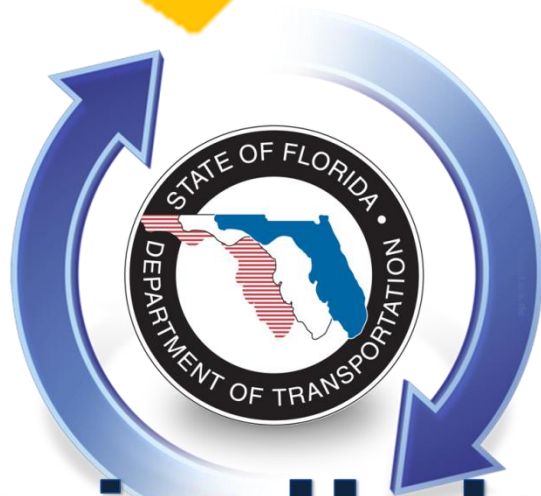


Roadway Design

Florida's Transportation Engineers



Design Update Training

August 6, 2013

Agenda

Subject	Presenter	Office
Greetings	Frank Sullivan, P.E., Roadway Design Administrator	Roadway Design
PPM July 2013 Updates & PPM Rewrite for Design Build	María J. Irizarry, E.I., Design Manual Engineer & Mary Anne Koos, Special Projects Coordinator	Roadway Design, Criteria and Standards Division
Design-Build	Alan Autry, Alternative Contracting & Contract Administration Specialist	Office of Construction
Conducting Public Meetings	Rusty Ennemoser, State Public Involvement and Community Resources Coordinator	Environmental Management Office

Plans Preparation Manual July 1, 2013 Updates



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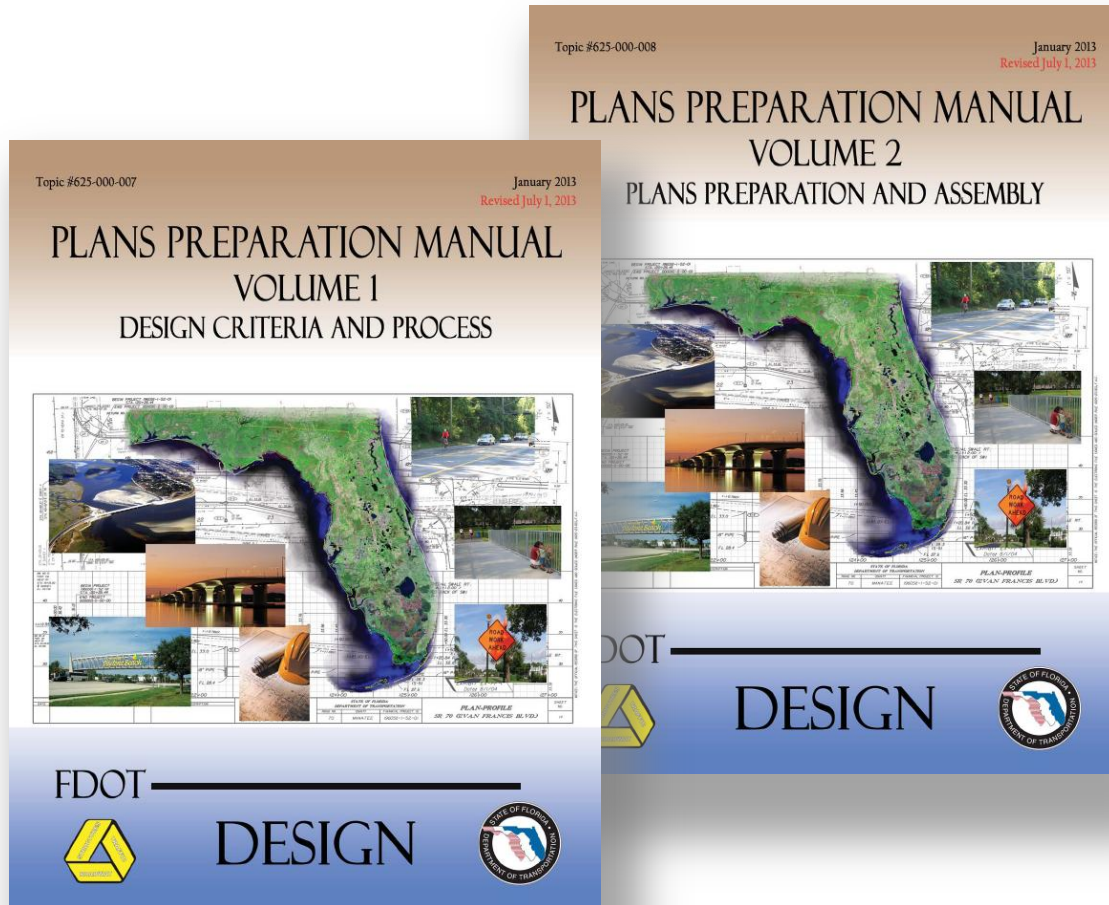
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Plans Preparation Manual

