SECTION 03 34 00

FLOWABLE FILL EXISTING LINE

(Sentences and/or paragraphs that are double underlined indicate revisions that were made from the 2009 specification.)

PART 1 - GENERAL

1.1 DESCRIPTION

A. This item shall govern the flowable mortar filling of existing lines where specified and/or shown on the Plans. All work shall conform to this specification

1.2 MEASUREMENT AND PAYMENT

A. Where "Flowable Fill Existing Line" is measured for payment the unit of measurement will be linear feet of line grouted, complete and in place. Payment shall be at the unit price bid in the Proposal. Unless otherwise specified or directed, flowable mortar will not be measured as pay quantities but will be included in the unit price bid for the specific item or items into which they are incorporated as set forth in the bid Proposal. The price for this item shall be full compensation for furnishing all equipment, labor, materials, tools and incidentals necessary to complete the work.

1.3 SUBMITTALS

A. Mix Design

B. Work Plan

PART 2 – PRODUCTS

2.1 MATERIALS

A. Materials shall conform to SECTION 04 05 12 - MORTAR AND GROUT

PART 3 – EXECUTION

3.1 CONSTRUCTION METHODS

A. EXECUTION

Prior to filling the line with flowable fill material, the Contractor shall verify that no live services remain connected to the line. Services found during this procedure shall be paid for using the "Sanitary Sewer Service" item. All live services shall be reconnected to an adjoining main line.

"Flowable Fill Existing Line" shall require that an existing underground conduit (pipe, waterline, sewer line, storm drain line, etc.) be completely filled with a low strength flowable mortar. In order to achieve this, the flowable mortar to be pumped into the line shall have a consistency that will permit forced flow into the entire length of line. Blocking the line by intermediate excavation and gravity flow concrete or grout is NOT acceptable. The existing line to be filled with flowable mortar shall be exposed and plugged with

concrete bulkheads at both ends. In some cases this will require the excavation of the existing line and that the pipe be broken open. 3" Schedule 40 PVC shall extend through the bulkhead and using a 90 degree elbow extend up to the surface on both ends of the line to be grouted. The flowable mortar shall be pumped through the 3" PVC until the flowable mortar is visible at the other end of the conduit through the 3" PVC. No more than 15 psi shall be used to pump the flowable mortar mixture, and care should be used to avoid filling adjoining voids with the flowable fill material.

B. ALTERNATE EXECUTION

At the option of the Contractor, the existing line may be removed from the ground and disposed of properly. Hazardous materials removed from the ground shall require a receipt from a site certified to accept hazardous material. When this option is used, the surface must be restored to existing or better condition per the drawing details for trench embedment. Restoration of the trench and surface is subsidiary to the price of "Flowable Fill Existing Line."

C. COMPOSITION

The proportions by volume or weight of cement, fine aggregate and water shall produce a plastic mixture. The degree of workability shall be consistent with the use to which the mixture is placed, and shall be pre-approved by the Engineer. The mix shall contain no course or medium aggregates and shall contain at least two sacks of cement per cubic yard of grout.

D. EQUIPMENT

All equipment, tools and machinery used in handling and mixing flowable mortar shall meet the approval of the Engineer. Flowable mortar shall be machine mixed in a batch type mixer.

E. REJECTION

"Flowable Fill Existing Line" may be rejected for failure to meet any of the requirements of the Specifications, and specifically for:

1. Failure to successfully pump flowable mortar to the other end of the line.
2. Flowable mortar attaining initial set before use.
3. Improper mixing.

If the flowable mortar is rejected because of "~~A~~ E.1", all line not filled shall be removed from the ground and the trench repaired per the drawing details for trench embedment at the Contractor's expense.

END OF SECTION