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ROADWAY DESIGN BULLETIN 08-02

DATE: January 10, 2008
TO: Registered Plans Preparation Manual Holders
FROM: David C. O'Hagan, P.E., State Roadway Design Engineer
CC: Lora Hollingsworth, Robert Robertson, Jim Mills, Tana Ashbaker
SUBJECT: IMPLEMENTATION - PLANS PREPARATION MANUAL
JANUARY 1, 2008 UPDATES

A handwritten signature in black ink, likely belonging to David C. O'Hagan, the State Roadway Design Engineer mentioned in the distribution list.

The January 1, 2008 Updates include:

1. Revisions to Plans Preparation Manual (PPM), Volume 1, January 2008 (Topic No. 625-000-007).
2. Revisions to PPM, Volume 2, January 2008 (Topic No. 625-000-008).

The major changes in design requirements are to be implemented as follows:

VOLUME 1

Volume 1, Chapter 2, Section 2.1.6.1 Alternative Roadway Paving Treatments

SUMMARY OF CHANGE:

This section has been updated to provide more detailed requirements and restrictions for the use of alternative roadway paving techniques. This section also now references the applicable FDOT Specifications.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective on all applicable projects beginning immediately.

Volume 1, Chapter 2, Section 2.3.3 Use of Curb on High Speed Roadways

SUMMARY OF CHANGE:

This section has been added to address the use of curb on high speed roadways. Some of the information previously contained in Section 1.9.1 (now deleted), has been relocated to this new section and revised to provide more information on where curb is appropriate.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective on all applicable projects beginning immediately.

Volume 1, Chapter 2, Table 2.9.3 Superelevation Transition Slope Rates

SUMMARY OF CHANGE:

This table has been updated to include the slope rate for superelevation transition of highways with a design speed range of 35-40 mph.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2008, but may be applied immediately on projects currently in the Design phase at the District's discretion.

Volume 1, Chapter 2, Table 2.11.1 Horizontal Clearance for Traffic Control Signs

SUMMARY OF CHANGE:

The terms "frangible" and "frangible or breakaway" have been replaced with the term "breakaway". This was done because, according to AASHTO, the term "breakaway" is inclusive of "frangible". Corresponding changes have been made to Sections 4.6.1, 7.2.1, 7.3, 7.3.2.1, and Tables 2.11.3, 2.11.10, 21.2, 25.4.14.2, and 25.4.14.4.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective immediately.

Volume 1, Chapter 2, Table 2.11.5 Horizontal Clearance to Trees

SUMMARY OF CHANGE:

This table has been revised to be consistent with Index 700 of the Design Standards.

IMPLEMENTATION:

These changes clarify existing requirements and are effective on all applicable projects beginning design on or after January 1, 2008.

Volume 1, Chapter 4, Section 4.7 Non-Standard Roadside Safety Devices

SUMMARY OF CHANGE:

This section was added to address the requirements for using roadside safety devices that are not listed on the Qualified Products List (QPL).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 7, Section 7.2.9 Delineators and Object Markers

SUMMARY OF CHANGE:

This section has been added to provide guidance on the use of delineators and object markers.

IMPLEMENTATION:

These changes are based on [Roadway Design Bulletin 07-07/Estimates Bulletin 07-02](#) and were effective on all applicable projects as described in the design bulletin.

Volume 1, Chapter 7, Section 7.5 ITS Components

SUMMARY OF CHANGE:

This section has been updated to include new guidance and design criteria for the ITS components by the addition of Section 7.5.4.3 (Roadway Weather Information System) and Section 7.5.8.4 (Equipment Shelter).

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 1, Chapter 8, Section 8.3.2 Disability Considerations

SUMMARY OF CHANGE:

This section has been revised to provide guidance for the application of detectable warning systems on facilities with asphalt surfaces.

This section has also been updated to provide added clarification that ADA requirements apply to pedestrian crossings. Corresponding changes were made to Section 8.3.3.

IMPLEMENTATION:

These changes clarify existing requirements and are effective on applicable projects beginning immediately.

Vol. 1, Chapter 8, Section 8.6.10 Separation between Shared Use Path & Roadway

SUMMARY OF CHANGE:

This section has been revised to provide new criteria for the separation between a shared use path and a curbed roadway. The separation has been revised to 4 feet measured from the back of curb (it was previously measured 5 feet from the outside edge of traveled way). Corresponding changes have been made to Volume 2 Exhibit TYP-15.

IMPLEMENTATION:

These changes are effective on applicable projects beginning design on or after January 1, 2008, but may be applied immediately on projects currently in the Design phase at the District's discretion.