Overview of PPM Update Process



Overview of PPM Update Process

- ◆ Two Volumes
- ◆ English Units
- ◆ Electronic Version



[http://www.dot.state.fl.us/rd
design/PPMManual/PPM.shtm](http://www.dot.state.fl.us/rd/design/PPMManual/PPM.shtm)



PPM Update Process

- ◆ Draft changes
 - ✓ Technical experts
- ◆ District Roadway Design Engineers
 - ✓ Meetings
 - ✓ Review and comment
- ◆ District Design Engineers
 - ✓ Review and comment
- ◆ FHWA
 - ✓ Review authority as per Partnership Agreement
- ◆ Central Office Criteria and Standards Division
 - ✓ Coordinate, document changes, format & publish

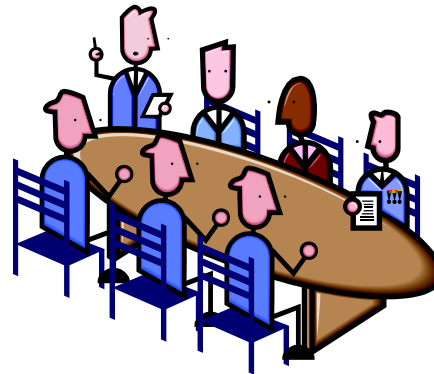


PPM Rewrite for Design-Build

- ◆ Chapter Authors
 - ✓ Training



- ◆ Oversight Committee
 - ✓ Consistency
 - ✓ Accuracy



PPM Rewrite for Design-Build

- ◆ Draft changes
- ◆ Design-Build Oversight Committee
- ◆ District Roadway Design Engineers
- ◆ District Design Engineers – ‘Sign-off’
- ◆ FHWA
- ◆ Central Office Criteria Division



Updates

- ◆ Design Bulletin
- ◆ Complete Manual
- ◆ Updated Forms
- ◆ Contact Mailer – Notifications



<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>



Updates

Roadway Design / Criteria and Standards / Plans Preparation Manual

Plans Preparation Manual



Current PPM - Revised July 1, 2013

2013-July Vol 1 and 2

2013R-Implementation Letter

Previous PPM

2013-Jan Vol 1 and 2

2013-Implementation Memo

Archived PPM

Archived Manuals 1967 - 2012

Tools

PPM User Survey Results

PPM Forms, Letters and Memos

Sample Exhibits

Urban Area 1-Mile Buffer Maps

Links

Office of Design

Specifications and Estimates Office

Structures Design Office

Training Homepage

PLEASE NOTE:

This site contains all available electronic files (in *.PDF format) for the Plans Preparation Manual (PPM). This includes update packages, implementation letters, and the complete manual.

Hardcopies and CD versions of the Plans Preparation Manual ARE NO LONGER AVAILABLE.

