TECHNICAL SPECIFICATIONS
FOR
FLOWABLE FILL MATERIAL (FLOWABLE MORTAR)

1. Description

This work shall consist of the placing of flowable mortar fill material at locations shown on the Plans or as directed by the Engineer. All work shall be done in accordance with TDOTSS, January 1, 2021, Subsections 204.06 and 204.11 and all Supplemental Specifications thereto pertaining issued prior to the advertisement for this contract, except as modified herein.

2. Materials

Materials used in this construction shall meet the following requirements of TDOTSS, January 1, 2021 and all Supplemental Specifications thereto pertaining issued prior to the advertisement for this contract:

Material	Subsection
Portland Cement, Type 1	901.01
Fly Ash, Class C or Class F	AASHTO M 295
Water	921.01
Chemical Additives	921.06
Air Entraining Admixtures	921.06 A2

Fine aggregate shall conform to the requirements of TDOTSS, January 1, 2021, Subsection 903.01, and all Supplemental Specifications thereto pertaining issued prior to the advertisement for this contract - Fine Aggregate for Concrete except that the gradation shall be as follows:

Sieve Size	Percent Passing
3/4 inch	100
No. 200	0-10

Proportioning

Flowable mortar shall be proportioned as follows:

Material	Per Cubic Yard
Portland Cement, Type 1	100 lbs.
Fly Ash, Class C or F	250 lbs. (Minimum)
Fine Aggregate	2800 lbs.
Water	60 gal. (Approximate)

The above proportions may be adjusted by the Engineer to obtain the consistency required for satisfactory flow. Consistency shall be determined as follows:

> Place an open-ended cylinder (pipe) three (3) inches in diameter by six (6) inches in height in an upright position on a smooth, level surface. Fill the cylinder with a representative sample of the flowable mortar proposed for use. Remove the cylinder by lifting it straight up thus allowing the sample to diffuse on the smooth, level surface. The flowable mortar should diffuse into a circular shape having an approximate diameter of not less than eight (8) inches.

3. Construction Requirements

Flowable Mortar shall be placed at locations as directed by the Engineer. The flowable mortar shall be covered or otherwise protected while in the plastic state. Backfill shall not be placed on the flowable mortar prior to final set or hardening as determined by the Engineer. The entire length and diameter of pipe shall be filled with flowable fill material (Flowable Mortar).

4. Method of Measurement

Measurement for payment shall be made by the cubic yard. The volume shall be determined by the Engineer from field measurements.

5. Basis of Payment

Flowable Fill Material (Flowable Mortar) shall be measured by the cubic yard complete in place. Such payment shall be full compensation for all materials, mixing, transporting, placing and finishing of the flowable mortar as well as all labor, tools, equipment and other incidentals necessary for the satisfactory completion of the work.