MDOT *Special Provision for Precast Concrete Pedestal Signal Foundation and Precast Underground Service Pedestal (Metal) Foundation (20SP-820BB)*. If the engineer approves the request, there is no change in time or cost to the contract.

2. Finish

The square tubing material shall be hot-dip galvanized, conforming to ASTM A653 coating designation G-140, with added chemical treatments for enhanced corrosion protection. In addition, a clear corrosion inhibitor coating shall be applied after fabrication.

3. Warranty and Guarantee

Provide materials with a manufacturer's warranty/guarantee, transferable to the Road Commission for Oakland County, that the supplied materials will be free from all defects in materials and workmanship for two (2) years from the date of final project acceptance. If requested by the Engineer, supply manufacturer's warranty and guarantee documents from the manufacturer and a copy of the invoice showing date of shipment.

4. Acceptance

Provide General Certification per the MDOT's *Materials Quality Assurance Procedures Manual* to the Engineer that the materials meet the requirements specified herein.

Concrete acceptance per contract documents.

c. Construction

Complete this work in accordance with section 820 of the Standard Specifications for Construction, the typical signal construction detail(s), and this special provision.

1. Submittals / Working Drawings

Submit a detailed dimensional drawing of all equipment, material specification list which shows the materials to be used, equipment to be furnished, and assembly/installation method.

2. Pushbuttons shall be 10 inches (side reach) from edge of sidewalk landing.

3. Pushbuttons shall be at a mounting height of 3.5 feet, but no more than 4 feet, above the sidewalk.

d. Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

Pay Item	Pay Unit
Pushbutton Support Post, RCOC.....	Each
Pushbutton Support Post, Rem, RCOC.....	Each

Pushbutton Support Post, RCOC (Ea) will be measured as a unit. The contract unit price each shall be payment in full for furnishing and installing pushbutton support, assembly, concrete foundation, installing hardware, fittings, ground rod (s), ground wire and such other material as may be required to provide a complete and operating job as specified herein and as shown on the plans.

Pushbutton Support Post, Rem, RCOC (Ea) will be measured as a unit. The contract unit price each shall be payment in full for removing the support post, assembly, foundation, fittings, hardware, ground rod (s), ground wire and such other material as may be required to provide a complete and operating job as specified herein and as shown on the plans.