All PPM users (and other Roadway Design manual users) must register their e-mail addresses in the contact management database in order to receive future update notices, design memos, or other important information concerning the Department's design manuals used. Users can register at the following link:

<http://www2.dot.state.fl.us/contactmanagement/>

If you should have any questions, comments or suggestions regarding the PPM, please contact:

Benjamin Gerrell

Phone:(850) 414-4318

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Design Bulletins

- ◆ Contact Mailer Notifications
- ◆ Our website:

<http://www.dot.state.fl.us/rddesign/default.shtm>

- Office Resources
 - About us
 - Divisions
 - Documents & Publications
 - Programs & Services
 - Meetings & Events
- Most Requested
 - Design Standards
 - Bulletins**
 - Plans Preparation Manual
 - Florida Greenbook
 - Pavement Reports
 - Training
 - MOBILE website



Welcome

Thank you for visiting our site. The Roadway Design Office is comprised of four sections: **Criteria and Standards**, **Quality Assurance**, **Pavement Management**, and **Hydraulics Design**. We develop and disseminate policies, procedures, training, criteria and standards for the design of Florida roadways. We also provide support to other central office units and FDOT's Districts in these areas of practice.

News

Position Vacancies in the Roadway Design Office

Posted: July 29, 2013

The Roadway Design Office currently has two vacancies with a closing date of 8/9/2013 and another with a closing date of 8/13/13

Bulletins

Design Bulletin 13-11 / Structures Bulletin 13-12 / Estimates Bulletin 13-09 / DCE Memorandum 19-13 (FHWA Approved: 7/22/2013)

Posted: July 22, 2013

Replacement of Computation Books with Plan Summary Boxes

Design Bulletin 13-10 / Structures Bulletin 13-10

Posted: July 3, 2013

2014 Design Standards

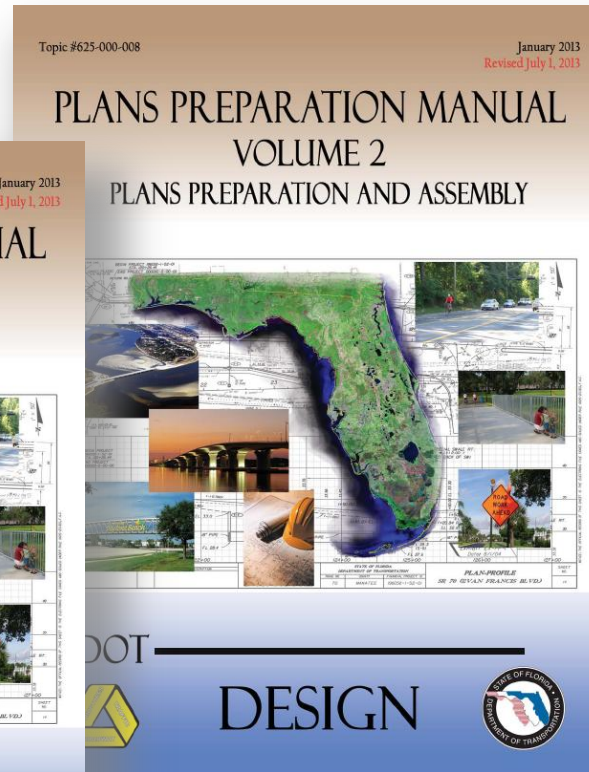
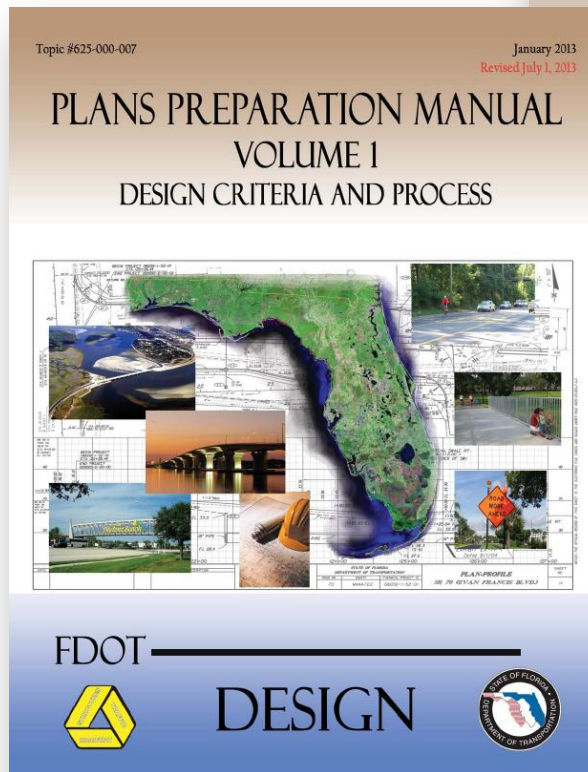
Design Bulletin 13-09

