Chapter 10
Formatting Pay Items

10.1 General
The purpose of this Chapter is to assist those responsible with maintaining the pay item structure and associated documentation. It will also assist users with understanding how/why pay items are formatted and displayed in the plans.

Much of the formatting information begins as a Pay Item Request. Refer to Chapter 6 for information on submitting requests.

This chapter should be considered a guide for creating new pay item structures. It is not a restriction on how they may/may not be used. Each pay item group should be evaluated based on the many needs of our customers: Design, Estimates, Construction, Maintenance, Traffic Operations, Contracts, and Management. Note that the needs of one group may be considerably different than those of another. Communication between these groups is essential, whenever a new pay item request is evaluated.

10.2 Format / Legend

The pay item information is formatted as follows:

<table>
<thead>
<tr>
<th>Structure ID Detail</th>
<th>Title</th>
<th>Plan Quantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Important Notes or Dates
Details: Details and usage recommendations
Plan Summary Box: Summary Box title

References

PPM/FDM Chapter(s)
CPAM Chapters
Other
Standards
Specifications

<table>
<thead>
<tr>
<th>Structure</th>
<th>Item Description</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Items</td>
<td>Pay Item Year, Item Number, Description, Unit, Spec Type, Valid Date, and Obsolete Date</td>
<td></td>
</tr>
</tbody>
</table>

Each of the above headings is described below:

**Structure ID:** Each 10 digit Pay Item is structured into three parts: 1234-567-890. Spaces and/or digits may be used to detail an item.
Within the first group (first 4 digits),
- the leading digit indicates the unit system:
  - 0, 1, 9, E: US Customary Units
  - 2, 3: Metric Units (not currently maintained in BOE)
- the remaining digits (second through fourth digits), identify the applicable Specification Section.
- Note: the 900 series items are special, developmental, and/or project specific. See the applicable pay item group for more information. The middle group of digits may identify the applicable Specification Section.

The remaining groups (fifth through tenth spaces/digits), are descriptive fields, as detailed for each item. These variables are described in the pay item structure below.

**Title:** The structure level description of the pay item group. Whenever possible, the title should use common terminology. This description may be abbreviated on some reports, due to space constraints. The complete, “Long Description”, is used whenever possible.

**Unit:** Unit of measure and precision (decimal places) are defined in Chapter 2. When secondary units are shown, they are intended for estimating purposes, and should be documented in the Summary Box or Tabulation Sheet as instructed.

**Plan Quantity?:** Indicator (Yes or No) that this item is, or is not, designated to be paid under the Plan Quantity concept, per Article 9-1.3.2 of the Specifications. Refer to the pay item’s applicable specification section for measurement and payment details.

**Important Notes or Dates:** Many pay items are opened or blocked with an effective/obsolete letting date. Verify that the applicable dates correspond a project’s scheduled letting date. The Designer Interface and/or reports will verify valid dates for selected pay items.

Important dates are normally shown in this field for 1 year after implementation of a change. Longer or shorter durations may be used, based on the change and number of projects impacted.

**Detail:** Description of the most common usage of the pay item, intended to assist designers with the selection of pay items. Also includes, when necessary, detailed information useful to the designer for calculating quantities and determining related pay items. Text may include "Use When…", “Do not use when…”, or "Estimate xx items per…".

Comments from any BOE user are welcome to enhance this information. Details must follow current Specifications, Standards, or other FDOT documents.
References- PPM/FDM Chapter, SDGs, Other: Links are provided to applicable FDOT Design Manual Chapter(s), Structures Design Guidelines, or other design references. **November 2017:** Due to the transition from PPM to FDM for 2018, updated references are provided, when available. Comments to add/update references may be submitted through the BOE web page at: [http://www.fdot.gov/programmanagement/Estimates/BasisofEstimates/BOEManual/BOEOnline.shtm](http://www.fdot.gov/programmanagement/Estimates/BasisofEstimates/BOEManual/BOEOnline.shtm)

