

# TRANSPORTATION SYMPOSIUM

2019

## Pay Item Requests & Pay Item Notes

Melissa Hollis

# Outline

- **Pay Item Requests**

- Planning/Timeline
- PSE Submittals- complete packages
- Plans/Standard Plans
- Specifications
- Chapter 6 of the BOE
- Estimates- BOE 1-9

- **Pay Item Notes**

- Specification Conflicts
- Method of Measurement
- Basis of Payment

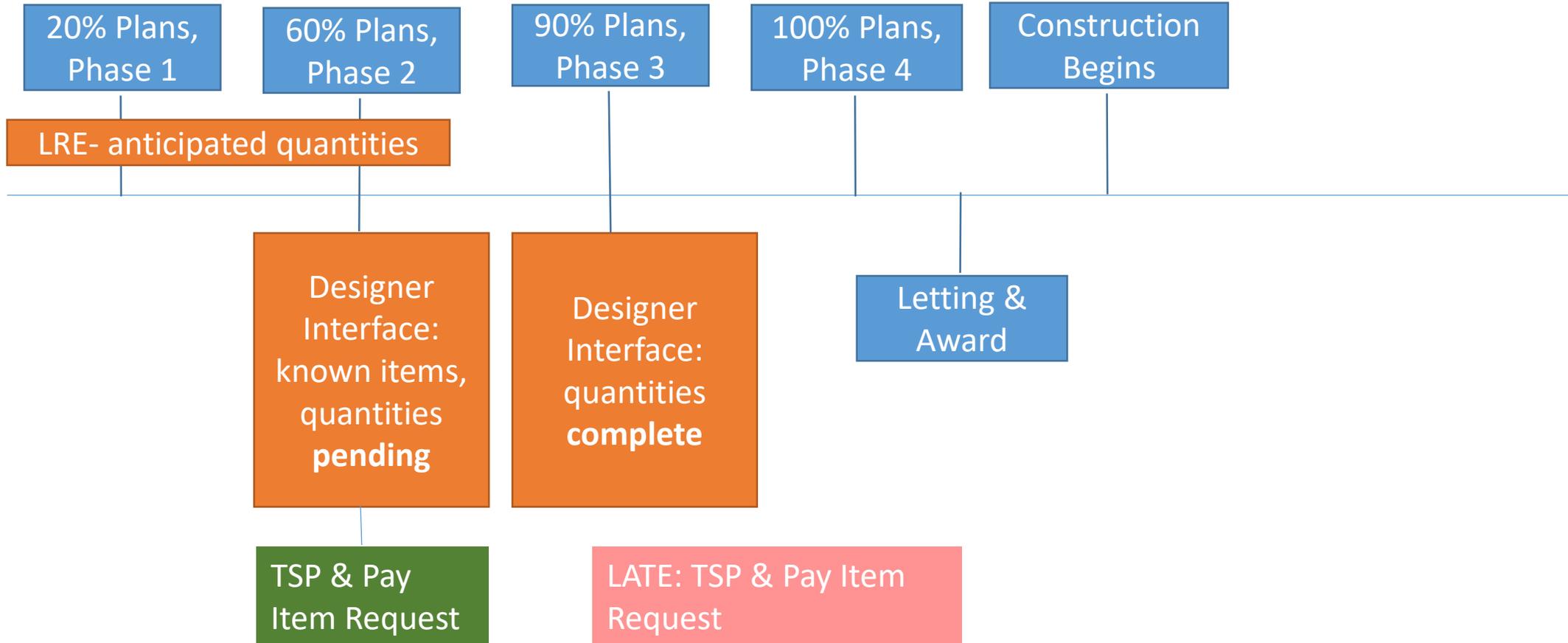
- **Project Specific Pay Items**

- Unusual cost
- APL/IPL?
- Reviews by the Responsible Office

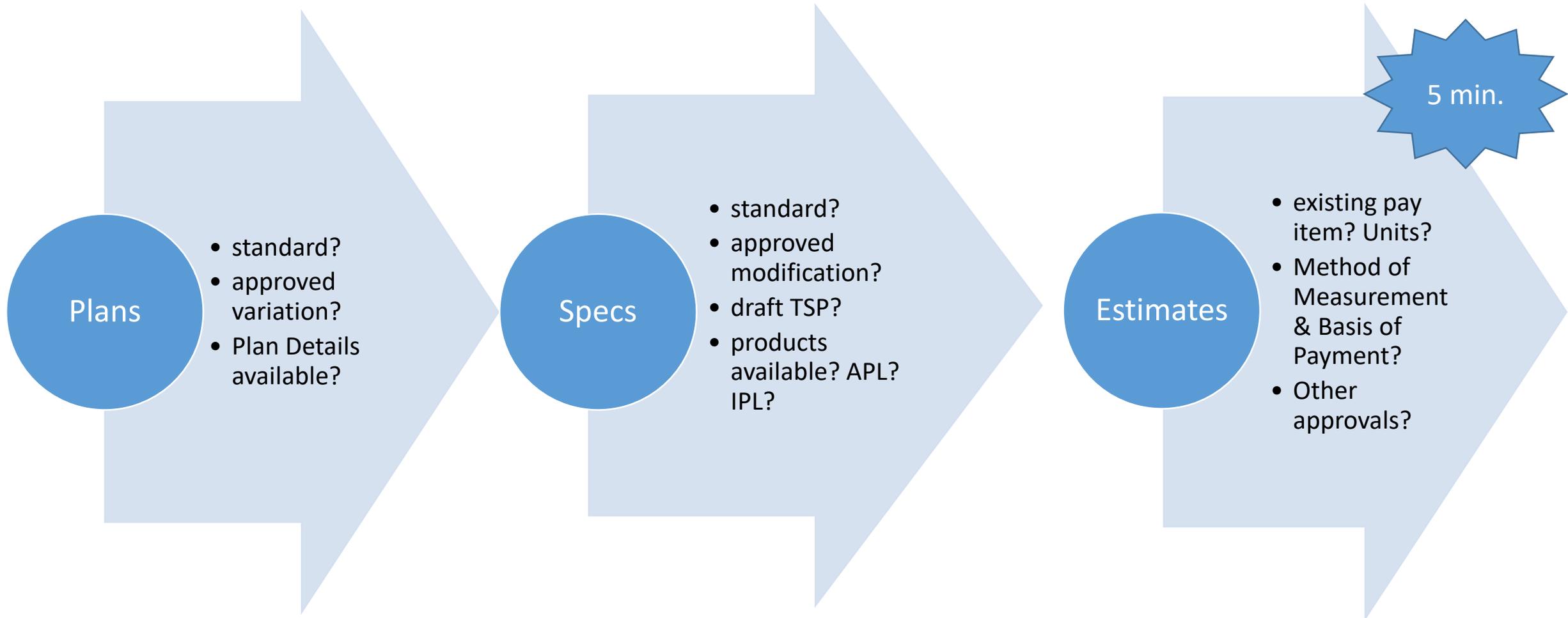
# Planning/Timeline

- Life is what happens to us while we are making other **plans.**” ...
- “It does not do to leave a live dragon out of your calculations, if you live near him.” ...
- “A goal without a **plan** is just a wish.” ...
- “By **failing** to prepare, you are preparing to **fail.**” ...
- “In the **planning** stage of a book, don't **plan** the ending.
- Failure to complete your work in a timely manner does not necessarily mean an emergency in my work.

# Timeline



# Pay Item Requests- the PSE submittal



# PSE Package & Submittals

- FDM Chapter 301
- **Phase 2 submittal**, per 301.2.2:  
Summary of Pay Items, Item numbers with descriptions
- **Phase 3 submittal**- Items complete

## **301.2.2 Phase II Submittal**

Unless otherwise directed by the Department, the following elements are required for a Phase II set of plans:

### **SUMMARY OF PAY ITEMS**

- Item numbers with descriptions

# PSE Package

- **Plans**
  - Standard Plans/Design Standards
- **Specifications**
  - Standard Specs, Supplemental Specs, Special Provisions
  - Modified Special Provisions
  - Tech Specs
- **Estimates**
  - Pay Items (loaded Phase II)
  - Quantities, by location
  - Prices

Topic #625-000-002  
FDOT Design Manual

January 1, 2018

## 301.2.3 Phase III Submittal

Typically, the remaining work to be done is to:

- (1) Address Phase II comments,
- (2) Complete the Summary of Quantities (SQ) sheets,
- (3) Update the Financial Management (FM) system (see **FDM 111.2.1**), and
- (4) Provide final drainage tabulations.



