

## **Session 58**

### **Dennis Filloon**

FL. Dept. of Transportation Project Managem

### ***Design Process for LAP projects by FDOT***

#### **Topic Description**

Highlight design requirements under the local agency program including projects on the state highway system, off state highway system, design/build and force account work. It will also include a discussion of the recent required checklist for LAP construction projects and federal requirements.

#### **Speaker Biography**

Dennis has been the FDOT State LAP Administrator since 2003. He has worked at FDOT for over 25 years and also for 5 years in Florida Executive Office of the Governor - Planning and Budgeting Office as FDOT's Analyst. He is a 1996 Nova Southeastern University graduate and has worked in FDOT's Comptroller Office, Cash Forecast and Budgeting. Since taking on the responsibilities of the Local Agency Program he has made it a goal to provide a consistent Local Agency Program throughout the State of Florida.

# Local Agency Program

July 2006 Design Conference  
Orlando, Florida

## Local Agency Program

- LAP Design Requirements
- Federal Requirements & Checklists

## Local Agency Program

- GENERAL
  - The final engineering design process produces contract plans, specifications, and cost estimates (PS&E).
  - These documents contain:
    - all the construction details,
    - contract provisions,
    - permits,
    - agreements and certifications required to advertise,
    - award and administer a construction contract.

## Local Agency Program

- The completeness of the contract plans package and the Contract File Index - documentation is the responsibility of the Local Agency and the district.
- On FHWA oversight projects, the FHWA must review and approve the PS&E prior to federal funds being authorized.

## Local Agency Program

### ■ CONTRACT PLANS

- For Local Agency ad-and-award -projects, the requirements for plan sheet size, guidelines for preparing contract plans and review of the PS&E package will be the responsibility of the Local Agency.
- A record set of plans shall carry the seal date and signature of a licensed Professional Engineer consistent with Florida Statutes and Rules.

## Local Agency Program

- When there are bridge plans for projects on or over the State Highway System, the following -supporting data shall be submitted for checking by FDOT:
  - Design calculations.
  - Stream data.
  - Soil or foundation reports.
  - Roadway and Structure plans
  - Bridge load rating.

## Local Agency Program

### Roadway and Structures Design

- Design criteria are established to ensure transportation projects are safe, economical and fully functional transportation facilities.
- For situations where specific design standards or criteria cannot be found in the FDOT publications, current approved technical publications, such as "A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials" should be used as design guidelines.
- Local Agencies must ensure that project designs meet or exceed the referenced design criteria and that the standards developed from acceptable guidelines are appropriate for the proposed facility.

## Local Agency Program

### Roadway and Structures Design (continued)

- Minimum criteria are avoided for the design of new construction or major reconstruction projects.
- Projects to preserve or extend the service life of a facility, such as Resurfacing, Restoration and Rehabilitation (RRR) projects may have some minimum standard elements left in place.
- All reconstructed elements should meet new construction standards, if practical. With approval of the District - local streets and highways (not on the State Highway System) may be designed to the standards published in the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, commonly known as the Florida Green Book.
- The LAP manual is not to be used for design of State Highway projects.

## Local Agency Program

Roadway and Structures Design (continued)

- The Department and good engineering practice supports the use of the highest level of criteria and standards that is practical for all facilities.
- Local agencies should determine and document which standards apply when preparing the project prospectus and application for federal funds.
- There are many local, state and federal laws, rules and executive orders that may impact the design of a project. These are referenced in the publications, when the Department is aware of them.

## Local Agency Program

- Checkout the handout that lists the publications that establish the criteria for the critical areas of Roadway and Bridge/Structure designs.

## Local Agency Program

### Design Exceptions, Utility Exceptions and Design Variations

The Florida Department of Transportation establishes highway design criteria and standards which are contained in the -

- "Plans Preparation Manual" – Topic # 625-000-007 (commonly referred to as the PPM),
- "Utility Accommodation Manual" – Topic 710-020-002-d (commonly referred to as the UAM), and the
- "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways" – Topic # 625-000-015 (commonly referred to as the Florida Green book).
- The criteria given in these Manuals have been accepted by FHWA and govern design processes.

## Local Agency Program

### Design Exceptions, Utility Exceptions and Design Variations (continued)

- When it becomes necessary to deviate from the criteria set forth in these manuals, early documentation and approval processes for Design Exceptions, Utility Exceptions and Design Variations should be used.
- This approval process applies to all entities affecting planning, design, construction, maintenance and utility placement.
- To expedite the approval and/or final concurrence of These deviations, it is important that the correct process be followed.

