

**843 - FLOWABLE FILL**

**SECTION 843**

**FLOWABLE FILL**

**843.1 DESCRIPTION**

Backfill the designated structures or excavations with flowable fill.

**BID ITEM**

Flowable Fill (\*)

\*Low Strength or High Strength

**UNITS**

Cubic Yard

**843.2 MATERIALS**

**a. General.** Provide materials that comply with the applicable requirements.

Fine Aggregate ..... **DIVISION 1100**  
 Cement and Fly Ash (approved for stabilization & cold recycle) ..... **DIVISION 2000**  
 Water ..... **DIVISION 2400**

The Engineer will approve the use of admixtures to achieve flowability and acceptable set time, based on performance.

**b. Mix Design.** Design a flowable fill mixture that possesses adequate flow characteristics to fill all voids, and complies with the compressive strength and unit weight requirements shown in **TABLE 843-1**.

<b>TABLE 843-1: REQUIREMENTS FOR FLOWABLE FILL MIXTURE</b>		
	<b>LOW-STRENGTH MIXTURE</b>	<b>HIGH-STRENGTH MIXTURE</b>
3 Day Compressive Strength (minimum)	20 psi	-
7 Day Compressive Strength (minimum)	-	50 psi
28 Day Compressive Strength	100 psi (max)	1500 psi
Unit Weight (maximum)	120 pcf	-

Obtain approval from the District Materials Engineer for the job mixture. Supply 3 and 28 day compressive strength information for low-strength mixtures, or 7 and 28 day compressive strength information for high-strength mixtures, along with the mix design.

**c. KDOT Assurance and Acceptance.** The Engineer will make test cylinders for each 100 cubic yards of flowable fill placed, and whenever the mixture is changed. The cylinders will be made and tested according to **DIVISION 2500**.

- For the low-strength mixture, 3 cylinders will be made. The 1<sup>st</sup> cylinder will be tested on the 3<sup>rd</sup> day. The 2<sup>nd</sup> cylinder will be laboratory cured and tested on the 28<sup>th</sup> day. The 3<sup>rd</sup> cylinder will be laboratory cured and held in reserve to verify any questionable cylinder breaks.
- For the high-strength mixture, 3 cylinders will be made. The 1<sup>st</sup> cylinder will be tested on the 7<sup>th</sup> day. The 2<sup>nd</sup> cylinder will be laboratory cured and tested on the 28<sup>th</sup> day. The 3<sup>rd</sup> cylinder will be laboratory cured and held in reserve to verify any questionable cylinder breaks.
- The Engineer will test the unit weight a minimum of every 50 cubic yards of flowable fill placed.
- The Engineer will accept the flowable fill based on the results of the compressive strength and unit weight tests, and visual inspection of the mixture placed on the project.

**843.3 CONSTRUCTION REQUIREMENTS**

Place the flowable fill in the excavation so all voids around the structure or in the excavation are filled. Place the flowable fill around structures in lifts preventing the buildup of excess hydrostatic pressure.

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Observe the weather limitations specified in **DIVISION 400** when placing the flowable fill.

### **843.4 MEASUREMENT AND PAYMENT**

The Engineer will measure flowable fill placed in the specified locations by the cubic yard.

Payment for "Flowable Fill" at the contract unit price is full compensation for the specified work.