

# Florida Department of Transportation

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March 27, 2007

TO:

District Design Engineers, District Structures Design Engineers,

District Maintenance Engineers

FROM:

Robert V. Robertson Jr., P.E., State Structures Design Engineer

David C. O'Hagan, P.E., State Roadway Design Engineer

COPIES:

Ananth Prasad, Lora Hollingsworth, Timothy Lattner, Jeffrey Ger (FHWA), Jeff

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SUBJECT:

Temporary Design Bulletin C07-02

Roadway Design Bulletin 07-04

PPM Vol.1 Sections 23.3, 23.5 and 23.8

#### This Design Bulletin:

1. Clarifies approval authorities for certain Controlling Design Elements.

2. Specifies requirements for Design Variations for Structural Capacity due to deficient bridge load ratings.

3. Adds the Office of Maintenance in the Design Variation process when deficient bridge load ratings are involved.

4. Corrects typographical errors and omissions in Chapter 23 of the January 2007 update to the 2006 Plans Preparation Manual (PPM), Volume 1.

#### REQUIREMENTS

1. Replace the current PPM Volume 1 Section 23.3 with the following:

#### 23.3 Approval

All required approvals shall be obtained as described in this section. Approvals from multiple individuals may be required for certain issues. The Director of Design shall resolve any approval authority issues if conflicting objectives arise.

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Approval is required from the State Chief Engineer for the following:

- Design Exceptions for Design Speed on FIHS/SIS facilities (following review by the State Transportation Planner).
- Utility Exceptions for limited access R/W use.
- Design Variations for Design Speed on FIHS/SIS facilities (following review by the State Transportation Planner).

Approval is required from the FHWA Division Administrator for the following:

- Design Exceptions on full FHWA oversight projects.
- Design Exceptions, Utility Exceptions and Design Variations for vertical clearance over an interstate roadway less than 16 feet.
- Exceptions involving horizontal or vertical clearances for railroads not meeting the requirements of Rule 14-57 F.A.C. or the clearance criteria for the South Florida Rail Corridor (*Topic No. 000-725-003 South Florida Rail Corridor Clearance Policy for 25 KV service*).

Approval is required from the District Design Engineer or Turnpike Design Engineer for the following:

- Design Exceptions.
- Utility Exceptions.
- Design Variations.

Approval is required from the State Roadway Design Engineer for the following:

- Design Exceptions for elements other than Structural Capacity.
- Utility Exceptions.
- Design Variations involving modifications to or elimination of required rumble strips.

Approval is required from the State Structures Design Engineer for the following:

- Design Exceptions for Bridge Width, Structural Capacity, Horizontal Clearance and Vertical Clearance impacting Category 1 and 2 structures.
- Utility Exceptions impacting Category 2 structures, or impacting Category 1 structures with controlling elements below AASHTO's criteria.
- Design Variations for Bridge Width, Structural Capacity, Horizontal Clearance and Vertical Clearance impacting Category 2 structures.
- Design Variations for Structural Capacity due to deficient load ratings impacting both Category 1 and 2 structures

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Approval is required from the District or Turnpike Structures Design Engineer for the following:

- Utility Exceptions impacting Category 1 structures, with none of the 13 Controlling Design Elements below AASHTO's Criteria.
- Design Variations for Bridge Width, Structural Capacity, Horizontal Clearance and Vertical Clearance impacting Category 1 Structures.
- 2. Replace the current PPM Volume 1 Section 23.5 Paragraph p) with the following:
  - p) For a bridge with a design inventory load rating less than 1.0, a written evaluation and recommendation by the Office of Maintenance is required. Provide the load rating calculations for the affected structure.
- 3. Replace the current PPM Volume 1 Section 23.8 with the following:

### 23.8 Design Variations Needing District Approval Only

For Design Variations needing District approval only, the following is the minimum justification and documentation required. However, on a case by case basis the District approvers may require more or may opt for the Design Variation to follow *Sections 23.4-7*:

A Design Variation request must address the following items:

- 1. Design criteria versus proposed criteria.
- 2. Reason the design criteria are not appropriate.
- 3. Justification for the proposed criteria.
- 4. Any background information which documents or justifies the request.

The Responsible Engineer then attaches a Submittal Approval Letter (Exhibit 23-A) to the sealed report and submits them to the District or Turnpike Design Engineer. The District or Turnpike Design Engineer then approves or denies the request and notifies the Responsible Engineer.

Design Variations requiring Central Office approval from the State Chief Engineer, State Roadway Design Engineer, and/or the State Structures Design Engineer (see *Section 23.3*) follow the processes in *Sections 23.4-7*.

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### **COMMENTARY**

None.

### **BACKGROUND**

- 1. Section 23.3 was revised to clarify approval authorities for the 13 Controlling Design Elements and to include requirements for Design Variations for Structural Capacity due to deficient bridge load ratings.
- 2. Section 23.5 Paragraph p) was revised to include the Office of Maintenance in the design variation process when deficient bridge load ratings are involved.
- 3. Section 23.8 was replaced to correct typographical errors and omissions.

# **IMPLEMENTATION**

This Design Bulletin is effective immediately.

# **CONTACTS**

Sections 23.3 and 23.8: David C. O'Hagan, P.E. State Roadway Design Engineer (850) 414-4283

Section 23.5: Robert V. Robertson, P.E. State Structures Design Engineer (850) 414-4267

RVR/ceb/h