Florida Department of Transportation

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SECRETARY

STRUCTURES DESIGN BULLETIN 16-08
ROADWAY DESIGN BULLETIN 16-06
(FHWA Approved: August 16, 2016)

DATE: August 18, 2016

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Structures Maintenance Engineers, Plans Preparation Manual Holders, Structures Manual Holders

FROM: Robert V. Robertson, P.E., State Structures Design Engineer

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COPIES: Brian Blanchard, Phillip Gainer, Tim Lattner, David Sadler, Rudy Powell, Amy Tootle, Daniel Scheer, Bruce Dana, Gregory Schiess, Mark Wilson, SDO Staff, Jeffrey Ger (FHWA)

SUBJECT: Category 2 Structures Definition

REQUIREMENTS

Replace ***Plans Preparation Manual***, Volume 1, Section 26.3.2 and the associated Modification for Non-Conventional Projects box with the following:

26.3.2 Category 2 Structures

All structure types not listed above are classified as Category 2 Structures unless exempted by the SDO. In addition to, or in lieu of, the criteria listed above, a structure is classified as a Category 2 Structure when any of the following are present:

1. Bridge substructures containing post-tensioned components, straddle piers and/or integral caps
2. Bridges designed for vessel collision
3. Bridges with non-redundant foundations
4. Any component designed using Fiber Reinforced Polymer (FRP) composite materials
5. Braided underpass structures where the beams or flat slab superstructure element is not oriented parallel to traffic of the overlying roadway and a portion of the superstructure and substructure extends beyond the limits of the overlying traffic barriers

6. Design concepts, components, elements, details or construction techniques not normally used by Florida DOT including but not limited to:
    a. New bridge types
    b. New materials used to construct bridge components
    c. New bridge construction methods
    d. Non-standard or unusual bridge component-to-component configurations and connection details
    e. Department issued ***Developmental Design Standards*** or modified versions of ***Developmental Design Standards***
    f. Items not covered by the Department's Standard Construction ***Specifications***
    g. All atypical precast structural elements (The following are not considered to be atypical: Segmental Box Girder Superstructure Components, Spliced I and U-Girders, AASHTO Beams, and precast elements included in the ***Design Standards***.)

Commentary: The Department supports the use of accelerated project construction techniques including the expanded use of precast/prefabricated bridge elements and systems as a way to reduce costs, construction time, and user impacts. However, the use of precast/prefabricated bridge elements can create long term durability and quality issues depending on the details utilized. Therefore, the designs and details for these elements must be approved by the Department prior to use.

Modification for Non-Conventional Projects:
Items listed in Numbers 4 thru 6 above are not allowed unless they are specifically permitted in the RFP or unless they are submitted and approved during the Alternative Technical Concept (ATC) process.

COMMENTARY

The Design-Build Boilerplate will be revised to include a cross reference to this section of the ***Plans Preparation Manual***.

IMPLEMENTATION

These requirements are effective immediately on all design-bid-build projects in the pre-design phase. These requirements may be implemented immediately on all design-bid-build projects in Design Phase I, II, III or IV at the discretion of the District.

These requirements are effective immediately on all design-build projects for which the final RFP has not been released. Design build projects that have had the final RFP released are exempt from these requirements unless otherwise directed by the District.

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