Volume 1, Chapter 8, Section 8.8 Drop-off Hazards for Pedestrians and Bicyclists

SUMMARY OF CHANGE:

This section has been revised to provide new criteria for the minimum railing heights for bicyclists. The standard railing height for bicyclists is generally the same as the minimum pedestrian railing height of 42 inches, but a railing height of 54 inches should be considered under some circumstances. These changes come from the AASHTO LRFD Bridge Design Specifications (2007 Interims) reduction in minimum bicycle railing height to 42 inches. Corresponding changes have been made to Figures 2.0.4, 2.12.2, 2.12.3, and 2.12.7. {Corrected 1/18/08}

These changes will be reflected in the July 1, 2008 Design Standards Modifications.

IMPLEMENTATION:

These changes are effective on applicable projects beginning design on or after January 1, 2008. This height reduction of applicable bicycle railings should also be considered for immediate implementation on projects currently in the Design phase at the District's discretion.

Volume 1, Chapter 9, Section 9.4 Community Structures

SUMMARY OF CHANGE:

This section was changed to update the naming convention of "Community Identification Structures and Landscapes" to "Community Structures". This section was also updated to clarify that this criteria does not apply to Place Name Signs or Customized Place Name Signs. Corresponding changes have been made to Sections 1.7.2, 9.4.1, and 21.5.10.

IMPLEMENTATION:

This change is clarification of existing requirements already in effect.

Volume 1, Chapter 10, Section 10.12.9 Detours, Diversions, and Lane Shifts

SUMMARY OF CHANGE:

This section has been revised to clarify the requirement for coordination with local agencies and documentation of agreements with local agencies when a detour is off the state highway system. Corresponding changes have been made to Section 10.3.1.1.1.

IMPLEMENTATION:

These changes are a clarification of existing requirements already in effect.

Volume 1, Chapter 13, Section 13.5.2.3 Projects Involving Bridge Demolition

SUMMARY OF CHANGE:

This section has been added to address the requirements of Section 1805 of the SAFETEA-LU Legislation. This requires the Department to notify local, State, and Federal government agencies of the availability of demolished bridge debris for beneficial use (including shore erosion control and stabilization, ecosystem restoration, and marine habitat restoration). Corresponding changes have also been made to Sections 26.8.2 and 26.9.2. This will also be addressed in Chapter 3 of the Project Management Handbook, which will include a sample Notification Letter.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2008. Implementation of these changes should also be considered on applicable projects currently in the Design phase that have not yet reached 30% plans.

Volume 1, Chapter 20, Exhibit 20-A Transmittal of PS&E Package

SUMMARY OF CHANGE:

The transmittal has been updated to remove the fields for “Partnering”, “Disputes Review Board”, and “Email Intent and Scope” from the Contracts Office Information area. Also, the contact information line was modified to provide flexibility in the project contact person if the Project Manager is not the contact.

IMPLEMENTATION:

These changes are formatting changes and the new format may be used on any applicable project transmittals beginning immediately.

Volume 1, Chapter 20, Exhibit 20-C Revision Memo

SUMMARY OF CHANGE:

This exhibit has been updated to provide examples of revisions that involve revised, added or deleted pay items. Corresponding changes have been made to Section 20.4. Exhibit 20-C has also been updated to provide an area to indicate if the contract time is revised.

IMPLEMENTATION:

These changes have been made to clarify existing requirements. The new format may be used on any applicable revision memos beginning immediately.

Volume 1, Chapter 20, Exhibit 20-G Preliminary Engineering Certification

SUMMARY OF CHANGE:

This exhibit has been updated to include a field for the Financial Project ID number on projects for which the Preliminary Engineering was funded with State funds.

IMPLEMENTATION:

This change is a formatting change and the new format may be used on any applicable project transmittals beginning immediately.

Volume 1, Chapter 20, Section 20.6 Retention of Electronic Documents

SUMMARY OF CHANGE:

This section has been added to provide information on the different storage systems used for retaining electronic records. Figure 20.3 was also added to provide more detailed information on the different systems.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 1, Chapter 23, Section 23.3 Approval

SUMMARY OF CHANGE:

This section has been rewritten to clarify approval authority for certain controlling design elements. This section also includes the design variation requirements for structural capacity due to deficient bridge load ratings. Corresponding changes have been made to Section 23.5 (item “t”) and Section 23.8.

IMPLEMENTATION:

These changes are based on the [Roadway Design Bulletin 07-04/Structures Temporary Design Bulletin C07-02](#) and were effective on all applicable projects as described in the design bulletin.

Volume 1, Chapter 23, Section 23.5 Documentation for Central Office Approval

SUMMARY OF CHANGE:

This section has been rewritten to better describe the documentation that should be included with design exceptions or design variations requiring Central Office approval. Corresponding changes have been made to Section 23.6 and Exhibit 23-A.

