MASS HIGHWAY

Number: E-93-006

Date: 10-21-93

ENGINEERING DIRECTIVE

Chief Engineer

SUPERSEDED

PERMITS

Use of Controlled Density Fill in Trench Cuts under Pavement

Controlled Density Fill (CDF) shall be the required backfill whenever the Department issues a permit to trench under pavement. This requirement applies to all such work except as noted below.

CDF is a Portland cement product designed as a substitute for compacted gravel. It must be batched at a concrete plant, is flowable, requires no vibrating, and, for the use specified here, the finished product must be excavatable without the use of power tools.

Ingredients:

Portland cement meeting AASHTO M85
Fly ash meeting AASHTO M295, Class F
Sand Meeting M4.02.02
Water meeting M4.02.04
Air entraining admixtures meeting M4.02.05

CDF must satisfy the following:

Compressive Strength:	28 Days	90 Days
	30-80 psi	100 psi

Slump: 10-12 inches
Air: 25-30%

The Department's Specifications Committee currently is drafting full particulars to cover all uses of this versatile material. They will be issued as supplemental specifications in the near future.

District Highway Directors may set aside the above requirements in whole or in part at their discretion if, but only if, necessary to meet unusual site conditions.

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