Standards: Indicates the index sheet number(s) for the applicable Standard Plans. When the index number is listed in the pay item description, the pay item **must** be used in accordance with the referenced standard. Contact the BOE Coordinator and/or Responsible Office for non-standard applications. Non-standard applications may be required to use a different pay item number. **November 2017:** Due to the transition from Design Standards to Standard Plans for 2018, updated references are provided, when available. Comments to add/update references may be submitted through the BOE web page at: [http://www.fdot.gov/programmanagement/Estimates/BasisofEstimates/BOEManual/BOEOnline.shtm](http://www.fdot.gov/programmanagement/Estimates/BasisofEstimates/BOEManual/BOEOnline.shtm)

Specifications: Links are provided to the current Standard Specifications (Specifications eBook), applicable specification section, and/or the specifications library. These links are for reference purposes only; the designer is responsible for using applicable specifications, as available from the State Specifications Office, for the project’s letting date. Contact your District Specifications Office for further assistance.

**10.3 Pay Item Structure**

The Pay Item Structure may vary between items, but the intent is to define the operation and variables needed to pay for the work and/or materials provided. If the operation does not correctly describe the work to be completed, contact the Basis of Estimates Coordinator or your District Estimates Office for assistance. Additional operations may be added as needed.

<table>
<thead>
<tr>
<th>Pay Item Structure Item Description</th>
<th>Unit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Operations- Operations and other variables</td>
<td>Pay Item Structure- Operations and other variables</td>
<td></td>
</tr>
</tbody>
</table>

Common Operations- refer to individual items for valid operations and numbering (some operations may not be valid; additional operations may exist):

1. (Furnish & Install)
2. (Furnish)
3. (Install)
4. (Replace)
4. (Relocate)
5 (Adjust & Modify)  
6 (Remove)  
7 (Preventative Maintenance)  
8 (Diagnostic and Minor Repair)  
9 other item specific operation, as needed

The specifications normally describe furnish & install operations. For all other operations, always verify that the specifications/plan details correctly and completely describe the work to be completed. Refer to Chapter 7 for assistance with determining if a Tech Spec or plan detail is needed.

FURNISH & INSTALL: Includes all work and materials necessary for a complete installation in accordance with the contract documents (plans, specs, standards, etc.).

FURNISH: This operation is valid for very few pay item groups. Approvals by the responsible office may be required for each project. Do not furnish additional items to DOT maintenance yards using construction funds. When requested, and funded by the maintaining agency, the furnish only item may be used. Plans or specifications must detail instructions for delivery of item(s) to the maintaining agency. Do not use separate “Furnish” and “Install” pay items for the same item of work.

INSTALL: To be used ONLY when the item is to be furnished by the Department or other maintaining agency. Plans or specs should clearly identify the item(s) to be installed, pick-up/delivery instructions, as well as installation instructions. Payment includes any incidentals necessary (furnished by the Contractor) for a complete installation.

RELOCATE: Ensure that the existing item is in good condition; may not be cost effective to relocate an old/obsolete item. Plans or specs should clearly identify the item and initial/final locations. As needed, detail the incidental items (included in relocate item payment) to be furnished by the Contractor for a complete installation. Clearly identify conditions under which item replacement (damaged by contractor) is needed.

ADJUST/MODIFY: Detail minor work to be completed by the Contractor. Incidental items are to be furnished by the Contractor. This operation may include retrofits.

REHABILITATE: Includes the removal and replacement of an item, as detailed in the contract documents. Designer should ensure that materials and installation instructions are available to the contractor.

REMOVE: Plans or specs should identify if contractor is to take ownership, stockpile, or deliver item(s) to a FDOT maintenance yard.
PREVENTATIVE MAINTENANCE: Work to be completed to extend the useful life of a product, as allowed by FHWA. This does not include routine maintenance, such as litter removal, mowing, or graffiti removal. Details must be included in the contract documents to describe the work to be completed.

PLUG & PLACE OUT OF SERVICE: Plans or specs should identify materials and work to be completed.

DIAGNOSTIC AND MISCELLANEOUS REPAIR: This is normally a maintenance operation to determine the work required to return an item to full working order. If components or assemblies are needed to complete the repair, they will be paid under related pay items, i.e. Furnish & Install, Replace, or Install.

