



*Florida Department of Transportation*

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SECRETARY

December 23, 2016

Khoa Nguyen  
Director, Office of Technical Services  
Federal Highway Administration  
3500 Financial Plaza, Suite 400  
Tallahassee, Florida 32312

Re: State Specifications Office  
Section: **400**  
Proposed Specification: **4002103 Concrete Structures.**

Dear Mr. Nguyen:

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

The changes are proposed by John Westphal of the State Construction Office to update the language.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to [dan.hurtado@dot.state.fl.us](mailto:dan.hurtado@dot.state.fl.us).

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

Sincerely,

Signature on File

Dan Hurtado, P.E.  
State Specifications Engineer

DH/dt

Attachment

cc: Florida Transportation Builders' Assoc.  
State Construction Engineer

**CONCRETE STRUCTURES.****(REV 9-20-16)**

SUBARTICLE 400-21-3 is deleted and the following substituted:

**400-21.3 Classification of Cracks:** The Engineer will classify cracks as either nonstructural or structural ~~and determine the cause~~. In general, nonstructural cracks are cracks 1/2 inch or less deep from the surface of the concrete; however, the Engineer may determine that a crack greater than 1/2 inch deep is nonstructural. In general, structural cracks are cracks that extend deeper than 1/2 inch. As an exception, all cracks in concrete bridge decks that are supported by beams or girders will be classified as nonstructural and repair will be in accordance with 400-21.5.1. However, if the Engineer determines that repair under 400-21.5.1 is unacceptable, repair in accordance with 400-21.5.2.

A crack that is fully or partially underwater at any time during its service life will be classified as a structural crack unless the Environment note on the General Notes sheet in the Plans categorizes the substructure as slightly aggressive, in which case, the nonstructural crack criteria may apply as determined by the Engineer.

Review and comment on the Engineer's crack classification; however, the Engineer will make the final determination.

SUBARTICLE 400-21.5 (excluding Table 1) is deleted and replaced by the following:

**400-21.5 Repair Method:** Repair or remove and replace cracked concrete as directed by the Engineer. Additional compensation or ~~a time extension~~ will not be ~~approved~~ granted for repair or removal and replacement of cracked concrete when the Engineer determines the cause to be the responsibility of the Contractor.

**400-21.5.1 Nonstructural Cracks:** Repair each crack using the method as determined by the Engineer for each LOT in accordance with Table 1 or 2. When further investigation is required to determine repair or rejection, submit an Engineering Analysis Scope in accordance with 6-4, signed and sealed by a Specialty Engineer, to determine the strength and durability of the proposed repair. ~~either remove and replace the cracked concrete or submit a structural evaluation signed and sealed by the Contractor's Engineer of Record that includes recommended repair methods and a determination of structural capacity and durability to the Engineer.~~ Upon approval of the Engineering Analysis Report (EAR) and final determination by of the Engineer, repair or remove and replace the cracked concrete in accordance with the EAR. ~~Upon approval by the Engineer use epoxy injection in accordance with Section 411 to repair cracks in a member inside a dry cofferdam prior to flooding of the cofferdam. "Reject and Replace" in Table 1 or 2 means there is no acceptable repair method.~~

**400-21.5.2 Structural Cracks:** Submit an Engineering Analysis Scope in accordance with 6-4, signed and sealed by the Contractor's Engineer of Record, to determine the strength and durability of the proposed repair. ~~structural evaluation signed and sealed by the Contractor's Engineer of Record that includes recommended repair methods and a determination of structural capacity and durability to the Engineer.~~ Upon approval of the EAR and final determination by of the Engineer, repair or remove and replace the cracked concrete in

accordance with the approved EAR. ~~Complete all repairs to cracks in a member inside a cofferdam prior to flooding the cofferdam.~~

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**400-21.5.1 Nonstructural Cracks:** Repair each crack using the method as determined by the Engineer for each LOT in accordance with Table 1 or 2. When further investigation is required to determine repair or rejection, submit an Engineering Analysis Scope in accordance with 6-4, signed and sealed by a Specialty Engineer, to determine the strength and durability of the proposed repair. Upon approval of the Engineering Analysis Report (EAR) and final determination of the Engineer, repair or remove and replace the cracked concrete in accordance with the EAR.

**400-21.5.2 Structural Cracks:** Submit an Engineering Analysis Scope in accordance with 6-4, signed and sealed by the Contractor's Engineer of Record, to determine the strength and durability of the proposed repair.. Upon approval of the EAR and final determination of the Engineer, repair or remove and replace the cracked concrete in accordance with the approved EAR.