IMPLEMENTATION:

These changes are provided for clarification and are effective on all applicable design variations and design exceptions submitted on or after January 1, 2008.

Volume 1, Chapter 24, Exhibit 24-A Approval and Concurrence Process

SUMMARY OF CHANGE:

This exhibit has been updated to give the District Roadway Design Engineer concurrence authority for phase review plans.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 25, Section 25.3.4.2 Definition of Levels of Survey Effort

SUMMARY OF CHANGE:

This section was updated to remove reference to the NGVD 29 datum. Corresponding changes have been made in Volume 2, Exhibit BHD-1, Exhibit 5-1, and Exhibit 10-1.

IMPLEMENTATION:

All applicable projects with survey work beginning on or after January 1, 2008 shall use NAVD 88.

Volume 1, Chapter 26, Section 26.9.7 Bridge Security

SUMMARY OF CHANGE:

This section has been added to provide new bridge security requirements including anti-terrorist countermeasure designs and strategies.

IMPLEMENTATION:

These changes are effective on all applicable projects with bridge design beginning on or after January 1, 2008.

Volume 1, Chapter 26, Section 26.16 Bridge Load Rating

SUMMARY OF CHANGE:

This section has been updated to clarify the requirements for bridge widening and rehabilitation.

IMPLEMENTATION:

These changes are based on the [Roadway Design Bulletin 07-03/Structures Temporary Design Bulletin C07-01](#) and were effective on all applicable projects as described in the design bulletin.

Volume 1, Chapter 29, Figure 29.2 Standard Mast Arm Design Loading Trees

SUMMARY OF CHANGE:

This figure was modified to remove the depiction of the internally illuminated sign attached to the pole. This change was made to clarify that these signs are permitted on either the pole or the arm of a mast arm assembly if accounted for in the assembly design.

IMPLEMENTATION:

These changes have been made to clarify existing requirements. Corresponding changes will be made to Index ~~44748~~17748 {corrected 1/18/08} of the Design Standards with the July 1, 2008 Design Standards Modifications.

Volume 1, Chapter 30, Section 30.2.3 Retaining Walls

SUMMARY OF CHANGE:

This section was updated to clarify the requirement for including the Retaining Wall System Data Tables for the Plan and Elevation Sheets.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 1, Chapter 30, Section 30.3 Critical Temporary Walls

SUMMARY OF CHANGE:

This section was updated to clarify the requirements for plans with MSE or steel sheet pile critical temporary walls. Figure 30.1 was also added to illustrate the location of critical temporary walls with respect to traffic lanes.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 1, Chapter 32, Section 32.6 Structural Design

SUMMARY OF CHANGE:

This section was updated to add the requirement for specifying the environmental classification for corrosion rate evaluation if steel pilings can be considered for the project. Corresponding changes have been made to Section 32.9.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2008.

Volume 1, Chapter 33, Section 33.13 Computer Design and Analysis Programs

SUMMARY OF CHANGE:

This section was updated to remove reference to LFD design and the associated program. Corresponding changes have been made to Sections 33.4, 33.5, 33.12, Table 33.1, and in Volume 2, Figure 2.1, and Sections 3.6, 7.3 and 22.4.

IMPLEMENTATION:

These changes are based on the January 2007 Structures Manual requirements for LRFD designs and are already in effect.

VOLUME 2

Volume 2, Chapter 3, Section 3.2.3 Length of Project Box

SUMMARY OF CHANGE:

This section was changed to require a note on the Key Sheet that identifies the line used to compute the length of project if a line other than the baseline of survey is used.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2008 letting, however it may be applied to projects currently underway at the discretion of the design engineer of record.

Volume 2, Chapter 3, Section 3.3 Project Location Map

SUMMARY OF CHANGE:

This section was added to clarify that both the begin project station and milepost are required on the Key Sheet, and the station information must be consistent with that entered into the Work Program Administration system.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 2, Chapter 3, Section 3.6 Index of Sheets

SUMMARY OF CHANGE:

This section has been updated to clarify that the use of sheet number prefixes discussed in this section are optional. Corresponding changes have been made to Sections 23.1, 24.1, and 25.1.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 2, Chapter 3, Exhibit 3-1 Standard Key Sheet Notes

SUMMARY OF CHANGE:

This exhibit was added to identify the standard Key Sheet notes. These notes are being moved to the PPM from the Basis of Estimates Manual.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

Volume 2, Chapter 7, Exhibit SQ-1 Summary of Quantities

SUMMARY OF CHANGE:

The Summary of Side Drain & Mitered End Sections box has been updated to reflect pipe size groupings. Corresponding changes have been made to Exhibit SDS-1a (Summary of Drainage Structures Sheet).