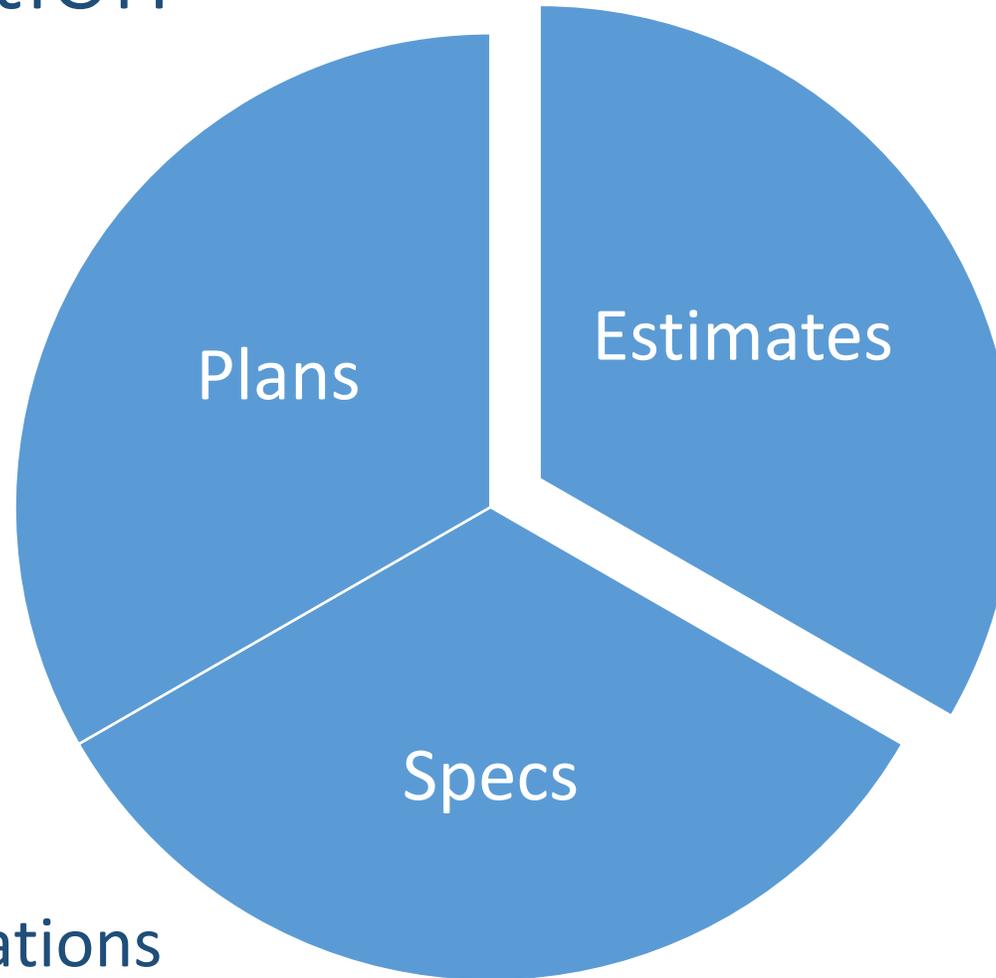
# PSE Coordination

## Plans:

- Plan Sheets
- Standard Plans
- IDS

## Specs:

- Standard Spec Book
- Special Provisions
- Supplemental Specifications
- Technical Special Provisions
- Developmental Specifications

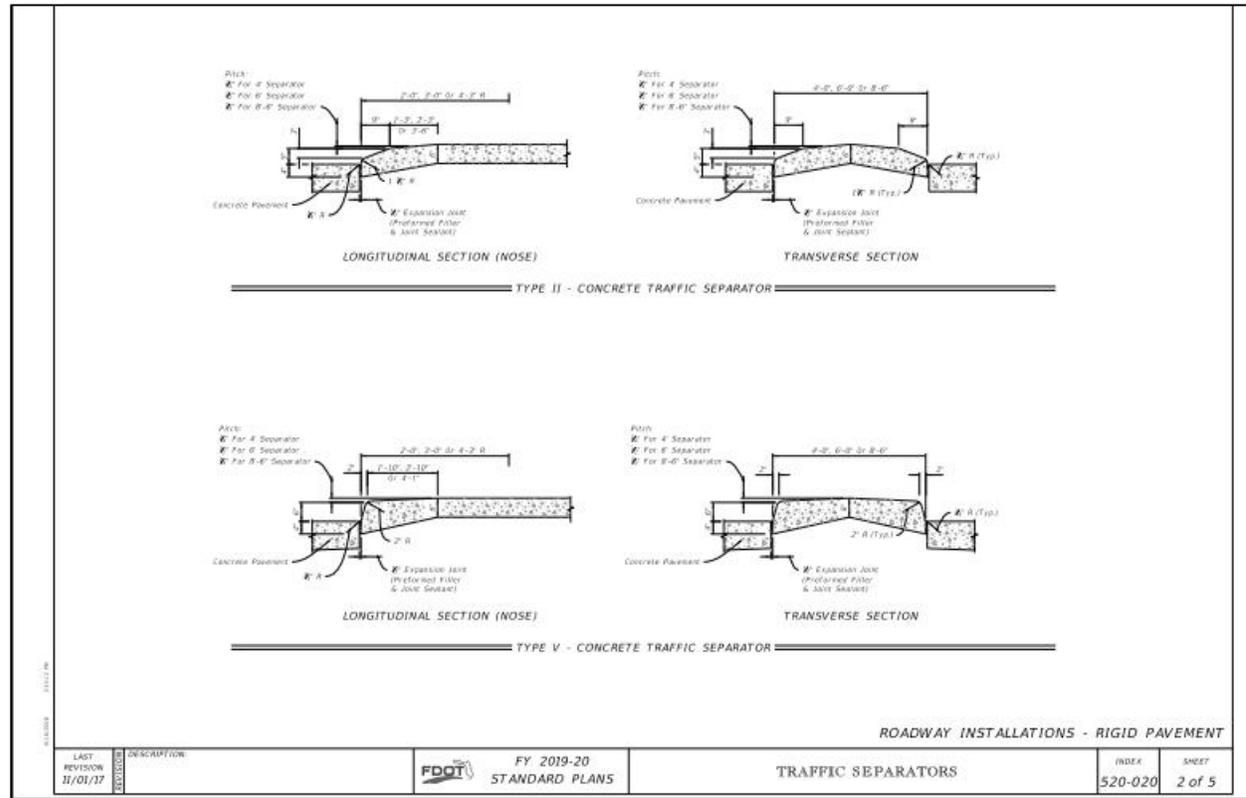


## Estimates:

- Pay Items
- Unit of Measure
- Summary Boxes
- Tabulation Sheets
- Summary of Pay Items
- Official Estimate
- Bid prices
- Measurement
- Final Payment

# Plans/Standard Plans

**Index Number** (first 3 digits) corresponds to Specification Section number and pay item number (first 3 digits)!



## Index 520-020 Traffic Separators

### Design Criteria

AASHTO A Policy on Geometric Design of Highways and Streets, Fourth Edition, 2001 (AASHTO Green Book)

### Design Assumptions and Limitations

For Roadway installations see [FDM 215](#), [FDM 212](#), and the [FDOT Median Handbook](#). For non-standard width or variable width traffic separators project specific details for a "Special Traffic Separator" are required in the Plans.