## Local Agency Program

Design Exceptions, Utility Exceptions, and Design Variations  
(continued)

- For all State Facilities, the criteria in the Plans Preparation Manual (PPM) govern, and the Design Exception and Design Variation processes therein shall be used with the exception of utilities.
- For all utilities on State Facilities, the criteria in the Utility Accommodation Manual (UAM) govern, and the Utility Exception Processes therein shall be used.
- For all other public facilities, the criteria in the PPM or Florida Green book as specified by the district shall apply.

## Local Agency Program

Design Exceptions, Utility Exceptions, and Design Variations  
(continued)

- When it becomes necessary to deviate from the PPM to the extent that the design element is below the PPMs criteria, the Design Exception and Design Variation processes therein shall be used.
- If the criteria in the Florida Green book is specified by the district, the Design Exception process therein shall be used and concurrence provided by the Department's local District Design Engineer.
- All deviations should be identified as early in the plans development processes as possible, preferably the PD&E or initial engineering design process. This allows time to research alternatives and to process the request before plans are in the final stages of completion.

## Local Agency Program

- Design/Build
  - Must use the Construction Checklist
- Force Accounts
  - Projects to be constructed with Local Agency forces usually will need only layout plans, summary of quantities, traffic control plan, and a typical section.
  - For a project to be constructed by Local Agency forces, the measure of quality is constructability.
  - Only the information the Local Agency forces need to construct the project and calculate quantities should be addressed in the plans.
  - All design exceptions, utility exceptions and design variations must be approved according to the processes outlined in the Preconstruction Engineering Procedures of the LAP Manual.

## Local Agency Program

Contact the appropriate District LAP Administrator or District Design Engineer if you have questions.

# Local Agency Program

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## Federal Requirements LAP Checklist for Construction Contracts (Phase 58)

Project Title: \_\_\_\_\_ Federal-aid Highway (yes/no): \_\_\_\_\_  
 Financial Management Number: \_\_\_\_\_ NHS (yes/no): \_\_\_\_\_  
 Federal-aid Project Number: \_\_\_\_\_ SHS (yes/no): \_\_\_\_\_  
 County: \_\_\_\_\_ Contract Amount (\$): \_\_\_\_\_  
 Municipality: \_\_\_\_\_ Project Status: \_\_\_\_\_

Requirement	Reference	NHS/SHS	Non-NHS/SHS	Non-NHS/SHS	Non-Federal-aid Highway/Non-SHS	Local Agency Responsibility	District Monitoring Responsibilities	Reference Construction Contract Documents (Location in Contract)	Local Agency Check	District Check (FDOT)
1. PS&E Submittal	LAP Agreement – Section 13.08 LAP Manual Chapter 4 Section 2	Yes	Yes	No*	No*	Submit Plans, Specifications, and Estimate to FDOT for approval. Submittals also must include:  * assurance that all right-of-way (ROW) clearance, utility, and related work have been completed, or that arrangements have been made for coordination during construction with proper notice provided in the bid proposal.  * assurance that all environmental/federal requirements including the NEPA process has been completed.  * During the mandatory certification process all PS&E packages shall be submitted and those on the RFE and RIF will need to be approved by FDOT all other shall be reviewed.	Review/Approve PS&E Assembly			

# Local Agency Program

## Checklists (Federal Requirements)

- FHWA Checklist requirements impacted construction projects prior to July 19, 2005 and after July 19, 2005.
- Checklists (Administrative and Construction) sent to FDOT Districts on September 7, 2005.
- Abbreviated checklist sent to FDOT Districts in February 2006.
- Checklist is not required for right-of-way or design projects.
- Must use the checklists for construction projects.

## Local Agency Program

### Checklists (Federal Requirements)

- Administrative Checklist (7)
  - Advertising, bid opening & tabulation, bid analysis & award of contract, etc.
  
- Abbreviated Checklist (6)
  - Low bid, Davis-Bacon Wage Rates, Buy America, FHWA 1273, Force Account – Cost Effectiveness/Public Interest Finding and Patented/Proprietary Products.

## Local Agency Program

- Construction Checklist (36)
  - PS&E submittal, Davis-Bacon Wage Rates, Buy America, Disadvantaged Business Enterprise (DBE), FHWA 1273, Force Account – Cost Effectiveness/Public Interest Finding and Patented/Proprietary Products, etc.

## Local Agency Program

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