



Florida Department of Transportation


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DATE: November 20, 2003

TO: Registered Plans Preparation Manual Holders

FROM: Brian Blanchard, P.E.
State Roadway Design Engineer 

CC: Bob Greer, William Nickas, Jim Mills

SUBJECT: IMPLEMENTATION - PLANS PREPARATION MANUAL
JANUARY 1, 2004 UPDATES

The January 1, 2004 Updates include:

1. Revisions to Plans Preparation Manual (PPM), Volume I English, January 2003.
2. Revisions to PPM, Volume II English, January 2003.

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

Volume I, Chapter 1, Section 1.9 Design Speed

SUMMARY OF CHANGE:

Guidance has been added to clarify the determination of design speed as it relates to posted speed. Additional information has been added to address the modification of posted speed limits after construction of a project has been completed. Also, a statement has been added to address the use of special curbed sections on suburban highways meeting the criteria in Section 2.16.

IMPLEMENTATION:

These changes are for clarification and are effective immediately.

Volume I, Chapter 2, Figure 2.0.4 Bridge Section

SUMMARY OF CHANGE:

Guidance for the median shoulder has been included in this figure.

IMPLEMENTATION:

These changes are based on current criteria and are effective immediately.

Volume I, Chapter 2, Section 2.1.4.2 Bicycle Facilities

SUMMARY OF CHANGE:

The discussion on bicycle facilities in areas without curb is no longer limited to rural areas. Also, the discussion on bicycle lanes between through lanes and right turn lanes is no longer limited to undesignated bicycle lanes.

IMPLEMENTATION:

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

Volume I, Chapter 2, Table 2.2.1 Median Widths

SUMMARY OF CHANGE:

Footnote number 5, referring to curbed sections with 50 mph design speeds, has been removed.

IMPLEMENTATION:

This change is a clarification of existing requirements and is effective immediately.

Volume I, Chapter 2, Section 2.3 Shoulders and Figure 2.3.2

SUMMARY OF CHANGE:

The change to Section 2.3 is a clarification to recommend that the median section under overpass bridges be paved. The details on this are covered in the modifications made to Figure 2.3.2.

IMPLEMENTATION:

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

Volume I, Chapter 2, Section 2.5 Borders and Table 2.5.2

SUMMARY OF CHANGE:

Section 2.5 has been revised to include a new discussion addressing the border for highways with curb or curb and gutter where clear zone is being provided. In these areas the border criteria for flush shoulder highways applies. Also, the discussion on curb or curb and gutter highways is now limited to urban areas. The title of Table 2.5.2 was also revised to specify urban areas. Also, the design speed for the first facility type in the table was changed from " ≥ 45 mph" to " $= 45$ mph".

IMPLEMENTATION:

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

Volume I, Chapter 2, Section 2.5.1 Limited Access Facilities and Table 2.5.1

SUMMARY OF CHANGE:

Section 2.5.1 includes a note that appears below Table 2.5.1 regarding the measurement of the border on Limited Access Facilities. The note has been corrected in both locations to state that the border is measured from the outside traffic lane, not the travel lane.

IMPLEMENTATION:

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

Volume I, Chapter 2, Table 2.9.1 Rates for Rural Highways, Urban Freeways and High Speed Urban Highways (e max =0.10)

SUMMARY OF CHANGE:

The equivalent radii for $D = 15^{\circ}00''$ to $D = 24^{\circ}00''$ have been corrected. Also, break points have been added to the table to indicate the radius at which the slope goes from NC to RC and from RC to superelevation.

IMPLEMENTATION:

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

Volume I, Chapter 2, Table 2.10.1 Vertical Clearance for Bridges

SUMMARY OF CHANGE:

The vertical clearance for bridges over electrified railroad has been brought into Table 2.10.1 from Section 6.3.5. The vertical clearance has also been corrected in both locations from 24' to 24'3".

IMPLEMENTATION:

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

Volume I, Chapter 2, Section 2.11 Horizontal Clearance

SUMMARY OF CHANGE:

New language has been added to clarify horizontal clearance for all highways with reference to whether or not the roadside is of sufficient width to provide clear zone. Additional information has been included to explain that curb is not to be used to reduce horizontal clearance requirements. Corresponding changes have been made to Tables 2.11.2-2.11.6, Table 2.11.8 (new table, criteria is taken from Chapter 4), Table 2.11.9, Section 2.16.9; Chapter 4, Section 4.1.2, Section 4.2.1, Figures 4.1.2.1-4.1.2.2, and Exhibits 4-A and 4-B; Chapter 21, Section

21.5.6 and Tables 21.2 - 21.6; Chapter 25, Tables 25.4.14.1, 25.4.14.3 - 25.4.14.7, 25.4.14.9, 25.4.14.10; and Chapter 29, Section 29.6.5 of this volume. These changes have been made for consistency with the Design Standards, Index 700.

