

Origination Form

Specifications

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Date:	2025-05-29T19:06:31Z	Associated Specs:	None

Summary:

Updated the Class NS footnote to allow cement meeting requirements of Section 921. Editorial changes were also made.

Justification:

The change allows use of cement meeting requirements of Section 921. Currently, the use of Type IL cement is not allowed.

Do the changes affect other types of specifications?

Neither

List Specifications Affected:

Other Affected Documents/Offices	Contacted	Yes/No
Other Standard Plans		No
Florida Design Manual		No
Structures Manual		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No
Materials Manual		No
Traffic Engineering Manual		No

Are changes in line with promoting and making progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?

This update removes restrictions on cement types that can be used for edgedrain draincrete which will provide more flexibility to producers.

What financial impact does the change have; project costs, pay item structure, or consultant fees?

Removing restrictions could have a beneficial impact on production costs.

What impact does the change have on production or construction schedules?

Removing restrictions could accelerate production and construction schedules.

How does this change improve efficiency or quality?

Draincrete producers will be allowed to use cement that meets requirements of Section 921. Currently, only Types I and II cements are allowed.

Which FDOT offices does the change impact?

Construction and Materials

What is the impact to districts with this change?

No impact

Does the change shift risk and to who?

No risk

Provide summary and resolution of any outstanding comments from the districts or industry.

Comments and Responses are available on the Track the Status of Revisions hyperlink located on the Specifications landing page: <https://www.fdot.gov/programmanagement/Specs.shtm>

What is the communication plan?

Through the established specification revision process (e.g., Internal and Industry Review)

What is the schedule for implementation?

The Standard Specifications eBook and Workbook are effective July 1st every year.

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 <u>Drainage Geotextile Type D-3</u> **	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
<u>Supplementary Cementitious Materials</u>	<u>None</u>
<u>Admixtures.....</u>	<u>None</u>

~~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.