

ITEM 08603.1405 M - PAVING INVERTS OF EXISTING CORRUGATED METAL PIPE

DESCRIPTION:

This work shall consist of placing cement concrete over the invert of existing corrugated metal pipes to produce a smooth flow surface as shown on the Plans and/or as directed by the Engineer.

MATERIALS:

Concrete. The concrete used for paving invert shall meet the requirements of Class A given in Section 501, Portland Cement Concrete - General.

Coarse aggregate shall consist of 70 to 80 percent of No. 1 size and 30 to 20 percent of No. 1A size. The percentage of coarse aggregate sizes may be modified by the Engineer to provide a workable mixture.

Slag aggregate shall not be allowed.

Additional Materials. The provisions of the following Subsections of Section 700, Materials shall apply for the materials listed below unless otherwise specified on the Plans or in the Proposal:

Membrane Curing Compound	711-05
Premoulded Bituminous Joint Filler	705-07
Zinc Chromate Primer	708-04
Wire Fabric for Concrete Reinforcement	709-02

Field welding shall comply with the Subsection in the New York State Steel Construction Manual, titled Welding, except that radiographic inspection of welds will not be required.

Should the Contractor elect to anchor steel fabric, in a manner other than welding, he shall demonstrate to the satisfaction of the Engineer that such proposed methods and necessary devices are acceptable.

CONSTRUCTION DETAILS:

Concrete paving shall be placed in the invert of existing corrugated metal pipes to the lines shown on the Plans and in a manner approved by the Engineer.

Prior to placing concrete paving, the invert of the existing pipe shall be cleaned to the satisfaction of the Engineer.

Any aluminum in contact with concrete shall be thoroughly coated with zinc chromate primer or an equivalent alternative as approved by the Materials Bureau, which shall be permitted to dry prior to concrete placement.

The paving shall be reinforced with steel fabric placed on the crests of corrugations and securely fastened to the pipe or pipe arch by welding or by other methods acceptable to the Engineer. Unless otherwise shown on the Plans, the steel fabric shall consist of No. 6 gauge wire at 150 mm centers transversely and longitudinally and shall be placed to provide a 100 mm minimum clearance from the edges of concrete

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and shall be lapped 150 mm minimum.

Expansion joints if required, shall be 19 mm in width and be formed with premoulded bituminous joint filler placed at intervals shown on the Plans or specified by the Engineer.

Paving shall be given a smooth float finish acceptable to the Engineer. As soon as the concrete attains sufficient strength to walk on and the surface water has evaporated, apply an approved membrane curing compound at a minimum rate of 0.27L/m². No water shall be permitted to flow over the placement until the concrete has been cured for a minimum period of 48 hours.

The Contractor shall schedule and conduct his diversion of water operations prior to and during the placement of paving in a manner satisfactory to the Engineer. Where pavement is placed, the surfaces to be in contact with concrete shall be clear and dry to the satisfaction of the Engineer.

Concrete shall be placed at the slump ordered by the Engineer to allow the surface to be shaped and consolidated as required. Minimum concrete cover over invert corrugations shall be 50 mm unless otherwise indicated.

METHOD OF MEASUREMENT:

This work will be measured as the number of square meters computed by multiplying the payment lines shown on the Contract Plans by the length of paving measured along the centerline of paving. No payment will be made beyond these lines unless the Engineer specifically states in writing prior to the performance of the work, that payment will be made to other reference lines.

BASIS OF PAYMENT:

The unit price bid shall include the cost of all labor, materials and equipment necessary to complete the work including surface preparation, concrete, joint material, curing compound and steel fabric reinforcing.