Florida Department of Transportation

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STRUCTURES DESIGN BULLETIN 16-02
(FHWA Approved: February 3, 2016)

DATE: February 3, 2016

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers

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

COPIES: Brian Blanchard, Tom Byron, Tim Lattner, David Sadler, Bruce Dana, Gregory Schiess, SDO Staff, Jeffrey Ger (FHWA)

SUBJECT: Developmental Design Standards: Index D296 - Three-Sided Concrete Culvert Details, Index D6011b - Gravity Wall (Option B), and Index D6011c – Gravity Wall (Option C)

REQUIREMENTS

This ***Design Bulletin*** introduces three new ***Developmental Design Standards (DDS):***

1. Index D296 - Three-Side Concrete Culvert Details, with its ***Instructions for Developmental Design Standards (IDDS).***
2. Index D6011b - Gravity Wall (Option B), with its shared ***Instructions for Developmental Design Standards (IDDS-D6011).*** This ***DDS*** will require the inclusion of ***Developmental Specification*** Dev548 - Retaining Wall Systems, in the Contract Documents.
3. Index D6011c - Gravity Wall (Option C), with its shared ***Instructions for Developmental Design Standards (IDDS-D6011).*** This ***DDS*** will require the inclusion of the following ***Developmental Specifications*** in the Contract Documents for lettings prior to July 2016:
   a. Dev400FRP - Concrete Structures - Fiber Reinforced Polymer Reinforcing
   b. Dev415FRP - Reinforcing for Concrete
   c. Dev932FRP - Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures

These documents are available for viewing on the ***DDS*** webpage.

COMMENTARY

The ***DDS*** Index D296 provides details for three-sided concrete culverts for hydraulic, pedestrian or traffic crossings which may be feasible alternatives to box culverts or short span bridges.

The ***DDS*** Index D6011b provides options for either a gravity modular segmental block wall or a soil reinforced segmental block wall as possible alternatives to the Index 6011 concrete gravity wall.

The ***DDS*** Index D6011c provides an option for a GFRP reinforced cast-in-place concrete gravity wall as a possible alternative to the Index 6011 concrete gravity wall.

BACKGROUND

The ***DDS*** Index D296 supplements the guidance in the ***Plans Preparation Manual***, Volume 1, Chapter 33 and Specification Section 407 that were respectively introduced and revised in 2006.

The ***DDS*** Index D6011b provides a simpler alternative for limited height applications, to the GRS-IBS retaining wall system developed for bridge abutments, utilizing similar component materials and construction techniques.

The ***DDS*** Index D6011c provides a corrosion resistant alternative for the traditional steel reinforced concrete gravity wall.

IMPLEMENTATION

These ***DDS***s and associated ***IDDS***s are available for use on applicable current or future projects with approval from the Structures Design Office. Follow the Usage Process as outlined in the link at the top of the DDS webpage.

Developmental Specifications Dev400FRP, Dev415FRP and Dev932FRP will be adopted in the July 2016 Specifications Workbook and will no longer need to be included in the Contract Documents for lettings after June 30th, 2016.

CONTACT

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