IMPLEMENTATION:

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

Volume I, Chapter 2, Section 2.12 Bridge Railings and Separators

SUMMARY OF CHANGE:

Information has been added to address the adequacy of existing "New Jersey Shape" traffic railing barriers, and a reference has been made to Structures Standard Drawings Index I-799 for more information. In the past, analysis of the "New Jersey Shape" traffic railing barriers showed that they do not resist the equivalent loadings for NCHRP Report 350 Test Level 4 when analyzed using the AASHTO LRFD methodology. However, it has been shown through crash testing that they do meet NCHRP 350 Test Level 4 criteria and are both structurally and functionally adequate. Therefore, a design exception is no longer required for existing "New Jersey Shape" Traffic Railings that are to remain in place. Corresponding changes have been made to Section 25.4.25.3 of Volume I.

IMPLEMENTATION:

This change is based on the [Structures Temporary Design Bulletin C03-02](#), and was effective as of February 28, 2003.

Volume I, Chapter 2, GLOSSARY OF TERMS

SUMMARY OF CHANGE:

The definition for Traffic Lane/Traveled Way has been modified to exclude marked bicycle lanes from the width.

IMPLEMENTATION:

This change is a clarification of existing requirements and is effective immediately.

Volume I, Chapter 4, Section 4.4.1 Warrants and Section 4.4.2 Selection

SUMMARY OF CHANGE:

Criteria has been added to Section 4.4.1 for evaluating and shielding against across median crashes at interchange areas (and other areas) on limited access facilities. Additional guidance has also been included in Section 4.4.2 regarding median guardrail selection.

IMPLEMENTATION:

These changes are effective immediately.

Volume I, Chapter 5, Section 5.1 General

SUMMARY OF CHANGE:

Section 5.1 has been revised to include new language specifying the Utility Accommodation Manual (UAM) as the governing document for criteria and standards applied to utilities.

IMPLEMENTATION:

This change is clarification of existing requirements and is effective immediately.

Volume I, Chapter 5, Section 5.3.1 Quality Levels of Utility Locates

SUMMARY OF CHANGE:

The detailed descriptions of each of the quality levels have been deleted and a reference to the UAM has been added for these descriptions.

IMPLEMENTATION:

This change was made to avoid inconsistencies with the UAM and is effective immediately.

Volume I, Chapter 5, Section 5.4 Subsurface Utility Engineering

SUMMARY OF CHANGE:

Section 5.4 has been updated to include additional information to clarify the definition and use of Subsurface Utility Engineering (SUE).

IMPLEMENTATION:

This change is clarification of existing requirements and is effective immediately.

Volume I, Chapter 7, Section 7.3.2.2 Standard Aluminum Light Poles

SUMMARY OF CHANGE:

Mounting height at grade was changed from 30 feet to 25 feet. The wind design height was changed from 10-foot to 5-foot increments. The 110 mph design wind speed was deleted.

IMPLEMENTATION:

These changes are corrections and are effective immediately.

Volume I, Chapter 7, Section 7.4.6 Signal Preemption

SUMMARY OF CHANGE:

Section 7.4.6 has been updated to include language requiring the engineer to check each signalized intersection to determine the need for preemption in a traffic signal project. Additional guidance and a reference to the Signalization Preemption Design Standards have also been added.

IMPLEMENTATION:

These changes are in accordance with [Department Procedure 750-030-002](#) and were effective as of December 11, 2002.

Volume I, Chapter 8, Section 8.6.5 Horizontal Clearance, Section 8.8 Drop-off Hazards for Pedestrians and Bicyclists, and Figure 8.2

SUMMARY OF CHANGE:

These sections have been updated to clarify horizontal clearance for shared use paths. These changes also address horizontal clearance to railings or fences that are used for drop-offs. Figure 8.2 was updated to show the area where a railing, fence, or barrier is required.

IMPLEMENTATION:

These changes are for clarification and are effective immediately.

Volume I, Chapter 10, Section 10.2.1 Design Standards

SUMMARY OF CHANGE:

This section was added to clarify that Index 600 of Design Standards contains information specific to the State Highway System, and local agencies may adopt the MUTCD for the minimum requirements for roads that are not part of the State Highway System.