Bridge mounted Traffic Separators are intended to match up geometrically with adjacent roadway Traffic Separators. They are essentially the same as roadway Traffic Separators but with the addition of reinforcing steel to limit cracking caused by shrinkage and deflection of the bridge deck due to live load.

### Plan Content Requirements

#### Summary Boxes:

Summarize the *Summary of Curb & Gutter and/or Traffic Separators*, see [BOE, Chapter 8](#).

#### In the Roadway Plans:

Detail and label the traffic separator in Plans Views, Typical Sections where applicable, and other sheets as required. Call-out the begin/end stationing, the "Type" (i.e. Type I, II, IV, or V), if applicable any "Option" restriction/requirement (i.e. Option I or Option II), and width.

#### In the Structures Plans:

Detail and label the Traffic Separator on the Plan and Elevation, Typical Section and Superstructure sheets, and other sheets as required. Specify the same shape Traffic Separator (Type "E" or "F") as is used on the roadway approach. Include cross references to [Index 520-020](#).

Estimated concrete quantities and reinforcing steel lists are not required.

### Payment

Item number	Item Description	Unit Measure
520-5-AB	Concrete Traffic Separator	LF
520-70	Concrete Traffic Separator, Special- Variable Width	SY

See the [BOE](#) and [Specification 520](#) for additional information on payment, pay item use and compensation.

# Plans/Standard Plans

- The Standard Plans are included on every project, per the note placed on the Key sheet
- Standard Plans Instructions (SPI) includes instructions for the standard plans
- FDOT Design Manual (FDM) includes instructions to the Designer:
  - When, Where, How, ... other guidance that may be needed

# Specification

## AASHTO Format:

- Description
- Materials
- Construction requirements or Acceptance criteria
- Method of Measurement
  - Unit, Plan Quantity or Measured, HOW the item is to be measured
- Basis of Payment
  - All work and materials...

SECTION 520  
**SAMPLE SPEC TEXT: CONCRETE GUTTER, CURB ELEMENTS,  
AND TRAFFIC SEPARATOR**

**520-1 Description.**

Construct portland cement concrete curb. Curb will include concrete curb and gutter, concrete traffic separator, valley gutter, special concrete gutter, curb for sidewalk curb ramps and driveways, and any other types of concrete curb not specified in other Sections.

**520-2 Materials.**

**520-2.1 Concrete:** Use concrete meeting the requirements of Section 347.

**520-2.2 Reinforcement:** For all steel reinforcement required by the Plans, meet the requirements of Section 415.

**520-2.3 Joint Materials:** Meet the requirements of Section 932.

**520-3 Forms.**

**520-3.1 Form Materials:** Construct ....

**520-4 Excavation.**

Excavate to the required depth, ...

**520-5 Placing Concrete.**

Place the concrete ...

**520-6 Joints.**

**520-6.1 Contraction Joints:** ....

**520-7 Finishing.**

**520-7.1 Repair of Minor Defects:** Remove the forms ...

**520-8 Curing.**

**520-9 Backfilling and Compaction.**

**520-10 Surface Requirements.**

**520-11 Method of Measurement.**

For curb or curb and gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb or curb and gutter. Curb for sidewalk curb ramps or driveways will be paid at the Contract unit price for the adjacent curb type.

For concrete traffic separator of nonstandard or varying width, the quantity to be paid will be the plan quantity, in square yards, completed and accepted.

**520-12 Basis of Payment.**

**520-12.1 Concrete Gutter, Curb Elements, and Traffic Separator:** Price and payment will be full compensation for all work specified in this Section, including reinforcement steel, dowels, asphalt pavement and base under traffic separator, joint materials and asphalt curb pad.