Posted: July 2, 2013

Implementation - Plans Preparation Manual - July 1, 2013 Revised Update



Plans Preparation Manual Rewrite for Design-Build



July 1, 2013



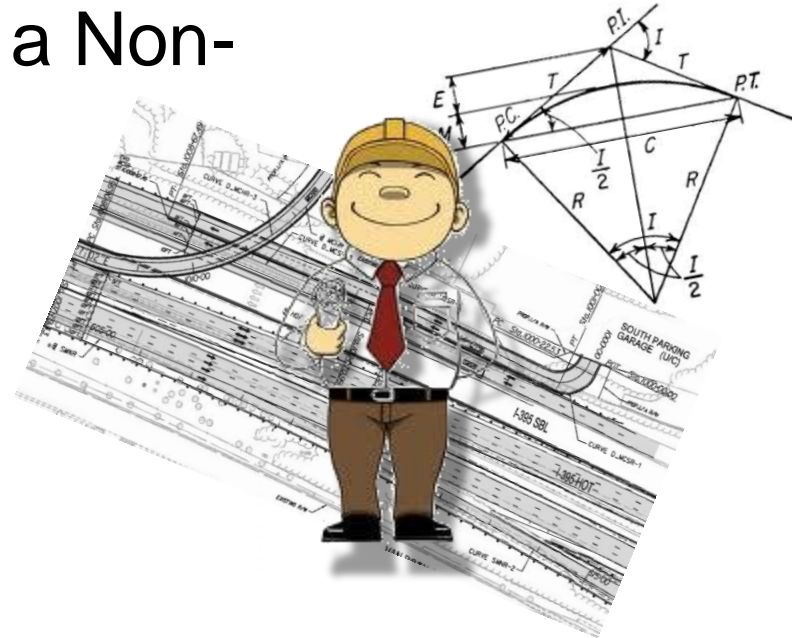
Plans Preparation Manual Rewrite for Design-Build

- ◆ Increasing number of Non-Conventional Projects in the FDOT Work Program
- ◆ Clarify criteria and phase submittal requirements for Conventional and Non-Conventional Projects
- ◆ More authoritative
- ◆ Volume 2, Chapter 2, Section 2.4
 - ✓ *Design-Build Phase Submittals*



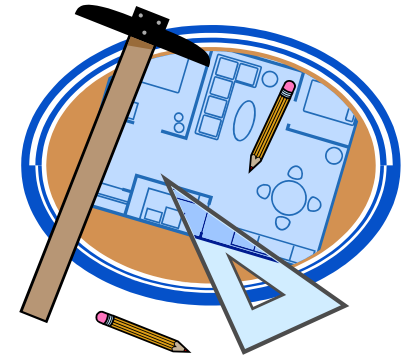
Who?