IMPLEMENTATION:

The changes regarding pipe size groupings are based on the [April 26, 2006 Basis of Estimates Summary of Major Changes \("Cover Letter"\)](#) and were effective on all applicable projects beginning with the January 2007 letting.

Volume 2, Chapter 7, Exhibit SQ-2 Summary of Quantities

SUMMARY OF CHANGE:

The Summary of Guardrail has been updated to include a separate column for Modified Thrie Beam Double Face.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2008 letting.

Volume 2, Chapter 8, Exhibit SDS-1a Summary of Drainage Structures Sheet

SUMMARY OF CHANGE:

This exhibit was updated to reflect the consolidation of storm drains and cross drains. Corresponding changes have been made to Section 8.1.1.

IMPLEMENTATION:

These changes are based on the on [Roadway Design Bulletin 07-09](#) and [Estimates Bulletin 07-03](#) and are effective on all applicable projects as described in the bulletins.

Volume 2, Chapter 9, Section 9.4 General Notes

SUMMARY OF CHANGE:

This section has been updated to allow the use of a stand-alone General Notes Sheet when the general notes cannot fit on either the Project Layout Sheet or the first Plan Sheet. Corresponding changes have been made to Sections 3.6, 10.4, and the new Exhibit GN-1.

IMPLEMENTATION:

These changes have been made to support current practice and may be implemented on all applicable projects beginning immediately.

Volume 2, Chapter 9, Exhibit PL-1 Project Layout Sheet

SUMMARY OF CHANGE:

This exhibit has been added to provide an example Project Layout Sheet.

IMPLEMENTATION:

This change has been made to clarify existing requirements.

Volume 2, Chapter 10, Section 10.2.7 Plan Layout

SUMMARY OF CHANGE:

This section has been updated to allow projects with minor utility impacts to include those features on the plan sheets. Corresponding changes have been made to Section 20.1.

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2008, however it may be applied to projects currently underway at the discretion of the design engineer of record.

Volume 2, Chapter 10, Exhibit 10-1 General Notes for Roadway Plan Sheets

SUMMARY OF CHANGE:

This section has been updated to require the definition of any abbreviations used in the plans to be listed if not found in Index 001 of the Design Standards. Corresponding changes were made to the 2007 CADD Production Criteria Handbook (Maintenance Release 4 (MR4) Update).

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2008 letting.

Volume 2, Chapter 14, Section 14.2 Required Information

SUMMARY OF CHANGE:

This section has been updated to reflect the change in naming convention from “storm sewer” to “storm drain”. Corresponding changes have been made in Volume 1, Sections 5.1 and 10.3, and in Volume 2, Sections 2.3.2.2, 5.1.2, 10.2.6, 10.3.5, and Exhibits SWP-1, SWP-2, and SWP-3.

IMPLEMENTATION:

These changes are based on the on [Roadway Design Bulletin 07-09](#) and [Estimates Bulletin 07-03](#) and are effective on all applicable projects as described in the bulletins.

Volume 2, Chapter 14, Section 14.2 Required Information

SUMMARY OF CHANGE:

This section has been updated to clarify that the grate elevations are required for all gutter inlets, not just shoulder gutter inlets.

IMPLEMENTATION:

This change has been made to clarify existing requirements.

Volume 2, Chapter 14, Exhibit DS-1 Drainage Structures Sheet

SUMMARY OF CHANGE:

This exhibit has been added to provide an urban example of a Drainage Structures Sheet.

IMPLEMENTATION:

This change has been made to clarify existing requirements.

Volume 2, Chapter 22, Section 22.1 General

SUMMARY OF CHANGE:

This section has been updated to clarify where box and three-sided culvert details should be placed.

IMPLEMENTATION:

This change has been made to clarify existing requirements.

Volume 2, Chapter 24, Section 24.8 Monotube Sheets

SUMMARY OF CHANGE:

This section has been updated to show that monotube assemblies require a special design.

IMPLEMENTATION:

This change corresponds with the removal of Index 17746 for the 2008 Design Standards and is effective on all applicable projects beginning with the July 2008 letting.

Volume 2, Generic Exhibits

SUMMARY OF CHANGE:

These exhibits throughout Volume 2 have been updated to remove the “by” column in the revision block area of the Roadway sheet border. Corresponding changes will be made with the next Maintenance Release (MR5) of the FDOT2004 CADD Software.

IMPLEMENTATION:

These changes have been made to clarify existing requirements.

GENERAL

All other changes in the January 1, 2008 Plans Preparation Manual Update Package primarily consist of minor editing, updated references, clarification and/or error corrections and are effective immediately.

If you have any questions, please contact this office at (850)414-4356.
