



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

July 22, 2025

Abi Domond
Civil Rights Analysis Intern
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: 446
Proposed Specification: **4460200 Edgedrain (Draincrete)**

Dear Ms. Domond:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by James Greene to allow use of cement requirements of Section 921

Please review and transmit your comments, if any, within two weeks (10 business days).
Comments should be sent via email daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on File

Daniel Strickland, P.E.
State Specifications Engineer

DS/jb
Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

EDGEDRAIN (DRAINCRETE)
(REV 5-29-25)

ARTICLE 446-2 is deleted and the following substituted:

446-2 Materials.

Meet the following requirements:

Portland Cement Concrete – Class NS*	Section 347
Coarse Aggregate.....	Section 901
Portland Cement.....	Section 921
Water.....	Section 923
Polyvinyl-Chloride Pipe.....	Section 948
Polyethylene Pipe.....	Section 948
Filter Fabric Drainage Geotextile Type D-3 **	Section 985

*For draincrete, the concrete requirements of Section 347 are modified as follows:

~~Use Type I or II portland cement (no supplementary cementitious materials permitted).~~

Composition:

Grade of coarse aggregate (stone)....	#57, #67 or #89
Maximum Water/Cement ratio	0.38
Minimum cement factor.....	385 lb/yd ³ of Draincrete
Maximum Slump Range	Not Applicable
Fine Aggregate.....	None
Supplementary Cementitious Materials	None
Admixtures.....	None

~~Do not use materials which contain hardened lumps, crusts, or frozen matter, or are contaminated with dissimilar material.~~

**Use products listed on the Department's Approved Products List (APL).

ARTICLE 446-3 is deleted and the following substituted:

446-3 Control of Quality.

446-3.1 Concrete Design Mix: Submit the proposed ~~design~~ mix design prior to production, ~~on the Concrete Mix Design form,~~ for the Engineer's approval. Use only draincrete mix designs ~~mixes~~ having prior approval of the Engineer. Do not change the mix design ~~mix~~ component materials except as per 446-3.2.

The Department will verify the proposed mix design and may witness the trial batching. Meet the unit weight requirements as determined in accordance with FM 5-530, and the drain rate in accordance with FM 5-570. Also, provide one of the following with the design mix submittal:

1. Evidence from three sets of production data, either from Department acceptance tests or independently verifiable commercial mixes, that draincrete produced in accordance with the proposed design mix meets the requirements of this Section.

2. Test data from a single trial batch of ~~0.10 yd~~³ ft³ minimum is required, which demonstrates that the draincrete produced using the proposed mix, designated ingredients, and designated water/cement ratio meets the requirements of this Section.

446-3.2 Batch Adjustment - Materials: Meet the theoretical yield requirements of the approved mix design. Inform the Engineer of any adjustments to the approved mix design. Note any batch adjustments and record the actual quantities incorporated into the ~~batch mix~~, on the concrete Delivery Ticket/Certification form.

446-3.3 Delivery Certification: Furnish to the Engineer a complete Delivery Ticket/Certification form with each batch of draincrete prior to unloading at the site.

ARTICLE 446-4 is deleted and the following substituted:

446-4 Construction.

446-4.1 Excavating Trench: Meet the requirements of Section 440.

446-4.2 Laying Pipe: Meet the requirements of Section 440.

446-4.3 Placement of Draincrete: Obtain the Engineer's approval before placing the draincrete. Deliver the draincrete to the site of placement in a freshly mixed unhardened state. Deposit draincrete in the form or trench by a method approved by the Engineer, to ensure uniform distribution. Do not use vibrators. Avoid displacement or damage to the pipe or ~~filter fabric~~geotextile.

EDGEDRAIN (DRAINCRETE)
(REV 5-29-25)

ARTICLE 446-2 is deleted and the following substituted:

446-2 Materials.

Meet the following requirements:

Portland Cement Concrete – Class NS*	Section 347
Polyvinyl-Chloride Pipe.....	Section 948
Polyethylene Pipe.....	Section 948
Drainage Geotextile Type D-3**	Section 985

*For draincrete, the concrete requirements of Section 347 are modified as follows:

Composition:

Grade of coarse aggregate (stone)....	#57, #67 or #89
Maximum Water/Cement ratio	0.38
Minimum cement factor.....	385 lb/yd ³
Fine Aggregate.....	None
Supplementary Cementitious Materials	None

**Use products listed on the Department's Approved Products List (APL).

ARTICLE 446-3 is deleted and the following substituted:

446-3 Control of Quality.

446-3.1 Concrete Design Mix: Submit the proposed mix design prior to production for the Engineer's approval. Use only draincrete mix designs having prior approval of the Engineer. Do not change the mix design component materials except as per 446-3.2.

The Department will verify the proposed mix design and may witness the trial batching. Meet the unit weight requirements as determined in accordance with FM 5-530, and the drain rate in accordance with FM 5-570. Also, provide one of the following with the design mix submittal:

1. Evidence from three sets of production data, either from Department acceptance tests or independently verifiable commercial mixes, that draincrete produced in accordance with the proposed design mix meets the requirements of this Section.

2. Test data from a single trial batch of 3 ft³ minimum is required, which demonstrates that the draincrete produced using the proposed mix, designated ingredients, and designated water/cement ratio meets the requirements of this Section.

446-3.2 Batch Adjustment - Materials: Meet the theoretical yield requirements of the approved mix design. Inform the Engineer of any adjustments to the approved mix design. Note any batch adjustments and record the actual quantities incorporated into the batch on the concrete Delivery Ticket/Certification form.

446-3.3 Delivery Certification: Furnish to the Engineer a complete Delivery Ticket/Certification form with each batch of draincrete prior to unloading at the site.

ARTICLE 446-4 is deleted and the following substituted:

446-4 Construction.

446-4.1 Excavating Trench: Meet the requirements of Section 440.

446-4.2 Laying Pipe: Meet the requirements of Section 440.

446-4.3 Placement of Draincrete: Obtain the Engineer's approval before placing the draincrete. Deliver the draincrete to the site of placement in a freshly mixed unhardened state. Deposit draincrete in the form or trench by a method approved by the Engineer, to ensure uniform distribution. Do not use vibrators. Avoid displacement or damage to the pipe or geotextile.