IMPLEMENTATION:

This change is clarification of existing requirements and is effective immediately.

Volume I, Chapter 11, Section 11.1 General

SUMMARY OF CHANGE:

New language was added to reflect changes in the stormwater discharge permitting authority to the State of Florida Department of Environmental Protection (DEP). New language was also added to address changes in the permitting process and the use of the permit. Corresponding changes have also been made to Volume II, Chapter 28 and Exhibits SWP-2 and SWP-3.

IMPLEMENTATION:

The change in permitting authority took place in May of 2003 and the changes in Chapter 11 have already been implemented on projects let in July 2003 or later. See [email from Brian Blanchard dated July 3, 2003](#) for additional information.

Volume I, Chapter 13, Section 13.2 Initial Engineering Design (Phase I)

SUMMARY OF CHANGE:

The list of activities that should be accomplished during the initial engineering phase was revised to add an activity for identifying prior PD&E and environmental commitments such as sound barrier walls. Corresponding changes were also made to Section 13.6 and Exhibit 13-A.

IMPLEMENTATION:

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

Volume I, Chapter 13, Section 13.5.2 Projects Involving Steel Bridges

SUMMARY OF CHANGE:

This section has been revised to clarify the requirements for the State Corrosion Engineer to be contacted on all projects that involve the repair, repainting, or replacement of a steel bridge.

IMPLEMENTATION:

This change is a clarification of existing requirements and is effective immediately.

Volume I, Chapter 13, Section 13.5.3 Projects Involving Bridges Over Navigable Water

SUMMARY OF CHANGE:

This new section contains direction for projects involving bridges over navigable water. The Project Manager must now provide the District Structures and Facilities Engineer (DSFE) sufficient notification prior to engaging in any action in, on, or around any bridges over navigable water, so that the DSFE can contact the U.S. Coast Guard. Corresponding changes have also been made to Section 26.1.

IMPLEMENTATION:

These changes were in effect as of the letter from the U.S. Coast Guard dated October 30, 2002.

Volume I, Chapter 13, Section 13.7 Distribution of Exempt Public Documents

SUMMARY OF CHANGE:

This section has been added to support the Department's current policy on Distribution of Exempt Public Documents Concerning Department Structures and Security System Plans and gives instructions on requesting and distributing such exempt documents.

IMPLEMENTATION:

These changes are based on [Department Procedure 050-020-026](#), and were effective as of January 2, 2003.

Volume I, Chapter 14, Section 14.2 Final Engineering Design

SUMMARY OF CHANGE:

The list of major design activities that was revised to add an activity for sound barrier design. Corresponding changes were also made to Exhibit 14-A.

IMPLEMENTATION:

This change is clarification of existing requirements and is effective immediately.

Volume I, Chapter 16, Exhibit 16-A List of Requests and Contacts, and Section 16.3.3 Other Structural Submittals and Reviews

SUMMARY OF CHANGE:

Several changes have been made to this chapter based on recommendations from the Transit Task Team. Exhibit 16-A includes a new section for requests and contacts from the Public Transportation / Modal Development Office. Section 16.3.3 includes a new requirement that transit related furnishings be reviewed by the local agency.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2004.

Volume I, Chapter 19, Section 19.2 Sealing of Contract Plan/Record Set

SUMMARY OF CHANGE:

This section has been updated in an attempt to clarify the meaning of "certificate of authorization number". This previously was referred to as the "engineering business license number", and the terminology was changed by the Board of Professional Engineers several years ago. The "certificate of authorization" is the license for the business to practice engineering. On consultant prepared plans, the engineer's name and license number as well as the name, address, and certificate of authorization number for the engineering business must be shown on each sheet of the plans set.

IMPLEMENTATION:

This change is clarification of existing requirements and is already in effect.

Volume I, Chapter 19, 19.2.2 Electronic Sealing

SUMMARY OF CHANGE:

This section was modified to specify the location of the electronic signature note on each sheet that is electronically sealed.

IMPLEMENTATION:

This change will be effective on all applicable projects beginning with the July 2004 letting.

Volume I, Chapter 20, Section 20.1 General and Figure 20.1 Plans Processing Thru Tallahassee

SUMMARY OF CHANGE:

Section 20.1 has been updated to state that the electronic letting process is not covered in Chapter 20 because current pilot projects may cause changes to the process. The latest information may be found on the Roadway Design web page.