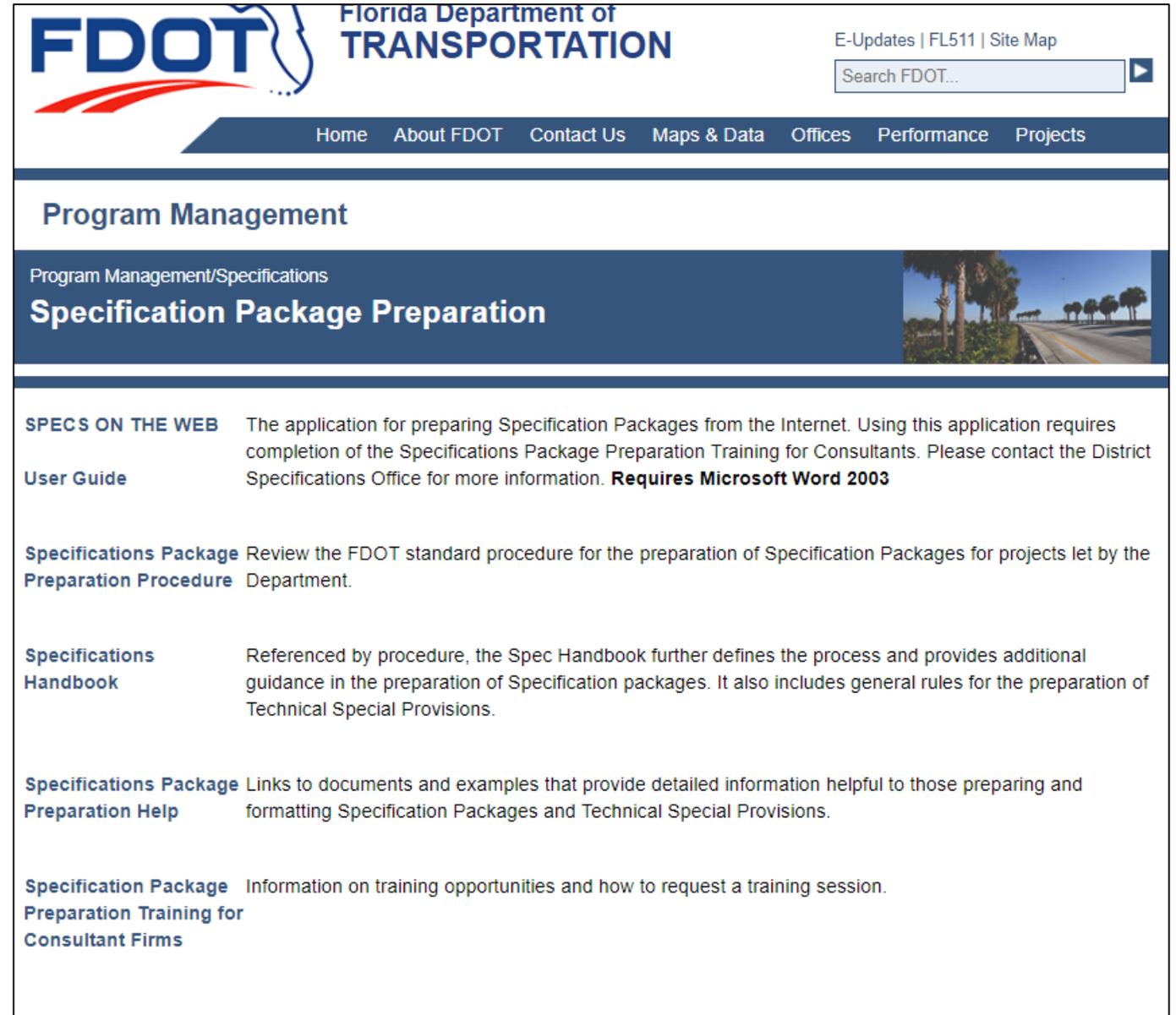
**520-12.2 Excavation:** Excavation for new installations will be paid for as roadway excavation in accordance with 120-13.2.

**520-12.3 Payment Items:** Payment will be made under|

Item No. 520- 1-	Concrete Curb and Gutter - per foot.
Item No. 520- 5-	Concrete Traffic Separator - per foot.
Item No. 520- 6-	Concrete Shoulder Gutter - per foot.
Item No. 520- 70-	Concrete Traffic Separator - per square yard.

# Specifications

- See the Specifications Handbook for additional guidance
- NOTE: Tech Specs are intended to be project specific and Technical in nature. They should NOT be used when a Standard Spec or SP is available.
- Work with your District Specs Office, as needed



The screenshot shows the FDOT website header with the logo and navigation menu. The main content area is titled "Program Management" and "Specification Package Preparation". Below this, there is a list of links and descriptions for various resources related to specification preparation.

Resource	Description
<b>SPECS ON THE WEB</b> <a href="#">User Guide</a>	The application for preparing Specification Packages from the Internet. Using this application requires completion of the Specifications Package Preparation Training for Consultants. Please contact the District Specifications Office for more information. <b>Requires Microsoft Word 2003</b>
<b>Specifications Package Preparation Procedure</b>	Review the FDOT standard procedure for the preparation of Specification Packages for projects let by the Department.
<b>Specifications Handbook</b>	Referenced by procedure, the Spec Handbook further defines the process and provides additional guidance in the preparation of Specification packages. It also includes general rules for the preparation of Technical Special Provisions.
<b>Specifications Package Preparation Help</b>	Links to documents and examples that provide detailed information helpful to those preparing and formatting Specification Packages and Technical Special Provisions.
<b>Specification Package Preparation Training for Consultant Firms</b>	Information on training opportunities and how to request a training session.

