

# EXPECTED IMPLEMENTATION JULY 2017

## **D 400 CONCRETE STRUCTURES.**

**(REV 9-20-16) (FA 1-3-17) (7-17)**

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. 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 time will not be 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. 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.