- ◆ Author of the Request for Proposal (RFP)
- ◆ Engineer of Record on a Conventional Project
- ◆ Engineer of Record on a Non-Conventional Project



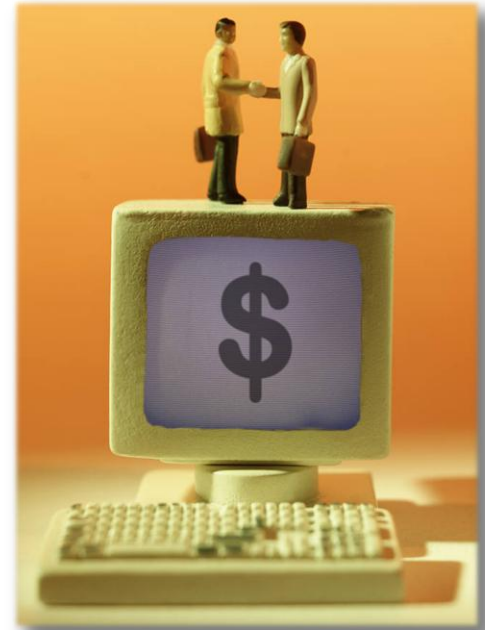
Conventional Projects

- ◆ Projects for which the preparation of the contract documents is a 'stand-alone' effort resulting in Plans, Specifications and Estimates required to advertise a Construction Contract.



Non-Conventional Projects

- ◆ Examples:
 - ✓ Design-Build (DB) projects
 - ✓ Public Private Partnerships (PPP)



Request for Proposal (RFP)

- ◆ The Office of Construction reviews and approves a draft RFP.
- ◆ Must clearly define all functions and responsibilities required by the Design-Build Firm.
- ◆ Boilerplate



<http://www.dot.state.fl.us/construction/DesignBuild/DBDocuments/DBDocsMain.shtm>

- ◆ Pre-Scoping Questions

<http://www.dot.state.fl.us/construction/DesignBuild/DBRules/DB-PreBid-Scoping-Questions.pdf>



PPM Rewrite for Design-Build

- ◆ Sentences, sections or entire Chapters deleted for Design-Build
- ◆ Changes for both Design-Build and Design-Bid-Build projects
- ◆ Some requirements modified just for Design-Build projects
- ◆ Some requirements modified or deleted in the PPM for Design-Build and provided in the RFP.
 - ✓ Pre-Scoping Questions



PPM Rewrite for Design-Build

- ◆ Entire Chapter deleted for Design-Build:

Chapter 3

Earthwork

Modification for Non-Conventional Projects:

Delete *PPM* Chapter 3.

delete



PPM Rewrite for Design-Build

- ◆ SR 100 – Rail Trail from Holloway Rd. to Roberts Ln.



PPM Rewrite for Design-Build

- ◆ Requirements modified for Conventional and Non-Conventional Projects:

10.7.1 Advance Warning Signs

The TTC plan ~~should~~shall identify the advance construction warning signs, including legends and location. These include signs such as "Road Work Ahead" and "Road Work One Mile". The TTC plan ~~should~~shall provide the advanced warning signs, legends and locations for all proposed operations that require signing. These include diversions, detours, lane closures, and lane shifts, on the mainline as well as crossroads. The sequence for advance signing ~~should~~shall be from general to more specific. As an example: Road Work Ahead (general), Left Lane Closed Ahead (more specific), and Merge Right (specific).

Vertical lines
show revisions



PPM Rewrite for Design-Build

- ◆ Tables and requirements modified for Design-Build projects:

Table 2.1.1 Lane Widths

LANE WIDTHS (FEET)						
FACILITY		THROUGH OR TRAVEL	AUXILIARY			
TYPE	AREA		SPEED CHANGE	TURNING (LT/RT/MED)	PASSING	CLIMBING
FREEWAY	Rural	12	12	----	----	12
	Urban	12	12	----	----	12
ARTERIAL	Rural	12	12	12	12	12
	Urban	12 ₁	12 ₁	12 _{1,4}	12 ₁	12
COLLECTOR	Rural	12 ₆	11 ₂	11 _{2,4}	11 _{2,5}	12
	Urban	11 ₃	11 ₃	11 _{3,4}	11 ₃	12

- 11 ft. permitted on SIS roads if one of these conditions exist:
 - R/W and existing conditions are stringent controls
 - Facility operates on interrupted flow conditions
 - Design speed 40 mph or less
 - Intersection capacity not adversely affected
 - Truck volume 10% or less
- 12 ft. lanes for all 2-lane rural.
- 12 ft. lanes in industrial areas when R/W is available.
- With severe R/W controls, 10 ft. turning lanes may be used where design speeds are 40 mph or less and the intersection is controlled by traffic signals. Median turn lanes shall not exceed 15 ft.
- 12 ft. when truck volume more than 10%.
- 11 ft. for low volume AADT.