Figure 20.1 was added to provide information as to what is involved in plans processing when the plans reach Tallahassee.

IMPLEMENTATION:

These changes are informational and no implementation is necessary.

Volume I, Chapter 20, Section 20.3.1 District Activities

SUMMARY OF CHANGE:

Section 20.3.1 was previously written to address both centralized and decentralized Estimates. This section has been updated to reflect the fact that the preparation of the Official Estimates in all of the Districts has been decentralized. Corresponding changes were made to Sections 20.3.2, 20.4, and Exhibit 20-A.

IMPLEMENTATION:

No implementation is necessary because the changes involved only the removal of information that is no longer applicable.

Volume I, Chapter 23, Section 23.2.1 Coordination and Conceptual Concurrence

SUMMARY OF CHANGE:

For Design Exceptions requiring FHWA approval, the State Roadway Design Engineer's Office (no longer the District Design Engineer) will coordinate with FHWA to obtain conceptual concurrence.

IMPLEMENTATION:

This change is effective immediately.

Volume I, Chapter 23, Table 23.4.13 AASHTO Horizontal Clearance (Minimum)

SUMMARY OF CHANGE:

Horizontal clearance to trees was added to this table.

IMPLEMENTATION:

AASHTO minimums are the basis for determining the need for design exceptions, regardless of whether or not a value is specifically reflected in the Chapter 23 tables. Although the tree values were not in the table, they were still addressed in AASHTO, and therefore already in effect.

Volume I, Chapter 25, Florida's Design Criteria for Resurfacing, Restoration and Rehabilitation (RRR) of Streets and Highways

SUMMARY OF CHANGE:

Changes have been made throughout Chapter 25 to give guidance on and clarify the proper use of program funds for RRR projects.

IMPLEMENTATION:

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

Volume I, Chapter 25, Section 25.4.4 Design Speed, and Table 25.4.4.1

SUMMARY OF CHANGE:

Section 25.4.4 has been updated to clarify the determination of design speed as it relates to posted speed on RRR projects. Additional information has been added to address the modification of posted speed limits after construction of a project has been completed. Also, Table 25.4.4.1 has been added to provide guidance in evaluating the design speed and posted speed on a RRR project.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2004.

Volume I, Chapter 25, Section 25.4.17 Intersections

SUMMARY OF CHANGE:

This section was revised to clarify T-intersection crash history analysis.

IMPLEMENTATION:

This change is for clarification and is effective immediately.

Volume I, Chapter 25, Section 25.4.19 Pedestrian, Bicyclist, and Transit Needs

SUMMARY OF CHANGE:

The section on sidewalks under Pedestrian Needs has been rewritten to include the FHWA requirements for addressing ADA on RRR projects.

IMPLEMENTATION:

These changes are based on the [email from Brian Blanchard dated August 20, 2003](#) (and the attached letters to and from FHWA), and are effective immediately.

Volume I, Chapter 25, Section 25.4.19 Pedestrian, Bicyclist, and Transit Needs

SUMMARY OF CHANGE:

The section on bicyclist needs has been rewritten to address bicycle lanes on RRR projects without curb and in areas with right turn lanes.

IMPLEMENTATION:

These changes are effective on applicable projects beginning design on or after January 1, 2004.

**Volume I, Chapter 29, Section 29.1 Design of Overhead Sign Structures and Foundations,
and Section 29.2 Design of High Mast Light Poles and Foundations**

SUMMARY OF CHANGE:

These sections have been updated to include information on how FDOT assigns identification numbers to overhead sign structures and high mast lighting structures.

IMPLEMENTATION:

These changes are informational and are already in effect.

Volume I, Chapter 32, Sound Barrier Walls

SUMMARY OF CHANGE:

Section 29.6, Design of Sound Barrier Walls, was removed from Chapter 29 and further developed into the new Chapter 32. This chapter contains more detailed requirements regarding the analysis of sound barrier walls during the design phase.

IMPLEMENTATION:

This new chapter is effective on all applicable projects beginning design on or after January 1, 2004.

Volume II, Chapter 2, Section 2.1 General

SUMMARY OF CHANGE:

This section has been updated to require the approval of component plan sets other than the standard components listed. Such approval is to be obtained from the State Roadway Design Engineer prior to Phase II.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 2, Section 2.3.2.2 Requirements for Phase II Submittal

SUMMARY OF CHANGE:

The requirements for Retention/Detention pond details and cross sections are now listed. These items were shown in Figure 2.1 as having preliminary status during Phase II, however the actual requirements were inadvertently omitted until now.