SPECIAL/CUSTOM: To be used only when there is a significant deviation from the standard item or work to be completed: existing specifications and/or standards do not apply. Complete details including description, materials, installation, maintenance, method of measurement, and basis of payment are to be included in the plans or specifications. Project Specific Pay Items may be recommended for unique situations.

10.4 Pay Item Ranges and Other Variables

The pay item structure ###-abc-def, should be used to define parameters which affect the price (i.e. size, shape, material), where variables a through f are detailed as needed. Parameters which do not affect the price may be detailed in the plans; DO NOT create additional pay item variables for these parameters. Limited structures can be used to encourage price competition between products that perform similar functions and/or provide similar end results (i.e., more items, less history per item).

Ranges are established to combine items/sizes with similar installed costs. When a pay item range is used, the designer must specify the specific size/shape needed on the plans and/or tabulation sheet(s). Ranges are not intended as a “contractor’s option”.

For most reports, including the Master Pay Item List and Pay Item Summary, descriptive information, such as size, shape, and color, will be included after the primary description. The title and/or description may be abbreviated on various reports, as necessary.

Currently open pay item combinations are shown following the pay item structure. For additional information on opening or requesting new pay items, refer to Chapter 6.

10.5 Displaying Pay items in the Plans and other contract documents
10.5.1 **General:** Pay item numbers and descriptions may vary, depending on where it is displayed and the available space. When referring to a **group of pay items**, the Pay Item Structure (123-1-AB) is normally used with the variables omitted. When referring to **individual pay item numbers**, the complete Pay Item Number (123-1-11) is used with the full pay item description. Below are some exceptions and guidelines.

10.5.2 **Displaying Pay Items in Specifications:** Specifications normally apply to an entire **group of pay items**. Therefore, only the group level of the Pay Item Structure is shown in the specification (123-1-) with the group level description. Letters for the pay item variables are not included with the specification.

10.5.3 **Displaying pay items from Applications or Reports:** Reports normally apply to specific **pay item numbers**. The complete pay item number should be used with the pay item’s description. Whenever possible, the complete pay item description should be used, as shown in the Master Pay Item List (long description). NEVER alter the application’s report/output; do not change report content or format.

10.5.4 **Displaying pay items in Plans (Summary of Pay Items Report, Summary Boxes, Tabulation Sheets, and Notes)**

The Summary of Pay Items, normally located behind the Key Sheet and/or Signature Sheet, is a report. Do not alter the pay item format or any associated quantities. If changes are needed, complete the change(s) through the appropriate applications and re-run the report. Note that leading zeros and appropriate spaces are included with pay item numbers. Dashes are not included with these pay item numbers.

Summary Boxes may be a combination of CADD generated data and user input data with formatting. Quantities are summarized by pay item number, per BOE Chapter 8. The pay item description may be abbreviated by CADD software, depending on space available. Leading zeros and/or dashes may be included, at the designer’s option, but should be consistent throughout the summary boxes.

When pay items are shown in the plans, a dash and/or space is normally used to separate the numbers, as shown in Chapters 11-20. When referring to a pay item group in the plans or specifications, the variables may be omitted, with only the numerical part of the pay item structure included; these should also follow the pay item structure shown in Chapters 11-20. When referring to a specific pay item number, the complete number should be shown.

Some applications and reports (CADD, TRNSPORT, or other) may omit the dash in their default formatting. The spaces within a pay item number, or lack thereof, have significance in these situations, and MUST be retained. The designer must
NEVER manually add or delete a dash or space from a report or application output.

10.6 Changing/Updating Pay Item Descriptions in the Master File

In general, pay item descriptions cannot be changed or updated, due to the impact on the historical database and previously let contracts. Minor clarifications will be considered, depending on the scope of the change and project impact. Contact the Basis of Estimates Coordinator for item specific concerns.