# Estimates

- Basis of Estimates
    - Chapter 1: Registration
    - Chapter 2: Units of Measure
    - Chapter 6: Pay Item Requests
    - Chapter 8: Summary Boxes
  - DQE
    - Basis of Estimates- pay item information\*
    - Master Pay Item List\*
    - Projects (District Estimators- login)
- \*No login required; use links on blue bar

[www.FDOT.gov/ProgramManagement](http://www.FDOT.gov/ProgramManagement)

# Program Management

- Divisions Page
- Standard Specs
- Maintenance Specs
- BOE Chapters 1-10
- DQE
- Webgate & Designer Interface
- LRE

## Program Management

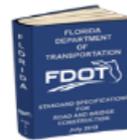
Program Management / Divisions

### Program Management Office Divisions



#### Divisions

#### Specifications



Specifications and Related Information



Final Plans



Maintenance Specifications



Review Proposed Specification Revisions



Create Specifications Packages

#### Estimates



Basis of Estimates Manual



Design Quantities and Estimates, BOE Database



Webgate



Long Range Estimating System

# BOE- Pay Item Information

- Pay Item Details
  - When to use, not use, other guidance from FDM, IDS, or other documents
- References/Links
- Pay Item Structure
  - Ex 520-5- ab
- Valid Pay Items

Pay Item Year	Item	Description	Unit	Spec Type	Valid Date	Obsolete Date
13	0520 5 11	TRAFFIC SEPARATOR CONCRETE-TYPE I, 4' WIDE	LF		1/1/2013	
13	0520 5 12	TRAFFIC SEPARATOR CONCRETE-TYPE I, 6' WIDE	LF		1/1/2013	
13	0520 5 16	TRAFFIC SEPARATOR CONCRETE- TYPE I, 8.5' WIDE	LF		1/1/2013	
13	0520 5 21	TRAFFIC SEPARATOR - CONCRETE, TYPE II, 4' WIDE	LF		1/1/2013	
13	0520 5 22	TRAFFIC SEPARATOR - CONCRETE, TYPE II, 6' WIDE	LF		1/1/2013	
13	0520 5 26	TRAFFIC SEPARATOR CONCRETE- TYPE II, 8.5' WIDE	LF		1/1/2013	
13	0520 5 41	TRAFFIC SEPARATOR CONCRETE- TYPE IV, 4' WIDE	LF		1/1/2013	
13	0520 5 42	TRAFFIC SEPARATOR CONCRETE- TYPE IV, 6' WIDE	LF		1/1/2013	
13	0520 5 46	TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE	LF		1/1/2013	
13	0520 5 51	TRAF SEP CONC, TYPE V, 4' WIDE	LF		1/1/2013	
13	0520 5 52	TRAFFIC SEPARATOR CONCRETE- TYPE V, 6' WIDE	LF		1/14/2019	

**Pay Item Structure Detail**

**Structure ID**  
520- 5- AB

**Title**  
Concrete Traffic Separator

**Unit**  
LF

**Plan Quantity?**  
Yes

**Notes**

**Details**

Includes construction of traffic separator in 4, 6, and 8.5' (1.2, 1.8, and 2.6 meter) widths, in accordance with Standard Plans 520-020 (Old Index 302). Includes all forming, contraction joint forming, expansion joint construction, steel reinforcement, finishing and backfilling and compaction. Include the length of the nose when calculating the linear feet (meters). Refer to Plans Preparation Manual for proper use.

When used on bridges, refer to Standard Plans Instructions.

For separator of variable width, consider item 520-70, paid per area.

When an asphalt curb pad is used (Index 302, Type I, Option II), the cost of the flexible pavement is included in the cost of the separator.

**REMOVAL OF CURB:**  
Effective July 2017. Removal of curb (all types) is not included in cost of new curb; see 110-4-10 for Removal of Concrete.  
Projects let through June 2017: Per the specification, "for repairs and replacements, removal of the existing curb will be included in the cost of the new curb." Do not use pay item 110-4.

\*\*\*\*\*

**CALCULATIONS**  
Manually Calculated Quantity: The PLAN QUANTITY Measurement will be along the center of the separator, including the length of the nose.  
CADD- Quantity Manager Calculated Quantity: The PLAN QUANTITY Measurement will be calculated based on the total length of the curb (both sides, along curb), divided by 2. Note that the CADD software shows the outside edge of the traffic separator. In order to arrive at the pay item length, the software adds all of the traffic separator elements and divides by 2.

Reviewers and Construction: Accept EITHER calculation method for determining PLAN QUANTITY value, subject to 9-3.2 of the specifications, with no further adjustment for radius of curvature or ends. The difference in the above calculation methods has been determined to be insignificant.

**Plan Summary Box**  
Summary of Curb & Gutter and/or Traffic Separators

**PPM Chapter**

**CPAM Chapters**

**Other**

**Standards**  
Curbs: Index 300 through 304  
Traffic Separator: Index 302/ SP Index 520-020  
Design Standards eBook: 2017-18  
SPI 520-020  
Standard Plans Index  
SP 520-020

**Specifications**  
Section 520

**Struct.**  
520- 5- AB Concrete Traffic Separator

A = Type  
1 (Type I)  
2 (Type II)  
4 (Type IV)  
5 (Type V)  
Per Index 520-020 (previously Index 302), Separators Type I and IV are to be used with flexible pavement. Separators Types II and V are to be used with rigid pavement

B = Width  
1 (4' Wide)  
2 (6' Wide)  
6 (8.5' Wide)

# Chapter 6: Specification or Plan Note?

- Does a spec/Standard Plan-Index exist?
- What text do you need to communicate?
  - Description
  - Materials
  - Construction/Acceptance
  - Method of Measurement
  - Basis of Payment
- All/most of the above- specification: MSP/TSP
- Materials/Construction, per the existing spec: Plan Note