IMPLEMENTATION:

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

Volume II, Chapter 3, Section 3.12 Interim Standards

SUMMARY OF CHANGE:

These changes are based on the recommendations of the Contract Plans Task Team. Section 3.12 is a new section that eliminates the requirement to attach the Interim Standards to the plans. This section addresses the new requirement to list the applicable Interim Standards on the Key Sheet. Corresponding changes have also been made in Section 3.6 and Exhibit KS-1.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 7, Exhibits SQ-1 thru SQ-3

SUMMARY OF CHANGE:

The form numbers that appear in the upper right corner of summary tables are not required in the plans and have been deleted from all summary tables.

IMPLEMENTATION:

These changes are effective immediately.

Volume II, Chapter 8, Exhibit SDS-1a

SUMMARY OF CHANGE:

The Summary of Drainage Structures sheet has been updated to remove the columns for "size" and "length" and add a column for "side".

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2004.

Volume II, Chapter 10, Section 10.3.5 Other Profile Features

SUMMARY OF CHANGE:

This section has been updated based on the recommendations of the Contract Plans Task Team. Now, except for transverse utilities, no underground utilities shall be shown in profile. Corresponding changes have been made to Exhibit PP-2

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 20, Section 20.2 Required Information, Section 20.3 Sheet Format, Exhibit 20.1 General Notes for Utility Adjustments

SUMMARY OF CHANGE:

These sections have been updated based on the recommendations of the Contract Plans Task Team. Now, the disposition of existing utilities that are to remain in place and in service need not be labeled. Also, only the plan portion of the utility adjustment sheets needs to be shown, and in place of the profile portion, the field verified (Vvh) utilities should be tabulated.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 23, Section 23.3 Tabulation of Quantities and Pay Item Notes

SUMMARY OF CHANGE:

The standard sign number is not required in the Signing and Pavement Marking Tabulation of Quantities if shown in the plans sheets.

IMPLEMENTATION:

This change is effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 23, Section 23.3 Tabulation of Quantities and Pay Item Notes, and Section 23.5.1, Format and Scale

SUMMARY OF CHANGE:

These changes are based on the recommendations of the Contract Plans Task Team. Section 23.5.1 has been updated to allow typical drawings to be used on rural projects with long sections that only show edge lines and lane lines. This section also allows sign location and disposition to be tabulated. Section 23.3 allows the quantities to be tabulated by sheet or now by station.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning with the July 2004 letting.

Volume II, Chapter 23, Section 23.3 Tabulation of Quantities, and Exhibit 23-1

SUMMARY OF CHANGE:

Changes have been made to this section regarding the tabulation of pavement marking quantities (Item No. 710-90 Painted Pavement Markings (Final Surface), Lump Sum). Corresponding changes have been made to Exhibit 23-1 and Exhibit 7-1.

IMPLEMENTATION:

These changes are based on the [April 7, 2003 Basis of Estimates Cover Letter revised July 28, 2003](#). These changes are effective beginning with the July 2004 letting.

Volume II, Chapter 26, Section 26.1 General

SUMMARY OF CHANGE:

Changes have been made to this section regarding loading landscape pay items into category 0600 in TRNS*PORT.

IMPLEMENTATION:

These changes are based on the [October 1, 2003 Basis of Estimates Cover Letter](#). These changes are effective beginning with the January 2004 letting.

Volume II, Chapter 26, Section 26.3 Tabulation of Quantities, and Section 26.4 Plant Schedule and Details Sheet

SUMMARY OF CHANGE:

Changes have been made to this section regarding plant quantities and description. This information is no longer shown on the Tabulation of Quantities Sheet. The plant quantities and descriptions (including Pay Size) are to be shown on the Plant Schedule. Corresponding changes have been made to Section 26.1 and 26.5.2.

IMPLEMENTATION:

These changes are based on the [October 1, 2003 Basis of Estimates Cover Letter](#). These changes are effective beginning with the July 2004 letting.

Volume II, Appendix A Metric Practice

SUMMARY OF CHANGE:

This Appendix, originally in the Metric PPM, was added to provide some guidance as to how metric plans were developed. A corresponding reference to this appendix is made in Section 1.3.1 Converting from Metric to English.

IMPLEMENTATION:

These changes are for informational purposes and no implementation is necessary.

All other changes in the January 1, 2004 Plans Preparation Manual updates package primarily consist of minor editing for clarification and/or error corrections.

If you have any questions please contact this office, 850-414-4356, Suncom 994-4356.