PPM Rewrite for Design-Build

- ◆ Tables and requirements modified for Design-Build projects:

Modification for Non-Conventional Projects:

Delete *PPM* Table 2.1.1 and replace with the following:

LANE WIDTHS (FEET)

FACILITY		THROUGH OR TRAVEL	AUXILIARY			
TYPE	AREA		SPEED CHANGE	TURNING (LT/RT/MED)	PASSING	CLIMBING
FREEWAY	Rural	12	12	----	----	12
	Urban	12	12	----	----	12
ARTERIAL	Rural	12	12	12	12	12
	Urban	12	12	12	12	12
COLLECTOR	Rural	12	11	11	11	12
	Urban	12	11	11	11	12

Fixed Values



PPM Rewrite for Design-Build

◆ Requirements modified with a Pre-Scoping Question:

Modification for Non-Conventional Projects:

Delete **PPM** 1.9 and see RFP for design speed.

P.4 At a minimum, provide the following project specific traffic information as part of the RFP:

B. Existing hourly traffic volumes over minimum of 24-hour period, including peak hour, morning, afternoon, and evening (during construction) and design year,

F. Design speed and proposed posted speed,

Pre-Scoping Question P.4

- C. Directional distribution factor (D),
- D. Standard K factor (K),
- E. Truck factors (T) for daily and peak hour,
- F. Design speed and proposed posted speed,
- G. Design vehicle for geometric design,
- H. Turning movements and diagrams for existing and proposed signalized intersections,
- I. Special or unique traffic conditions, including during construction,
- J. Crash history, including analyses at high crash locations within the project limits, and
- K. Recommendations regarding parking or other traffic restrictions.



PPM Rewrite for Design-Build

- ◆ Requirements modified in the RFP:

2.1.4.2 Bicycle Facilities

Bicycle facilities shall be provided as required by *Chapter 8* of this volume. Bicycle lanes on the approaches to bridges should be continued across the structure. The District Pedestrian/Bicycle Coordinator shall be consulted during planning and design to establish appropriate bicycle facility elements on a project-by-project basis. *Chapter 8* of this volume contains additional criteria for the accommodation of bicyclists.

Modification for Non-Conventional Projects:

Delete third sentence in above paragraph and see RFP for requirements.



Other Revisions to the PPM

- ◆ Bridge Railing
 - ✓ Vol.1, Chapter 25, Section 25.4.24.3
- ◆ Guardrail to bridge Rail Transitions
 - ✓ Vol.1, Chapter 25, Section 25.4.25.2



Bridge Railing within RRR Projects

- ◆ Vol.1, Chapter 25, Section 25.4.24.3
- ◆ *IDS, Index 404*
 - ✓ Details of structurally narrow and recessed curb post-and-beam bridge traffic railings.
- ◆ *IDS, Index 405*
 - ✓ Details of wide curb post-and-beam bridge traffic railings.

Structures Design Standards Update Training Webinar

August 8th, 2013 2:00pm – 3:00pm

Major updates to the 2014 Structures Related Design Standards

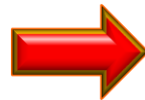
Registration Link: :

<https://www2.gotomeeting.com/register/132236746>



Guardrail to Bridge Rail Transitions

- ◆ Vol.1, Chapter 25, Section 25.4.25.2
- ◆ Guidance and details for guardrail retrofits connecting to existing bridge railings
- ◆ Additional criteria for evaluating the upgrade or replacement of an existing guardrail to bridge traffic approach and trailing end transition.



Structures Design Standards Update Training Webinar

August 8th, 2013 2:00pm – 3:00pm

Major updates to the 2014 Structures Related Design Standards

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