*Additional considerations...*

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- **Pay Item Notes**

- Specification Conflicts
- Method of Measurement
- Basis of Payment

- **Project Specific Pay Items**

- Unusual cost
- APL/IPL?
- Reviews by the Responsible Office

# Pay Item Notes

- Avoid Specification Conflicts
  - If the specification is wrong/incomplete/incorrect, FIX THE SPEC.
  - Never use a plan note to “override” a specification; this is a built-in conflict
- Ensure that all parts of a specification are addressed, including unit of measure, method of measurement, and basis of payment
- Good note: if the spec indicates “as shown/described in the plans...”
  - Dimensions
  - Materials
- Summary Box info: quantity related or location specific
  - “Use Type A” at a specific location
  - Based on XXX days



# Pay Item Notes- Examples of what NOT TO DO

- Specification- Basis of Payment
  - Payment includes A, B, C, D, E, and all incidentals necessary to complete the work.
- Plan Note
  - 123-456- Payment includes A, B, C, and 40 ft of F.
- Does payment still include D and E?
- How will construction address the conflict?
- Will it become a design error?

# Plan Notes- bad examples

- Specification/APL conflicts: Use brand A  
**Do not use a note to sole-source a product\***  
*\*unless you have proprietary product approval*
- Specification/CPAM Submittal conflicts: Obtain the approval of \_\_\_\_\_ before proceeding.  
**“The Engineer” will coordinate with others, per the CPAM**
- Means/Methods
  - Do not tell the contractor “how” to do the job. If there is a “need for speed”, identify the deadline; allow the contractor to determine the means.

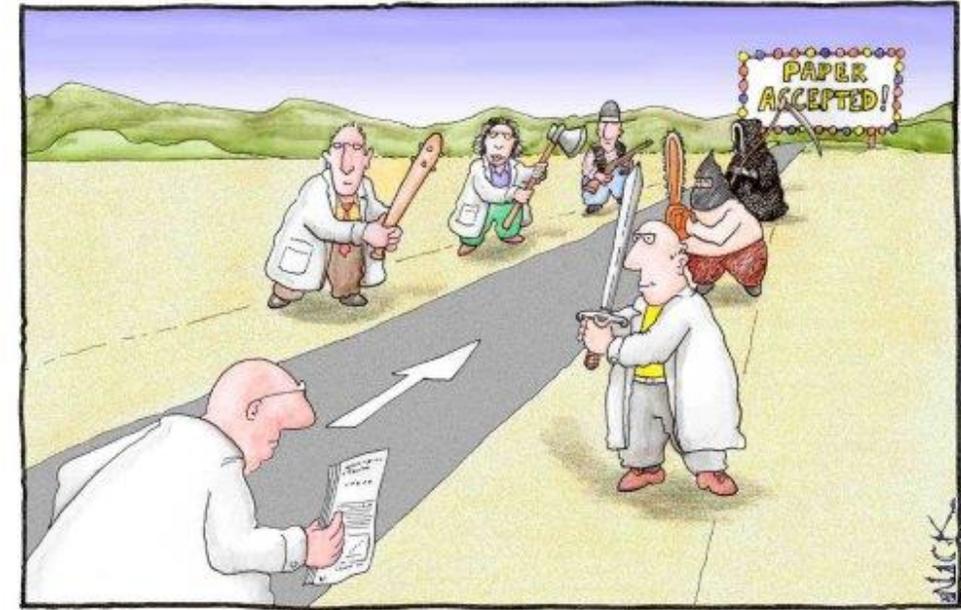


# Plan Notes- Good Examples

- Dimensions, per the specifications (not in conflict with standard plans)
  - Locations
  - Materials, per the specifications/standard plans
- 
- Know the applicable Specs/Standard Plans.
  - Know when APL is applicable (manufactured products)

# What now?

- Standard Plans, Plan details, and/or Design variation has been addresses
- Specification concerns have been addressed
- Pay item can be opened/created... maybe