10.7 Where to Find It

As noted above, the first 3 digits of the pay item corresponds to the applicable specification section. The following table is helpful for finding the pay item group. Note that it does not include all possible section numbers; it is only a guide to help identify “Where to find it…”

<table>
<thead>
<tr>
<th>Pay Item Group/ Specification Section</th>
<th>Description, including key words for searches</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Mobilization</td>
</tr>
<tr>
<td>102</td>
<td>Maintenance of Traffic</td>
</tr>
<tr>
<td>104</td>
<td>Erosion Control</td>
</tr>
<tr>
<td>107</td>
<td>Litter Removal and Mowing</td>
</tr>
<tr>
<td>110</td>
<td>Clearing and Grubbing</td>
</tr>
<tr>
<td>120-175</td>
<td>Excavation, Embankment, and other Earthwork</td>
</tr>
<tr>
<td>200s</td>
<td>Base Courses</td>
</tr>
<tr>
<td>300-341</td>
<td>Bituminous Mixtures, Milling, Superpave, Friction Courses</td>
</tr>
<tr>
<td>346-347</td>
<td>Portland Cement Concrete</td>
</tr>
<tr>
<td>350-353</td>
<td>Concrete Pavement</td>
</tr>
<tr>
<td>400</td>
<td>Concrete Structures</td>
</tr>
<tr>
<td>415</td>
<td>Reinforcing Steel</td>
</tr>
<tr>
<td>425-449</td>
<td>Drainage: Inlets, Manholes, Junction Boxes, Pipe, Trench Drain, Underdrain, French Drain, Edgedrain</td>
</tr>
<tr>
<td>450</td>
<td>Precast, Prestressed Concrete</td>
</tr>
<tr>
<td>455</td>
<td>Structures Foundations: Piling, Drilled Shafts</td>
</tr>
<tr>
<td>470</td>
<td>Timber Structures</td>
</tr>
<tr>
<td>508-510</td>
<td>Movable Bridges: Navigation Lights, Machinery</td>
</tr>
<tr>
<td>520s</td>
<td>Concrete Gutter, Curb, Barriers, Traffic Separator, Sidewalk</td>
</tr>
<tr>
<td>523</td>
<td>Patterned/Textured Pavement</td>
</tr>
<tr>
<td>530</td>
<td>Riprap</td>
</tr>
<tr>
<td>534</td>
<td>Sound Barriers</td>
</tr>
<tr>
<td>536-538</td>
<td>Guardrail</td>
</tr>
<tr>
<td>550</td>
<td>Fencing</td>
</tr>
</tbody>
</table>
### 10.8 Errors, Omissions, Comments

The Engineering Systems Support Section of the State Program Management Office maintains the Basis of Estimates, Pay Item Structure, as well as the Master Pay Item List(s). Details, notes, and documentation information is based on information provided with the pay item request. When a detail is missing or incomplete, you may contact the BOE Coordinator, or submit a recommendation via e-mail. Links are provided within the BOE pages on the Specifications and Estimates Office web pages at [http://www.fdot.gov/programmanagement](http://www.fdot.gov/programmanagement). While we make every effort to provide the most current information, please note that pay items and related FDOT handbooks/manuals are continuously developing.

If an error is found with any of the BOE content, please notify the BOE Coordinator.

We appreciate your comments and suggestions.

### Chapter 10 Revision History

**12-1-18**: Updated header dates for 2019 edition.


**8-5-16**: Updated header dates for 2017 edition. 10.2 Specifications: Specification links added to most pay items in DQE. Updated pay item structure information to match DQE screens.

**2-1-16**: Updated header dates for 2016 edition.

**12-30-14**: Updated header dates for 2015 edition. Added 10.5 for displaying pay item numbers in plans and specs; renumbered remaining sections.

**4-30-14**: Updated header dates for 2014 edition. Updated 10.3 for commonly used operations. Updated hyperlink.

**2-20-13**: Updated header dates for 2013 edition.

**10-23-12**: Added operations to 10.3, per meeting with Maintenance, Construction, and roadway Design Offices.
9-17-12: Added typical detail for Rehabilitation operation.
2-1-11: Clarified 10.3 relocate and other operations requiring Tech Spec or plan details. Corrected numbering on 10.4 and 10.5.
9-16-09: Added 10.3 Pay Item Structure, with guidance on common operations. Corrected Office and web links to “State Specifications and Estimates Office”.
1-28-09: Expanded 10.2 to include TRNS*PORT Category.