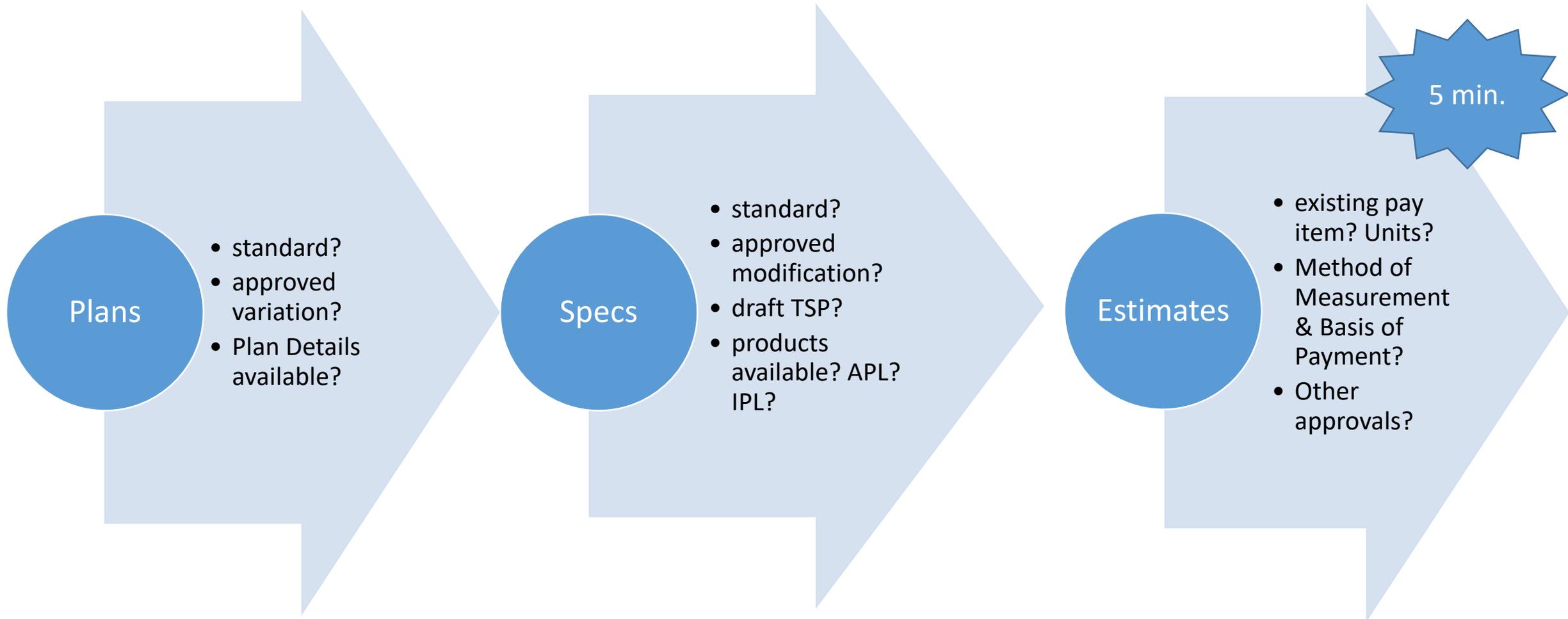


Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

# What needs to be submitted?

- Plans
  - Standard Plans- note index #
  - Temp Lighting- draft MOT plans & light support/mounting, for review
  - Other details, as applicable for responsible office review
- Specs
  - Standard spec or Special Provision
  - Draft MSP, as applicable for responsible office review
  - Draft Tech Spec
  - APL/IPL/Proprietary Product Approval, if applicable
- Coordinate w/District Estimates or Specs
  - Include **FDOT-payitems** for Estimates Systems Support
  - Usually same day, when reviewer has enough info

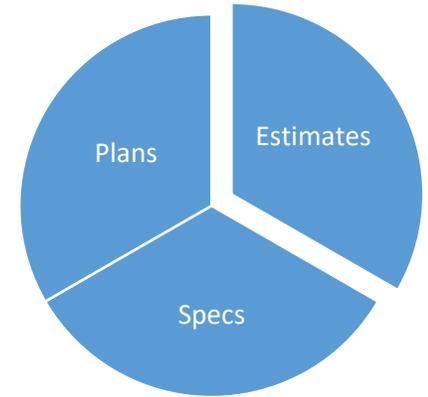
# Pay Item Requests- the PSE submittal



# Project Specific Pay Items

- Unusual cost
  - High/low, due to materials/products, installation methods, other unique/project specific factors
- One-time/limited use
- Approved Proprietary Products (exceptions to APL/IPL)
  - Manufactured products
  - Are there alternatives?
  - Specification under development?
  - FDOT Responsible Office/FHWA/other approvals?
  - See Product Evaluation Office's web page for guidance
- Reviews by Responsible Office- Other tracking/restrictions/development
- Pending specification implementation

# Working Together... the complete package



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# Solving Problems in Construction...

- Yes, but...
  - Conflicts cost us \$\$\$
- Recent Example:
  - Standard Spec for Pipe Lining: Basis of Payment includes cleaning/preparing the pipe for the liner.
  - Tech Spec included old language: Restricted material. Basis of Payment includes the preparing the pipe and the liner. Desilting will be paid in accordance with Section 430.
  - Supplemental Agreement: \$75,000. for desilting

# Solving Problems in Construction...

- See Amy Tootle's presentation from Monday
- Other examples of preventing conflicts.
  
- Supplemental Agreements
  - Unforeseen Conditions- unavoidable
  - Design Errors- can be reduced/eliminated by knowing the specs & standards
  
  - Construction- enforcing the specs/standards consistently, across districts
    - But District X paid \$\_\_\_\_\_ for this conflict/error.

# Good Examples



- Irrigation Sleeve
  - Details/description sent to District Estimates, Jeff Caster, and BOE
  - Within the hour, Dev Standard & pay item available
- Temporary Lighting
  - District recommended Temp Lighting
  - MOT & Temp lighting details sent to Ed Cashman (mounting & locations)
  - Summary Box with locations/phases included
  - Approvals next day

# Thank you for your time

Melissa Hollis, Basis of Estimates Coordinator  
Program Management Office, Estimates Systems Support

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FDOT Outlook: FDOT-payitems

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